İ.Mak®
REDÜKTÖR & VARYATÖR A.Ş.

Monoblok Ağır Hizmet Serisi

Horizontal Helical Gear Unit

Réducteur hélicoïdal à usage industriel

M00

SERIES
MA
MK
MKE

2026

TR | EN | FR

Gearboxes and Drives / Moto Réducteurs

MA-MK Series

• Industrial Monobloc Gear Unit •

i.Mak®
GEARBOXES AND DRIVES

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MA

SERİSİ / SERIES / SÉRIES

- Monoblok döküm gövdeli
- 9 farklı gövde büyüklüğü
- 1325 – 70000 Nm moment aralığı
- 4 – 423 Tahvil aralığı

- Cast iron monobloc housing
- 9 size of housing
- Torque range from 1325 to 70000 Nm
- Ratio range from 4 to 423

- *Carter monobloc en fonte*
- *9 tailles de carter*
- Couple allant de 1325 à 70000 Nm
- Rapport de réduction compris entre 4 et 423

MK

SERİSİ / SERIES / SÉRIES

- Monoblok döküm gövdeli
- 9 farklı gövde büyüklüğü
- 1400 – 70000 Nm moment aralığı
- 14 – 512 Tahvil aralığı

- Cast iron monobloc housing
- 9 size of housing
- Torque range from1400 to 70000 Nm
- Ratio range from 14 to 512

- *Carter monobloc en fonte*
- *9 tailles de carter*
- Couple allant de 1400 à 70000 Nm
- Rapport de réduction compris entre 14 et 512

MKE

SERİSİ / SERIES / SÉRIES

- Monoblok döküm gövdeli
- 9 farklı gövde büyüklüğü
- 1400 – 70000 Nm moment aralığı
- 14 – 512 Tahvil aralığı

- Cast iron monobloc housing
- 9 size of housing
- Torque range from1400 to 70000 Nm
- Ratio range from 14 to 512

- *Carter monobloc en fonte*
- *9 tailles de carter*
- Couple allant de 1400 à 70000 Nm
- Rapport de réduction compris entre 14 et 512

Genel Bilgiler

General Information
Informations générales

MA serisi redüktörlerin genel özellikleri

Helisel dişlili, paralel milli MA serileri, devamlı yükleme altında ve ağır şartlarda çalışmaya elverişli olarak dizayn edilmiş redüktörlerimizdir.

Dişli malzemesi, bu redüktörlere uygun bir biçimde yüksek dereceli çelikten 16MnCr5 veya fiziksel olarak eşdeğer malzemelerden yapılmış ve taşlanmıştır. Dişli sertliği 57 HRC değerindedir.

Yüksek kalite döküm teknolojisi ile ede edilen gövde yapısı GG20 pik malzemesinden tekil gövde (monoblok) olarak yapılmıştır.

Bu redüktörlerimizi, delik milli, çıkış milli, çift yönlü çıkış milli, sıkma bilezikli ve flanşlı şekilde kullanabilirsiniz.

Descriptions and specifications of the MA series.

The MA Series gearboxes are designed for applications with heavy loads on continuous working cycle.

Gears are manufactured from high quality 16MnCr5 steel in I-MAK factory.

All our gears are heat treated (Gear hardness 57 HRC)ground and measured to insure the highest quality standard.

The robust monobloc housing is made of GG20 iron and is machined by state of art technology.

MA Series gearboxes are available with output shaft, hollow shaft, double output shaft, shrink disk and various flange configurations

Descriptions et spécifications de la série MA.

Spécialement conçus pour les applications à charges continue, les réducteurs de la Série MA garantissent une performance optimale.

Les pignons hélicoïdaux qui composent les réducteurs de cette série sont produits à partir d'acier 16MnCr5 avec une dureté de 57 HRC après traitement.

Le carter en monobloc offre une grande robustesse et résistance aux réducteurs de la série MA.

Les réducteurs MA sont disponibles avec une large gamme d'options et configurations (Arbre de sortie, bride, arbre creux, arbre double, frette de serrage…) lui permettant de s'adapter à de nombreuses applications.

MK serisi redüktörlerin genel özellikleri

Tek kademesi konik dişli diğer dişli kademeleri helisel olan MK serileri, devamlı yük altında ve ağır şartlarda çalışmaya elverişli olarak dizayn edilmiş redüktörlerimizdir.

Dişli malzemesi, bu redüktörlere uygun bir biçimde yüksek dereceli çelikten 16MnCr5 veya fiziksel olarak eşdeğer malzemelerden yapılmış ve taşlanmıştır. Dişli sertliği 57 HRC değerindedir.

Yüksek kalite döküm teknolojisi ile ede edilen gövde yapısı GG20 pik malzemesinden tekil gövde (monoblok) olarak yapılmıştır.

Bu redüktörlerimizi, delik milli, çıkış milli, çift yönlü çıkış milli, sıkma bilezikli ve flanşlı şekilde kullanabilirsiniz.

Descriptions and specifications of the MK series.

Designed to work under heavy loads and in hard conditions, the bevel helical MK serie is perfectly adapted to a wide range of applications.

Gears are manufactured from high quality 16MnCr5 steel in I-MAK factory. All our gears are heat treated (Gear hardness 57 HRC)ground and measured to insure the highest quality standard.

The robust monobloc housing is made of GG20 iron and is machined by state of art technology.

MK Series gearboxes are available with output shaft, hollow shaft, double output shaft, shrink disk and various flange configurations

Descriptions et spécifications de la série MK.

Conçus pour résister à des charges importantes et fonctionner dans des conditions difficiles, les réducteurs à couple conique de la série MK sont parfaitement adaptés à tous types d'applications et configurations.

Les pignons hélicoïdaux qui composent les réducteurs de cette série sont produits à partir d'acier 16MnCr5 avec une dureté de 57 HRC après traitement.

Le carter en monobloc offre une grande robustesse et résistance aux réducteurs de la série MK.

Les réducteurs MK sont disponibles avec une large gamme d'options et configurations (Arbre de sortie, bride, arbre creux, arbre double, frette de serrage…) lui permettant de s'adapter à de nombreuses applications.

MA SERISI

Tip Type *Type*	Moment (Max) Torque (Max) *Couple (Max)*	Kovan Çapı Hollow Shaft *Diamètre de l'arbre creux*	Mil Çapı Shaft Diameter *Diamètre de l'arbre de sortie*
MA 402-403	6080 Nm	Ø80	Ø80
MA 502-503	10300 Nm	Ø95	Ø100
MA 602-603	12900 Nm	Ø105	Ø110
MA 702-703-704	19400 Nm	Ø115	Ø120
MA 802-803-804	24100 Nm	Ø125	Ø130
MA 902-903-904	29930 Nm	Ø135	Ø140
MA 1002-1003-1004	36000 Nm	Ø150	Ø160
MA 1102-1103-1104	50000 Nm	Ø165	Ø170
MA 1202-1203-1204	70000 Nm	Ø180	Ø180
Range of Ratios / *Rapports de réduction*			
6,028 423,479			
Applicable Motor Power / *Puissance Moteur Applicable*			
2,2 kW .... 560 kW			

Monoblok Ağır Hizmet Serisi (Helisel Dişlili)

Monobloc industrial gear unit

Monobloc Réducteur hélicoïdal à usage industriel

Monoblok Ağır Hizmet Serisi (Konik Dişlili)

Monobloc industrial gear unit

Monobloc Réducteur hélicoïdal à usage industriel

MK SERISI

Tip Type *Type*	Moment (Max) Torque (Max) *Couple (Max)*	Kovan Çapı Hollow Shaft *Diamètre de l'arbre creux*	Mil Çapı Shaft Diameter *Diamètre de l'arbre de sortie*
MK 403-404	6100 Nm	Ø80	Ø80
MK 503-504	10300 Nm	Ø95	Ø100
MK 603-604	12900 Nm	Ø105	Ø110
MK 703-704	19400 Nm	Ø115	Ø120
MK 803-804	22520 Nm	Ø125	Ø130
MK 903-904	29530 Nm	Ø135	Ø140
MK 1003-1004	37580 Nm	Ø150	Ø160
MK 1103-1104	50000 Nm	Ø165	Ø170
MK 1203-1204	70000 Nm	Ø180	Ø180
Range of Ratios / *Rapports de réduction*			
15,674 511,760			
Applicable Motor Power / *Puissance Moteur Applicable*			
0,55 kW .... 250 kW			

MAE SERISI

Tip Type *Type*	Moment (Max) Torque (Max) *Couple (Max)*	Kovan Çapı Hollow Shaft *Diamètre de l'arbre creux*
MAE 402-403	6080 Nm	Ø60
MAE 502-503	10300 Nm	Ø70
MAE 602-603	12900 Nm	Ø80
MAE 702-703-704	19400 Nm	Ø90
MAE 802-803-804	24100 Nm	Ø100
MAE 902-903-904	29930 Nm	Ø110
MAE 1002-1003-1004	36000 Nm	Ø120
MAE 1102-1103-1104	50000 Nm	Ø130
MAE 1202-1203-1204	70000 Nm	Ø180
Range of Ratios / *Rapports de réduction*		
6,028 423,479		
Applicable Motor Power / *Puissance Moteur Applicable*		
2,2 kW .... 560 kW		

Monoblok Ağır Hizmet Serisi (Extruder)

Monobloc extruder gear units

Réducteur monobloc pour extrudeuse

MKE SERISI

Tip Type *Type*	Moment (Max) Torque (Max) *Couple (Max)*	Kovan Çapı Hollow Shaft *Diamètre de l'arbre creux*
MKE 403-404	6100 Nm	Ø60
MKE 503-504	10300 Nm	Ø70
MKE 603-604	12900 Nm	Ø80
MKE 703-704	19400 Nm	Ø90
MKE 803-804	22520 Nm	Ø100
MKE 903-904	29530 Nm	Ø110
MKE 1003-1004	37580 Nm	Ø120
MKE 1103-1104	50000 Nm	Ø130
MKE 1203-1204	70000 Nm	Ø180
Range of Ratios / *Rapports de réduction*		
15,674 511,760		
Applicable Motor Power / *Puissance Moteur Applicable*		
0,55 kW .... 250 kW		

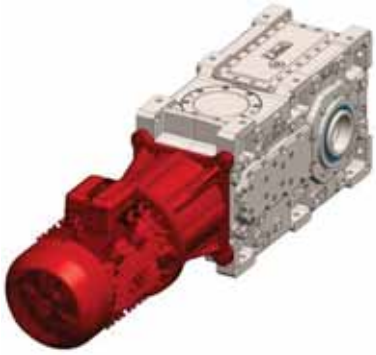
i.Mak®

MA
Giriş Milli
Solid input shaft
Arbre d'entrée

MAPM
IEC Pam Flanşlı Motorlu
IEC input flange with motor
Avec bride PAM–IEC et moteur

MAP
IEC Pam Flanşlı
IEC input flange
Avec bride PAM – IEC

MK – G07
Giriş Milli
Solid input shaft
Arbre d'entrée



MKPM – G09
IEC Pam Flanşlı Motorlu
IEC input flange with motor
Avec bride PAM–IEC et moteur

MKP – G09
IEC Pam Flanşlı
IEC input flange
Avec bride PAM – IEC

MK – G08
Giriş Milli
Solid input shaft
Arbre d'entrée

MKPM – G10
IEC Pam Flanşlı Motorlu
IEC input flange with motor
Avec bride PAM–IEC et moteur

MKP – G10
IEC Pam Flanşlı
IEC input flange
Avec bride PAM – IEC

MA / MK ….
Delik milli
Output hollow shaft
Arbre creux

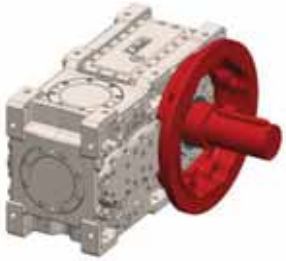
MA / MK …. SL
Çıkış milli (Sol)
Output solid shaft (Left)
Arbre de sortie (Gauche)

MA / MK …. FL
Çıkış flanşlı (Sol)
Output flange (Left)
Bride de sortie (Gauche)

MA / MK …. FL-SL
Çıkış milli - Çıkış Flanşlı (Sağ)
Output flange-Output solid shaft (Left)
Arbre et bride de sortie (Gauche)

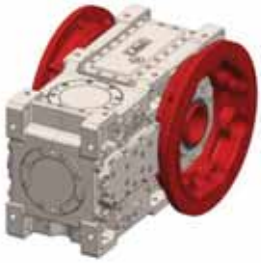
MA / MK …. SR
Çıkış milli (Sağ)
Output solid shaft (Right)
Arbre de sortie (Droite)

MA / MK …. FR
Çıkış flanşı (Sağ)
Output flange (Right)
Bride de sortie (Droite)

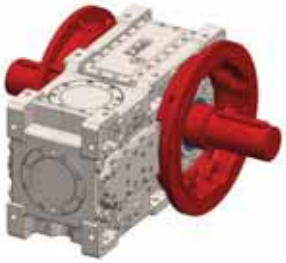


MA / MK …. FR-SR
Çıkış milli - Çıkış Flanşlı (Sağ)
Output flange-Output solid shaft (Right)
Arbre et bride de sortie (Droite)

MA / MK …. SD
Çift çıkış milli
Double output solid shaft
Double arbre de sortie



MA / MK …. FD
Çift çıkış flanşlı
Double output flange
Bride de sortie (Double)

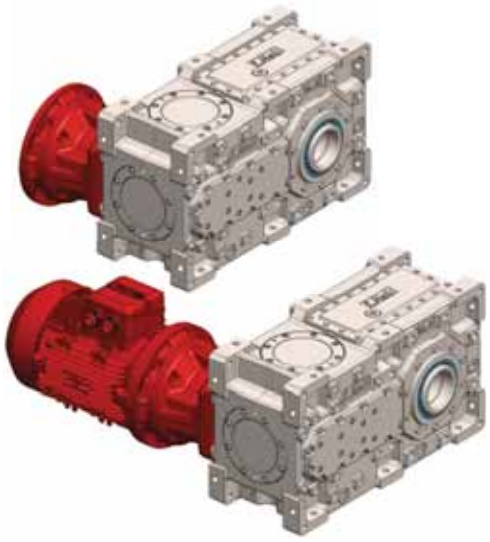


MA / MK …. FD-SD
Çift çıkış flanşlı - Çift çıkış milli
Double output flange-Double output solid shaft
Bride de sortie double - Arbre de sortie double

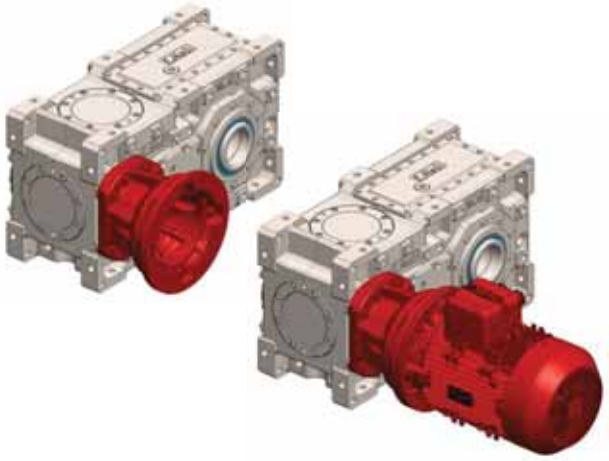
G00
Giriş Milli (Sol)
Solid input shaft (Left)
Arbre d'entrée (Gauche)

G01
Giriş Milli (Sağ)
Solid input shaft (Right)
Arbre d'entrée (Droite)

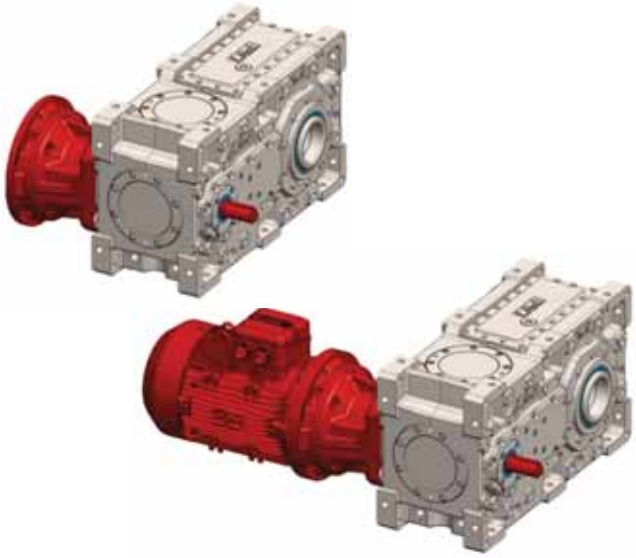
G02
Çift Giriş Milli
Double Solid input shaft
Double *arbre d'entrée*



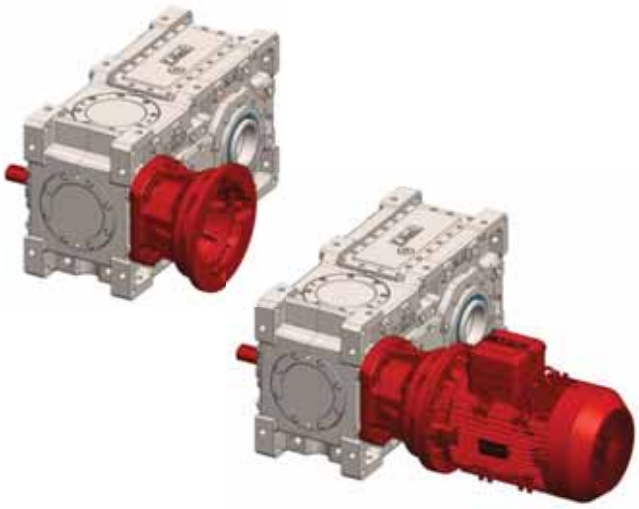
G03
Pam Flanşlı veya Motorlu (Sol)
IEC input flange or With motor (Left)
Avec bride PAM - IEC ou Moteur (Gauche)



G04
Pam Flanşlı veya Motorlu (Sağ)
IEC input flange or With motor (Right)
Avec bride PAM - IEC ou Moteur (Droite)

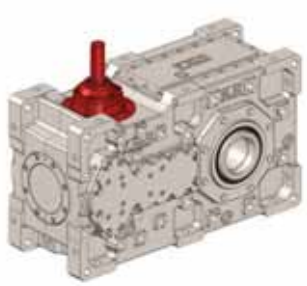


G05
Pam Flanşlı veya Motorlu (Sol) + Giriş Milli (Sağ)
IEC input flange or With motor (Left) + Solid input shaft (Right)
Avec bride PAM - IEC ou Moteur (Gauche) + Arbre d'entrée (Droite)

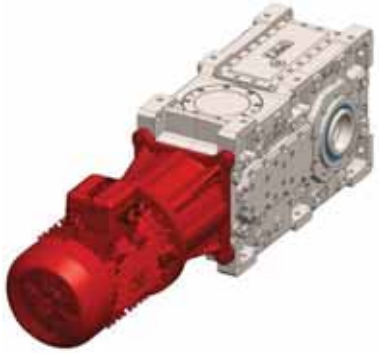


G06
Pam Flanşlı veya Motorlu (Sağ) + Giriş Milli (Sol)
IEC input flange or With motor (Right) + Solid input shaft (Left)
Avec bride PAM - IEC ou Moteur (Droite) + Arbre d'entrée (Gauche)

G07
Önden Giriş Milli
Input shaft from the front
Arbre d'entrée de face



G08
Üstten Giriş Milli
Overhead input shaft
Arbre d'entrée supérieur



G09
Önden Pam Flanşlı veya Motorlu
IEC input flange or With motor from the front
Avec bride PAM - IEC ou Moteur de face

G10
Üstten Pam Flanşlı veya Motorlu
Overhead IEC input flange or With motor
Avec bride PAM - IEC ou Moteur supérieur

Giriş Yönlerine Göre Bağlanabilir Çıkış Opsiyonları / Output Options According to Entry Aspects / -

Giriş Yönleri Entry Aspects *Aspects d'entree*	**Çıkış Opsiyonları** / Output Options / *Options de sortie*									
	Kovanlı Hollow Shaft	SL	SR	SD	FL	FR	FD	FL-SL	FR-SR	FD-SD
G00										
G01										
G02										
G03										
G04										
G05										
G06										
G07										
G08										
G09										
G10										

Termal Güç Tablosu / Thermal Power Table / *Tableau de Puissance Thermique*

SOĞUTMASIZ REDÜKTÖR
GEARBOX WITHOUT COOLING
RÉDUCTEUR SANS REFROIDISSEMENT
Termal Güç / Thermal Power / *Puissance thermique* **[kW]**

	MA__2	MA__3	MA__4	MK__3	MK__4
40_	55	33	-	33	24
50_	67	40	-	40	29
60_	72	44	-	44	31
70_	91	55	39	55	39
80_	102	62	44	62	44
90_	114	69	49	69	49
100_	134	80	57	80	57
110_	164	98	70	98	70
120_	182	112	82	112	82

FANLI RADYATÖR SOĞUTMA
HYDRAULIC OIL COOLING
REFROIDISSEMENT D'HUILE HYDRAULIQUE
Termal Güç / Thermal Power / Puissance thermique **[kW]**

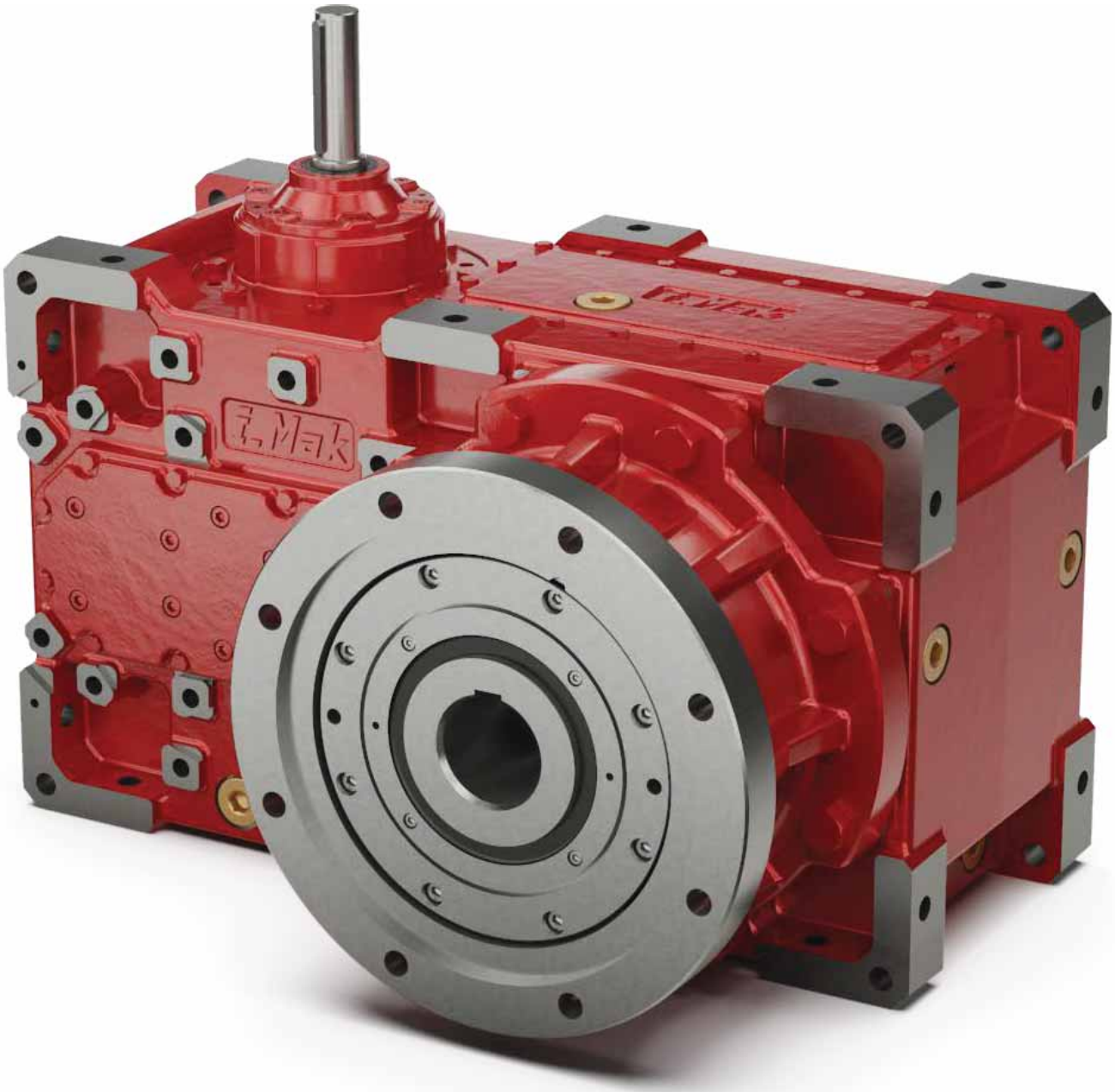
	MA__2	MA__3	MA__4	MK__3	MK__4
40_	205	123	-	123	88
50_	252	151	-	151	108
60_	272	164	-	164	116
70_	324	195	138	195	138
80_	356	214	152	214	152
90_	512	307	218	307	218
100_	546	327	232	327	232
110_	620	372	264	372	264
120_	648	390	278	390	278

SERPANTİN SOĞUTMA
SERPENTINES COOLING
REFROIDISSEMENT PAR SERPENTIN
Termal Güç / Thermal Power / *Puissance thermique* **[kW]**

	MA__2	MA__3	MA__4	MK__3	MK__4
40_	144	86	-	86	62
50_	168	101	-	101	72
60_	191	115	-	115	82
70_	238	143	102	143	102
80_	268	161	115	161	115
90_	292	175	125	175	125
100_	322	193	138	193	138
110_	378	227	162	227	162
120_	446	278	196	278	196

LEHİMLİ-BORULU EŞANJÖR SOĞUTMA
BRAZED - TUBE HEAT EXCHANGER
ÉCHANGEUR DE CHALEUR À TUBES BRASÉS
Termal Güç / Thermal Power / *Puissance thermique* **[kW]**

	MA__2	MA__3	MA__4	MK__3	MK__4
40_	95	57	-	57	41
50_	130	78	-	78	55
60_	142	86	-	86	61
70_	244	146	104	146	104
80_	260	156	110	156	110
90_	419	251	178	251	178
100_	470	282	200	282	200
110_	580	348	247	348	247
120_	620	373	264	373	264


Mak

	Redüktör Opsiyonları	Gearboxes options	*Options des motoréducteurs*
Kod / Code	**Opsiyon**	**Options**	**Options**
FL	Sol çıkış flanşı	Output flange left	Bride de sortie (Gauche)
FR	Sağ çıkış flanşı	Output flange right	Bride de sortie (Droite)
FD	Çift çıkış flanşı	Double output flange	Bride de sortie (Double)
SL	Sol çıkış mili	Output shaft left	Arbre de sortie (Gauche)
SR	Sağ çıkış mili	Output shaft right	Arbre de sortie (Droite)
SD	Çift çıkış mili	Output shaft double	Arbre de sortie (Double)
SDL	Sol sıkma bileziği	Shrink disk left	Frette de serrage (Gauche)
SDR	Sağ sıkma bileziği	Shrink disk right	Frette de serrage (Droit)
EL	Sol extruder	Extruder left	Extruder (Gauche)
ER	Sağ extruder	Extruder right	Extruder (Droit)
H	Çektirme pulu	Retaining screw washer	Epaullement (vis de fixation)
OC	Çıkış koruma kapağı	Output cover	Bouchon (arbre creux)
BSL	Sol mekanik kilit	Backstop left	Antidévireur (Gauche)
BSR	Sağ mekanik kilit	Backstop light	Antidévireur (Droit)
TL	Sol tork kolu	Torque arm left	Bras de couple (Gauche)
TR	Sağ tork kolu	Torque arm right	Bras de couple (Droit)
TSL	Sol tork limitörü	Torque limiter left	Limiteur de couple (Gauche)
TSR	Sağ tork limitörü	Torque limiter right	Limiteur de couple (Droit)
SU	Şasi uygulaması	Baseplate	Châssis
OTS	Yağ sıcaklık sensörü	Oil temperature sensor	Capteurs de température
EX	Patlamaya dayanımlı redüktör	Ex-Proof Gearbox	Réducteur antidéflagrant

	Motor Opsiyonları	Motor options	*Options des Moteurs*
Kod / Code	**Opsiyon**	**Options**	**Options**
BR	Fren	Brake	Frein
BRH	Manuel kollu fren	Brake with hand release	Frein avec ouverture manuel
BD	Çift Fren	Double brake	Double frein
BDH	Manuel kollu çift fren	Double brake with hand release	Double frein avec ouverture manuel
E	Encoder	Encoder	Encoder
BS	Mekanik kilit	Backstop	Roulement anti-retour
EMK	Elektromanyetik kavrama	Electromagnetic clutches	Disque electromagnetique
CF	Harici fan	External fan	Ventilation externe
FG	Kanopi	Canopy	Canopé
U	Fansız motor (güdük)	Without fan	Sans ventilation
M	Monofaze motor	Mono phase motor	Moteur monophasé
DS	Çift çıkış (kuyruk) milli motor	Double shaft motor	Doble Ejes

	Çıkış Mili	Output shaft	*Arbre de sortie*
Kod / Code	**Varyasyon**	**Options**	**Options**
111	Özel mil ölçüsü	Special shaft dimensions	Dimensions de l'arbre spéciale
112	Özel mil malzemesi	Special shaft materials	Matériel de l'arbre spéciale
113	Sertleştirilmiş mil	Hardened shaft	Axe durci
114	Diş çekilmiş mil	Screw	Axe à vis
115	Çoklu kama uygulaması	Shaft with multiple key	Arbre à multi clavette
117	Kaplin bağlantılı	Coupling connection	Avec accouplement

	Kovan	Hollow shaft	*Bride*
Kod / Code	**Varyasyon**	**Options**	**Options**
121	Özel kovan ölçüsü	Dimensions of special hollow shaft	Abre creux spéciale
122	Özel kovan malzemesi	Material of special output hollow shaft	Abre creux spéciale
123	Sertleştirilmiş kovan	Hardneed steel hollow shaft	Arbre creux en acier trempé
124	Diş çekilmiş kovan	Hollow shaft with screw	Arbre creux a vis
125	Opsiyonel kovan	Optional output hollow shaft	Arbre creux optionnel
126	Çoklu kama uygulaması	Hollow shaft with splining	Arbre creux cannelé

	Giriş Mili - Pam Mili	Input shaft	*Bride pam*
Kod / Code	**Varyasyon**	**Options**	**Options**
131	Özel mil ölçüsü	Dimensions of the shaft	Dimensions de l'arbre spéciale
132	Özel mil malzemesi	Material of special shaft	Matériaux de l'arbre spéciale
133	Sertleştirilmiş mil	Hardened steel shaft	Arbre en acier trempé
134	Çoklu kama uygulaması	Hollow shaft with screw	Arbre creux a vis
135	Özel alın mili	Special input shaft	Arbre d'entrée spéciale
136	Diş çekilmiş mil	Shaft with screw	Arbre de sortie avec vis
137	Kaplin bağlantısı	Coupling connection	Avec accouplement

	Çıkış Flanşı	Output flange	*Bride de sortie*
Kod / Code	**Varyasyon**	**Options**	**Options**
141	Özel flanş ölçüsü	Dimensions of special output flange	Dimensions de la bride de sortie spéciale
142	Özel flanş malzemesi	Material of special output flange	Matériaux de la bride de sortie spéciale
143	Opsiyonel flanş	Optional output flange	Bride de sortie optionnelle
144	Standart dışı flanş*	Special output flange*	Bride de sortie spéciale*

	Giriş Flanşı	Input Flange	*Bride d'entrée*
Kod / Code	**Varyasyon**	**Options**	**Options**
151	Özel flanş ölçüsü	Dimension of special input flange	Bride d'entrée spéciale
152	Özel flanş malzemesi	Material of special input flange	Matériaux de la bride d'entrée spéciale
153	Standart dışı flanş*	Special input flange*	Bride d'entrée spéciale*
154	IEC B14 Flanş	IEC B14 flange	IEC B14 Bride
155	IEC B5 Flanş	IEC B5 flange	IEC B5 Bride
156	Kaplinli Pam Flanş	IEC PAM with integrated coupling	Bride IEC avec accouplement intégré
157	NEMA Flanş	NEMA input flange	Bride d'entrée NEMA

*** İstenilen değişilklik ürünün standart flanşı üzerinde yapılamayıp yeni bir flanş tasarlanması durumudur/** In the case your configuration require the production of a special flange / *Dans le cas oû la configuration de votre application requiert une bride d'entrée spéciale.*

	Yağ	Oil	*Huiles*
Kod / Code	**Varyasyon**	**Options**	**Options**
211	Sentetik yağ VG 220 (SHC 630)	Synthetic oil VG 220 (SHC 630)	Huile synthétique VG 220 (SHC 630)
212	Gıda uyumlu yağ VG 220 (CIBUS 220)	Food compatible oil VG 220 (CIBUS 220)	Huile pour industrie agroalimentaire VG 220 (CIBUS 220)
213	-40C° Uyumlu yağ VG 220 (SHC 630)	Cold resistant oil -40C° VG 220 (SHC 630)	Huile base témpérature -40C° VG220 (SHC 630)

	Yağlama	Lubrication	*Lubrification*
Kod / Code	**Varyasyon**	**Options**	**Options**
216	Pompalı Cebri Yağlama	Auxilary Lubrication	Lubrification auxiliaire
217	Genleşme Tankı	Expansion Tank	Réservoir d'huile
218	Nilos Ring uygulaması	Nilos – Ring Application	Joint Nilos

	Keçe - Tapa	Seal - Cover	*Joint - Bouchon*
Kod / Code	**Varyasyon**	**Options**	**Options**
221	Özel ölçü keçe	Dimensions of special seal	Dimensions du joint spéciale
222	Özel ölçü tapa	Dimensions of special cover	Dimensions du bouchon spéciale
223	Özel marka keçe	Special brand of seal	Marque du joint spéciale
224	Özel marka tapa	Special brand of cover	Marque du bouchon spéciale
225	Viton keçe	Viton seal	Joint en viton
226	Özel tip keçe uygulaması	Special configuration of seal	Configuration spéciale du joint

	Redüktör Rulmanı	Gearboxes Bearing	*Roulement des motoréducteurs*
Kod / Code	**Varyasyon**	**Options**	**Options**
231	Güçlendirilmiş çıkış rulmanı	Reinfored output bearing	Roulement renforcé (Sortie)
232	Güçlendirilmiş giriş rulmanı	Reinforced input bearing	Roulement renforcée (Entrée)
233	Özel marka rulman	Special brand of bearing	Marque du roulement spéciale
234	Özel ölçü rulman	Special dimensions of bearing	Dimensions du roulement spéciale
235	Mekanik kilit CW*	Backstop bearing (CW)	Roulement anti-retour (CW)
236	Mekanik kilit CCW*	Backstop bearing (CCW)	Roulement anti-retour (CCW)

	Gövde	Housing	*Carter*
Kod / Code	**Varyasyon**	**Options**	**Options**
241	Özel işlenmiş gövde	Special housing	Carter spéciale
242	Özel malzeme	Special housing materials	Carter avec matériaux spéciaux

	Soğutma	Cooling	*Refroidissement*
Kod / Code	**Varyasyon**	**Options**	**Options**
244	Fanlı soğutma	Fan Cooling	Refroidissement par ventilation
245	Radyatörlü soğutma	Radiator Cooling	Radiateur de refroidissement
246	Serpantin soğutma	Serpentine Cooling	Serpentin de refroidissement
247	Plakalı eşanjörlü soğutma	Plate Heat Exchanger Cooling	Refroidissement par plaque
248	Borulu eşanjörlü soğutma	Tubed Heat Exchanger Cooling	Refroidissement tubulaire
249	Lehimli eşanjörlü soğutma	Brazed Heat Exchanger Cooling	Refroidissement par échangeur brasé

	Boya	Paint	*Peinture*
Kod / Code	**Varyasyon**	**Options**	**Options**
251	Özel renk boya	Special paint color	Couleur spéciale
252	Özel tip boya	Special paint type	Type de peinture spéciale
253	Epoksi boya	Epoxy paint	Peinture epoxy
254	Akrilik boya (dış ortam)	Acrilic paint	Peinture acrylique (Environement extérieur)
255	Su bazlı boya	Water based paint	Peinture à base d'eau
256	Antikorozif boya	Anti-corrosion paint	Peinture anti-corrosion

	Dişli	Gears	*Pignons*
Kod / Code	**Varyasyon**	**Options**	**Options**
261*	Özel imalat dişli	Special gear	Pignons spéciaux
262	Katalog dışı tahvil	Gear ratio (Catalogue)	Rapport de réduction des pignons (Catalogue)

*** 261 kodu, 262 kodunu kapsamaktadır. /** 261 and 262 codes are equivalent. / *Les codes 261 et 262 sont équivalents.*

	Voltaj - Frekans	Voltage and frequency	*Voltage et frequence*
Kod / Code	**Varyasyon**	**Options**	**Options**
311	Özel voltaj motor	Special Voltage	Voltage spéciale
312	Özel frekans motor	Special frequency	Fréquence spéciale

*** 400 V 50 Hz dışı tüm sarımlar standart dışı kabul edilir.** / 400 V 50 Hz are considered as standard / *400 V 50 Hz sont les normes standards*

	Koruma Sınıfı	IP Classification	*Classification IP*
Kod / Code	**Varyasyon**	**Options**	**Options**
321	IP 54	IP 54	IP 54
322	IP 56	IP 56	IP 56
323	IP 65	IP 65	IP 65
324	IP 66	IP 66	IP 66

*** IP 55 Standart kabul edilir.** / IP 55 is our standard / *IP 55 étant la classe standard*

	İzolasyon Sınıfı	Isolation class	*Classe d'isolations*
Kod / Code	**Varyasyon**	**Options**	**Options**
331	B sınıfı	B - class	Classe - B
332	H sınıfı	H - class	Classe - H

*** F izolasyon sınıfı standart kabul edilir.** / F class is accepted as a standard / *La classe F étant la norme d'isolation standard*

	Rulman	Bearing	*Roulement*
Kod / Code	**Varyasyon**	**Options**	**Options**
341	Sıcak ortam rulmanı*	Bearing for hot environment	Roulement pour environement a températures élévées
342	Soğuk ortam rulmanı*	Bearing for cold environment	Roulement pour environement a températures négatives
343	İzole rulman	Isolated bearing	Roulement isolé
344	Gresörlük	Bearing with greasing nipples	Roulement avec graisseurs
345	Mekanik kilit CW	Backstop bearing (CW)	Roulement anti-retour (CW)
346	Mekanik kilit CCW	Backstop bearing (CCW)	Roulement anti-retou (CCW)

*** 0 C° ile 40 C° aralığı dışındaki ortam sıcaklıkları için bilgi alın z.** / Adapted for outside environment with temperatu re in between 0 C° and 40 C° / *Adapté aux environnements exterieurs avec une température comprises entre 0° C et 40° C*

	Motor Markası	Brand motor	*Marque de moteur*
Kod / Code	**Varyasyon**	**Options**	**Options**
351	Gamak Motor	Gamak Motor	Gamak Motor
353	İ.Mak/A Motor*	İ.Mak/A Motor*	İ.Mak/A Motor*
354	Watt Motor	Watt Motor	Watt Motor
355	İ.Mak/G Motor	İ.Mak/G Motor	İ.Mak/G Motor
356	Diğer**	Others**	Autres**

*** İ.Mak/A marka motor standart kabul edilir.** / İ.Mak/A brand motor standard category / *Catégorie standard de moteur de marque İ.Mak/A*

**** Diğer motor seçeneği, sadece pam flanşlı bağlantı olarak verilebilmektedir.** / Other motors options are only available with IEC Connection flange / *Les moteurs non listés sont disponibles seulement en configuration bride IEC*

	Verim Sınıfı	Efficiency classifications	*Classes d'efficience énergétique*
Kod / Code	**Varyasyon**	**Options**	**Options**
363	IE4	IE4	IE4

*** IE3 verim sınıfı standart kabul edilir.** / IE3 is the standard category / *IE3 étant la norme standard*

	Kuyruk Milli Motor	Double shaft motor	*Ejes con Doble Extensión*
Kod / Code	**Varyasyon**	**Options**	**Options**
367	Özel mil ölçüsü	Dimensions of the shaft	Dimensions de l'arbre spéciale
368	Standart dışı mil*	Special output shaft*	Arbre de sortie spéciale*

*** İstenilen değişiklik ürünün standart mili üzerinde yapılamayıp yeni bir mil tasarlanması durumudur. /**The requested change cannot be made on the standard

	Fren markası	Brake's brand	*Marque du frein*
Kod / Code	**Varyasyon**	**Options**	**Options**
412	EMF fren	EMF brake	Frein - EMF
413	Fatih fren	Fatih brake	Frein - Fatih
414	Diğer	Others	Autres

	Fren Tipi	Type of brake	*Type de frein*
Kod / Code	**Varyasyon**	**Options**	**Options**
421	220 V soğutmalı	220 V cooler	220 V - avec refroidissement
422	24 V soğutmalı	24 V cooler	24 V - avec refroidissement
423	220 V soğutmasız*	220 V without cooler	220 V - sans refroissement
424	24 V soğutmasız*	24 V without cooler	24 V - sans refroissement
425	Çift balatalı fren	Double disk brake	Frein avec double disque
426	Özel tip fren	Special brake type	Type de frein spéciale
427	Özel voltaj fren	Special voltage for brake	Frein avec voltage spéciale

*** Soğutmasız frenlerde motor fan muhafazası bulunmamaktadır /** The brake wihout cooling are installed without fan or cover. / *Les freins sans refroissiment ne sont*

	Enkoder	Encoder	*Codeur*
Kod / Code	**Varyasyon**	**Options**	**Options**
431	HPL 100 Pulse rotary enkoder	HPL 100 Pulse rotary encoder	HPL 100 Codeur d'impulsions rotatif
432	HPL 360 Pulse rotary enkoder	HPL 360 Pulse rotary encoder	HPL 360 Codeur d'impulsions rotatif
433	HPL 500 Pulse rotary enkoder	HPL 500 Pulse rotary encoder	HPL 500 Codeur d'impulsions rotatif
434	HPL 1024 Pulse rotary enkoder	HPL 1024 Pulse rotary encoder	HPL 1024 Codeur d'impulsions rotatif
435	HPL 2048 Pulse rotary enkoder	HPL 2048 Pulse rotary encoder	HPL 2048 Codeur d'impulsions rotatif
436	HTL 1024 Pulse rotary enkoder	HTL 1024 Pulse rotary encoder	HTL 1024 Codeur d'impulsions rotatif
437	HTL 2048 Pulse rotary enkoder	HTL 2048 Pulse rotary encoder	HTL 2048 Codeur d'impulsions rotatif
438	TTL 1024 Pulse rotary enkoder	TTL 1024 Pulse rotary encoder	HTL 1024 Codeur d'impulsions rotatif
439	TTL 2048 Pulse rotary enkoder	TTL 2048 Pulse rotary encoder	TTL 2048 Codeur d'impulsions rotatif
440	Diğer	Others	Autres

*** Diğer encoder çeşitleri için fabrikaya danışınız. /** For different type of encoder contact our sales team. / *Pour des de codeurs différents contactez notre équipe*

	Termistör - Isıtıcı	Thermistor and heater	*Thermistatet chauffage*
Kod / Code	**Varyasyon**	**Options**	**Options**
441	PTC X 1 termistör	PTC X 1 thermistor	PTC X 1 Thermistat
442	Bimetal termostat	Bimetallic switch	Interupteur bilame
443	Basınç sensörü	Pressure sensor	Senseur pression
444	110 V sargı ısıtıcı	110 V coil heat	Bobine chauffante 110 V
445	220 V sargı ısıtıcı	220 V colt hear	Bobine chauffante 220 V
446	PT 100	PT 100	PT 100

	Harici Fan	External fan	*Ventilateur externe*
Kod / Code	**Varyasyon**	**Options**	**Options**
451	24 VDC (EBM)	24 VDC (EBM)	24 VDC (EBM)
452	230 VAC (EBM)	230 VAC (EBM)	230 VAC (EBM)
453	380 VAC (EBM)	380 VAC (EBM)	380 VAC (EBM)
454	230 VAC	230 VAC	230 VAC
455	380 VAC	380 VAC	380 VAC

	Özel Motorlar	Special motor	*Moteur spécial*
Kod / Code	**Varyasyon**	**Options**	**Options**
461	Servo motor*	Servo motor	Servo moteur
462	DC motor*	DC motor	Moteur DC
464	Tork motoru	Tork motor	Moteur à couple élevé
465	Hidro motor*	Hydraulic motor	Moteur hydraulique
467	Ex-proof motor	Explosition proof motor	Moteur anti-explosion
468	Senkron relüktans motor	Synchronous reluctance motors	Moteur à reluctance synchrone
469	Senkron motor*	Synchronous motors	Moteurs synchrones
470	Müşteri motoru	Customer's motor	Moteur en provenance du client

*** Motorlar firmamız tarafından tedarik edilmemektedir** / Our factory is not providing such motors / *Moteur non fournis par notre usine*
Özel motor kodları motorların farbrikamız tarafından takıldığı durumlarda uygulanır/ Motors installed in our factory / *Moteur installés dans notre usine*

Servis Faktörü (F_S)
Servis Faktörü = İşletme Katsayısı = (F_S)

Redüktörlerdeki bu değer, tahrik edeceği makinenin bütün teknik ve karakteristik özelliklerine dayanma süresine bağlıdır. Genel olarak makineler yüklenme bakımından üç tip karakteristik gösterirler.

1. HAFİF YÜK (U)
2. ORTA YÜK (M)
3. AĞIR YÜK (H)

Üç değişik yükleme biçiminde çalışan, üç ayrı makinede üretilen momentler birbirine eşitte olsalar, ağır çalışan makinede daha büyük işletme katsayılı Redüktör kullanılmaktadır.

Günlük çalışma saati ise, çalışan dişli ve transmisyon elemanlarının malzeme yorulmasına maruz kalması bakımından, çalışma saatinin fazla olması halinde zararlı yönde etki eder.

Star-Stop durumuna gelince, her makinenin ilk kalkış esnasında en yüksek yüke maruz kaldığı düşünülürse tehlikeli görülür. Müteakip çalışmalarda bu daha aşağıya düşer.

Kataloğumuzda işletme katsayılarının nasıl kullanıldığının anlaşılması için bir misal ile belirtelim.

Önce tablo-1'den makinenin çalışma sahasına göre karakteristiğini belirleyelim. Makinemiz elektrik motor tahrikli ZİNCİR KOVALI EKSKAVATÖR ise yükleme durumu AĞIR' dır. (H) Tablo 2'den makine 24 saat çalışacağına göre minimum işletme katsayısı F_S = 2 bulunur.

Service Factor (F_S)

Value of the service factor of a gearbox depends on all technical and characteristic specifications of a driven machine. Generally machines have three types of loading characteristics:

1. UNIFORM LOAD (U)
2. MODERATE LOAD (M)
3. HEAVY LOAD (H)

Even if the torques required by three different machines operating at three different load specifications are equal.

Gearbox of the machine operating under heavy load conditions should have greater service factor.

Daily working period has effect on gearbox elements due to the materials fatigue of working parts.

It must be taken into account that all machines are subject to the greatest load at the first start, so that the number of starts has also effect on service factor.

This is an example how to use the service factor given in the cataloque.

Load specification of machine should be determined first, from table 1 in our example, the machine is CHAIN BUCKET EXCAVATOR driven by electric motor has HEAVY load specification and daily operation time is 24 hours. So that minimum service factor F_S = 2 is taken from Table 2.

Service facteur (F_S)

La valeur du service facteur d'un motoréducteur dépend des charactéristique de l'application. Ont distingue trois type de charges différentes

1. Charges uniformes (U)
2. Charges modérées (M)
3. Charges élévées (H)

Les spécifications des charges restent les même lorsque trois machines différentes sont soumises à des charges distinctes.

Les réducteurs utilisés dans des applications soumises à de fortes charges doivent obligatoirement avoir des services facteurs élevés.

Le nombre d'heures d'utilisations journalières a une influence directe sur l'usure des pièces et composants du réducteur.

Le réducteur est soumis à une charge maximale lors du démarrage de l'application. Le nombre d'arrét/rédemarrage est donc à prendre en compte lors de l'analyse du service facteur.

L'example çi-dessous explique le processus d'analyse et de calcul du service facteur.

L'application étudiée est un excavateur a godets (Tableau 1) , le réducteur est actionné par un moteur éléctrique. La charge est "élévée" et la durée de fonctionnement journaliére est de 24h. En se basant sur le tableau 2, le service facteur minimum requis est F_S = 2

Ekskavatörler		Excavators		Excavateur	
Zincir kovalı ekskavatörler	H	Chain-Bucket excavators	H	Excavateurs à gaudets	H
Paletli yürüyüşler	H	Travelling gears (Caterpiller)	H	Convoyeur à étage	H
Ray üzerinde yürüyüşler	M	Travelling gears (Rails)	M	Convoyeur à rails	M
Manevra mekanizmaları	U	Manoevring winches	U	Grues à manœuvre	U
Emiş pompaları	M	Pumps	M	Pompes	M
Kovalı çarklar	H	Bucket wheels	H	Roue à gaudets	H
Dönüş mekanizmalar	M	Slewing gears	M	Pignons rotatif	M

İnşaat Makinaları		Building Machines		Machine de Construction	
İnşaat asansörleri	U	Hoists	U	Grues de construction	U
Betoniyerler	M	Concrete mixers	M	Malaxeur à béton	M
Yol inşaat makinaları	M	Road contruction machines	M	Machine de construction(routes)	M

Kaldırma ve İletme Tesisleri		Conveyor		Convoyeurs	
Zincirli konveyör	M	Through chain conveyors	M	Convoyeurs à chaines	M
Mafsal bantlı konveyörler	M	Link conveyors	M	Convoyeur à bande souple	M
Lastik bantlı konveyörler (Dökme Yükler)	U	Belt conveyors (Bulk Goods)	U	Convoyeur à bande rigide	U
Lastik bantlı elevatörler	M	Ballast elevators	M	Elevateurs à bande	M
Lastik cepli elevatörler	M	Ballast pocket elevators	M	Elevateur à poche	M
Lastik bantlı konveyörler (Parça Yükler)	M	Belt conveyors (Piece Goods)	M	Convoyeur à bande	M
Askılı konveyörler	U	Chain conveyors	U	Convoyeur à chaines	U
Yük asansörleri	M	Goods lifts	M	Elévateur à chaines	M
Kovalı elevatörler (Toz Malzeme)	U	Bucket elevators (Flour Goods)	U	Elévateur à godets (graviers)	U
Helezon konveyör	M	Screw conveyors	M	Vis d'Archimède	M
Kovalı elevatörler (Parçalı Malzeme)	M	Bucket elevators (Piece Goods)	M	Elévateurs à godets (Roches	M
Eğik asansörler	H	Inclined hoists	H	Grues inclinées	H
Çelik bantlı konveyörler	M	Steel belt conveyors	M	Convoyeur à bande (Acier)	M
Paletli konveyörler	M	Apron conveyors	M	Convoyeurs à palettes	M

Tahrik Makinası Torque Machine *Machines couplées*	**Günlük Çalışma Müddeti (Saat)** Daily Working Period (Hour) *Utilisation journalière (Heure)*	**Makinanın Yükleme Karakteristiği** Load Characteristics of Machines *Caractéristique des charges*		
		Hafif Yük U Uniform Load U *Charge uniforme U*	**Orta Yük M** Moderate Load M *Charge modérée M*	**Ağır Yük H** Heavy Load H *Charge élevée H*
Elekt. Motorlu / Elect. Motor / *Moteurs éléct.* **Türbin** / Turbin / *Turbine* **Hidrolik** / Hydrolic / *Hydraulique*	0…..3	0.8	1	1.5
	3….10	1	1.25	1.75
	10…24	1.25	1.5	2
Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylindir) *Machine à pistons (4…..6 Cylindres)*	0…..3	1	1.25	2
	3….10	1.25	1.5	2
	10…24	1.5	1.75	2
Pistonlu Makinalar (1….2 Silindir) Piston Machines (1….2 Cylindir) *Machine à pistons (1…..2 Cylindres)*	0…..3	1.25	1.5	2
	3….10	1.5	1.75	2.25
	10…24	1.75	2	2.5

Kimya Endüstrisi		Chemical Industry		Industrie Chimique	
Soğutma tamburları	M	Cooling drums	M	Tambours de refroidissement	M
Karıştırıcılar	M	Mixers	M	Mixeurs	M
Çalkalayıcılar (Hafif Akışkanlar)	U	Agitators (Liquids)	U	Agitateurs (Liquides)	U
Çalkalayıcılar (Ağır Akışkanlar)	M	Agitators (Semi Liquids)	M	Agitateurs (Semi liquide)	M
Tambur kurutucuları	M	Drying drums	M	Tambours de séchage	M
Sanrifüjler	U	Centrifuges (Lights)	U	Centrifugeuse (Légère)	U
Sanrifüjler	H	Centrifuges (Heavy)	H	Centrifugeuse (Lourde)	H

Petrol Endüstrisi		Oil Industry		Pétrole et Hydrocarbures	
Boru hattı pompaları	M	Pipeline pumps	M	Pompes à oléoducs	M
Kuyu açma mekanizmaları	H	Rotary drilling equipment	H	Foreuse à cylindres	H

Vantilatör Ve Aspiratörler		Fans		Ventilations	
Pistonlu vantilatörler	M	Rotary piston blowers	M	Souffleurs rotatifs	M
Vantilatör (Aksiyal ve Radyal)	U	Blowers (Axial and Radial)	U	Souffleurs (Axe et radial)	U
Santrifüj (türbinli) körük	H	Centrifugal	H	Centrifugeuse	H

Kauçuk Makinaları		Rubber Machines		Industrie du Caoutchouc	
Ekstruder ve kanderler	H	Extruders and calenders	H	Extrudeuse	H
Yoğurma makinaları	H	Pug mills	H	Malaxeur	H
Karıştırıcılar	M	Mixers	M	Mixeurs	M
Silindirleme makinaları	H	Rolling mills	H	Presse	H

Ağaç İşleme Makinaları		Wood Working Machine		Industries Forestières	
Yontma tamburları	H	Backers	H	Presse à bois	H
Planya makinaları	M	Planing machines	M	Aplanisseuses	M
Ağaç işleme tezgahları	U	Wood working machines	U	Découpe de bois	U
Şerit testereler	H	Band saws	H	Scie	H

Yıkama Makinaları		Washing Machines		Laveuses	
Yıkama makinaları	U	Washing machines	U	Machine de lavage	U
Tamburlu kurutucular	M	Tumblers	M	Tambours	M

Tahrik Makinası Torque Machine *Machines couplées*	**Günlük Çalışma Müddeti (Saat)** Daily Working Period (Hour) *Utilisation journalière (Heure)*	**Makinanın Yükleme Karakteristiği** Load Characteristics of Machines *Caractéristique des charges*		
		Hafif Yük U Uniform Load U *Charge uniforme U*	**Orta Yük M** Moderate Load M *Charge modérée M*	**Ağır Yük H** Heavy Load H *Charge élevée H*
Elekt. Motorlu / Elect. Motor / *Moteurs éléct.* **Türbin** / Turbin / *Turbine* **Hidrolik** / Hydrolic / *Hydraulique*	0…..3	0.8	1	1.5
	3….10	1	1.25	1.75
	10…24	1.25	1.5	2
Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylindir) *Machine à pistons (4…..6 Cylindres)*	0…..3	1	1.25	2
	3….10	1.25	1.5	2
	10…24	1.5	1.75	2
Pistonlu Makinalar (1….2 Silindir) Piston Machines (1….2 Cylindir) *Machine à pistons (1…..2 Cylindres)*	0…..3	1.25	1.5	2
	3….10	1.5	1.75	2.25
	10…24	1.75	2	2.5

Vinç Tesisleri		Cranes		Grues	
Bom kaldırma	H	Derricking jib bomm gear	H	Bras ouvrant	H
Vinç yürüyüşerleri	U	Travelling gears	U	Grues(Charriot)	U
Yük kaldırma	H	Hoist gears	H	Grues	H
Dönüş tertibatları	U	Slewing gears	U	Pignons rotatifs	U

Metal İşleme Makinaları		Metal Working Machines		Métalurgie et Acieries	
Planya makineleri	S	Planing machine	S	Aplaniseuses	S
Çekiç tokmak	S	Hammer	S	Marteau	S
Oyma makinesi	S	Engraving machine	S	Graveuses	S
Presler	H	Presses	H	Presses	H
Makaslar (Giyotin)	M	Shears	M	Découpeuses	M
Sıcak basma presleri	H	Forging presses	H	Presse à forge	H
Takım tezgahları (Ana Tahrik)	M	Machines tools (Main Drives)	M	Machine outil (Axe principal)	M
Takım tezgahları (Yardımcı Tahrik)	U	Machines tools (Auxiliarly Drives)	U	Machine outil (axe secondaire)	U

Gıda Endüstri Makinaları		Food Industry Machines		Industrie Agroalimentaire	
Doldurma makinaları (Şişe, Kavanoz vs.)	U	Filling machines (Bottles, Contaniers.)	U	Embouteilleuse	U
Yoğurma makinaları	M	Kneading machines	M	Malaxeurs	M
Ambalaj makinaları	U	Packaging machines	U	Machine d'emballage	U
Şeker kamışı kırıcıları	M	Cane crushers	M	Presse à canne	M
Şeker kamışı kesicileri	M	Cane cutters	M	Découpeuse de canne	M
Şeker kamışı öğütücüleri	H	Cane millis	H	Broyeurs de cannes	H
Şeker pancarı kesicileri	M	Sugar beet cutters	M	Découpeuse de betteraves	M
Şeker pancarı yıkayıcıları	M	Suger beet washers	M	Laveuse à betteraves	M

Pompalar		Pumps		Pompes	
Pistonlu pompalar (Q1 / 100)	H	Piston pumps (Q1 / 100)	H	Pompes à piston (Q1 / 100)	H
Pistonlu pompalar (Q1 / 100 : 1 / 20)	M	Piston pumps (Q1 / 100 : 1 / 20)	M	Pompes à piston (Q1 / 100 : 1 / 20)	M
Türbin (Hafif Akışkan)	U	Turbin (Light - Liquids)	U	Turbine (Liquides légers)	U
Türbin (Ağır Akışkan)	M	Turbin (Semi - Liquids)	M	Turbine (Semi-liquide)	M

Tahrik Makinası Torque Machine *Machines couplées*	**Günlük Çalışma Müddeti (Saat)** Daily Working Period (Hour) *Utilisation journalière (Heure)*	**Makinanın Yükleme Karakteristiği** Load Characteristics of Machines *Caractéristique des charges*		
		Hafif Yük U Uniform Load U *Charge uniforme U*	**Orta Yük M** Moderate Load M *Charge modérée M*	**Ağır Yük H** Heavy Load H *Charge élevée H*
Elekt. Motorlu / Elect. Motor / *Moteurs éléct.* **Türbin** / Turbin / *Turbine* **Hidrolik** / Hydrolic / *Hydraulique*	0…..3	0.8	1	1.5
	3….10	1	1.25	1.75
	10…24	1.25	1.5	2
Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylindir) *Machine à pistons (4…..6 Cylindres)*	0…..3	1	1.25	2
	3….10	1.25	1.5	2
	10…24	1.5	1.75	2
Pistonlu Makinalar (1….2 Silindir) Piston Machines (1….2 Cylindir) *Machine à pistons (1…..2 Cylindres)*	0…..3	1.25	1.5	2
	3….10	1.5	1.75	2.25
	10…24	1.75	2	2.5

Kağit Endüstri Makinaları		Paper Industry Machines		Indusrtie Papetière	
Düzleme silindirleri	H	Glazing Cylinders	H	Cylindres appliniseurs	H
Holender	M	Hollenders	M	Holenders	M
Kağıt hamur makineleri	H	Pulpers	H	Pulpeuses	H
Kalender	H	Calender	H	Calendrier	H
Taş presler	H	Stone Presses	H	Presse	H
Vakum presler	H	Vacum Presses	H	Presse à aspiration	H
Kuru silindirler	H	Drying Cylinders	H	Cylindres de séchage	H

Taş ve Kil Makinaları		Stone and Clay Working Machines		Roches et Argiles	
Kırıcılar	H	Breakers	H	Broyeurs	H
Döner fırınlar	M	Rotary ovens	M	Four rotatifs	M
Çekiçli değirmenler	H	Hammer mills	H	Broyeux à marteaux	H
Bilyalı değirmenler	H	Ball mills	H	Broyeurs à billes	H
Çarpmalı öğütücüler	H	Beater mills	H	Broyeux à percussions	H
Tuğla presleri	H	Brick presses	H	Presse à pavès	H

Tekstil Makinaları		Textile Machines		Industrie du Textile	
Sargı makinaları (Q1 / 100)	M	Batchers (Q1 / 100)	M	Machines d'emballages	M
Basma ve boyama mak.	M	Printing and dyeing machines	M	Presse et imprimante	M
Dokuma tezgahları	M	Looms	M	Tisseuse	M

Kompresörler		Compressors		Compresseurs	
Turbo kompresör	M	Turbo compressors	M	Turbocompresseurs	M

Silindirleme ve Çekme Tesisleri		Metal Rolling Mills		Aciéries	
Sac kesme makineleri	H	Sheet metal cutting machines	H	Découpeuses	H
Hız ayarlı silindirler	M	Roller adjustment drivers	M	Ajusteuse à presses	M
Çubuk kesme makinaları	H	Billet shears	H	Scies	H
Kabuk sıyırma makinaları	H	Descaling machines	H	Eplucheuse	H
Tel çekme tesisleri	M	Wire drawing machines	M	Enrouleuses	M
Soğuk çekme tesisleri	H	Cooling beds	H	Bande de refroidissements	H
Rulolu nakil (Hafif)	M	Roller tables (Lights)	M	Enrouleuses (légères)	M
Rulolu nakil (Ağır)	H	Roller tables (Heavy)	H	Enrouleuses (lourdes)	H
Silindir haddeleme	H	Manipulators	H	Cylindres	H

Tahrik Makinası Torque Machine *Machines couplées*	**Günlük Çalışma Müddeti (Saat)** Daily Working Period (Hour) *Utilisation journalière (Heure)*	**Makinanın Yükleme Karakteristiği** Load Characteristics of Machines *Caractéristique des charges*		
		Hafif Yük U Uniform Load U *Charge uniforme U*	**Orta Yük M** Moderate Load M *Charge modérée M*	**Ağır Yük H** Heavy Load H *Charge élevée H*
Elekt. Motorlu / Elect. Motor / *Moteurs éléct.* **Türbin** / Turbin / *Turbine* **Hidrolik** / Hydrolic / *Hydraulique*	0…..3	0.8	1	1.5
	3….10	1	1.25	1.75
	10…24	1.25	1.5	2
Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylindir) *Machine à pistons (4…..6 Cylindres)*	0…..3	1	1.25	2
	3….10	1.25	1.5	2
	10…24	1.5	1.75	2
Pistonlu Makinalar (1….2 Silindir) Piston Machines (1….2 Cylindir) *Machine à pistons (1…..2 Cylindres)*	0…..3	1.25	1.5	2
	3….10	1.5	1.75	2.25
	10…24	1.75	2	2.5

Radyal Yüklerin Belirlenmesi

Meydana gelen radyal yükün hesaplanabilmesi için redüktörün çıkış veya giriş miline bağlanan iletme elemanının tipi dikkate alınmalıdır. Aşağıdaki tabloda bazı iletme elemanları faktörleri (f_i) verilmiştir.

İletme Elemanı	İletme Elemanı Faktörü (f_i)	Açıklama
Dişli	1,15	< 17 diş
Zincir Dişli	1,40	< 13 diş
Zincir Dişli	1,25	< 20 diş
V- Kayış Kasnakları	1,75	Ön Gerilme Kuvveti
Düz Kayış Kasnakları	2,50	Ön Gerilme Kuvveti
Triger Kayış Kasnakları	1,50	Ön Gerilme Kuvveti

Mil üzerindeki radyal yük aşağıdaki formülle hesaplanır:

$$F_R = \frac{Md \,.\, 2000}{d_0} \cdot f_i$$

$F_R[N]$ = Radyal Yük
$M_d[Nm]$ = Döndürme Momenti
$d_0[mm]$ = İletme elemanının Ortalama Çapı
f_i = *İletme Elemanı Faktörü*

Bu değerler gözönüne alınarak hesaplanan sonuçlar doğrultusunda, kataloğumuzda yer alan redüktörlere ait radyal yükleri görerek seçim yapabilirsiniz. Bu tablolarda verilen radyal yükler rulman ömrüne göre belirlenmiş olup $S_f = 1$ şartına ve yükün milin ortasını yüklediği durumlar için verilmiştir.

Determining of Overhung Loads

Type of transmission component mounting output or input shaft has to be consideration to find occured overhung loads. Some transmission component factor (f_i) is given at the table below.

Transmission Component	Transmission Component Factor (f_i)	Explanation
Gear	1,15	< 17 teeth
Sprockets	1,40	< 13 teeth
Sprockets	1,25	< 20 teeth
V- Belt Pulleys	1,75	Pre-tension
Flat Belt Pulleys	2,50	Pre-tension
Trigger Belt Pulleys	1,50	Pre-tension

Overhung Loads on shaft is find by at the formula below:

$$F_R = \frac{Md \,.\, 2000}{d_0} \cdot f_i$$

$F_R[N]$ = Overhung Load
$M_d[Nm]$ = Torque
$d_0[mm]$ = Mean Diameter of Transmission Component
f_i = Transmission Component Factor

You can Choose, by seeing overhung loads belong to gearboxes in our catalog according to determined results by considering these values. The given overhung loads on the tables are determined according to working life, on $S_f = 1$ and force which are applied to the midpoint of the shaft

Calcul des charges radiales

Afin de determiner les charges radials en bouts d'arbres il conviens de prendre en compte les paramètre et coéfficients suivants. Le coefficient correcteur (f_i) est a appliquer en fonction du type de transmission

Elément de transmission	Coefficient correcteur (f_i)	Remarques
Pignons	1,15	< 17 dents
Roue a chaine	1,40	< 13 dents
Roue a chaine	1,25	< 20 dents
Poulies a gorges	1,75	En fonction de la précontrainte
Poulies plates	2,50	En fonction de la précontrainte
Poulies dentées	1,50	En fonction de la précontrainte

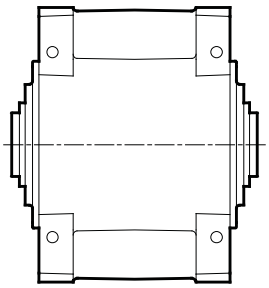
La charge radiale en bout d'arbre se calcule en utilisant la formule suivante:

$$F_R = \frac{Md \,.\, 2000}{d_0} \cdot f_i$$

$F_R[N]$ = Charge appliquée en bout d'arbre(N)
$M_d[Nm]$ = Couple en Nm
$d_0[mm]$ = Diamétre de l'élément de transmission(mm)
f_i = Coefficient correcteur pour charge radiale

Les résultats sont définis en fonction de la durée de vie et d'utilisation des réducteurs. Les résultats se basent sur les charges radiales appliquées au centre de l'arbre.

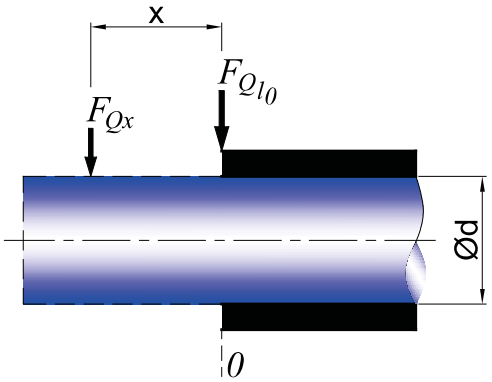
Radyal Yük Hesabı, Kovana etkiyen Durum için
Calculation of Overhung Load for State Acting on Hollow Shaft
Calcul des charges radiales appliquées en configuration arbre creux



M Serisi
M Series / *M Série*

Radyal Yük Hesabı için Sabit Değerler Tablosu
Tables of Fixed Values for Calculation of Overhung Load
Tableau des valeurs préétablies pour le calcul des charges radiales

M Serisi / M Series / *M Série*				
Tip / Type / *Type*	k	c	d	l
MA-MK 402 / 403 / 404	258	258	80	-
MA-MK 502 / 503 / 504	299	299	95	-
MA-MK 602 / 603 / 604	298	298	105	-
MA-MK 702 / 703 / 704	334	334	115	-
MA-MK 802 / 803 / 804	334	334	125	-
MA-MK 902 / 903 / 904	379	379	135	-
MA-MK 1002 / 1003 / 1004	381	381	150	-
MA-MK 1102 / 1103 / 1104	426	426	165	-
MA-MK 1202 / 1203 / 1204	420	420	180	-

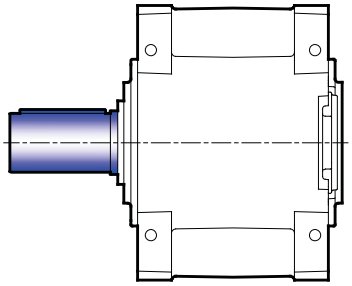


Radyal yük, kovanın 0 noktasında değil ise $F_{Qx} = F_{Q_{l_0}} \cdot \frac{k}{c+x}$ **formülü ile hesaplanır.**

If overhung load is not applied at the zero point of hollow shaft; it is calculated by $F_{Qx} = F_{Q_{l_0}} \cdot \frac{k}{c+x}$

Si les charges radiales ne sont pas appliquées au point 0 de l'arbre creux, il convient d'appliquer la formule suivante $F_{Qx} = F_{Q_{l_0}} \cdot \frac{k}{c+x}$

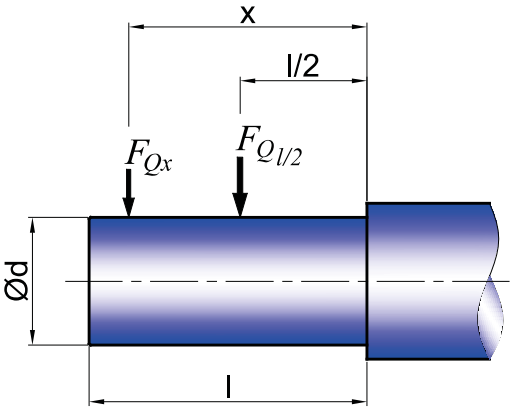
Radyal Yük Hesabı, Çıkış Miline etkiyen Durum için
Calculation of Overhung Load for State Acting on Output Shaft
Calculs des charges radiales appliquées sur l'arbre de sortie



M Serisi
M Series / *M Série*

Radyal Yük Hesabı için Sabit Değerler Tablosu
Tables of Fixed Values for Calculation of Overhung Load
Tableau des valeurs préétablies pour le calcul des charges radiales

M Serisi / M Series / *M Série*				
Tip / Type / *Type*	k	c	d	l
MA-MK 402 / 403 / 404	328	258	80	140
MA-MK 502 / 503 / 504	404	299	100	210
MA-MK 602 / 603 / 604	403	298	110	210
MA-MK 702 / 703 / 704	439	334	120	210
MA-MK 802 / 803 / 804	459	334	130	250
MA-MK 902 / 903 / 904	504	379	140	250
MA-MK 1002 / 1003 / 1004	516	381	160	270
MA-MK 1102 / 1103 / 1104	561	426	170	270
MA-MK 1202 / 1203 / 1204	555	420	180	270

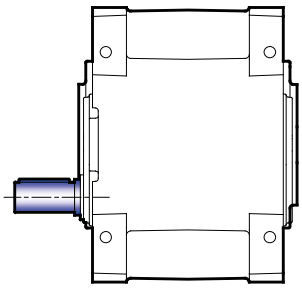


Radyal yük, milin orta noktasında değil ise $F_{Qx} = F_{Q_{l/2}} \cdot \frac{k}{c+x}$ **formülü ile hesaplanır.**

If overhung load is not applied at the midpoint of output shaft; it is calculated by $F_{Qx} = F_{Q_{l/2}} \cdot \frac{k}{c+x}$

Dans le cas où les charges radiales ne sont pas appliquées au centre de l'arbre d'entrée, la formule à appliquer est $F_{Qx} = F_{Q_{l/2}} \cdot \frac{k}{c+x}$

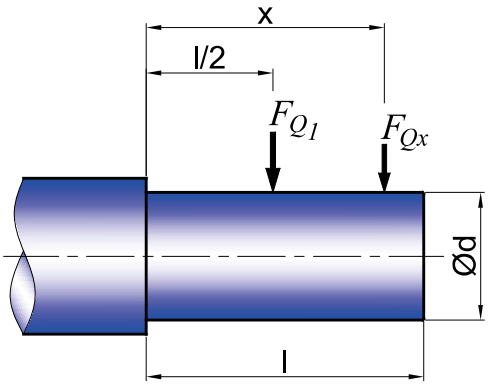
Radyal Yük Hesabı, Giriş Miline etkiyen Durum için
Calculation of Overhung Load for State Acting on Input Shaft
Calcul des charges appliquées sur l'arbre d'entrée



MA Serisi
MA Series / *MA Série*

Radyal Yük Hesabı için Sabit Değerler Tablosu
Tables of Fixed Values for Calculation of Overhung Load
Tableau des valeurs préétablies pour le calcul des charges radiales

MA Serisi / MA Series / *MA Série*				
Tip / Type / *Type*	k	c	d	l
MA 704	385	345	30	80
MA 804	385	345	30	80
MA 904	436	396	30	80
MA 1004	436	396	30	80
MA 1104	502	457	45	90
MA 1204	502	457	45	90

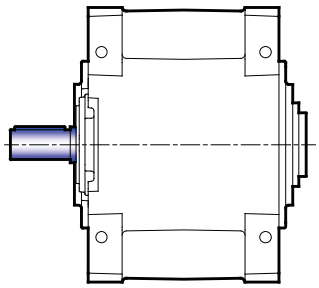


Radyal yük, milin orta noktasında değil ise $F_{Qx} = F_{Q1} \cdot \frac{k}{c+x}$ **formülü ile hesaplanır.**

If overhung load is not applied at the midpoint of input shaft; it is calculated by $F_{Qx} = F_{Q1} \cdot \frac{k}{c+x}$

Dans le cas où les charges radiales ne sont appliquées au centre de l'arbre d'entrée, la formule à appliquer est $F_{Qx} = F_{Q1} \cdot \frac{k}{c+x}$

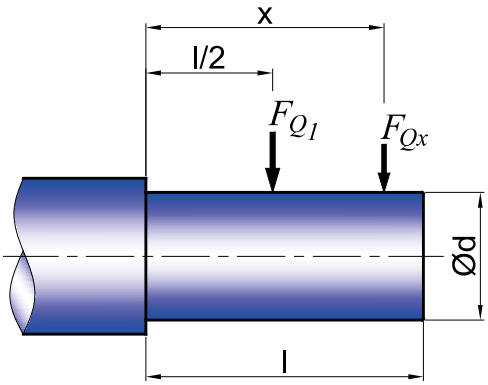
Radyal Yük Hesabı, Giriş Miline etkiyen Durum için
Calculation of Overhung Load for State Acting on Input Shaft
Calcul des charges appliquées sur l'arbre d'entrée



MA Serisi
MA Series / *MA Série*

Radyal Yük Hesabı için Sabit Değerler Tablosu
Tables of Fixed Values for Calculation of Overhung Load
Tableau des valeurs préétablies pour le calcul des charges radiales

MA Serisi / MA Series / *MA Série*				
Tip / Type / *Type*	k	c	d	l
MA 402	333.25	283.25	32	80
	333.25	283.25	45	100
MA 403	324.25	284.25	30	80
MA 502	363.25	313.25	50	100
MA 503	353.25	313.25	40	80
MA 602	363.25	313.25	50	100
MA 603	353.25	313.25	40	80
MA 702	415	350.75	60	120
MA 703	400.75	350.75	45	100
MA 802	415	350.75	60	120
MA 803	400.75	350.75	45	100
MA 902	472.5	402.5	60	120
	470.5	400.5	75	120
MA 903	466.5	406.5	45	120
	466.5	406.5	55	120
MA 1002	472.5	402.5	60	120
	470.5	400.5	75	120
MA 1003	466.5	406.5	45	120
	466.5	406.5	55	120
MA 1102	528.5	458.5	75	140
MA 1103	531	461	55	140
	530	460	70	140
MA 1202	528.5	458.5	75	140
MA 1203	531	461	55	140
	530	460	70	140

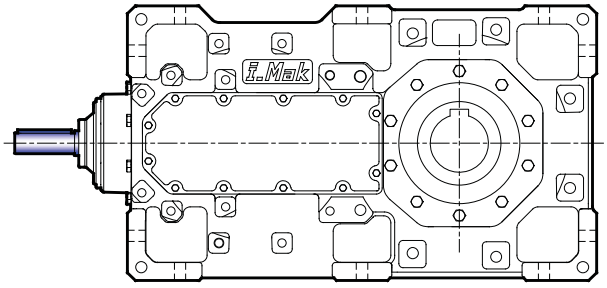


Radyal yük, milin orta noktasında değil ise $F_{Qx} = F_{Q1} \cdot \frac{k}{c+x}$ **formülü ile hesaplanır.**

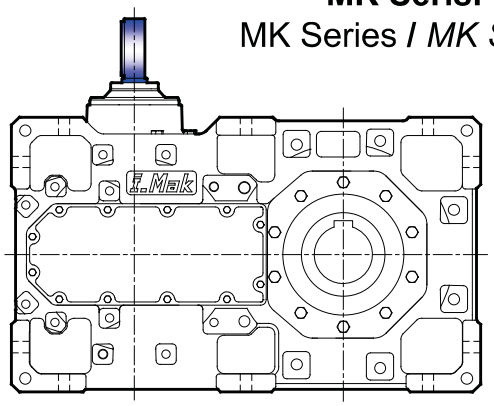
If overhung load is not applied at the midpoint of input shaft; it is calculated by $F_{Qx} = F_{Q1} \cdot \frac{k}{c+x}$

Dans le cas où les charges radiales ne sont appliquées au centre de l'arbre d'entrée, la formule à appliquer est $F_{Qx} = F_{Q1} \cdot \frac{k}{c+x}$

Radyal Yük Hesabı, Giriş Miline etkiyen Durum için
Calculation of Overhung Load for State Acting on Input Shaft
Calcul des charges appliquées sur l'arbre d'entrée

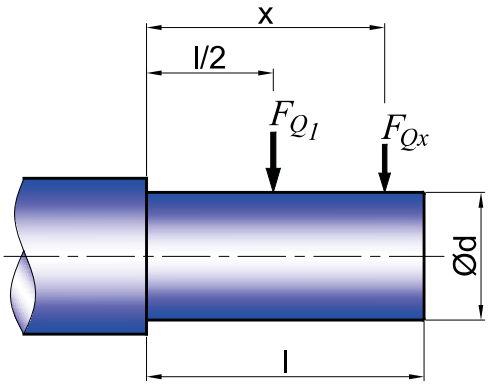


MK Serisi
MK Series / *MK Série*



Radyal Yük Hesabı için Sabit Değerler Tablosu
Tables of Fixed Values for Calculation of Overhung Load
Tableau des valeurs préétablies pour le calcul des charges radiales

MK Serisi / MK Series / *MK Série*				
Tip / Type / *Type*	k	c	d	l
MK 403	236.25	178.75	35	115
MK 404	167.75	117.75	28	100
MK 503	236.25	178.75	35	115
MK 504	170.75	120.75	28	100
MK 603	236.25	178.75	35	115
MK 604	170.75	120.75	28	100
MK 703	263.5	198.5	45	130
MK 704	188.25	130.75	30	115
MK 803	263.5	198.5	45	130
MK 804	188.25	130.75	30	115
MK 903	296	226	55	140
MK 904	207.25	155.75	35	115
MK 1003	296	226	55	140
MK 1004	207.25	155.75	35	115
MK 1103	333	253	70	160
MK 1104	234.5	169.5	45	130
MK 1203	333	253	70	160
MK 1204	234.5	169.5	45	130



Radyal yük, milin orta noktasında değil ise $F_{Qx} = F_{Q1} \cdot \frac{k}{c+x}$ **formülü ile hesaplanır.**

If overhung load is not applied at the midpoint of input shaft; it is calculated by $F_{Qx} = F_{Q1} \cdot \frac{k}{c+x}$

Dans le cas où les charges radiales ne sont appliquées au centre de l'arbre d'entrée, la formule à appliquer est $F_{Qx} = F_{Q1} \cdot \frac{k}{c+x}$

Frenler

1) Pervanesiz frenler
Elektrik motorunun arkasındaki soğutma kapağı takılmayarak bunların yerine monte edilen frenlerdir. Kısa süreli çalışan motorlarda bu tip frenler kullanılır.

2) Pervaneli frenler
Elektrik motorunun motor mili ve fan kapağı uzatılarak monte edilen frenlerdir. Devamlı çalışan motorlarda bu tip frenler kullanılır.

3) Mikro anahtarlı frenler
Elektrik motorlarının demeraj akımının yüksek olması ve freni açmada gecikmesi dolayısıyla istenmeyen durumlar meydana gelir. Bunları önlemek için, frenin üzerine konulan bir mikro anahtar vasıtasıyla freni açtıktan hemen sonra motorun çalışması sağlanır. Bu tip frenler özellikle büyük güçteki redüktörlerin elektrik motorları için uygundur.

Redüktörlerin ani veya gecikmeli frenlenmesi
Gecikmeli veya ani frenlenen redüktörler birçok sanayi makinalarında kullanılmaktadır. Bu sebepten frenler hem ani hem de gecikmeli fren yapacak şekilde dizayn edilmişlerdir. Frenlerin elektrik bağlantısında yapılacak bir değişiklikle ani veya gecikmeli frenleme sağlanır. Her frenli redüktör ile birlikte elektrik bağlantı şeması verilmektedir.

Frenli redüktörleri teslim aldığınızda fren bağlantısının gecikmeli olarak yapıldığını unutmayınız.

Brakes

1) Brakes without cooling fan
Brake which is mounted on fan side of electric motor by cancelling cooling fan and fan cover of motor. This type of brake is used for a short period running motors.

2) Brakes with cooling fan
Brake which is mounted on fan side of electric motor by extending motor shaft and fan cover to use fan. This type of brake is necesarry for continuously running motors

3) Brakes with micro switch
Because of high starting current of motors delayed disengagement of magnetic brakes undesirable conditions occur. To prevent this situation, starting of motor is provided after disengagement of brake by means of brake by means of a micro switch installed on the brake. This type of brake is especially suitable for high power geared motors.

Non-delayed or delayed braking of geared motors
Delayed or non-delayed geared motors are used in many industrial machines. Therefore, brakes are designed to operate in both delayed and non-delayed conditions. This is supplied with each brake mounted geared motor.

Please do not forget that the brakes are connected for delayed operations standard.

Freins

1) Freins sans hélices de refroidissements
Freins montés directement à l'emplacement de l'hélice de refroidissement. Dans cette configuration l'hélice et le couvercle extérieur sont retirés. Ce type de configuration est conseillé pour les applications et moteurs avec une durée de fonctionnement réduite.

2) Freins avec hélice de refroidissement
Le frein est monté directement à l'arrière de l'emplacement de l'hélice de refroidissement. Ce type de configuration nécessite une prolongation de l'arbre d'entrainement du moteur. Ce type de configuration est conseillé pour les applications nécessitant un usage continu du frein.

3) Frein à ouverture manuelle
La forte charge appliquée par le moteur sur certains freins entraine une prolongation de la période de blocage. Afin d'éviter un arrêt prolongé certains freins sont équipés d'un clé d'ouverture manuelle, cette option permet un redémarrage immédiat du moteur. Ce type de freins est particulièrement adapté aux moteurs à forte puissance.

Freins avec ou sans retardement d'arrêt.
Les motoréducteurs équipés de freins à retardement d'arrêt sont utilisés dans notre nombreuses applications et secteurs.
Les freins sont conçus pour opérés avec ou sans l'option de retardement. Cette option est disponible pour l'ensemble de notre gamme de motoréducteurs. A noter que le freins dois être correctement connecté pour permettre un fonctionnement optimale de cette option.

Fren alışma voltajları

Frenler 24V-DC veya 220V-AC ile çalışacak şekilde imal edilir. 220 voltluk frenlerin bağlantıları motor klemens kutusunda yapılmaktadır. 24V ile çalışan frenlerin bağlantısı için ayrıca 220/30V trafo ile doğrultucu gerekmektedir. İstenildiğinde bunlar firmamızca temin edilmektedir.

Frenli redüktörlerin elektrik motorlarına toprak hattı bağlantısı muhakkak yapılmalıdır.

Fren siparişlerinde belirtilmesi gereken hususlar

1) Fren momenti
2) Fren tipi
3) Fren voltajı

24V ile çalışan fren siparişlerinde trafolu doğrultucu istenip istenmediğini lütfen belirtiniz.

Fren bağlantı şemaları

Operating voltage of brakes

Brakes are manufactured to operate at 24V-DC or 220V-AC. 220V brakes are connected to the motor terminal box directly, but 220/30V transformer with rectifier unit needed for 24V operating brakes. This unit will be supplied if required.

Geared brake motors must be earthed.

Required ordering data for brakes

1) Brake torque
2) Brake type
3) Brake operating voltage.

Please inform as if you need 220/30V transformer with rectifier unit for 24V operating brakes

Brake connection types

Voltage et caractéristique des freins

Les freins sont adaptés à un voltage de 24V-DC ou 220V-AC. Les freins fonctionnant sous 220V sont directement connectés à la boite de Klemens, Les freins fonctionnant sous 24V doivent impérativement être couplés à un transformeur, cette unité est disponible en option.

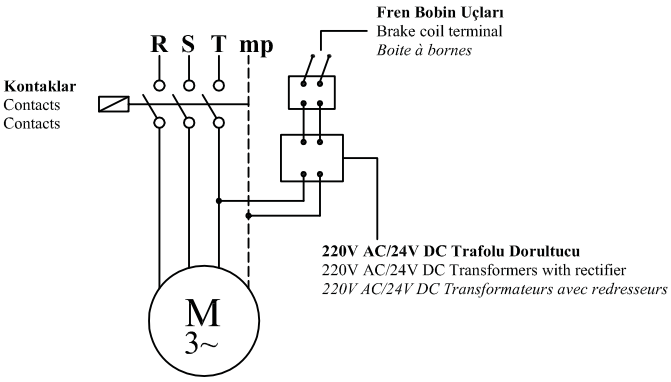
Données Nécessaire à la Commande d'un Frein.

1) Couple des freins
2) Type de freins
3) Type de voltage

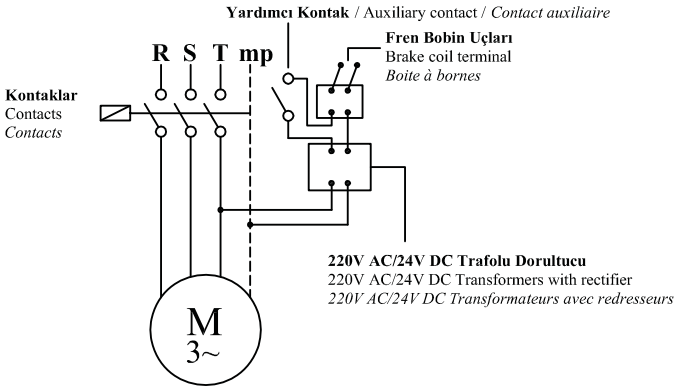
Veillez à nous informer si une unité de transformation 220/30V est nécessaire au branchement de votre frein (24 V)

Type de connexion des freins

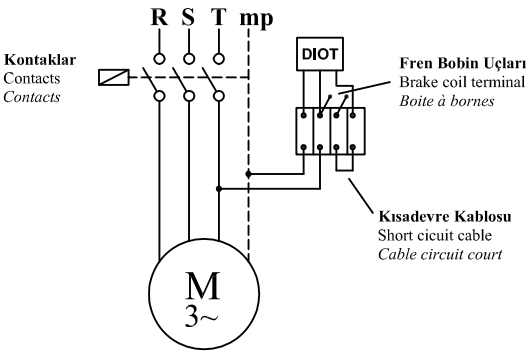
Gecikmeli Frenleme (24V)
Delayed Running Brake (24V)
Frein à retardement (24 V)



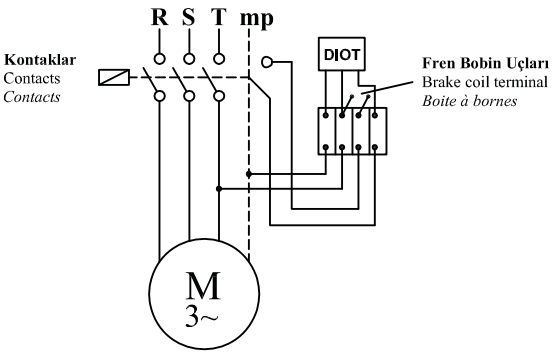
Ani Frenleme (24V)
Sudden Running Brake (24V)
Frein à arrêt immédiat(24 V)



Gecikmeli Frenleme (220V)
Delayed Running Brake (220V)
Frein à retardement (220 V)



Ani Frenleme (220V)
Sudden Running Brake (220V)
Frein à arrêt immédiat(220 V)



Tablo 1 / Table 1 / *Tableau 1*

Motor Büyüklüğü Motor Size *Dimensions du moteur*	n1 d/d / r.p.m / r.p.m			
	750	1000	1500	3000
	Güç / Power / *Puissance* [kW]			
63			0,12 - 0,18	0,18 - 0,25
71	0,09 - 0,12	0,18 - 0,28	0,25 - 0,37	0,37 - 0,55
80	0,18 - 0,25	0,37 - 0,55	0,55 - 0,75	0,75 - 1,1
90 S	0,37	0,75	1,1	1,5
90 L	0,55	1,1	1,5	2,2
100	0,75 - 1,1	1,5	2,2 - 3	3
112	1,5	2,2	4	4
132 S	2,2	3	5,5	5,5 - 7,5
132 M	3	4 - 5,5	7,5	11
160 M	4-5,5	7,5	11	15
160 L	7,5	11	15	18,5
180 M			18,5	22
180 L	11	15	22	
200	15	18,5 - 22	30	30 - 37
225 S	18,5		37	
225 M	22	30	45	45
250	30	37	55	55
280 S	37	45	75	75
280 M	45	55	90	90

Tablo 2 / Table 2 / *Tableau 2*

Motor Büyüklüğü Motor Size *Dimensions du moteur*	**Fren Momenti [kgm]** Braking Torque [kgm] *Puissance de freinage [kgm]*																			
	Hafif frenleme Light Braking *Freins legers*										**Kuvvetli Frenleme** Strong Braking *Freins lourds*									
	0,5	1	2,5	4	5	10	20	30	50	80	0,5	1	2,5	4	5	10	20	30	50	80
63	■										■									
71	■											■								
80	■	■										■								
90 S		■											■							
90 L			■										■							
100			■											■	■					
112			■	■											■					
132 S				■	■											■				
132 M					■	■										■				
160 M						■											■			
160 L						■	■										■			
180 M							■											■		
180 L							■											■		
200							■	■											■	
225 S								■											■	
225 M									■										■	■
250									■											■
280 S									■	■										■
280 M										■										■

Bazı uygulamalarda redüktör kullanıcıları redüktör durduğunda sistemin ağırlıkla beraber geri kaymasını istemez.
Bu gibi durumlarda redüktörlerde kilitli rulman uygulaması yapılır. Buna göre aşağıda verilen tiplere göre dönüş yönü belirtilmelidir.

CCW : Saat Yönünün Tersi
CW : Saat Yönü

In certain applications when the machinery stops, the operator would not like the gearbox to slip and loose its adjustment. Under these circumstances, the gearbox would be equipped with a locked ball bearing. Accordingly, the direction of rotation should be noted as shown below.

CCW : Counterclockwise
CW : Clockwise

Afin de répondre aux besoins de précision et de sécurité de certaines applications, nos réducteurs sont disponibles avec une option anti-retour. Cette option se compose d'un roulement anti-retour qui permet au réducteur de rester dans la position d'arrêt jusqu'au redémarrage de l'application par l'opérateur.

CCW : Sens anti-horaire
CW : Sens horaire

Moment kolu

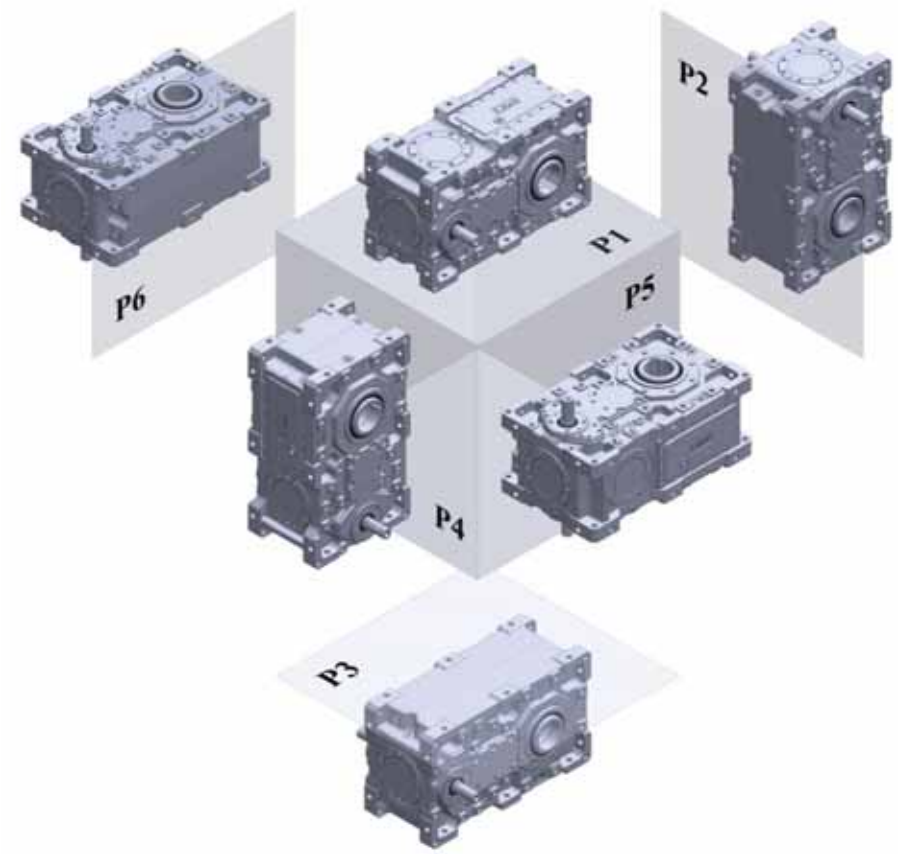
Redüktörünüzün sabitlendiği yüzeyle buluşturan, bağlantı noktaları zamanla aşınıp kırılmalara neden olabilir. Bu nedenle MA-MK serisi için özel olarak tasarladığımız tork kolu, içindeki lastik takoz sayesinde redüktörünüzü ani kalkışlara ve mil salgılarına karşı koruyup, sistem kaynaklı kasma ve gerilmeleri en aza indirir. İsteğinize bağlı olarak redüktörünüzle beraber gönderilecek olan tork kolu yardımıyla redüktörünüzün montajını kolayca gerçekleştirebilirsiniz.
Moment Kolunun Kullanılabilmesi için,
Konstruksiyonunuza ait bir çıkış mili olması gerekir. Bu çıkış miline, redüktörünüzü astıktan sonra , moment kolunu, redüktörün kendi ekseni etrafında dönmemesi için sabitlemeniz gerekiyor. Resimden de incelemeniz mümkün.
Moment Kollu Bağlantı ile,
• Kolay montaj ve demontaj imkanı
• Sistemsel kasmalara karşı redüktörünüzü koruma imkanı sağlanmış olmaktadır.

Torque arm

Lot of gearboxes failures and problems are due to the connection of the gearbox to the hosting structure or application. The vibration or weight are damaging the gearboxes housing, connection elements and shafts. In order to avoid such issues, we designed a special torque arm to connect the gearbox with the hosting structure. This special element is composed of steel and caoutchouc parts to support the weight and vibration generated by the application. In the same time the torque arm is making mounting and maintenance process faster and easier.
Mounting and usage:
In order to use a torque arm, the structure of the application should have an output shaft. The gearbox should be connected to the shaft and the torque arm should be mounted of the down or side part of the gearbox using the specific holes on the housing design.
Advantages:
- Quick mounting
- Easy maintenance process
- Longer lifetime of the gearbox

Bras d'attraction

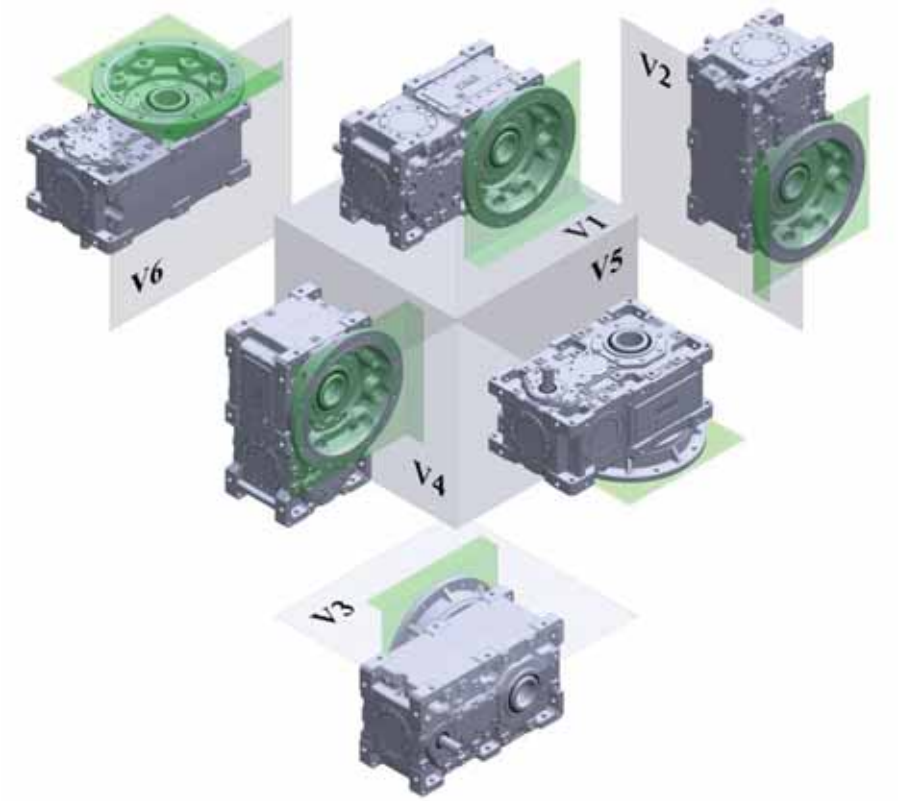
En cause de la majorité des pannes et défaillances, l'accouplement des réducteurs à la structure de l'application finale est un point essentiel au bon fonctionnement et au prolongement de la durée de vie des réducteurs. En effet, un accouplement défaillant ou mal adapté est souvent la cause de fissures, vibration excessives et déformation de l'arbre d'entrée. Pour pallier à ce problème, nous avons mis au point un bras d'attraction permettant d'absorber les chocs et vibration liés au fonctionnement et aux phases d'arrêt/démarrage de l'application. Ce bras d'attraction est composé d'une structure en fonte et de deux joints en caoutchouc. En plus de prolonger la durée de vie du motoréducteur et maintenir un bon fonctionnement de vos applications, le bras d'attraction rend les phases de montages et maintenance plus rapides et efficaces.
Montage et utilisation :
L'utilisation d'un bras d'attraction nécessite la présence d'un arbre de sortie sur la structure de l'application. Après avoir effectué l'accouplement du réducteur, le bras d'attraction dois être placer sur la face arrière ou basse du réducteur. La fixation s'effectue grave aux emplacements prévus sur le carter du réducteur.
Les avantages :
- Phase de montage facilitée
- Prolongement de la durée de vie
- Maintenance rapide



Ayak montajlı redüktörlerde montaj pozisyonu “P” ile gösterilir.

Foot mounted gearboxes position are defined as "P"

Les positions de montages des réducteurs à pattes sont définis par "P"



Flanş montajlı redüktörlerde montaj pozisyonu “V” ile gösterilir.

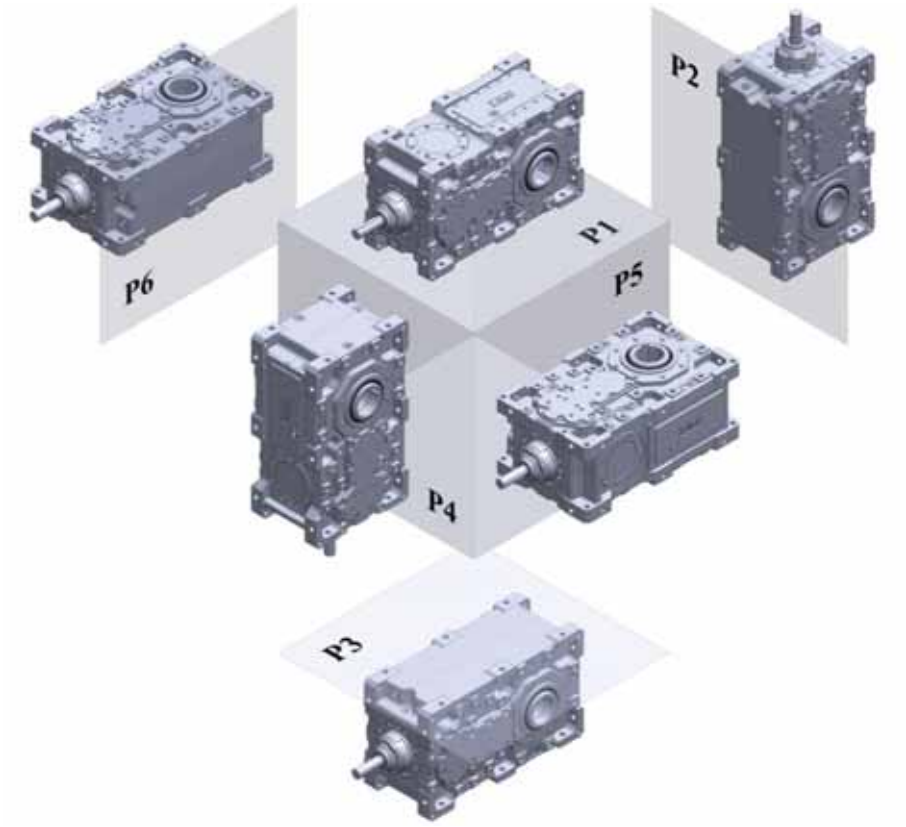
Flange mounted gearboxes position are defined as "V"

Les positions de montages des réducteurs à brides sont définis par "V"

Ayak montajlı redüktörlerde montaj pozisyonu “P” ile gösterilir.

Foot mounted gearboxes position are defined as "P"

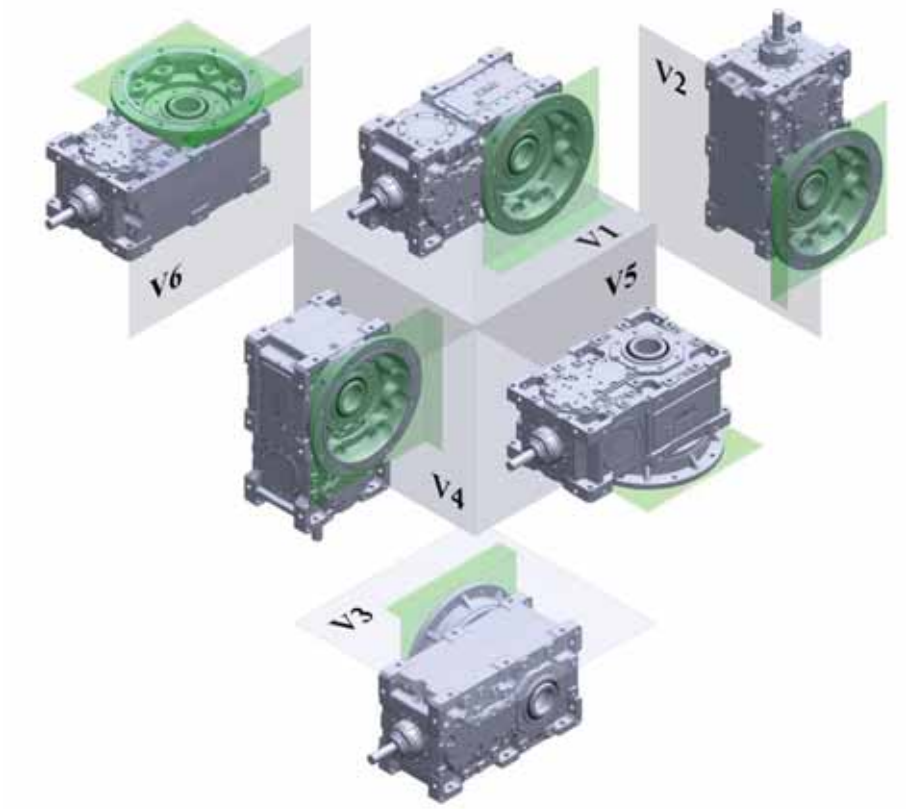
Les positions de montages des réducteurs à pattes sont définis par "P"

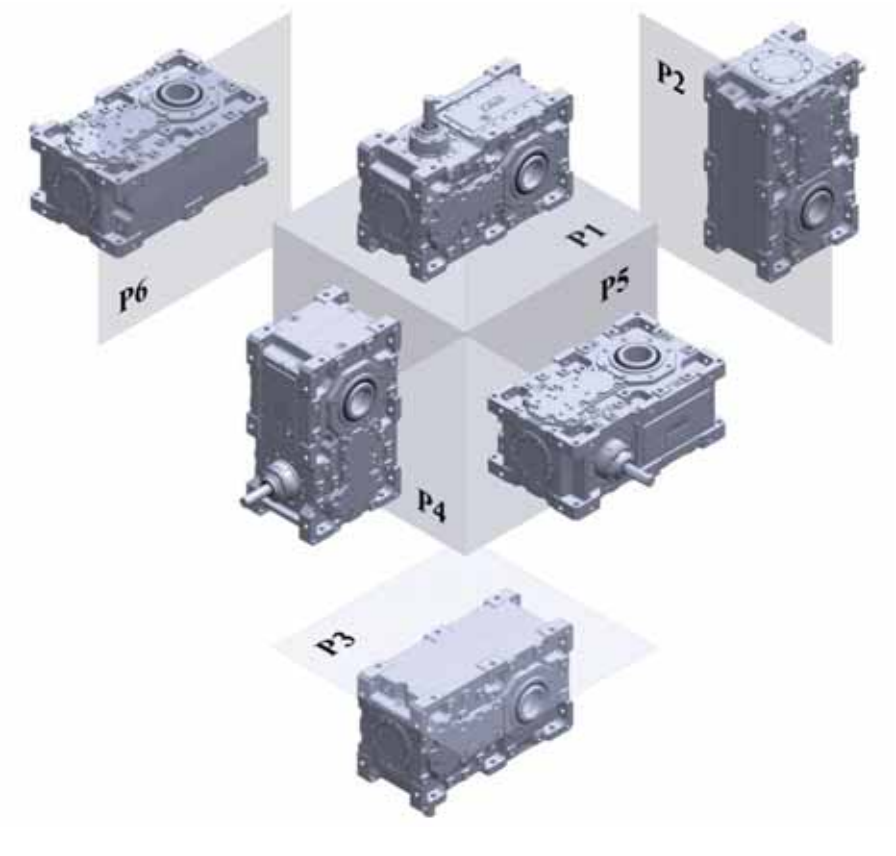


Flanş montajlı redüktörlerde montaj pozisyonu “V” ile gösterilir.

Flange mounted gearboxes position are defined as "V"

Les positions de montages des réducteurs à brides sont définis par "V"

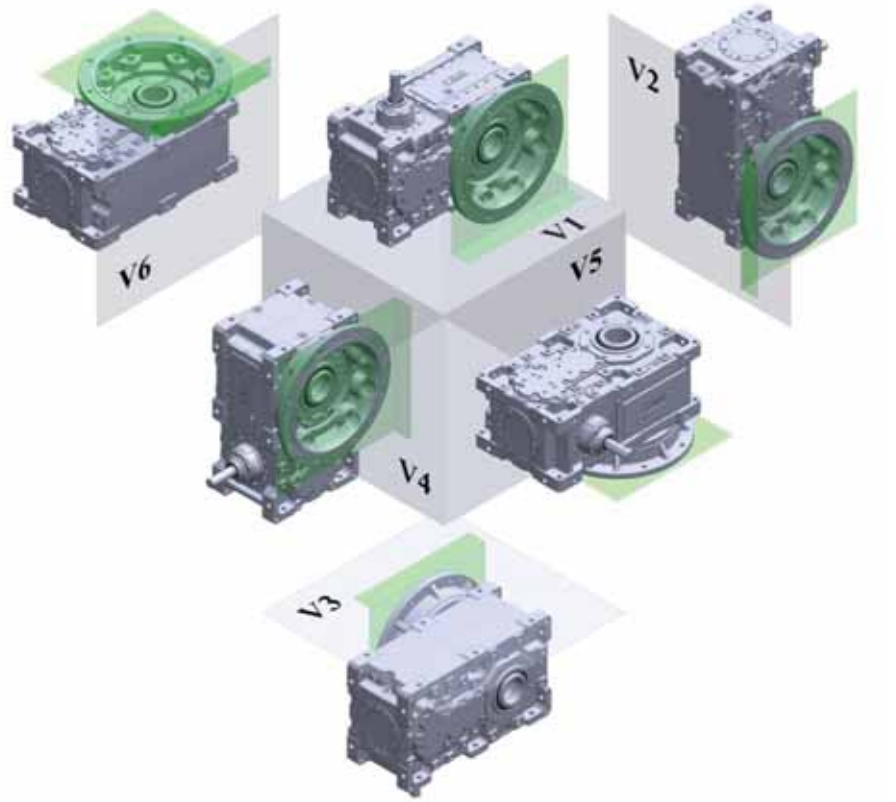




Ayak montajlı redüktörlerde montaj pozisyonu “P” ile gösterilir.

Foot mounted gearboxes position are defined as "P"

Les positions de montages des réducteurs à pattes sont définis par "P"

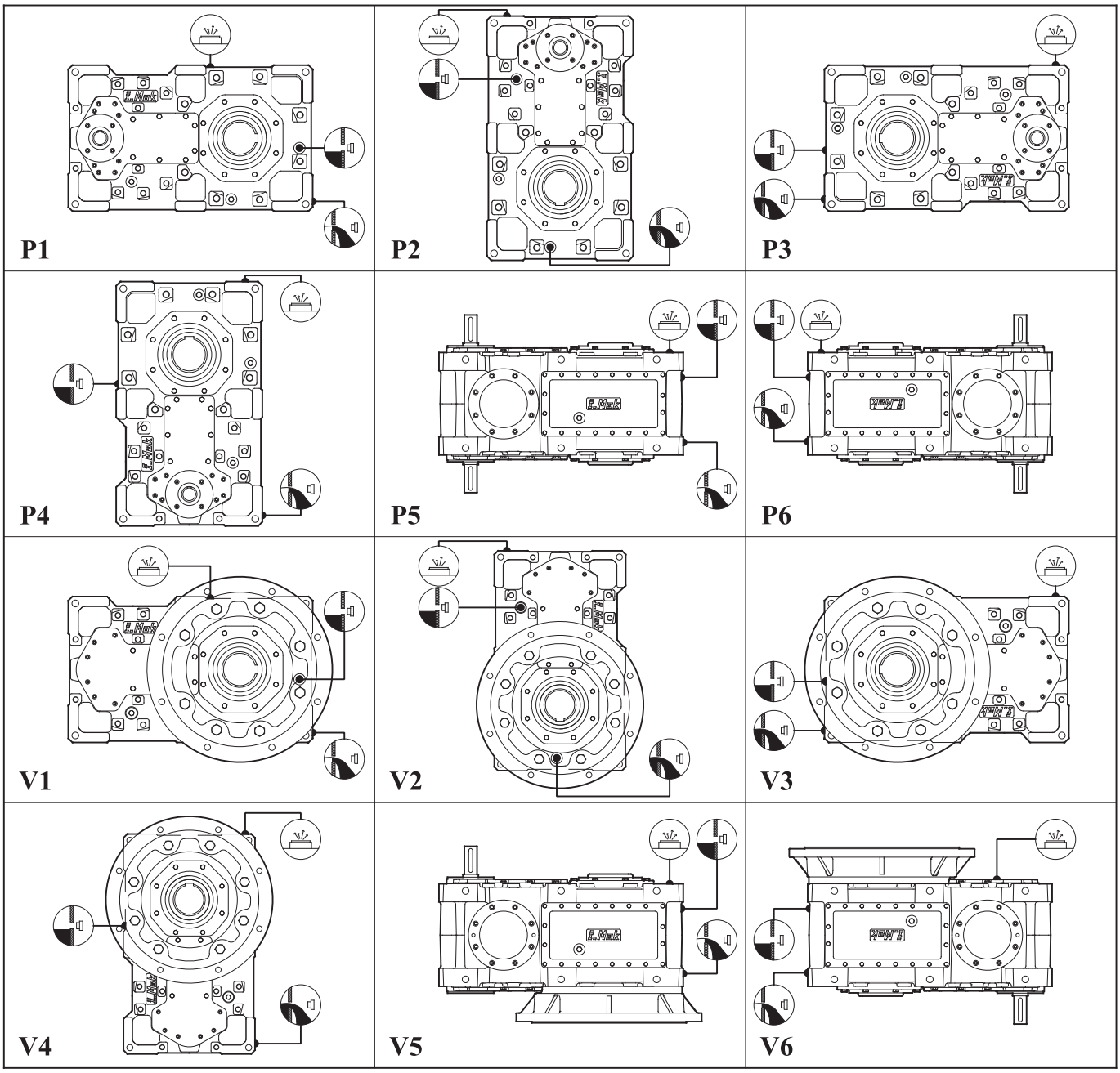


Flanş montajlı redüktörlerde montaj pozisyonu “V” ile gösterilir.

Flange mounted gearboxes position are defined as "V"

Les positions de montages des réducteurs à brides sont définis par "V"

Yağ Cinsi Lubricant *Art des Lubrifiant*	**ISO Viskozite sinifi** Viscocity class *Catégorie de viscosite*	DIN 51517-3	**Kullanim sicakliği** Usage temperature *Gebrauchs température d'usage* C°	**Firma** Firm *Marque*						
				Mobil	ARAL	bp	Shell	Castrol	KLÜBER LUBRICATION	BELGIN
Mineral Yağ Mineral Oil *Huile Minéral*	ISO VG 320	CLP	-10…….+90	Mobilgear 600 XP 320	Degol BG 320	Energol GR-XP 320	Omala S2 GX 320	Alpha SP 320	Klüberoil GEM 1 N 320	Recompound FL 320
	ISO VG 220	CLP	-10…….+90	Mobilgear 600 XP 220	Degol BG 220	Energol GR-XP 220	Omala S2 GX 220	Alpha SP 220	Klüberoil GEM 1 N 220	Recompound FL 220
	ISO VG 150	CLP	-10…….+90	Mobilgear 600 XP 150	Degol BG 150	Energol GR-XP 150	Omala S2 GX 150	Alpha SP 150	Klüberoil GEM 1 N 150	Recompound FL 150
	ISO VG 100	CLP	-15…….+90	Mobilgear 600 XP 100	-	-	Omala S2 GX 100	Alpha SP 100	Klüberoil GEM 1 N 100	Recompound FL 100
Sentetik Yağ Synthetic Oil *Huile Synthétique*	ISO VG 320	CLP HC	-30…….+110	Mobil SHC Gear 320	Degol GS 320	Enersyn SG-XP320	Omala S4 GX V 320	Optigear Synthetic PD 320 ES	Klübersynth GEM 4 N 320	Recompound Syn 320
	ISO VG 220	CLP HC	-35…….+110	Mobil SHC Gear 220	Degol GS 220	Enersyn SG-XP220	Omala S4 GX V 220	Optigear Synthetic PD 220 ES	Klübersynth GEM 4 N 220	Recompound Syn 220
	ISO VG 150	CLP HC	-40…….+110	Mobil SHC Gear 150	Degol GS 150	Enersyn SG-XP150	Omala S4 GX V 150	Optigear Synthetic PD 150 ES	Klübersynth GEM 4 N 150	Recompound Syn 150
	ISO VG 100	CLP HC	-45…….+110	Mobil SHC 627	-	-	-	Optigear Synthetic PD 100 ES	Klübersynth GEM 4 N 100	Recompound Syn 100



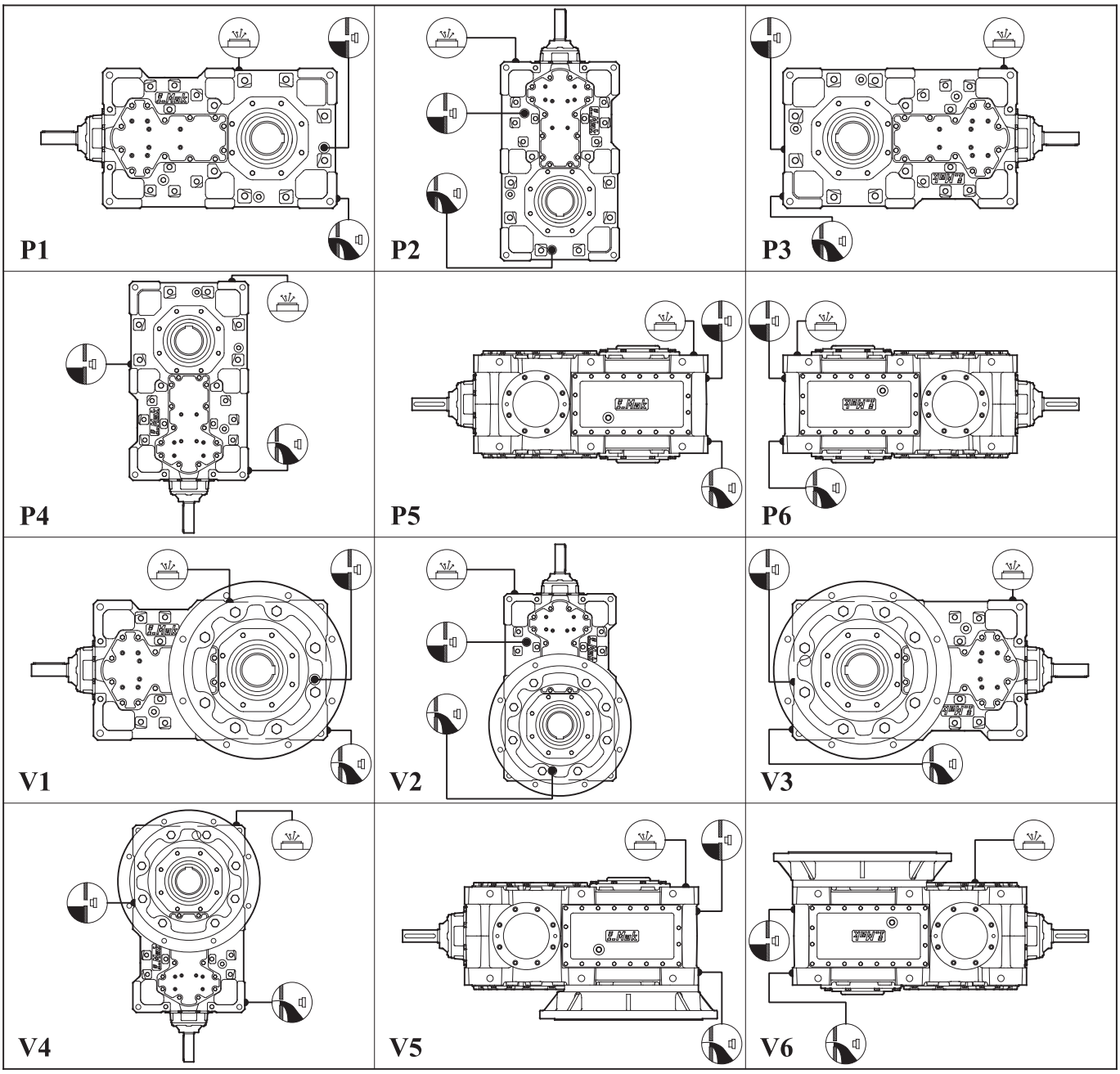
Semboller :
Seymbols :
Seymboles :

Yağ Doldurma ve Havalandırma
Oil Filling and Vent Plug
Valve d'aération

Yağ Seviye Tespit
Oil Level
Niveau d'huile

Yağ Boşaltma
Oil Drain Plug
Bouchon de drainage

TİP Type *Type*	**Bağlantı pozisyonları için yağ miktarları (litre)** / Oil quantities for mounting positions (liter) *Quantites d'huiles en fonction da la position de montage (lites)*											
	P1	**V1**	**P2**	**V2**	**P3**	**V3**	**P4**	**V4**	**P5**	**V5**	**P6**	**V6**
MA.... 403-402	17		26		16		24		28		27	
MA.... 503-502	23		35		20		30		36		35	
MA.... 603-602	26		39		22		33		40		39	
MA.... 704-703-702	38		55		32		48		58		55	
MA.... 804-803-802	42		65		36		53		66		63	
MA.... 904-903-902	51		81		45		74		82		78	
MA.... 1004-1003-1002	58		92		51		80		92		88	
MA.... 1104-1103-1102	74		115		66		105		125		118	
MA.... 1204-1203-1202	87		140		80		120		145		138	



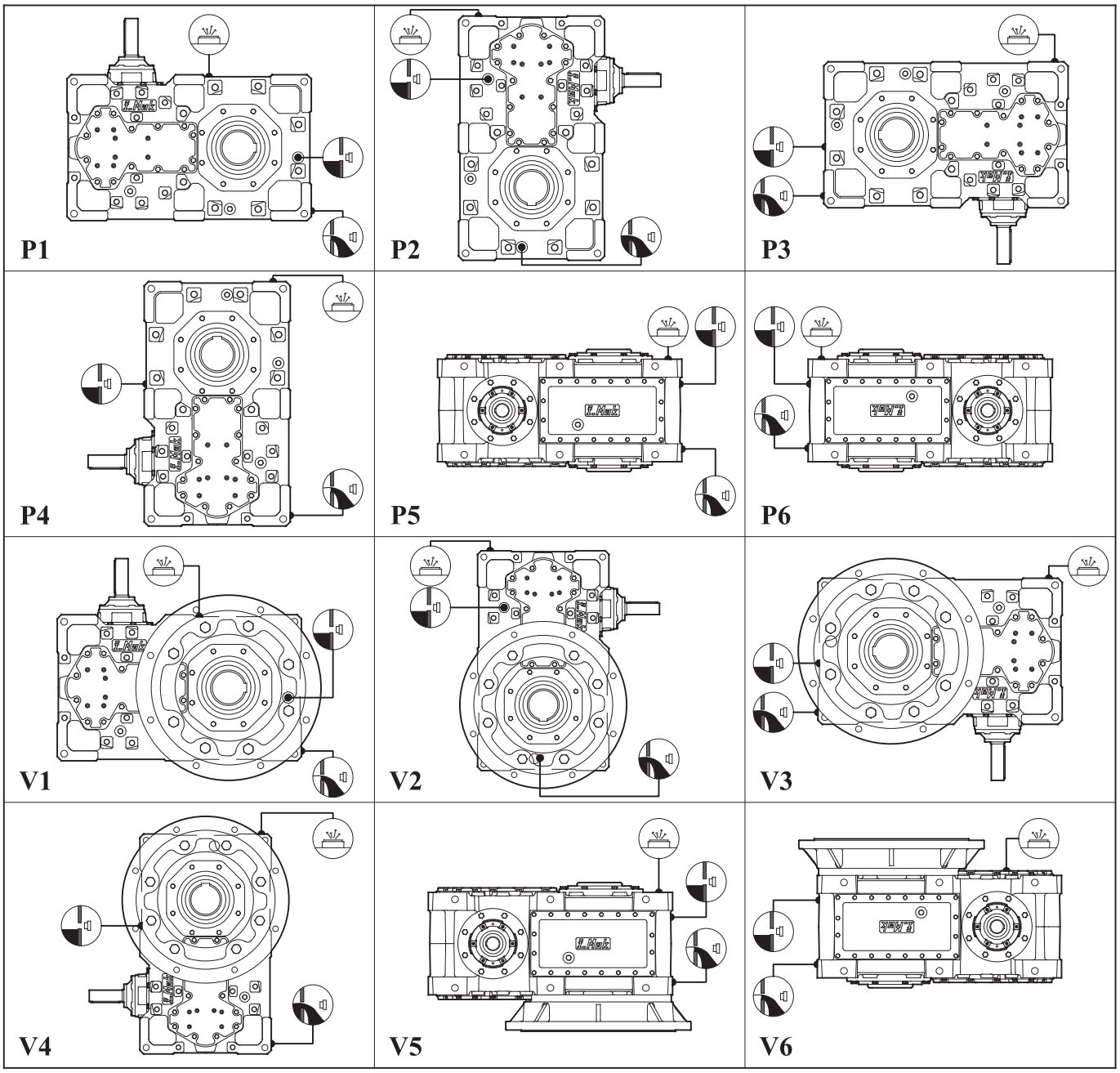
Semboller :
Seymbols :
Seymboles :

Yağ Doldurma ve Havalandırma
Oil Filling and Vent Plug
Valve d'aération

Yağ Seviye Tespit
Oil Level
Niveau d'huile

Yağ Boşaltma
Oil Drain Plug
Bouchon de drainage

TİP Type *Type*	**Bağlantı pozisyonları için yağ miktarları (litre)** / Oil quantities for mounting positions (liter) *Quantites d'huiles en fonction da la position de montage (lites)*											
	P1	**V1**	**P2**	**V2**	**P3**	**V3**	**P4**	**V4**	**P5**	**V5**	**P6**	**V6**
MK.... 404-403 / G07-G09	17		26		16		24		28		27	
MK.... 504-503 / G07-G09	23		35		20		31		37		36	
MK.... 604-603 / G07-G09	26		39		22		34		41		40	
MK.... 704-703 / G07-G09	38		55		32		49		59		56	
MK.... 804-803 / G07-G09	42		65		36		54		67		64	
MK.... 904-903 / G07-G09	52		81		45		76		84		80	
MK.... 1004-1003 / G07-G09	59		92		51		82		94		90	
MK.... 1104-1103 / G07-G09	76		120		68		110		122		115	
MK.... 1204-1203 / G07-G09	86		140		78		120		144		136	



Semboller :
Seymbols :
Seymboles :

Yağ Doldurma ve Havalandırma
Oil Filling and Vent Plug
Valve d'aération

Yağ Seviye Tespit
Oil Level
Niveau d'huile

Yağ Boşaltma
Oil Drain Plug
Bouchon de drainage

TİP Type *Type*	**Bağlantı pozisyonları için yağ miktarları (litre)** / Oil quantities for mounting positions (liter) *Quantites d'huiles en fonction da la position de montage (lites)*											
	P1	**V1**	**P2**	**V2**	**P3**	**V3**	**P4**	**V4**	**P5**	**V5**	**P6**	**V6**
MK.... 403 / G08-G10	17		26		16		24		28		27	
MK.... 503 / G08-G10	23		35		21		31		37		36	
MK.... 603 / G08-G10	25		39		23		34		41		40	
MK.... 703 / G08-G10	38		55		33		49		59		56	
MK.... 803 / G08-G10	42		65		37		54		67		64	
MK.... 903 / G08-G10	50		81		47		76		84		80	
MK.... 1003 / G08-G10	58		92		53		82		94		90	
MK.... 1103 / G08-G10	76		121		66		113		127		118	
MK.... 1203 / G08-G10	85		138		76		120		143		135	

1500 d/d Motorlar / 1500 r.p.m. Motors / *Moteurs 1500 r.p.m.*

Kod Code *Code*	**Güç (kW)** Power (kW) *Puissance (kW)*	**Hız (d/d)** Speed (r.p.m.) *Vitesse (r.p.m.)*	**Anma Akımı** Rated Current *Ampére*	**Moment (Nm)** Torque (Nm) *Couple (Nm)*	**Verim** **100** / Efficiency / 100% / *Efficience* / *100%*	**75** / 75% / *75%*	**IE Sınıfı** IE Class *Classe IE*	**Çalışma Sınıfı** Duny Type *Classe d'utilisation*
63M4a	0,12	1365	0,40	0,80	59,1	59,1	IE2	S1
63M4b	0,18	1340	0,55	1,30	64,7	64,7	IE2	S1
71M4a	0,25	1380	0,75	1,70	68,5	68,5	IE2	S1
71M4b	0,37	1390	1,10	2,50	72,7	72,7	IE2	S1
C71M4c	0,55	1385	1,60	3,80	68,6	68,6	IE2	S1
80M4a	0,55	1365	1,45	3,80	77,1	77,1	IE2	S1
80H4b	0,75	1425	1,85	5,00	82,5	82,5	IE3	S1
90S4a	1,1	1440	2,60	7,30	84,1	84,1	IE3	S1
90H4b	1,5	1435	3,30	10,0	85,3	85,3	IE3	S1
100L4a	2,2	1445	5,00	14,5	86,7	86,8	IE3	S1
100H4b	3	1445	6,60	19,8	87,7	87,8	IE3	S1
112M4a	4	1450	8,00	26,3	88,6	88,5	IE3	S1
132S4a	5,5	1450	11,0	36,2	89,6	89,6	IE3	S1
132M4b	7,5	1470	15,4	48,7	90,4	90,5	IE3	S1
C132M4c	9,2	1460	18,3	60,1	90,4	90,5	IE3	S1
160M4a	11	1470	21,1	71,5	91,4	91,3	IE3	S1
160L4b	15	1475	28,5	97,1	92,1	92,0	IE3	S1
180M4a	18,5	1475	34,0	119,8	92,6	92,6	IE3	S1
180L4b	22	1475	39,4	142,4	93,0	92,8	IE3	S1
200L4a	30	1475	52,8	194,2	93,6	93,5	IE3	S1
225S4a	37	1475	67,0	239,6	93,9	93,9	IE3	S1
225M4b	45	1475	80,0	291,4	94,2	94,2	IE3	S1
250M4a	55	1480	96,0	354,9	94,6	94,7	IE3	S1
280S4a	75	1485	133	482,3	95,0	94,9	IE3	S1
280M4b	90	1485	158	578,8	95,2	95,2	IE3	S1

* Motor teknik değerleri GAMAK marka motorlar içindir, kullanılan diğer markalar için değişiklik gösterebilir.

1500 d/d Motorlar / 1500 r.p.m. Motors / *Moteurs 1500 r.p.m.*

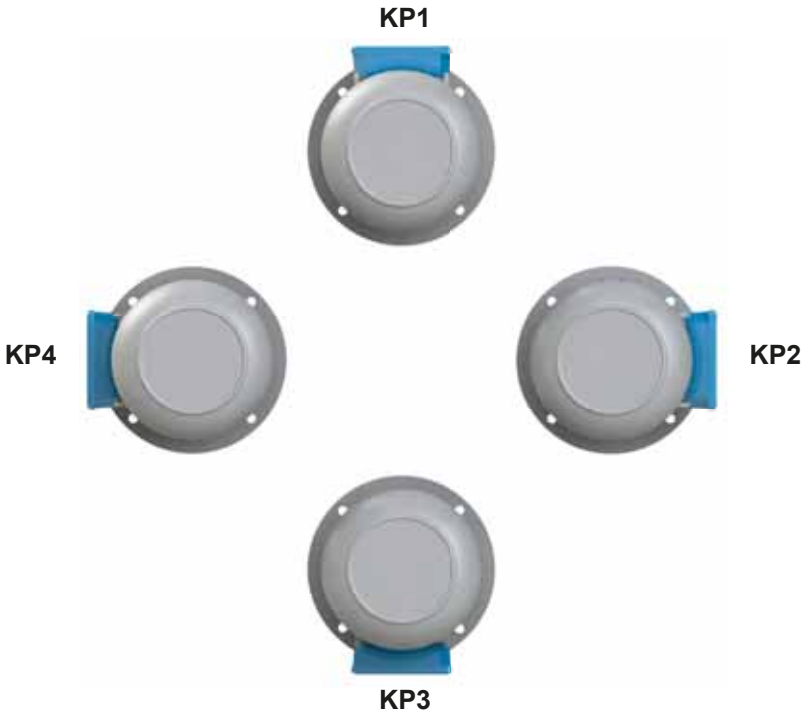
Kod Code *Code*	**Güç (kW)** Power (kW) *Puissance (kW)*	**Hız (d/d)** Speed (r.p.m.) *Vitesse (r.p.m.)*	**Anma Akımı** Rated Current *Ampére*	**Moment (Nm)** Torque (Nm) *Couple (Nm)*	**Verim** **100** | **75** Efficiency 100% | 75% *Efficience* *100%* | *75%*		**IE Sınıfı** IE Class *Classe IE*	**Çalışma Sınıfı** Duny Type *Classe d'utilisation*
315S4a	110	1490	194	705,0	95,4	95,2	IE3	S1
315M4b	132	1490	226	846,0	95,6	95,4	IE3	S1
315L4c	160	1490	275	1025,5	95,8	95,6	IE3	S1
315L4d	185	1490	321	1185,7	96,0	96,0	IE3	S1
315H4e	200	1490	350	1281,9	96,0	95,8	IE3	S1
315H4f	250	1490	435	1602,3	96,0	95,8	IE3	S1
355M4a	250	1490	430	1602,3	96,0	96,0	IE3	S1
355M4b	315	1490	540	2019,0	96,0	96,0	IE3	S1
355L4c	355	1490	610	2275,3	96,0	96,0	IE3	S1
355L4d	400	1490	690	2563,8	96,0	96,1	IE3	S1
400L4a	450	1490	760	2884,2	96,0	96,0	IE3	S1
400L4b	500	1490	845	3204,7	96,0	96,0	IE3	S1
400L4c	560	1490	957	3589,3	96,0	96,0	IE3	S1
400L4d	630	1490	1090	4037,9	96,0	96,0	IE3	S1
400L4e	710	1490	710	4550,7	96,0	96,0	IE3	S1
450L4a	800	1490	772	5127,5	96,0	96,0	IE3	S1
450H4b	900	1490	869	5768,5	96,0	96,0	IE3	S1
450H4c	1000	1490	965	6409,4	96,0	96,0	IE3	S1

* Motor teknik değerleri GAMAK marka motorlar içindir, kullanılan diğer markalar için değişiklik gösterebilir.

Standart klemens pozisyonu “KP1” dir, aksi belirtilmediği sürece standart pozisyonda yapılır.

The standard mounting position is “KP1”, if the mounting position is not defined during the order, the mounting position is always “KP1”

La position de montage standard est “KP1”, si aucune position de montage n’est précisée lors de la prise de commande, la position”KP1” sera attribuée par défaut.



Rakor Yönleri
Cable Entry / *Entrée des câbles*

Standart rakor yönü "A" dır, belirtilmediği sürece standart yönde yapılır.

The standard position of the cable entry is “A”, if the position is not specified during the order, the mounting position will be accepted as “A”

La configuration standard pour la position d’entrée des câbles est définie comme « A ». Si aucune position n’est définie lors de la commande, la position « A » sera automatiquement attribuée.

A YÖNÜ
DIRECTION A

B YÖNÜ
DIRECTION B

C YÖNÜ
DIRECTION C

D YÖNÜ
DIRECTION D

MA M 703 - 180 L 4 / G03 - FR SR E BR 353

Opsiyonlar / Options / *Options*

Giriş Yönleri / Input orientation / *Sens entrée*
(G00 - G01 - G… - G09 - G10)

Kutup sayısı / Pole number / *Nombre de pôles*
(2 - 4 - 6 - 8)

Motor Gövde Uzunluğu / Motor Frame length / *Longueur du carter moteur*
(S - M - L)

Motor Gövde Büyüklüğü / Motor Size / *Taille du moteur*
(S - M - L)

Redüktör Gövde Büyüklüğü / Gearbox Size / *Taille du carter du réducteur*
(502 - 503 - 504 - 602 - 603 - 604 - …… - 902 - 903 - 902 - 1002 - 1003 - 1004)

Giriş Opsiyonu / Input option / *Couple d'entrée*
(M - P - PM)

Redüktör Tipi / Gearbox type / *Type de réducteur*
(MA - MK)

Korozyon Sınıfı Corrosion Categories *Catégories de corrosion*	**Uygulama Alanları** Field of Applications *Domaines d'applications*	**Boya Türü** Type of Paint *Type de Peinture*	**Boya Kalınlığı (µm)** Paint Thickness (µm) *Epaisseur des Peintures (µm)*	**Toplam Boya Kalınlığı (µm)** Total Paint Thickness (µm) *Epaisseur des Peintures Total (µm)*
C2 **EN 12944**	Üstü kapalı olacak şekilde iç mekan ve dış mekan uygulamaları. Nem ve kir değerleri kontrol altında olan çevre koşulları. Indoor installation and outdoor applications with protection roof. Environment with controlled humidity and low contamination. *Installation en intérieur, applications à l'extérieur avec une protection contre les intempéries. Environnement avec une humidité contrôlée et une faible contamination.*	Çinko fosfat pigmentli epoksi Epoxy ingluding zinc phosphate pigment *Expozy au composants de zinc et pigment phosphates*	60	120
		Alifatik akrilik poliüretan Aliphatic acrylic polyurethane *Acrylique-polyuréthane aliphatique*	60	
C3 **EN 12944**	Olağan hava koşullarına maruz iç mekan ve dış mekan uygulamaları. Nemli ve kirli çevre koşulları. Indoor and outdoor applications with regular exposition to weathering. Environment with the presence of humidity and contamination. *Installations en intérieur et extérieur soumises aux aléas climatiques. Environnement avec la présence d'humidité et de contamination.*	Çinko fosfat pigmentli epoksi Epoxy ingluding zinc phosphate pigment *Expozy au composants de zinc et pigment phosphates*	110	160
		Alifatik akrilik poliüretan Aliphatic acrylic polyurethane *Acrylique-polyuréthane aliphatique*	50	
C4 **EN 12944**	Olağan hava koşullarına maruz iç mekan ve dış mekan uygulamaları. Yüksek nemli ve kimyasal kirlilikli çevre koşulları. Indoor and outdoor applications with regular exposition to weathering. Environment with the presence of high humidity and chemical contamination. *Installations en intérieur et extérieur soumises aux aléas climatiques. Environnement avec la présence d'une forte humidité et de contaminations chimiques.*	Çinko fosfat pigmentli epoksi Epoxy ingluding zinc phosphate pigment *Expozy au composants de zinc et pigment phosphates*	90	240
		Yüksek yapılı epoksi High-volume epoxy *Epoxy haut volume*	100	
		Alifatik akrilik poliüretan Aliphatic acrylic polyurethane *Acrylique-polyuréthane aliphatique*	50	
C5 **EN 12944**	Olağan hava koşullarına maruz iç mekan ve dış mekan uygulamaları. Yüksak oranda daimi neme maruz ve kirliliğe karşı kimyasal temizlik ürünü kullanılan çevre koşulları. Indoor and outdoor applications with regular exposition to weathering. Environment with the presence of continuous high humidity and chemical cleaning contamination. *Installations en intérieur et extérieur soumises aux aléas climatiques. Environnement avec la présence d'une forte humidité et de contaminations chimiques.*	Çinko fosfat pigmentli epoksi Epoxy ingluding zinc phosphate pigment *Expozy au composants de zinc et pigment phosphates*	80	500
		Yüksek yapılı MOI epoksi High-volume MOI epoxy *Epoxy MOI à haut volume*	160	
		Alifatik akrilik poliüretan Aliphatic acrylic polyurethane *Acrylique-polyuréthane aliphatique*	60	

		YERLİ MALI BELGESİ Domestic goods certificate *Certificat de produit national*
		TÜRK STANDARTLARI ENSTİTÜSÜ KRİTERE UYGUNLUK BELGESİ Certificate of conformity to Turkish standards *Certificats de conformité aux standards Turcs*
		MARKA YENİLEME BELGESİ Certificate of trademark registration *Certificat d'enregistrement de marque*
		ISO 9001:2008 YÖNETİM SİSTEMİ ISO 9000:2008 Quality management system *ISO 9000:2008 : Sytémes de management de la qualité*
		ISO10002:2004 MÜŞTERİ MEMNUNİYETİ YÖNETİM SİSTEMİ ISO 10002:2004 Customer satisfaction management system *ISO 10002:2004 Management de la qualité - Satisfaction clients*
		OHSAS 18001:2007 İŞ SAĞLIĞI VE GÜVENLİĞİ YÖNETİM SİSTEMİ OHSAS 18001:2007 : Occupational health and safety management *OHSAS 18001:2007 : Management de la santé et de la sécurité au travail*
		AT UYGUNLUK BEYANI CE Declaration of conformity *Déclaration de conformité aux standards CE*
		EC TYPE EXAMINATION CERTIFICATE ATEX Certificate *Certificat ATEX*

Redüktörlerin Kontrol ve Bakımları

- Redüktörlerin yağ seviyesi ve miktarını kontrol ediniz. Yağın cinsini İ.MAK kataloğunda yer alan yağ çizelgelerini kullanarak seçiniz.
- Havalandırma tapasının faal olup olmadığına bakınız. Hava tahliye deliği çalışmaz ise redüktör gövdesinin içinde biriken hava, basınç oluşturarak keçelerden yağ sızmasına sebep olur. Böylece yağ azalarak çevre kirliliğine yol açar ve redüktörün verimli çalışmasını engellemiş olur.
- Redüktör bağlantı cıvatalarının gevşeyip gevşemediğini kontrol ediniz, gevşeyen cıvatalar var ise sıkmak suretiyle tedbir alınız. Redüktör montajında meydana gelen eksen kaçıklığında zararlı sarsıntılara dikkat ediniz.
- Redüktörün ilk çalıştırmadan 500 saat sonra, sonraki her 6000 saatte periyodik olarak yağını değiştiriniz.
- Özel hususlar ve çalışma şartları hakkında mutlaka firmamıza danışınız.

Control and maintenance gearboxes

- Check the oil levels and quantity of your gearboxes. Choose the type and quantity of oil from the İ.MAK catalogue.
- Check if the ventilation stopper is active or not. If the air evacuation hole does not work properly, the accumulated air in the gearbox trunk might causes pressure and gas leakage from the mats.
- Before starting your geared motors, proceed to the checking of connection bolts and screw. Check if they have loosened or not during transport or installation. Take measures by firming loosened bolts. A wrong connexion might create vibration to the axis and conduct to damage of the geared motor.
- Change the oil after 500 hours of initial operation and periodically every 6000 hours of operating the geared motor.
- If you are facing any technical issue, please consult the user guide delivered with the geared motor. In case of special issue or emergency please directly contact your reseller or the closest I-MAK technical center.

Contrôle et maintenance des réducteurs

- Vérifiez le niveau et la quantité d’huile de façons régulière. Consultez le catalogue I-MAK pour obtenir les niveaux d’huiles requis en fonction du modèle et de la position du réducteur.
- Vérifiez le fonctionnement de la valve d’aération. L’absence d’évacuation de l’air peut provoquer une augmentation de la pression dans le réducteur pouvant conduire à des fuites d’huiles.
- Contrôler les vis et boulons reliant le moteur au réducteur, en cas de mauvaise fermeture le moteur peut créer des vibrations de l’arbre entrainant l’endommagement du motoréducteur.
- La première vidange doit être effectuée après 500 heures d’utilisations du motoréducteur, les vidanges suivantes doivent être effectuées au bout de 6000 heures d’utilisations.
- En cas de problèmes techniques, consultez le manuel d’utilisation fournis à la livraison du motoréducteur. En cas de problèmes particulier ou d’urgence, veillez à contacter votre revendeur ou le centre technique I-MAK le plus proche.

MA Serisi Motorlu Redüktörler Güç ve Devir Tablolari

MA Series - Performances Tables

Series MA - Table de performances

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
3 4	3,3	423	3,00	8158	200	MAM	804 / 100 L 4b	159 164	731
	3,7	377	3,30	7275	200				
	4,1	339	3,70	6534	200				
	4,6	306	4,10	5902	200				
	4,2	333	3,00	6422	180	MAM	704 / 100 L 4b	141 146	645
	4,7	297	3,40	5727	180				
	5,2	266	3,80	5143	180				
4 5,5	3,9	357	3,80	9173	240	MAM	1004 / 112 M 4a	195 200	1124
	3,8	363	3,00	9344	220	MAM	904 / 112 M 4a	177 182	924
	4,2	330	3,40	8479	220				
	4,9	287	3,80	7395	220				
	3,3	423	2,20	10877	200	MAM	804 / 112 M 4a	159 164	737
	3,7	377	2,50	9700	200				
	4,1	339	2,80	8712	200				
	4,6	306	3,10	7870	200				
	5,0	278	3,40	7144	200				
	5,4	257	3,60	6615	200				
	6,2	226	4,10	5809	200				
	4,2	333	2,20	8562	180	MAM	704 / 112 M 4a	141 146	651
	4,7	297	2,50	7636	180				
	5,2	266	2,80	6858	180				
	5,8	241	3,10	6195	180				
	6,5	214	3,60	5511	180				
	7,2	193	4,00	4978	180				
	14	103	4,00	2695	100	MAM	503 / 112 M 4a	111 116	460
	16,4	85,14	3,20	2220	80	MAM	403 / 112 M 4a	99 104	317
	18,6	75,28	3,60	1963	80				
	20,9	67,14	4,00	1751	80				
5,5 7,5	3,7	380	3,70	13448	300	MAM	1104 / 132 S 4a	213 218	1501
	3,9	357	2,80	12613	240	MAM	1004 / 132 S 4a	195 200	1141
	4,4	314	3,20	11115	240				
	4,8	292	3,40	10344	240				
	5,4	258	3,80	9116	240				
	5,7	245	4,00	8680	240				
	3,8	363	2,20	12849	220	MAM	904 / 132 S 4a	177 182	941
	4,2	330	2,40	11659	220				
	4,9	287	2,80	10168	220				
	5,5	253	3,20	8961	220				
	5,8	239	3,30	8467	220				
	6,6	211	3,70	7461	220				
	3,3	423	1,61	14956	200	MAM	804 / 132 S 4a	159 164	754
	3,7	377	1,80	13338	200				
	4,1	339	2,00	11979	200				
	4,6	306	2,20	10821	200				
	5,0	278	2,50	9823	200				
	5,4	257	2,60	9096	200				
	6,2	226	3,00	7988	200				
	6,9	203	3,40	7174	200				
	7,6	183	3,70	6480	200				
	8,8	158	4,10	5603	200				
	4,2	333	1,64	11773	180	MAM	704 / 132 S 4a	141 146	668
	4,7	297	1,85	10499	180				
	5,2	266	2,10	9429	180				
	5,8	241	2,30	8518	180				
	6,5	214	2,60	7578	180				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
5,5 / 7,5	7,2	193	2,90	6845	180	MAM	704 / 132 S 4a	141 / 146	668
	8,0	174	3,20	6160	180				
	8,9	157	3,50	5565	180				
	10	139	4,00	4942	180				
	11	127	4,30	4486	180				
	16	89,19	3,50	3198	120	MAM	603 / 132 S 4a	123 / 128	483
	18	78,14	4,00	2802	120				
	14	103	2,90	3706	100	MAM	503 / 132 S 4a	111 / 116	475
	15	92,73	3,30	3325	100				
	17	80,56	3,80	2889	100				
	20	70,72	4,30	2536	100				
	16	85,14	2,30	3053	80	MAM	403 / 132 S 4a	99 / 104	332
	19	75,28	2,60	2699	80				
	21	67,14	2,90	2407	80				
	23	60,29	3,30	2162	80				
	26	54,47	3,60	1953	80				
	28	49,44	3,90	1773	80				
7,5 / 10	3,4	409	3,36	19701	340	MAM	1204 / 132 M 4b	231 / 236	1959
	3,9	363	3,78	17495	340				
	3,7	380	2,70	18338	300	MAM	1104 / 132 M 4b	213 / 218	1509
	4,1	338	3,10	16285	300				
	4,6	302	3,30	14560	300				
	5,2	271	3,80	13091	300				
	3,9	357	2,00	17200	240	MAM	1004 / 132 M 4b	195 / 200	1149
	4,4	314	2,30	15157	240				
	4,8	292	2,50	14106	240				
	5,4	258	2,80	12431	240				
	5,7	245	2,90	11837	240				
	6,5	216	3,40	10431	240				
	3,8	363	1,64	17521	220	MAM	904 / 132 M 4b	177 / 182	949
	4,2	330	1,80	15899	220				
	4,9	287	2,00	13865	220				
	5,5	253	2,30	12219	220				
	5,8	239	2,40	11545	220				
	6,6	211	2,70	10174	220				
	7,0	198	2,90	9564	220				
	8,4	167	3,50	8043	220				
	3,3	423	1,18	20395	200	MAM	804 / 132 M 4b	159 / 164	762
	3,7	377	1,32	18188	200				
	4,1	339	1,48	16335	200				
	4,6	306	1,64	14756	200				
	5,0	278	1,80	13395	200				
	5,4	257	1,92	12403	200				
	6,2	226	2,20	10892	200				
	6,9	203	2,50	9782	200				
	7,6	183	2,70	8837	200				
	8,8	158	3,00	7640	200				
	9,7	144	3,40	6935	200				
	11	125	3,80	6026	200				
	4,2	333	1,20	16054	180	MAM	704 / 132 M 4b	141 / 146	676
	4,7	297	1,36	14317	180				
	5,2	266	1,52	12858	180				
	5,8	241	1,68	11615	180				
	6,5	214	1,92	10333	180				
	7,2	193	2,20	9334	180				
	8,0	174	2,30	8401	180				
	8,9	157	2,50	7589	180				
	10	139	2,90	6739	180				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
7,5 / 10	11	127	3,10	6117	180	MAM	704 / 132 M 4b	141 / 146	676
	12	113	3,60	5469	180				
	14	102	4,00	4917	180				
	16	89,19	2,60	4361	120	MAM	603 / 132 M 4b	123 / 128	491
	18	78,14	3,00	3821	120				
	21	67,89	3,50	3319	120				
	23	59,59	4,00	2914	120				
	14	103	2,20	5054	100	MAM	503 / 132 M 4b	111 / 116	483
	15	92,73	2,40	4534	100				
	17	80,56	2,80	3939	100				
	20	70,72	3,20	3458	100				
	22	62,58	3,60	3060	100				
	25	55,74	4,00	2726	100				
	26	53,35	4,00	2609	100				
	16	85,14	1,68	4163	80	MAM	403 / 132 M 4b	99 / 104	340
	19	75,28	1,92	3681	80				
	21	67,14	2,10	3283	80				
	23	60,29	2,40	2948	80				
	26	54,47	2,60	2663	80				
	28	49,44	2,90	2418	80				
	32	44,06	3,10	2154	80				
	36	39,29	3,50	1921	80				
	40	35,29	4,00	1725	80				
11 / 15	3,4	409	2,29	28894	340	MAM	1204 / 160 M 4a	231 / 236	2040
	3,9	363	2,58	25659	340				
	4,3	324	2,88	22941	340				
	4,7	296	3,16	20950	340				
	5,3	265	3,53	18731	340				
	5,9	236	3,96	16704	340				
	3,7	380	1,85	26896	300	MAM	1104 / 160 M 4a	213 / 218	1590
	4,1	338	2,10	23884	300				
	4,6	302	2,30	21355	300				
	5,2	271	2,60	19200	300				
	5,8	242	2,80	17117	300				
	6,5	216	3,20	15304	300				
	7,2	194	3,60	13745	300				
	8,0	174	4,00	12358	300				
	3,9	357	1,38	25226	240	MAM	1004 / 160 M 4a	195 / 200	1222
	4,4	314	1,60	22231	240				
	4,8	292	1,70	20688	240				
	5,4	258	1,90	18232	240				
	5,7	245	2,00	17361	240				
	6,5	216	2,30	15299	240				
	7,8	179	2,80	12651	240				
	8,8	159	3,20	11231	240				
	9,6	145	3,40	10301	240				
	11	129	3,80	9144	240				
	3,8	363	1,12	25697	220	MAM	904 / 160 M 4a	177 / 182	1022
	4,2	330	1,23	23319	220				
	4,9	287	1,50	20336	220				
	5,5	253	1,58	17921	220				
	5,8	239	1,64	16933	220				
	6,6	211	1,85	14923	220				
	7,0	198	2,00	14027	220				
	8,4	167	2,40	11797	220				
	9,5	147	2,70	10406	220				
	11	130	3,00	9238	220				
	12	116	3,50	8207	220				
	14	103	3,90	7286	220				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
11 / 15	4,6	306	1,12	21642	200	MAM	804 / 160 M 4a	159 / 164	835
	5,0	278	1,23	19645	200				
	5,4	257	1,31	18191	200				
	6,2	226	1,50	15975	200				
	6,9	203	1,69	14347	200				
	7,6	183	1,85	12961	200				
	8,8	158	2,10	11205	200				
	9,7	144	2,30	10172	200				
	11	125	2,60	8837	200				
	12	113	2,90	8022	200				
	13	104	3,30	7482	160	MAM	803 / 160 M 4a	153 / 158	847
	15	93,04	3,70	6672	160				
	5,8	241	1,15	17036	180	MAM	704 / 160 M 4a	141 / 146	749
	6,5	214	1,31	15155	180				
	7,2	193	1,47	13690	180				
	8,0	174	1,60	12321	180				
	8,9	157	1,75	11130	180				
	10	139	2,00	9884	180				
	11	127	2,10	8972	180				
	12	113	2,40	8022	180				
	14	102	2,70	7212	180				
	15	94,40	2,80	6668	180				
	16	84,88	3,10	5995	180				
	17	82,13	3,30	5890	140	MAM	703 / 160 M 4a	135 / 140	761
	19	73,24	3,80	5252	140				
	21	65,78	3,90	4717	140				
	16	89,19	1,77	6396	120	MAM	603 / 160 M 4a	123 / 128	568
	18	78,14	2,00	5604	120				
	21	67,89	2,30	4868	120				
	23	59,59	2,70	4273	120				
	25	56,88	3,40	4079	120				
	14	103	1,48	7412	100	MAM	503 / 160 M 4a	111 / 116	560
	15	92,73	1,66	6650	100				
	17	80,56	1,91	5778	100				
	20	70,72	2,20	5071	100				
	22	62,58	2,40	4488	100				
	25	55,74	2,70	3998	100				
	26	53,35	2,70	3826	100				
	30	46,83	3,10	3358	100				
	34	41,44	3,50	2972	100				
	38	36,91	4,00	2647	100				
	19	75,28	1,31	5399	80	MAM	403 / 160 M 4a	99 / 104	413
	21	67,14	1,45	4815	80				
	23	60,29	1,64	4324	80				
	26	54,47	1,78	3906	80				
	28	49,44	1,96	3546	80				
	32	44,06	2,20	3160	80				
	36	39,29	2,40	2818	80				
	40	35,29	2,70	2531	80				
	44	31,88	3,00	2286	80				
	48	28,93	3,30	2075	80				
	55	25,33	3,40	1817	80				
	62	22,75	3,80	1632	80				
	67	20,97	3,70	1527	60	MAM	402 / 160 M 4a	93 / 98	412
	75	18,54	4,20	1350	60				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
15 20	3,4	409	1,68	39401	340	MAM	1204 / 160 L 4b	231 236	2067
	3,9	363	1,89	34990	340				
	4,3	324	2,12	31283	340				
	4,7	296	2,32	28568	340				
	5,3	265	2,59	25542	340				
	5,9	236	2,91	22778	340				
	7,1	197	3,48	19024	340				
	7,9	177	3,87	17104	340				
	3,7	380	1,35	36676	300	MAM	1104 / 160 L 4b	213 218	1617
	4,1	338	1,54	32569	300				
	4,6	302	1,68	29120	300				
	5,2	271	1,90	26181	300				
	5,8	242	2,10	23342	300				
	6,5	216	2,30	20869	300				
	7,2	194	2,60	18743	300				
	8,0	174	2,90	16852	300				
	8,9	158	3,20	15221	300				
	9,8	143	3,60	13801	300				
	11	129	4,00	12467	300				
	3,9	357	1,01	34399	240	MAM	1004 / 160 L 4b	195 200	1249
	4,4	314	1,17	30315	240				
	4,8	292	1,25	28211	240				
	5,4	258	1,39	24861	240				
	5,7	245	1,47	23674	240				
	6,5	216	1,69	20863	240				
	7,8	179	2,00	17252	240				
	8,8	159	2,30	15315	240				
	9,6	145	2,50	14047	240				
	11	129	2,80	12470	240				
	13	108	3,30	10464	240				
	4,2	330	0,90	31798	220	MAM	904 / 160 L 4b	177 182	1049
	4,9	287	1,10	27731	220				
	5,5	253	1,16	24438	220				
	5,8	239	1,20	23091	220				
	6,6	211	1,36	20349	220				
	7,0	198	1,46	19128	220				
	8,4	167	1,76	16087	220				
	9,5	147	2,00	14190	220				
	11	130	2,20	12598	220				
	12	116	2,50	11191	220				
	14	103	2,90	9935	220				
	15	92,07	3,20	8869	220				
	16	85,88	3,30	8273	220				
	16	89,63	3,30	8765	180	MAM	903 / 160 L 4b	171 176	1071
	17	81,33	3,70	7954	180				
	6,2	226	1,10	21785	200	MAM	804 / 160 L 4b	159 164	862
	6,9	203	1,24	19565	200				
	7,6	183	1,35	17673	200				
	8,8	158	1,50	15280	200				
	9,7	144	1,69	13870	200				
	11	125	1,91	12051	200				
	12	113	2,10	10939	200				
	13	104	2,40	10202	1600	MAM	803 / 160 L 4b	153 158	874
	15	93,04	2,70	9099	1600				
	17	83,56	3,00	8171	1600				
	19	75,48	3,30	7382	1600				
	20	68,52	3,70	6701	1600				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
15 / 20	10	139	1,47	13478	180	MAM	704 / 160 L 4b	141 / 146	776
	11	127	1,58	12235	180				
	12	113	1,80	10939	180				
	14	102	1,98	9835	180				
	15	94,40	2,10	9093	180				
	16	84,88	2,30	8176	180				
	17	82,13	2,40	8031	140	MAM	703 / 160 L 4b	135 / 140	788
	19	73,24	2,80	7162	140				
	21	65,78	2,80	6432	140				
	24	59,42	3,20	5811	140				
	26	52,86	4,00	5169	140				
	18	78,14	1,50	7641	120	MAM	603 / 160 L 4b	123 / 128	595
	21	67,89	1,75	6639	120				
	23	59,59	2,00	5827	120				
	25	56,88	2,50	5562	120				
	32	44,14	3,20	4317	120				
	36	38,40	3,50	3756	120				
	42	33,71	4,00	3297	120				
	46	30,49	4,40	2982	120				
	15	92,73	1,22	9068	100	MAM	503 / 160 L 4b	111 / 116	587
	17	80,56	1,40	7878	100				
	20	70,72	1,60	6915	100				
	22	62,58	1,81	6120	100				
	25	55,74	2,00	5451	100				
	26	53,35	2,00	5217	100				
	30	46,83	2,30	4579	100				
	34	41,44	2,60	4052	100				
	38	36,91	3,00	3610	100				
	43	32,46	3,40	3175	100				
	49	28,63	3,80	2800	100				
	55	25,59	4,30	2503	100				
	26	54,47	1,31	5326	80	MAM	403 / 160 L 4b	99 / 104	440
	28	49,44	1,44	4835	80				
	32	44,06	1,58	4309	80				
	36	39,29	1,76	3843	80				
	40	35,29	1,98	3451	80				
	44	31,88	2,20	3117	80				
	48	28,93	2,40	2830	80				
	55	25,33	2,50	2478	80				
	62	22,75	2,80	2225	80				
	67	20,97	2,70	2083	60	MAM	402 / 160 L 4b	93 / 98	439
	75	18,54	3,10	1841	60				
	85	16,54	3,40	1642	60				
	94	14,85	3,80	1475	60				
	104	13,42	4,30	1332	60				
18,5 / 25	3,4	409	1,36	48595	340	MAM	1204 / 180 M 4a	231 / 236	2110
	3,9	363	1,53	43154	340				
	4,3	324	1,71	38583	340				
	4,7	296	1,88	35234	340				
	5,3	265	2,10	31502	340				
	5,9	236	2,36	28093	340				
	7,1	197	2,82	23463	340				
	7,9	177	3,14	21095	340				
	8,8	159	3,49	18945	340				
	9,7	144	3,87	17112	340				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
18,5 25	3,7	380	1,10	45234	300	MAM	1104 / 180 M 4a	213 218	1660
	4,1	338	1,25	40169	300				
	4,6	302	1,36	35915	300				
	5,2	271	1,55	32290	300				
	5,8	242	1,70	28788	300				
	6,5	216	1,90	25739	300				
	7,2	194	2,10	23116	300				
	8,0	174	2,40	20784	300				
	8,9	158	2,60	18773	300				
	9,8	143	2,90	17021	300				
	11	129	3,20	15375	300				
	4,4	314	0,95	37388	240	MAM	1004 / 180 M 4a	195 200	1295
	4,8	292	1,01	34794	240				
	5,4	258	1,13	30662	240				
	5,7	245	1,19	29197	240				
	6,5	216	1,37	25731	240				
	7,8	179	1,66	21277	240				
	8,8	159	1,87	18888	240				
	9,6	145	1,99	17324	240				
	11	129	2,20	15379	240				
	13	108	2,70	12905	240				
	12	115	2,80	13915	200	MAM	1003 / 180 M 4a	189 194	1318
	14	101	3,20	12263	200				
	15	94,62	3,40	11411	200				
	17	83,39	3,90	10057	200				
	5,8	239	0,97	28478	220	MAM	904 / 180 M 4a	177 182	1095
	6,6	211	1,10	25097	220				
	7,0	198	1,19	23591	220				
	8,4	167	1,43	19840	220				
	9,5	147	1,62	17501	220				
	11	130	1,82	15537	220				
	12	116	2,00	13803	220				
	14	103	2,30	12253	220				
	15	92,07	2,60	10938	220				
	16	85,88	2,70	10203	220				
	16	89,63	2,70	10810	180	MAM	903 / 180 M 4a	171 176	1118
	17	81,33	3,00	9809	180				
	20	70,93	3,40	8555	180				
	22	62,51	3,90	7539	180				
	24	59,06	3,90	7123	180				
	7,6	183	1,10	21797	200	MAM	804 / 180 M 4a	159 164	908
	8,8	158	1,22	18845	200				
	9,7	144	1,36	17107	200				
	11	125	1,55	14863	200				
	12	113	1,72	13492	200				
	13	104	1,95	12583	1600	MAM	803 / 180 M 4a	153 158	917
	15	93,04	2,20	11222	1600				
	17	83,56	2,40	10078	1600				
	19	75,48	2,70	9104	1600				
	20	68,52	3,00	8264	1600				
	22	63,45	3,20	7653	1600				
	25	55,72	3,60	6720	1600				
	12	113	1,45	13491	180	MAM	704 / 180 M 4a	141 146	822
	14	102	1,60	12130	180				
	15	94,40	1,70	11215	180				
	16	84,88	1,86	10083	180				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
18,5 / 25	17	82,13	1,95	9905	140	MAM	703 / 180 M 4a	135 / 140	831
	19	73,24	2,20	8833	140				
	21	65,78	2,30	7933	140				
	24	59,42	2,60	7166	140				
	26	52,86	3,20	6375	140				
	29	47,75	3,60	5759	140				
	33	42,97	3,80	5183	140				
	36	38,82	4,00	4682	140				
	18	78,14	1,21	9424	120	MAM	603 / 180 M 4a	123 / 128	638
	21	67,89	1,41	8188	120				
	23	59,59	1,62	7187	120				
	25	56,88	2,00	6860	120				
	32	44,14	2,60	5324	120				
	36	38,40	2,80	4632	120				
	42	33,71	3,20	4066	120				
	46	30,49	3,50	3678	120				
	52	26,76	4,10	3228	120				
	55	25,38	4,40	3061	120				
	20	70,72	1,29	8529	100	MAM	503 / 180 M 4a	111 / 116	630
	22	62,58	1,46	7548	100				
	25	55,74	1,62	6723	100				
	26	53,35	1,62	6434	100				
	30	46,83	1,86	5648	100				
	34	41,44	2,10	4998	100				
	38	36,91	2,40	4452	100				
	43	32,46	2,70	3915	100				
	49	28,63	3,00	3454	100				
	55	25,59	3,40	3086	100				
	62	22,57	3,90	2723	100				
	32	44,06	1,28	5314	80	MAM	403 / 180 M 4a	99 / 104	485
	36	39,29	1,43	4739	80				
	40	35,29	1,60	4256	80				
	44	31,88	1,75	3845	80				
	48	28,93	1,93	3490	80				
	55	25,33	2,00	3056	80				
	62	22,75	2,20	2744	80				
	67	20,97	2,20	2569	60	MAM	402 / 180 M 4a	93 / 98	484
	75	18,54	2,50	2271	60				
	85	16,54	2,80	2025	60				
	94	14,85	3,10	1819	60				
	104	13,42	3,50	1643	60				
	110	12,69	3,60	1554	60				
	123	11,40	3,90	1396	60				
22 / 30	4,3	324	1,44	45882	340	MAM	1204 / 180 L 4b	231 / 236	2131
	4,7	296	1,58	41900	340				
	5,3	265	1,77	37461	340				
	5,9	236	1,98	33408	340				
	7,1	197	2,37	27902	340				
	7,9	177	2,64	25086	340				
	8,8	159	2,94	22529	340				
	9,7	144	3,25	20350	340				
	11	130	3,60	18383	340				
	12	117	3,97	16668	340				
	4,6	302	1,15	42709	300	MAM	1104 / 180 L 4b	213 / 218	1681
	5,2	271	1,30	38399	300				
	5,8	242	1,43	34235	300				
	6,5	216	1,60	30608	300				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
22 30	7,2	194	1,80	27489	300	MAM	1104 / 180 L 4b	213 218	1681
	8,0	174	2,00	24716	300				
	8,9	158	2,20	22325	300				
	9,8	143	2,40	20241	300				
	11	129	2,70	18284	300				
	15	96,12	3,40	13579	300				
	5,4	258	0,95	36463	240	MAM	1004 / 180 L 4b	195 200	1316
	5,7	245	1,00	34721	240				
	6,5	216	1,15	30598	240				
	7,8	179	1,40	25302	240				
	8,8	159	1,58	22462	240				
	9,6	145	1,68	20602	240				
	11	129	1,88	18289	240				
	13	108	2,20	15347	240				
	12	115	2,30	16548	200	MAM	1003 / 180 L 4b	189 194	1339
	14	101	2,70	14583	200				
	15	94,62	2,90	13570	200				
	17	83,39	3,30	11960	200				
	18	79,4	3,40	11387	200				
	20	69,97	3,90	10035	200				
	7,0	198	1,00	28055	220	MAM	904 / 180 L 4b	177 182	1116
	8,4	167	1,20	23594	220				
	9,5	147	1,36	20812	220				
	11	130	1,53	18477	220				
	12	116	1,74	16414	220				
	14	103	1,94	14571	220				
	15	92,07	2,20	13007	220				
	16	85,88	2,30	12133	220				
	16	89,63	2,20	12855	180	MAM	903 / 180 L 4b	171 176	1139
	17	81,33	2,50	11665	180				
	20	70,93	2,80	10173	180				
	22	62,51	3,30	8965	180				
	24	59,06	3,30	8471	180				
	27	52,05	3,80	7465	180				
	9,7	144	1,15	20343	200	MAM	804 / 180 L 4b	159 164	929
	11	125	1,30	17675	200				
	12	113	1,45	16044	200				
	13	104	1,64	14964	1600	MAM	803 / 180 L 4b	153 158	938
	15	93,04	1,84	13345	1600				
	17	83,56	2,00	11985	1600				
	19	75,48	2,30	10826	1600				
	20	68,52	2,50	9828	1600				
	22	63,45	2,70	9100	1600				
	25	55,72	3,10	7992	1600				
	29	48,17	3,40	6909	1600				
	32	43,26	3,80	6205	1600				
	17	82,13	1,64	11779	140	MAM	703 / 180 L 4b	135 140	852
	19	73,24	1,88	10505	140				
	21	65,78	1,95	9434	140				
	24	59,42	2,20	8522	140				
	26	52,86	2,70	7582	140				
	29	47,75	3,00	6849	140				
	33	42,97	3,20	6164	140				
	36	38,82	3,40	5568	140				
	41	34,47	3,70	4944	140				
	45	31,29	4,00	4488	140				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
22 / 30	21	67,89	1,19	9737	120	MAM	603 / 180 L 4b	123 128	659
	23	59,59	1,36	8546	120				
	25	56,88	1,70	8158	120				
	32	44,14	2,20	6331	120				
	36	38,40	2,40	5508	120				
	42	33,71	2,70	4835	120				
	46	30,49	3,00	4374	120				
	52	26,76	3,40	3839	120				
	55	25,38	3,70	3640	120				
	62	22,61	3,90	3243	120				
	22	62,58	1,23	8976	100	MAM	503 / 180 L 4b	111 116	651
	25	55,74	1,36	7995	100				
	26	53,35	1,36	7652	100				
	30	46,83	1,56	6716	100				
	34	41,44	1,77	5944	100				
	38	36,91	2,00	5294	100				
	43	32,46	2,30	4656	100				
	49	28,63	2,50	4107	100				
	55	25,59	2,90	3670	100				
	62	22,57	3,30	3238	100				
	61	22,84	3,30	3327	70	MAM	502 / 180 L 4b	105 110	665
	70	19,92	3,80	2901	70				
	80	17,55	4,30	2557	70				
	36	39,29	1,20	5636	80	MAM	403 / 180 L 4b	99 104	506
	40	35,29	1,35	5061	80				
	44	31,88	1,48	4572	80				
	48	28,93	1,63	4150	80				
	55	25,33	1,70	3634	80				
	62	22,75	1,88	3263	80				
	67	20,97	1,85	3054	60	MAM	402 / 180 L 4b	93 98	505
	75	18,54	2,10	2701	60				
	85	16,54	2,30	2409	60				
	94	14,85	2,60	2163	60				
	104	13,42	2,90	1954	60				
	110	12,69	3,00	1848	60				
	123	11,40	3,30	1660	60				
	136	10,29	3,70	1500	60				
	150	9,349	4,10	1361	60				
30 / 40	5,3	265	1,29	51084	340	MAM	1204 / 200 L 4a	231 236	2192
	5,9	236	1,45	45557	340				
	7,1	197	1,74	38048	340				
	7,9	177	1,94	34209	340				
	8,8	159	2,16	30722	340				
	9,7	144	2,39	27749	340				
	11	130	2,64	25068	340				
	12	117	2,91	22729	340				
	14	99,89	3,44	19536	280	MAM	1203 / 200 L 4a	225 230	2222
	16	88,7	3,87	17347	280				
	5,8	242	1,05	46684	300	MAM	1104 / 200 L 4a	213 218	1742
	6,5	216	1,17	41739	300				
	7,2	194	1,32	37485	300				
	8,0	174	1,48	33704	300				
	8,9	158	1,62	30443	300				
	9,8	143	1,80	27601	300				
	11	129	2,00	24933	300				
	15	96,12	2,50	18516	300				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
30 40	15	92,98	2,70	18184	240	MAM	1103 / 200 L 4a	207 212	1772
	17	82,57	3,10	16148	240				
	19	73,82	3,50	14437	240				
	21	66,37	3,90	12980	240				
	7,8	179	1,03	34503	240	MAM	1004 / 200 L 4a	195 200	1377
	8,8	159	1,16	30629	240				
	9,6	145	1,23	28094	240				
	11	129	1,37	24939	240				
	13	108	1,65	20928	240				
	12	115	1,73	22565	200	MAM	1003 / 200 L 4a	189 194	1406
	14	101	1,97	19886	200				
	15	94,62	2,10	18505	200				
	17	83,39	2,40	16309	200				
	18	79,4	2,50	15528	200				
	20	69,97	2,80	13684	200				
	24	57,86	3,40	11316	200				
	27	51,36	3,90	10045	200				
	9,5	147	1,00	28380	220	MAM	904 / 200 L 4a	177 182	1177
	11	130	1,12	25195	220				
	12	116	1,28	22383	220				
	14	103	1,42	19870	220				
	15	92,07	1,60	17737	220				
	16	85,88	1,67	16545	220				
	16	89,63	1,66	17530	180	MAM	903 / 200 L 4a	171 176	1206
	17	81,33	1,83	15907	180				
	20	70,93	2,10	13872	180				
	22	62,51	2,40	12225	180				
	24	59,06	2,40	11551	180				
	27	52,05	2,80	10180	180				
	28	49,17	3,00	9617	180				
	34	41,14	3,60	8047	180				
	13	104	1,20	20405	1600	MAM	803 / 200 L 4a	153 158	999
	15	93,04	1,35	18197	1600				
	17	83,56	1,50	16343	1600				
	19	75,48	1,65	14763	1600				
	20	68,52	1,85	13402	1600				
	22	63,45	2,00	12410	1600				
	25	55,72	2,30	10898	1600				
	29	48,17	2,50	9422	1600				
	32	43,26	2,80	8462	1600				
	36	39,08	3,10	7644	1600				
	41	34,12	3,50	6674	1600				
	17	82,13	1,20	16062	140	MAM	703 / 200 L 4a	135 140	913
	19	73,24	1,38	14324	140				
	21	65,78	1,43	12865	140				
	24	59,42	1,61	11621	140				
	26	52,86	2,00	10338	140				
	29	47,75	2,20	9339	140				
	33	42,97	2,40	8405	140				
	36	38,82	2,50	7592	140				
	41	34,47	2,70	6742	140				
	45	31,29	3,00	6120	140				
	50	27,98	3,20	5472	140				
	56	25,15	3,40	4920	140				
	60	23,26	3,60	4549	140				
	67	20,91	3,70	4090	140				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
30 / 40	23	59,59	1,00	11654	120	MAM	603 / 200 L 4a	123 128	720
	25	56,88	1,25	11125	120				
	32	44,14	1,61	8634	120				
	36	38,40	1,76	7512	120				
	42	33,71	2,00	6593	120				
	46	30,49	2,20	5964	120				
	52	26,76	2,50	5235	120				
	55	25,38	2,70	4964	120				
	62	22,61	2,90	4422	120				
	70	20,01	3,30	3914	120				
	79	17,82	3,70	3486	120				
	30	46,83	1,15	9159	100	MAM	503 / 200 L 4a	111 116	712
	34	41,44	1,30	8105	100				
	38	36,91	1,50	7220	100				
	43	32,46	1,70	6349	100				
	49	28,63	1,90	5601	100				
	55	25,59	2,10	5005	100				
	62	22,57	2,40	4415	100				
	61	22,84	2,40	4536	70	MAM	502 / 200 L 4a	105 110	726
	70	19,92	2,80	3956	70				
	80	17,55	3,20	3486	70				
	93	15,12	3,60	3004	70				
	105	13,33	4,00	2647	70				
	48	28,93	1,20	5660	80	MAM	403 / 200 L 4a	99 104	567
	67	20,97	1,35	4165	60	MAM	402 / 200 L 4a	93 98	566
	75	18,54	1,54	3683	60				
	85	16,54	1,72	3284	60				
	94	14,85	1,91	2950	60				
	104	13,42	2,10	2665	60				
	110	12,69	2,20	2521	60				
	123	11,40	2,40	2264	60				
	136	10,29	2,70	2045	60				
	150	9,349	3,00	1856	60				
	172	8,139	3,20	1616	60				
	190	7,352	3,50	1460	60				
	210	6,674	3,90	1325	60				
37 / 50	7,1	197	1,41	46926	340	MAM	1204 / 225 S 4a	231 236	2279
	7,9	177	1,57	42191	340				
	8,8	159	1,75	37890	340				
	9,7	144	1,93	34224	340				
	11	130	2,14	30917	340				
	12	117	2,36	28033	340				
	14	99,89	2,79	24094	280	MAM	1203 / 225 S 4a	225 230	2308
	16	88,7	3,14	21395	280				
	17	81,56	3,41	19673	280				
	19	72,42	3,84	17468	280				
	7,2	194	1,07	46232	300	MAM	1104 / 225 S 4a	213 218	1829
	8,0	174	1,19	41568	300				
	8,9	158	1,31	37546	300				
	9,8	143	1,46	34041	300				
	11	129	1,62	30751	300				
	15	96,12	2,00	22837	300				
	15	92,98	2,20	22427	240	MAM	1103 / 225 S 4a	207 212	1858
	17	82,57	2,50	19916	240				
	19	73,82	2,80	17806	240				
	21	66,37	3,20	16009	240				
	24	59,32	3,50	14308	240				
	26	53,34	3,90	12866	240				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
37 / 50	9,6	145	0,99	34649	240	MAM	1004 / 225 S 4a	195 200	1468
	11	129	1,11	30758	240				
	13	108	1,34	25811	240				
	12	115	1,40	27830	200	MAM	1003 / 225 S 4a	189 194	1492
	14	101	1,60	24526	200				
	15	94,62	1,70	22823	200				
	17	83,39	1,95	20114	200				
	18	79,4	2,10	19152	200				
	20	69,97	2,30	16877	200				
	24	57,86	2,80	13956	200				
	27	51,36	3,20	12388	200				
	30	47,11	3,30	11363	200				
	33	41,82	3,70	10087	200				
	12	116	1,03	27605	220	MAM	904 / 225 S 4a	177 182	1268
	14	103	1,15	24506	220				
	15	92,07	1,29	21876	220				
	16	85,88	1,35	20406	220				
	16	89,63	1,35	21620	180	MAM	903 / 225 S 4a	171 176	1292
	17	81,33	1,48	19619	180				
	20	70,93	1,70	17109	180				
	22	62,51	1,95	15078	180				
	24	59,06	1,95	14247	180				
	27	52,05	2,30	12555	180				
	28	49,17	2,40	11861	180				
	34	41,14	2,90	9925	180				
	39	36,29	3,30	8755	180				
	43	32,22	3,70	7772	180				
	15	93,04	1,09	22443	1600	MAM	803 / 225 S 4a	153 158	1086
	17	83,56	1,22	20156	1600				
	19	75,48	1,35	18208	1600				
	20	68,52	1,50	16529	1600				
	22	63,45	1,62	15305	1600				
	25	55,72	1,82	13441	1600				
	29	48,17	2,00	11620	1600				
	32	43,26	2,30	10436	1600				
	36	39,08	2,50	9427	1600				
	41	34,12	2,90	8231	1600				
	45	30,82	3,20	7435	1600				
	50	27,98	3,40	6749	1600				
	55	25,47	3,80	6239	120	MAM	802 / 225 S 4a	147 152	1099
	19	73,24	1,11	17667	140	MAM	703 / 225 S 4a	135 140	1000
	21	65,78	1,16	15866	140				
	24	59,42	1,31	14333	140				
	26	52,86	1,62	12751	140				
	29	47,75	1,78	11518	140				
	33	42,97	1,90	10366	140				
	36	38,82	2,00	9364	140				
	41	34,47	2,20	8316	140				
	45	31,29	2,40	7549	140				
	50	27,98	2,60	6749	140				
	56	25,15	2,80	6068	140				
	60	23,26	2,90	5610	140				
	67	20,91	3,00	5044	140				
	98	14,27	4,30	3444	140				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
37 / 50	32	44,14	1,30	10648	120	MAM	603 / 225 S 4a	123 128	811
	42	33,71	1,62	8132	120				
	52	26,76	2,00	6456	120				
	55	25,38	2,20	6122	120				
	62	22,61	2,30	5454	120				
	70	20,01	2,60	4827	120				
	79	17,82	3,00	4300	120				
	87	16,11	3,60	3946	80	MAM	602 / 225 S 4a	117 122	821
	98	14,31	4,00	3505	80				
	38	36,91	1,21	8904	100	MAM	503 / 225 S 4a	111 116	803
	43	32,46	1,37	7831	100				
	49	28,63	1,54	6907	100				
	55	25,59	1,74	6173	100				
	62	22,57	1,98	5445	100				
	61	22,84	2,00	5595	70	MAM	502 / 225 S 4a	105 110	813
	70	19,92	2,30	4879	70				
	80	17,55	2,60	4300	70				
	93	15,12	2,90	3705	70				
	105	13,33	3,20	3265	70				
	115	12,18	3,70	2984	70				
	133	10,48	4,10	2568	70				
	75	18,54	1,25	4542	60	MAM	402 / 225 S 4a	93 98	653
	85	16,54	1,40	4051	60				
	94	14,85	1,55	3638	60				
	104	13,42	1,75	3286	60				
	110	12,69	1,80	3109	60				
	123	11,40	1,96	2792	60				
	136	10,29	2,20	2522	60				
	150	9,349	2,40	2289	60				
	172	8,139	2,60	1993	60				
	190	7,352	2,80	1800	60				
	210	6,674	3,10	1634	60				
	232	6,028	3,40	1476	60				
45 / 60	7,9	177	1,29	51313	340	MAM	1204 / 225 M 4b	231 236	2309
	8,8	159	1,44	46083	340				
	9,7	144	1,59	41624	340				
	11	130	1,76	37602	340				
	12	117	1,94	34094	340				
	14	99,89	2,29	29303	280	MAM	1203 / 225 M 4b	225 230	2338
	16	88,7	2,58	26021	280				
	17	81,56	2,81	23926	280				
	19	72,42	3,16	21245	280				
	22	64,75	3,54	18995	280				
	24	58,22	3,93	17079	280				
	8,9	158	1,08	45664	300	MAM	1104 / 225 M 4b	213 218	1859
	9,8	143	1,20	41402	300				
	11	129	1,33	37400	300				
	15	96,12	1,68	27775	300				
	15	92,98	1,80	27276	240	MAM	1103 / 225 M 4b	207 212	1888
	17	82,57	2,10	24222	240				
	19	73,82	2,30	21656	240				
	21	66,37	2,60	19470	240				
	24	59,32	2,80	17402	240				
	26	53,34	3,20	15648	240				
	29	48,23	3,50	14149	240				
	32	43,36	3,90	12720	240				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
45 60	12	115	1,15	33848	200	MAM	1003 / 225 M 4b	189 194	1522
	14	101	1,32	29829	200				
	15	94,62	1,40	27757	200				
	17	83,39	1,60	24463	200				
	18	79,4	1,69	23293	200				
	20	69,97	1,89	20526	200				
	24	57,86	2,30	16974	200				
	27	51,36	2,60	15067	200				
	30	47,11	2,70	13820	200				
	33	41,82	3,10	12268	200				
	35	39,53	3,30	11596	200				
	40	35,09	3,70	10294	200				
	16	85,88	1,11	24818	220	MAM	904 / 225 M 4b	177 182	1298
	16	89,63	1,10	26295	180	MAM	903 / 225 M 4b	171 176	1322
	17	81,33	1,22	23861	180				
	20	70,93	1,40	20809	180				
	22	62,51	1,60	18338	180				
	24	59,06	1,60	17327	180				
	27	52,05	1,87	15270	180				
	28	49,17	2,00	14426	180				
	34	41,14	2,40	12071	180				
	39	36,29	2,70	10648	180				
	43	32,22	3,10	9452	180				
	49	28,62	3,40	8398	180				
	55	25,41	3,80	7455	180				
	19	75,48	1,10	22145	1600	MAM	803 / 225 M 4b	153 158	1116
	20	68,52	1,23	20102	1600				
	22	63,45	1,33	18614	1600				
	25	55,72	1,50	16347	1600				
	29	48,17	1,64	14133	1600				
	32	43,26	1,84	12692	1600				
	36	39,08	2,10	11466	1600				
	41	34,12	2,30	10011	1600				
	45	30,82	2,60	9043	1600				
	50	27,98	2,80	8209	1600				
	55	25,47	3,10	7588	120	MAM	802 / 225 M 4b	147 152	1129
	67	20,80	3,70	6195	120				
	24	59,42	1,08	17432	140	MAM	703 / 225 M 4b	135 140	1030
	26	52,86	1,33	15508	140				
	29	47,75	1,47	14009	140				
	33	42,97	1,56	12607	140				
	36	38,82	1,67	11389	140				
	41	34,47	1,80	10113	140				
	45	31,29	1,96	9181	140				
	50	27,98	2,20	8208	140				
	56	25,15	2,30	7380	140				
	60	23,26	2,40	6823	140				
	67	20,91	2,50	6135	140				
	98	14,27	3,50	4189	140				
	70	20,05	3,50	5973	100	MAM	702 / 225 M 4b	129 134	1043
	79	17,80	4,00	5304	100				
	32	44,14	1,07	12951	120	MAM	603 / 225 M 4b	123 128	841
	42	33,71	1,33	9890	120				
	52	26,76	1,70	7852	120				
	55	25,38	1,83	7446	120				
	62	22,61	1,93	6634	120				
	70	20,01	2,20	5870	120				
	79	17,82	2,50	5229	120				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
45 / 60	87	16,11	2,90	4800	80	MAM	602 / 225 M 4b	117 122	851
	98	14,31	3,30	4262	80				
	109	12,79	3,70	3811	80				
	120	11,63	3,90	3465	80				
	129	10,89	4,10	3244	80				
	49	28,63	1,26	8401	100	MAM	503 / 225 M 4b	111 116	833
	55	25,59	1,43	7508	100				
	62	22,57	1,63	6623	100				
	61	22,84	1,65	6805	70	MAM	502 / 225 M 4b	105 110	843
	70	19,92	1,88	5934	70				
	80	17,55	2,10	5229	70				
	93	15,12	2,40	4506	70				
	105	13,33	2,60	3971	70				
	115	12,18	3,00	3629	70				
	133	10,48	3,40	3124	70				
	151	9,252	3,90	2755	70				
	94	14,85	1,27	4424	60	MAM	402 / 225 M 4b	93 98	683
	104	13,42	1,44	3997	60				
	110	12,69	1,48	3781	60				
	123	11,40	1,61	3395	60				
	136	10,29	1,81	3067	60				
	150	9,349	2,00	2784	60				
	172	8,139	2,10	2424	60				
	190	7,352	2,30	2190	60				
	210	6,674	2,60	1988	60				
	232	6,028	2,80	1795	60				
55 / 75	9,7	144	1,30	50874	340	MAM	1204 / 250 M 4a	231 236	2393
	11	130	1,44	45958	340				
	12	117	1,59	41670	340				
	14	99,89	2,29	29303	280	MAM	1203 / 225 M 4b	225 230	2338
	16	88,7	2,58	26021	280				
	17	81,56	2,81	23926	280				
	19	72,42	3,16	21245	280				
	22	64,75	3,54	18995	280				
	24	58,22	3,93	17079	280				
	26	52,99	3,47	18999	280				
	29	47,65	3,88	17085	280				
	11	129	1,09	45711	300	MAM	1104 / 250 M 4a	213 218	1943
	15	96,12	1,37	33947	300				
	15	92,98	1,47	33338	240	MAM	1103 / 250 M 4a	207 212	1976
	17	82,57	1,70	29605	240				
	19	73,82	1,91	26468	240				
	21	66,37	2,10	23797	240				
	24	59,32	2,30	21269	240				
	26	53,34	2,60	19125	240				
	29	48,23	2,90	17293	240				
	32	43,36	3,20	15547	240				
	36	39,16	3,60	14041	240				
	39	35,51	3,90	12732	240				
	14	101	1,07	36457	200	MAM	1003 / 250 M 4a	189 194	1601
	15	94,62	1,14	33926	200				
	17	83,39	1,31	29899	200				
	18	79,4	1,38	28469	200				
	20	69,97	1,55	25088	200				
	24	57,86	1,88	20746	200				
	27	51,36	2,10	18415	200				
	30	47,11	2,20	16891	200				
	33	41,82	2,50	14994	200				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
55 / 75	35	39,53	2,70	14173	200	MAM	1003 / 250 M 4a	189 / 194	1601
	40	35,09	3,00	12581	200				
	48	29,22	3,50	10477	200				
	54	26,07	3,90	9347	200				
	20	70,93	1,15	25433	180	MAM	903 / 250 M 4a	171 / 176	1401
	22	62,51	1,31	22413	180				
	24	59,06	1,31	21177	180				
	27	52,05	1,53	18663	180				
	28	49,17	1,64	17631	180				
	34	41,14	1,96	14754	180				
	39	36,29	2,20	13014	180				
	43	32,22	2,50	11553	180				
	49	28,62	2,80	10264	180				
	55	25,41	3,20	9111	180				
	62	22,68	3,50	8134	180				
	66	21,16	3,70	7587	180				
	22	63,45	1,09	22751	1600	MAM	803 / 250 M 4a	153 / 158	1200
	25	55,72	1,23	19979	1600				
	29	48,17	1,35	17273	1600				
	32	43,26	1,51	15513	1600				
	36	39,08	1,68	14013	1600				
	41	34,12	1,92	12235	1600				
	45	30,82	2,10	11052	1600				
	50	27,98	2,30	10033	1600				
	55	25,47	2,50	9274	120	MAM	802 / 250 M 4a	147 / 152	1213
	67	20,80	3,00	7572	120				
	72	19,34	3,30	7042	120				
	81	17,37	3,50	6324	120				
	89	15,79	4,00	5749	120				
	36	38,82	1,36	13920	140	MAM	703 / 250 M 4a	135 / 140	1114
	41	34,47	1,47	12361	140				
	45	31,29	1,61	11221	140				
	50	27,98	1,77	10032	140				
	56	25,15	1,85	9020	140				
	60	23,26	1,96	8340	140				
	67	20,91	2,00	7498	140				
	98	14,27	2,90	5120	140				
	70	20,05	2,90	7300	100	MAM	702 / 250 M 4a	129 / 134	1127
	79	17,80	3,30	6483	100				
	87	16,11	3,80	5866	100				
	79	17,82	2,00	6391	120	MAM	603 / 250 M 4a	123 / 128	925
	87	16,11	2,40	5866	80	MAM	602 / 250 M 4a	117 / 122	929
	98	14,31	2,70	5210	80				
	109	12,79	3,00	4657	80				
	120	11,63	3,20	4235	80				
	129	10,89	3,30	3965	80				
	135	10,40	3,60	3787	80				
	145	9,672	3,80	3521	80				
	152	9,201	3,90	3349	80				
	55	25,59	1,17	9176	100	MAM	503 / 250 M 4a	111 / 116	917
	62	22,57	1,33	8094	100				
	61	22,84	1,35	8317	70	MAM	502 / 250 M 4a	105 / 110	921
	70	19,92	1,54	7253	70				
	80	17,55	1,75	6392	70				
	93	15,12	1,97	5507	70				
	105	13,33	2,20	4853	70				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
55 75	115	12,18	2,50	4435	70	MAM	502 / 250 M 4a	105 110	921
	133	10,48	2,80	3818	70				
	151	9,252	3,20	3368	70				
	169	8,272	3,50	3011	70				
	192	7,297	3,90	2656	70				
	110	12,69	1,21	4621	60	MAM	402 / 250 M 4a	93 98	695
	123	11,40	1,32	4150	60				
	136	10,29	1,48	3749	60				
	150	9,349	1,64	3403	60				
	172	8,139	1,75	2963	60				
	190	7,352	1,91	2676	60				
	210	6,674	2,10	2429	60				
	232	6,028	2,30	2194	60				
75 100	14	99,89	1,38	48839	280	MAM	1203 / 280 S 4a	225 230	2606
	16	88,7	1,55	43368	280				
	17	81,56	1,68	39877	280				
	19	72,42	1,89	35408	280				
	22	64,75	2,12	31658	280				
	24	58,22	2,36	28465	280				
	26	52,99	2,54	25908	280				
	29	47,65	2,85	23297	280				
	32	43,08	3,13	21063	280				
	35	39,79	3,39	19454	280				
	39	35,94	3,75	17572	280				
	15	92,98	1,08	45461	240	MAM	1103 / 280 S 4a	207 212	2156
	17	82,57	1,24	40371	240				
	19	73,82	1,40	36093	240				
	21	66,37	1,56	32450	240				
	24	59,32	1,72	29003	240				
	26	53,34	1,92	26079	240				
	29	48,23	2,10	23581	240				
	32	43,36	2,30	21200	240				
	36	39,16	2,60	19146	240				
	39	35,51	2,90	17362	240				
	43	32,56	3,20	15920	240				
	47	29,52	3,40	14433	240				
	53	26,47	3,60	12942	240				
	20	69,97	1,13	34210	200	MAM	1003 / 280 S 4a	189 194	1768
	24	57,86	1,38	28289	200				
	27	51,36	1,56	25111	200				
	30	47,11	1,64	23033	200				
	33	41,82	1,84	20447	200				
	35	39,53	1,96	19327	200				
	40	35,09	2,20	17156	200				
	48	29,22	2,60	14286	200				
	54	26,07	2,90	12746	200				
	27	52,05	1,12	25449	180	MAM	903 / 280 S 4a	171 176	1568
	28	49,17	1,20	24043	180				
	34	41,14	1,44	20118	180				
	39	36,29	1,64	17746	180				
	43	32,22	1,84	15754	180				
	49	28,62	2,10	13997	180				
	55	25,41	2,30	12425	180				
	62	22,68	2,60	11091	180				
	66	21,16	2,70	10346	180				
	73	19,28	3,00	9574	140	MAM	902 / 280 S 4a	165 170	1611
	80	17,50	3,40	8688	140				
	87	16,06	3,60	7972	140				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
75 / 100	32	43,26	1,11	21154	1600	MAM	803 / 280 S 4a	153 158	1367
	36	39,08	1,23	19109	1600				
	41	34,12	1,41	16684	1600				
	45	30,82	1,55	15071	1600				
	50	27,98	1,70	13681	1600				
	55	25,47	1,88	12646	120	MAM	802 / 280 S 4a	147 152	1380
	67	20,80	2,20	10325	120				
	72	19,34	2,40	9602	120				
	81	17,37	2,60	8623	120				
	89	15,79	2,90	7840	120				
	106	13,19	3,40	6548	120				
	112	12,45	3,70	6183	120				
	56	25,15	1,36	12300	140	MAM	703 / 280 S 4a	135 140	1281
	60	23,26	1,44	11372	140				
	67	20,91	1,48	10224	140				
	98	14,27	2,10	6981	140				
	70	20,05	2,10	9954	100	MAM	702 / 280 S 4a	129 134	1294
	79	17,80	2,40	8840	100				
	87	16,11	2,80	8000	100				
	98	14,31	3,10	7104	100				
	107	13,10	3,30	6503	100				
	120	11,63	3,70	5775	100				
	135	10,40	4,20	5164	100				
	87	16,11	1,78	8000	80	MAM	602 / 280 S 4a	117 122	1097
	98	14,31	2,00	7104	80				
	109	12,79	2,20	6351	80				
	120	11,63	2,30	5775	80				
	129	10,89	2,40	5407	80				
	135	10,40	2,70	5164	80				
	145	9,672	2,80	4801	80				
	152	9,201	2,90	4567	80				
	162	8,648	3,10	4293	80				
	171	8,171	3,20	4056	80				
	192	7,305	3,60	3626	80				
	260	5,388	4,80	2674	80				
	80	17,55	1,28	8716	70	MAM	502 / 280 S 4a	105 110	1089
	93	15,12	1,44	7510	70				
	105	13,33	1,61	6618	70				
	115	12,18	1,83	6048	70				
	133	10,48	2,00	5206	70				
	151	9,252	2,30	4592	70				
	169	8,272	2,60	4106	70				
	192	7,297	2,90	3622	70				
	216	6,477	3,20	3215	70				
	150	9,349	1,20	4641	60	MAM	402 / 280 S 4a	93 98	855
	172	8,139	1,28	4040	60				
	190	7,352	1,40	3649	60				
	210	6,674	1,56	3313	60				
	232	6,028	1,68	2992	60				
90 / 120	17	81,56	1,40	47852	280	MAM	1203 / 280 M 4b	225 230	2666
	19	72,42	1,58	42490	280				
	22	64,75	1,77	37990	280				
	24	58,22	1,97	34158	280				
	26	52,99	2,12	31090	280				
	29	47,65	2,37	27957	280				
	32	43,08	2,61	25276	280				
	35	39,79	2,82	23345	280				
	39	35,94	3,13	21087	280				
	43	32,59	3,44	19121	280				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
90 120	49	28,75	3,97	17125	200	MAM	1202 / 280 M 4b	219 224	2682
	17	82,57	1,03	48445	240	MAM	1103 / 280 M 4b	207 212	2216
	19	73,82	1,16	43311	240				
	21	66,37	1,30	38940	240				
	24	59,32	1,43	34804	240				
	26	53,34	1,60	31295	240				
	29	48,23	1,76	28297	240				
	32	43,36	1,97	25440	240				
	36	39,16	2,20	22976	240				
	39	35,51	2,40	20834	240				
	43	32,56	2,60	19103	240				
	47	29,52	2,90	17320	240				
	53	26,47	3,00	15530	240				
	58	24	3,30	14081	240				
	63	22,36	3,60	13119	240				
	69	20,27	4,00	11893	240				
	65	21,49	4,00	12800	160	MAM	1102 / 280 M 4b	201 206	2232
	24	57,86	1,15	33947	200	MAM	1003 / 280 M 4b	189 194	1828
	27	51,36	1,30	30134	200				
	30	47,11	1,36	27640	200				
	33	41,82	1,53	24536	200				
	35	39,53	1,63	23193	200				
	40	35,09	1,83	20588	200				
	48	29,22	2,20	17144	200				
	54	26,07	2,40	15296	200				
	49	28,47	2,30	16958	160	MAM	1002 / 280 M 4b	183 188	1871
	60	23,34	2,80	13902	160				
	71	19,59	3,40	11669	160				
	84	16,72	3,90	9959	160				
	34	41,14	1,20	24142	180	MAM	903 / 280 M 4b	171 176	1628
	39	36,29	1,37	21295	180				
	43	32,22	1,53	18905	180				
	49	28,62	1,73	16796	180				
	55	25,41	1,93	14910	180				
	62	22,68	2,20	13310	180				
	66	21,16	2,20	12415	180				
	73	19,28	2,50	11489	140	MAM	902 / 280 M 4b	165 170	1671
	80	17,50	2,80	10425	140				
	87	16,06	3,00	9567	140				
	96	14,64	3,30	8724	140				
	115	12,19	3,90	7264	140				
	41	34,12	1,17	20021	1600	MAM	803 / 280 M 4b	153 158	1427
	45	30,82	1,30	18085	1600				
	50	27,98	1,42	16417	1600				
	55	25,47	1,56	15175	120	MAM	802 / 280 M 4b	147 152	1440
	67	20,80	1,86	12390	120				
	72	19,34	2,00	11523	120				
	81	17,37	2,20	10348	120				
	89	15,79	2,50	9408	120				
	106	13,19	2,90	7857	120				
	112	12,45	3,10	7420	120				
	135	10,40	3,60	6197	120				
	139	10,07	3,90	6000	120				
	98	14,27	1,77	8378	140	MAM	703 / 280 M 4b	135 140	1341

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
90 / 120	70	20,05	1,78	11945	100	MAM	702 / 280 M 4b	129 134	1354
	79	17,80	2,00	10608	100				
	87	16,11	2,30	9599	100				
	98	14,31	2,60	8525	100				
	107	13,10	2,70	7804	100				
	120	11,63	3,10	6930	100				
	135	10,40	3,50	6197	100				
	150	9,353	3,80	5571	100				
	162	8,648	4,00	5151	100				
	87	16,11	1,48	9599	80	MAM	602 / 280 M 4b	117 122	1157
	98	14,31	1,66	8525	80				
	109	12,79	1,86	7621	80				
	120	11,63	1,97	6930	80				
	129	10,89	2,00	6488	80				
	135	10,40	2,20	6197	80				
	145	9,672	2,30	5761	80				
	152	9,201	2,40	5481	80				
	162	8,648	2,60	5151	80				
	171	8,171	2,70	4867	80				
	192	7,305	3,00	4351	80				
	260	5,388	4,00	3209	80				
	105	13,33	1,34	7942	70	MAM	502 / 280 M 4b	105 110	1149
	115	12,18	1,52	7257	70				
	133	10,48	1,71	6247	70				
	151	9,252	1,95	5511	70				
	169	8,272	2,10	4927	70				
	192	7,297	2,40	4346	70				
	216	6,477	2,70	3858	70				
	370	3,786	4,40	2255	70				
	190	7,352	1,17	4379	60	MAM	402 / 280 M 4b	93 98	915
	210	6,674	1,30	3975	60				
	232	6,028	1,40	3591	60				
110 / 150	22	64,75	1,45	46432	280	MAM	1203 / 315 S 4a	225 230	2892
	24	58,22	1,61	41749	280				
	26	52,99	1,73	37999	280				
	29	47,65	1,94	34170	280				
	32	43,08	2,14	30892	280				
	35	39,79	2,31	28533	280				
	39	35,94	2,56	25772	280				
	43	32,59	2,82	23370	280				
	49	28,75	3,25	20930	200	MAM	1202 / 315 S 4a	219 224	2908
	60	23,52	3,89	17123	200				
	21	66,37	1,06	47594	240	MAM	1103 / 315 S 4a	207 212	2442
	24	59,32	1,17	42538	240				
	26	53,34	1,31	38250	240				
	29	48,23	1,44	34585	240				
	32	43,36	1,61	31093	240				
	36	39,16	1,80	28081	240				
	39	35,51	1,96	25464	240				
	43	32,56	2,20	23349	240				
	47	29,52	2,40	21169	240				
	53	26,47	2,50	18982	240				
	58	24	2,70	17210	240				
	63	22,36	3,00	16034	240				
	69	20,27	3,30	14536	240				
	65	21,49	3,20	15645	160	MAM	1102 / 315 S 4a	201 206	2458
	80	17,47	4,00	12718	160				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
110 150	27	51,36	1,06	36830	200	MAM	1003 / 315 S 4a	189 194	2064
	30	47,11	1,12	33782	200				
	33	41,82	1,25	29989	200				
	35	39,53	1,34	28347	200				
	40	35,09	1,50	25163	200				
	48	29,22	1,77	20954	200				
	54	26,07	1,99	18695	200				
	49	28,47	1,88	20727	160	MAM	1002 / 315 S 4a	183 188	2097
	60	23,34	2,30	16992	160				
	71	19,59	2,80	14262	160				
	84	16,72	3,20	12172	160				
	88	15,95	3,40	11612	160				
	103	13,61	3,90	9908	160				
	39	36,29	1,12	26028	180	MAM	903 / 315 S 4a	171 176	1864
	43	32,22	1,25	23106	180				
	49	28,62	1,42	20528	180				
	55	25,41	1,58	18223	180				
	62	22,68	1,78	16267	180				
	66	21,16	1,84	15174	180				
	73	19,28	2,00	14042	140	MAM	902 / 315 S 4a	165 170	1897
	80	17,50	2,30	12742	140				
	87	16,06	2,40	11693	140				
	96	14,64	2,70	10663	140				
	115	12,19	3,20	8878	140				
	121	11,55	3,50	8409	140				
	50	27,98	1,16	20066	160	MAM	803 / 315 S 4a	153 158	1524
	55	25,47	1,28	18548	120	MAM	802 / 315 S 4a	147 152	1676
	67	20,80	1,53	15143	120				
	72	19,34	1,66	14083	120				
	81	17,37	1,77	12647	120				
	89	15,79	2,00	11498	120				
	106	13,19	2,30	9603	120				
	112	12,45	2,50	9069	120				
	135	10,40	3,00	7574	120				
	139	10,07	3,20	7333	120				
	159	8,829	3,60	6428	120				
	180	7,784	4,10	5667	120				
	79	17,80	1,65	12965	100	MAM	702 / 315 S 4a	129 134	1590
	87	16,11	1,90	11733	100				
	98	14,31	2,10	10419	100				
	107	13,10	2,20	9538	100				
	120	11,63	2,50	8470	100				
	135	10,40	2,80	7574	100				
	150	9,353	3,10	6809	100				
	162	8,648	3,30	6296	100				
	180	7,775	3,60	5660	100				
	199	7,022	4,00	5112	100				
	220	6,367	4,20	4635	100				
	87	16,11	1,21	11733	80	MAM	602 / 315 S 4a	117 122	1256
	98	14,31	1,36	10419	80				
	109	12,79	1,52	9315	80				
	120	11,63	1,61	8470	80				
	129	10,89	1,69	7930	80				
	135	10,40	1,81	7574	80				
	145	9,672	1,91	7041	80				
	152	9,201	1,95	6698	80				
	162	8,648	2,10	6296	80				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
110 150	171	8,171	2,20	5949	80	MAM	602 / 315 S 4a	117 122	1256
	192	7,305	2,50	5318	80				
	260	5,388	3,30	3923	80				
	115	12,18	1,25	8870	70	MAM	502 / 315 S 4a	105 110	1248
	133	10,48	1,40	7635	70				
	151	9,252	1,60	6736	70				
	169	8,272	1,75	6022	70				
	192	7,297	1,95	5312	70				
	216	6,477	2,20	4715	70				
	370	3,786	3,60	2756	70				
132 175	26	52,99	1,45	45599	280	MAM	1203 / 315 M 4a	225 230	2913
	29	47,65	1,62	41003	280				
	32	43,08	1,78	37071	280				
	35	39,79	1,93	34240	280				
	39	35,94	2,13	30927	280				
	43	32,59	2,35	28044	280				
	49	28,75	2,71	25117	200	MAM	1202 / 315 M 4a	219 224	2929
	60	23,52	3,25	20548	200				
	73	19,2	3,98	16773	200				
	26	53,34	1,09	45900	240	MAM	1103 / 315 M 4a	207 212	2463
	29	48,23	1,20	41503	240				
	32	43,36	1,34	37312	240				
	36	39,16	1,50	33698	240				
	39	35,51	1,64	30557	240				
	43	32,56	1,80	28018	240				
	47	29,52	1,96	25402	240				
	53	26,47	2,10	22778	240				
	58	24	2,30	20652	240				
	63	22,36	2,50	19241	240				
	69	20,27	2,70	17443	240				
	65	21,49	2,70	18774	160	MAM	1102 / 315 M 4a	201 206	2479
	80	17,47	3,30	15262	160				
	96	14,52	4,00	12685	160				
	33	41,82	1,05	35987	200	MAM	1003 / 315 M 4a	189 194	2085
	35	39,53	1,11	34016	200				
	40	35,09	1,25	30195	200				
	48	29,22	1,48	25144	200				
	54	26,07	1,66	22434	200				
	49	28,47	1,56	24872	160	MAM	1002 / 315 M 4a	183 188	2118
	60	23,34	1,91	20390	160				
	71	19,59	2,30	17114	160				
	84	16,72	2,70	14607	160				
	88	15,95	2,80	13934	160				
	103	13,61	3,20	11890	160				
	124	11,33	3,70	9898	160				
	43	32,22	1,05	27727	180	MAM	903 / 315 M 4a	171 176	1885
	49	28,62	1,18	24634	180				
	55	25,41	1,32	21867	180				
	62	22,68	1,48	19521	180				
	66	21,16	1,50	18208	180				
	73	19,28	1,70	16850	140	MAM	902 / 315 M 4a	165 170	1918
	80	17,50	1,93	15290	140				
	87	16,06	2,00	14031	140				
	96	14,64	2,30	12795	140				
	115	12,19	2,70	10654	140				
	121	11,55	2,90	10091	140				
	146	9,618	3,30	8402	140				
	153	9,153	3,60	7996	140				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
132 / 175	67	20,80	1,27	18172	120	MAM	802 / 315 M 4a	147 / 152	1697
	72	19,34	1,38	16900	120				
	81	17,37	1,48	15176	120				
	89	15,79	1,68	13798	120				
	106	13,19	1,95	11524	120				
	112	12,45	2,10	10883	120				
	135	10,40	2,50	9088	120				
	139	10,07	2,60	8800	120				
	159	8,829	3,00	7713	120				
	180	7,784	3,40	6800	120				
	87	16,11	1,58	14079	100	MAM	702 / 315 M 4a	129 / 134	1611
	98	14,31	1,78	12503	100				
	107	13,10	1,89	11446	100				
	120	11,63	2,10	10165	100				
	135	10,40	2,30	9088	100				
	150	9,353	2,60	8171	100				
	162	8,648	2,80	7555	100				
	180	7,775	3,00	6792	100				
	199	7,022	3,33	6135	100				
	220	6,367	3,50	5562	100				
	242	5,791	3,80	5059	100				
	87	16,11	1,01	14079	80	MAM	602 / 315 M 4a	117 / 122	1277
	98	14,31	1,13	12503	80				
	109	12,79	1,27	11178	80				
	120	11,63	1,34	10165	80				
	129	10,89	1,41	9515	80				
	135	10,40	1,51	9088	80				
	145	9,672	1,59	8450	80				
	152	9,201	1,62	8038	80				
	162	8,648	1,78	7555	80				
	171	8,171	1,80	7138	80				
	192	7,305	2,00	6382	80				
	260	5,388	2,72	4707	80				
	133	10,48	1,16	9163	70	MAM	502 / 315 M 4a	105 / 110	1269
	151	9,252	1,33	8083	70				
	169	8,272	1,46	7227	70				
	192	7,297	1,63	6375	70				
	216	6,477	1,83	5658	70				
	370	3,786	3,00	3308	70				
160 / 210	32	43,08	1,47	44934	280	MAM	1203 / 315 M 4b	225 / 230	2961
	35	39,79	1,59	41503	280				
	39	35,94	1,76	37487	280				
	43	32,59	1,94	33993	280				
	49	28,75	2,23	30444	200	MAM	1202 / 315 M 4b	219 / 224	2977
	60	23,52	2,68	24906	200				
	73	19,2	3,28	20331	200				
	87	16,08	3,83	17028	200				
	32	43,36	1,11	45227	240	MAM	1103 / 315 M 4b	207 / 212	2511
	36	39,16	1,23	40846	240				
	39	35,51	1,35	37039	240				
	43	32,56	1,49	33962	240				
	47	29,52	1,61	30791	240				
	53	26,47	1,72	27609	240				
	58	24	1,89	25033	240				
	63	22,36	2,00	23323	240				
	69	20,27	2,20	21143	240				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
160 / 210	65	21,49	2,20	22756	160	MAM	1102 / 315 M 4b	201 206	2527
	80	17,47	3,70	18500	160				
	96	14,52	3,30	15376	160				
	114	12,27	3,90	12993	160				
	48	29,22	1,22	30478	200	MAM	1003 / 315 M 4b	189 194	2133
	54	26,07	1,37	27192	200				
	49	28,47	1,29	30148	160	MAM	1002 / 315 M 4b	183 188	2166
	60	23,34	1,58	24715	160				
	71	19,59	1,91	20744	160				
	84	16,72	2,20	17705	160				
	88	15,95	2,30	16890	160				
	103	13,61	2,70	14412	160				
	124	11,33	3,10	11998	160				
	55	25,41	1,08	26506	180	MAM	903 / 315 M 4b	171 176	1933
	62	22,68	1,22	23662	180				
	66	21,16	1,26	22071	180				
	73	19,28	1,40	20425	140	MAM	902 / 315 M 4b	165 170	1966
	80	17,50	1,59	18533	140				
	87	16,06	1,68	17007	140				
	96	14,64	1,87	15509	140				
	115	12,19	2,20	12914	140				
	121	11,55	2,40	12232	140				
	146	9,618	2,70	10185	140				
	153	9,153	3,00	9692	140				
	175	8,016	3,40	8488	140				
	184	7,622	3,50	8071	140				
	198	7,061	3,90	7477	140				
	81	17,37	1,22	18396	120	MAM	802 / 315 M 4b	147 152	1745
	89	15,79	1,38	16725	120				
	106	13,19	1,61	13968	120				
	112	12,45	1,74	13191	120				
	135	10,40	2,00	11016	120				
	139	10,07	2,20	10667	120				
	159	8,829	2,50	9349	120				
	180	7,784	2,80	8243	120				
	98	14,31	1,46	15155	100	MAM	702 / 315 M 4b	129 134	1659
	120	11,63	1,75	12321	100				
	135	10,40	1,96	11016	100				
	150	9,353	2,10	9904	100				
	162	8,648	2,20	9158	100				
	180	7,775	2,50	8233	100				
	199	7,022	2,70	7436	100				
	220	6,367	2,80	6742	100				
	242	5,791	3,13	6132	100				
	135	10,40	1,25	11016	80	MAM	602 / 315 M 4b	117 122	1325
	162	8,648	1,45	9158	80				
	192	7,305	1,67	7735	80				
	260	5,388	2,25	5706	80				
	216	6,477	1,51	6859	70	MAM	502 / 315 M 4b	105 110	1317
	370	3,786	2,40	4009	70				
185 / 250	39	35,94	1,52	43344	280	MAM	1203 / 315 L 4a	225 230	3046
	43	32,59	1,67	39304	280				
	49	28,75	1,93	35201	200	MAM	1202 / 315 L 4a	219 224	3062
	60	23,52	2,32	28798	200				
	73	19,2	2,84	23508	200				
	87	16,08	3,31	19688	200				
	104	13,43	3,95	16444	200				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
185 250	39	35,51	1,16	42826	240	MAM	1103 / 315 L 4a	207 212	2596
	43	32,56	1,29	39268	240				
	47	29,52	1,40	35602	240				
	53	26,47	1,49	31923	240				
	58	24	1,63	28945	240				
	63	22,36	1,75	26967	240				
	69	20,27	1,93	24446	240				
	65	21,49	1,95	26312	160	MAM	1102 / 315 L 4a	201 206	2612
	80	17,47	2,30	21390	160				
	96	14,52	2,80	17778	160				
	114	12,27	3,30	15023	160				
	137	10,24	3,90	12538	160				
	140	9,97	3,90	12207	160				
	48	29,22	1,05	35240	200	MAM	1003 / 315 L 4a	189 194	2218
	54	26,07	1,18	31441	200				
	49	28,47	1,12	34858	160	MAM	1002 / 315 L 4a	183 188	2251
	60	23,34	1,36	28577	160				
	71	19,59	1,65	23986	160				
	84	16,72	1,90	20472	160				
	88	15,95	2,00	19529	160				
	103	13,61	2,30	16664	160				
	124	11,33	2,70	13872	160				
	143	9,8	3,00	11999	160				
	164	8,555	3,30	10475	160				
	73	19,28	1,21	23616	140	MAM	902 / 315 L 4a	165 170	2051
	80	17,50	1,38	21429	140				
	87	16,06	1,46	19665	140				
	96	14,64	1,62	17932	140				
	115	12,19	1,90	14931	140				
	121	11,55	2,10	14143	140				
	146	9,618	2,40	11776	140				
	153	9,153	2,60	11207	140				
	175	8,016	2,90	9815	140				
	184	7,622	3,00	9332	140				
	198	7,061	3,30	8645	140				
	210	6,675	3,50	8173	140				
	238	5,88	3,90	7199	140				
	89	15,79	1,20	19338	120	MAM	802 / 315 L 4a	147 152	1830
	106	13,19	1,39	16151	120				
	112	12,45	1,51	15252	120				
	135	10,40	1,77	12737	120				
	139	10,07	1,87	12333	120				
	159	8,829	2,10	10810	120				
	180	7,784	2,40	9531	120				
	135	10,40	1,71	12737	100	MAM	702 / 315 L 4a	129 134	1744
	150	9,353	1,88	11452	100				
	162	8,648	1,97	10589	100				
	180	7,775	2,10	9520	100				
	199	7,022	2,30	8598	100				
	220	6,367	2,50	7796	100				
	242	5,791	2,71	7090	100				
200 270	43	32,59	1,55	42491	280	MAM	1203 / 315 L 4b	225 230	3131
	48,7	28,75	1,79	38055	200	MAM	1202 / 315 L 4b	219 224	3147
	59,5	23,52	2,14	31133	200				
	72,9	19,2	2,62	25414	200				
	87,1	16,08	3,06	21285	200				
	104,2	13,43	3,66	17777	200				
	119,7	11,7	4,29	15487	200				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
200 270	43	32,56	1,19	42452	240	MAM	1103 / 315 L 4b	207 212	2681
	47	29,52	1,29	38488	240				
	53	26,47	1,37	34512	240				
	58	24	1,51	31291	240				
	63	22,36	1,62	29153	240				
	69	20,27	1,78	26428	240				
	65	21,49	1,80	28446	160	MAM	1102 / 315 L 4b	201 206	2697
	80	17,47	2,20	23124	160				
	96	14,52	2,60	19220	160				
	114	12,27	3,10	16241	160				
	137	10,24	3,60	13554	160				
	140	9,97	3,60	13197	160				
	60	23,34	1,26	30894	160	MAM	1002 / 315 L 4b	183 188	2336
	71	19,59	1,53	25931	160				
	84	16,72	1,75	22132	160				
	88	15,95	1,85	21112	160				
	103	13,61	2,10	18015	160				
	124	11,33	2,50	14997	160				
	143	9,8	2,80	12972	160				
	164	8,555	3,10	11324	160				
	73	19,28	1,12	25531	140	MAM	902 / 315 L 4b	165 170	2136
	80	17,50	1,27	23167	140				
	87	16,06	1,35	21259	140				
	96	14,64	1,50	19386	140				
	115	12,19	1,76	16142	140				
	121	11,55	1,93	15290	140				
	146	9,618	2,20	12731	140				
	153	9,153	2,40	12115	140				
	175	8,016	2,70	10610	140				
	184	7,622	2,80	10089	140				
	198	7,061	3,10	9346	140				
	210	6,675	3,20	8835	140				
	238	5,88	3,60	7783	140				
	106	13,19	1,29	17460	120	MAM	802 / 315 L 4b	147 152	1915
	112	12,45	1,39	16489	120				
	135	10,40	1,64	13770	120				
	139	10,07	1,73	13333	120				
	159	8,829	1,98	11687	120				
	180	7,784	2,20	10303	120				
	150	9,353	1,74	12380	100	MAM	702 / 315 L 4b	129 134	1829
	180	7,775	2,00	10291	100				
	199	7,022	2,20	9295	100				
	220	6,367	2,30	8428	100				
	242	5,791	2,50	7665	100				
250 340	49	28,75	1,43	47569	200	MA	1202 / 355 M 4a	219 224	3250
	60	23,52	1,71	38916	200				
	73	19,2	2,10	31768	200				
	87	16,08	2,45	26606	200				
	104	13,43	2,92	22221	200				
	120	11,7	3,43	19359	200				
	138	10,16	3,94	16811	200				
	143	9,8	3,99	16215	200				
	53	26,47	1,10	43140	240	MA	1103 / 355 M 4a	207 212	2800
	58	24	1,21	39114	240				
	63	22,36	1,30	36441	240				
	69	20,27	1,43	33035	240				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
250 / 340	65	21,49	1,44	35557	160	MA	1102 / 355 M 4a	201 206	2800
	80	17,47	1,76	28906	160				
	96	14,52	2,10	24025	160				
	114	12,27	2,50	20302	160				
	137	10,24	2,90	16943	160				
	140	9,97	2,90	16496	160				
	155	9,05	3,30	14974	160				
	168	8,33	3,50	13783	160				
	178	7,86	3,80	13005	160				
	190	7,35	4,00	12161	160				
	71	19,59	1,22	32413	160	MA	1002 / 355 M 4a	183 188	2450
	84	16,72	1,40	27665	160				
	88	15,95	1,48	26391	160				
	103	13,61	1,72	22519	160				
	124	11,33	1,98	18746	160				
	143	9,8	2,20	16215	160				
	164	8,555	2,50	14155	160				
	96	14,64	1,20	24233	140	MA	902 / 355 M 4a	165 170	2250
	115	12,19	1,40	20178	140				
	121	11,55	1,54	19112	140				
	146	9,618	1,76	15914	140				
	153	9,153	1,90	15144	140				
	175	8,016	2,20	13263	140				
	184	7,622	2,20	12611	140				
	198	7,061	2,50	11683	140				
	210	6,675	2,60	11044	140				
	238	5,88	2,90	9729	140				
	135	10,40	1,31	17213	120	MA	802 / 355 M 4a	147 152	2063
	139	10,07	1,39	16667	120				
	159	8,829	1,58	14608	120				
	180	7,784	1,78	12879	120				
	242	5,791	2,00	9582	100	MA	702 / 355 M 4a	129 134	1977
315 / 430	73	19,2	1,67	40028	200	MA	1202 / 355 M 4b	219 224	3288
	87	16,08	1,94	33523	200				
	104	13,43	2,32	27998	200				
	120	11,7	2,72	24392	200				
	138	10,16	3,13	21181	200				
	143	9,8	3,17	20431	200				
	165	8,51	3,64	17741	200				
	188	7,44	4,16	15511	200				
	65	21,49	1,14	44802	160	MA	1102 / 355 M 4b	117 122	2838
	80	17,47	1,40	36421	160				
	96	14,52	1,68	30271	160				
	114	12,27	1,97	25580	160				
	137	10,24	2,30	21348	160				
	140	9,97	2,30	20785	160				
	155	9,05	2,70	18867	160				
	168	8,33	2,80	17366	160				
	178	7,86	3,00	16386	160				
	190	7,35	3,20	15323	160				
	219	6,39	3,70	13322	160				
	84	16,72	1,11	34857	160	MA	1002 / 355 M 4b	183 188	2488
	88	15,95	1,17	33252	160				
	103	13,61	1,36	28374	160				
	124	11,33	1,57	23620	160				
	143	9,8	1,73	20431	160				
	164	8,555	1,93	17835	160				
	329	4,256	4,10	8873	160				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
315 430	121	11,55	1,22	24081	140	MA	902 / 355 M 4b	165 170	2288
	146	9,618	1,40	20051	140				
	153	9,153	1,50	19082	140				
	175	8,016	1,72	16712	140				
	184	7,622	1,76	15890	140				
	198	7,061	1,98	14721	140				
	210	6,675	2,00	13916	140				
	238	5,88	2,30	12258	140				
	159	8,829	1,26	18406	120	MA	802 / 355 M 4b	147 152	2101
	180	7,784	1,41	16228	120				
	242	5,791	1,59	12073	100	MA	702 / 355 M 4b	129 134	2015
355 485	73	19,2	1,48	45110	200	MA	1202 / 355 M 4c	219 224	3340
	87	16,08	1,73	37780	200				
	104	13,43	2,06	31554	200				
	120	11,7	2,42	27489	200				
	138	10,16	2,78	23871	200				
	143	9,8	2,81	23025	200				
	165	8,51	3,23	19994	200				
	188	7,44	3,69	17480	200				
	214	6,54	4,19	15366	200				
	96	14,52	1,50	34115	160	MA	1102 / 355 M 4c	201 206	2890
	114	12,27	1,75	28828	160				
	137	10,24	2,00	24059	160				
	140	9,97	2,00	23425	160				
	155	9,05	2,40	21263	160				
	168	8,33	2,50	19571	160				
	178	7,86	2,70	18467	160				
	190	7,35	2,80	17269	160				
	219	6,39	3,30	15013	160				
	251	5,57	3,80	13087	160				
	103	13,61	1,21	31977	160	MA	1002 / 355 M 4c	183 188	2540
	124	11,33	1,39	26620	160				
	143	9,8	1,53	23025	160				
	164	8,555	1,74	20100	160				
	329	4,256	3,60	9999	160				
	153	9,153	1,33	21505	140	MA	902 / 355 M 4c	165 170	2340
	175	8,016	1,52	18834	140				
	184	7,622	1,56	17908	140				
	198	7,061	1,76	16590	140				
	210	6,675	1,80	15683	140				
	238	5,88	2,00	13815	140				
400 550	87	16,08	1,53	42569	200	MA	1202 / 355 L 4a	219 224	3570
	104	13,43	1,83	35554	200				
	120	11,7	2,14	30974	200				
	138	10,16	2,47	26897	200				
	143	9,8	2,50	25944	200				
	165	8,51	2,87	22529	200				
	188	7,44	3,28	19696	200				
	214	6,54	3,72	17314	200				
	243	5,77	4,20	15275	200				
	96	14,52	1,32	38439	160	MA	1102 / 355 L 4a	201 206	3120
	114	12,27	1,55	32483	160				
	137	10,24	1,84	27109	160				
	140	9,97	1,84	26394	160				
	155	9,05	2,10	23958	160				
	168	8,33	2,20	22052	160				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
400 550	178	7,86	2,40	20808	160	MA	1102 / 355 L 4a	201 206	3120
	190	7,35	2,50	19458	160				
	219	6,39	2,90	16916	160				
	251	5,57	3,30	14746	160				
	124	11,33	1,24	29994	160	MA	1002 / 355 L 4a	183 188	2770
	143	9,8	1,36	25944	160				
	164	8,555	1,53	22648	160				
	329	4,256	3,20	11267	160				
	175	8,016	1,35	21221	140	MA	902 / 355 L 4a	165 170	2570
	184	7,622	1,38	20178	140				
	198	7,061	1,56	18693	140				
	210	6,675	1,60	17671	140				
	238	5,88	1,80	15566	140				
450 610	104	13,43	1,62	39998	200	MA	1202 / 355 L 4b	219 224	4275
	120	11,7	1,91	34845	200				
	138	10,16	2,19	30259	200				
	143	9,8	2,22	29187	200				
	165	8,51	2,55	25345	200				
	188	7,44	2,91	22158	200				
	214	6,54	3,31	19478	200				
	243	5,77	3,73	17184	200				
	114	12,27	1,38	36543	160	MA	1102 / 355 L 4b	201 206	3825
	137	10,24	1,63	30497	160				
	140	9,97	1,63	29693	160				
	155	9,05	1,88	26953	160				
	168	8,33	1,95	24809	160				
	178	7,86	2,10	23409	160				
	190	7,35	2,30	21890	160				
	219	6,39	2,60	19031	160				
	251	5,57	3,00	16589	160				
	124	11,33	1,10	33744	160	MA	1002 / 355 L 4b	183 188	3475
	143	9,8	1,20	29187	160				
	164	8,555	1,37	25479	160				
	329	4,256	2,90	12675	160				
	184	7,622	1,23	22700	140	MA	902 / 355 L 4b	165 170	3275
	198	7,061	1,38	21029	140				
	210	6,675	1,42	19880	140				
	238	5,88	1,60	17512	140				
500 680	104	13,43	1,46	44442	200	MA	1202 / 400 L 4b	219 224	4380
	120	11,7	1,72	38717	200				
	138	10,16	1,94	33621	200				
	143	9,8	2,00	32430	200				
	165	8,51	2,30	28161	200				
	188	7,44	2,62	24620	200				
	214	6,54	2,98	21642	200				
	243	5,77	3,36	19094	200				
	137	10,24	1,47	33886	160	MA	1102 / 400 L 4b	201 206	3930
	140	9,97	1,47	32992	160				
	155	9,05	1,69	29948	160				
	168	8,33	1,76	27565	160				
	178	7,86	1,93	26010	160				
	190	7,35	2,00	24322	160				
	219	6,39	2,30	21146	160				
	251	5,57	2,70	18432	160				
	143	9,8	1,08	32430	160	MA	1002 / 400 L 4b	183 188	3580
	164	8,555	1,23	28310	160				
	329	4,256	2,60	14084	160				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ** **Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Qlo} **Rad. Yük** Over Loads *Charges radiales* **[kN]**	**Tip** Type *Types*			~kg
560 750	120	11,7	1,53	43363	200	**MA**	**1202 / 400 L 4c**	219 224	4650
	138	10,16	1,76	37656	200				
	143	9,8	1,78	36321	200				
	165	8,51	2,05	31540	200				
	188	7,44	2,34	27575	200				
	214	6,54	2,66	24239	200				
	243	5,77	3,00	21385	200				
	137	10,24	1,31	37952	160	**MA**	**1102 / 400 L 4c**	201 206	4200
	140	9,97	1,31	36951	160				
	155	9,05	1,51	33542	160				
	168	8,33	1,57	30873	160				
	178	7,86	1,72	29131	160				
	190	7,35	1,81	27241	160				
	219	6,39	2,10	23683	160				
	251	5,57	2,40	20644	160				
	164	8,555	1,10	31707	160	**MA**	**1002 / 400 L 4c**	183 188	3850
	329	4,256	2,30	15774	160				

MA Serisi Redüktörler Güç ve Devir Tablolari

MA Series - Performances Tables

Series MA - Table de performances

Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	P_1 GÜÇ Power *Puissance* [kW]	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m] (n_1=1400rpm)	İ Tahvil Ratio *Rapport de réduction*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1} Rad. Yük Over Loads *Charges radiales* [N]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
6100 Nm	11,0	16	85,15	6100	5000	80	MA	403	99 104	250
	12,4	19	75,29	6100	5000	80				
	13,9	21	67,14	6100	5000	80				
	15,5	23	60,30	6100	5000	80				
	17,2	26	54,47	6100	5000	80				
	18,9	28	49,45	6100	5000	80				
	21,2	32	44,06	6100	5000	80				
	23,8	36	39,30	6100	5000	80				
	26,5	40	35,29	6100	5000	80				
	29,4	44	31,88	6100	5000	80				
	32,3	48	28,94	6100	5000	80				
	36,9	55	25,34	6100	5000	80				
	41.1	62	22,76	6100	5000	80				
5500 Nm	39,6	67	20,98	5500	6000	60	MA	402	93 98	250
	44,8	75	18,55	5500	6000	60				
	50,2	85	16,54	5500	6000	60				
	55,9	94	14,86	5500	6000	60				
	61,9	104	13,42	5500	6000	60				
	65,5	110	12,70	5500	6000	60				
	72,9	123	11,40	5500	6000	60				
	80,7	136	10,30	5500	6000	60				
	88,9	150	9,349	5500	6000	60				
	102	172	8,139	5500	6000	60				
	113	190	7,352	5500	6000	60				
	125	210	6,674	5500	6000	60				
	138	232	6,028	5500	6000	60				
10300 Nm	15,3	14	103	10300	7000	100	MA	503	111 116	387
	17,0	15	92,74	10300	7000	100				
	19,6	17	80,57	10300	7000	100				
	22,3	20	70,72	10300	7000	100				
	25,2	22	62,58	10300	7000	100				
	28,3	25	55,75	10300	7000	100				
	29,6	26	53,35	10300	7000	100				
	33,7	30	46,83	10300	7000	100				
	38,1	34	41,44	10300	7000	100				
	42,8	38	36,92	10300	7000	100				
	48,7	43	32,47	10300	7000	100				
	55,2	49	28,64	10300	7000	100				
	61,7	55	25,59	10300	7000	100				
	70.0	62	22.58	10300	7000	100				
10200 Nm	67,5	61	22,85	10200	9000	70	MA	502	105 110	387
	77,3	70	19,93	10200	9000	70				
	87,8	80	17,56	10200	9000	70				
	102	93	15,13	10200	9000	70				
	116	105	13,33	10200	9000	70				
	126	115	12,18	10200	9000	70				
	147	133	10,49	10200	9000	70				
	167	151	9,252	10200	9000	70				
	186	169	8,272	10200	9000	70				
	211	192	7,297	10200	9000	70				
	238	216	6,477	10200	9000	70				
	407	370	3,786	10200	9000	70				
11900 Nm	20,5	16	89,20	11900	7000	120	MA	603	123 128	395
	23,4	18	78,14	11900	7000	120				
	26,9	21	67,89	11900	7000	120				
	30,6	23	59,59	11900	7000	120				
	32,1	25	56,88	11900	7000	120				
	41,3	32	44,15	11900	7000	120				
	47,5	36	38,41	11900	7000	120				

Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	P_1 GÜÇ Power *Puissance* [kW]	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m] (n_1=1400rpm)	İ Tahvil Ratio *Rapport de réduction*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1} Rad. Yük Over Loads *Charges radiales* [N]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
11900 Nm	54,1	42	33,71	11900	7000	120	**MA**	**603**	123 128	395
	59,9	46	30,50	11900	7000	120				
	68,2	52	26,77	11900	7000	120				
	71,9	55	25,38	11900	7000	120				
	80,7	62	22,61	11900	7000	120				
	91,2	70	20,01	11900	7000	120				
	102	79	17,83	11900	7000	120				
12900 Nm	121	87	16,12	12900	9000	80	**MA**	**602**	117 122	395
	136	98	14,31	12900	9000	80				
	152	109	12,80	12900	9000	80				
	168	120	11,64	12900	9000	80				
	179	129	10,89	12900	9000	80				
	187	135	10,40	12900	9000	80				
	202	145	9,672	12900	9000	80				
	212	152	9,201	12900	9000	80				
	225	162	8,648	12900	9000	80				
	239	171	8,171	12900	9000	80				
	267	192	7,305	12900	9000	80				
	362	260	5,388	12900	9000	80				
19300 Nm	9,0	4,20	333	19300	6000	180	**MA**	**704**	141 146	577
	10,1	4,71	297	19300	6000	180				
	11,3	5,24	267	19300	6000	180				
	12,5	5,80	241	19300	6000	180				
	14,0	6,52	215	19300	6000	180				
	15,5	7,22	194	19300	6000	180				
	17,2	8,03	174	19300	6000	180				
	19,1	8,88	158	19300	6000	180				
	21,5	10	140	19300	6000	180				
	23,7	11	127	19300	6000	180				
	26,5	12	114	19300	6000	180				
	29,4	14	102	19300	6000	180				
	31,8	15	94,41	19300	6000	180				
	31.8	15	94,41	19300	6000	180				
19000 Nm	35,5	17	82,13	19000	7000	140	**MA**	**703**	135 140	577
	39,8	19	73,24	19000	7000	140				
	44,3	21	65,78	19000	7000	140				
	49,0	24	59,42	19000	7000	140				
	55,1	26	52,86	19000	7000	140				
	61,0	29	47,75	19000	7000	140				
	67,8	33	42,98	19000	7000	140				
	75,1	36	38,82	19000	7000	140				
	84,5	41	34,48	19000	7000	140				
	93,1	45	31,30	19000	7000	140				
	104	50	27,98	19000	7000	140				
	116	56	25,16	19000	7000	140				
	125	60	23,26	19000	7000	140				
	139	67	20,91	19000	7000	140				
	204	98	14,28	19000	7000	140				
19400 Nm	146	70	20,05	19400	12000	100	**MA**	**702**	129 134	577
	165	79	17,81	19400	12000	100				
	182	87	16,12	19400	12000	100				
	205	98	14,31	19400	12000	100				
	224	107	13,10	19400	12000	100				
	252	120	11,64	19400	12000	100				
	282	135	10,40	19400	12000	100				

Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	P_1 GÜÇ Power *Puissance* [kW]	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m] (n_1=1400rpm)	İ Tahvil Ratio *Rapport de réduction*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1} Rad. Yük Over Loads *Charges radiales* [N]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
19400 Nm	313	150	9,353	19400	12000	100	MA	702	129 134	577
	339	162	8,648	19400	12000	100				
	377	180	7,775	19400	12000	100				
	417	199	7,022	19400	12000	100				
	460	220	6,367	19400	12000	100				
	506	242	5,791	19400	12000	100				
24100 Nm	8,9	3,31	423	24100	6000	200	MA	804	159 164	663
	9,9	3,71	378	24100	6000	200				
	11,1	4,13	339	24100	6000	200				
	12,2	4,57	306	24100	6000	200				
	13,5	5,03	278	24100	6000	200				
	14,6	5,44	258	24100	6000	200				
	16,6	6,19	226	24100	6000	200				
	18,5	6,89	203	24100	6000	200				
	20,5	7,63	183	24100	6000	200				
	23,7	8,83	159	24100	6000	200				
	26,1	9,72	144	24100	6000	200				
	30,0	11	125	24100	6000	200				
	33,0	12	114	24100	6000	200				
23500 Nm	34,6	13	104	23500	7000	160	MA	803	153 158	663
	38,7	15	93,05	23500	7000	160				
	43,1	17	83,57	23500	7000	160				
	47,8	19	75,49	23500	7000	160				
	52,6	20	68,53	23500	7000	160				
	56,8	22	63,45	23500	7000	160				
	64,7	25	55,72	23500	7000	160				
	74,8	29	48,18	23500	7000	160				
	83,3	32	43,27	23500	7000	160				
	92,2	36	39,08	23500	7000	160				
	106	41	34,12	23500	7000	160				
	117	45	30,83	23500	7000	160				
	129	50	27,98	23500	7000	160				
22300 Nm	132	55	25,48	22300	12000	120	MA	802	147 152	663
	162	67	20,80	22300	12000	120				
	174	72	19,35	22300	12000	120				
	194	81	17,37	22300	12000	120				
	213	89	15,79	22300	12000	120				
	255	106	13,19	22300	12000	120				
	270	112	12,46	22300	12000	120				
	324	135	10,40	22300	12000	120				
	335	139	10,07	22300	12000	120				
	382	159	8,829	22300	12000	120				
	433	180	7,784	22300	12000	120				
28750 Nm	12,3	3,85	364	28750	7000	220	MA	904	177 182	850
	13,6	4,24	330	28750	7000	220				
	15,6	4,86	288	28750	7000	220				
	17,6	5,52	254	28750	7000	220				
	18,7	5,84	240	28750	7000	220				
	21,2	6,63	211	28750	7000	220				
	22,5	7,05	199	28750	7000	220				
	26,8	8,38	167	28750	7000	220				
	30,4	9,50	147	28750	7000	220				
	34,2	11	131	28750	7000	220				
	38,5	12	116	28750	7000	220				
	43,4	14	103	28750	7000	220				
	48,6	15	92,08	28750	7000	220				
	52,1	16	85,89	28750	7000	220				

Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	P_1 GÜÇ Power *Puissance* [kW]	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m] (n_1=1400rpm)	İ Tahvil Ratio *Rapport de réduction*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1} Rad. Yük Over Loads *Charges radiales* [N]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
29930 Nm	51,2	16	89,63	29930	10000	180	MA	903	171 176	850
	56,4	17	81,34	29930	10000	180				
	64,7	20	70,93	29930	10000	180				
	73,4	22	62,51	29930	10000	180				
	77,7	24	59,06	29930	10000	180				
	88,2	27	52,05	29930	10000	180				
	93,4	28	49,17	29930	10000	180				
	112	34	41,15	29930	10000	180				
	126	39	36,30	29930	10000	180				
	142	43	32,22	29930	10000	180				
	160	49	28,63	29930	10000	180				
	181	55	25,41	29930	10000	180				
	202	62	22,69	29930	10000	180				
	217	66	21,16	29930	10000	180				
29850 Nm	234	73	19,29	29850	16000	140	MA	902	165 170	850
	258	80	17,50	29850	16000	140				
	281	87	16,06	29850	16000	140				
	308	96	14,65	29850	16000	140				
	370	115	12,20	29850	16000	140				
	390	121	11,55	29850	16000	140				
	469	146	9,618	29850	16000	140				
	493	153	9,153	29850	16000	140				
	563	175	8,016	29850	16000	140				
	592	184	7,622	29850	16000	140				
	639	198	7,061	29850	16000	140				
	676	210	6,675	29850	16000	140				
	767	238	5,880	29850	16000	140				
	1098	341	4,109	29850	16000	140				
36000 Nm	15,7	3,92	357	36000	8000	240	MA	1004	195 200	1050
	17,8	4,45	315	36000	8000	240				
	19,1	4,78	293	36000	8000	240				
	21,7	5,42	258	36000	8000	240				
	22,8	5,70	246	36000	8000	240				
	25,9	6,46	217	36000	8000	240				
	31,3	7,82	179	36000	8000	240				
	35,3	8,81	159	36000	8000	240				
	38,4	9,60	146	36000	8000	240				
	43,3	11	129	36000	8000	240				
	51,6	13	109	36000	8000	240				
35500 Nm	47,2	12	115	35500	12000	200	MA	1003	189 194	1050
	53,6	14	102	35500	12000	200				
	57,6	15	94,62	35500	12000	200				
	65,3	17	83,39	35500	12000	200				
	68,6	18	79,40	35500	12000	200				
	77,8	20	69,97	35500	12000	200				
	94,1	24	57,86	35500	12000	200				
	106	27	51,36	35500	12000	200				
	116	30	47,11	35500	12000	200				
	130	33	41,82	35500	12000	200				
	138	35	39,53	35500	12000	200				
	155	40	35,09	35500	12000	200				
	186	48	29,22	35500	12000	200				
	209	54	26,07	35500	12000	200				
34500 Nm	183	49	28,47	34500	16000	160	MA	1002	183 188	1050
	223	60	23,34	34500	16000	160				
	266	71	19,59	34500	16000	160				
	312	84	16,72	34500	16000	160				
	327	88	15,95	34500	16000	160				

Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	**P_1** **GÜÇ** Power *Puissance* **[kW]**	**n_2** **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]** **(n_1=1400rpm)**	**İ** **Tahvil** Ratio *Rapport de réduction*	**M_2** **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	**F_{Q1}** **Rad. Yük** Over Loads *Charges radiales* **[N]**	**F_{Q10}** **Rad. Yük** Over Loads *Charges radiales* **[kN]**	**Tip** Type *Types*			**~kg**
34500 Nm	**383**	103	13,61	34500	16000	160	**MA**	**1002**	183 188	1050
	460	124	11,33	34500	16000	160				
	532	143	9,800	34500	16000	160				
	609	164	8,555	34500	16000	160				
	1225	329	4,256	34500	16000	160				
50000 Nm	**20,4**	3,68	381	50000	10000	300	**MA**	**1104**	213 218	1400
	23,0	4,14	338	50000	10000	300				
	25,8	4,63	302	50000	10000	300				
	28,6	5,15	272	50000	10000	300				
	32,1	5,78	242	50000	10000	300				
	35,9	6,46	217	50000	10000	300				
	40,0	7,19	195	50000	10000	300				
	44,5	8,00	175	50000	10000	300				
	49,3	8,86	158	50000	10000	300				
	54,3	9,77	143	50000	10000	300				
	60,2	11	129	50000	10000	300				
	81,0	15	96,12	50000	10000	300				
50400 Nm	**83,1**	15	92,98	50400	16000	240	**MA**	**1103**	207 212	1400
	93,6	17	82,57	50400	16000	240				
	105	19	73,82	50400	16000	240				
	116	21	66,37	50400	16000	240				
	130	24	59,32	50400	16000	240				
	145	26	53,34	50400	16000	240				
	160	29	48,23	50400	16000	240				
	178	32	43,36	50400	16000	240				
	197	36	39,16	50400	16000	240				
	218	39	35,51	50400	16000	240				
	237	43	32,56	50400	16000	240				
	262	47	29,52	50400	16000	240				
	292	53	26,47	50400	16000	240				
	322	58	24,00	50400	16000	240				
	346	63	22,36	50400	16000	240				
	381	69	20,27	50400	16000	240				
50000 Nm	**352**	65	21,49	50000	20000	160	**MA**	**1102**	201 206	1400
	432	80	17,47	50000	20000	160				
	520	96	14,52	50000	20000	160				
	616	114	12,27	50000	20000	160				
	738	137	10,24	50000	20000	160				
	758	140	9,970	50000	20000	160				
	835	155	9,050	50000	20000	160				
	907	168	8,330	50000	20000	160				
	961	178	7,860	50000	20000	160				
	1028	190	7,350	50000	20000	160				
	1182	219	6,390	50000	20000	160				
	1356	251	5,570	50000	20000	160				
70000 Nm	**26,6**	3,42	409	70000	10000	340	**MA**	**1204**	231 236	1850
	30,0	3,85	363	70000	10000	340				
	33,6	4,31	325	70000	10000	340				
	36,8	4,72	297	70000	10000	340				
	41,1	5,28	265	70000	10000	340				
	46,1	5,92	236	70000	10000	340				
	55,2	7,09	198	70000	10000	340				
	61,4	7,88	178	70000	10000	340				
	68,4	8,78	159	70000	10000	340				
	75,7	9,72	144	70000	10000	340				
	83,8	11	130	70000	10000	340				
	92,4	12	118	70000	10000	340				

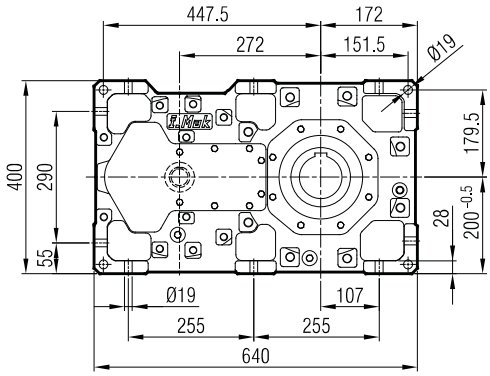
Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	P_1 GÜÇ Power *Puissance* [kW]	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m] (n_1=1400rpm)	İ Tahvil Ratio *Rapport de réduction*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1} Rad. Yük Over Loads *Charges radiales* [N]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
70000 Nm	107	14	99,89	70000	18000	280	MA	1203	225 230	1850
	121	16	88,70	70000	18000	280				
	132	17	81,56	70000	18000	280				
	148	19	72,42	70000	18000	280				
	166	22	64,75	70000	18000	280				
	184	24	58,22	70000	18000	280				
	203	26	52,99	70000	18000	280				
	225	29	47,65	70000	18000	280				
	249	32	43,08	70000	18000	280				
	270	35	39,79	70000	18000	280				
	299	39	35,94	70000	18000	280				
	329	43	32,59	70000	18000	280				
70000 Nm	368	49	28,75	70000	20000	200	MA	1202	219 224	1850
	450	60	23,52	70000	20000	200				
	551	73	19,20	70000	20000	200				
	658	87	16,08	70000	20000	200				
	788	104	13,43	70000	20000	200				
	904	120	11,70	70000	20000	200				
	1041	138	10,16	70000	20000	200				
	1079	143	9,800	70000	20000	200				
	1243	165	8,510	70000	20000	200				
	1422	188	7,440	70000	20000	200				
	1617	214	6,540	70000	20000	200				
	1833	243	5,770	70000	20000	200				

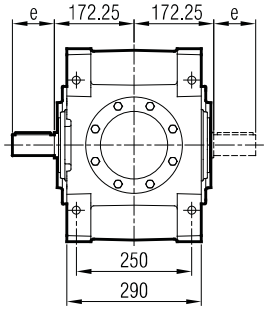
MA Serisi Redüktörler Ölçü Sayfaları

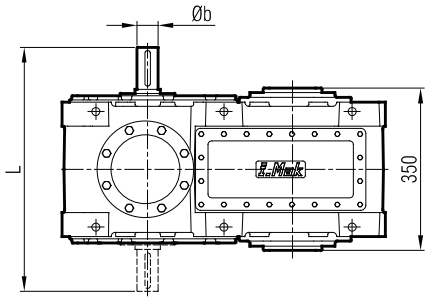
Dimensions Pages

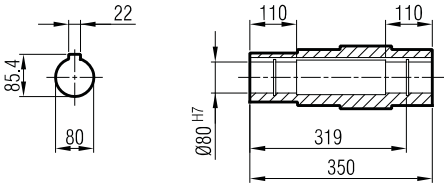
Dimensions

MA 402









Tahvil / Ratio	Øb	e	z	c	h	M	L
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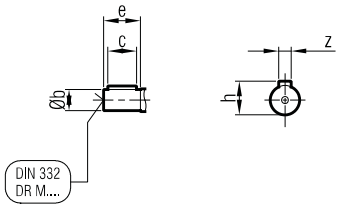
i: 11,40 ... 6,03	45 k6	100	14	85	48.5	M16	545



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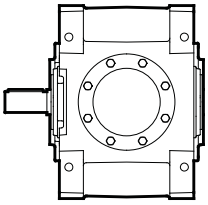

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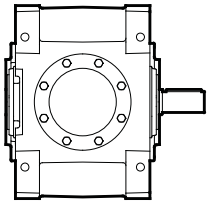

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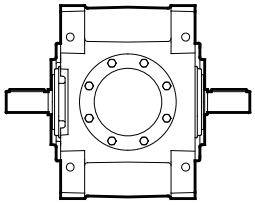

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MA / MK 40_

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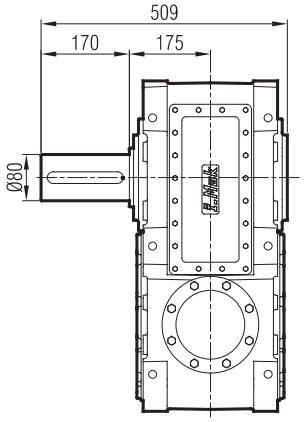

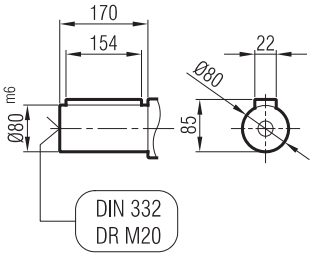

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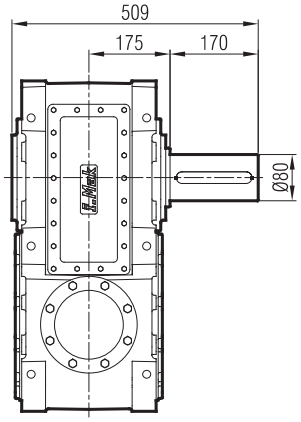

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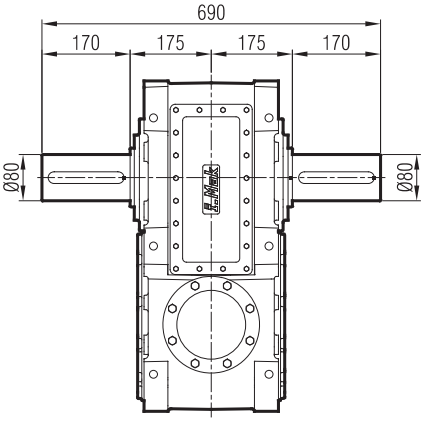

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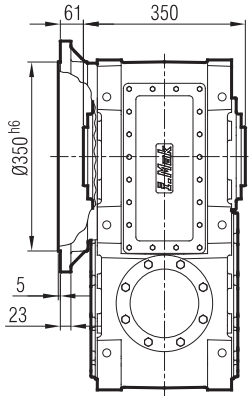

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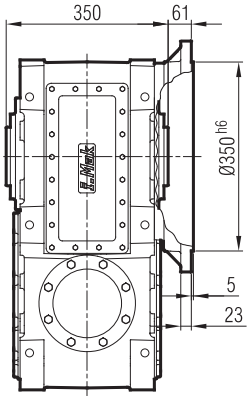

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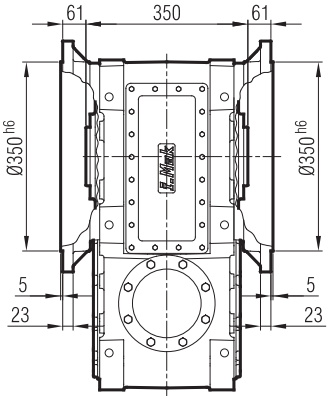

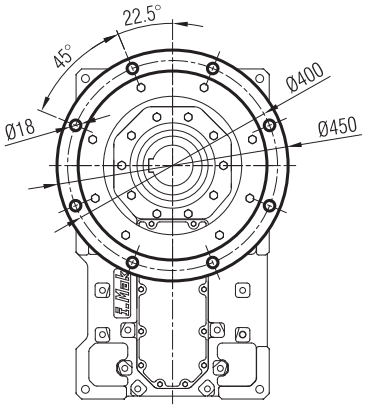

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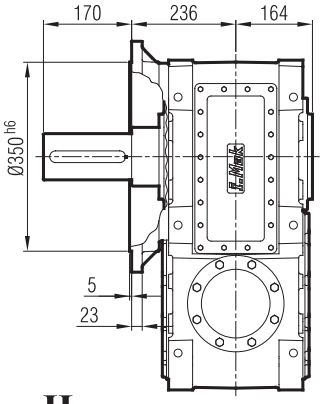

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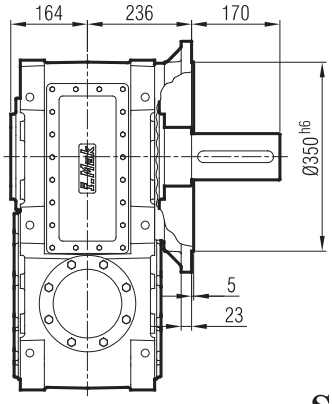

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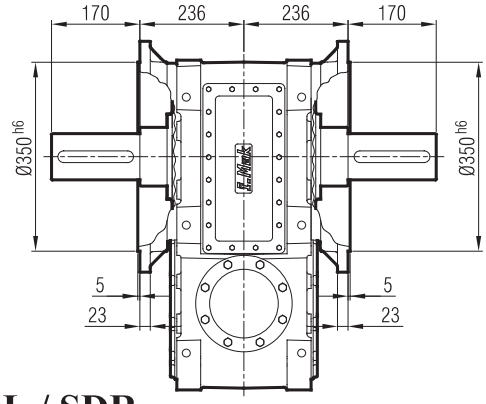

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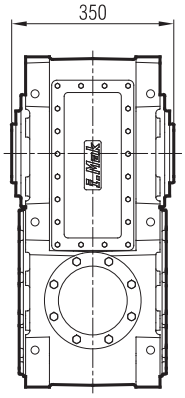
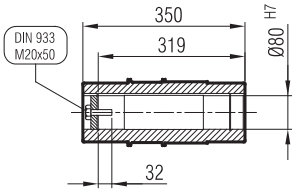
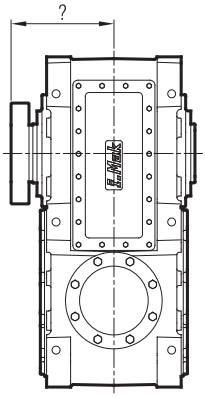
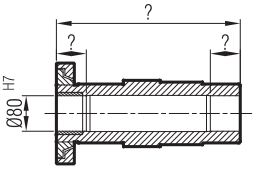


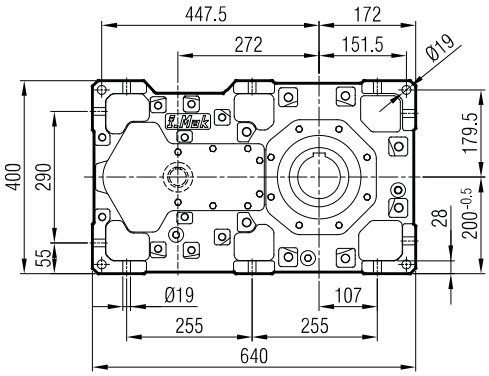


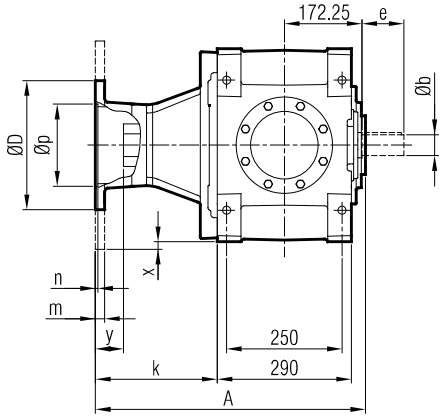
...-SDL / SDR

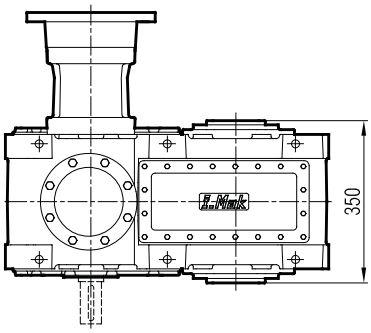


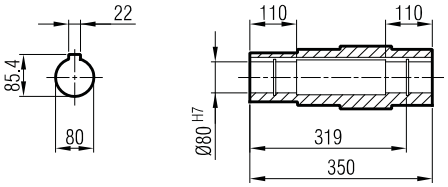


MAP 402



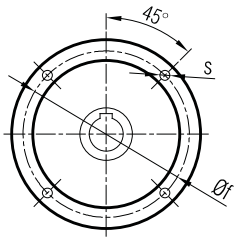




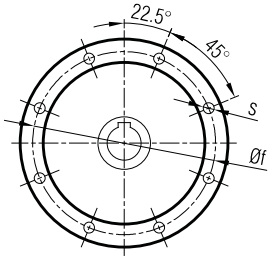


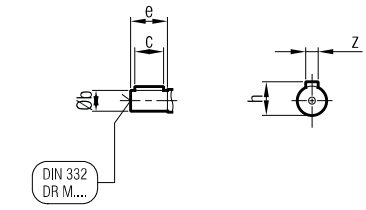
Tahvil / Ratio	Øb	e	z	c	h	M
i: 20,98 ... 12,70	32 k6	80	10	70	35	M12
i: 11,40 ... 6,03	45 k6	100	14	85	48.5	M16

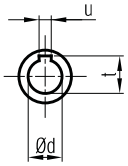
≤ 200 B5 **Tip**/Type/*Typ*



≥ 225 B5 **Tip**/Type/*Typ*







	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x	y
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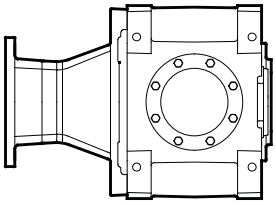
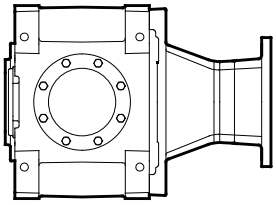
180/B5	564	250	300	350	M14	243.5	20	6	48	51.8	14	-	52
200/B5	564	300	350	400	M16	243.5	22	6	55	59.3	16	0	52
225/B5	607	350	400	450	M16	286.5	22	6	60	64.4	18	25	95

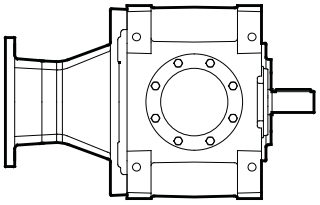
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



G04



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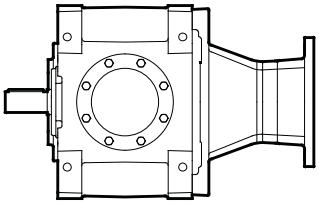
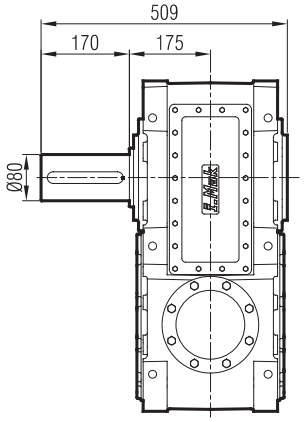
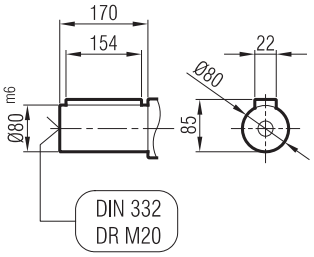


G06

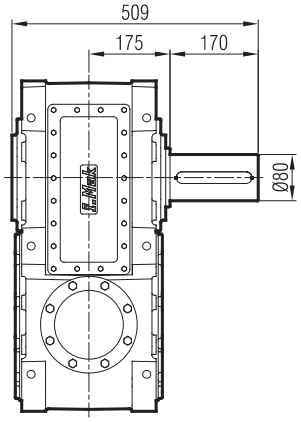
MA / MK 40_

...-SL





...-SR



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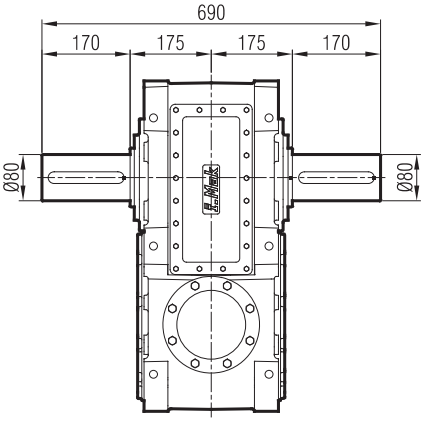
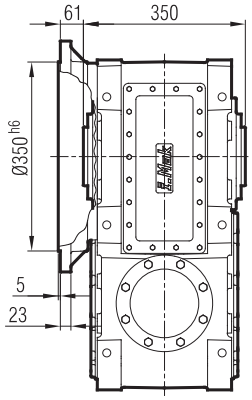
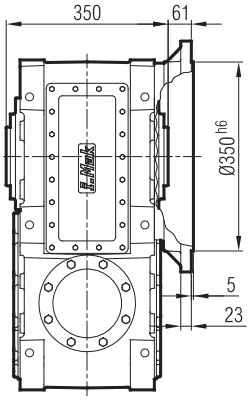


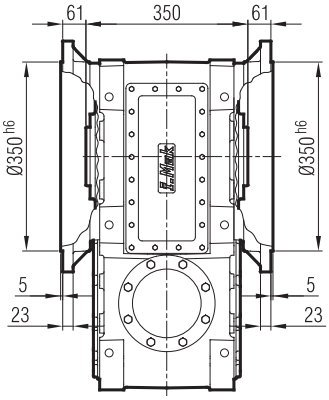
...-FL

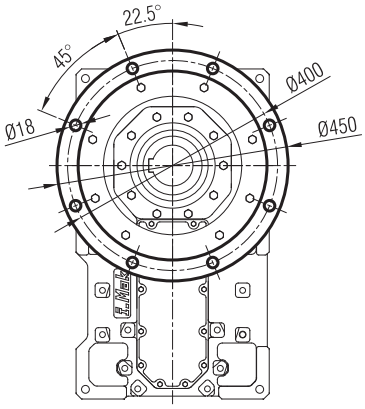


...-FR

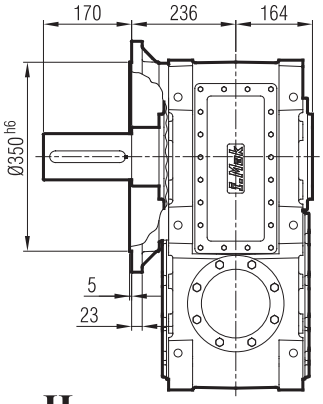


...-FD

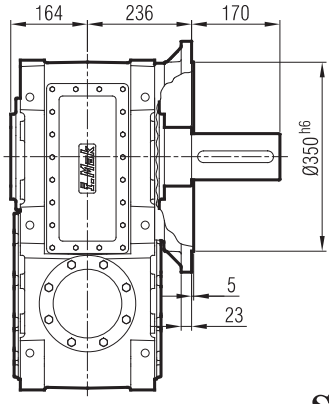




...-FL-SL



...-FR-SR



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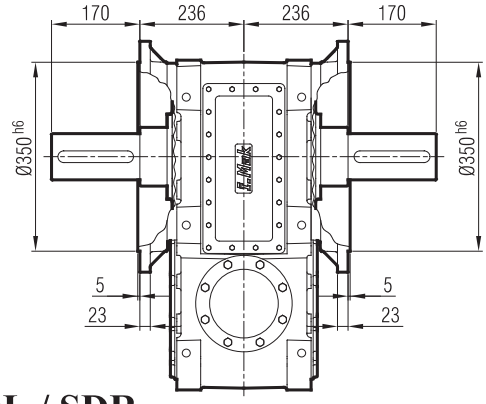
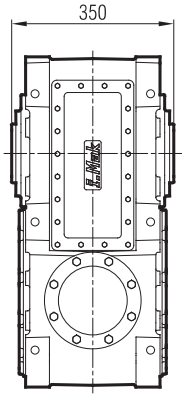
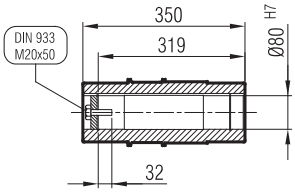
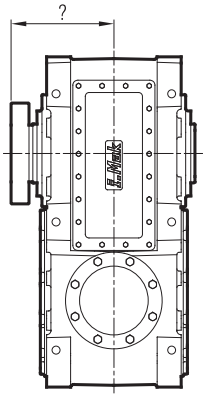


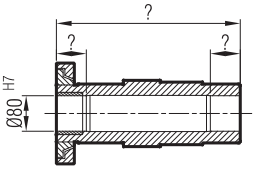
...-H



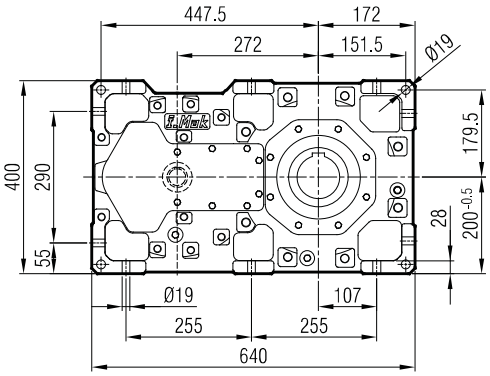


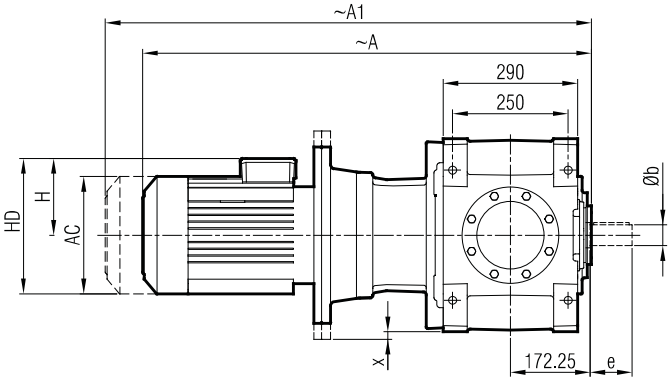
...-SDL / SDR

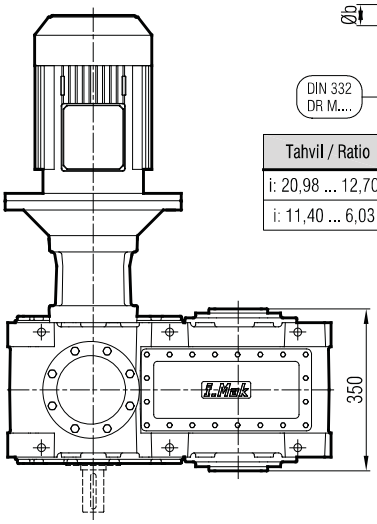


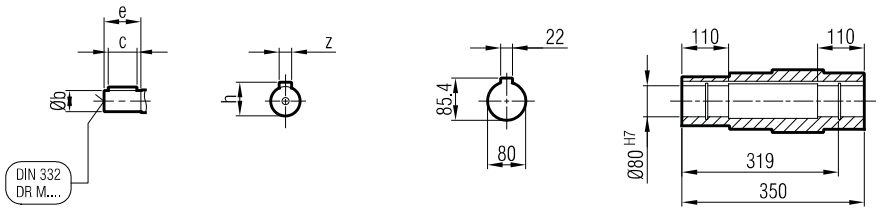


MAM 402







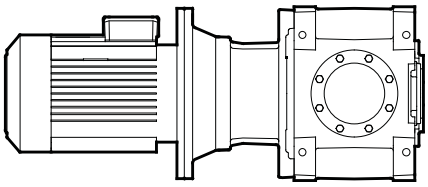


Tahvil / Ratio	Øb	e	z	c	h	M
i: 20,98 ... 12,70	32 k6	80	10	70	35	M12
i: 11,40 ... 6,03	45 k6	100	14	85	48.5	M16

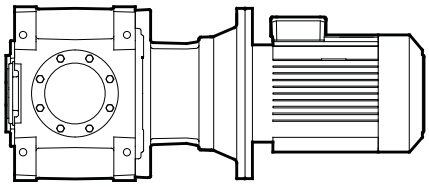
	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5
A	1083	1128	1205	1205	1273	1292	1352
A1	1200	1245	1341	1341	1420	1439	1499
H	240	240	260	260	300	313	313
HD	400	400	440	440	500	538	538
AC	315	315	357	357	394	456	456
x	-	-	-	-	0	28	28

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

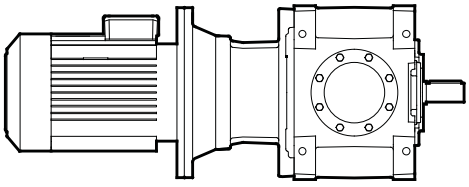
Giriş Seçenekleri / Input Options / *Option d'entree*



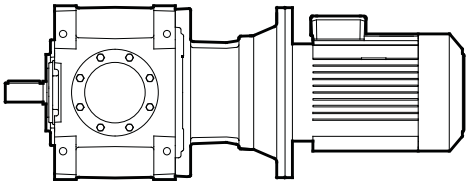
G03



G04



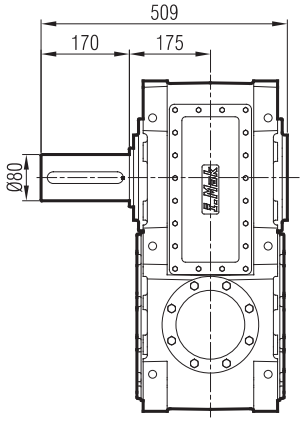
G05

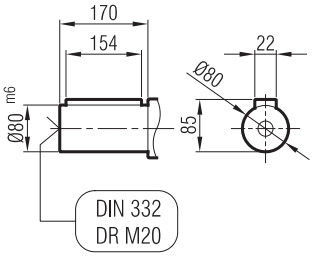


G06

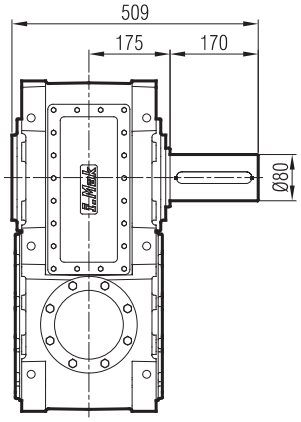
MA / MK 40_

...-SL

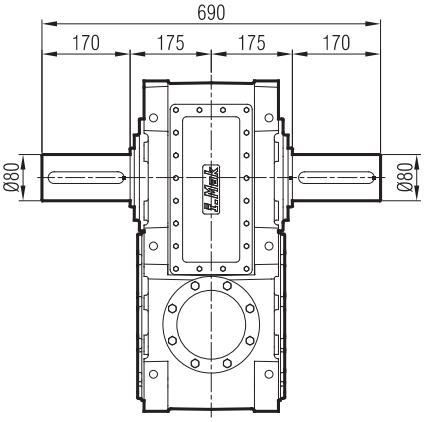




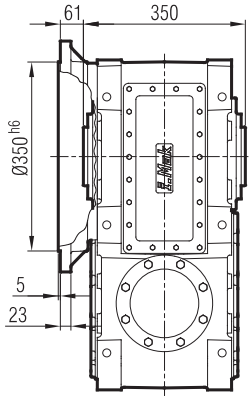
...-SR



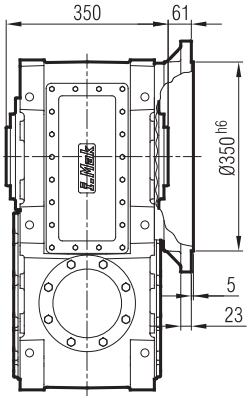
...-SD



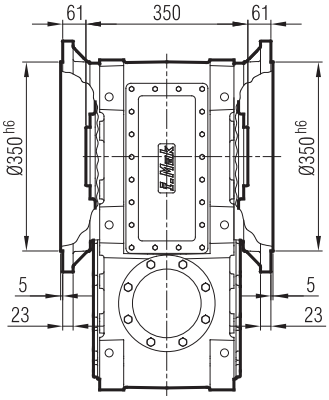
...-FL

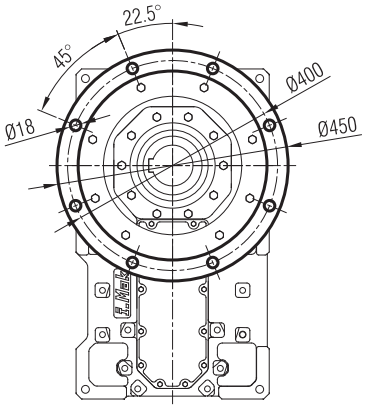


...-FR

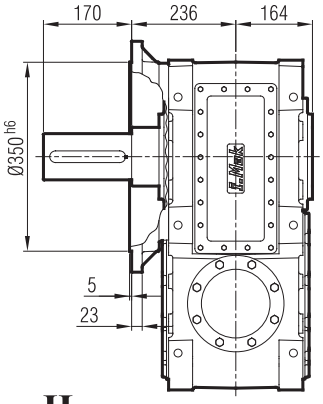


...-FD

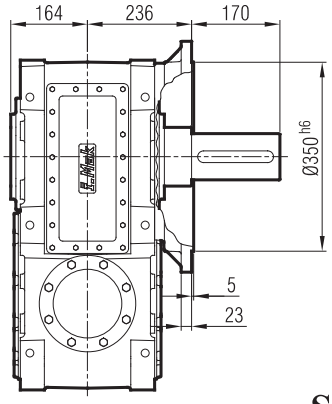




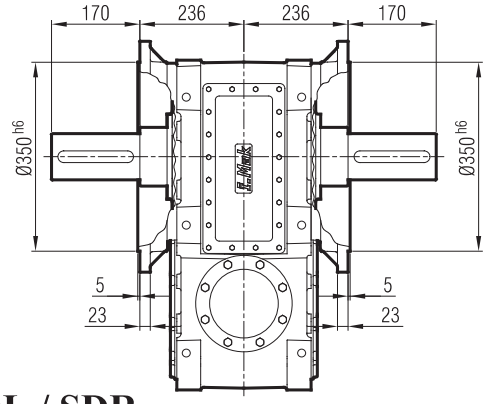
...-FL-SL



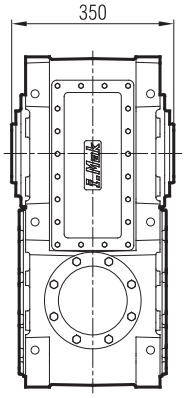
...-FR-SR

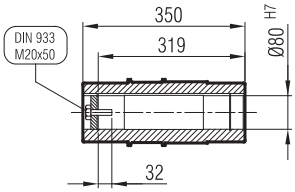


...-FD-SD



...-H





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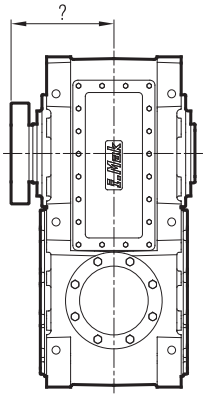
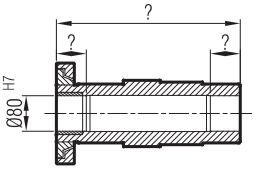
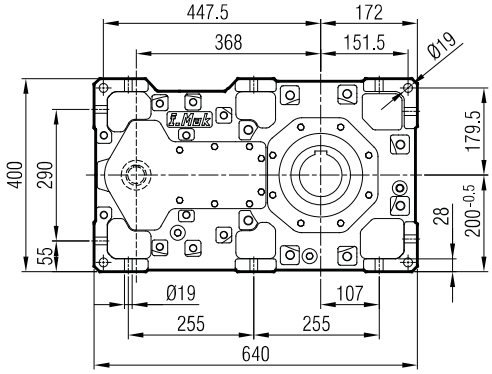
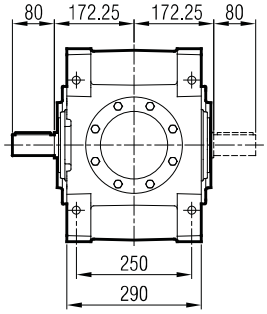
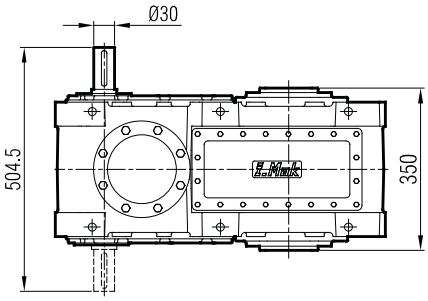


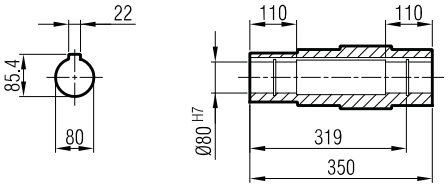


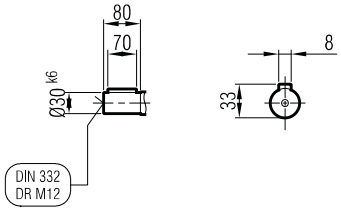
MA 403



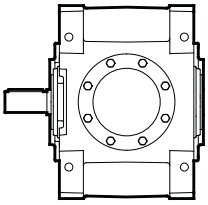








Giriş Seçenekleri / Input Options / *Option d'entree*



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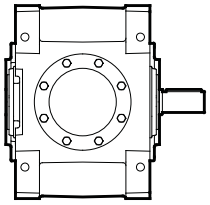

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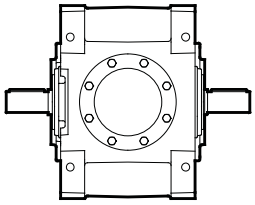

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MA / MK 40_

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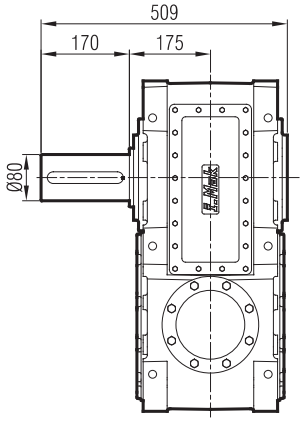

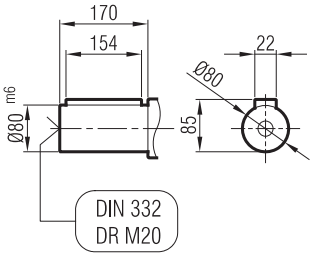

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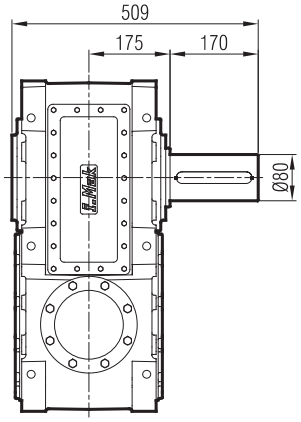

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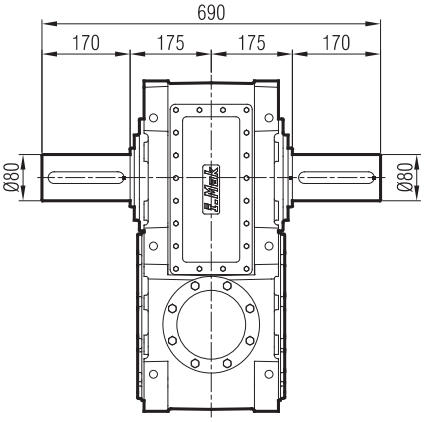

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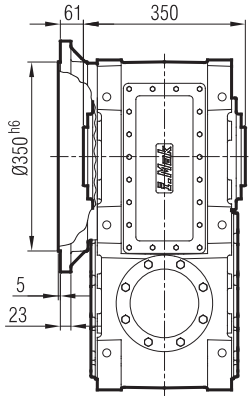

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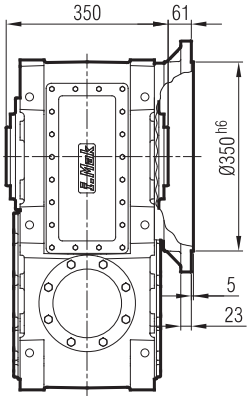

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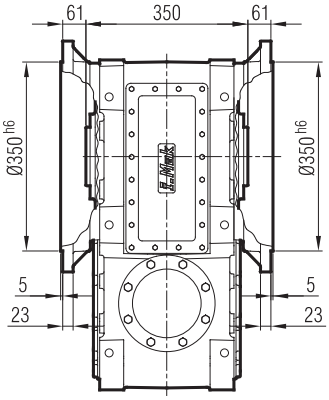

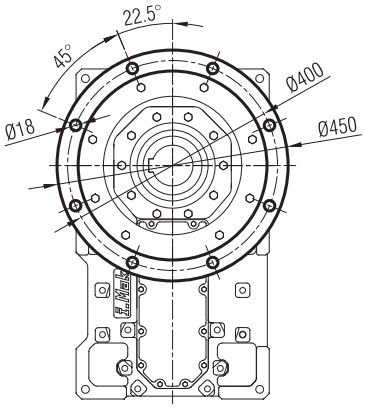

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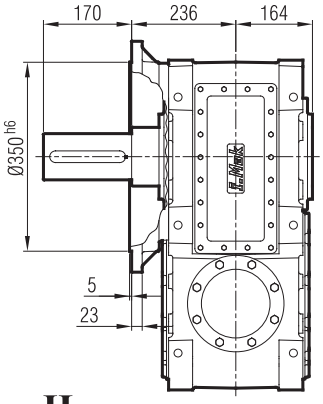

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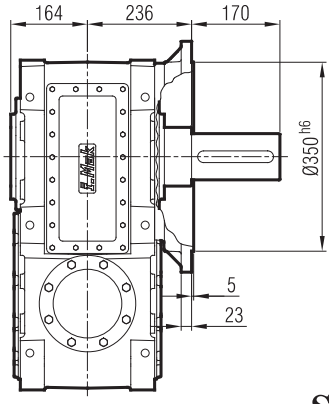

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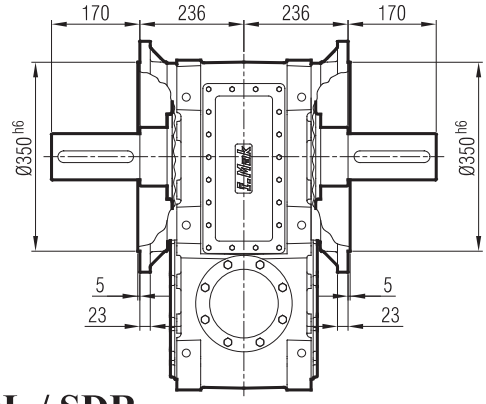

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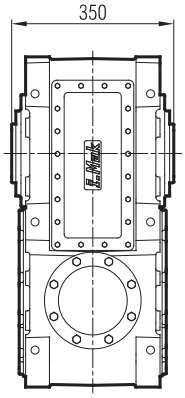
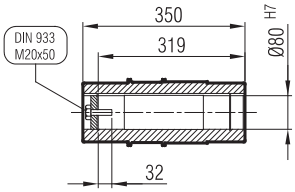
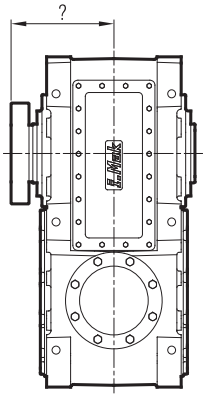
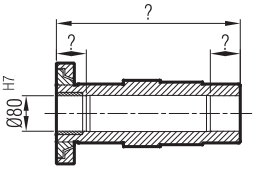


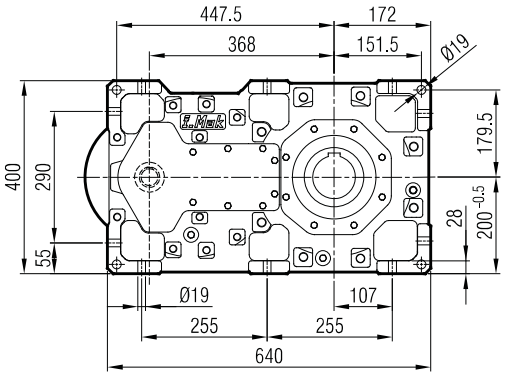


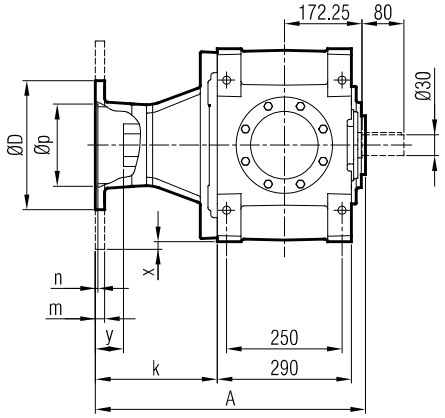
...-SDL / SDR

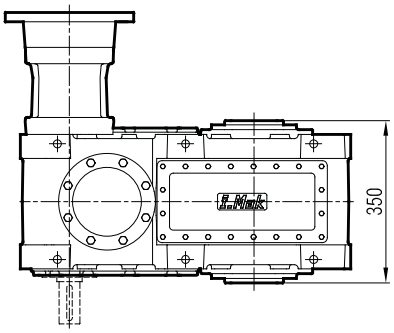


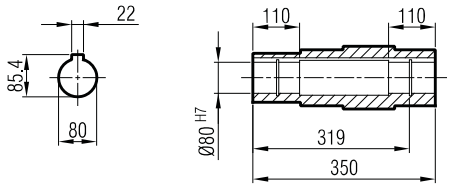


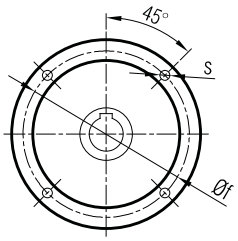
MAP 403

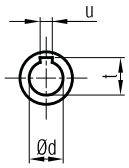


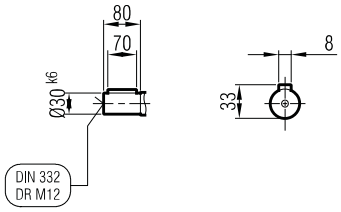












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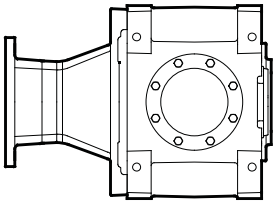
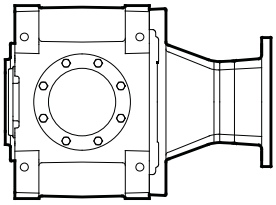
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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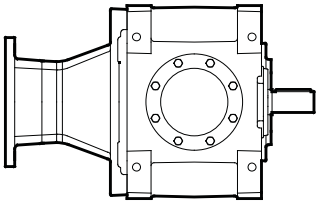

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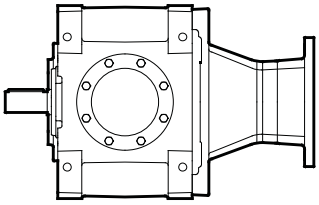
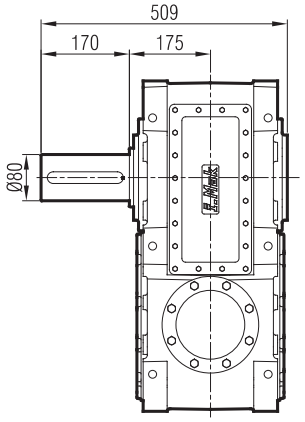
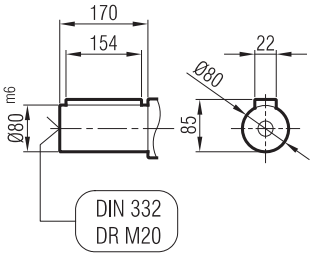


G06

MA / MK 40_

...-SL





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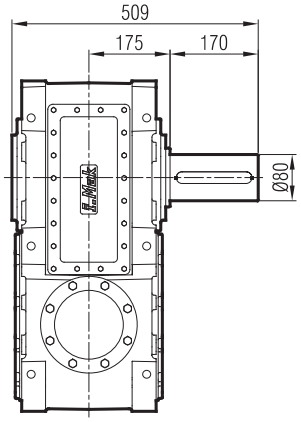

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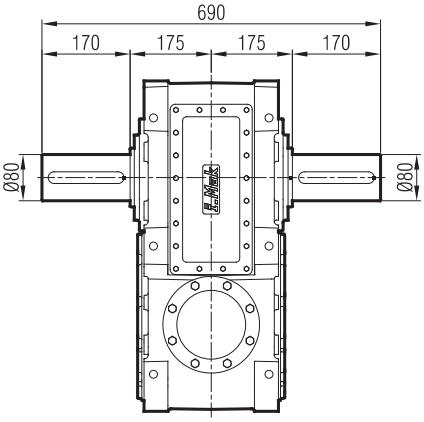

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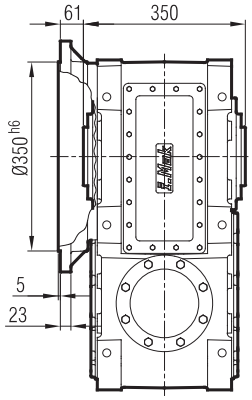

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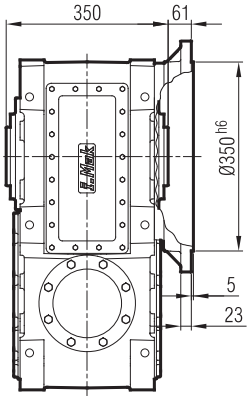

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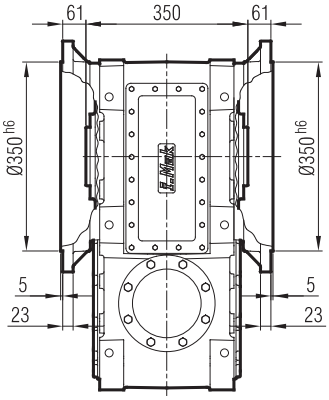
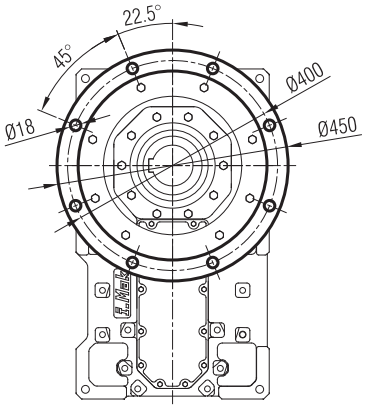
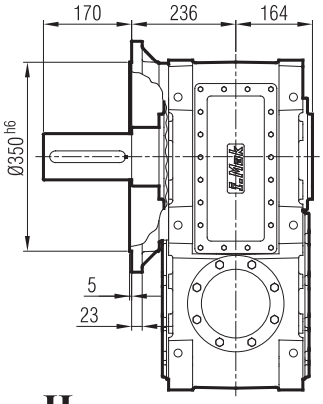
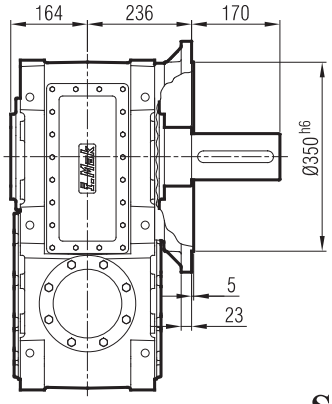




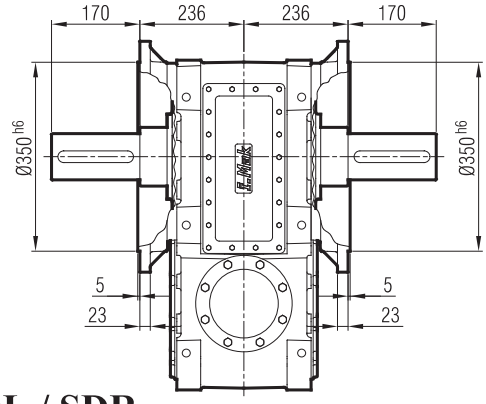
...-FL-SL



...-FR-SR



...-FD-SD



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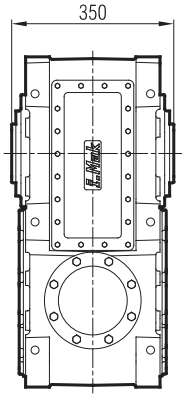

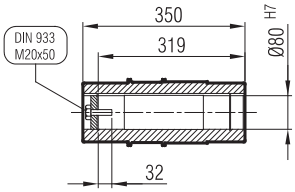

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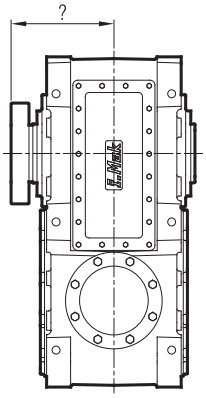
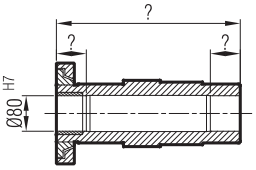
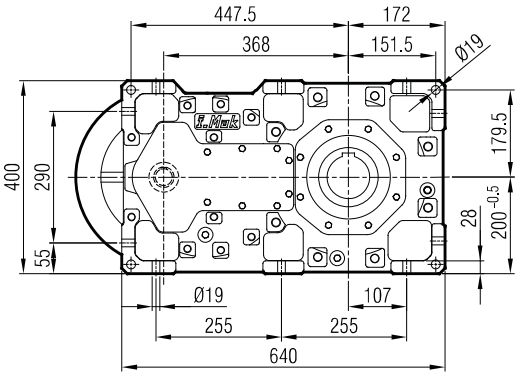
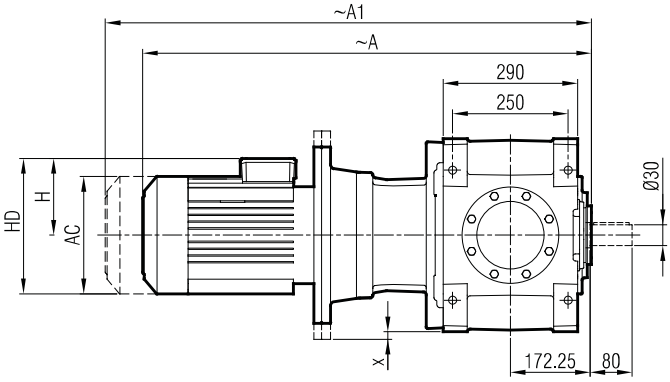
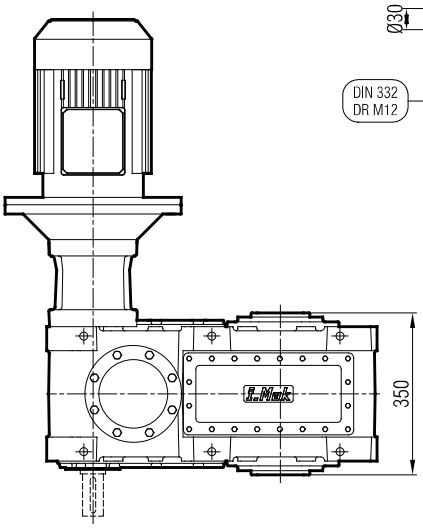


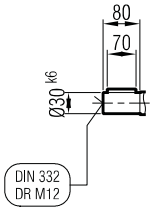


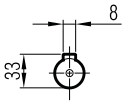
MAM 403

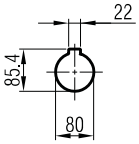


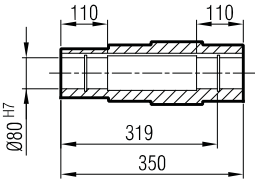








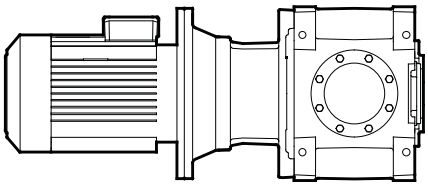




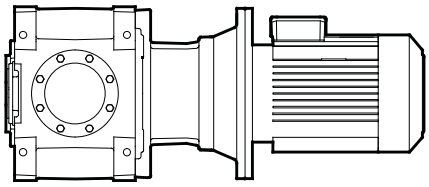
	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5
A	837	914	955	1071	1116	1192	1192	1260
A1	932	1018	1059	1188	1233	1328	1328	1407
H	170	193	193	240	240	260	260	300
HD	282	325	325	400	400	440	440	500
AC	220	262	262	315	315	357	357	394
x	-	-	-	-	-	-	-	0

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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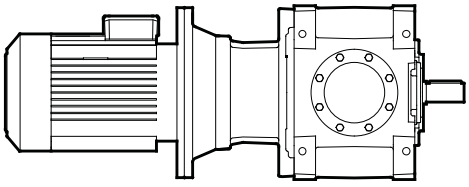

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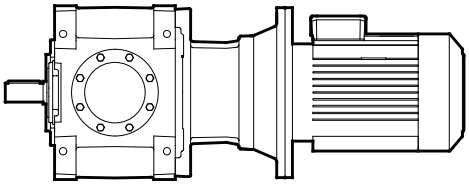
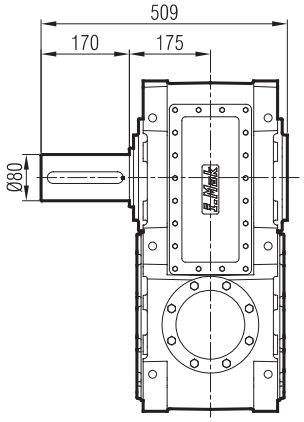
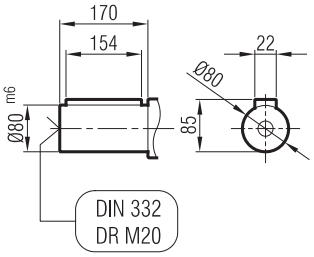


G06

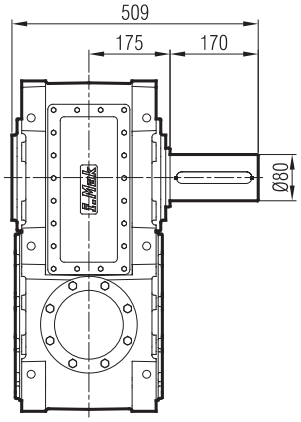
MA / MK 40_

...-SL





...-SR



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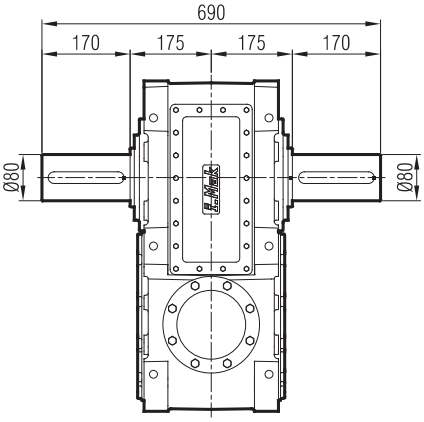
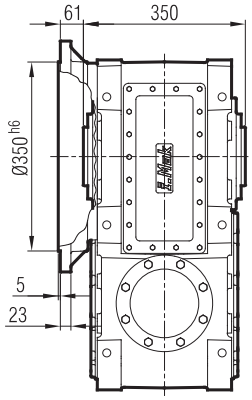


...-FL



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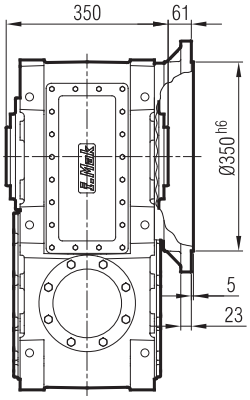

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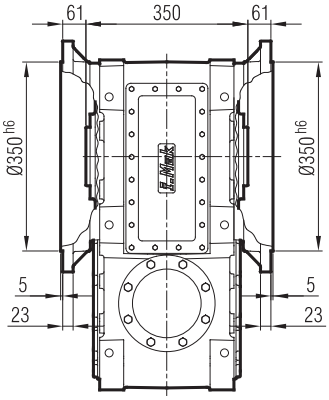

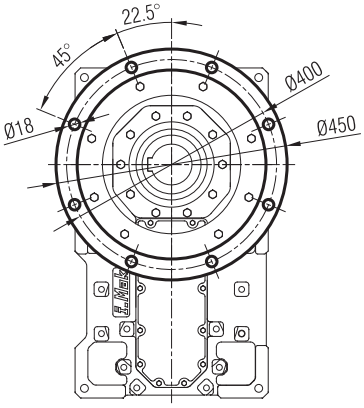

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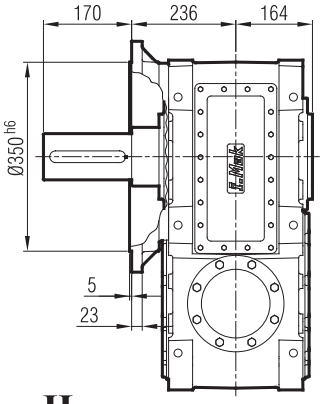

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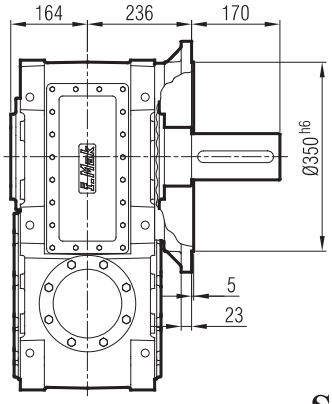

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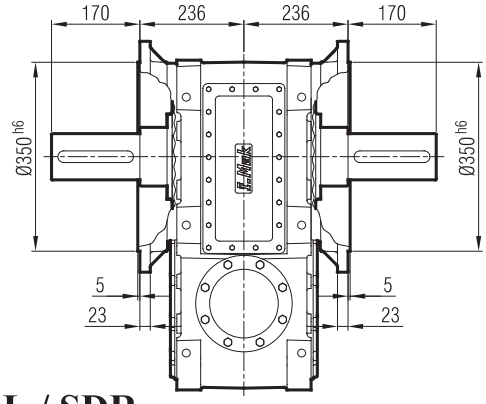
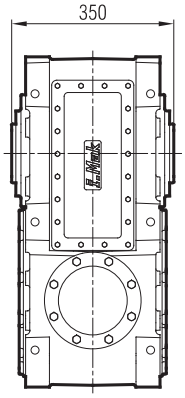
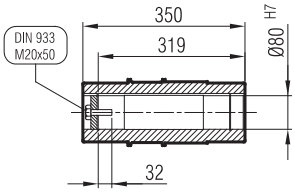


...-H





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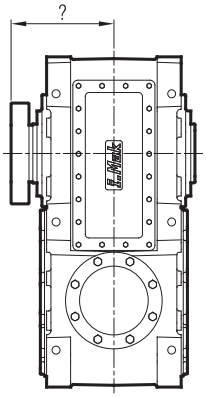
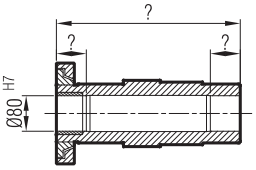
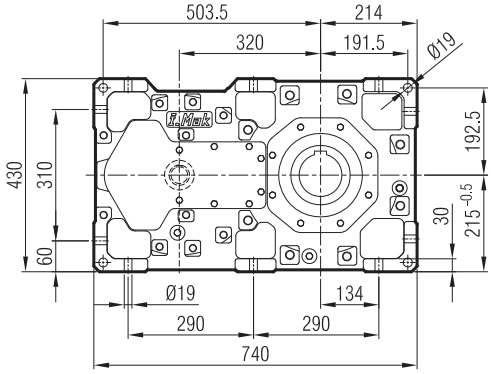
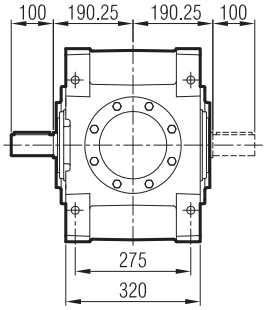
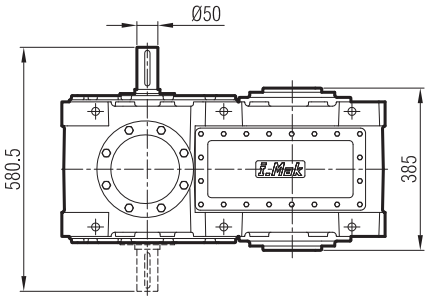


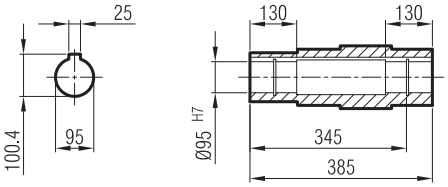


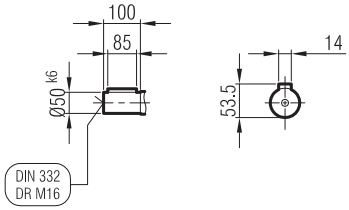
MA 502



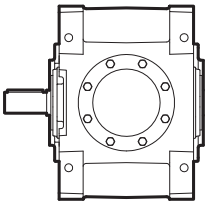








Giriş Seçenekleri / Input Options / *Option d'entree*



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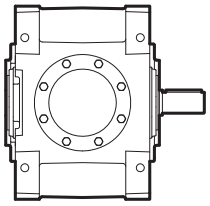

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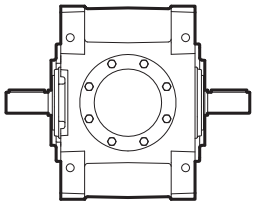
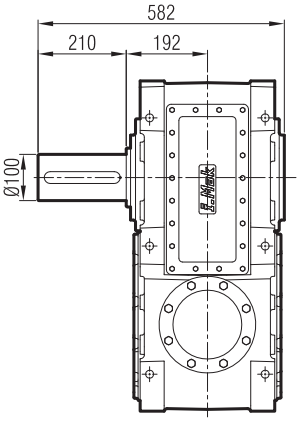
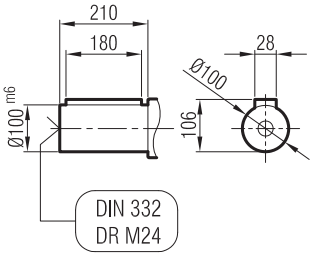


G02

MA / MK 50_

...-SL





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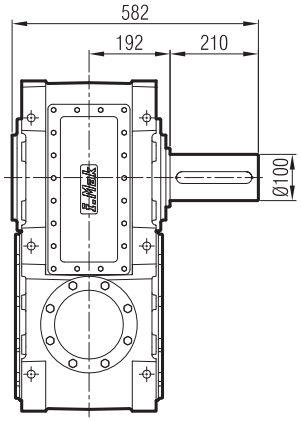

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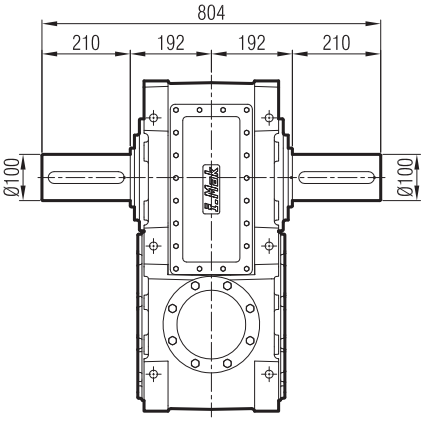

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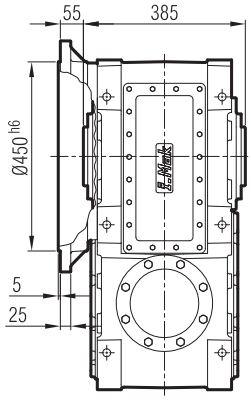

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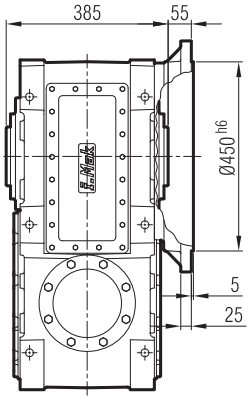

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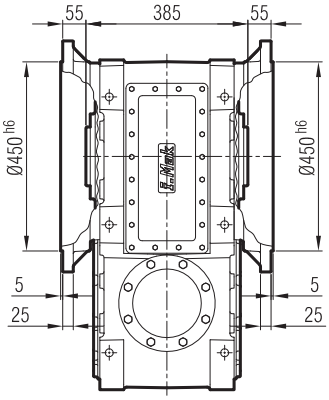

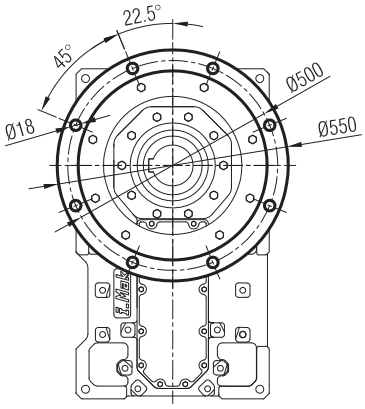

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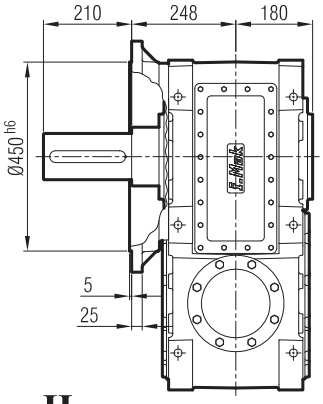

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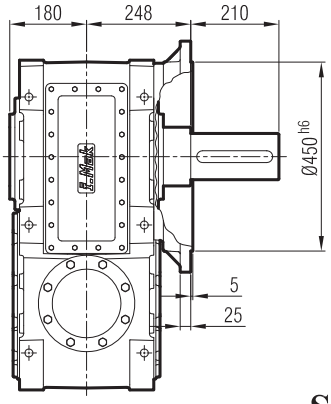
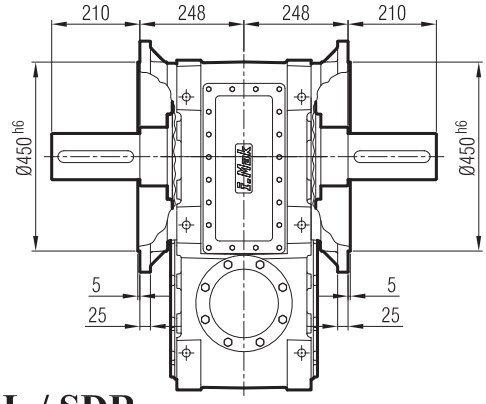


...-FD-SD



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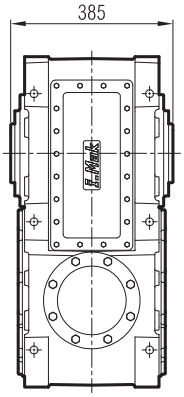
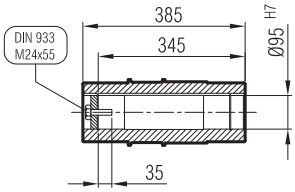
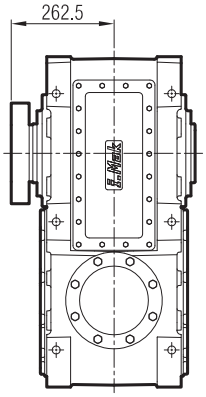
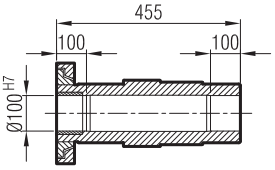


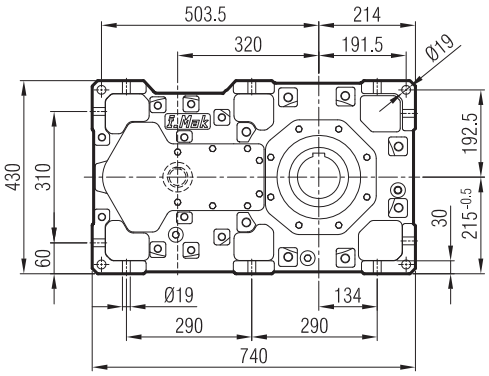


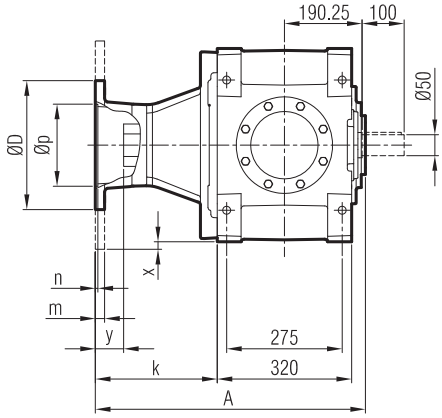
...-SDL / SDR

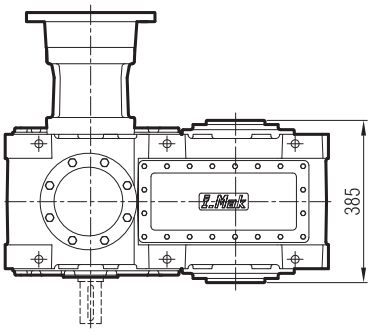


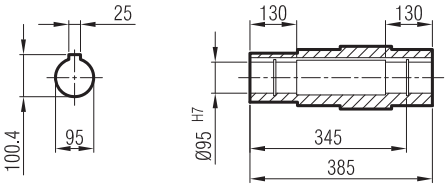


MAP 502









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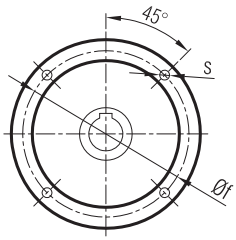

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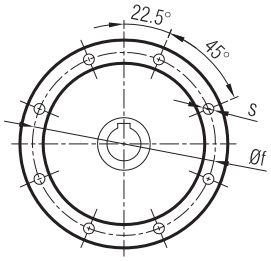

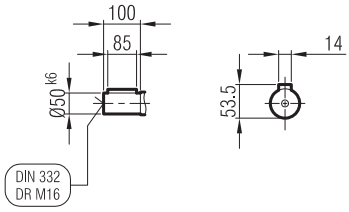

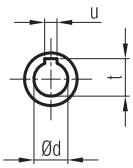

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200/B5	597	300	350	400	M16	244	22	6	55	59.3	16	-	40
225/B5	640	350	400	450	M16	287	22	6	60	64.4	18	10	75
250/B5	640	450	500	550	M16	287	25	6.5	65	69.4	18	60	75
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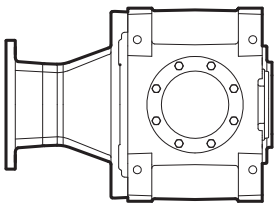
Giriş Seçenekleri / Input Options / *Option d'entree*



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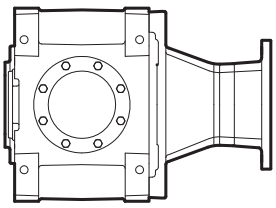

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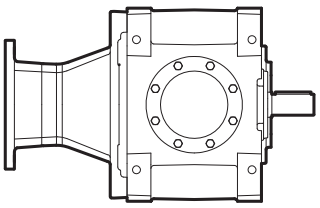

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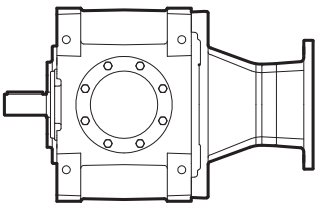
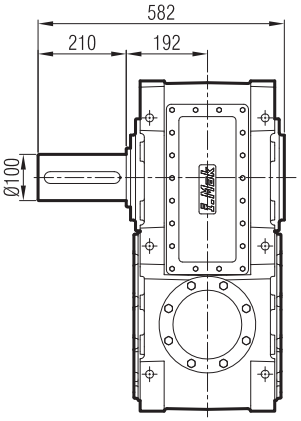
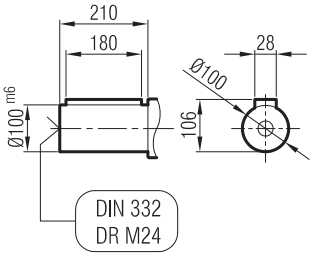


G06

MA / MK 50_

...-SL





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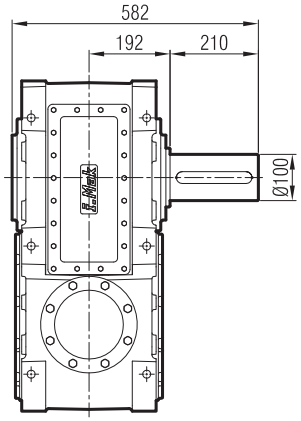

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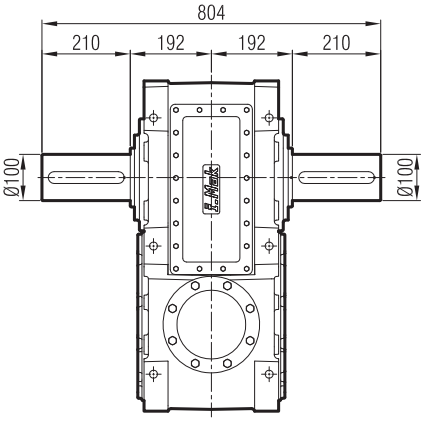

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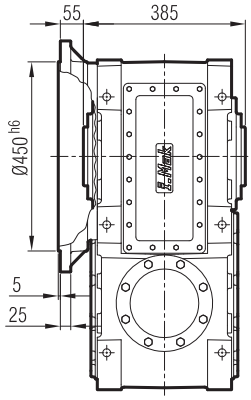

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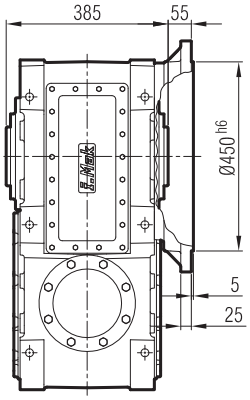

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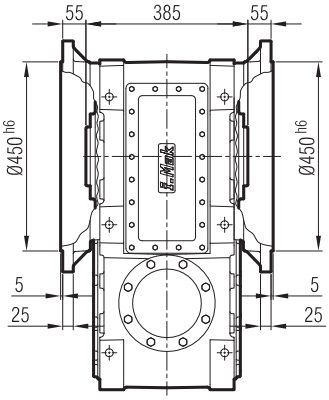

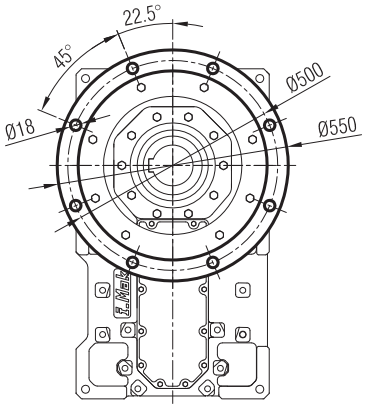

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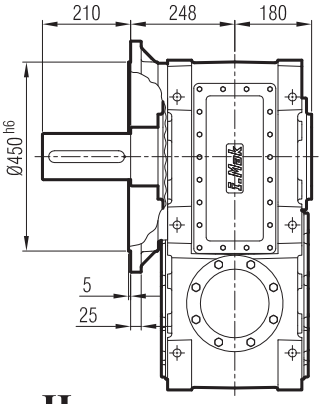

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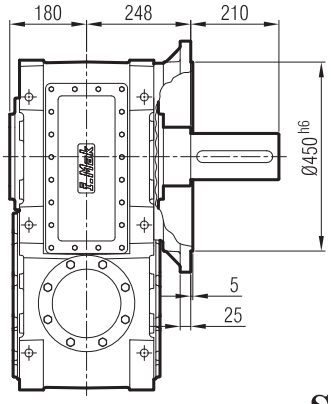

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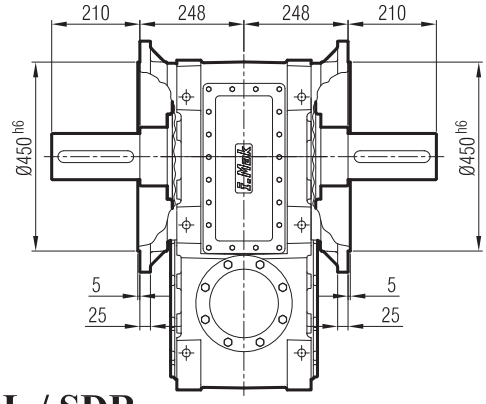

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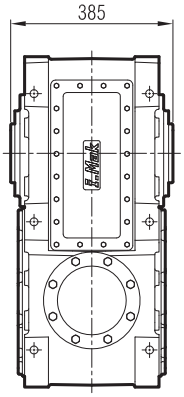
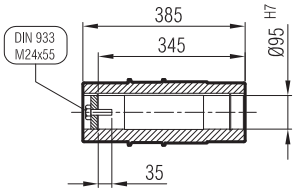
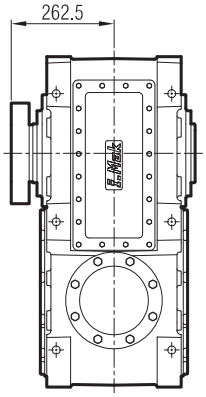
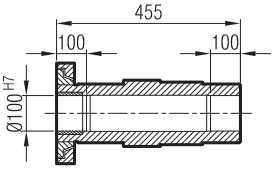


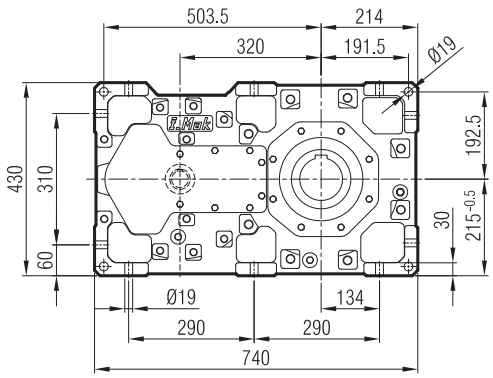


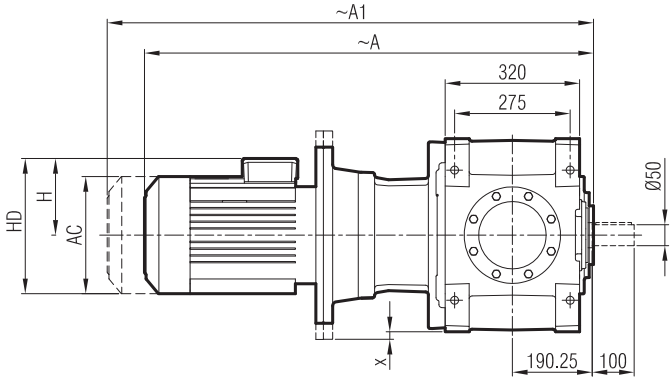
...-SDL / SDR

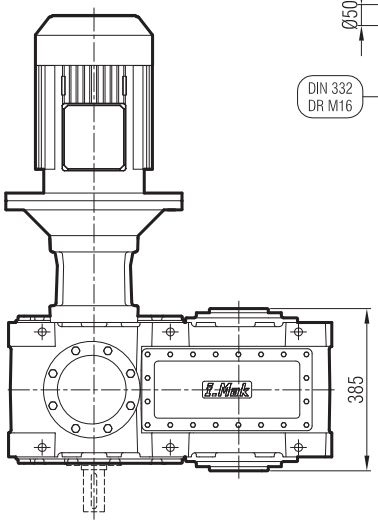


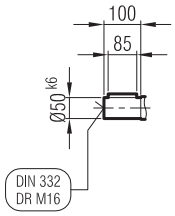


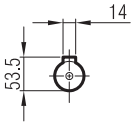
MAM 502

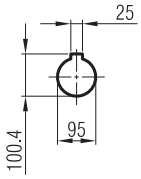


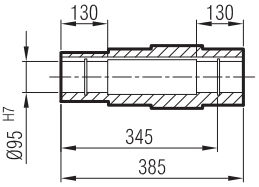












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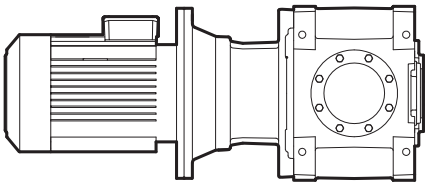
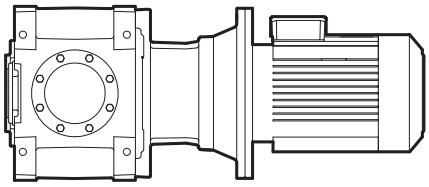
A	1238	1306	1325	1385	1434	1525	1525
A1	1358	1426	1445	1505	1554	1645	1725
H	260	300	313	313	366	398	398
HD	440	500	538	538	618	678	678
AC	357	394	456	456	489	548	548
x	-	-	13	13	60	60	60

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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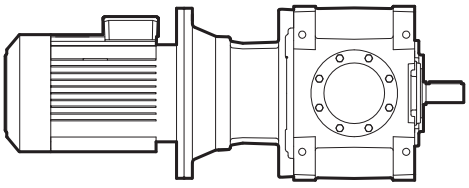

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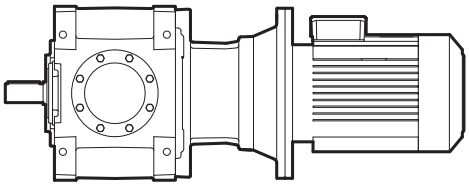
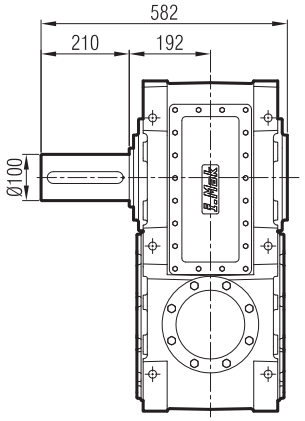
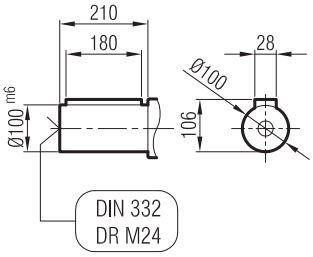


G06

MA / MK 50_

...-SL





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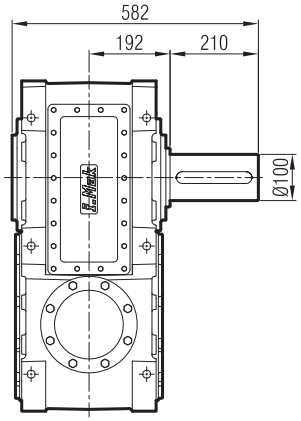
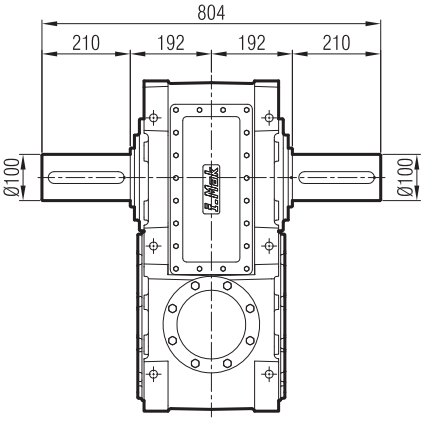
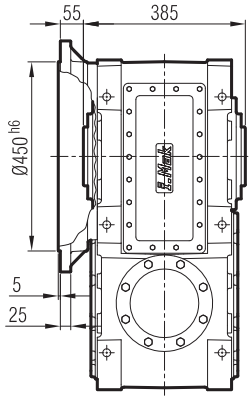


...-SD



...-FL



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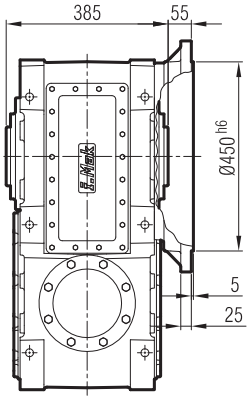

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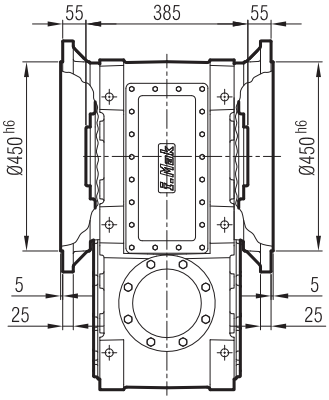

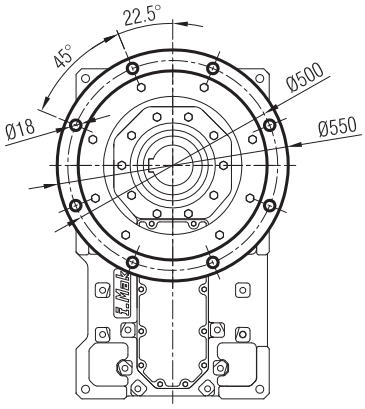

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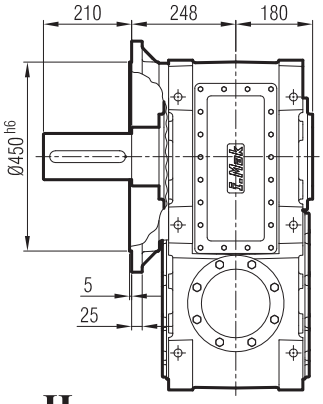

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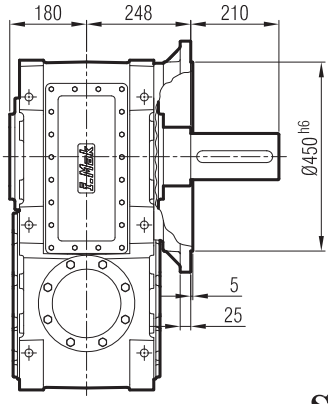

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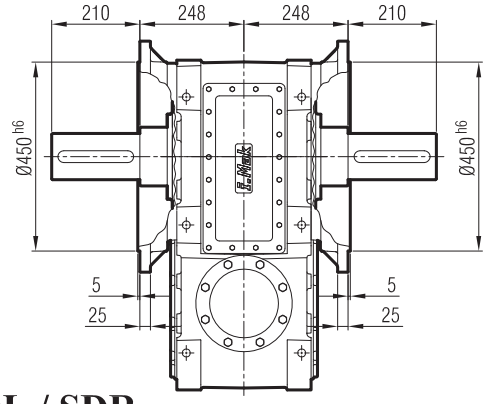

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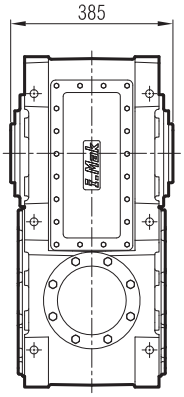

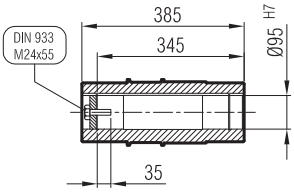

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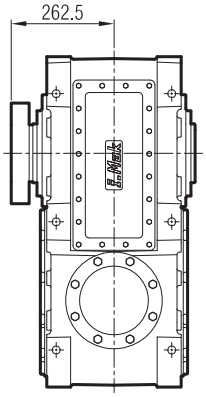
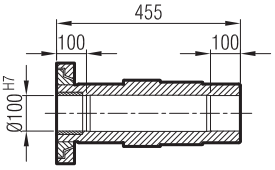
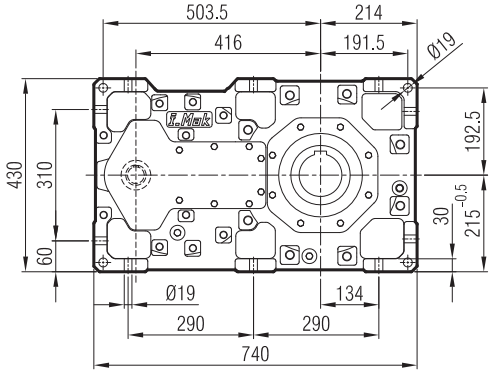
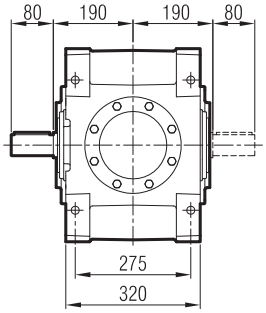
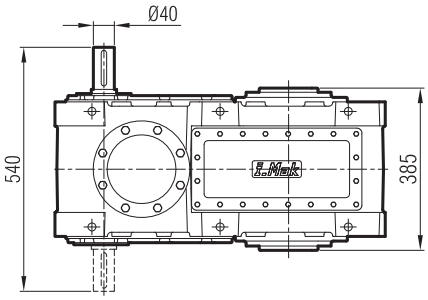


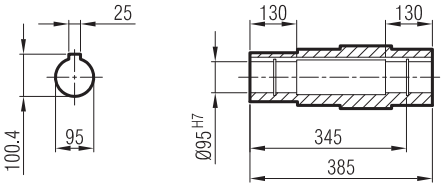


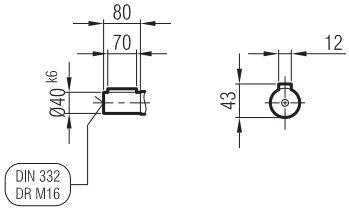
MA 503



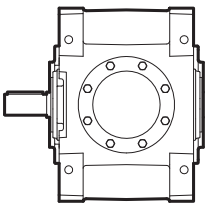








Giriş Seçenekleri / Input Options / *Option d'entree*



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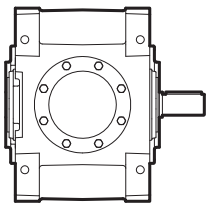

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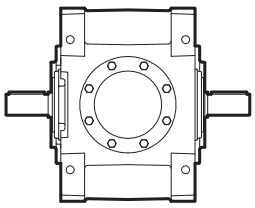

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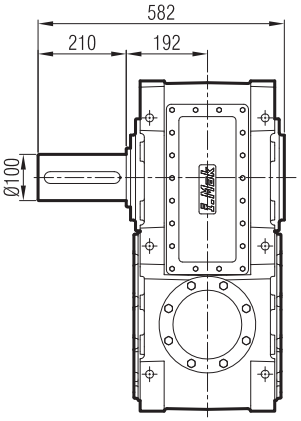
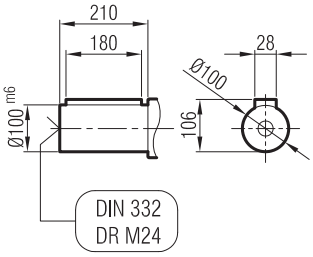
MA / MK 50_

...-SL





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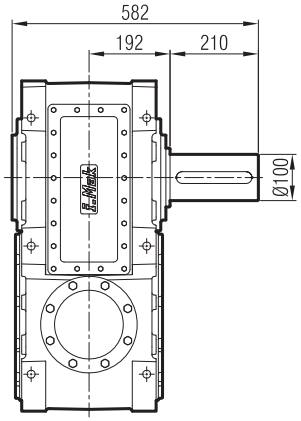

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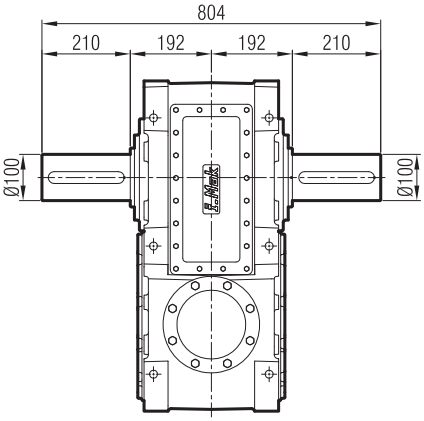

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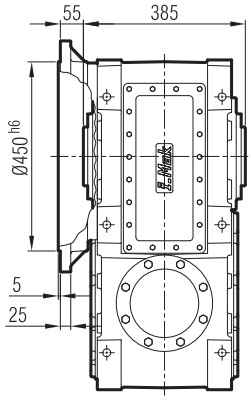

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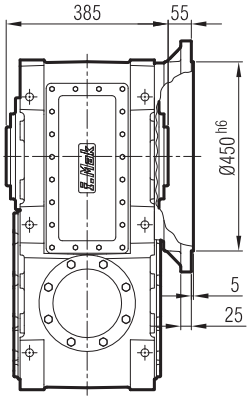

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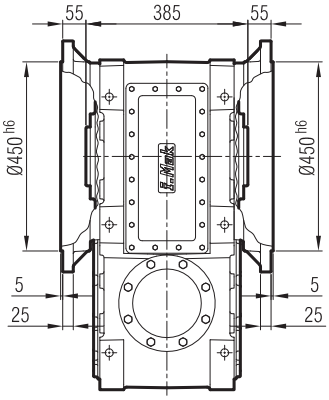

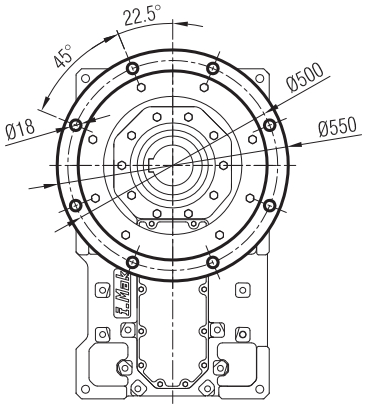

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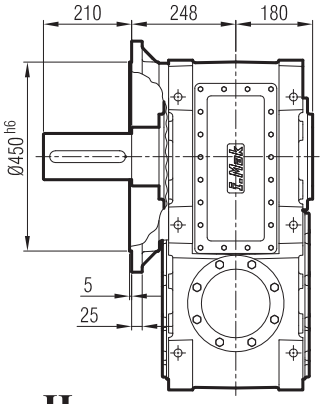

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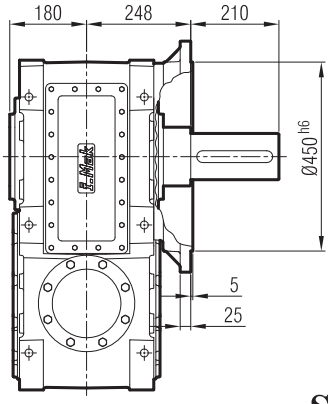

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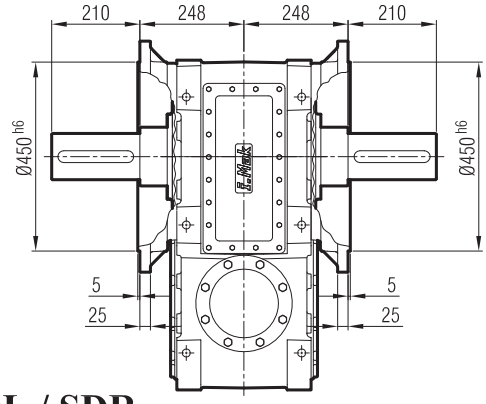

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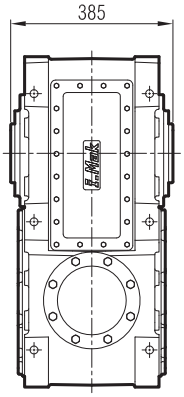

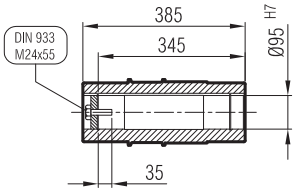

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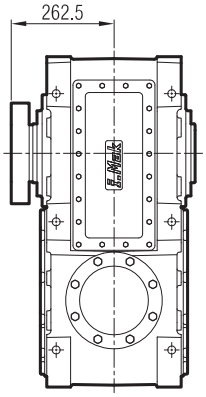
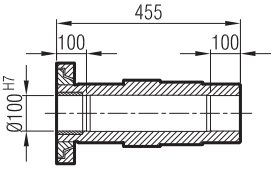
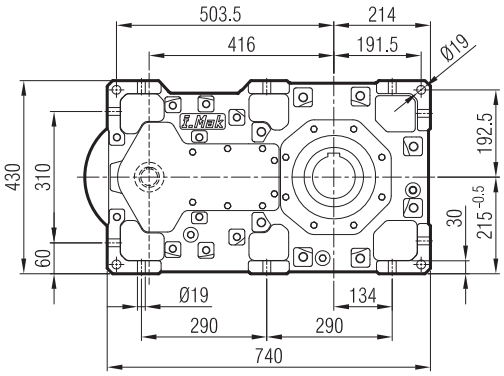
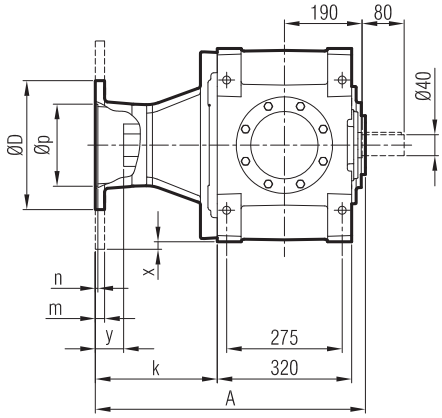
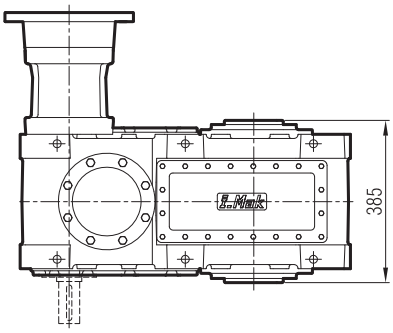


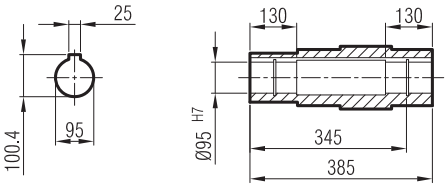


MAP 503









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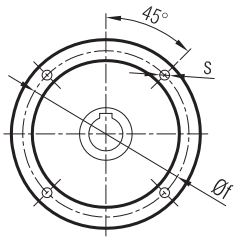

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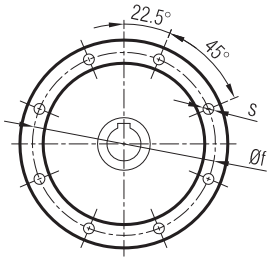

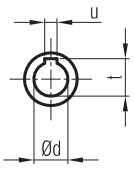

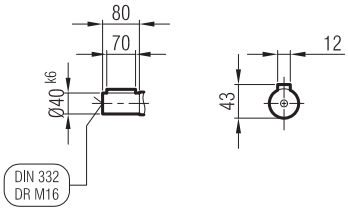

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132/B5	561	230	265	300	M12	208	18	6	38	41.3	10	-	37
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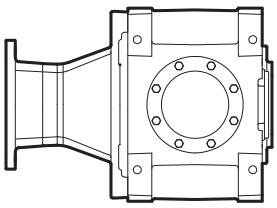
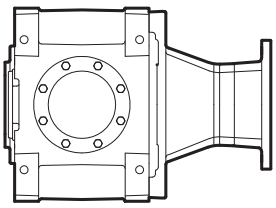
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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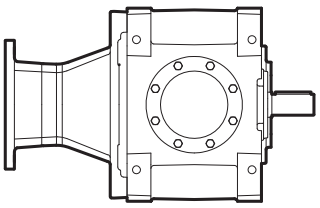

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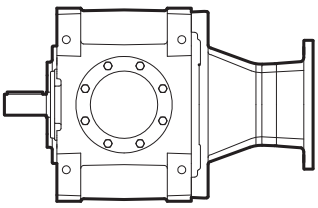
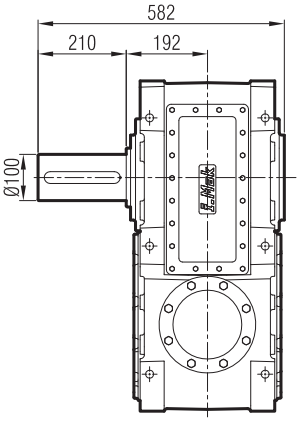
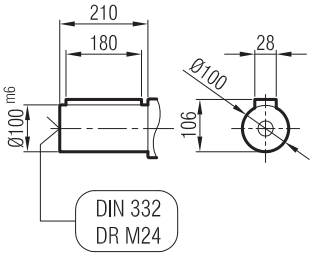


G06

MA / MK 50_

...-SL





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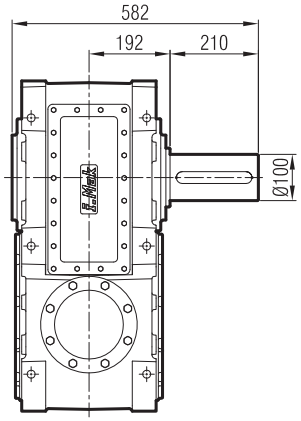

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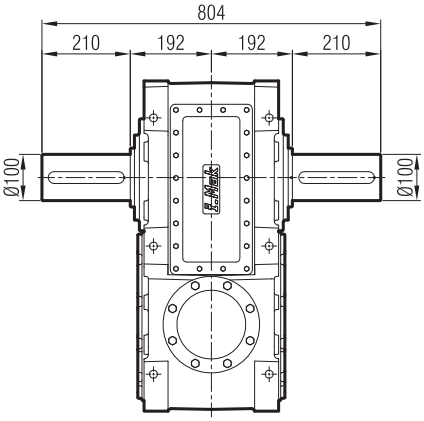

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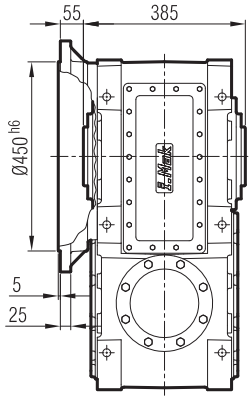

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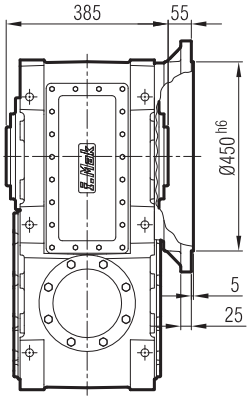

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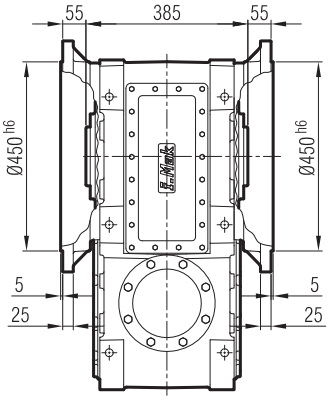

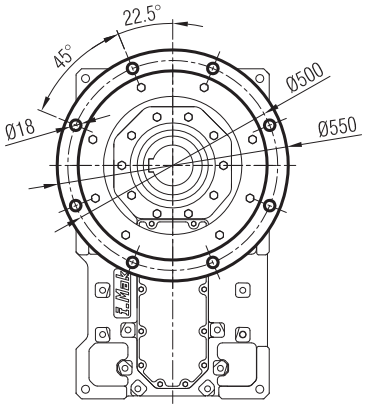

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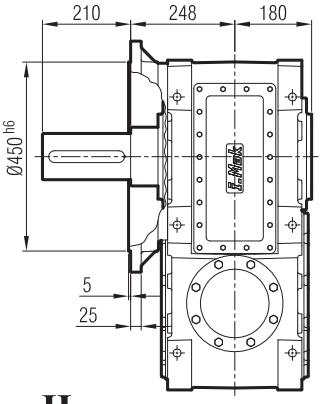

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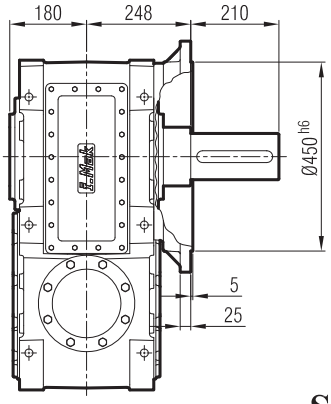

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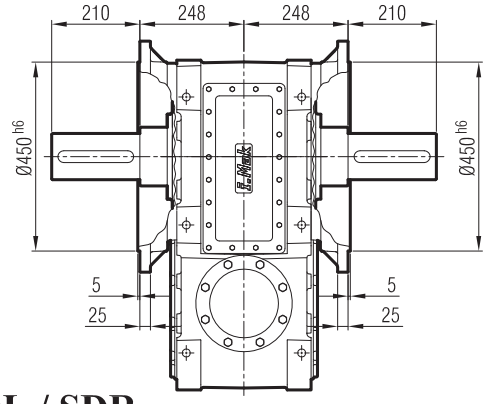

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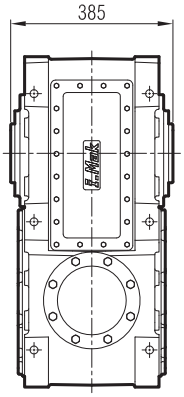

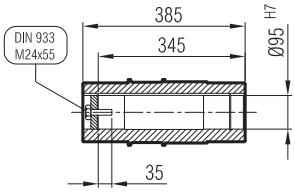

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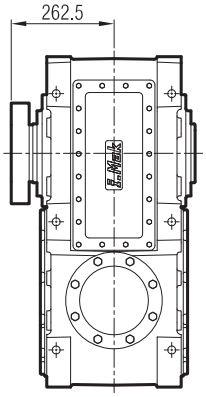
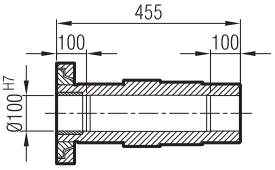
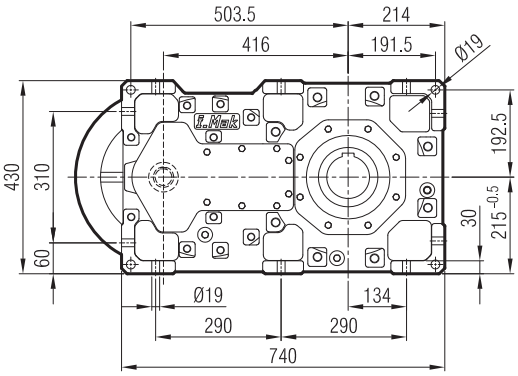
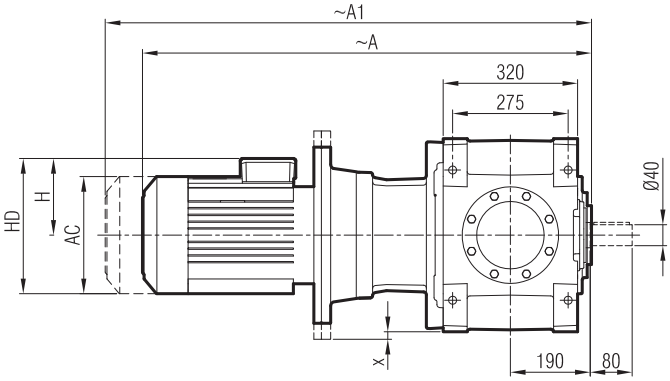
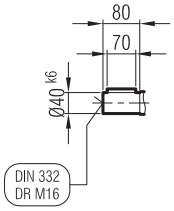


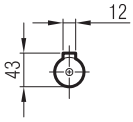


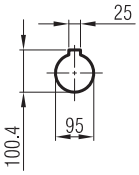
MAM 503

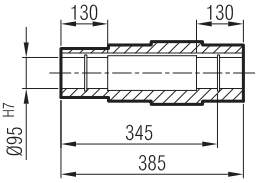


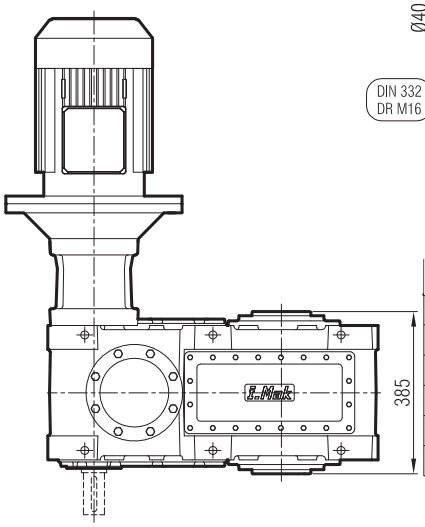












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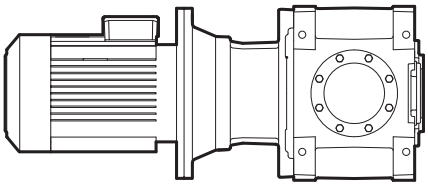
A	884	962	1002	1097	1142	1219	1219	1287	1306	1366	1415
A1	967	1062	1102	1212	1257	1339	1339	1407	1426	1486	1535
H	170	193	193	240	240	260	260	300	313	313	366
HD	282	325	325	400	400	440	440	500	538	538	618
AC	220	262	262	315	315	357	357	394	456	456	489
x	-	-	-	-	-	-	-	-	13	13	60

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



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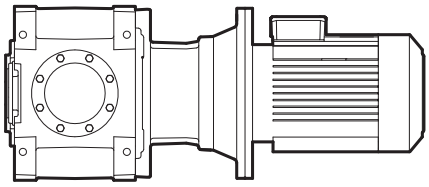

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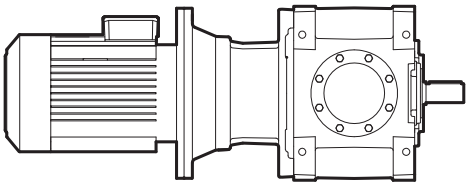

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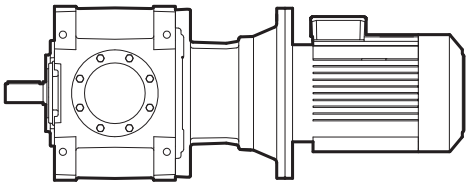
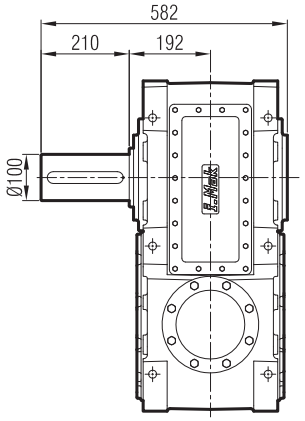
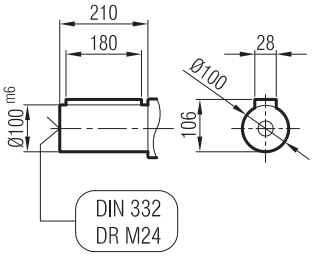


G06

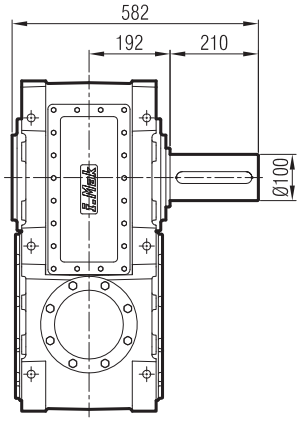
MA / MK 50_

...-SL





...-SR



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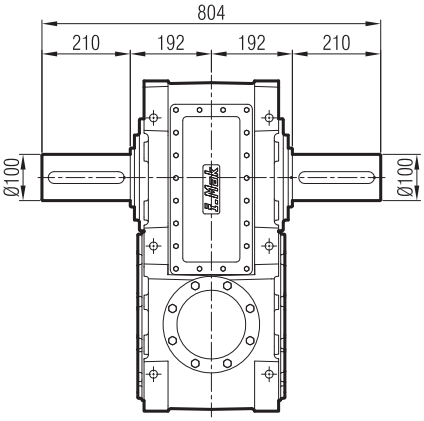

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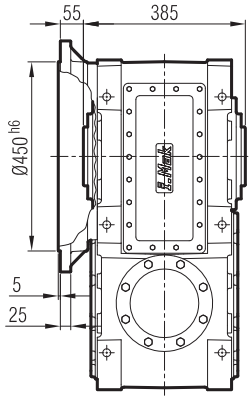

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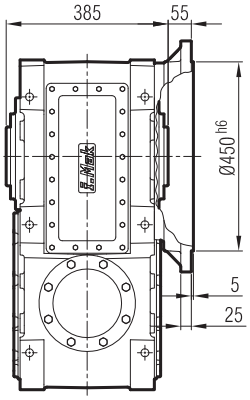
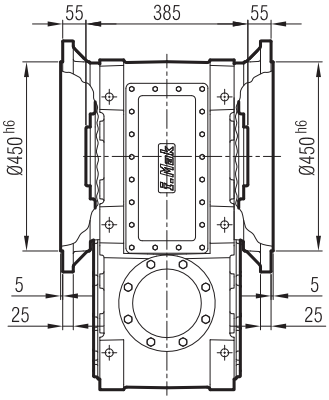
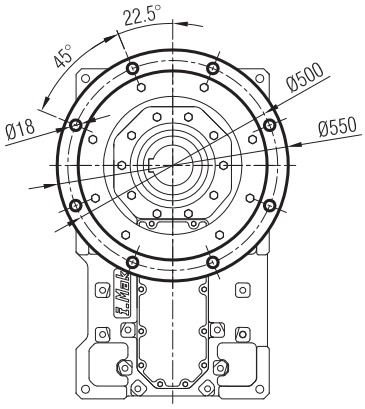


...-FD





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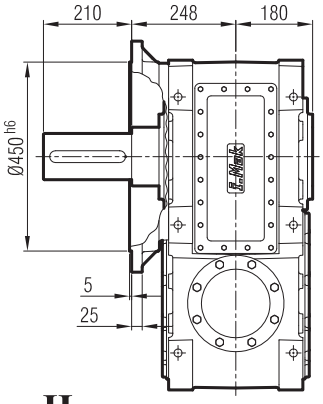

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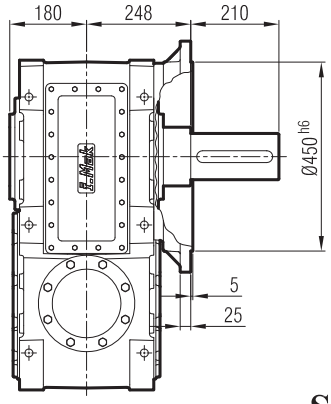

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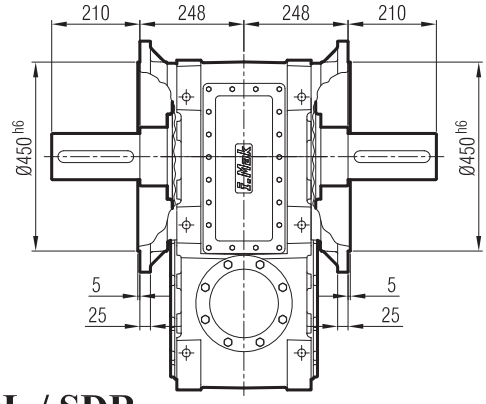

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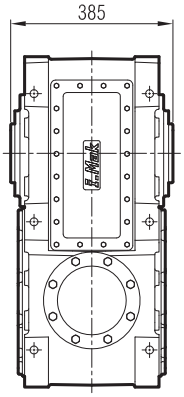

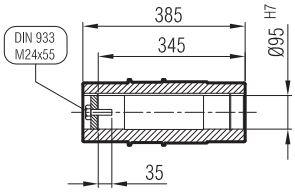

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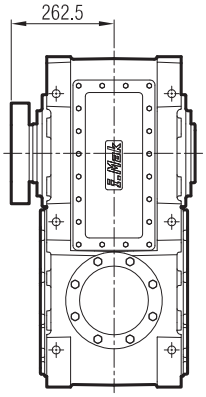
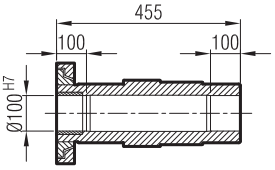
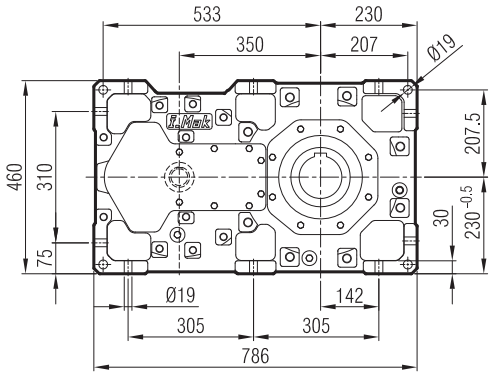
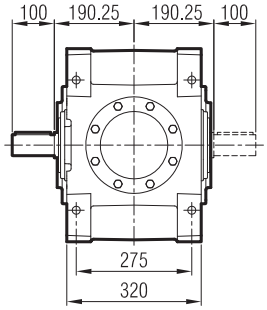
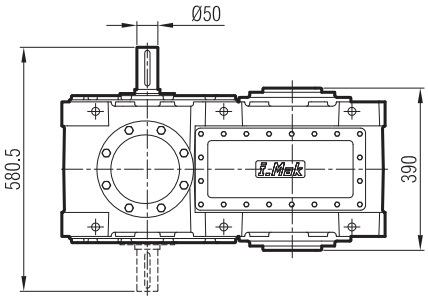


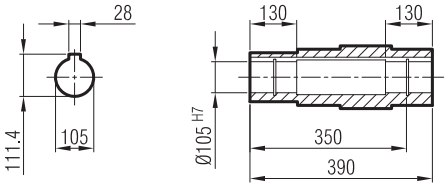


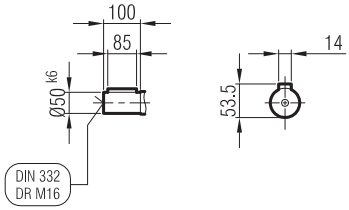
MA 602



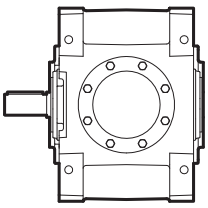








Giriş Seçenekleri / Input Options / *Option d'entree*



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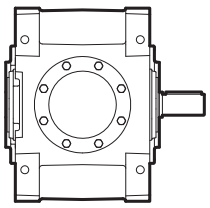

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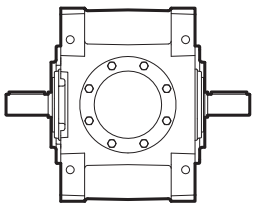
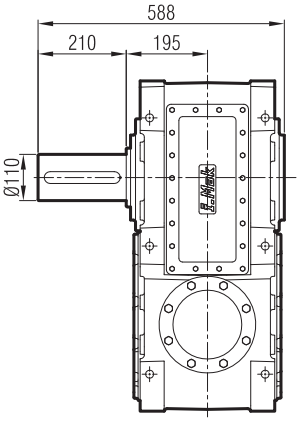
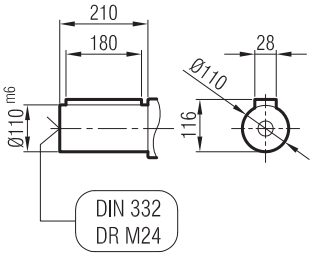


G02

MA / MK 60_

...-SL





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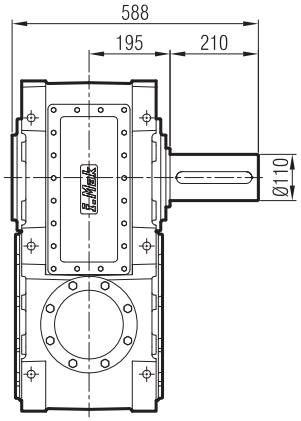

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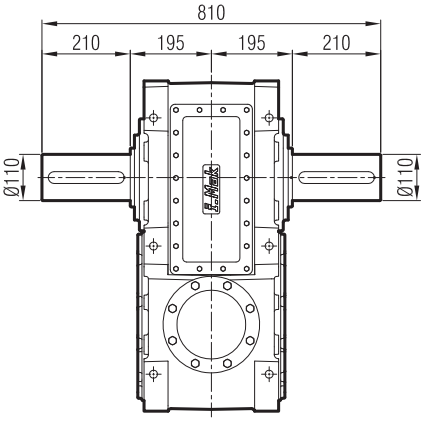

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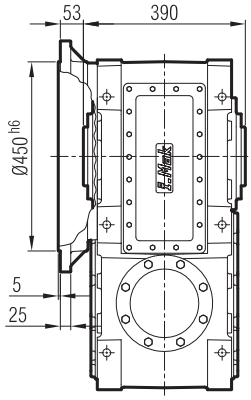

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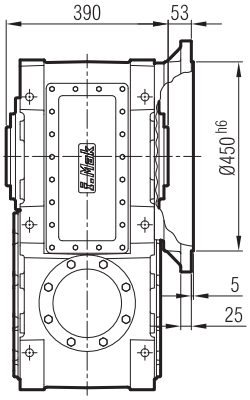

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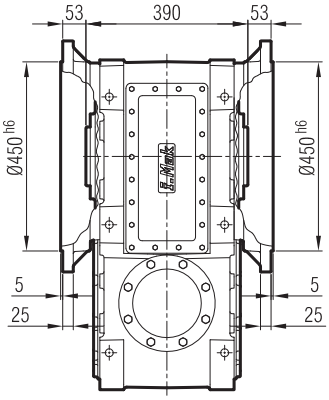

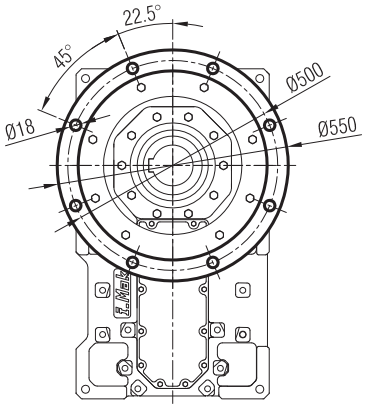

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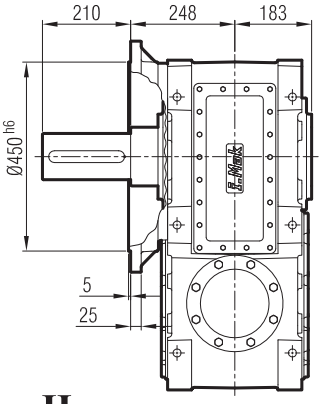

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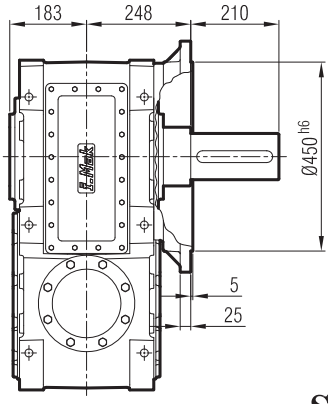
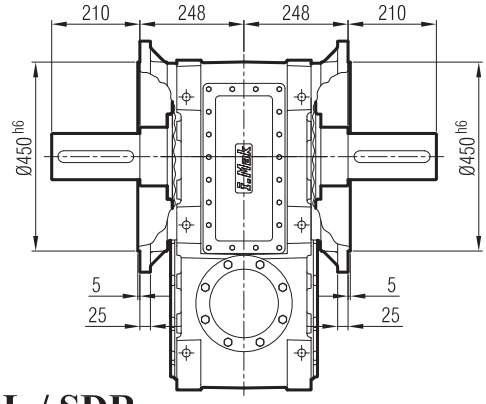


...-FD-SD



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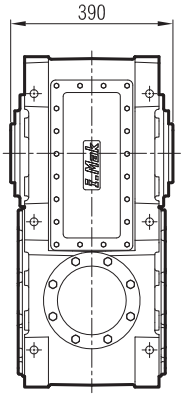
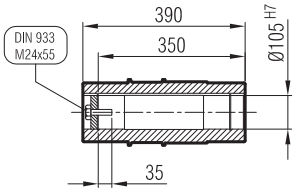
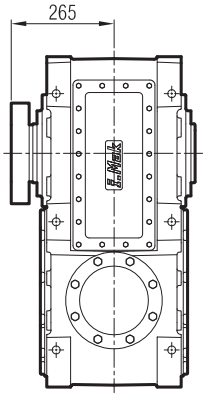
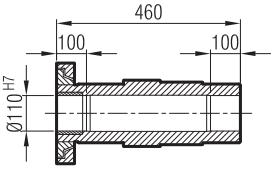


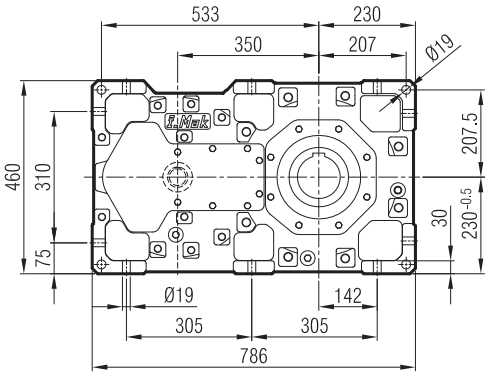


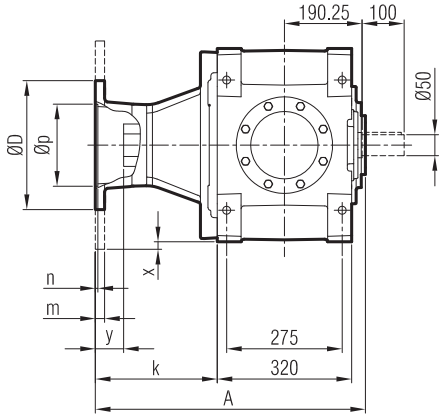
...-SDL / SDR

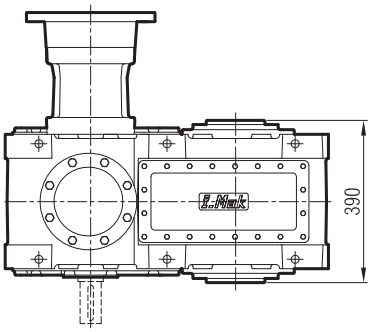


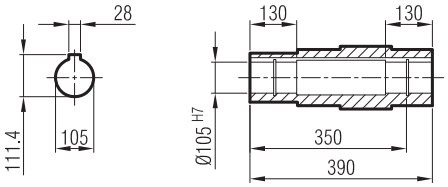


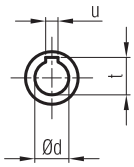
MAP 602

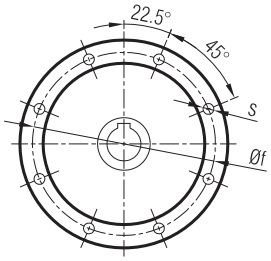


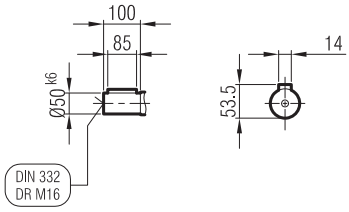












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250/B5	642	450	500	550	M16	284	25	6.5	65	69.4	18	45	75
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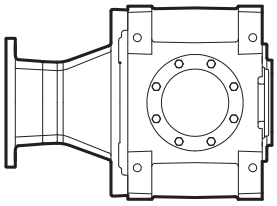
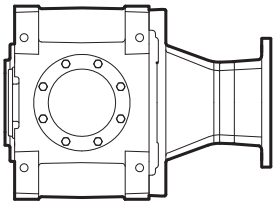
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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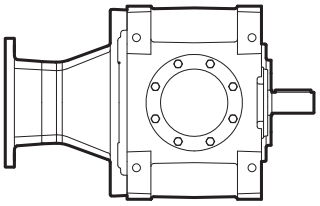

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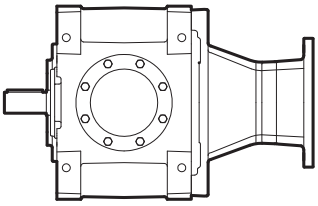
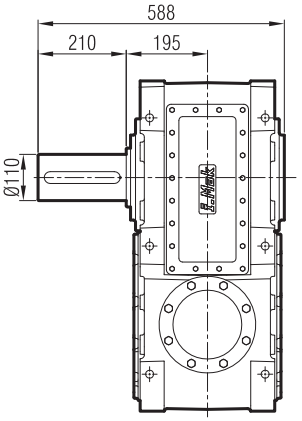
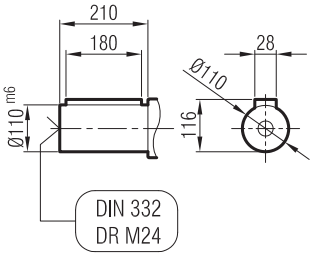


G06

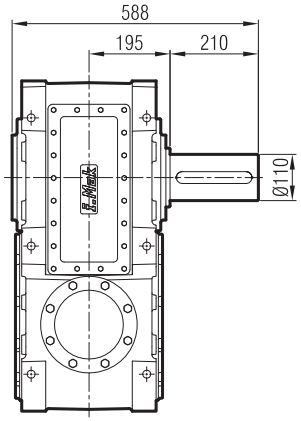
MA / MK 60_

...-SL

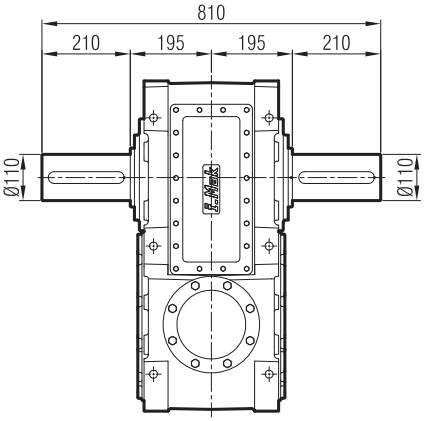




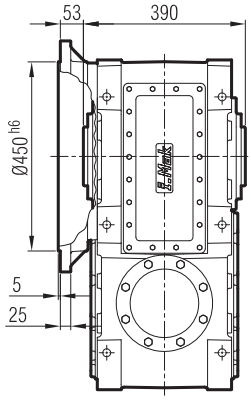
...-SR



...-SD



...-FL



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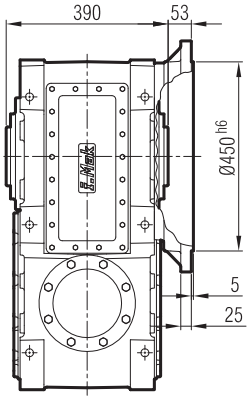

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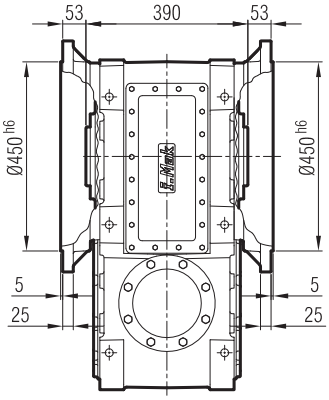

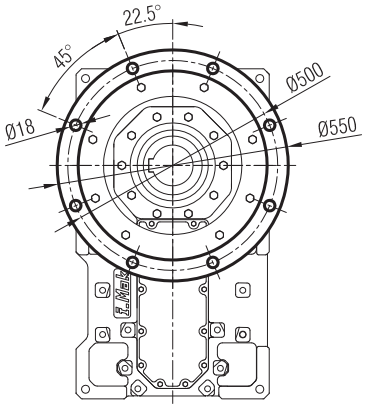

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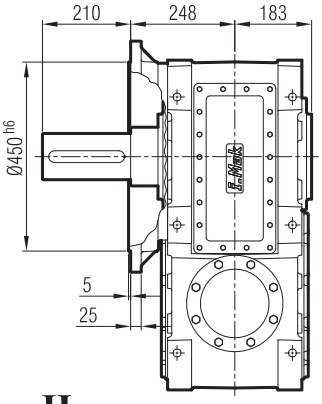

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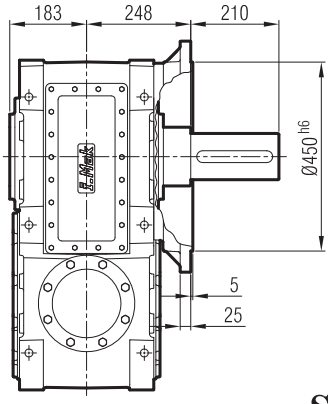
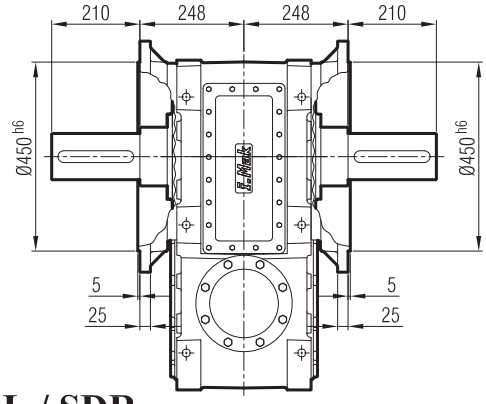


...-FD-SD



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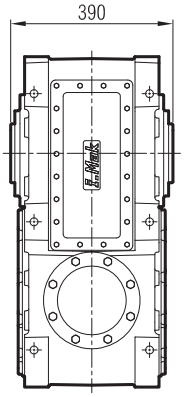
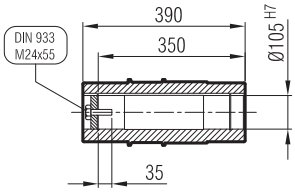
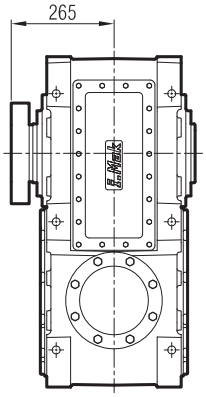
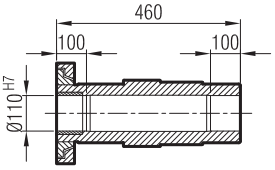


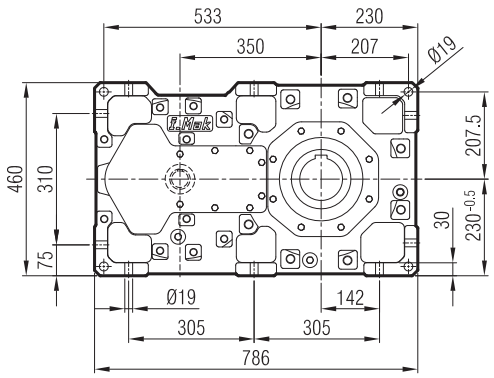


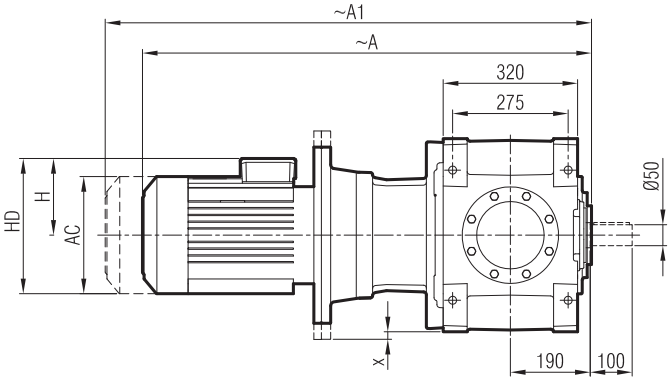
...-SDL / SDR

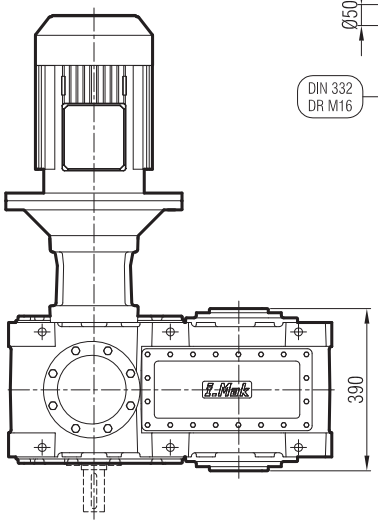


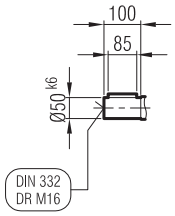


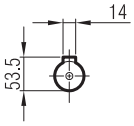
MAM 602

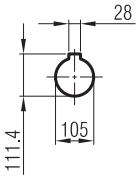


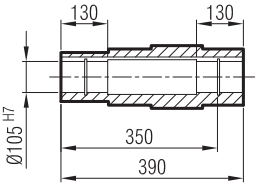








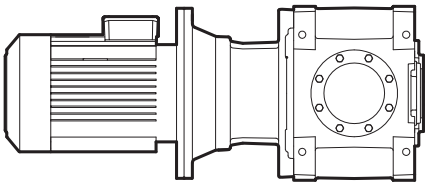




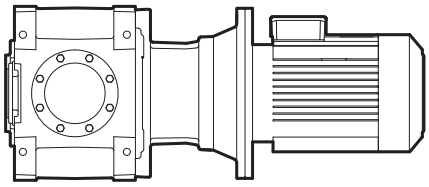
	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	
A	1327	1387	1437	1527	1527	
A1	1447	1507	1557	1647	1727	
H	313	313	366	398	398	
HD	538	538	618	678	678	
AC	456	456	489	548	548	
x	-	-	45	45	45	

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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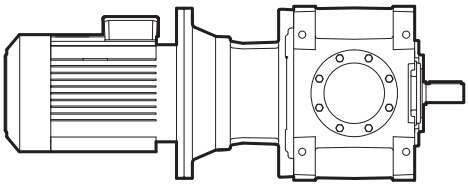

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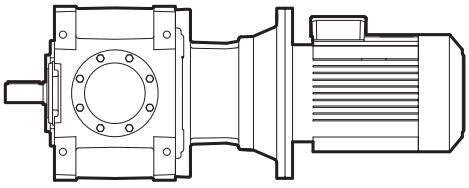
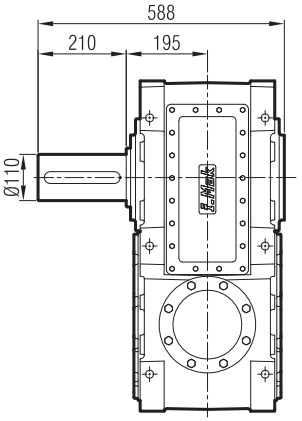
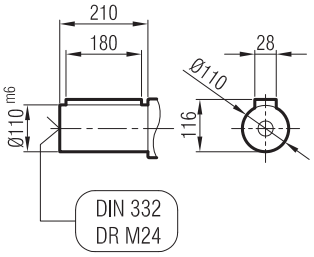


G06

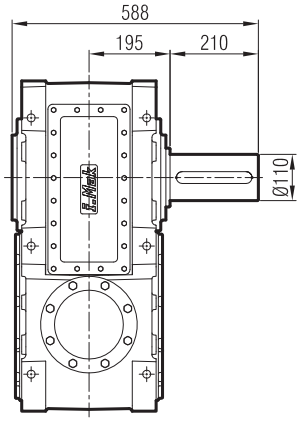
MA / MK 60_

...-SL

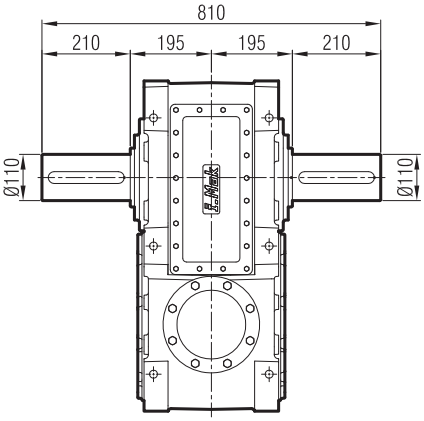




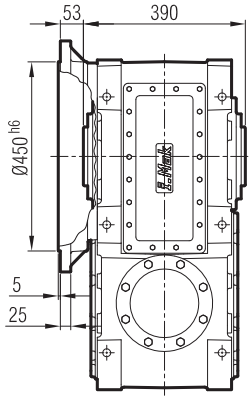
...-SR



...-SD



...-FL



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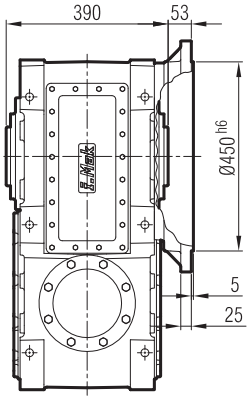

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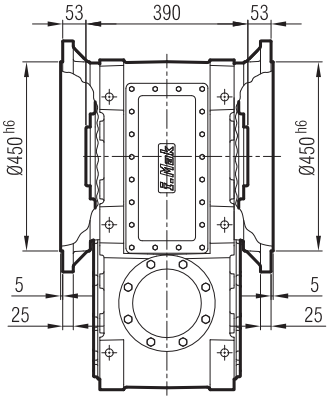
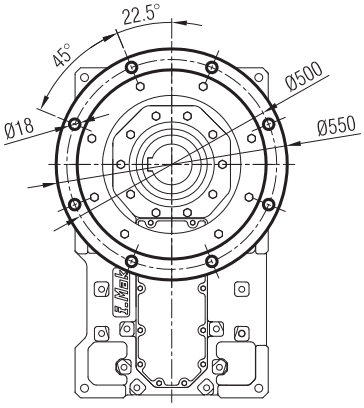
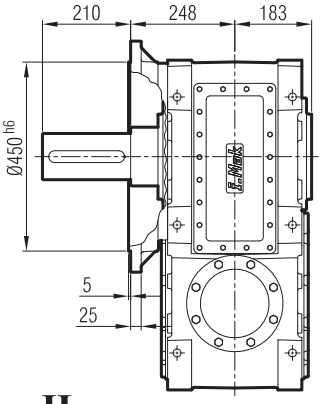




...-FL-SL



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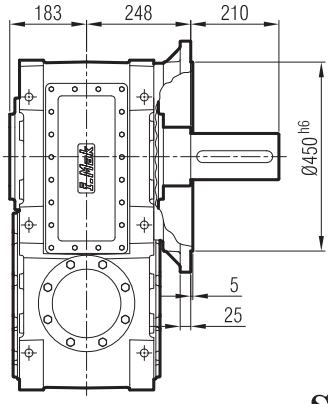
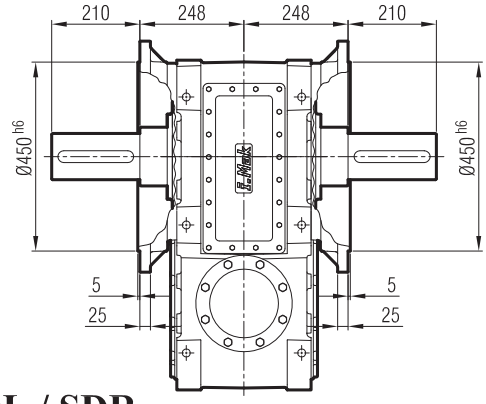
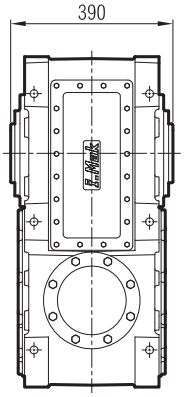
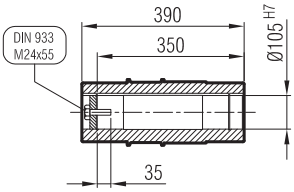


...-FD-SD

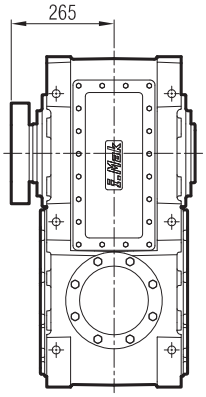


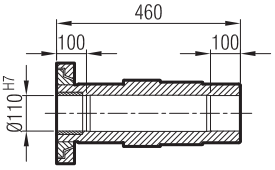
...-H



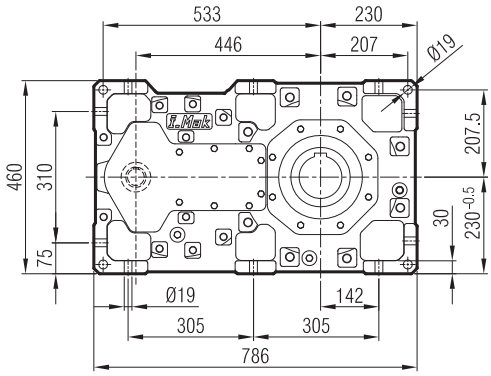


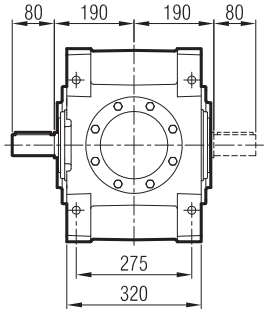
...-SDL / SDR

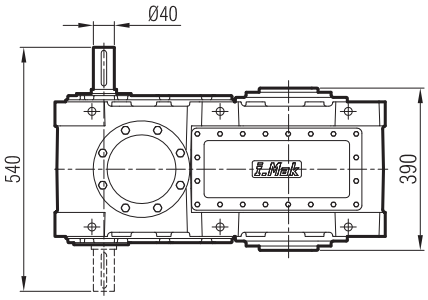


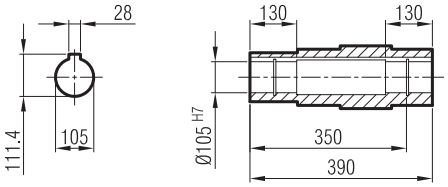


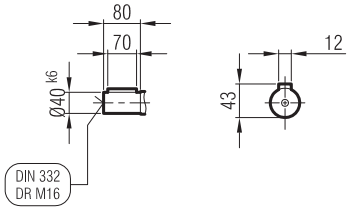
MA 603



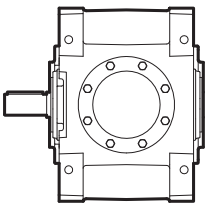




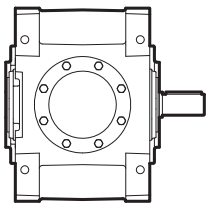




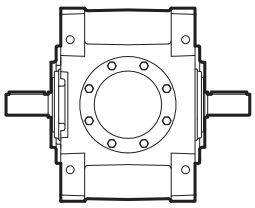
Giriş Seçenekleri / Input Options / *Option d'entree*



G00



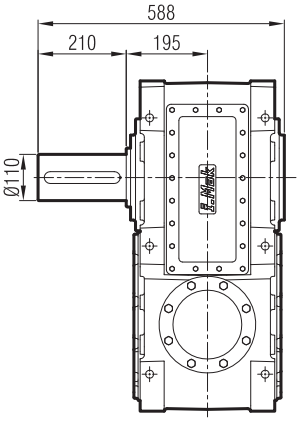
G01

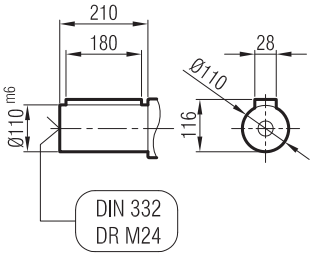


G02

MA / MK 60_

...-SL





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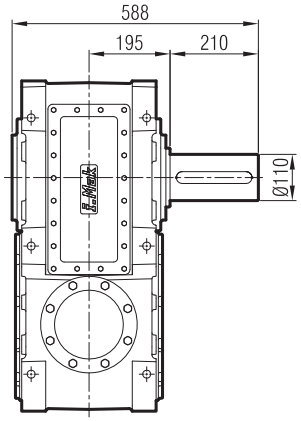

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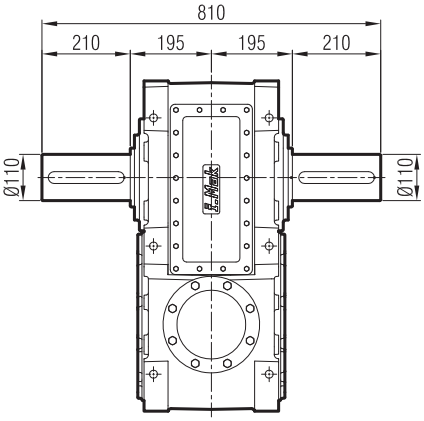

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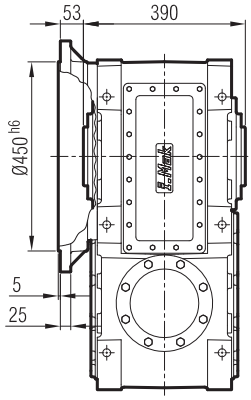

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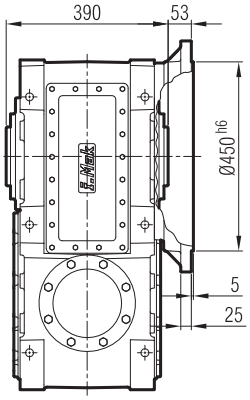

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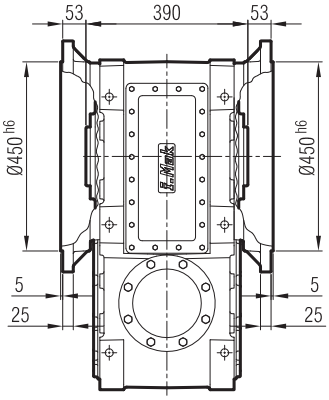

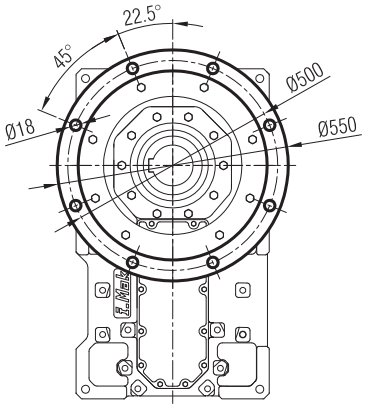

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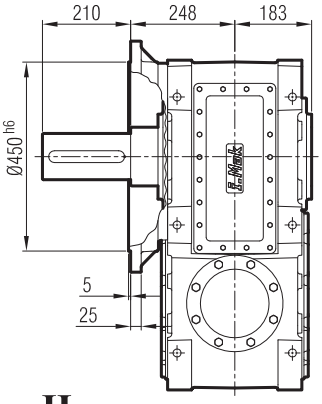

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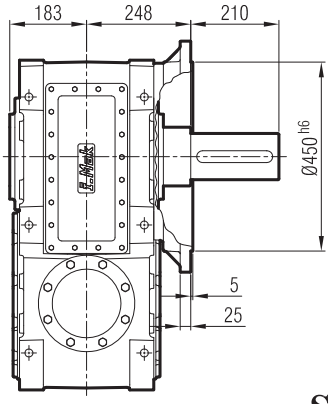

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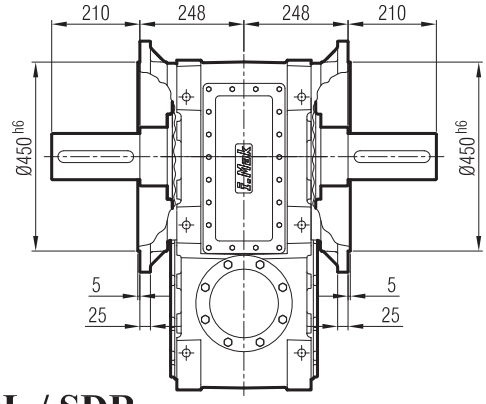

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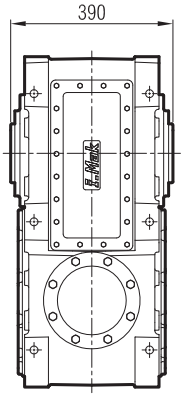

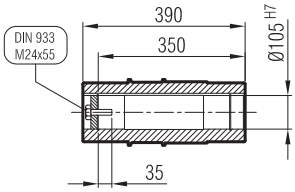

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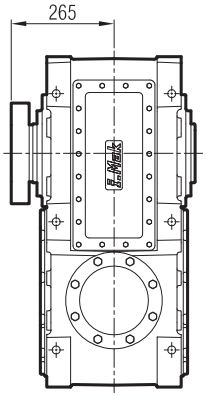
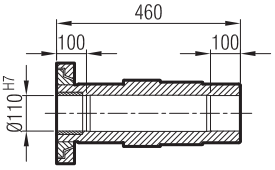
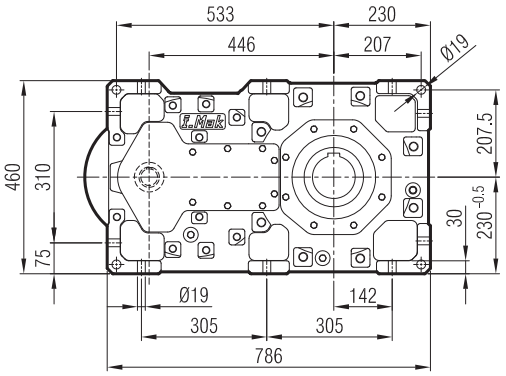
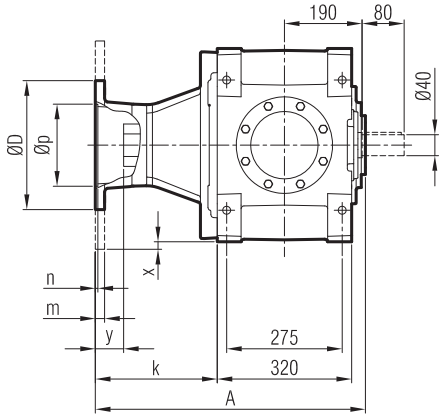
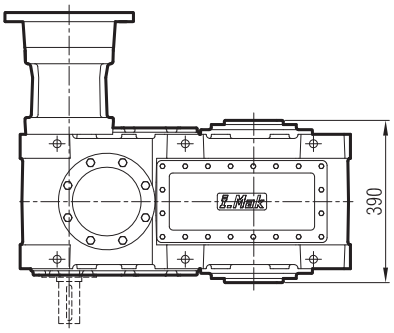


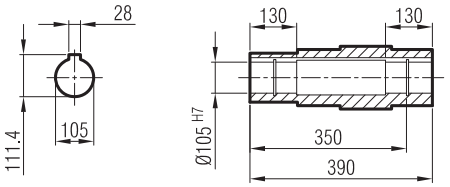


MAP 603









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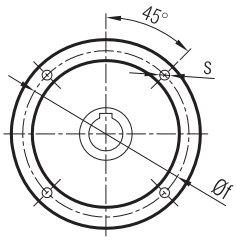

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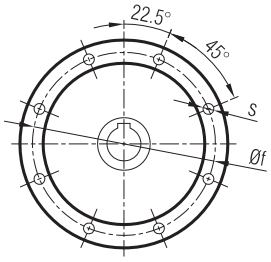

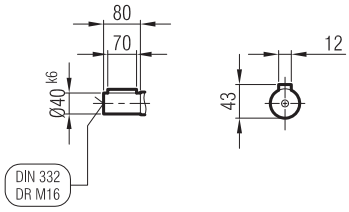

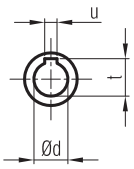

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160/B5	580	250	300	350	M14	225	20	6	42	45.3	12	-	60
180/B5	580	250	300	350	M14	225	20	6	48	51.8	14	-	60
200/B5	580	300	350	400	M16	225	22	6	55	59.3	16	-	60
225/B5	623	350	400	450	M16	268	22	6	60	64.4	18	-	80
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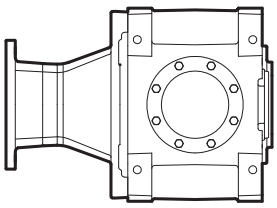
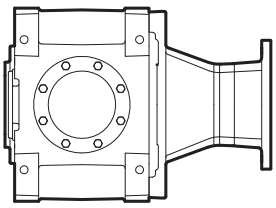
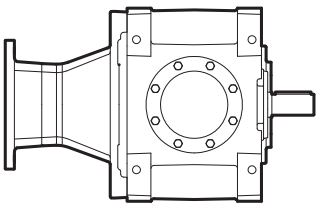
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



G04



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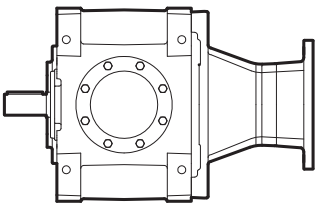
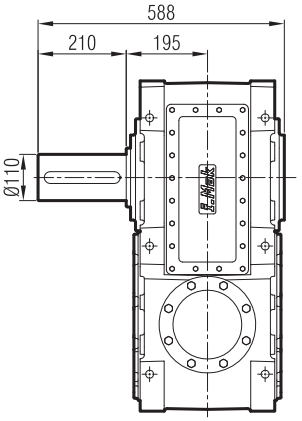
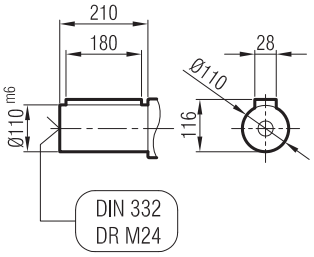


G06

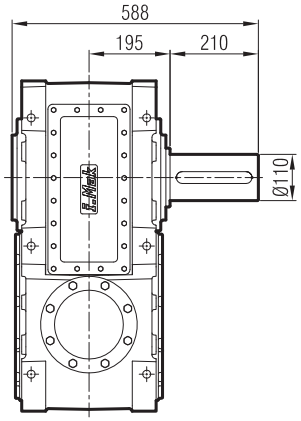
MA / MK 60_

...-SL





...-SR



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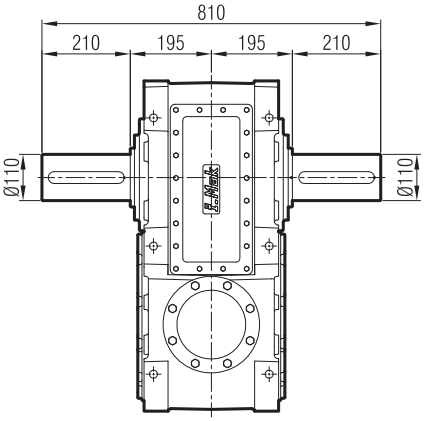

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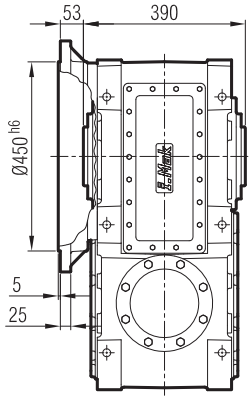

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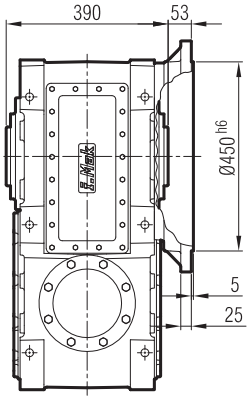

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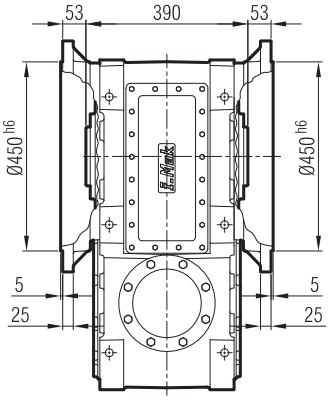

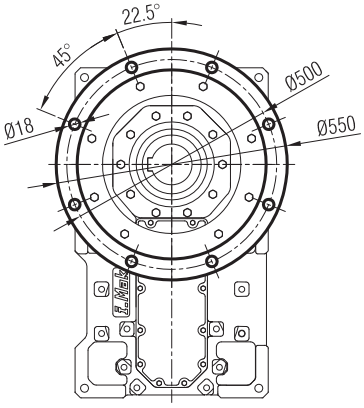

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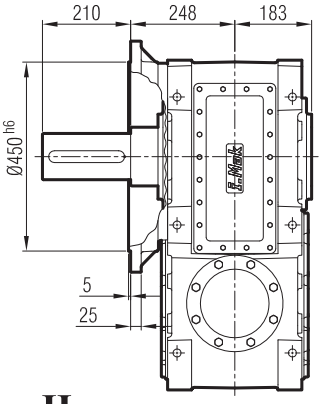

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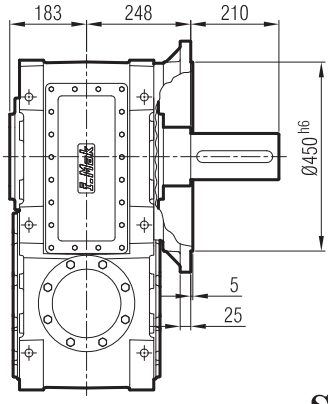

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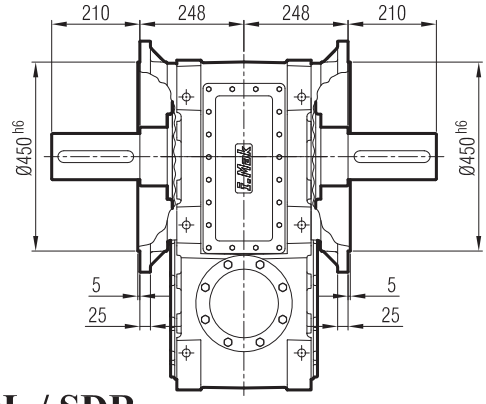

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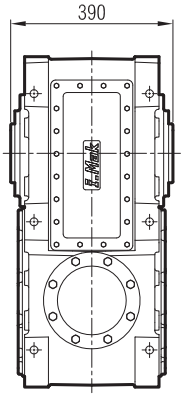

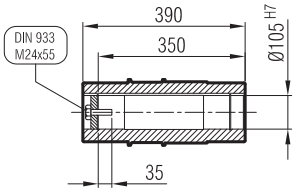

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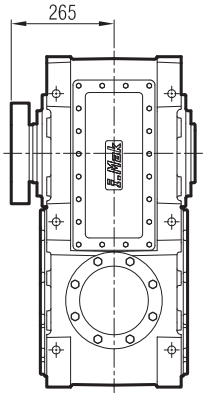
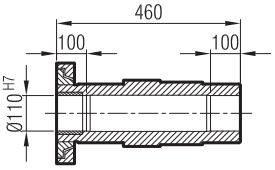
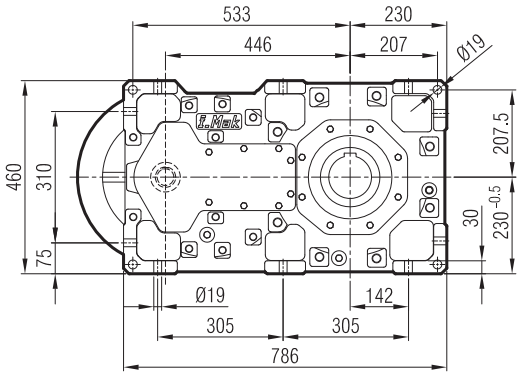
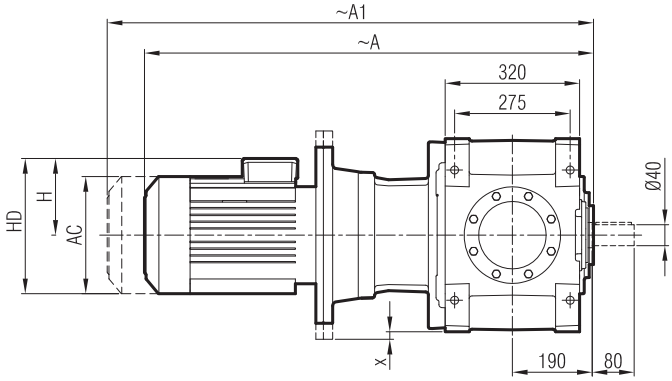
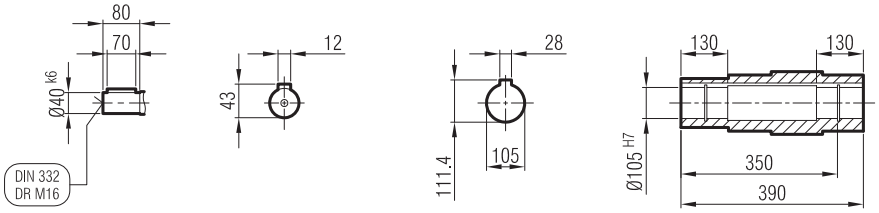


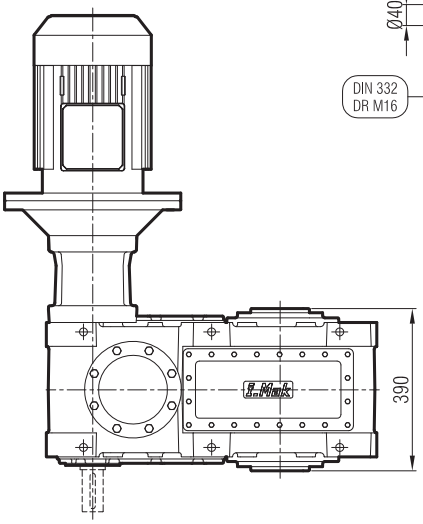


MAM 603









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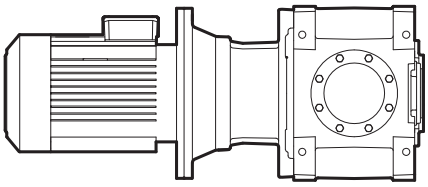
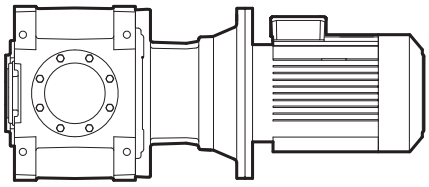
A1	1064	1105	1215	1260	1341	1341	1409	1428	1488	1538
H	193	193	240	240	260	260	300	313	313	366
HD	325	325	400	400	440	440	500	538	538	618
AC	262	262	315	315	357	357	394	456	456	489
x	-	-	-	-	-	-	-	-	-	45

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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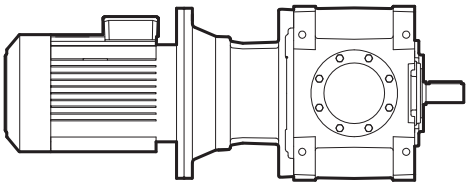
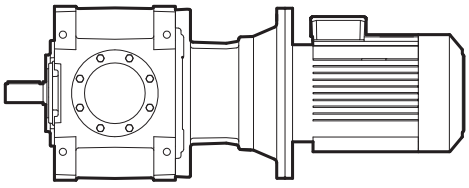


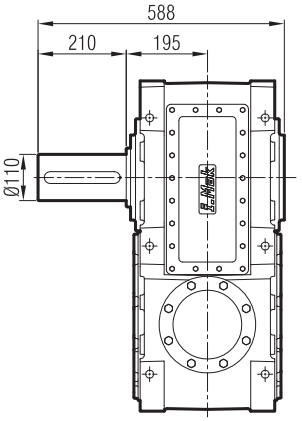
G05

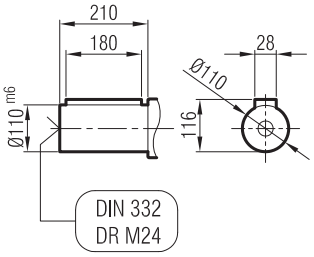


G06

MA / MK 60_

...-SL





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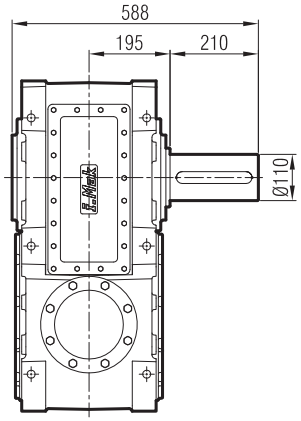

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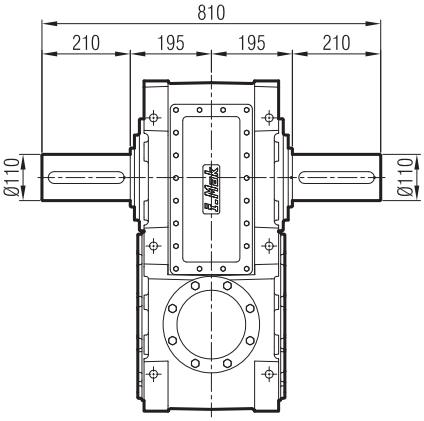

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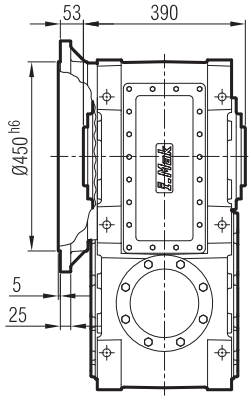

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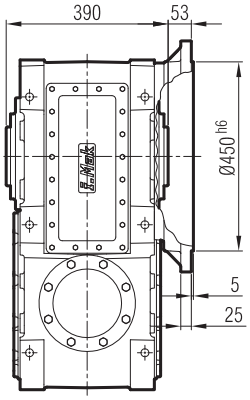

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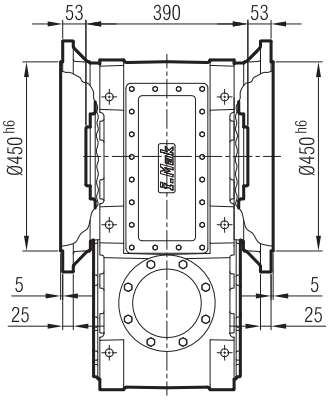

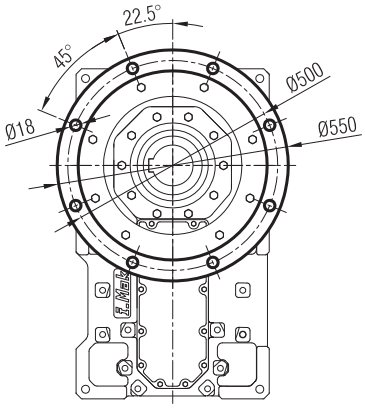

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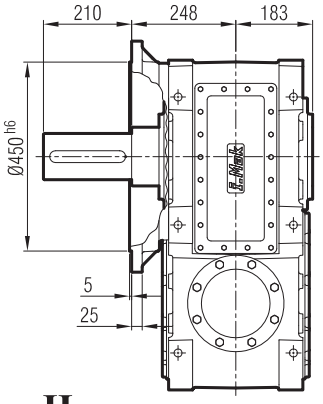

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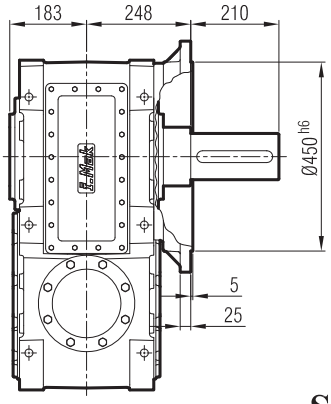

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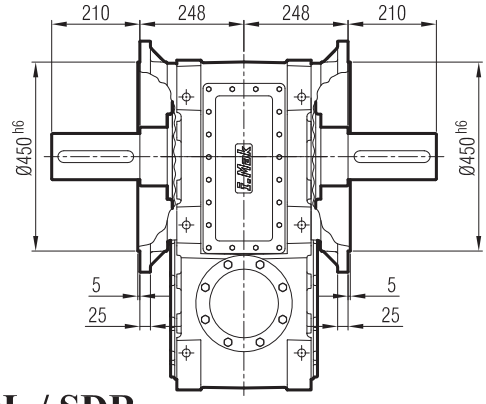

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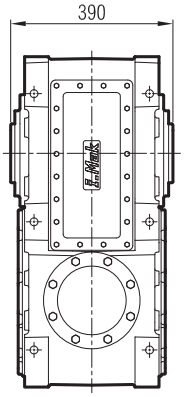

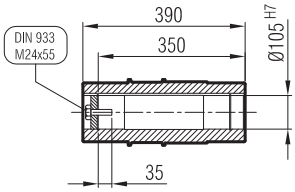

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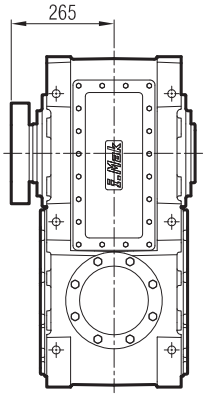
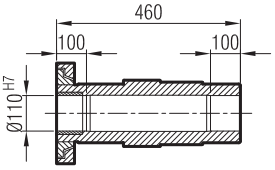
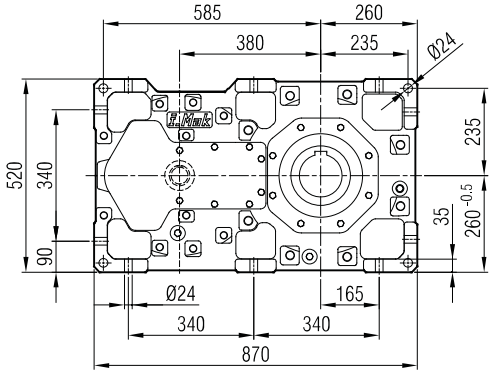
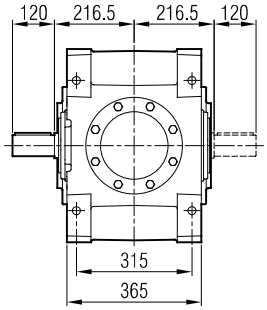
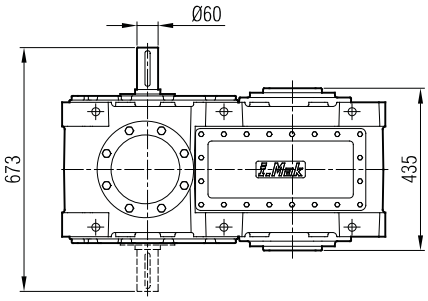


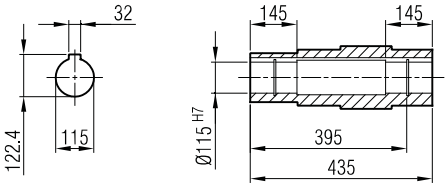


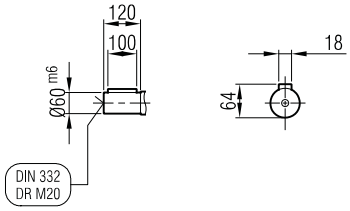
MA 702











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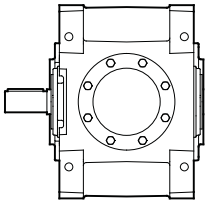

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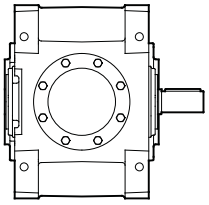

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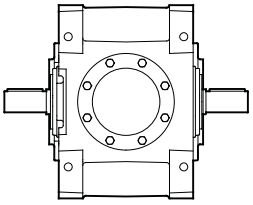
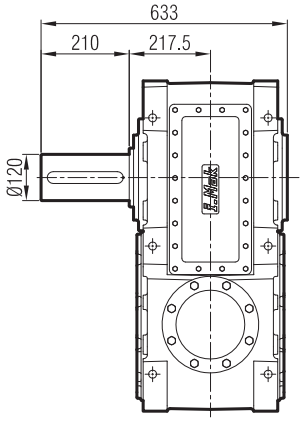
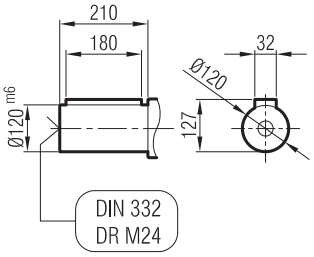


G02

MA / MK 70_

...-SL





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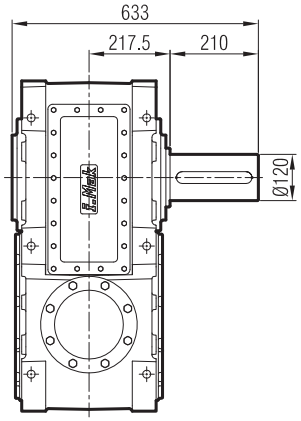

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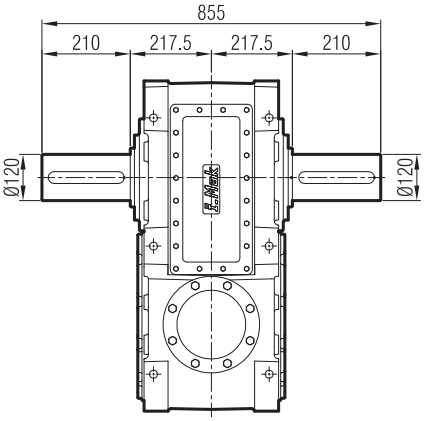

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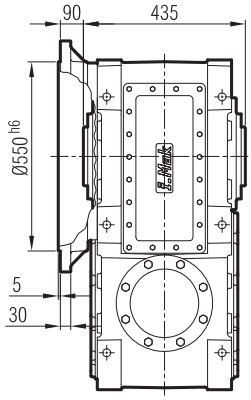

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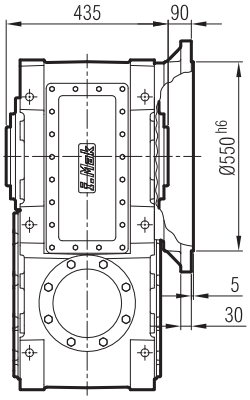

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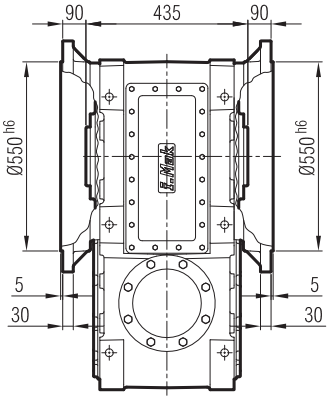

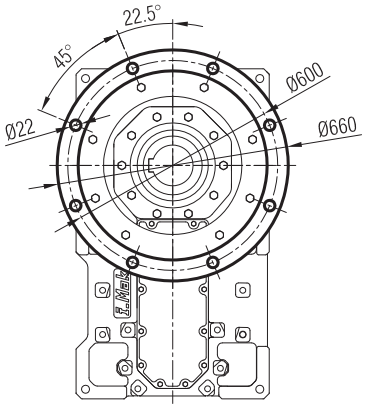

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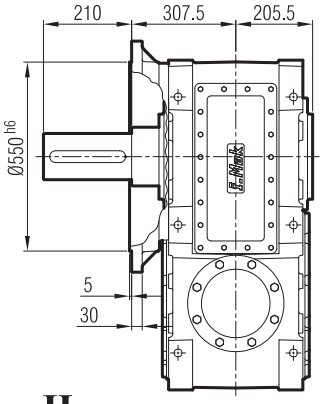

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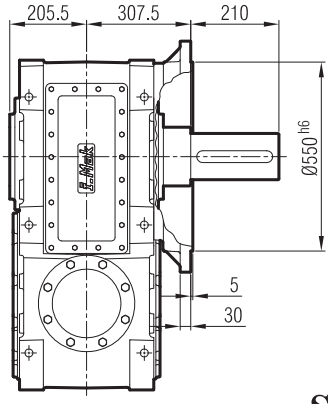

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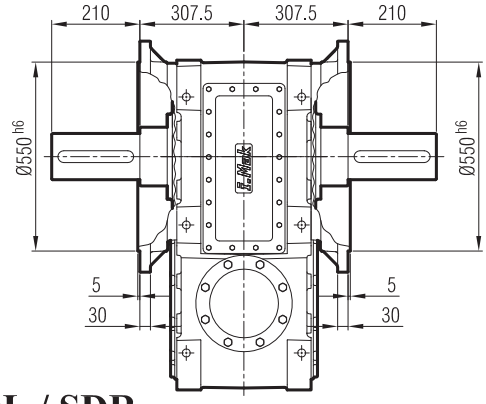

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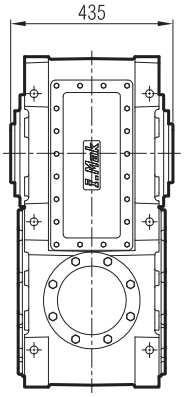
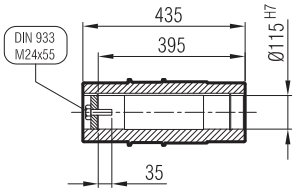
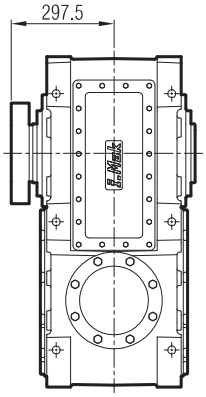
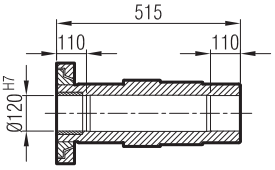


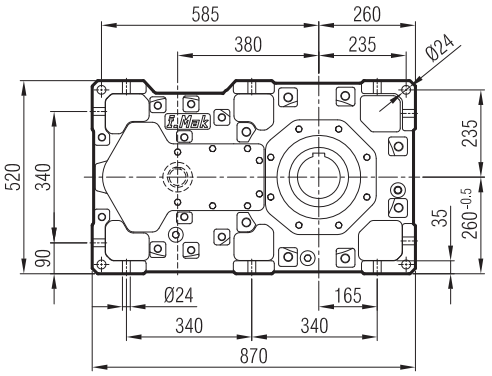


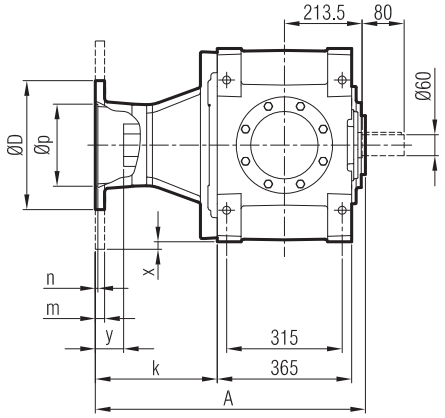
...-SDL / SDR

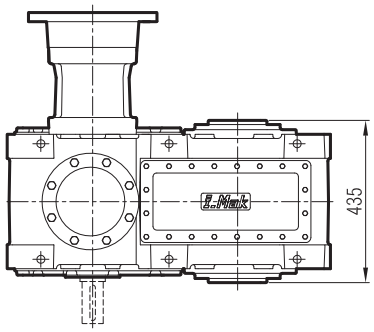


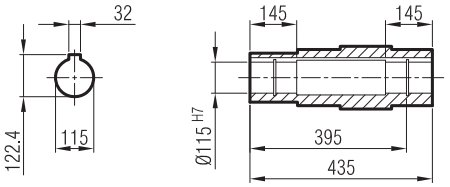


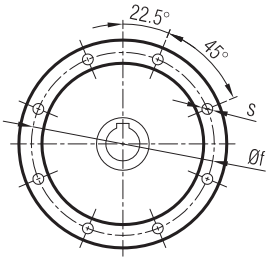
MAP 702

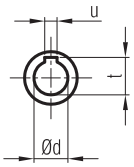


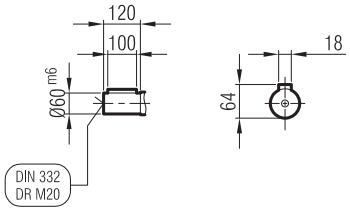












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250/B5	717	450	500	550	M16	317	25	6.5	65	69.4	18	15	65
280/B5	717	450	500	550	M16	317	25	6.5	75	75.9	20	15	65
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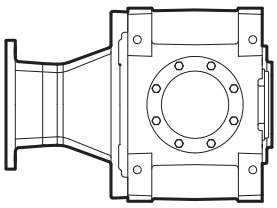
Giriş Seçenekleri / Input Options / *Option d'entree*



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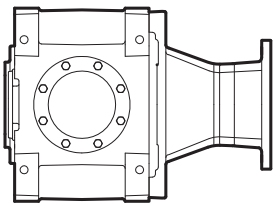

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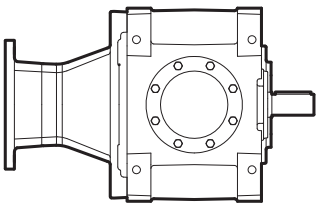

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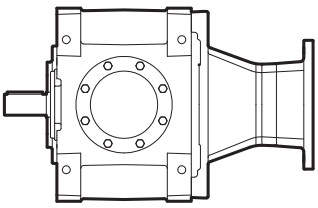
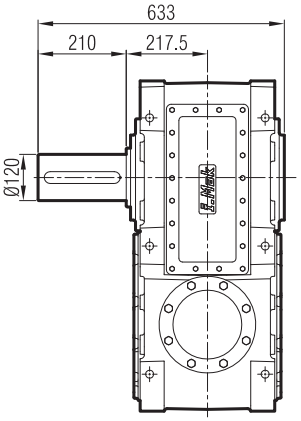
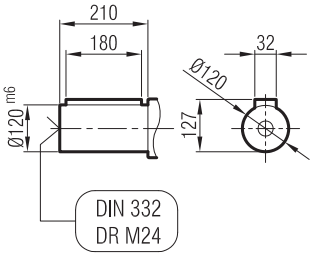


G06

MA / MK 70_

...-SL





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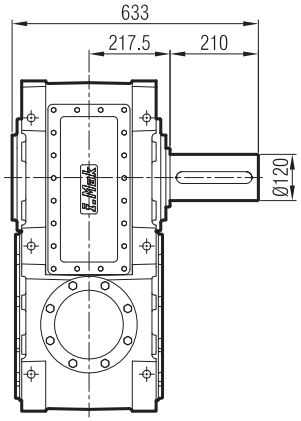

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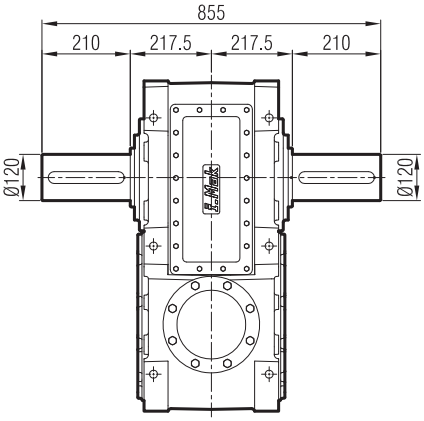

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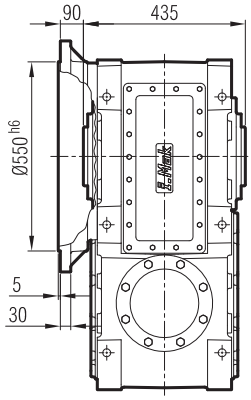

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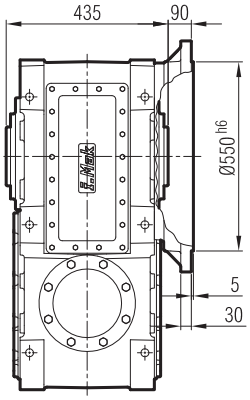

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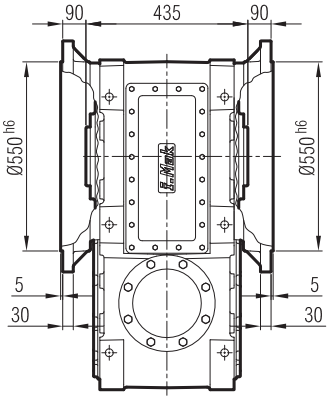

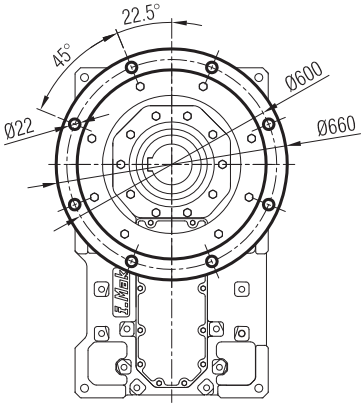

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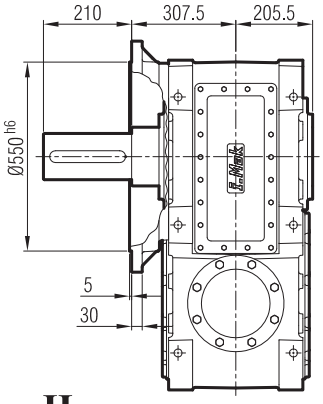

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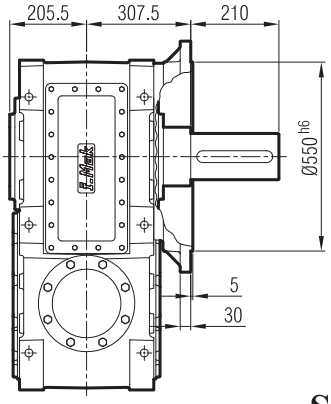

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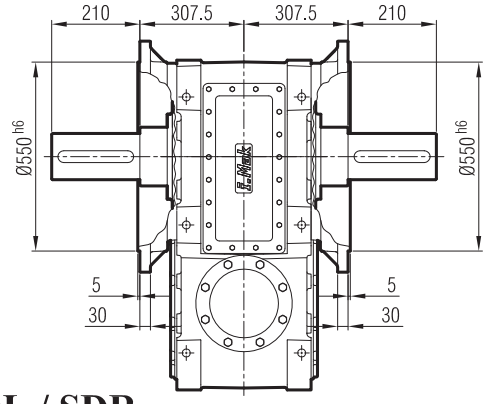

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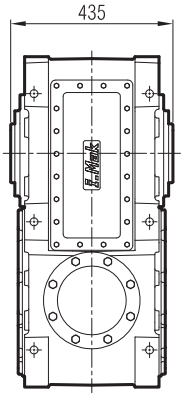

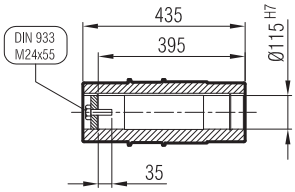

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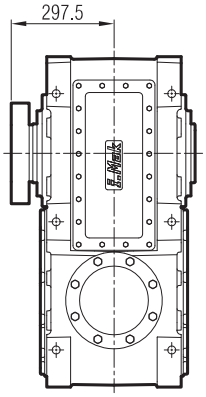
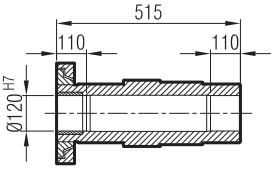
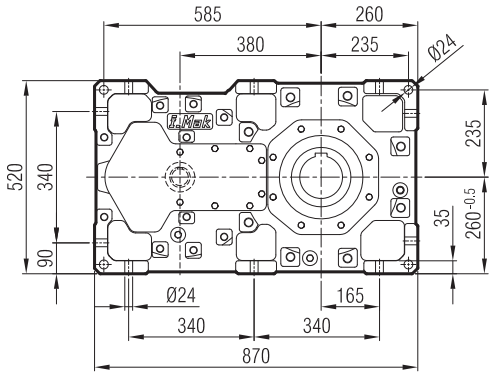
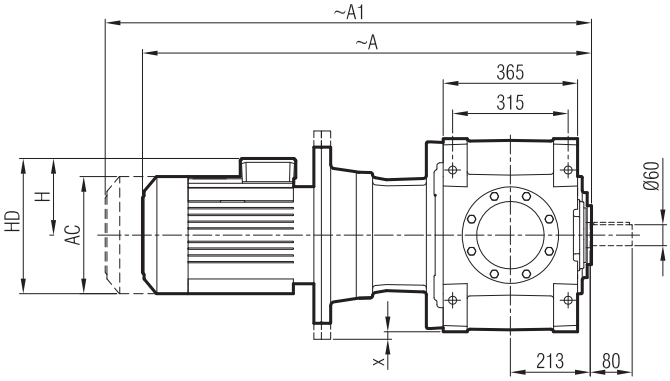
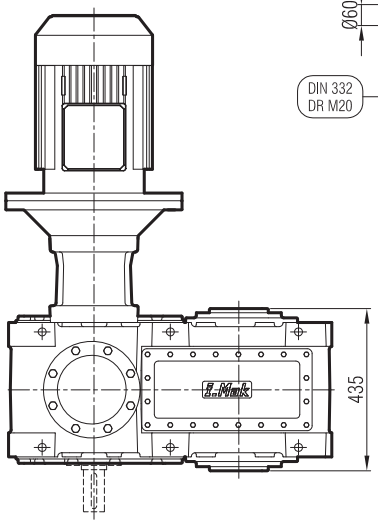


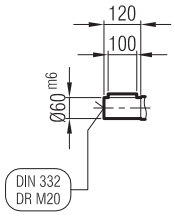


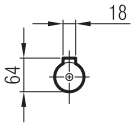
MAM 702

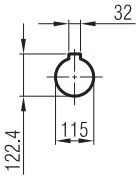


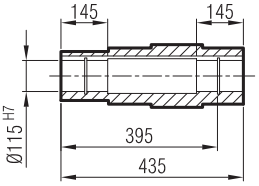












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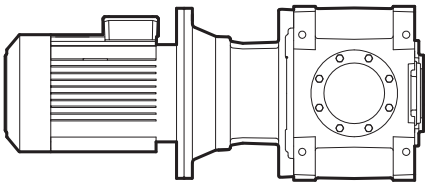
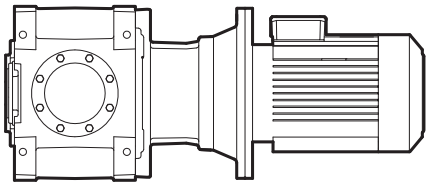
A	1462	1512	1602	1602	1783	1783	1894	1894
A1	1609	1659	1850	1850	2031	2031	2152	2152
H	313	366	398	398	518	518	518	518
HD	538	618	678	678	833	833	833	833
AC	456	489	548	548	652	652	652	652
x	-	15	15	15	70	70	70	70

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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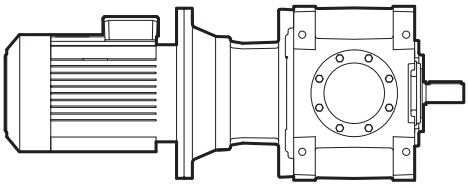

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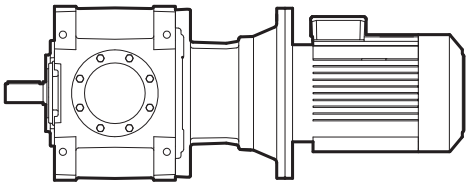
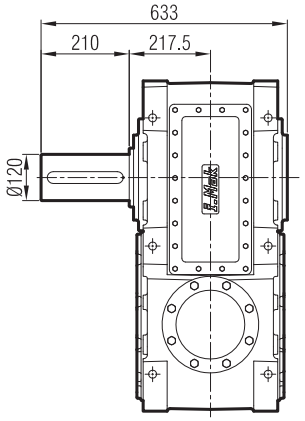
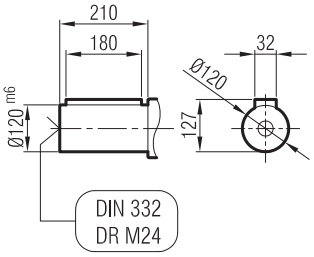


G06

MA / MK 70_

...-SL





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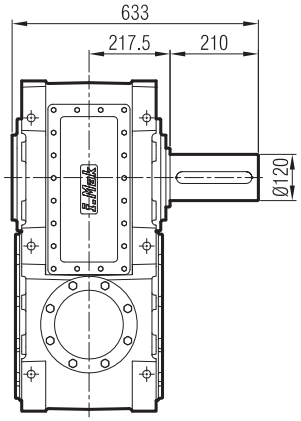
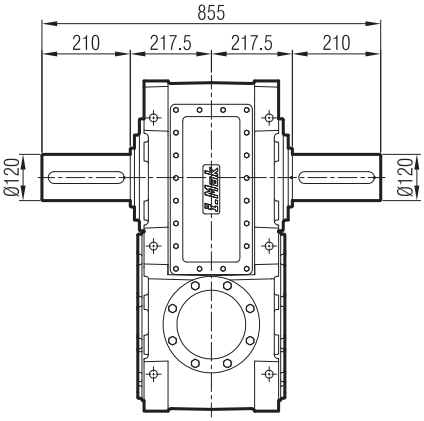
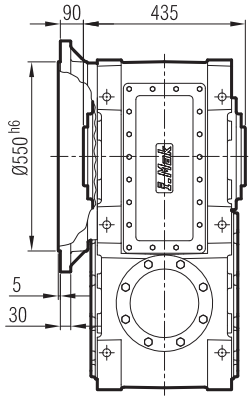


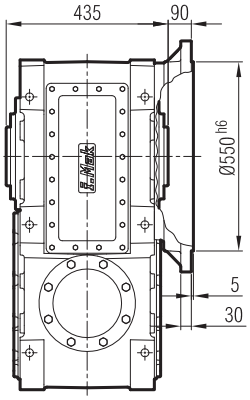
...-SD



...-FL



...-FR



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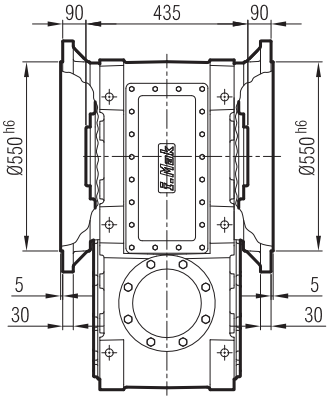
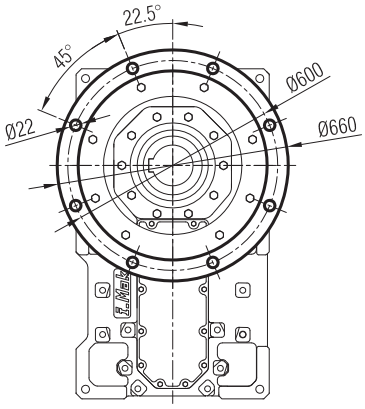
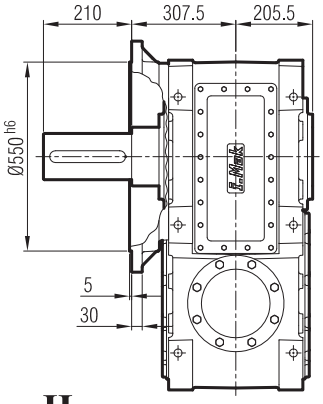
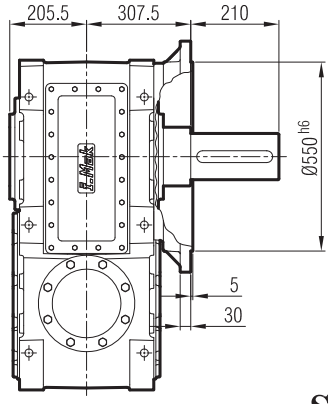




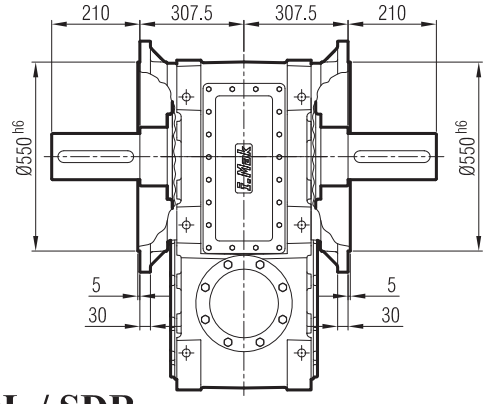
...-FL-SL



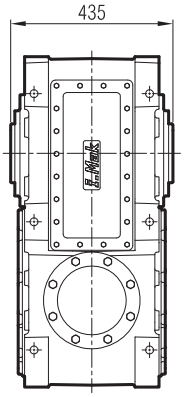
...-FR-SR

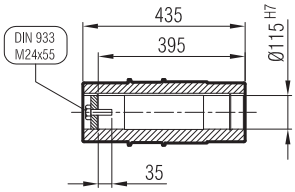


...-FD-SD

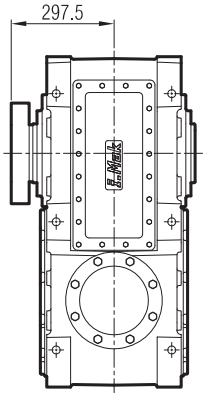


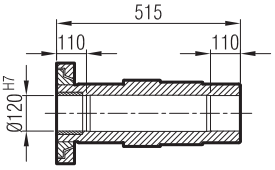
...-H



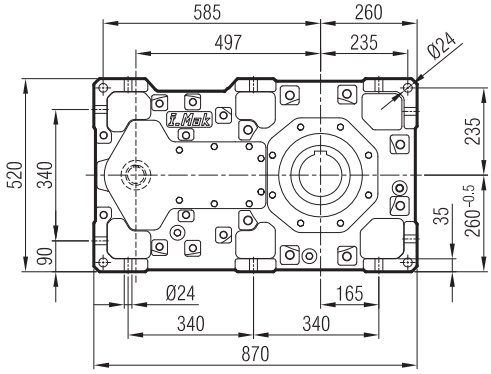


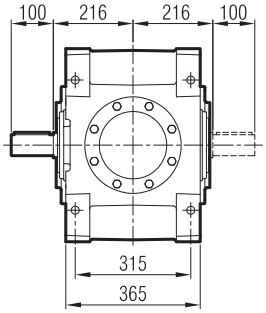
...-SDL / SDR

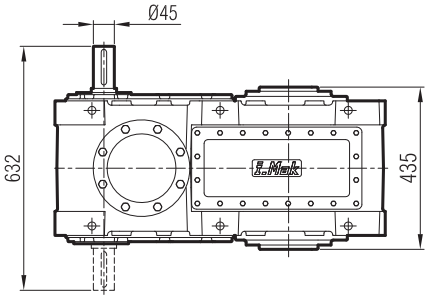


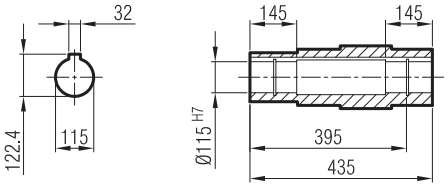


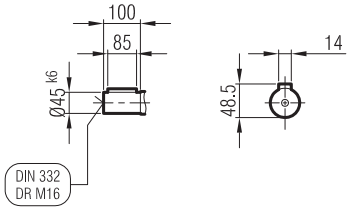
MA 703



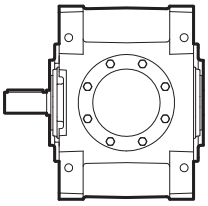




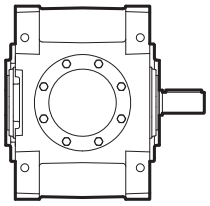




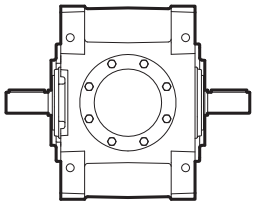
Giriş Seçenekleri / Input Options / *Option d'entree*



G00



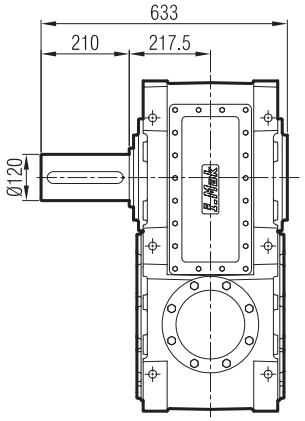
G01

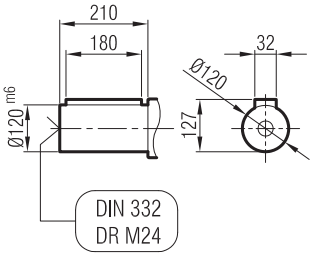


G02

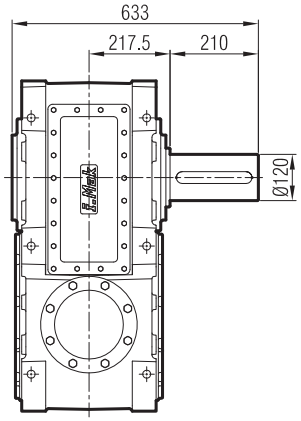
MA / MK 70_

...-SL





...-SR



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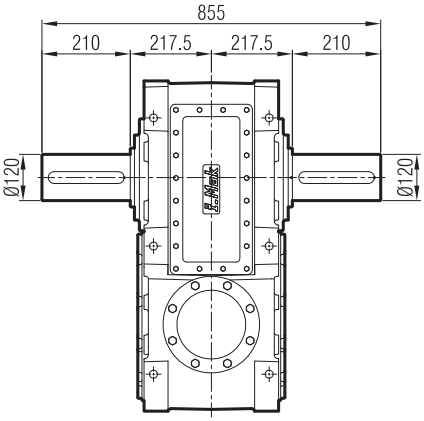

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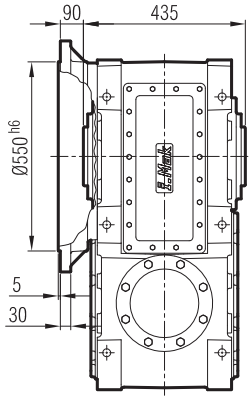

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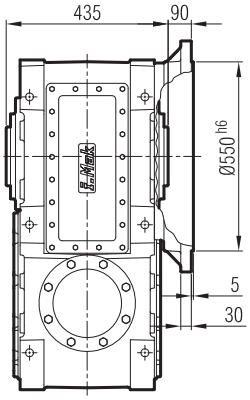

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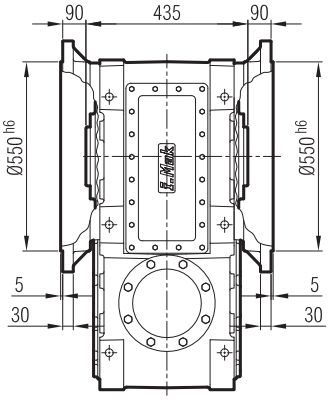
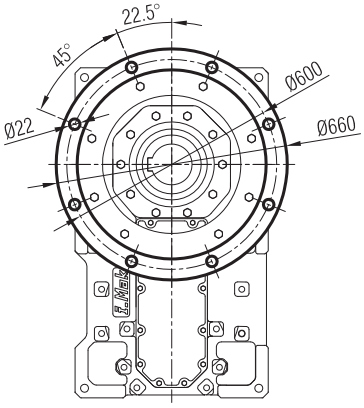
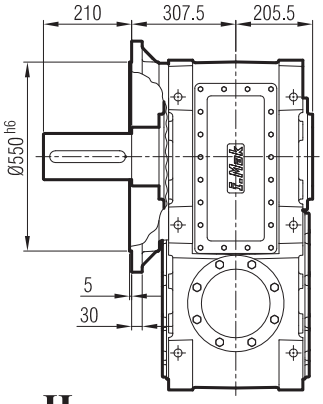




...-FL-SL



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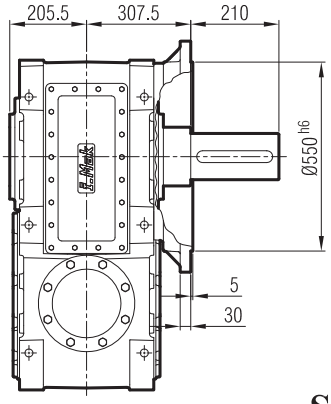
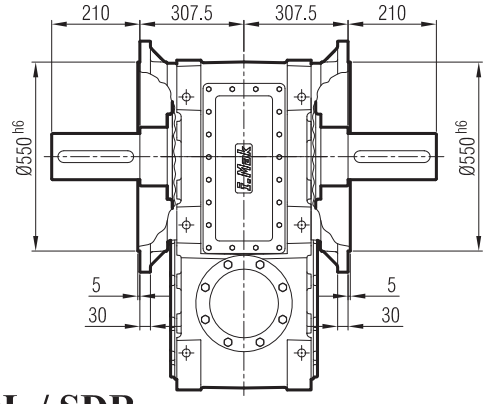


...-FD-SD



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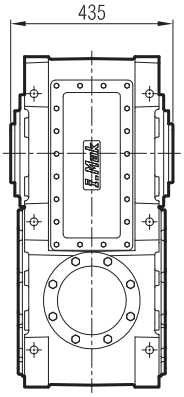

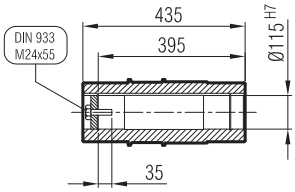

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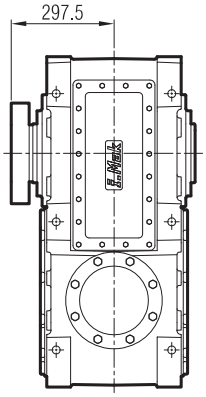
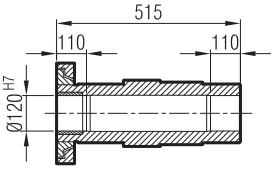
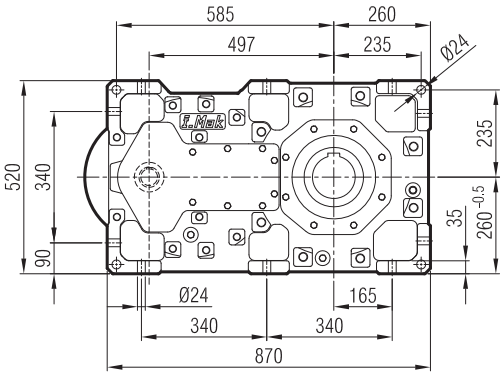
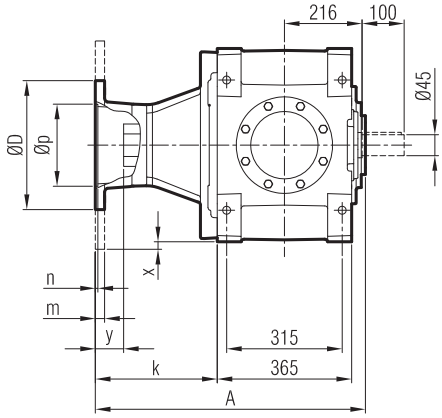
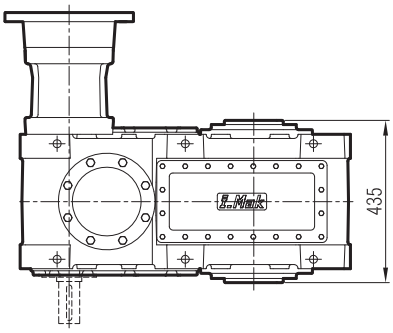


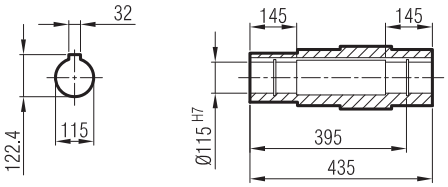


MAP 703









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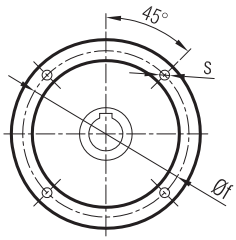

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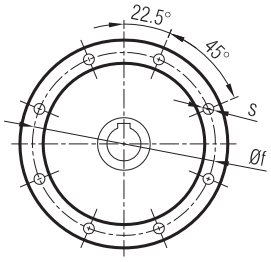

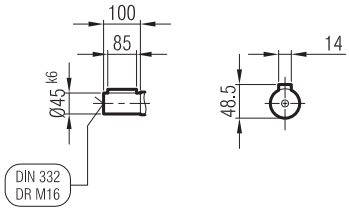

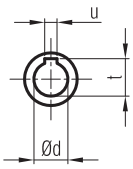

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180/B5	647	250	300	350	M14	247	20	6	48	51.8	14	-	50
200/B5	647	300	350	400	M16	247	22	6	55	59.3	16	-	50
225/B5	690	350	400	450	M16	290	22	6	60	64.4	18	-	79
250/B5	690	450	500	550	M16	290	25	6.5	65	69.4	18	15	75
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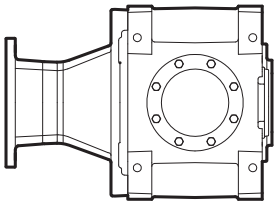
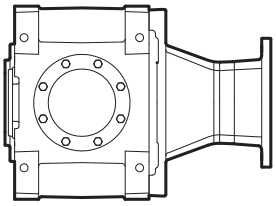
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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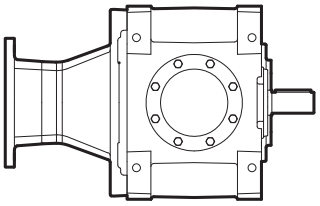

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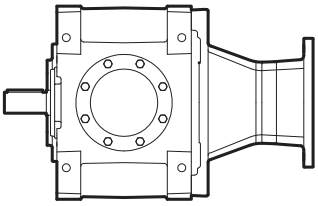
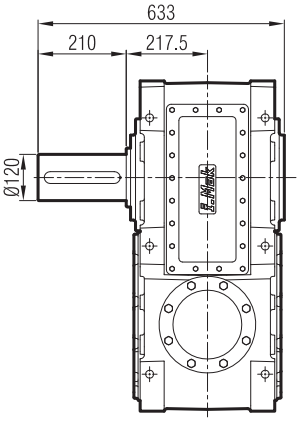
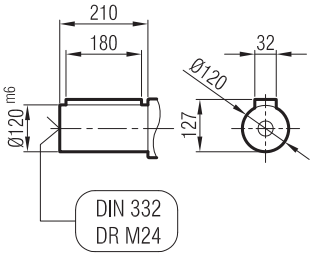


G06

MA / MK 70_

...-SL





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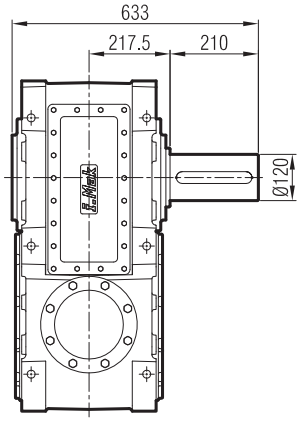

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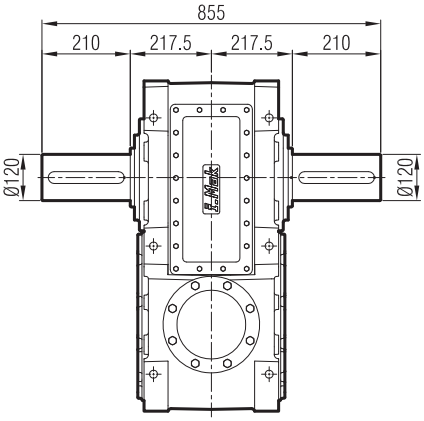

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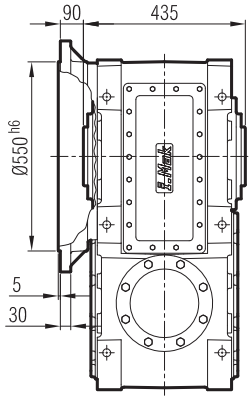

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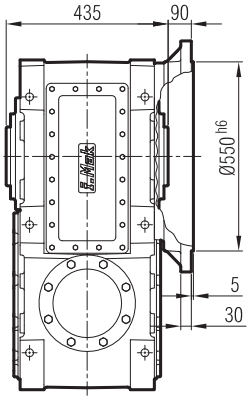

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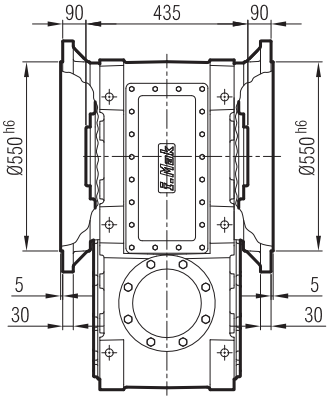

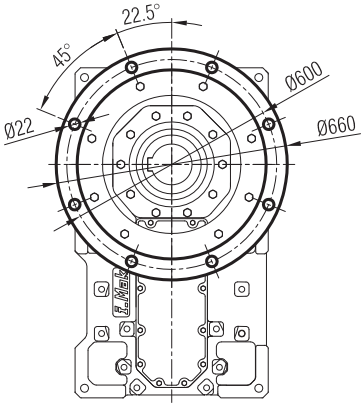

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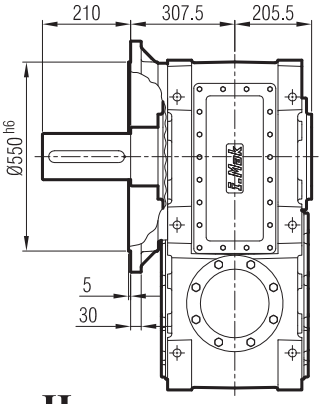

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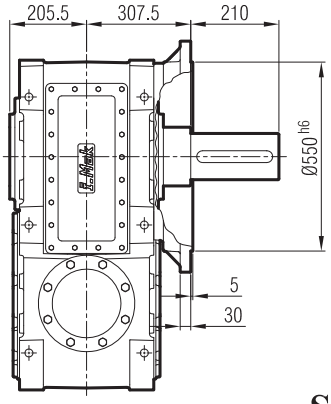

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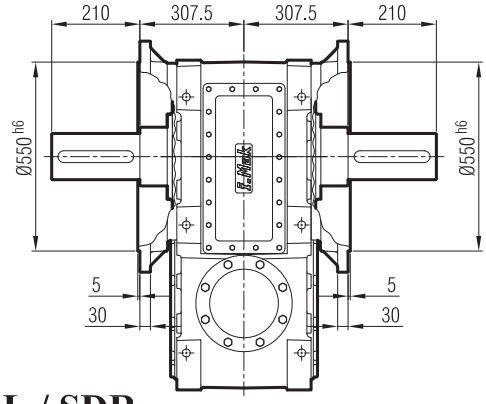

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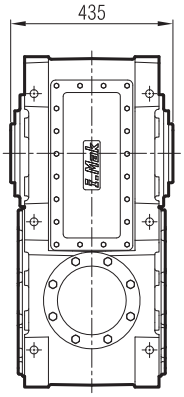

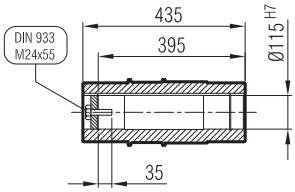

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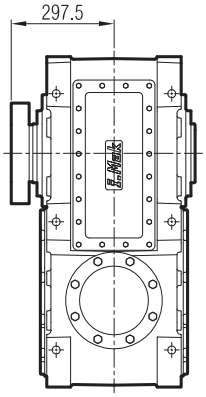
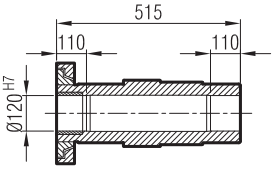
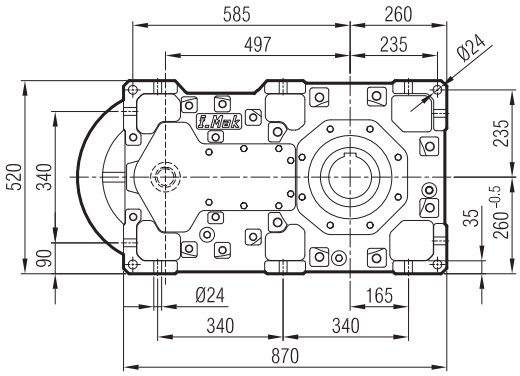
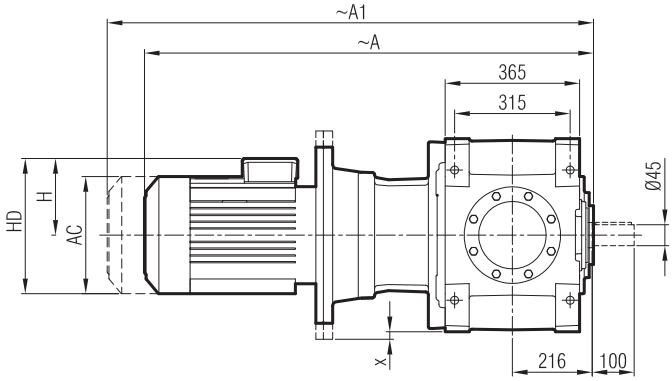
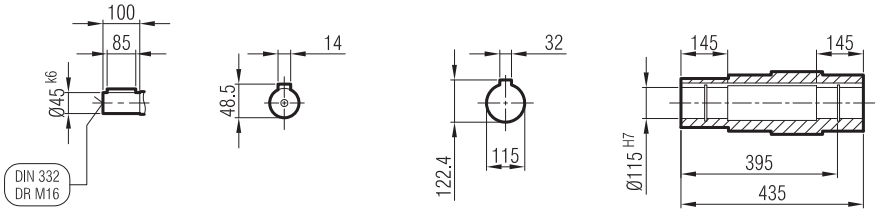


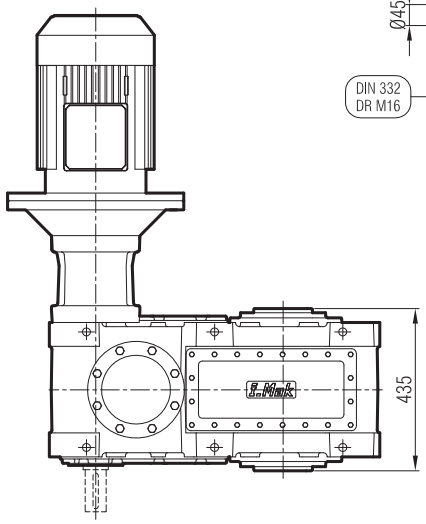


MAM 703









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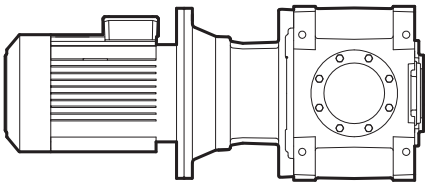
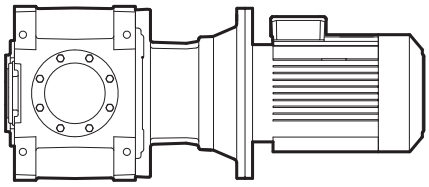
A1	1284	1329	1424	1424	1503	1522	1582	1632	1823
H	240	240	260	260	300	313	313	366	398
HD	400	400	440	440	500	538	538	618	678
AC	315	315	357	357	394	456	456	489	548
x	-	-	-	-	-	-	-	15	15

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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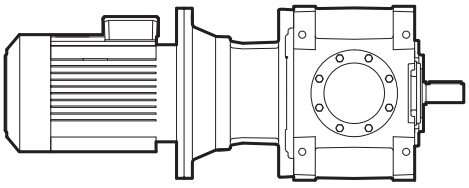
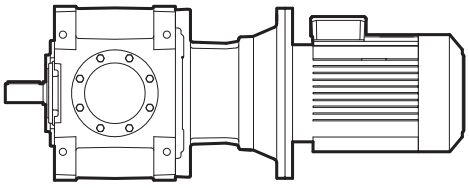


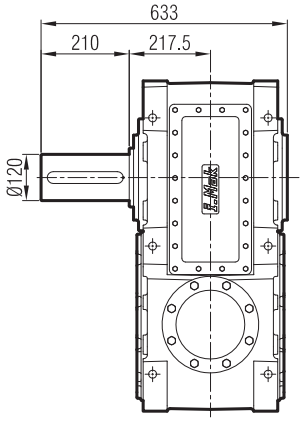
G05

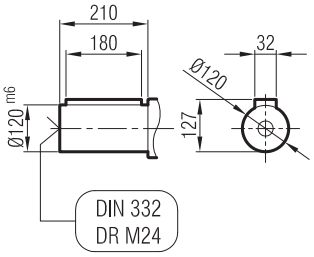


G06

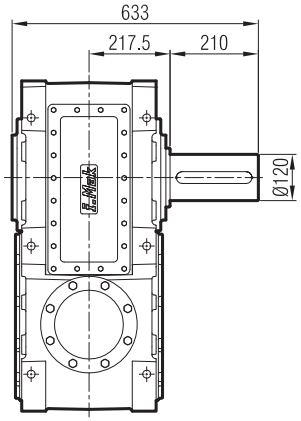
MA / MK 70_

...-SL

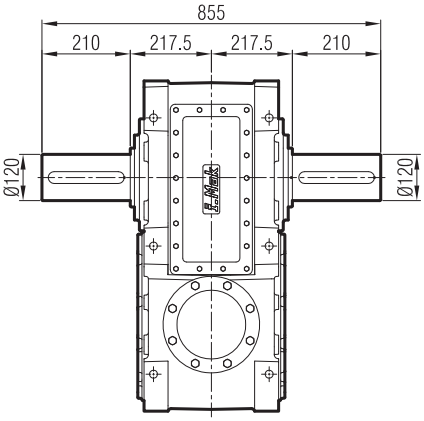




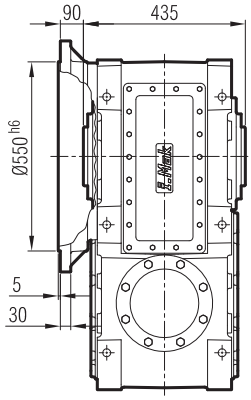
...-SR



...-SD



...-FL



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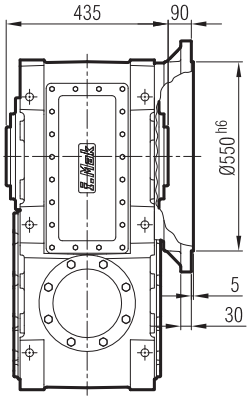

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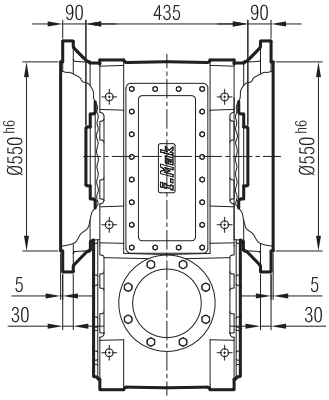
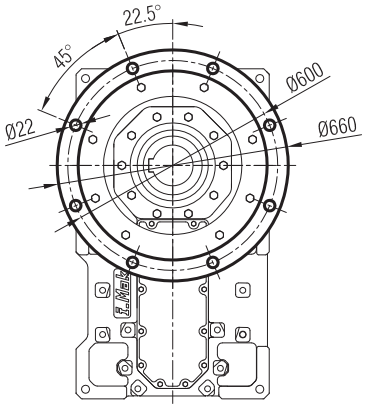
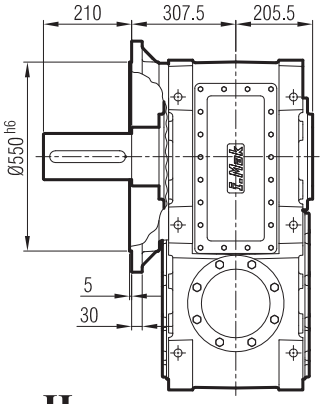




...-FL-SL



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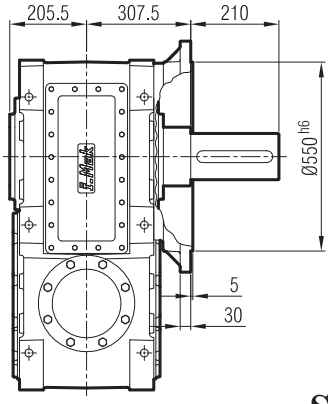
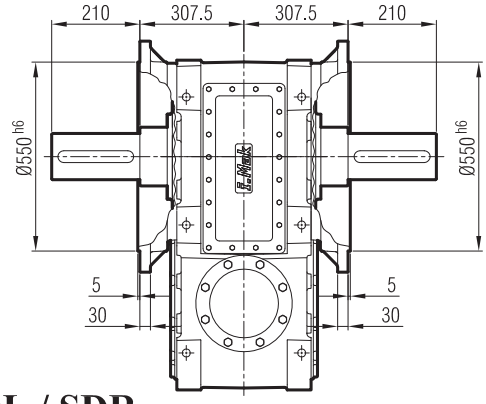


...-FD-SD



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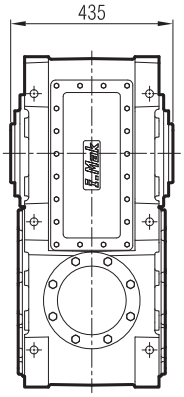

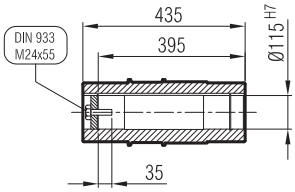

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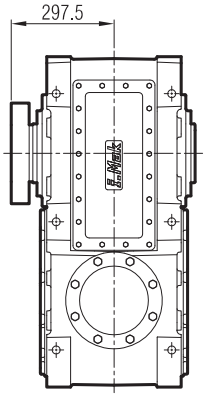
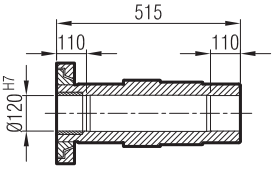
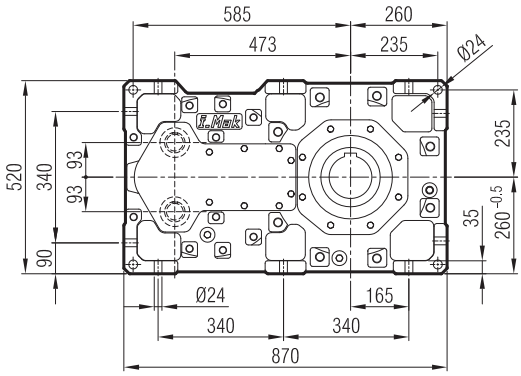
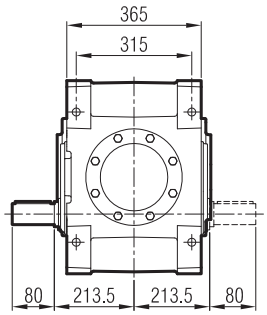
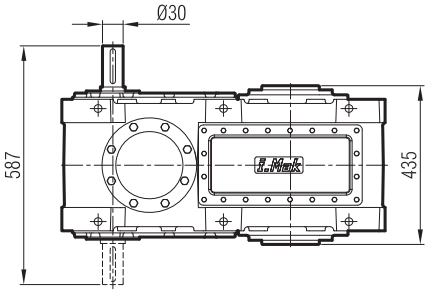


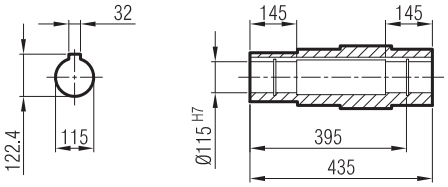


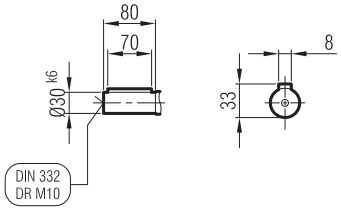
MA 704











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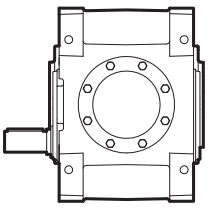

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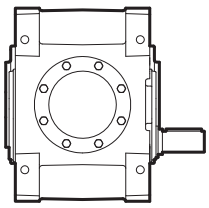

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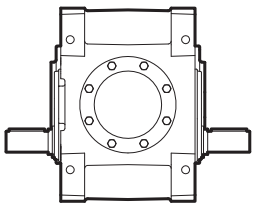

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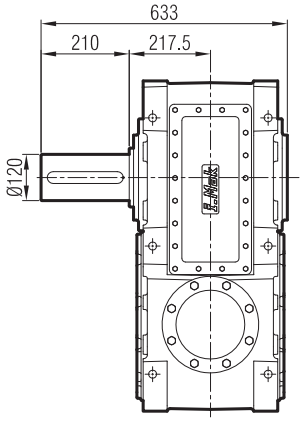

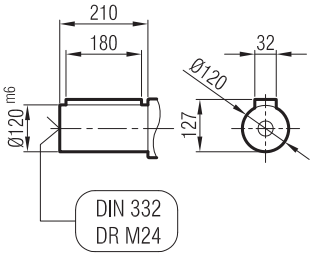

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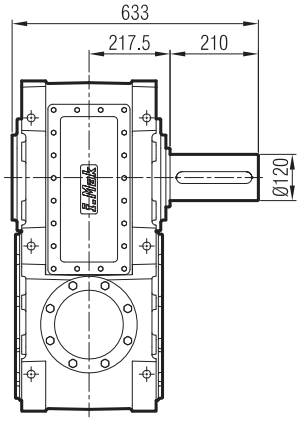

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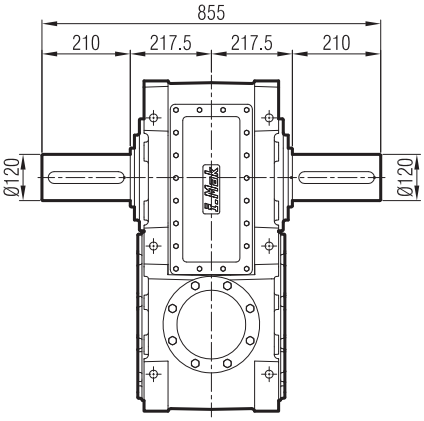

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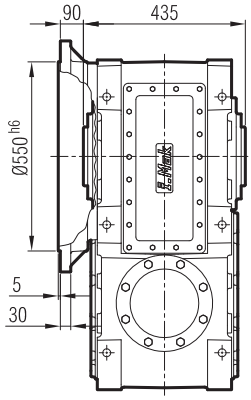

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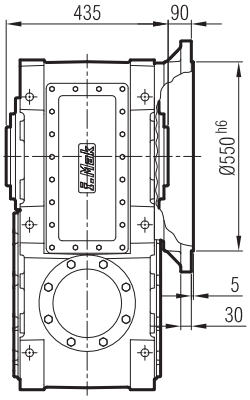

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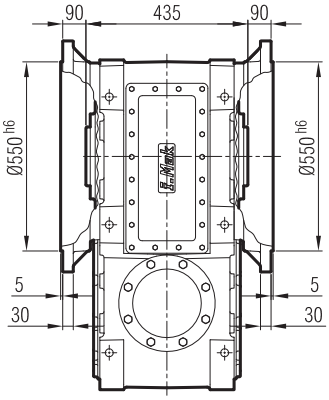

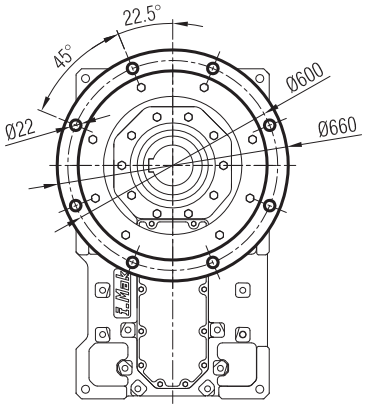

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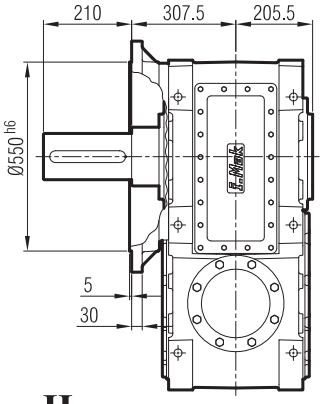

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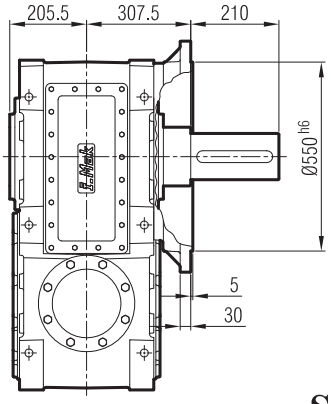

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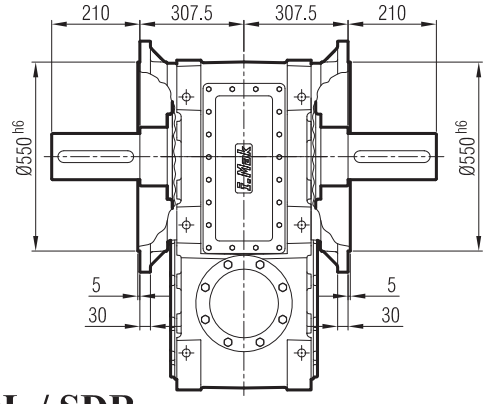

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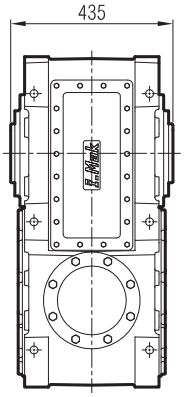

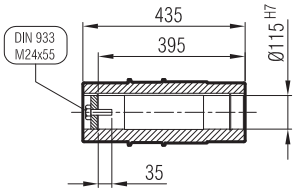

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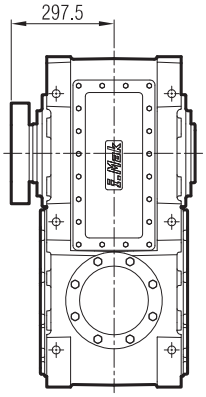
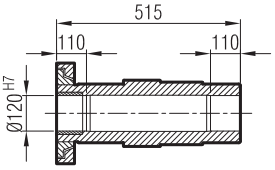
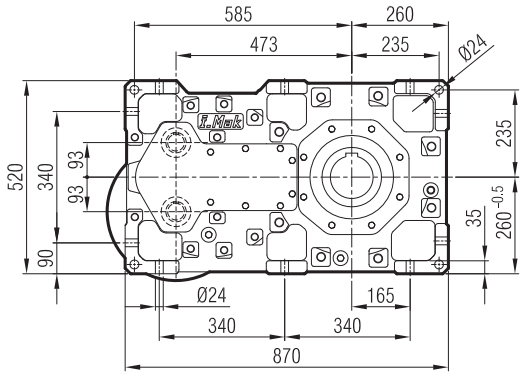
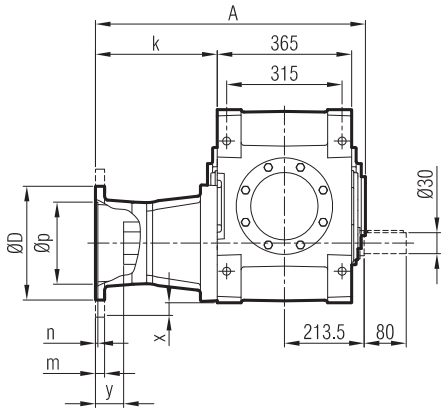
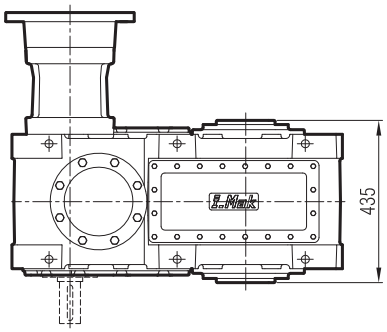


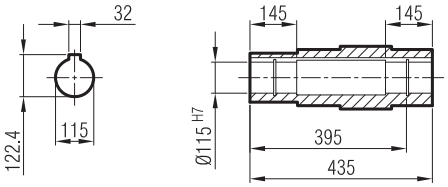


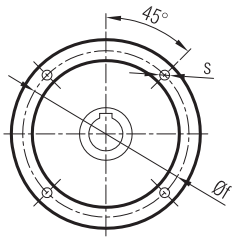
MAP 704

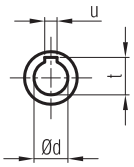


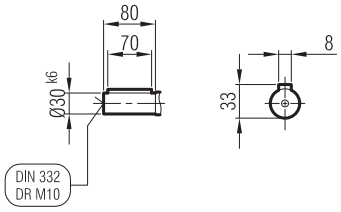












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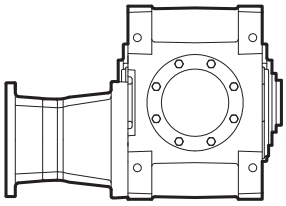
Giriş Seçenekleri / Input Options / *Option d'entree*



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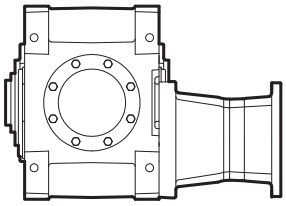

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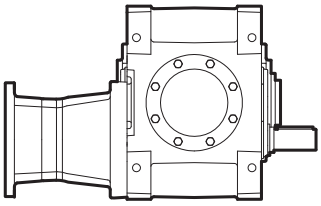

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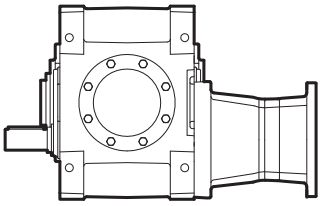
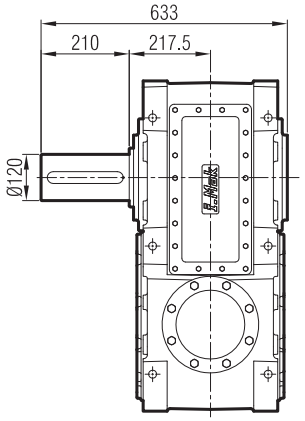
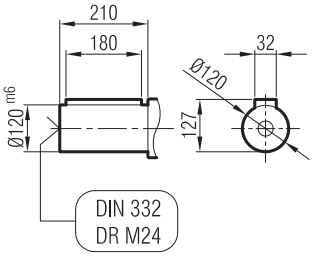


G06

MA / MK 70_

...-SL





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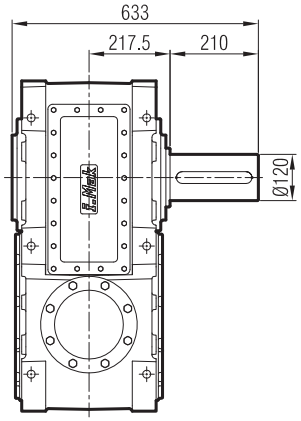

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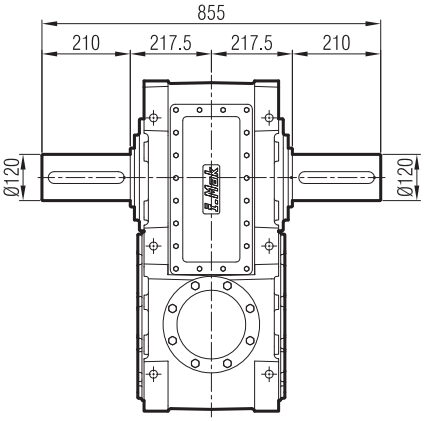

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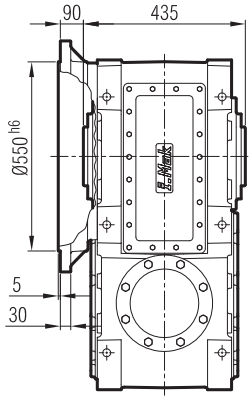

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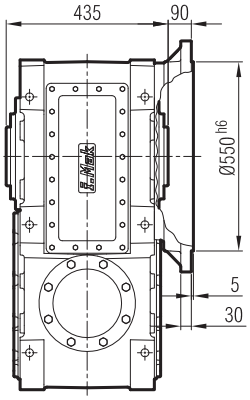

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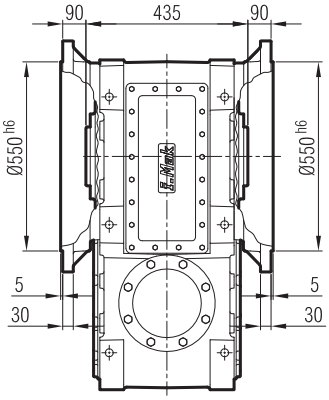

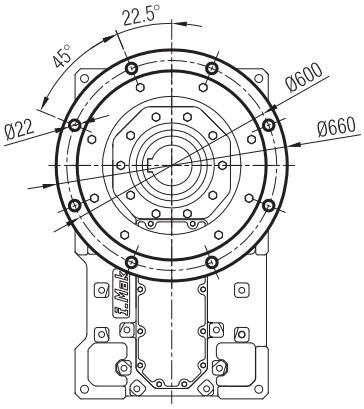

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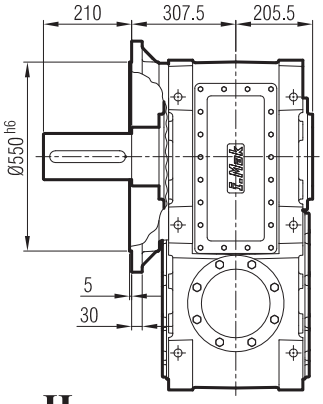

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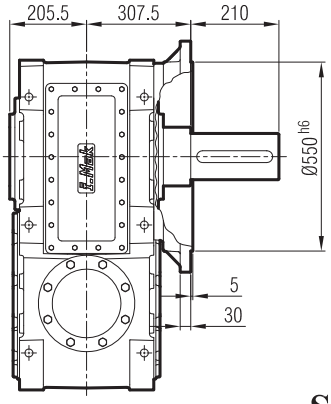

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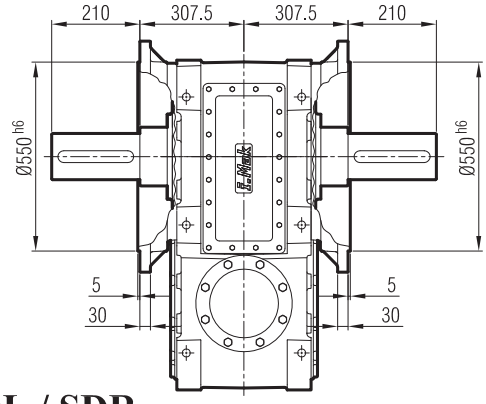

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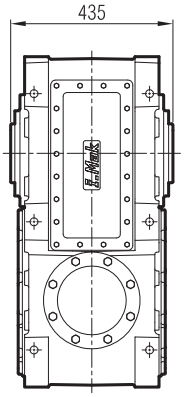

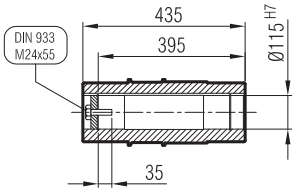

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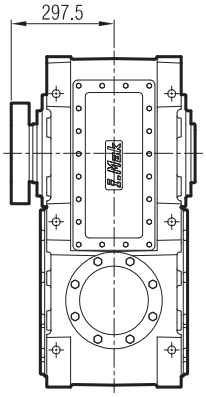
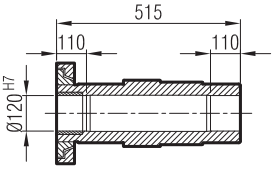
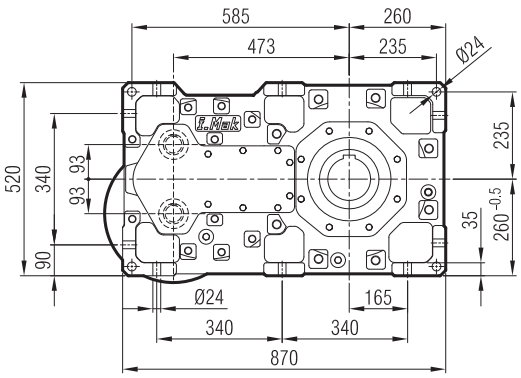
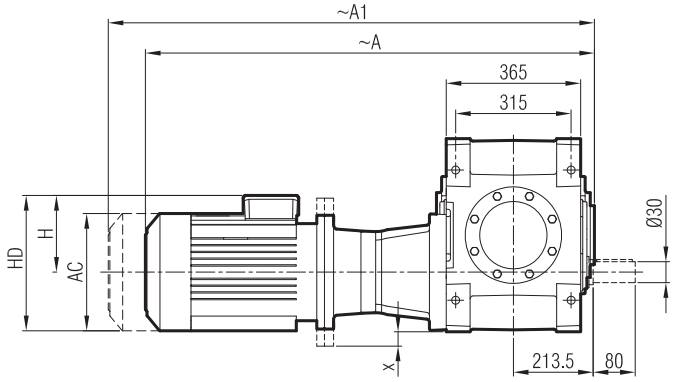
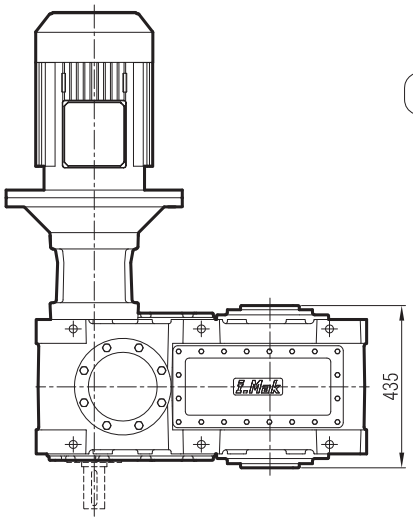


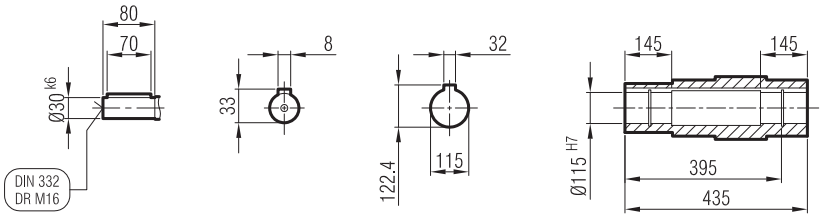


MAM 704









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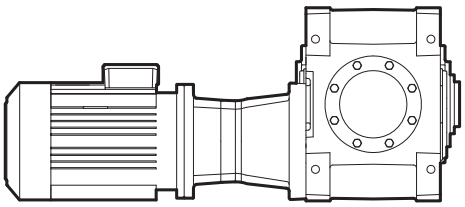
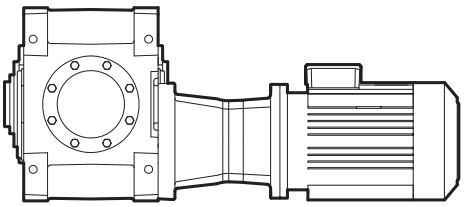
A1	1037	1027	1113	1154	1262	1307	1402
H	161	170	193	193	240	240	260
HD	261	282	325	325	400	400	440
AC	195	220	262	262	315	315	357
x	-	-	-	-	8	8	12

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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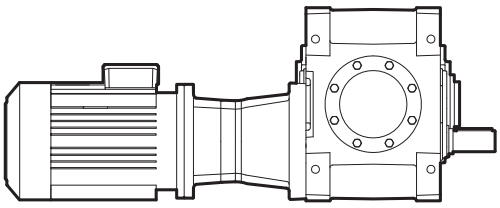

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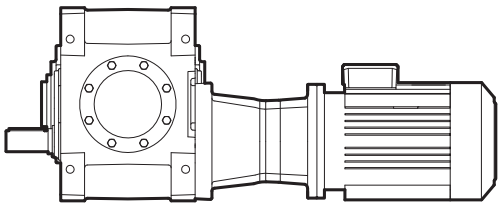
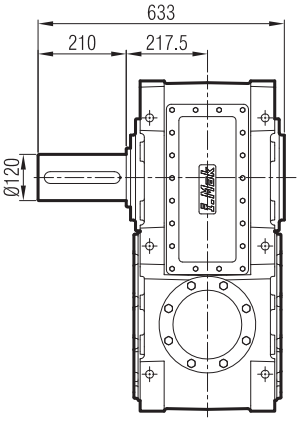
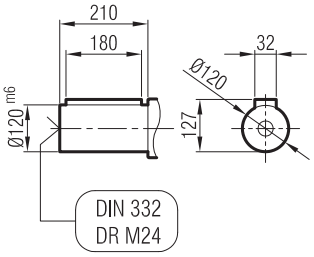


G06

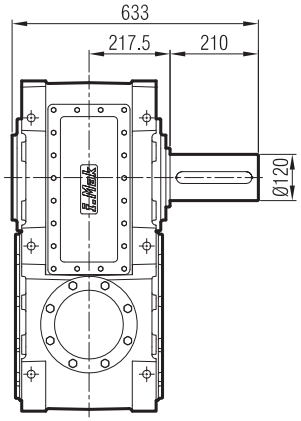
MA / MK 70_

...-SL





...-SR



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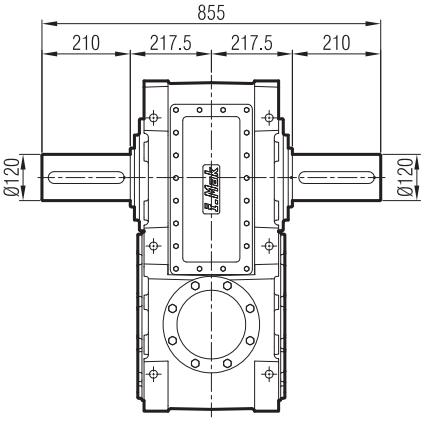
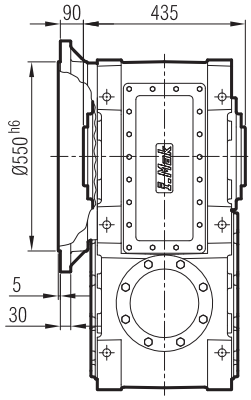


...-FL



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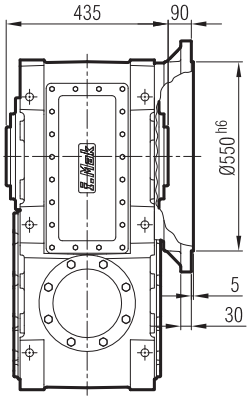
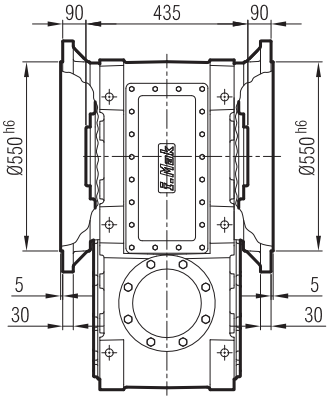
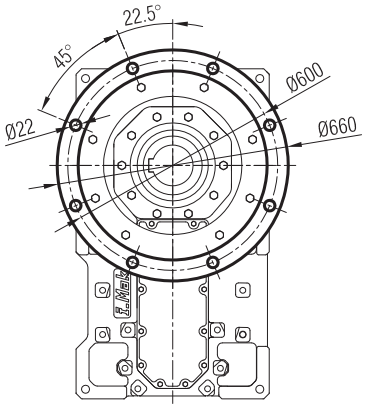


...-FD





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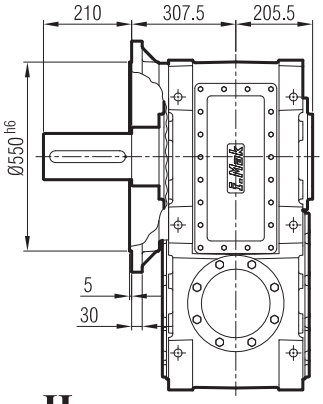

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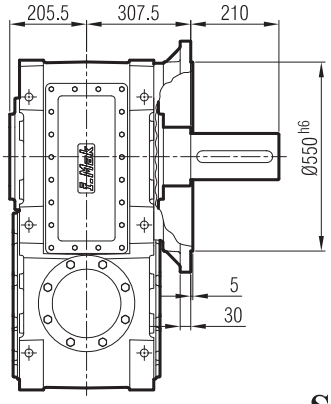
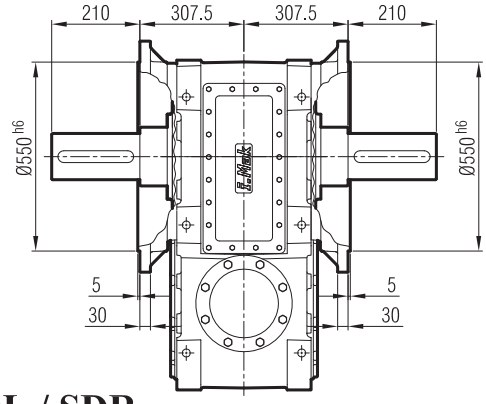
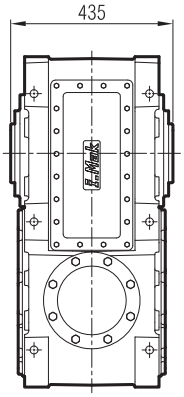
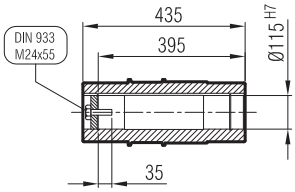


...-FD-SD

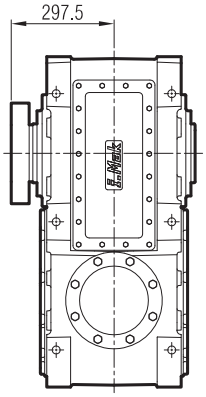


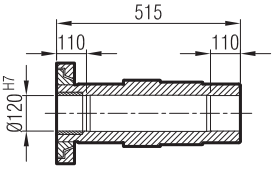
...-H



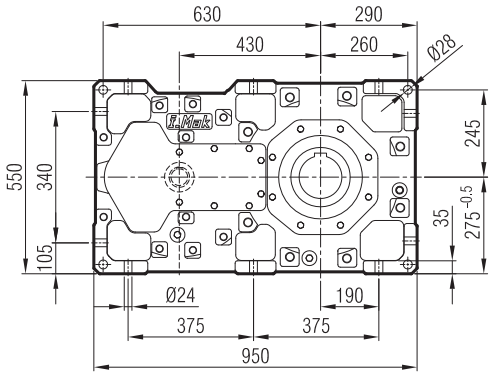


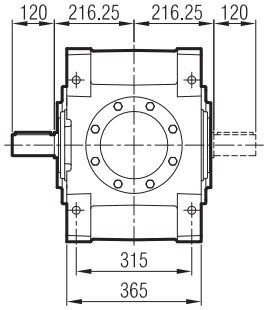
...-SDL / SDR

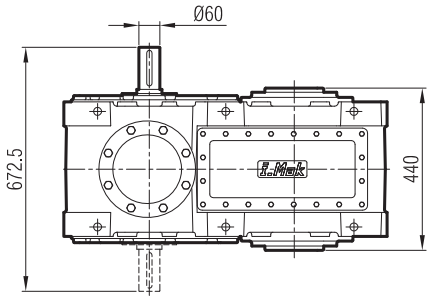


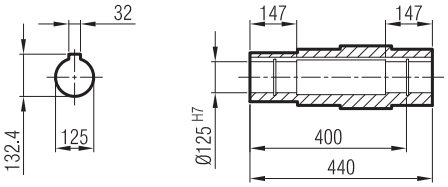


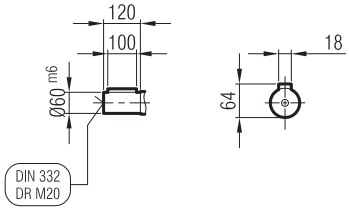
MA 802



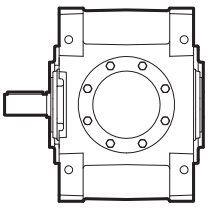




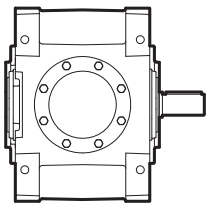




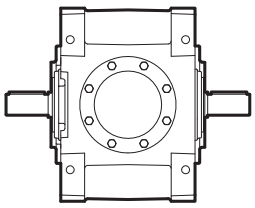
Giriş Seçenekleri / Input Options / *Option d'entree*



G00



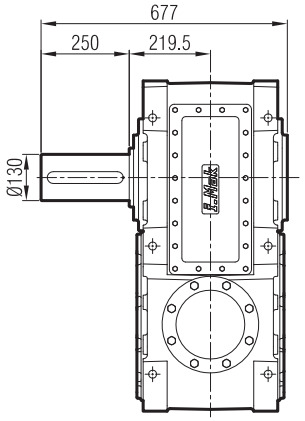
G01

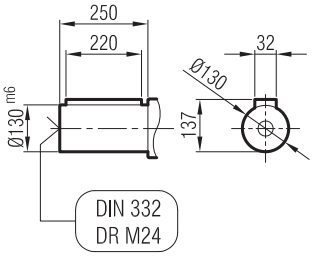


G02

MA / MK 80_

...-SL





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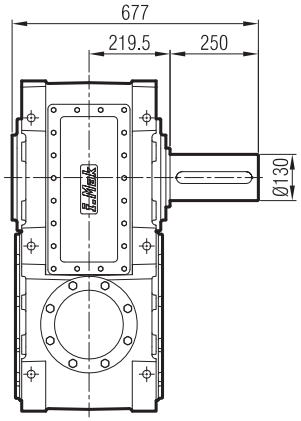
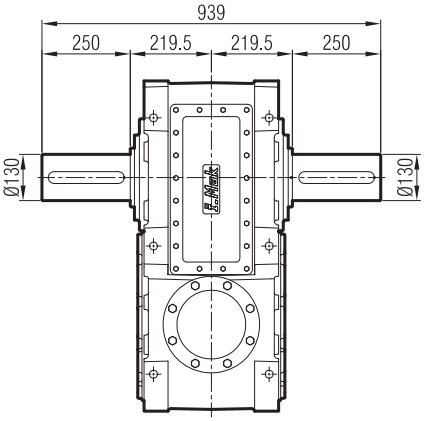
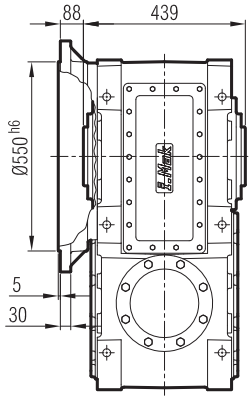


...-SD



...-FL



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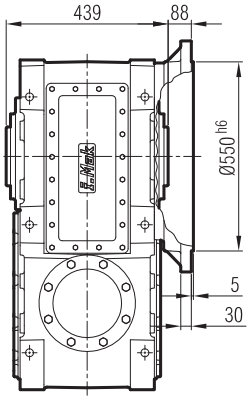

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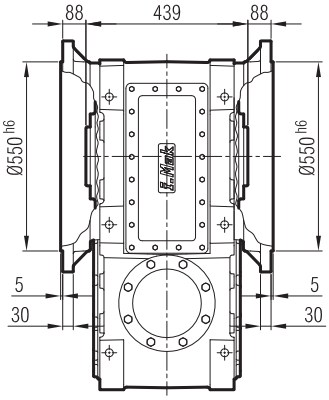

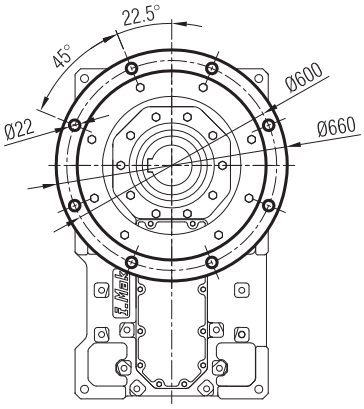

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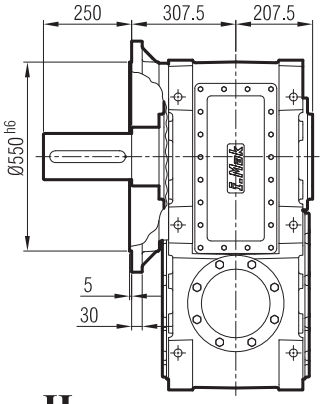

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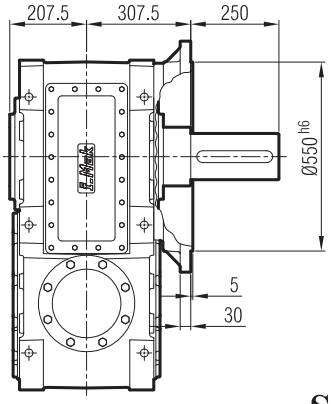
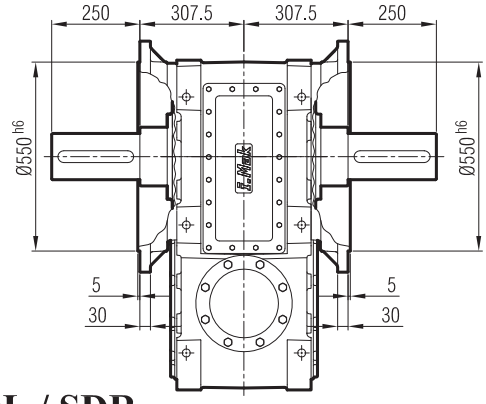


...-FD-SD



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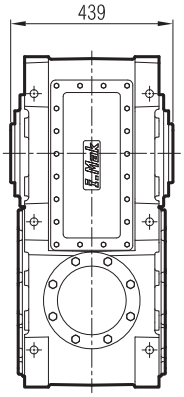
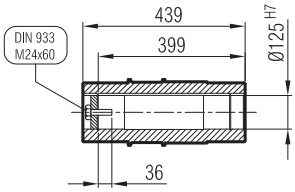
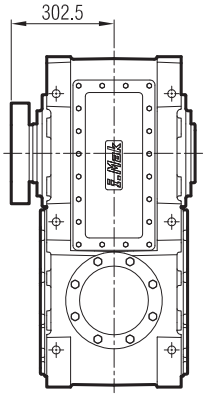
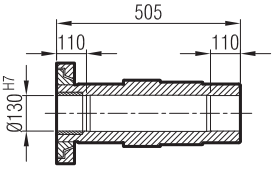


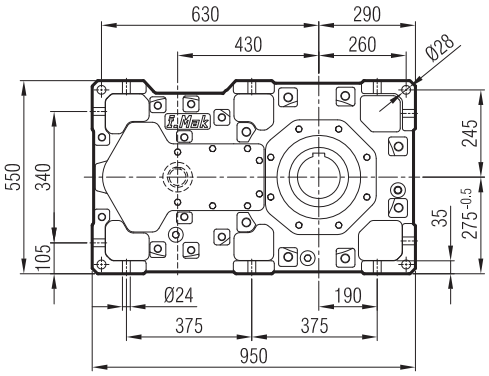


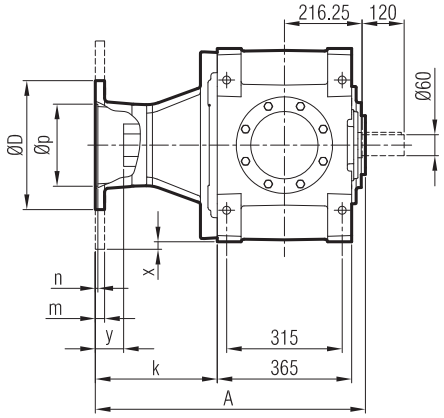
...-SDL / SDR

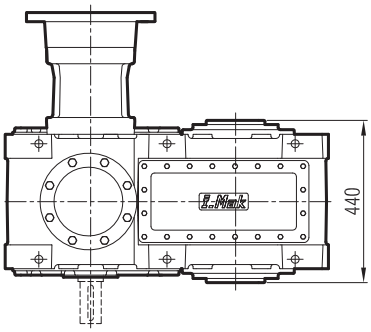


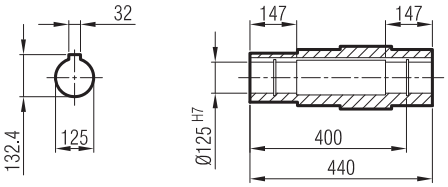


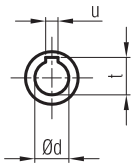
MAP 802

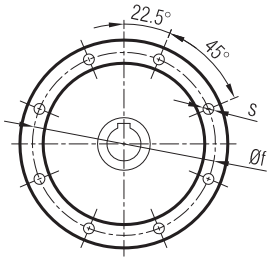


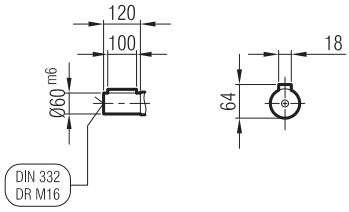












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225/B5	719	350	400	450	M16	317	22	6	60	64.4	18	-	65
250/B5	719	450	500	550	M16	317	25	6.5	65	69.4	18	0	65
280/B5	719	450	500	550	M16	317	25	6.5	75	75.9	20	0	65
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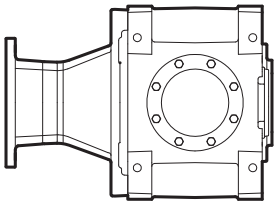
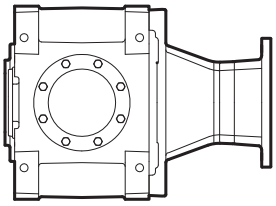
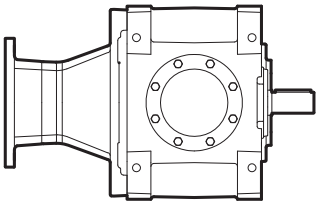
Giriş Seçenekleri / Input Options / *Option d'entree*



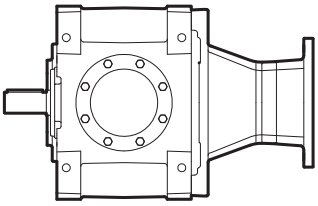
G03



G04



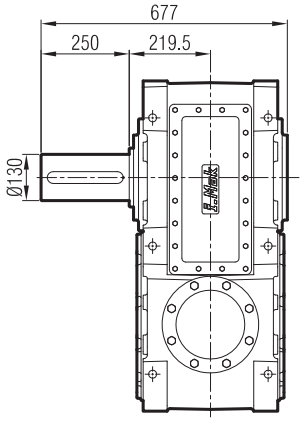
G05

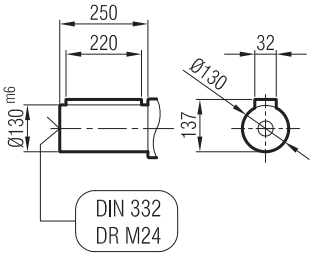


G06

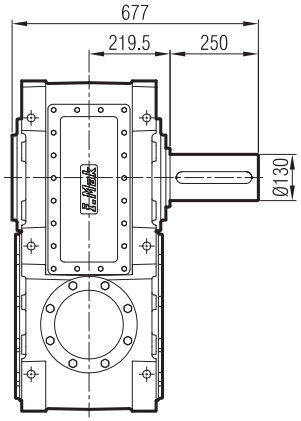
MA / MK 80_

...-SL

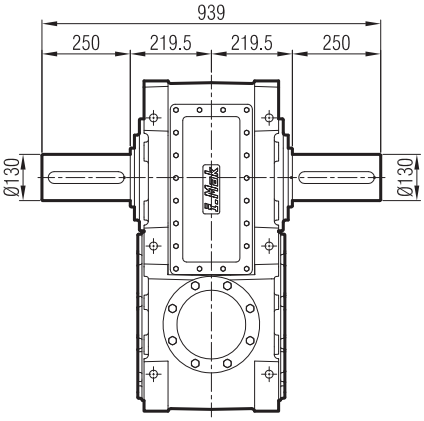




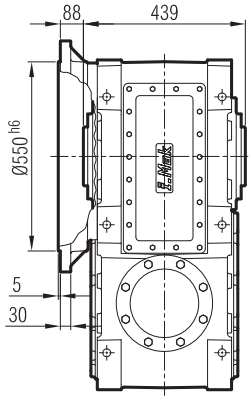
...-SR



...-SD



...-FL



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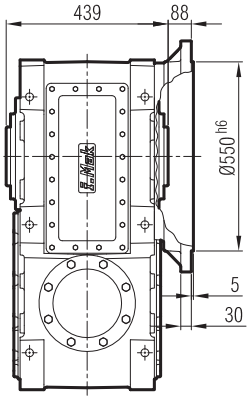
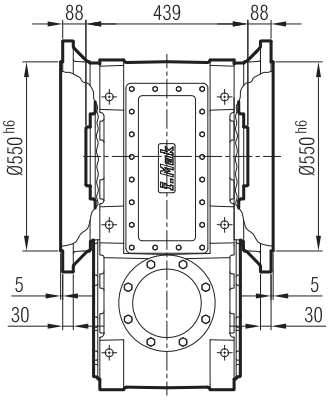
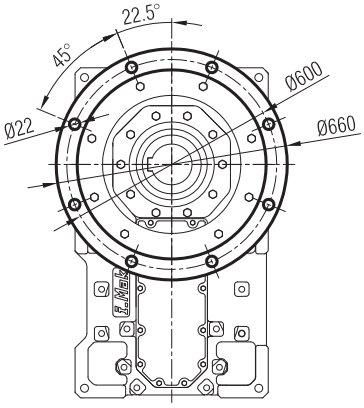
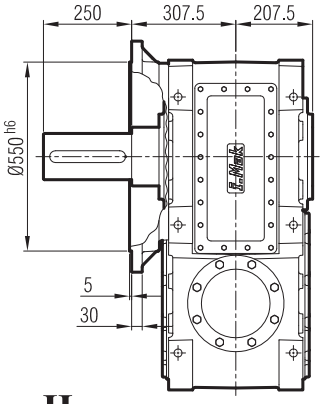


...-FD





...-FL-SL



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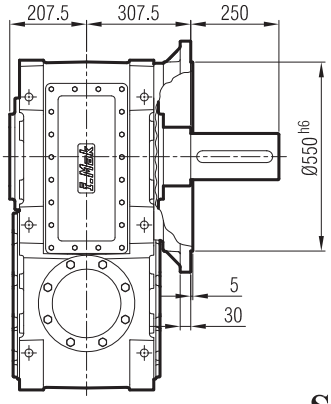

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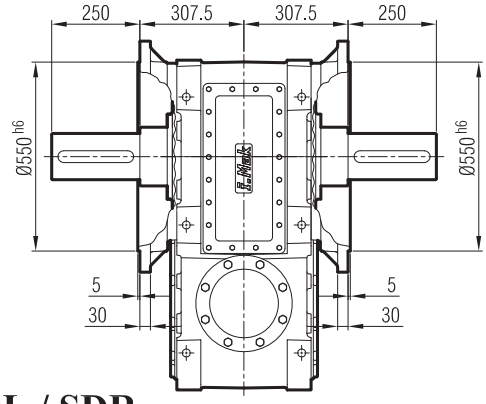
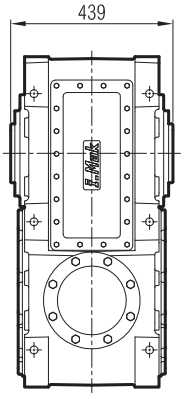
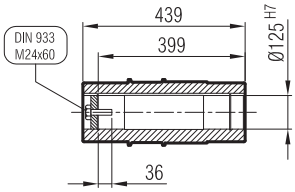
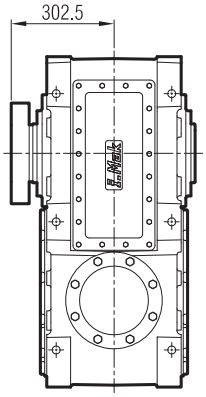


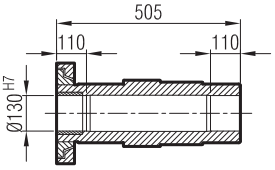
...-H



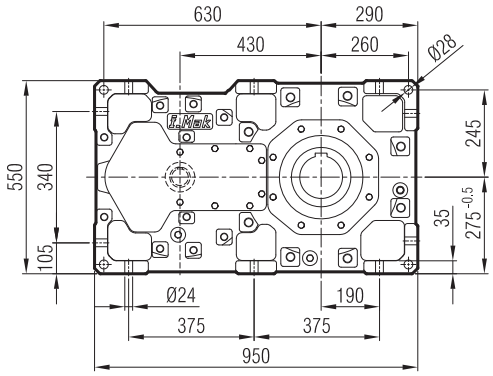


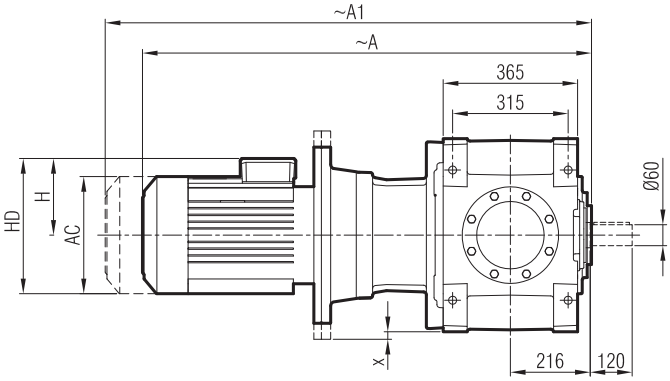
...-SDL / SDR

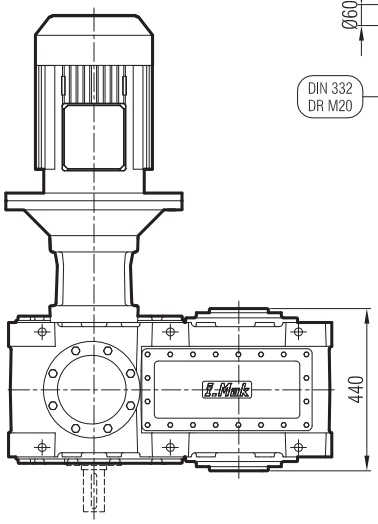


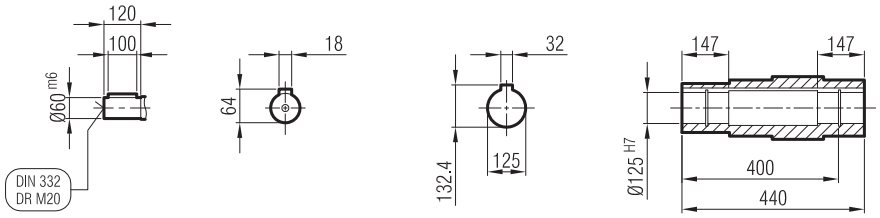


MAM 802





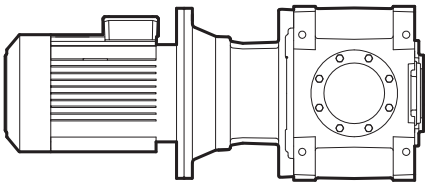




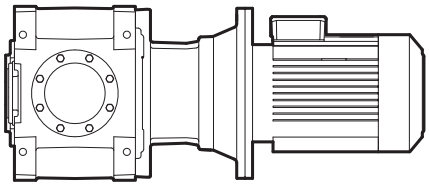
	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	315 S/B5	315 M/B5	315 L/B5	315 H/B5
A	1404	1464	1514	1604	1604	1785	1785	1896	1896
A1	1551	1611	1661	1852	1852	2033	2033	2154	2154
H	313	313	366	398	398	518	518	518	518
HD	538	538	618	678	678	833	833	833	833
AC	456	456	489	548	548	652	652	652	652
x	-	-	0	0	0	55	55	55	55

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

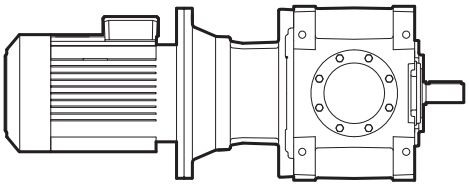
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



G04



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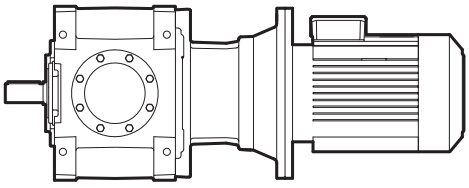
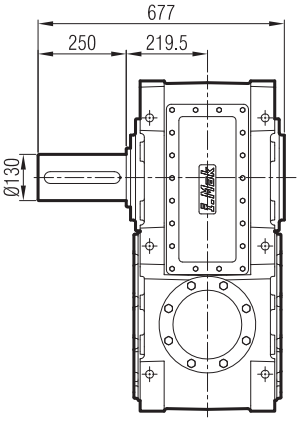
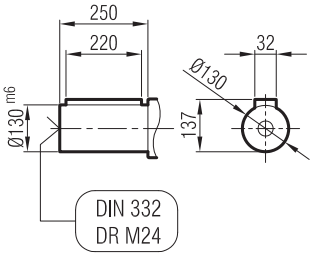


G06

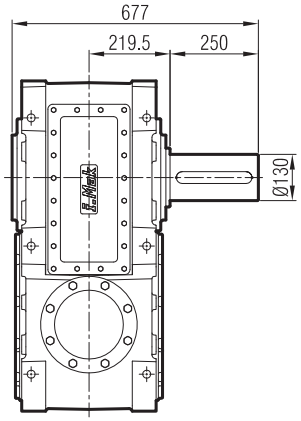
MA / MK 80_

...-SL

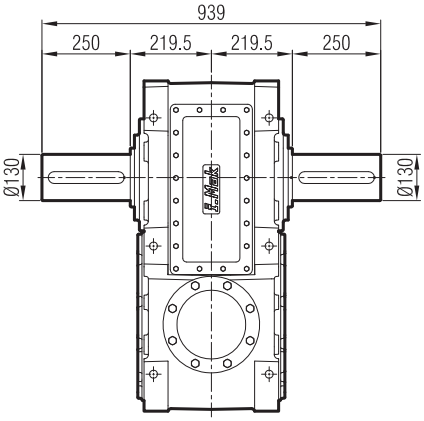




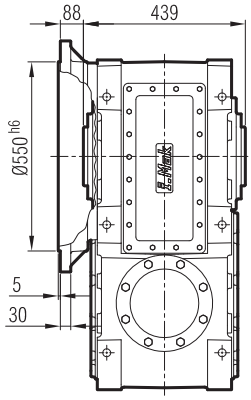
...-SR



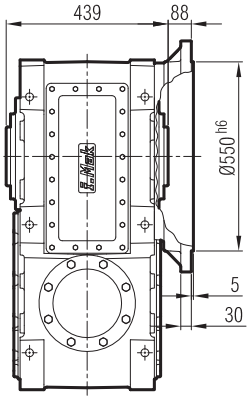
...-SD



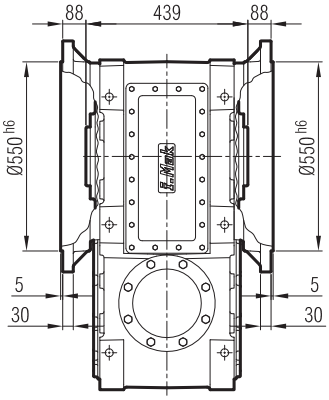
...-FL

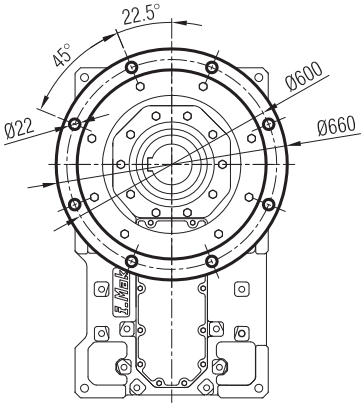


...-FR



...-FD





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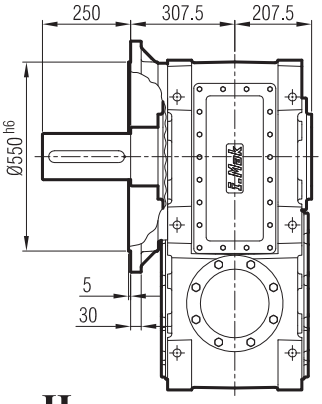
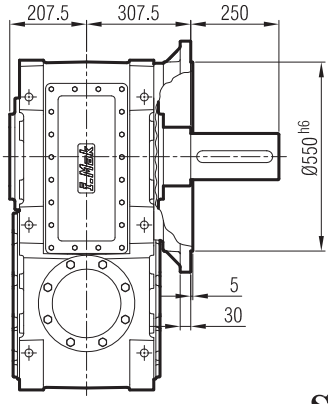
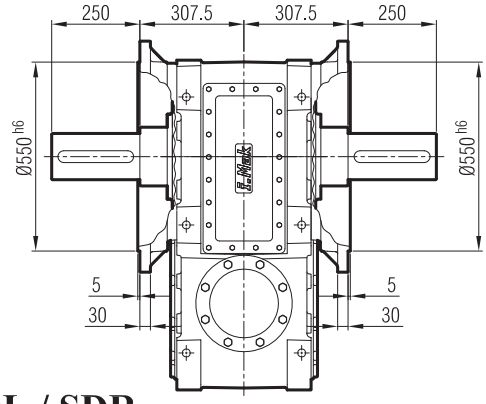


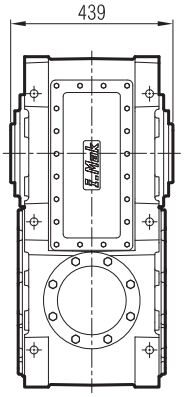
...-FR-SR

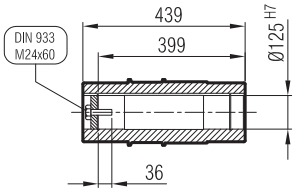


...-FD-SD

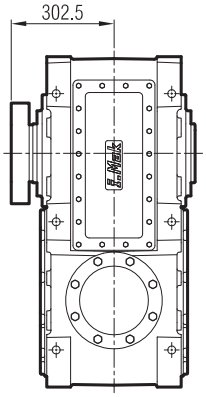


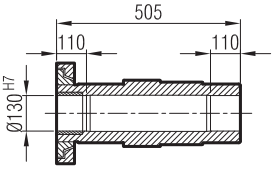
...-H



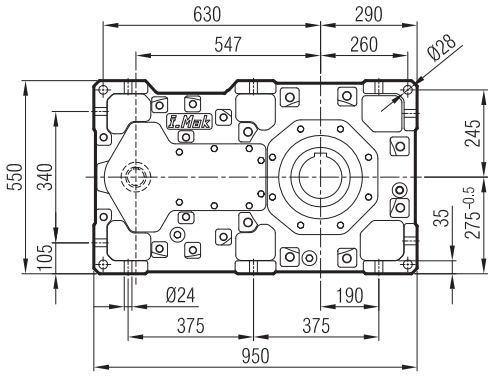


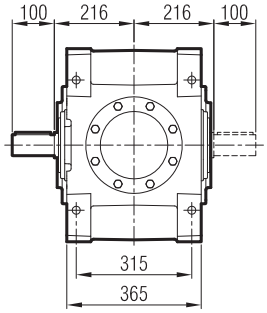
...-SDL / SDR

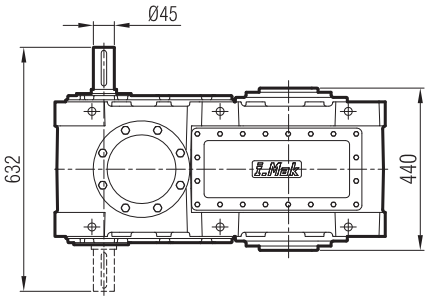


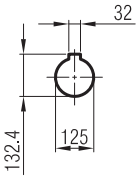


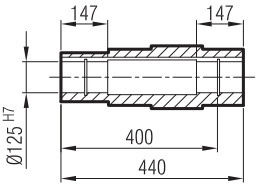
MA 803

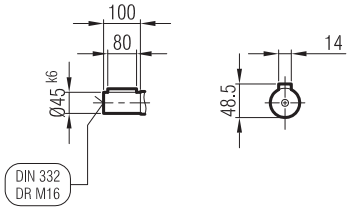




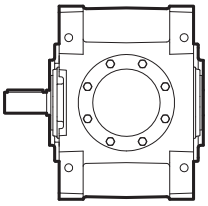




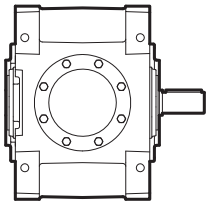




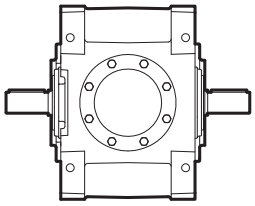
Giriş Seçenekleri / Input Options / *Option d'entree*



G00



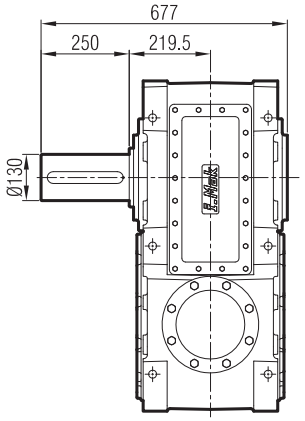
G01

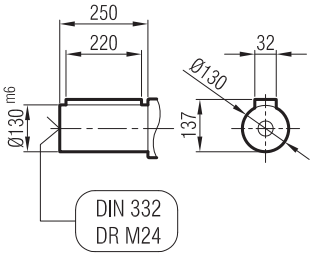


G02

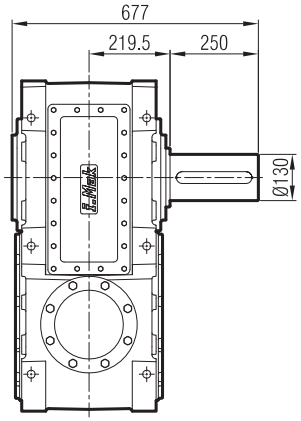
MA / MK 80_

...-SL





...-SR



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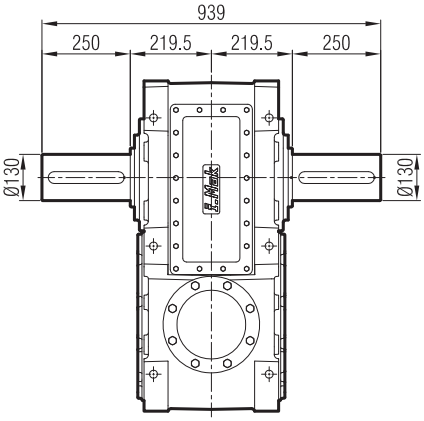

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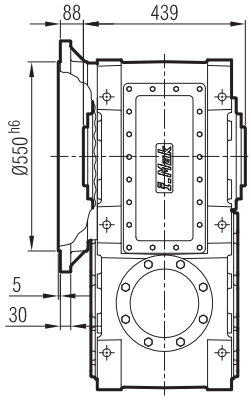

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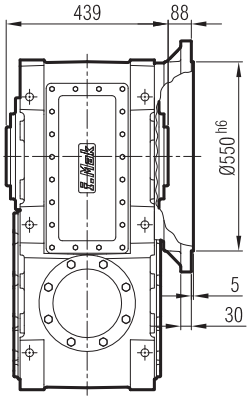

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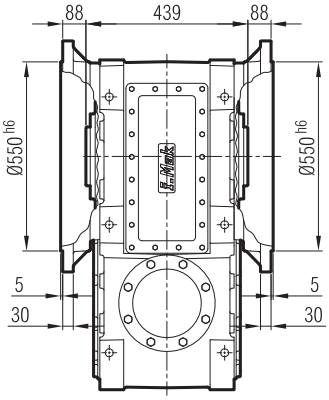

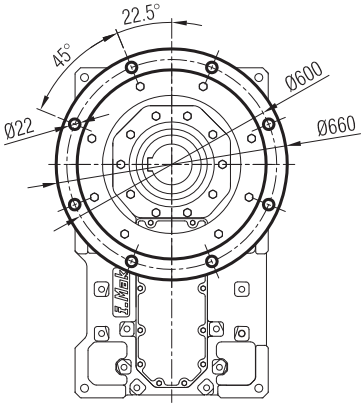

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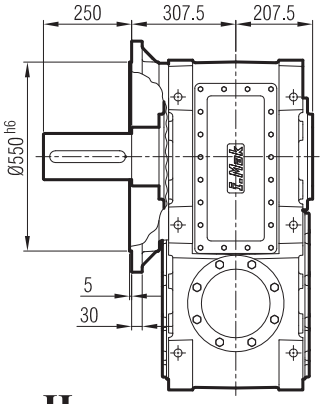

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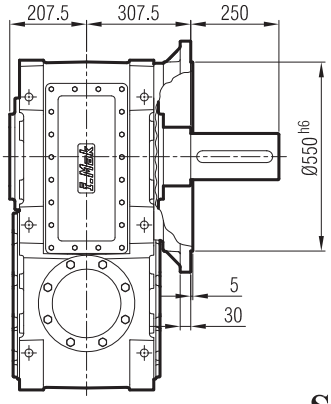

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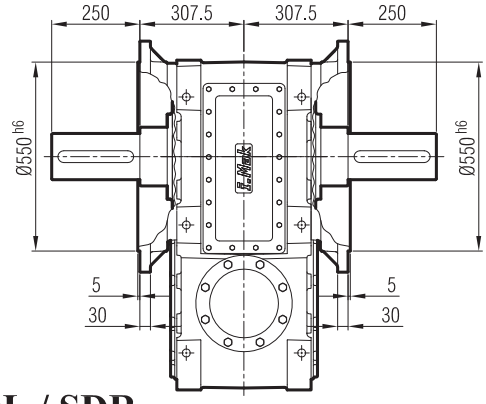

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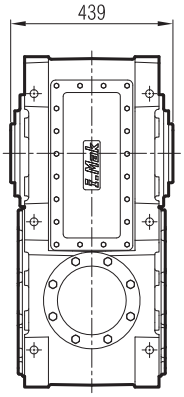

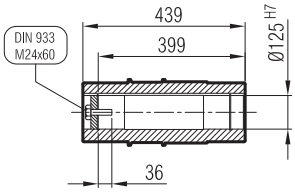

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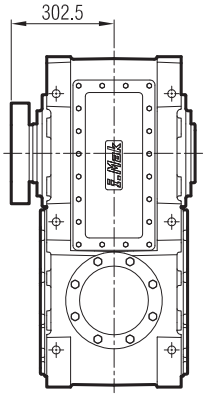
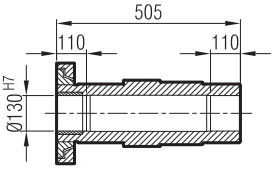
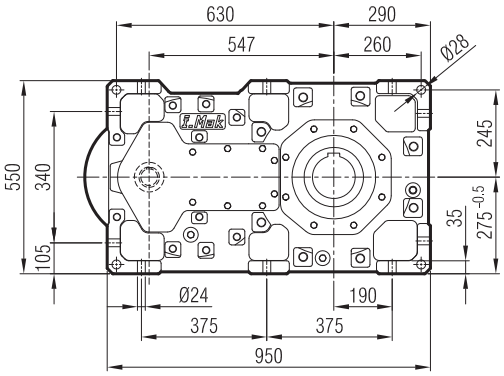
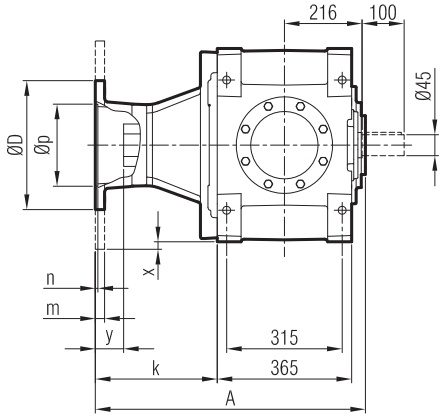
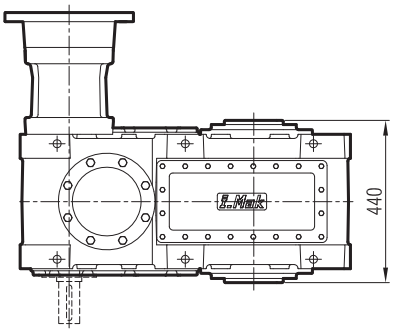


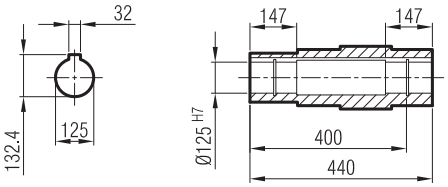


MAP 803









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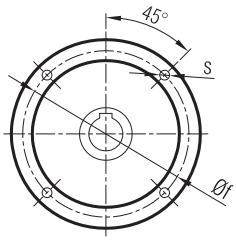

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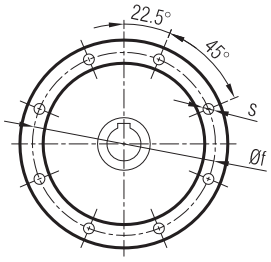

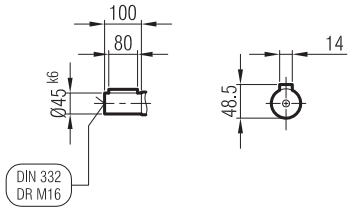

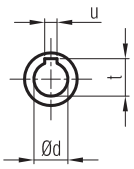

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180/B5	649	250	300	350	M14	247	20	6	48	51.8	14	-	50
200/B5	649	300	350	400	M16	247	22	6	55	59.3	16	-	50
225/B5	692	350	400	450	M16	290	22	6	60	64.4	18	-	79
250/B5	692	450	500	550	M16	290	25	6.5	65	69.4	18	0	75
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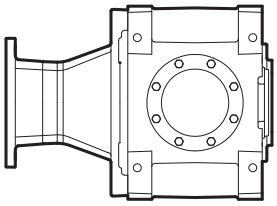
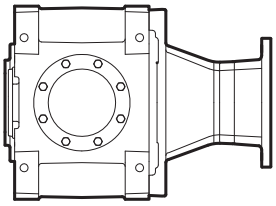
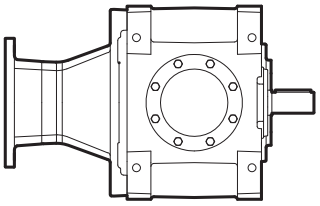
Giriş Seçenekleri / Input Options / *Option d'entree*



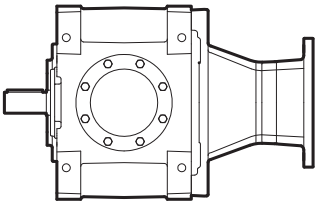
G03



G04



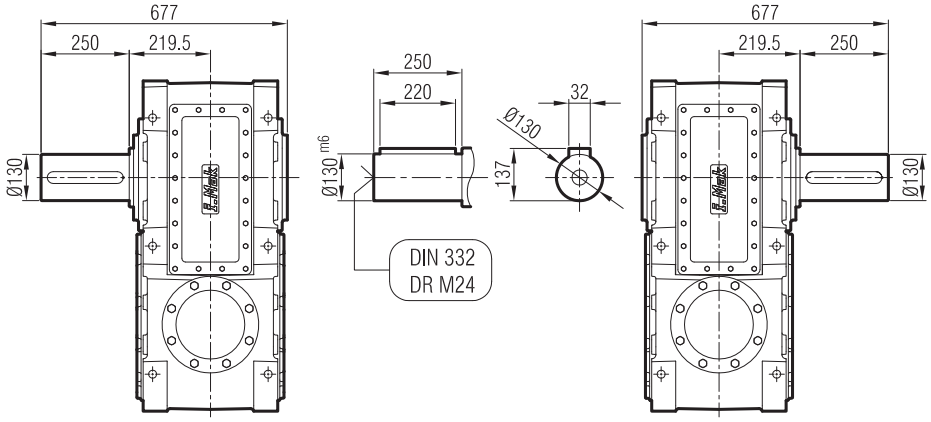
G05



G06

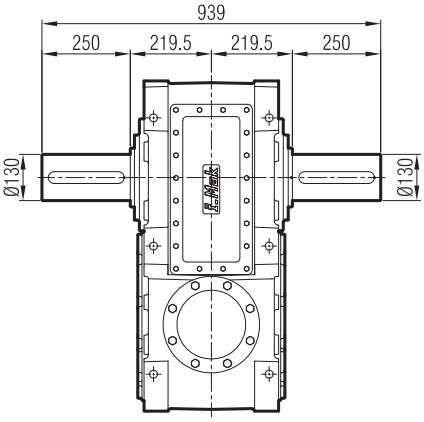
MA / MK 80_

...-SL



...-SR

...-SD



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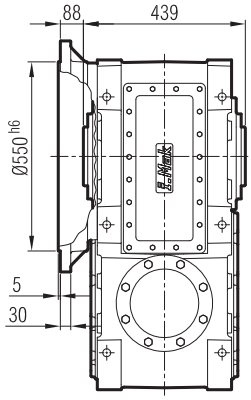

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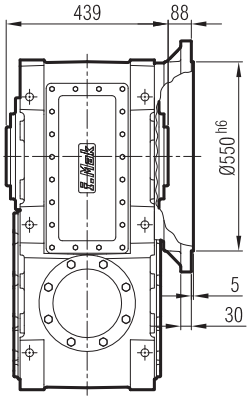

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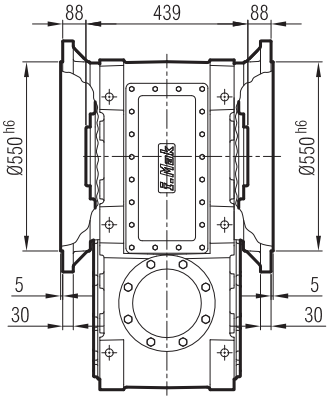
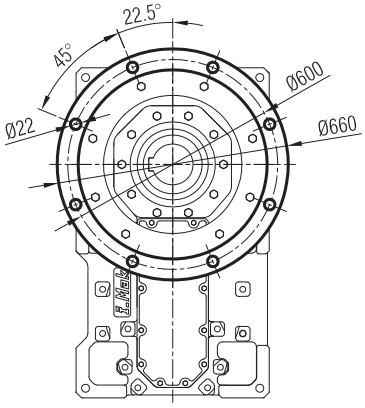
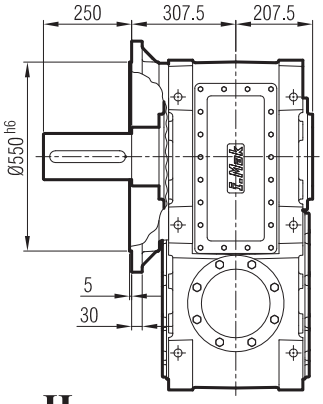




...-FL-SL



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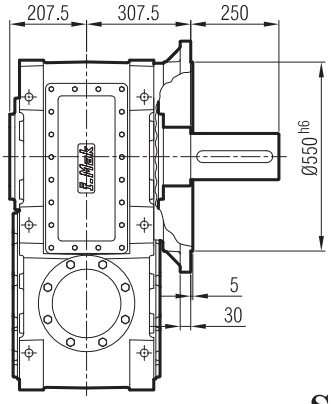

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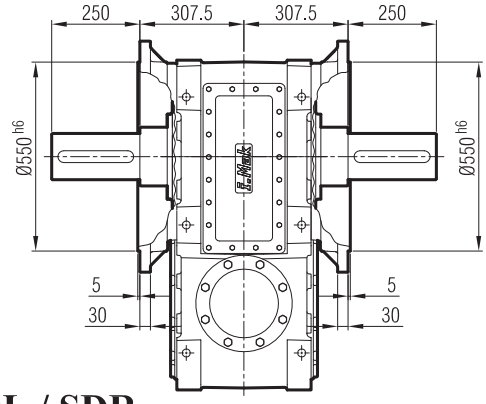

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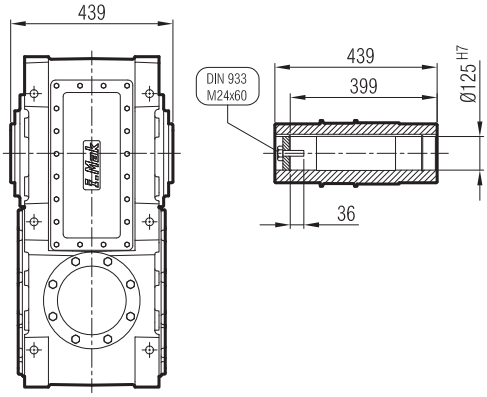

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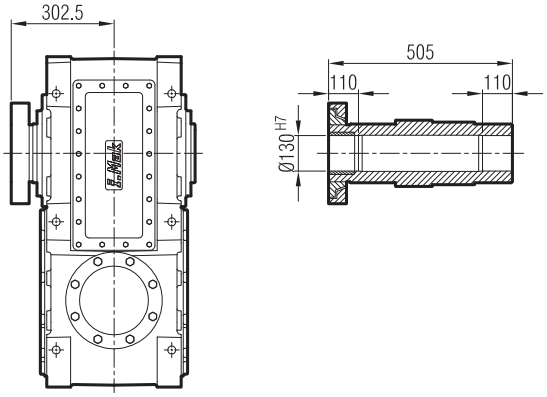
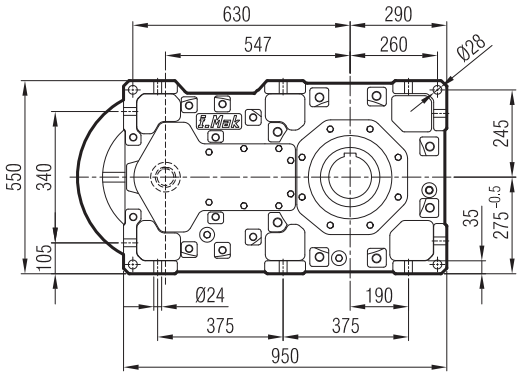
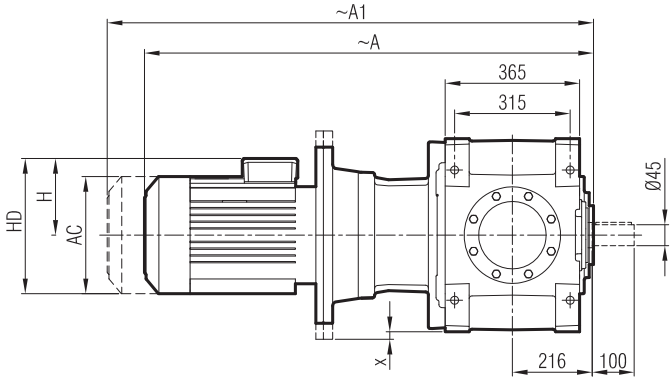
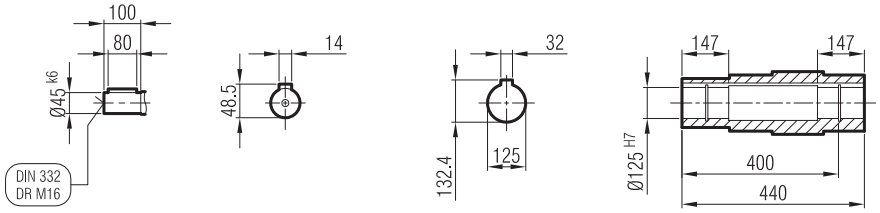
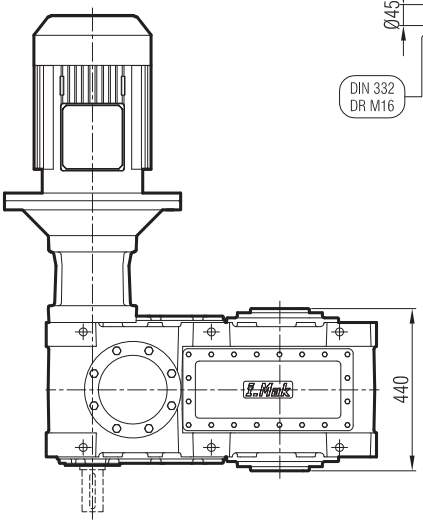


MAM 803









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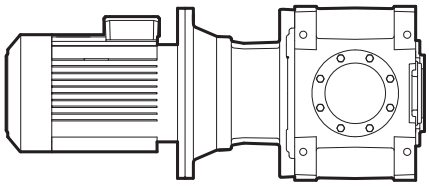
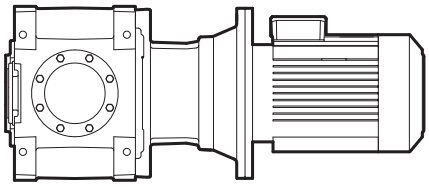
A1	1286	1331	1426	1426	1505	1524	1584	1634	1825	1825
H	240	240	260	260	300	313	313	366	398	398
HD	400	400	440	440	500	538	538	618	678	678
AC	315	315	357	357	394	456	456	489	548	548
x	-	-	-	-		-	-	0	0	0

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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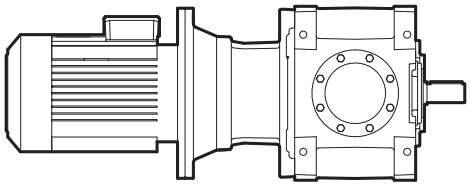
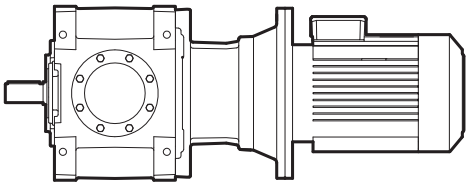


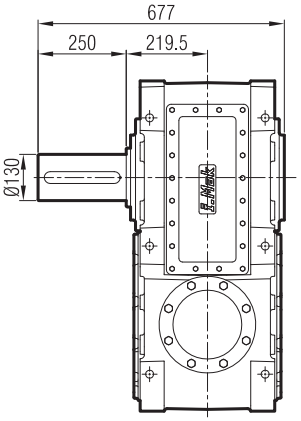
G05

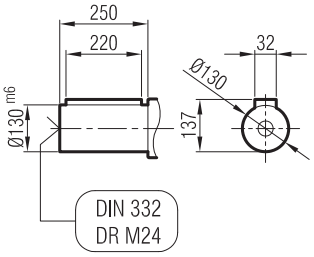


G06

MA / MK 80_

...-SL





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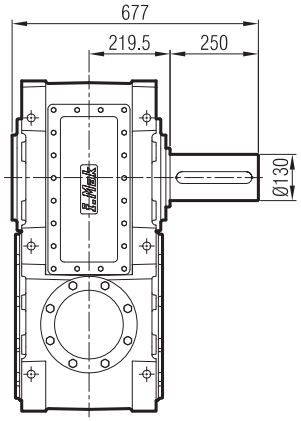

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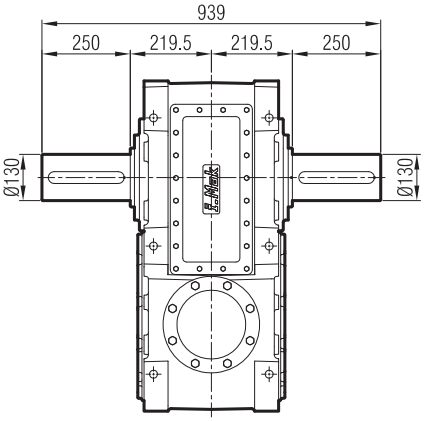

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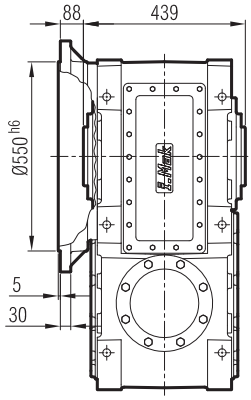

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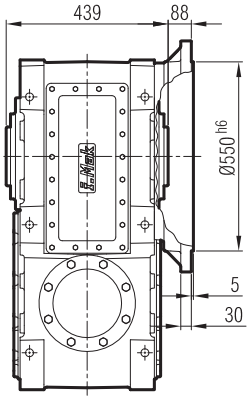

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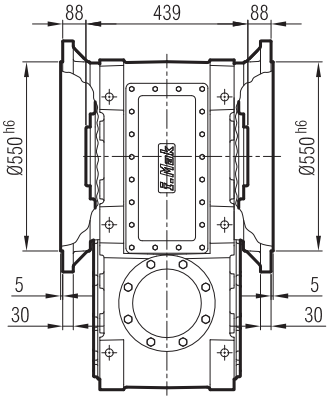

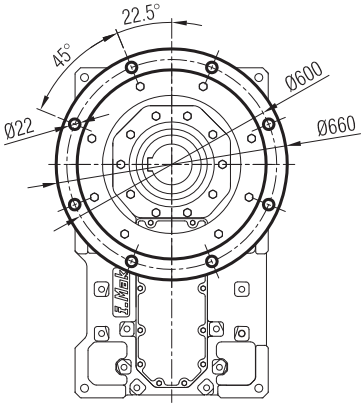

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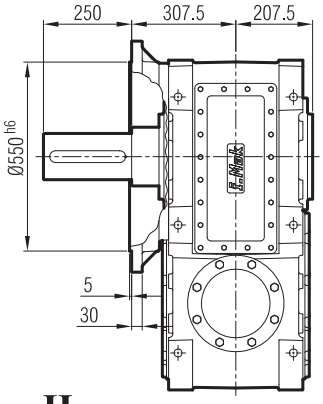

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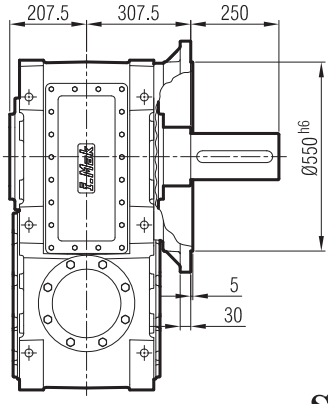

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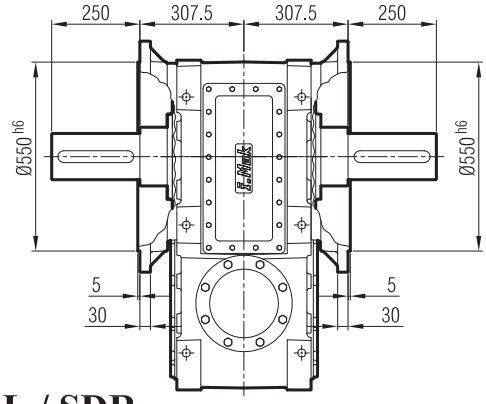

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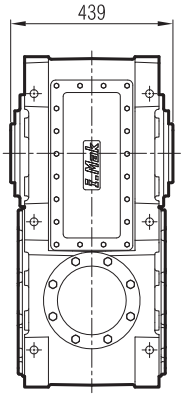

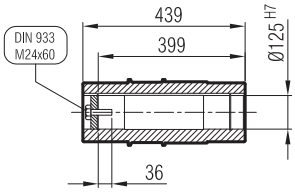

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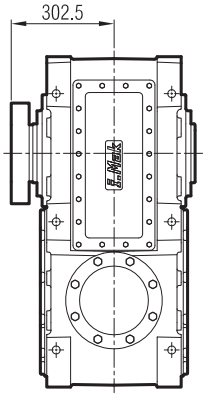
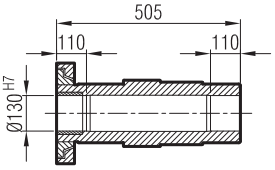
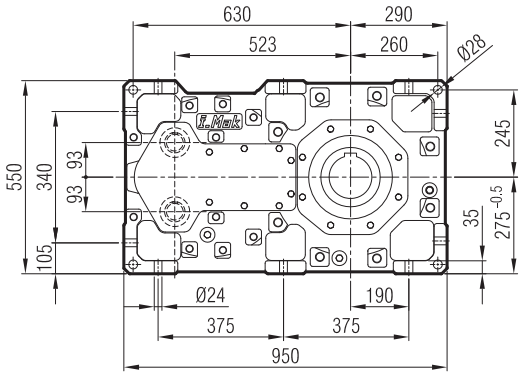
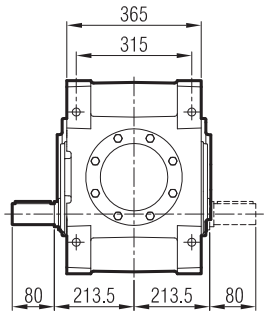
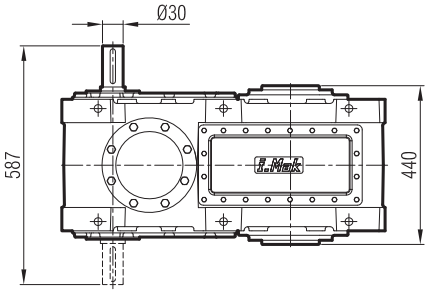


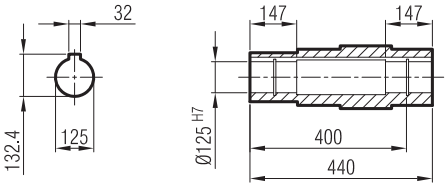


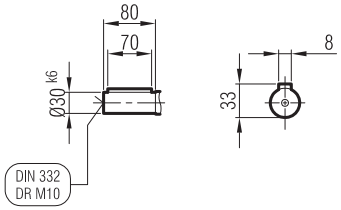
MA 804



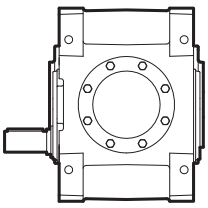








Giriş Seçenekleri / Input Options / *Option d'entree*



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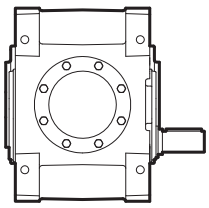

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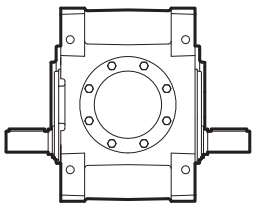

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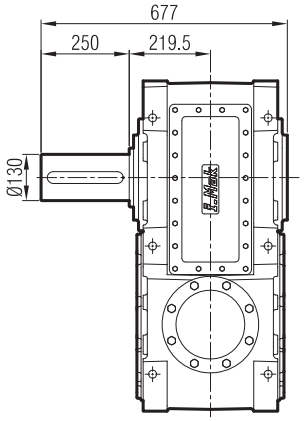
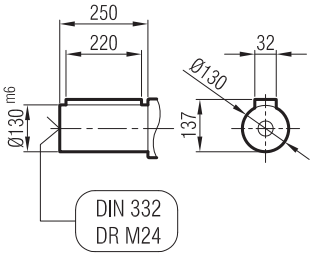
MA / MK 80_

...-SL





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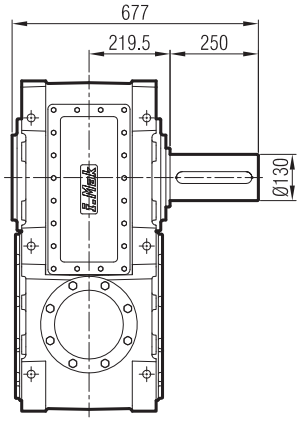

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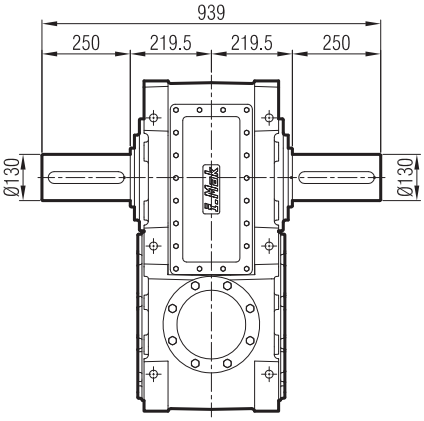

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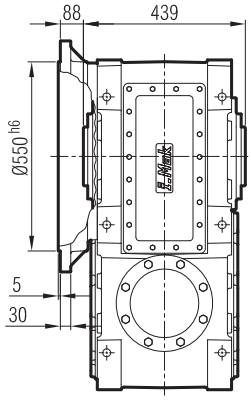

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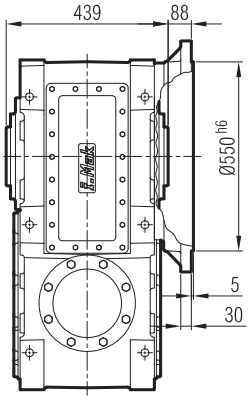

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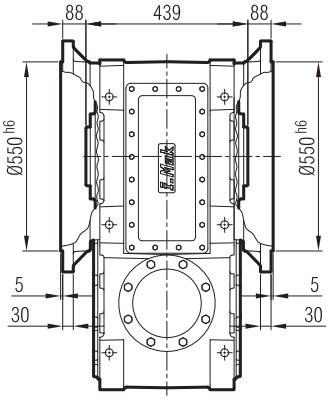

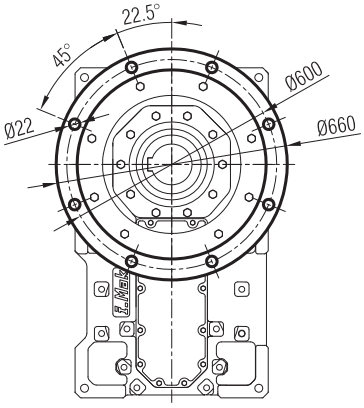

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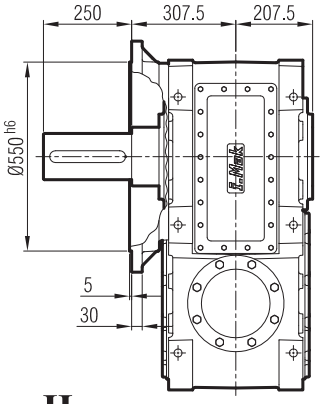

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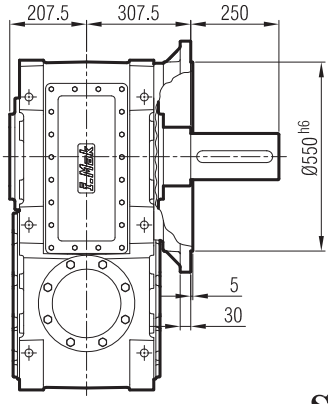

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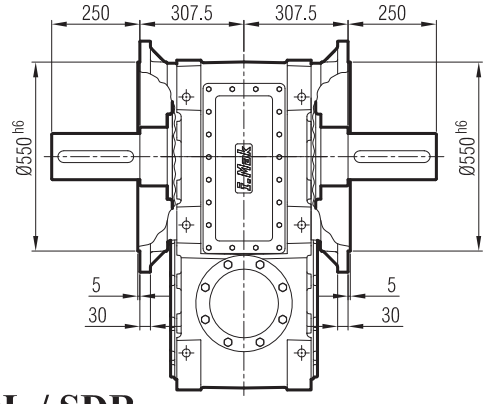

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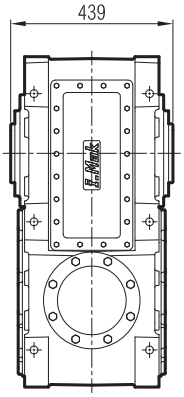

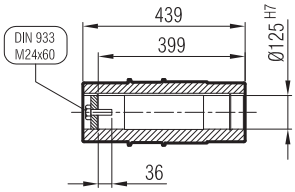

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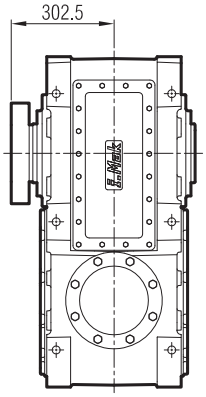
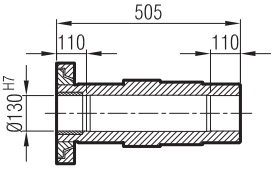
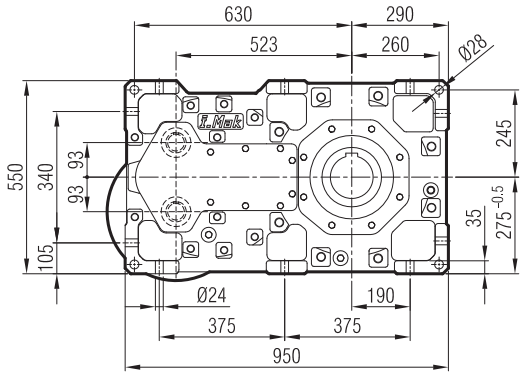
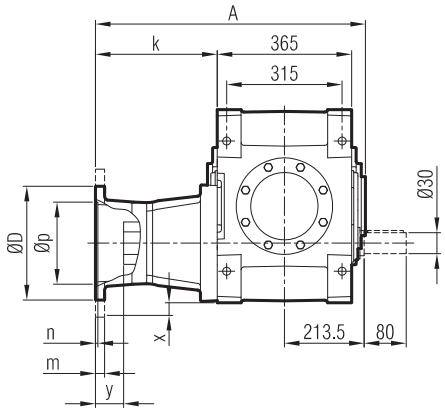
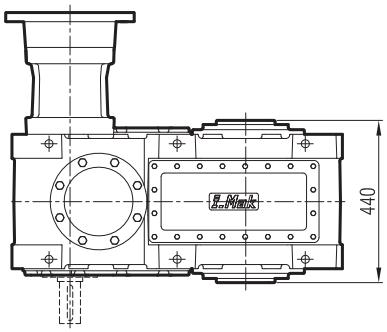


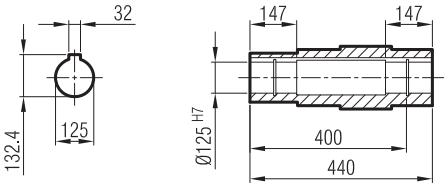


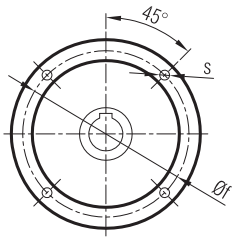
MAP 804

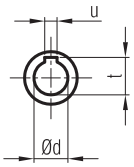


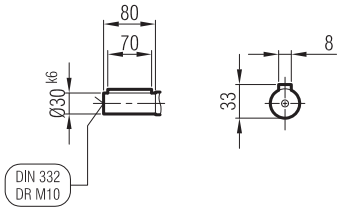












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132/B5	610	230	265	300	M12	208	18	6	38	41.3	10	-	45
160/B5	627	250	300	350	M14	225	20	6	42	45.3	12	-	70
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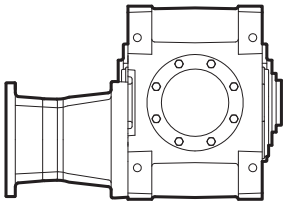
Giriş Seçenekleri / Input Options / *Option d'entree*



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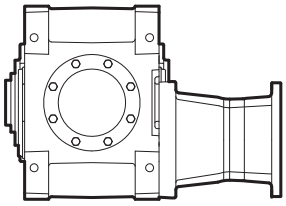

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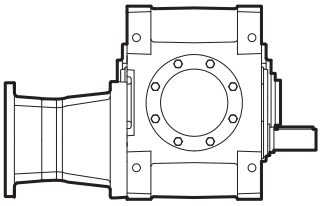

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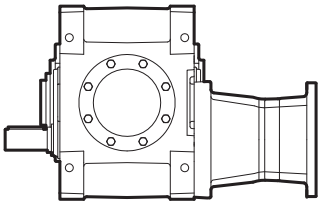
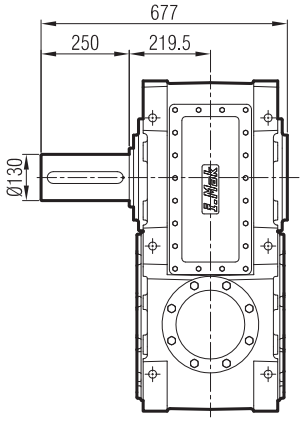
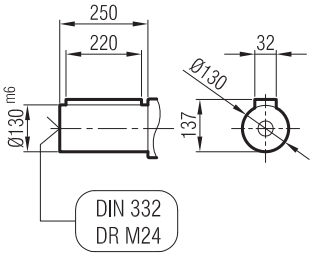


G06

MA / MK 80_

...-SL





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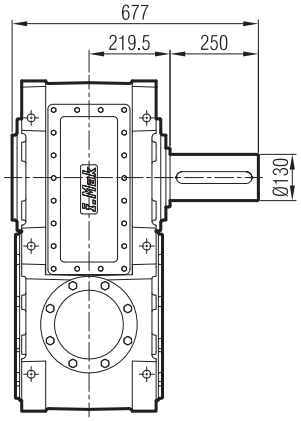

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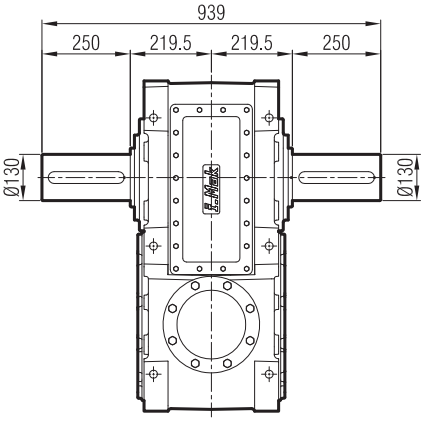

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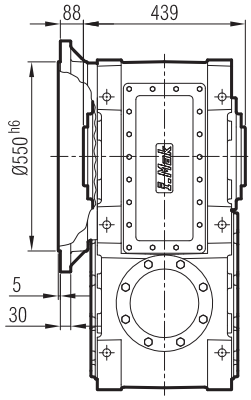

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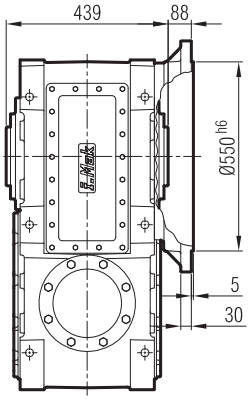

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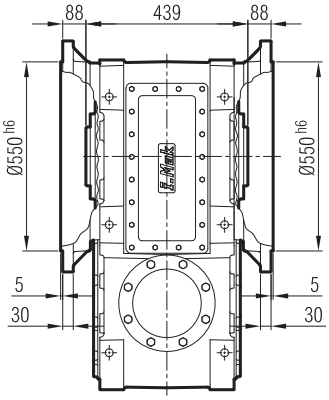

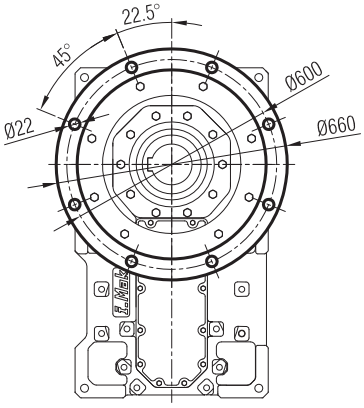

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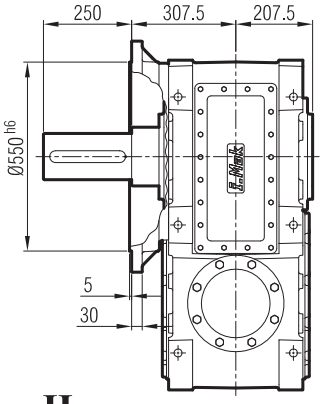

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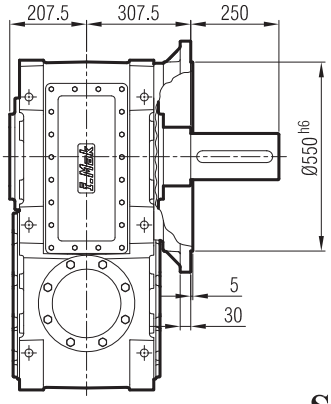
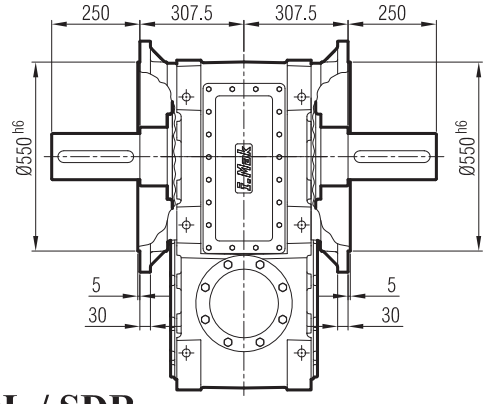


...-FD-SD



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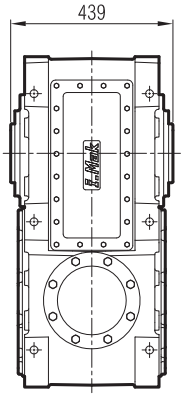
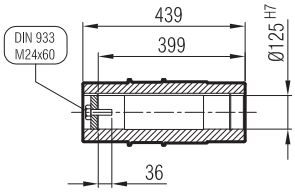
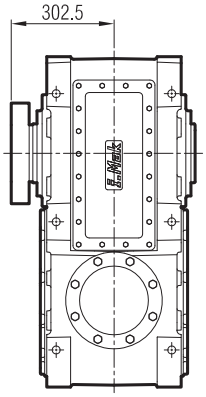
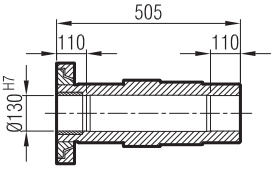


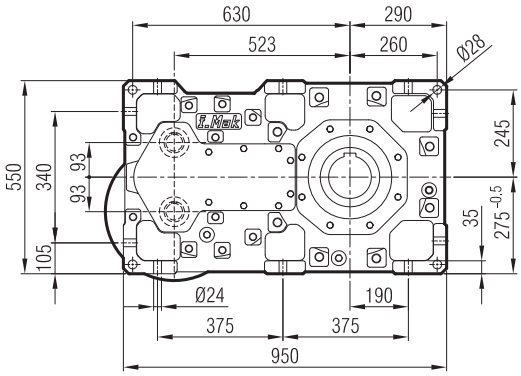


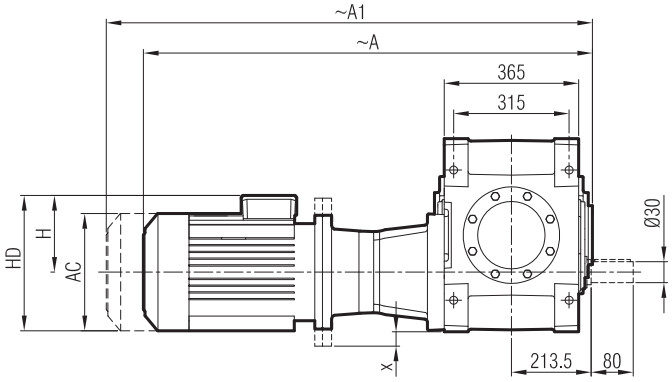
...-SDL / SDR

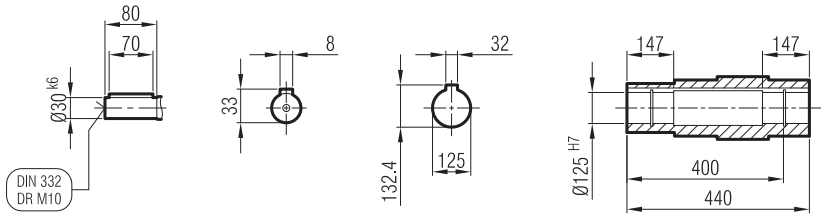


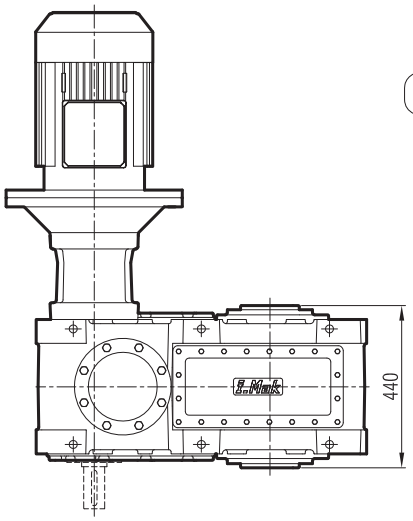


MAM 804





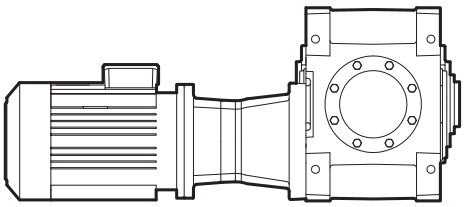




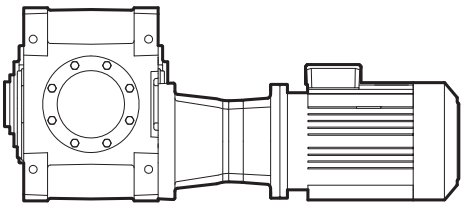
	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5
A	962	934	1011	1052	1147	1192	1268	1268
A1	1039	1029	1115	1156	1264	1309	1404	1404
H	161	170	193	193	240	240	260	260
HD	261	282	325	325	400	400	440	440
AC	195	220	262	262	315	315	357	357
x	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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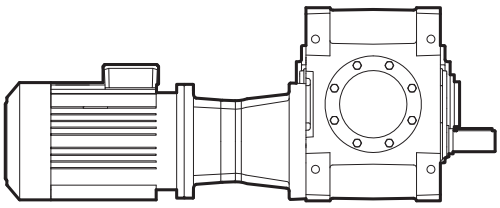

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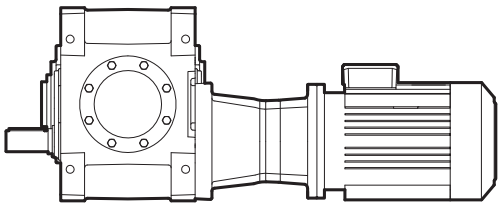
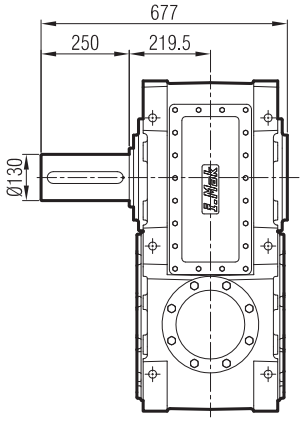
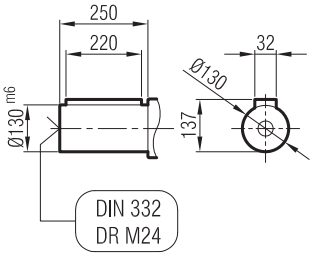


G06

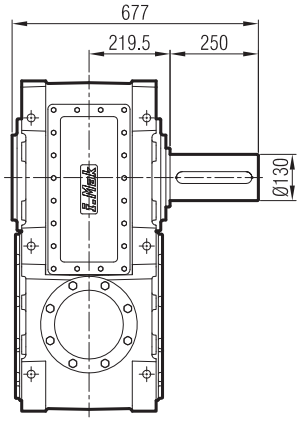
MA / MK 80_

...-SL

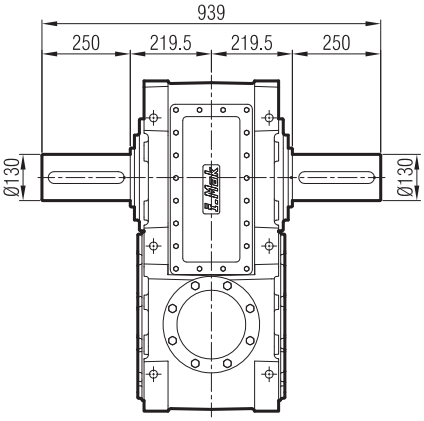




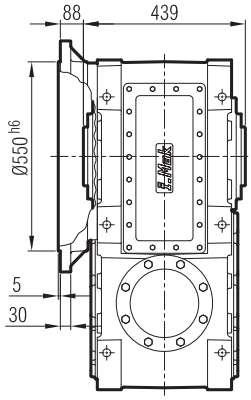
...-SR



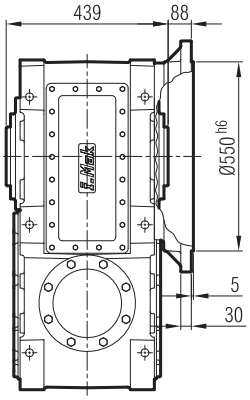
...-SD



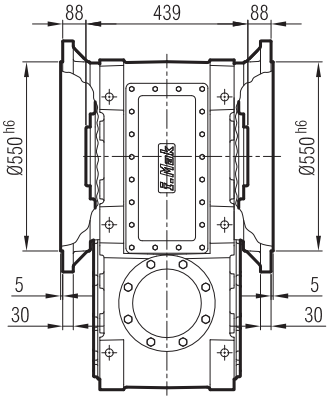
...-FL

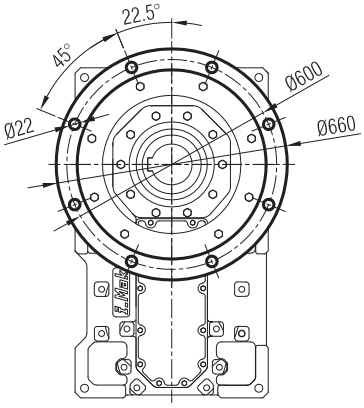


...-FR

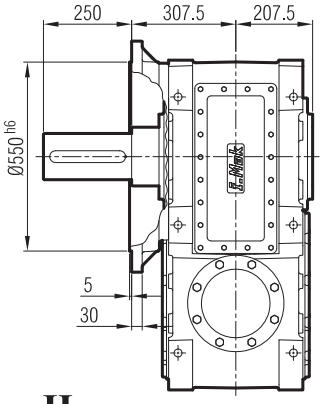


...-FD

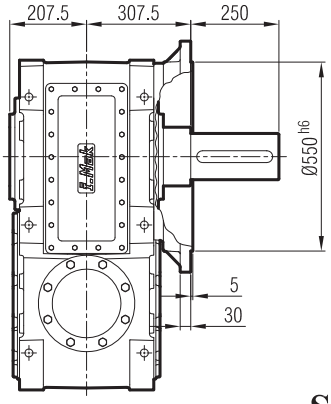




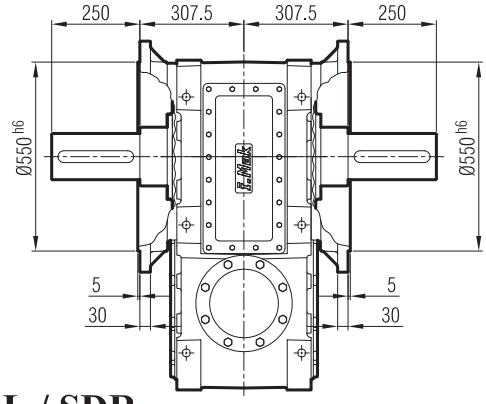
...-FL-SL



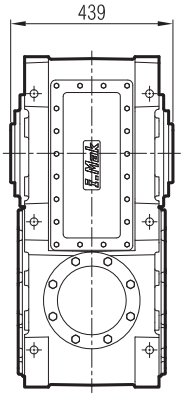
...-FR-SR

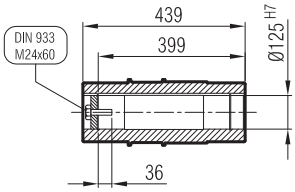


...-FD-SD

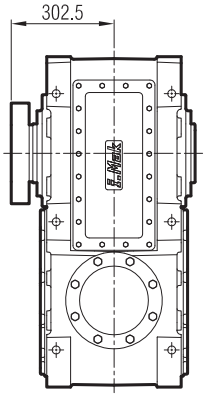


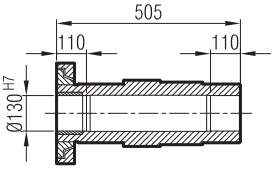
...-H



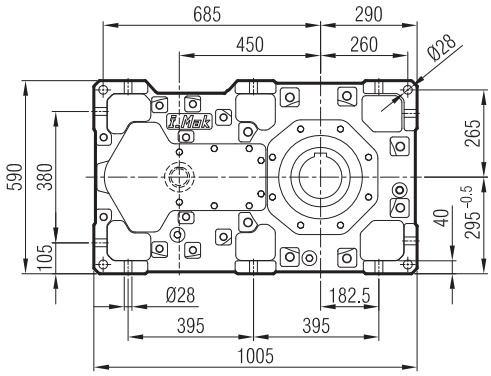


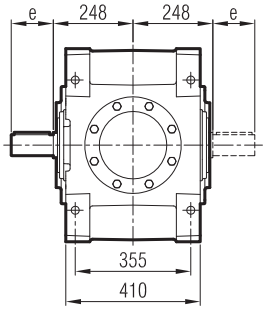
...-SDL / SDR

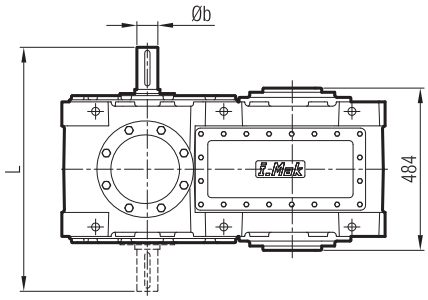


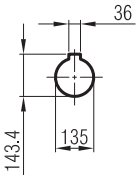


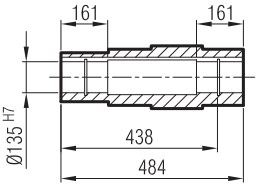
MA 902











Tahvil / Ratio	Øb	e	z	c	h	M	L
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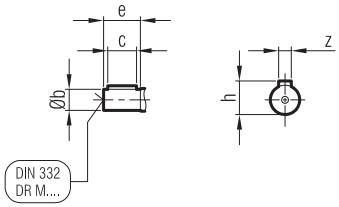
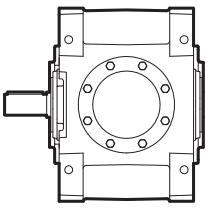
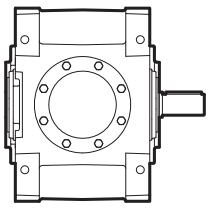
i: 11,55 ... 5,88	75 m6	140	20	125	79.5	M20	776



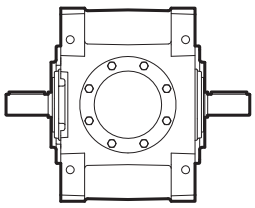
Giriş Seçenekleri / Input Options / *Option d'entree*



G00



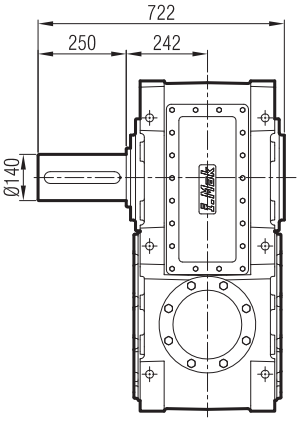
G01

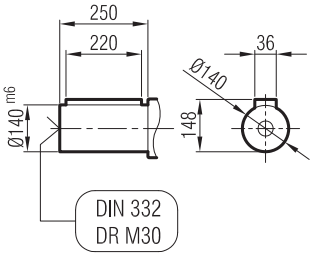


G02

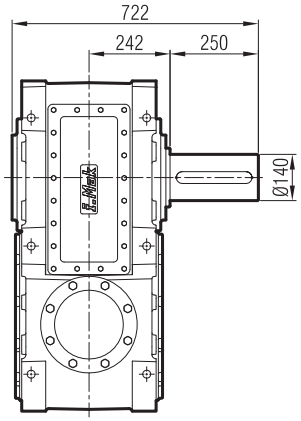
MA / MK 90_

...-SL

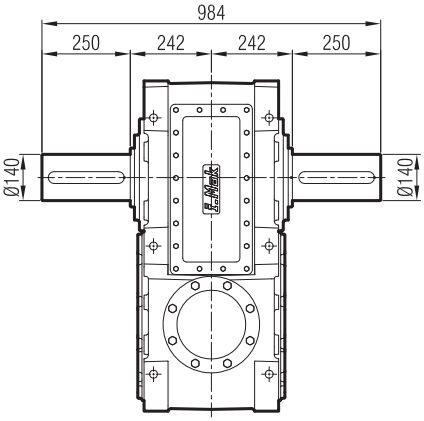




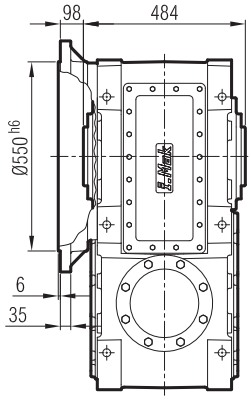
...-SR



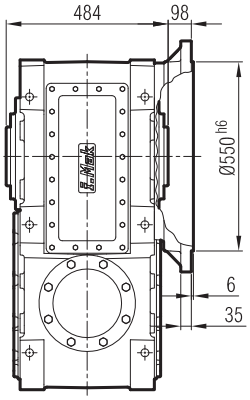
...-SD



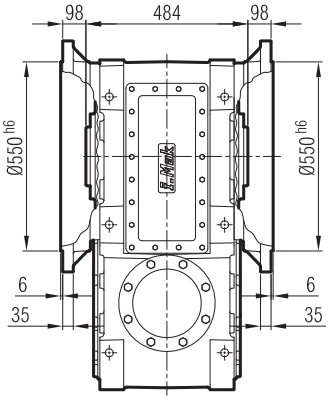
...-FL

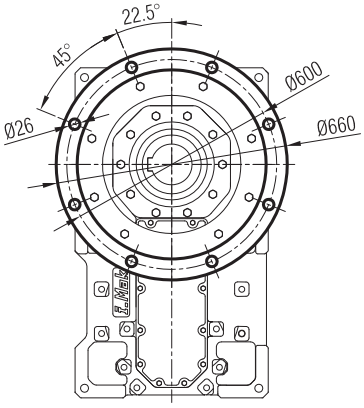


...-FR

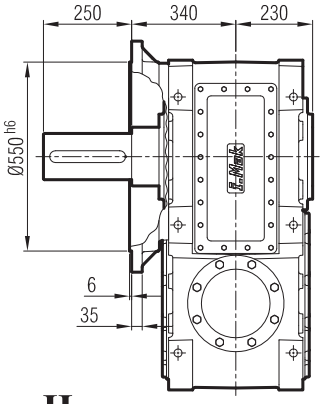


...-FD

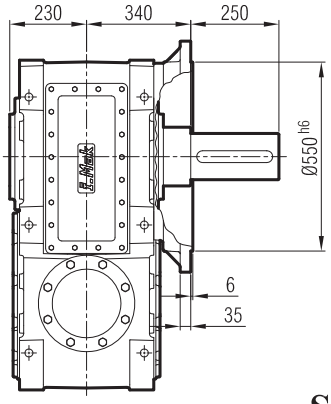




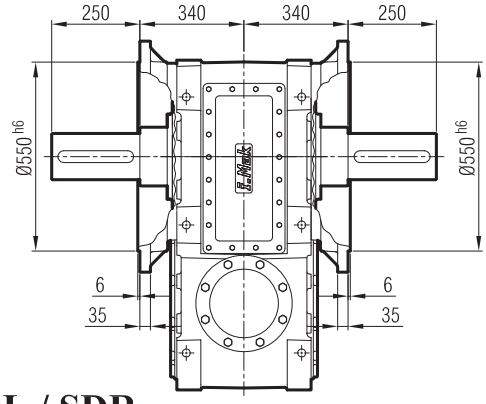
...-FL-SL



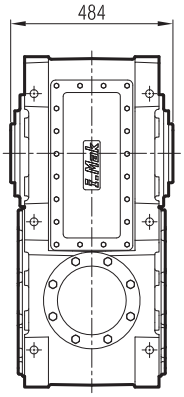
...-FR-SR

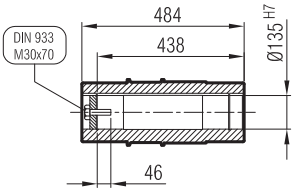


...-FD-SD

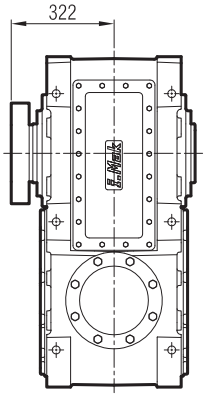


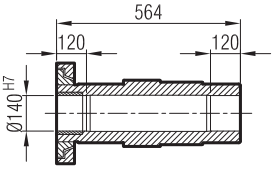
...-H



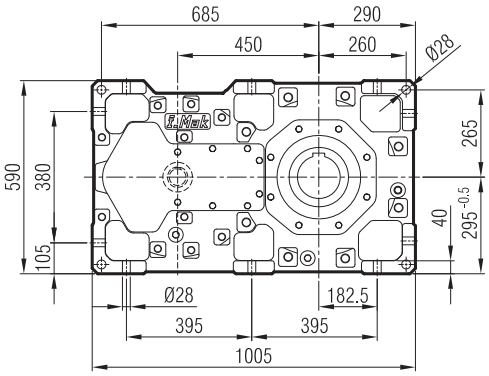


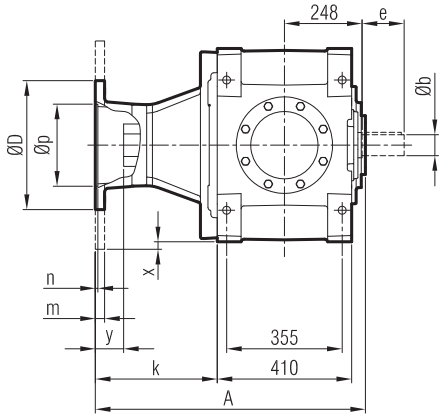
...-SDL / SDR

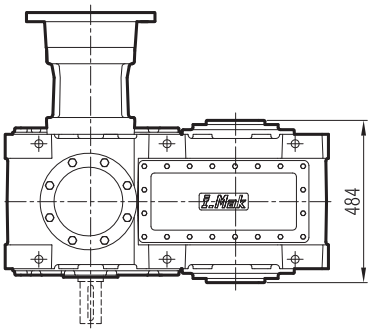


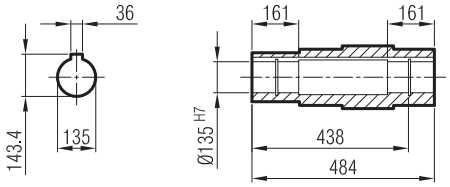


MAP 902

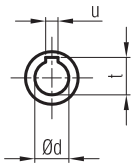


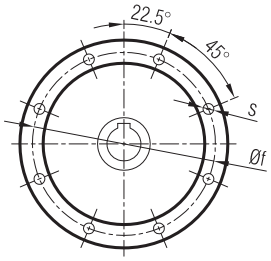


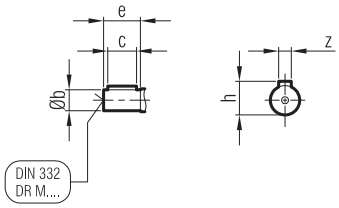




Tahvil / Ratio	Øb	e	z	c	h	M
i: 19,29 ... 12,20	60 m6	140	18	100	64	M16
i: 11,55 ... 5,88	75 m6	140	20	125	79.5	M20

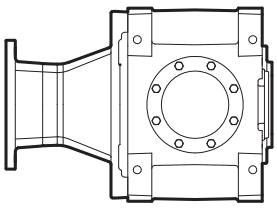




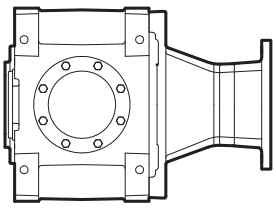


	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x	y (i:≥12,20)	y (i:≤11,55)
280/B5	783	450	500	550	M16	336	25	6.5	75	79.9	20	-	65	44
315/B5	813	550	600	660	M24	366	30	7	85	90.4	22	35	90	74

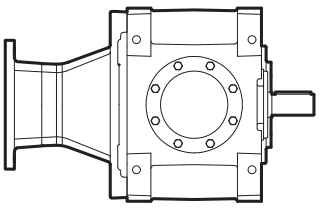
Giriş Seçenekleri / Input Options / *Option d'entree*



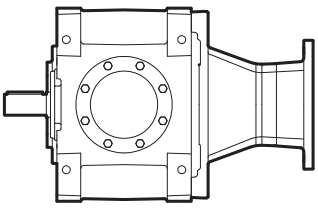
G03



G04



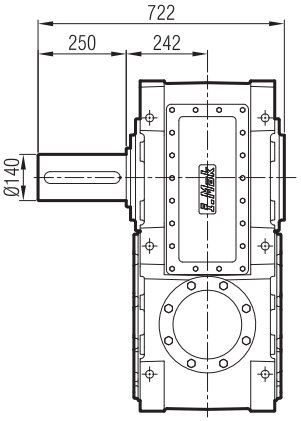
G05

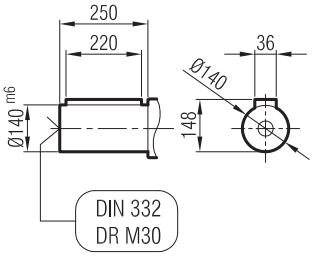


G06

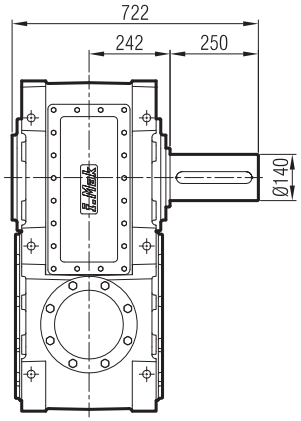
MA / MK 90_

...-SL

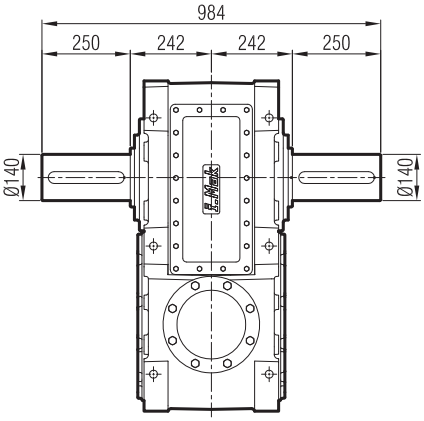




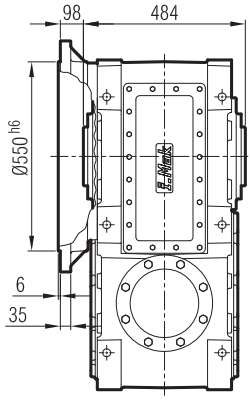
...-SR



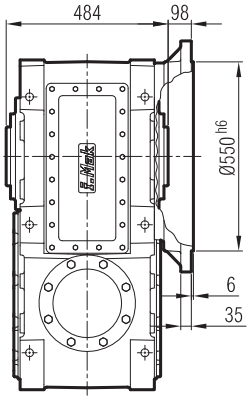
...-SD



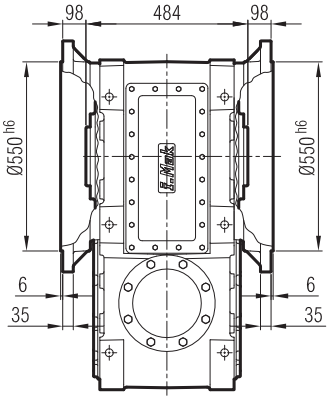
...-FL

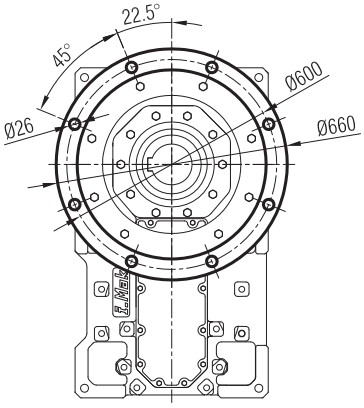


...-FR

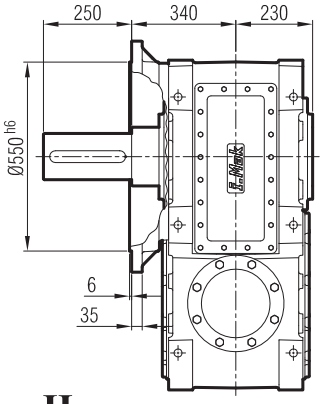


...-FD

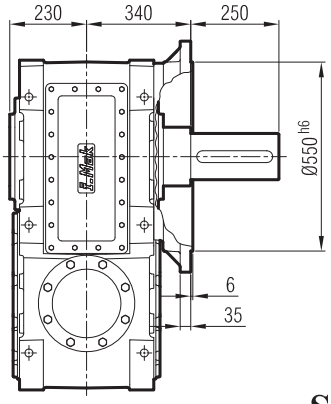




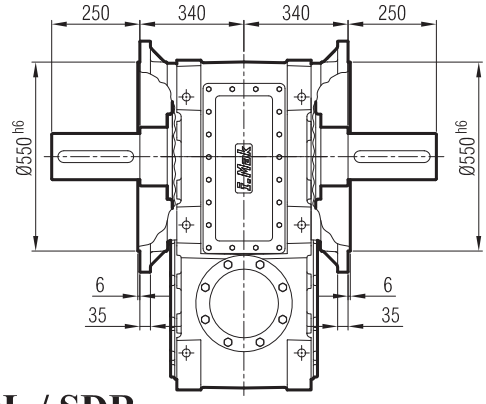
...-FL-SL



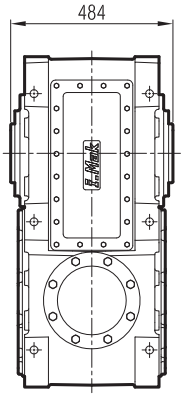
...-FR-SR

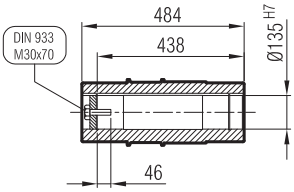


...-FD-SD

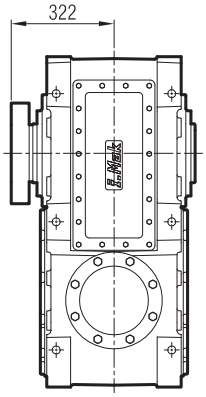


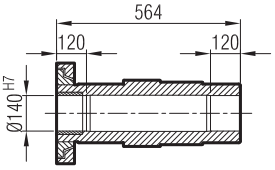
...-H



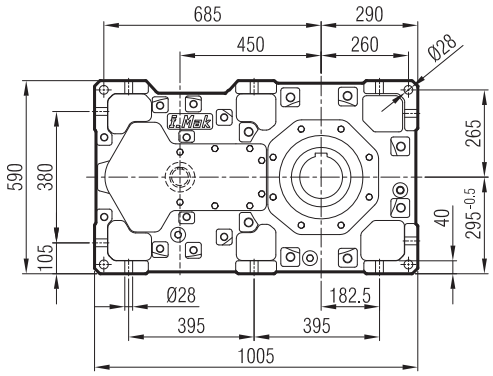


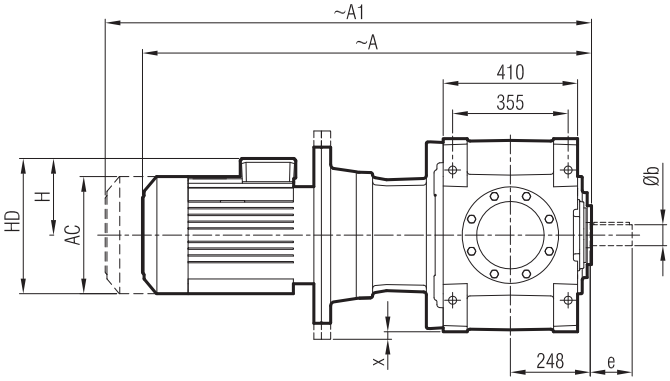
...-SDL / SDR

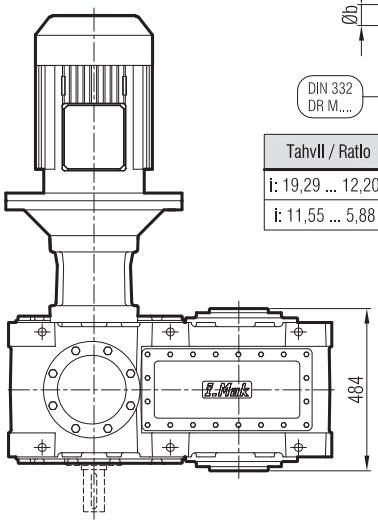


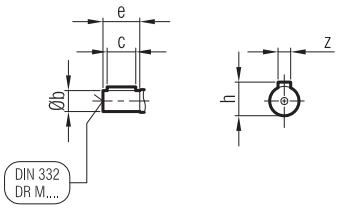


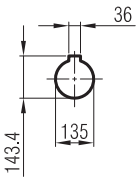
MAM 902

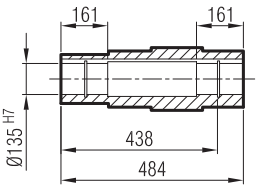










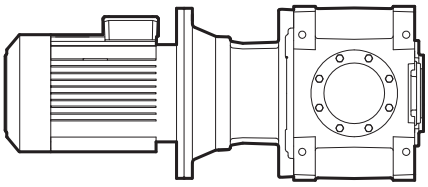


TahvII / Ratlo	Øb	e	z	c	h	M
i: 19,29 ... 12,20	60 m6	140	18	100	64	M16
i: 11,55 ... 5,88	75 m6	140	20	125	79.5	M20

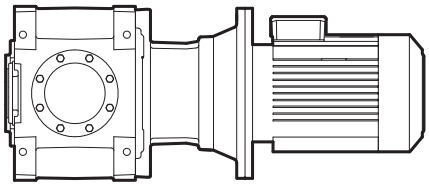
	280 S/B5	280 M/B5	315 S/B5	315 M/B5	315 L/B5	315 H/B5
A	1668	1668	1849	1849	1960	1960
A1	1916	1916	2097	2097	2218	2218
H	398	398	518	518	518	518
HD	678	678	833	833	833	833
AC	548	548	652	652	652	652
x	-	-	35	35	35	35

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

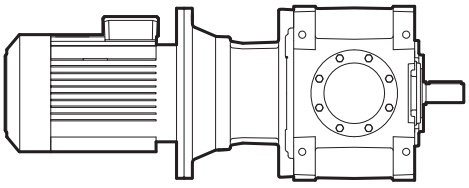
Giriş Seçenekleri / Input Options / *Option d'entree*



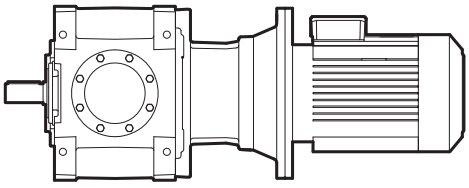
G03



G04



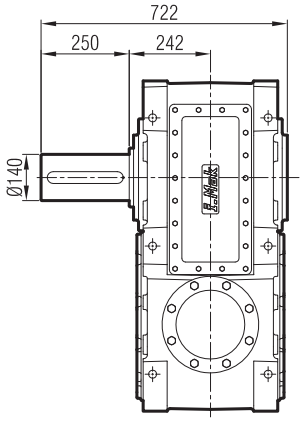
G05

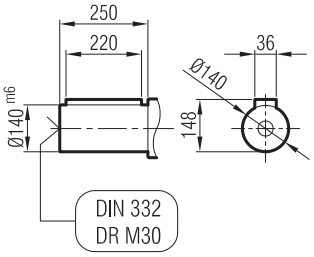


G06

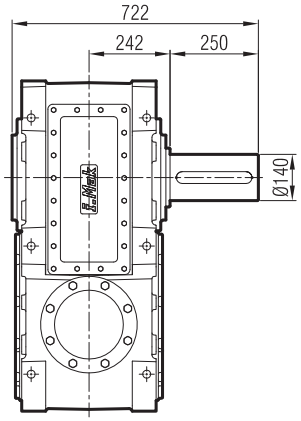
MA / MK 90_

...-SL

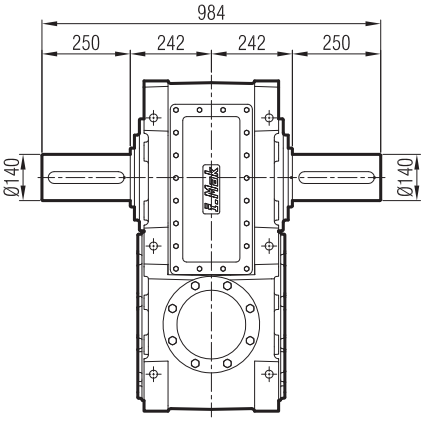




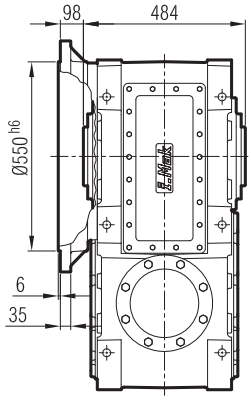
...-SR



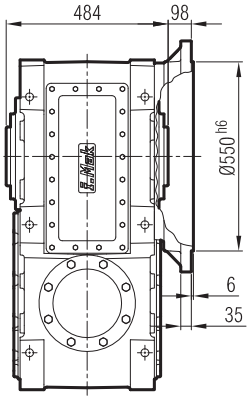
...-SD



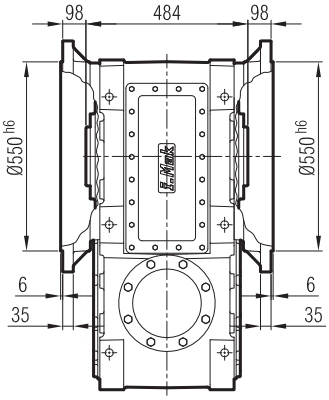
...-FL

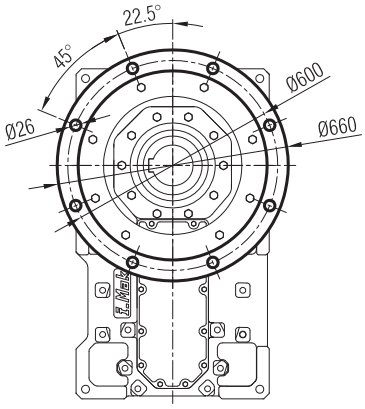


...-FR

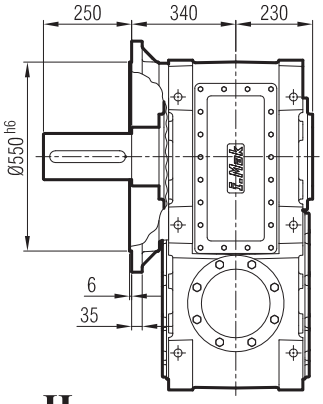


...-FD

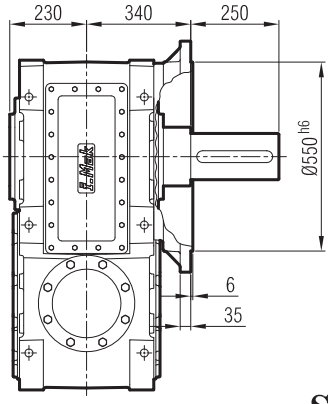




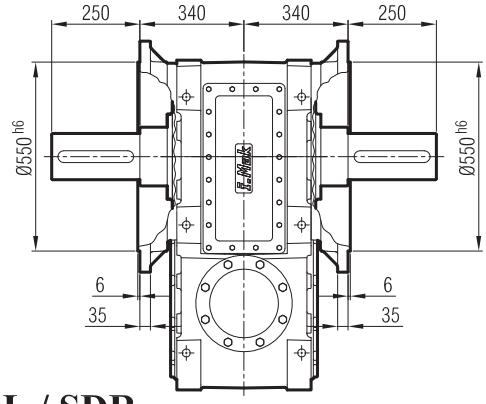
...-FL-SL



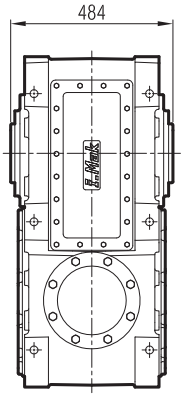
...-FR-SR

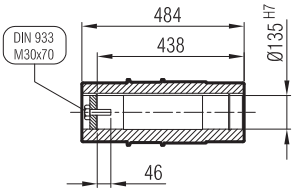


...-FD-SD

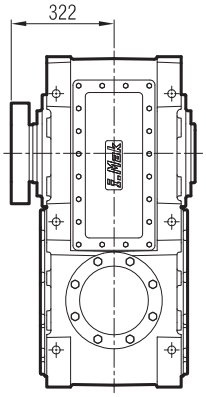


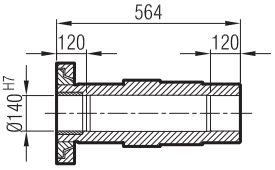
...-H



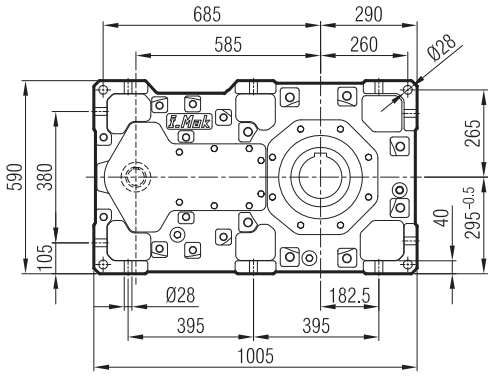


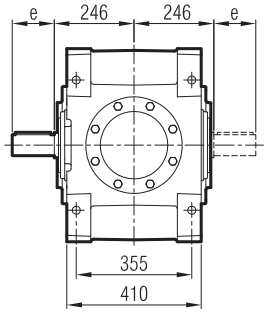
...-SDL / SDR

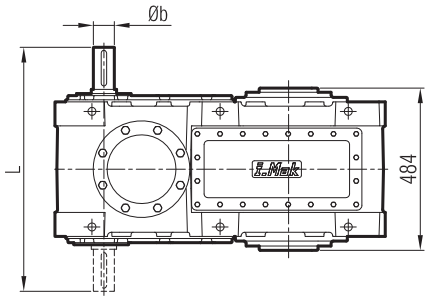


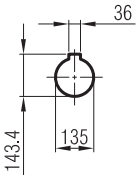


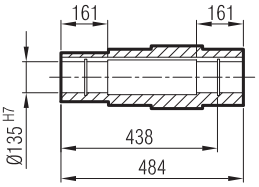
MA 903











Tahvil / Ratio	Øb	e	z	c	h	M	L
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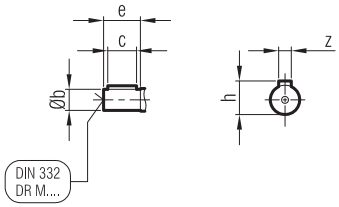
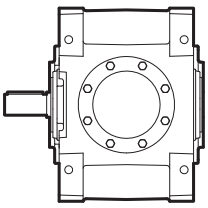
i: 49,17 ... 21,16	55 m6	120	16	110	59	M20	733



Giriş Seçenekleri / Input Options / *Option d'entree*



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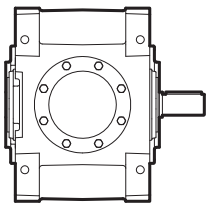

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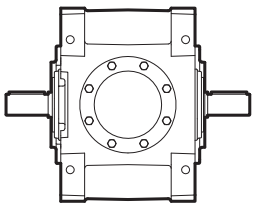
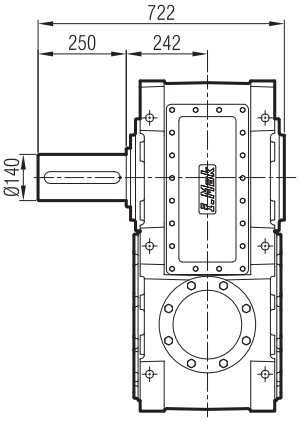
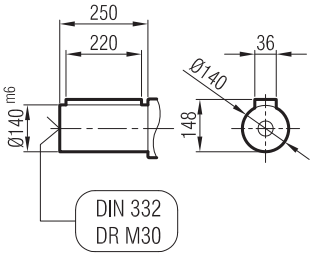


G02

MA / MK 90_

...-SL





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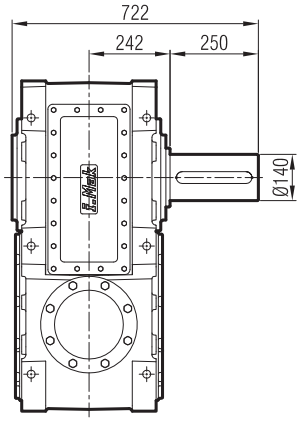

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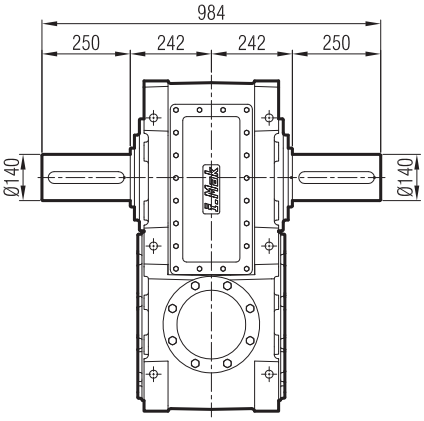
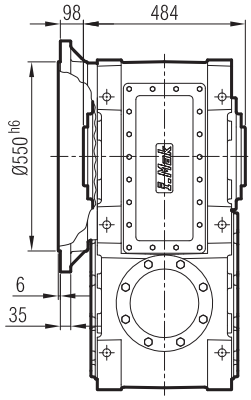


...-FL



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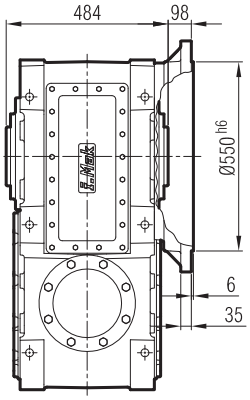

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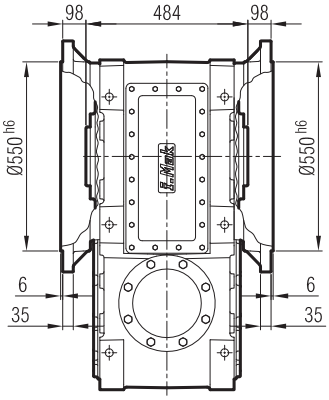

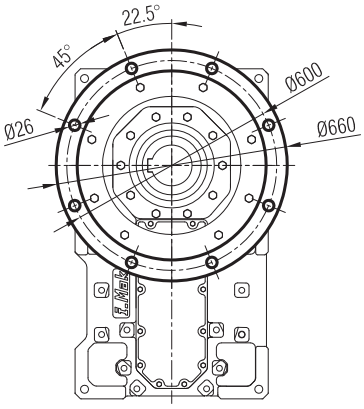

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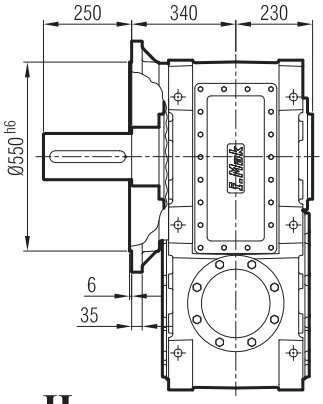
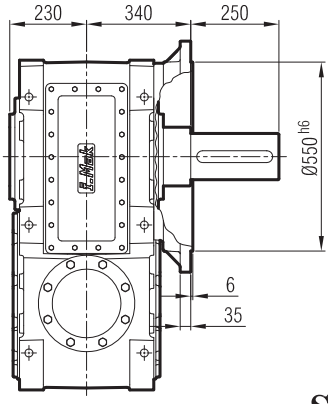
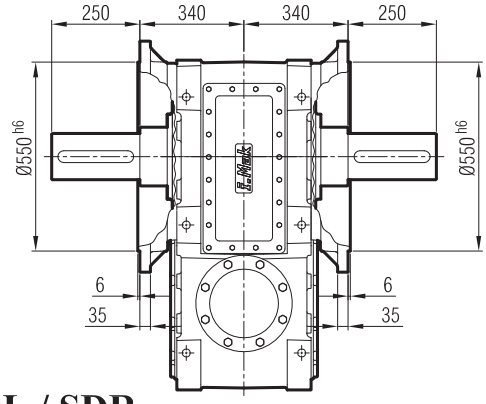


...-FR-SR



...-FD-SD



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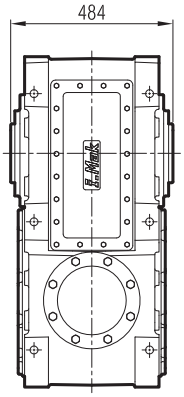
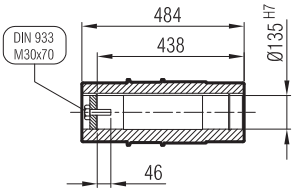
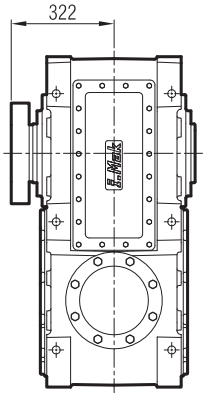
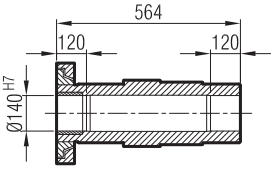


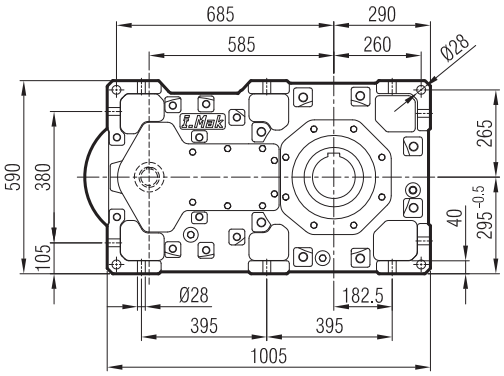


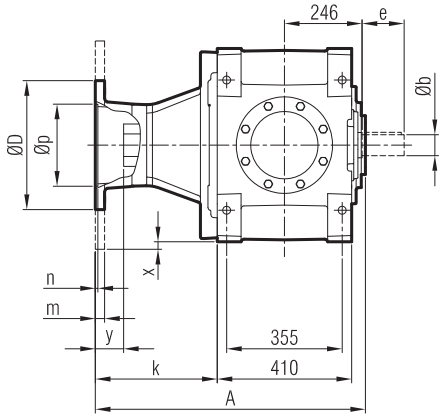
...-SDL / SDR

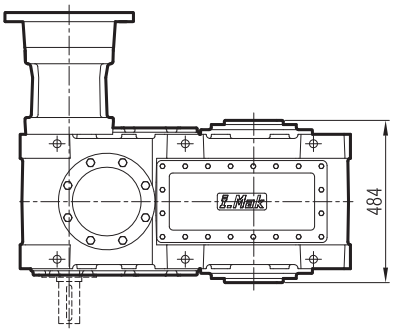


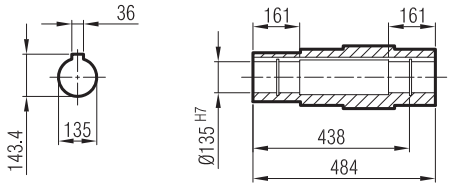


MAP 903



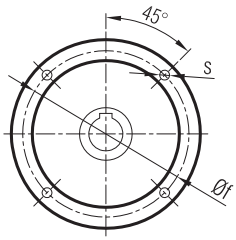






Tahvil / Ratio	Øb	e	z	c	h	M
i: 89,63 ... 52,05	45 k6	120	14	100	48.5	M16
i: 49,17 ... 21,16	55 m6	120	16	110	59	M20

≤ 200 B5 **Tip**/Type/*Typ*



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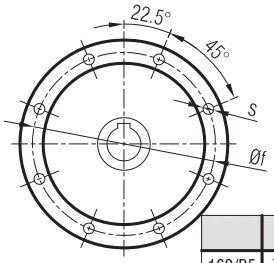

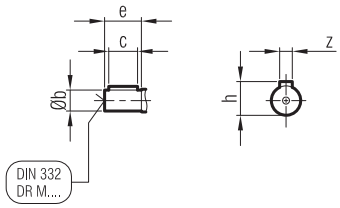

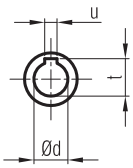

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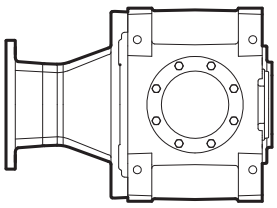
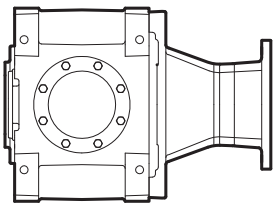
180/B5	727	250	300	350	M14	280	20	6	48	51.8	14	-	49.5	-
200/B5	727	300	350	400	M16	280	22	6	55	59.3	16	-	49.5	39.5
225/B5	770	350	400	450	M16	323	22	6	60	64.4	18	-	78.5	72.5
250/B5	770	450	500	550	M16	323	25	6.5	65	69.4	18	-	74.5	72.5
280/B5	770	450	500	550	M16	323	25	6.5	75	75.9	20	-	64.5	64.5
315/B5	800	550	600	660	M24	353	30	7	85	90.4	22	35	-	89.5

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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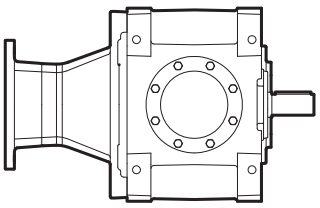

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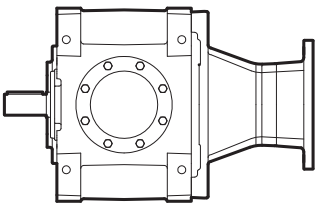
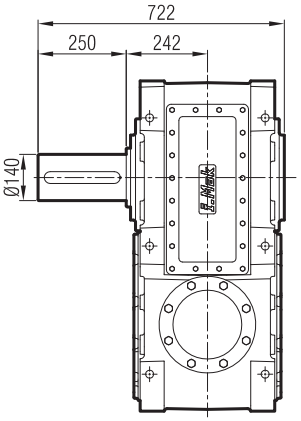
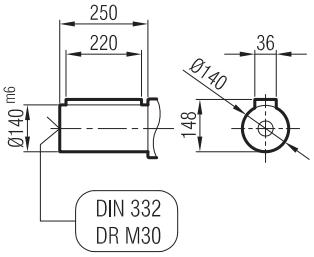


G06

MA / MK 90_

...-SL





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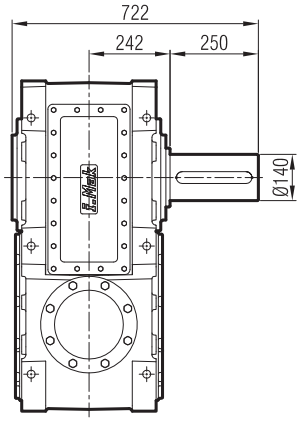
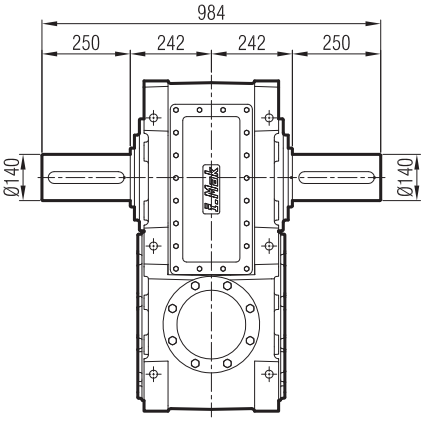


...-SD



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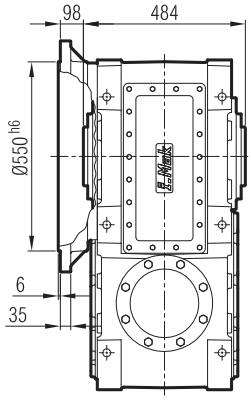

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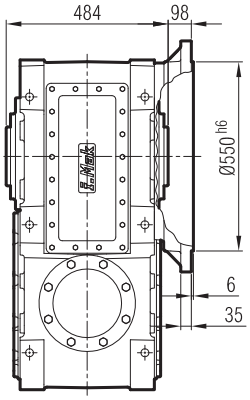
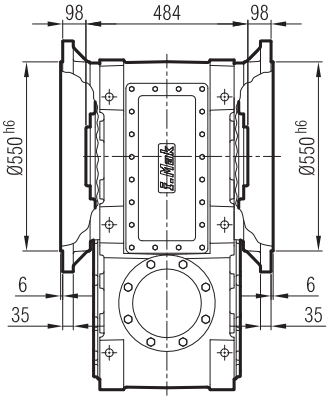
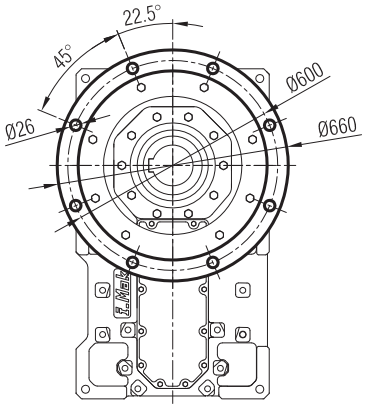
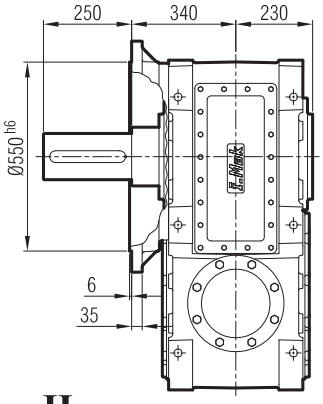


...-FD

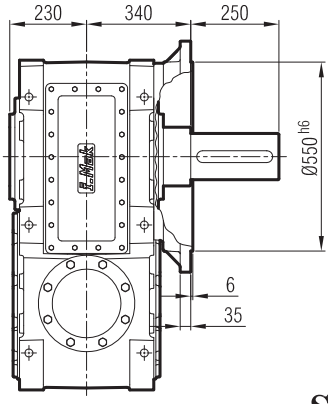




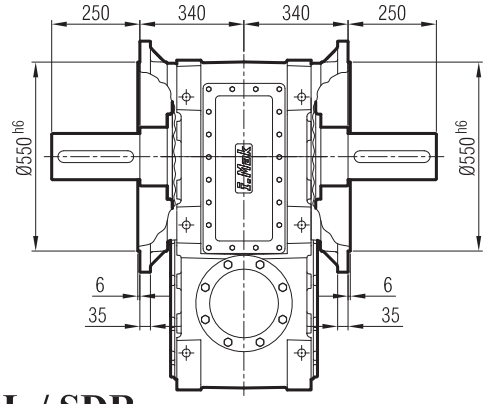
...-FL-SL



...-FR-SR



...-FD-SD



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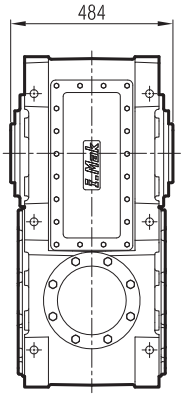
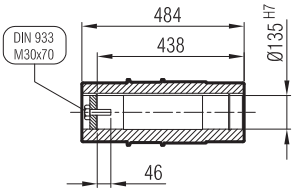
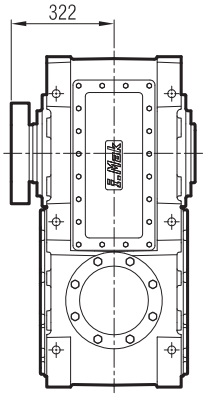
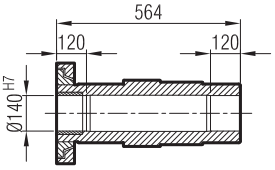


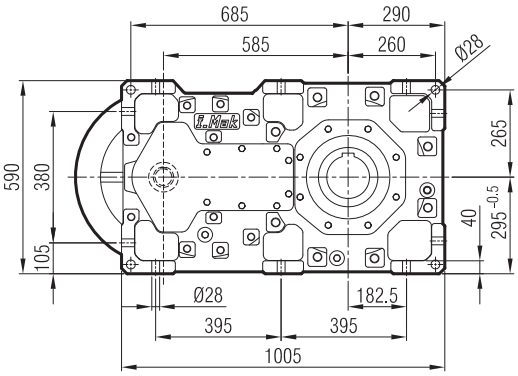


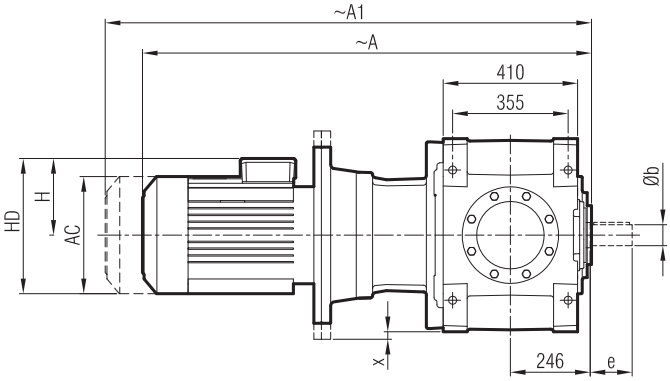
...-SDL / SDR

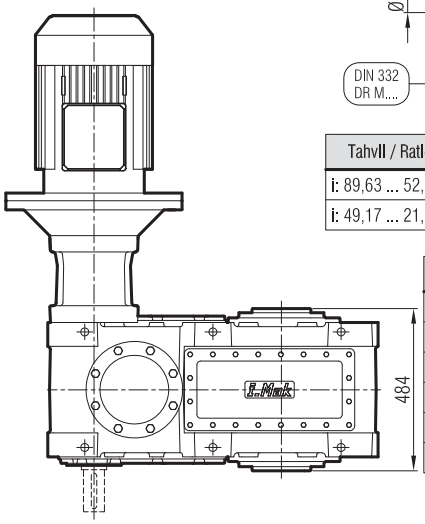


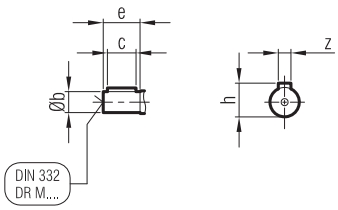


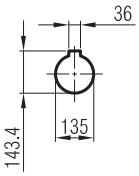
MAM 903

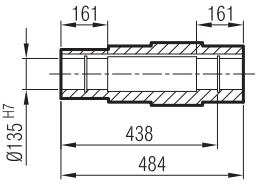










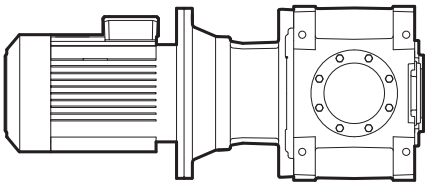


Tahvil / Ratio	Øb	e	z	c	h	M
i: 89,63 ... 52,05	45 k6	120	14	100	48.5	M16
i: 49,17 ... 21,16	55 m6	120	16	110	59	M20

	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	315 S/B5	315 M/B5
A	1292	1368	1368	1436	1455	1515	1565	1655	1655	1836	1836
A1	1409	1504	1504	1583	1602	1662	1712	1903	1903	2084	2084
H	240	260	260	300	313	313	366	398	398	518	518
HD	400	440	440	500	538	538	618	678	678	833	833
AC	315	357	357	394	456	456	489	548	548	652	652
x	-	-	-	-	-	-	-	-	-	35	35

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



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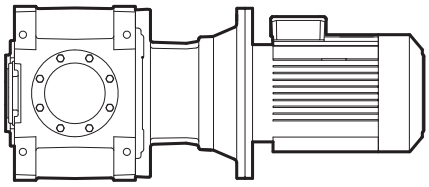

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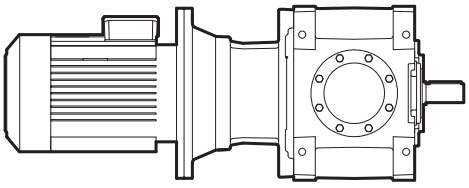

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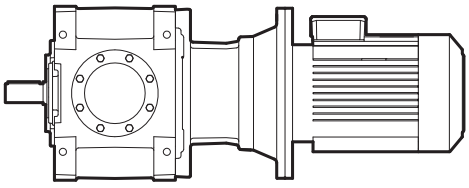
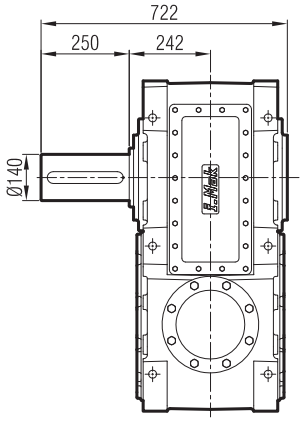
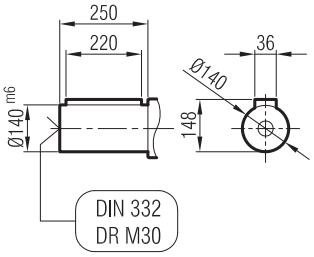


G06

MA / MK 90_

...-SL





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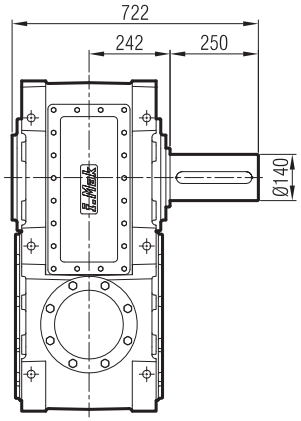

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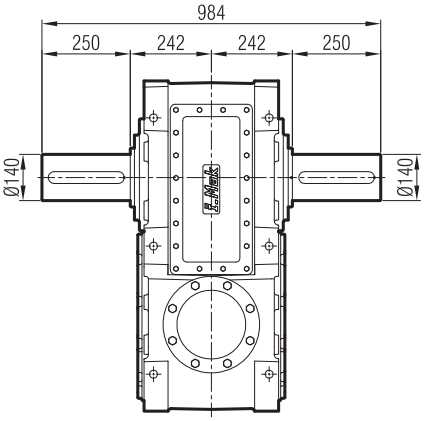
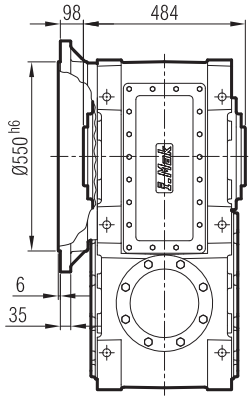


...-FL



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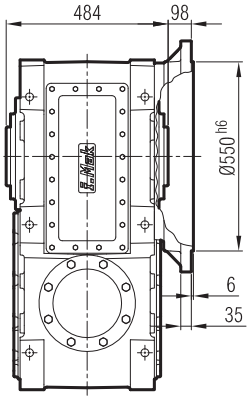

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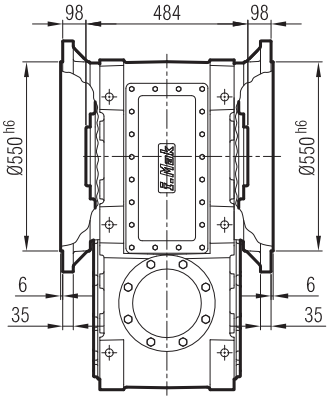

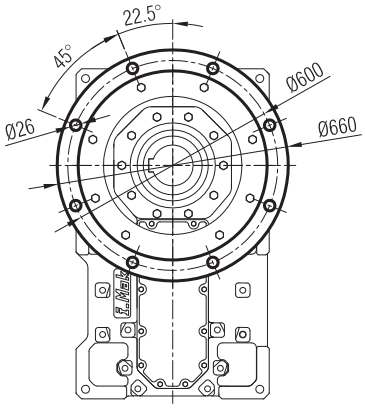

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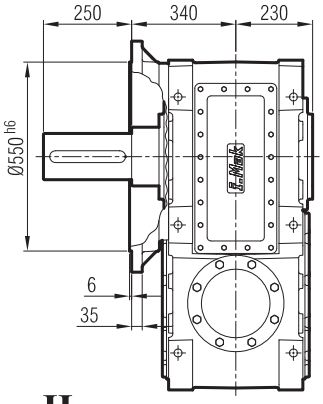

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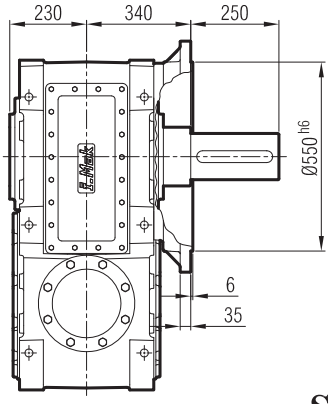

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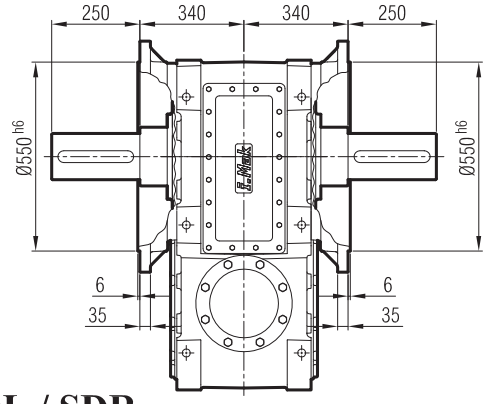
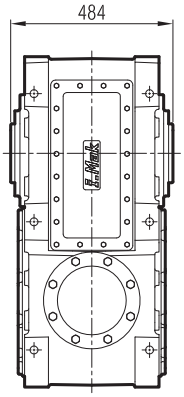
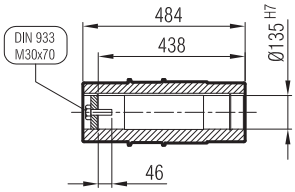


...-H





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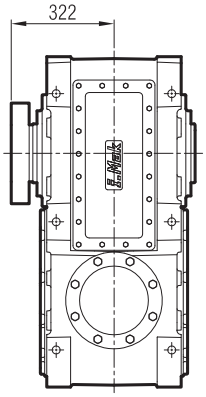
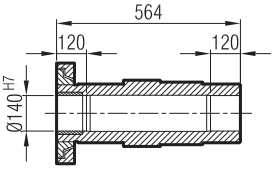
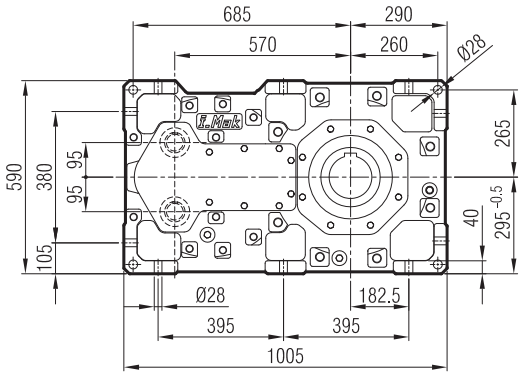
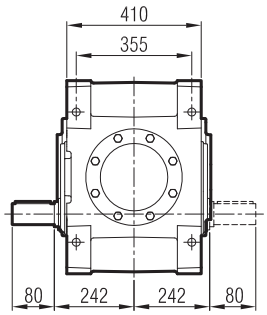
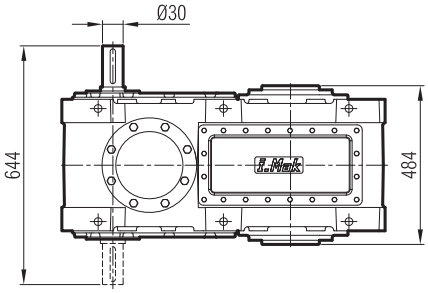


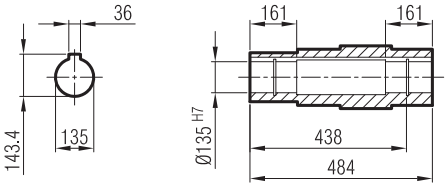


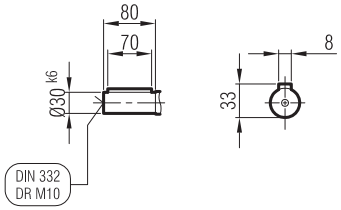
MA 904



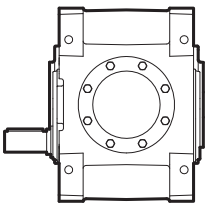








Giriş Seçenekleri / Input Options / *Option d'entree*



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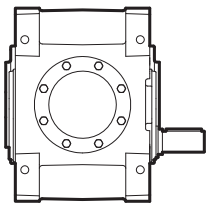

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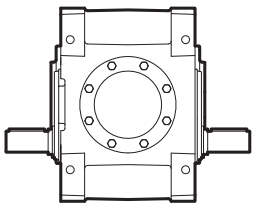

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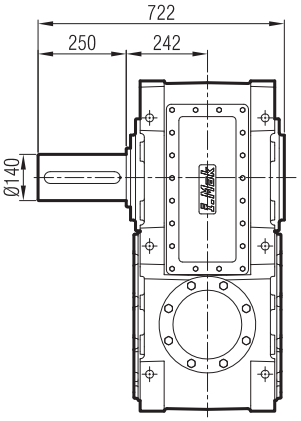
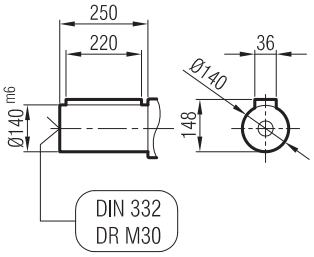
MA / MK 90_

...-SL





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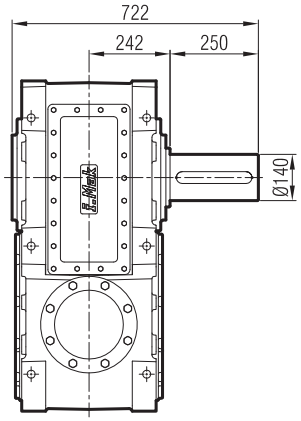

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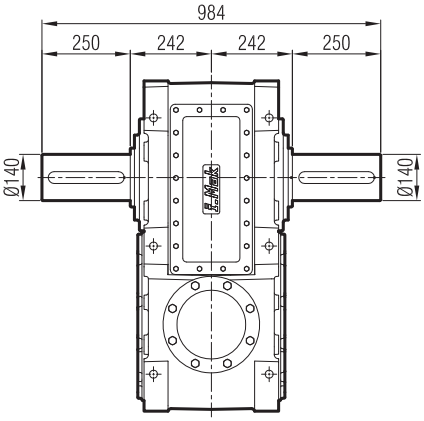

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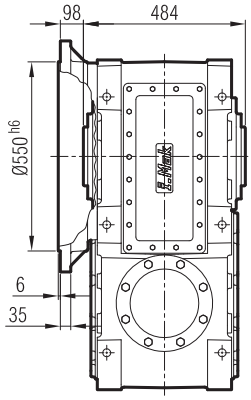

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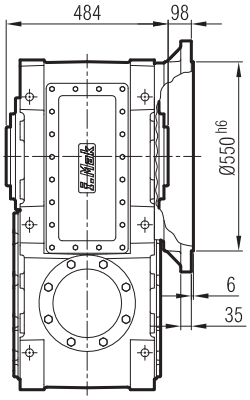

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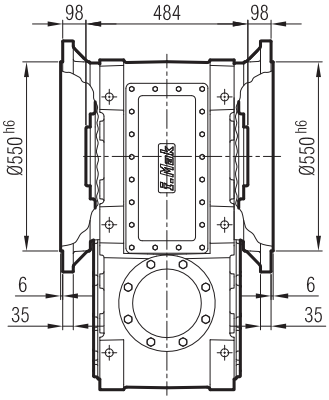

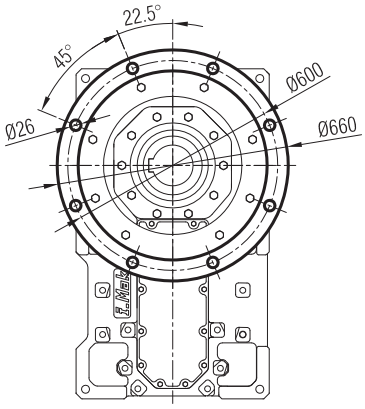

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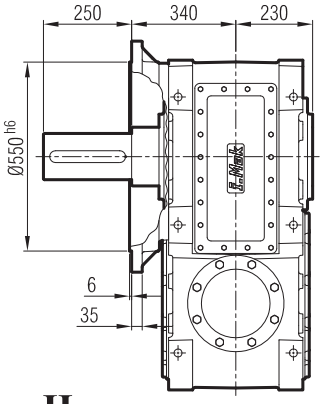

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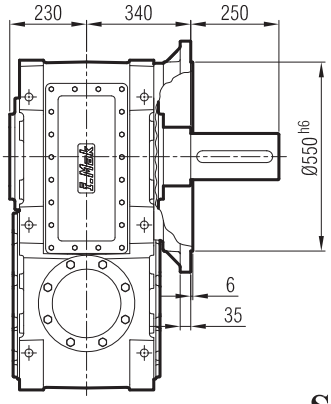

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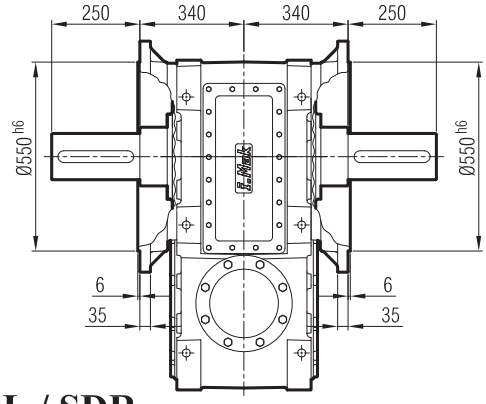

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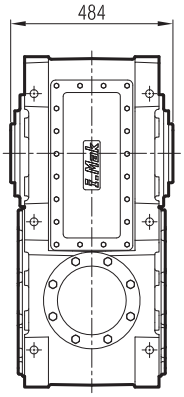
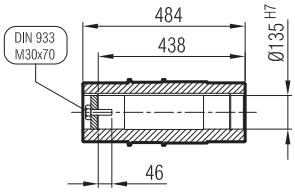
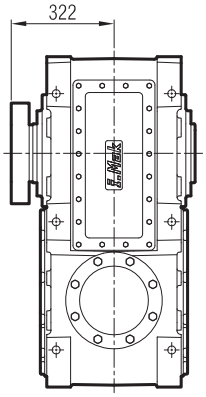
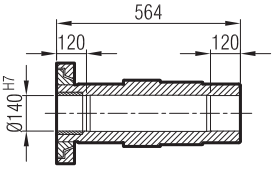


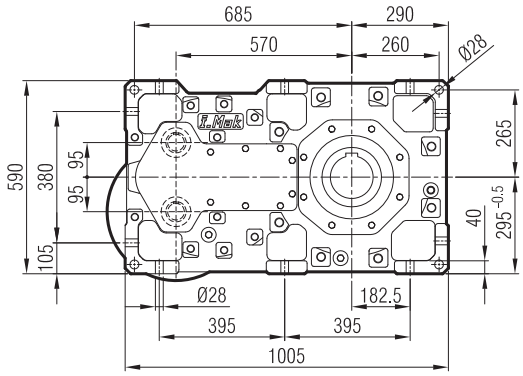


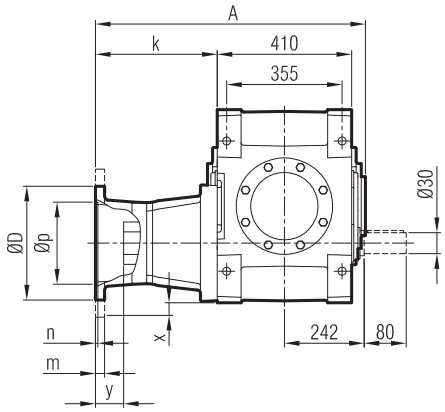
...-SDL / SDR

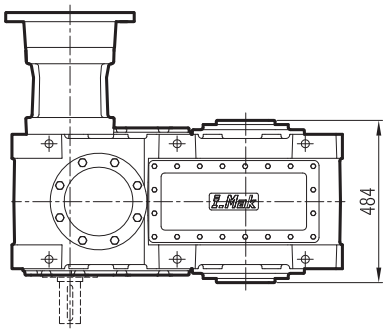


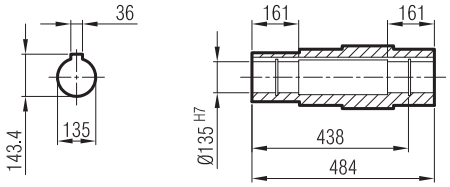


MAP 904









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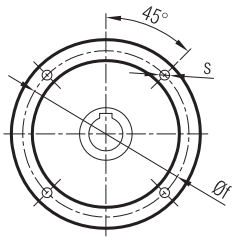

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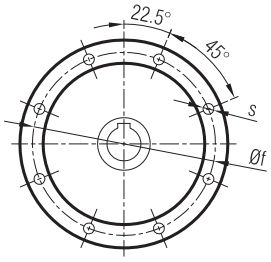
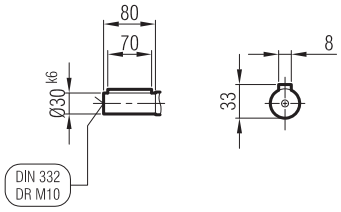
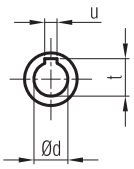
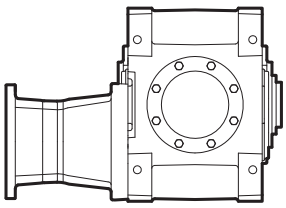




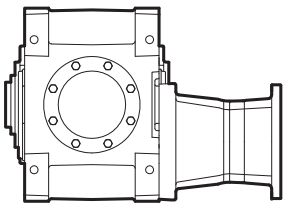


	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x	y
112/B5	641	180	215	250	M12	194	15	5	28	31.3	8	-	31
132/B5	661	230	265	300	M12	214	18	6	38	41.3	10	-	45
160/B5	678	250	300	350	M14	231	20	6	42	45.3	12	-	70
180/B5	678	250	300	350	M14	231	20	6	48	51.8	14	-	60
200/B5	678	300	350	400	M16	231	22	6	55	59.3	16	0	60
225/B5	721	350	400	450	M16	274	22	6	60	64.4	18	25	80

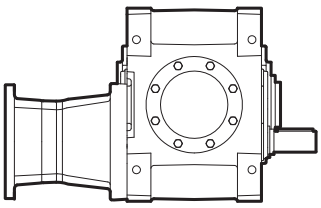
Giriş Seçenekleri / Input Options / *Option d'entree*



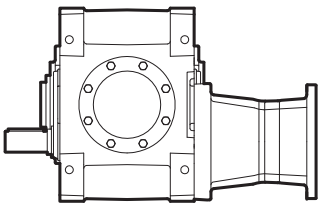
G03



G04



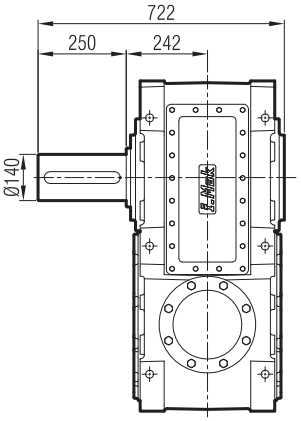
G05

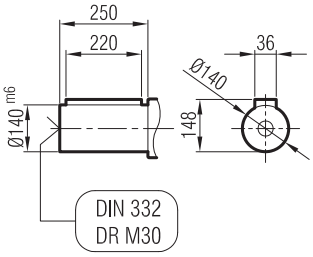


G06

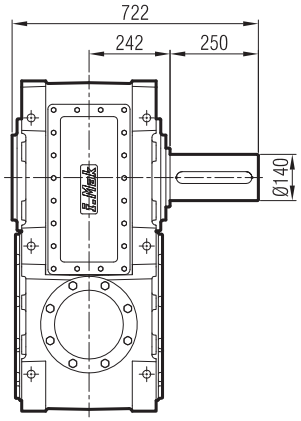
MA / MK 90_

...-SL

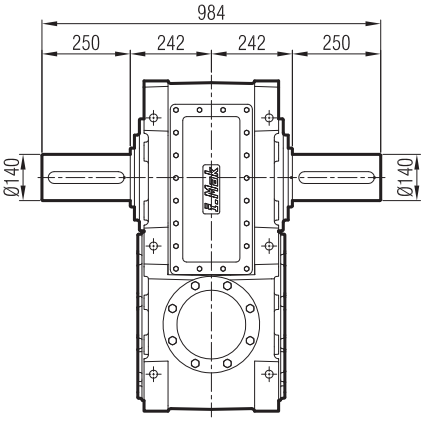




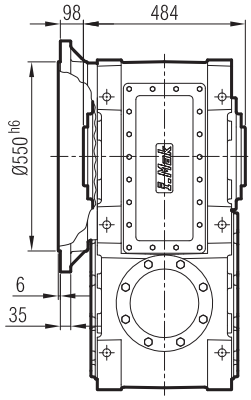
...-SR



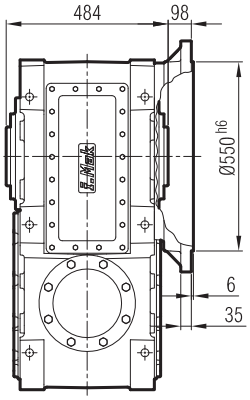
...-SD



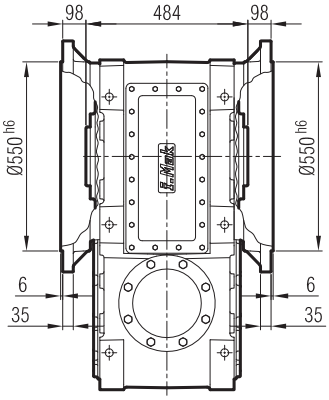
...-FL

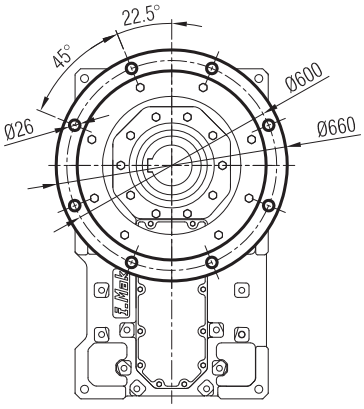


...-FR

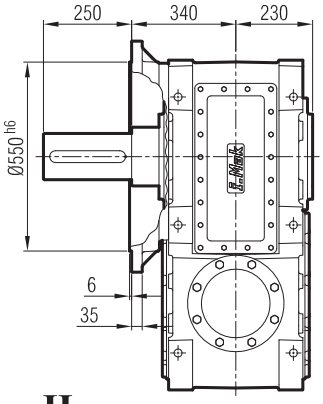


...-FD

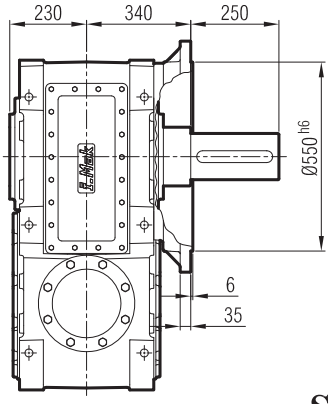




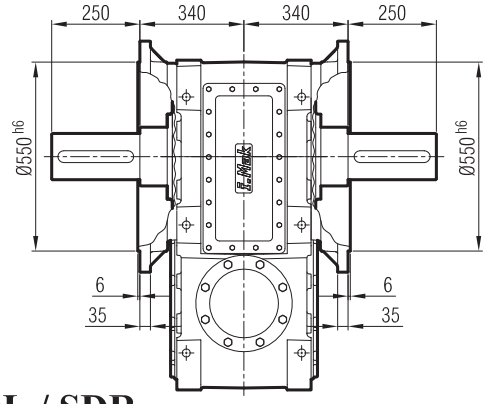
...-FL-SL



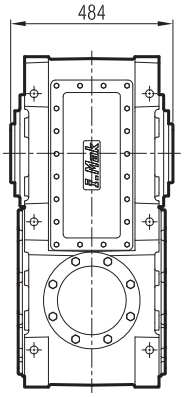
...-FR-SR

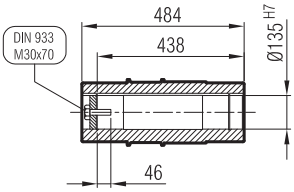


...-FD-SD

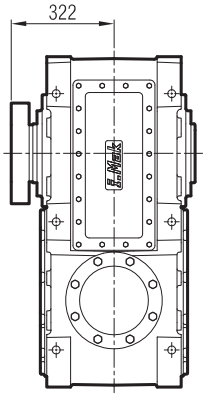


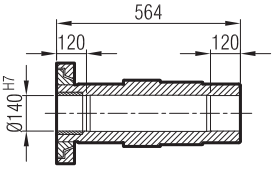
...-H



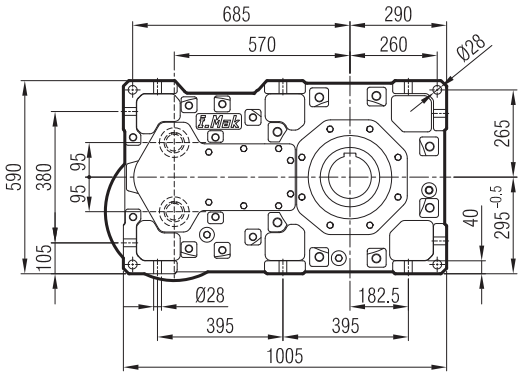


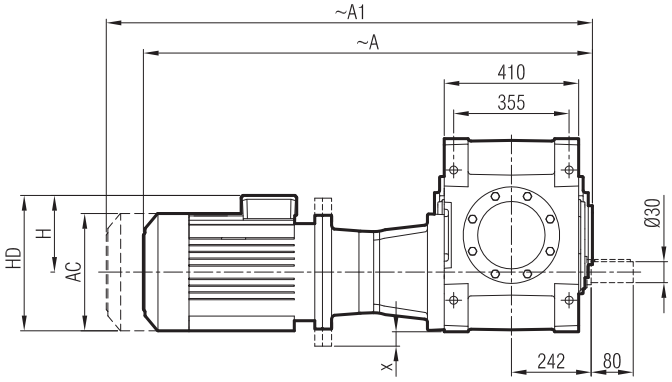
...-SDL / SDR

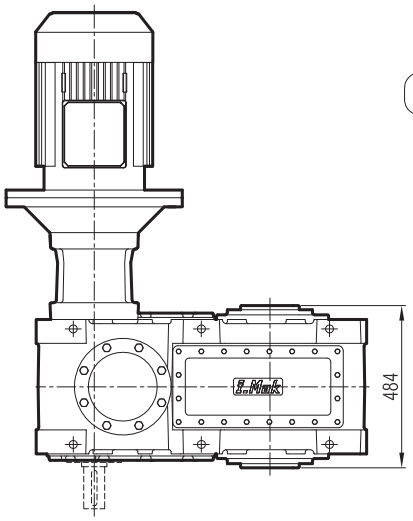


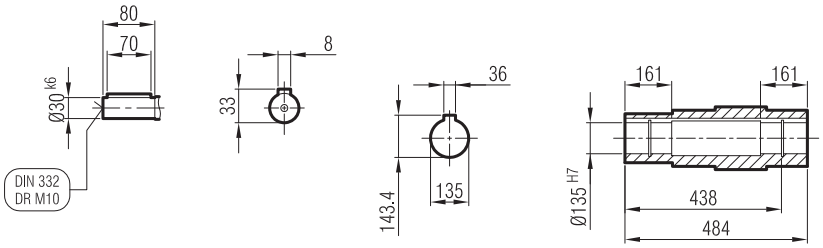


MAM 904





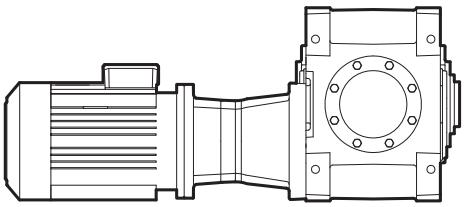




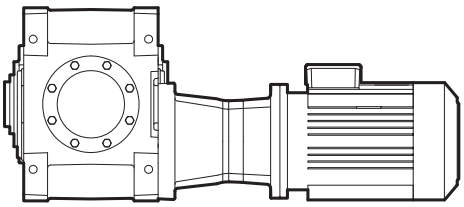
	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5
A	985	1062	1103	1198	1243	1319	1319	1387	1406	1466
A1	1080	1166	1207	1315	1360	1455	1455	1534	1553	1613
H	170	193	193	240	240	260	260	300	313	313
HD	282	325	325	400	400	440	440	500	538	538
AC	220	262	262	315	315	357	357	394	456	456
x	-	-	-	-	-	-	-	0	28	28

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

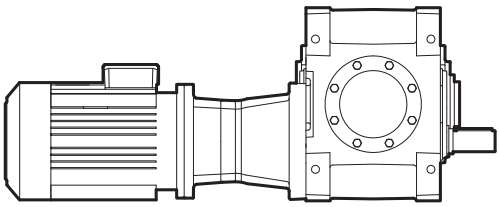
Giriş Seçenekleri / Input Options / *Option d'entree*



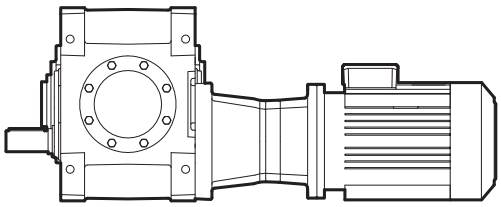
G03



G04



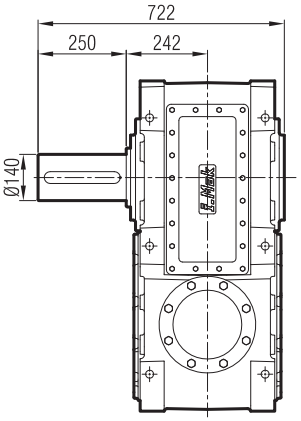
G05

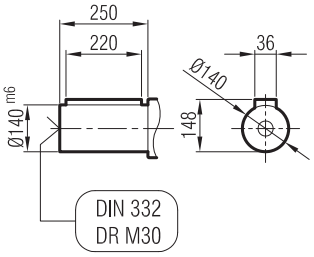


G06

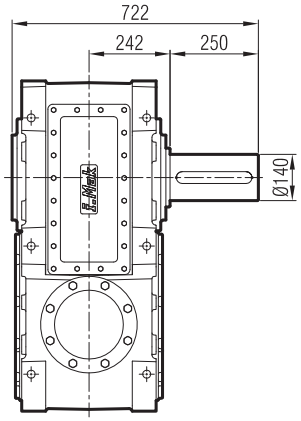
MA / MK 90_

...-SL

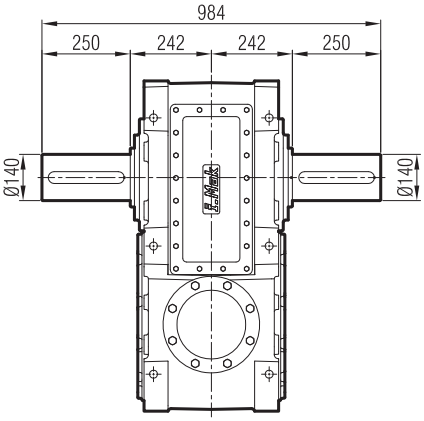




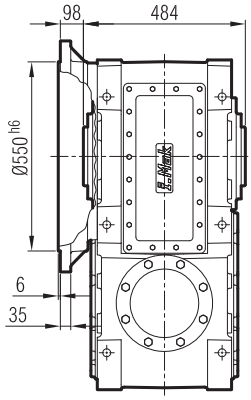
...-SR



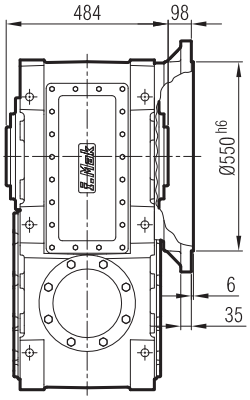
...-SD



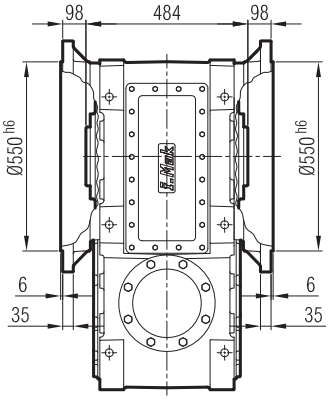
...-FL

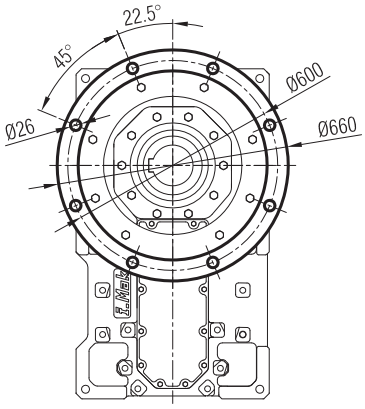


...-FR

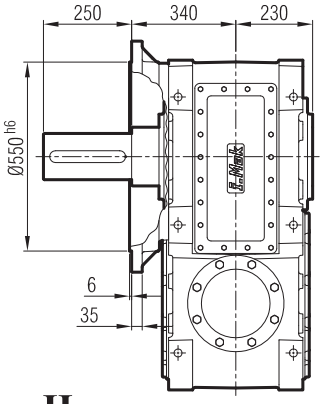


...-FD

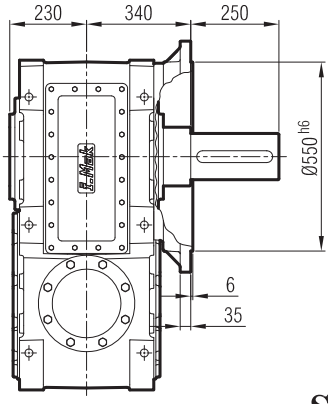




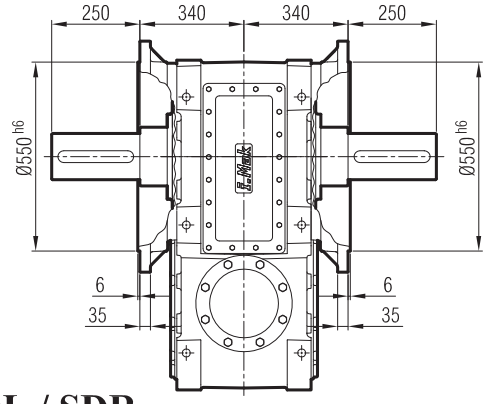
...-FL-SL



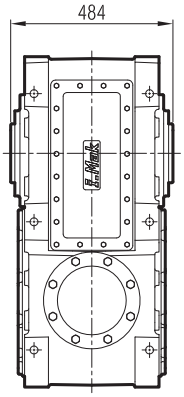
...-FR-SR

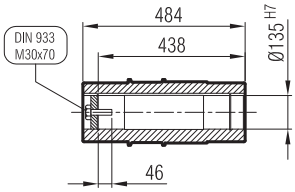


...-FD-SD

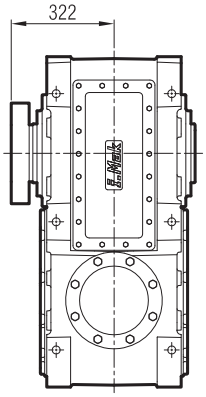


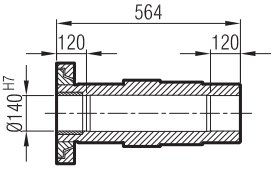
...-H



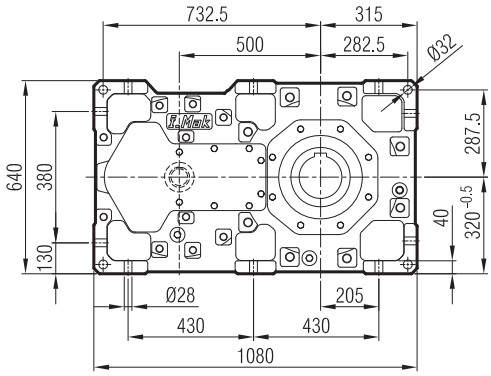


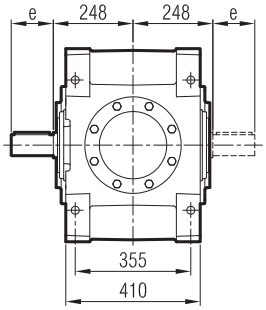
...-SDL / SDR

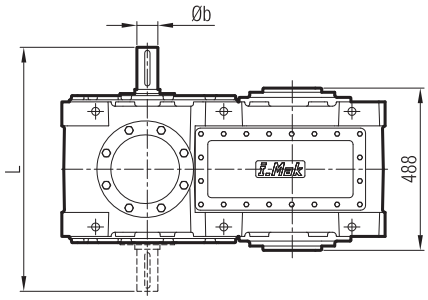


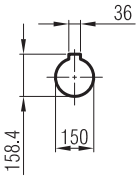


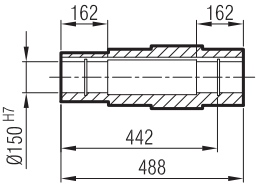
MA 1002



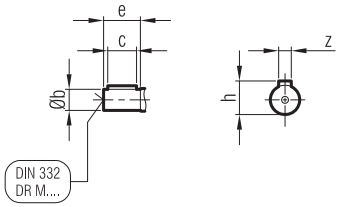




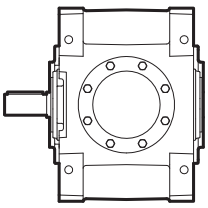




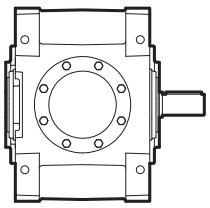
Tahvil / Ratio	Øb	e	z	c	h	M	L
i: 28,47 ... 23,34	60 m6	140	18	100	64	M16	776
i: 19,59 ... 8,55	75 m6	140	20	125	79.5	M20	776



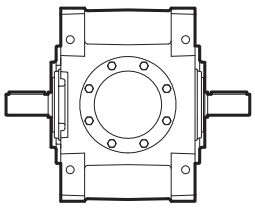
Giriş Seçenekleri / Input Options / *Option d'entree*



G00



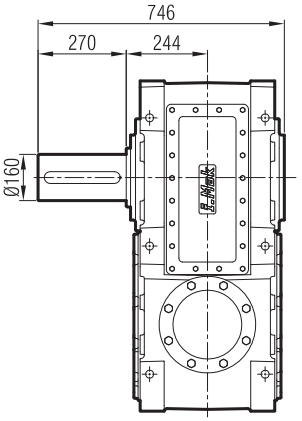
G01

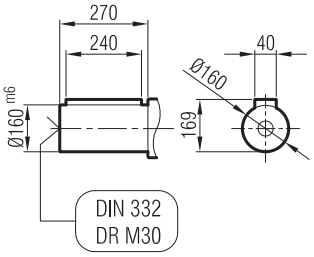


G02

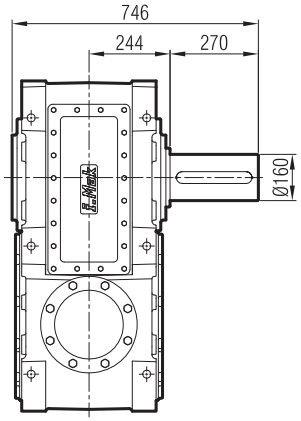
MA / MK 100_

...-SL

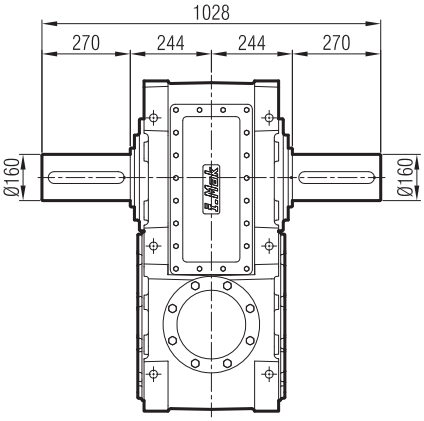




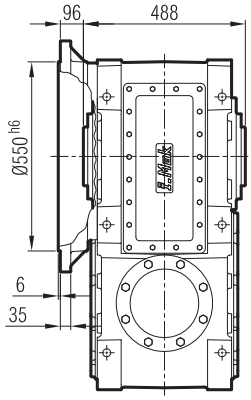
...-SR



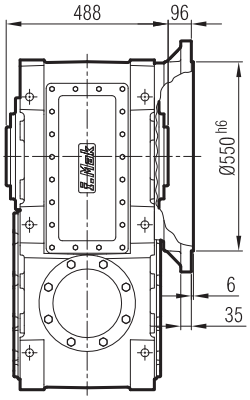
...-SD



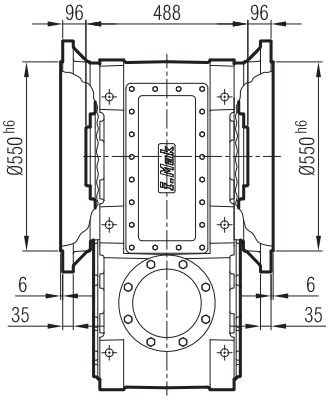
...-FL

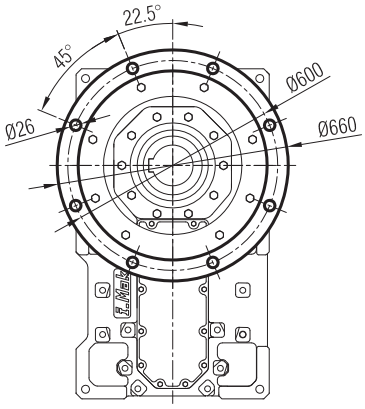


...-FR

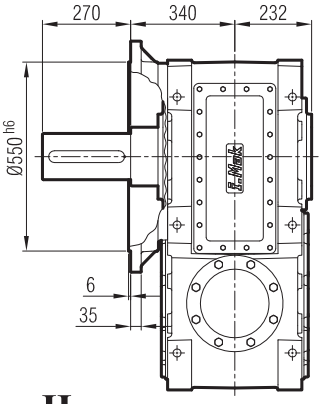


...-FD

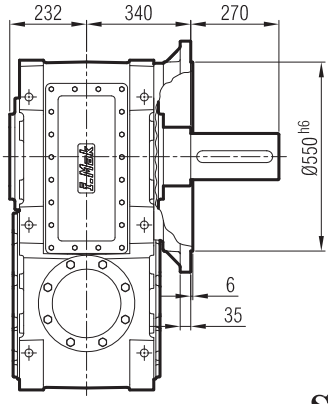




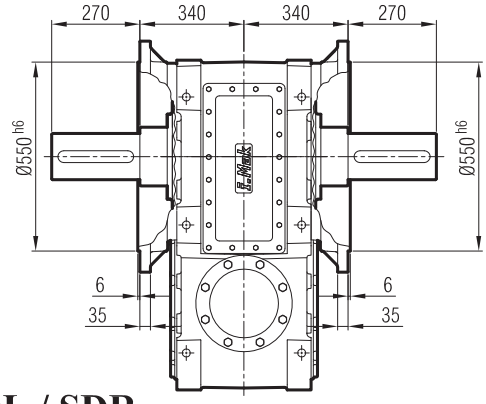
...-FL-SL



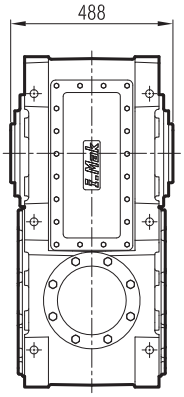
...-FR-SR

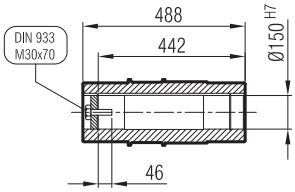


...-FD-SD

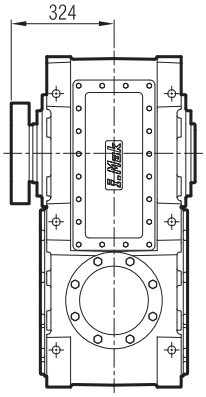


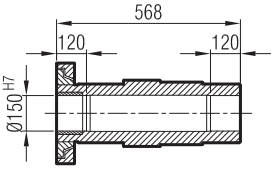
...-H



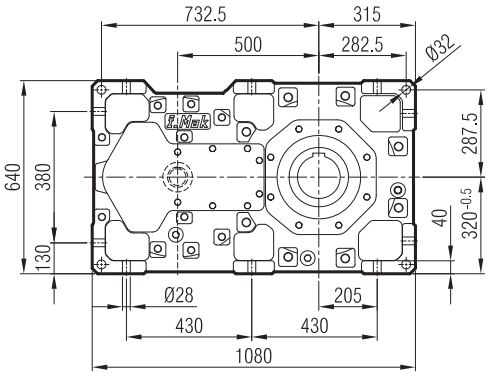


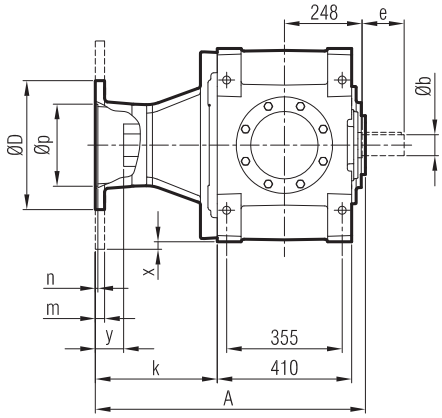
...-SDL / SDR

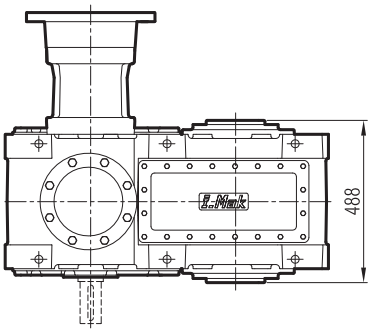


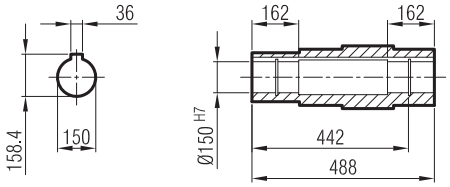


MAP 1002

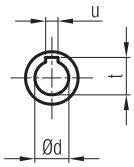


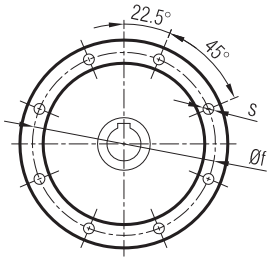


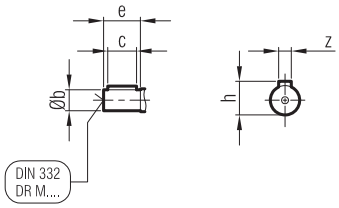




Tahvil / Ratio	Øb	e	z	c	h	M
i: 28,47 ... 23,34	60 m6	140	18	100	64	M16
i: 19,59 ... 8,55	75 m6	140	20	125	79.5	M20

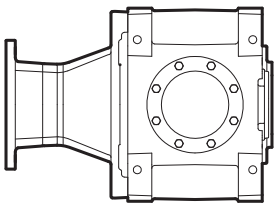




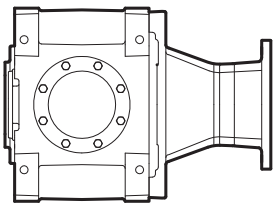


	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x	y (i:≥23.34)	y (i:≤19,59)
280/B5	785	450	500	550	M16	336	25	6.5	75	79.9	20	-	65	44
315/B5	815	550	600	660	M24	366	30	7	85	90.4	22	10	90	74

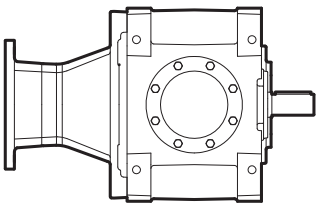
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



G04



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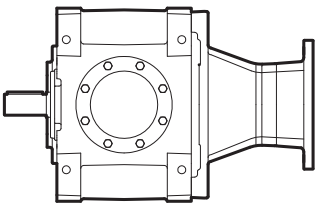
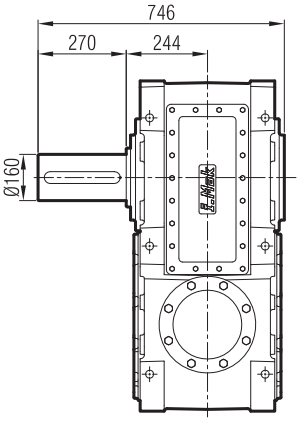
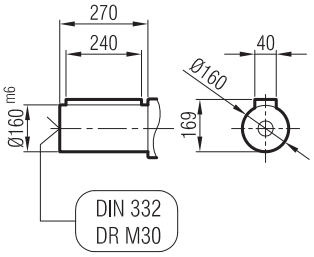


G06

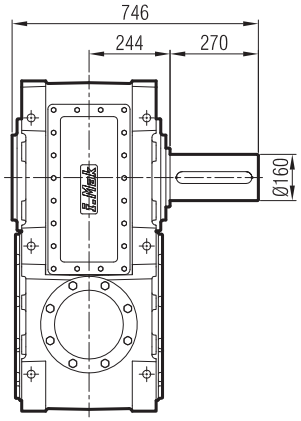
MA / MK 100_

...-SL

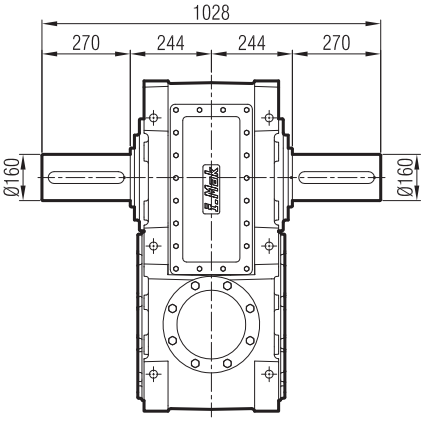




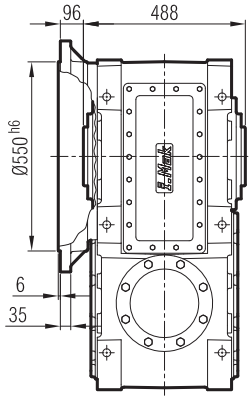
...-SR



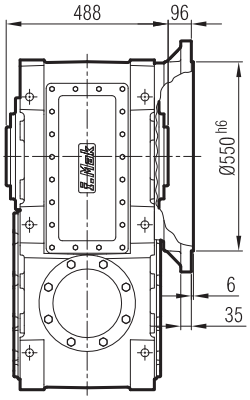
...-SD



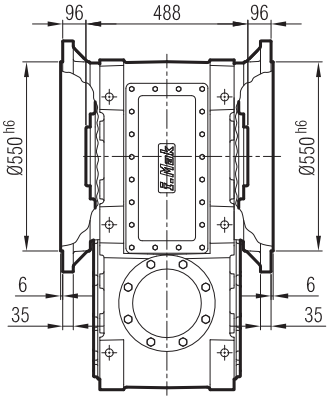
...-FL

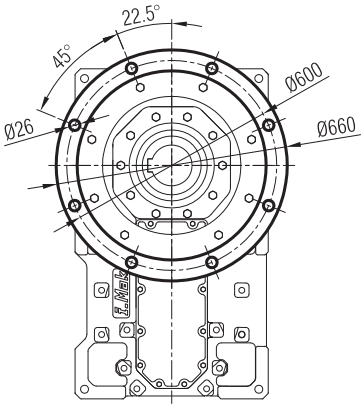


...-FR

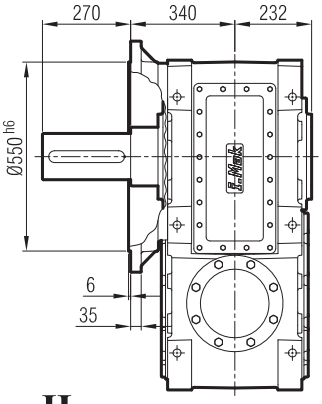


...-FD

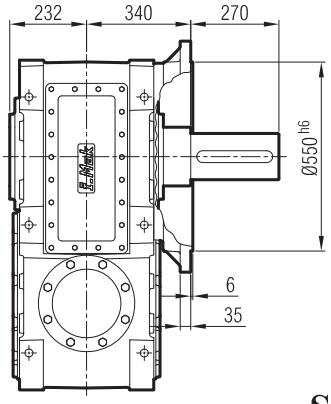




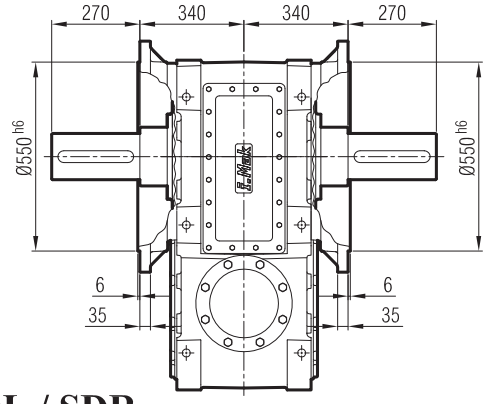
...-FL-SL



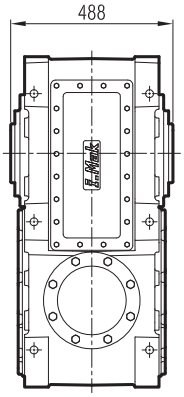
...-FR-SR

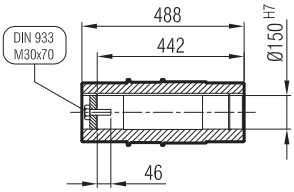


...-FD-SD

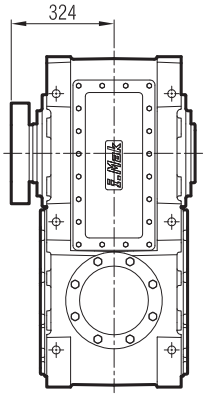


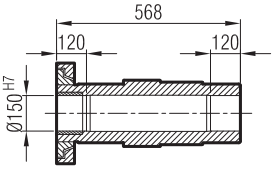
...-H



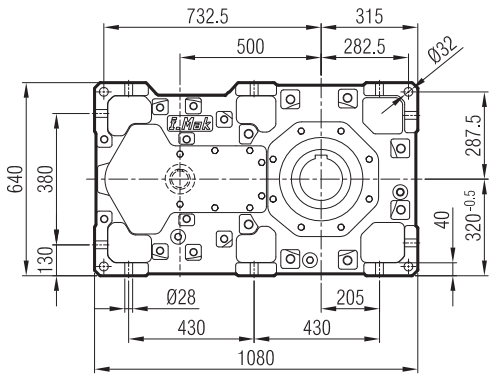


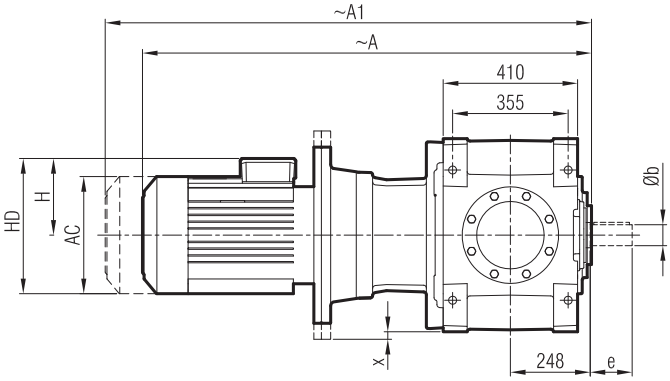
...-SDL / SDR

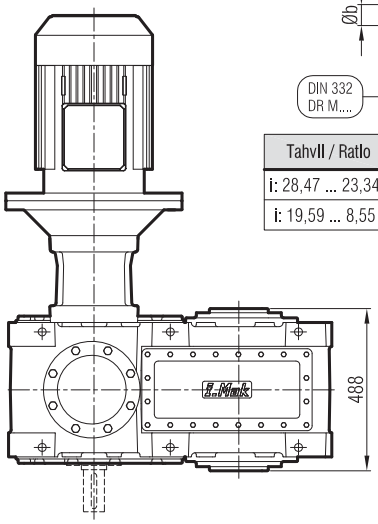


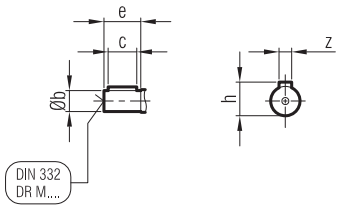


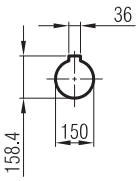
MAM 1002

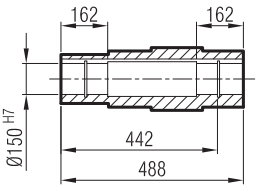










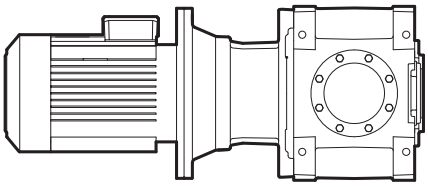


TahvII / Ratlo	Øb	e	z	c	h	M
i: 28,47 ... 23,34	60 m6	140	18	100	64	M16
i: 19,59 ... 8,55	75 m6	140	20	125	79.5	M20

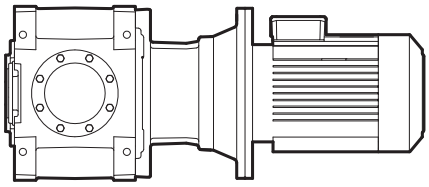
	280 M/B5	315 S/B5	315 M/B5	315 L/B5	315 H/B5	
A	1670	1851	1851	1962	1962	
A1	1918	2099	2099	2220	2220	
H	398	518	518	518	518	
HD	678	833	833	833	833	
AC	548	652	652	652	652	
x	-	10	10	10	10	

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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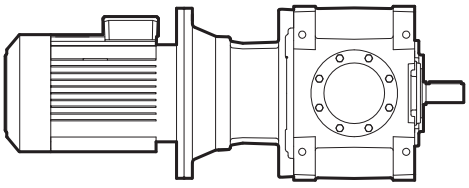

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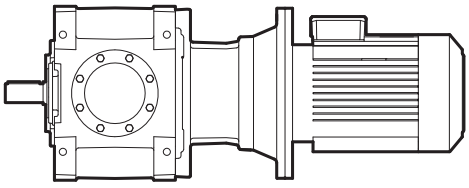
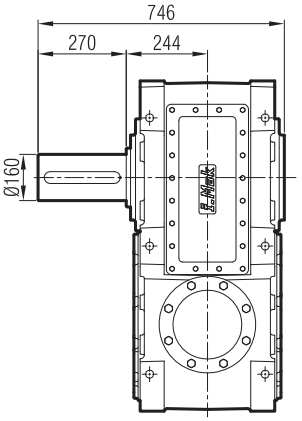
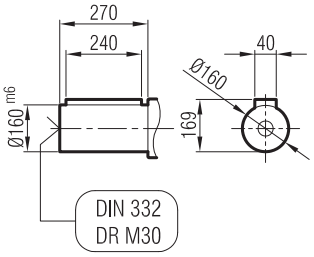


G06

MA / MK 100_

...-SL





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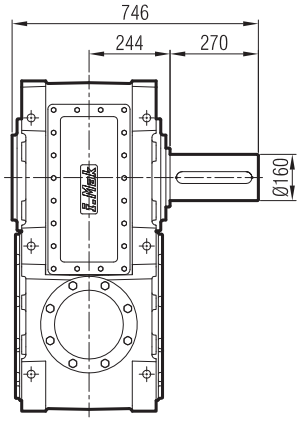

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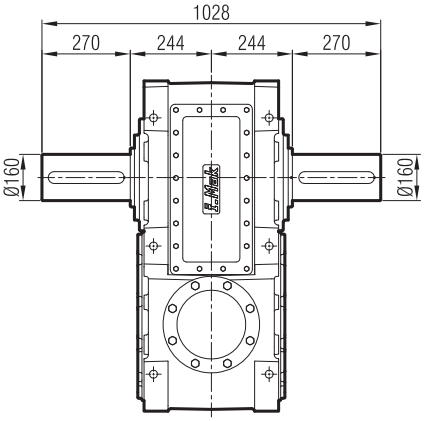
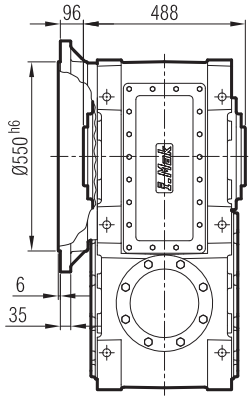
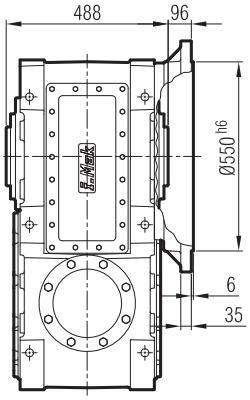


...-FL



...-FR



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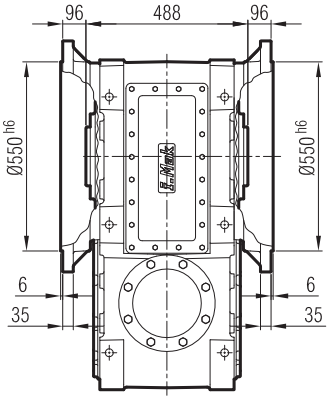
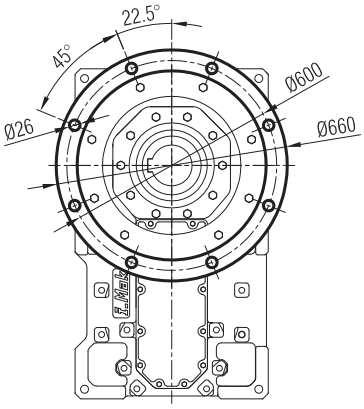
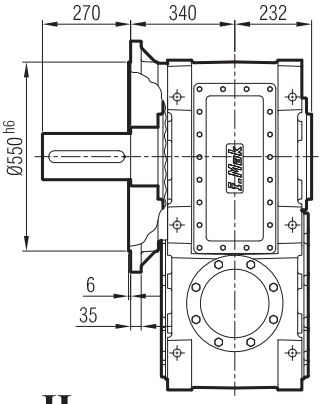
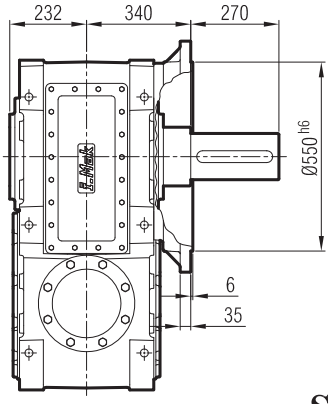




...-FL-SL



...-FR-SR



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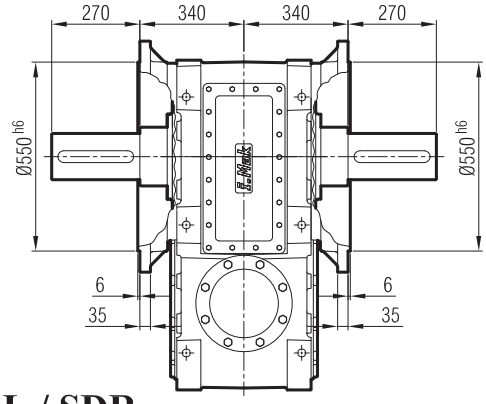
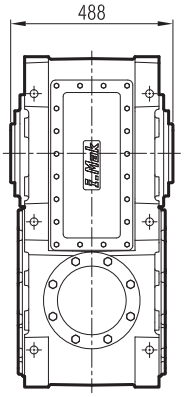
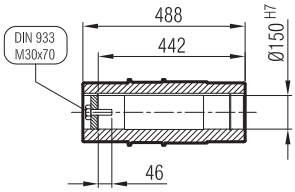
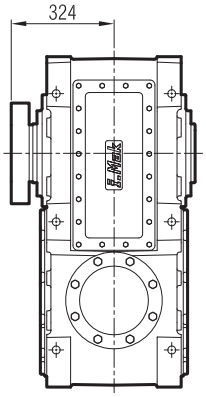


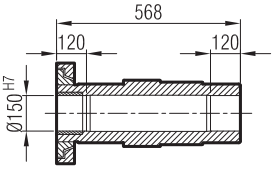
...-H



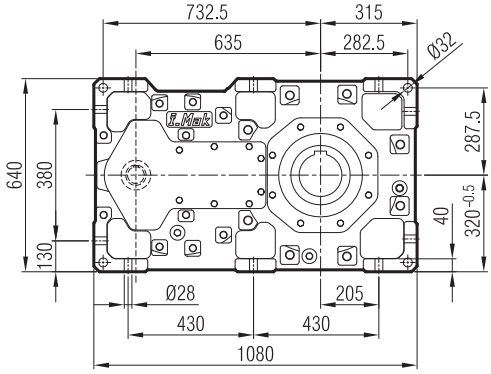


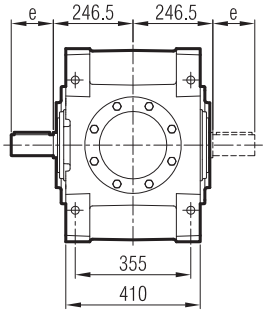
...-SDL / SDR

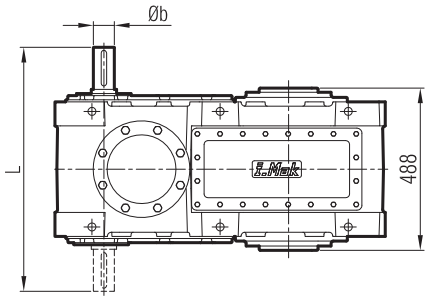


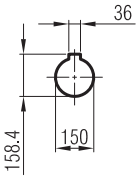


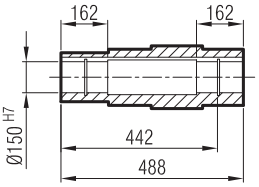
MA 1003











Tahvil / Ratio	Øb	e	z	c	h	M	L
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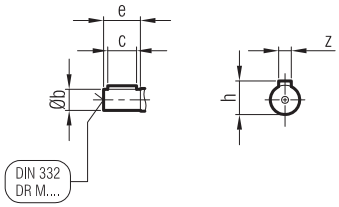
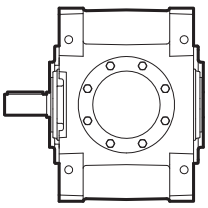
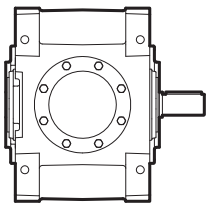
i: 57,86 ... 26,07	55 m6	120	16	110	59	M20	733



Giriş Seçenekleri / Input Options / *Option d'entree*



G00



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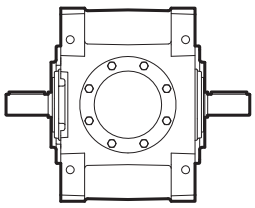
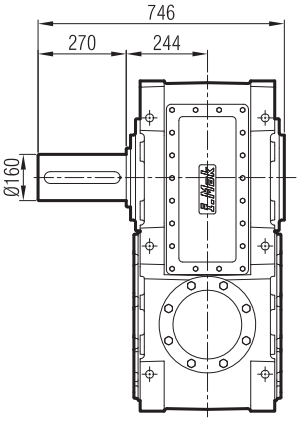
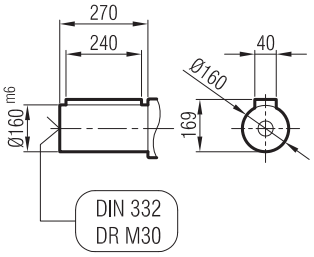


G02

MA / MK 100_

...-SL





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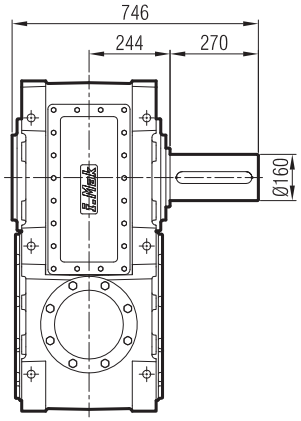
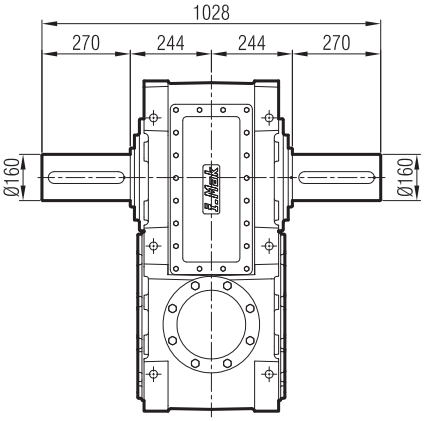
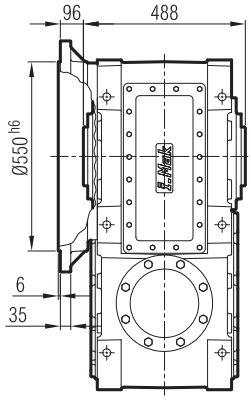


...-SD



...-FL



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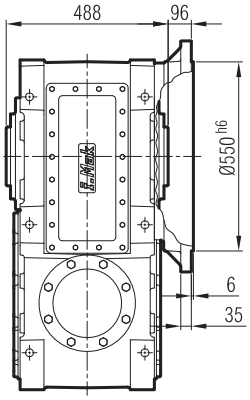
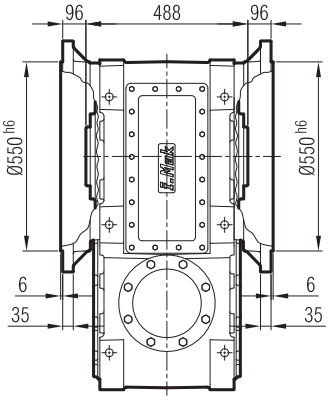
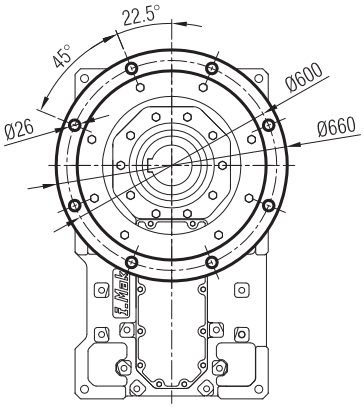


...-FD





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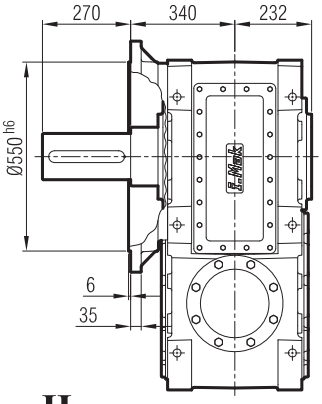

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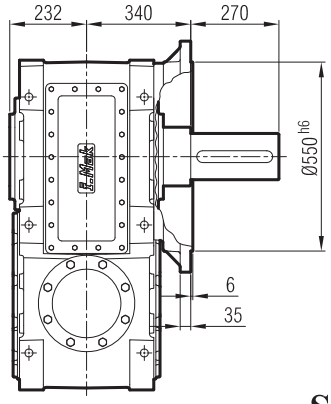
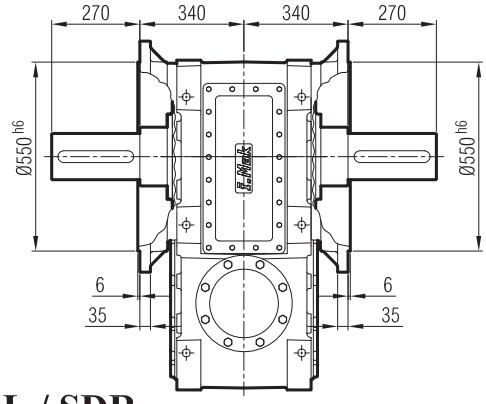


...-FD-SD



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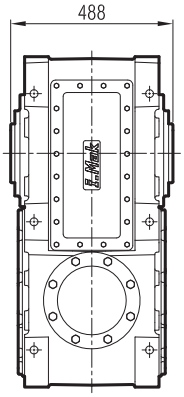
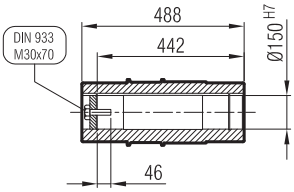
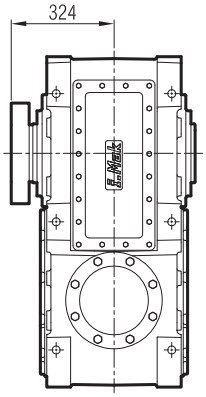
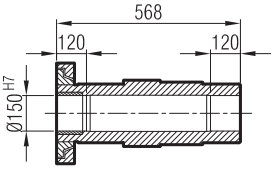


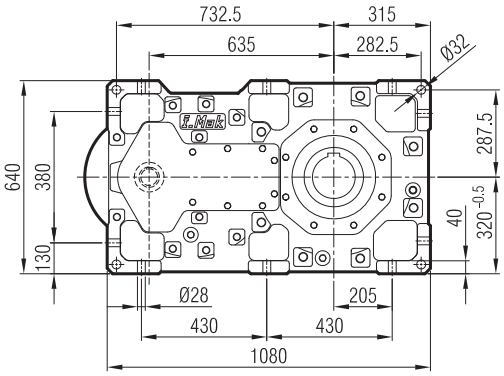


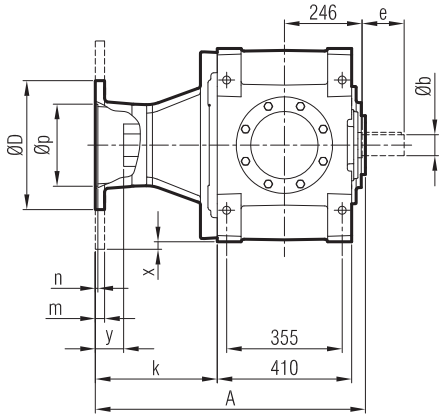
...-SDL / SDR

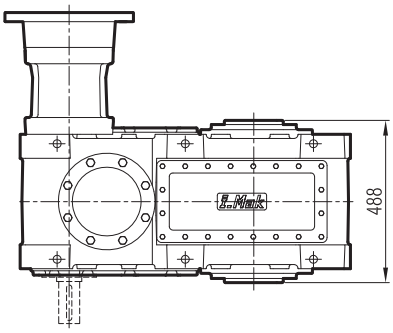


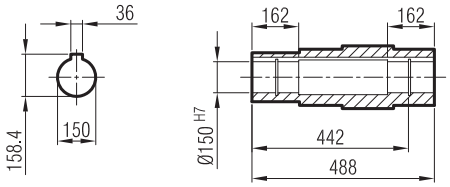


MAP 1003



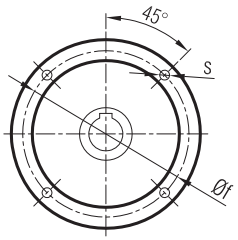




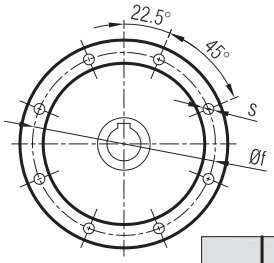


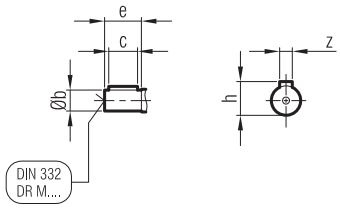
TahvIl / Ratio	Øb	e	z	c	h	M
i: 115,38...69,97	45 k6	120	14	100	48.5	M16
i: 57,86 ... 26,07	55 m6	120	16	110	59	M20

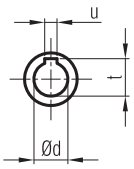
≤ 200 B5 **Tip**/Type/*Typ*



≥ 225 B5 **Tip**/Type/*Typ*







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200/B5	729	300	350	400	M16	280	22	6	55	59.3	16	-	49.5	39.5
225/B5	772	350	400	450	M16	323	22	6	60	64.4	18	-	78.5	72.5
250/B5	772	450	500	550	M16	323	25	6.5	65	69.4	18	-	74.5	72.5
280/B5	772	450	500	550	M16	323	25	6.5	75	75.9	20	-	64.5	64.5
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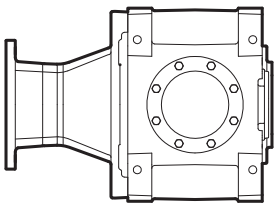
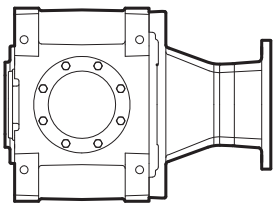
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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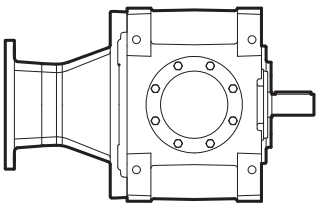

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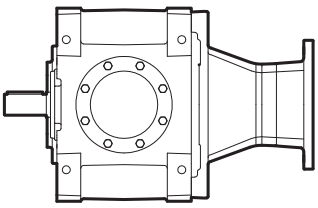

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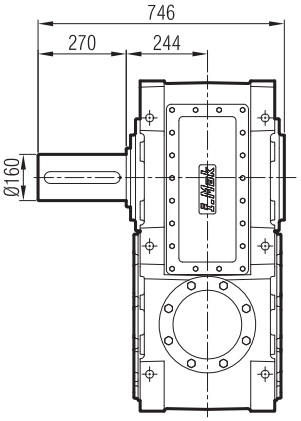
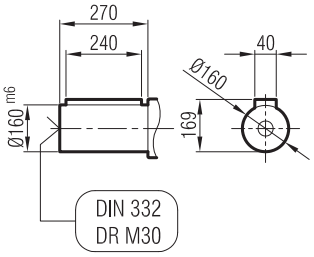
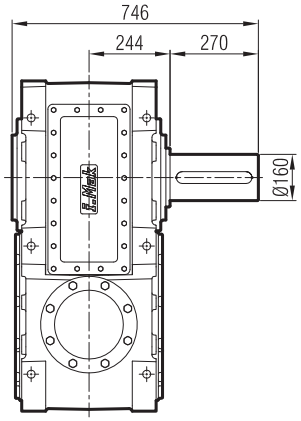
MA / MK 100_

...-SL

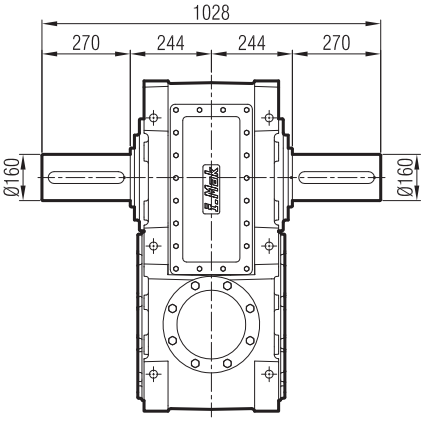




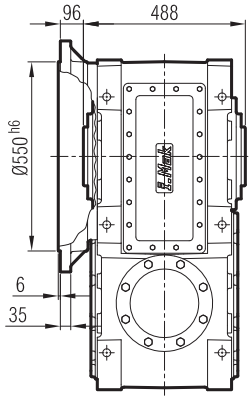
...-SR



...-SD



...-FL



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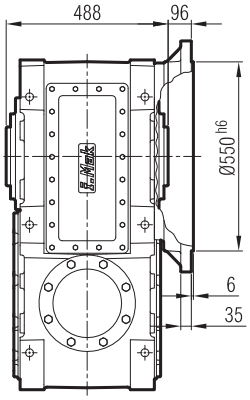

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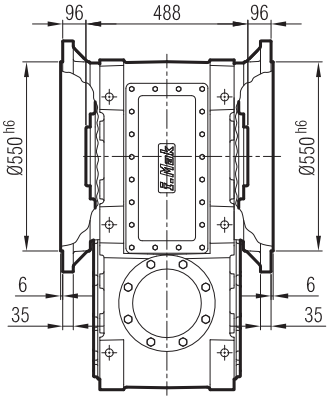

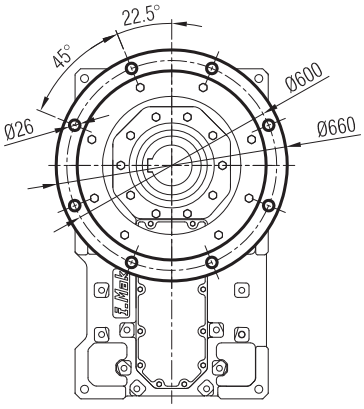

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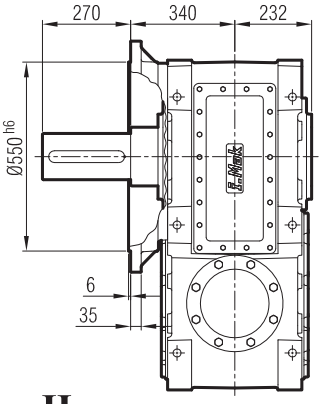

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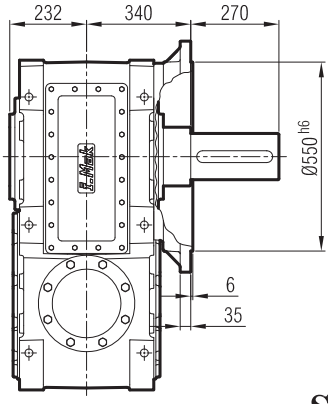

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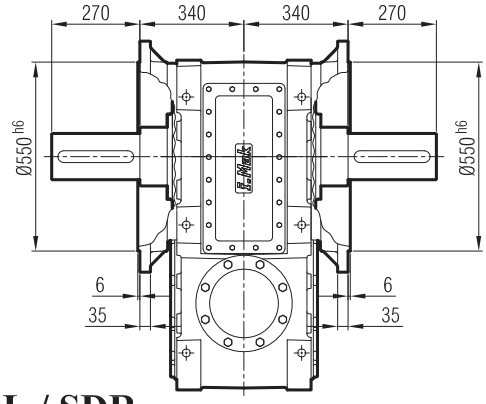

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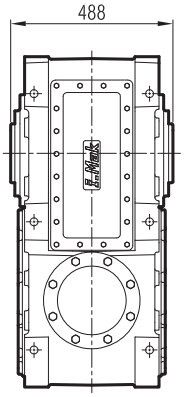
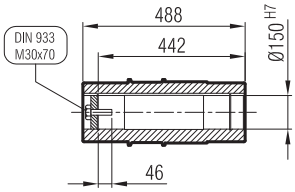
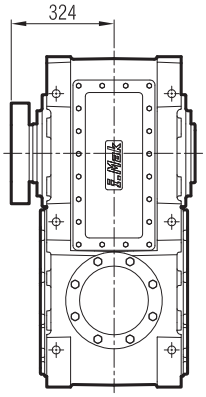
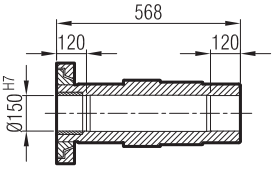


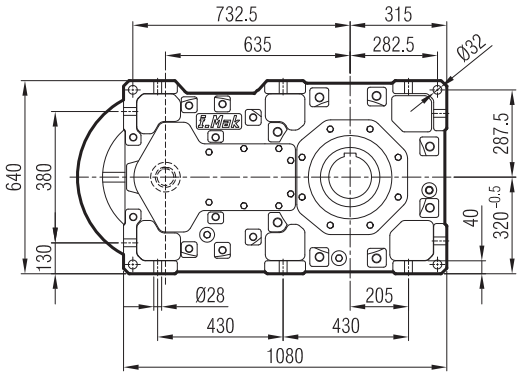


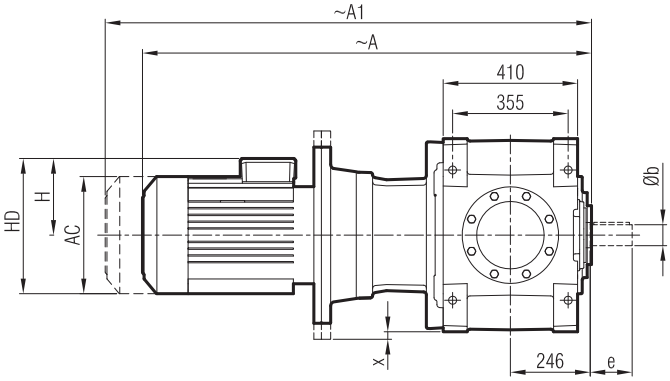
...-SDL / SDR

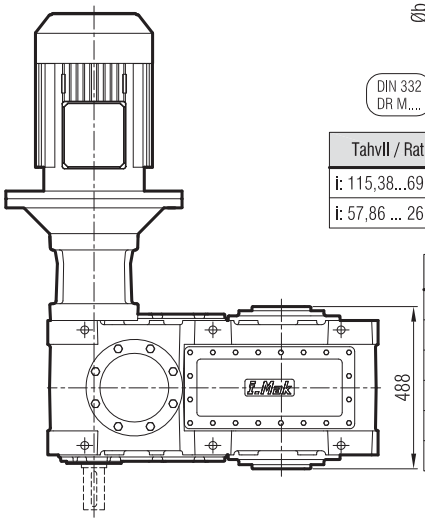


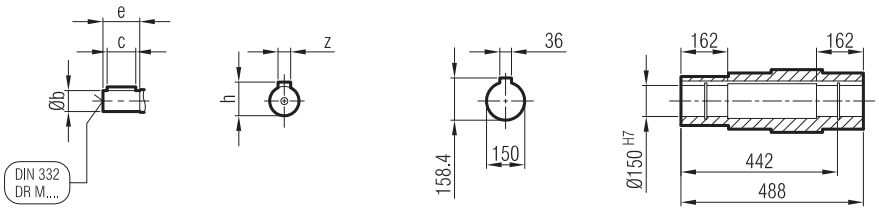


MAM 1003







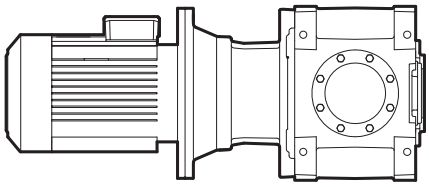


Tahvll / Ratlo	Øb	e	z	c	h	M
i: 115,38...69,97	45 k6	120	14	100	48.5	M16
i: 57,86 ... 26,07	55 m6	120	16	110	59	M20

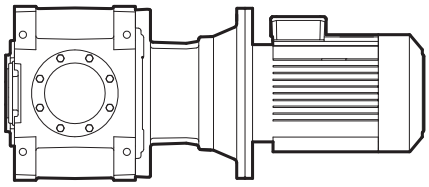
	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	315 S/B5	315 M/B5	315 L/B5
A	1370	1370	1438	1457	1517	1567	1657	1657	1838	1838	1949
A1	1506	1506	1585	1604	1664	1714	1905	1905	2086	2086	2207
H	260	260	300	313	313	366	398	398	518	518	518
HD	440	440	500	538	538	618	678	678	833	833	833
AC	357	357	394	456	456	489	548	548	652	652	652
x	-	-	-	-	-	-	-	-	10	10	10

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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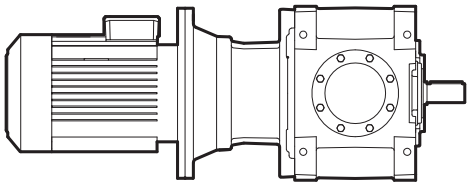

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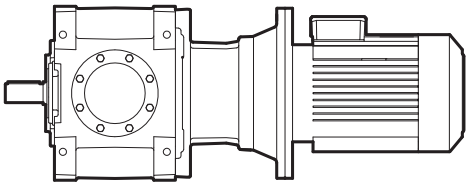
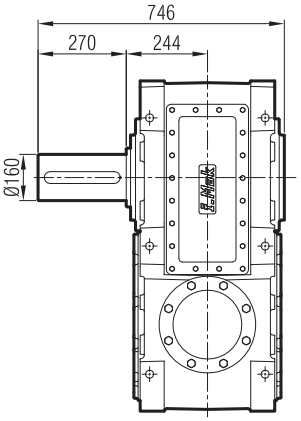
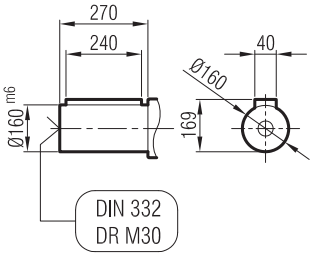


G06

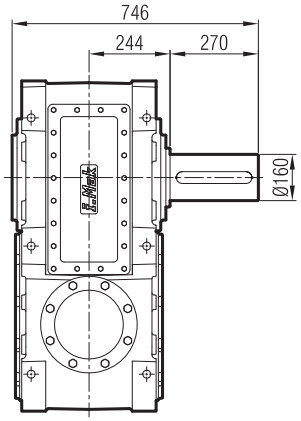
MA / MK 100_

...-SL

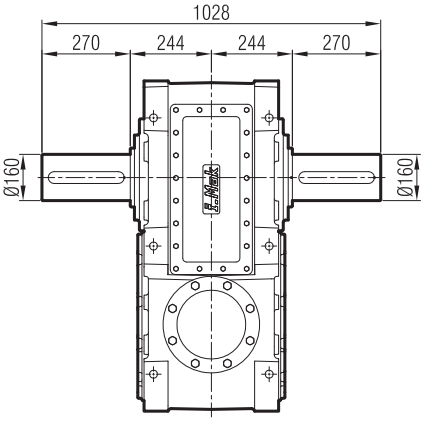




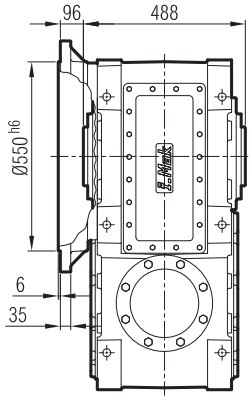
...-SR



...-SD



...-FL



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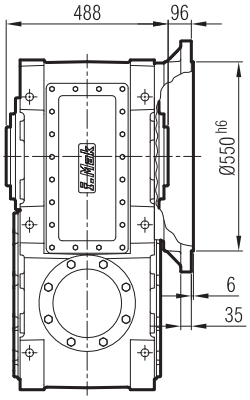

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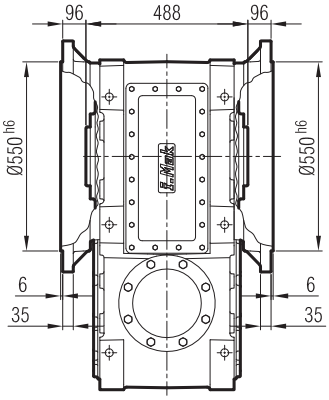
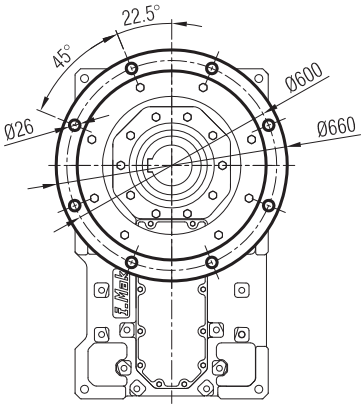
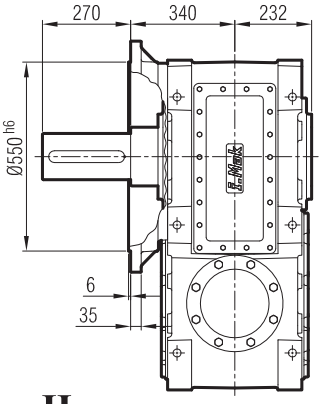
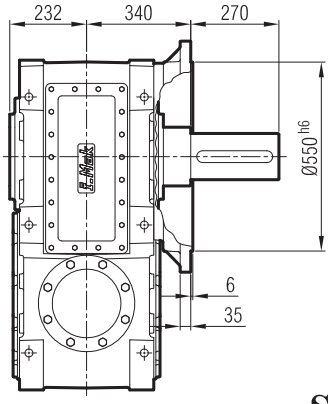




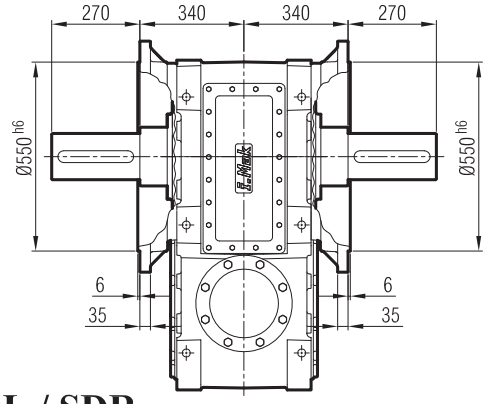
...-FL-SL



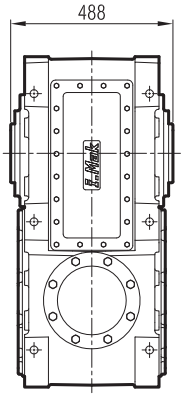
...-FR-SR

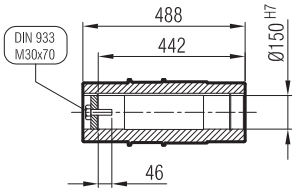


...-FD-SD

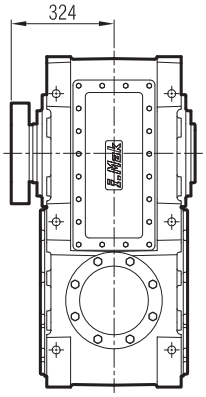


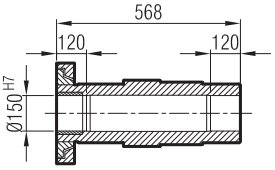
...-H



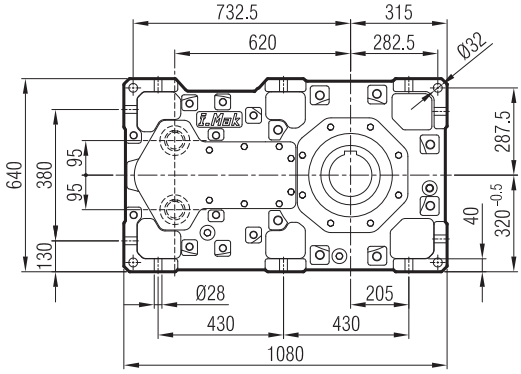


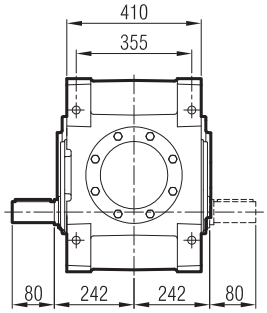
...-SDL / SDR

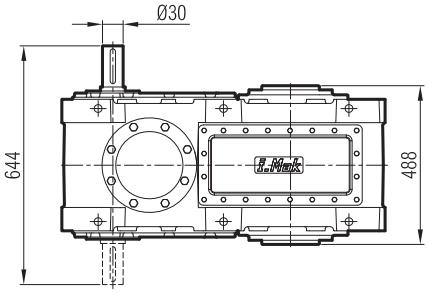


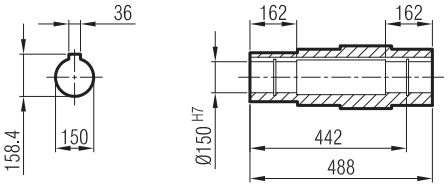


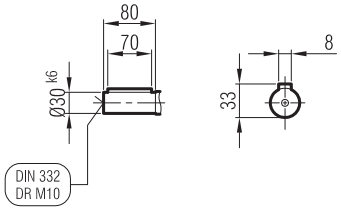
MA 1004



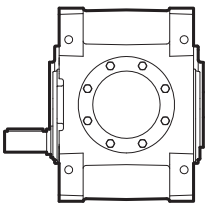




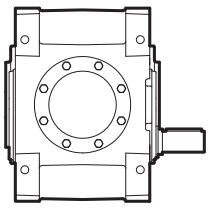




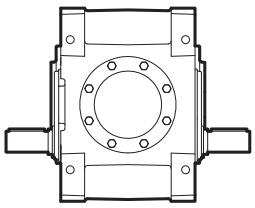
Giriş Seçenekleri / Input Options / *Option d'entree*



G00



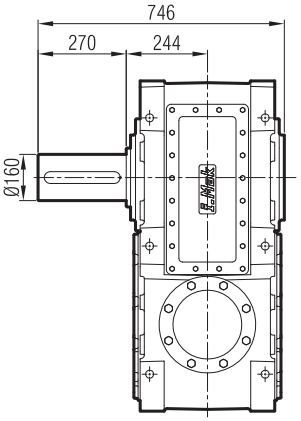
G01

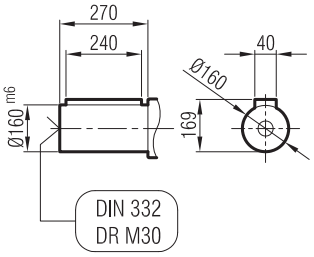


G02

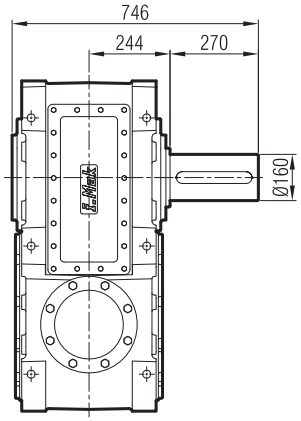
MA / MK 100_

...-SL

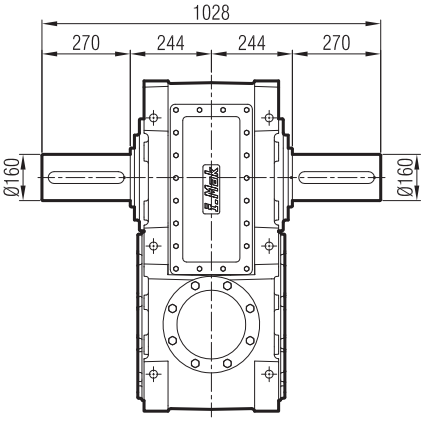




...-SR



...-SD



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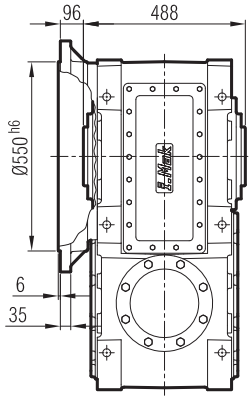

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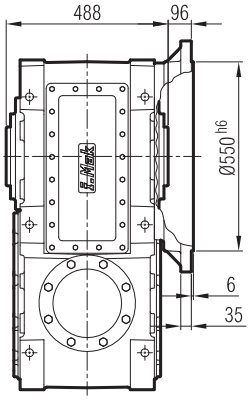

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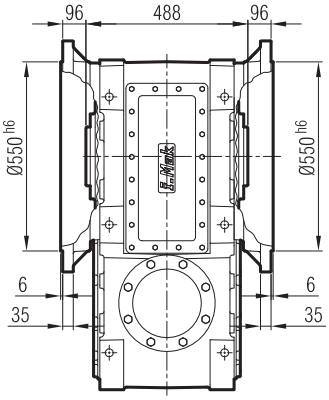

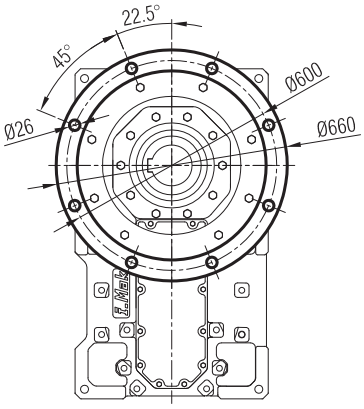

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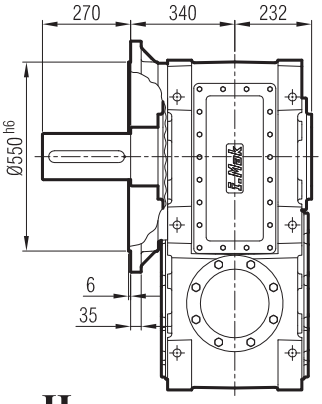

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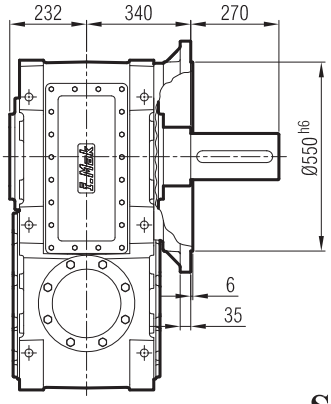

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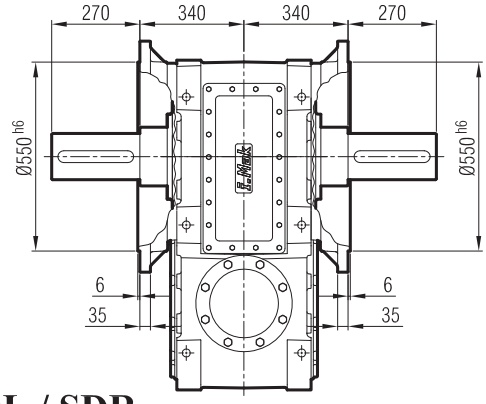

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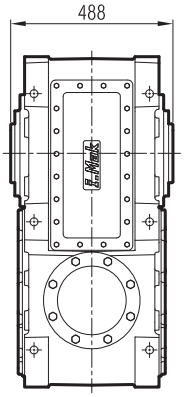

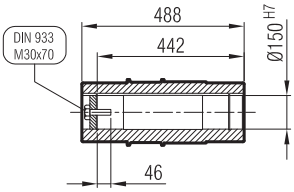

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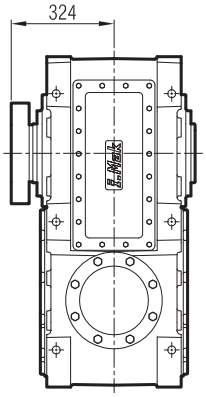
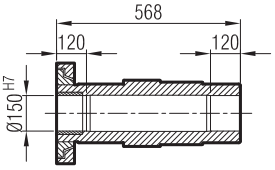
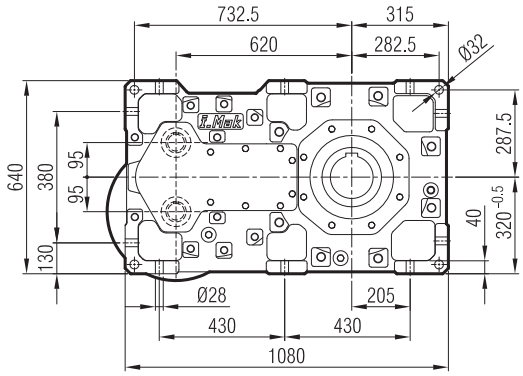
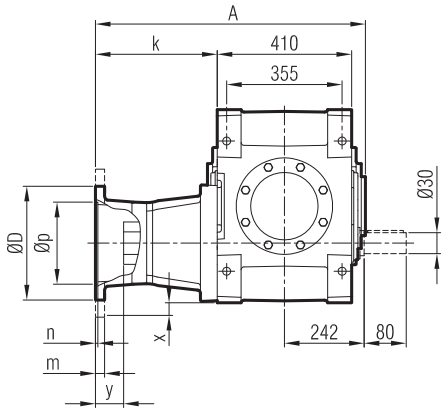
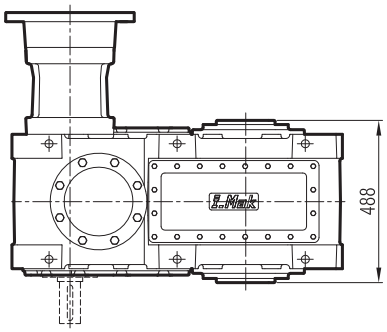


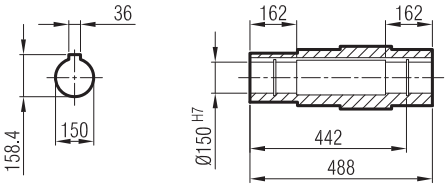


MAP 1004









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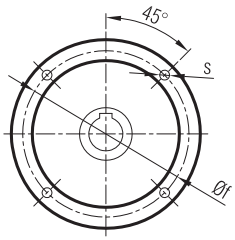

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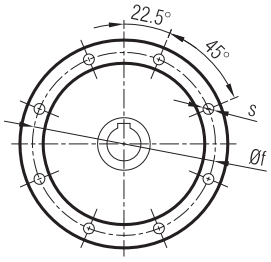

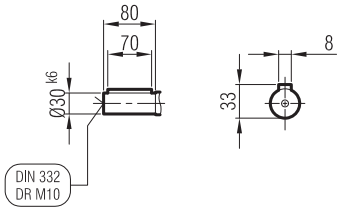

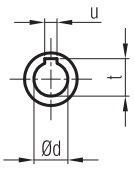

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132/B5	663	230	265	300	M12	214	18	6	38	41.3	10	-	45
160/B5	680	250	300	350	M14	231	20	6	42	45.3	12	-	70
180/B5	680	250	300	350	M14	231	20	6	48	51.8	14	-	60
200/B5	680	300	350	400	M16	231	22	6	55	59.3	16	-	60
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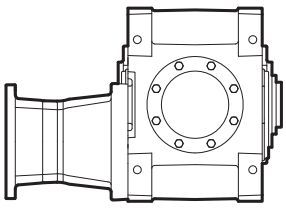
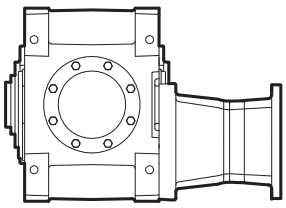
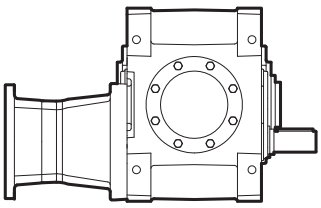
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



G04



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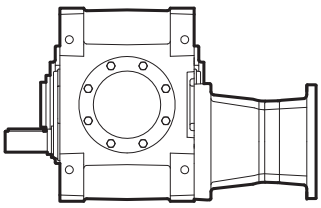
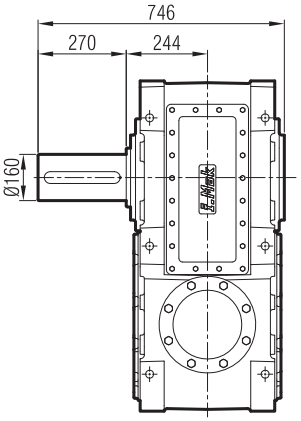
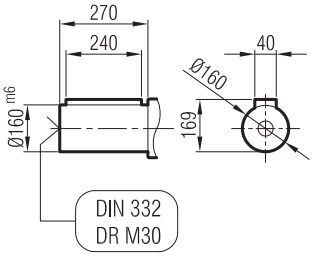


G06

MA / MK 100_

...-SL





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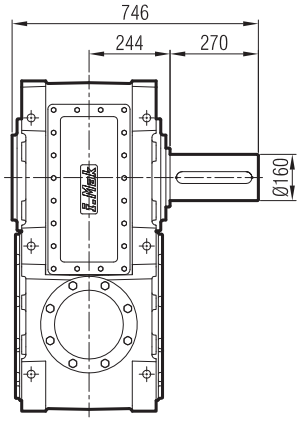

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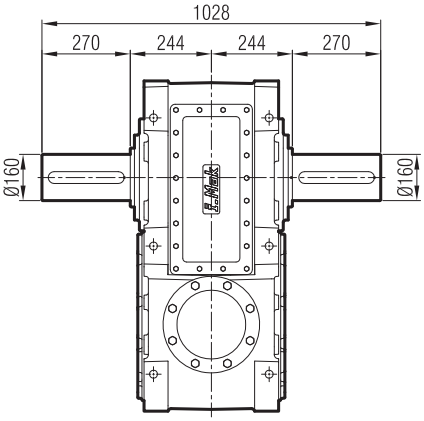

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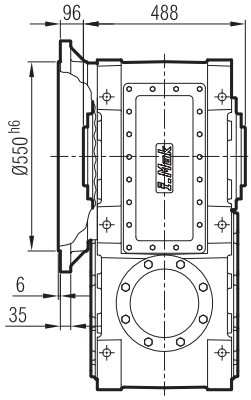

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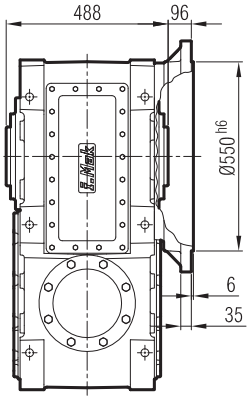

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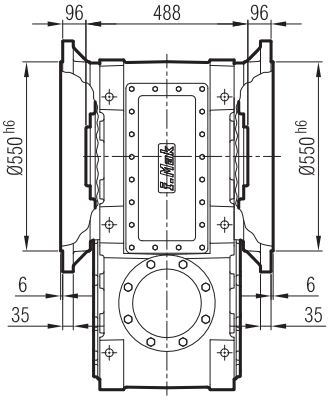
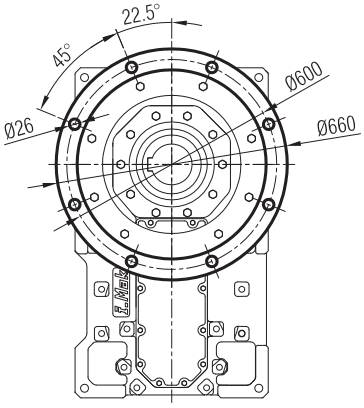
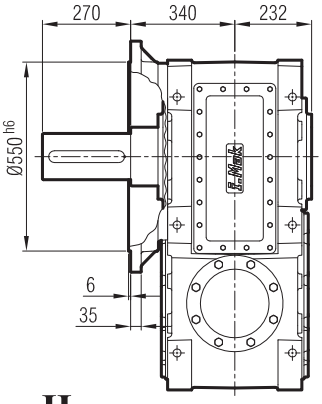




...-FL-SL



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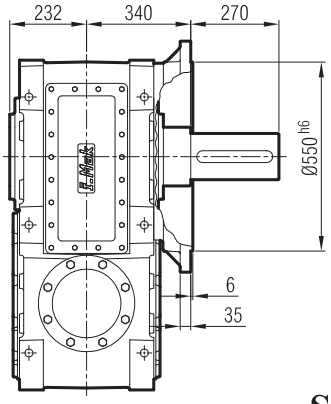

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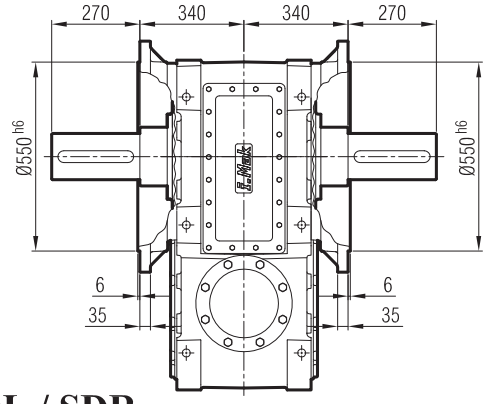

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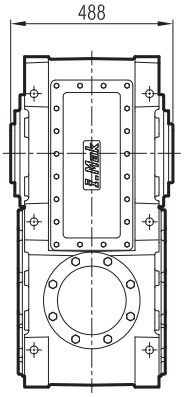

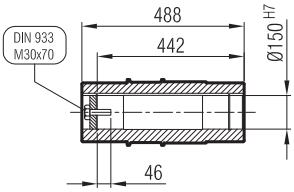

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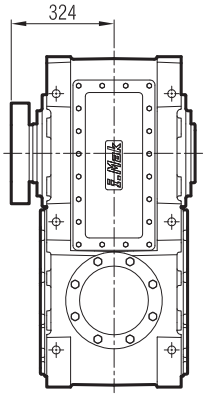
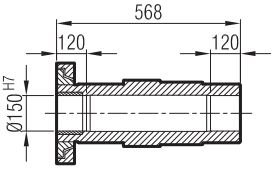
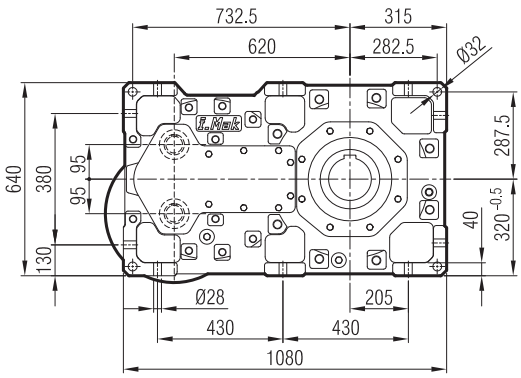
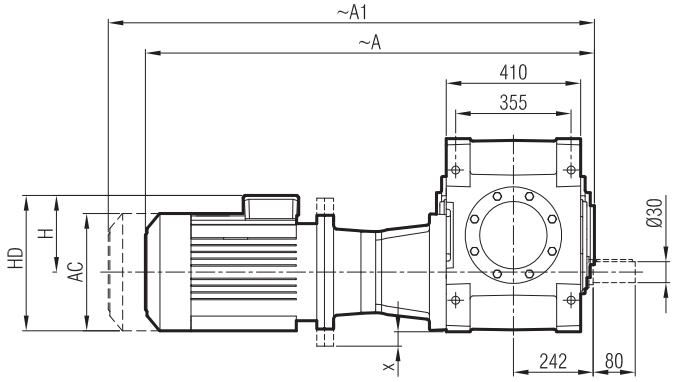
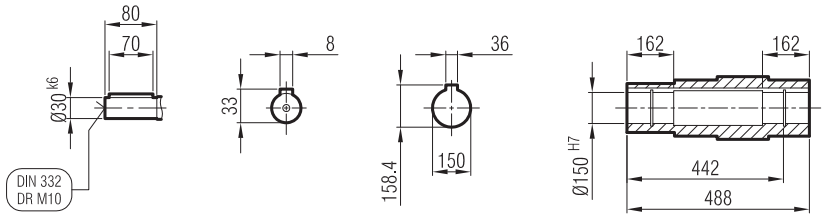


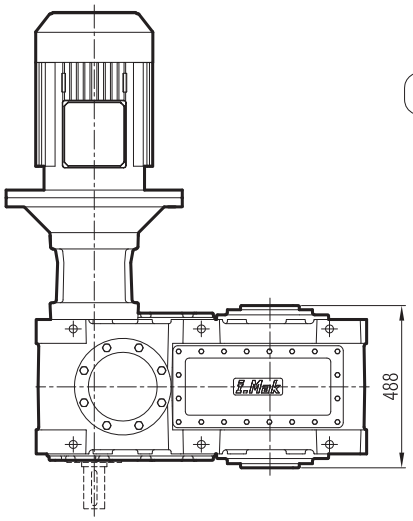


MAM 1004









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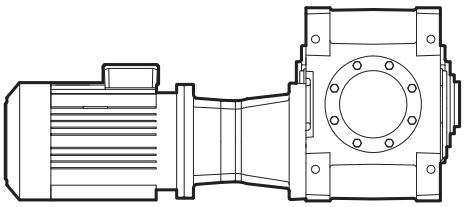
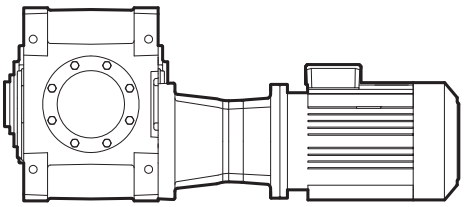
A1	1082	1168	1209	1317	1362	1457	1457	1536	1555
H	170	193	193	240	240	260	260	300	313
HD	282	325	325	400	400	440	440	500	538
AC	220	262	262	315	315	357	357	394	456
x	-	-	-	-	-	-	-	-	3

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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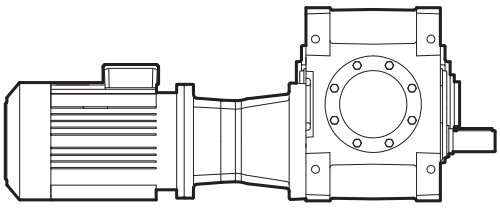

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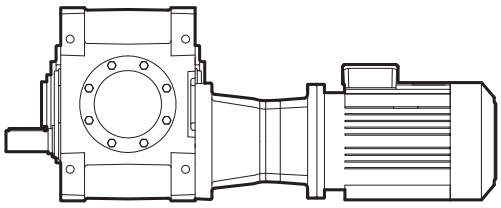
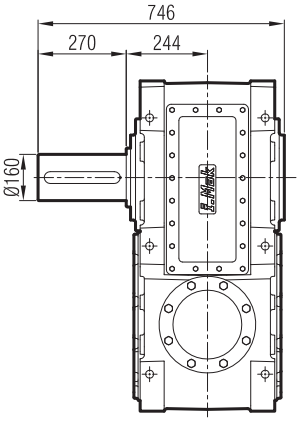
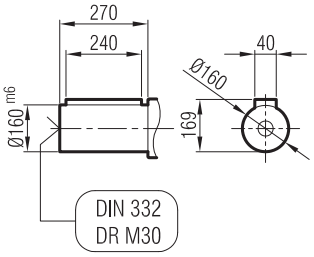


G06

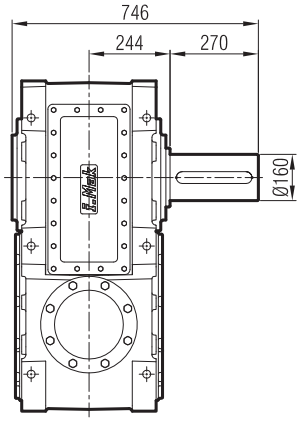
MA / MK 100_

...-SL

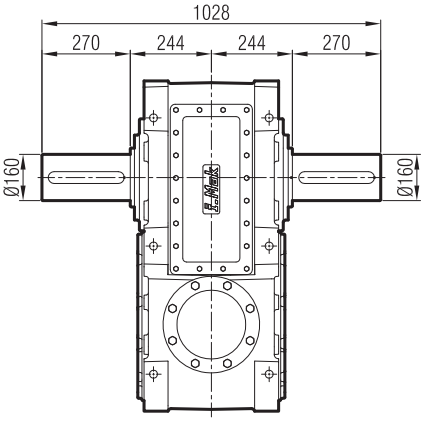




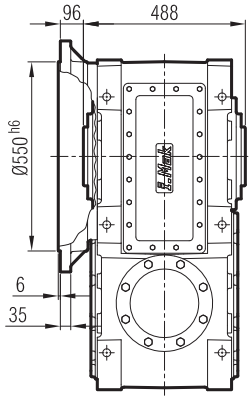
...-SR



...-SD



...-FL



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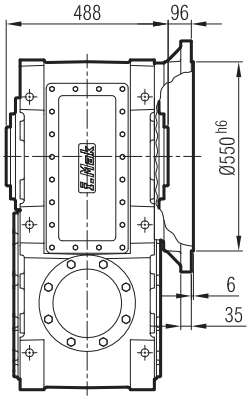

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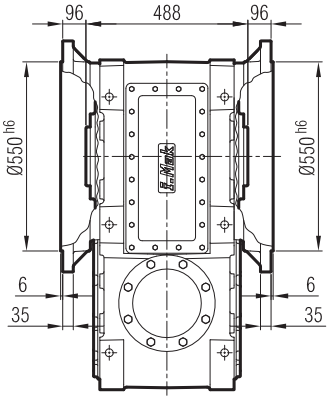

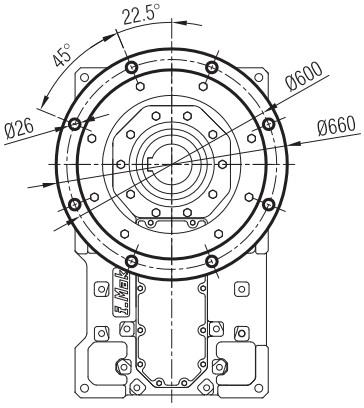

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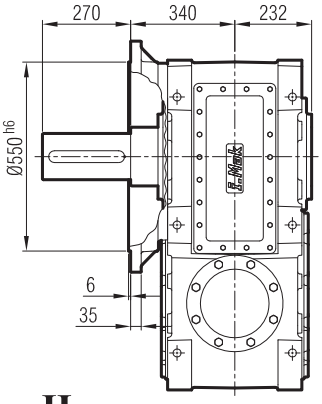

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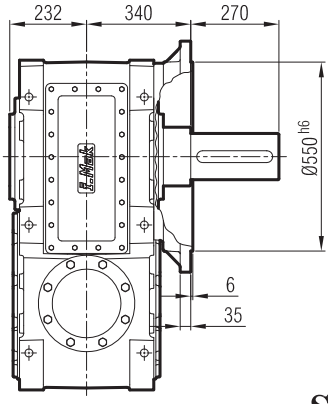

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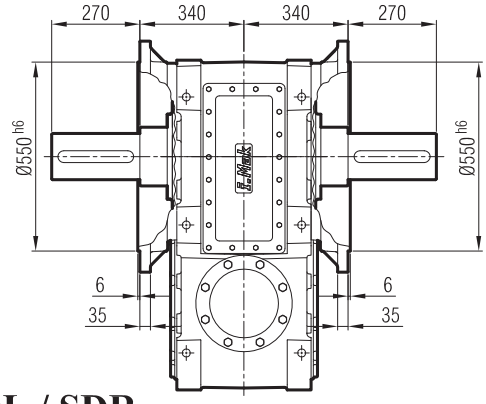

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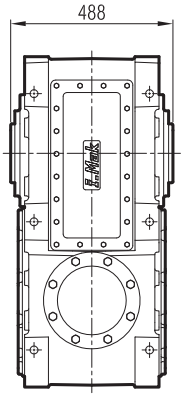
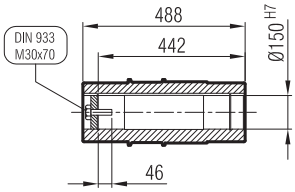
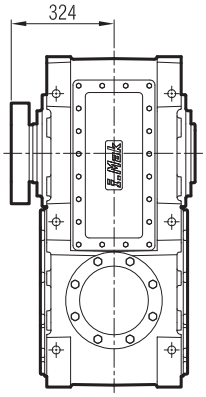
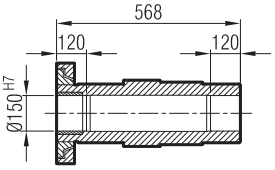


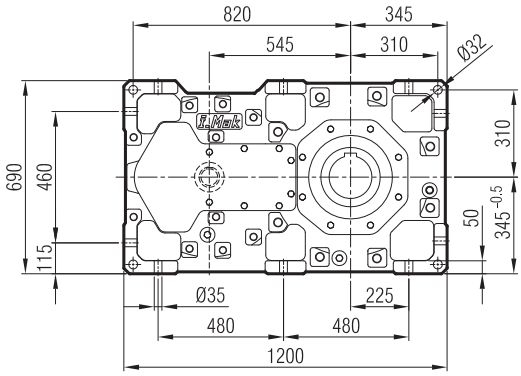


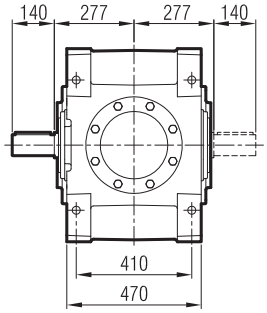
...-SDL / SDR

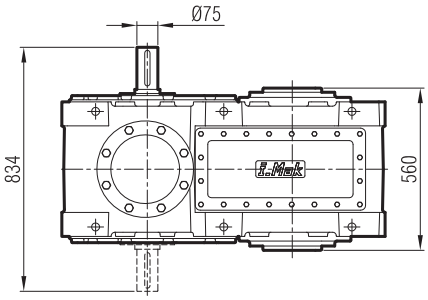


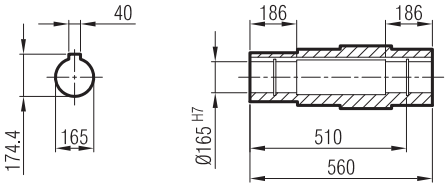


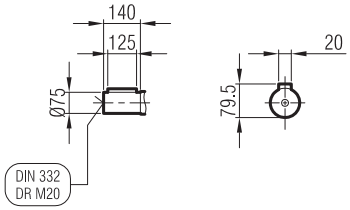
MA 1102



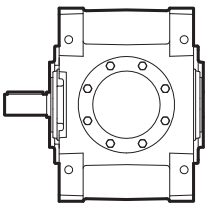








Giriş Seçenekleri / Input Options / *Option d'entree*



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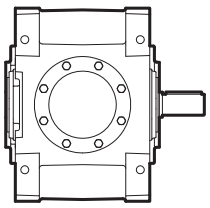

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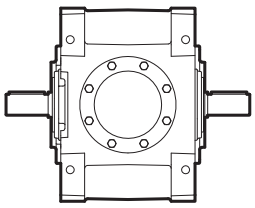
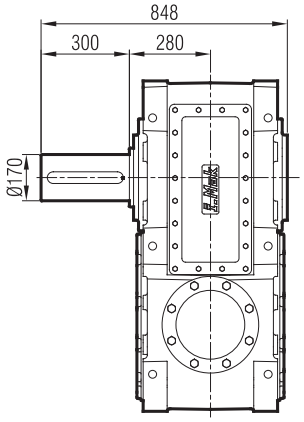
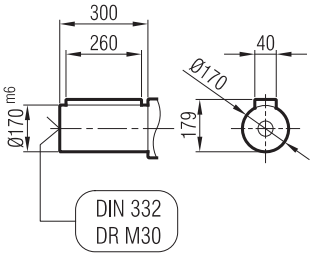


G02

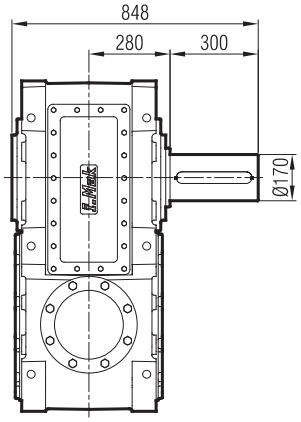
MA / MK 110_

...-SL

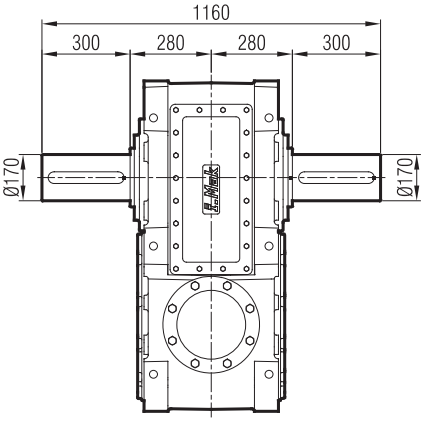




...-SR



...-SD



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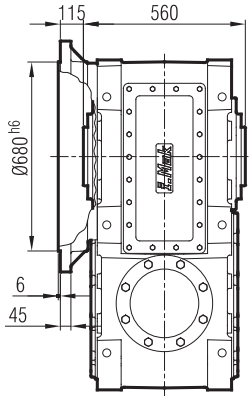

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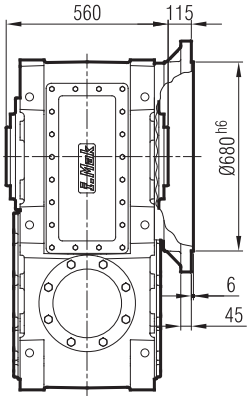
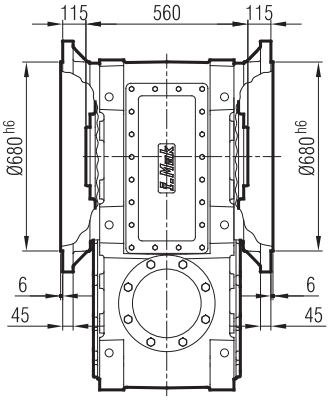
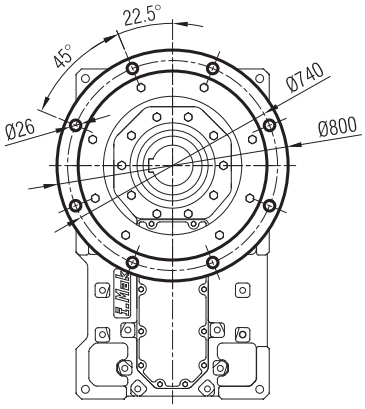
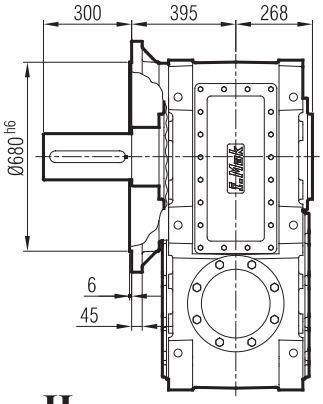


...-FD





...-FL-SL



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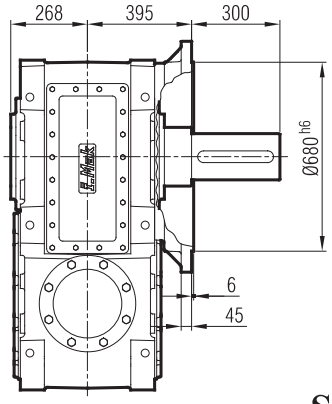
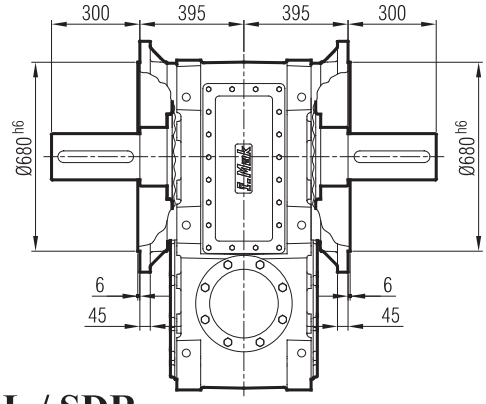


...-FD-SD



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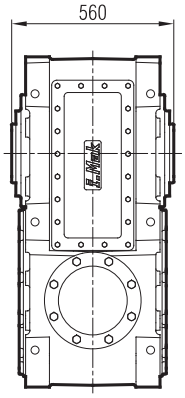
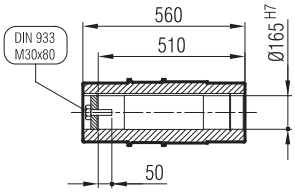
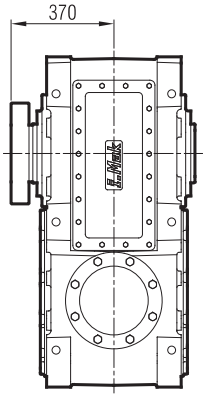
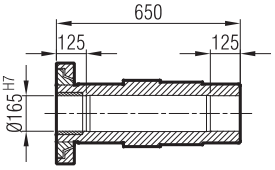


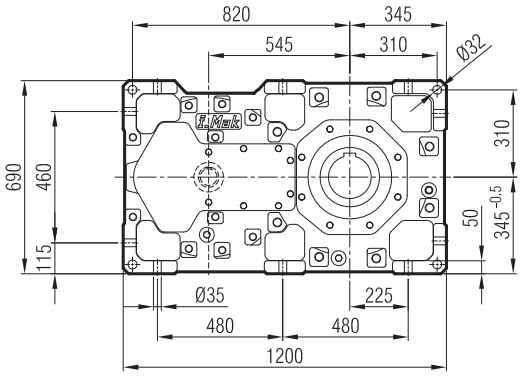


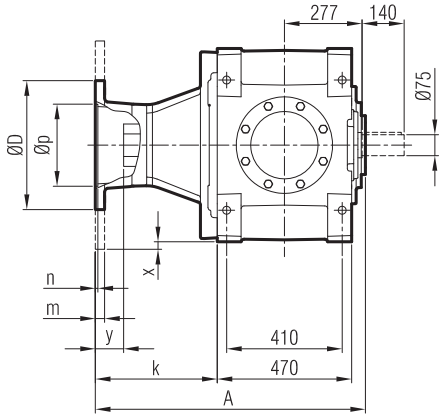
...-SDL / SDR

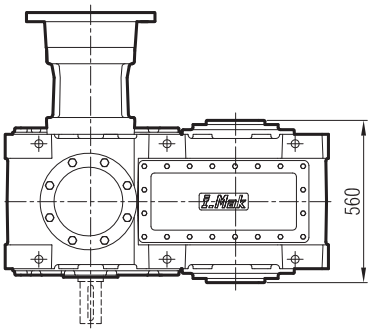


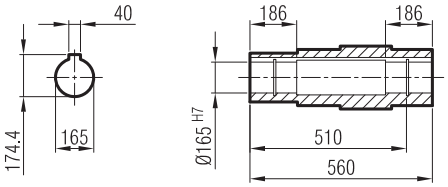


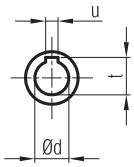
MAP 1102

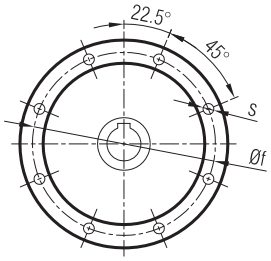


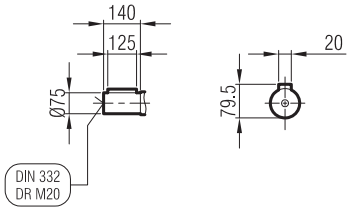












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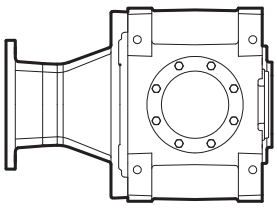
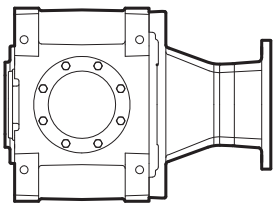
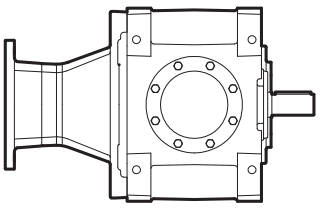
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



G04



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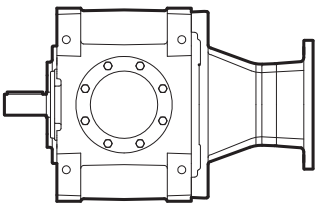
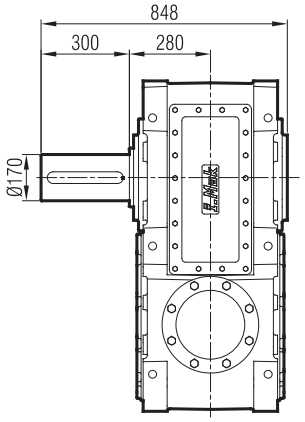
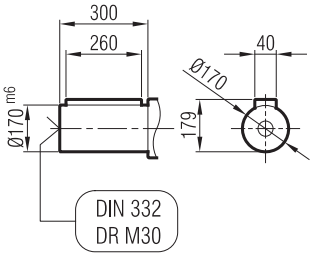


G06

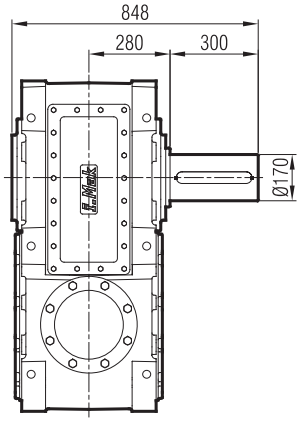
MA / MK 110_

...-SL

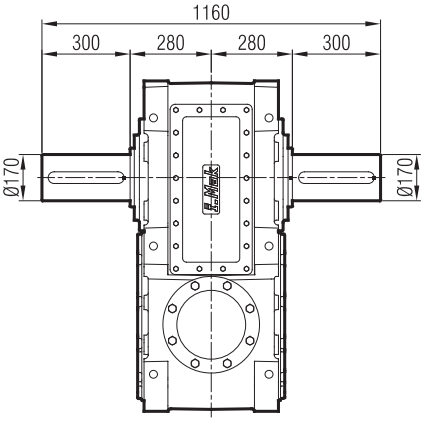




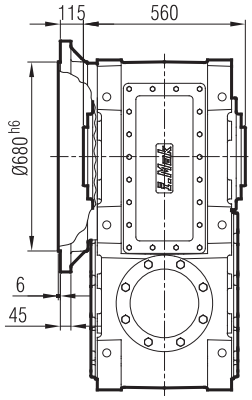
...-SR



...-SD



...-FL



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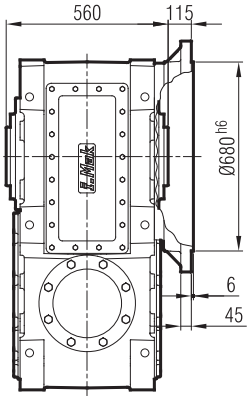

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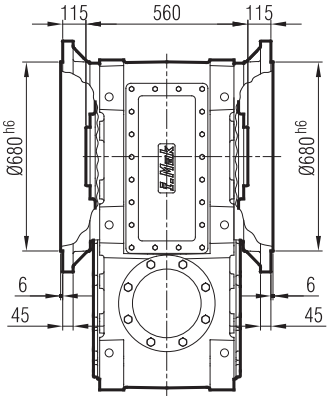
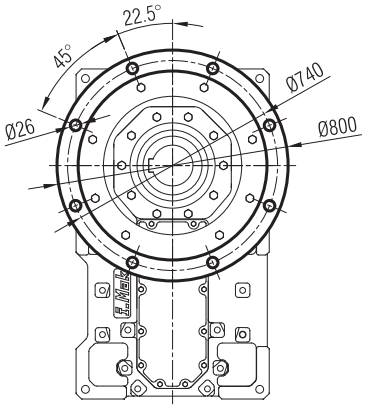
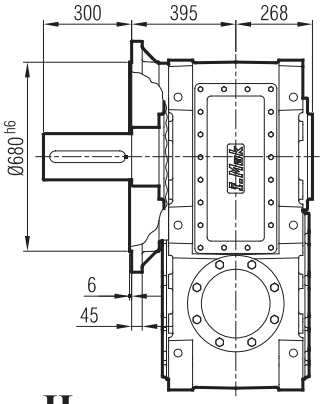
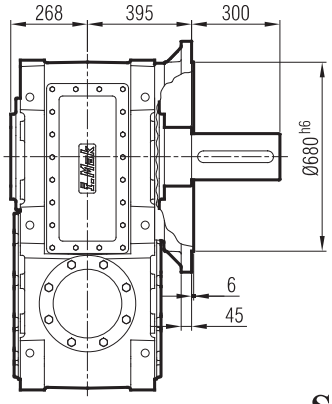




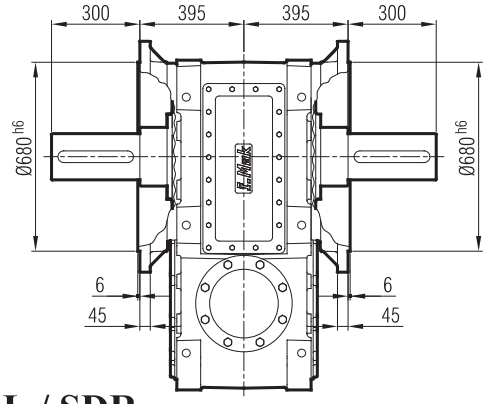
...-FL-SL



...-FR-SR



...-FD-SD



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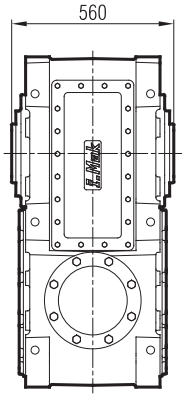
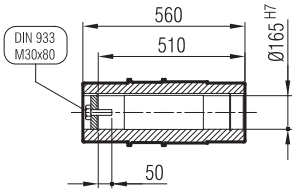
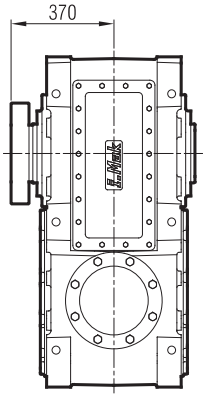
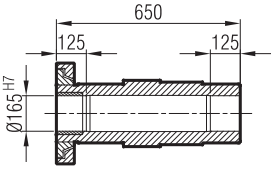


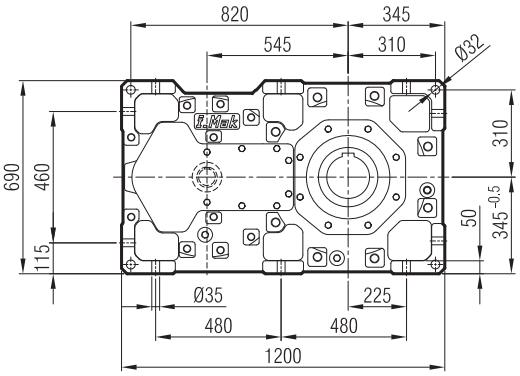


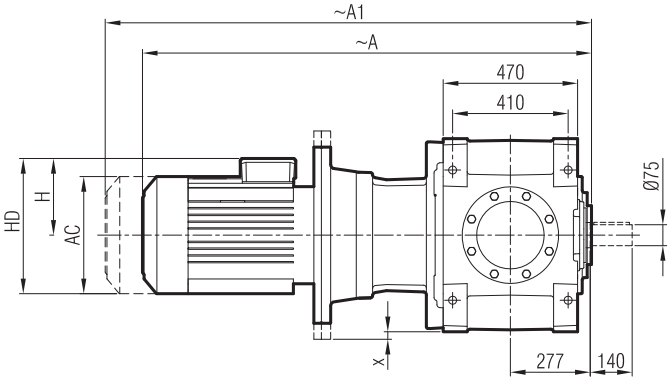
...-SDL / SDR

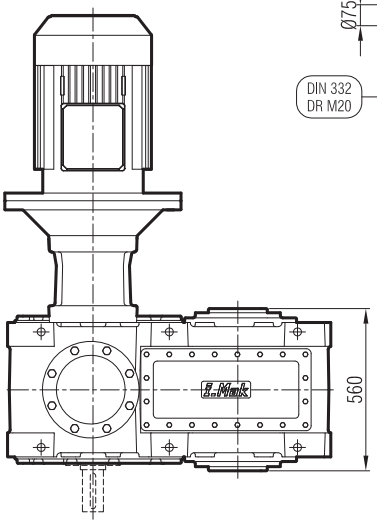


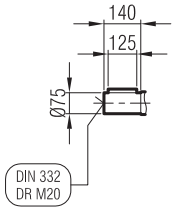


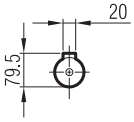
MAM 1102

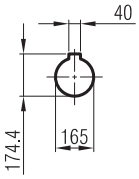


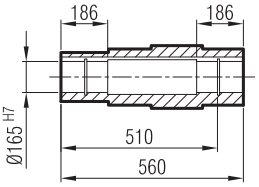








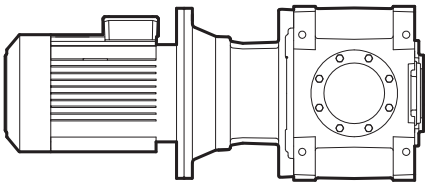




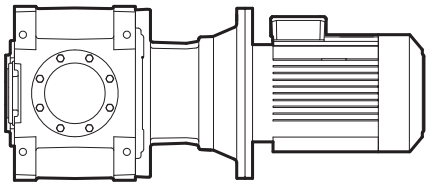
	280 M/B5	315 S/B5	315 M/B5	315 M/B5	315 L/B5	315 H/B5
A	1736	1917	1917	2028	2028	2028
A1	1984	2165	2165	2286	2286	2286
H	366	518	518	518	518	518
HD	616	833	833	833	833	833
AC	489	652	652	652	652	652
x	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

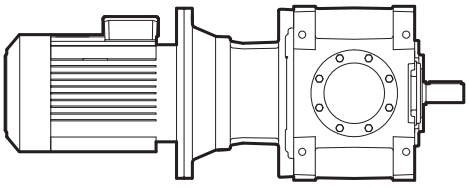
Giriş Seçenekleri / Input Options / *Option d'entree*



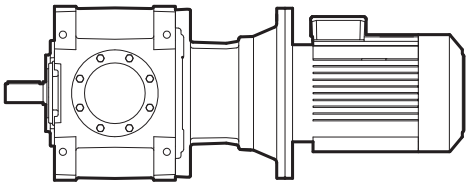
G03



G04



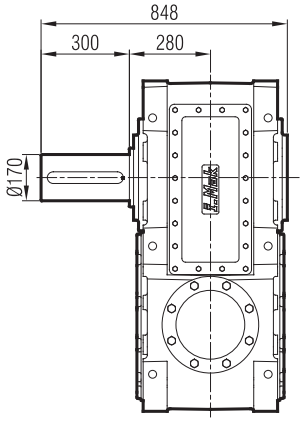
G05

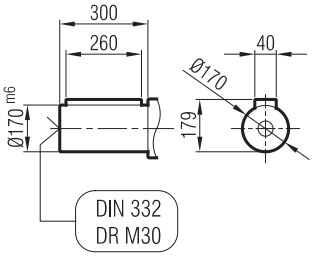


G06

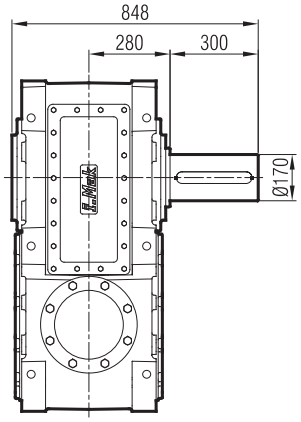
MA / MK 110_

...-SL

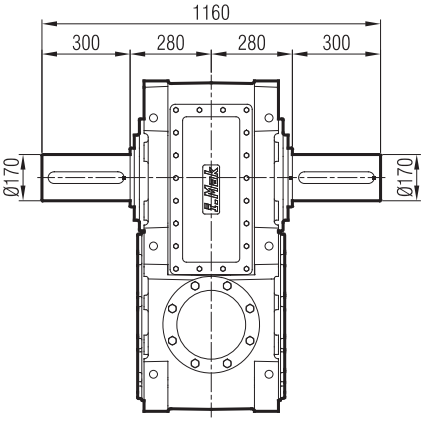




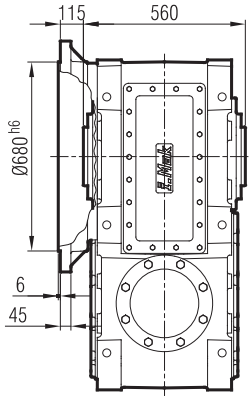
...-SR



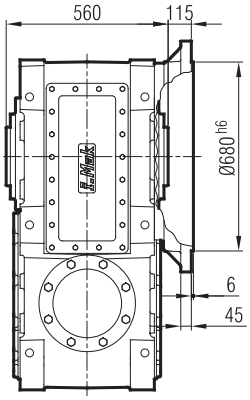
...-SD



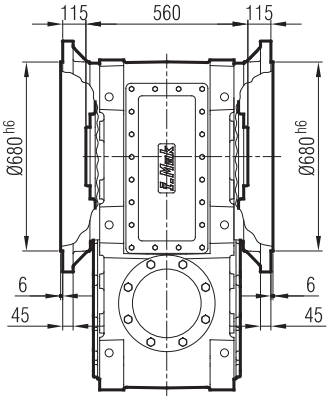
...-FL

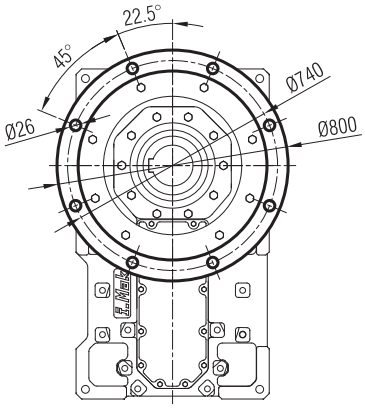


...-FR

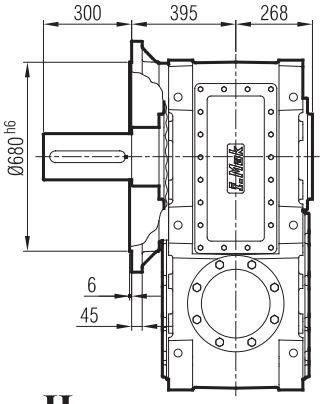


...-FD

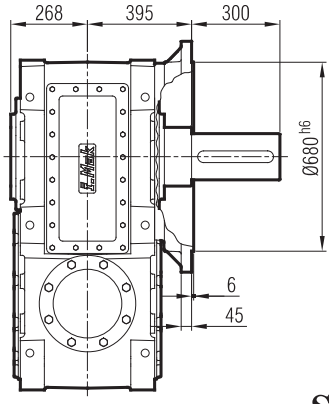




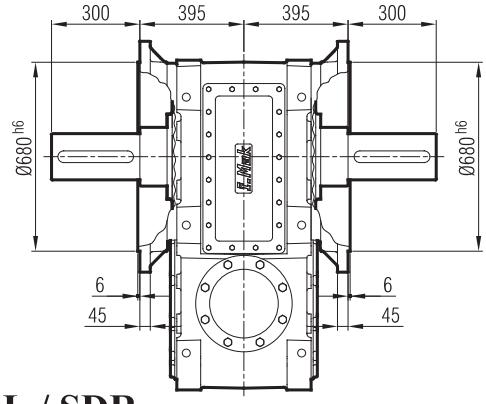
...-FL-SL



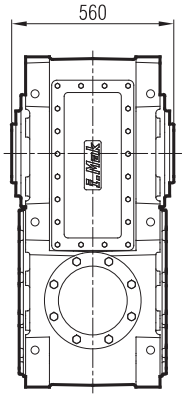
...-FR-SR

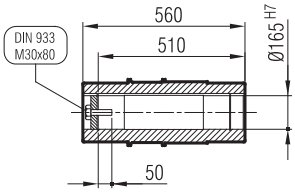


...-FD-SD

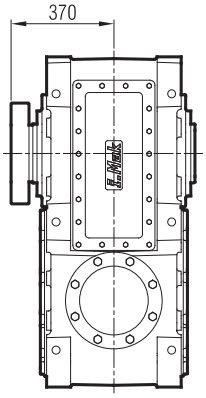


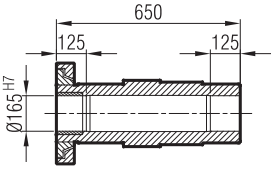
...-H



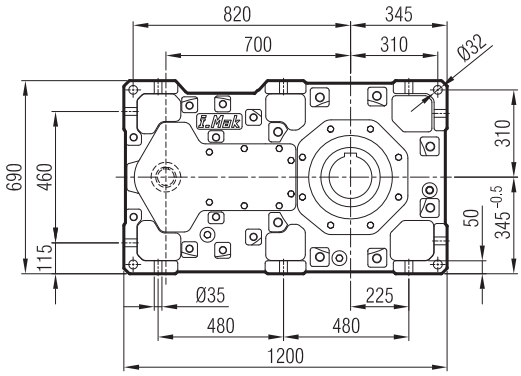


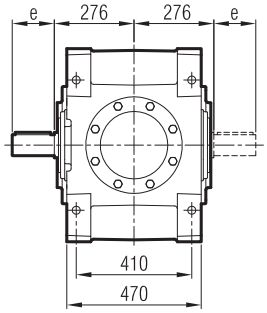
...-SDL / SDR

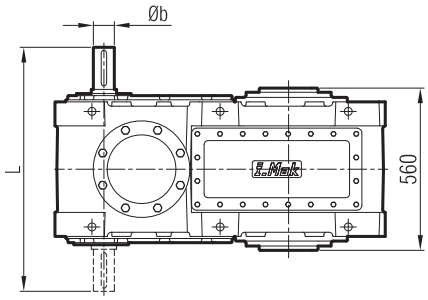


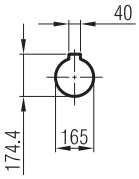


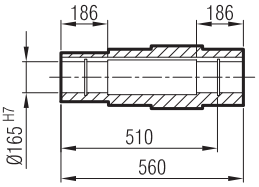
MA 1103











Tahvil / Ratio	Øb	e	z	c	h	M	L
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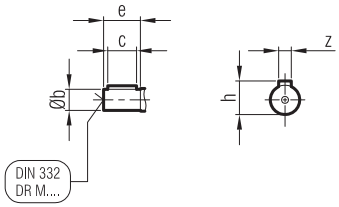
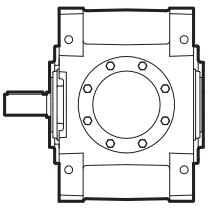
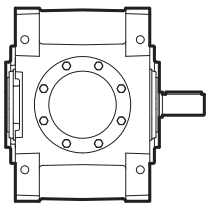
I: 73,82...20,27	70	140	20	125	74.5	20	832



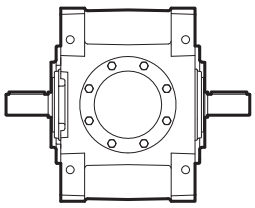
Giriş Seçenekleri / Input Options / *Option d'entree*



G00



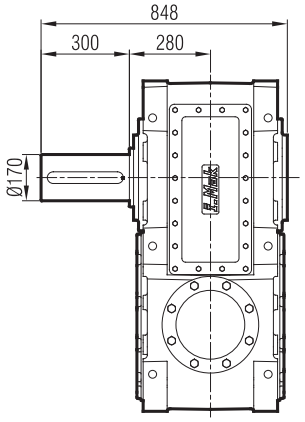
G01

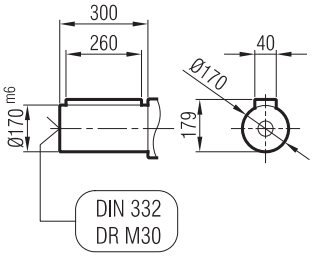


G02

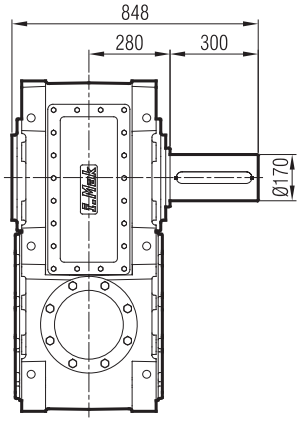
MA / MK 110_

...-SL

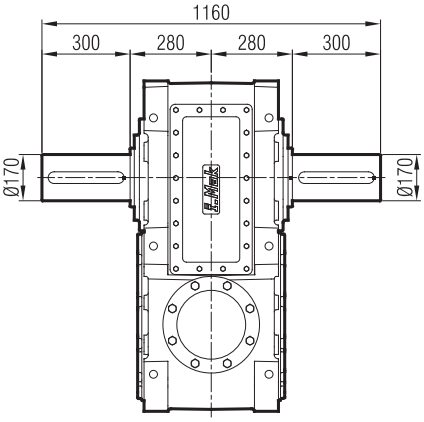




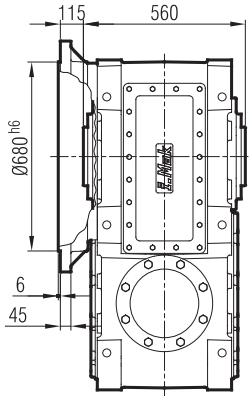
...-SR



...-SD



...-FL



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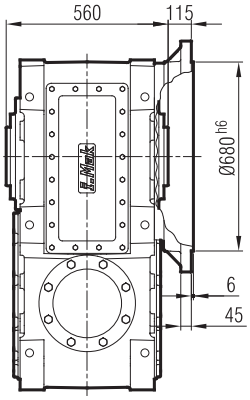
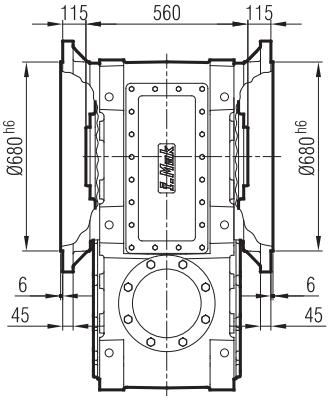
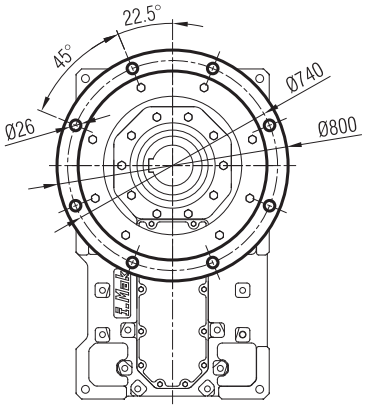
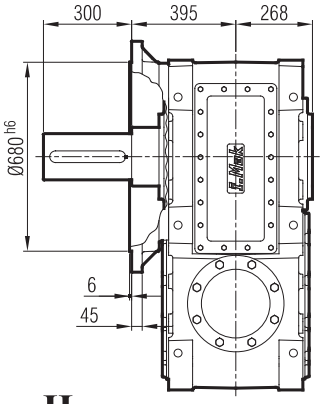


...-FD

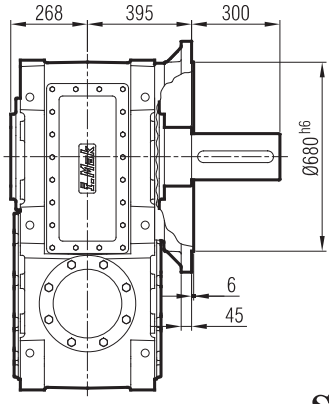




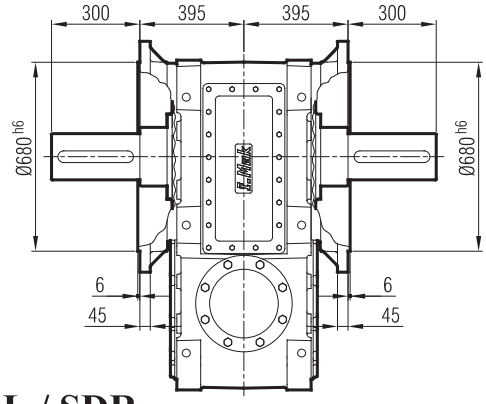
...-FL-SL



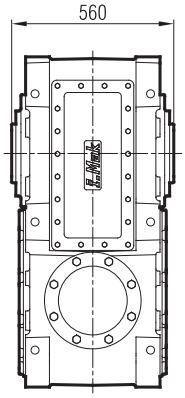
...-FR-SR

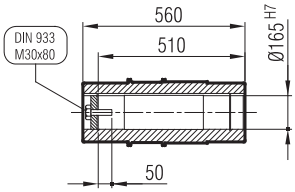


...-FD-SD



...-H





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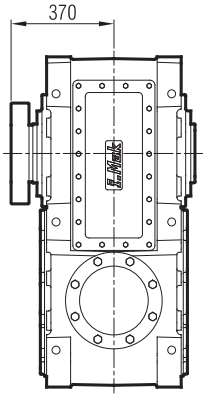
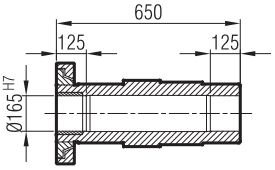
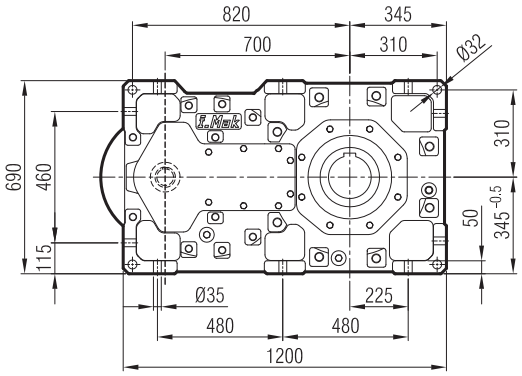
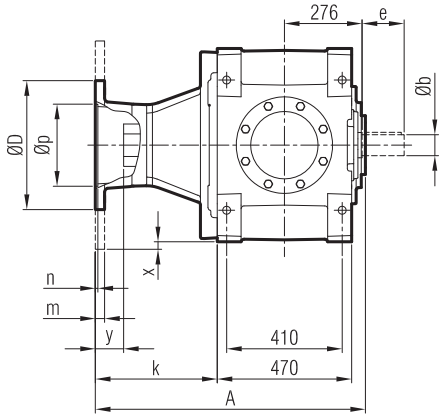
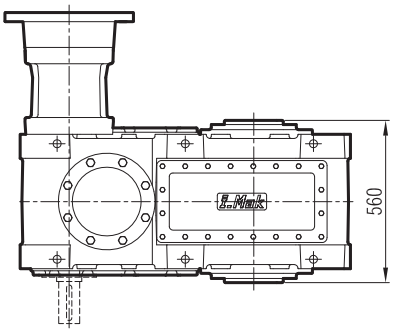


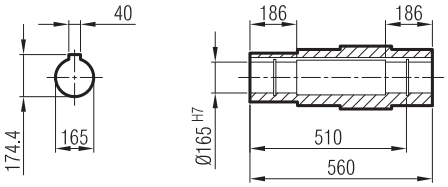


MAP 1103



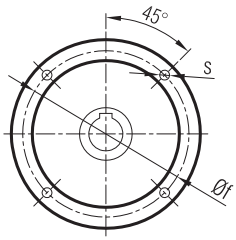






Tahvil / Ratio	Øb	e	z	c	h	M
I: 92,98...82,57	55	140	16	125	59	20
i: 73,82...20,27	70	140	20	125	74.5	20

≤ 200 B5 **Tip**/Type/*Typ*



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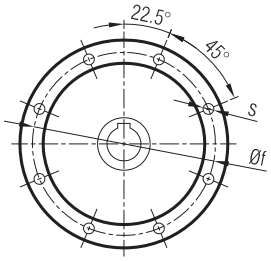
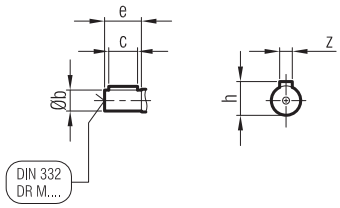
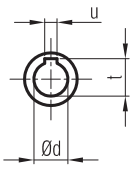
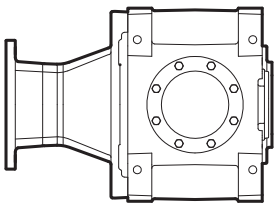




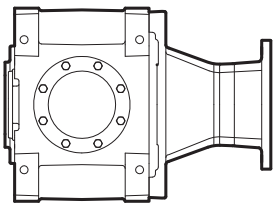


	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x	y (i:≥82,57)	y (i:≤73,82)
200/B5	816	300	350	400	M16	301	22	6	55	59.3	16	-	43	14
225/B5	859	350	400	450	M16	344	22	6	60	64.4	18	-	74	57
250/B5	859	450	500	550	M16	344	25	6.5	65	69.4	18	-	74	54
280/B5	859	450	500	550	M16	344	25	6.5	75	75.9	20	-	64	45
315/B5	889	550	600	660	M24	374	30	7	85	90.4	22	-	75	75

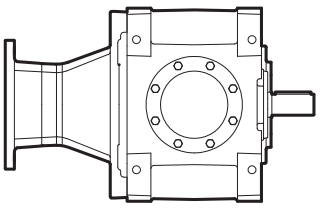
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



G04



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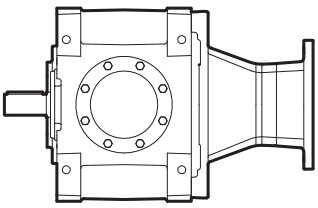
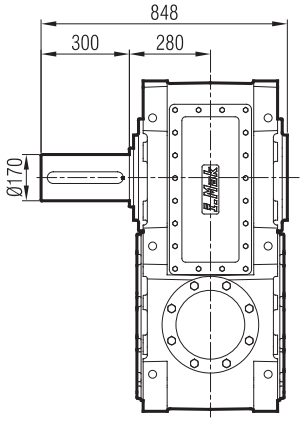
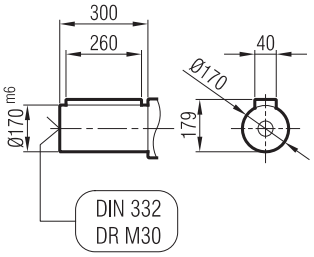


G06

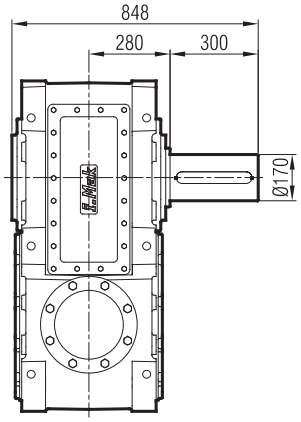
MA / MK 110_

...-SL





...-SR



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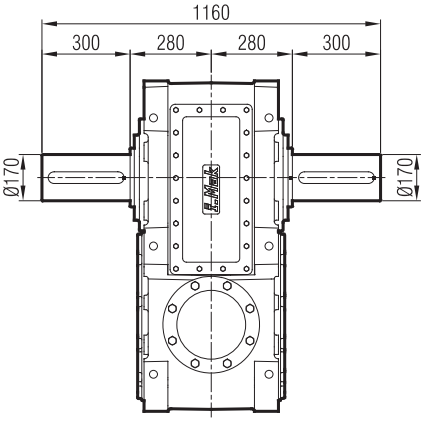

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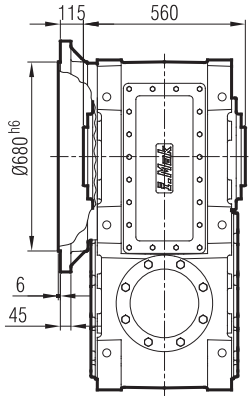

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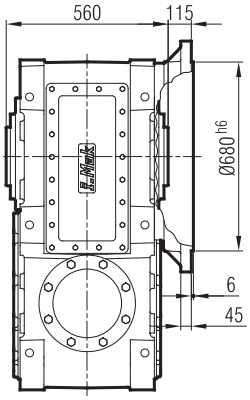
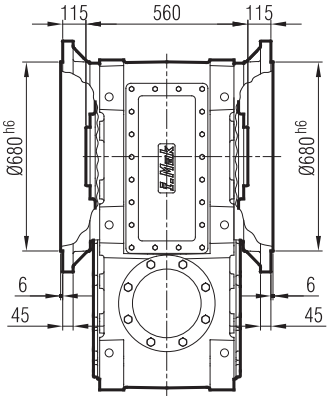
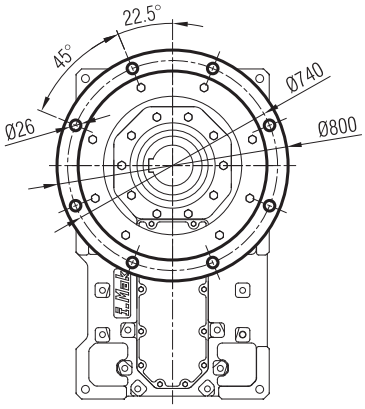
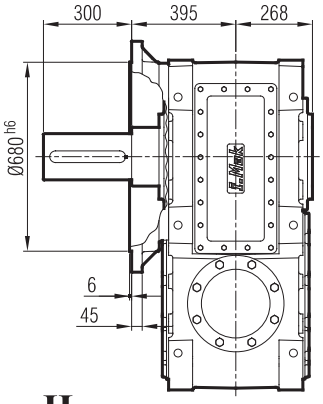


...-FD





...-FL-SL



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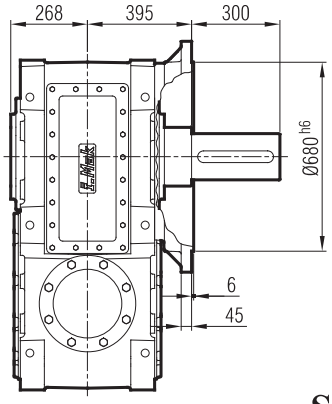

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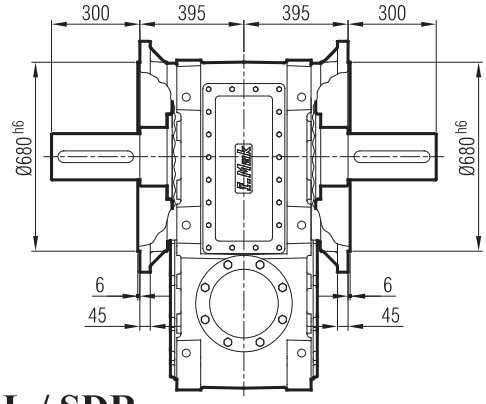

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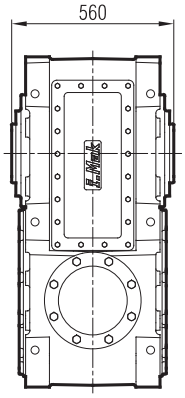
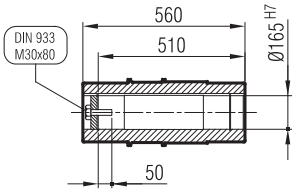
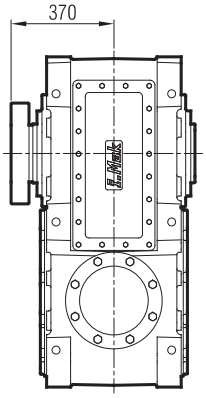
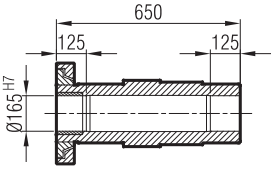


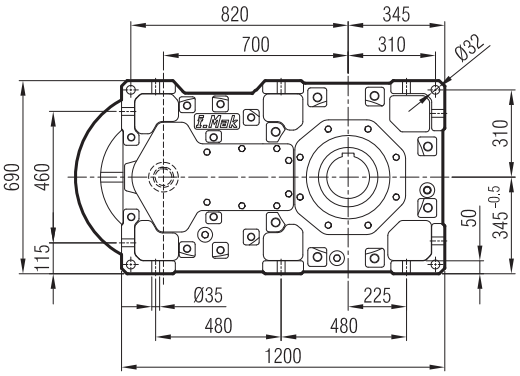


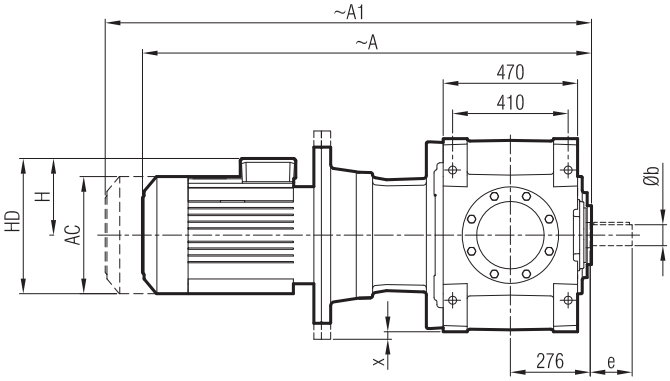
...-SDL / SDR

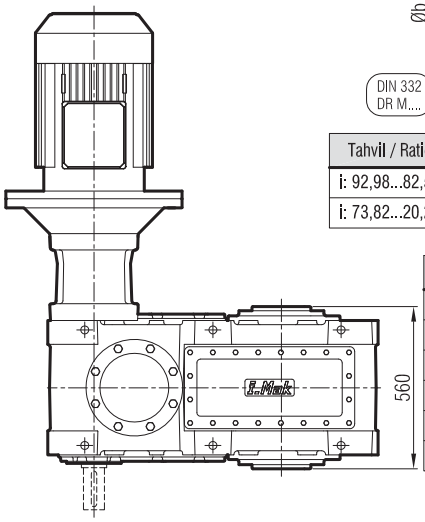


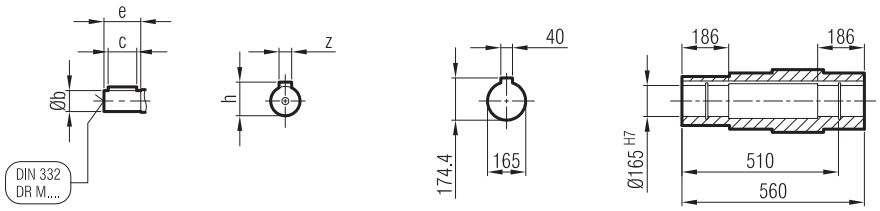


MAM 1103







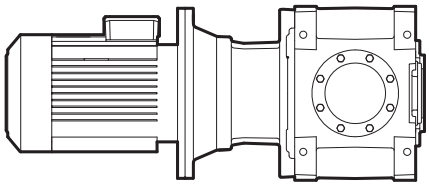


Tahvil / Ratio	Øb	e	z	c	h	M
i: 92,98...82,57	55	140	16	125	59	20
i: 73,82...20,27	70	140	20	125	74.5	20

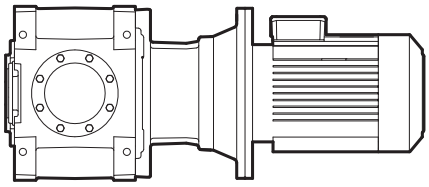
	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	315 S/B5	315 M/B5	315 M/B5	315 L/B5	315 H/B5
A	1525	1544	1604	1654	1744	1744	1925	1925	2036	2036	2036
A1	1672	1691	1751	1801	1992	1992	2173	2173	2294	2294	2294
H	300	313	313	366	398	398	518	518	518	518	518
HD	500	538	538	616	678	678	833	833	833	833	833
AC	394	456	456	489	547.5	547.5	652	652	652	652	652
x	-	-	-	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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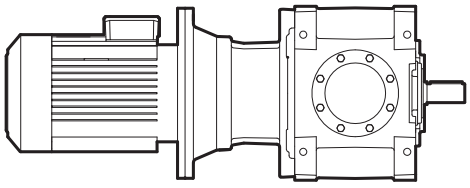
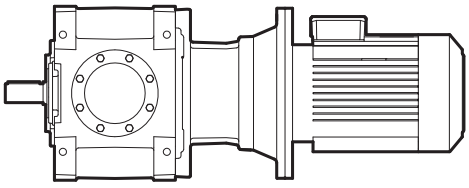


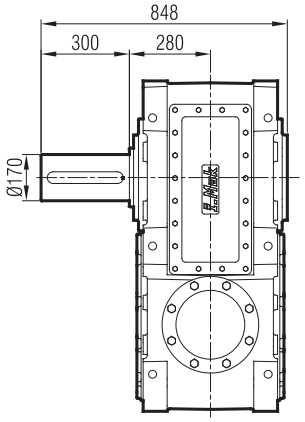
G05

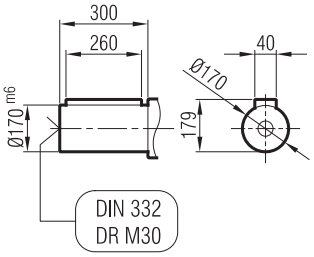


G06

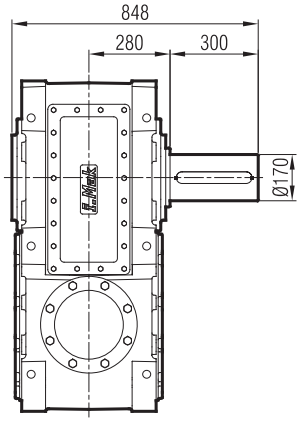
MA / MK 110_

...-SL





...-SR



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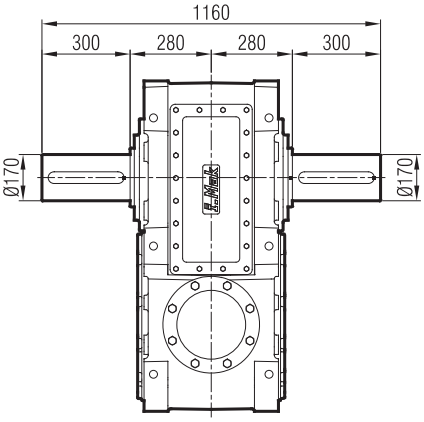
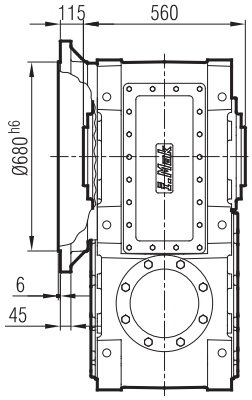


...-FL



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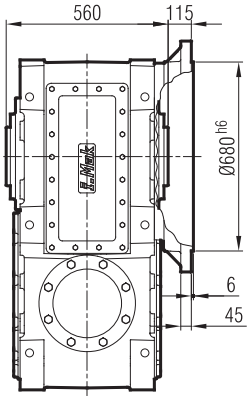
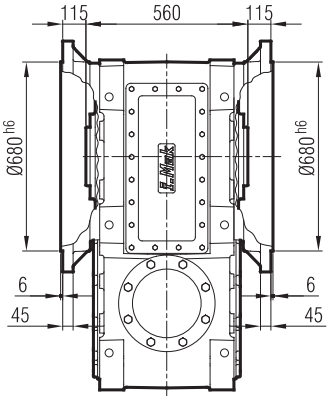
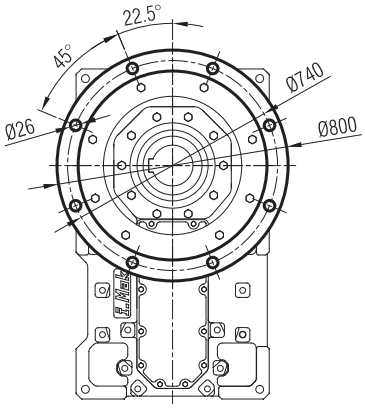
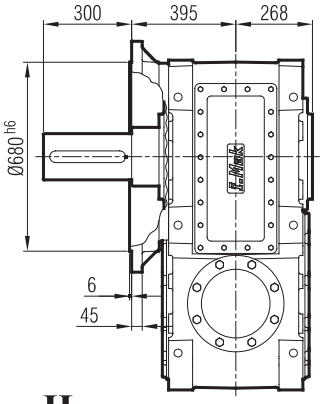


...-FD





...-FL-SL



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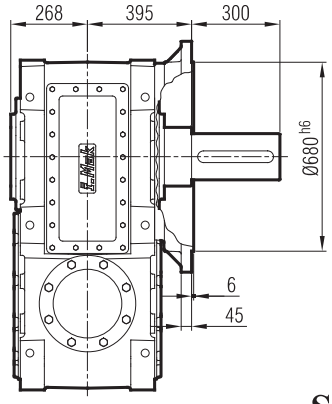
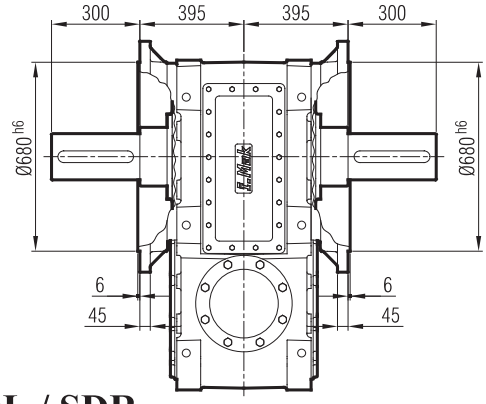


...-FD-SD



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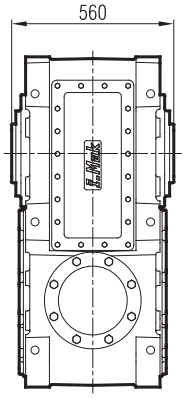

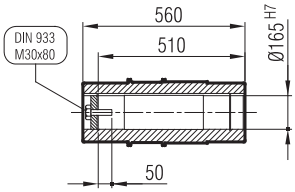

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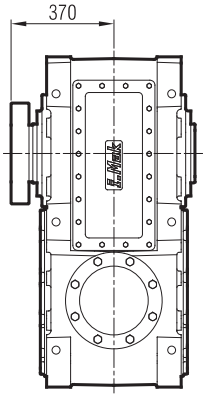
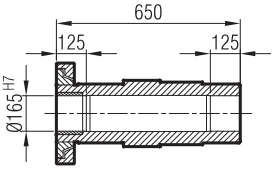
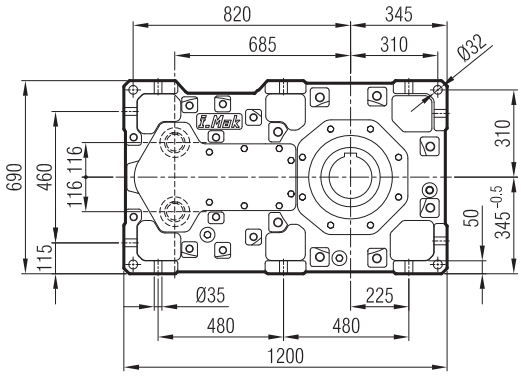
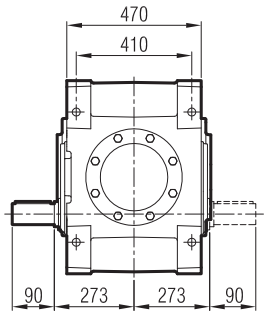
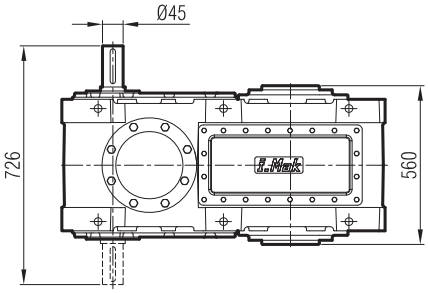


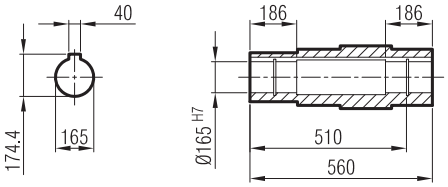


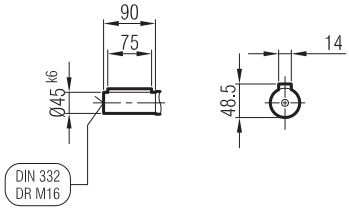
MA 1104



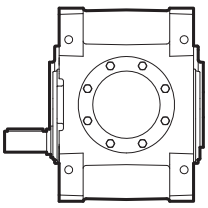








Giriş Seçenekleri / Input Options / *Option d'entree*



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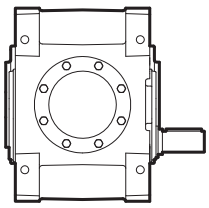

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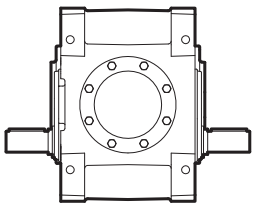

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MA / MK 110_

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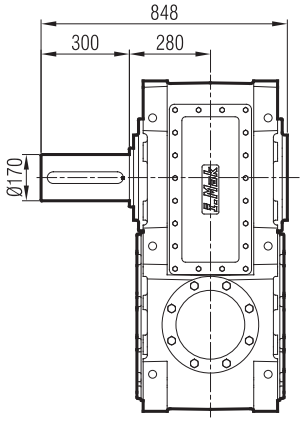

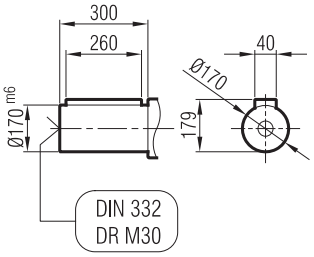

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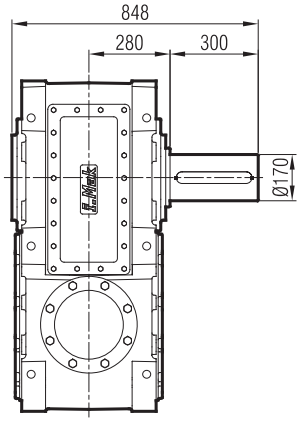

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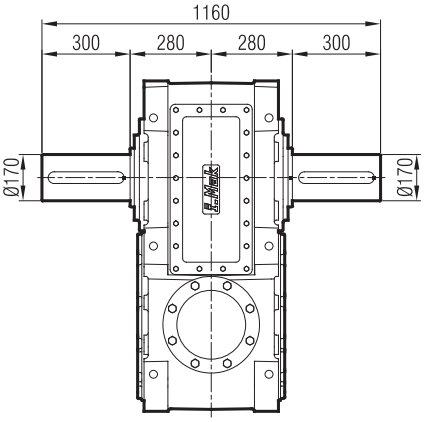

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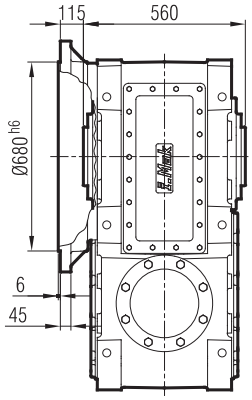

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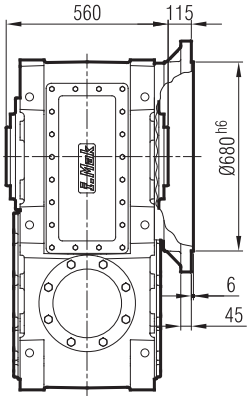

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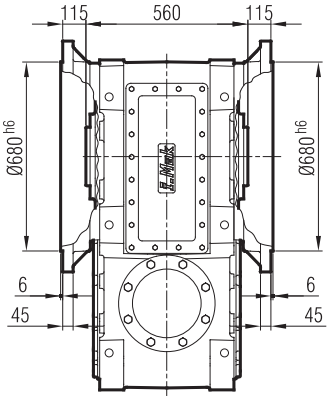

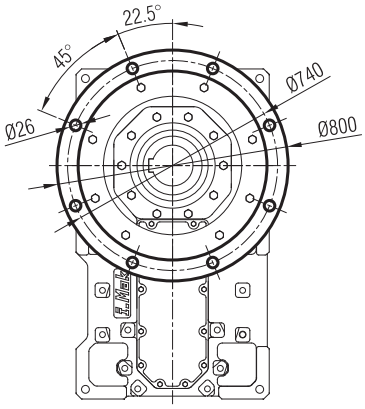

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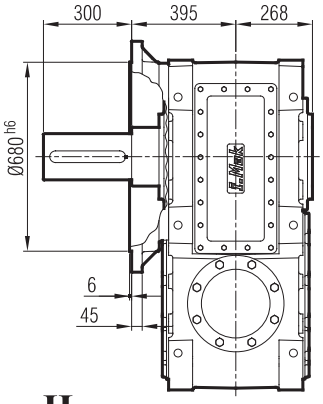

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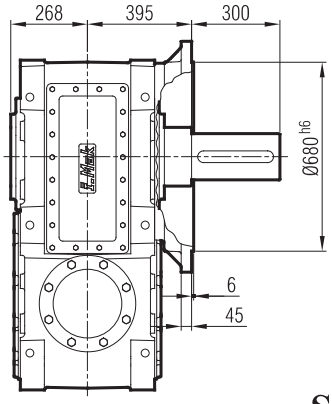

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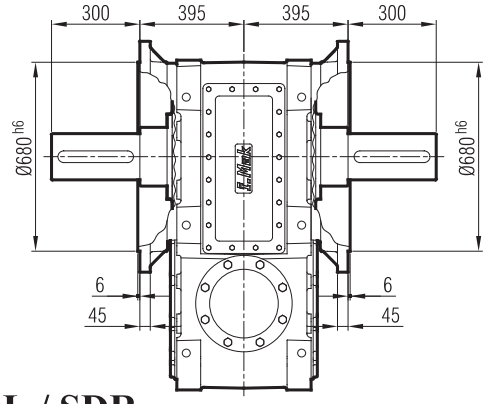

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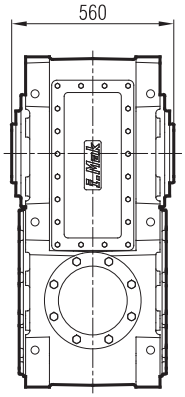

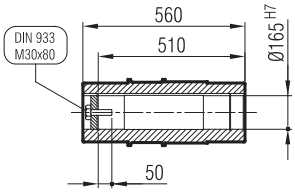

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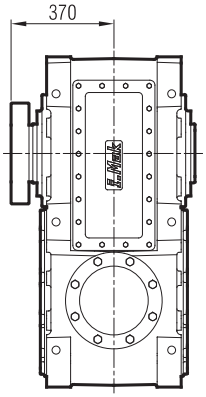
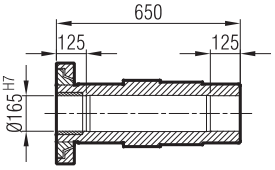
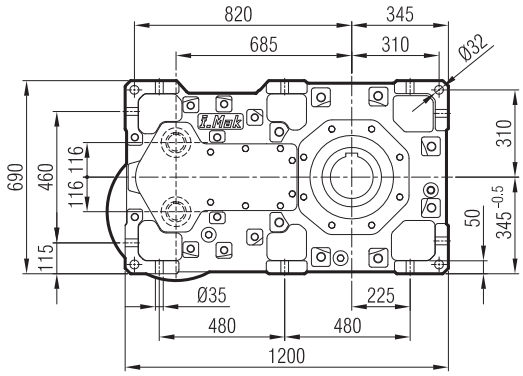
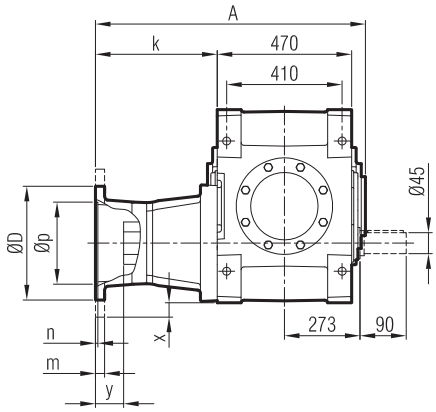
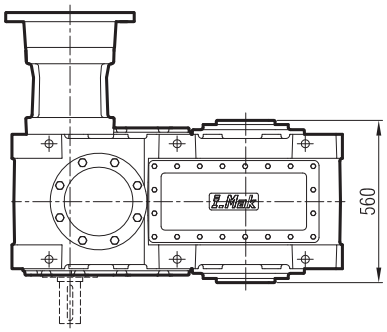


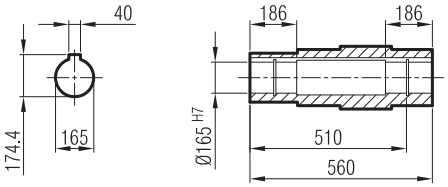


MAP 1104









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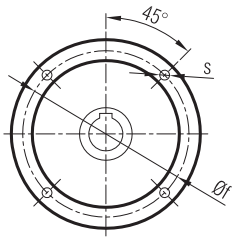

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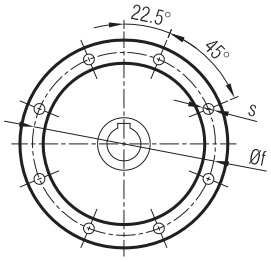

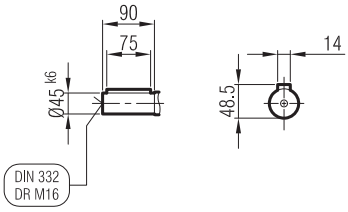

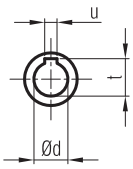

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200/B5	758	300	350	400	M16	243	22	6	55	59.3	16	-	48
225/B5	801	350	400	450	M16	286	22	6	60	64.4	18	-	80
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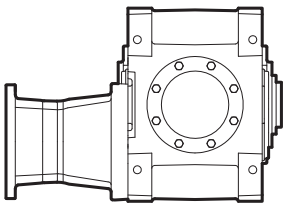
Giriş Seçenekleri / Input Options / *Option d'entree*



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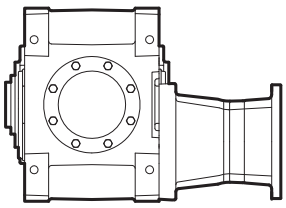

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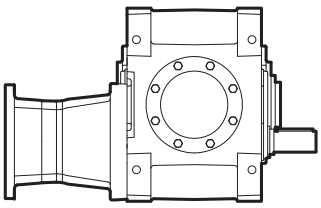

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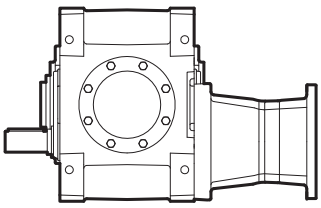
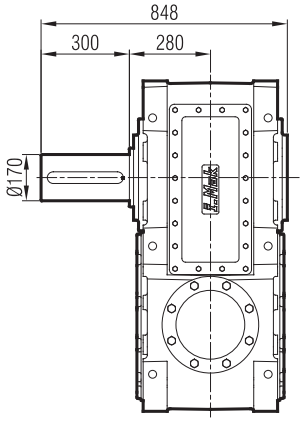
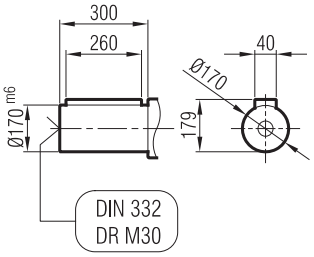


G06

MA / MK 110_

...-SL





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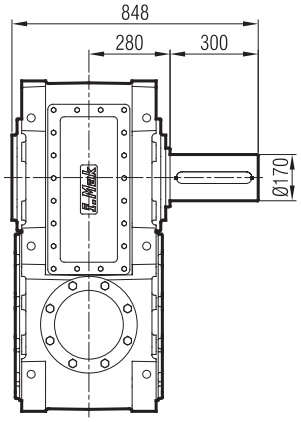

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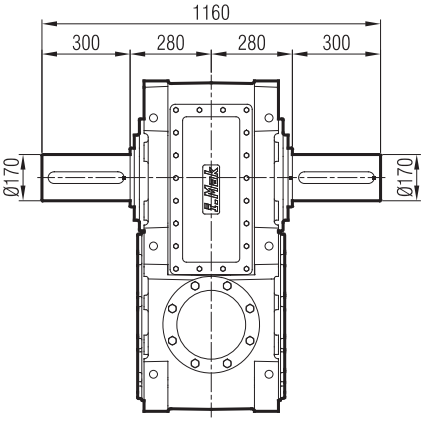

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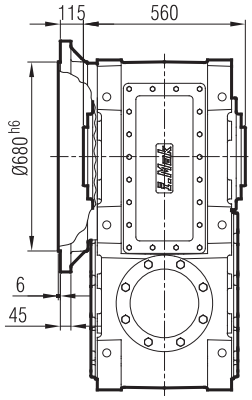

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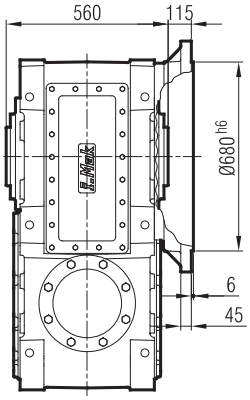

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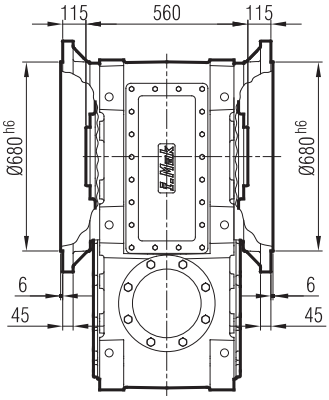

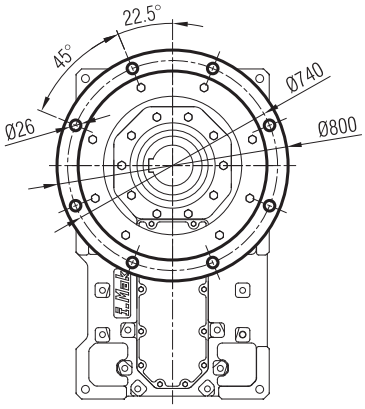

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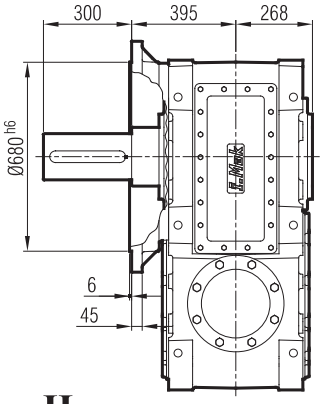

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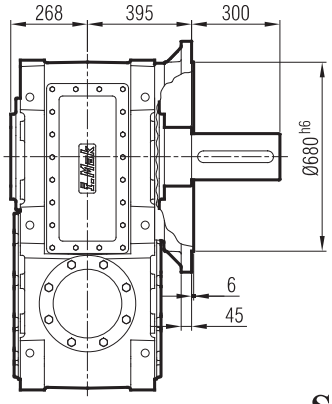

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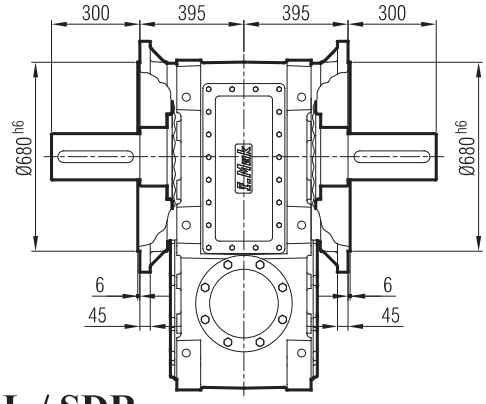

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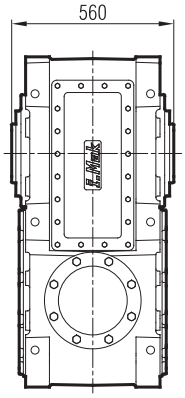

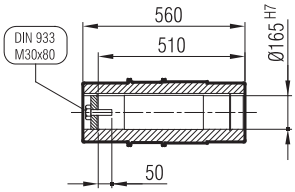

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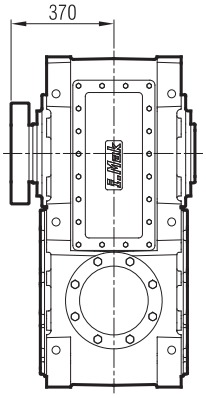
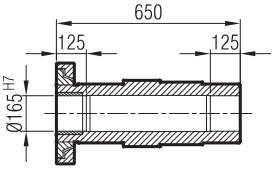
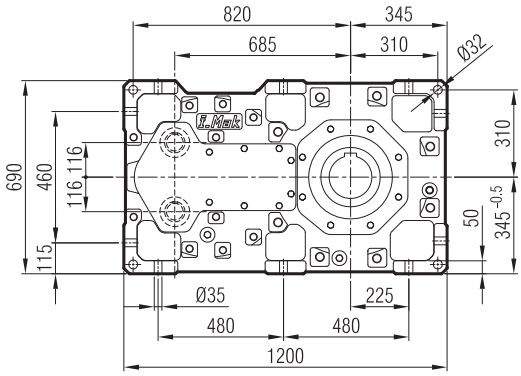
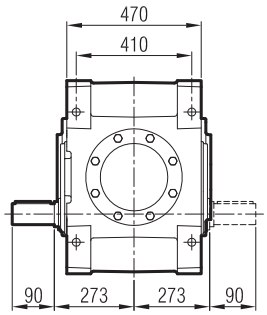
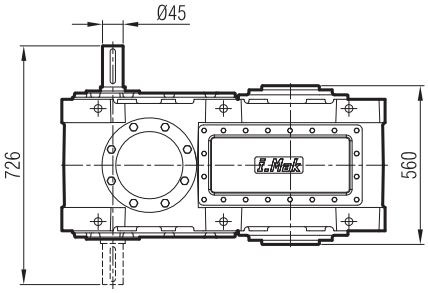


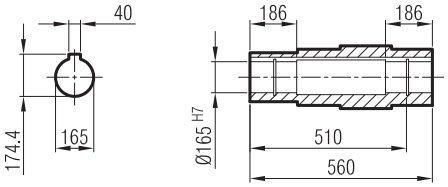


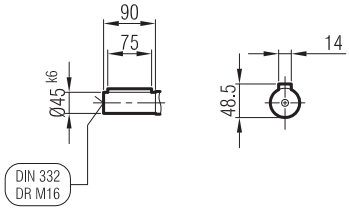
MA 1104



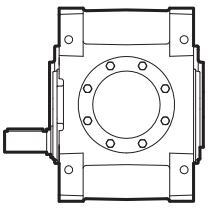








Giriş Seçenekleri / Input Options / *Option d'entree*



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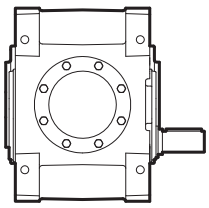

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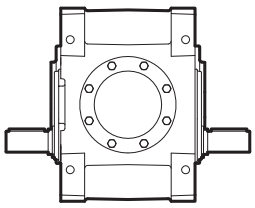
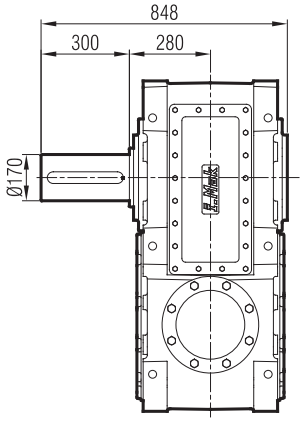
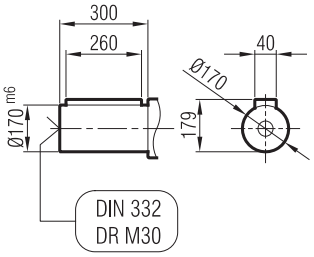


G02

MA / MK 110_

...-SL





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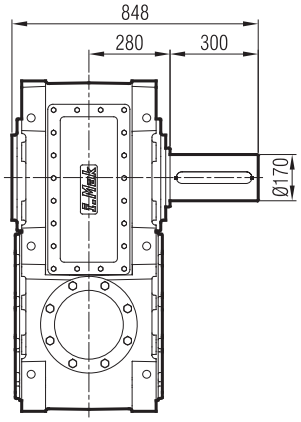

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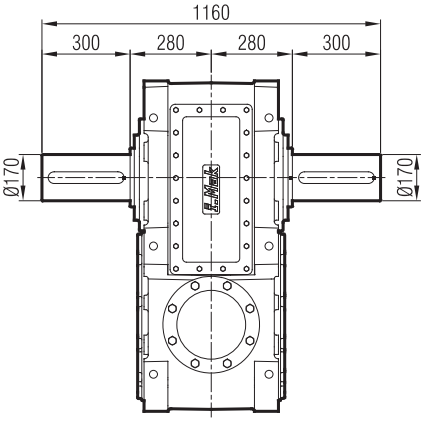

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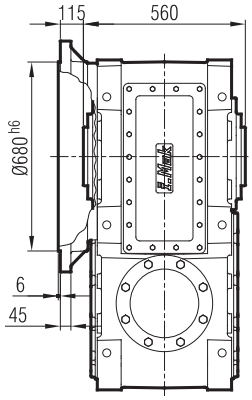

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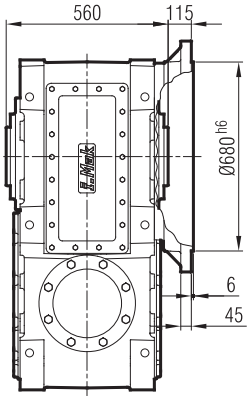

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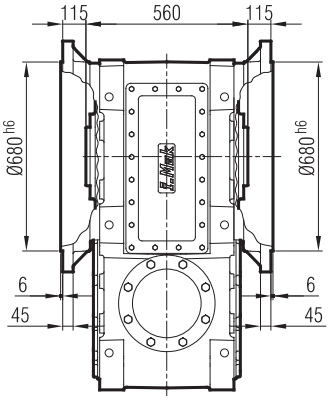

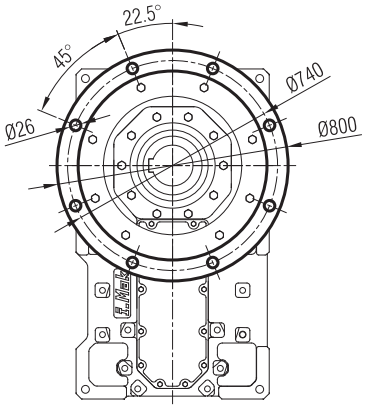

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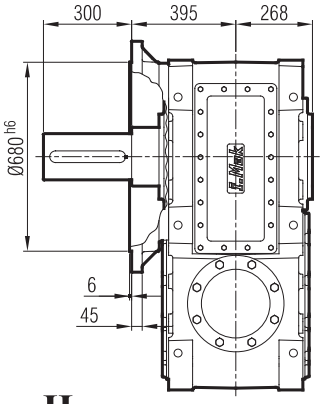

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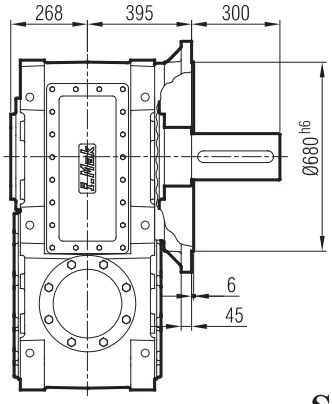

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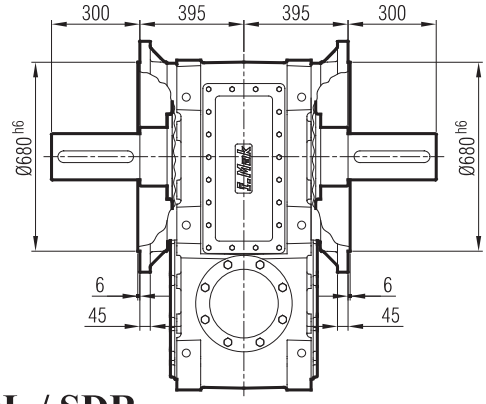

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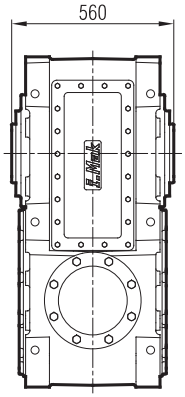

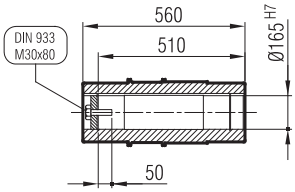

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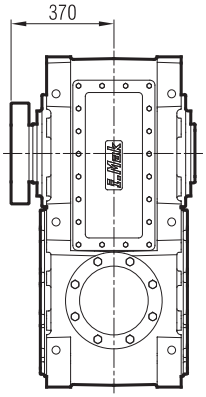
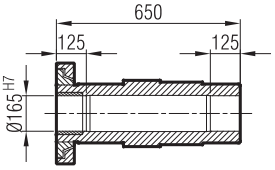
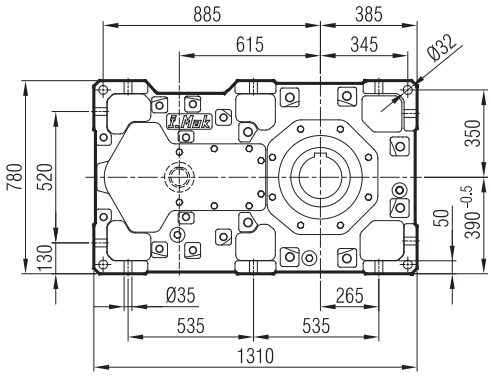
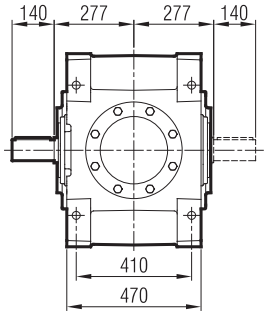
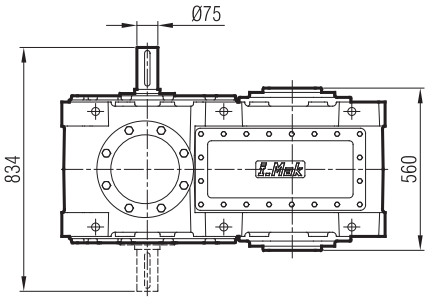


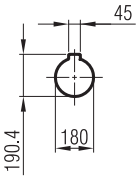


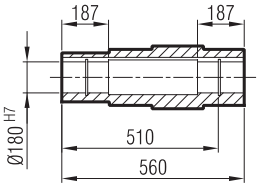
MA 1202

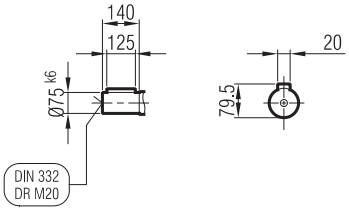




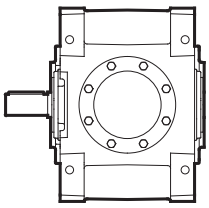








Giriş Seçenekleri / Input Options / *Option d'entree*



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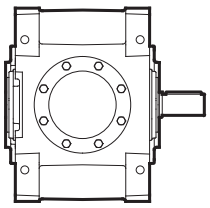

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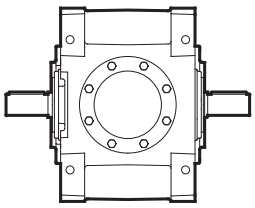
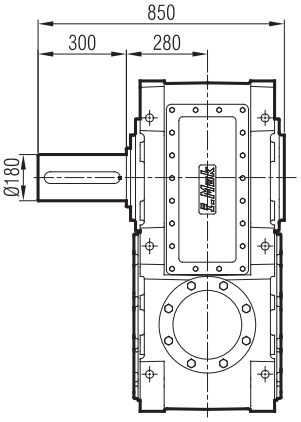
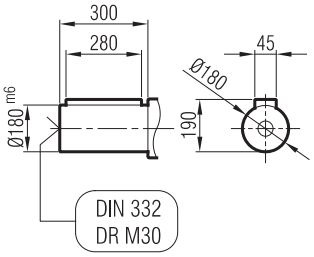


G02

MA / MK 120_

...-SL





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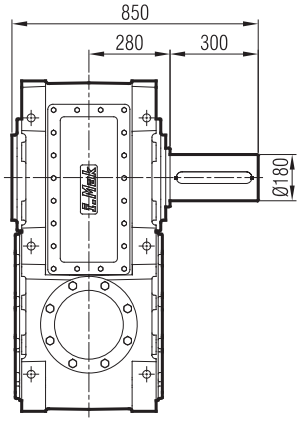

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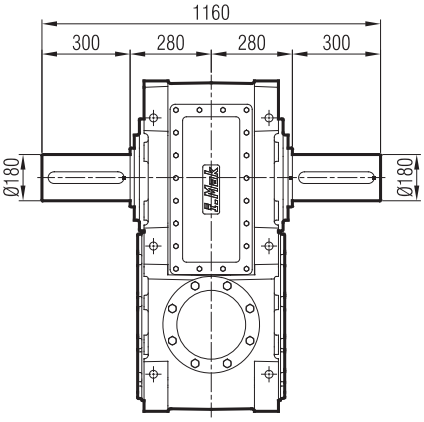

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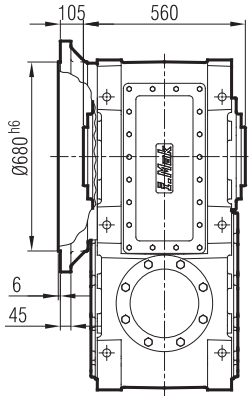

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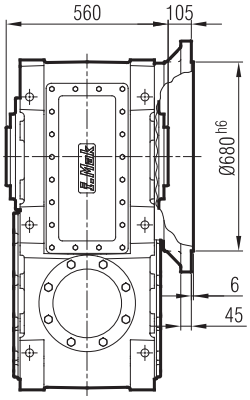

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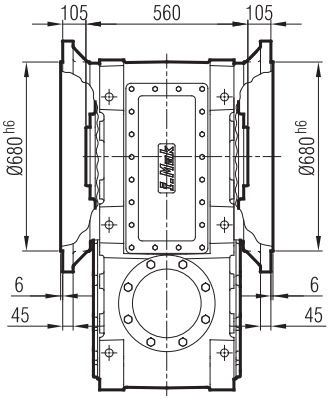

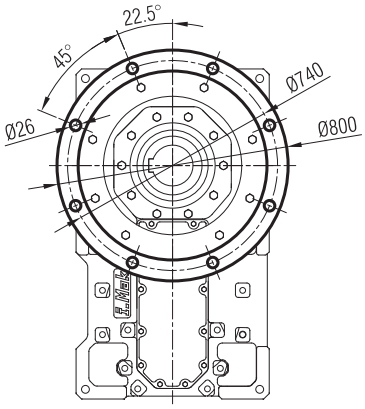

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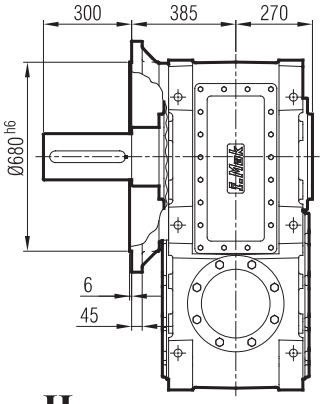

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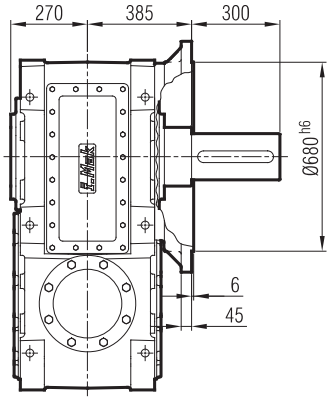
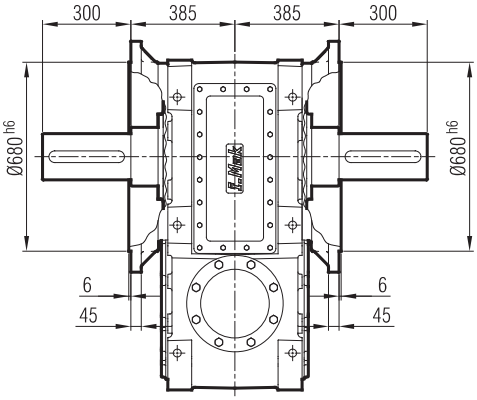


...-FD-SD



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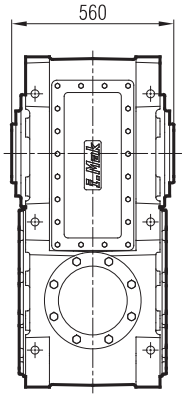
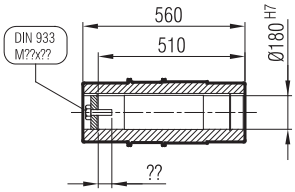
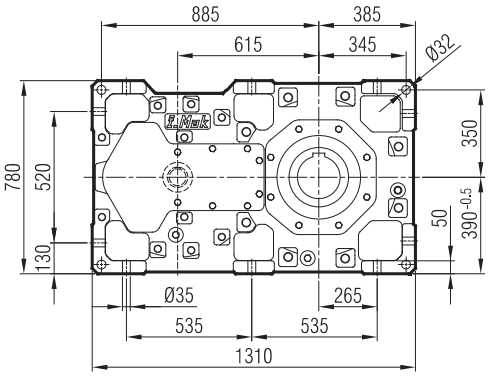
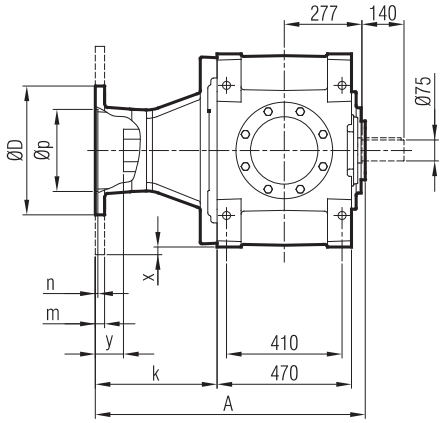
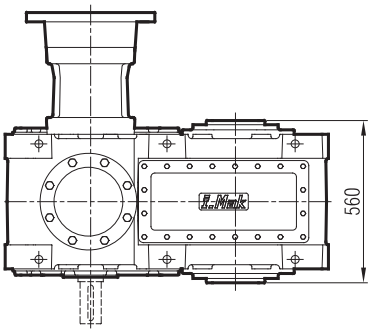


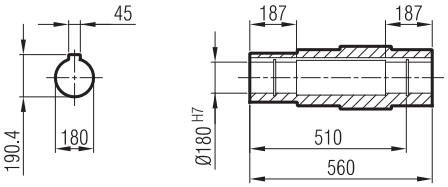


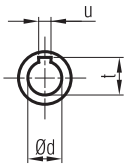
MAP 1202

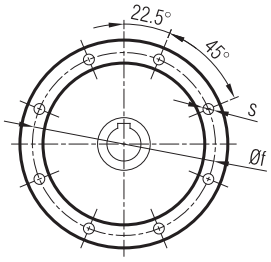


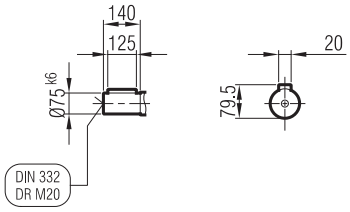












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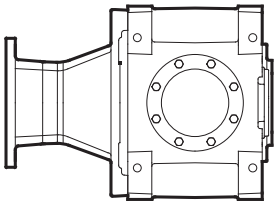
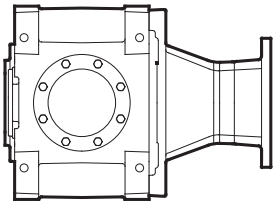
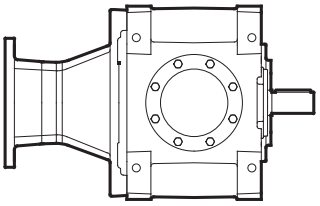
Giriş Seçenekleri / Input Options / *Option d'entree*



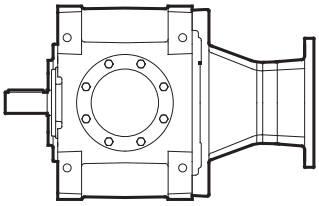
G03



G04



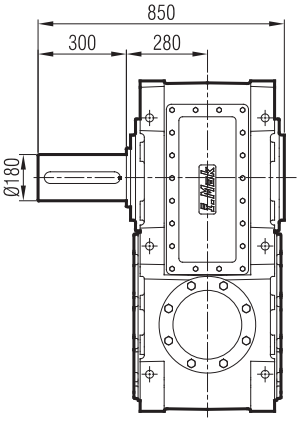
G05

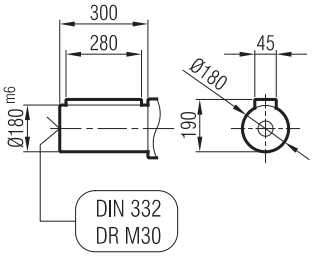


G06

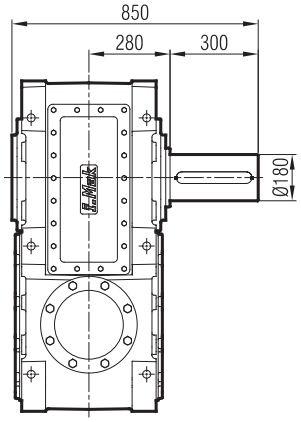
MA / MK 120_

...-SL

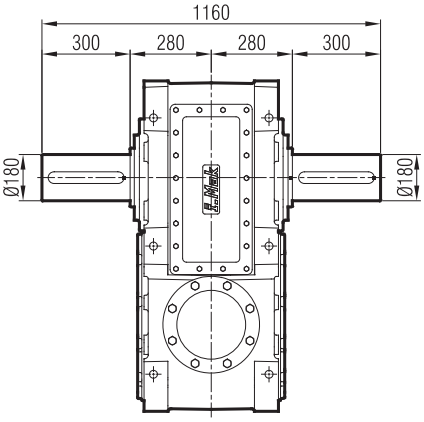




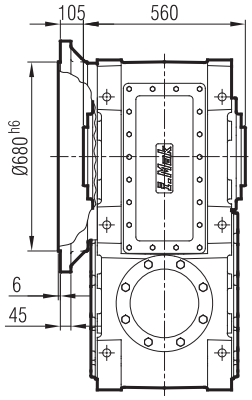
...-SR



...-SD



...-FL



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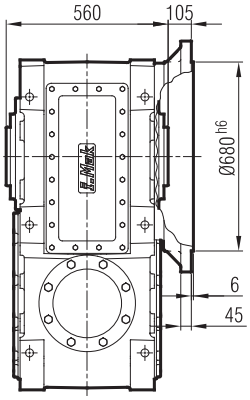

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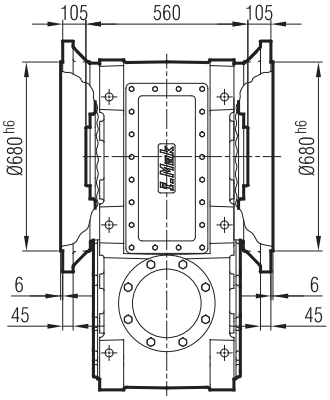
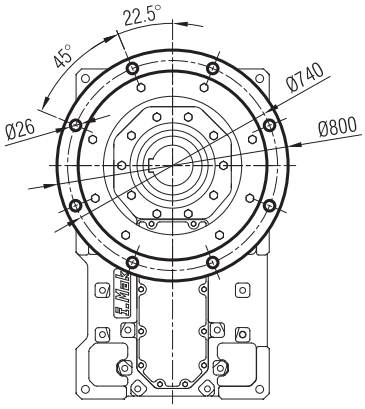
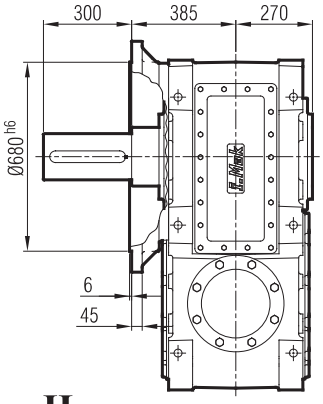




...-FL-SL



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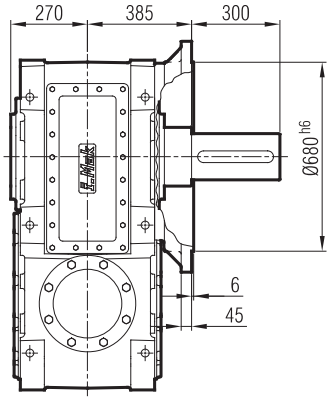
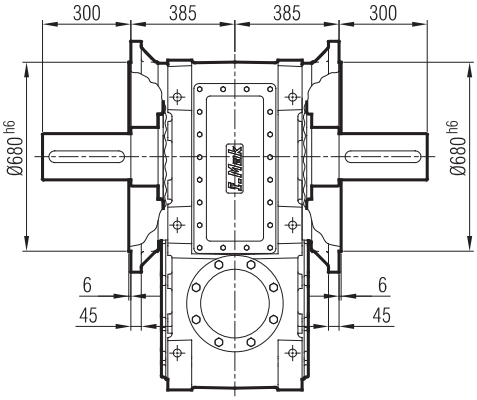
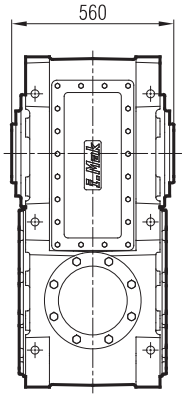
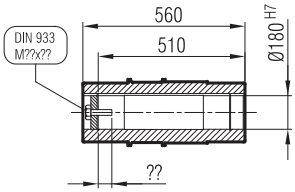


...-FD-SD

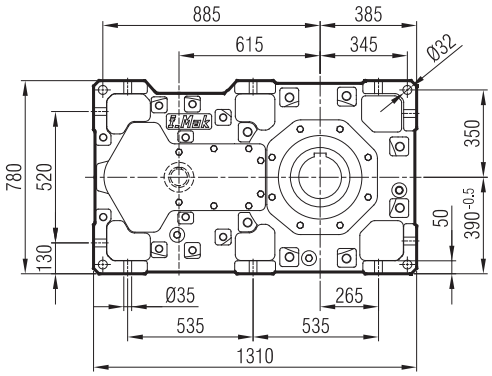


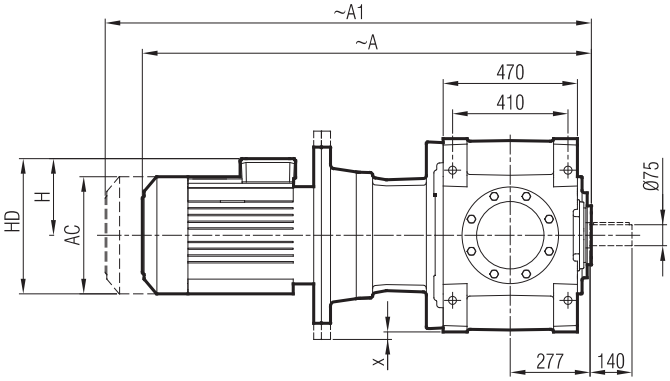
...-H

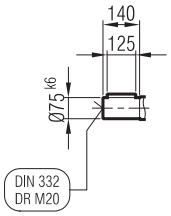


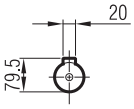


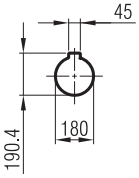
MAM 1202

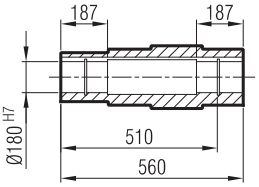


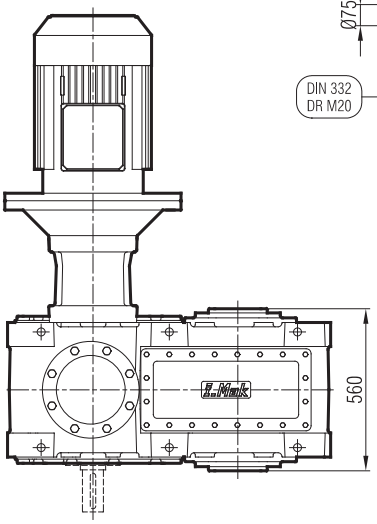








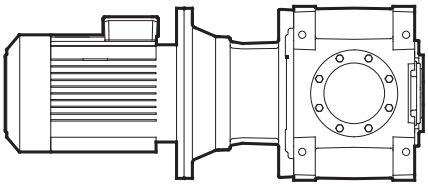




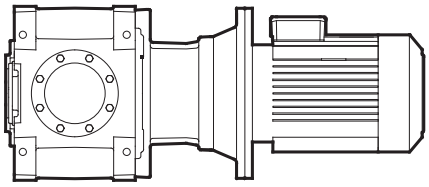
	280 M/B5	315 S/B5	315 M/B5	315 M/B5	315 L/B5	315 L/B5
A	1736	1917	1917	2028	2028	2041
A1	1984	2165	2165	2286	2286	2299
H	366	518	518	518	518	518
HD	616	833	833	833	833	833
AC	489	652	652	652	652	652
x	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

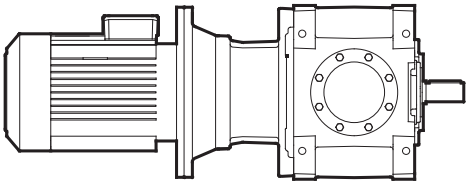
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



G04



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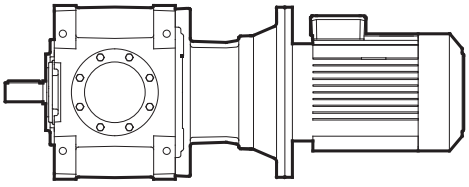
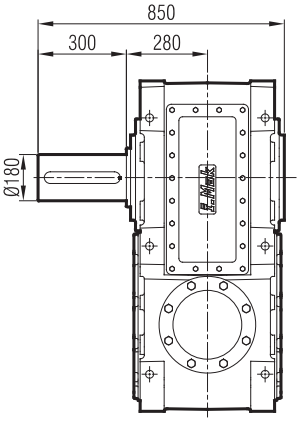
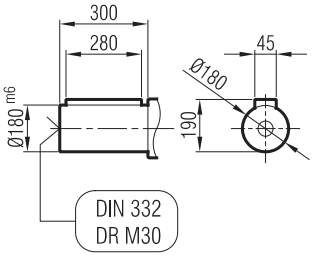


G06

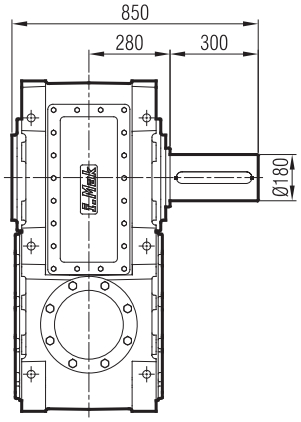
MA / MK 120_

...-SL

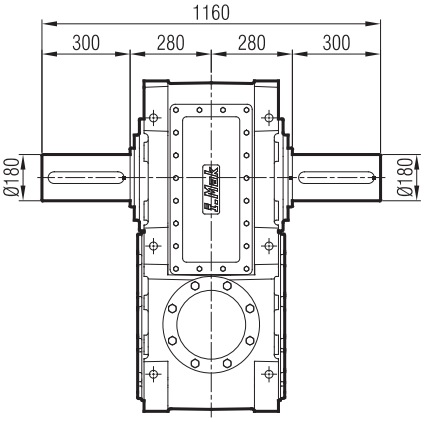




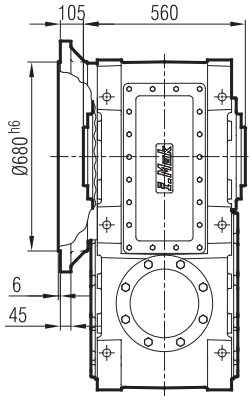
...-SR



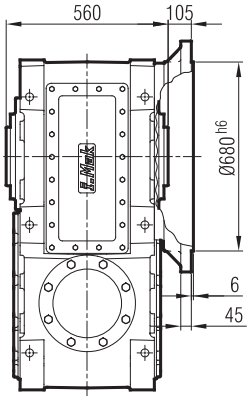
...-SD



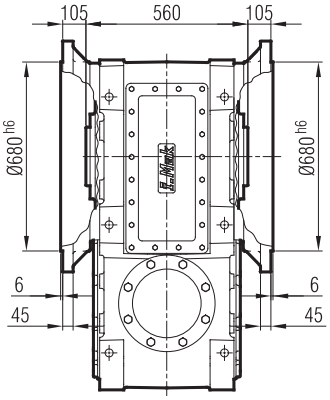
...-FL

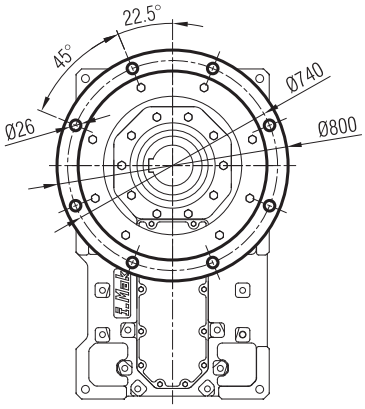


...-FR

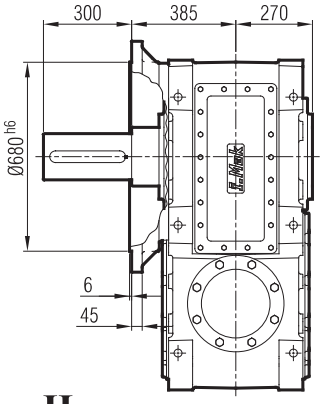


...-FD

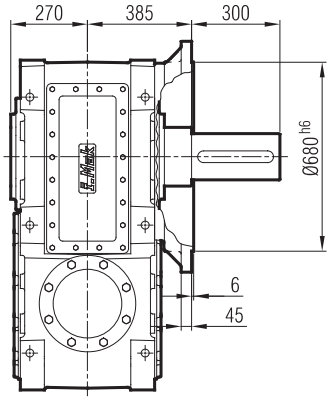




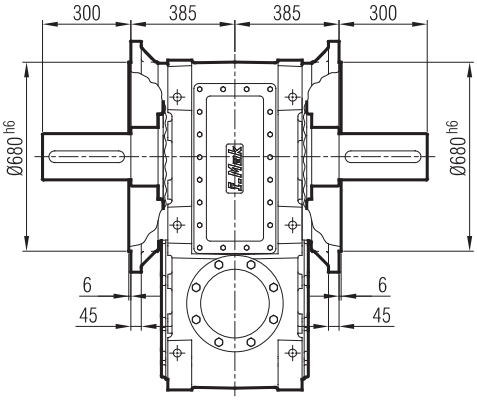
...-FL-SL



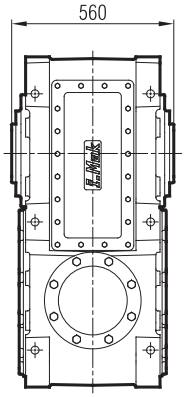
...-FR-SR

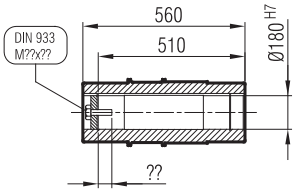


...-FD-SD

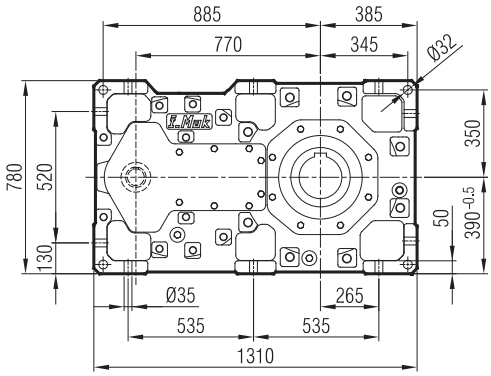


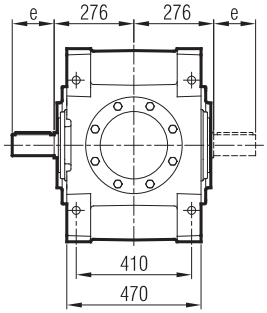
...-H

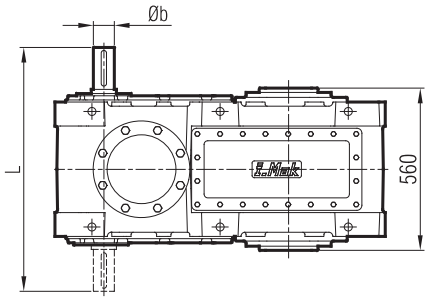


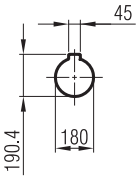


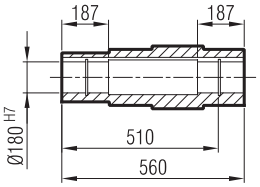
MA 1203



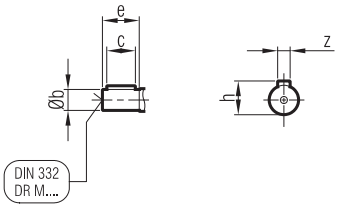




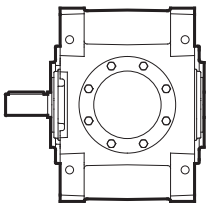




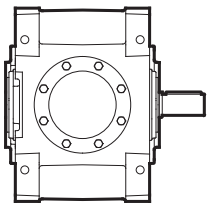
Tahvil / Ratio	Øb	e	z	c	h	M	L
i: 99,89...72,42	55	140	16	125	59	20	832
i: 64,75...32,59	70	140	20	125	74.5	20	832



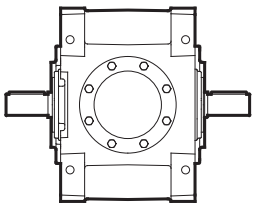
Giriş Seçenekleri / Input Options / *Option d'entree*



G00



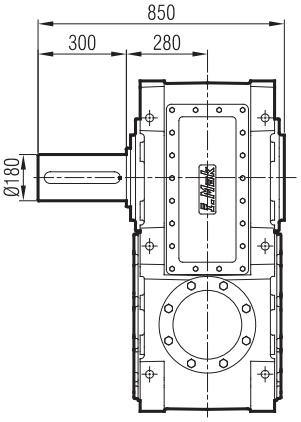
G01

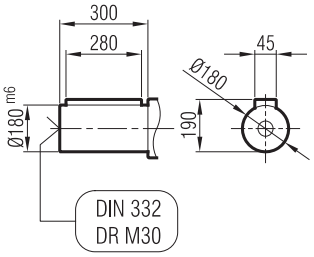


G02

MA / MK 120_

...-SL





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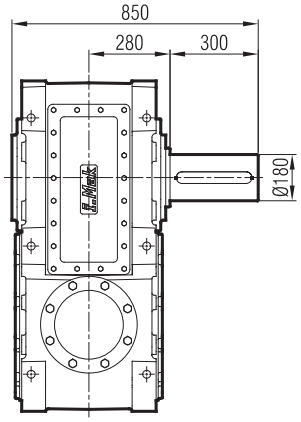
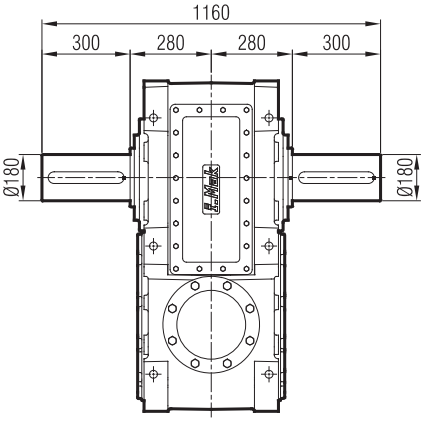
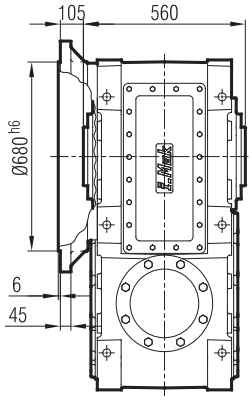


...-SD



...-FL



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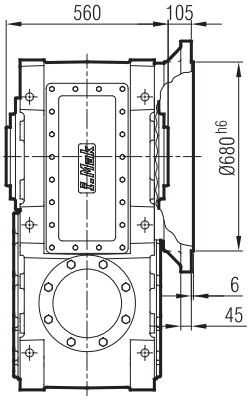

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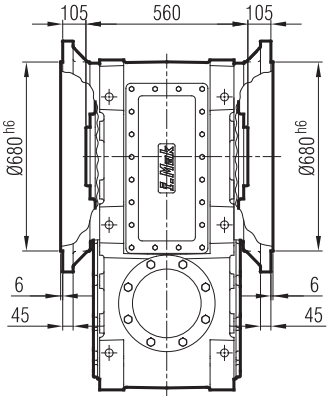

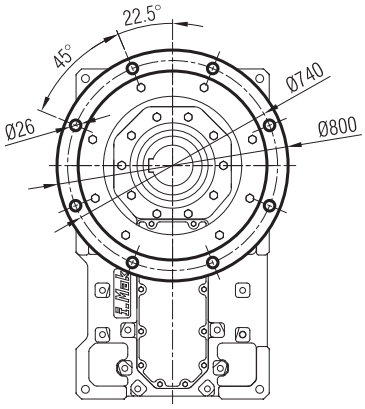

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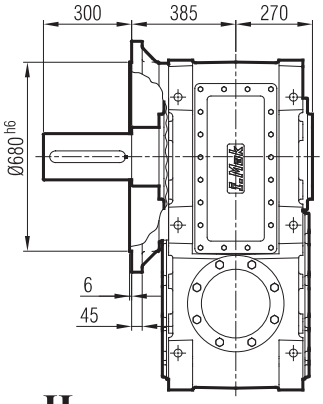

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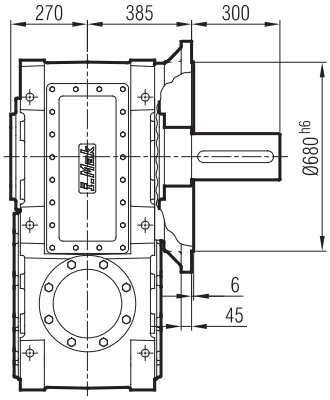

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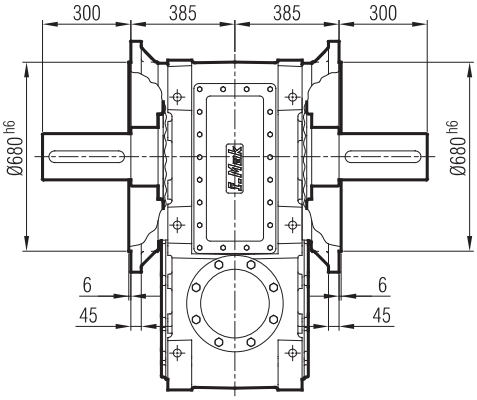

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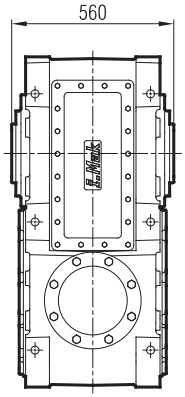
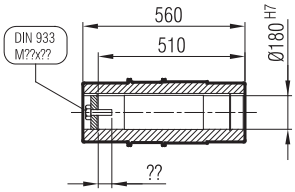
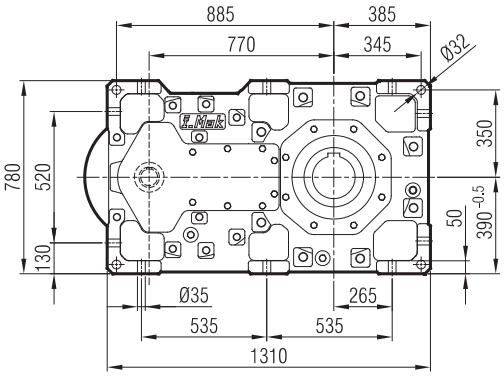
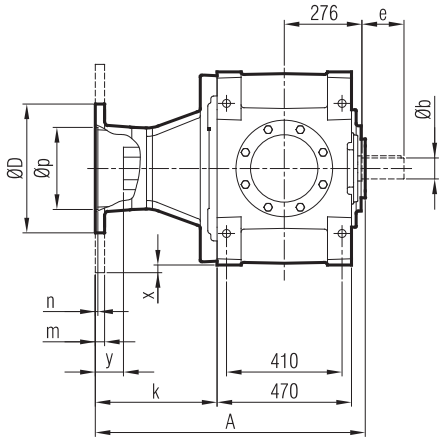
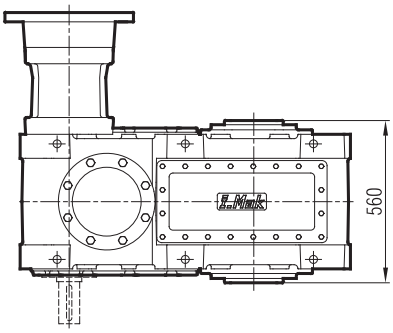


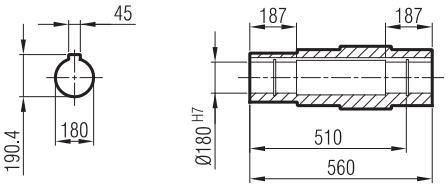


MAP 1203



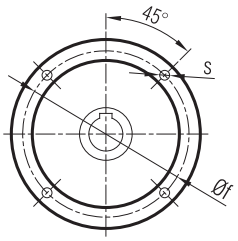






Tahvil / Ratio	Øb	e	z	c	h	M
i: 99,89...72,42	55	140	16	125	59	20
i: 64,75...32,59	70	140	20	125	74.5	20

≤ 200 B5 **Tip**/Type/*Typ*



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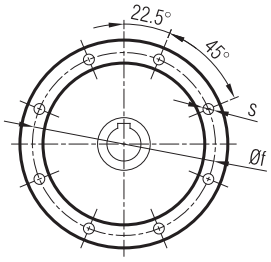

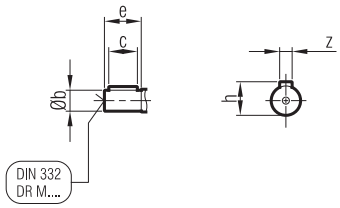

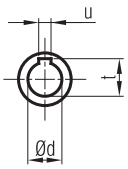

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225/B5	859	350	400	450	M16	344	22	6	60	64.4	18	-	74	57
250/B5	859	450	500	550	M16	344	25	6.5	65	69.4	18	-	74	54
280/B5	859	450	500	550	M16	344	25	6.5	75	75.9	20	-	64	45
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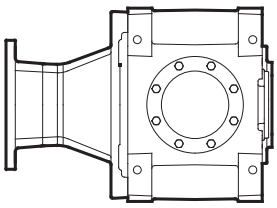
Giriş Seçenekleri / Input Options / *Option d'entree*



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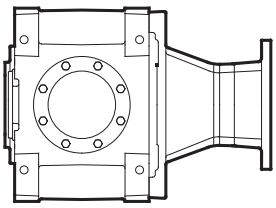

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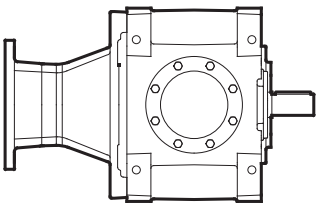

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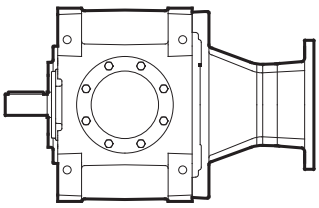
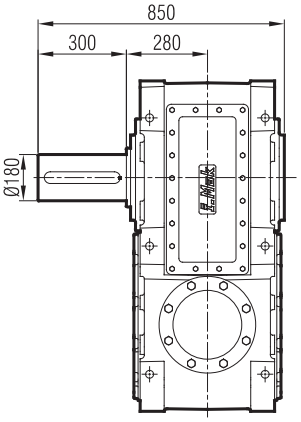
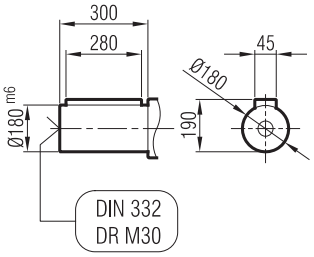


G06

MA / MK 120_

...-SL





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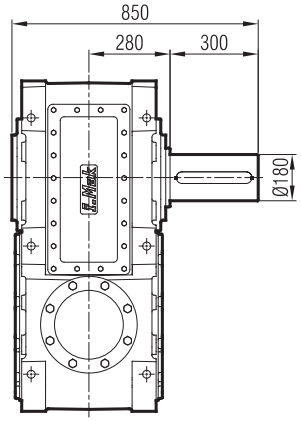

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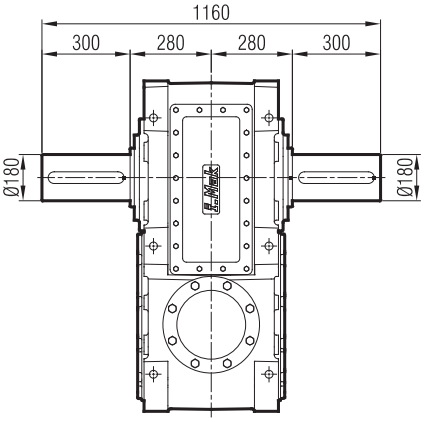

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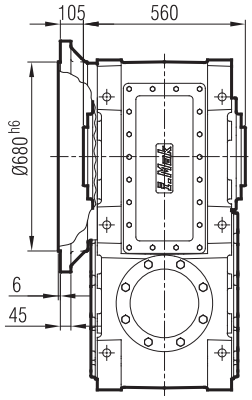

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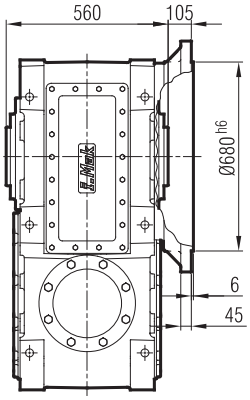
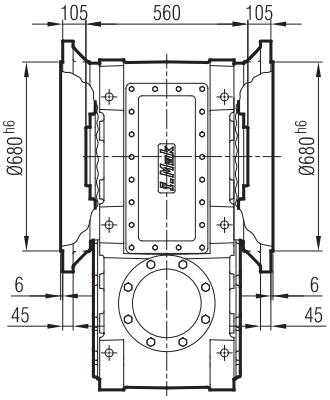
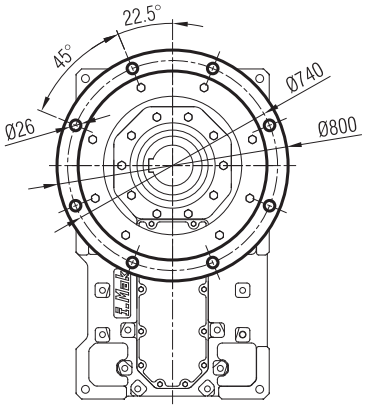
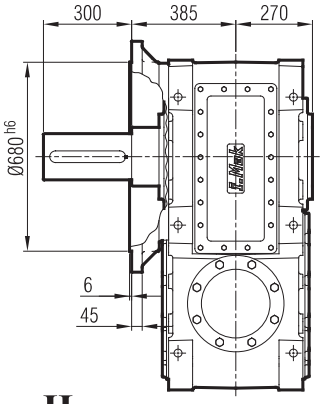


...-FD





...-FL-SL



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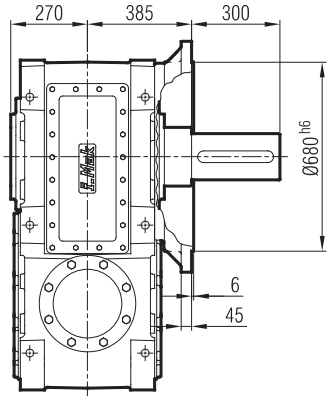
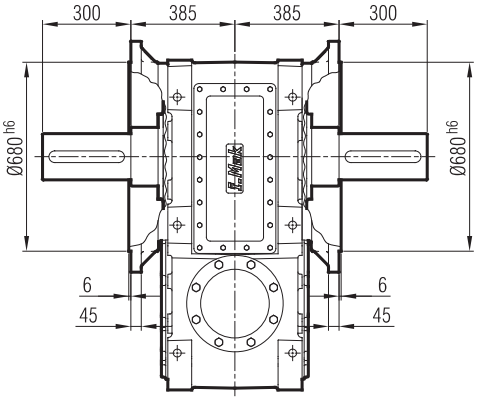


...-FD-SD



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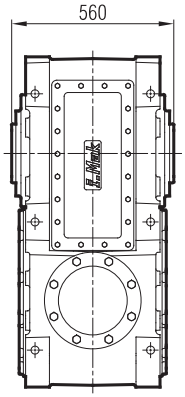
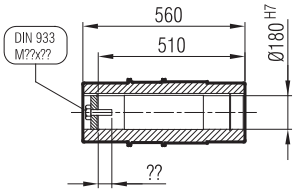
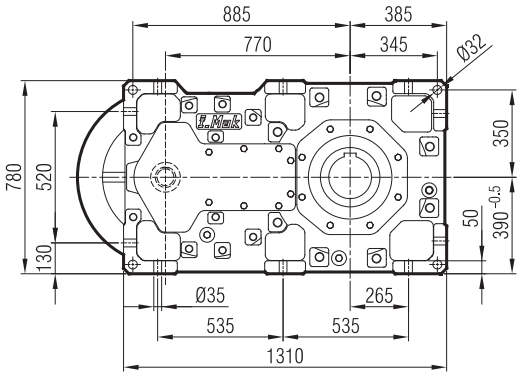
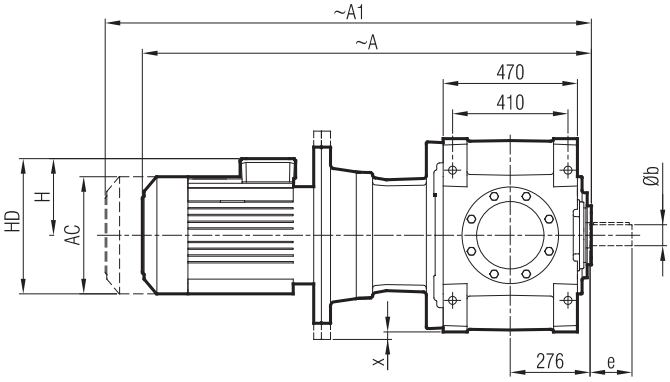
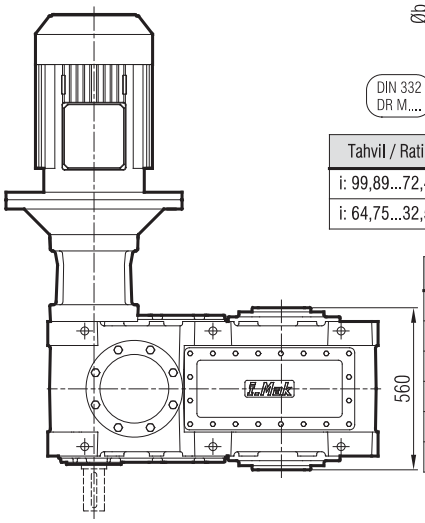


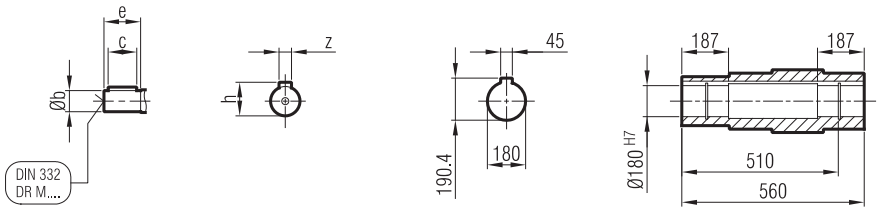


MAM 1203









Tahvil / Ratio	Øb	e	z	c	h	M
i: 99,89...72,42	55	140	16	125	59	20
i: 64,75...32,59	70	140	20	125	74.5	20

	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	315 S/B5	315 M/B5	315 M/B5	315 L/B5	315 L/B5
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A1	1672	1691	1751	1801	1992	1992	2173	2173	2294	2294	2307
H	300	313	313	366	398	398	518	518	518	518	518
HD	500	538	538	616	678	678	833	833	833	833	833
AC	394	456	456	489	547.5	547.5	652	652	652	652	652
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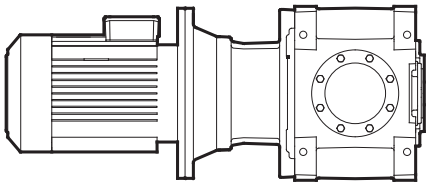
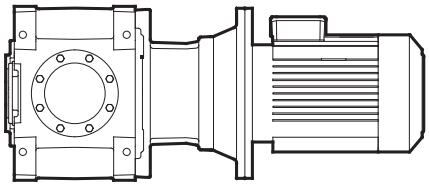
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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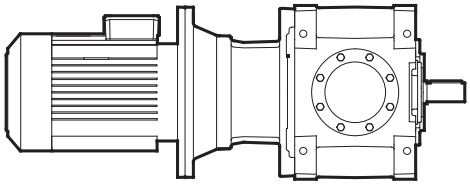

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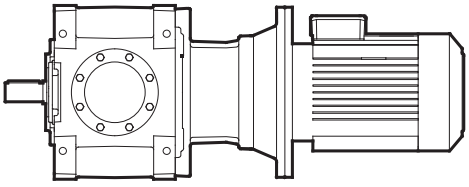
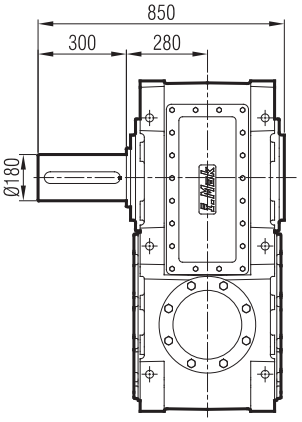
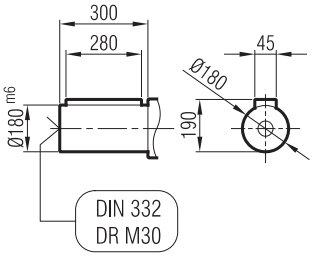


G06

MA / MK 120_

...-SL





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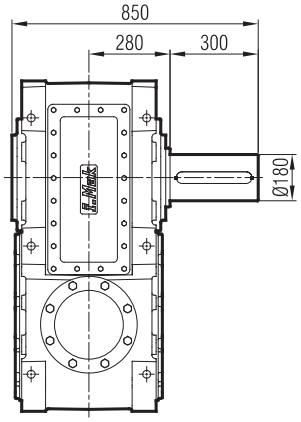

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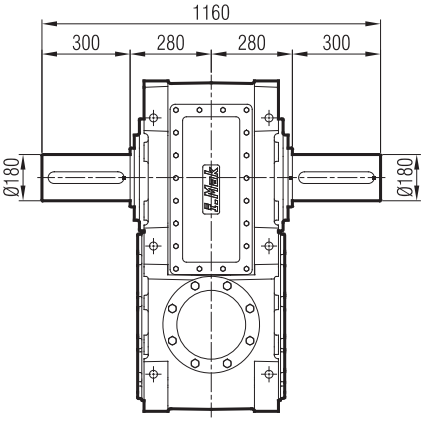

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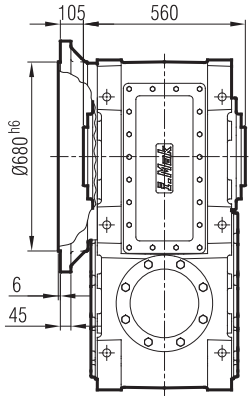

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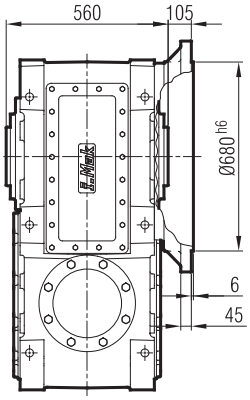

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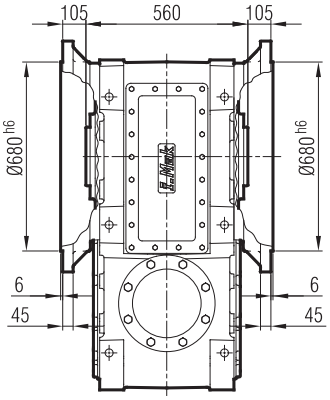

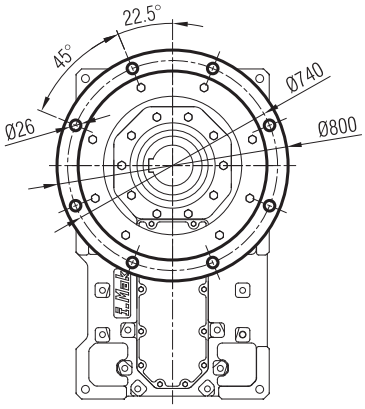

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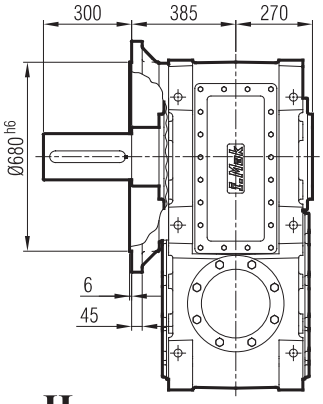

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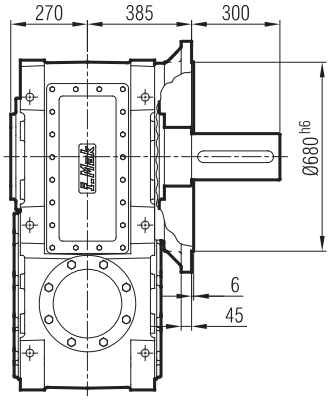

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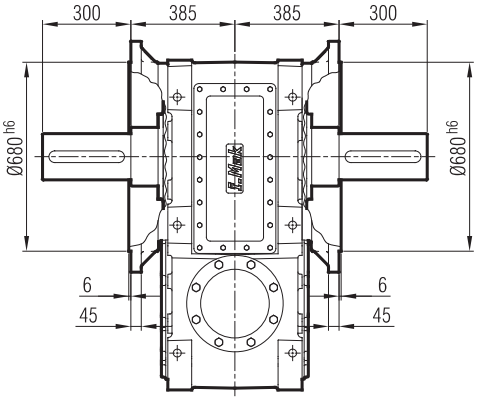

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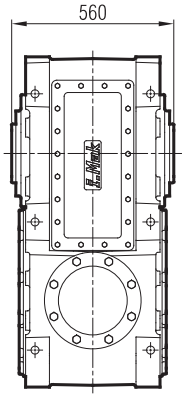
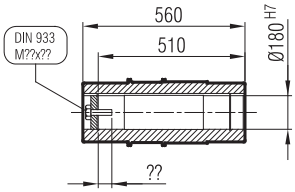
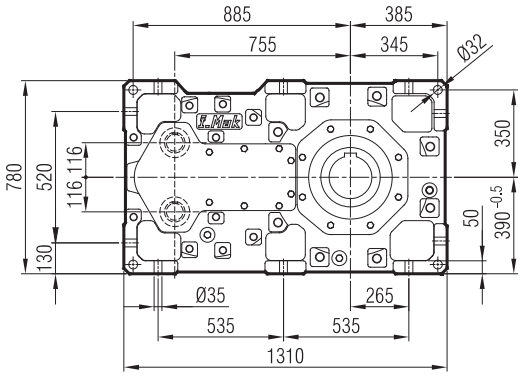
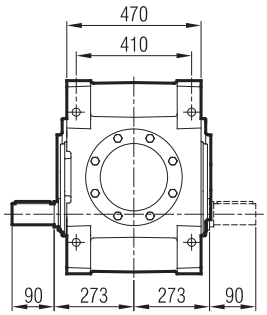
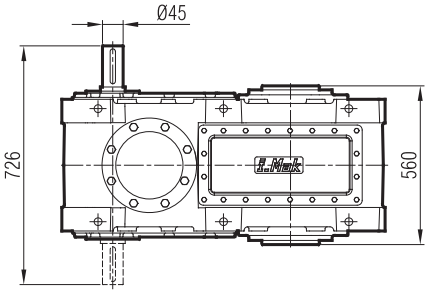


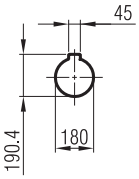


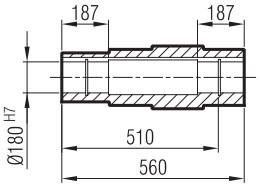
MA 1204

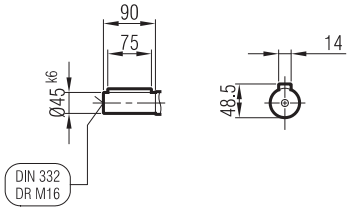












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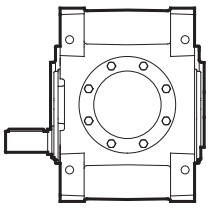

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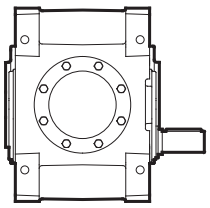

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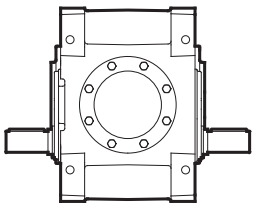

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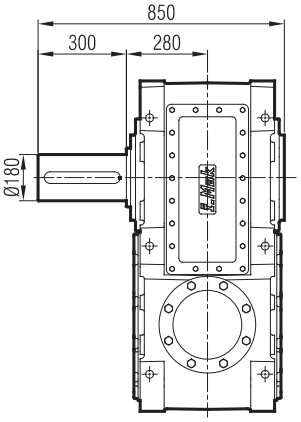
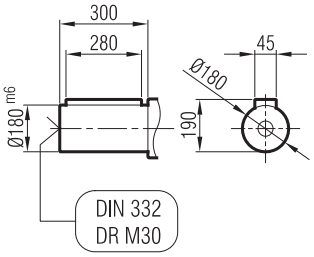
MA / MK 120_

...-SL





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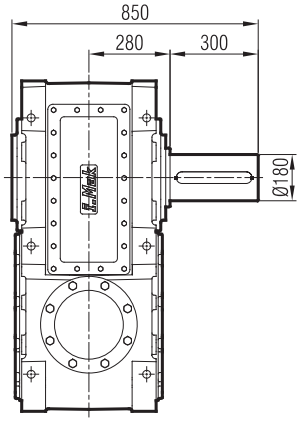

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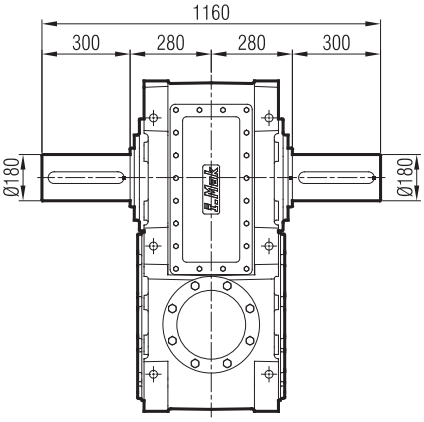

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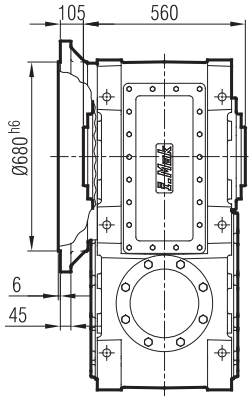

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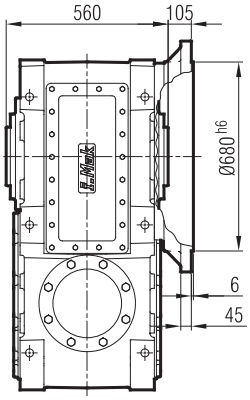

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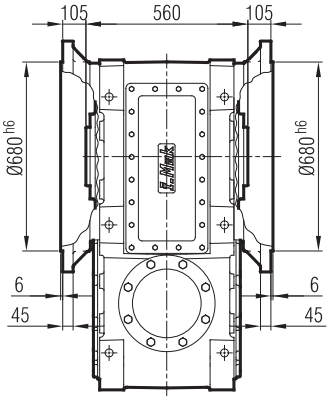

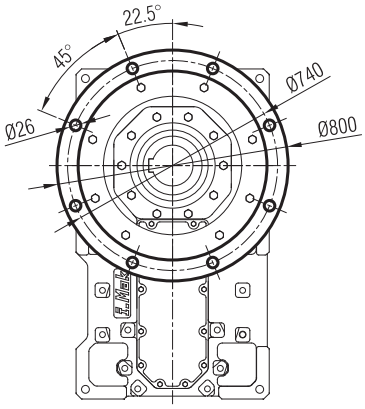

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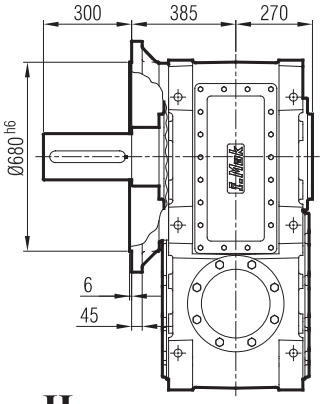

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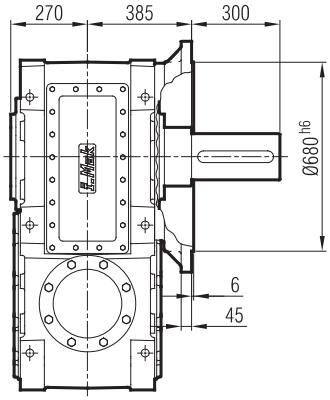

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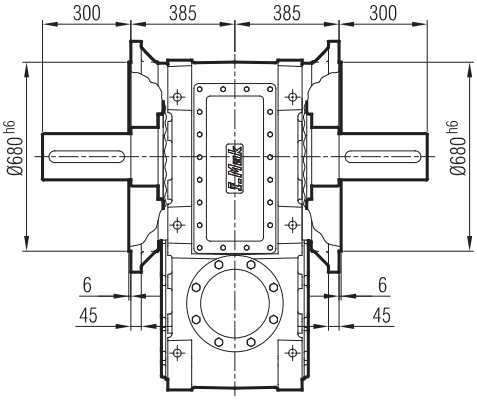

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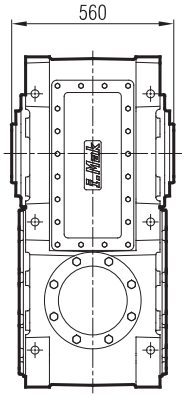
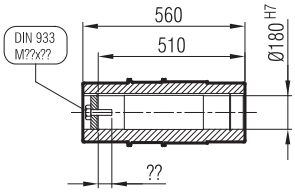
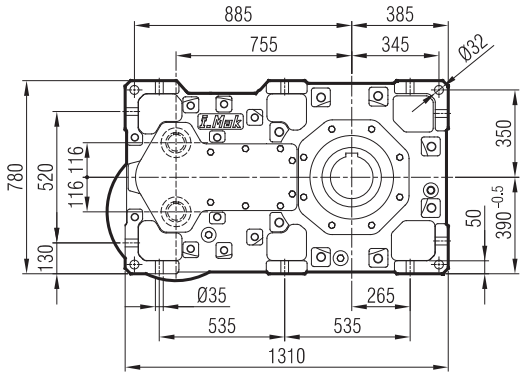
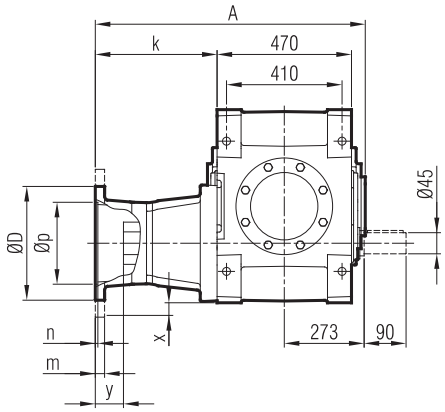
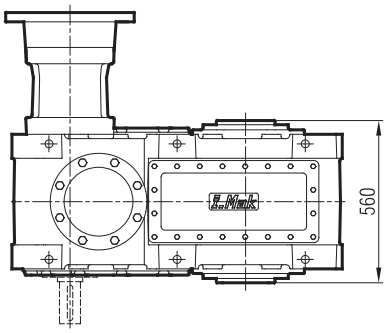


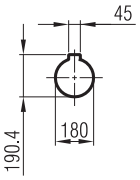


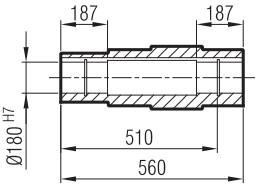
MAP 1204











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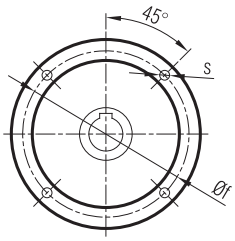

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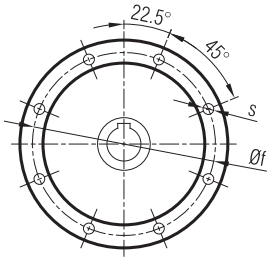

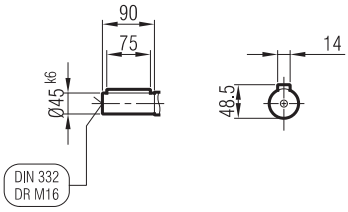

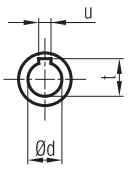

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200/B5	758	300	350	400	M16	243	22	6	55	59.3	16	-	48
225/B5	801	350	400	450	M16	286	22	6	60	64.4	18	-	80
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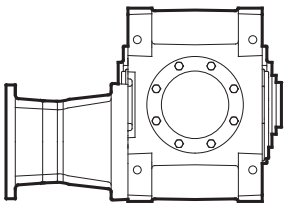
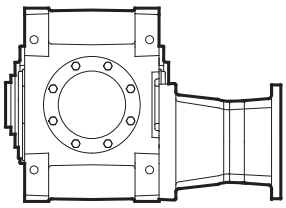
Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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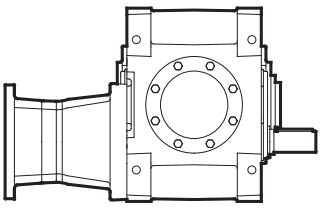

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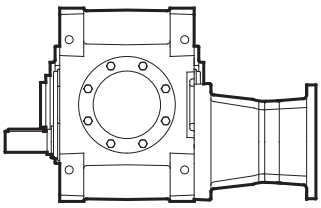
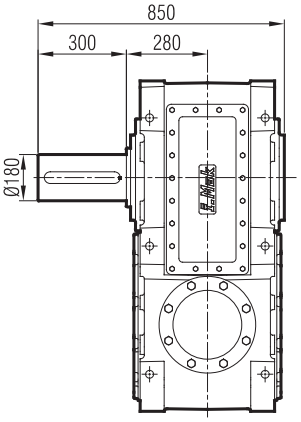
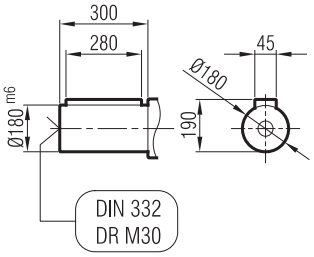


G06

MA / MK 120_

...-SL





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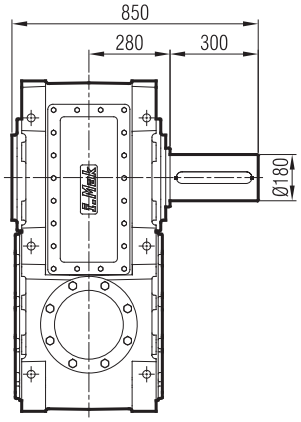

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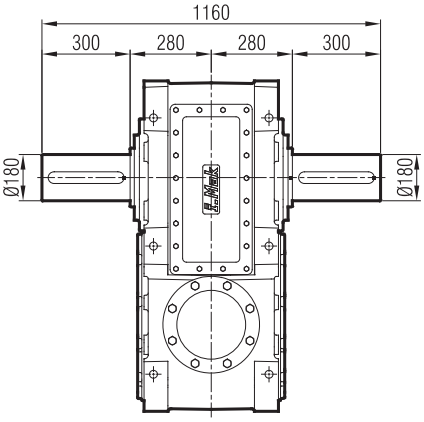

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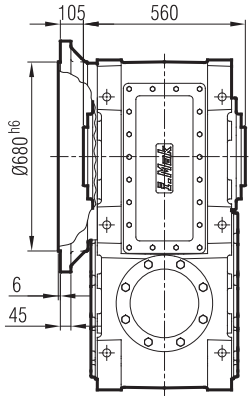

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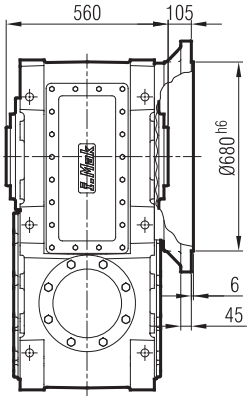

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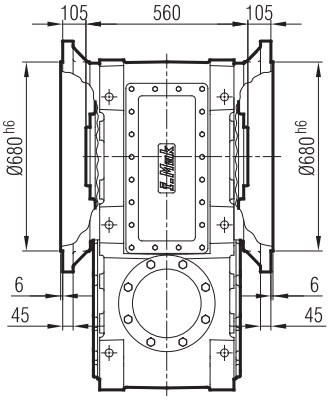

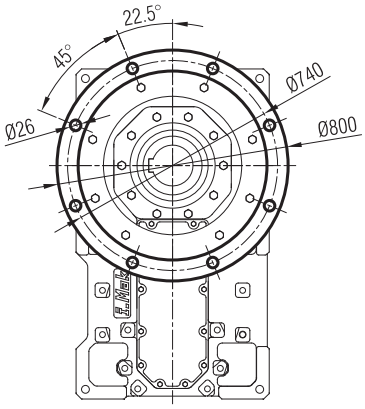

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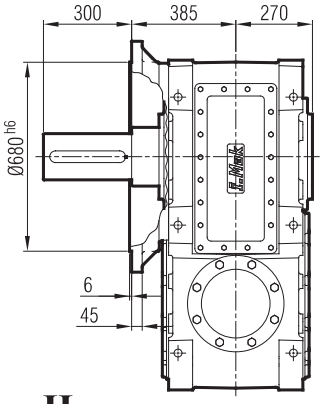

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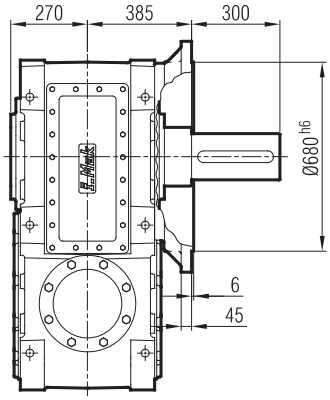

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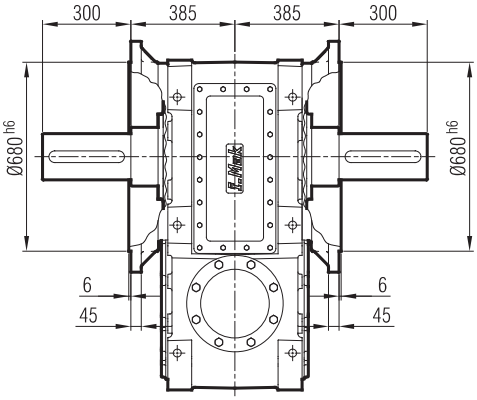

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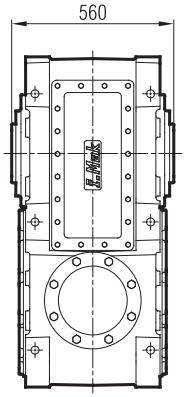
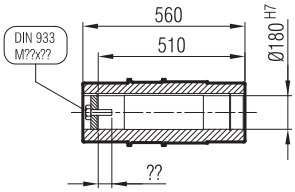
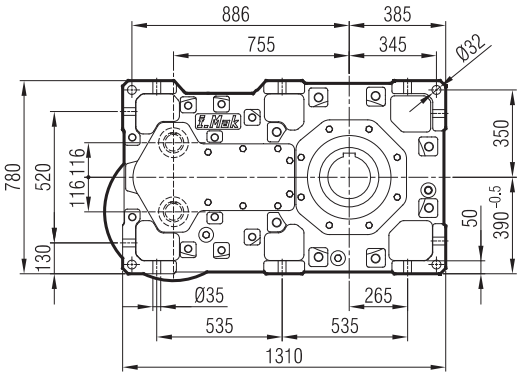
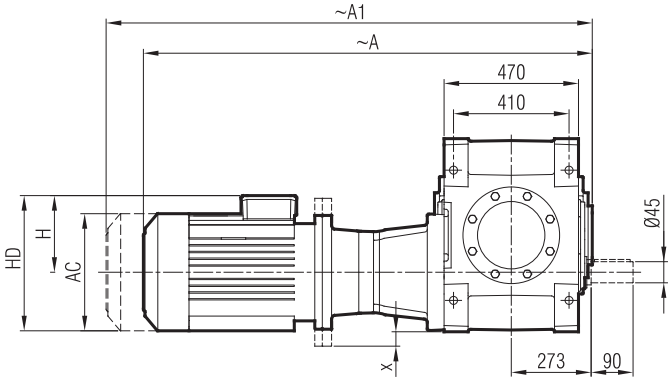
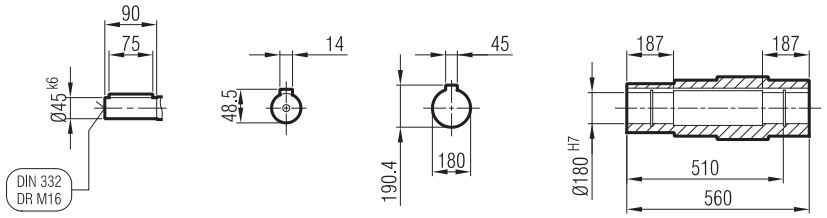


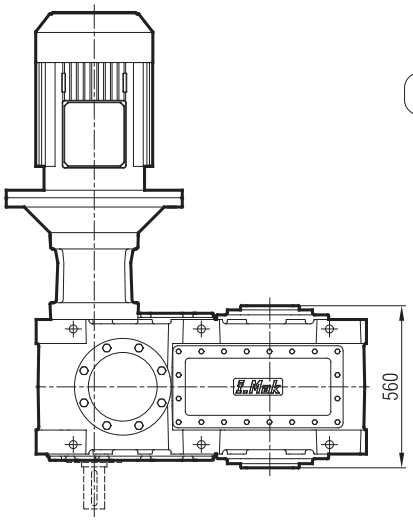


MAM 1204





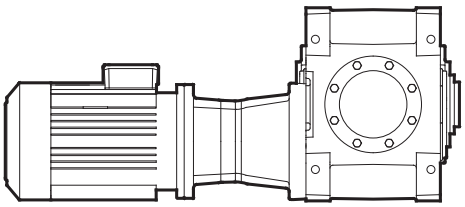




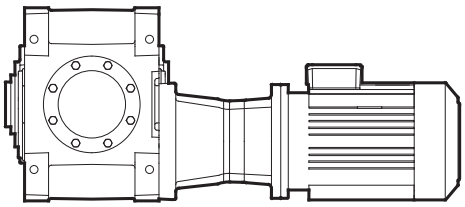
	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5
A	1181	1278	1323	1399	1399	1467	1486	1546	1596
A1	1285	1395	1440	1535	1535	1614	1633	1693	1743
H	193	240	240	260	260	300	313	313	366
HD	325	400	400	440	440	500	538	538	616
AC	262	315	315	357	357	394	456	456	489
x	-	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

Giriş Seçenekleri / Input Options / *Option d'entree*



G03



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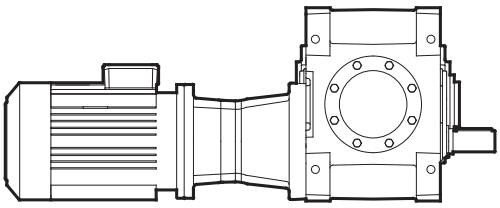

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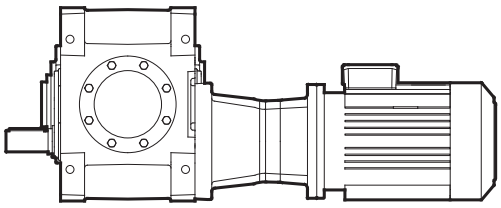
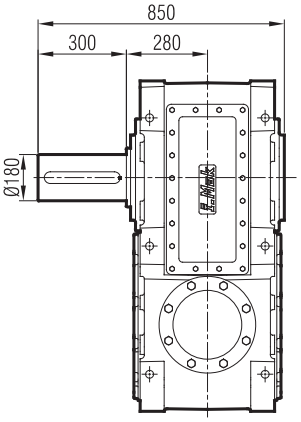
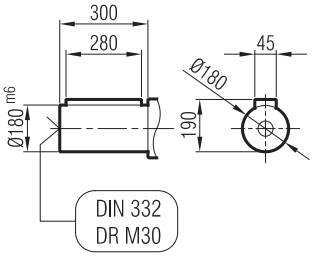


G06

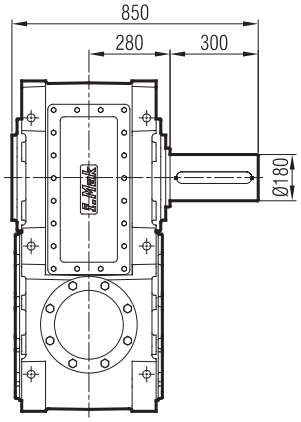
MA / MK 120_

...-SL

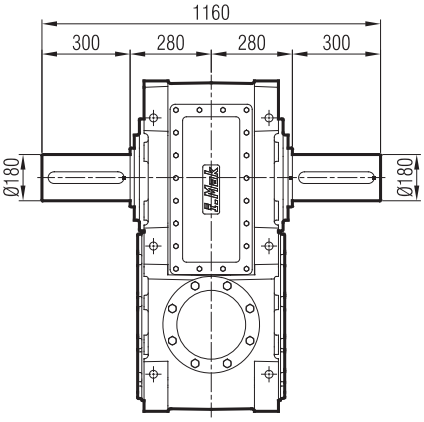




...-SR



...-SD



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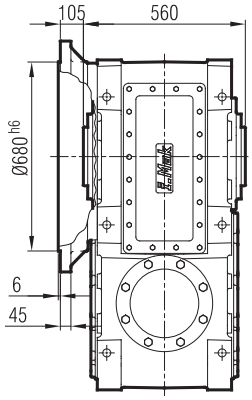

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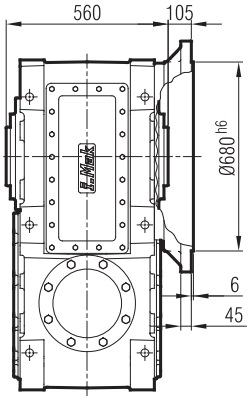

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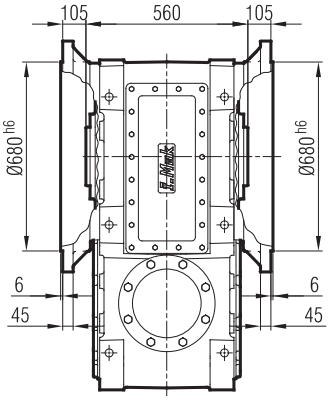

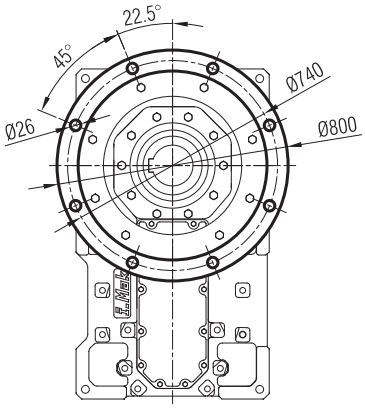

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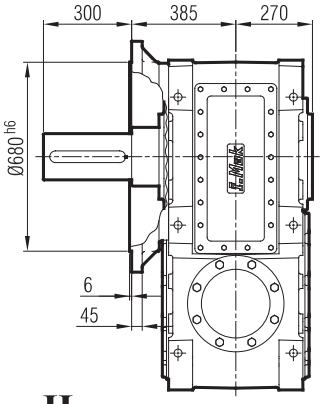

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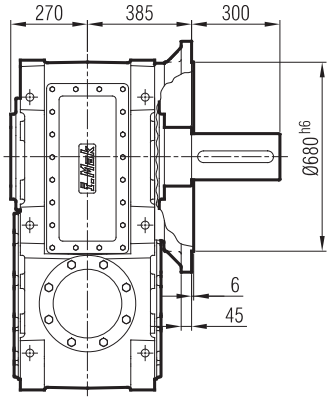

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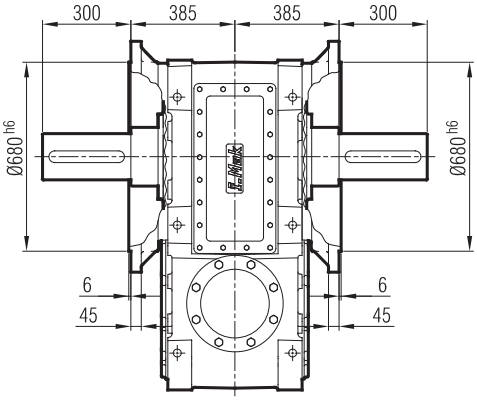

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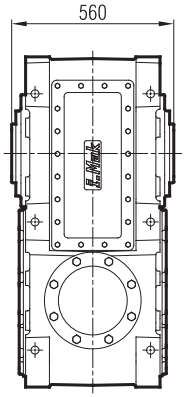

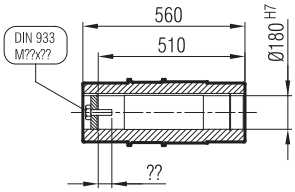

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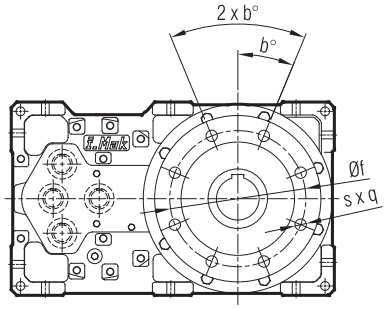

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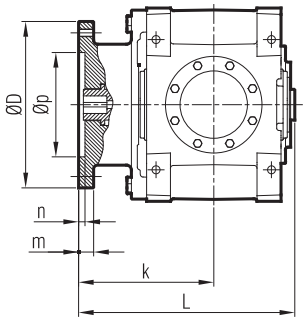

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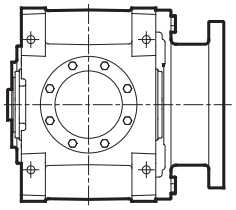

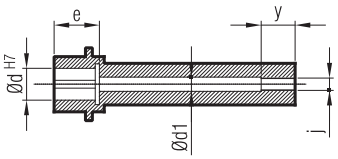

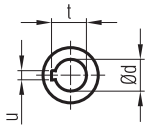

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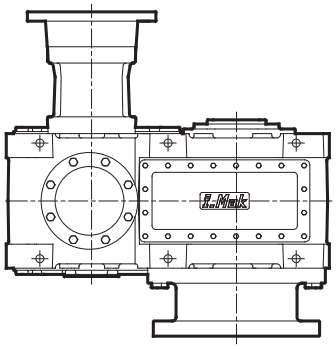

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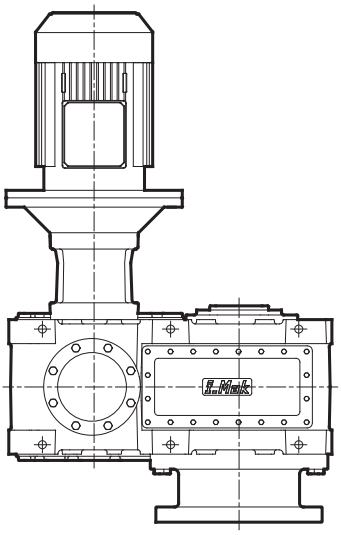

q: Adet / Quantity / *quantité*

	Øp	Øf	ØD	m	n	s	q	b°	Ød	Ød1	e	u	t	j	y	k	L
MAE... 403-402	250	280	320	30	10	M20	8	22.5°	Ø60	Ø26	125	18	64.4	M24	48	327	502
MAE... 503-502	290	325	370	30	10	M20	8	22.5°	Ø70	Ø26	135	20	74.9	M24	48	361	553.5
MAE... 603-602	340	375	420	35	10	M20	8	22.5°	Ø80	Ø40	145	22	85.4	M36	75	374	569
MAE... 704-703-702	355	400	450	40	15	M24	8	22.5°	Ø90	Ø40	145	25	95.4	M36	75	407.5	625
MAE... 804-803-802	395	440	490	40	15	M24	8	22.5°	Ø100	Ø40	160	28	106.4	M36	75	432.5	653
MAE... 904-903-902	425	480	540	45	17	M30	8	22.5°	Ø110	Ø40	170	28	116.4	M36	75	475	717
MAE... 1004-1003-1002	455	500	560	45	17	M30	8	22.5°	Ø120	Ø50	185	32	127.4	M45	90	495	739
MAE... 1104-1103-1102	500	560	630	50	17	M36	8	22.5°	Ø130	Ø50	190	32	137.4	M45	90	545	825
MAE... 1204-1203-1202	535	600	680	55	17	M36	8	22.5°	Ø140	Ø50	230	36	148.4	M45	82	565	845

Redüktör gövde ölçüleri için standart ölçü sayfasına bakınız.
For gearbox housing dimensions please refer to the standart dimension pages.
La taille standard pour le boîtier de réducteur, reportez-vous à la taille de la page.

MK Serisi Motorlu Redüktörler Güç ve Devir Tabloları

MK Series - Performances Tables

Series MK - Table de performances

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
0,75 / 1	4,6	303	4,30	1459	100	MKM	404 / 80 M 4b	283 288	311
1,1 / 1,5	4,6	303	2,90	2140	100	MKM	404 / 90 S 4a	283 288	312
	5,2	270	3,30	1907	100				
	5,8	243	3,70	1716	100				
	6,4	219	4,10	1547	100				
1,5 / 2	3,6	386	3,30	3716	140	MKM	604 / 90 L 4b	319 324	467
	4,7	295	3,80	2845	120	MKM	504 / 90 L 4b	301 306	459
	4,6	303	2,20	2918	100	MKM	404 / 90 L 4b	283 288	319
	5,2	270	2,40	2601	100				
	5,8	243	2,70	2341	100				
	6,4	219	3,00	2109	100				
	6,8	207	3,10	1994	100				
	7,5	187	3,50	1801	100				
	8.3	168	3.90	1618	100				
2,2 / 3	2,7	511	3,40	7219	200	MKM	804 / 100 L 4a	355 360	748
	3,1	459	3,70	6484	200				
	3,1	451	3,00	6371	180	MKM	704 / 100 L 4a	337 342	662
	3,5	402	3,40	5679	180				
	3,9	363	3,70	5128	180				
	3,6	385	2,20	5439	140	MKM	604 / 100 L 4a	319 324	476
	4,5	314	2,50	4436	140				
	5,6	248	3,30	3503	140				
	6,4	218	4,00	3080	140				
	4,7	295	2,60	4167	120	MKM	504 / 100 L 4a	301 306	468
	5,4	259	3,00	3659	120				
	6,1	229	3,40	3235	120				
	6,9	204	3,80	2882	120				
	4,6	303	1,46	4280	100	MKM	404 / 100 L 4a	283 288	329
	5,2	270	1,64	3814	100				
	5,8	243	1,84	3433	100				
	6,4	219	2,00	3094	100				
	6,8	207	2,10	2924	100				
	7,5	187	2,40	2642	100				
	8,3	168	2,70	2373	100				
	9,2	152	3,00	2147	100				
	9,7	144	3,00	2034	100				
	11	129	3,30	1822	100				
	12	116	3,70	1639	100				
	12	115	3,80	1649	80	MKM	403 / 100 L 4a	271 282	329
	14	102	4,30	1463	80				
3 / 4	2,7	511	2,50	9844	200	MKM	804 / 100 L 4b	355 360	752
	3,1	459	2,70	8842	200				
	3,4	415	3,00	7994	200				
	3,7	376	3,30	7243	200				
	4,0	348	3,60	6704	200				
	3,1	451	2,20	8688	180	MKM	704 / 100 L 4b	337 342	666
	3,5	402	2,50	7744	180				
	3,9	363	2,70	6993	180				
	4,3	324	3,10	6241	180				
	4,8	291	3,40	5606	180				
	3,6	385	1,67	7417	140	MKM	604 / 100 L 4b	319 324	480
	4,5	314	1,89	6049	140				
	5,6	248	2,40	4777	140				
	6,4	218	2,90	4200	140				
	6,7	208	3,50	4007	140				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
3 4	4,7	295	1,92	5683	120	MKM	504 / 100 L 4b	301 306	472
	5,4	259	2,20	4989	120				
	6,1	229	2,50	4411	120				
	6,9	204	2,80	3930	120				
	8,2	171	3,20	3294	120				
	9,3	151	3,60	2909	120				
	5,2	270	1,20	5201	100	MKM	404 / 100 L 4b	283 288	333
	5,8	243	1,35	4681	100				
	6,4	219	1,50	4219	100				
	6,8	207	1,53	3988	100				
	7,5	187	1,75	3602	100				
	8,3	168	1,94	3236	100				
	9,2	152	2,20	2928	100				
	9,7	144	2,20	2774	100				
	11	129	2,50	2485	100				
	12	116	2,70	2235	100				
	12	115	2,80	2249	80	MKM	403 / 100 L 4b	271 282	333
	14	102	3,20	1995	80				
	17	80,98	3,60	1584	80				
	17	81,71	4,00	1598	80				
4 5,5	2,8	504	2,90	12945	240	MKM	1004 / 112 M 4a	391 396	1157
	3,2	444	3,30	11404	240				
	3,4	413	3,50	10608	240				
	3,6	394	3,60	10120	240				
	4,6	306	3,40	7860	220	MKM	904 / 112 M 4a	373 378	957
	5,2	267	3,90	6858	220				
	2,7	511	1,88	13125	200	MKM	804 / 112 M 4a	355 360	758
	3,1	459	2,00	11789	200				
	3,4	415	2,30	10659	200				
	3,7	376	2,50	9658	200				
	4,0	348	2,70	8938	200				
	4,6	306	3,10	7860	200				
	5,3	264	3,40	6781	200				
	5,9	237	3,80	6087	200				
	3,1	451	1,65	11584	180	MKM	704 / 112 M 4a	337 342	672
	3,5	402	1,87	10325	180				
	3,9	363	2,00	9324	180				
	4,3	324	2,30	8322	180				
	4,8	291	2,60	7474	180				
	5,3	263	2,80	6755	180				
	6,0	234	3,30	6010	180				
	6,6	211	3,70	5420	180				
	3,6	385	1,25	9889	140	MKM	604 / 112 M 4a	319 324	486
	4,5	314	1,42	8065	140				
	5,6	248	1,80	6370	140				
	6,4	218	2,00	5599	140				
	6,7	208	2,60	5342	140				
	8,7	161	3,30	4135	140				
	10,0	140	3,60	3596	140				
	11	123	4,10	3159	140				
	13	105	4,30	2738	120	MKM	603 / 112 M 4a	307 318	486
	4,7	295	1,44	7577	120	MKM	504 / 112 M 4a	301 306	478
	5,4	259	1,65	6652	120				
	6,1	229	1,88	5882	120				
	6,9	204	2,10	5240	120				
	8,2	171	2,40	4392	120				
	9,3	151	2,70	3878	120				
	10	135	3,10	3467	120				
	12	119	3,50	3057	120				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
4 / 5,5	14	101	4,10	2634	100	MKM	503 / 112 M 4a	289 300	478
	6,4	219	1,13	5625	100	MKM	404 / 112 M 4a	283 288	339
	6,8	207	1,14	5317	100				
	7,5	187	1,31	4803	100				
	8,3	168	1,45	4315	100				
	9,2	152	1,62	3904	100				
	9,7	144	1,65	3699	100				
	11	129	1,84	3313	100				
	12	116	2,00	2979	100				
	12	115	2,10	2999	80	MKM	403 / 112 M 4a	271 282	339
	14	102	2,40	2660	80				
	17	80,98	2,70	2112	80				
	17	81,71	3,00	2131	80				
	19	73,81	3,30	1925	80				
	22	63,67	3,70	1660	80				
	24	57,51	4,10	1500	80				
5,5 / 7,5	2,8	504	2,10	17800	240	MKM	1004 / 132 S 4a	391 396	1174
	3,2	444	2,40	15681	240				
	3,4	413	2,50	14586	240				
	3,6	394	2,60	13915	240				
	4,0	347	3,00	12255	240				
	4,3	323	3,20	11407	240				
	4,9	284	3,60	10030	240				
	5,2	271	3,90	9571	240				
	4,6	306	2,50	10807	220	MKM	904 / 132 S 4a	373 378	974
	5,2	267	2,90	9430	220				
	6,0	235	3,30	8299	220				
	6,3	222	3,40	7840	220				
	7,2	195	3,90	6887	220				
	2,7	511	1,36	18047	200	MKM	804 / 132 S 4a	355 360	775
	3,1	459	1,47	16210	200				
	3,4	415	1,64	14657	200				
	3,7	376	1,80	13279	200				
	4,0	348	1,96	12290	200				
	4,6	306	2,20	10807	200				
	5,3	264	2,50	9324	200				
	5,9	237	2,70	8370	200				
	6,5	214	3,10	7558	200				
	7,3	191	3,40	6746	200				
	8,1	173	3,80	6110	200				
	3,1	451	1,20	15928	180	MKM	704 / 132 S 4a	337 342	689
	3,5	402	1,36	14197	180				
	3,9	363	1,48	12820	180				
	4,3	324	1,68	11443	180				
	4,8	291	1,88	10277	180				
	5,3	263	2,10	9288	180				
	6,0	234	2,40	8264	180				
	6,6	211	2,70	7452	180				
	7,4	190	2,90	6710	180				
	8,2	171	3,30	6039	180				
	9,2	152	3,60	5368	180				
	10	138	4,00	4874	180				
	4,5	314	1,03	11090	140	MKM	604 / 132 S 4a	319 324	501
	5,6	248	1,31	8759	140				
	6,4	218	1,60	7699	140				
	6,7	208	1,89	7346	140				
	8,7	161	2,40	5686	140				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
5,5 / 7,5	10,0	140	2,60	4944	140	MKM	604 / 132 S 4a	319 324	501
	11	123	3,00	4344	140				
	13	111	3,30	3920	140				
	14	98,14	3,80	3466	140				
	15	93,07	4,10	3287	140				
	13	105	3,10	3765	120	MKM	603 / 132 S 4a	307 318	503
	15	94,03	3,50	3371	120				
	16	88,64	4,40	3178	120				
	5,4	259	1,21	9147	120	MKM	504 / 132 S 4a	301 306	493
	6,1	229	1,36	8088	120				
	6,9	204	1,53	7205	120				
	8,2	171	1,75	6039	120				
	9,3	151	1,96	5333	120				
	10	135	2,20	4768	120				
	12	119	2,60	4203	120				
	13	105	2,90	3708	120				
	15	93,84	3,20	3314	120				
	17	82,77	3,60	2923	120				
	14	101	3,00	3621	100	MKM	503 / 132 S 4a	289 300	495
	16	88,24	3,50	3164	100				
	18	77,76	4,00	2788	100				
	9,2	152	1,18	5368	100	MKM	404 / 132 S 4a	283 288	354
	12	116	1,48	4097	100				
	12	115	1,53	4123	80	MKM	403 / 132 S 4a	271 282	354
	14	102	1,75	3657	80				
	17	80,98	1,96	2904	80				
	17	81,71	2,20	2930	80				
	19	73,81	2,40	2646	80				
	22	63,67	2,70	2283	80				
	24	57,51	3,00	2062	80				
	29	48,86	3,40	1752	80				
	32	44,14	3,80	1583	80				
	35	40,07	4,20	1437	80				
7,5 / 10	2,8	504	1,56	24272	240	MKM	1004 / 132 M 4b	391 396	1182
	3,2	444	1,76	21383	240				
	3,4	413	1,88	19890	240				
	3,6	394	1,92	18975	240				
	4,0	347	2,20	16711	240				
	4,3	323	2,30	15556	240				
	4,9	284	2,60	13677	240				
	5,2	271	2,80	13051	240				
	5,9	239	3,20	11510	240				
	7,1	197	3,90	9487	240				
	4,6	306	1,83	14737	220	MKM	904 / 132 M 4b	373 378	982
	5,2	267	2,10	12859	220				
	6,0	235	2,40	11317	220				
	6,3	222	2,50	10691	220				
	7,2	195	2,90	9391	220				
	7,6	185	3,10	8909	220				
	8,6	163	3,50	7850	220				
	3,1	459	1,08	22105	200	MKM	804 / 132 M 4b	355 360	783
	3,4	415	1,20	19986	200				
	3,7	376	1,32	18108	200				
	4,0	348	1,44	16759	200				
	4,6	306	1,64	14737	200				
	5,3	264	1,80	12714	200				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
7,5 / 10	5,9	237	2,00	11414	200	MKM	804 / 132 M 4b	355 / 360	783
	6,5	214	2,20	10306	200				
	7,3	191	2,50	9198	200				
	8,1	173	2,80	8332	200				
	9,3	151	3,10	7272	200				
	10	136	3,50	6550	200				
	4,3	324	1,23	15604	180	MKM	704 / 132 M 4b	337 / 342	697
	4,8	291	1,38	14014	180				
	5,3	263	1,52	12666	180				
	6,0	234	1,76	11269	180				
	6,6	211	1,96	10162	180				
	7,4	190	2,10	9150	180				
	8,2	171	2,40	8235	180				
	9,2	152	2,70	7320	180				
	10	138	2,90	6646	180				
	11	123	3,30	5924	180				
	13	111	3,60	5346	180				
	6,4	218	1,17	10499	140	MKM	604 / 132 M 4b	319 / 324	509
	6,7	208	1,39	10017	140				
	8,7	161	1,76	7754	140				
	10,0	140	1,92	6742	140				
	11	123	2,20	5924	140				
	13	111	2,50	5346	140				
	14	98,14	2,80	4726	140				
	15	93,07	3,00	4482	140				
	17	82,91	3,20	3993	140				
	19	73,37	3,60	3533	140				
	21	65,36	4,10	3148	140				
	13	105	2,30	5134	120	MKM	603 / 132 M 4b	307 / 318	511
	15	94,03	2,50	4597	120				
	16	88,64	3,30	4334	120				
	18	78,71	3,70	3848	120				
	20	71,37	4,00	3489	120				
	6,9	204	1,12	9825	120	MKM	504 / 132 M 4b	301 / 306	501
	8,2	171	1,28	8235	120				
	9,3	151	1,44	7272	120				
	10	135	1,64	6502	120				
	12	119	1,88	5731	120				
	13	105	2,10	5057	120				
	15	93,84	2,40	4519	120				
	17	82,77	2,70	3986	120				
	14	101	2,20	4938	100	MKM	503 / 132 M 4b	289 / 300	503
	16	88,24	2,60	4314	100				
	18	77,76	2,90	3802	100				
	21	67,00	3,30	3276	100				
	24	59,40	3,70	2904	100				
	27	51,80	4,30	2533	100				
	12	115	1,12	5623	80	MKM	403 / 132 M 4b	271 / 282	362
	14	102	1,28	4987	80				
	17	80,98	1,44	3959	80				
	17	81,71	1,60	3995	80				
	19	73,81	1,76	3609	80				
	22	63,67	1,96	3113	80				
	24	57,51	2,20	2812	80				
	29	48,86	2,50	2389	80				
	32	44,14	2,80	2158	80				
	35	40,07	3,10	1959	80				
	40	34,88	3,30	1705	80				
	44	31,51	3,60	1541	80				
	49	28,60	4,00	1398	80				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
11 / 15	3,5	402	2,33	28395	340	MKM	1204 / 160 M 4a	427 / 432	2090
	4,0	354	2,65	25004	340				
	4,5	314	2,99	22179	340				
	4,3	329	2,10	23239	300	MKM	1104 / 160 M 4a	409 / 414	1640
	4,8	292	2,40	20625	300				
	5,4	261	2,70	18435	300				
	6,0	235	3,30	16599	300				
	6,7	210	3,70	14833	300				
	2,8	504	1,06	35599	240	MKM	1004 / 160 M 4a	391 / 396	1256
	3,2	444	1,20	31361	240				
	3,4	413	1,28	29172	240				
	3,6	394	1,31	27830	240				
	4,0	347	1,50	24510	240				
	4,3	323	1,60	22815	240				
	4,9	284	1,80	20060	240				
	5,2	271	1,95	19142	240				
	5,9	239	2,20	16881	240				
	7,1	197	2,60	13915	240				
	8,0	175	3,00	12361	240				
	8,8	160	3,20	11301	240				
	9,9	142	3,60	10030	240				
	10	135	3,80	9536	240				
	4,6	306	1,25	21614	220	MKM	904 / 160 M 4a	373 / 378	1056
	5,2	267	1,45	18859	220				
	6,0	235	1,65	16599	220				
	6,3	222	1,70	15681	220				
	7,2	195	1,95	13774	220				
	7,6	185	2,10	13067	220				
	8,6	163	2,40	11513	220				
	10,0	140	2,80	9889	220				
	11	124	3,10	8759	220				
	13	110	3,50	7770	220				
	4,6	306	1,12	21614	200	MKM	804 / 160 M 4a	355 / 360	856
	5,3	264	1,22	18647	200				
	5,9	237	1,36	16740	200				
	6,5	214	1,53	15116	200				
	7,3	191	1,70	13491	200				
	8,1	173	1,90	12220	200				
	9,3	151	2,20	10666	200				
	10	136	2,40	9606	200				
	11	123	2,70	8688	200				
	13	111	2,90	7840	200				
	14	100	3,20	7063	200				
	16	88,15	3,70	6226	200				
	6,6	211	1,33	14904	180	MKM	704 / 160 M 4a	337 / 342	770
	8,2	171	1,64	12078	180				
	9,2	152	1,82	10736	180				
	10	138	2,00	9747	180				
	11	123	2,20	8688	180				
	13	111	2,50	7840	180				
	14	100	2,70	7063	180				
	16	89,06	3,10	6291	180				
	17	80,84	3,40	5710	180				
	19	72,28	3,80	5105	180				
	22	64,98	4,20	4590	180				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
11 / 15	8,7	161	1,20	11372	140	MKM	604 / 160 M 4a	319 324	582
	10,0	140	1,31	9889	140				
	11	123	1,49	8688	140				
	13	111	1,67	7840	140				
	14	98,14	1,89	6932	140				
	15	93,07	2,10	6574	140				
	17	82,91	2,20	5856	140				
	19	73,37	2,50	5182	140				
	21	65,36	2,80	4617	140				
	13	105	1,54	7529	120	MKM	603 / 160 M 4a	307 318	585
	15	94,03	1,73	6743	120				
	16	88,64	2,20	6356	120				
	18	78,71	2,50	5644	120				
	20	71,37	2,70	5118	120				
	22	63,38	3,10	4545	120				
	25	56,66	3,40	4063	120				
	27	51,52	3,70	3694	120				
	12	119	1,28	8405	120	MKM	504 / 160 M 4a	301 306	574
	13	105	1,45	7417	120				
	15	93,84	1,61	6628	120				
	17	82,77	1,83	5846	120				
	14	101	1,50	7243	100	MKM	503 / 160 M 4a	289 300	577
	16	88,24	1,77	6328	100				
	18	77,76	1,98	5576	100				
	21	67,00	2,30	4805	100				
	24	59,40	2,50	4260	100				
	27	51,80	2,90	3715	100				
	31	45,65	3,30	3274	100				
	36	39,33	3,80	2820	100				
	40	34,66	4,30	2485	100				
	19	73,81	1,20	5293	80	MKM	403 / 160 M 4a	271 282	435
	22	63,67	1,33	4566	80				
	24	57,51	1,50	4124	80				
	29	48,86	1,70	3504	80				
	32	44,14	1,90	3165	80				
	35	40,07	2,10	2873	80				
	40	34,88	2,30	2501	80				
	44	31,51	2,50	2260	80				
	49	28,60	2,70	2051	80				
	53	26,60	3,20	1907	80				
	58	24,15	3,50	1732	80				
	67	21,02	3,80	1507	80				
15 / 20	3,5	402	1,71	38720	340	MKM	1204 / 160 L 4b	427 432	2117
	4,0	354	1,94	34097	340				
	4,5	314	2,19	30244	340				
	4,8	289	2,38	27836	340				
	5,5	256	2,68	24658	340				
	6,1	229	2,99	22057	340				
	4,3	329	1,57	31689	300	MKM	1104 / 160 L 4b	409 414	1667
	4,8	292	1,76	28125	300				
	5,4	261	1,98	25139	300				
	6,0	235	2,20	22635	300				
	6,7	210	2,50	20227	300				
	7,4	189	2,70	18204	300				
	8,2	171	3,00	16471	300				
	9,2	153	3,20	14737	300				
	10	138	3,70	13292	300				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
15 / 20	4,0	347	1,10	33423	240	MKM	1004 / 160 L 4b	391 / 396	1283
	4,3	323	1,17	31111	240				
	4,9	284	1,32	27355	240				
	5,2	271	1,43	26102	240				
	5,9	239	1,60	23020	240				
	7,1	197	1,95	18975	240				
	8,0	175	2,20	16856	240				
	8,8	160	2,30	15411	240				
	9,9	142	2,60	13677	240				
	10	135	2,80	13003	240				
	12	119	3,10	11462	240				
	14	99,85	3,60	9617	240				
	5,2	267	1,06	25717	220	MKM	904 / 160 L 4b	373 / 378	1083
	6,0	235	1,21	22635	220				
	6,3	222	1,25	21383	220				
	7,2	195	1,43	18782	220				
	7,6	185	1,54	17819	220				
	8,6	163	1,76	15700	220				
	10,0	140	2,00	13485	220				
	11	124	2,30	11944	220				
	13	110	2,60	10595	220				
	14	103	2,90	9921	220				
	15	91,66	3,30	8829	220				
	17	81,79	3,70	7878	220				
	6,5	214	1,12	20612	200	MKM	804 / 160 L 4b	355 / 360	883
	7,3	191	1,25	18397	200				
	8,1	173	1,39	16663	200				
	9,3	151	1,58	14544	200				
	10	136	1,76	13099	200				
	11	123	1,94	11847	200				
	13	111	2,10	10691	200				
	14	100	2,30	9632	200				
	16	88,15	2,70	8491	200				
	18	79,63	3,00	7670	200				
	19	72,28	3,30	6962	200				
	18	76,43	3,30	7474	160	MKM	803 / 160 L 4b	343 / 354	890
	22	62,40	4,00	6102	160				
	11	123	1,63	11847	180	MKM	704 / 160 L 4b	337 / 342	797
	13	111	1,81	10691	180				
	14	100	2,00	9632	180				
	16	89,06	2,20	8578	180				
	17	80,84	2,50	7786	180				
	19	72,28	2,80	6962	180				
	22	64,98	3,10	6259	180				
	23	60,08	3,30	5787	180				
	23	60,16	3,30	5883	140	MKM	703 / 160 L 4b	325 / 336	804
	26	53,42	3,70	5224	140				
	29	47,76	4,20	4670	140				
	13	111	1,23	10691	140	MKM	604 / 160 L 4b	319 / 324	609
	14	98,14	1,39	9453	140				
	15	93,07	1,52	8964	140				
	17	82,91	1,60	7986	140				
	19	73,37	1,81	7067	140				
	21	65,36	2,00	6295	140				
	13	105	1,13	10267	120	MKM	603 / 160 L 4b	307 / 318	612
	15	94,03	1,27	9195	120				
	16	88,64	1,63	8668	120				
	18	78,71	1,83	7697	120				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
15 / 20	20	71,37	2,00	6979	120	MKM	603 / 160 L 4b	307 318	612
	22	63,38	2,30	6198	120				
	25	56,66	2,50	5541	120				
	27	51,52	2,70	5038	120				
	33	41,90	3,30	4097	120				
	38	37,21	3,80	3639	120				
	15	93,84	1,18	9039	120	MKM	504 / 160 L 4b	301 306	601
	17	82,77	1,34	7972	120				
	16	88,24	1,30	8629	100	MKM	503 / 160 L 4b	289 300	604
	18	77,76	1,45	7604	100				
	21	67,00	1,65	6552	100				
	24	59,40	1,85	5808	100				
	27	51,80	2,20	5065	100				
	31	45,65	2,50	4464	100				
	36	39,33	2,80	3846	100				
	40	34,66	3,20	3389	100				
	44	31,68	3,60	3098	100				
	51	27,27	4,00	2667	100				
	24	57,51	1,10	5624	80	MKM	403 / 160 L 4b	271 282	462
	29	48,86	1,25	4778	80				
	32	44,14	1,39	4316	80				
	35	40,07	1,54	3918	80				
	40	34,88	1,65	3411	80				
	44	31,51	1,80	3081	80				
	49	28,60	1,98	2797	80				
	53	26,60	2,40	2601	80				
	58	24,15	2,60	2362	80				
	67	21,02	2,80	2055	80				
	74	18,99	3,10	1857	80				
	81	17,24	3,40	1686	80				
	90	15,57	3,70	1523	80				
18,5 / 25	3,5	402	1,39	47755	340	MKM	1204 / 180 M 4a	427 432	2160
	4,0	354	1,57	42053	340				
	4,5	314	1,76	37301	340				
	4,8	289	1,93	34331	340				
	5,5	256	2,17	30411	340				
	6,1	229	2,42	27204	340				
	6,8	206	2,70	24471	340				
	7,5	187	2,91	22214	340				
	4,3	329	1,27	39083	300	MKM	1104 / 180 M 4a	409 414	1710
	4,8	292	1,43	34688	300				
	5,4	261	1,61	31005	300				
	6,0	235	1,78	27916	300				
	6,7	210	1,99	24947	300				
	7,4	189	2,20	22452	300				
	8,2	171	2,40	20314	300				
	9,2	153	2,70	18175	300				
	10	138	3,00	16393	300				
	11	125	3,20	14849	300				
	12	115	3,50	13661	300				
	4,9	284	1,07	33737	240	MKM	1004 / 180 M 4a	391 396	1326
	5,2	271	1,16	32193	240				
	5,9	239	1,30	28392	240				
	7,1	197	1,58	23402	240				
	8,0	175	1,78	20789	240				
	8,8	160	1,90	19007	240				
	9,9	142	2,10	16869	240				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
18,5 / 25	10	135	2,20	16037	240	MKM	1004 / 180 M 4a	391 / 396	1326
	12	119	2,50	14136	240				
	14	99,85	2,90	11862	240				
	6,3	222	1,01	26372	220	MKM	904 / 180 M 4a	373 / 378	1126
	7,2	195	1,16	23165	220				
	7,6	185	1,25	21977	220				
	8,6	163	1,43	19363	220				
	10,0	140	1,63	16631	220				
	11	124	1,87	14730	220				
	13	110	2,10	13067	220				
	14	103	2,30	12236	220				
	15	91,66	2,60	10889	220				
	17	81,79	3,00	9716	220				
	20	70,72	3,40	8529	180	MKM	903 / 180 M 4a	361 / 372	1136
	22	64,17	3,70	7739	180				
	8,1	173	1,13	20551	200	MKM	804 / 180 M 4a	355 / 360	929
	10	136	1,43	16156	200				
	11	123	1,58	14612	200				
	13	111	1,72	13186	200				
	14	100	1,90	11879	200				
	16	88,15	2,20	10472	200				
	18	79,63	2,40	9460	200				
	19	72,28	2,70	8586	200				
	18	76,43	2,70	9218	160	MKM	803 / 180 M 4a	343 / 354	933
	22	62,40	3,20	7526	160				
	24	58,03	3,50	6999	160				
	27	52,11	3,70	6285	160				
	30	47,38	4,20	5714	160				
	14	100	1,63	11879	180	MKM	704 / 180 M 4a	337 / 342	843
	16	89,06	1,84	10580	180				
	17	80,84	2,00	9603	180				
	19	72,28	2,30	8586	180				
	22	64,98	2,50	7719	180				
	23	60,08	2,60	7137	180				
	23	60,16	2,70	7255	140	MKM	703 / 180 M 4a	325 / 336	847
	26	53,42	3,00	6443	140				
	29	47,76	3,40	5760	140				
	15	93,07	1,23	11056	140	MKM	604 / 180 M 4a	319 / 324	655
	19	73,37	1,47	8716	140				
	21	65,36	1,64	7764	140				
	22	63,38	1,86	7644	120	MKM	603 / 180 M 4a	307 / 318	655
	25	56,66	2,00	6833	120				
	27	51,52	2,20	6213	120				
	33	41,90	2,70	5053	120				
	38	37,21	3,10	4488	120				
	42	33,27	3,40	4012	120				
	46	30,25	3,70	3648	120				
	49	28,31	3,90	3414	120				
	52	27,04	4,10	3261	120				
	21	67,00	1,34	8080	100	MKM	503 / 180 M 4a	289 / 300	647
	24	59,40	1,50	7164	100				
	27	51,80	1,74	6247	100				
	31	45,65	1,99	5505	100				
	36	39,33	2,20	4743	100				
	40	34,66	2,60	4180	100				
	44	31,68	2,90	3821	100				
	51	27,27	3,20	3289	100				
	58	24,05	3,70	2900	100				
	65	21,50	3,90	2593	100				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
18,5 / 25	32	44,14	1,13	5323	80	MKM	403 / 180 M 4a	271 282	507
	35	40,07	1,25	4833	80				
	44	31,51	1,45	3800	80				
	49	28,60	1,60	3449	80				
	53	26,60	1,90	3208	80				
	58	24,15	2,10	2913	80				
	67	21,02	2,30	2535	80				
	74	18,99	2,50	2290	80				
	81	17,24	2,80	2079	80				
22 / 30	3,5	402	1,17	56790	340	MKM	1204 / 180 L 4b	427 432	2181
	4,0	354	1,32	50009	340				
	4,5	314	1,48	44358	340				
	4,8	289	1,62	40826	340				
	5,5	256	1,83	36165	340				
	6,1	229	2,04	32350	340				
	6,8	206	2,27	29101	340				
	7,5	187	2,45	26417	340				
	8,3	168	2,73	23733	340				
	9,2	152	3,02	21473	340				
	4,3	329	1,07	46477	300	MKM	1104 / 180 L 4b	409 414	1731
	4,8	292	1,20	41250	300				
	5,4	261	1,35	36871	300				
	6,0	235	1,50	33198	300				
	6,7	210	1,68	29666	300				
	7,4	189	1,87	26700	300				
	8,2	171	2,00	24157	300				
	9,2	153	2,30	21614	300				
	10	138	2,50	19495	300				
	11	125	2,70	17658	300				
	12	115	3,00	16246	300				
	13	104	3,20	14692	300				
	15	93,85	3,50	13258	300				
	5,9	239	1,09	33763	240	MKM	1004 / 180 L 4b	391 396	1347
	7,1	197	1,33	27830	240				
	8,0	175	1,50	24722	240				
	8,8	160	1,60	22603	240				
	9,9	142	1,80	20060	240				
	10	135	1,90	19071	240				
	12	119	2,10	16811	240				
	14	99,85	2,50	14106	240				
	14	100	2,60	14342	200	MKM	1003 / 180 L 4b	379 390	1357
	17	82,78	3,10	11872	200				
	20	69,46	3,70	9962	200				
	7,6	185	1,05	26135	220	MKM	904 / 180 L 4b	373 378	1147
	8,6	163	1,20	23027	220				
	10,0	140	1,38	19777	220				
	11	124	1,57	17517	220				
	13	110	1,77	15539	220				
	14	103	2,00	14551	220				
	15	91,66	2,20	12949	220				
	17	81,79	2,50	11554	220				
	20	70,72	2,80	10143	180	MKM	903 / 180 L 4b	361 372	1157
	22	64,17	3,10	9203	180				
	24	58,89	3,30	8446	180				
	26	53,70	3,80	7702	180				
	11	123	1,32	17376	200	MKM	804 / 180 L 4b	355 360	950
	13	111	1,45	15681	200				
	14	100	1,60	14127	200				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
22 / 30	16	88,15	1,85	12453	200	MKM	804 / 180 L 4b	355 360	950
	18	79,63	2,10	11249	200				
	19	72,28	2,30	10211	200				
	18	76,43	2,30	10962	160	MKM	803 / 180 L 4b	343 354	954
	22	62,40	2,70	8949	160				
	24	58,03	2,90	8323	160				
	27	52,11	3,10	7474	160				
	30	47,38	3,50	6795	160				
	35	39,57	4,10	5675	160				
	16	89,06	1,55	12581	180	MKM	704 / 180 L 4b	337 342	864
	17	80,84	1,70	11420	180				
	19	72,28	1,90	10211	180				
	22	64,98	2,10	9180	180				
	23	60,08	2,20	8487	180				
	23	60,16	2,20	8628	140	MKM	703 / 180 L 4b	325 336	868
	26	53,42	2,50	7661	140				
	29	47,76	2,90	6850	140				
	33	42,94	3,20	6158	140				
	36	38,79	3,50	5563	140				
	38	36,43	3,70	5225	140				
	43	32,57	3,90	4671	140				
	22	63,38	1,57	9090	120	MKM	603 / 180 L 4b	307 318	676
	25	56,66	1,70	8126	120				
	27	51,52	1,84	7389	120				
	33	41,90	2,30	6009	120				
	38	37,21	2,60	5337	120				
	42	33,27	2,80	4772	120				
	46	30,25	3,10	4338	120				
	49	28,31	3,30	4060	120				
	52	27,04	3,50	3878	120				
	56	25,14	3,60	3606	120				
	24	59,40	1,26	8519	100	MKM	503 / 180 L 4b	289 300	668
	27	51,80	1,46	7429	100				
	31	45,65	1,67	6547	100				
	36	39,33	1,88	5641	100				
	40	34,66	2,10	4971	100				
	44	31,68	2,40	4544	100				
	51	27,27	2,70	3911	100				
	58	24,05	3,10	3449	100				
	65	21,50	3,30	3084	100				
	74	18,97	3,80	2721	100				
	83	16,84	4,10	2415	100				
	93	15,02	4,50	2154	100				
	49	28,60	1,35	4102	80	MKM	403 / 180 L 4b	271 282	528
	53	26,60	1,60	3815	80				
	58	24,15	1,77	3464	80				
	67	21,02	1,91	3015	80				
	74	18,99	2,10	2724	80				
	81	17,24	2,30	2473	80				
	90	15,57	2,50	2233	80				
30 / 40	4,8	289	1,19	55672	340	MKM	1204 / 200 L 4a	427 432	2242
	5,5	256	1,34	49315	340				
	6,1	229	1,50	44114	340				
	6,8	206	1,67	39683	340				
	7,5	187	1,80	36023	340				
	8,3	168	2,00	32363	340				
	9,2	152	2,22	29281	340				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
30 40	9,9	141	2,40	27162	340	MKM	1204 / 200 L 4a	427 432	2242
	11	127	2,65	24465	340				
	12	115	2,92	22153	340				
	6,0	235	1,10	45270	300	MKM	1104 / 200 L 4a	409 414	1792
	6,7	210	1,23	40454	300				
	7,4	189	1,37	36409	300				
	8,2	171	1,51	32941	300				
	9,2	153	1,68	29474	300				
	10	138	1,86	26584	300				
	11	125	2,00	24080	300				
	12	115	2,20	22153	300				
	13	104	2,40	20034	300				
	15	93,85	2,60	18079	300				
	16	85,09	2,90	16392	300				
	18	77,4	3,10	14910	300				
	20	70,58	3,40	13596	300				
	18	76,21	3,40	14904	240	MKM	1103 / 200 L 4a	397 408	1805
	8,0	175	1,10	33712	240	MKM	1004 / 200 L 4a	391 396	1408
	8,8	160	1,17	30822	240				
	9,9	142	1,32	27355	240				
	10	135	1,39	26006	240				
	12	119	1,57	22924	240				
	14	99,85	1,83	19235	240				
	14	100	1,92	19557	200	MKM	1003 / 200 L 4a	379 390	1418
	17	82,78	2,30	16189	200				
	20	69,46	2,70	13584	200				
	24	59,28	3,20	11593	200				
	25	56,56	3,30	11062	200				
	29	48,27	3,80	9440	200				
	10,0	140	1,01	26969	220	MKM	904 / 200 L 4a	373 378	1208
	11	124	1,15	23887	220				
	13	110	1,30	21190	220				
	14	103	1,47	19842	220				
	15	91,66	1,65	17657	220				
	17	81,79	1,85	15756	220				
	20	70,72	2,10	13831	180	MKM	903 / 200 L 4a	361 372	1218
	22	64,17	2,30	12550	180				
	24	58,89	2,40	11517	180				
	26	53,70	2,80	10502	180				
	31	44,71	3,20	8744	180				
	33	42,35	3,50	8282	180				
	14	100	1,17	19264	200	MKM	804 / 200 L 4a	355 360	1011
	16	88,15	1,36	16981	200				
	18	79,63	1,50	15340	200				
	19	72,28	1,65	13924	200				
	18	76,43	1,65	14948	160	MKM	803 / 200 L 4a	343 354	1015
	22	62,40	1,98	12204	160				
	24	58,03	2,20	11349	160				
	27	52,11	2,30	10191	160				
	30	47,38	2,60	9266	160				
	35	39,57	3,00	7739	160				
	37	37,37	3,30	7309	160				
	42	33,48	3,60	6548	160				
	46	30,21	4,10	5908	160				
	22	64,98	1,54	12518	180	MKM	704 / 200 L 4a	337 342	925

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
30 / 40	23	60,16	1,65	11766	140	MKM	703 / 200 L 4a	325 336	929
	26	53,42	1,88	10447	140				
	29	47,76	2,10	9340	140				
	33	42,94	2,30	8398	140				
	36	38,79	2,60	7586	140				
	38	36,43	2,70	7125	140				
	43	32,57	2,90	6370	140				
	48	29,28	3,00	5726	140				
	53	26,48	3,10	5179	140				
	59	23,80	3,20	4655	140				
	65	21,50	3,50	4205	140				
	71	19,79	3,70	3870	140				
	22	63,38	1,15	12395	120	MKM	603 / 200 L 4a	307 318	737
	25	56,66	1,25	11081	120				
	27	51,52	1,35	10076	120				
	33	41,90	1,65	8194	120				
	38	37,21	1,90	7277	120				
	42	33,27	2,10	6507	120				
	46	30,25	2,30	5916	120				
	49	28,31	2,40	5537	120				
	52	27,04	2,60	5288	120				
	56	25,14	2,70	4917	120				
	62	22,48	3,00	4396	120				
	66	21,24	3,10	4154	120				
	74	18,99	3,50	3714	120				
	31	45,65	1,23	8928	100	MKM	503 / 200 L 4a	289 300	729
	36	39,33	1,38	7692	100				
	40	34,66	1,58	6779	100				
	44	31,68	1,78	6196	100				
	51	27,27	2,00	5333	100				
	58	24,05	2,30	4703	100				
	65	21,50	2,40	4205	100				
	74	18,97	2,80	3710	100				
	83	16,84	3,00	3293	100				
	93	15,02	3,30	2937	100				
	53	26,60	1,17	5202	80	MKM	403 / 200 L 4a	271 282	589
	58	24,15	1,30	4723	80				
	67	21,02	1,40	4111	80				
	74	18,99	1,55	3714	80				
	81	17,24	1,70	3372	80				
	90	15,57	1,83	3045	80				
37 / 50	5,5	256	1,09	60822	340	MKM	1204 / 225 S 4a	427 432	2329
	6,1	229	1,21	54407	340				
	6,8	206	1,35	48943	340				
	7,5	187	1,46	44429	340				
	8,3	168	1,62	39915	340				
	9,2	152	1,80	36113	340				
	9,9	141	1,94	33500	340				
	11	127	2,15	30174	340				
	12	115	2,37	27322	340				
	13	105	2,60	24947	340				
	15	95,84	2,85	22770	340				
	16	87,58	3,13	20808	340				
	7,4	189	1,11	44904	300	MKM	1104 / 225 S 4a	409 414	1879
	8,2	171	1,22	40627	300				
	9,2	153	1,31	36351	300				
	10	138	1,51	32787	300				
	11	125	1,62	29698	300				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
37 / 50	12	115	1,78	27322	300	MKM	1104 / 225 S 4a	409 414	1879
	13	104	1,95	24709	300				
	15	93,85	2,10	22298	300				
	16	85,09	2,30	20216	300				
	18	77,4	2,50	18389	300				
	20	70,58	2,70	16769	300				
	18	76,21	2,70	18382	240	MKM	1103 / 225 S 4a	397 408	1892
	23	61,95	3,40	14943	240				
	9,9	142	1,07	33737	240	MKM	1004 / 225 S 4a	391 396	1499
	10	135	1,13	32074	240				
	12	119	1,28	28273	240				
	14	99,85	1,48	23723	240				
	14	100	1,56	24120	200	MKM	1003 / 225 S 4a	379 390	1504
	17	82,78	1,88	19967	200				
	20	69,46	2,20	16754	200				
	24	59,28	2,60	14299	200				
	25	56,56	2,70	13643	200				
	29	48,27	3,10	11643	200				
	32	44,36	3,70	10700	200				
	13	110	1,05	26135	220	MKM	904 / 225 S 4a	373 378	1299
	14	103	1,19	24471	220				
	15	91,66	1,35	21777	220				
	17	81,79	1,50	19432	220				
	20	70,72	1,70	17058	180	MKM	903 / 225 S 4a	343 354	1304
	22	64,17	1,86	15478	180				
	24	58,89	1,95	14205	180				
	26	53,70	2,30	12953	180				
	31	44,71	2,60	10784	180				
	33	42,35	2,80	10215	180				
	40	35,26	3,30	8505	180				
	42	33,56	3,50	8095	180				
	19	72,28	1,34	17173	200	MKM	804 / 225 S 4a	355 360	1102
	18	76,43	1,34	18435	160	MKM	803 / 225 S 4a	343 354	1102
	22	62,40	1,61	15051	160				
	24	58,03	1,75	13997	160				
	27	52,11	1,85	12569	160				
	30	47,38	2,10	11428	160				
	35	39,57	2,40	9544	160				
	37	37,37	2,70	9014	160				
	42	33,48	2,90	8076	160				
	46	30,21	3,30	7287	160				
	55	25,57	3,90	6168	160				
	23	60,16	1,33	14511	140	MKM	703 / 225 S 4a	325 336	1016
	26	53,42	1,52	12885	140				
	29	47,76	1,70	11520	140				
	33	42,94	1,89	10357	140				
	36	38,79	2,10	9356	140				
	38	36,43	2,20	8787	140				
	43	32,57	2,30	7856	140				
	48	29,28	2,40	7062	140				
	53	26,48	2,50	6387	140				
	59	23,80	2,60	5741	140				
	65	21,50	2,80	5186	140				
	71	19,79	3,00	4773	140				
	78	17,87	3,20	4310	140				
	86	16,20	3,30	3908	140				
	95	14,74	4,40	3555	140				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
37 / 50	33	41,90	1,34	10106	120	MKM	603 / 225 S 4a	307 318	828
	38	37,21	1,54	8975	120				
	42	33,27	1,70	8025	120				
	46	30,25	1,86	7296	120				
	49	28,31	1,95	6829	120				
	52	27,04	2,10	6522	120				
	56	25,14	2,20	6064	120				
	62	22,48	2,40	5422	120				
	66	21,24	2,50	5123	120				
	74	18,99	2,80	4580	120				
	40	34,66	1,28	8360	100	MKM	503 / 225 S 4a	289 300	820
	44	31,68	1,44	7641	100				
	51	27,27	1,62	6578	100				
	58	24,05	1,84	5801	100				
	65	21,50	1,97	5186	100				
	74	18,97	2,20	4576	100				
	83	16,84	2,50	4062	100				
	93	15,02	2,70	3623	100				
45 / 60	6,8	206	1,11	59525	340	MKM	1204 / 225 M 4b	427 432	2359
	7,5	187	1,20	54035	340				
	8,3	168	1,33	48545	340				
	9,2	152	1,48	43921	340				
	9,9	141	1,60	40743	340				
	11	127	1,76	36698	340				
	12	115	1,95	33230	340				
	13	105	2,14	30340	340				
	15	95,84	2,35	27694	340				
	16	87,58	2,57	25307	340				
	17	80,17	2,81	23166	340				
	19	72,68	3,15	21321	280	MKM	1203 / 225 M 4b	415 426	2372
	21	67,04	3,41	19667	280				
	9,2	153	1,08	44210	300	MKM	1104 / 225 M 4b	409 414	1909
	10	138	1,24	39876	300				
	11	125	1,33	36120	300				
	12	115	1,47	33230	300				
	13	104	1,60	30051	300				
	15	93,85	1,73	27119	300				
	16	85,09	1,93	24587	300				
	18	77,4	2,10	22365	300				
	20	70,58	2,30	20395	300				
	18	76,21	2,20	22357	240	MKM	1103 / 225 M 4b	397 408	1922
	23	61,95	2,80	18173	240				
	27	51,5	3,40	15108	240				
	32	44,2	3,80	12966	240				
	12	119	1,05	34386	240	MKM	1004 / 225 M 4b	391 396	1529
	14	99,85	1,22	28852	240				
	14	100	1,28	29336	200	MKM	1003 / 225 M 4b	379 390	1534
	17	82,78	1,55	24284	200				
	20	69,46	1,85	20377	200				
	24	59,28	2,10	17390	200				
	25	56,56	2,20	16592	200				
	29	48,27	2,50	14160	200				
	32	44,36	3,00	13013	200				
	38	37,22	3,30	10919	200				
	44	31,76	3,90	9317	200				
	15	91,66	1,11	26486	220	MKM	904 / 225 M 4b	373 378	1329
	17	81,79	1,23	23634	220				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
45 / 60	20	70,72	1,40	20746	180	MKM	903 / 225 M 4b	361 372	1334
	22	64,17	1,53	18825	180				
	24	58,89	1,60	17276	180				
	26	53,70	1,87	15753	180				
	31	44,71	2,10	13116	180				
	33	42,35	2,30	12424	180				
	40	35,26	2,70	10344	180				
	42	33,56	2,90	9845	180				
	48	29,39	3,30	8622	180				
	50	27,94	3,50	8196	180				
	54	25,89	3,80	7595	180				
	22	62,40	1,32	18305	160	MKM	803 / 225 M 4b	343 354	1132
	24	58,03	1,44	17024	160				
	27	52,11	1,52	15287	160				
	30	47,38	1,73	13899	160				
	35	39,57	2,00	11608	160				
	37	37,37	2,20	10963	160				
	42	33,48	2,40	9822	160				
	46	30,21	2,70	8862	160				
	55	25,57	3,20	7501	160				
	62	22,41	3,60	6574	160				
	71	19,76	4,10	5797	160				
	100	14,01	5,20	4110	160				
	26	53,42	1,25	15671	180	MKM	703 / 225 M 4b	325 336	1046
	29	47,76	1,40	14011	180				
	33	42,94	1,55	12597	140				
	36	38,79	1,72	11379	140				
	38	36,43	1,80	10687	140				
	43	32,57	1,90	9555	140				
	48	29,28	1,90	8589	140				
	53	26,48	2,00	7768	140				
	59	23,80	2,20	6982	140				
	65	21,50	2,30	6307	140				
	71	19,79	2,40	5806	140				
	78	17,87	2,60	5242	140				
	86	16,20	2,70	4752	140				
	95	14,74	3,60	4324	140				
	33	41,90	1,10	12292	120	MKM	603 / 225 M 4b	307 318	858
	38	37,21	1,27	10916	120				
	42	33,27	1,40	9760	120				
	46	30,25	1,53	8874	120				
	49	28,31	1,60	8305	120				
	52	27,04	1,70	7932	120				
	56	25,14	1,77	7375	120				
	62	22,48	2,00	6595	120				
	66	21,24	2,00	6231	120				
	74	18,99	2,30	5571	120				
	44	31,68	1,18	9294	100	MKM	503 / 225 M 4b	289 300	850
	51	27,27	1,33	8000	100				
	58	24,05	1,52	7055	100				
	65	21,50	1,62	6307	100				
	74	18,97	1,83	5565	100				
	83	16,84	2,00	4940	100				
	93	15,02	2,20	4406	100				
55 / 75	8,3	168	1,09	59332	340	MKM	1204 / 250 M 4a	427 432	2443
	9,2	152	1,21	53682	340				
	9,9	141	1,31	49797	340				
	11	127	1,44	44853	340				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
55 / 75	12	115	1,59	40614	340	MKM	1204 / 250 M 4a	427 / 432	2443
	13	105	1,75	37083	340				
	15	95,84	1,92	33848	340				
	16	87,58	2,10	30931	340				
	17	80,17	2,30	28314	340				
	19	72,68	2,58	26059	280	MKM	1203 / 250 M 4a	415 / 426	2459
	21	67,04	2,79	24037	280				
	24	59,34	3,16	21276	280				
	11	125	1,09	44146	300	MKM	1104 / 250 M 4a	409 / 414	1993
	12	115	1,20	40614	300				
	13	104	1,31	36730	300				
	15	93,85	1,42	33145	300				
	16	85,09	1,58	30051	300				
	18	77,4	1,69	27335	300				
	20	70,58	1,85	24927	300				
	18	76,21	1,85	27325	240	MKM	1103 / 250 M 4a	397 / 408	2009
	23	61,95	2,30	22212	240				
	27	51,5	2,70	18465	240				
	32	44,2	3,20	15848	240				
	38	36,74	3,80	13173	240				
	45	31,04	4,50	11129	240				
	50	27,87	3,60	9993	240				
	17	82,78	1,27	29681	200	MKM	1003 / 250 M 4a	379 / 390	1613
	20	69,46	1,51	24905	200				
	24	59,28	1,78	21255	200				
	25	56,56	1,82	20279	200				
	29	48,27	2,10	17307	200				
	32	44,36	2,50	15905	200				
	38	37,22	2,70	13345	200				
	44	31,76	3,20	11387	200				
	51	27,46	3,70	9846	200				
	20	70,72	1,15	25356	180	MKM	903 / 250 M 4a	361 / 372	1413
	22	64,17	1,25	23008	180				
	24	58,89	1,31	21115	180				
	26	53,70	1,53	19254	180				
	31	44,71	1,75	16031	180				
	33	42,35	1,91	15184	180				
	40	35,26	2,20	12642	180				
	42	33,56	2,40	12033	180				
	48	29,39	2,70	10538	180				
	50	27,94	2,80	10018	180				
	54	25,89	3,10	9283	180				
	58	24,27	3,20	8702	180				
	65	21,56	3,70	7730	180				
	24	58,03	1,18	20807	160	MKM	803 / 250 M 4a	343 / 354	1216
	27	52,11	1,24	18684	160				
	30	47,38	1,41	16988	160				
	35	39,57	1,65	14188	160				
	37	37,37	1,78	13399	160				
	42	33,48	1,95	12004	160				
	46	30,21	2,20	10832	160				
	55	25,57	2,60	9168	160				
	62	22,41	3,00	8035	160				
	71	19,76	3,40	7085	160				
	100	14,01	4,20	5023	160				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
55 / 75	29	47,76	1,15	17124	140	MKM	703 / 250 M 4a	325 336	1130
	33	42,94	1,27	15396	140				
	36	38,79	1,40	13908	140				
	38	36,43	1,47	13062	140				
	43	32,57	1,55	11678	140				
	48	29,28	1,61	10498	140				
	53	26,48	1,66	9494	140				
	59	23,80	1,77	8533	140				
	65	21,50	1,88	7709	140				
	71	19,79	1,99	7096	140				
	78	17,87	2,10	6407	140				
	86	16,20	2,20	5808	140				
	95	14,74	3,00	5285	140				
	38	37,21	1,04	13342	120	MKM	603 / 250 M 4a	307 318	942
	42	33,27	1,15	11929	120				
	46	30,25	1,25	10846	120				
	49	28,31	1,31	10150	120				
	52	27,04	1,39	9695	120				
	56	25,14	1,45	9014	120				
	62	22,48	1,64	8060	120				
	66	21,24	1,66	7616	120				
	74	18,99	1,88	6809	120				
	58	24,05	1,24	8623	100	MKM	503 / 250 M 4a	325 336	934
	74	18,97	1,50	6802	100				
	83	16,84	1,66	6038	100				
	93	15,02	1,83	5385	100				
75 / 100	11	127	1,06	61163	340	MKM	1204 / 280 S 4a	325 336	2610
	12	115	1,17	55383	340				
	13	105	1,28	50567	340				
	15	95,84	1,41	46156	340				
	16	87,58	1,54	42178	340				
	17	80,17	1,68	38609	340				
	19	72,68	1,89	35535	280	MKM	1203 / 280 S 4a	325 336	2639
	21	67,04	2,05	32778	280				
	24	59,34	2,32	29013	280				
	26	54,74	2,51	26764	280				
	28	49,56	2,77	24231	280				
	31	45,71	3,00	22349	280				
	33	42,08	3,26	20574	280				
	36	38,81	3,53	18975	280				
	16	85,09	1,16	40979	300	MKM	1104 / 280 S 4a	325 336	2160
	18	77,4	1,24	37275	300				
	20	70,58	1,36	33991	300				
	18	76,21	1,36	37261	240	MKM	1103 / 280 S 4a	307 318	2189
	23	61,95	1,68	30289	240				
	27	51,5	2,00	25180	240				
	32	44,2	2,30	21611	240				
	38	36,74	2,80	17963	240				
	45	31,04	3,30	15176	240				
	50	27,87	2,60	13626	240				
	54	25,92	3,90	12673	240				
	20	69,46	1,23	33961	200	MKM	1003 / 280 S 4a	379 390	1780
	24	59,28	1,45	28984	200				
	25	56,56	1,49	27654	200				
	29	48,27	1,72	23601	200				
	32	44,36	2,00	21689	200				
	38	37,22	2,20	18198	200				
	44	31,76	2,60	15528	200				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
75 / 100	51	27,46	2,70	13426	200	MKM	1003 / 280 S 4a	379 390	1780
	61	22,86	3,20	11177	200				
	70	19,96	3,70	9759	200				
	26	53,70	1,12	26255	180	MKM	903 / 280 S 4a	361 372	1580
	31	44,71	1,28	21860	180				
	33	42,35	1,40	20706	180				
	40	35,26	1,84	17240	180				
	42	33,56	1,76	16408	180				
	48	29,39	2,00	14370	180				
	50	27,94	2,10	13661	180				
	54	25,89	2,30	12658	180				
	58	24,27	2,40	11866	180				
	65	21,56	2,70	10541	180				
	35	39,57	1,21	19347	160	MKM	803 / 280 S 4a	343 354	1383
	37	37,37	1,31	18271	160				
	42	33,48	1,43	16369	160				
	46	30,21	1,63	14771	160				
	55	25,57	1,92	12502	160				
	62	22,41	2,20	10957	160				
	71	19,76	2,50	9661	160				
	100	14,01	3,10	6850	160				
	48	29,28	1,18	14316	140	MKM	703 / 280 S 4a	325 336	1297
	59	23,80	1,30	11636	140				
	65	21,50	1,38	10512	140				
	71	19,79	1,46	9676	140				
	78	17,87	1,56	8737	140				
	86	16,20	1,64	7921	140				
	95	14,74	2,20	7207	140				
90 / 120	16	87,58	1,29	50614	340	MKM	1204 / 280 M 4b	427 432	2670
	17	80,17	1,40	46331	340				
	19	72,68	1,58	42642	280	MKM	1203 / 280 M 4b	415 426	2699
	21	67,04	1,71	39333	280				
	24	59,34	1,93	34816	280				
	26	54,74	2,09	32117	280				
	28	49,56	2,31	29078	280				
	31	45,71	2,50	26819	280				
	33	42,08	2,72	24689	280				
	36	38,81	2,95	22770	280				
	39	36,17	3,16	21221	280				
	42	33,37	3,43	19579	280				
	20	70,58	1,13	40789	300	MKM	1104 / 280 M 4b	409 414	2220
	18	76,21	1,13	44713	240	MKM	1103 / 280 M 4b	397 408	2249
	23	61,95	1,40	36347	240				
	27	51,5	1,68	30216	240				
	32	44,2	1,93	25933	240				
	38	36,74	2,40	21556	240				
	45	31,04	2,80	18212	240				
	50	27,87	2,20	16352	240				
	54	25,92	3,30	15208	240				
	61	22,89	3,70	13430	240				
	24	59,28	1,21	34780	200	MKM	1003 / 280 M 4b	379 390	1840
	25	56,56	1,24	33185	200				
	29	48,27	1,43	28321	200				
	32	44,36	1,70	26027	200				
	38	37,22	1,84	21837	200				
	44	31,76	2,20	18634	200				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
90 120	51	27,46	2,30	16111	200	MKM	1003 / 280 M 4b	379 390	1840
	61	22,86	2,70	13412	200				
	70	19,96	3,10	11711	200				
	90	15,54	4,00	9118	200				
	31	44,71	1,07	26232	180	MKM	903 / 280 M 4b	361 372	1640
	33	42,35	1,17	24847	180				
	40	35,26	1,37	20688	180				
	42	33,56	1,47	19690	180				
	48	29,39	1,67	17244	180				
	50	27,94	1,73	16393	180				
	54	25,89	1,90	15190	180				
	58	24,27	1,97	14240	180				
	65	21,56	2,20	12650	180				
	42	33,48	1,19	19643	160	MKM	803 / 280 M 4b	343 354	1443
	55	25,57	1,60	15002	160				
	62	22,41	1,80	13148	160				
	71	19,76	2,10	11593	160				
	100	14,01	2,60	8220	160				
	95	14,74	1,83	8648	140	MKM	703 / 280 M 4b	325 336	1242
110 150	19	72,68	1,29	52118	280	MKM	1203 / 315 S 4a	415 426	2926
	21	67,04	1,40	48074	280				
	24	59,34	1,58	42552	280				
	26	54,74	1,71	39254	280				
	28	49,56	1,89	35539	280				
	31	45,71	2,05	32778	280				
	33	42,08	2,23	30175	280				
	36	38,81	2,41	27830	280				
	39	36,17	2,59	25937	280				
	42	33,37	2,80	23929	280				
	45	31,39	2,98	22510	280				
	48	28,95	3,23	20760	280				
	51	27,44	3,41	19677	280				
	23	61,95	1,15	44424	240	MKM	1103 / 315 S 4a	397 408	2476
	27	51,5	1,38	36930	240				
	32	44,2	1,58	31696	240				
	38	36,74	1,92	26346	240				
	45	31,04	2,30	22259	240				
	50	27,87	1,82	19985	240				
	54	25,92	2,70	18587	240				
	61	22,89	3,00	16414	240				
	70	19,88	3,50	14256	240				
	81	17,35	4,00	12442	240				
	29	48,27	1,17	34614	200	MKM	1003 / 315 S 4a	379 390	2076
	32	44,36	1,39	31810	200				
	38	37,22	1,50	26690	200				
	44	31,76	1,78	22775	200				
	51	27,46	1,86	19691	200				
	61	22,86	2,20	16393	200				
	70	19,96	2,50	14313	200				
	90	15,54	3,30	11144	200				
	40	35,26	1,12	25285	180	MKM	903 / 315 S 4a	361 372	1876
	42	33,56	1,20	24066	180				
	48	29,39	1,36	21075	180				
	50	27,94	1,44	20036	180				
	54	25,89	1,55	18566	180				
	58	24,27	1,61	17404	180				
	65	21,56	1,83	15461	180				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
132 / 175	19	72,68	1,08	62542	280	MKM	1203 / 315 M 4a	361 372	2947
	21	67,04	1,16	57689	280				
	24	59,34	1,32	51063	280				
	26	54,74	1,42	47105	280				
	28	49,56	1,58	42647	280				
	31	45,71	1,70	39334	280				
	33	42,08	1,85	36210	280				
	36	38,81	2,01	33397	280				
	39	36,17	2,15	31125	280				
	42	33,37	2,34	28715	280				
	45	31,39	2,48	27012	280				
	48	28,95	2,69	24912	280				
	51	27,44	2,84	23613	280				
	55	25,31	3,08	21780	280				
	58	24,12	3,23	20756	280				
	63	22,25	3,49	19146	280				
	27	51,5	1,15	44316	240	MKM	1103 / 315 M 4a	361 372	2497
	32	44,2	1,32	38035	240				
	38	36,74	1,60	31615	240				
	45	31,04	1,88	26710	240				
	50	27,87	1,51	23983	240				
	54	25,92	2,30	22305	240				
	61	22,89	2,50	19697	240				
	70	19,88	2,90	17107	240				
	32	44,36	1,16	38172	200	MKM	1003 / 315 M 4a	379 390	2097
	38	37,22	1,25	32028	200				
	44	31,76	1,49	27330	200				
	51	27,46	1,55	23630	200				
	61	22,86	1,84	19671	200				
	70	19,96	2,10	17176	200				
	90	15,54	2,70	13372	200				
	42	33,56	1,00	28879	180	MKM	903 / 315 M 4a	361 372	1897
	48	29,39	1,13	25291	180				
	50	27,94	1,20	24043	180				
	54	25,89	1,30	22279	180				
	58	24,27	1,34	20885	180				
	65	21,56	1,52	18553	180				
160 / 210	24	59,34	1,09	61894	280	MKM	1203 / 315 M 4b	415 426	2995
	26	54,74	1,17	57096	280				
	28	49,56	1,30	51693	280				
	31	45,71	1,41	47678	280				
	33	42,08	1,53	43891	280				
	36	38,81	1,66	40481	280				
	39	36,17	1,78	37727	280				
	42	33,37	1,93	34806	280				
	45	31,39	2,05	32741	280				
	48	28,95	2,22	30196	280				
	51	27,44	2,34	28621	280				
	55	25,31	2,54	26400	280				
	58	24,12	2,66	25158	280				
	63	22,25	2,88	23208	280				
	66	21,29	3,01	22206	280				
	71	19,64	3,27	20485	280				
	32	44,2	1,10	46103	240	MKM	1103 / 315 M 4b	397 408	2545
	38	36,74	1,33	38322	240				
	45	31,04	1,56	32376	240				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
160 / 210	50	27,87	1,25	29070	240	MKM	1103 / 315 M 4b	397 408	2545
	54	25,92	1,85	27036	240				
	61	22,89	2,10	23875	240				
	70	19,88	2,50	20736	240				
	81	17,35	2,80	18097	240				
	44	31,76	1,23	33127	200	MKM	1003 / 315 M 4b	379 390	2145
	51	27,46	1,28	28642	200				
	61	22,86	1,52	23844	200				
	70	19,96	1,75	20819	200				
	90	15,54	2,20	16209	200				
185 / 250	28	49,56	1,12	59771	280	MKM	1203 / 315 L 4a	415 426	3080
	31	45,71	1,22	55127	280				
	33	42,08	1,32	50749	280				
	36	38,81	1,43	46806	280				
	39	36,17	1,54	43622	280				
	42	33,37	1,67	40245	280				
	45	31,39	1,77	37857	280				
	48	28,95	1,92	34914	280				
	51	27,44	2,03	33093	280				
	55	25,31	2,19	30524	280				
	58	24,12	2,30	29089	280				
	63	22,25	2,49	26834	280				
	66	21,29	2,60	25676	280				
	71	19,64	2,82	23686	280				
	38	36,74	1,15	44309	240	MKM	1103 / 315 L 4a	397 408	2630
	45	31,04	1,35	37435	240				
	50	27,87	1,08	33612	240				
	54	25,92	1,60	31260	240				
	61	22,89	1,83	27606	240				
	70	19,88	2,10	23976	240				
	81	17,35	2,40	20925	240				
	61	22,86	1,31	27570	200	MKM	1003 / 315 L 4a	379 390	2230
	70	19,96	1,51	24072	200				
	90	15,54	1,94	18742	200				
200 / 270	31	45,71	1,13	59597	280	MKM	1203 / 315 L 4b	415 426	3165
	33	42,08	1,22	54864	280				
	36	38,81	1,33	50601	280				
	39	36,17	1,42	47159	280				
	42	33,37	1,54	43508	280				
	45	31,39	1,64	40927	280				
	48	28,95	1,77	37745	280				
	51	27,44	1,88	35777	280				
	55	25,31	2,03	32999	280				
	58	24,12	2,13	31448	280				
	63	22,25	2,30	29010	280				
	66	21,29	2,41	27758	280				
	71	19,64	2,61	25607	280				
	38	36,74	1,07	47902	240	MKM	1103 / 315 L 4b	397 408	2715
	45	31,04	1,25	40470	240				
	50	27,87	1,00	36337	240				
	54	25,92	1,48	33795	240				
	61	22,89	1,69	29844	240				
	70	19,88	1,97	25920	240				
	81	17,35	2,20	22621	240				
	70	19,96	1,40	26024	270	MKM	1003 / 315 L 4b	379 390	2315
	90	15,54	1,80	20261	270				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
250 340	39	36,17	1,14	58948	280	MK	1203 / 355 M 4a	415 426	3250
	42	33,37	1,23	54385	280				
	45	31,39	1,31	51158	280				
	48	28,95	1,42	47182	280				
	51	27,44	1,50	44721	280				
	55	25,31	1,62	41249	280				
	58	24,12	1,70	39310	280				
	63	22,25	1,84	36262	280				
	66	21,29	1,93	34698	280				
	71	19,64	2,09	32009	280				
	70	19,88	1,58	32400	240	MK	1103 / 355 M 4a	397 408	2800
	81	17,35	1,80	28276	240				
	90	15,54	1,43	25326	270	MK	1003 / 355 M 4a	379 390	2450
315 430	51	27,44	1,19	56348	280	MK	1203 / 355 M 4b	415 426	3288
	55	25,31	1,29	51974	280				
	58	24,12	1,35	49530	280				
	63	22,25	1,46	45690	280				
	66	21,29	1,53	43719	280				
	71	19,64	1,66	40331	280				

MK Serisi Redüktörler Güç ve Devir Tabloları

MK Series - Performances Tables

Series MK - Table de performances

Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	P_1 GÜÇ Power *Puissance* [kW]	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m] (n_1=1400rpm)	İ Tahvil Ratio *Rapport de réduction*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1} Rad. Yük Over Loads *Charges radiales* [N]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
6100 Nm	3,0	4,61	303	6100	5000	100	**MK**	**404**	283 288	260
	3,8	5,17	271	6100	5000	100				
	4,2	5,76	243	6100	5000	100				
	4,5	6,38	220	6100	5000	100				
	4,8	6,74	208	6100	5000	100				
	5,1	7,46	188	6100	5000	100				
	6,1	8,30	169	6100	5000	100				
	6,0	9,19	152	6100	5000	100				
	6,7	9,72	144	6100	5000	100				
	7,1	11	129	6100	5000	100				
	8,1	12	117	6100	5000	100				
5740 Nm	8,2	12	115	5740	6000	80	**MK**	**403**	271 282	260
	9,4	14	102	5740	6000	80				
	10,7	17	80,98	5740	6000	80				
	10,5	17	81,71	5740	6000	80				
	11,7	19	73,81	5740	6000	80				
	13,4	22	63,67	5740	6000	80				
	16,0	24	57,52	5740	6000	80				
	18,6	29	48,87	5740	6000	80				
	19,6	32	44,14	5740	6000	80				
	23,3	35	40,07	5740	6000	80				
	25,2	40	34,88	5740	6000	80				
	27,1	44	31,51	5740	6000	80				
	31,3	49	28,60	5740	6000	80				
	35,2	53	26,61	5740	6000	80				
	36,5	58	24,15	5740	6000	80				
	43,8	67	21,03	5740	6000	80				
	46,4	74	18,99	5740	6000	80				
	50,3	81	17,24	5740	6000	80				
	57.4	90	15,57	5740	6000	80				
10230 Nm	5,2	4,74	295	10230	7000	120	**MK**	**504**	301 306	387
	6,4	5,40	259	10230	7000	120				
	6,8	6,10	229	10230	7000	120				
	7,7	6,85	204	10230	7000	120				
	8,9	8,15	172	10230	7000	120				
	10,8	9,21	152	10230	7000	120				
	11,2	10	135	10230	7000	120				
	13,4	12	119	10230	7000	120				
	15,2	13	105	10230	7000	120				
	17,0	15	93,84	10230	7000	120				
	19.8	17	82,78	10230	7000	120				
10300 Nm	15,9	14	101	10300	8000	100	**MK**	**503**	289 300	387
	17,4	16	88,24	10300	8000	100				
	20,3	18	77,76	10300	8000	100				
	23,6	21	67,00	10300	8000	100				
	27,0	24	59,40	10300	8000	100				
	31,9	27	51,81	10300	8000	100				
	35,1	31	45,65	10300	8000	100				
	42,7	36	39,34	10300	8000	100				
	47,7	40	34,67	10300	8000	100				
	53,8	44	31,68	10300	8000	100				
	56,2	51	27,27	10300	8000	100				
	67,7	58	24,06	10300	8000	100				
	79,2	65	21,51	10300	8000	100				
	82,0	74	18,97	10300	8000	100				
	92,4	83	16,84	10300	8000	100				
	104	93	15,02	10300	8000	100				

Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	P_1 GÜÇ Power *Puissance* [kW]	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m] (n_1=1400rpm)	İ Tahvil Ratio *Rapport de réduction*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1} Rad. Yük Over Loads *Charges radiales* [N]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
11900 Nm	4,7	3,63	386	11900	7000	140	**MK**	**604**	319 324	395
	6,0	4,44	315	11900	7000	140				
	7,4	5,62	249	11900	7000	140				
	8,4	6,41	219	11900	7000	140				
	9,4	6,72	208	11900	7000	140				
	12,3	8,65	162	11900	7000	140				
	12,8	9,94	141	11900	7000	140				
	15,5	11	124	11900	7000	140				
	17,3	13	112	11900	7000	140				
	19,8	14	98,15	11900	7000	140				
	19,3	15	93,07	11900	7000	140				
	22,7	17	82,92	11900	7000	140				
	26,0	19	73,38	11900	7000	140				
	27.9	21	65,36	11900	7000	140				
12900 Nm	20,5	13	106	12900	8000	120	**MK**	**603**	307 318	395
	21,0	15	94,03	12900	8000	120				
	22,0	16	88,64	12900	8000	120				
	26,7	18	78,72	12900	8000	120				
	28,1	20	71,37	12900	8000	120				
	30,8	22	63,38	12900	8000	120				
	38,2	25	56,67	12900	8000	120				
	41,4	27	51,53	12900	8000	120				
	47,2	33	41,90	12900	8000	120				
	51,6	38	37,21	12900	8000	120				
	63,2	42	33,27	12900	8000	120				
	64,4	46	30,25	12900	8000	120				
	76,5	49	28,32	12900	8000	120				
	78,9	52	27,05	12900	8000	120				
	84,9	56	25,15	12900	8000	120				
	86,7	62	22,48	12900	8000	120				
	96,0	66	21,25	12900	8000	120				
	107	74	19,00	12900	8000	120				
18900 Nm	6,4	3,10	452	18900	9000	180	**MK**	**704**	337 342	577
	7,1	3,48	403	18900	9000	180				
	8,5	3,85	364	18900	9000	180				
	9,4	4,32	324	18900	9000	180				
	9,8	4,81	291	18900	9000	180				
	11,2	5,32	263	18900	9000	180				
	13,6	5,98	234	18900	9000	180				
	14,8	6,62	211	18900	9000	180				
	15,5	7,36	190	18900	9000	180				
	17,9	8,14	172	18900	9000	180				
	19,9	9,17	153	18900	9000	180				
	20,9	10	139	18900	9000	180				
	23,8	11	124	18900	9000	180				
	25,7	13	111	18900	9000	180				
	28,0	14	100	18900	9000	180				
	31,6	16	89,06	18900	9000	180				
	37,5	17	80,85	18900	9000	180				
	40,1	19	72,28	18900	9000	180				
	48,8	22	64,99	18900	9000	180				
	52.0	23	60,09	18900	9000	180				
19400 Nm	50,2	23	60,16	19400	10000	140	**MK**	**703**	325 336	577
	60,1	26	53,43	19400	10000	140				
	68,2	29	47,77	19400	10000	140				
	74,7	33	42,95	19400	10000	140				
	76,7	36	38,79	19400	10000	140				
	79,3	38	36,43	19400	10000	140				
	90,0	43	32,57	19400	10000	140				
	105	48	29,29	19400	10000	140				

Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	**P_1** **GÜÇ** Power *Puissance* **[kW]**	**n_2** **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]** **(n_1=1400rpm)**	**İ** **Tahvil** Ratio *Rapport de réduction*	**M_2** **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	**F_{Q1}** **Rad. Yük** Over Loads *Charges radiales* **[N]**	**F_{Q10}** **Rad. Yük** Over Loads *Charges radiales* **[kN]**	**Tip** Type *Types*			**~kg**
19400 Nm	121	53	26,48	19400	10000	140	**MK**	**703**	325 336	577
	135	59	23,81	19400	10000	140				
	140	65	21,50	19400	10000	140				
	146	71	19,79	19400	10000	140				
	174	78	17,88	19400	10000	140				
	198	86	16,21	19400	10000	140				
	202	95	14,74	19400	10000	140				
22520 Nm	7,1	2,74	512	22520	9000	200	**MK**	**804**	355 360	663
	7,3	3,05	460	22520	9000	200				
	8,6	3,37	415	22520	9000	200				
	9,7	3,71	377	22520	9000	200				
	9,8	4,01	349	22520	9000	200				
	12,2	4,57	306	22520	9000	200				
	14,3	5,28	265	22520	9000	200				
	15,4	5,88	238	22520	9000	200				
	16,8	6,51	215	22520	9000	200				
	17,5	7,31	192	22520	9000	200				
	21,9	8,09	173	22520	9000	200				
	22,2	9,26	151	22520	9000	200				
	25,7	10	137	22520	9000	200				
	27,0	11	124	22520	9000	200				
	30,4	13	112	22520	9000	200				
	36,9	14	101	22520	9000	200				
	39,8	16	88,15	22520	9000	200				
	43,4	18	79,63	22520	9000	200				
	50.8	19	72,29	22520	9000	200				
22300 Nm	43,4	18	76,43	22300	10000	160	**MK**	**803**	343 354	663
	54,8	22	62,40	22300	10000	160				
	61,7	24	58,04	22300	10000	160				
	68,7	27	52,12	22300	10000	160				
	73,3	30	47,38	22300	10000	160				
	86,4	35	39,57	22300	10000	160				
	88,8	37	37,37	22300	10000	160				
	105	42	33,49	22300	10000	160				
	124	46	30,22	22300	10000	160				
	142	55	25,57	22300	10000	160				
	153	62	22,41	22300	10000	160				
	181	71	19,76	22300	10000	160				
	240	100	14,01	22300	10000	160				
28830 Nm	14,9	4,57	306	28830	10000	220	**MK**	**904**	373 378	850
	17,6	5,24	267	28830	10000	220				
	19,7	5,95	235	28830	10000	220				
	20,5	6,30	222	28830	10000	220				
	24,3	7,14	196	28830	10000	220				
	24,6	7,56	185	28830	10000	220				
	26,7	8,57	163	28830	10000	220				
	34,4	9,96	141	28830	10000	220				
	34,6	11	124	28830	10000	220				
	44,0	13	110	28830	10000	220				
	44,8	14	103	28830	10000	220				
	50,5	15	91,66	28830	10000	220				
	59.2	17	81,79	28830	10000	220				
29530 Nm	65,0	20	70,72	29530	12000	180	**MK**	**903**	361 372	850
	75,0	22	64,18	29530	12000	180				
	84,2	24	58,89	29530	12000	180				
	83,1	26	53,70	29530	12000	180				
	108	31	44,72	29530	12000	180				
	109	33	42,35	29530	12000	180				
	136	40	35,27	29530	12000	180				
	137	42	33,56	29530	12000	180				

Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	P_1 GÜÇ Power *Puissance* [kW]	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m] (n_1=1400rpm)	İ Tahvil Ratio *Rapport de réduction*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1} Rad. Yük Over Loads *Charges radiales* [N]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [kN]	Tip Type *Types*			~kg
29530 Nm	156	48	29,39	29530	12000	180	MK	903	361 372	850
	175	50	27,95	29530	12000	180				
	172	54	25,89	29530	12000	180				
	195	58	24,28	29530	12000	180				
	220	65	21,56	29530	12000	180				
37580 Nm	12,3	2,77	505	37580	10000	240	MK	1004	391 396	1050
	13,6	3,15	445	37580	10000	240				
	15,2	3,38	414	37580	10000	240				
	14,4	3,55	394	37580	10000	240				
	16,1	4,03	347	37580	10000	240				
	17,3	4,33	323	37580	10000	240				
	19,9	4,91	285	37580	10000	240				
	21,2	5,16	271	37580	10000	240				
	26,4	5,86	239	37580	10000	240				
	28,3	7,08	198	37580	10000	240				
	31,9	7,98	176	37580	10000	240				
	38,6	8,70	161	37580	10000	240				
	44,2	9,80	143	37580	10000	240				
	46,0	10	135	37580	10000	240				
	46,6	12	120	37580	10000	240				
	59.5	14	99.85	37580	10000	240				
36700 Nm	54,9	14	101	36700	12000	200	MK	1003	379 390	1050
	70,1	17	82,79	36700	12000	200				
	88,7	20	69,47	36700	12000	200				
	99,4	24	59,29	36700	10000	200				
	99,5	25	56,56	36700	10000	200				
	115	29	48,27	36700	10000	200				
	133	32	44,36	36700	10000	200				
	156	38	37,23	36700	10000	200				
	194	44	31,77	36700	10000	200				
	199	51	27,46	36700	10000	200				
	258	61	22,87	36700	10000	200				
	278	70	19,96	36700	10000	200				
	396	90	15.55	36700	10000	200				
50000 Nm	24,3	4,25	330	50000	12000	300	MK	1104	409 414	1400
	27,0	4,78	293	50000	12000	300				
	29,7	5,35	262	50000	12000	300				
	32,6	5,95	235	50000	12000	300				
	37,0	6,66	210	50000	12000	300				
	39,9	7,40	189	50000	12000	300				
	43,5	8,19	171	50000	12000	300				
	50,6	9,11	154	50000	12000	300				
	58,7	10	139	50000	12000	300				
	59,1	11	126	50000	12000	300				
	67,5	12	115	50000	12000	300				
	77,8	13	105	50000	12000	300				
	84,2	15	93,85	50000	12000	300				
	98,7	16	85,09	50000	12000	300				
	101	18	77,40	50000	12000	300				
	117	20	70.58	50000	12000	300				
50000 Nm	97,6	18	76,21	50000	16000	240	MK	1103	397 408	1400
	128	23	61,95	50000	16000	240				
	153	27	51,50	50000	16000	240				
	171	32	44,20	50000	16000	240				
	212	38	36,74	50000	16000	240				
	251	45	31,04	50000	16000	240				
	292	50	27,87	50000	16000	240				
	291	54	25,92	50000	16000	240				
	367	61	22,89	50000	16000	240				
	416	70	19,88	50000	16000	240				
	456	81	17,35	50000	16000	240				

Servis Faktörü S_f =1 Service Factor S_f =1 *Service facteur S_f =1*	**P_1** **GÜÇ** Power *Puissance* **[kW]**	**n_2** **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]** **(n_1=1400rpm)**	**İ** **Tahvil** Ratio *Rapport de réduction*	**M_2** **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	**F_{Q1}** **Rad. Yük** Over Loads *Charges radiales* **[N]**	**F_{Qlo}** **Rad. Yük** Over Loads *Charges radiales* **[kN]**	**Tip** Type *Types*			~kg
70000 Nm	27,9	3,48	402	70000	12000	340	**MK**	**1204**	427 432	1850
	31,7	3,95	354	70000	12000	340				
	33,1	4,45	315	70000	12000	340				
	38,9	4,84	289	70000	12000	340				
	45,8	5,45	257	70000	12000	340				
	45,4	6,10	230	70000	12000	340				
	52,8	6,78	206	70000	12000	340				
	56,3	7,45	188	70000	12000	340				
	62,6	8,29	169	70000	12000	340				
	73,6	9,18	153	70000	12000	340				
	76,1	9,92	141	70000	12000	340				
	84,3	11	127	70000	12000	340				
	92,9	12	116	70000	12000	340				
	104	13	105	70000	12000	340				
	114	15	95,84	70000	12000	340				
	130	16	87,59	70000	12000	340				
70000 Nm	150	19	72,68	70000	16000	280	**MK**	**1203**	415 426	1850
	175	21	67,05	70000	16000	280				
	184	24	59,34	70000	16000	280				
	196	26	54,74	70000	16000	280				
	210	28	49,56	70000	16000	280				
	257	31	45,72	70000	16000	280				
	275	33	42,08	70000	16000	280				
	298	36	38,82	70000	16000	280				
	301	39	36,17	70000	16000	280				
	342	42	33,37	70000	16000	280				
	342	45	31,39	70000	16000	280				
	388	48	28,96	70000	16000	280				
	397	51	27,44	70000	16000	280				
	444	55	25,32	70000	16000	280				
	466	58	24,13	70000	16000	280				
	505	63	22,26	70000	16000	280				
	552	66	21,30	70000	16000	280				
	598	71	19,65	70000	16000	280				

MK Serisi Redüktörler Ölçü Sayfaları

Dimensions Pages

Dimensions

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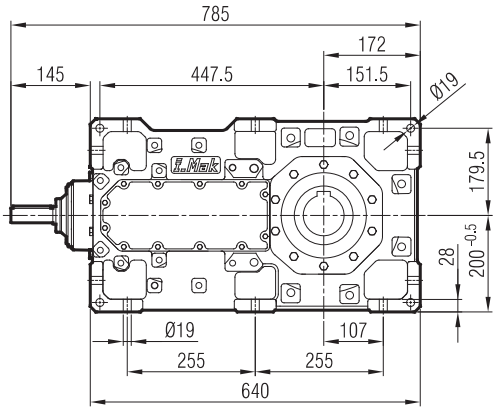
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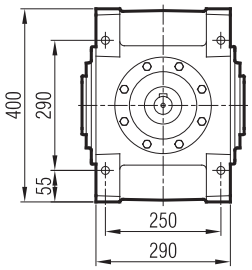
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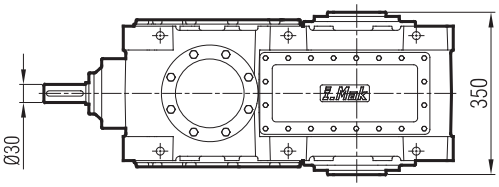
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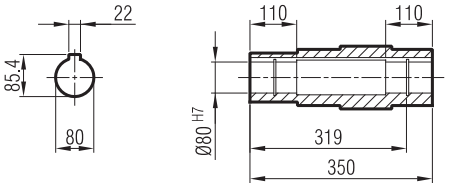
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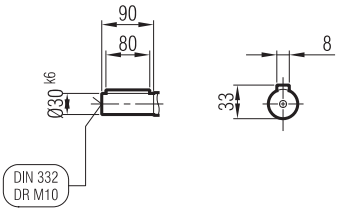
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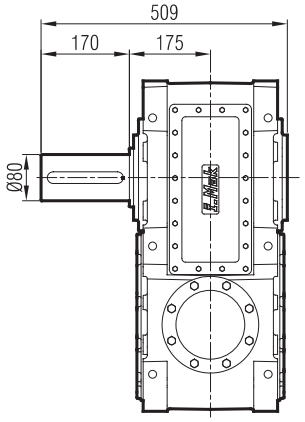

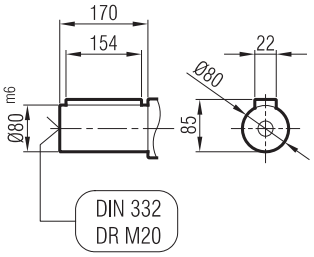

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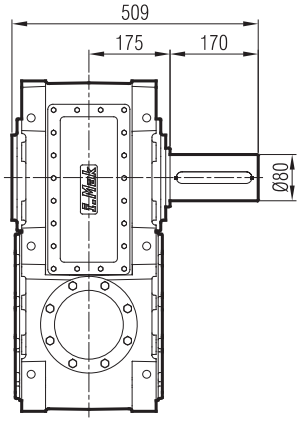

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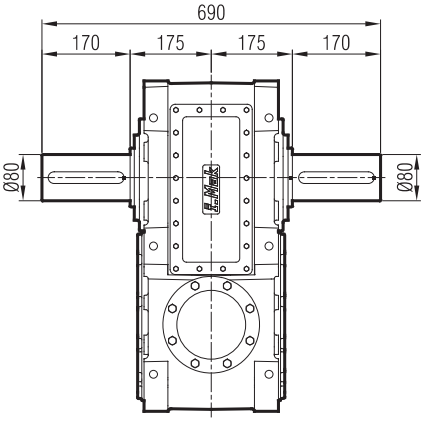

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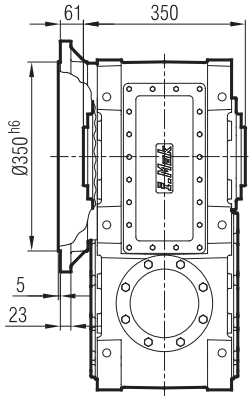

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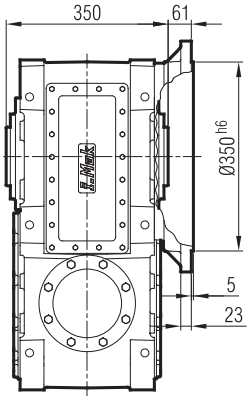

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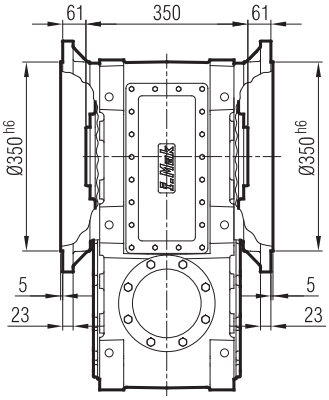

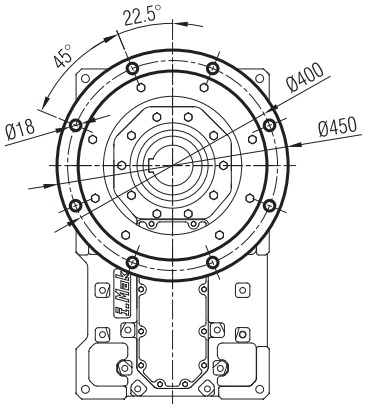

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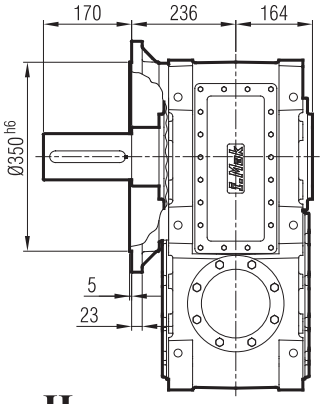

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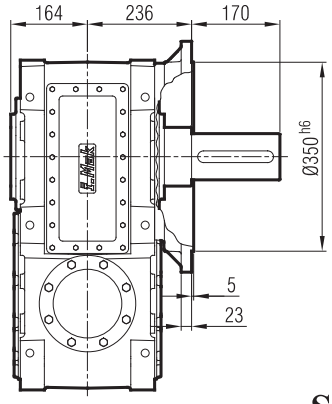

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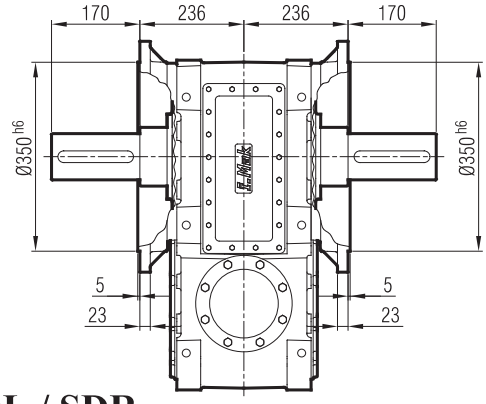

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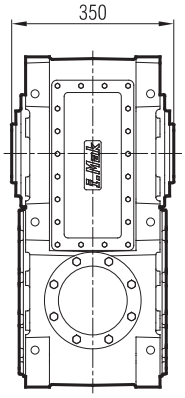

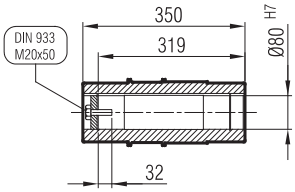

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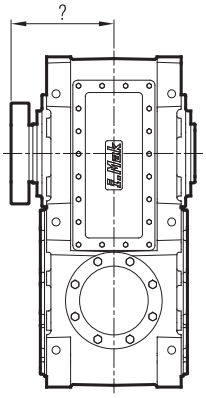

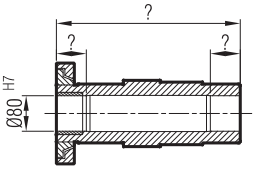

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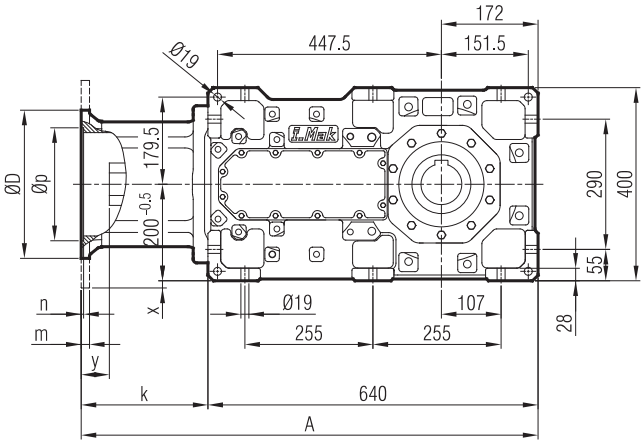

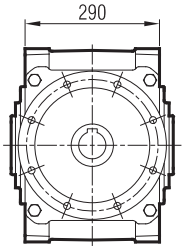

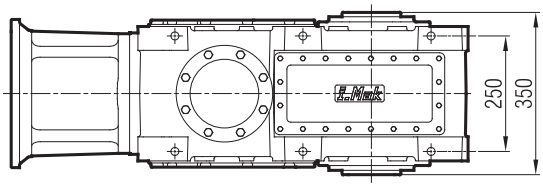

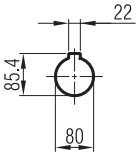

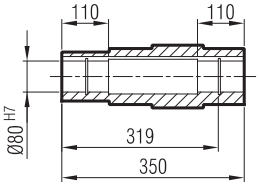

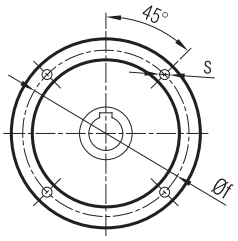

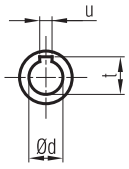

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132/B5	870	230	265	300	M12	239	18	6	38	41.3	10	-	33
160/B5	902	250	300	350	M14	262	20	6	42	45.3	12	-	65
180/B5	902	250	300	350	M14	262	20	6	48	51.8	14	-	61
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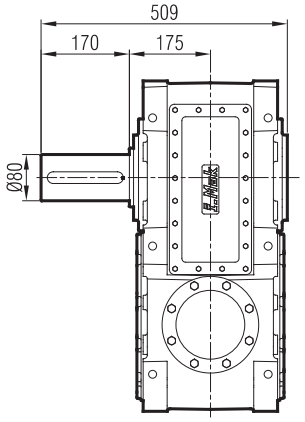

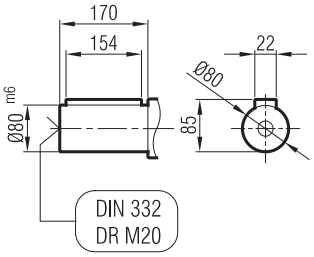

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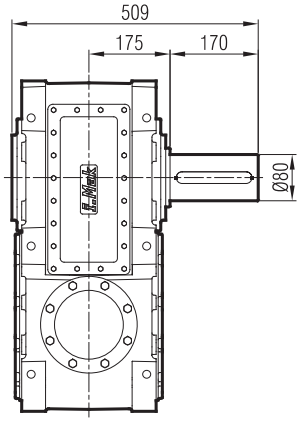

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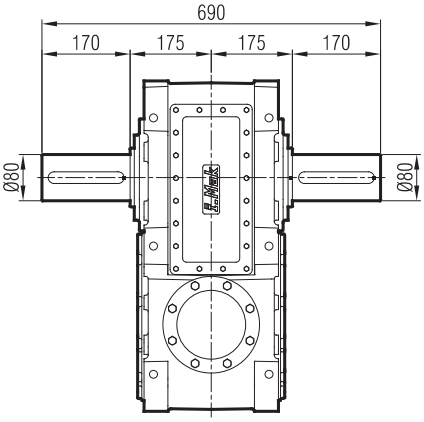

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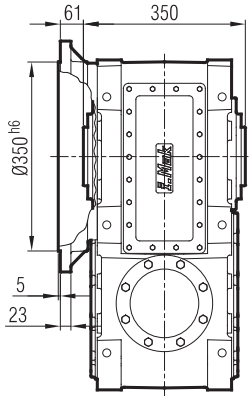

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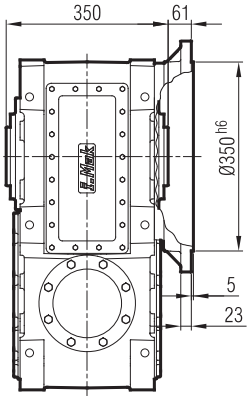

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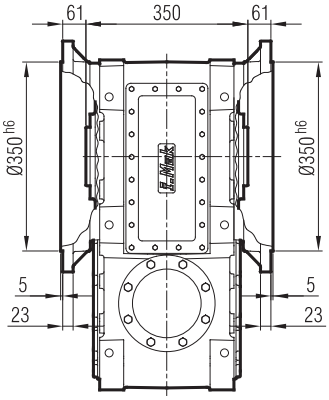

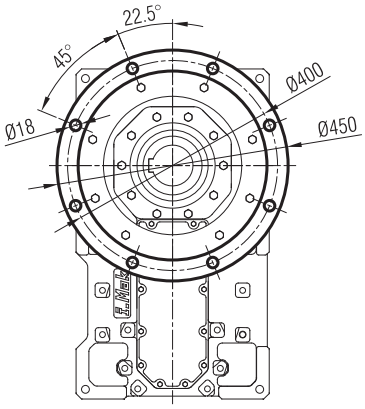

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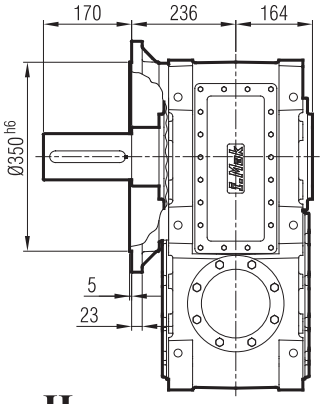

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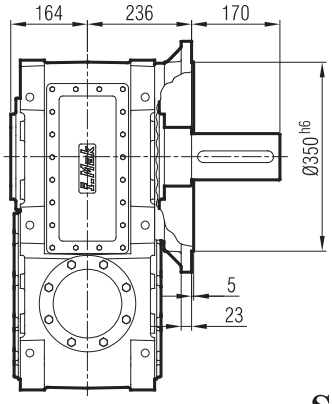

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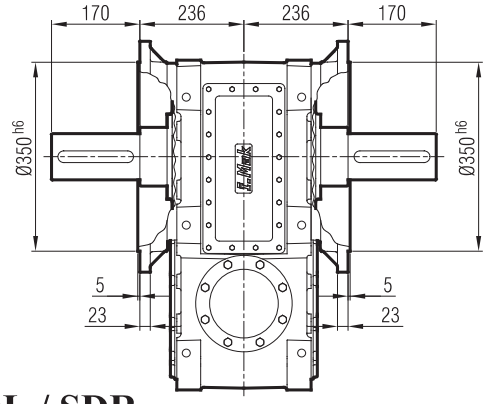

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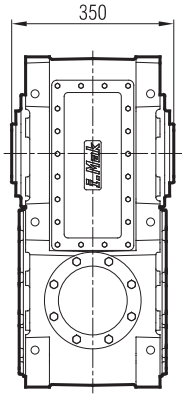

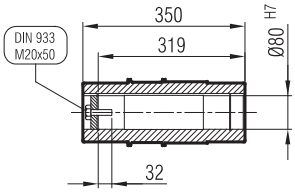

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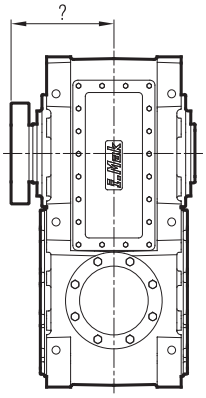

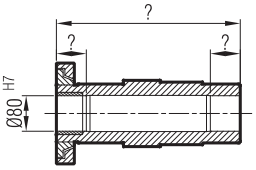

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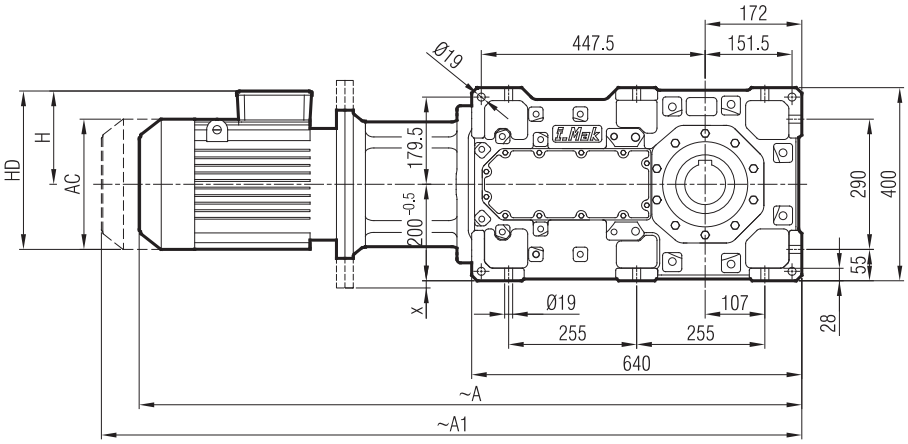

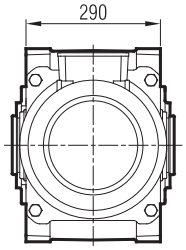

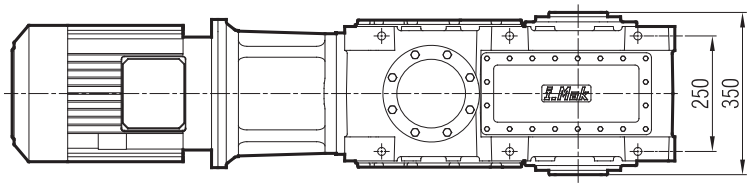

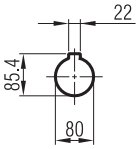

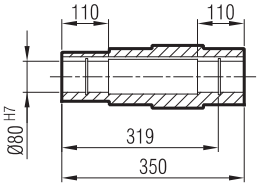

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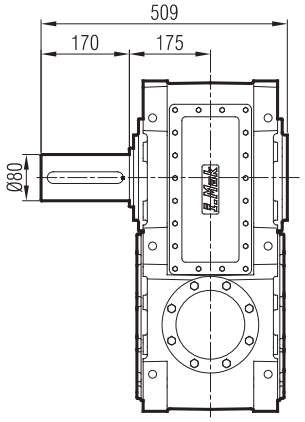
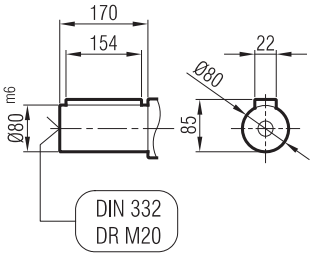
A1	1299	1289	1375	1416	1539	1584	1679	1679	1758
H	161	170	193	193	240	240	260	260	300
HD	261	282	325	325	400	400	440	440	500
AC	195	220	262	262	315	315	357	357	394
x	-	-	-	-	-	-	-	-	0

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 40_

...-SL





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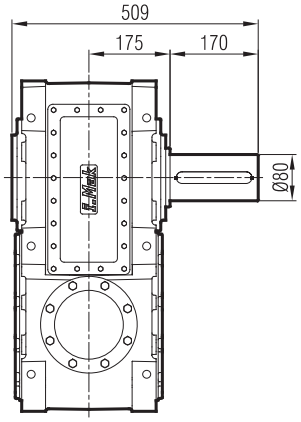

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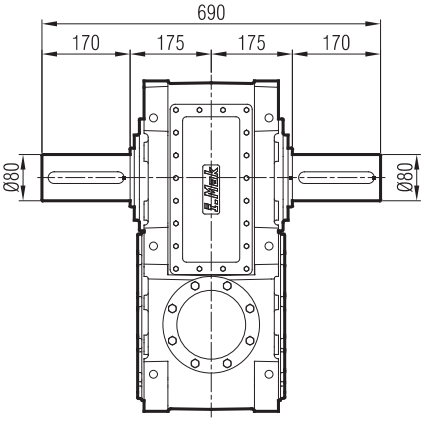

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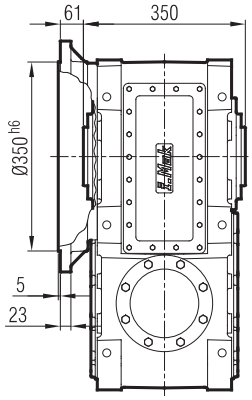

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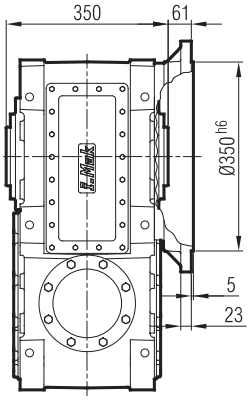

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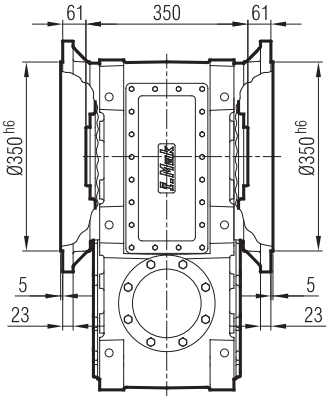

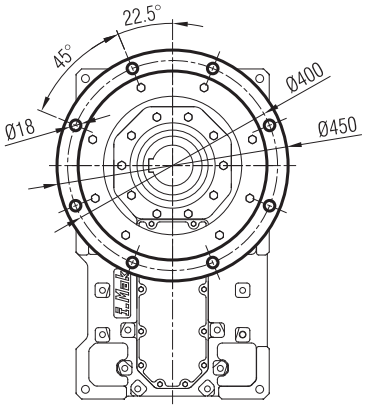

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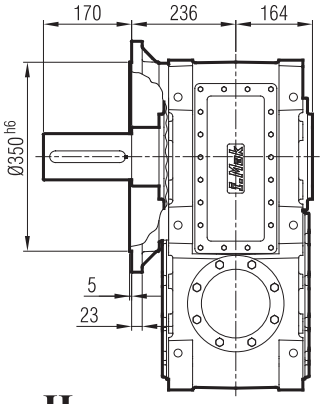

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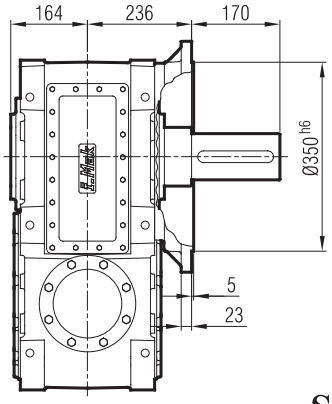

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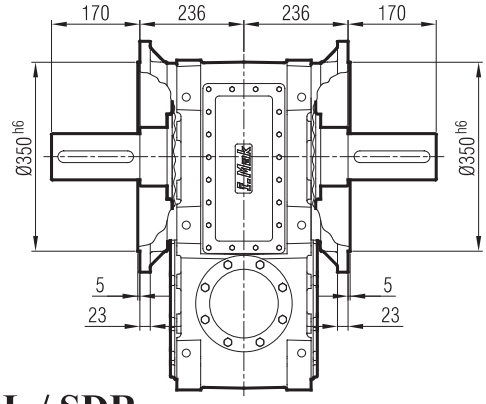

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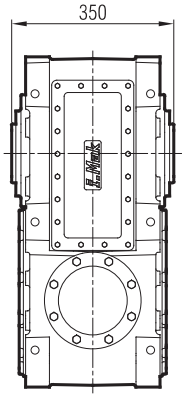

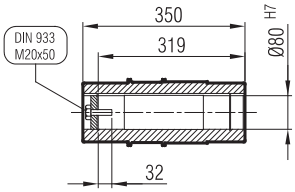

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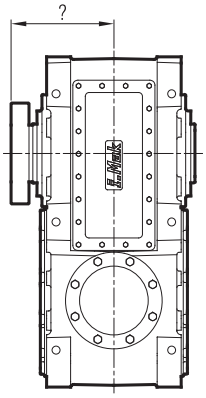

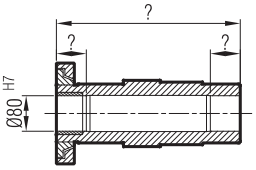

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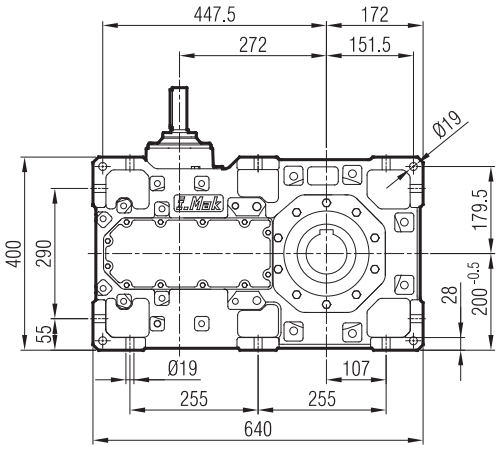
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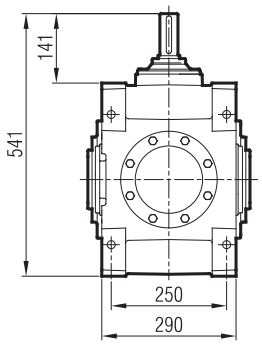
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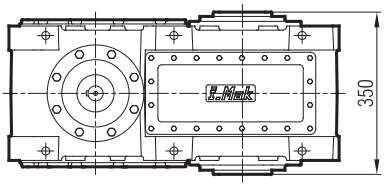
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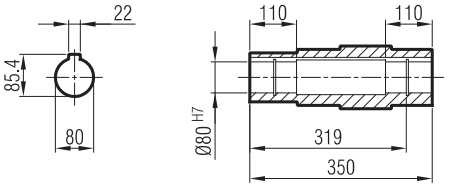
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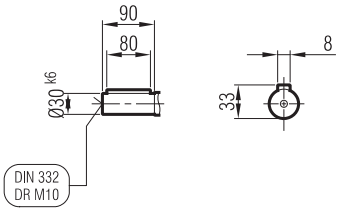
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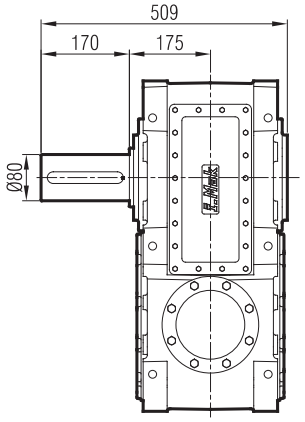

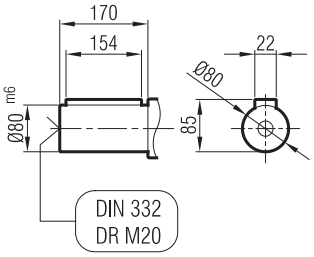

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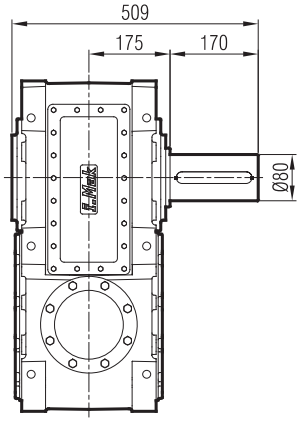

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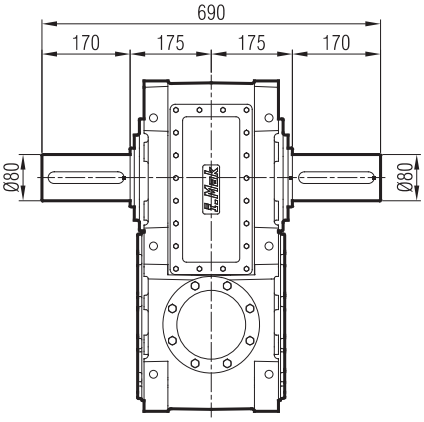

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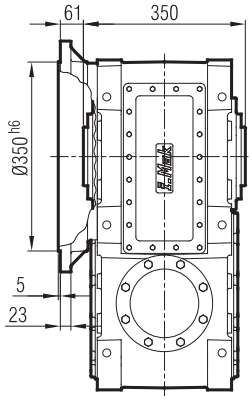

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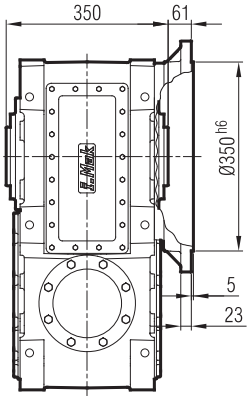

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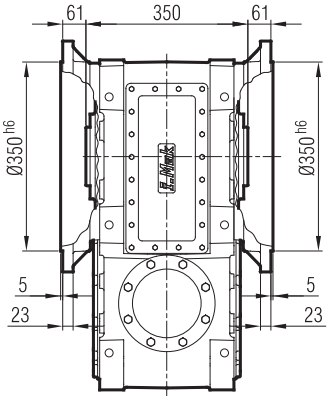

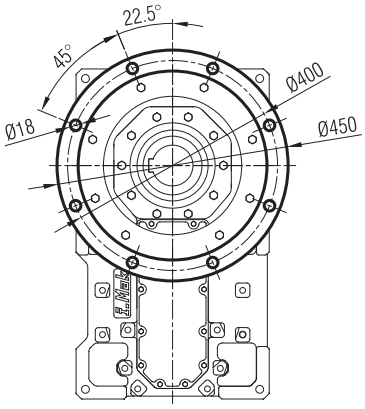

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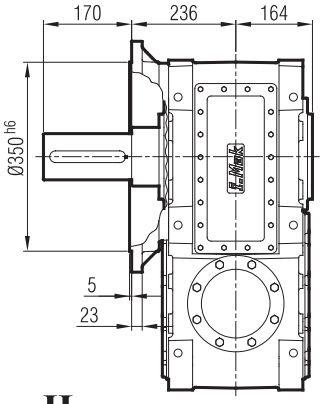

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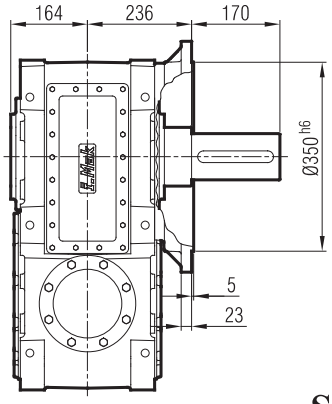

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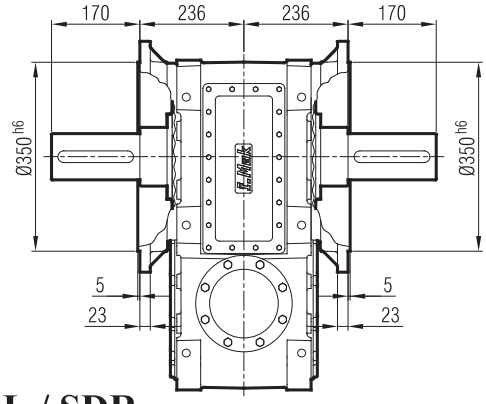

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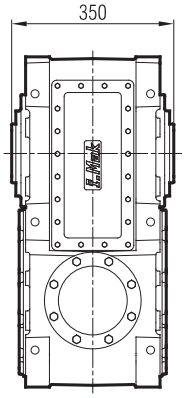

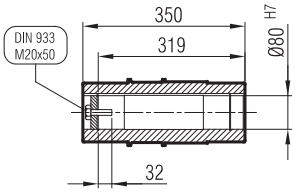

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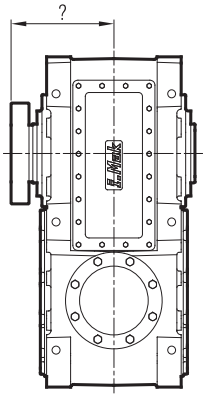

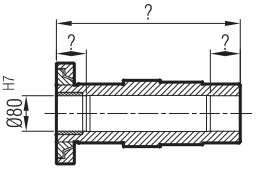

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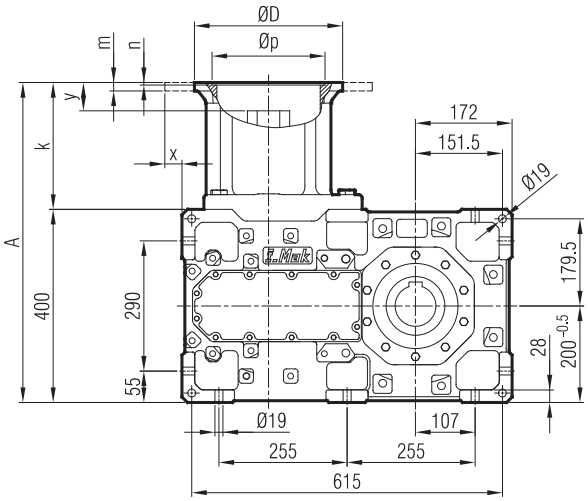

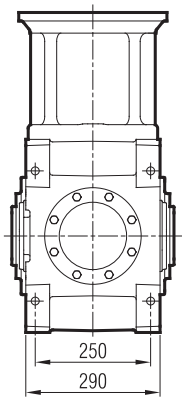

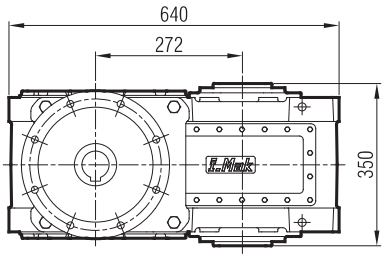

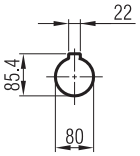

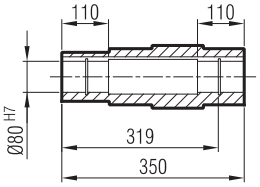

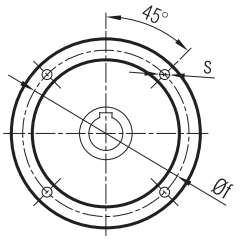

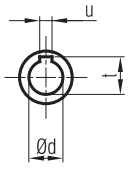

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112/B5	606	180	215	250	M12	219	15	5	28	31.3	8	-	0
132/B5	626	230	265	300	M12	239	18	6	38	41.3	10	-	33
160/B5	658	250	300	350	M14	258	20	6	42	45.3	12	-	65
180/B5	658	250	300	350	M14	258	20	6	48	51.8	14	-	61
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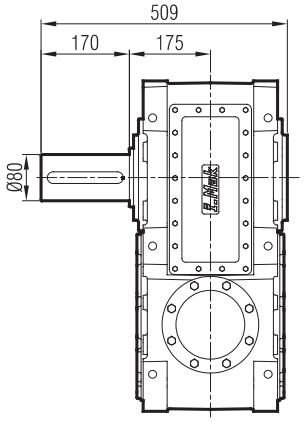
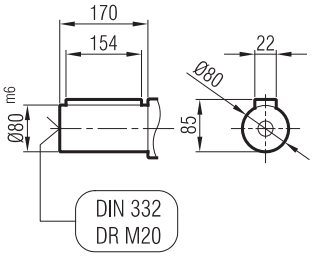
...-SL





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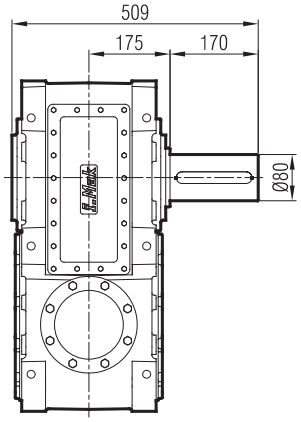

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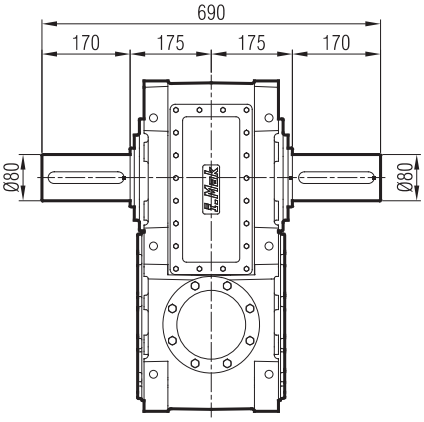

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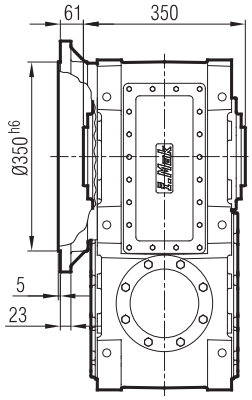

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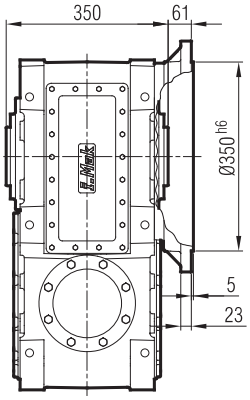

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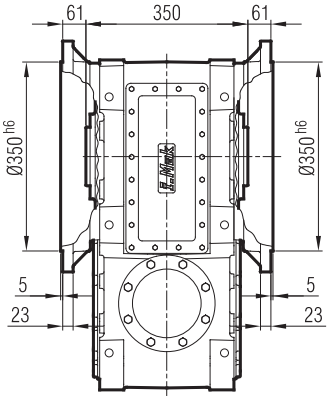

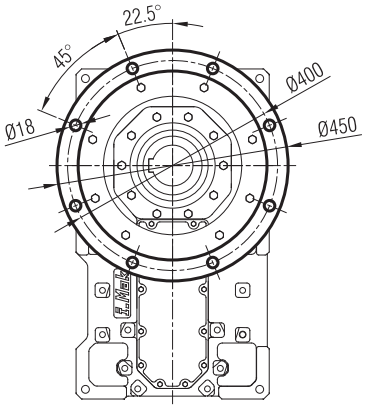

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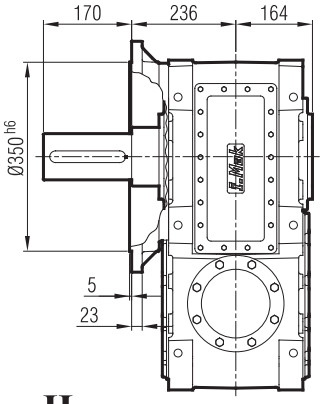

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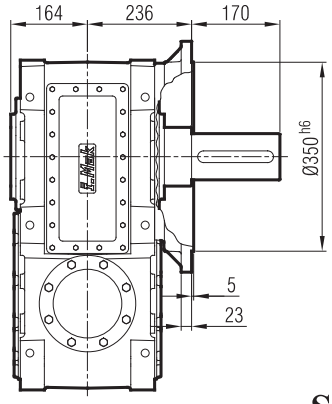

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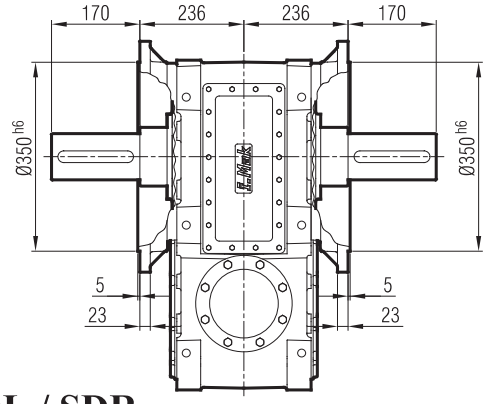

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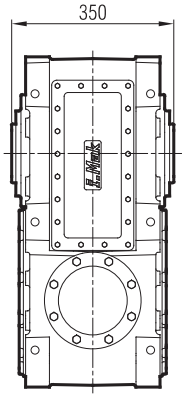

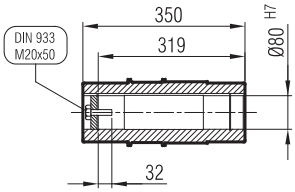

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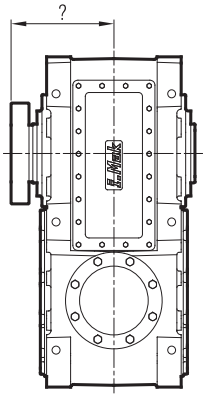

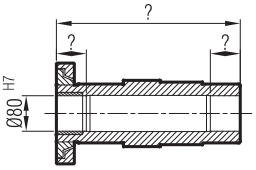

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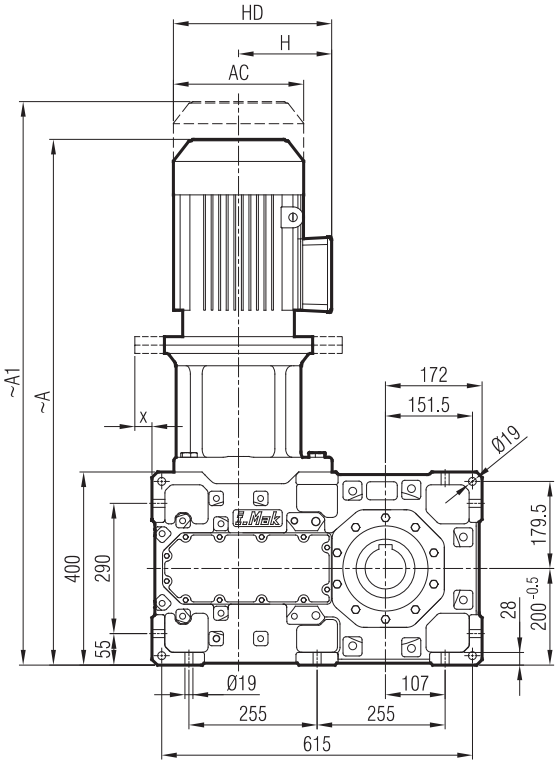

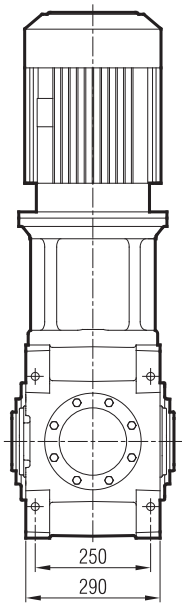

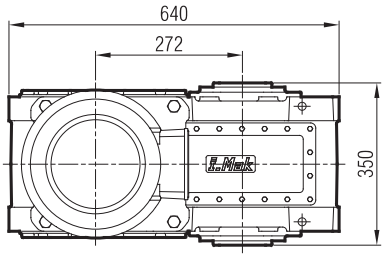

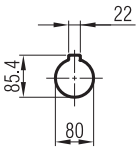

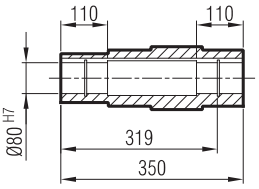

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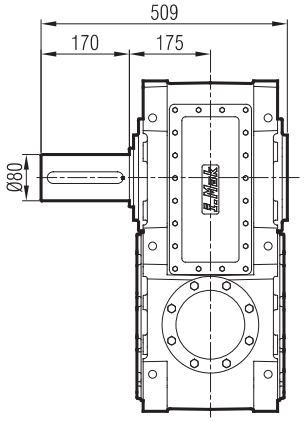
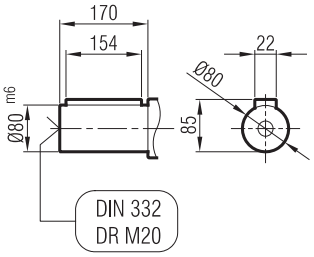
A	978	950	1027	1068	1178	1223	1299	1299	1367
A1	1055	1045	1131	1172	1295	1340	1435	1435	1514
H	161	170	193	193	240	240	260	260	300
HD	261	282	325	325	400	400	440	440	500
AC	195	220	262	262	315	315	357	357	394
x	-	-	-	-	-	-	-	-	4

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 40_

...-SL





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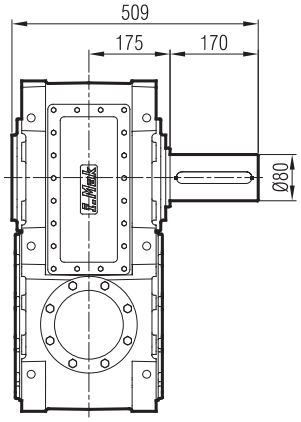

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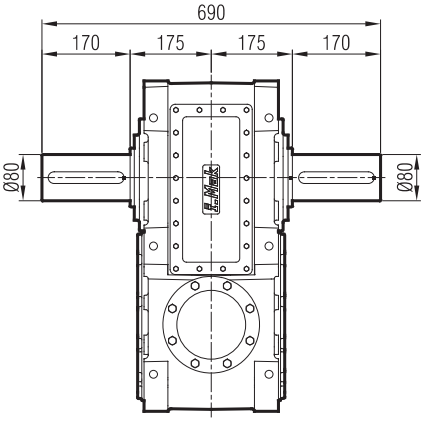

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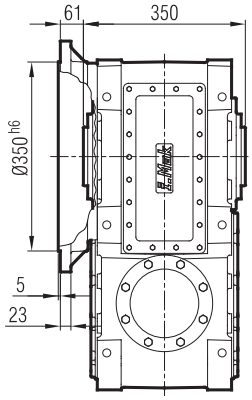

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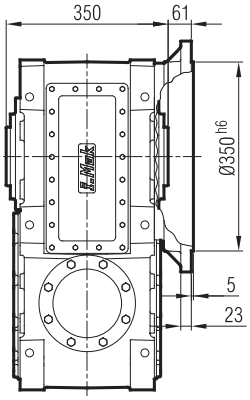

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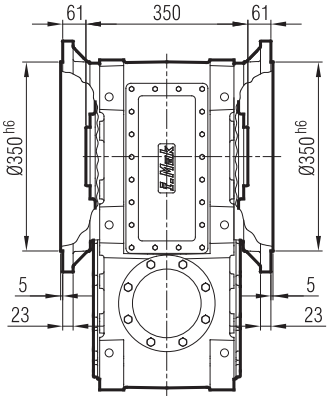

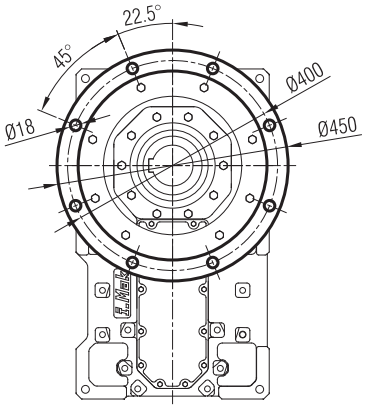

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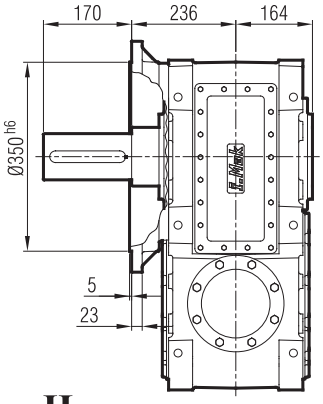

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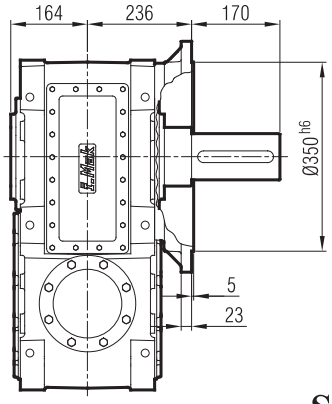

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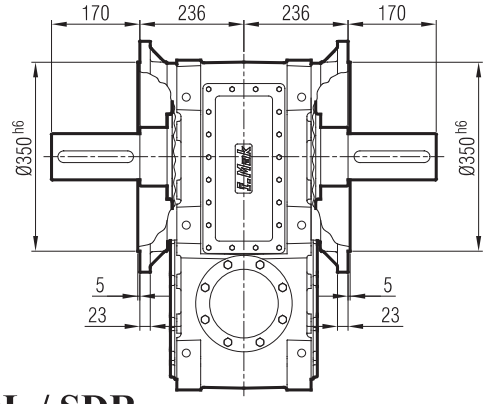

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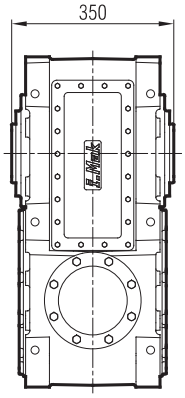

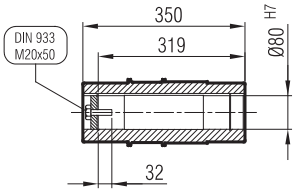

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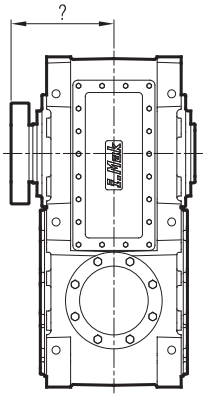

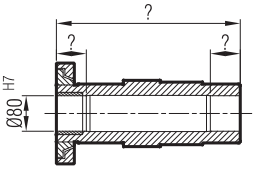

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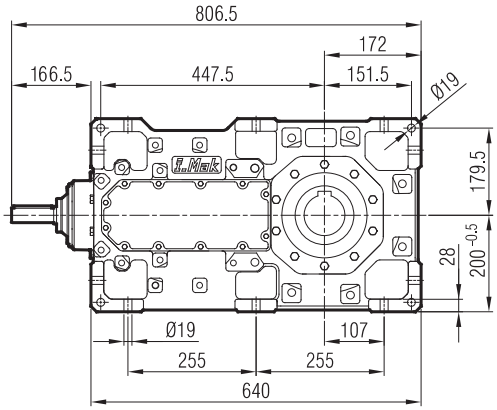
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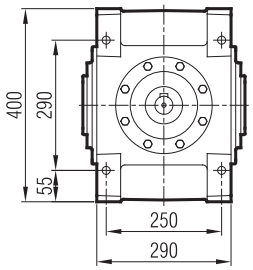
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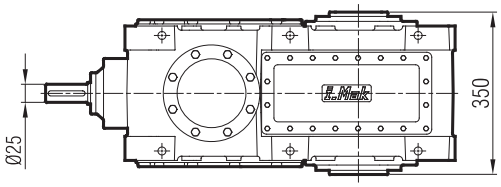
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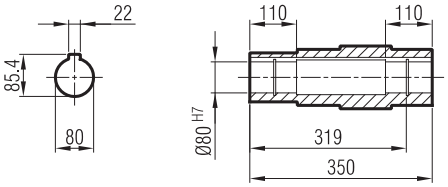
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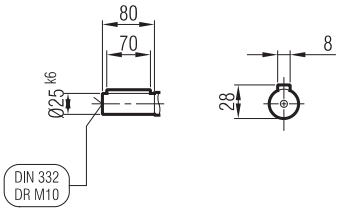
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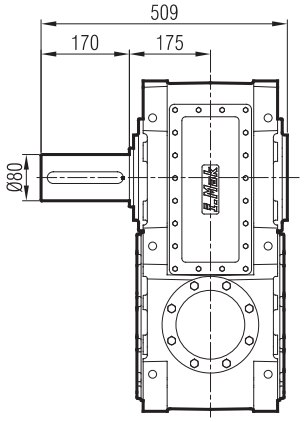

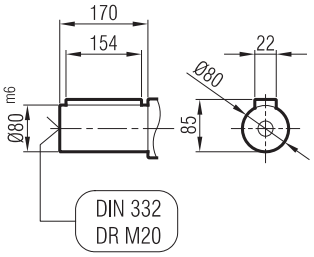

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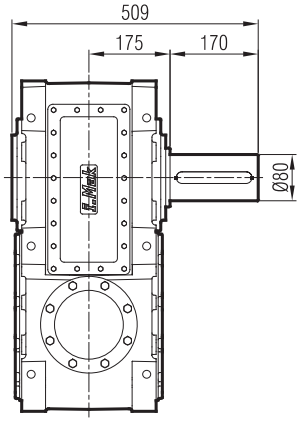

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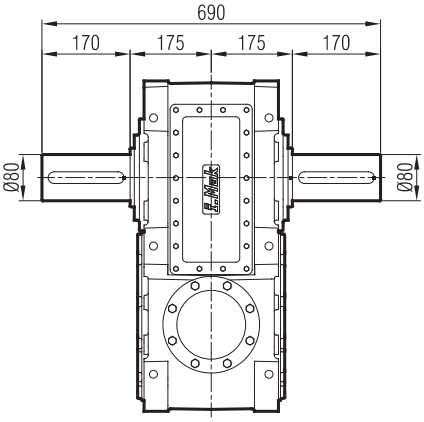

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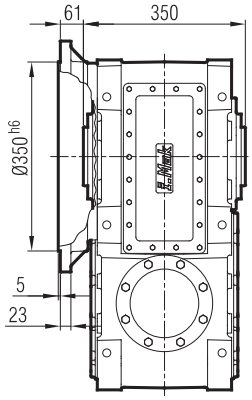

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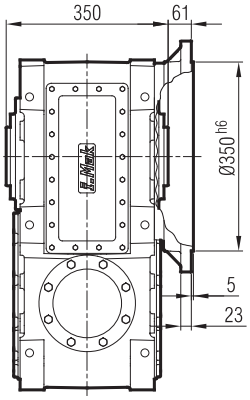

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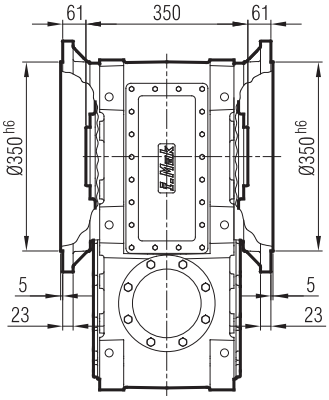

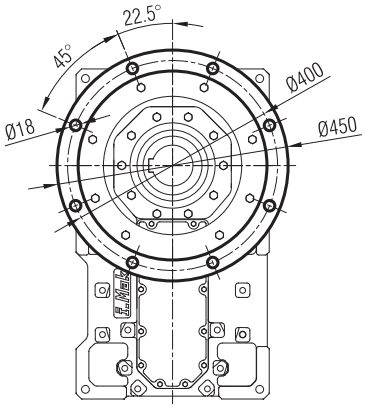

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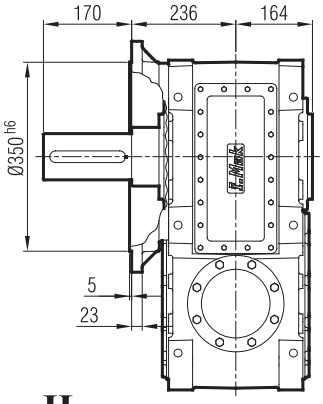

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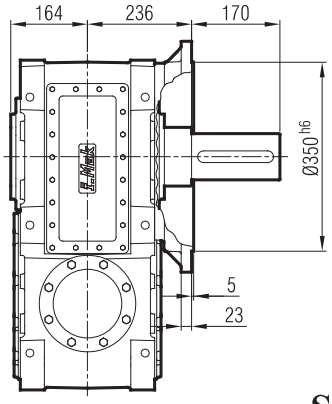

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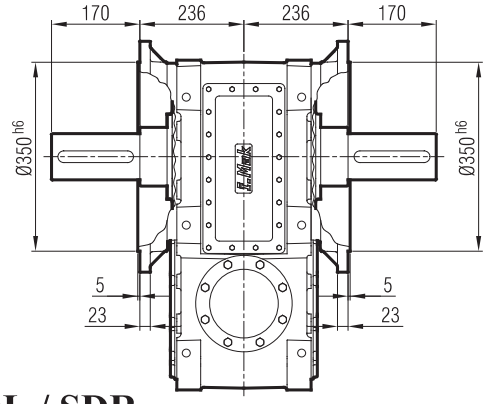

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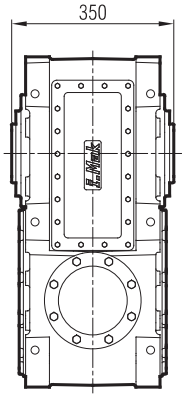

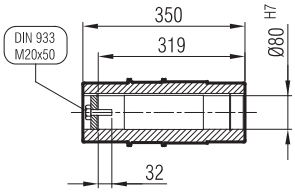

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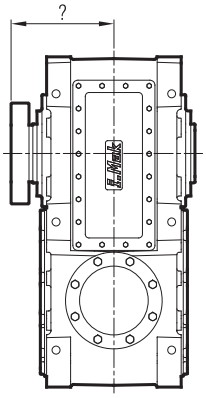
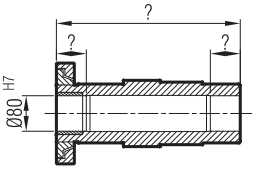
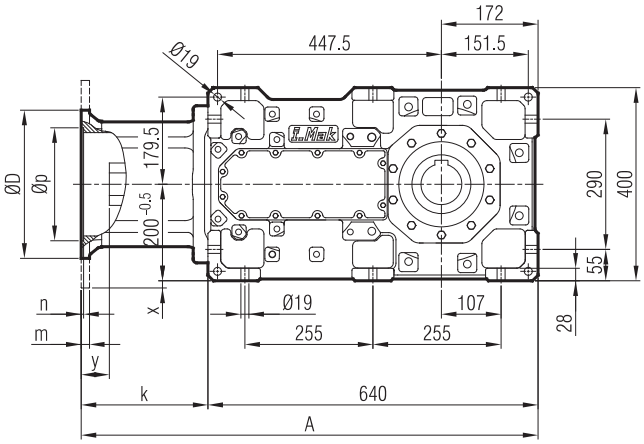
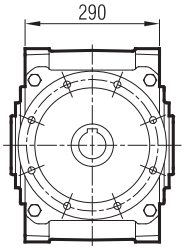
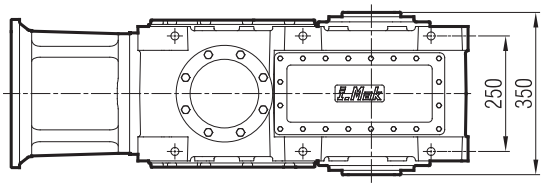


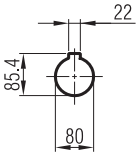


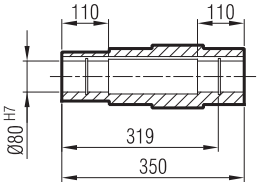
MKP 404-G09

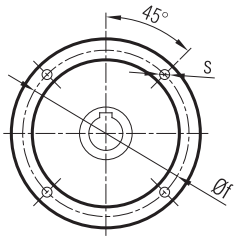


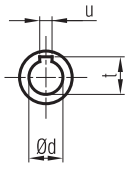












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90/B5	869	130	168	200	M10	237.5	12	5	24	27.3	8	-	0
100/B5	894	180	215	250	M12	262.5	15	5	28	31.3	8	-	14
112/B5	894	180	215	250	M12	262.5	15	5	28	31.3	8	-	14
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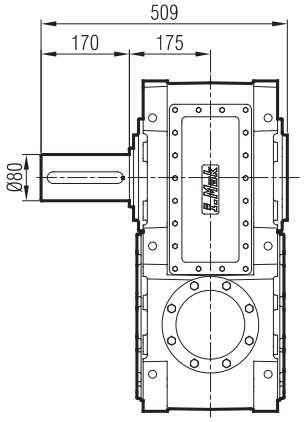
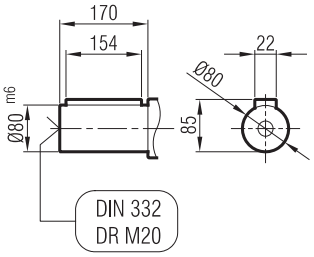
MA / MK 40_

...-SL





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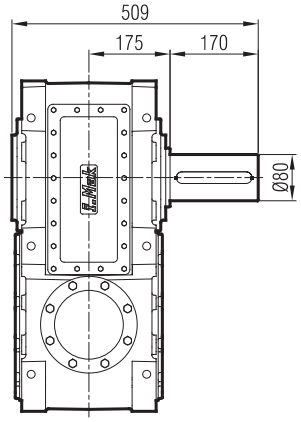

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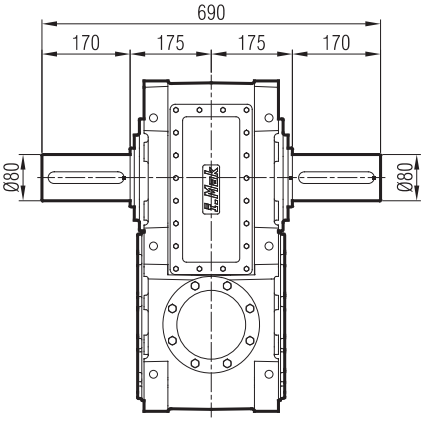

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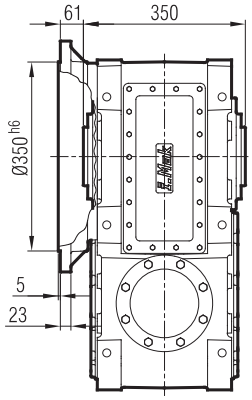

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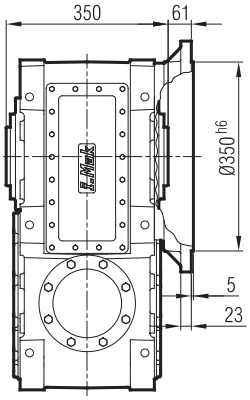

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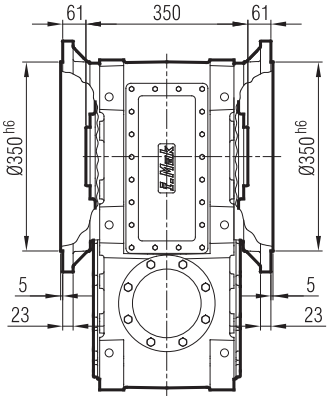

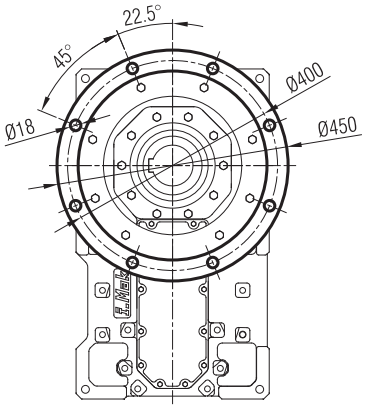

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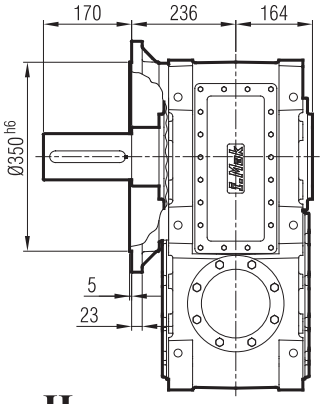

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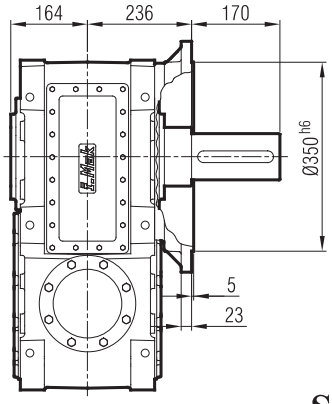

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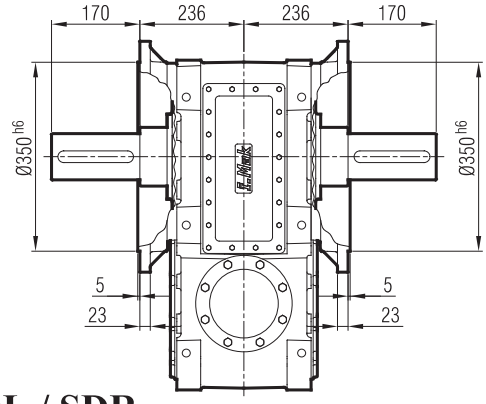

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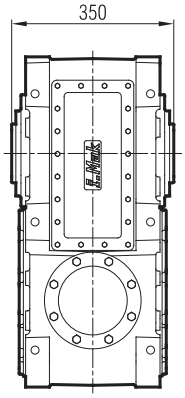

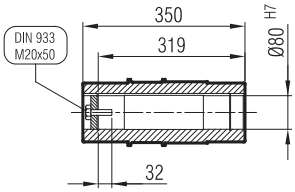

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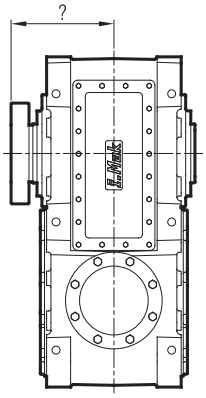
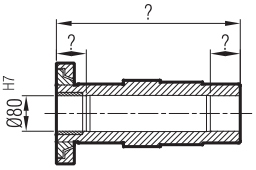
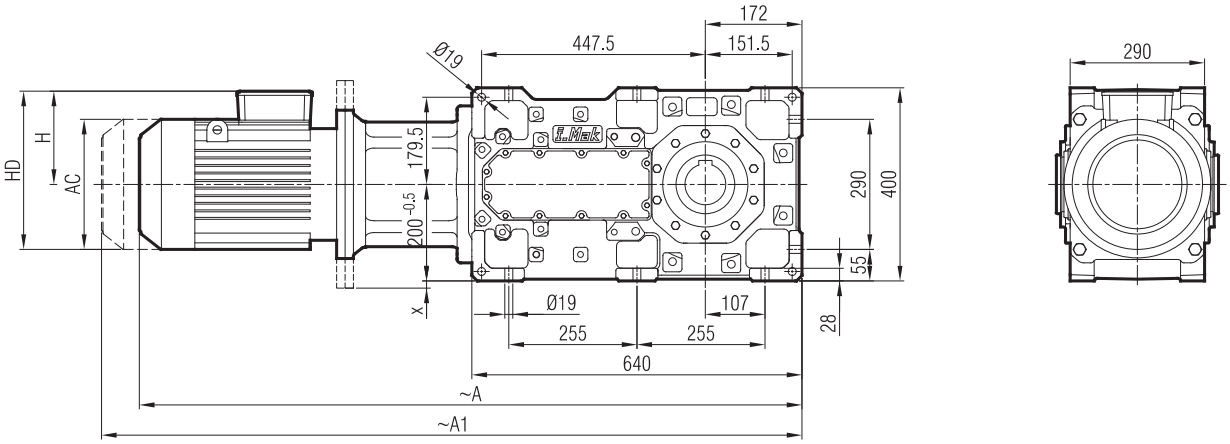
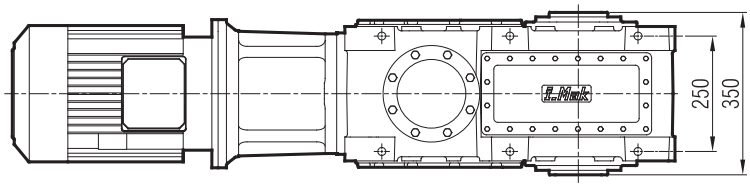
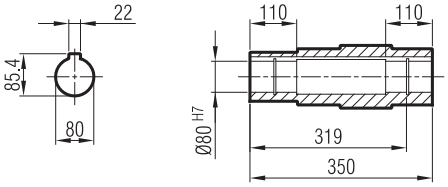




MKM 404-G09





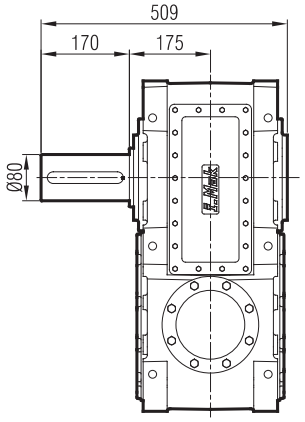


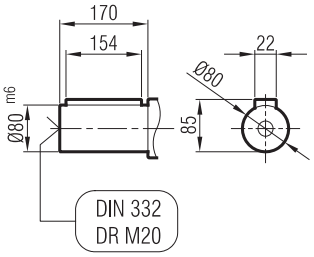
	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	1162	1171	1209	1266	1237	1315
A1	1223	1238	1276	1343	1332	1419
H	136	141	141	161	170	193
HD	216	231	231	261	282	325
AC	158	176	176	195	220	262
x	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 40_

...-SL





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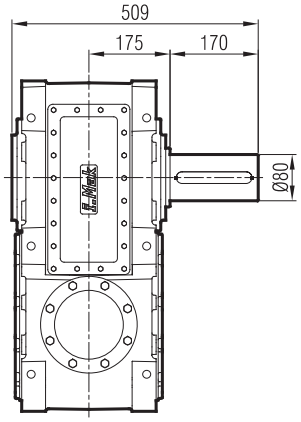

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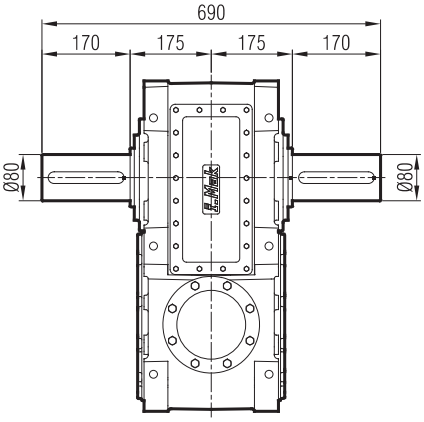

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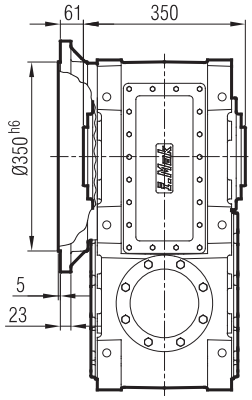

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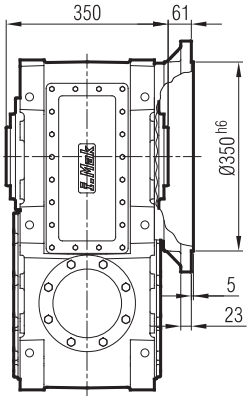

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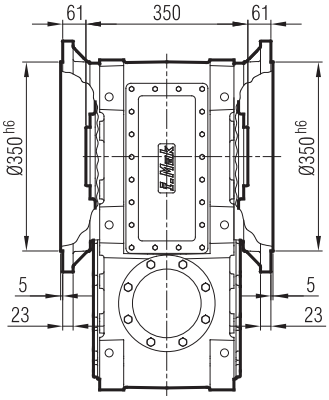

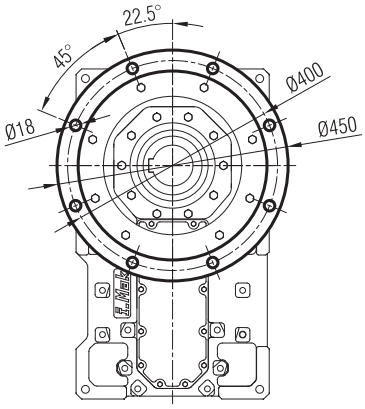

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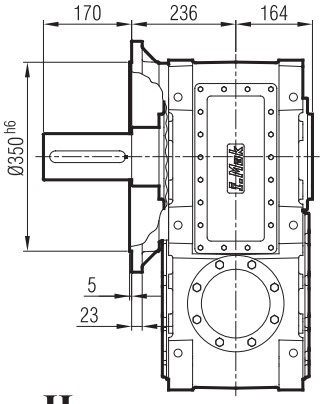

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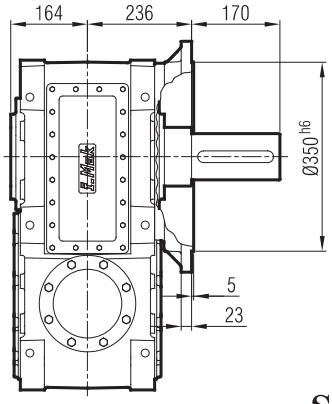

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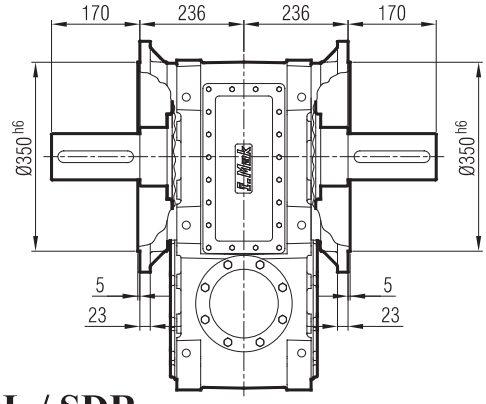

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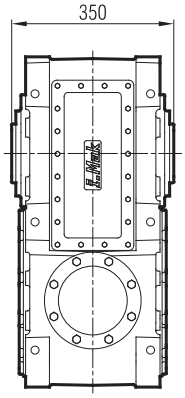

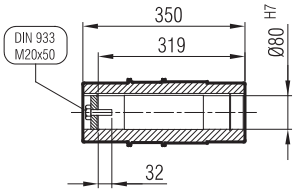

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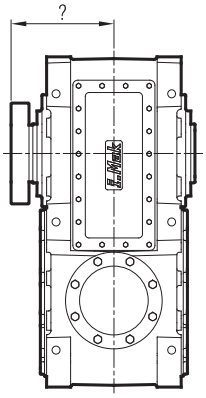
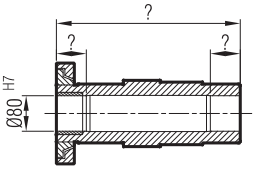
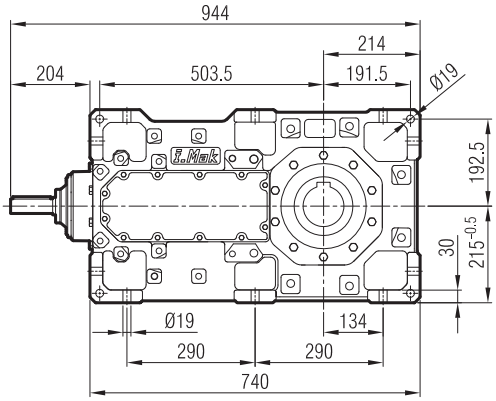




MK 503-G07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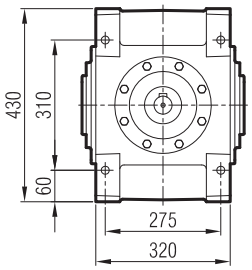
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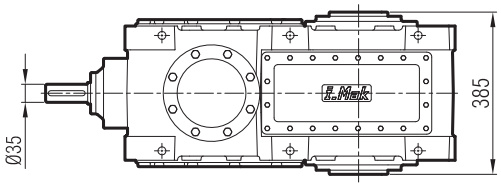
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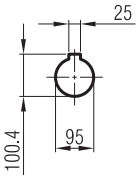
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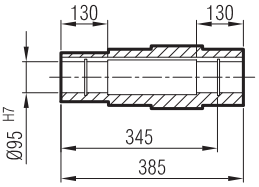
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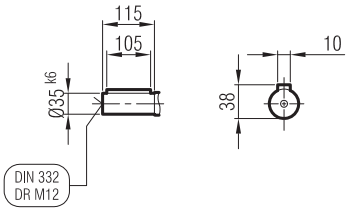
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MA / MK 50_

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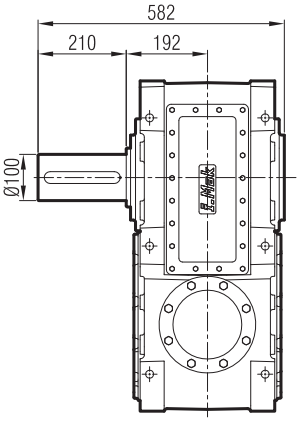

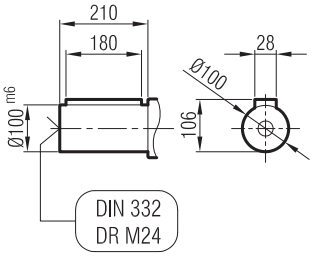

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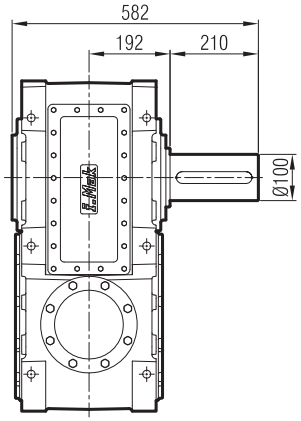

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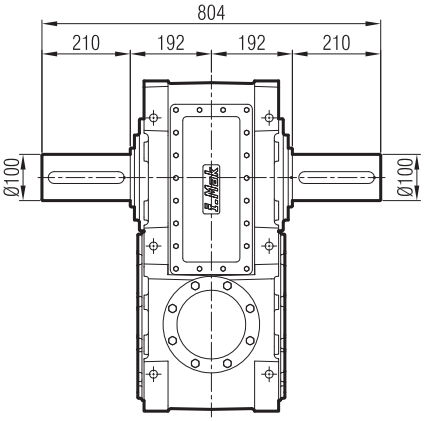

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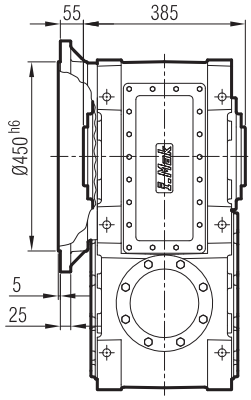

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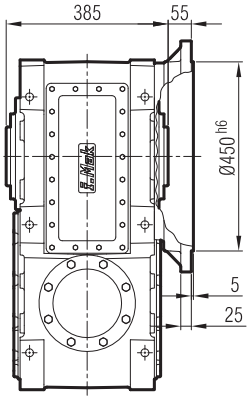

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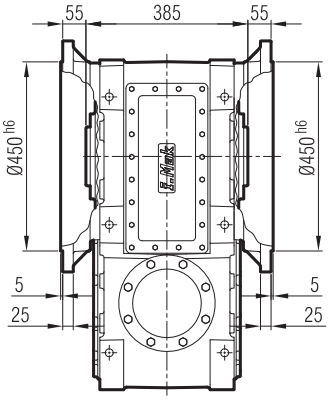

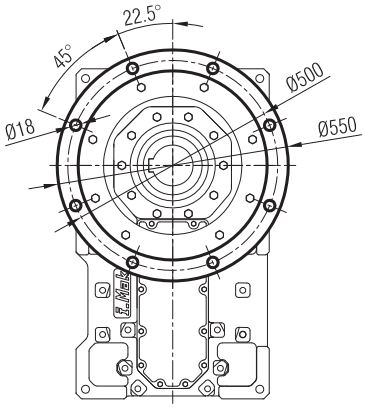

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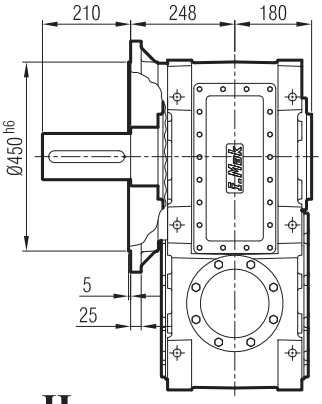

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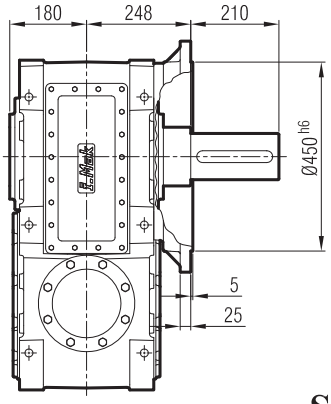

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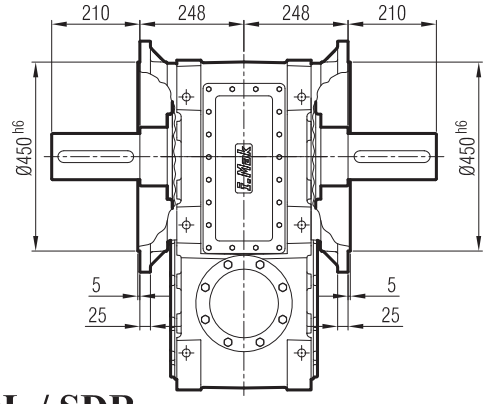

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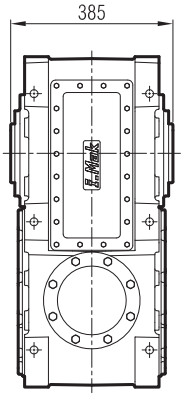

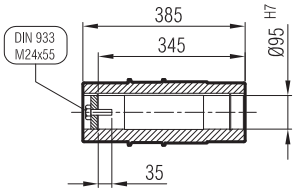

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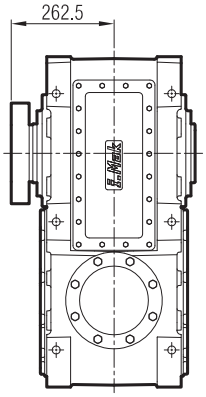

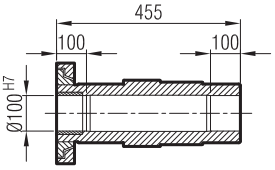

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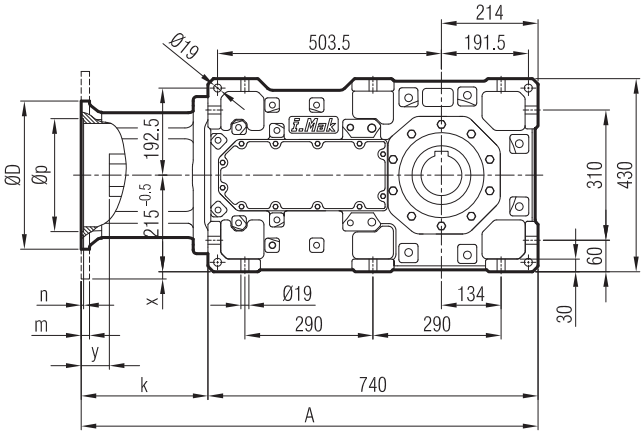

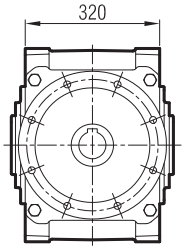

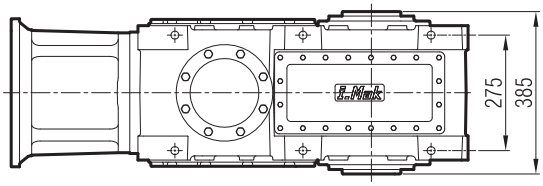

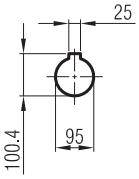

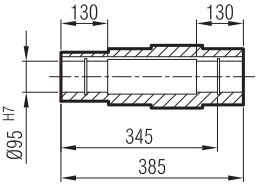

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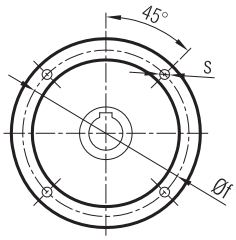

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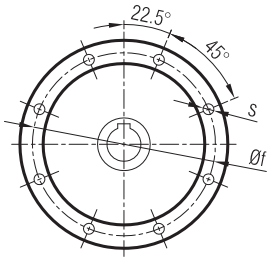

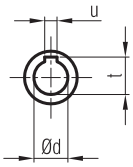

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132/B5	1027	230	265	300	M12	293	18	6	38	41.3	10	-	20
160/B5	1057	250	300	350	M14	317	20	6	42	45.3	12	-	60
180/B5	1057	250	300	350	M14	317	20	6	48	51.8	14	-	60
200/B5	1057	300	350	400	M16	317	22	6	55	59.3	16	-	60
225/B5	1100	350	400	450	M16	360	22	6	60	64.4	18	10	80
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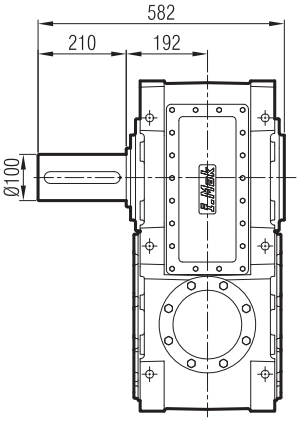
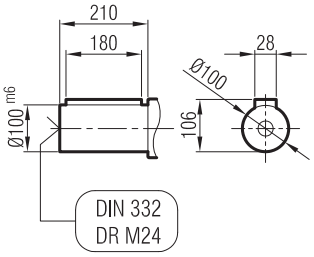
MA / MK 50_

...-SL





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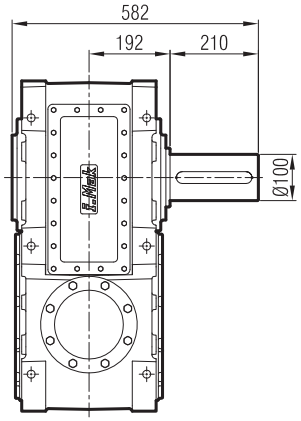

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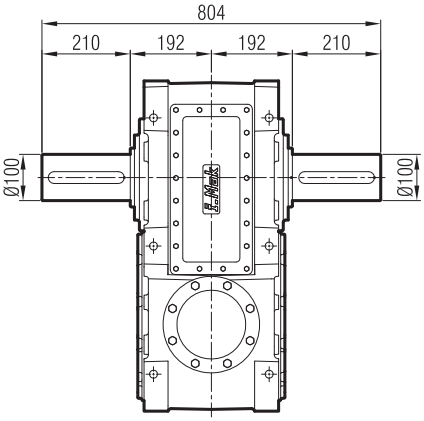

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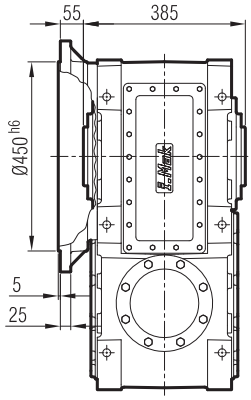

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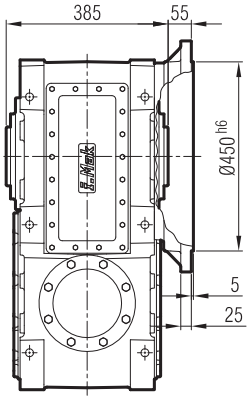

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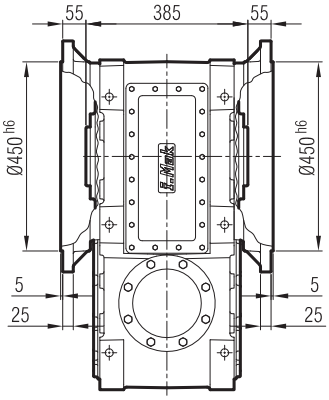

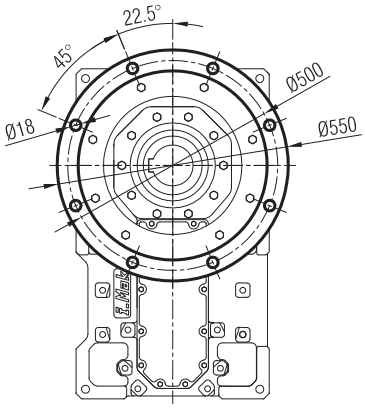

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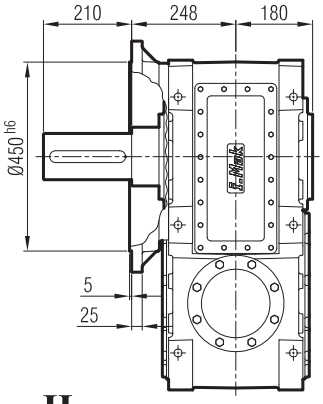

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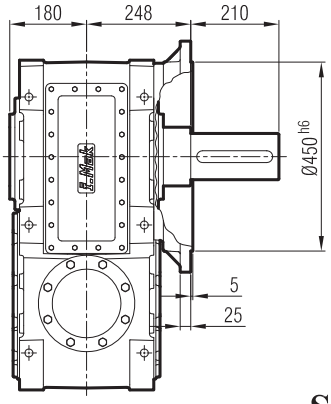

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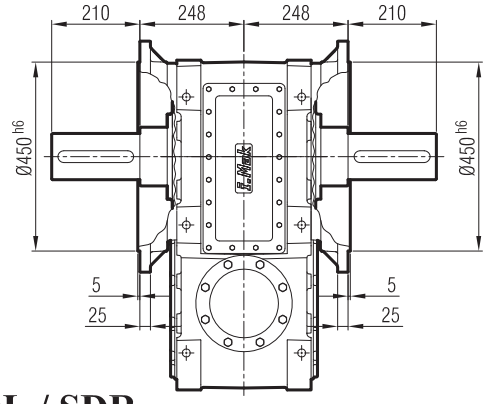

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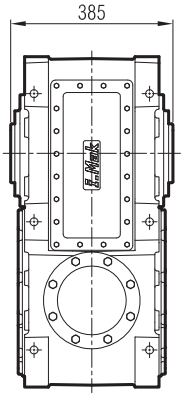

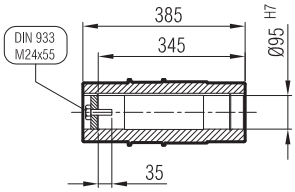

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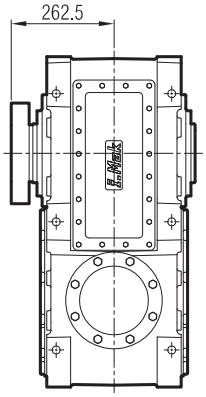

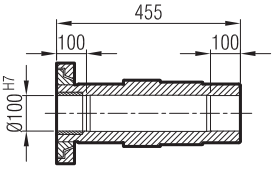

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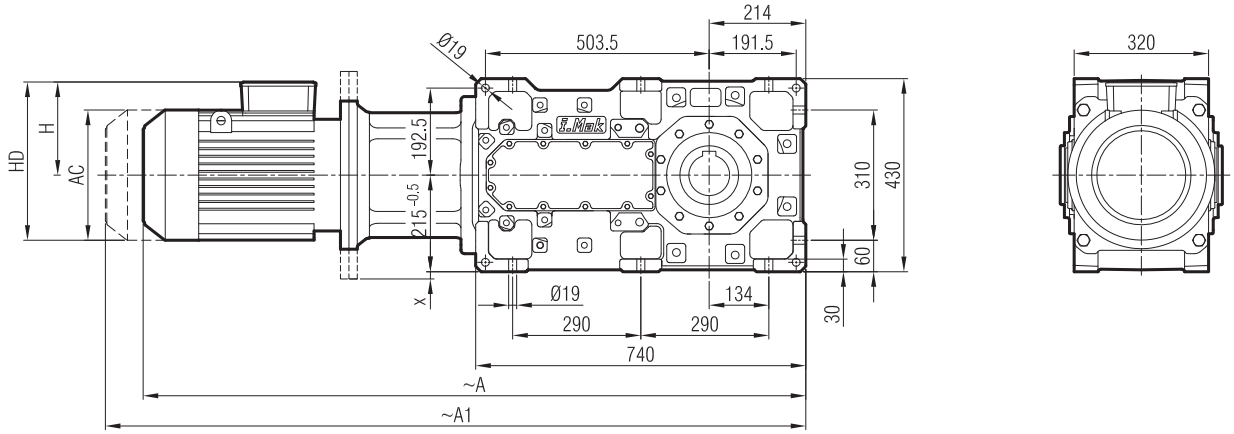

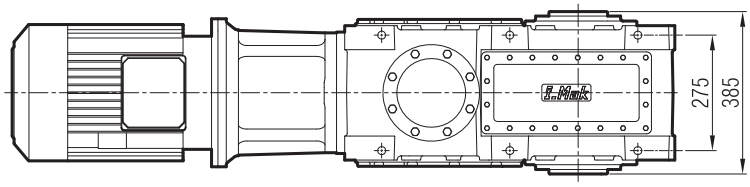

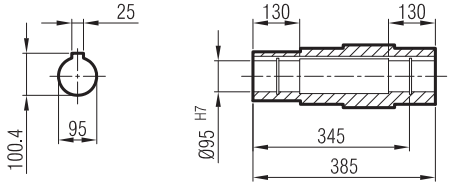

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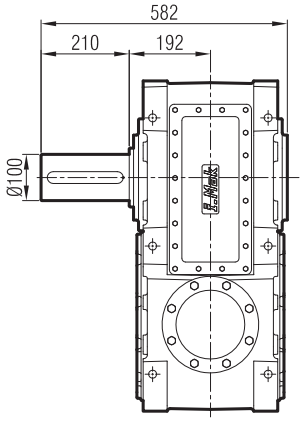
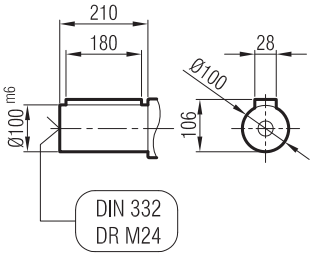
A1	1446	1532	1573	1694	1739	1834	1834	1913	1932	1992	2042
H	170	193	193	240	240	260	260	300	313	313	366
HD	282	325	325	400	400	440	440	500	538	538	618
AC	220	262	262	315	315	357	357	394	456	456	489
x	-	-	-	-	-	-	-	-	13	13	60

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 50_

...-SL





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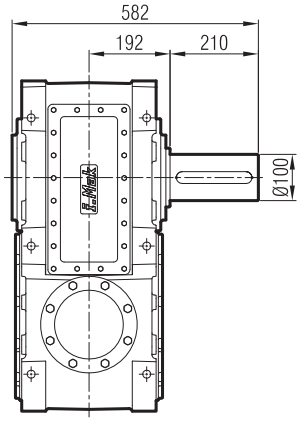

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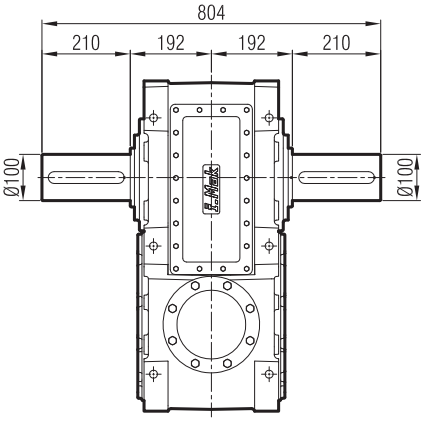

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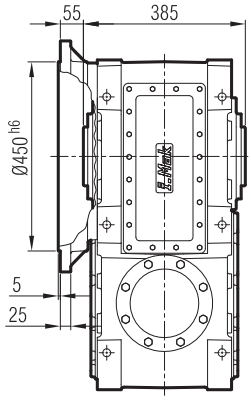

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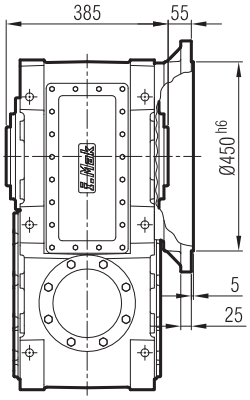

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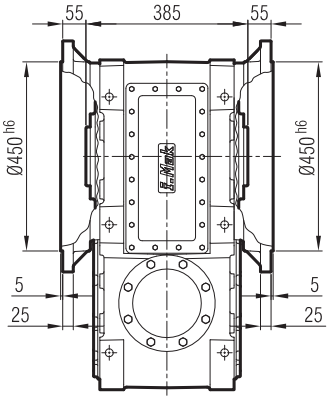

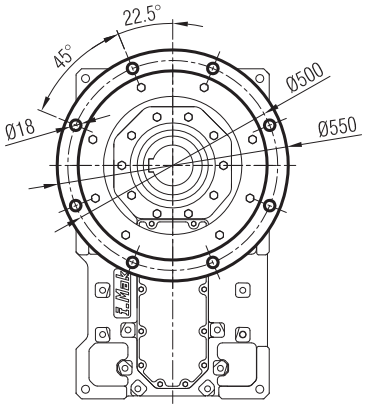

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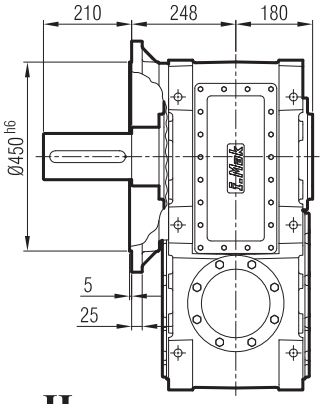

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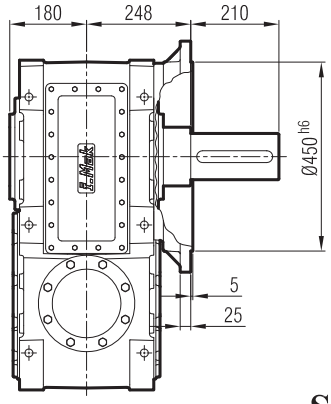

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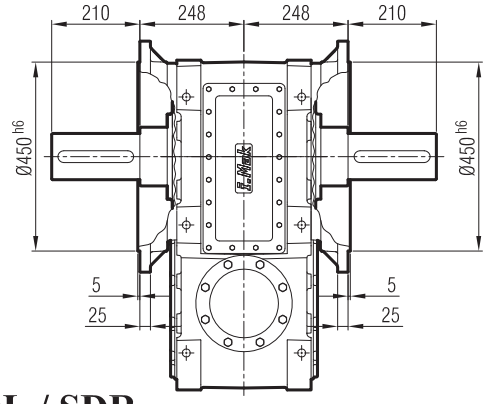

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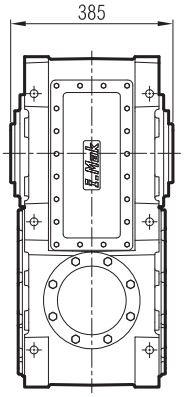

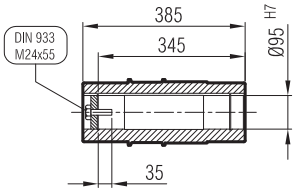

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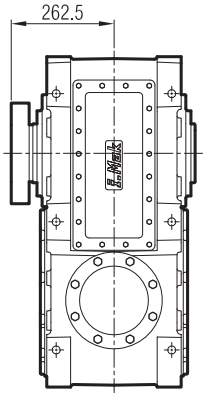
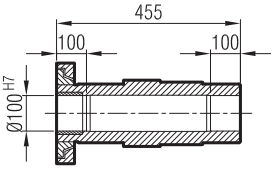
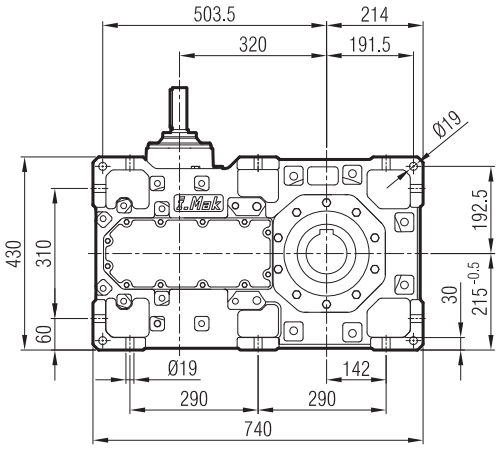




MK 503-G08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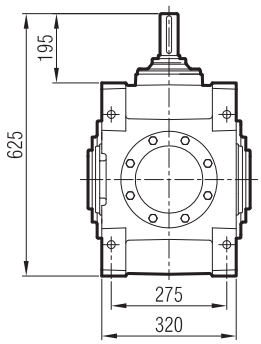
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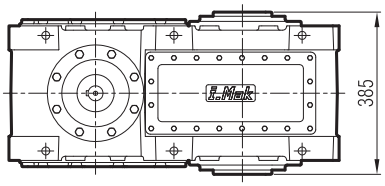
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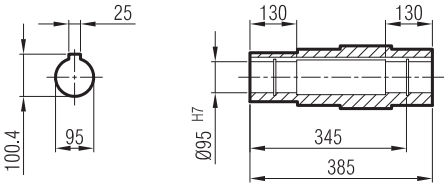
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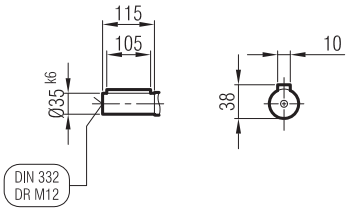
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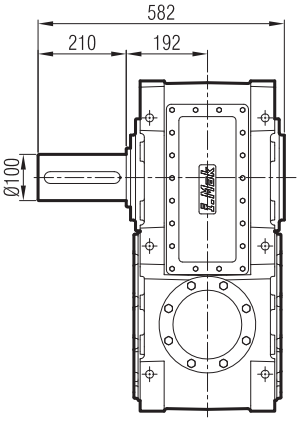
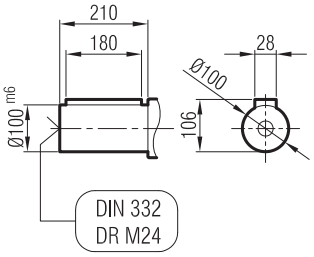
MA / MK 50_

...-SL





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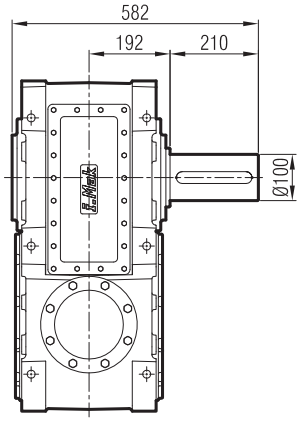

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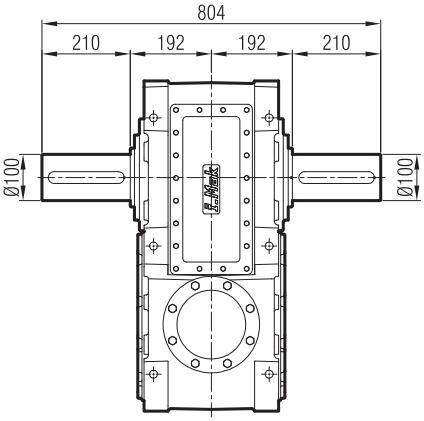

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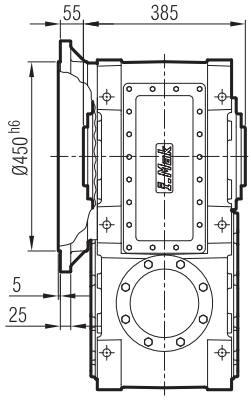

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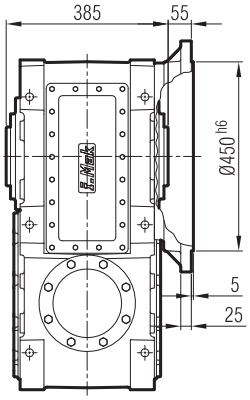

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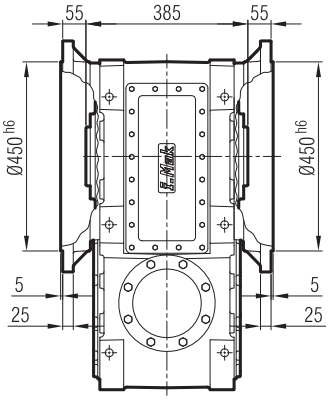

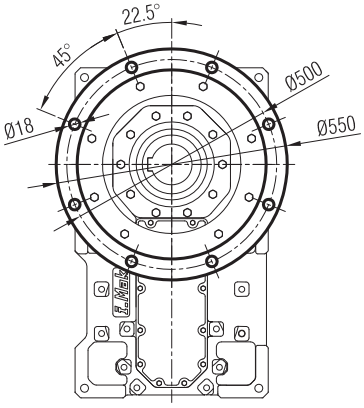

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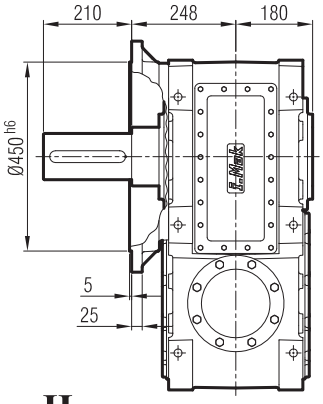

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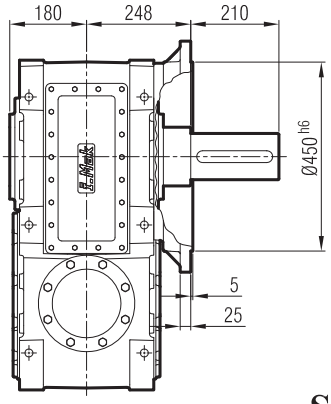

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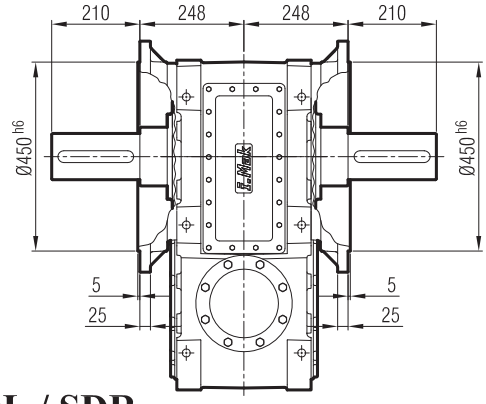

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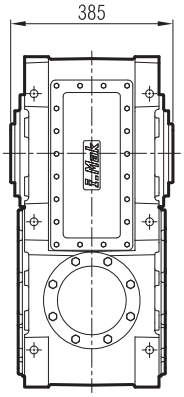

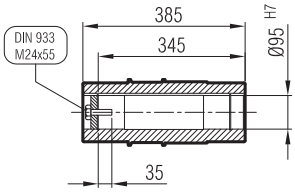

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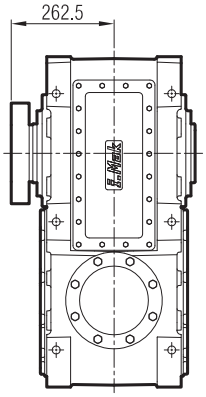
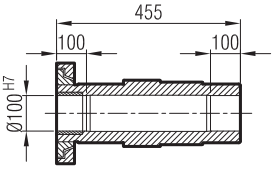
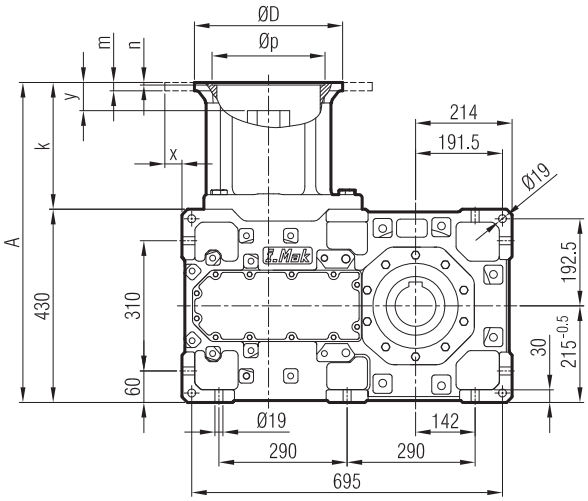
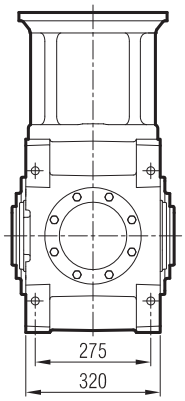
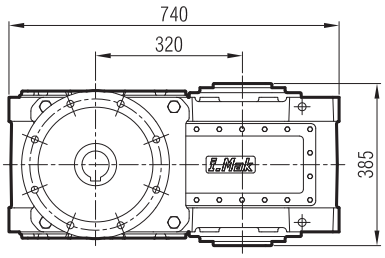


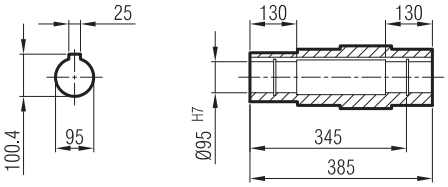


MKP 503-G10









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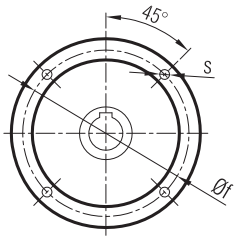

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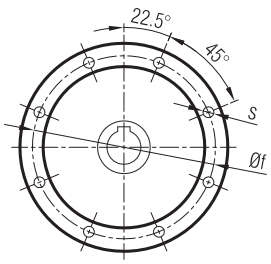

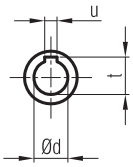

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132/B5	708	230	265	300	M12	293	18	6	38	41.3	10	-	20
160/B5	738	250	300	350	M14	308	20	6	42	45.3	12	-	60
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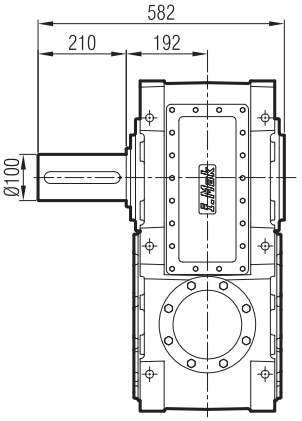
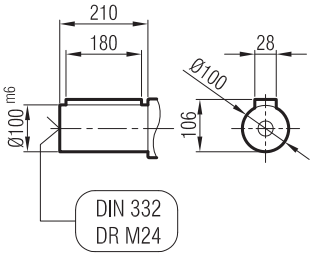
MA / MK 50_

...-SL





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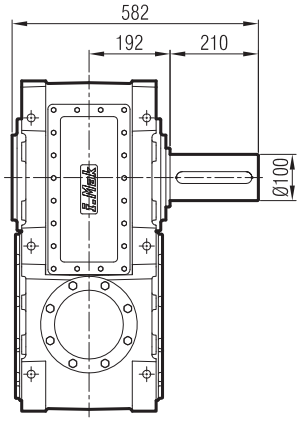

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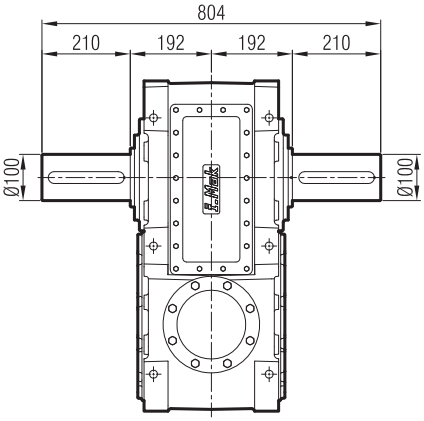

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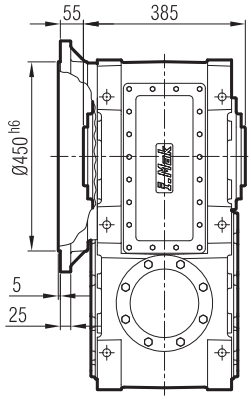

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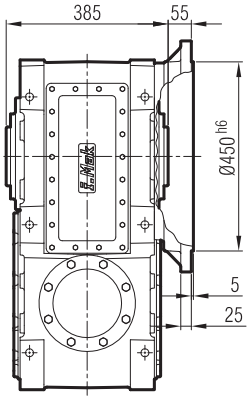

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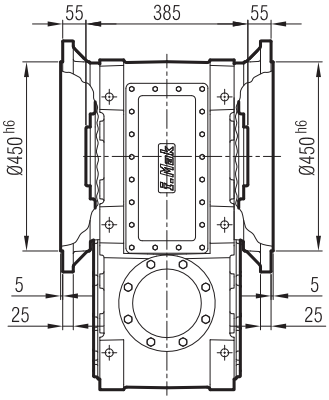

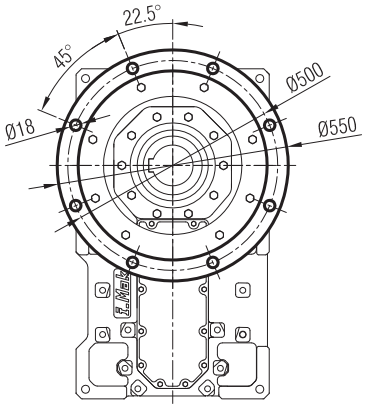

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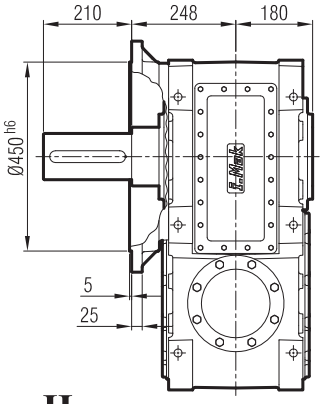

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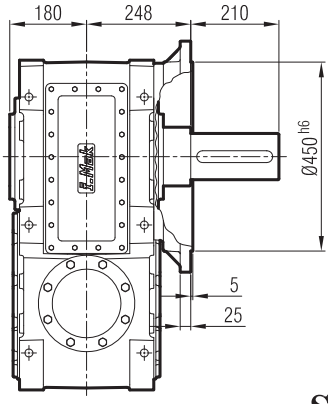

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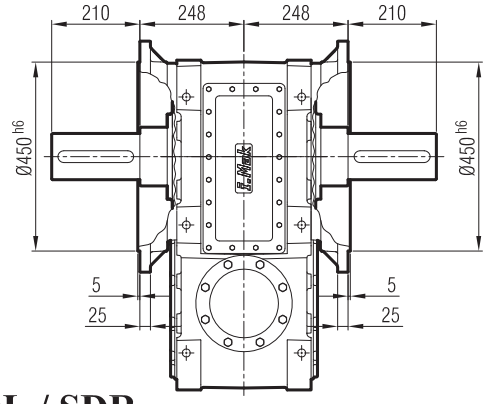

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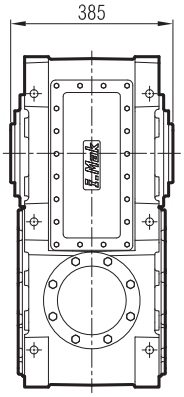

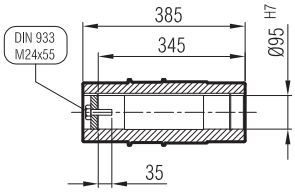

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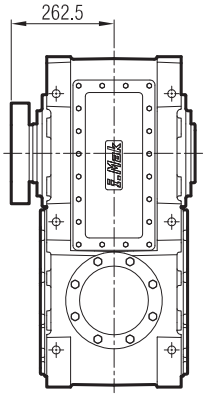
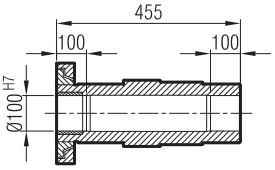
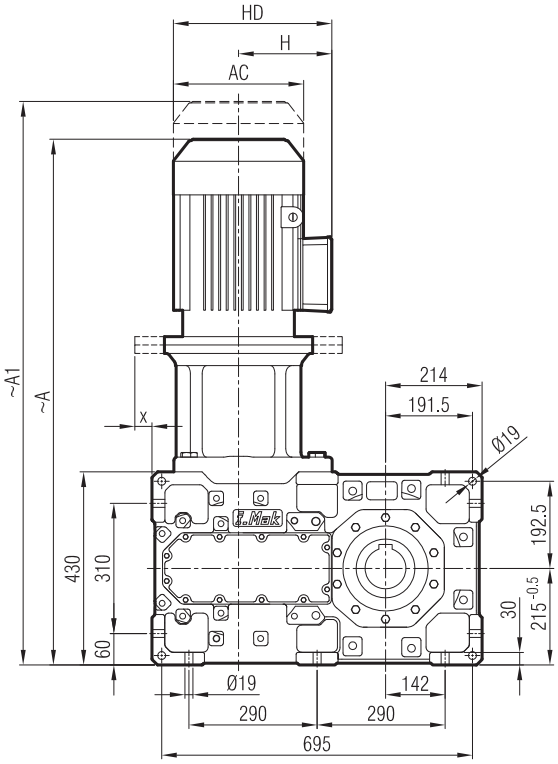
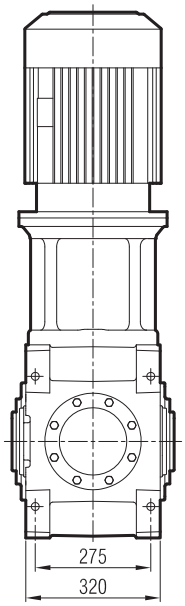
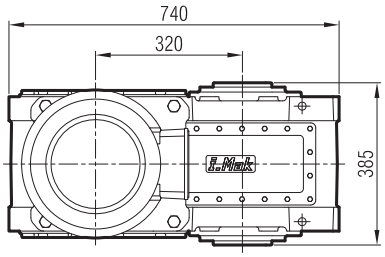


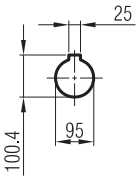


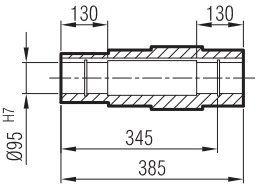
MKM 503-G10











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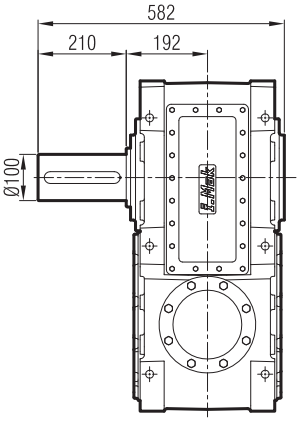
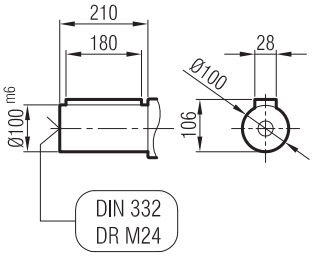
A	1032	1109	1150	1258	1303	1379	1379	1447	1466	1526	1576
A1	1127	1213	1254	1375	1420	1515	1515	1594	1613	1673	1723
H	170	193	193	240	240	260	260	300	313	313	366
HD	282	325	325	400	400	440	440	500	538	538	618
AC	220	262	262	315	315	357	357	394	456	456	489
x	-	-	-	-	-	-	-	-	22	22	69

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 50_

...-SL





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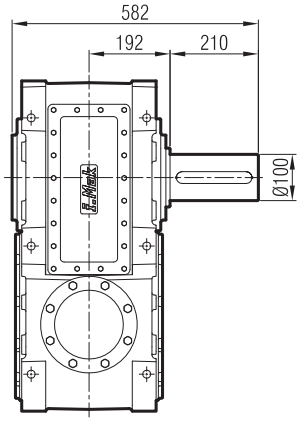

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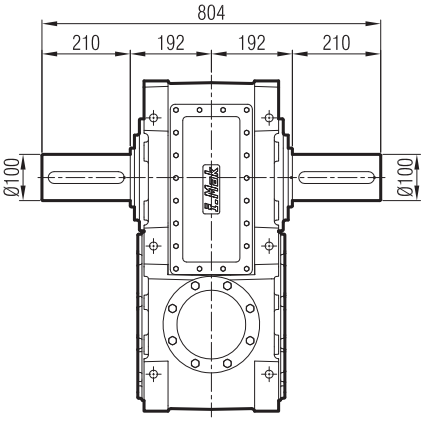

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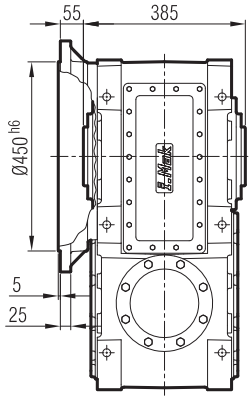

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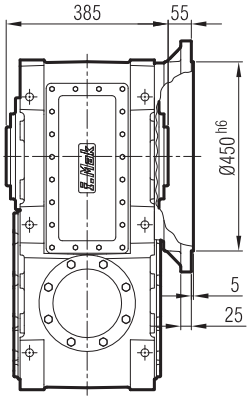

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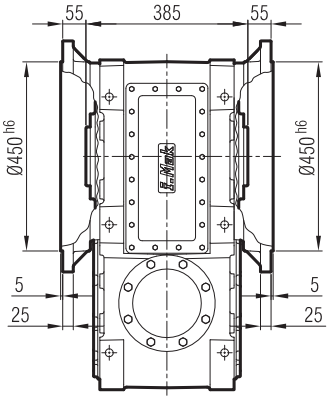

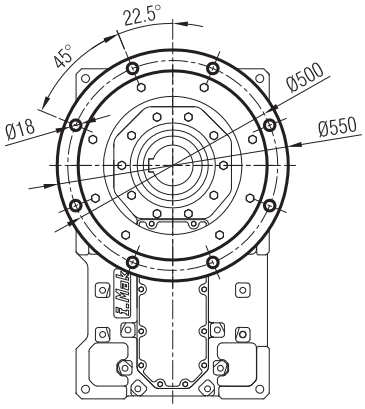

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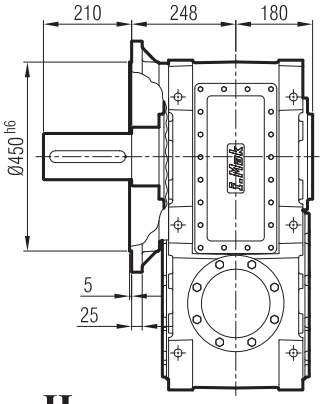

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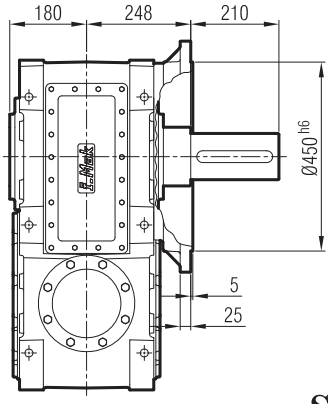

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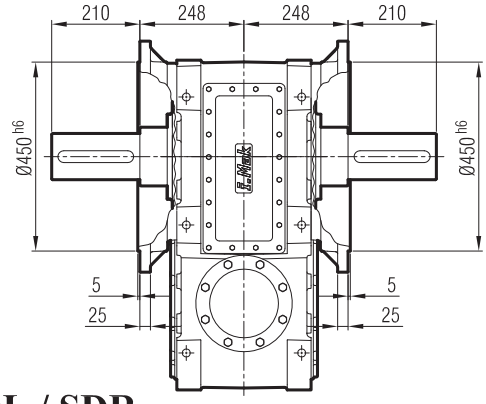

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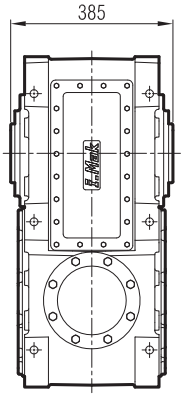

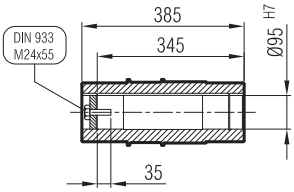

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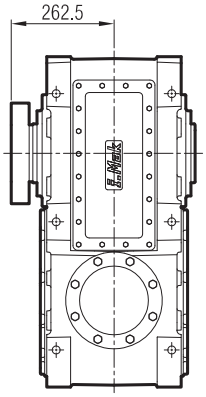

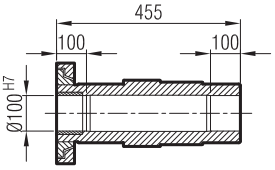

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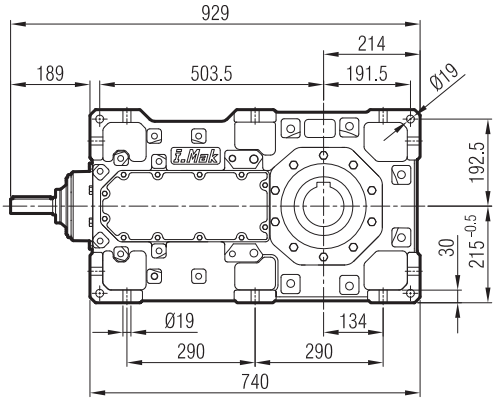
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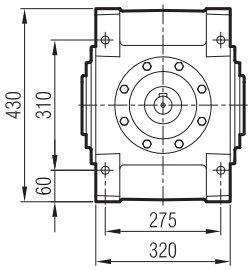
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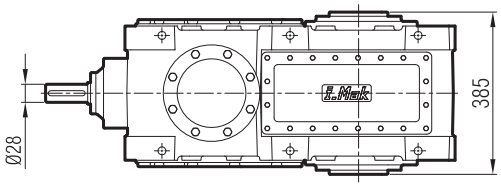
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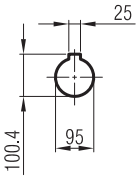
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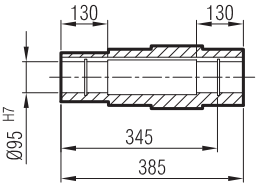
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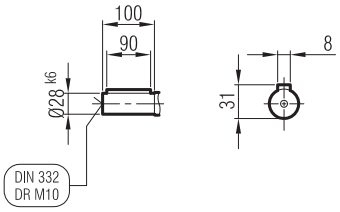
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MA / MK 50_

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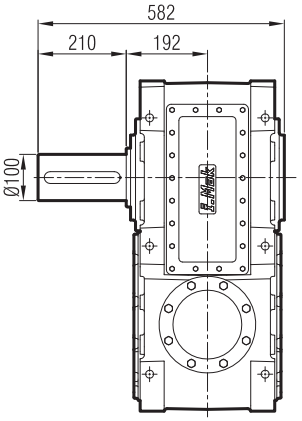

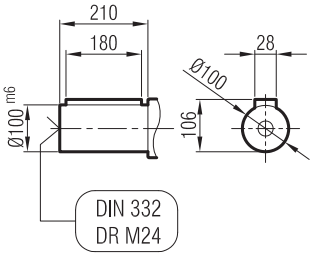

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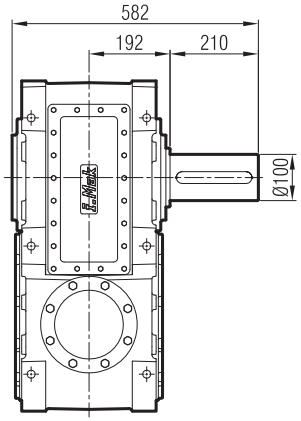

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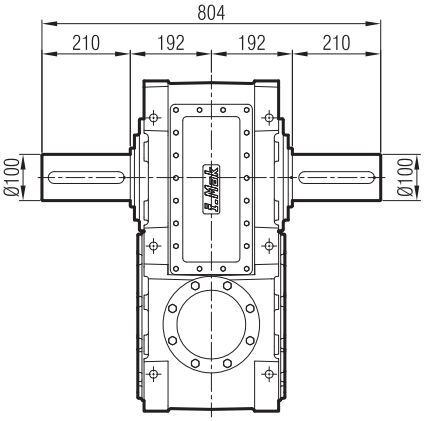

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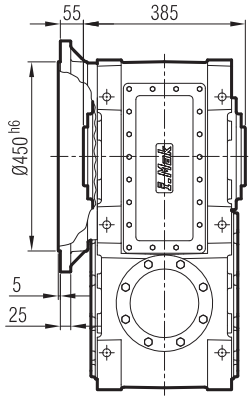

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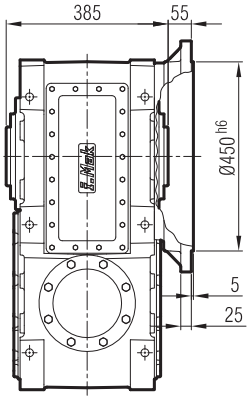

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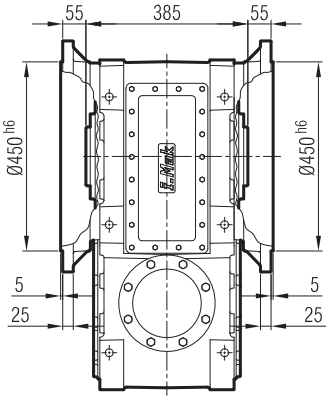

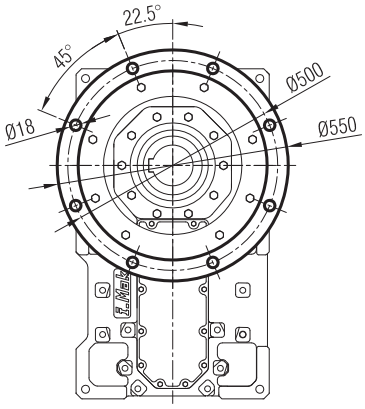

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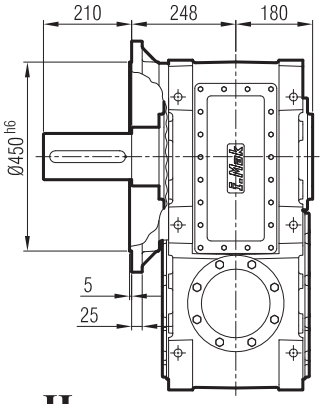

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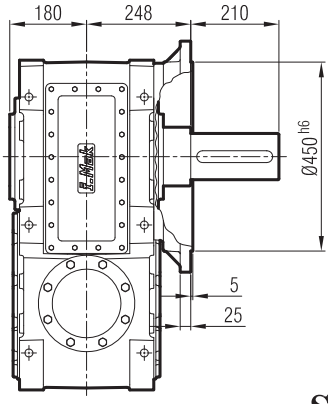

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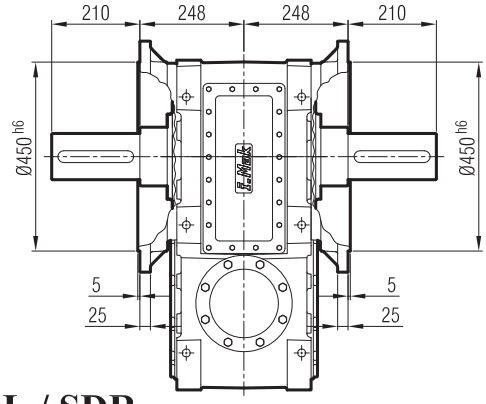

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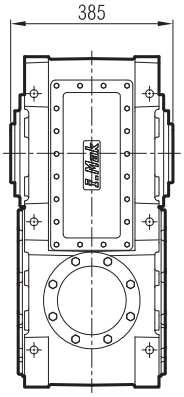

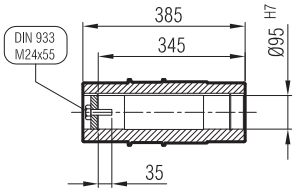

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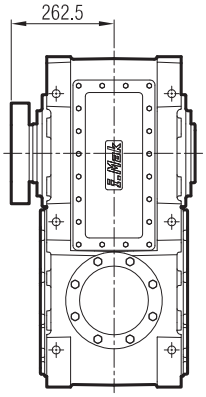

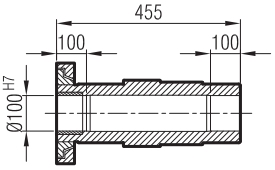

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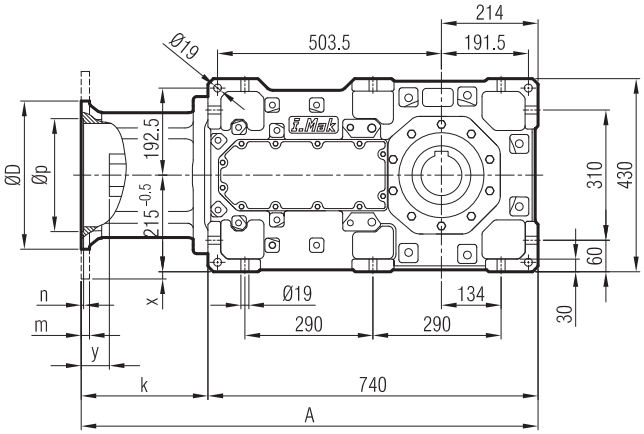

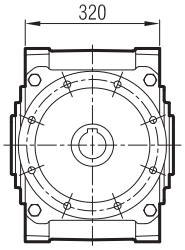

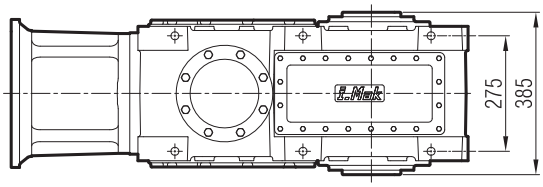

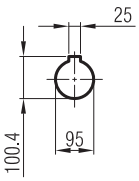

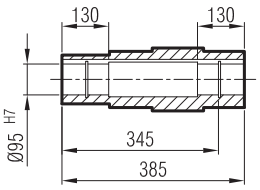

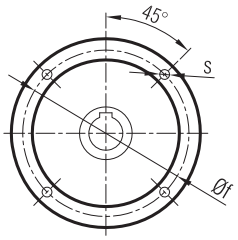

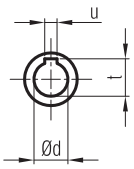

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MA / MK 50_

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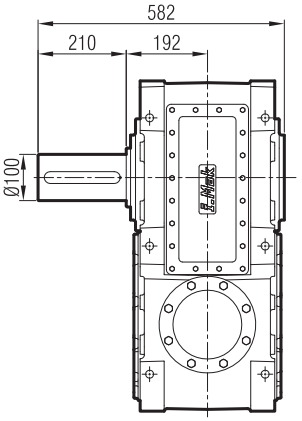

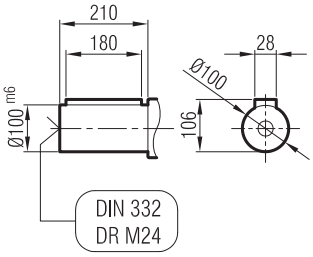

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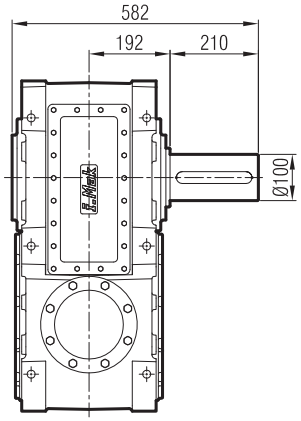

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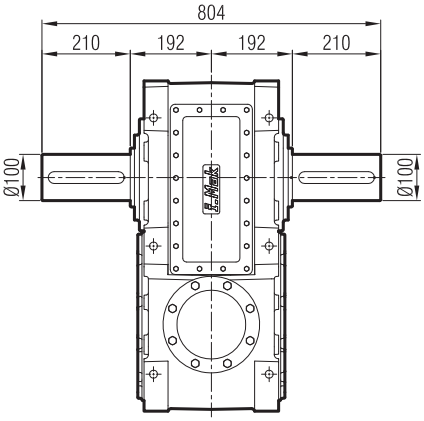

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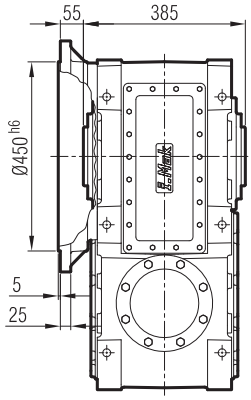

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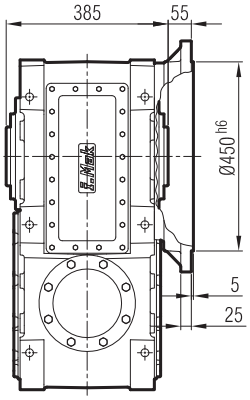

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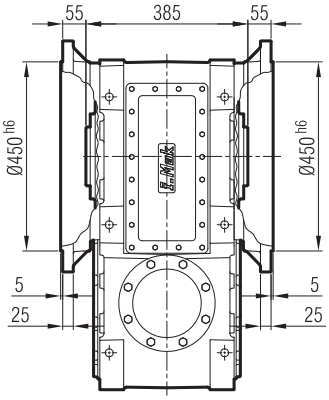

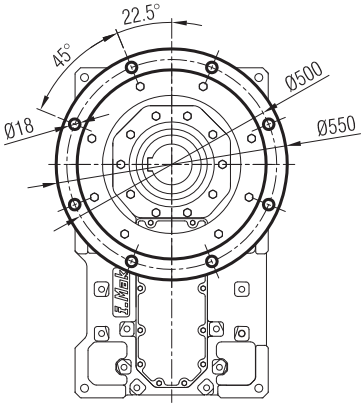

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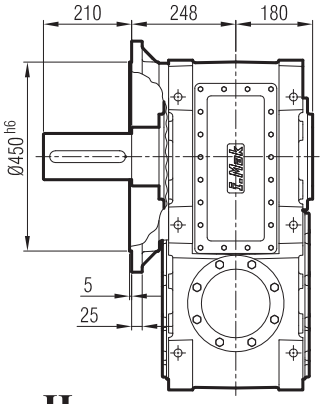

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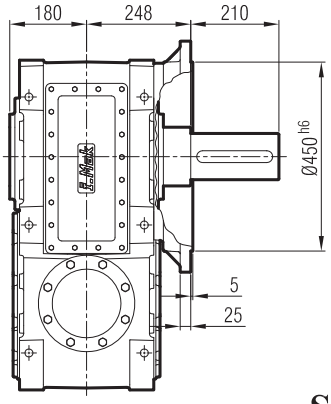

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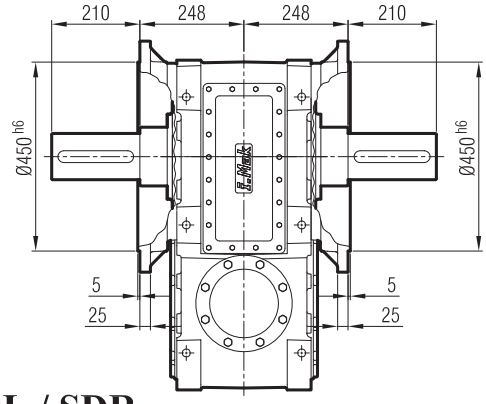

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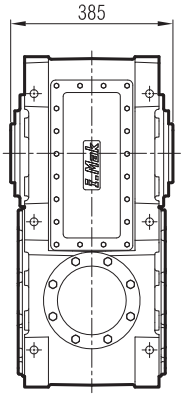

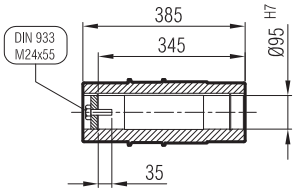

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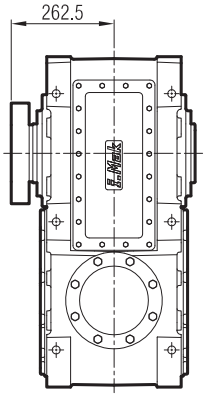
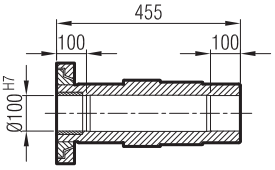
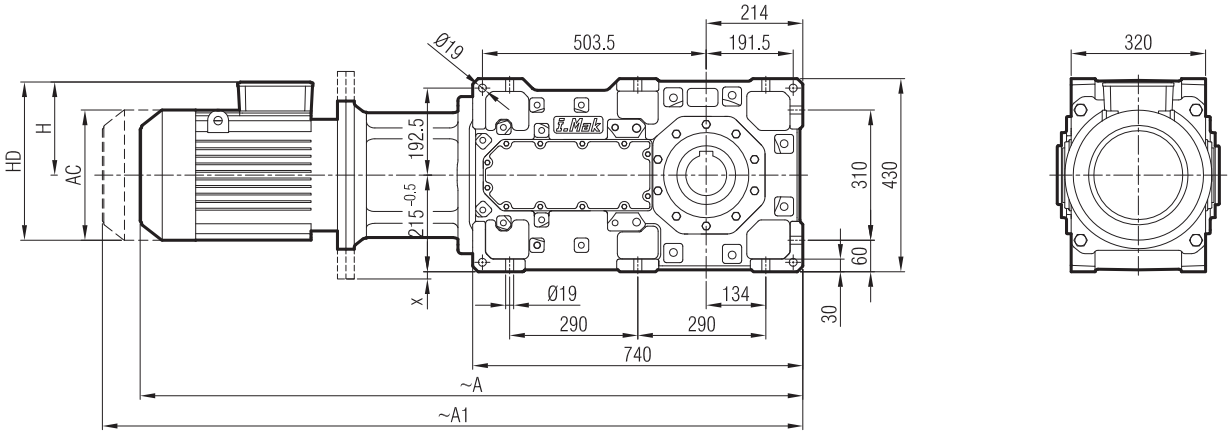
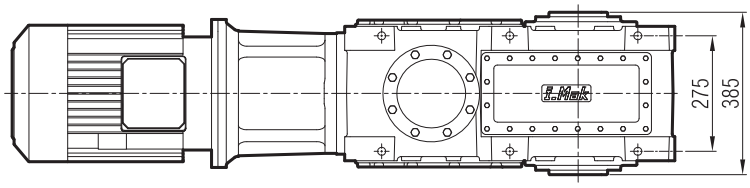
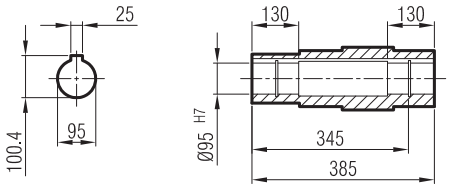




MKM 504-G09







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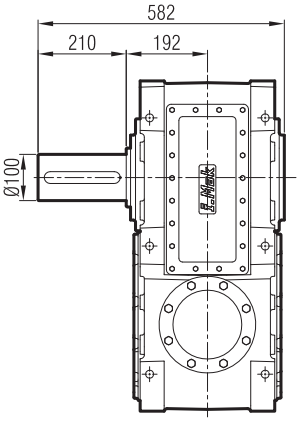
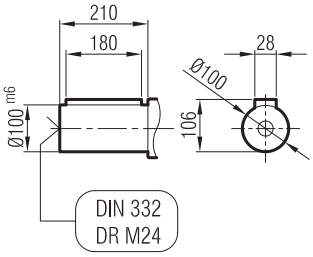
A1	1389	1456	1446	1532	1573	1694	1739
H	141	161	170	193	193	240	240
HD	231	261	282	325	325	400	400
AC	176	195	220	262	262	315	315
x	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 50_

...-SL





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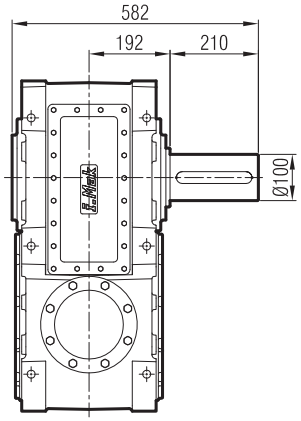

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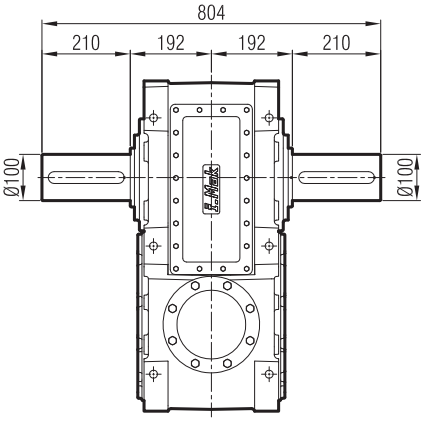

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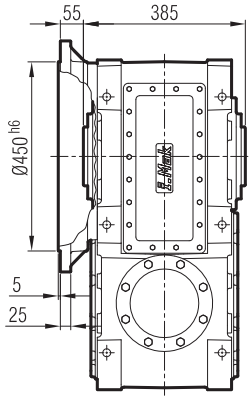

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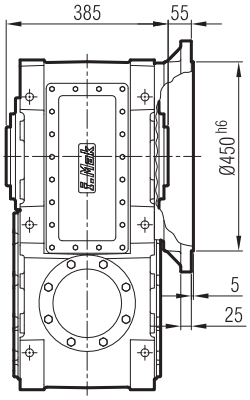

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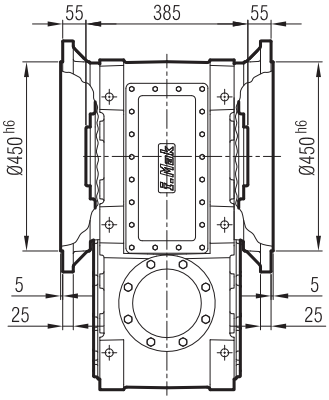

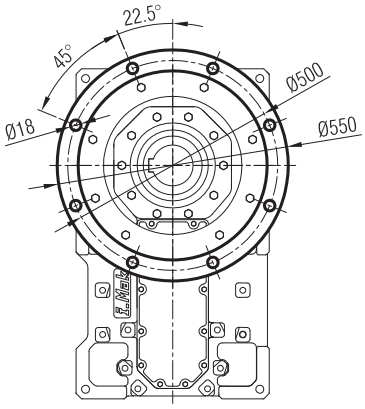

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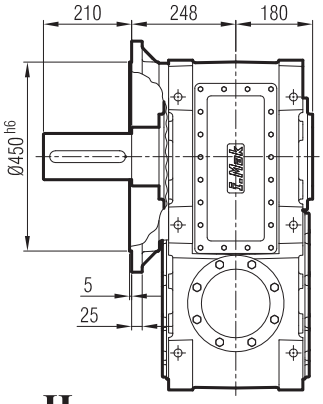

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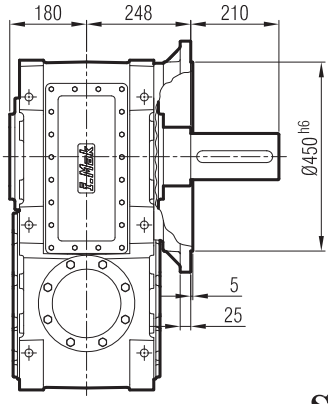

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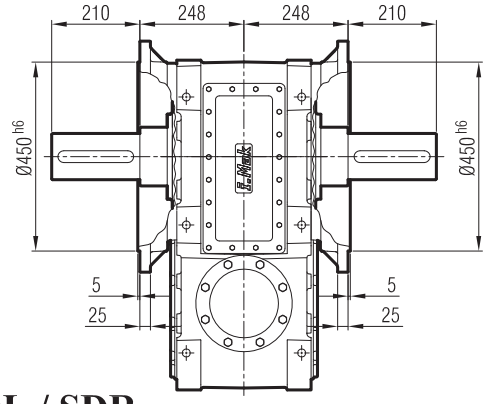

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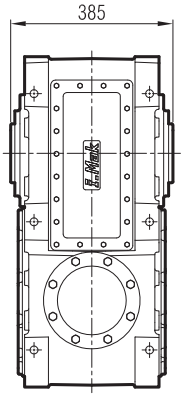

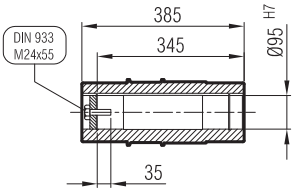

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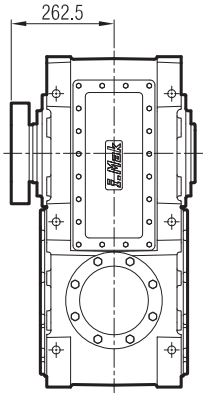
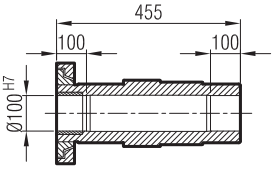
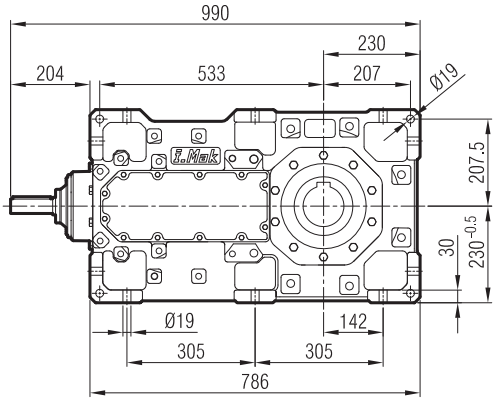




MK 603-G07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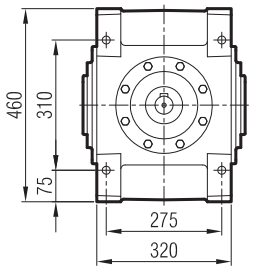
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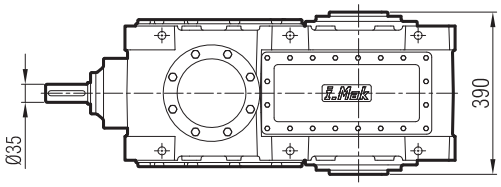
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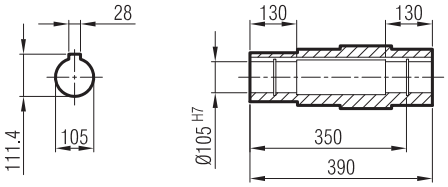
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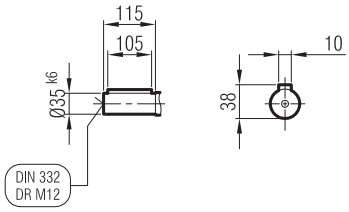
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MA / MK 60_

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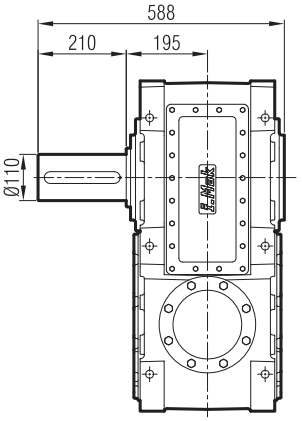

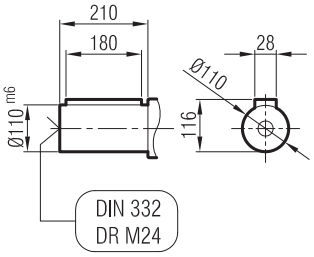

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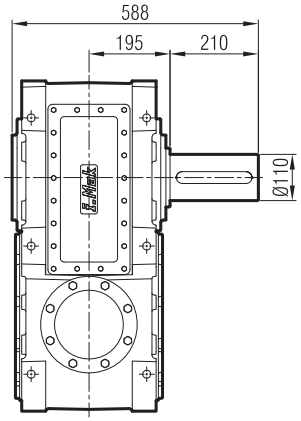

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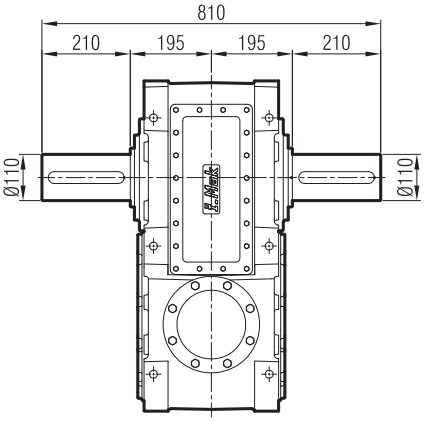

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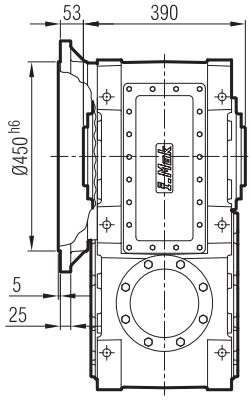

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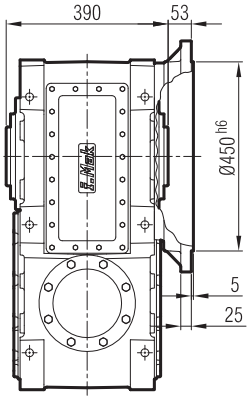

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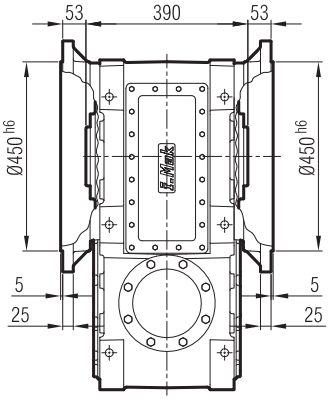

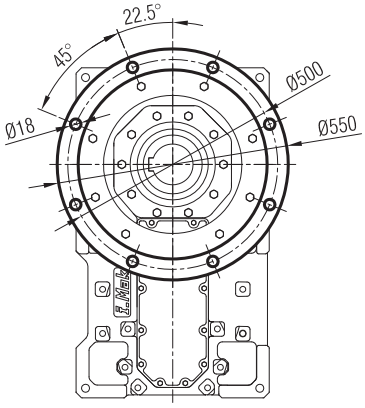

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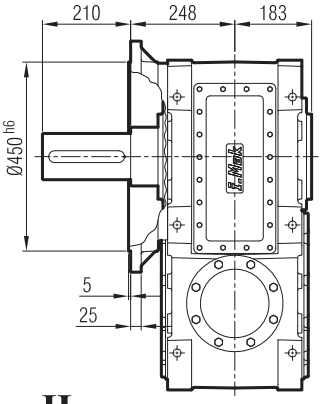

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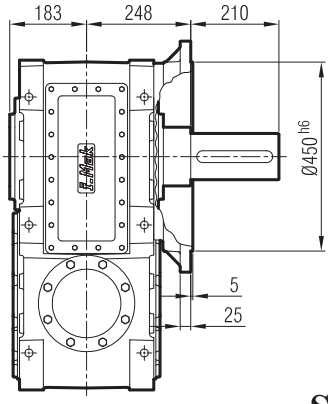

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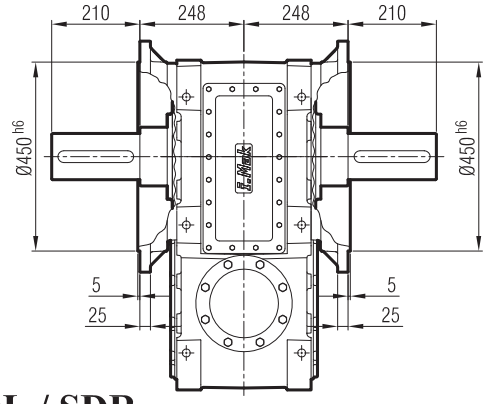

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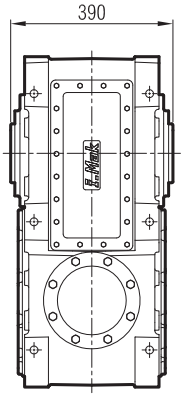

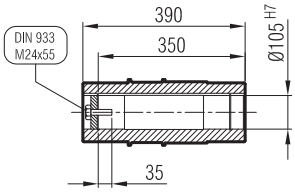

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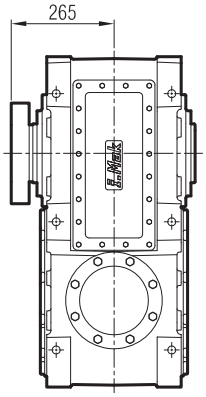
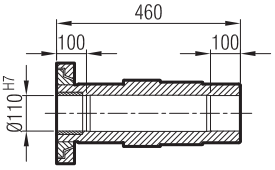
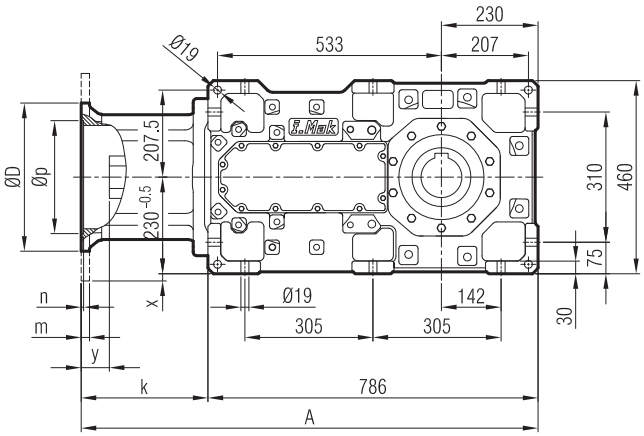
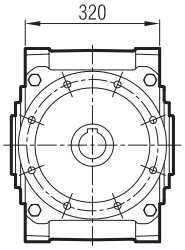
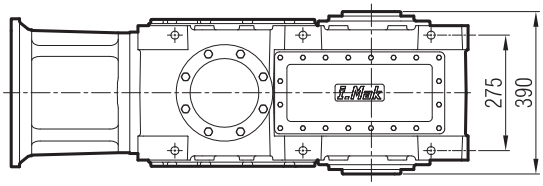


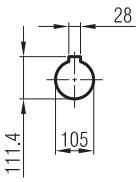


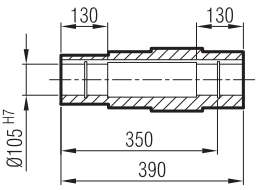
MKP 603-G09











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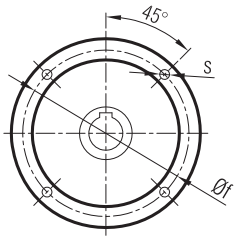

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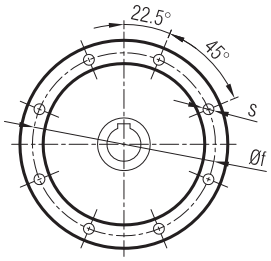

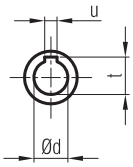

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132/B5	1073	230	265	300	M12	293	18	6	38	41.3	10	-	20
160/B5	1103	250	300	350	M14	317	20	6	42	45.3	12	-	60
180/B5	1103	250	300	350	M14	317	20	6	48	51.8	14	-	60
200/B5	1103	300	350	400	M16	317	22	6	55	59.3	16	-	60
225/B5	1146	350	400	450	M16	360	22	6	60	64.4	18	19	80
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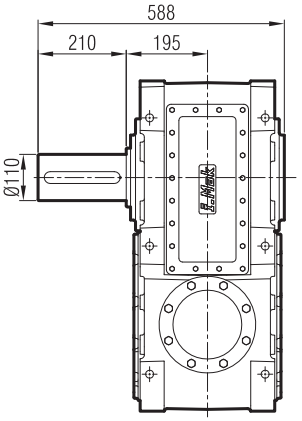
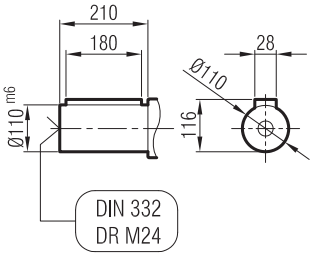
MA / MK 60_

...-SL





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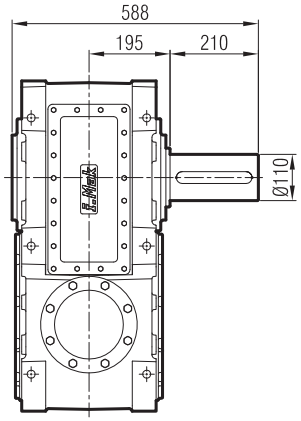

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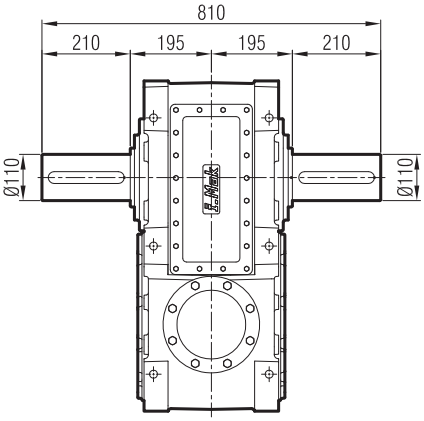

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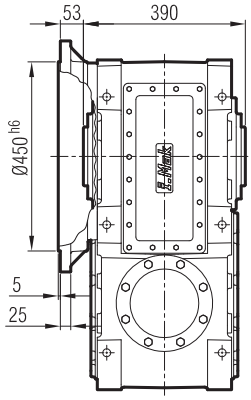

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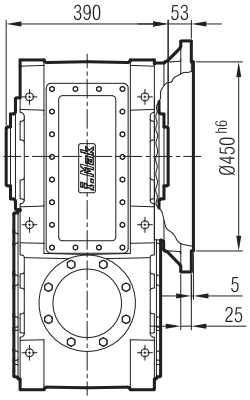

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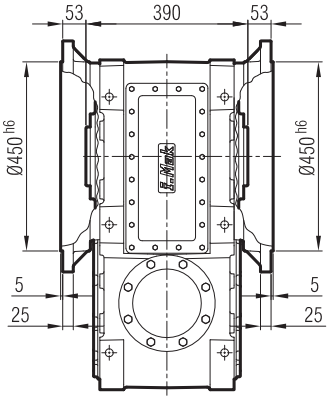

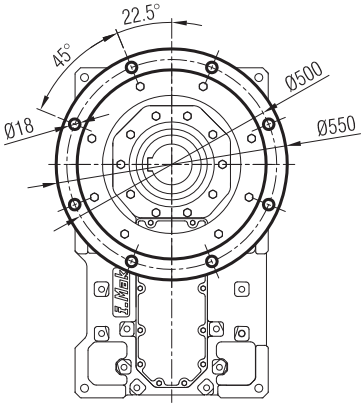

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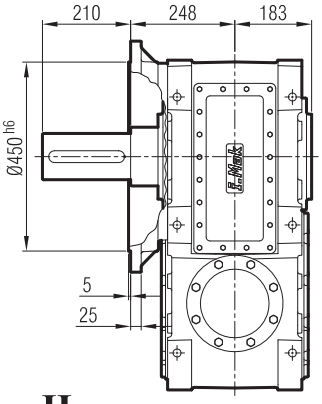

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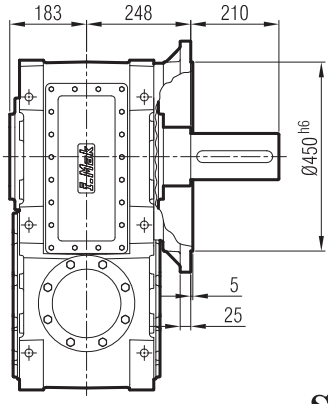

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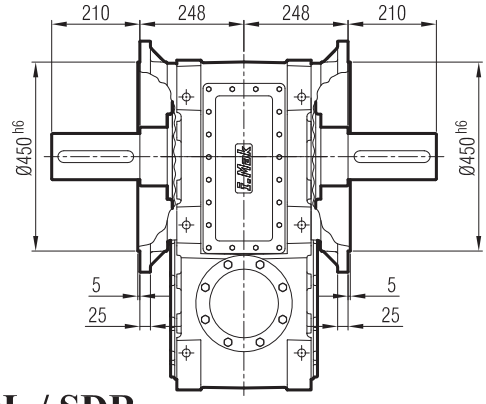

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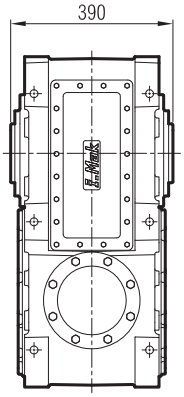

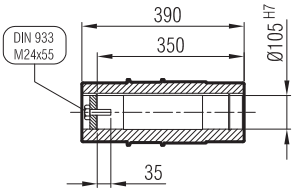

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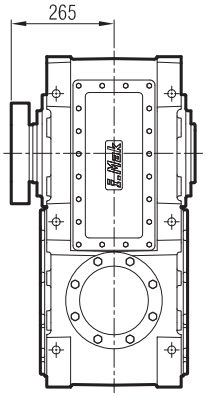
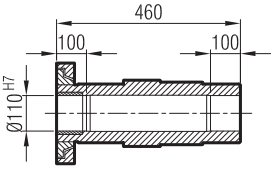
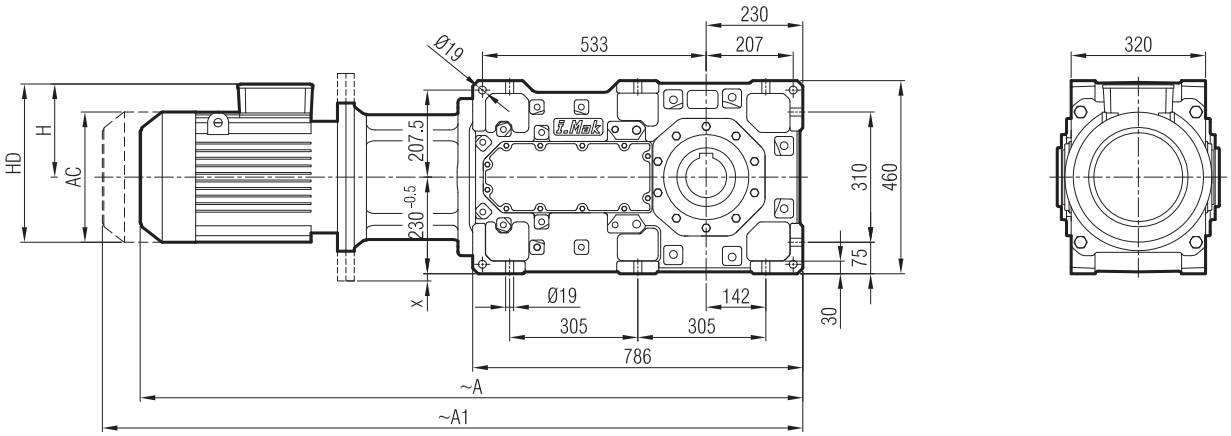
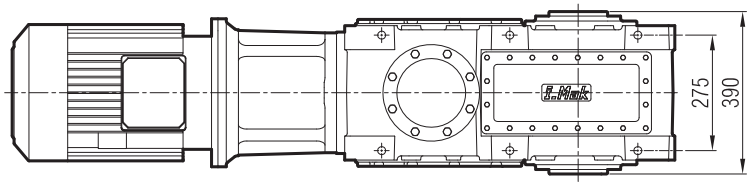
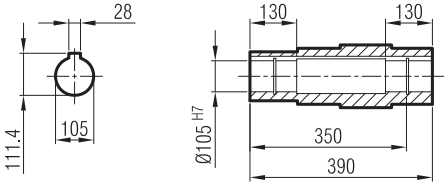




MKM 603-G09





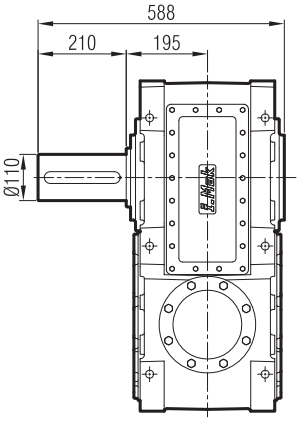


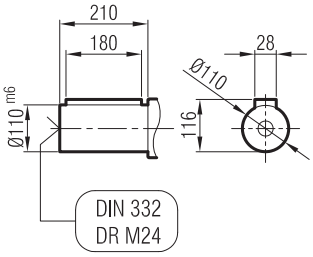
	112 M/B5	132 S/B5	132 M/B5	160 L/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5
A	1397	1474	1515	1623	1668	1744	1744	1812	1831	1891	1941
A1	1492	1578	1619	1740	1785	1880	1880	1959	1978	2038	2088
H	170	193	193	240	240	260	260	300	313	313	366
HD	282	325	325	400	400	440	440	500	538	538	618
AC	220	262	262	315	315	357	357	394	456	456	489
x	-	-	-	-	-	-	-	-	-	-	45

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 60_

...-SL





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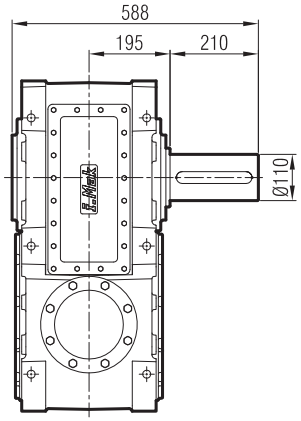

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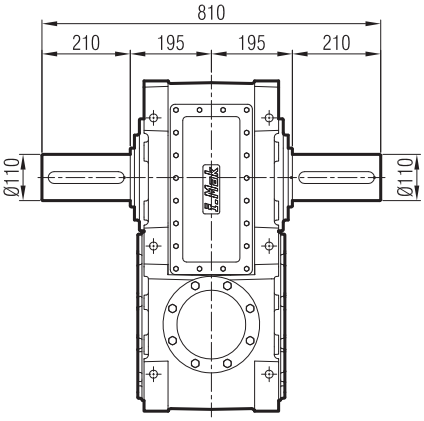

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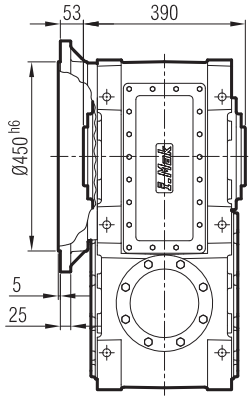

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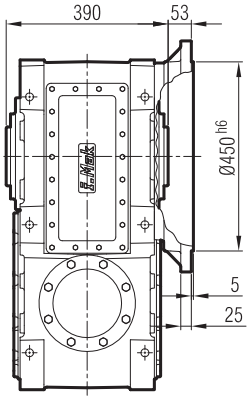

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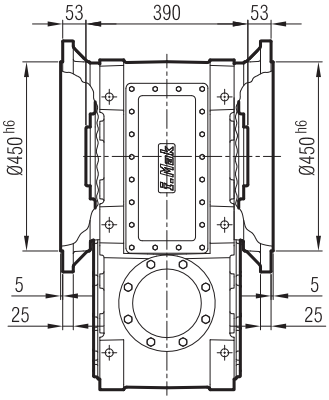

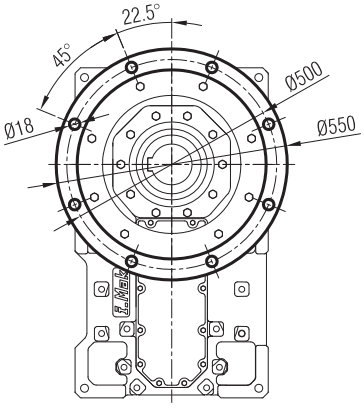

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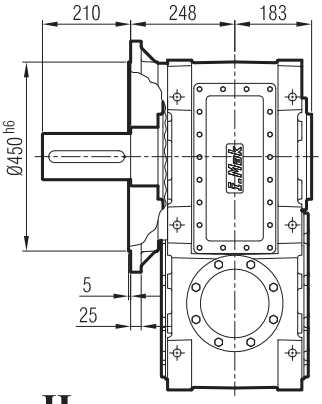

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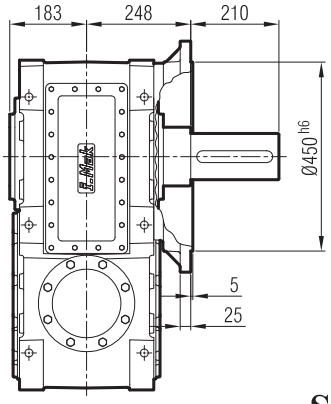

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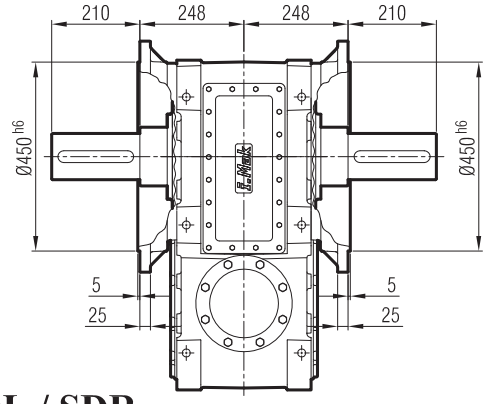

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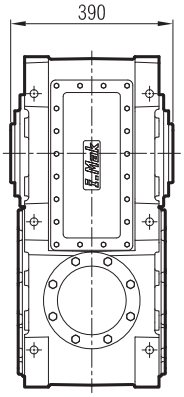

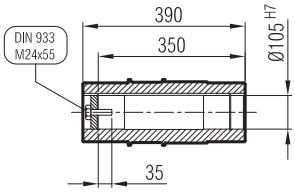

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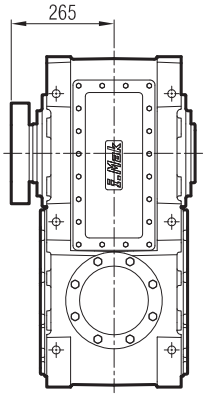
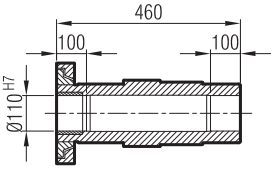
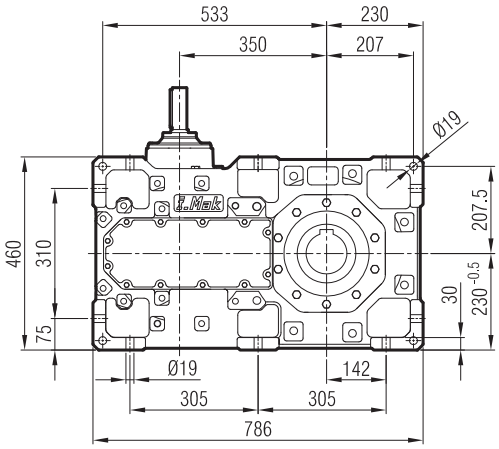




MK 603-G08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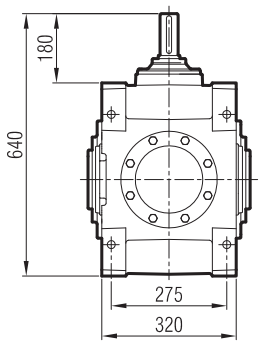
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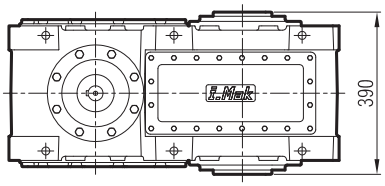
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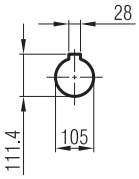
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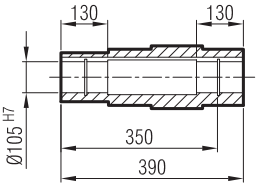
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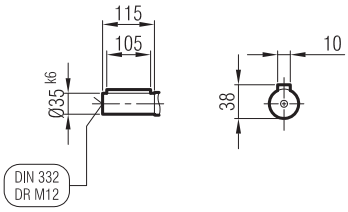
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MA / MK 60_

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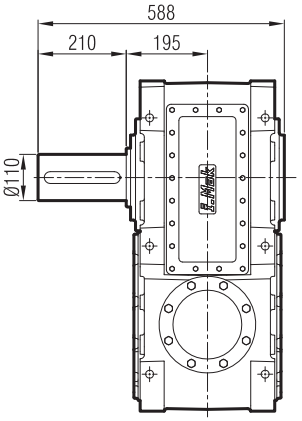

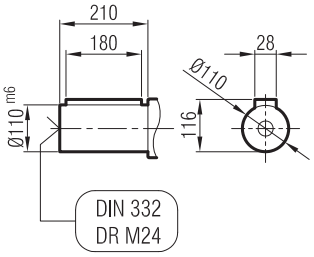

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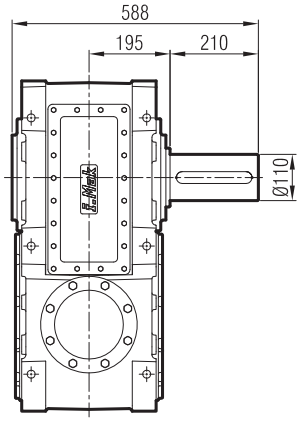

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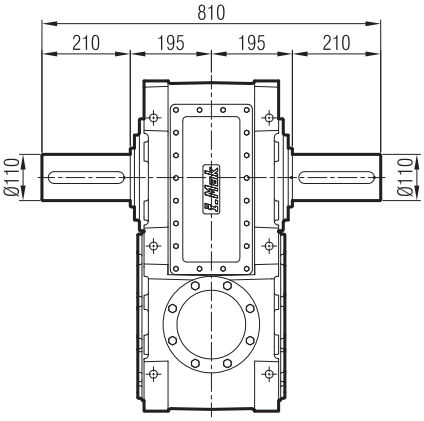

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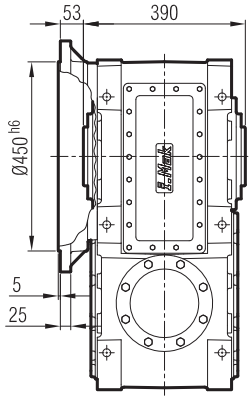

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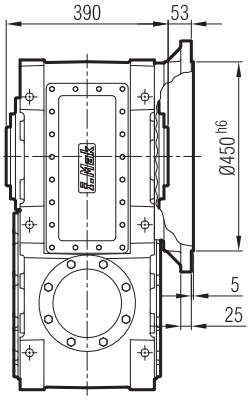

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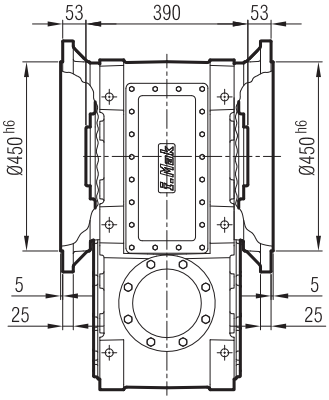

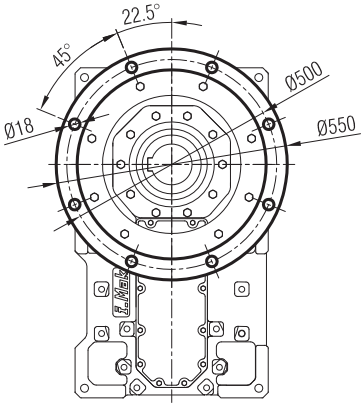

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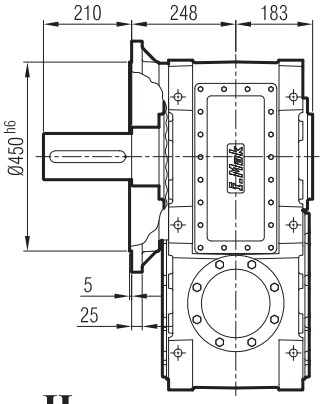

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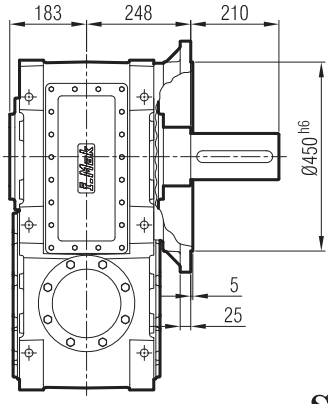

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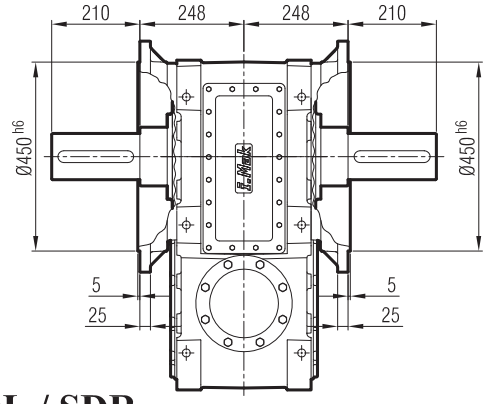

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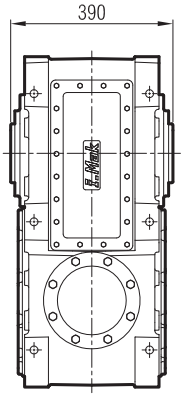

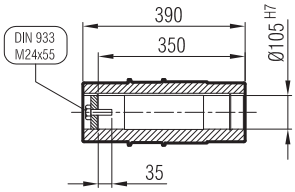

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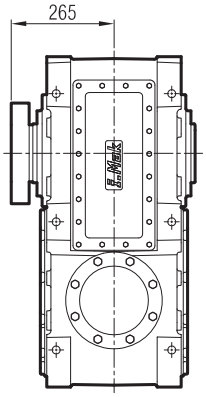

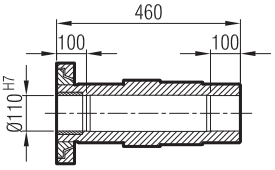

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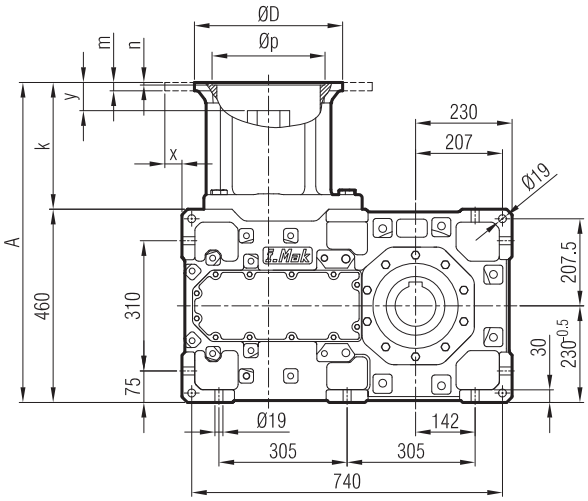

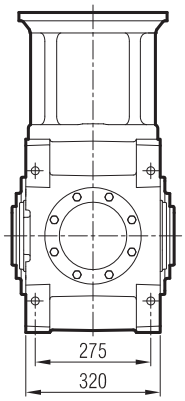

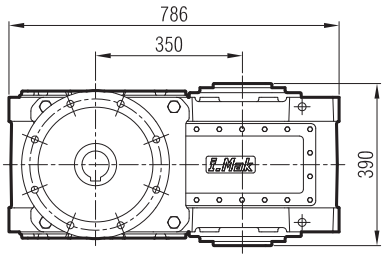

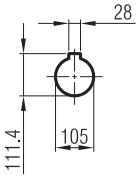

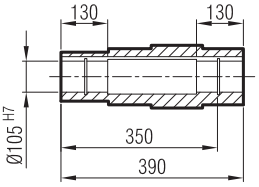

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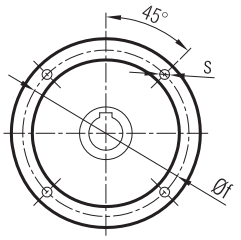

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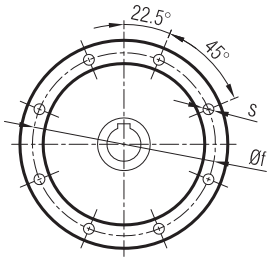

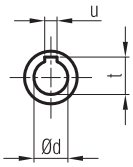

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132/B5	723	230	265	300	M12	293	18	6	38	41.3	10	-	20
160/B5	753	250	300	350	M14	293	20	6	42	45.3	12	-	60
180/B5	753	250	300	350	M14	293	20	6	48	51.8	14	-	60
200/B5	753	300	350	400	M16	293	22	6	55	59.3	16	-	60
225/B5	796	350	400	450	M16	336	22	6	60	64.4	18	19	80
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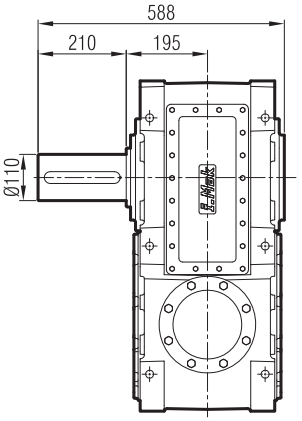
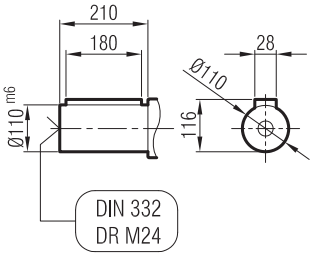
MA / MK 60_

...-SL





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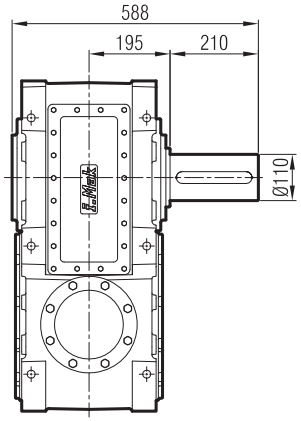

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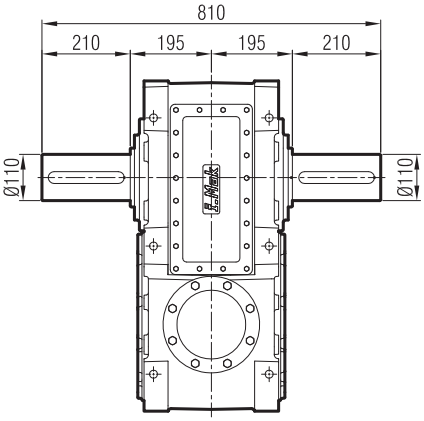

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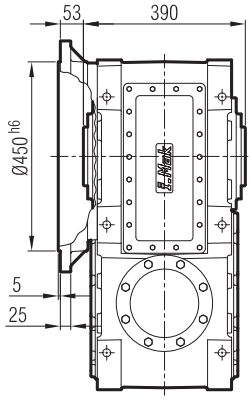

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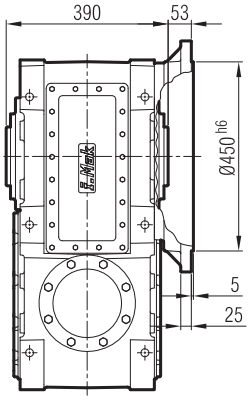

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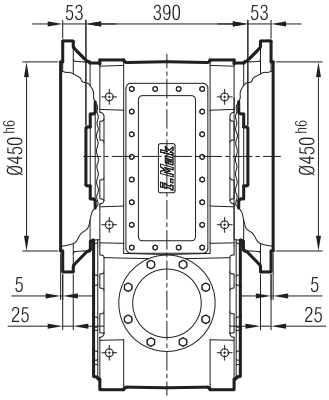

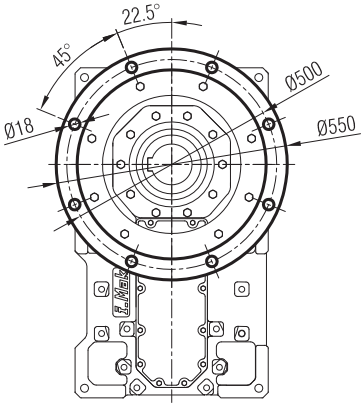

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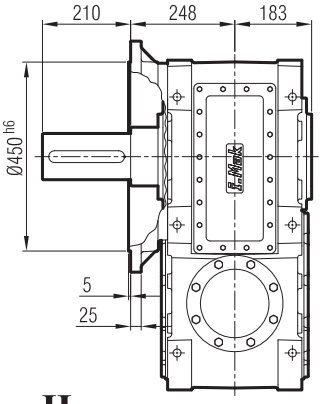

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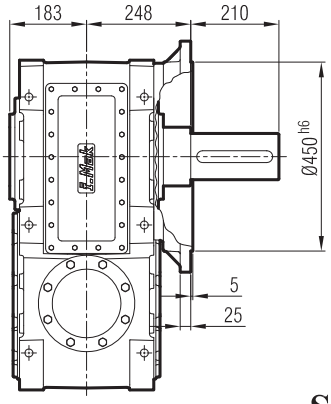

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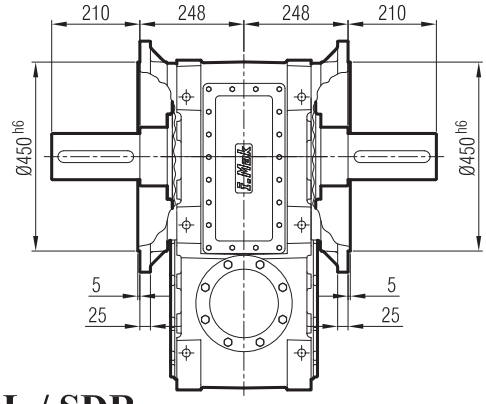

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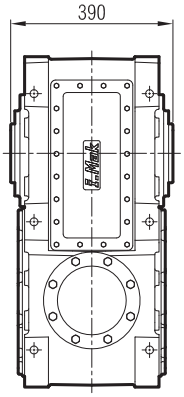

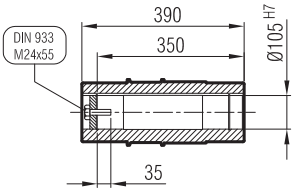

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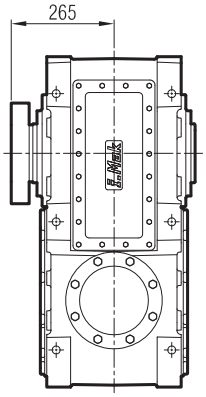

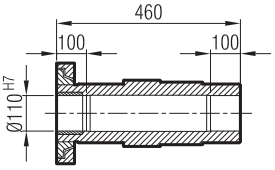

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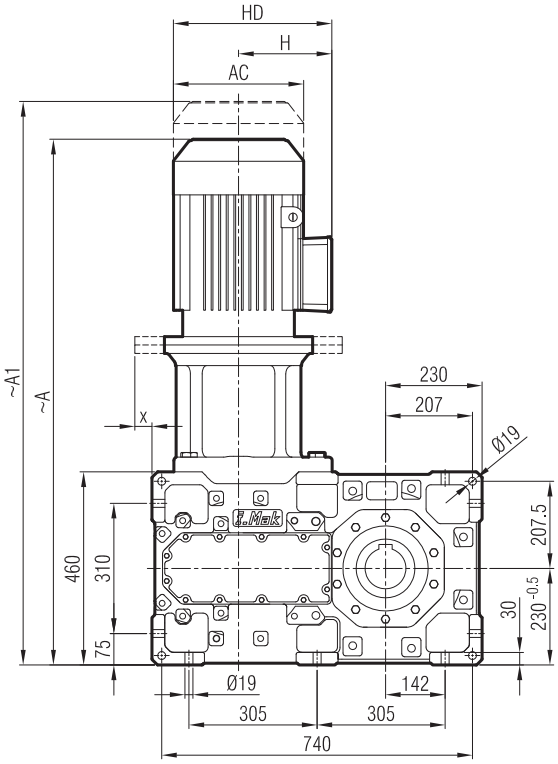
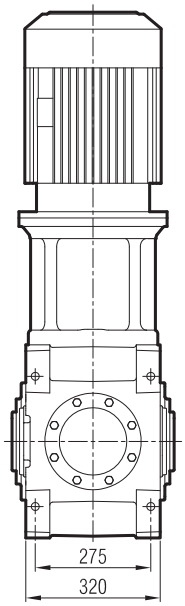
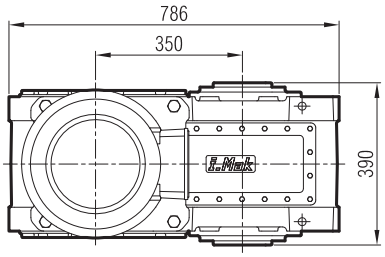
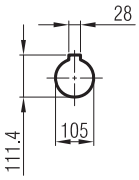
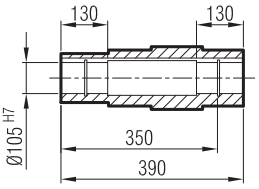








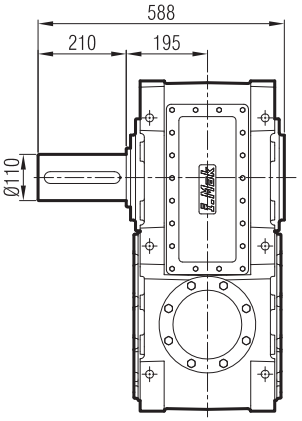


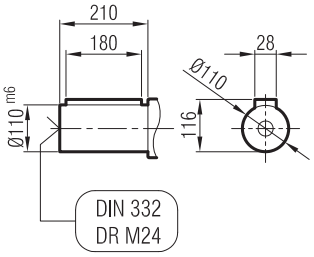
	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5
A	1047	1124	1165	1273	1318	1394	1394	1462	1481	1541	1591
A1	1142	1228	1269	1390	1435	1530	1530	1609	1628	1688	1738
H	170	193	193	240	240	260	260	300	313	313	366
HD	282	325	325	400	400	440	440	500	538	538	618
AC	220	262	262	315	315	357	357	394	456	456	489
x	-	-	-	-	-	-	-	-	22	22	69

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 60_

...-SL





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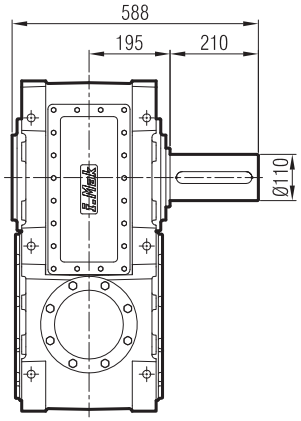

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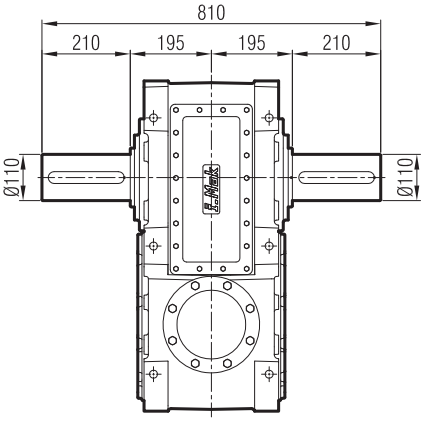

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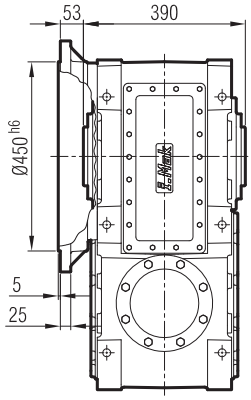

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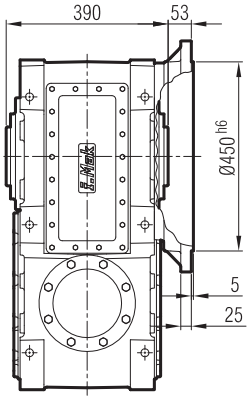

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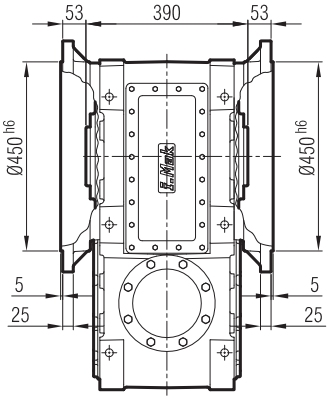

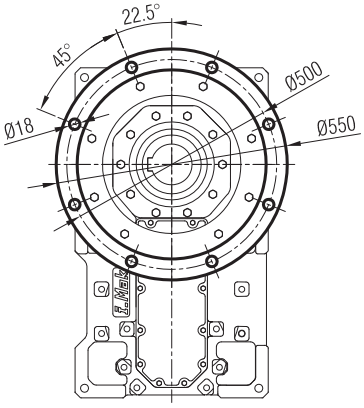

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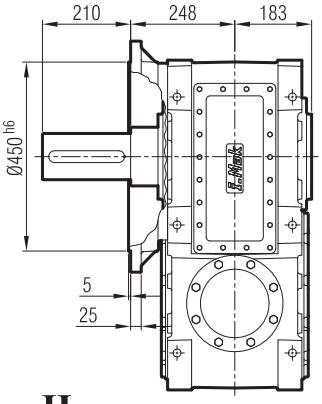

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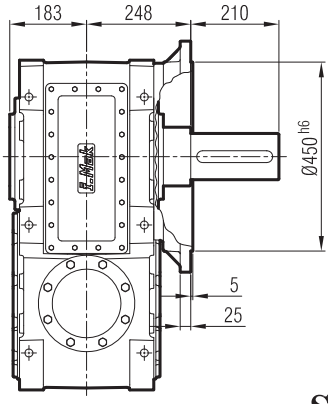

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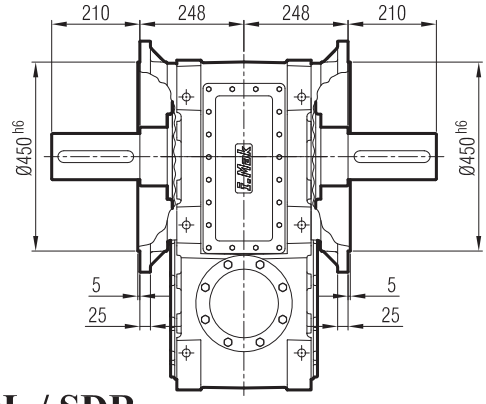

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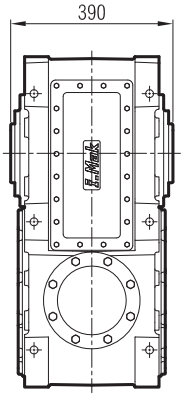

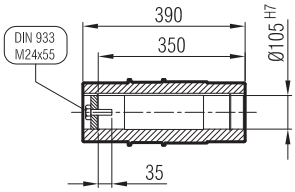

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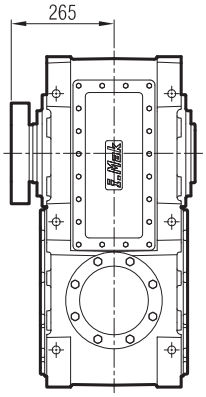
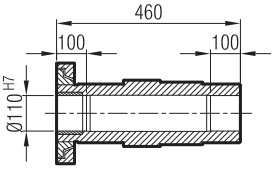
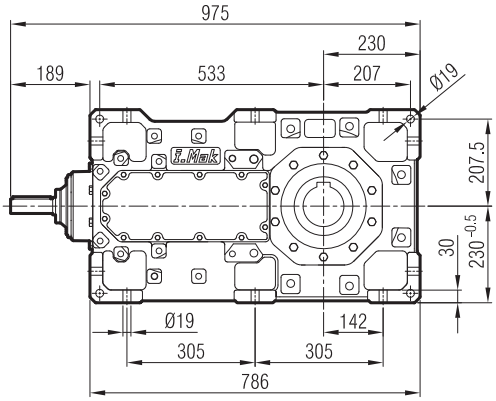




MK 604-G07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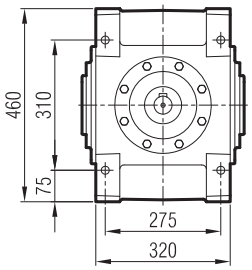
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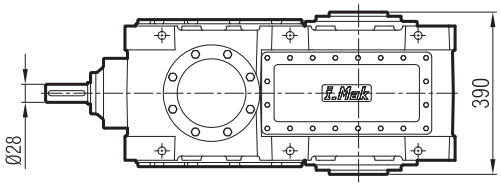
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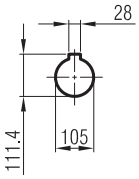
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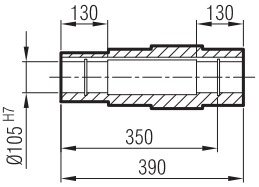
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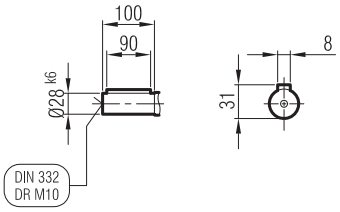
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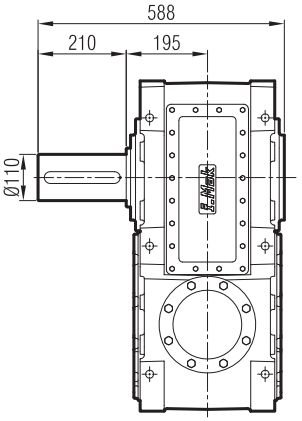
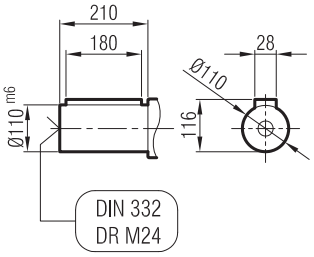
MA / MK 60_

...-SL





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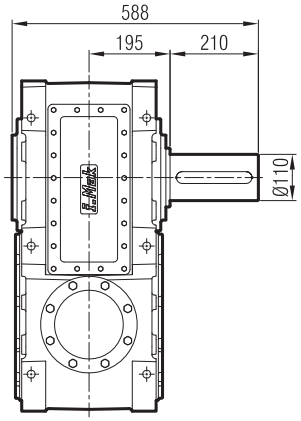

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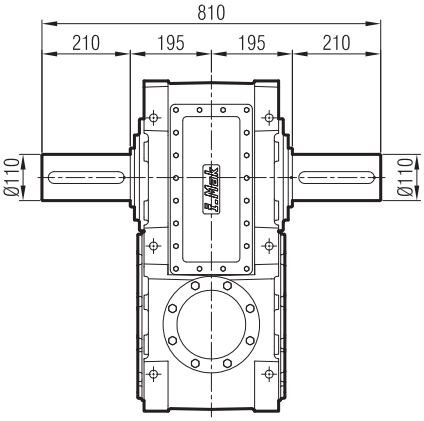

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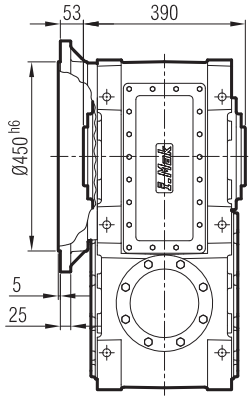

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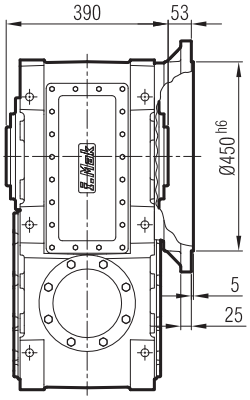

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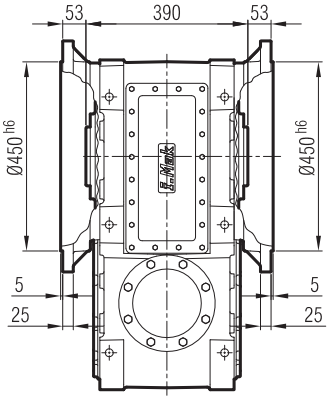

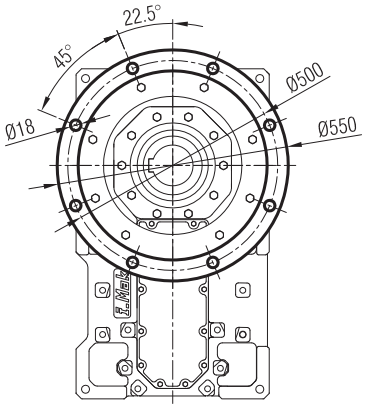

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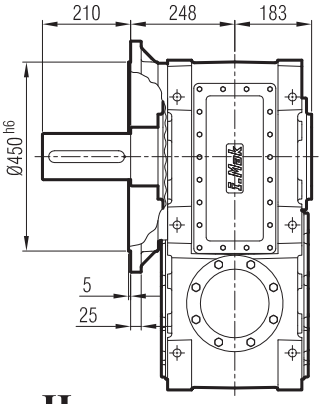

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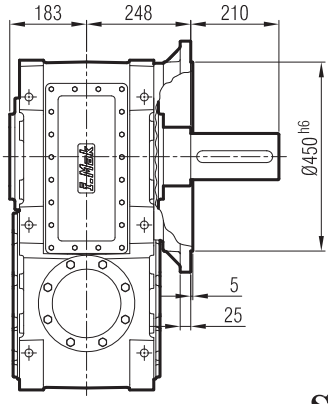

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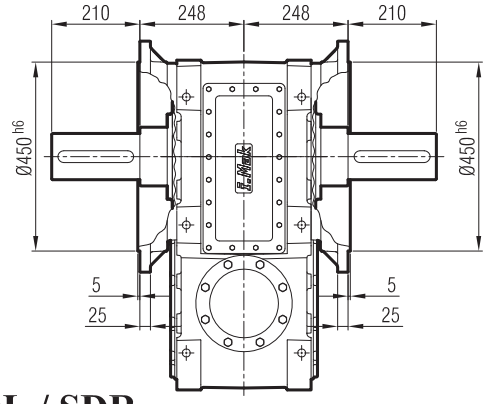

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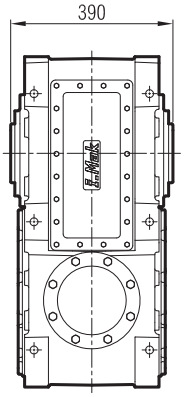

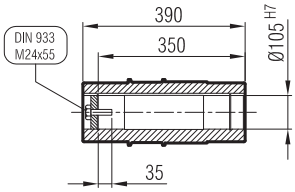

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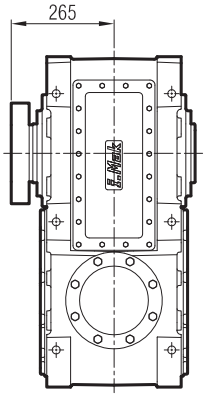
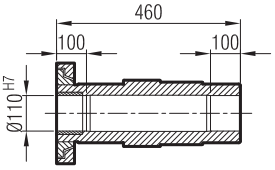
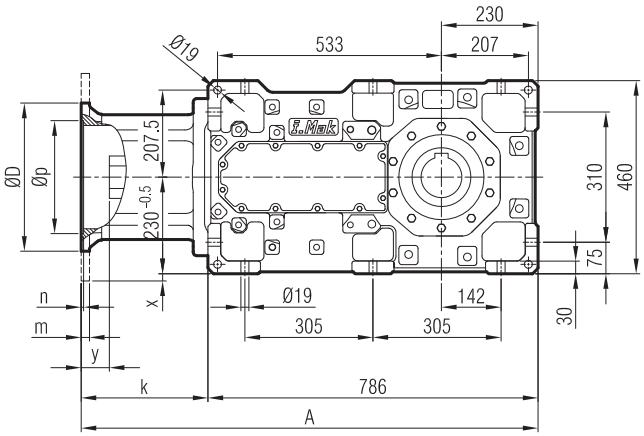
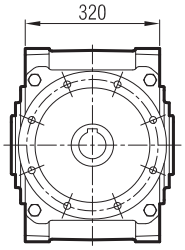
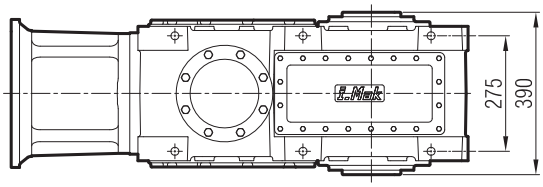


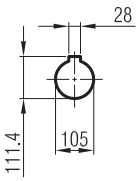


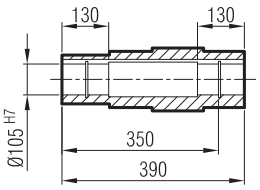
MKP 604-G09

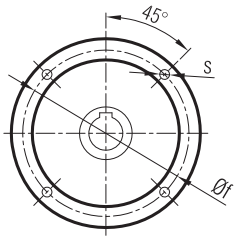


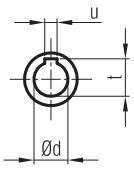












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100/B5	1053	180	215	250	M12	273	15	5	28	31.3	8	-	25
112/B5	1053	180	215	250	M12	273	15	5	28	31.3	8	-	25
132/B5	1073	230	265	300	M12	293	18	6	38	41.3	10	-	45
160/B5	1103	250	300	350	M14	317	20	6	42	45.3	12	-	70
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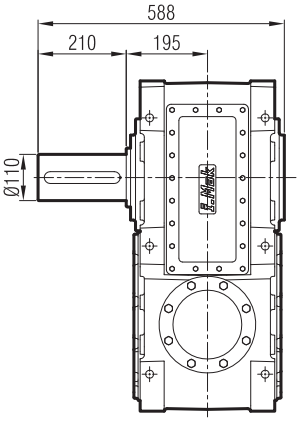
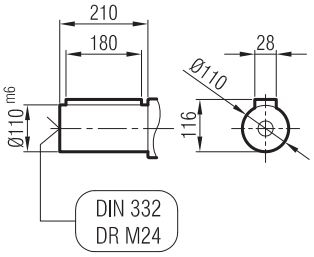
MA / MK 60_

...-SL





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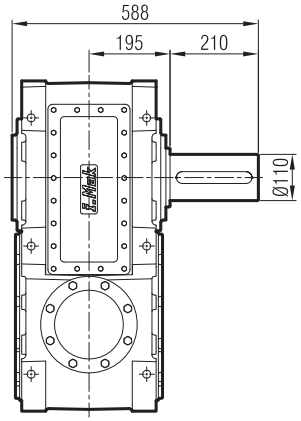

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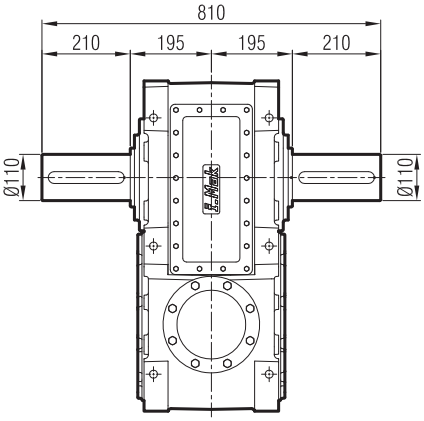

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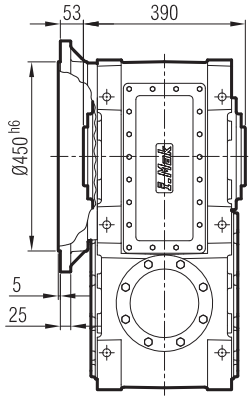

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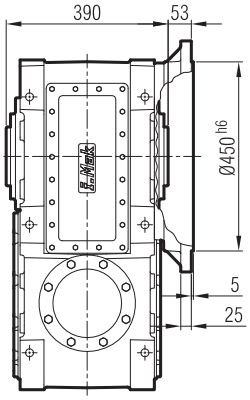

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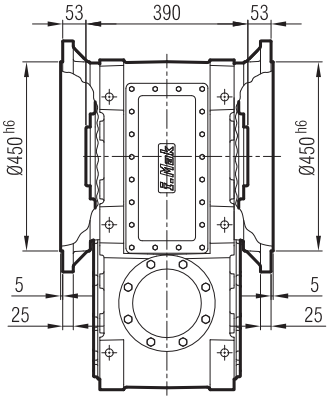

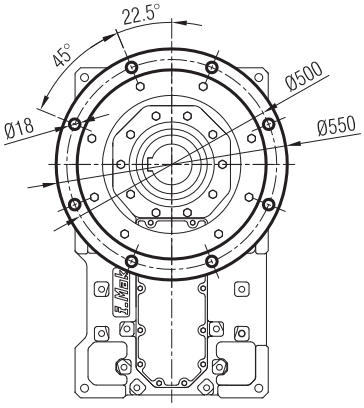

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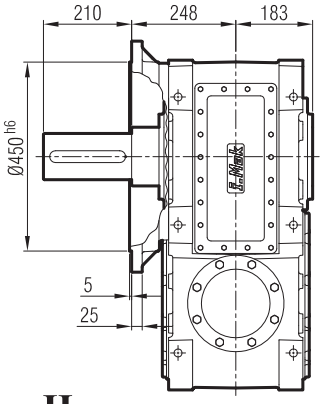

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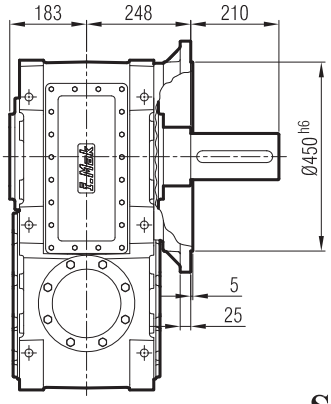

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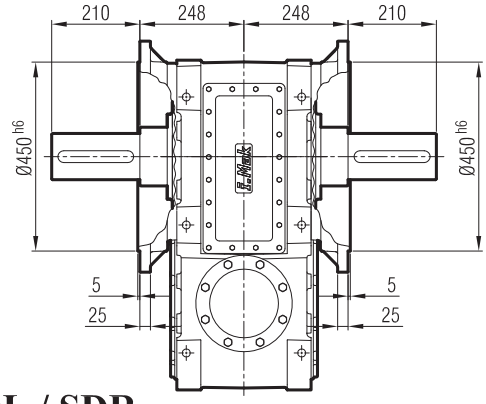

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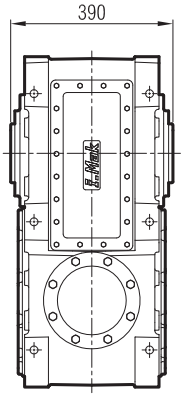

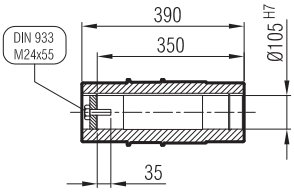

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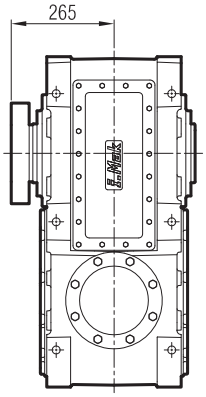
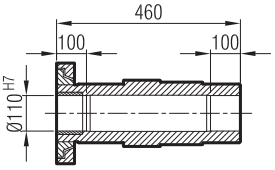
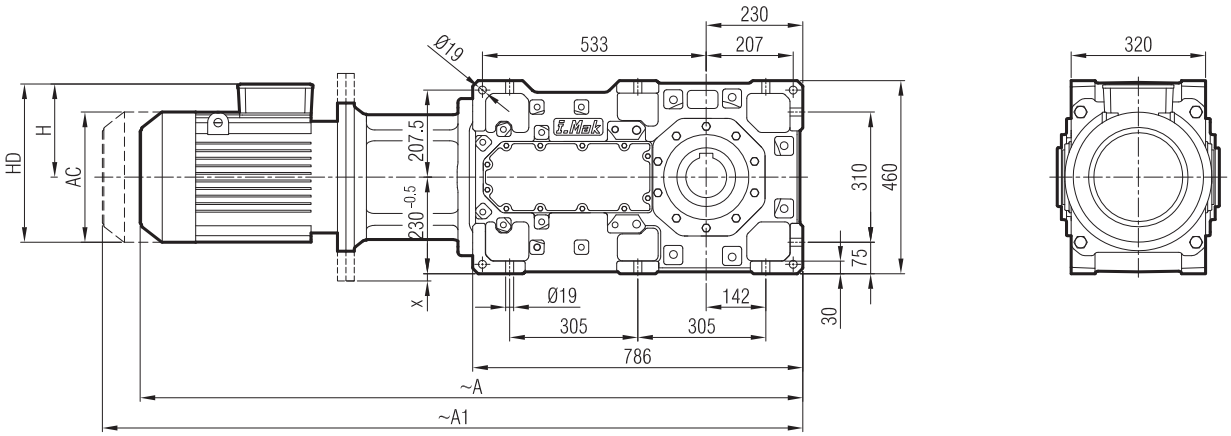
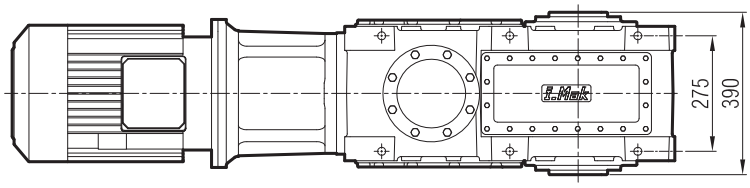
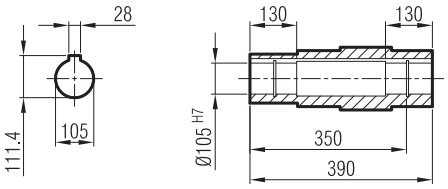




MKM 604-G09







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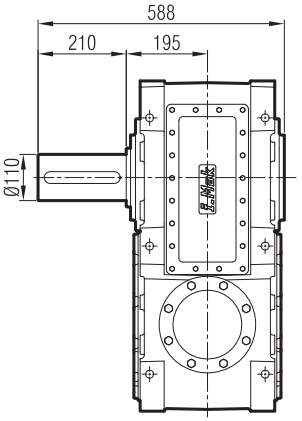
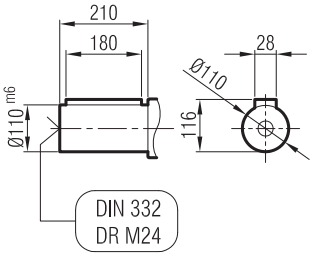
A	1368	1425	1397	1474	1515	1623	1668	1744
A1	1435	1502	1492	1578	1619	1740	1785	1880
H	141	161	170	193	193	240	240	260
HD	231	261	282	325	325	400	400	440
AC	176	195	220	262	262	315	315	357
x	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 60_

...-SL





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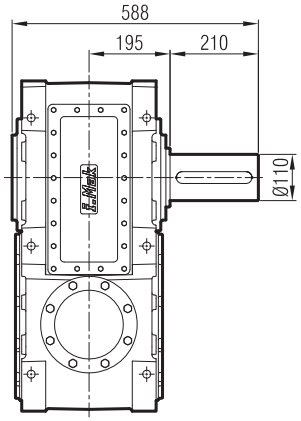

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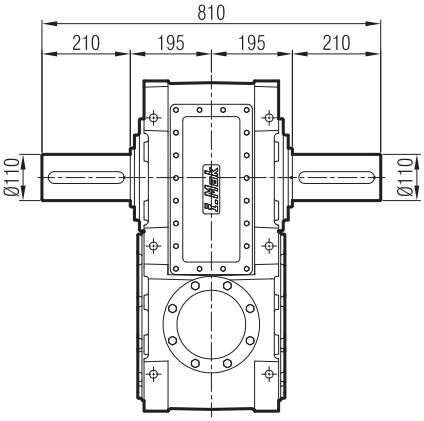

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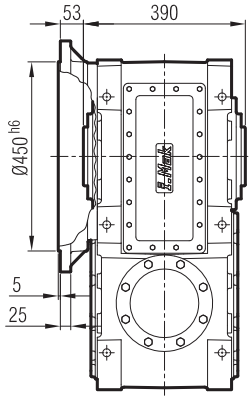

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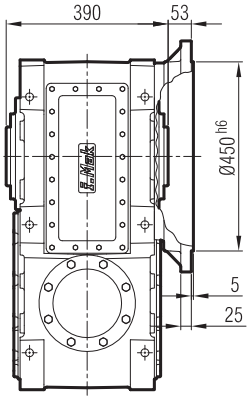

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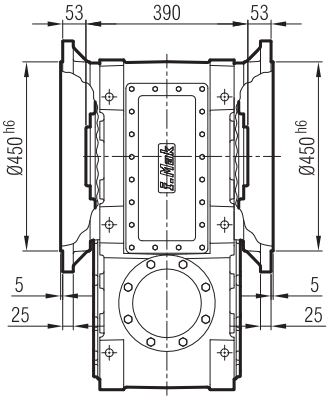

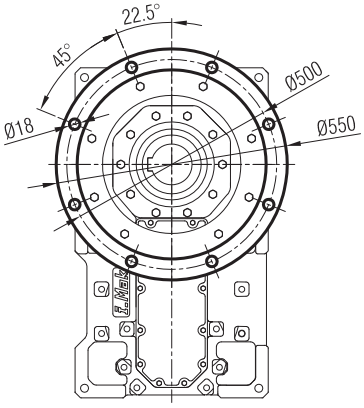

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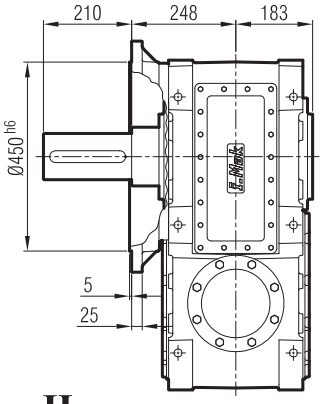

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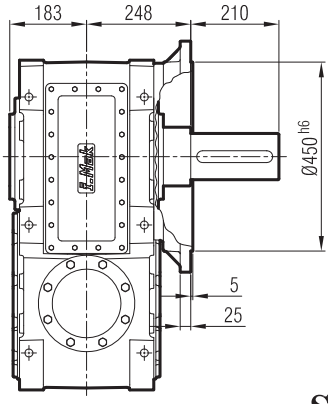

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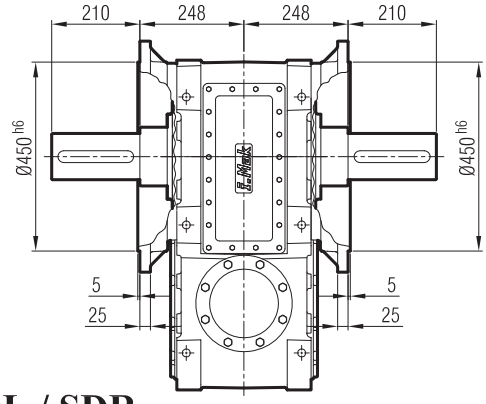

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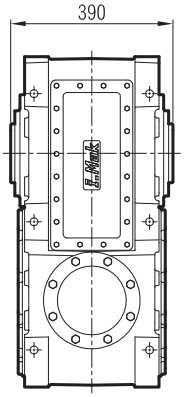

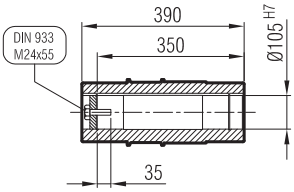

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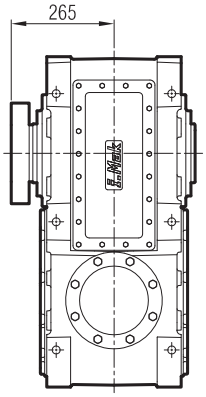
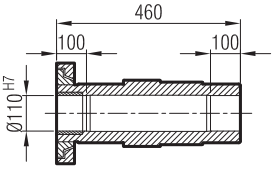
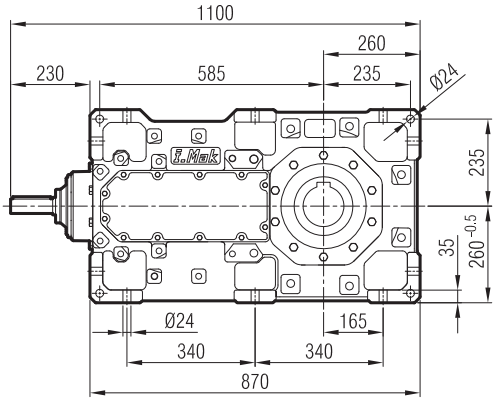




MK 703-G07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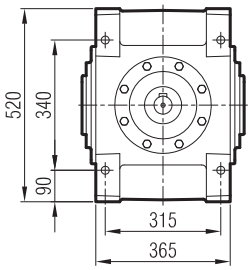
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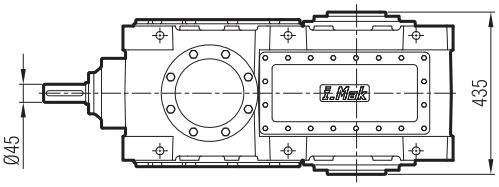
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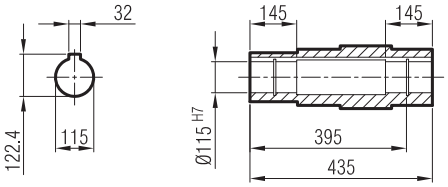
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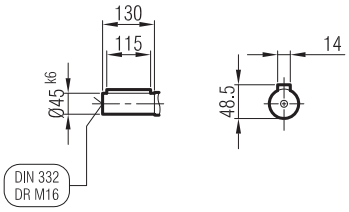
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DR M16
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48.5

MA / MK 70_

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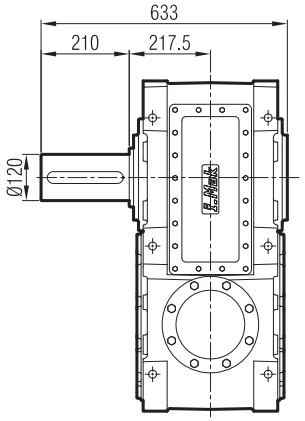

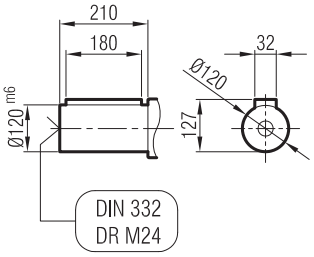

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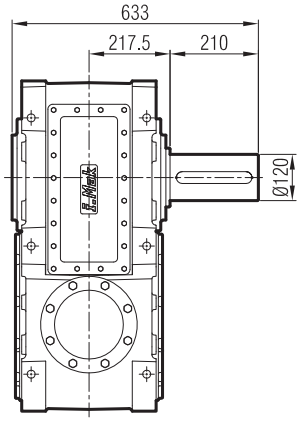

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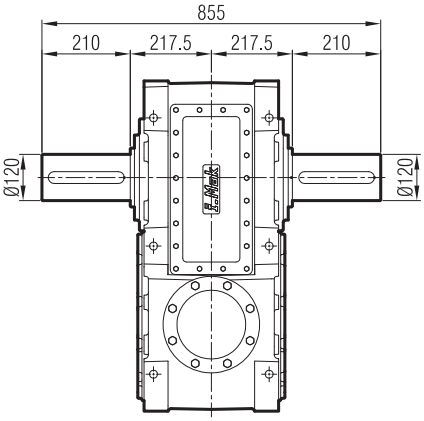

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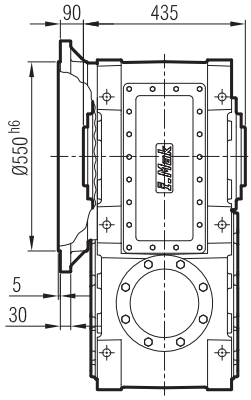

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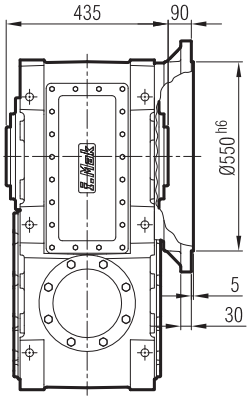

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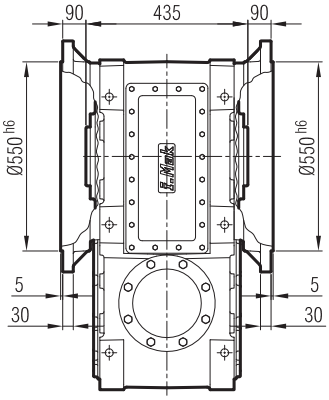

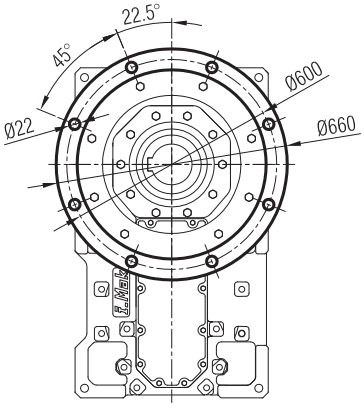

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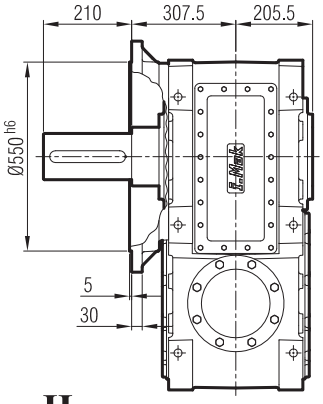

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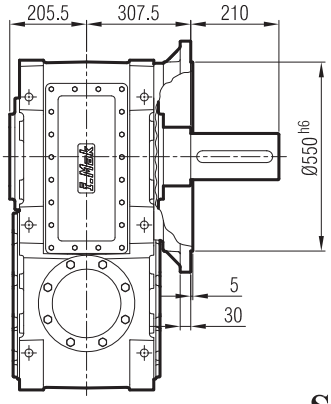

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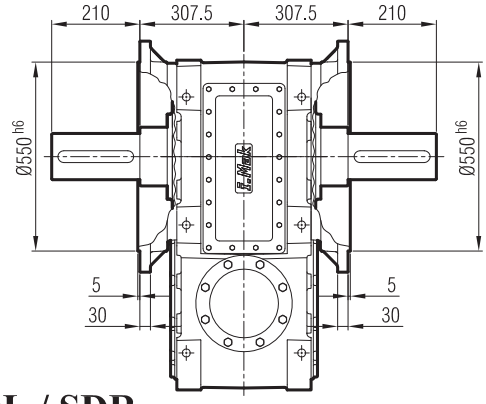

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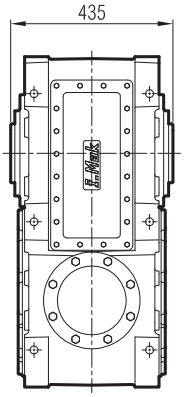

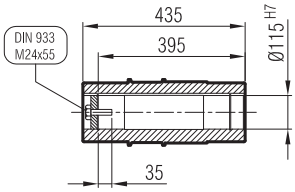

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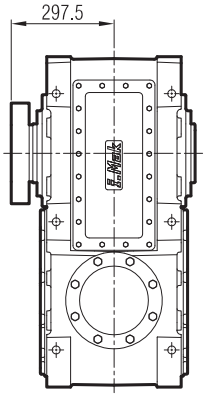
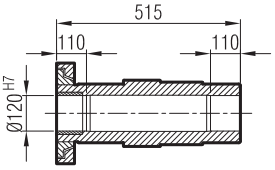
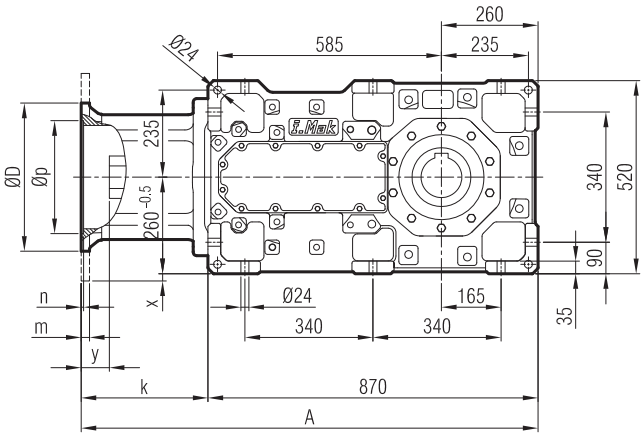
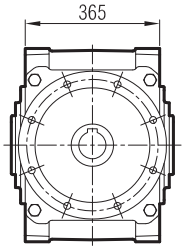
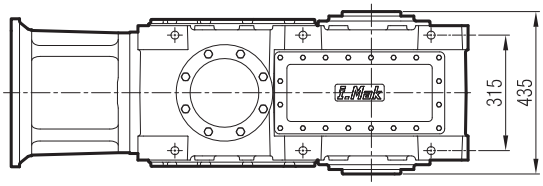


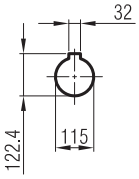


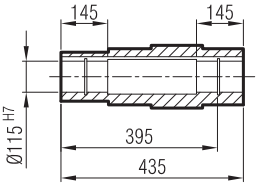
MKP 703-G09











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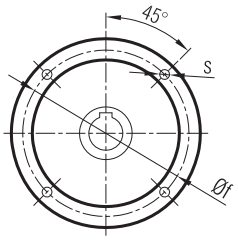

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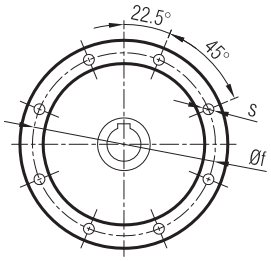

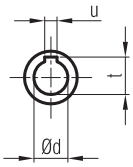

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180/B5	1215	250	300	350	M14	345	20	6	48	51.8	14	-	48
200/B5	1215	300	350	400	M16	345	22	6	55	59.3	16	-	48
225/B5	1258	350	400	450	M16	388	22	6	60	64.4	18	-	80
250/B5	1258	450	500	550	M16	388	25	6.5	65	69.4	18	15	75
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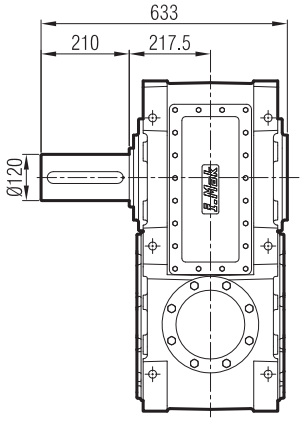
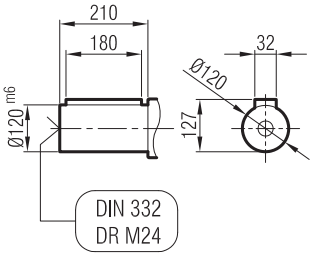
MA / MK 70_

...-SL





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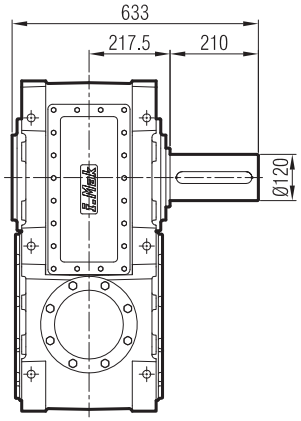
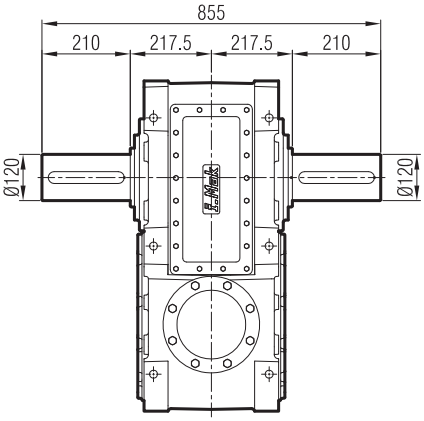


...-SD



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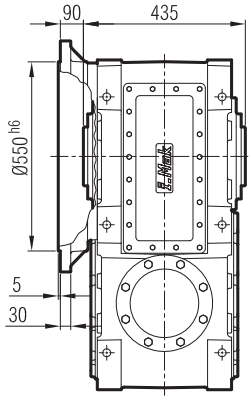

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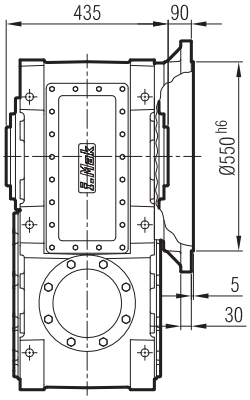

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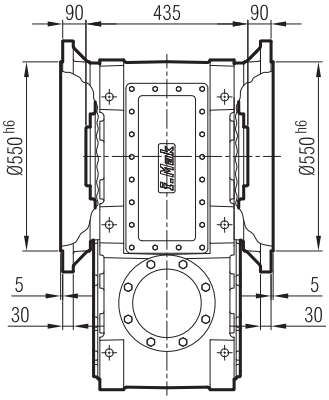

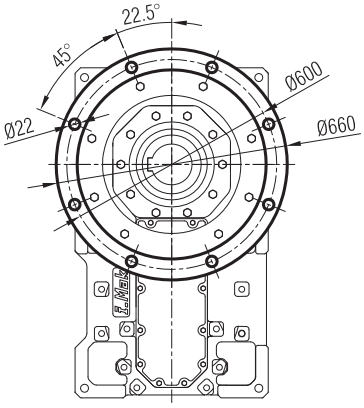

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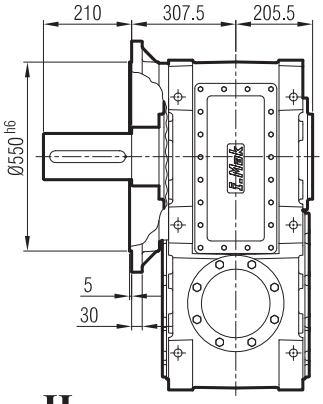

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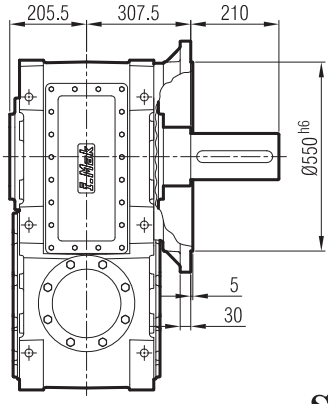

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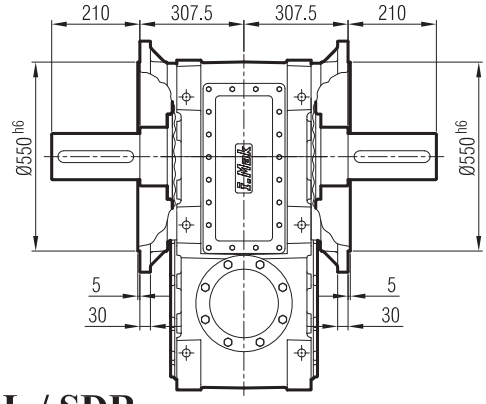

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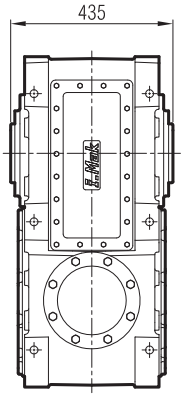

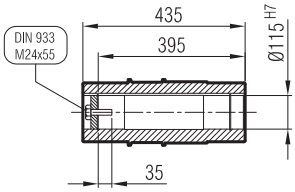

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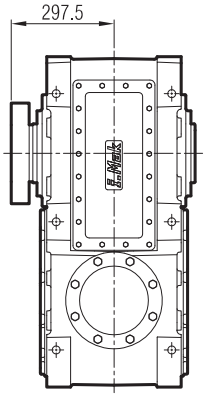
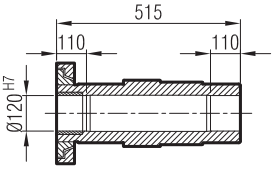
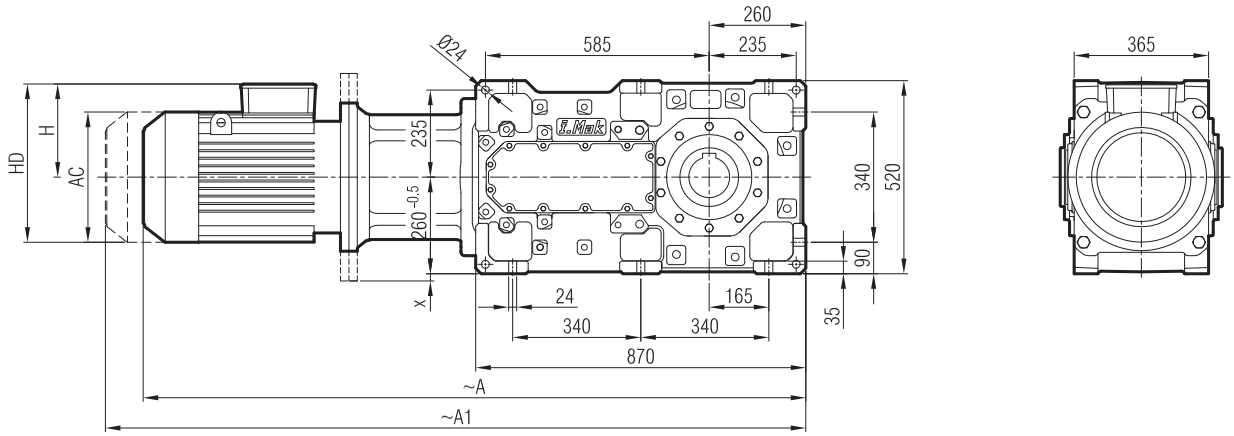
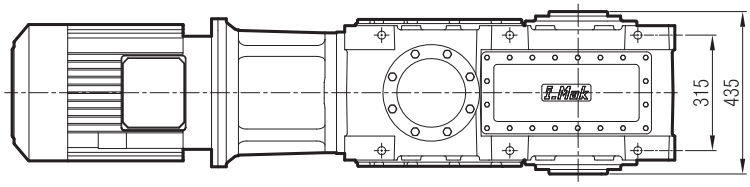
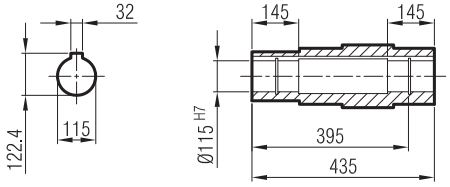




MKM 703-G09





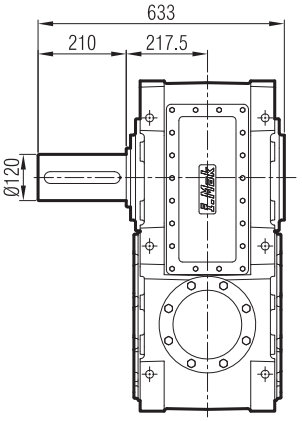


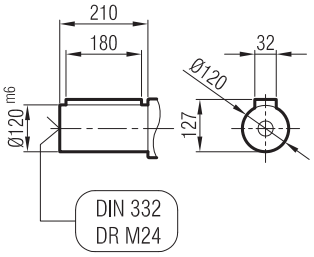
	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5
A	1780	1856	1856	1924	1943	2003	2053	2143
A1	1897	1992	1992	2071	2090	2150	2200	2391
H	240	260	260	300	313	313	366	398
HD	400	440	440	500	538	538	618	678
AC	315	357	357	394	456	456	489	548
x	-	-	-	-	-	-	15	15

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 70_

...-SL





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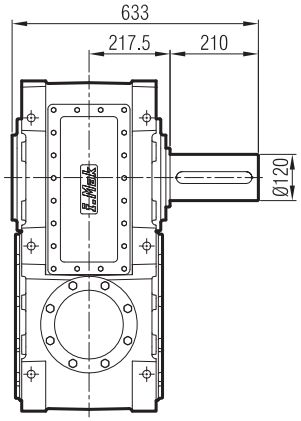

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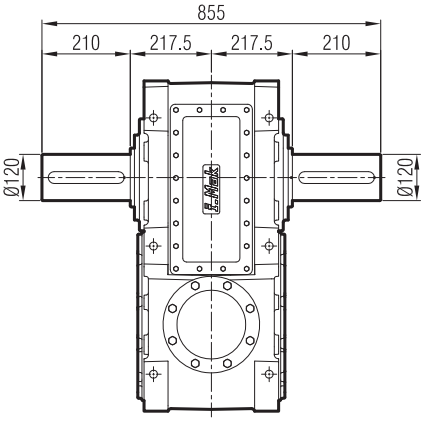

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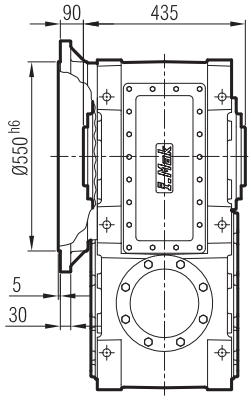

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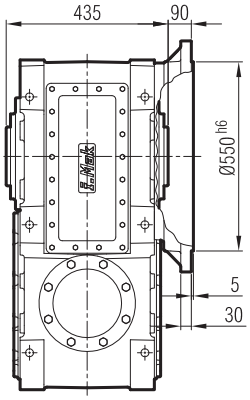

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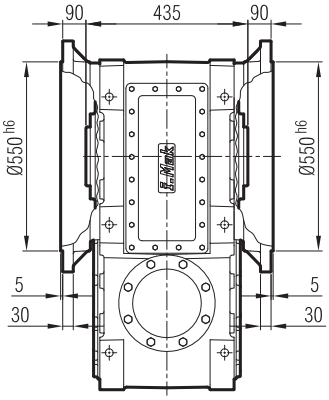

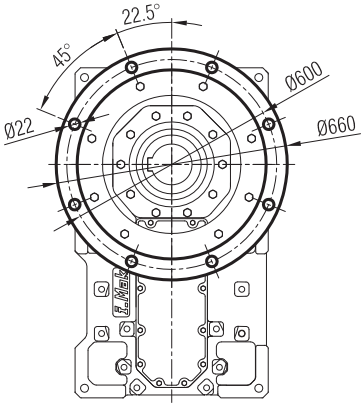

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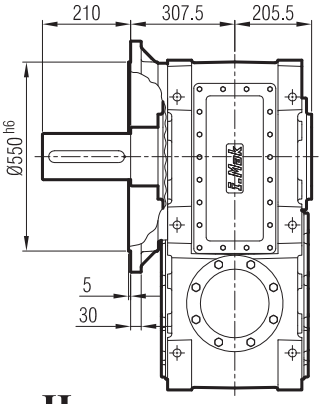

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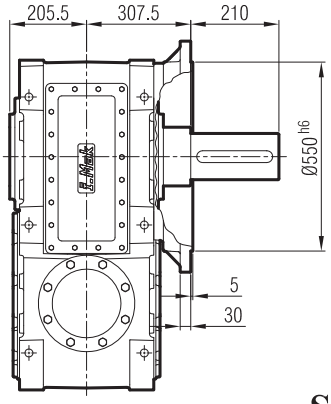

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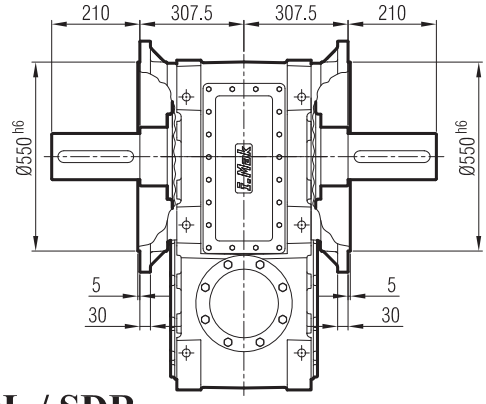

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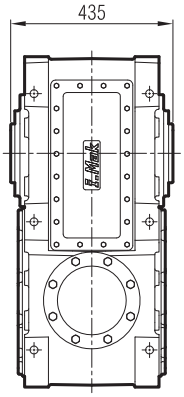

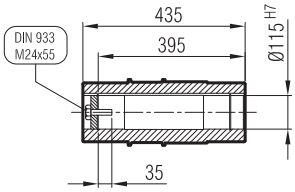

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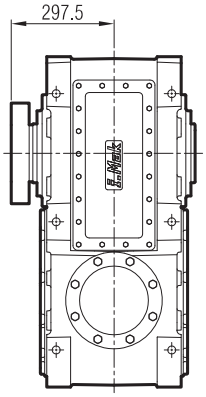

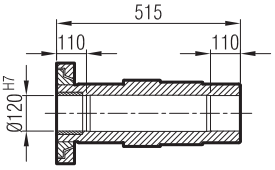

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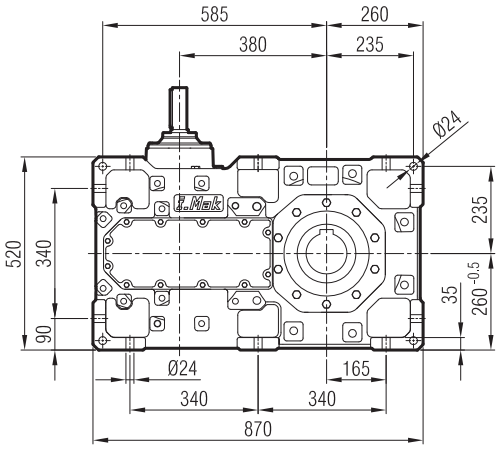
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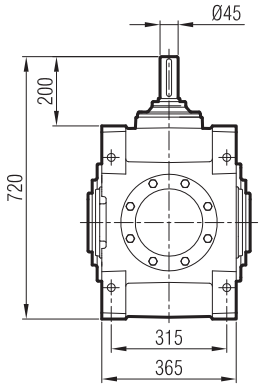
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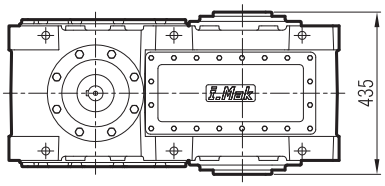
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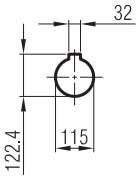
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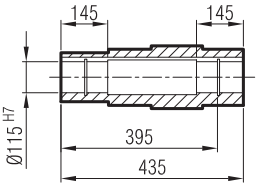
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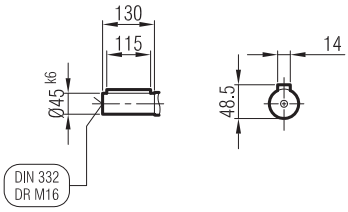
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MA / MK 70_

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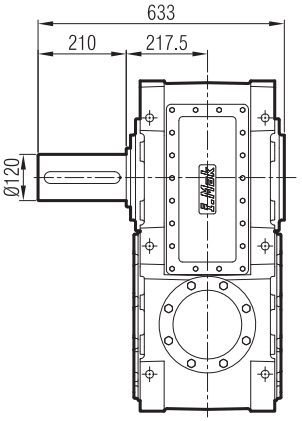

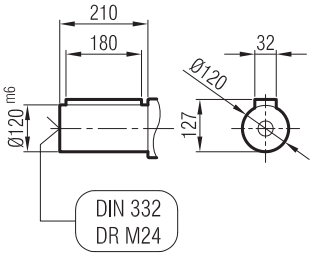

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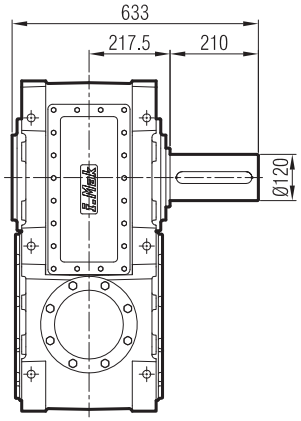

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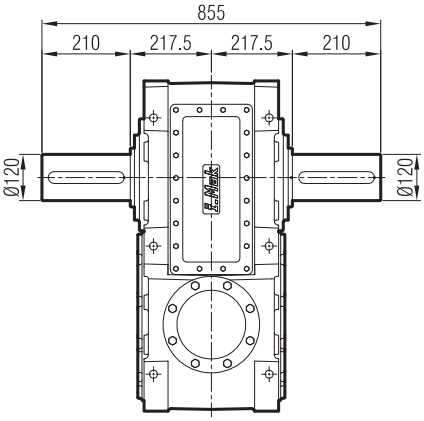

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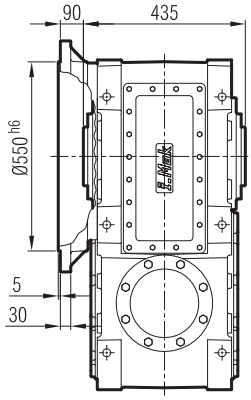

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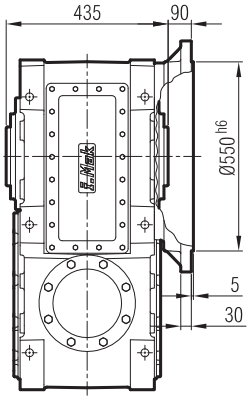

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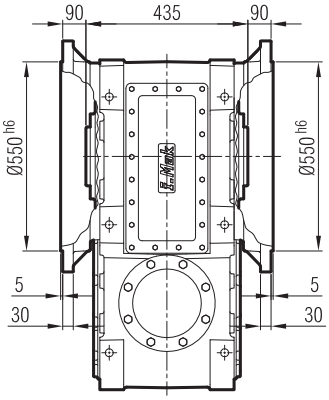

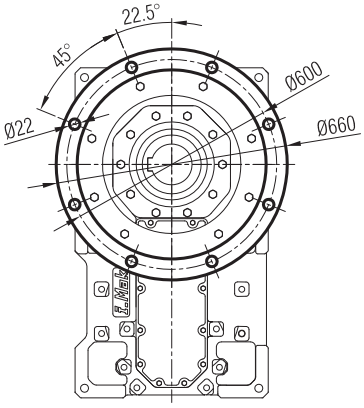

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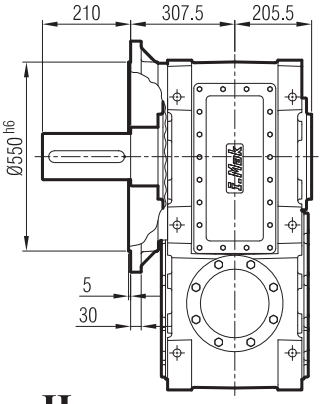

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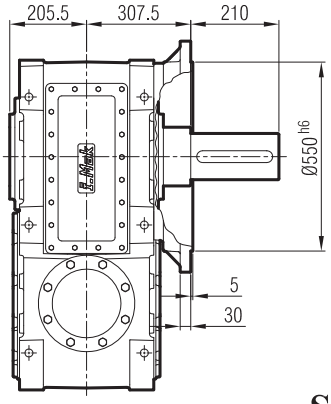

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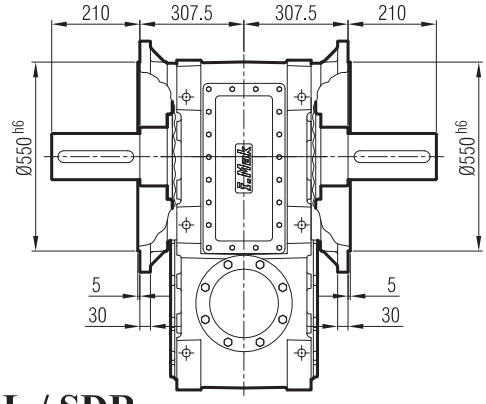

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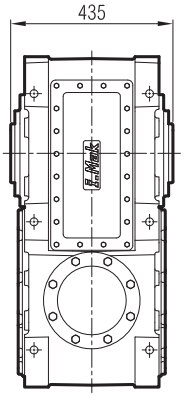

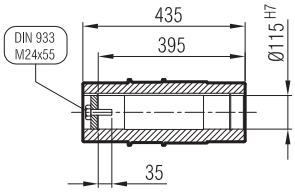

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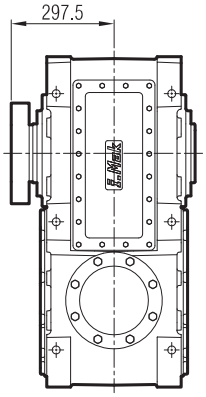

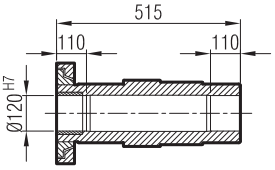

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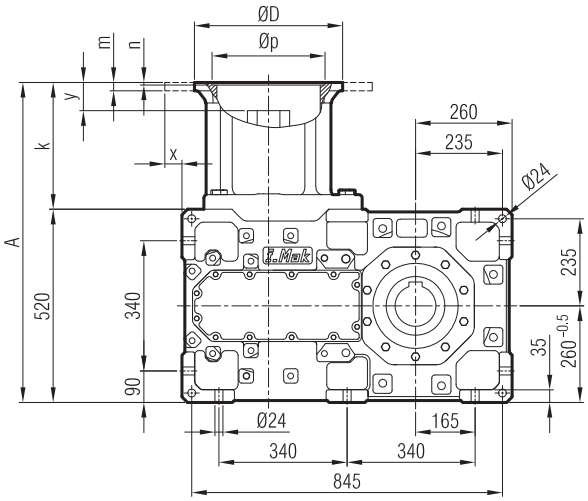

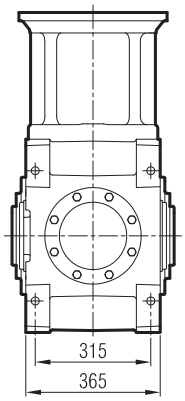

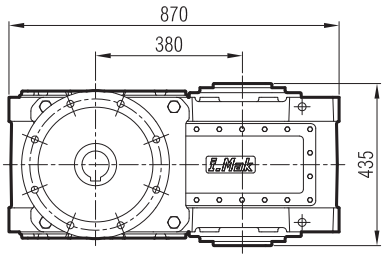

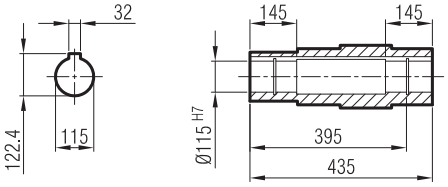

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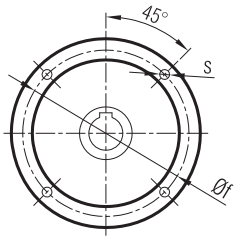

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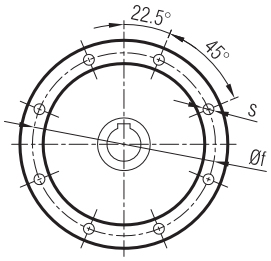

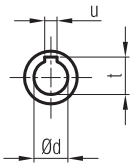

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MA / MK 70_

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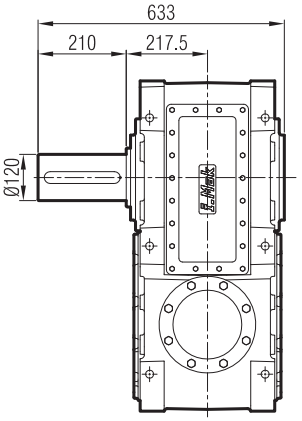

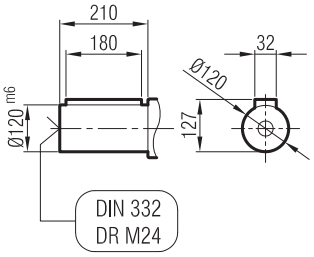

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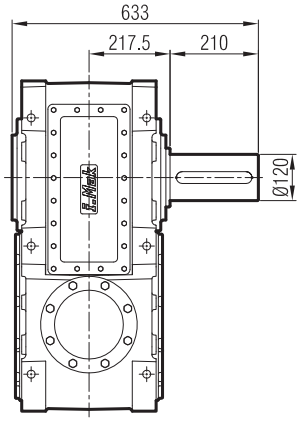

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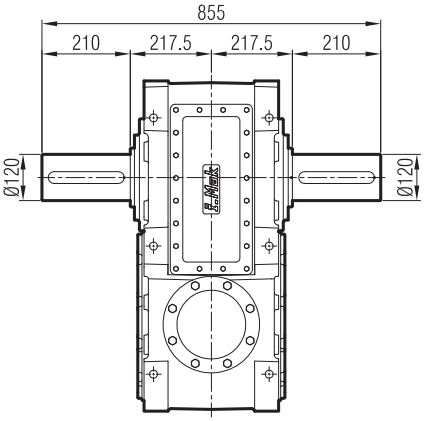

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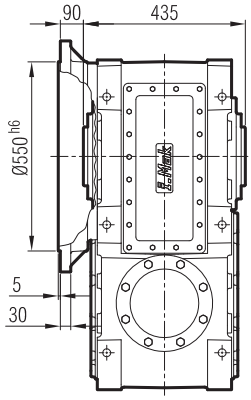

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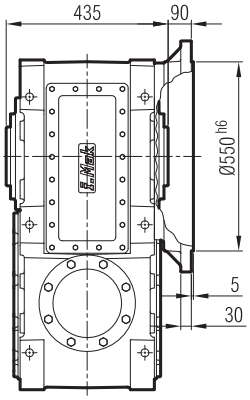

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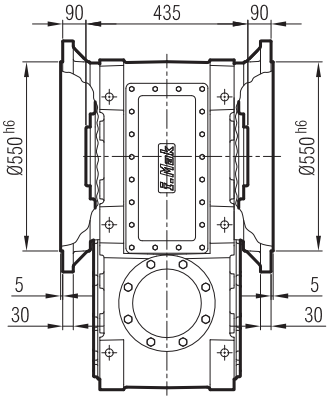

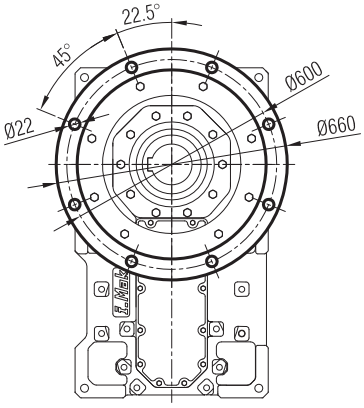

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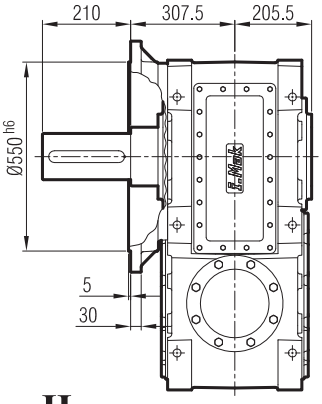

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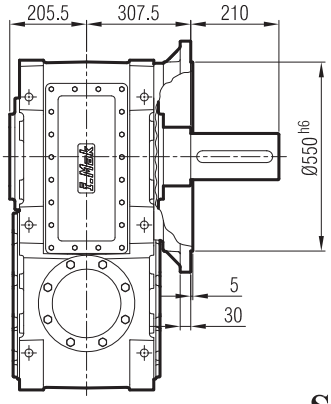

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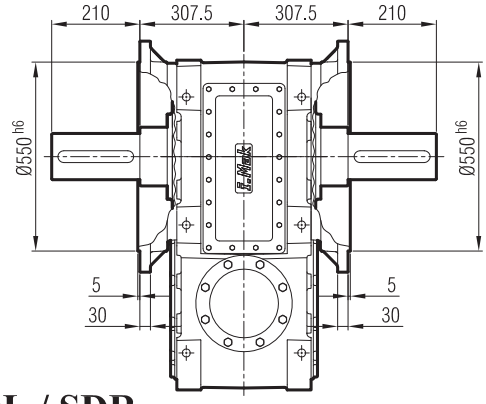

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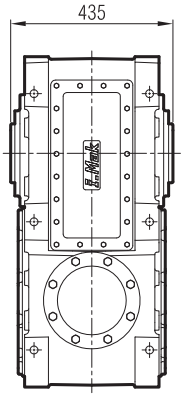

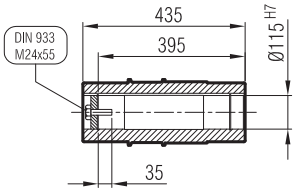

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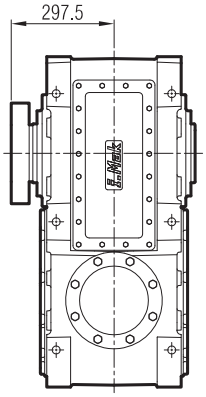
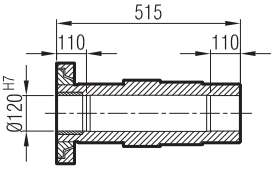
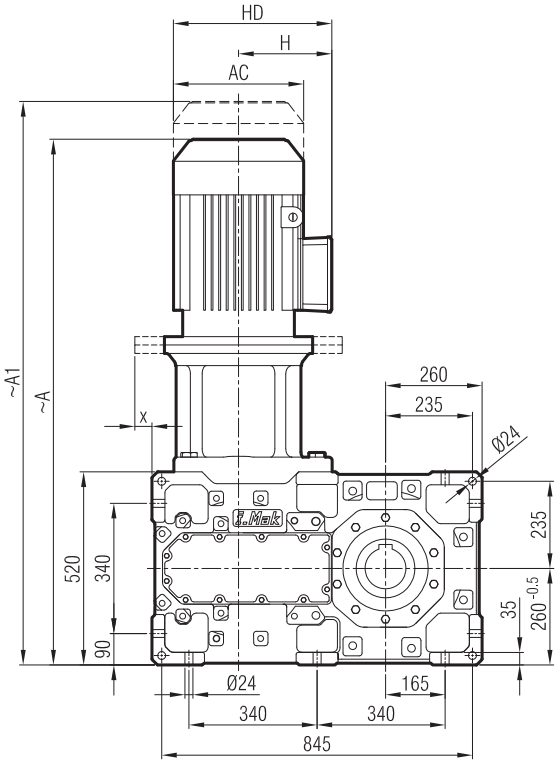
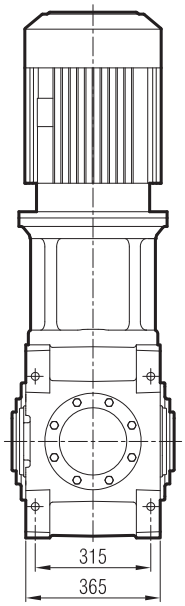
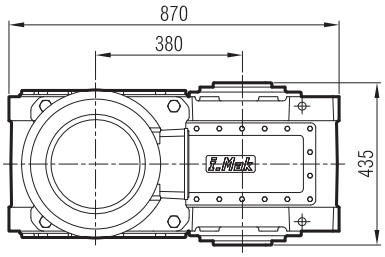


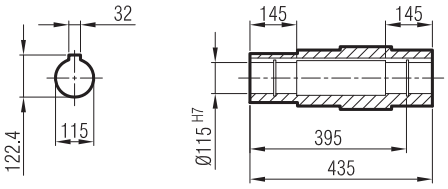


MKM 703-G10









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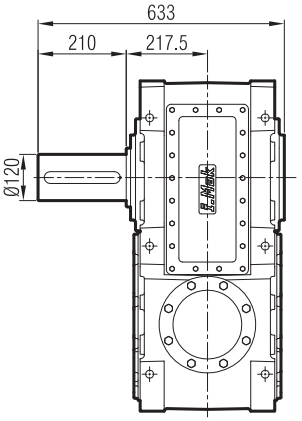
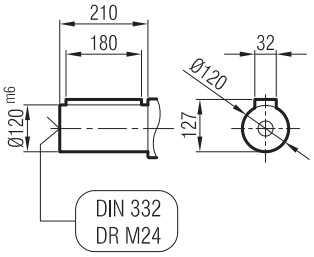
A	1400	1476	1476	1544	1563	1623	1673	1763
A1	1517	1612	1612	1691	1710	1770	1820	2011
H	240	260	260	300	313	313	366	398
HD	400	440	440	500	538	538	618	678
AC	315	357	357	394	456	456	489	548
x	-	-	-	-	-	-	45	45

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 70_

...-SL





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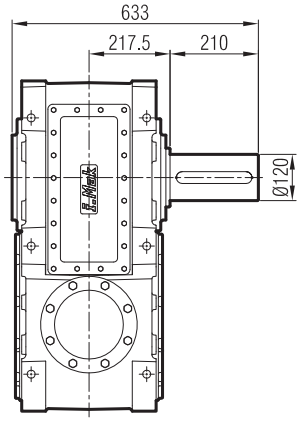

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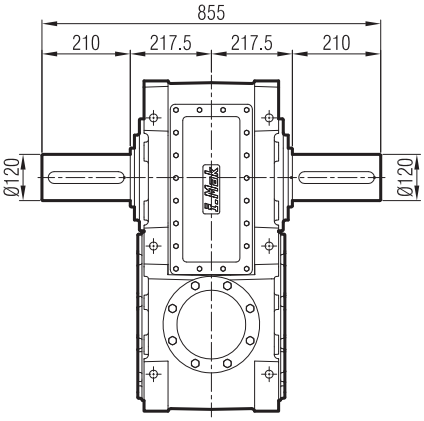

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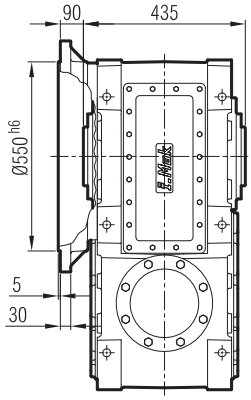

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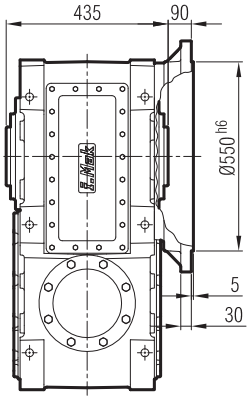

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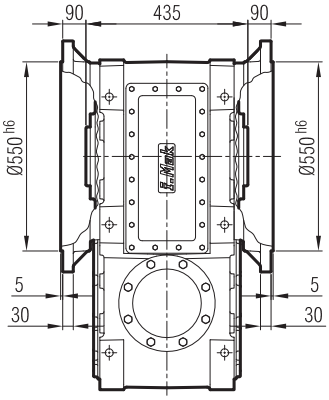

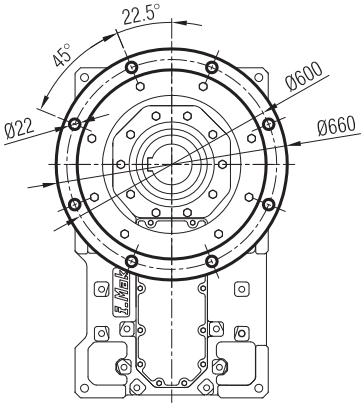

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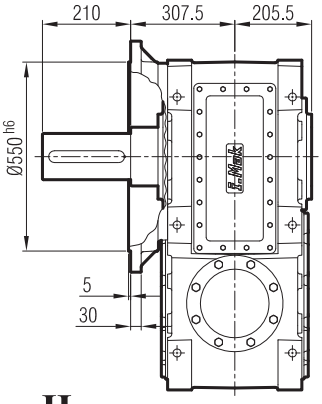

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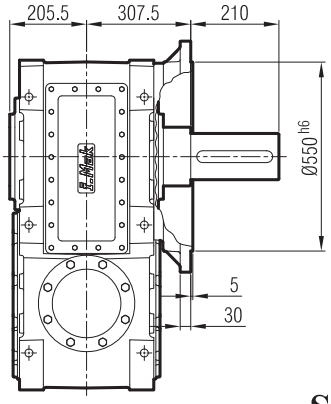

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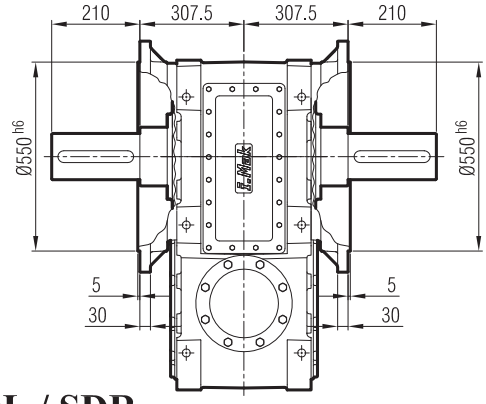

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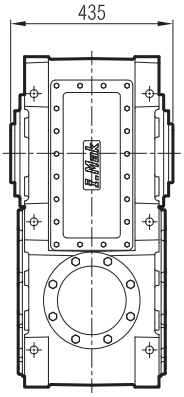

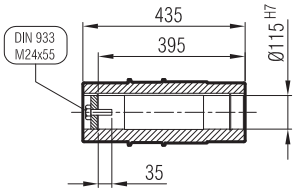

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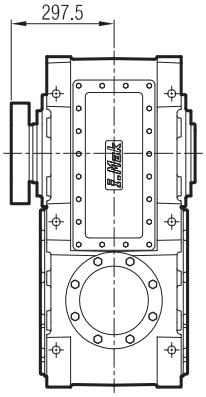
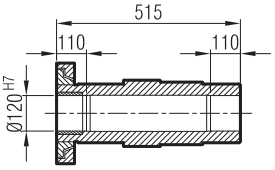
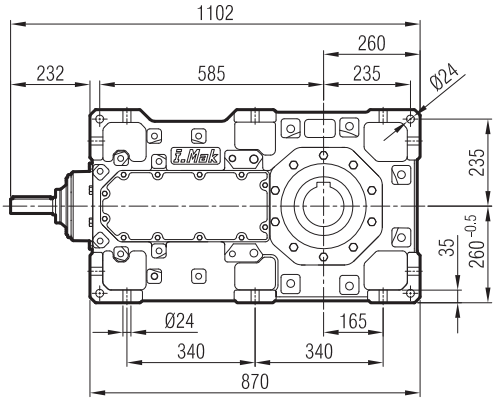




MK 704-G07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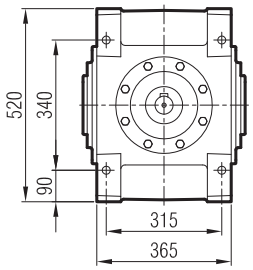
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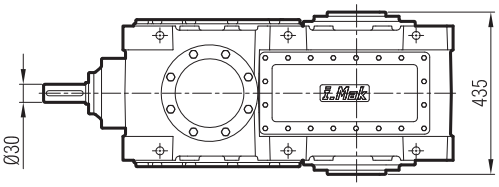
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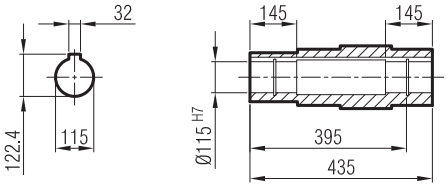
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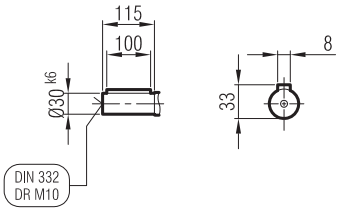
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MA / MK 70_

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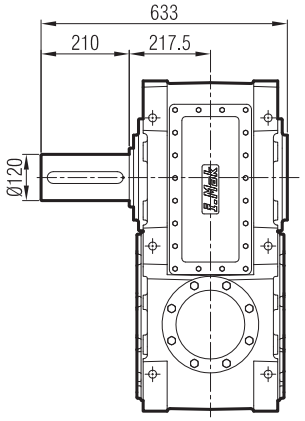

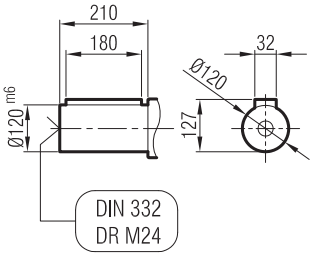

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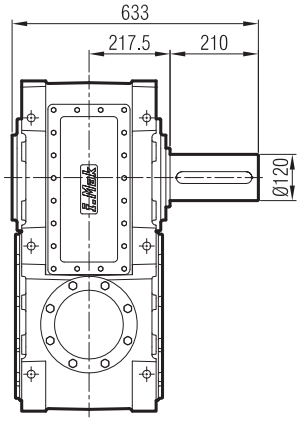

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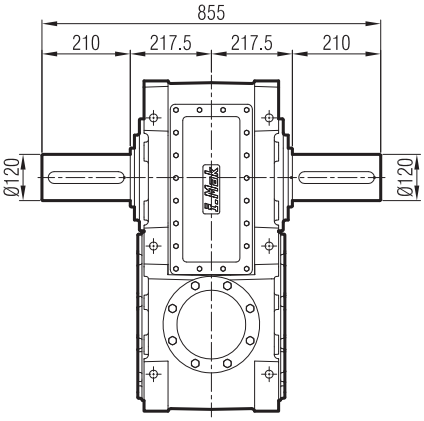

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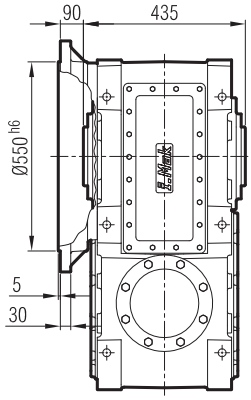

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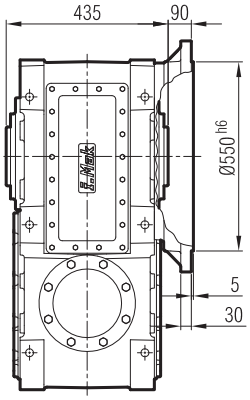

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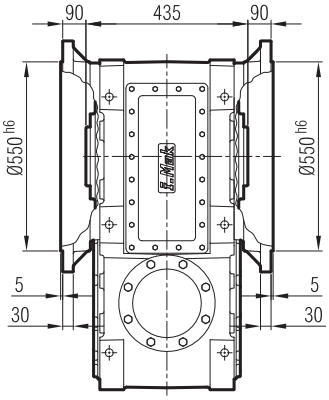

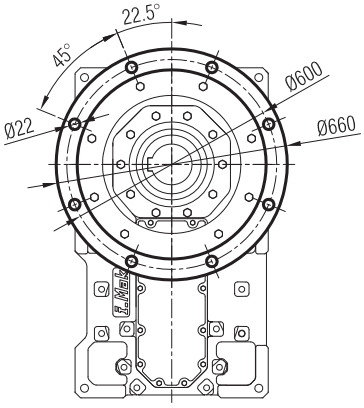

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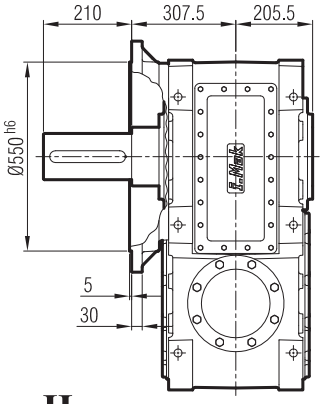

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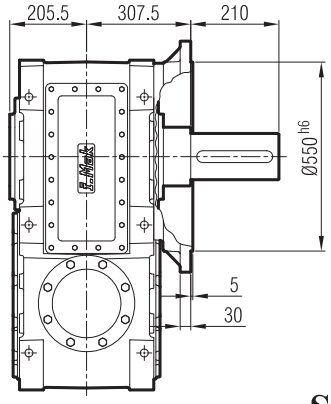

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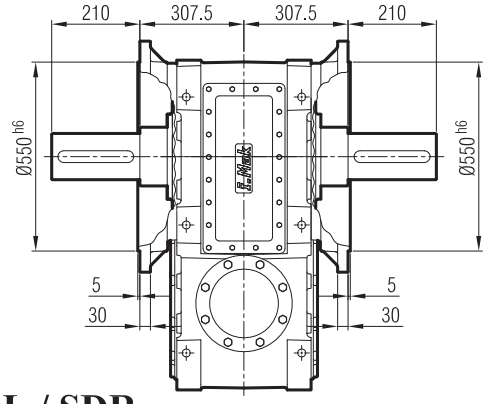

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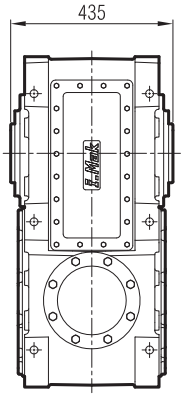

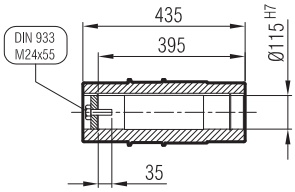

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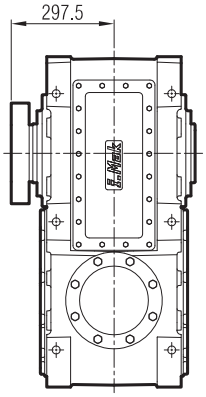
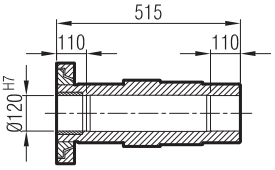
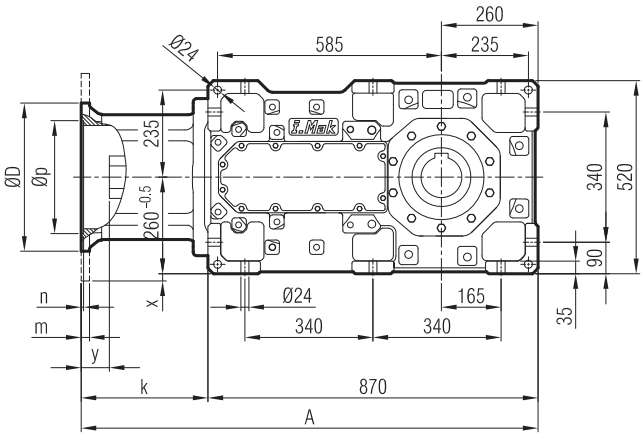
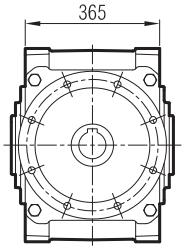
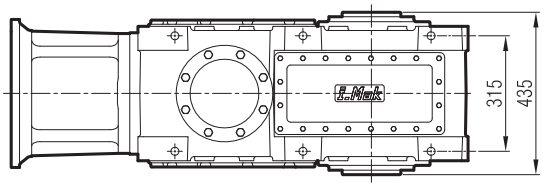


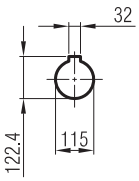


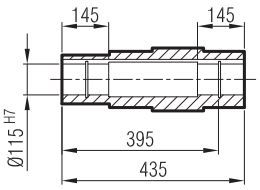
MKP 704-G09

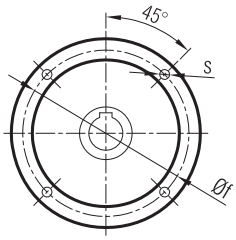


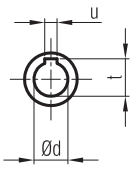












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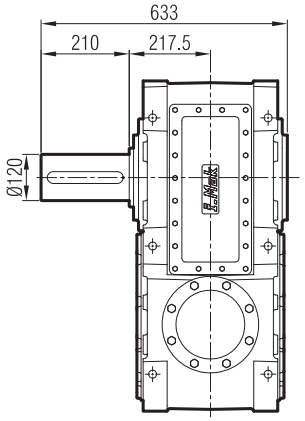
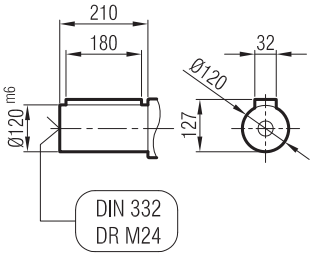
112/B5	1178	180	215	250	M12	314	15	5	28	31.3	8	-	30
132/B5	1198	230	265	300	M12	334	18	6	38	41.3	10	-	45
160/B5	1215	250	300	350	M14	345	20	6	42	45.3	12	-	70
180/B5	1215	250	300	350	M14	345	20	6	48	51.8	14	-	60
200/B5	1215	300	350	400	M16	345	22	6	55	59.3	16	-	60

MA / MK 70_

...-SL





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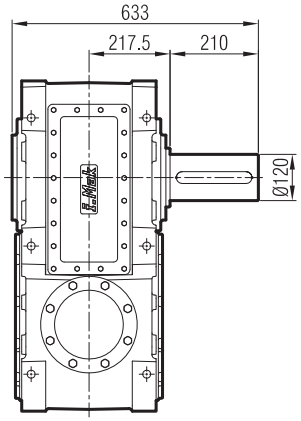

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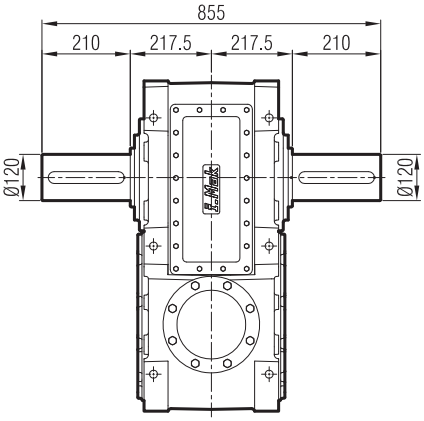

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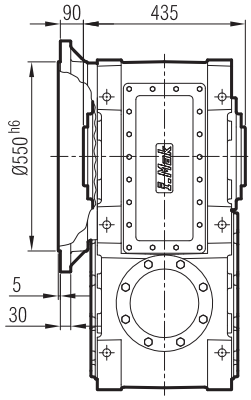

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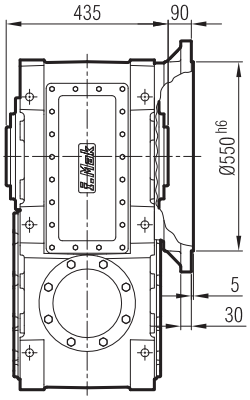

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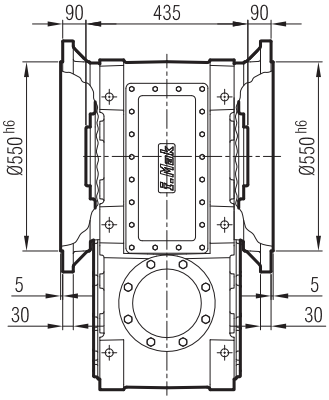

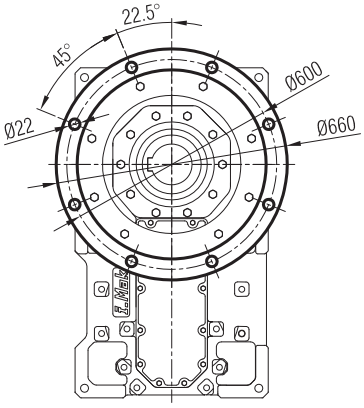

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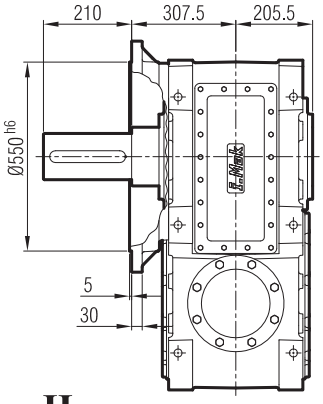

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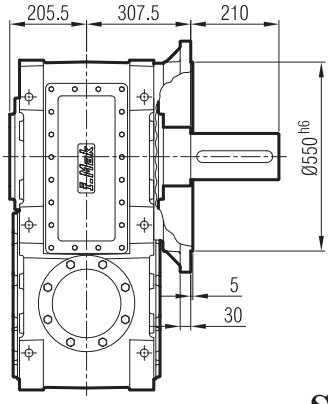

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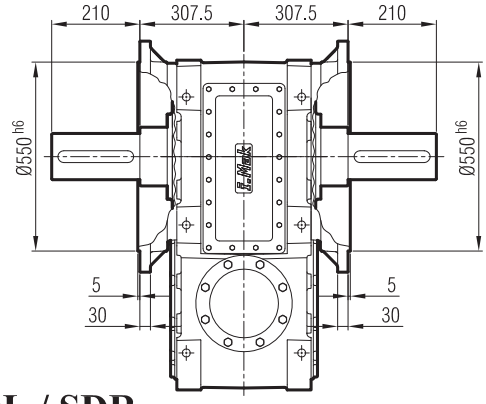

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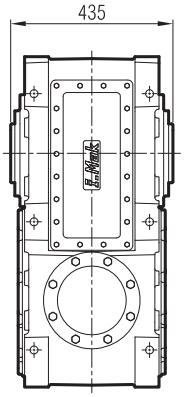

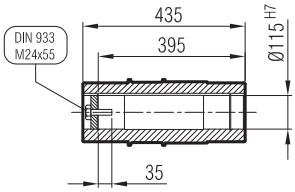

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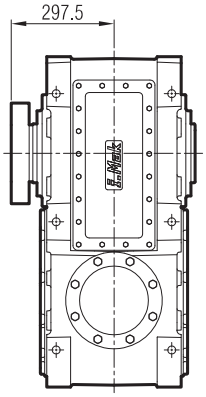
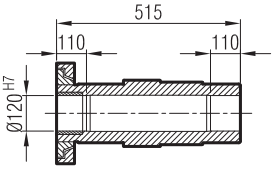
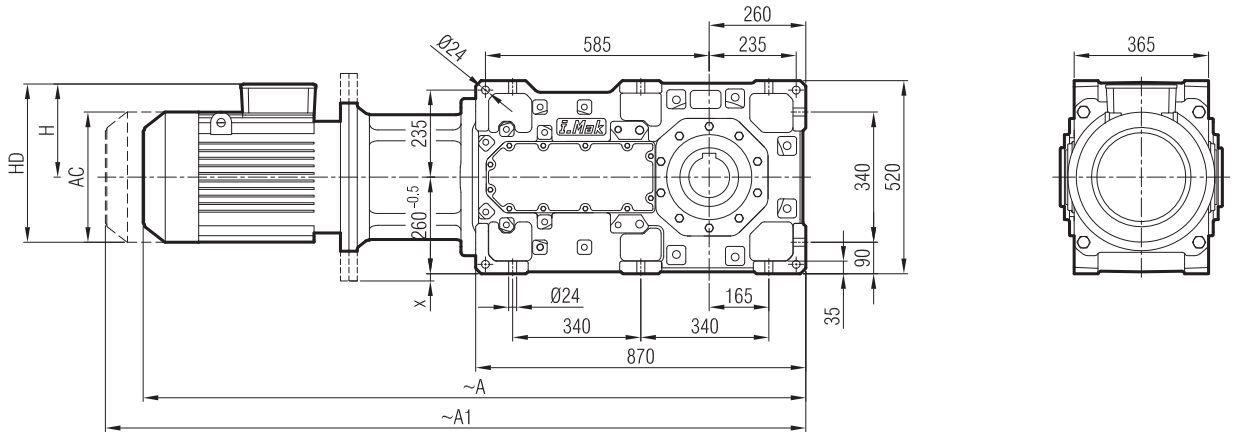
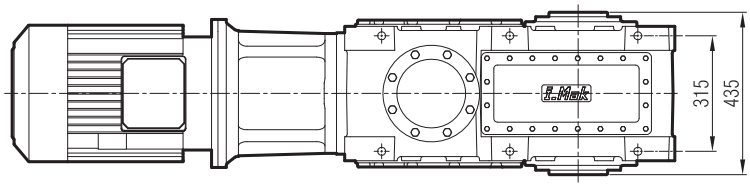
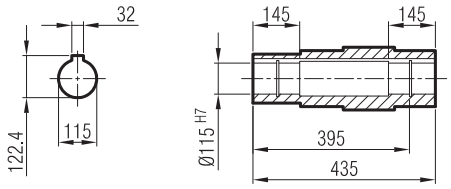




MKM 704-G09





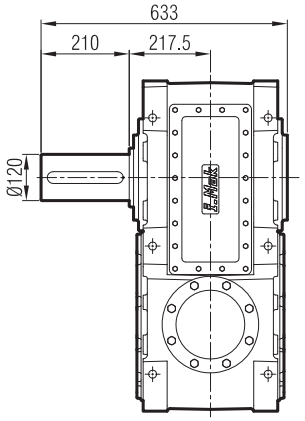


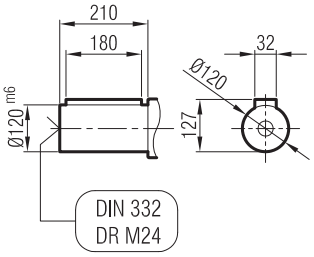
	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5
A	1550	1522	1599	1640	1735	1780	1856	1856	1924
A1	1627	1617	1703	1744	1852	1897	1992	1992	2071
H	161	170	193	193	240	240	260	260	300
HD	261	282	325	325	400	400	440	440	500
AC	195	220	262	262	315	315	357	357	394
x	-	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 70_

...-SL





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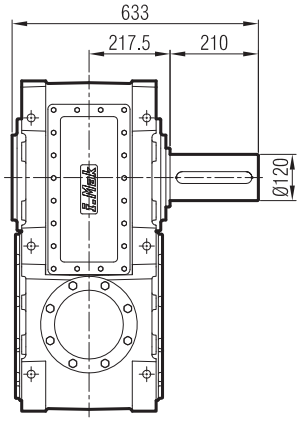

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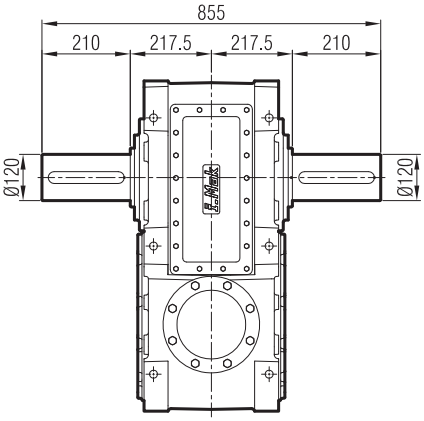

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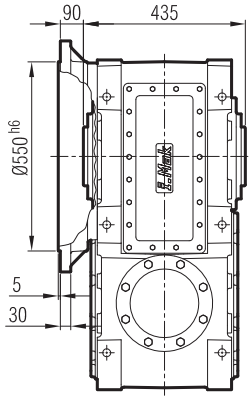

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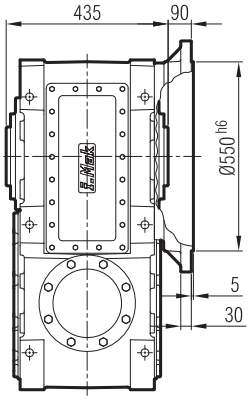

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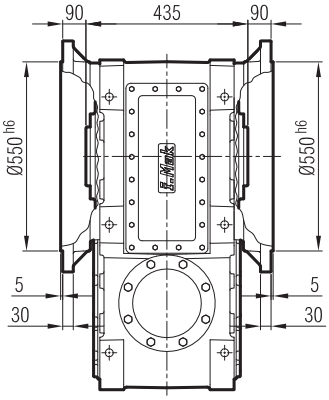

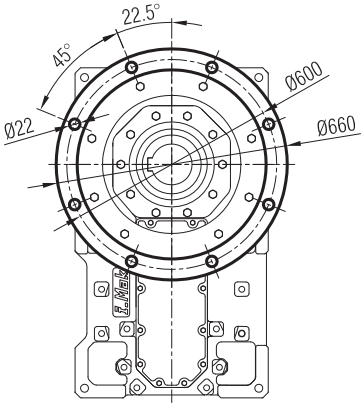

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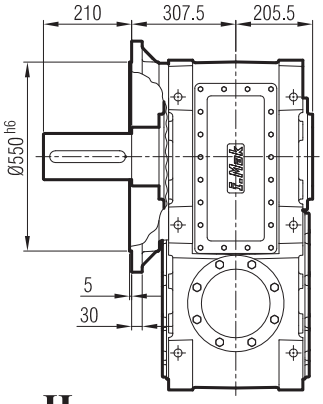

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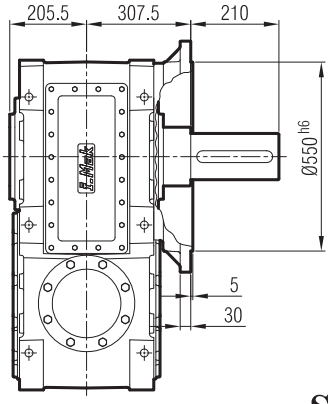

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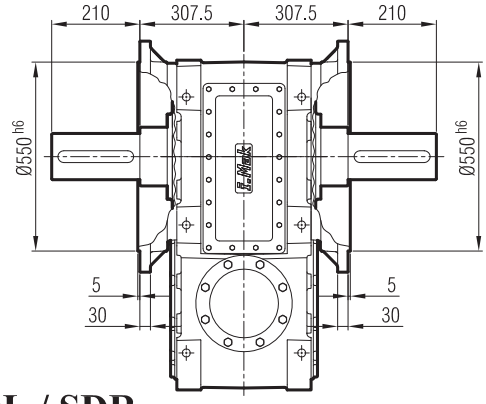

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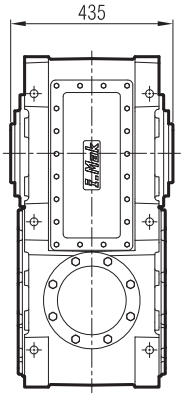

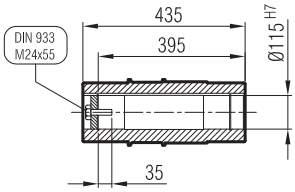

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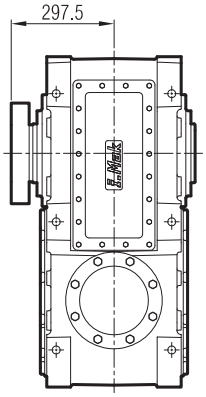
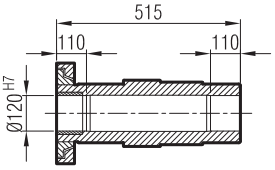
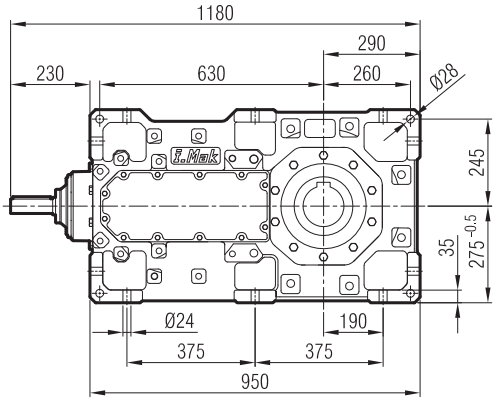




MK 803-G07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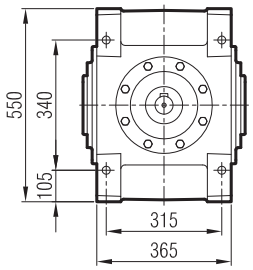
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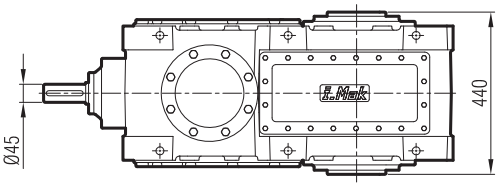
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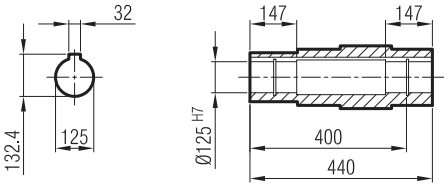
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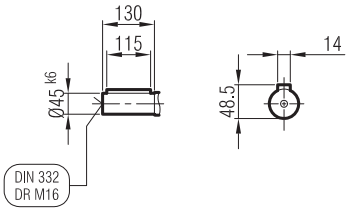
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MA / MK 80_

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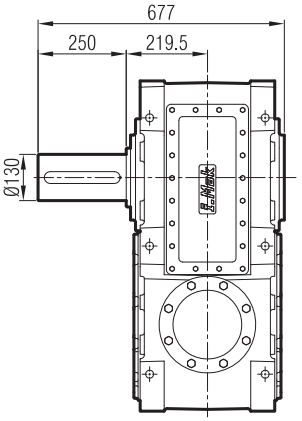

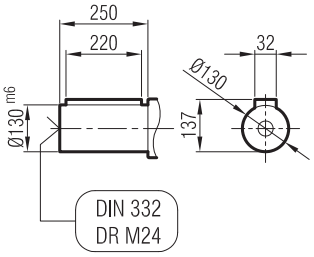

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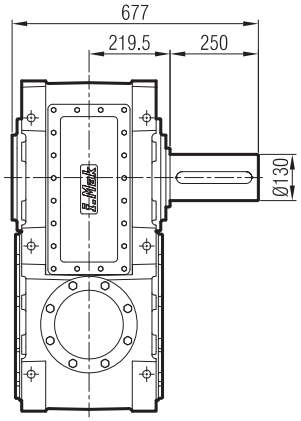

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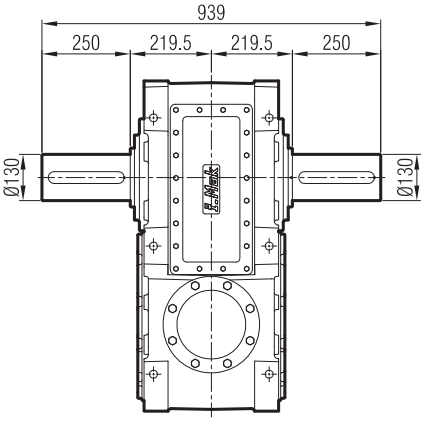

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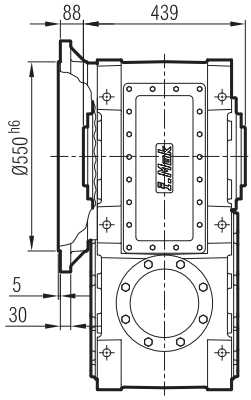

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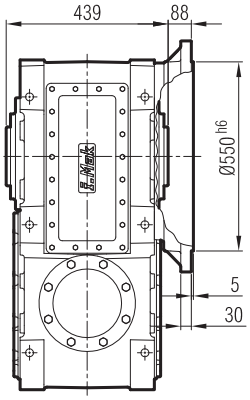

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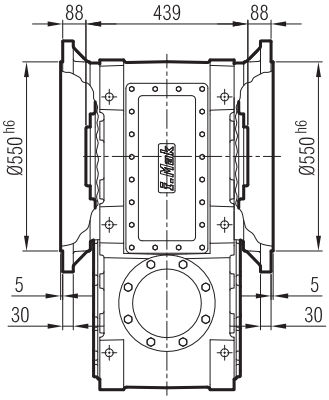

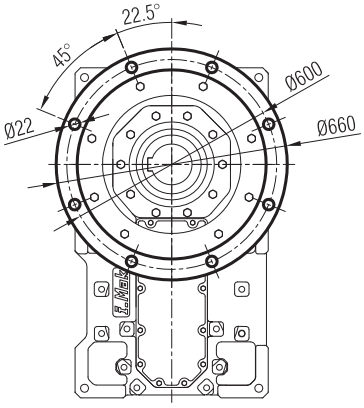

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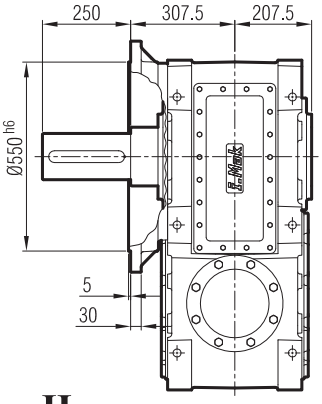

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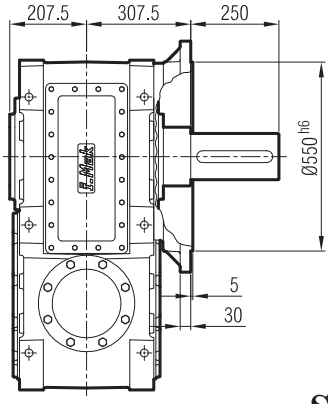

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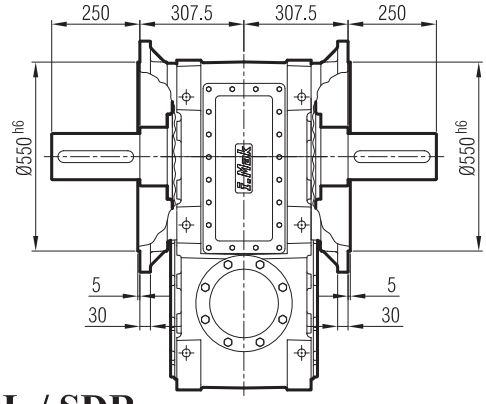

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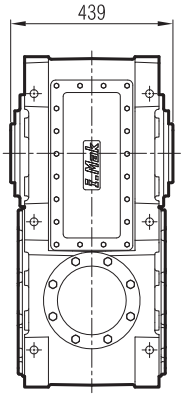

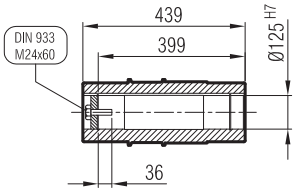

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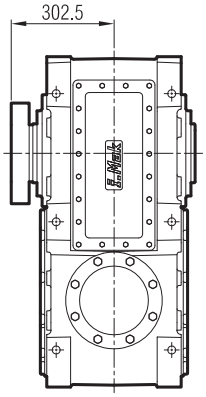
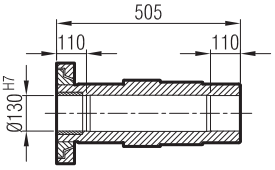
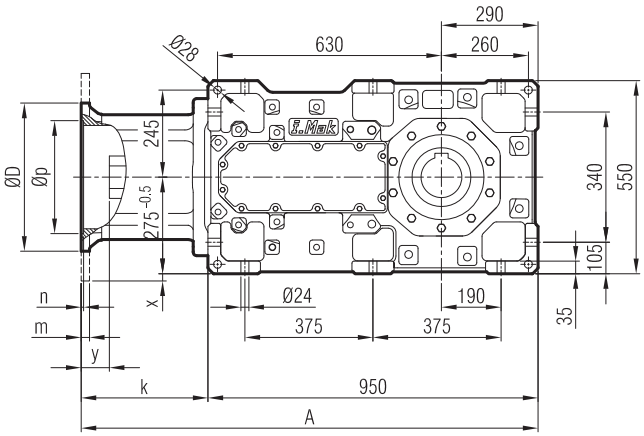
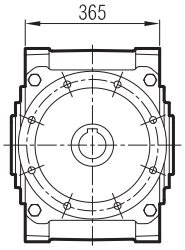
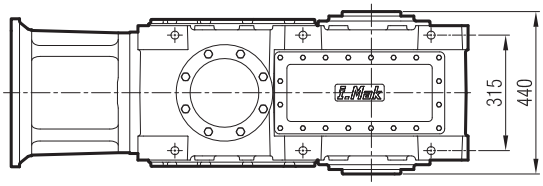


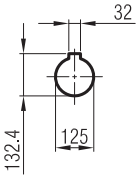


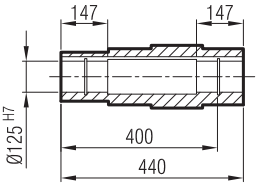
MKP 803-G09



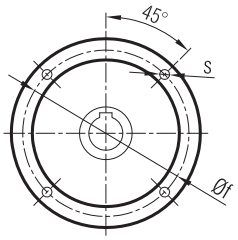








≤ 200 B5 **Tip**/Type/*Typ*



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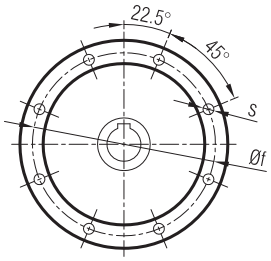

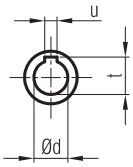

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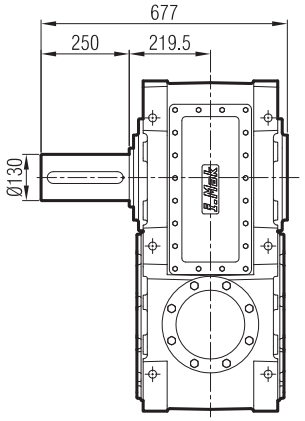
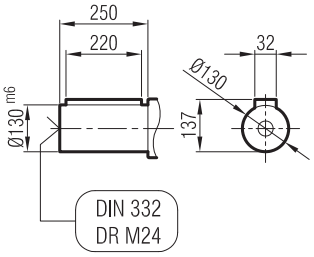
180/B5	1275	250	300	350	M14	345	20	6	48	51.8	14	-	48
200/B5	1275	300	350	400	M16	345	22	6	55	59.3	16	-	48
225/B5	1318	350	400	450	M16	388	22	6	60	64.4	18	-	80
250/B5	1318	450	500	550	M16	388	25	6.5	65	69.4	18	0	75
280/B5	1318	450	500	550	M16	388	25	6.5	75	75.9	20	0	65

MA / MK 80_

...-SL





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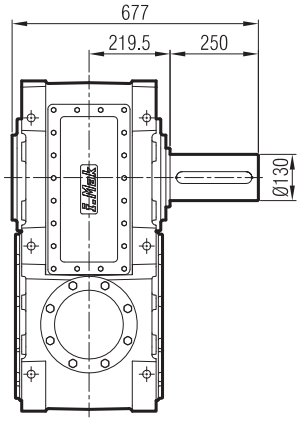

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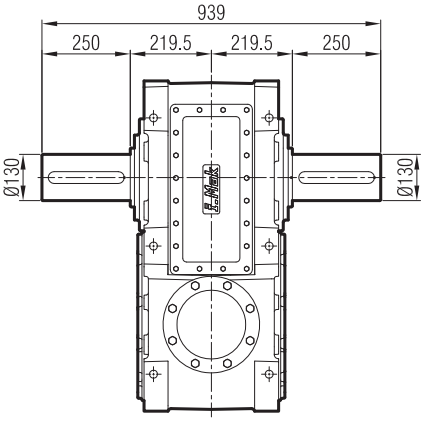

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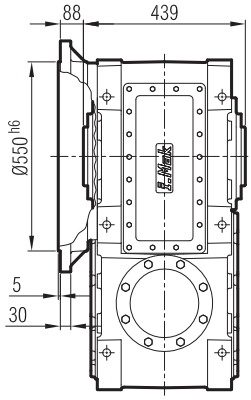

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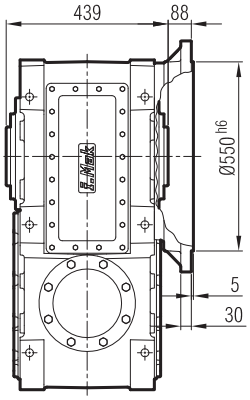

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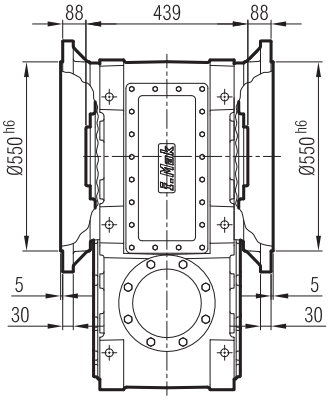

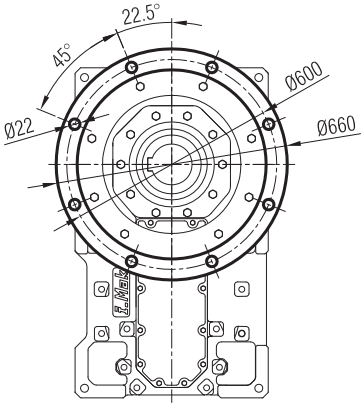

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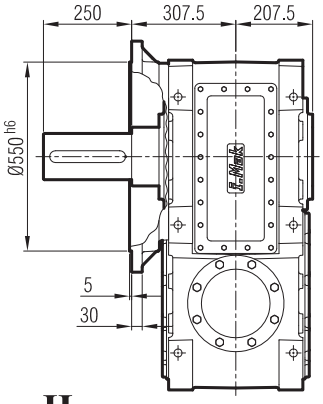

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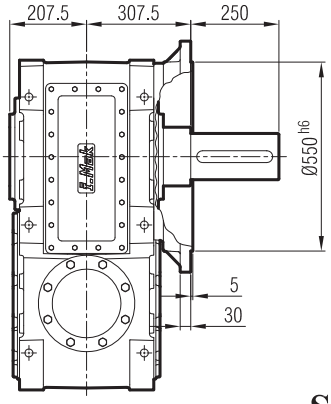

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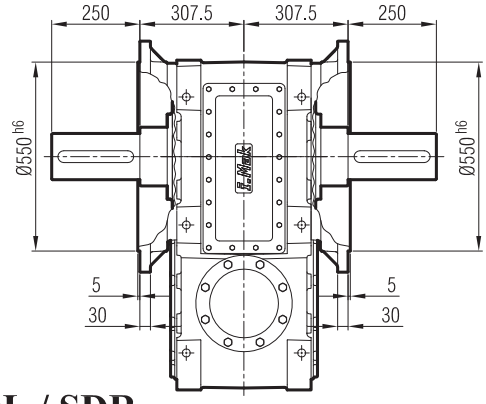

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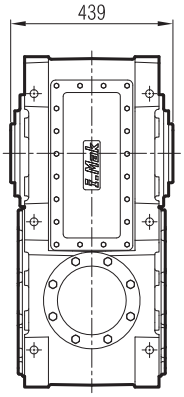

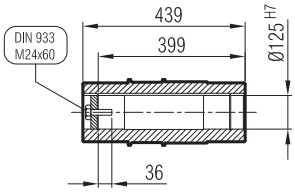

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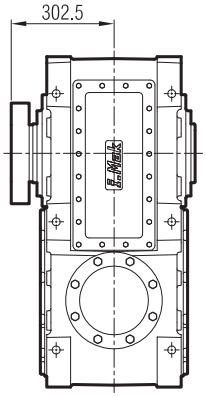
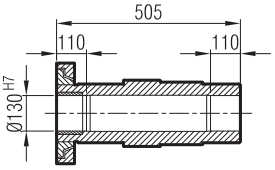
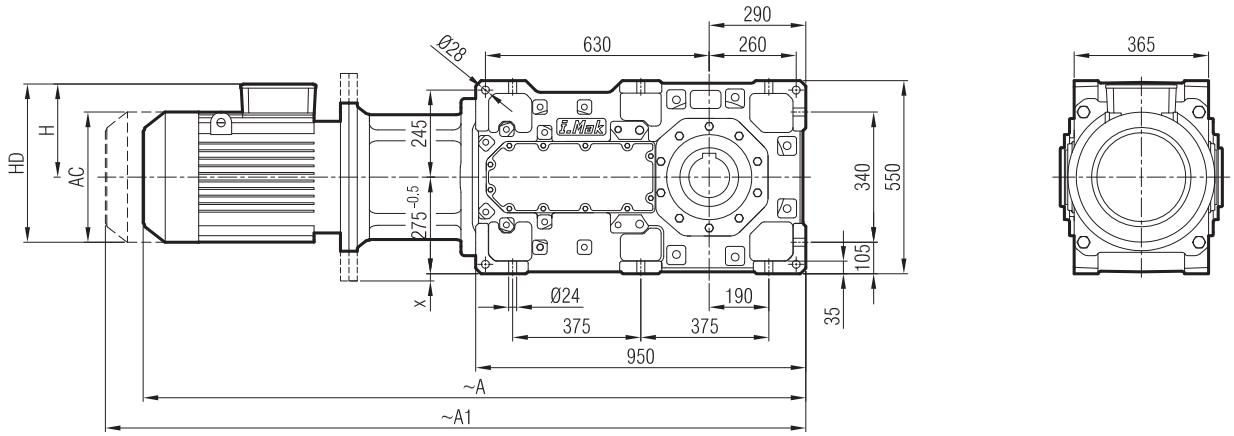
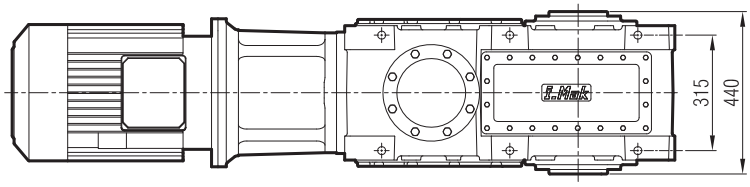
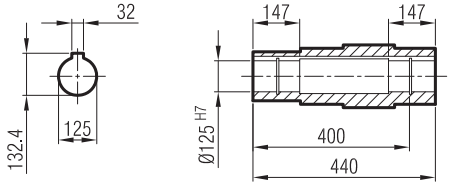




MKM 803-G09





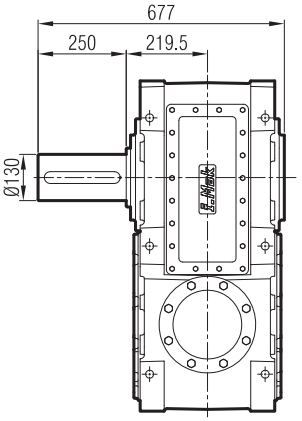


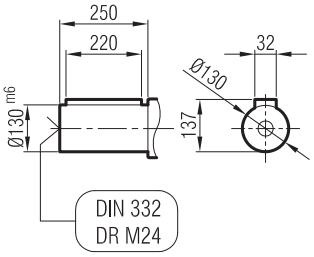
	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5
A	1840	1916	1916	1984	2003	2063	2113	2203	2203
A1	1957	2052	2052	2131	2150	2210	2260	2451	2451
H	240	260	260	300	313	313	366	398	398
HD	400	440	440	500	538	538	618	678	678
AC	315	357	357	394	456	456	489	548	548
x	-	-	-	-	-	-	0	0	0

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 80_

...-SL





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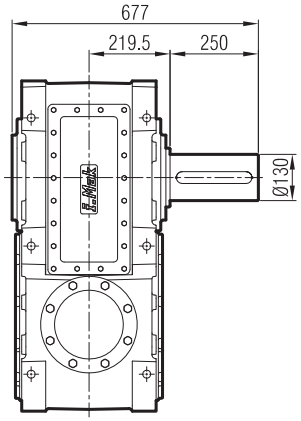

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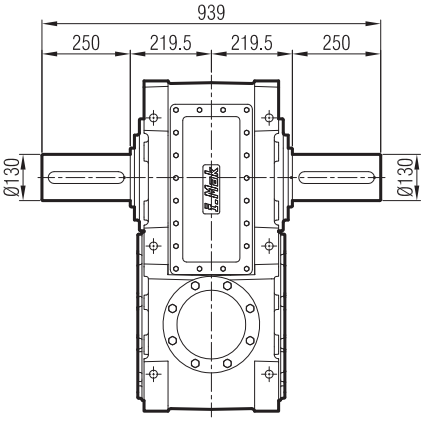

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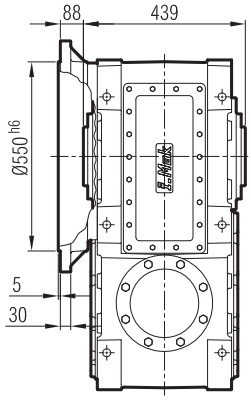

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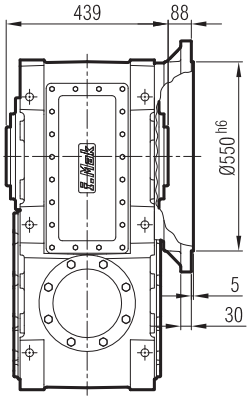

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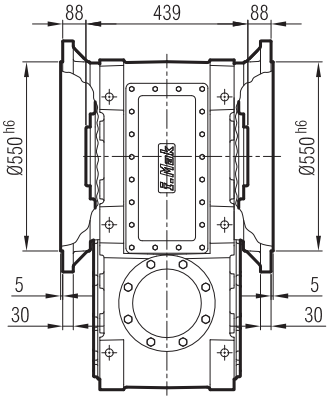

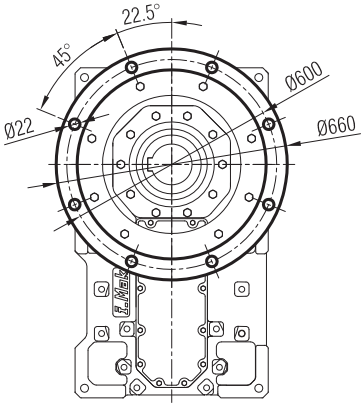

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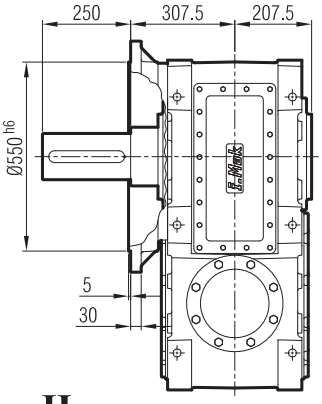

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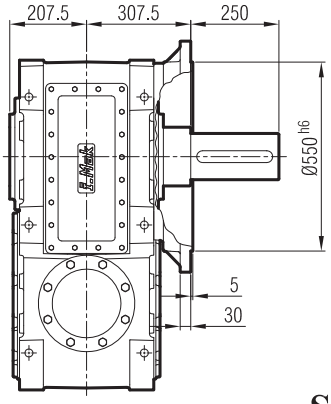

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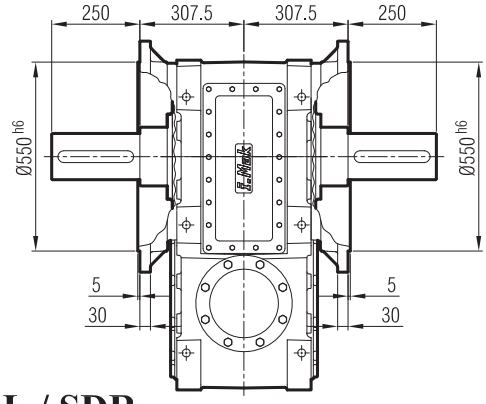

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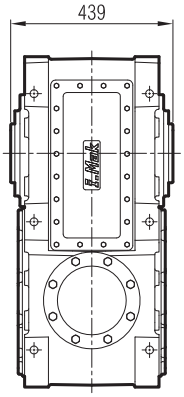

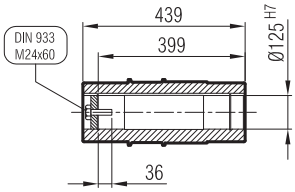

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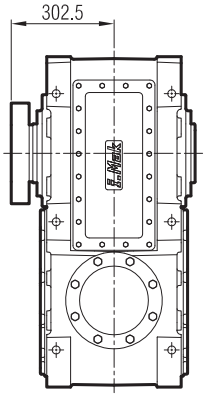
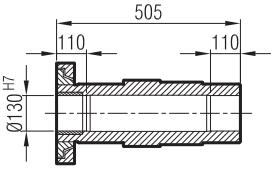
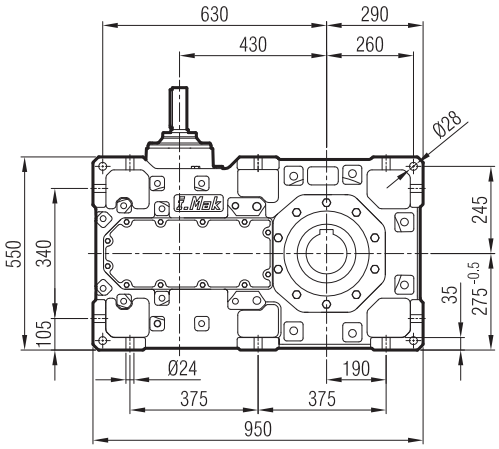




MK 803-G08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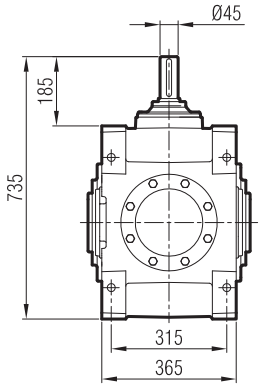
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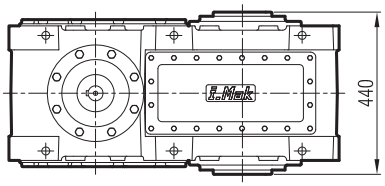
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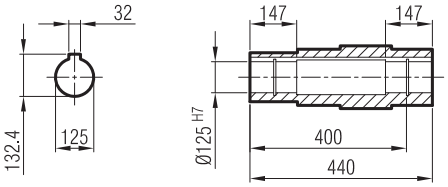
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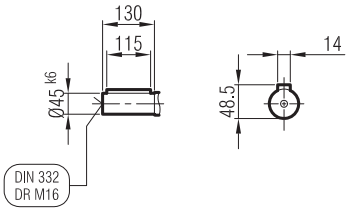
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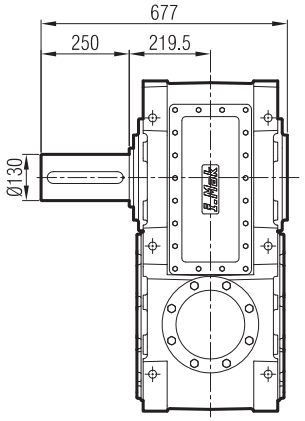
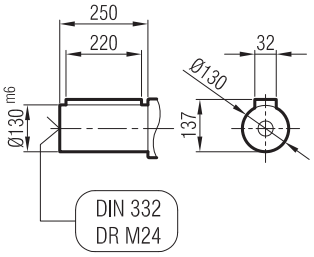
MA / MK 80_

...-SL





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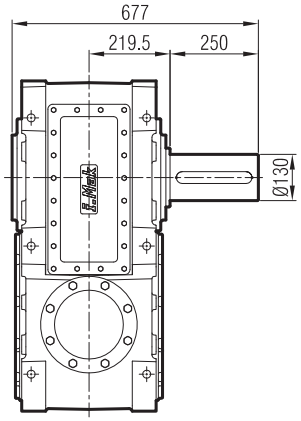

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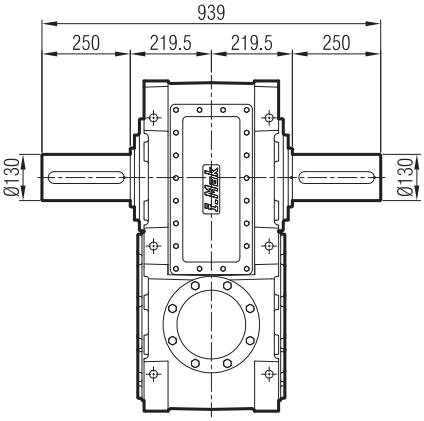

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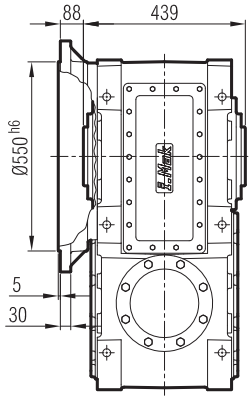

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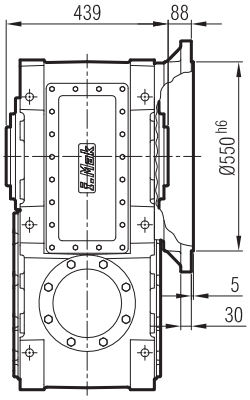

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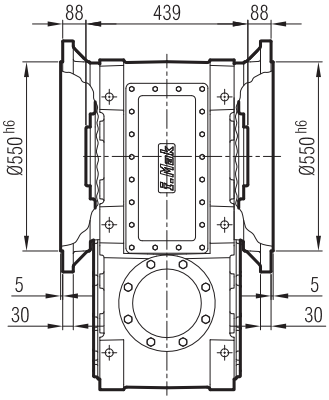

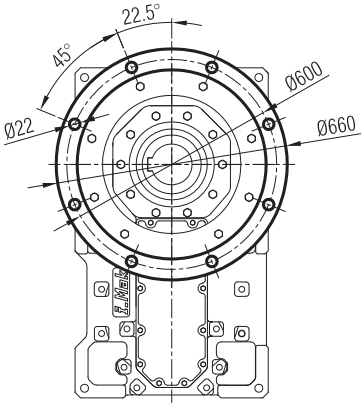

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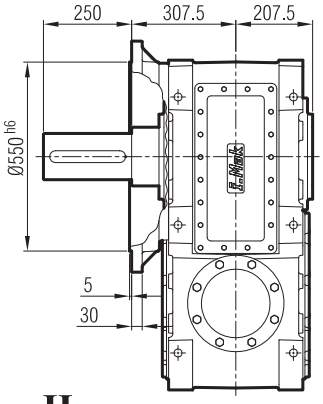

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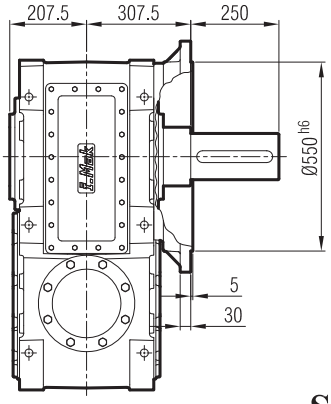

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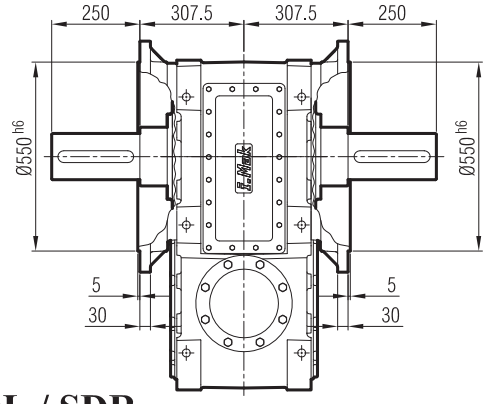

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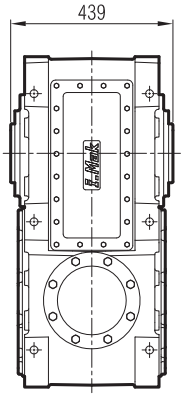

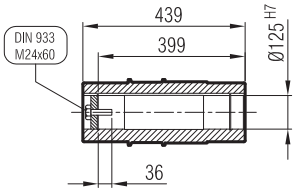

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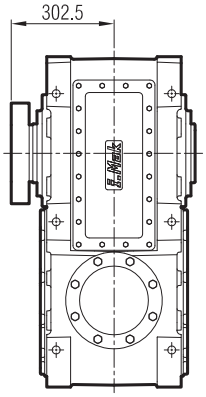
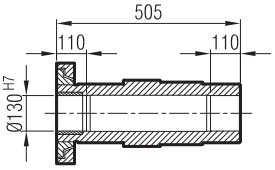
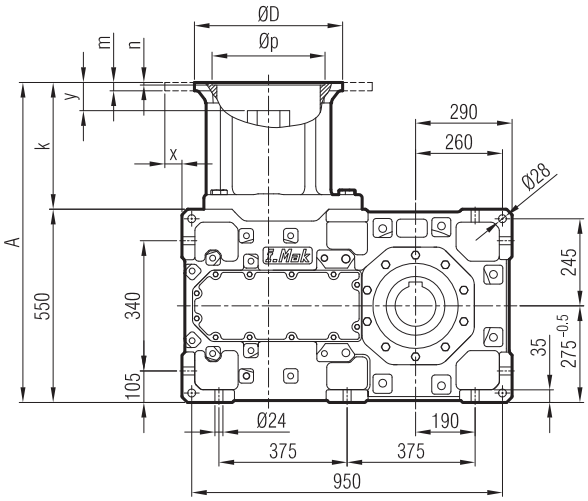
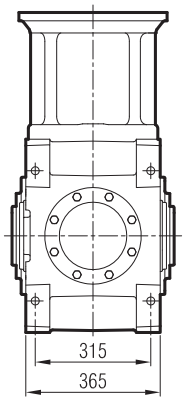
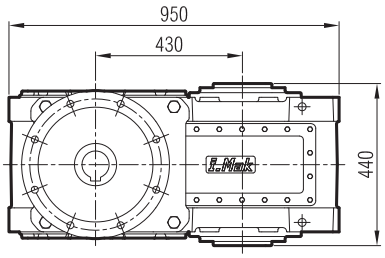


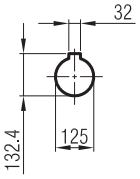


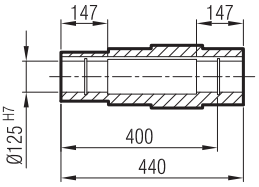
MKP 803-G10











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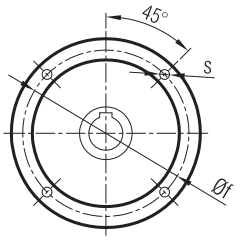

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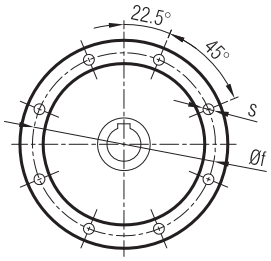

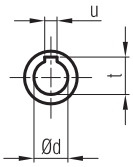

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160/B5	850	250	300	350	M14	300	20	6	42	45.3	12	-	48
180/B5	850	250	300	350	M14	300	20	6	48	51.8	14	-	48
200/B5	850	300	350	400	M16	300	22	6	55	59.3	16	-	48
225/B5	893	350	400	450	M16	343	22	6	60	64.4	18	-	80
250/B5	893	450	500	550	M16	343	25	6.5	65	69.4	18	45	75
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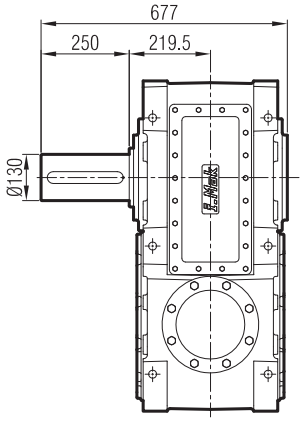
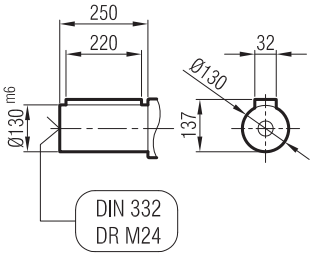
MA / MK 80_

...-SL





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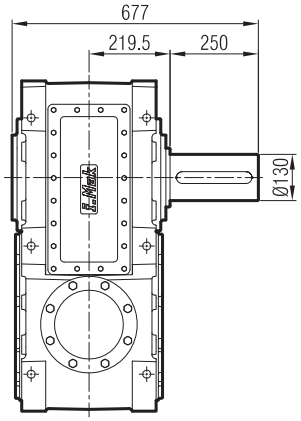

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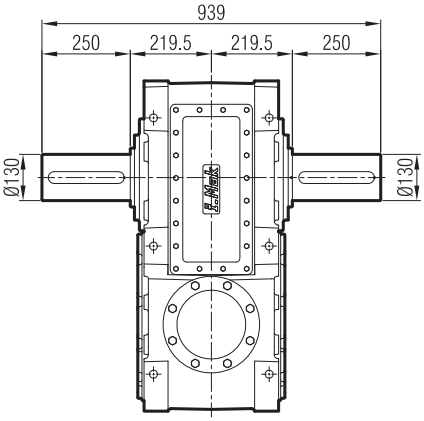

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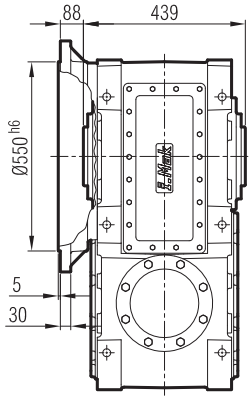

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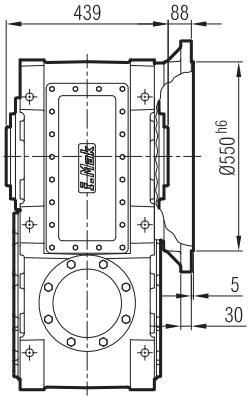

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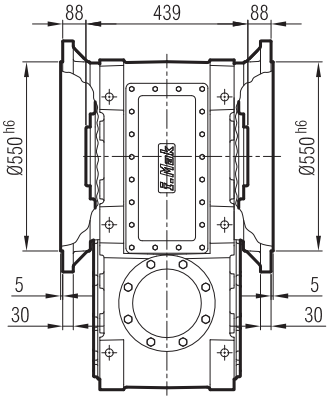

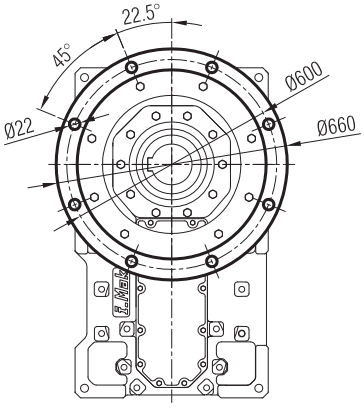

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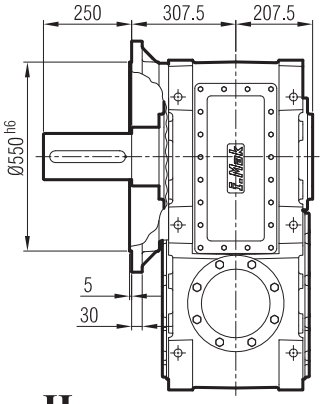

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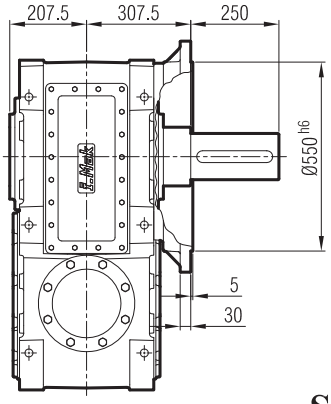

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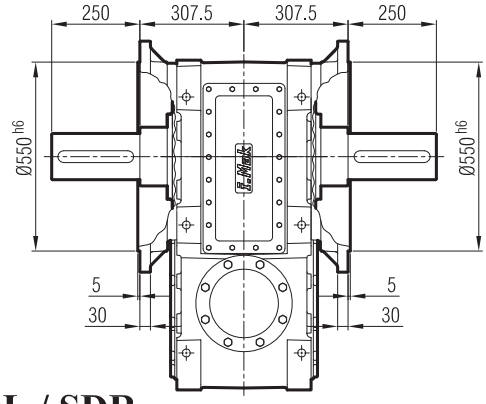

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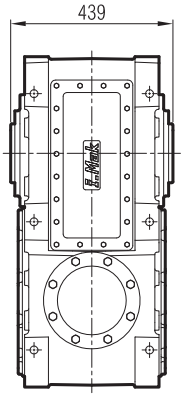

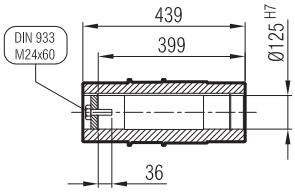

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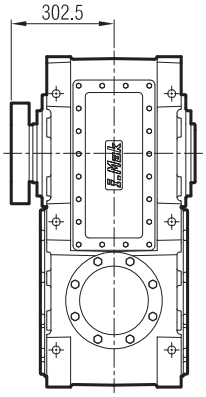
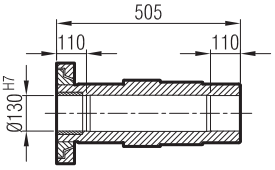
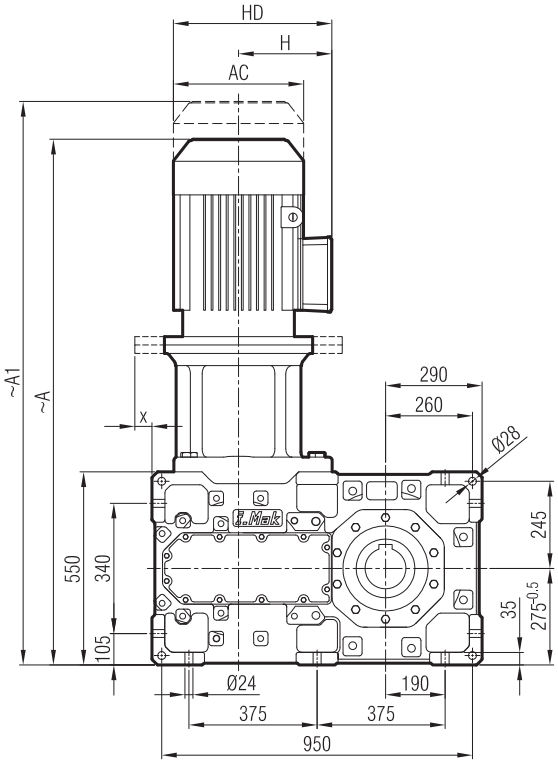
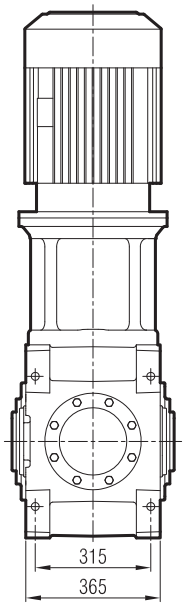
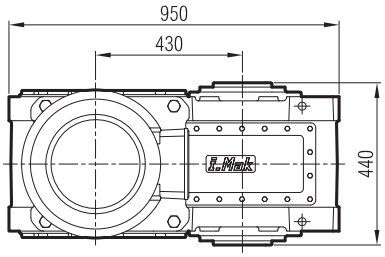


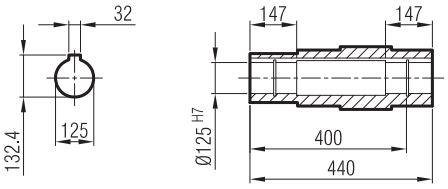


MKM 803-G10







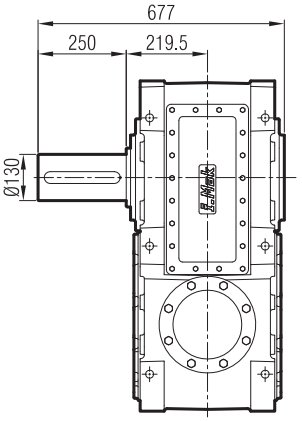


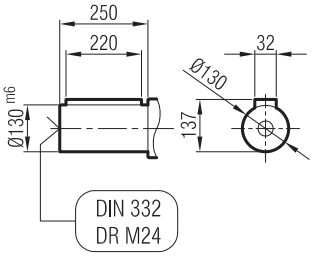
	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5
A	1415	1491	1491	1559	1578	1638	1688	1778	1778
A1	1532	1627	1627	1706	1725	1785	1835	2036	2036
H	240	260	260	300	313	313	366	398	398
HD	400	440	440	500	538	538	618	678	678
AC	315	357	357	394	456	456	489	548	548
x	-	-	-	-	-	-	45	45	45

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 80_

...-SL





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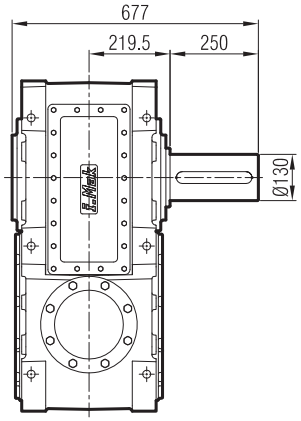

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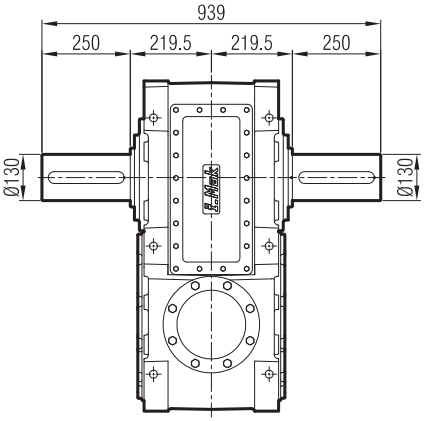

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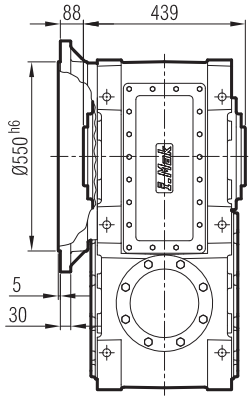

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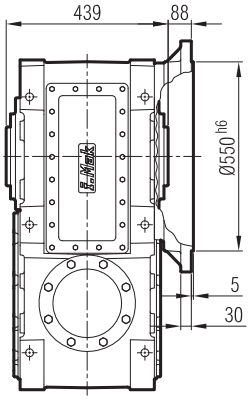

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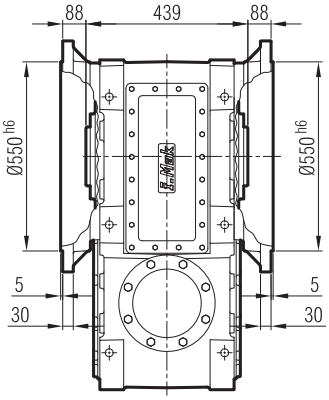

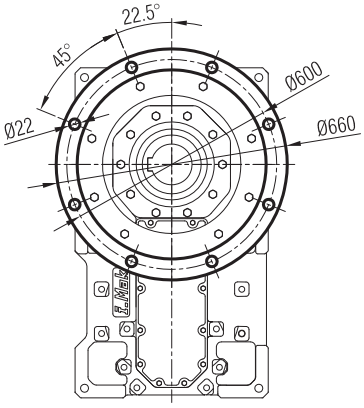

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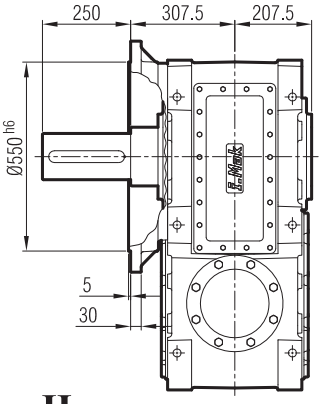

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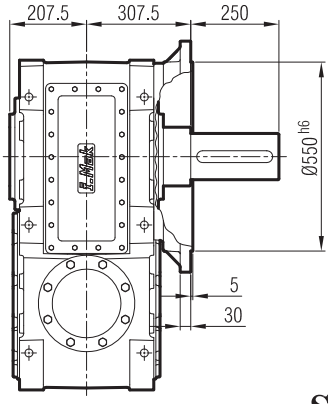

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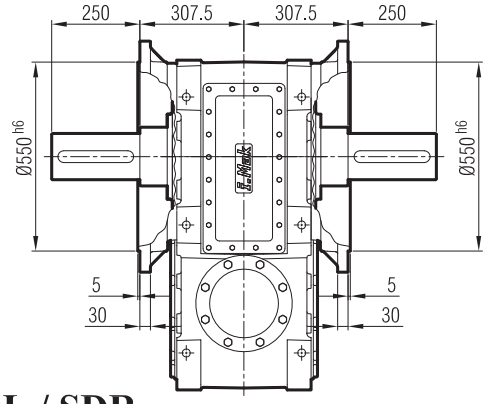

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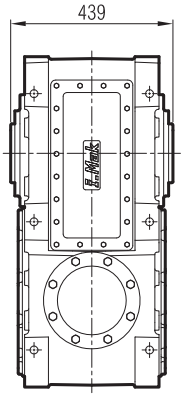

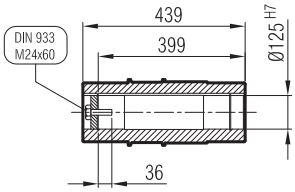

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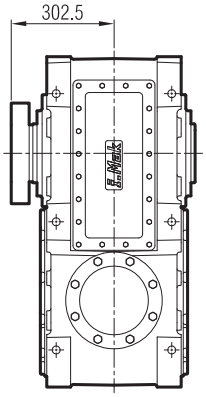

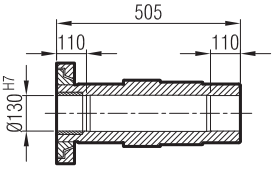

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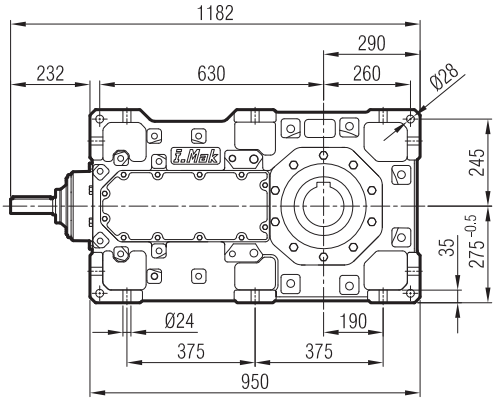
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Ø28
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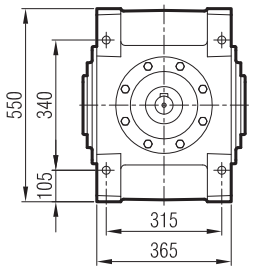
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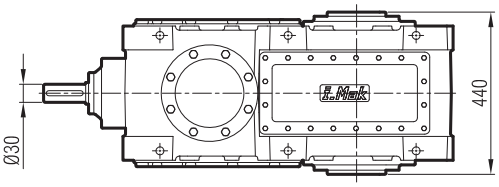
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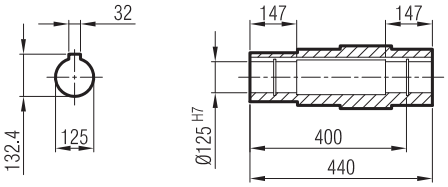
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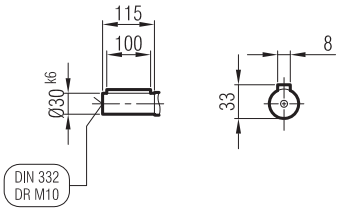
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MA / MK 80_

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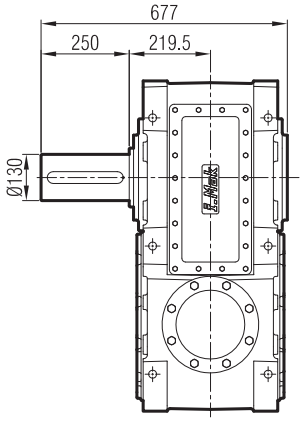

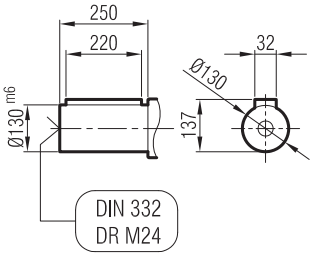

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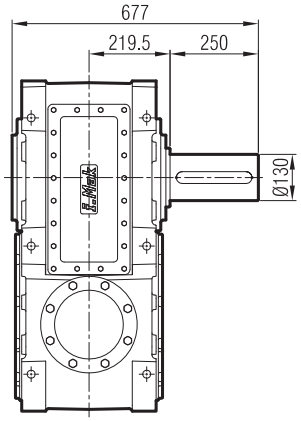

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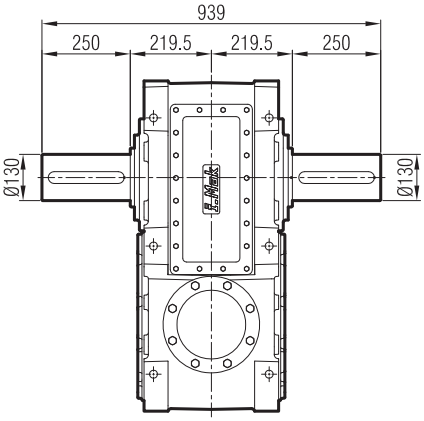

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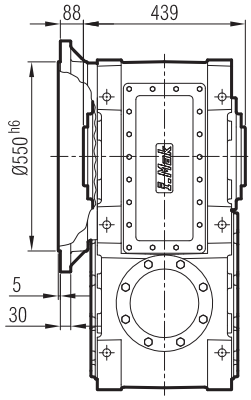

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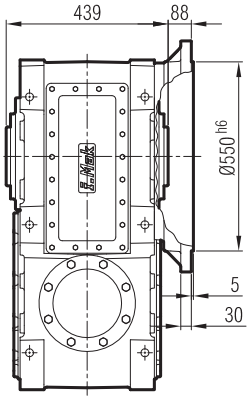

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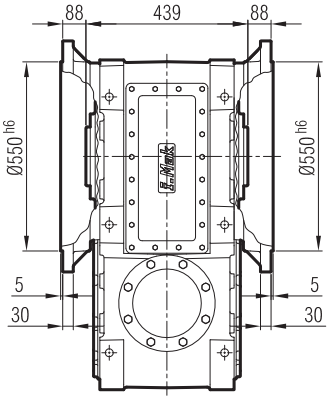

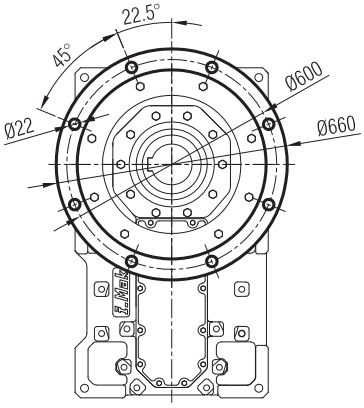

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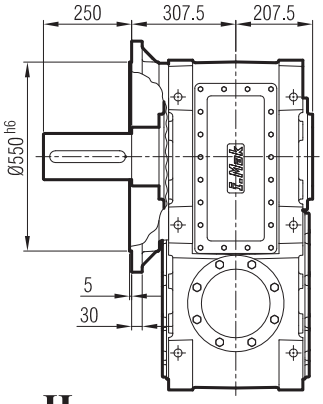

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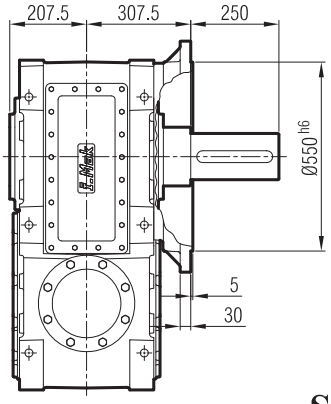

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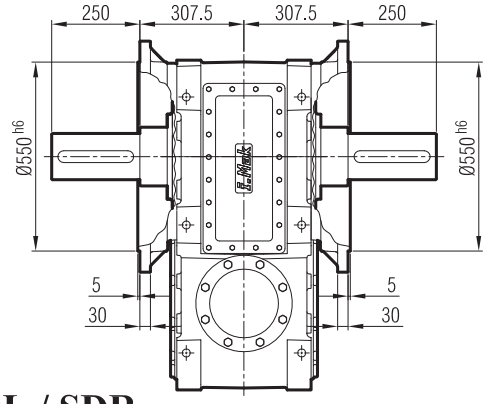

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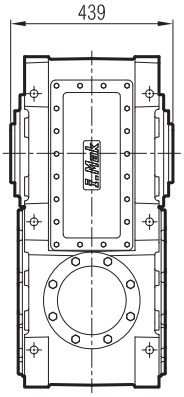

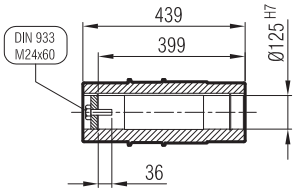

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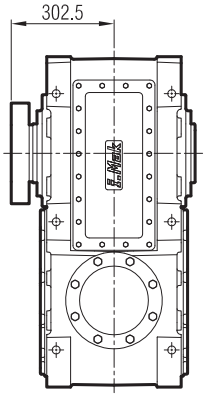

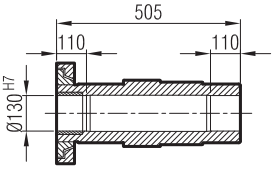

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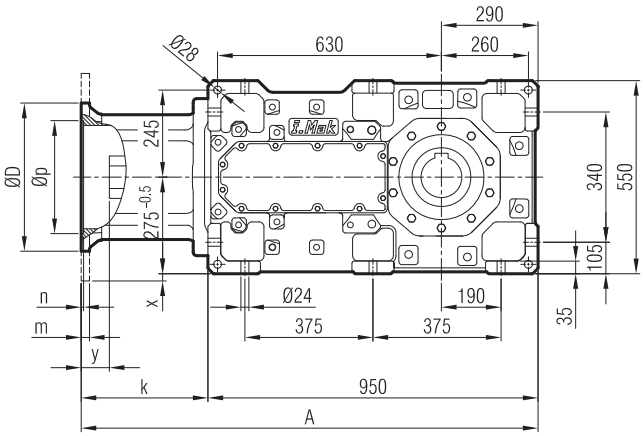

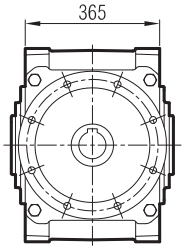

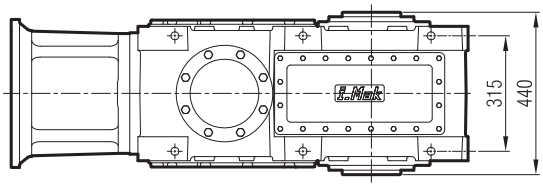

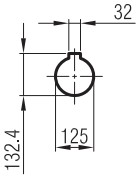

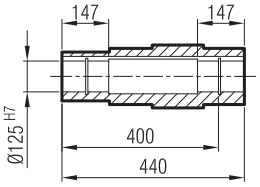

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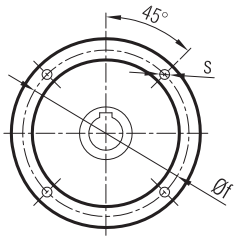

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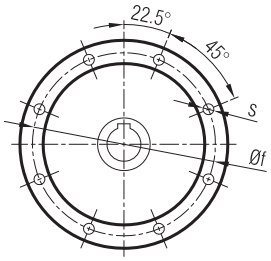

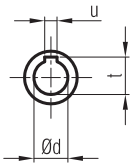

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112/B5	1238	180	215	250	M12	314	15	5	28	31.3	8	-	30
132/B5	1258	230	265	300	M12	334	18	6	38	41.3	10	-	45
160/B5	1275	250	300	350	M14	345	20	6	42	45.3	12	-	70
180/B5	1275	250	300	350	M14	345	20	6	48	51.8	14	-	60
200/B5	1275	300	350	400	M16	345	22	6	55	59.3	16	-	60
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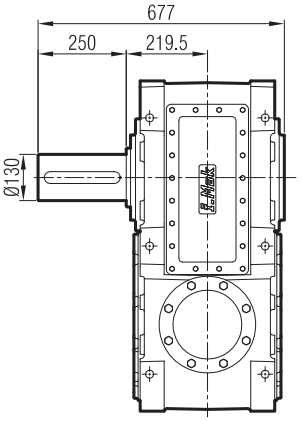
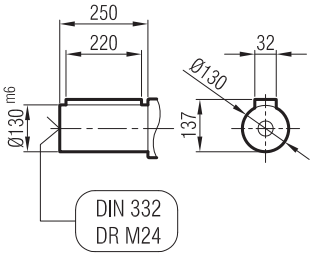
MA / MK 80_

...-SL





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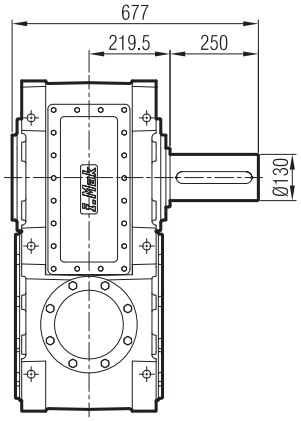

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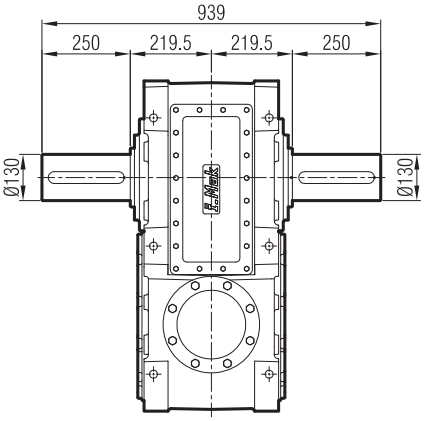

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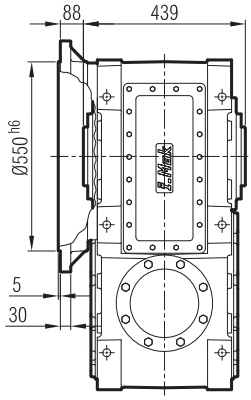

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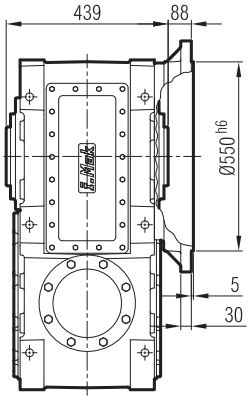

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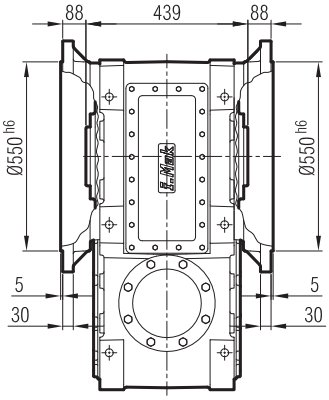

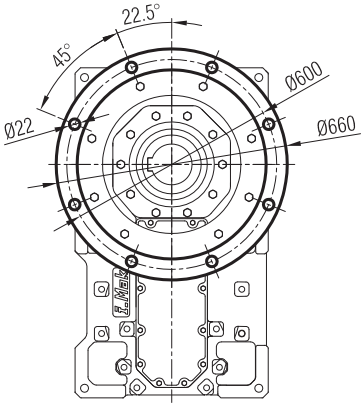

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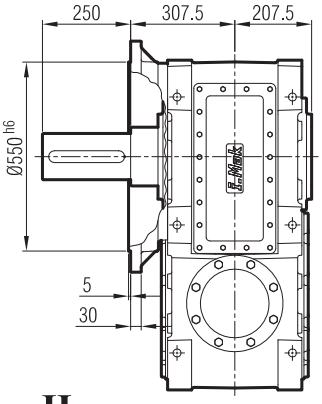

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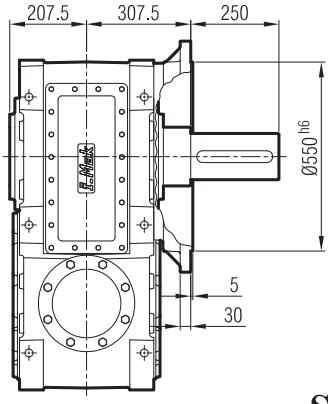

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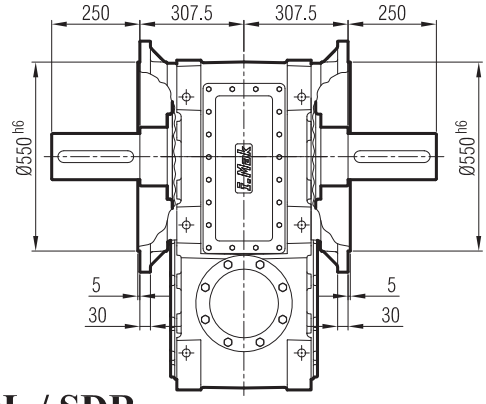

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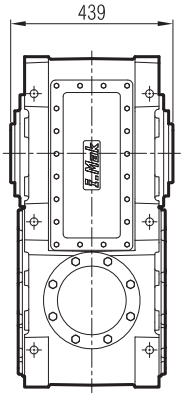

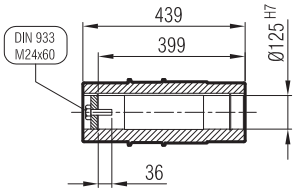

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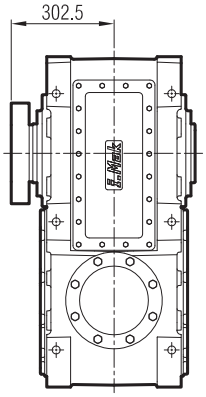
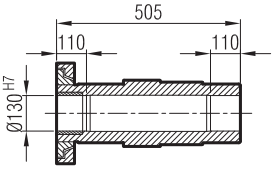
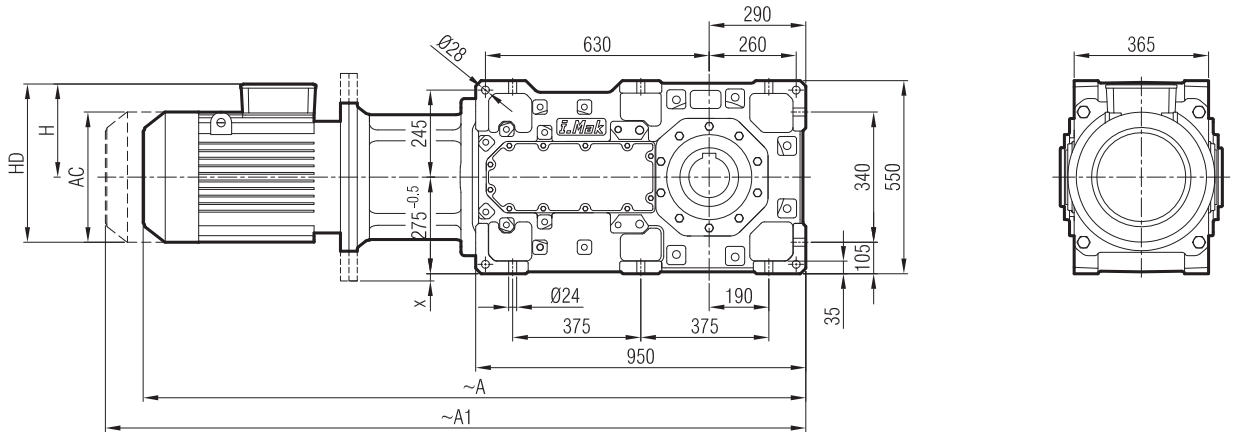
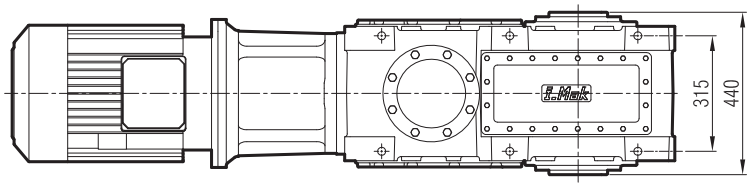
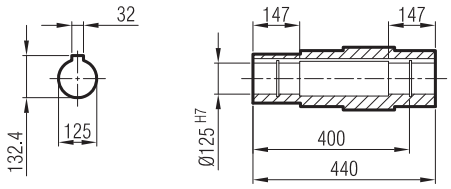




MKM 804-G09





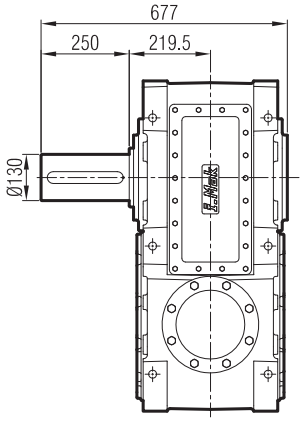


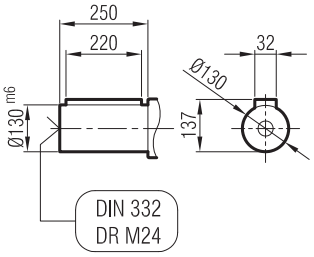
	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5
A	1610	1582	1659	1700	1795	1840	1916	1916	1984	2003
A1	1687	1677	1763	1804	1912	1957	2052	2052	2131	2150
H	161	170	193	193	240	240	260	260	300	313
HD	261	282	325	325	400	400	440	440	500	538
AC	195	220	262	262	315	315	357	357	394	456
x	-	-	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 80_

...-SL





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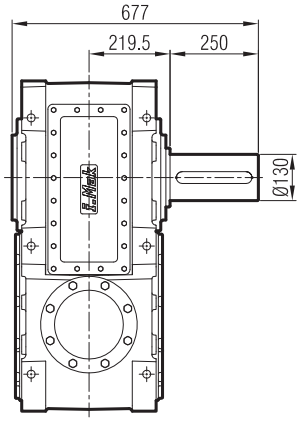

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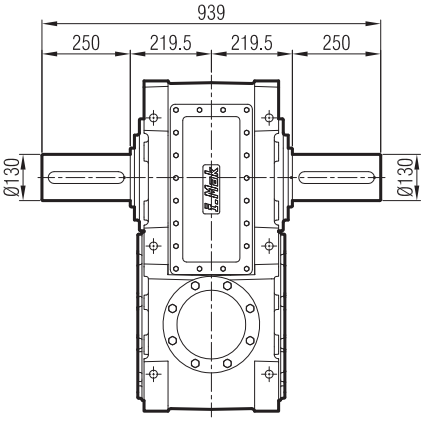

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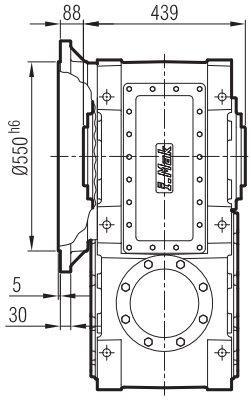

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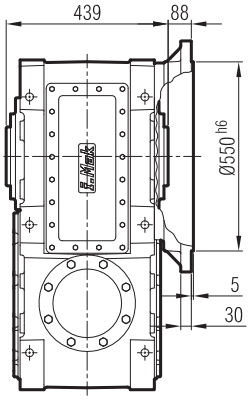

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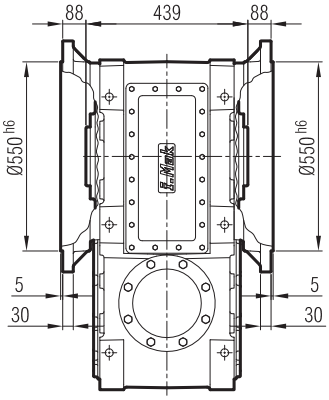

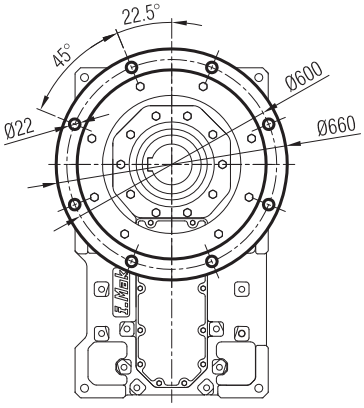

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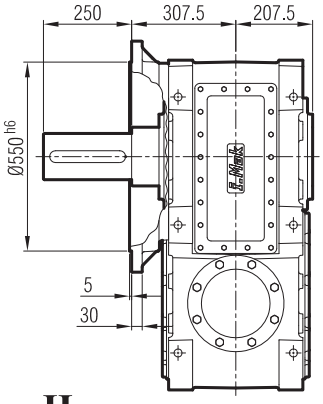

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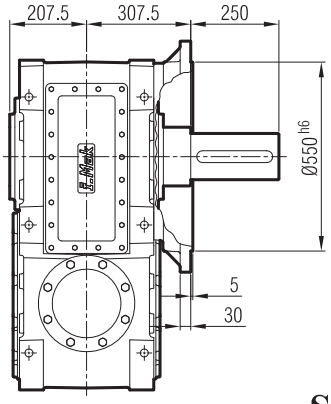

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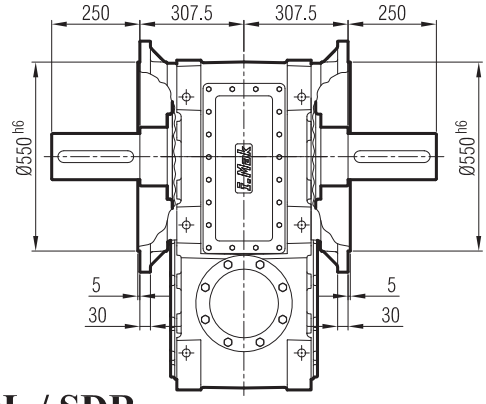

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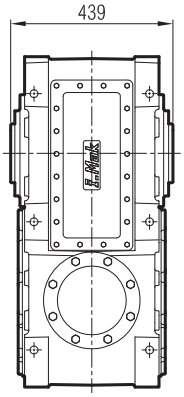

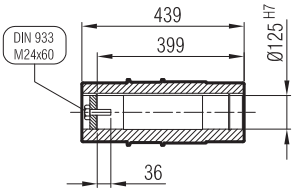

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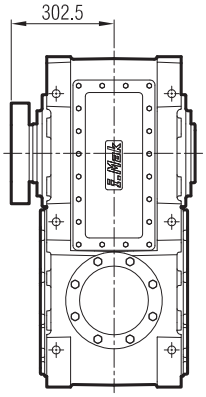

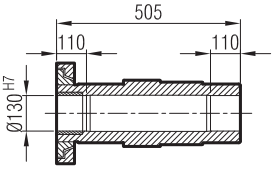

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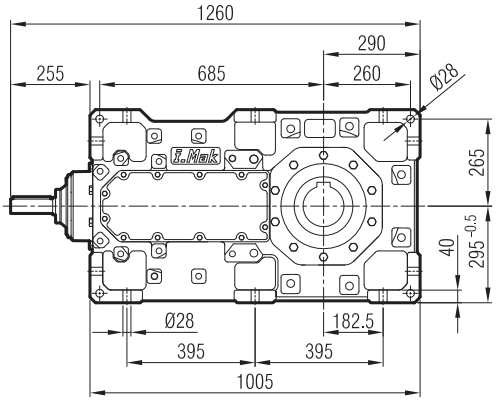
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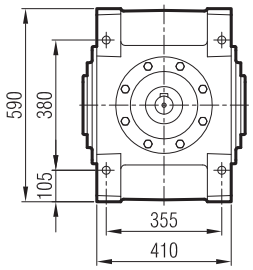
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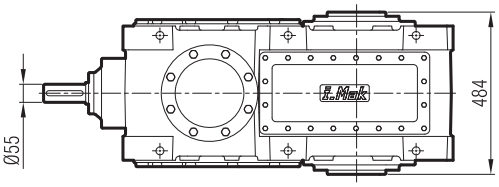
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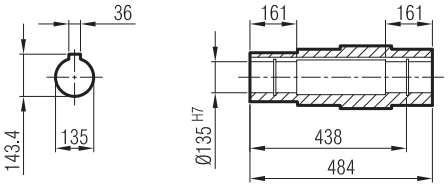
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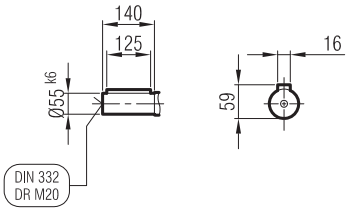
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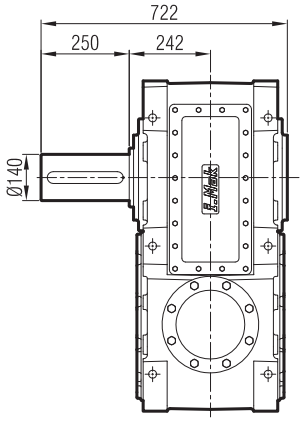

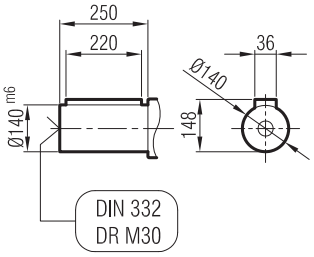

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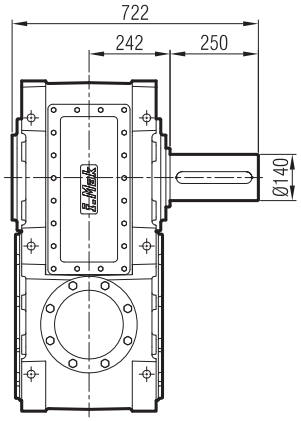

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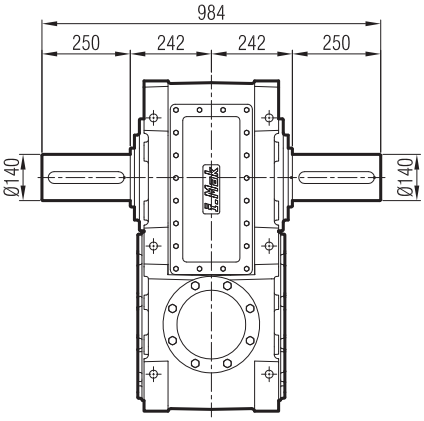

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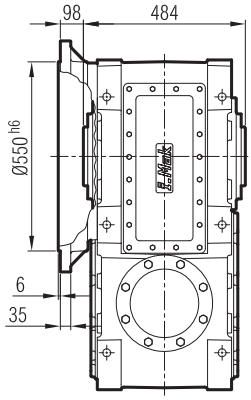

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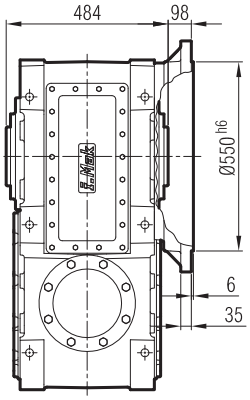

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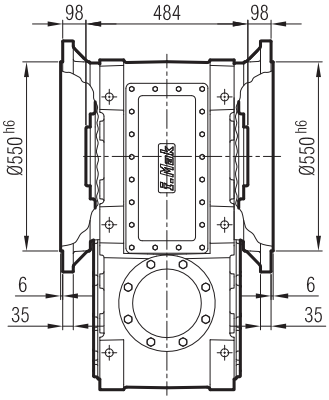

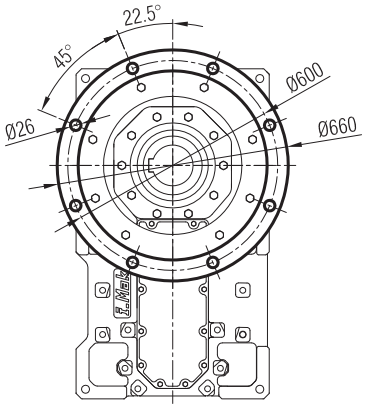

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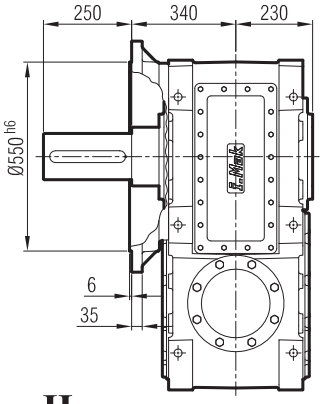

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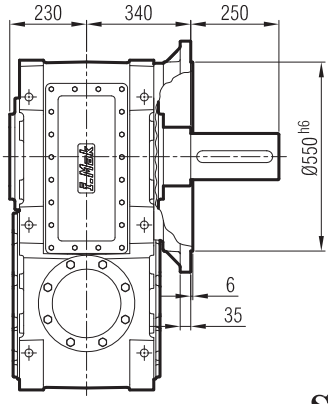

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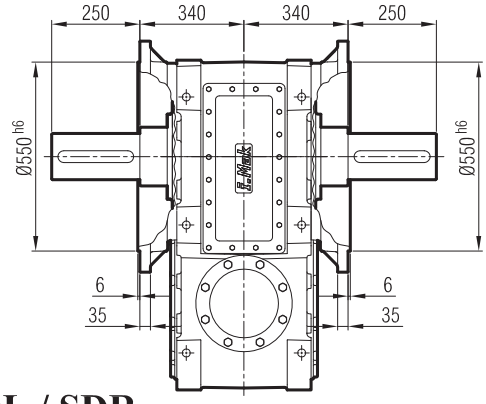

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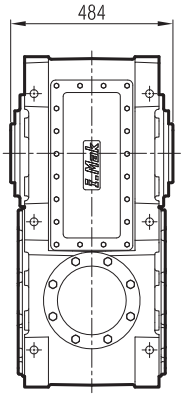

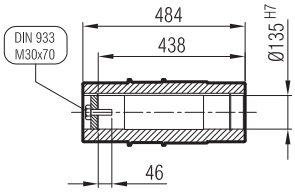

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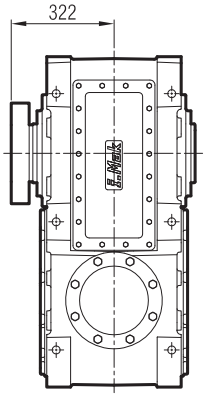

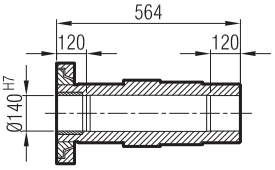

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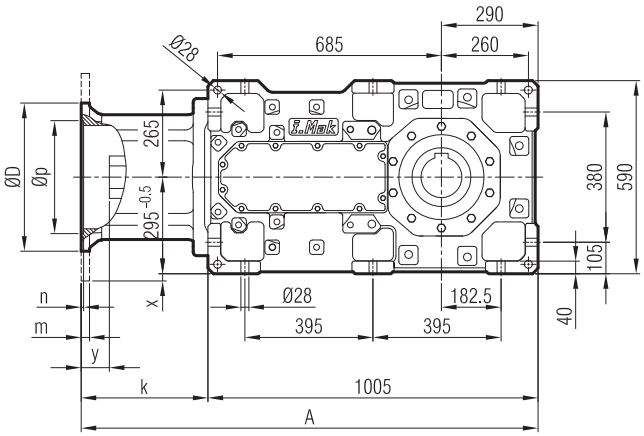

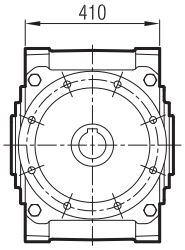

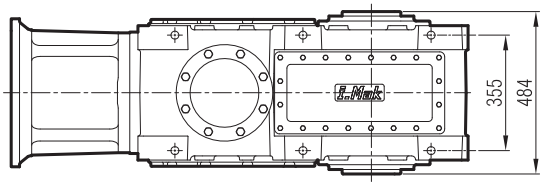

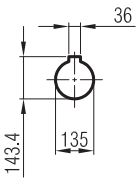

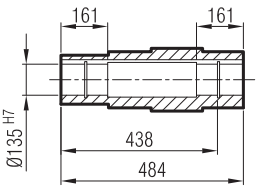

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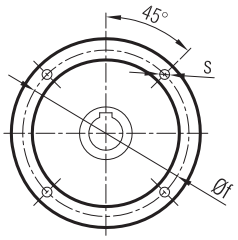

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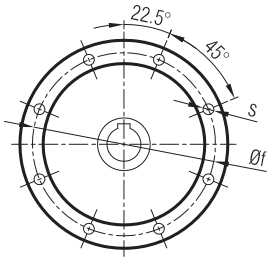

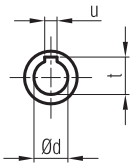

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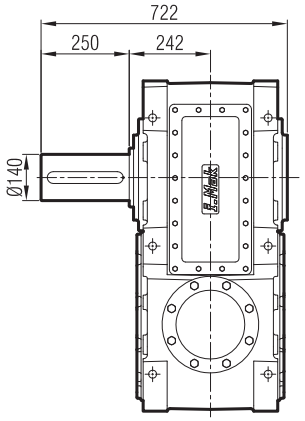

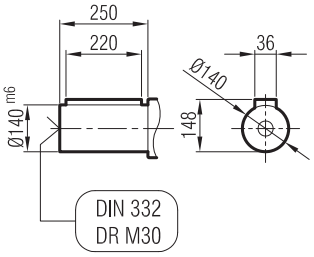

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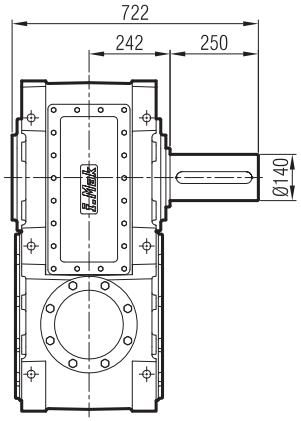

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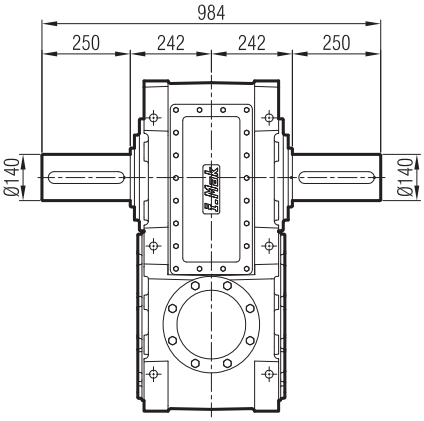

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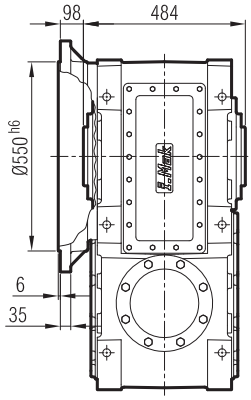

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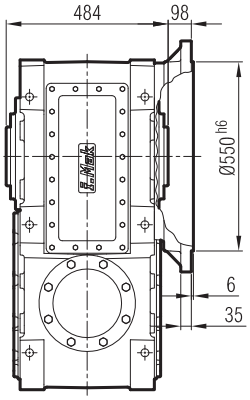

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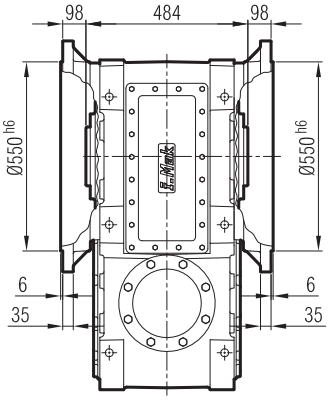

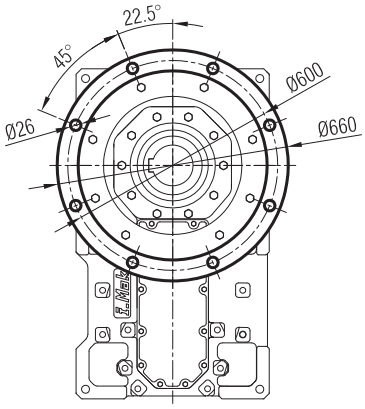

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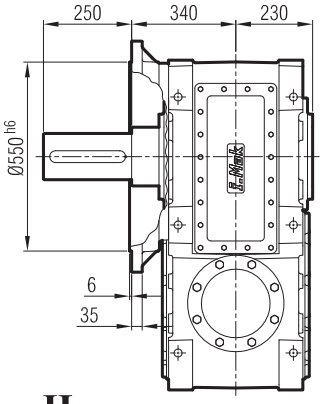

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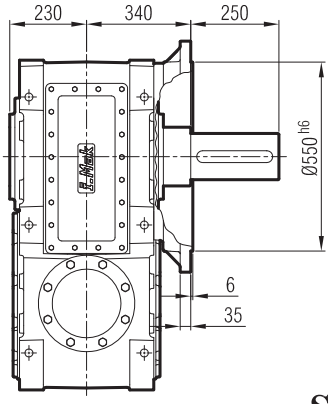

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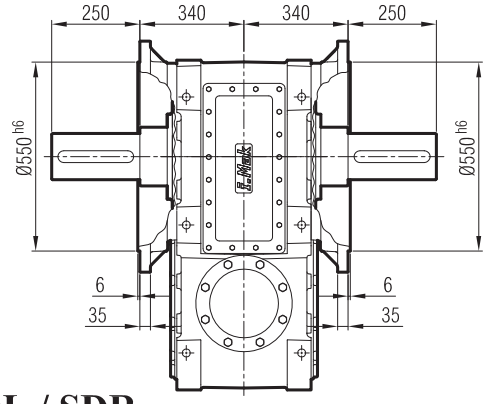

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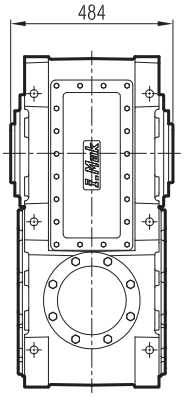

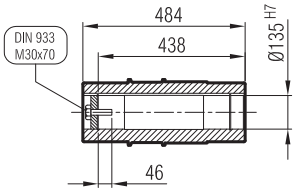

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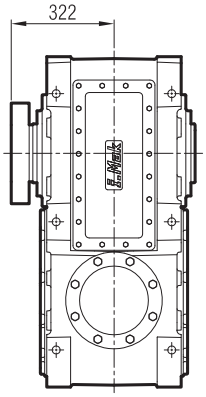
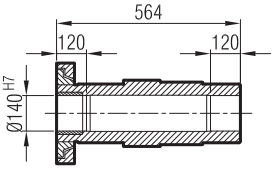
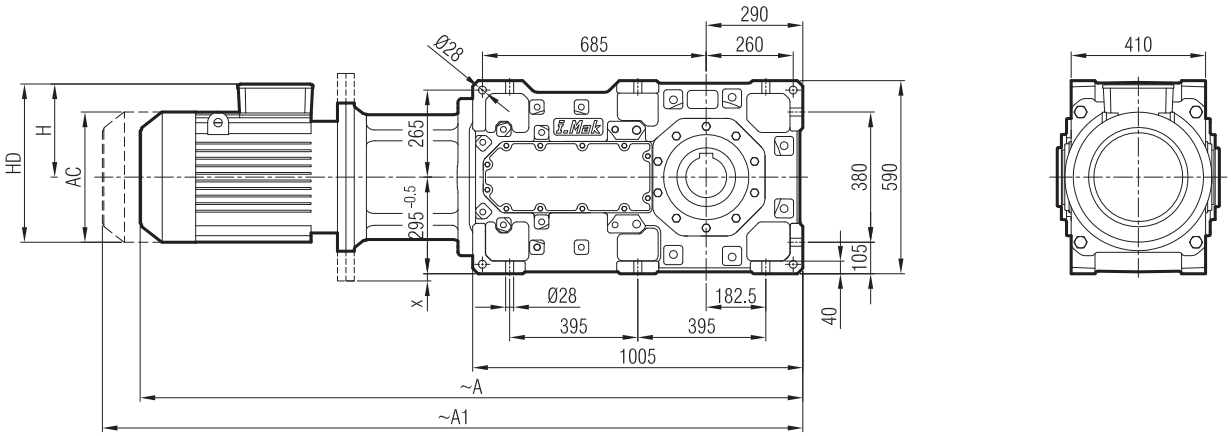
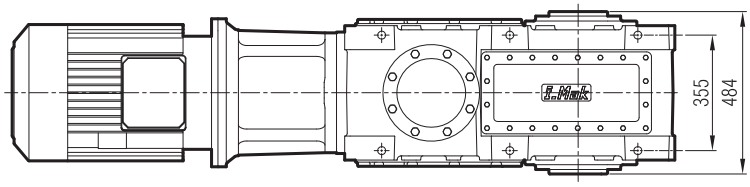
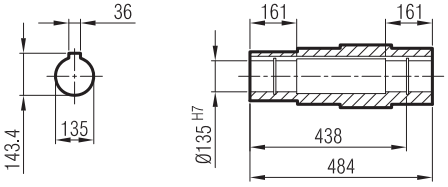




MKM 903-G09







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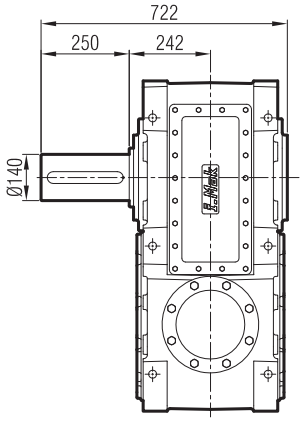
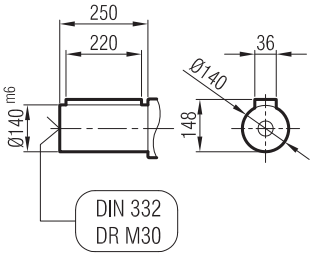
A1	2157	2157	2236	2255	2315	2365	2556	2556	2737	2737
H	260	260	300	313	313	366	398	398	518	518
HD	440	440	500	538	538	618	678	678	833	833
AC	357	357	394	456	456	489	548	548	652	652
x	-	-	-	-	-	-	-	-	35	35

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 90_

...-SL





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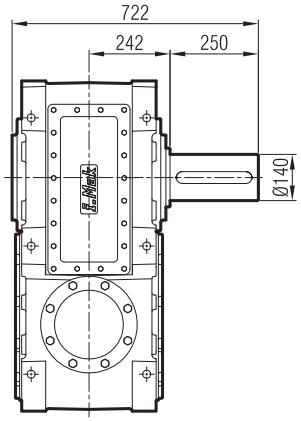

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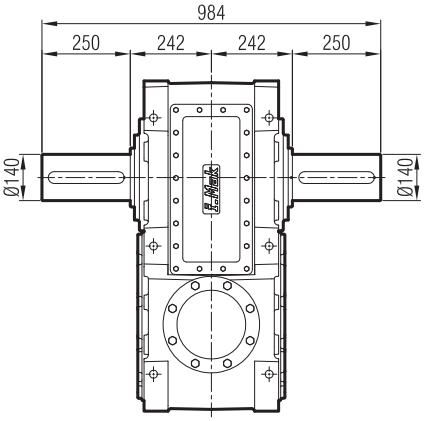

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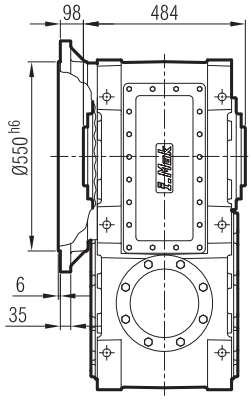

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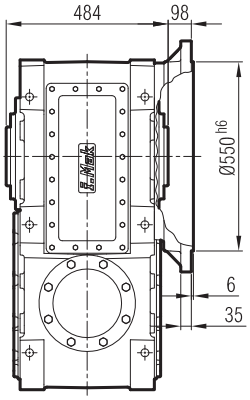

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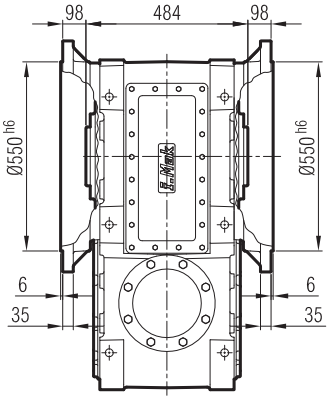

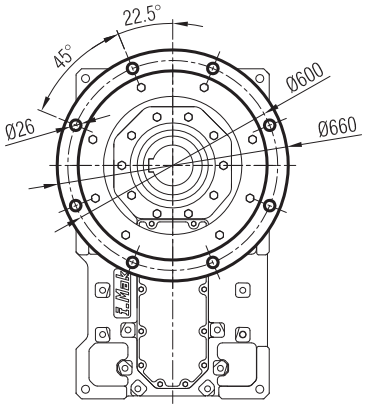

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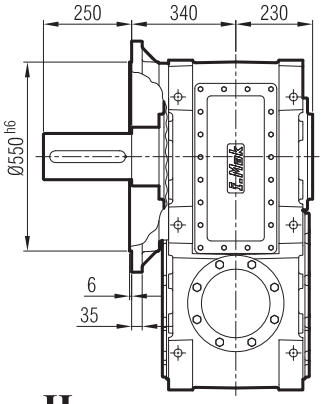

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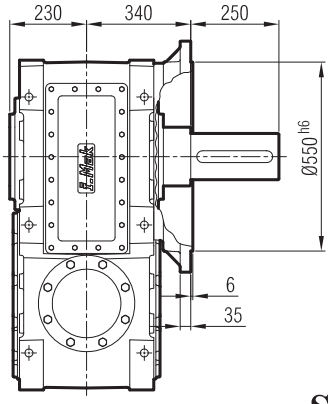

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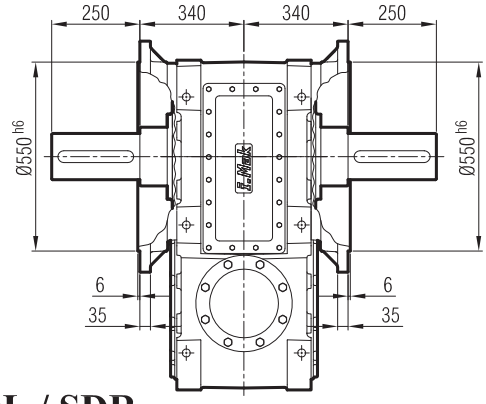

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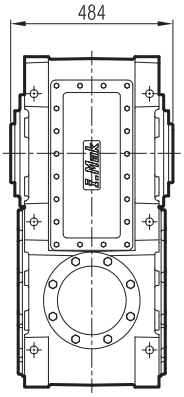

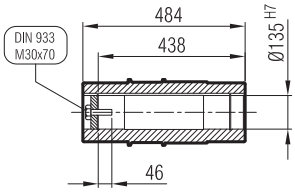

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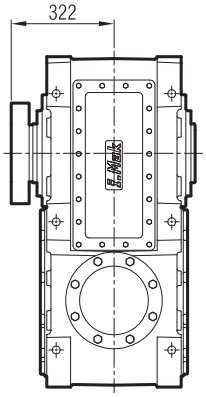
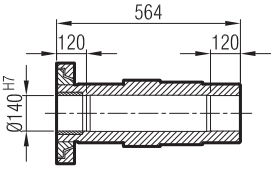
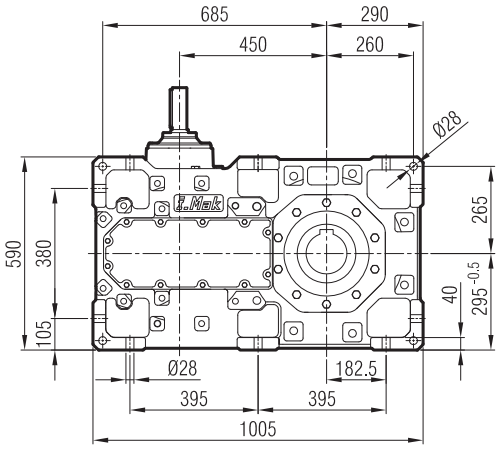




MK 903-G08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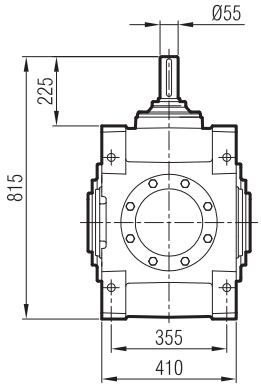
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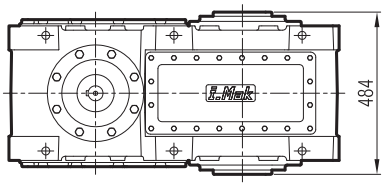
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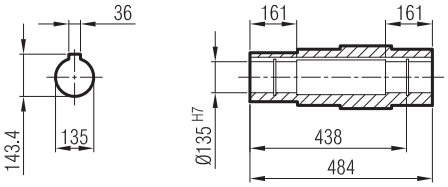
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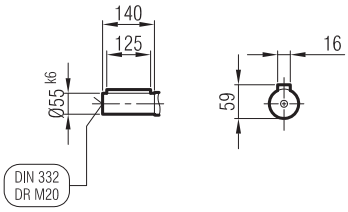
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MA / MK 90_

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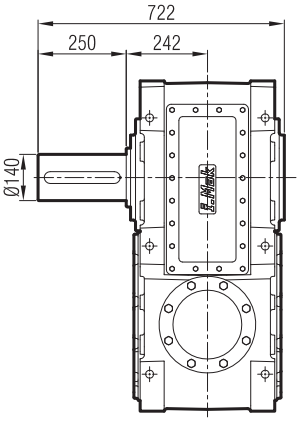

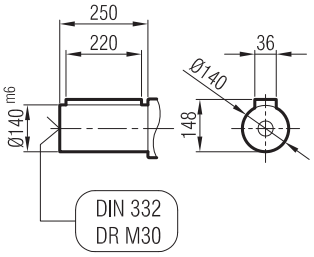

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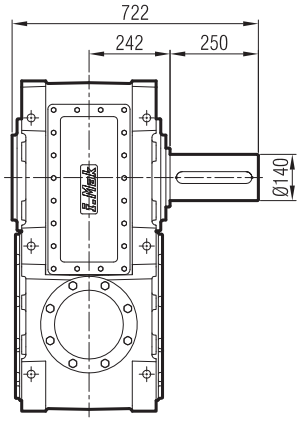

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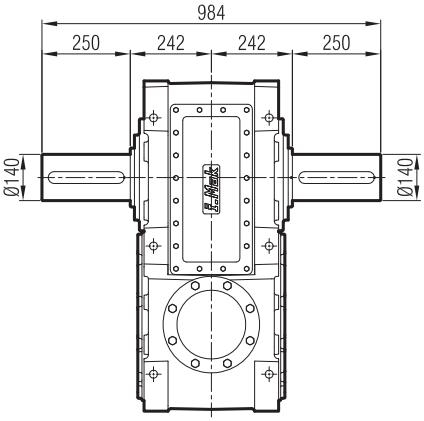

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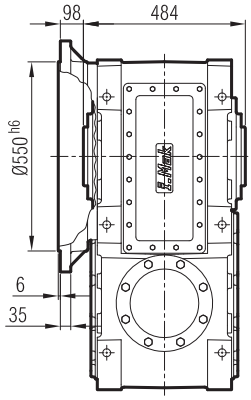

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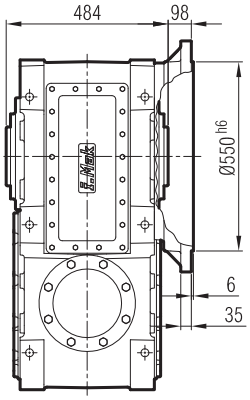

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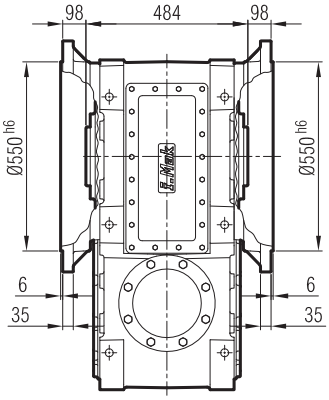

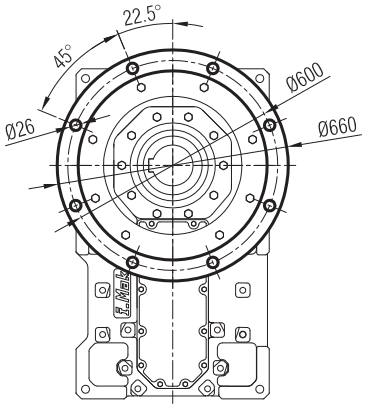

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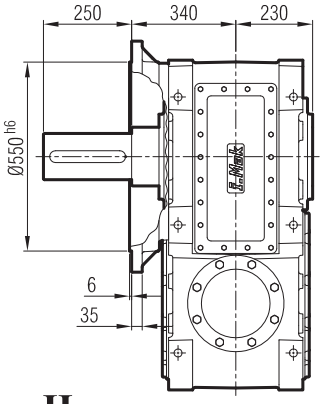

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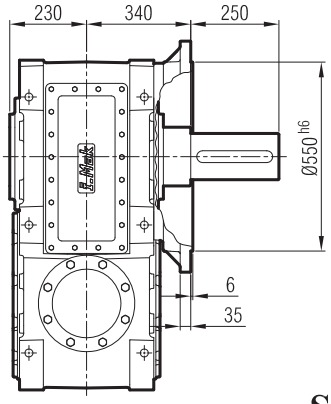

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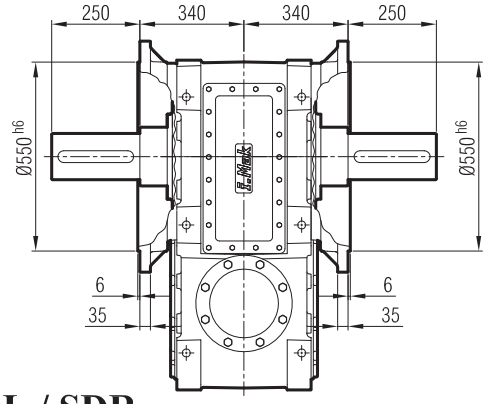

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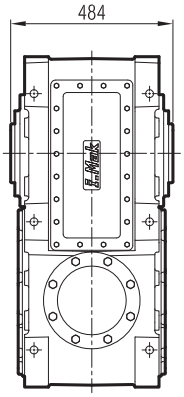

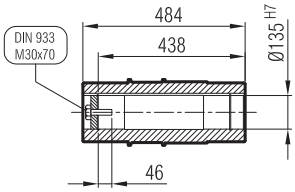

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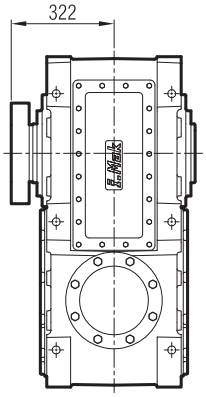

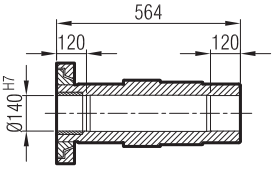

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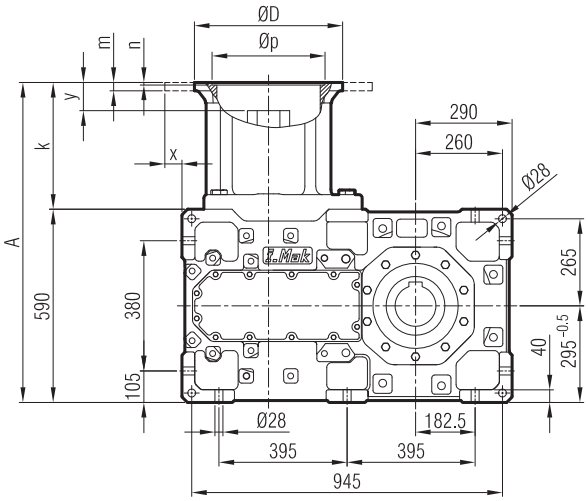

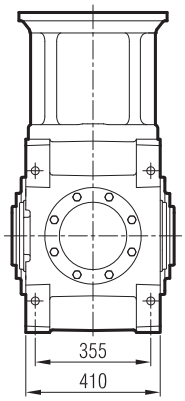

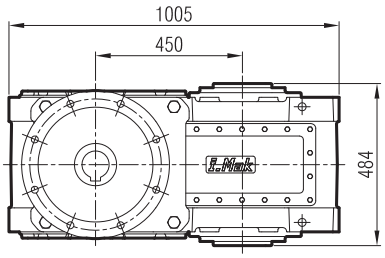

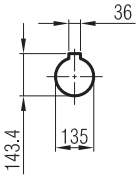

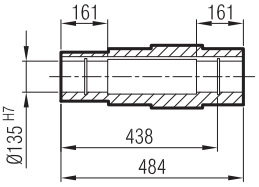

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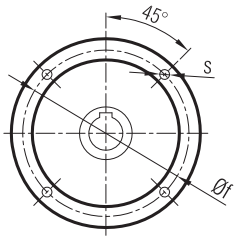

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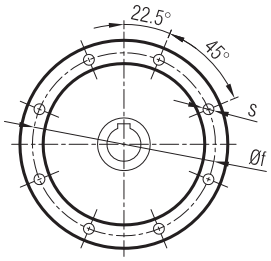

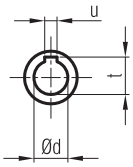

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200/B5	930	300	350	400	M16	340	22	6	55	59.3	16	-	38
225/B5	973	350	400	450	M16	383	22	6	60	64.4	18	-	75
250/B5	973	450	500	550	M16	383	25	6.5	65	69.4	18	10	75
280/B5	973	450	500	550	M16	383	25	6.5	75	75.9	20	10	65
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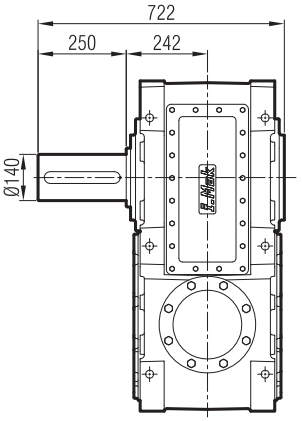
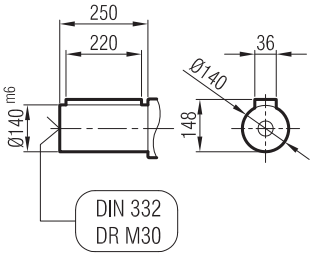
MA / MK 90_

...-SL





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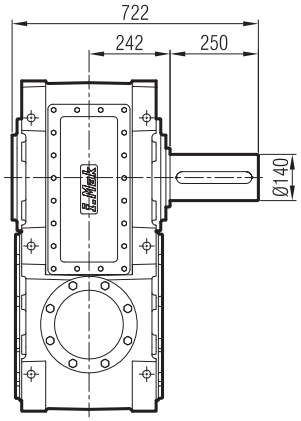

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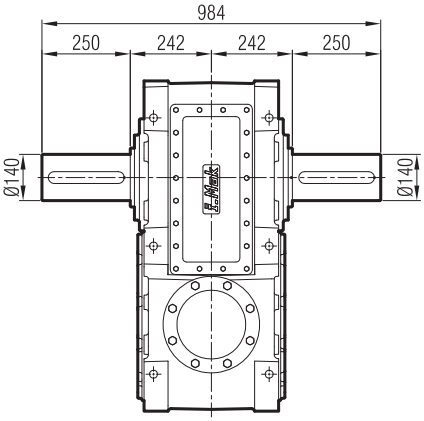

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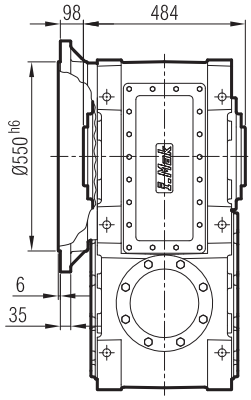

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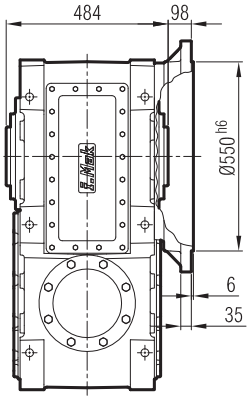

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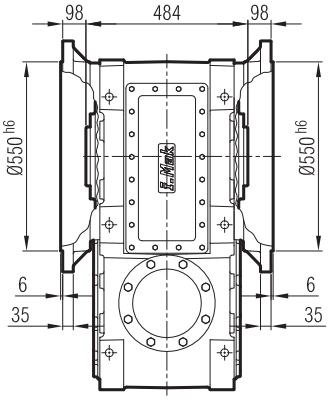

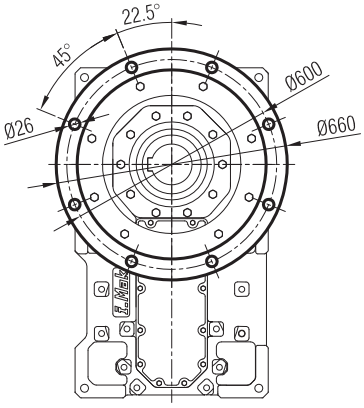

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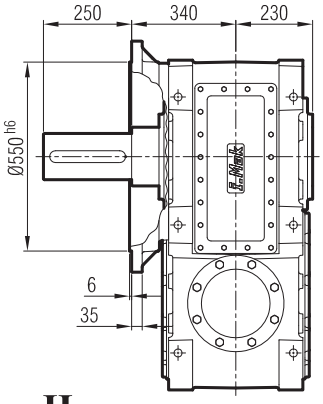

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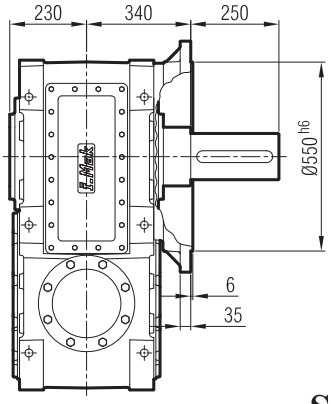

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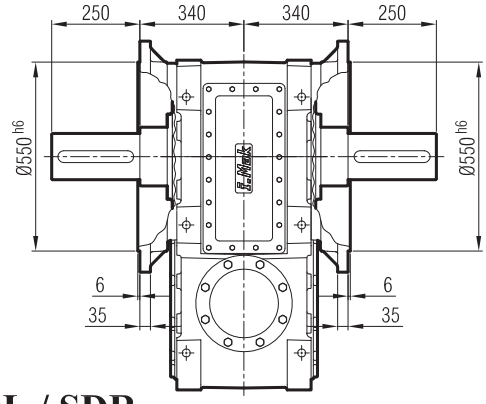

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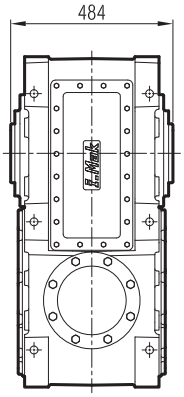

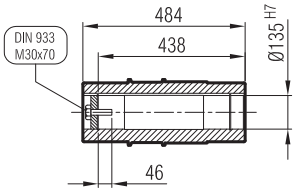

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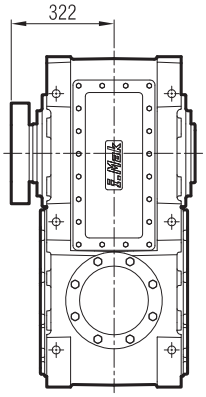

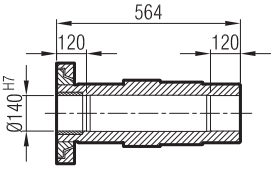

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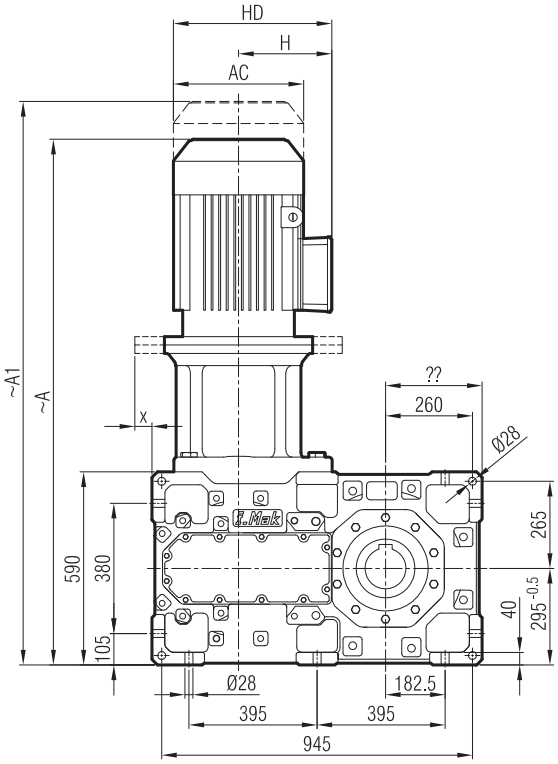
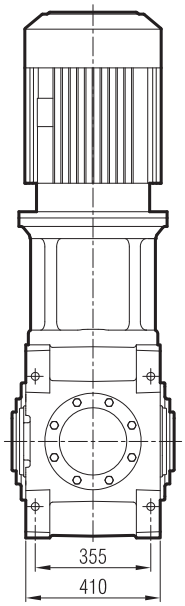
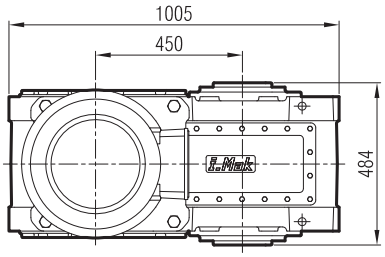
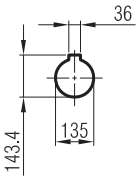
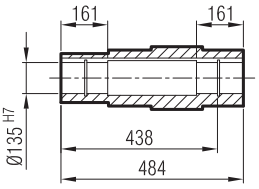








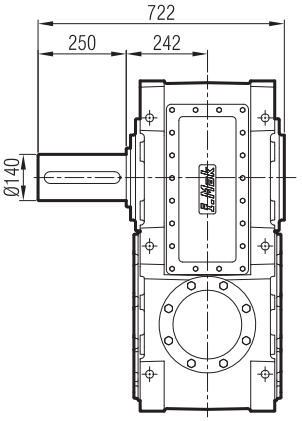


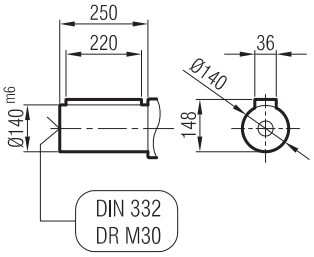
	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	315 S/B5	315 M/B5
A	1571	1571	1639	1658	1718	1768	1858	1858	2039	2039
A1	1707	1707	1786	1805	1865	1915	2106	2106	2287	2287
H	260	260	300	313	313	366	398	398	518	518
HD	440	440	500	538	538	618	678	678	833	833
AC	357	357	394	456	456	489	548	548	652	652
x	-	-	-	-	-	10	10	10	65	65

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 90_

...-SL





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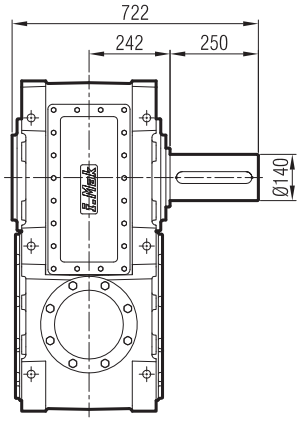

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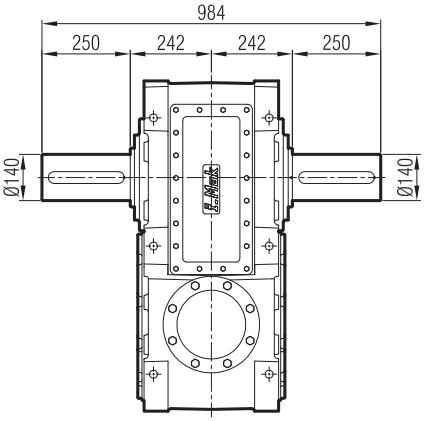

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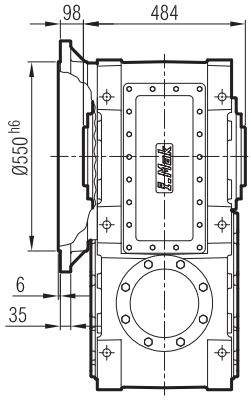

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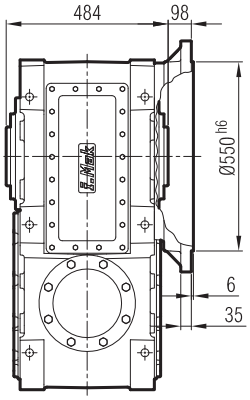

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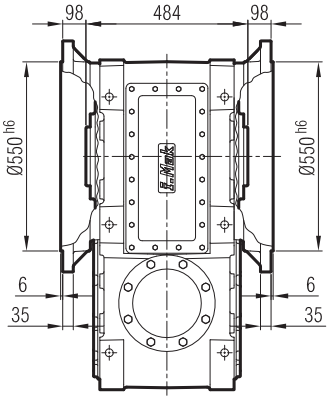

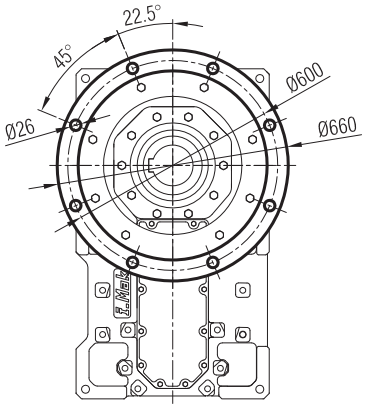

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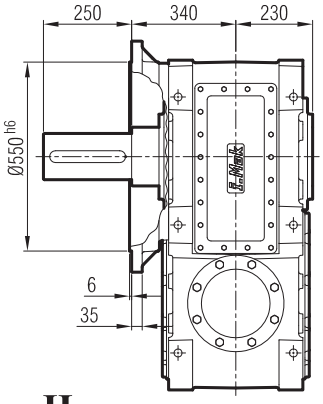

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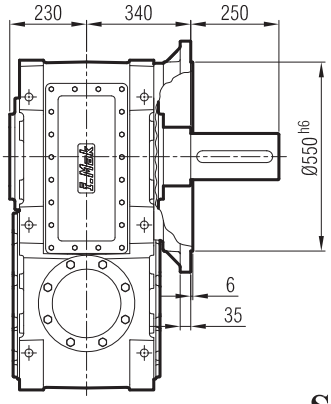

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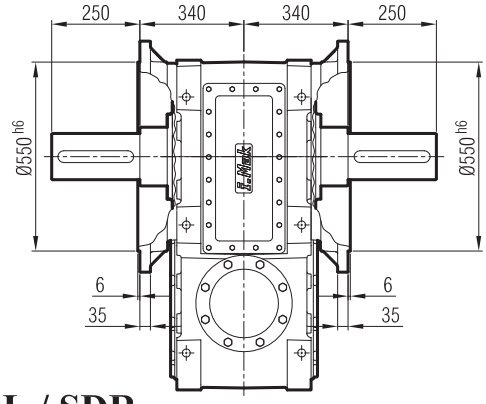

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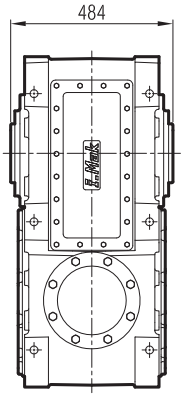

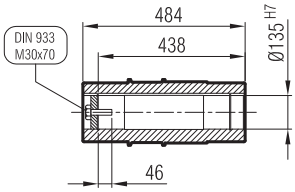

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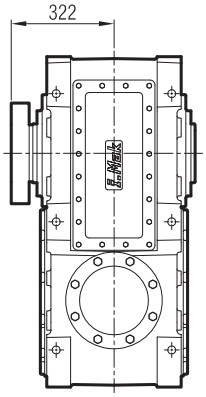

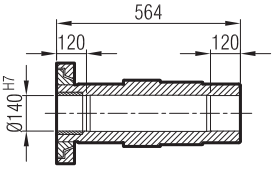

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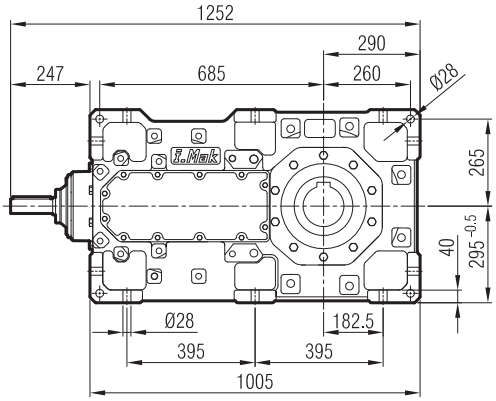
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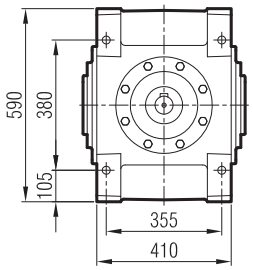
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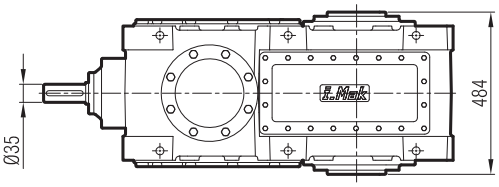
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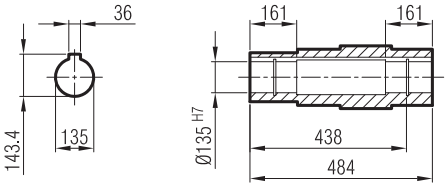
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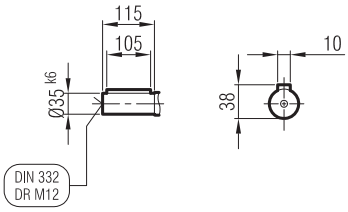
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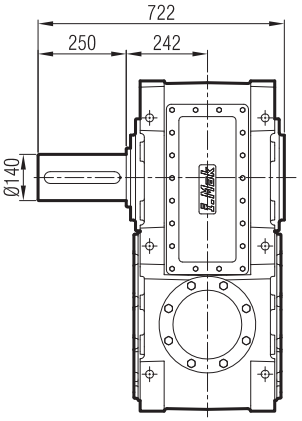

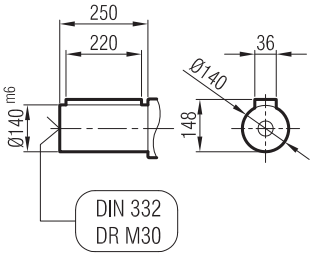

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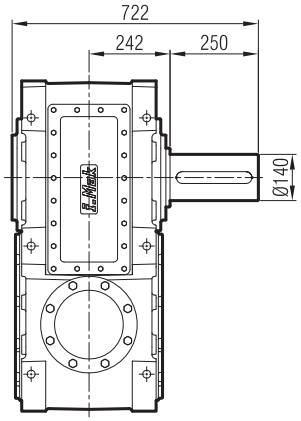

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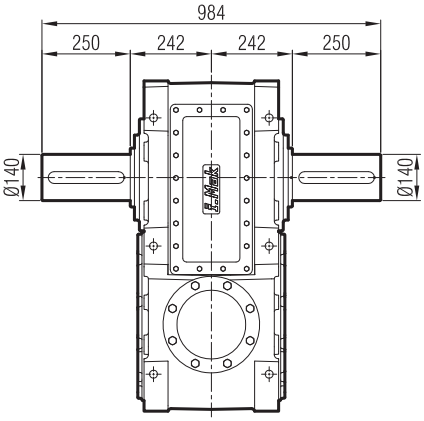

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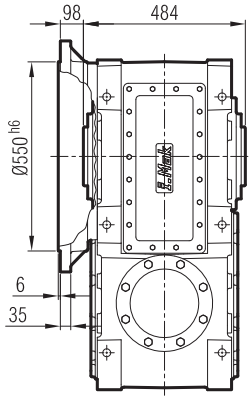

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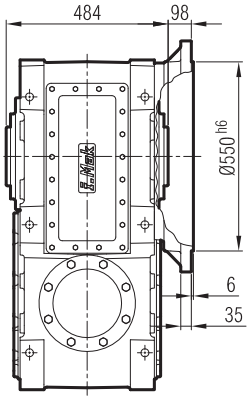

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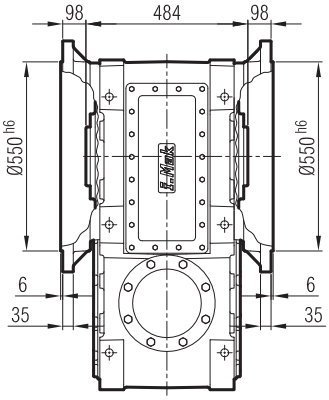

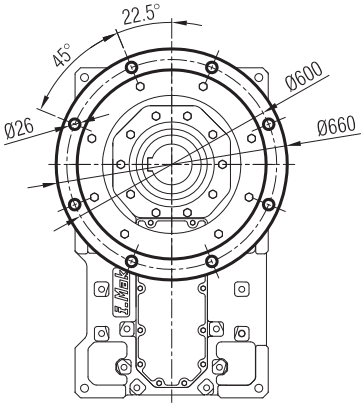

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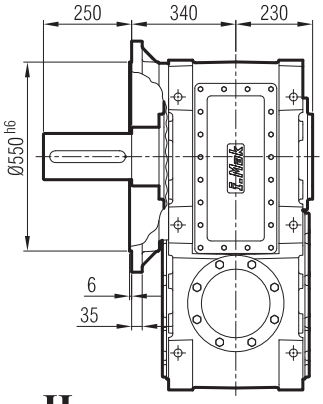

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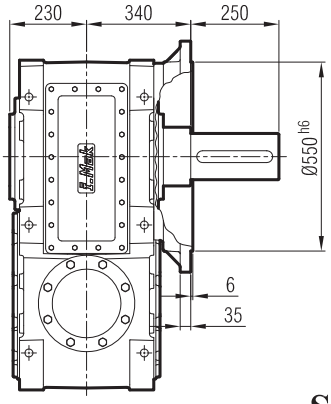

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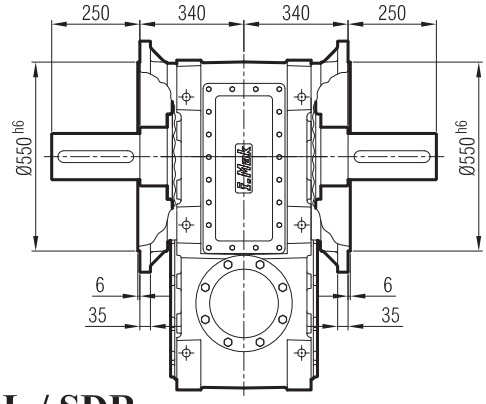

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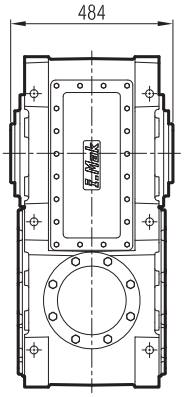

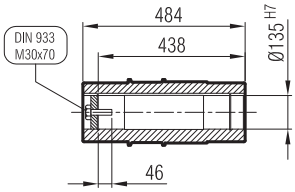

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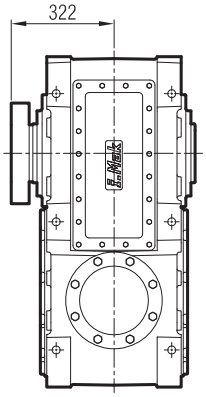

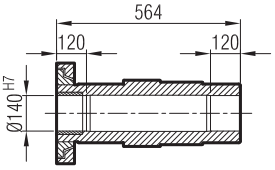

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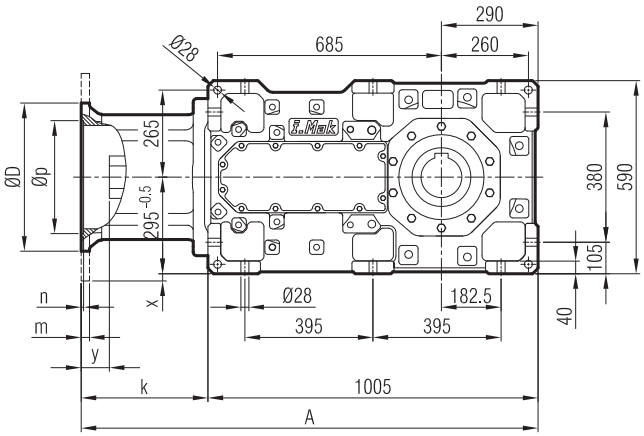

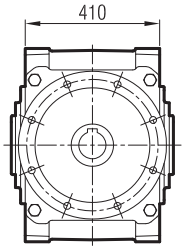

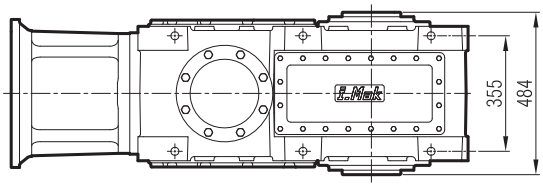

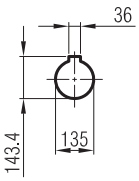

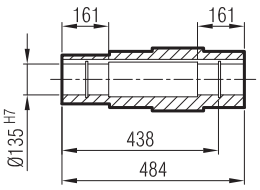

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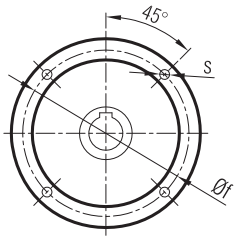

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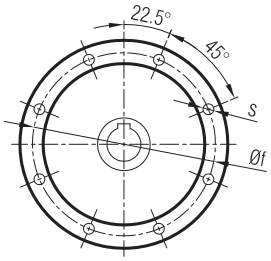

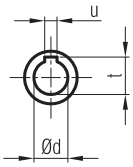

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132/B5	1348	230	265	300	M12	345	18	6	38	41.3	10	-	28
160/B5	1380	250	300	350	M14	370	20	6	42	45.3	12	-	60
180/B5	1380	250	300	350	M14	370	20	6	48	51.8	14	-	60
200/B5	1380	300	350	400	M16	370	22	6	55	59.3	16	-	60
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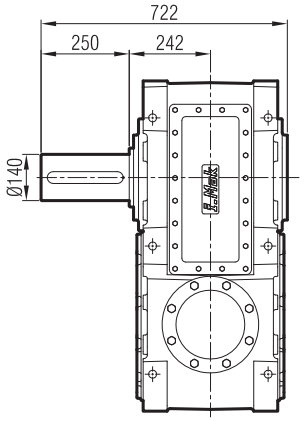
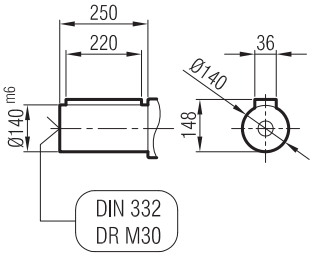
MA / MK 90_

...-SL





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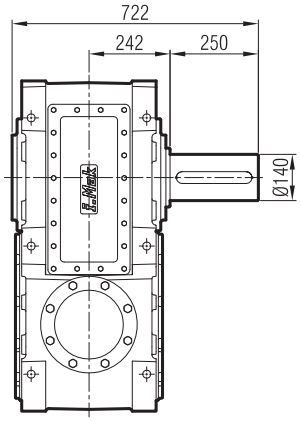

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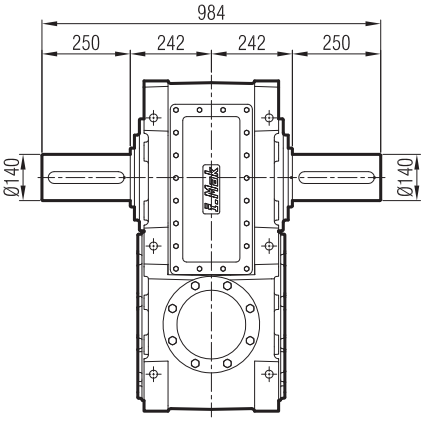

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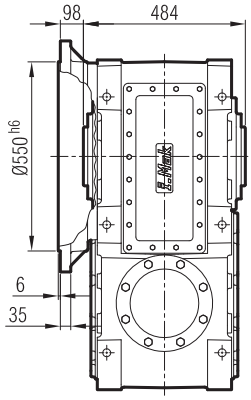

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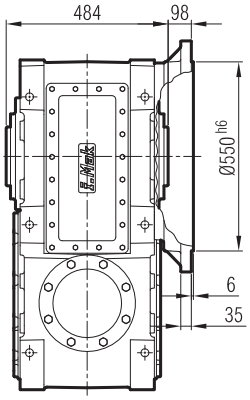

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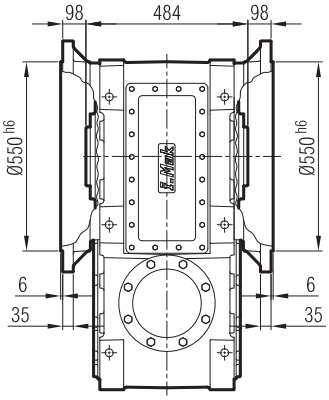

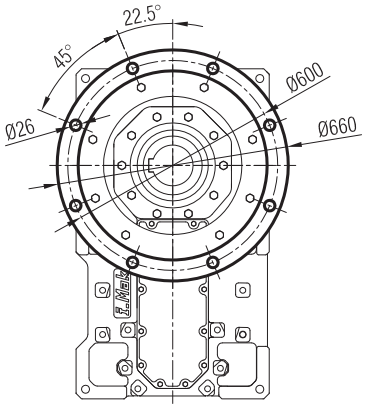

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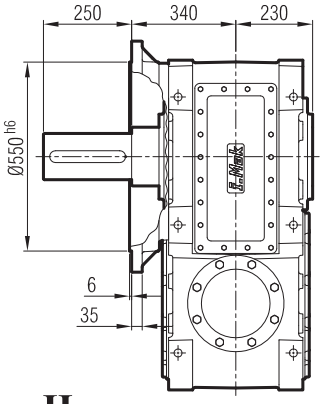

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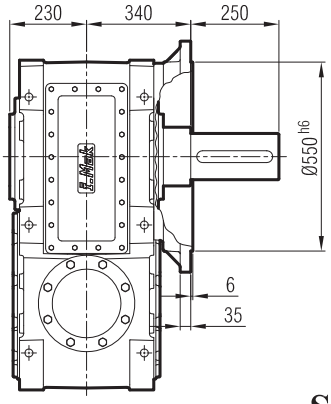

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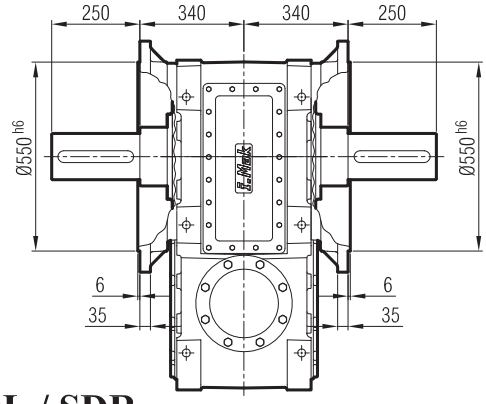

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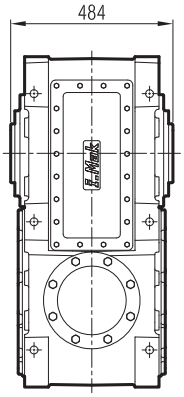

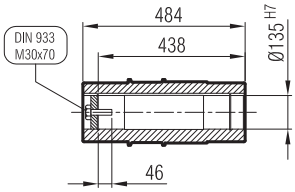

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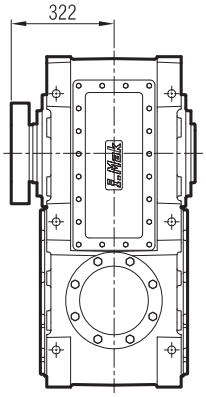
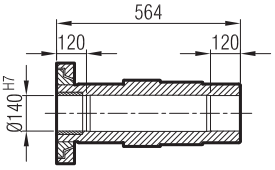
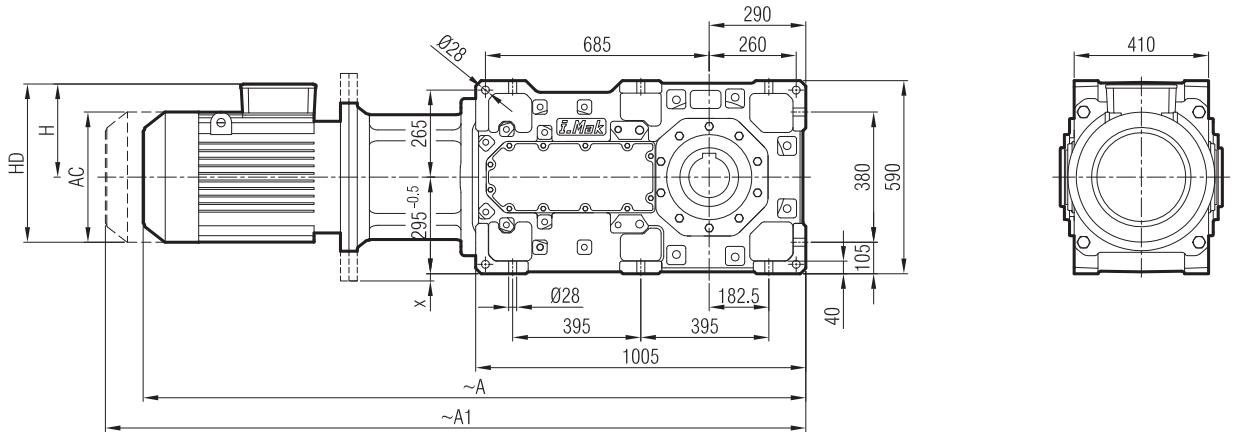
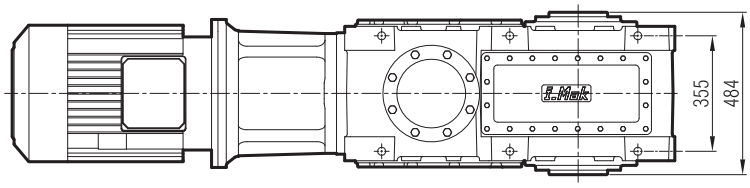
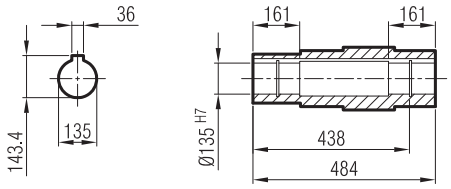




MKM 904-G09







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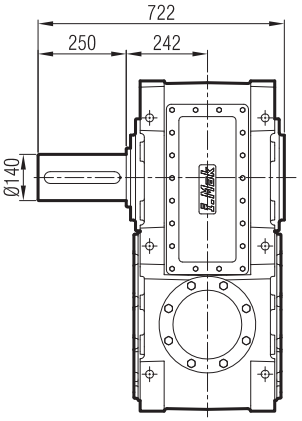
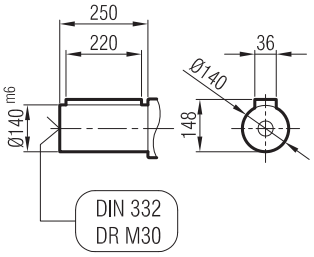
A	1672	1749	1790	1900	1945	2021	2021	2089	2108	2168
A1	1767	1853	1894	2017	2062	2157	2157	2236	2255	2315
H	170	193	193	240	240	260	260	300	313	313
HD	282	325	325	400	400	440	440	500	538	538
AC	220	262	262	315	315	357	357	394	456	456
x	-	-	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 90_

...-SL





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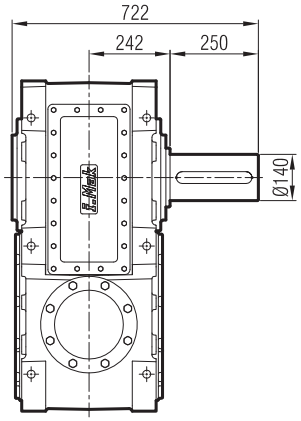

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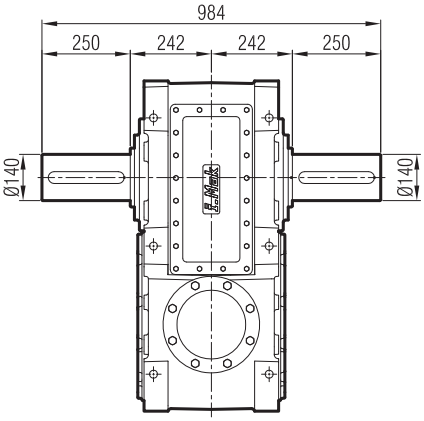

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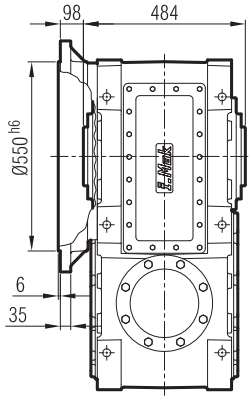

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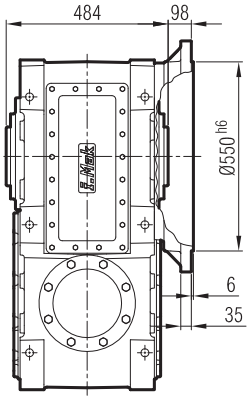

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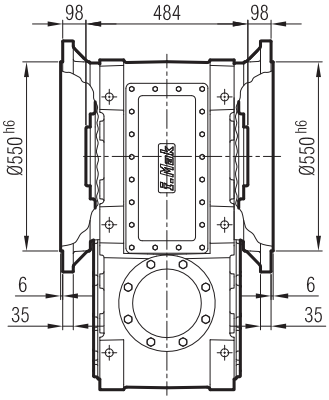

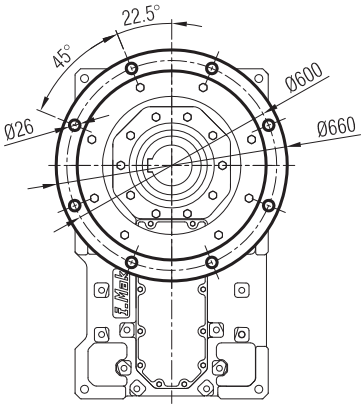

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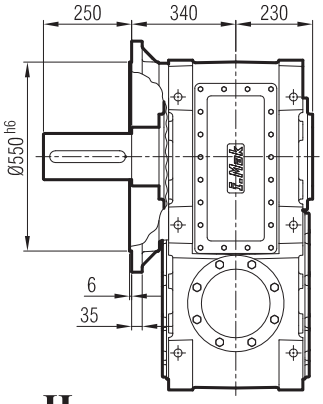

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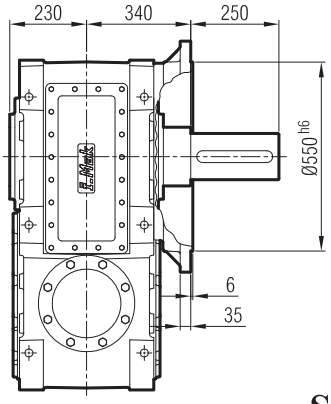

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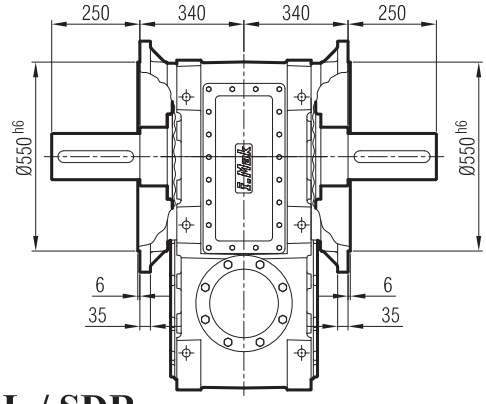

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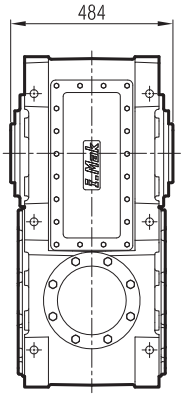

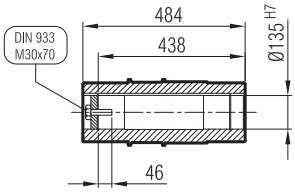

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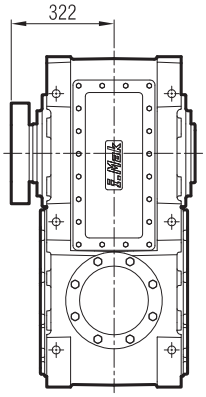

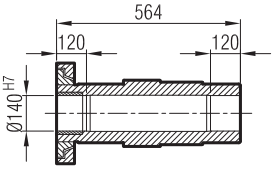

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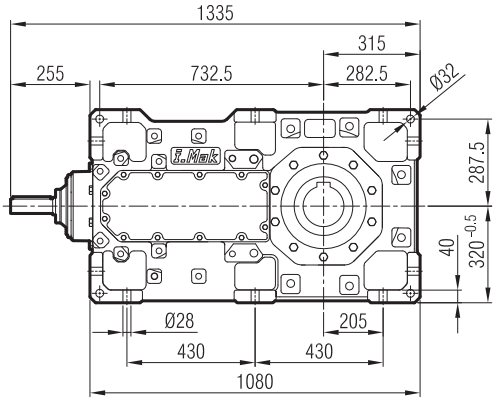
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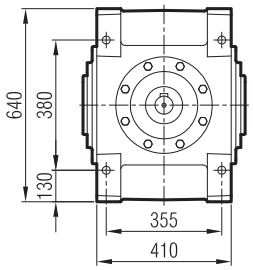
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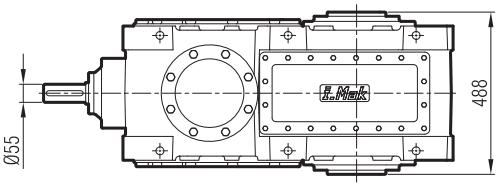
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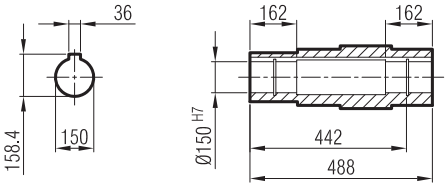
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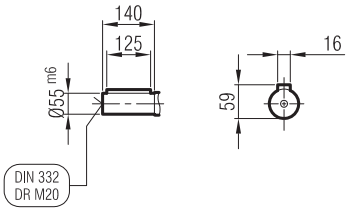
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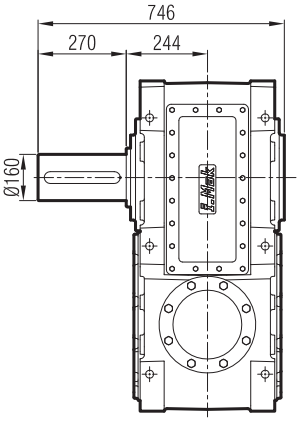

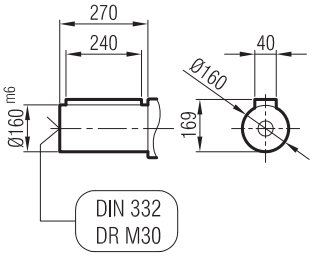

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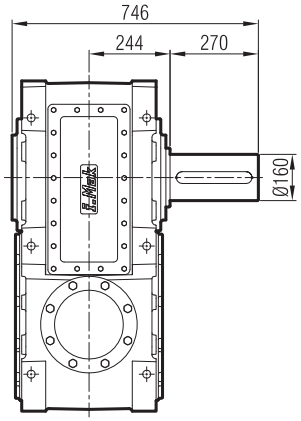

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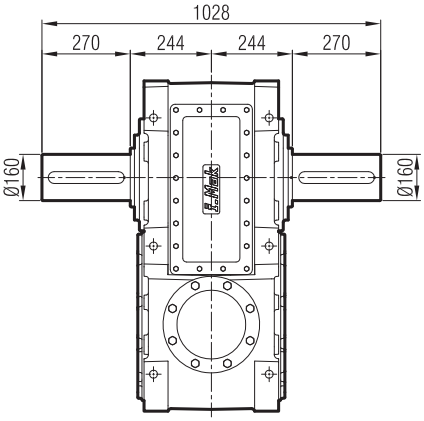

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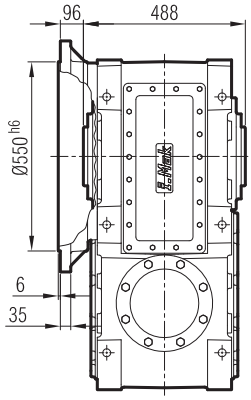

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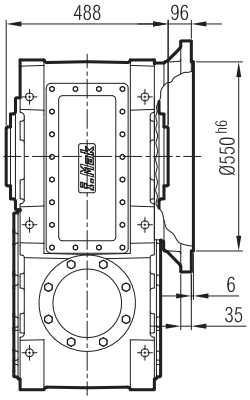

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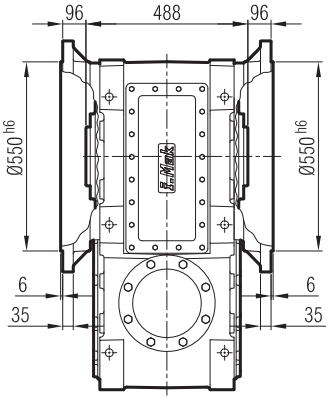

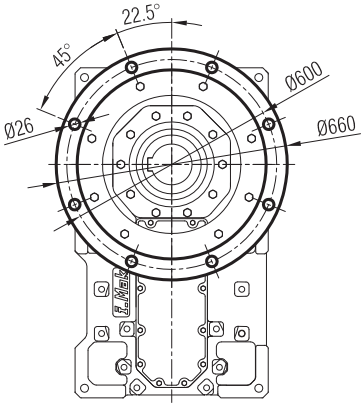

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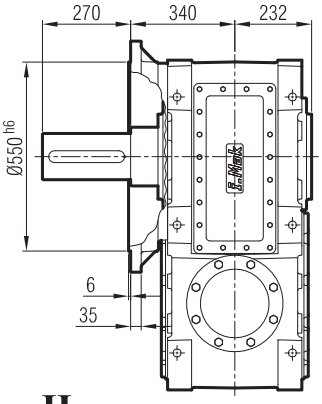

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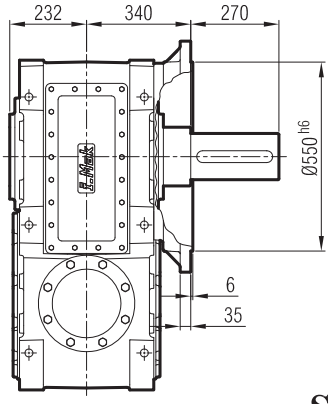

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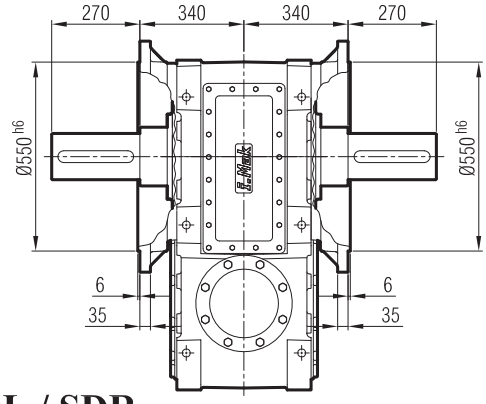

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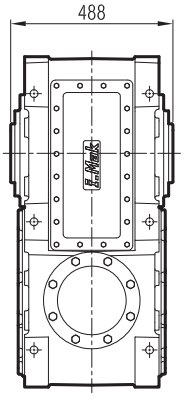

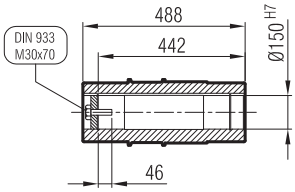

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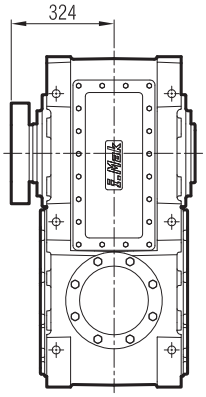

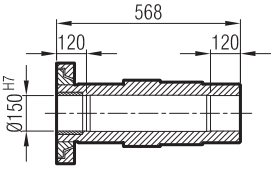

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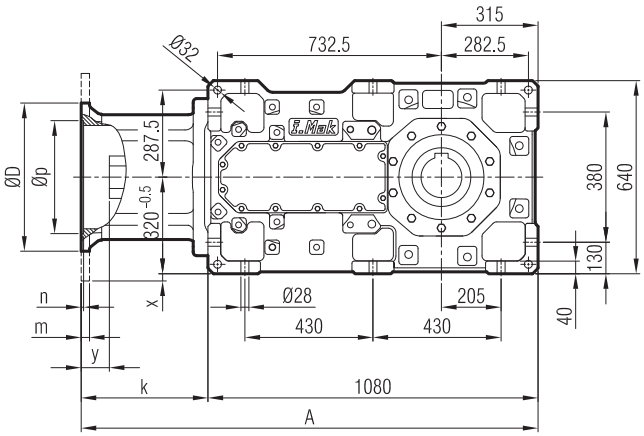

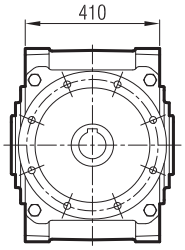

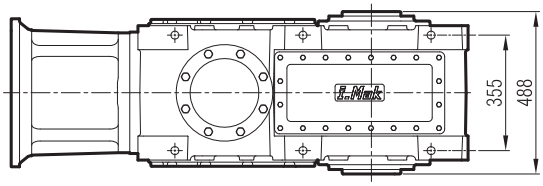

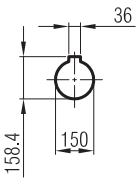

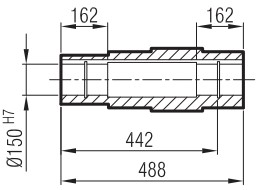

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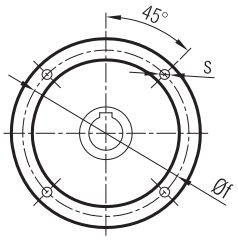

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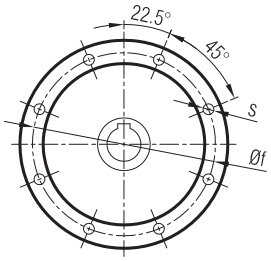

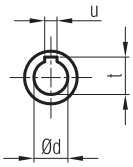

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200/B5	1450	300	350	400	M16	370	22	6	55	59.3	16	-	40
225/B5	1493	350	400	450	M16	413	22	6	60	64.4	18	-	75
250/B5	1493	450	500	550	M16	413	25	6.5	65	69.4	18	-	75
280/B5	1493	450	500	550	M16	413	25	6.5	75	75.9	20	-	65
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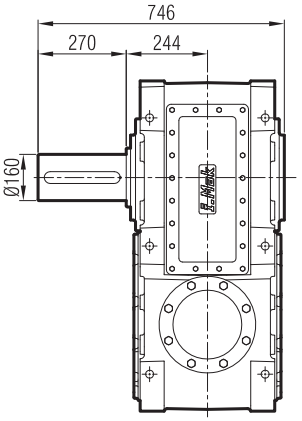
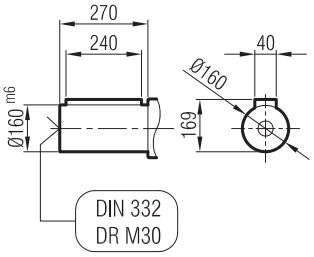
MA / MK 100_

...-SL





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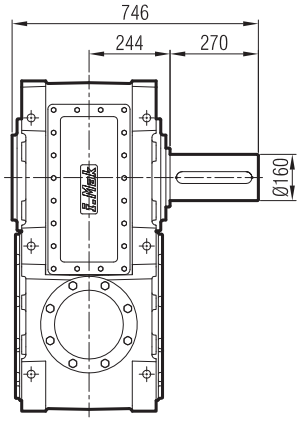

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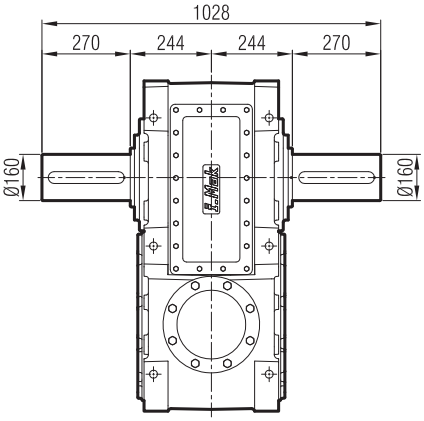

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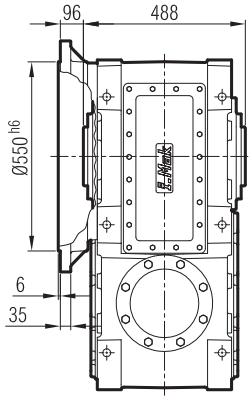

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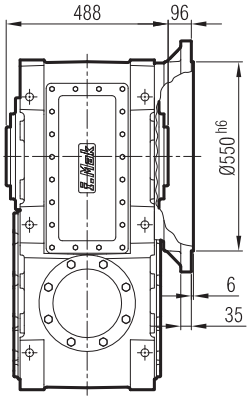

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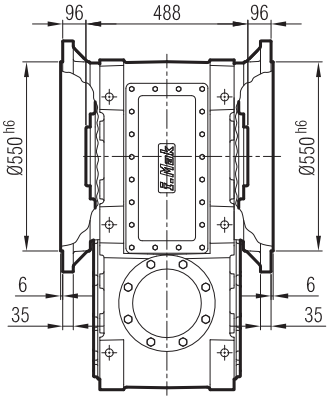

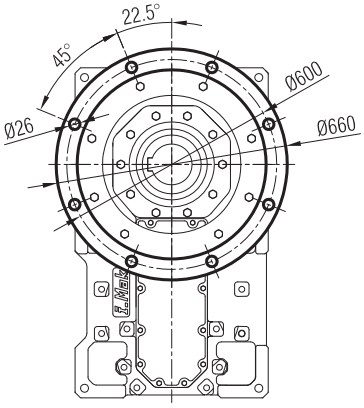

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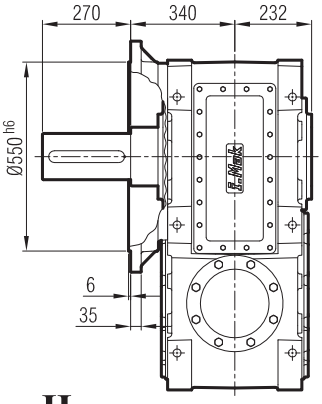

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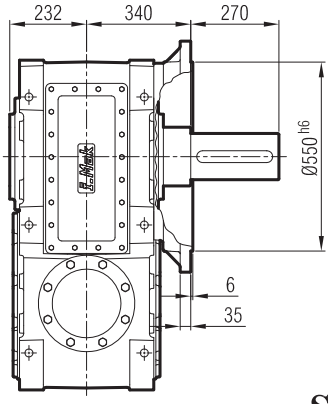

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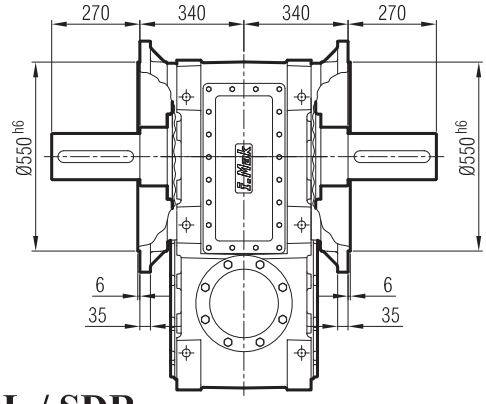

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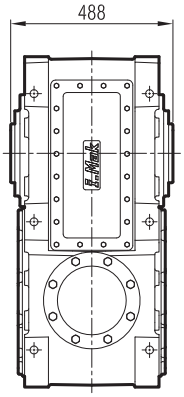

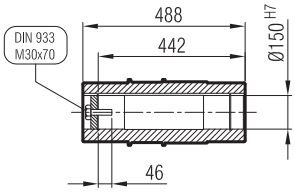

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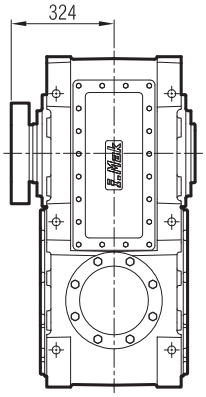
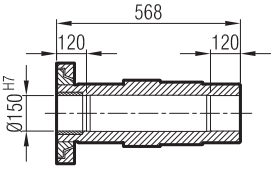
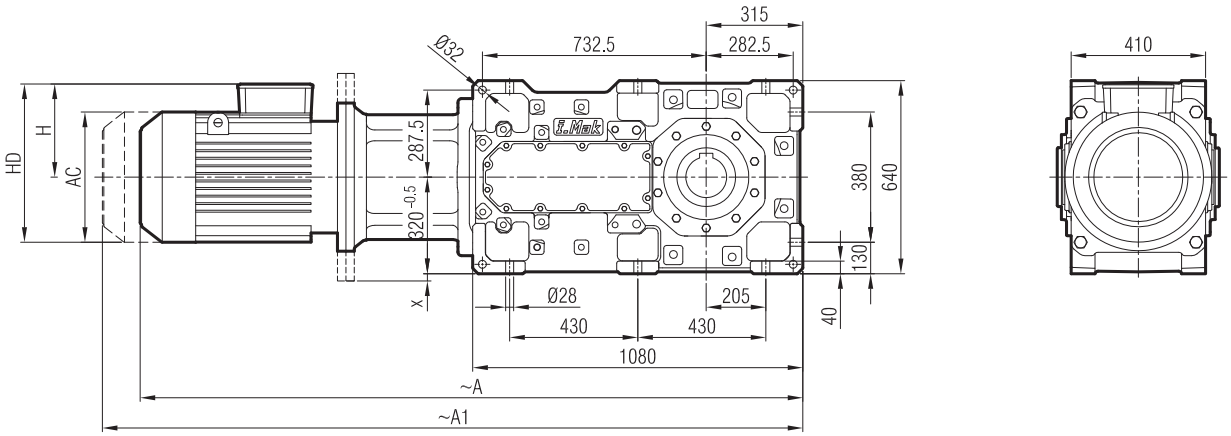
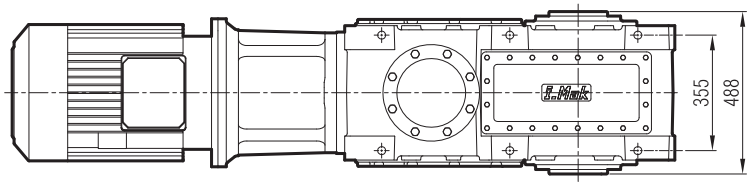
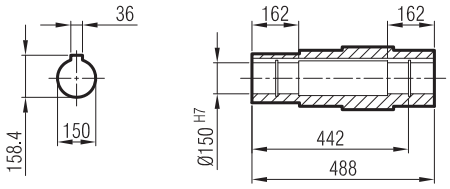




MKM 1003-G09







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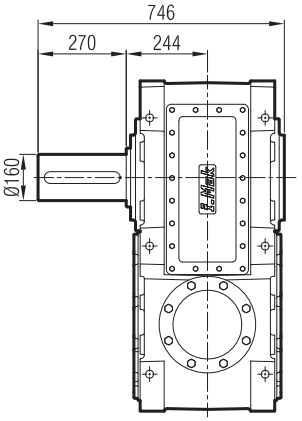
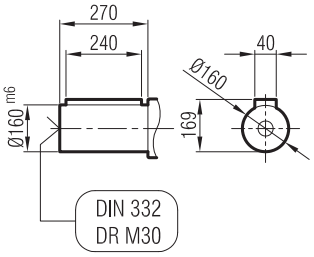
A1	2227	2306	2325	2385	2435	2626	2626	2807	2807
H	260	300	313	313	366	398	398	518	518
HD	440	500	538	538	618	678	678	833	833
AC	357	394	456	456	489	548	548	652	652
x	-	-	-	-	-	-	-	10	10

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 100_

...-SL





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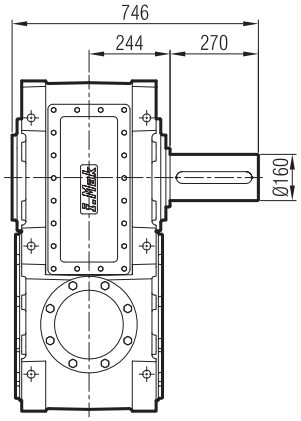

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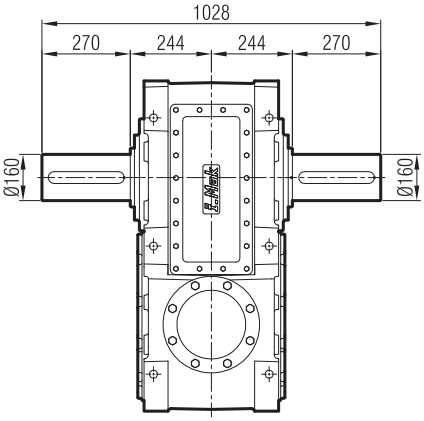

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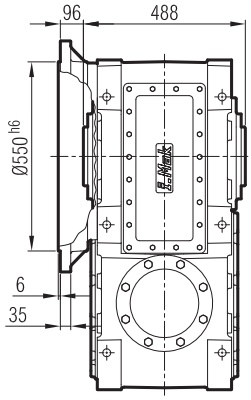

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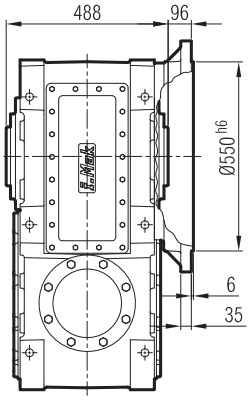

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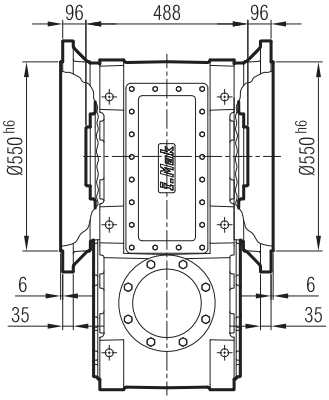

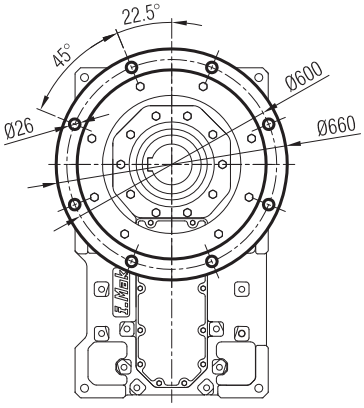

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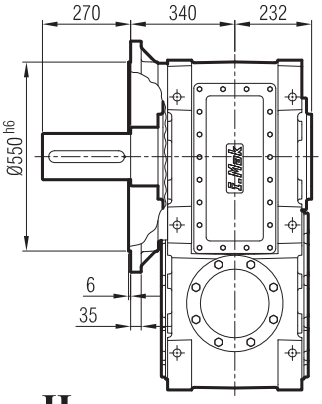

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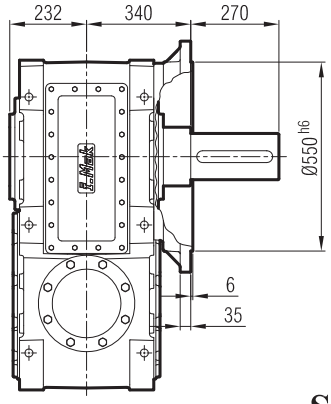

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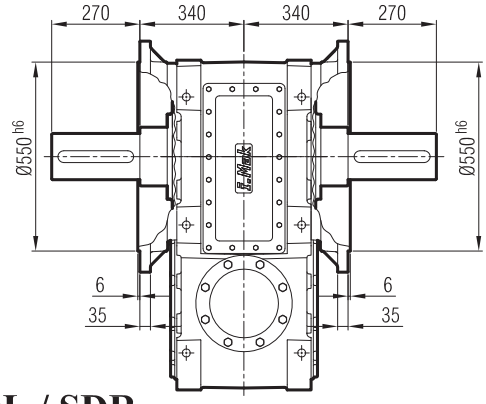

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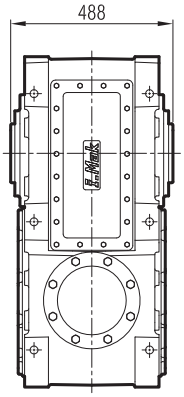

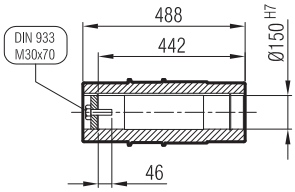

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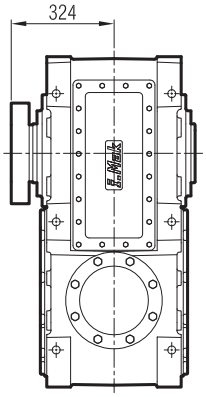

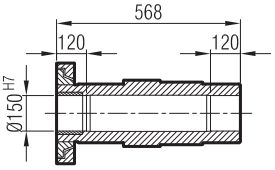

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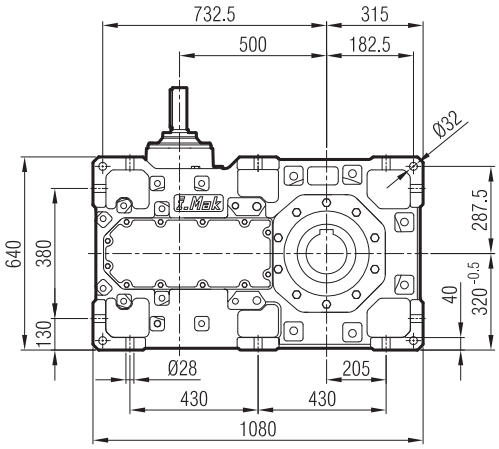
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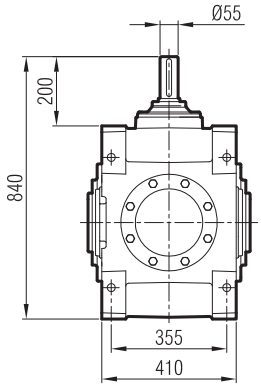
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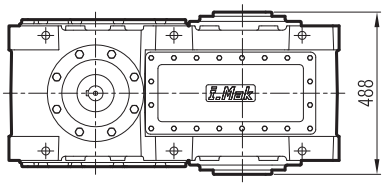
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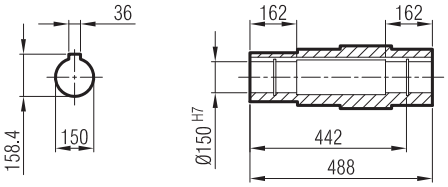
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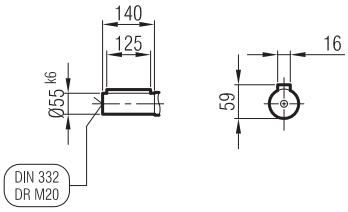
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MA / MK 100_

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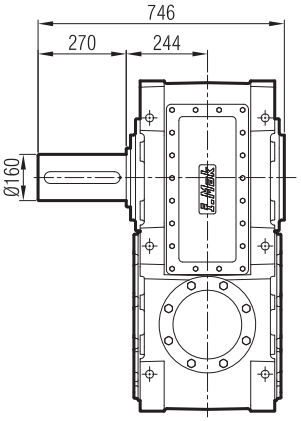

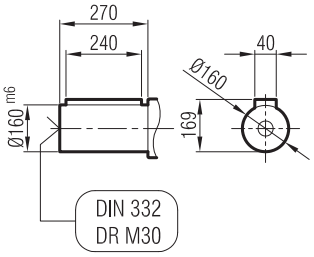

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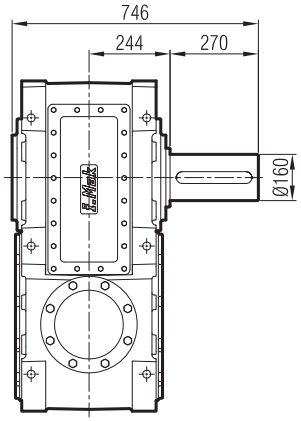

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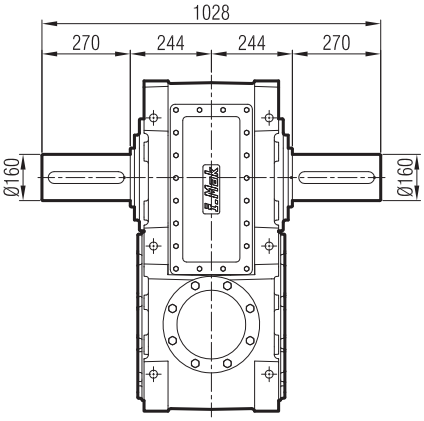

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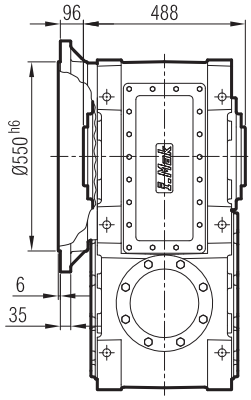

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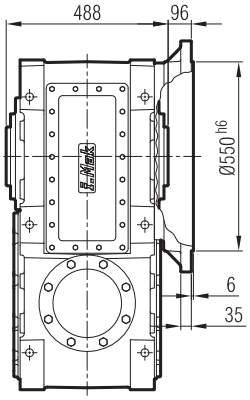

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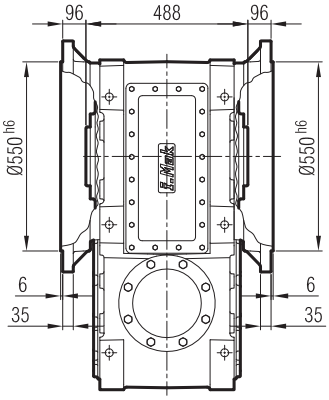

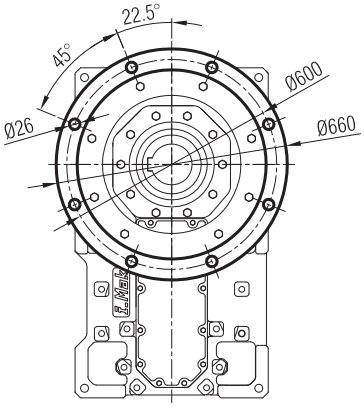

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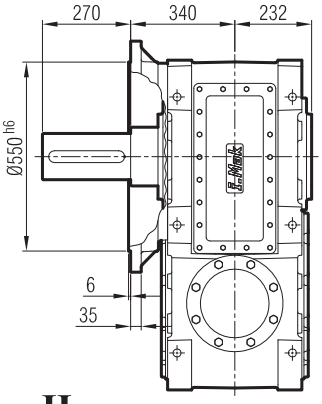

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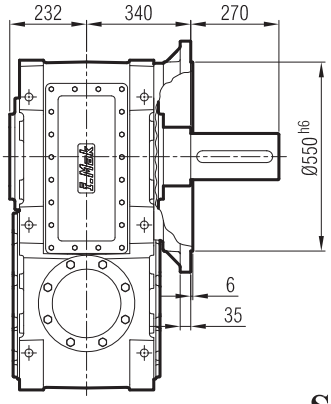

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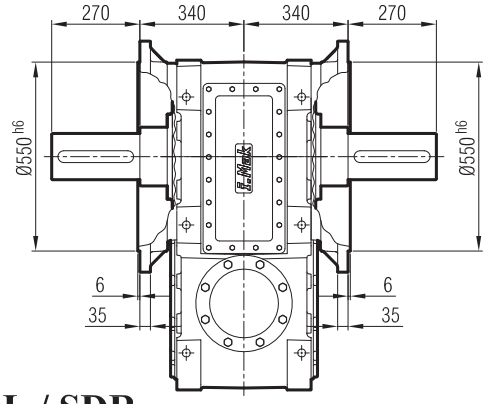

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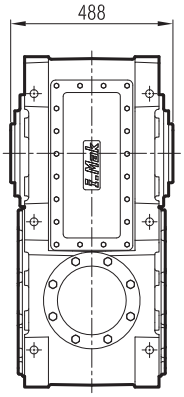

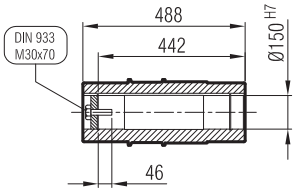

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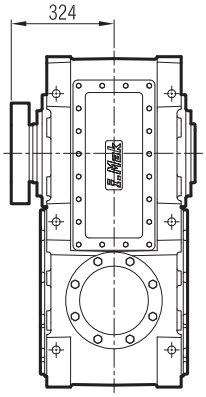

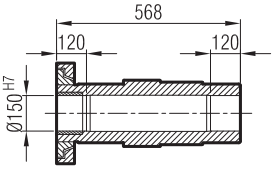

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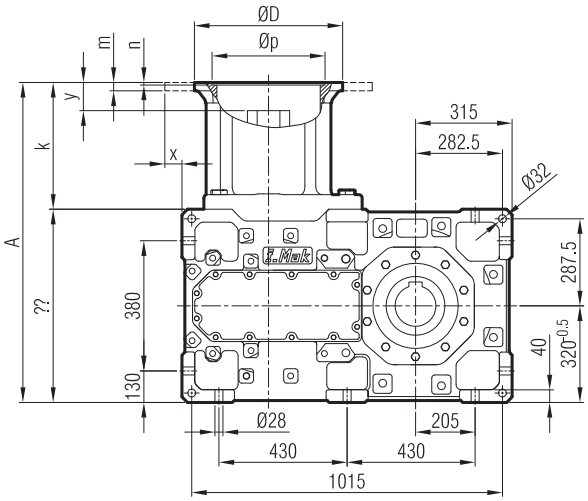

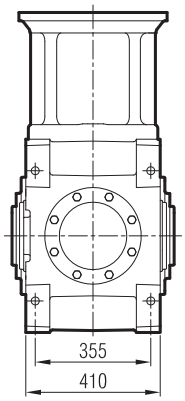

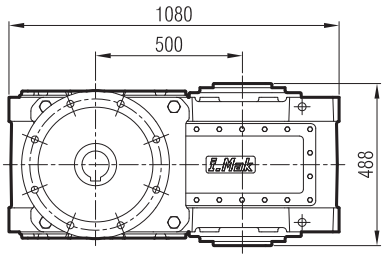

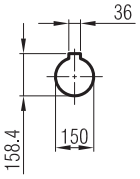

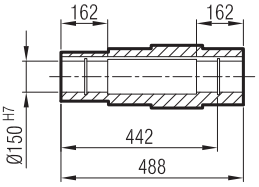

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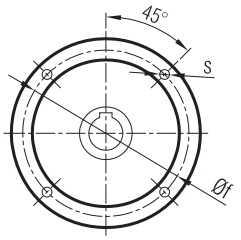

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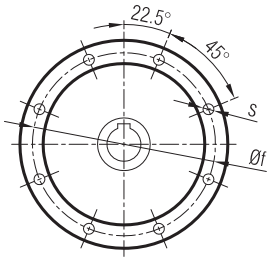

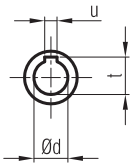

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200/B5	955	300	350	400	M16	358	22	6	55	59.3	16	-	38
225/B5	998	350	400	450	M16	358	22	6	60	64.4	18	-	75
250/B5	998	450	500	550	M16	358	25	6.5	65	69.4	18	10	75
280/B5	998	450	500	550	M16	358	25	6.5	75	75.9	20	10	65
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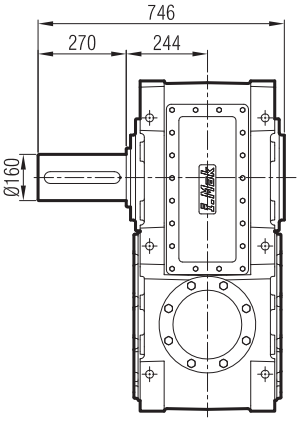
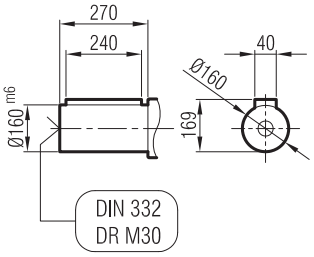
MA / MK 100_

...-SL





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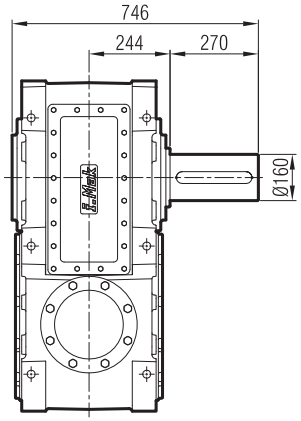

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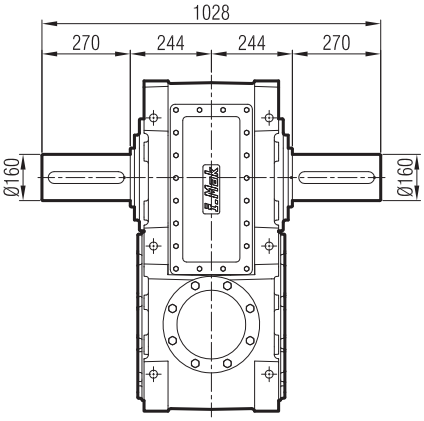

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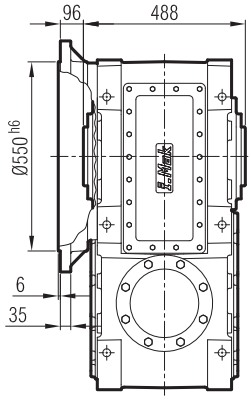

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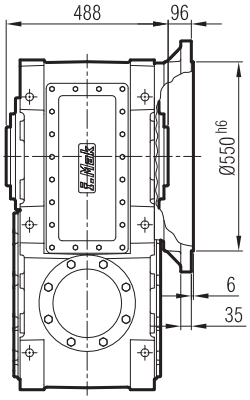

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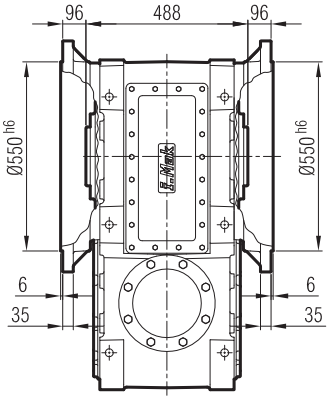

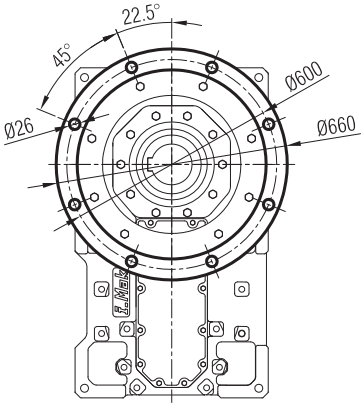

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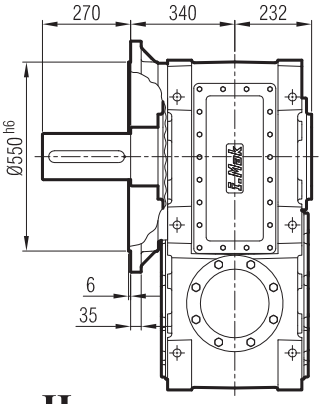

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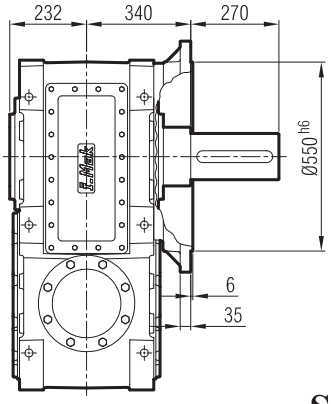

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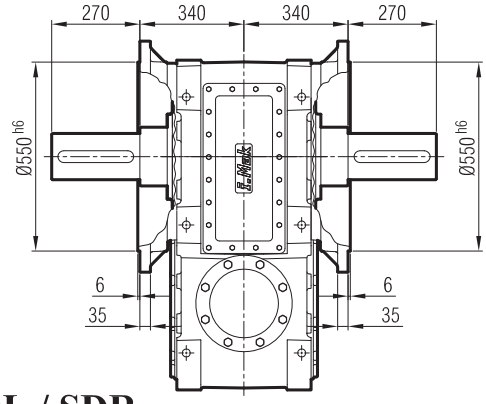

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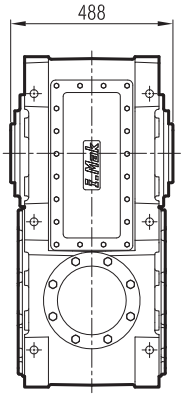

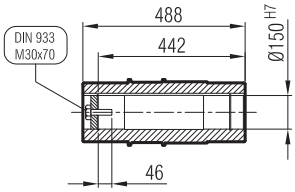

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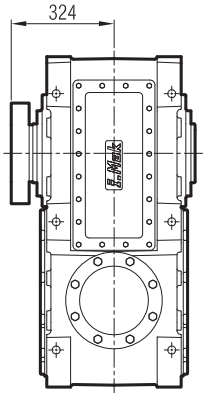

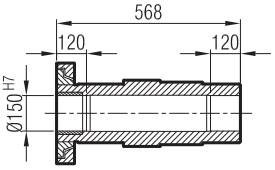

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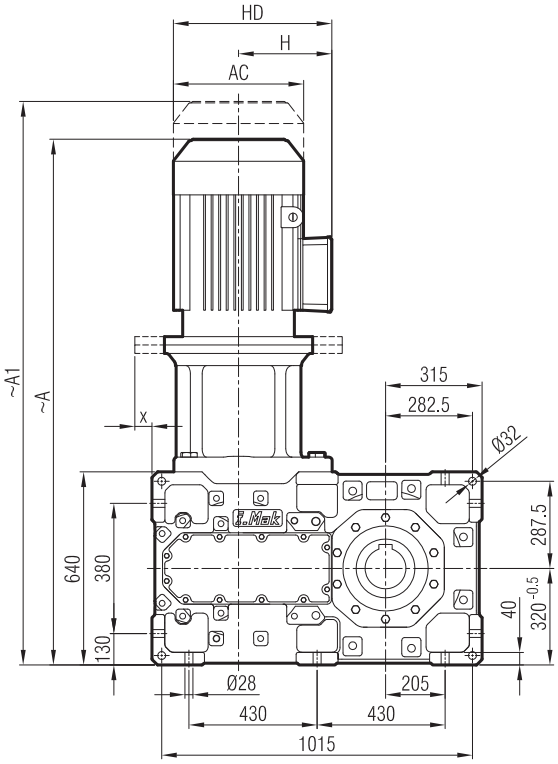

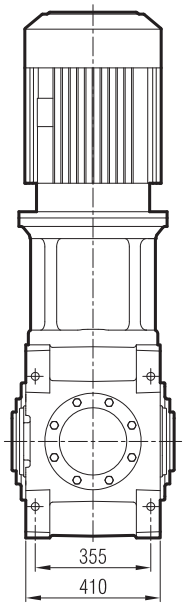

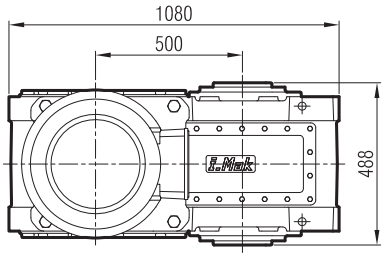

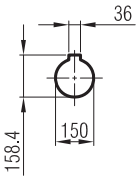

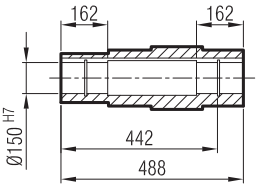

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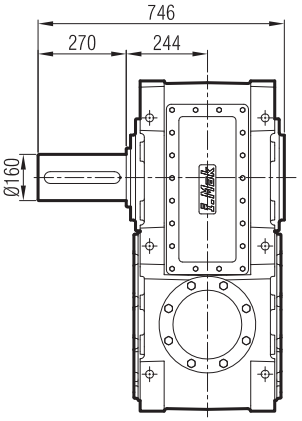
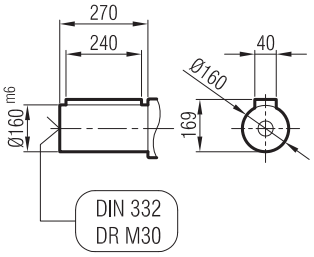
A1	1732	1811	1830	1890	1940	2131	2131	2312	2312
H	260	300	313	313	366	398	398	518	518
HD	440	500	538	538	618	678	678	833	833
AC	357	394	456	456	489	548	548	652	652
x	-	-	-	-	10	10	10	65	65

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 100_

...-SL





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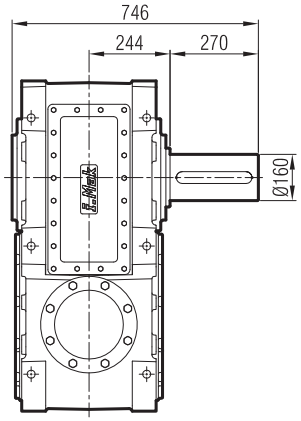

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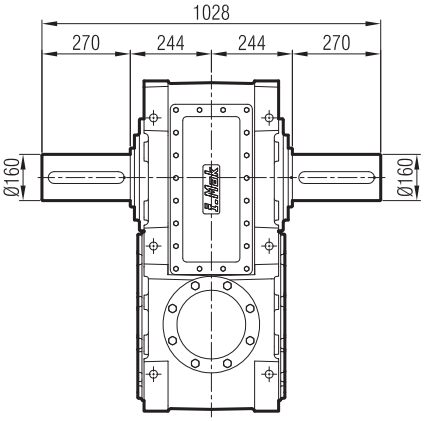

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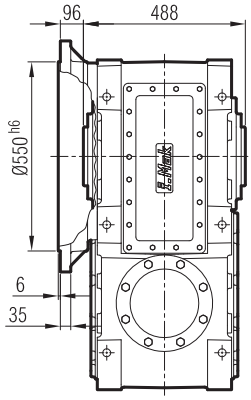

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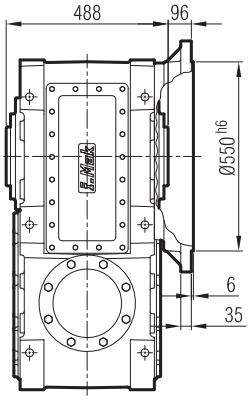

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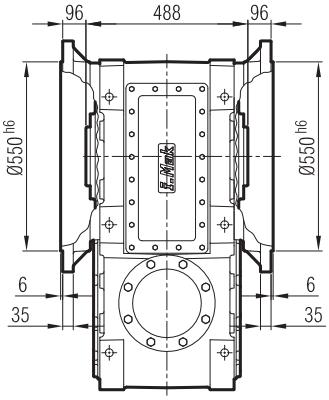

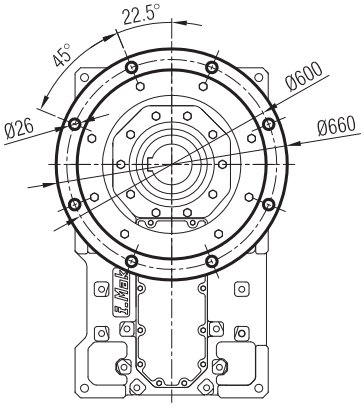

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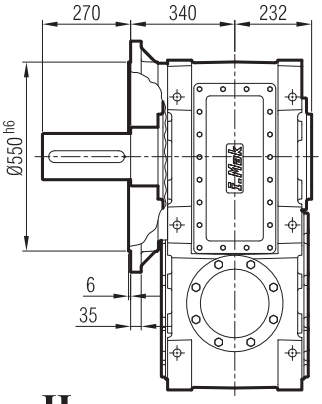

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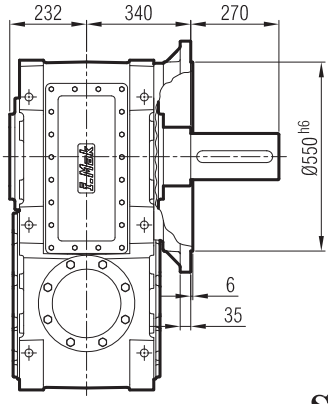

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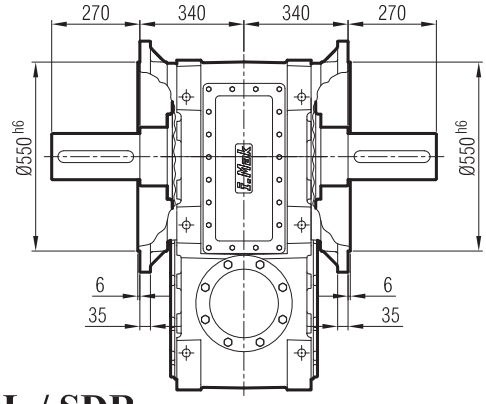

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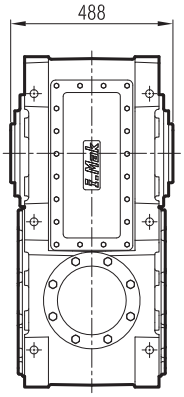

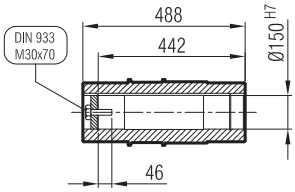

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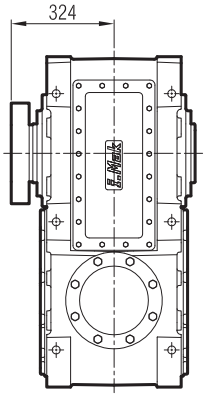

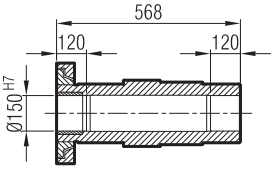

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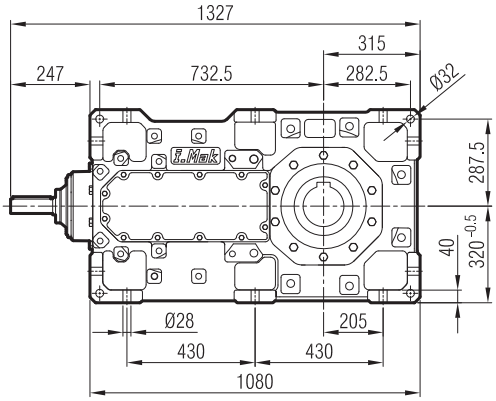
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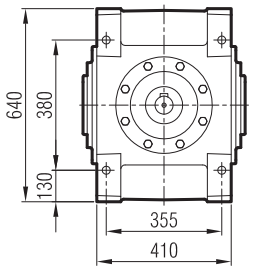
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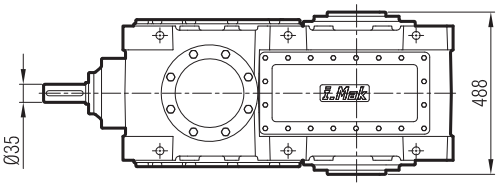
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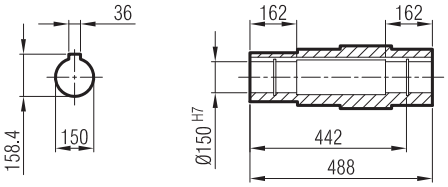
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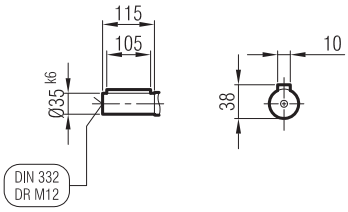
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MA / MK 100_

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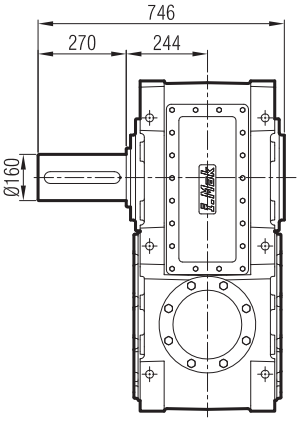

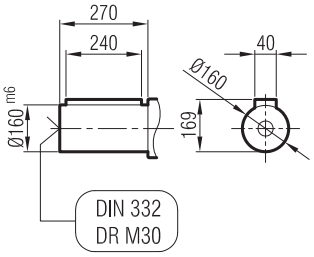

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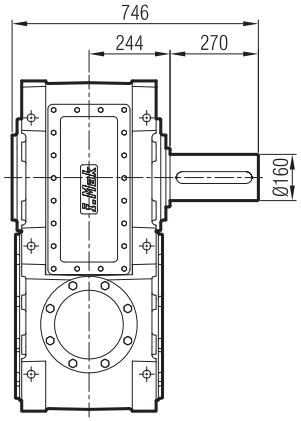

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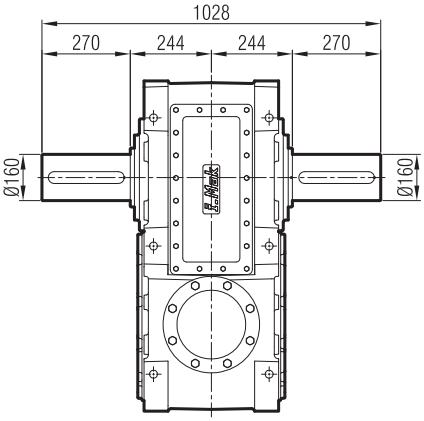

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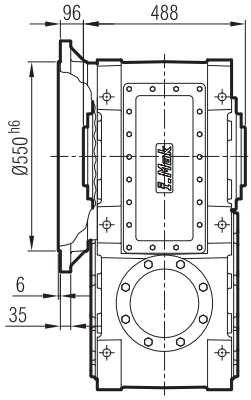

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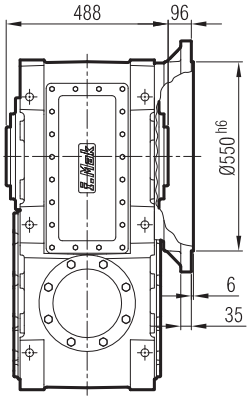

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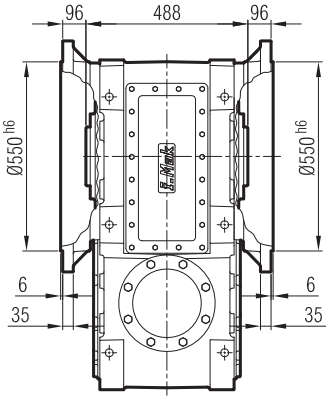

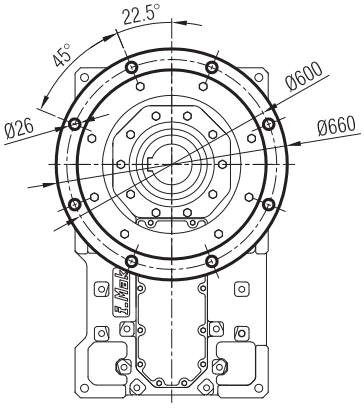

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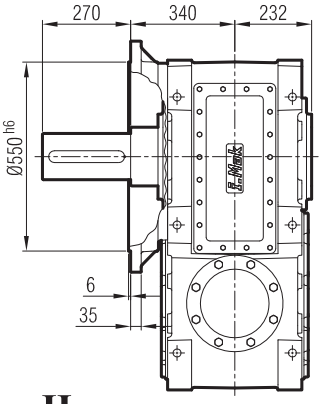

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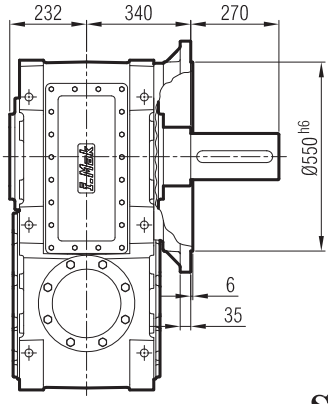

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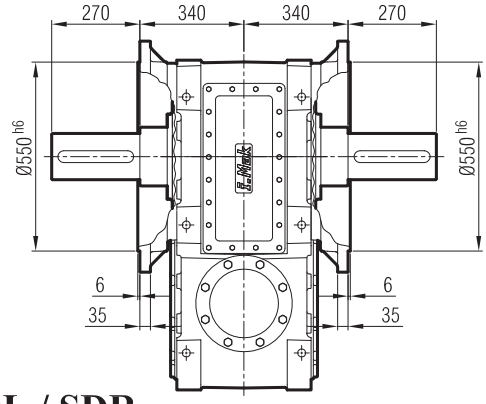

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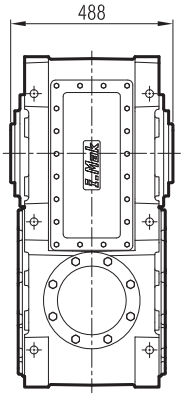

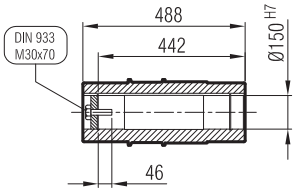

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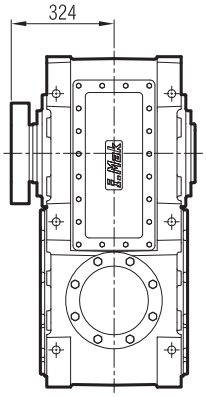

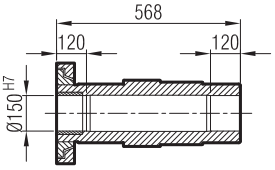

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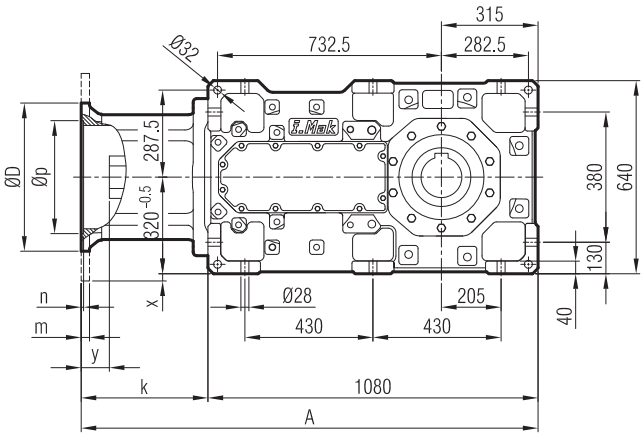

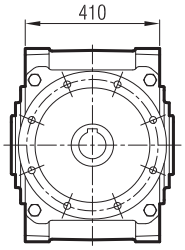

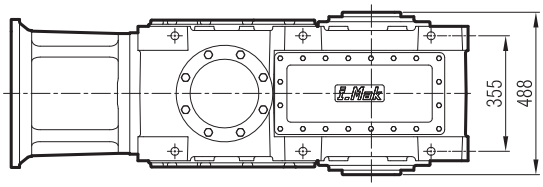

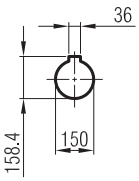

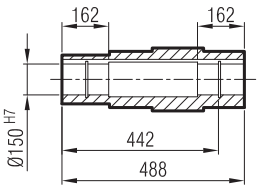

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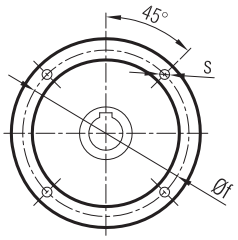

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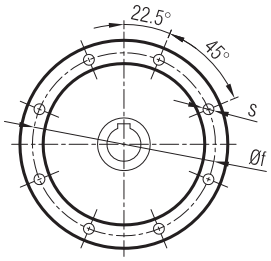

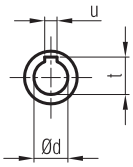

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160/B5	1450	250	300	350	M14	370	20	6	42	45.3	12	-	60
180/B5	1450	250	300	350	M14	370	20	6	48	51.8	14	-	60
200/B5	1450	300	350	400	M16	370	22	6	55	59.3	16	-	60
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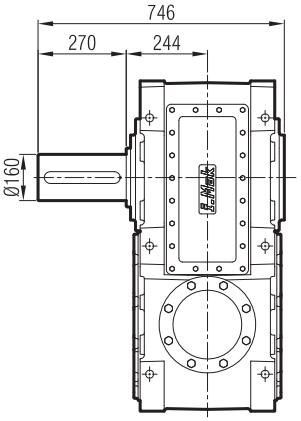
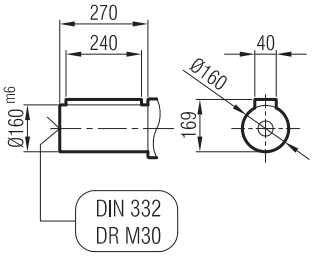
MA / MK 100_

...-SL





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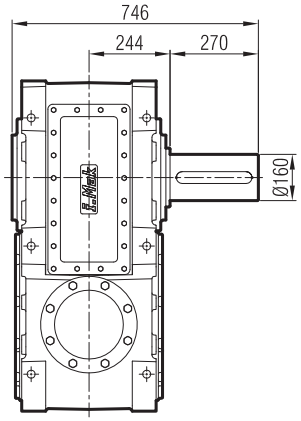

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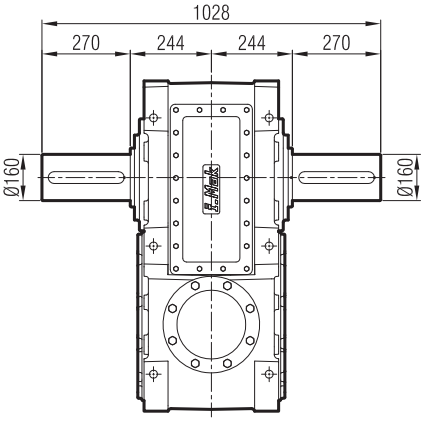

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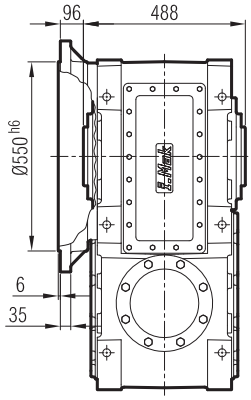

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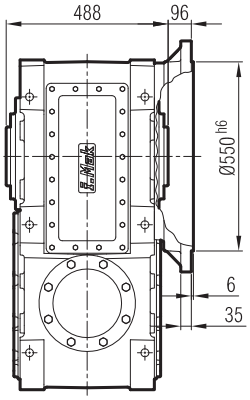

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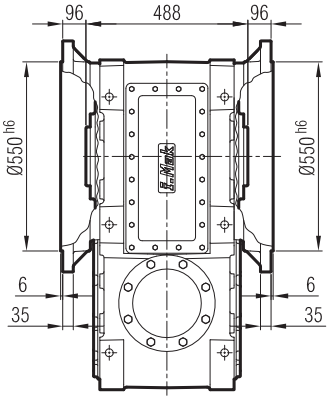

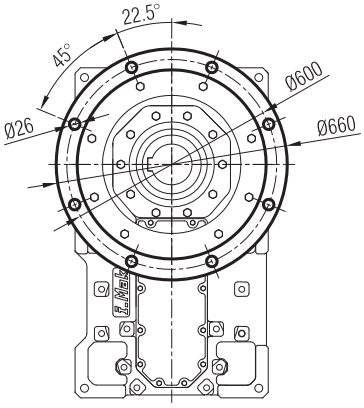

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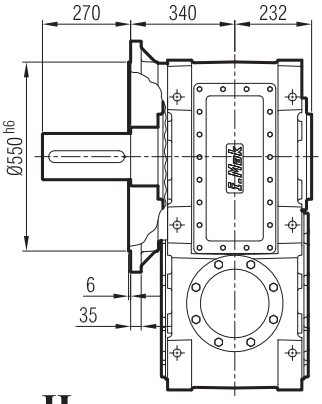

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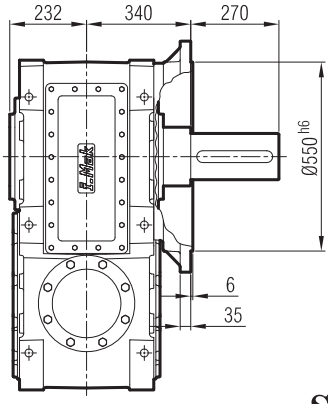

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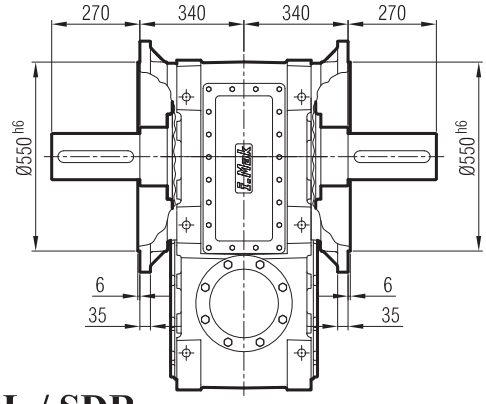

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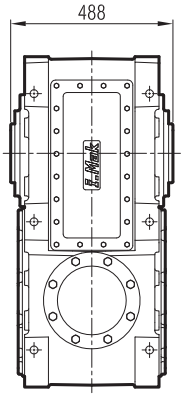

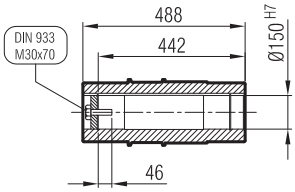

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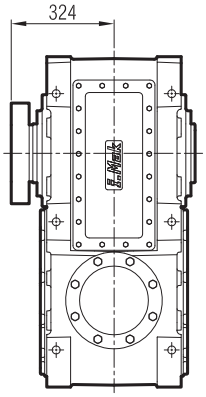

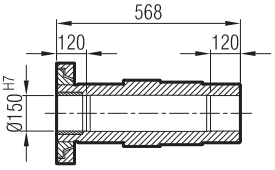

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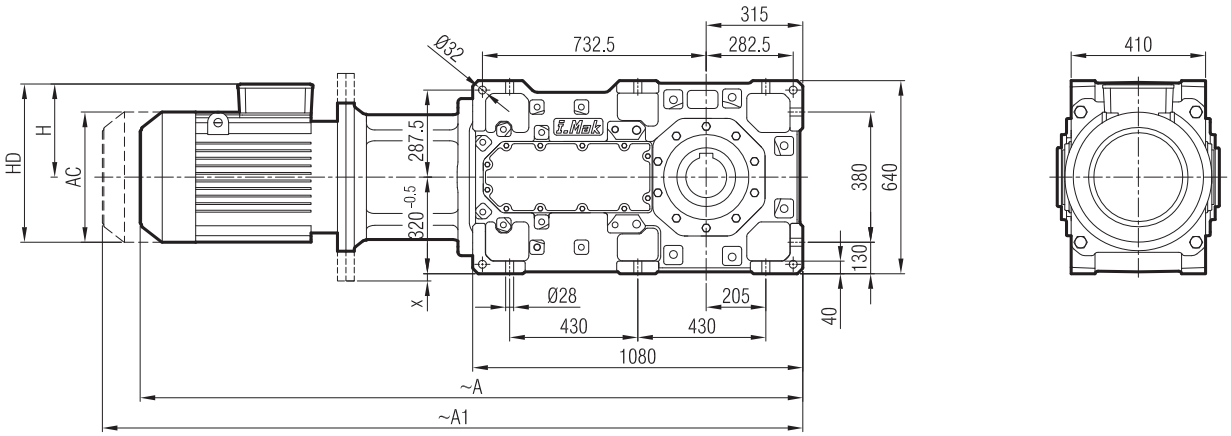

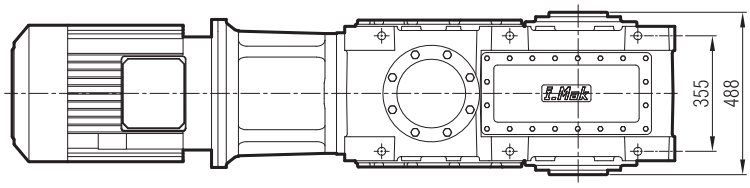

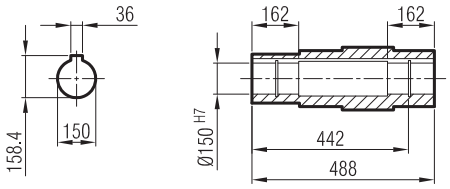

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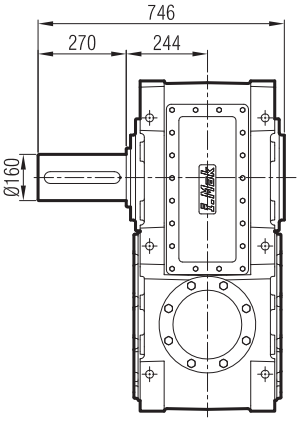
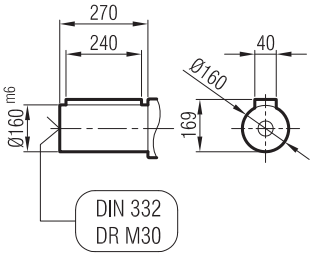
A	1742	1819	1860	1970	2015	2091	2091	2159	2178	2238
A1	1837	1323	1964	2087	2132	2227	2227	2306	2325	2385
H	170	193	193	240	240	260	260	300	313	313
HD	282	325	325	400	400	440	440	500	538	538
AC	220	262	262	315	315	357	357	394	456	456
x		-	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 100_

...-SL





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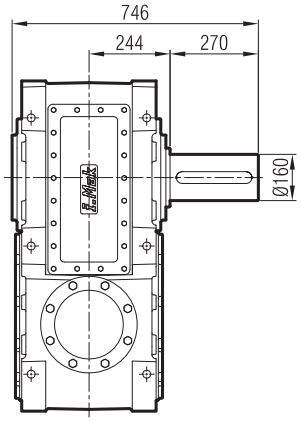

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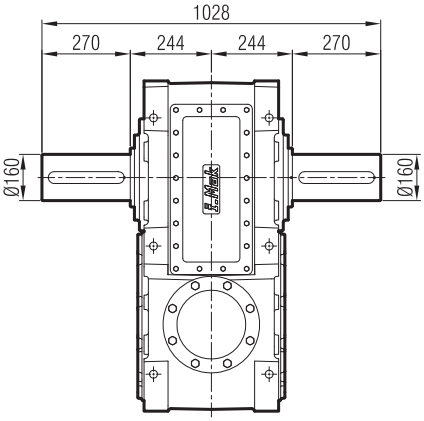

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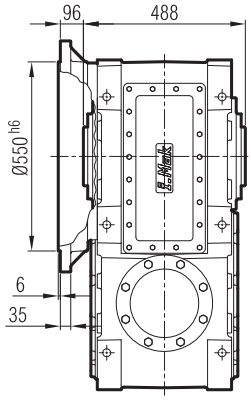

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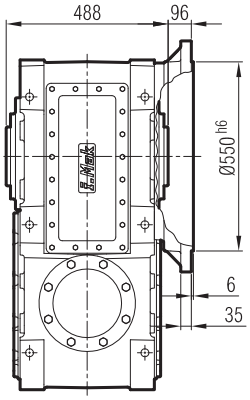

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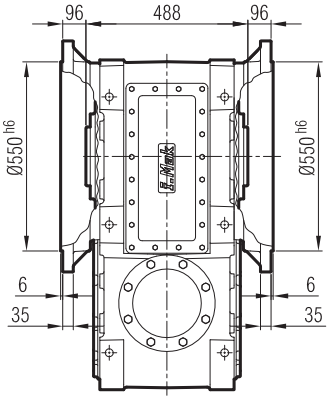

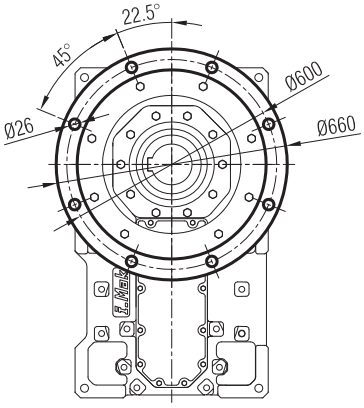

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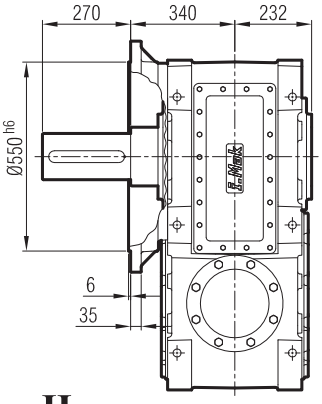

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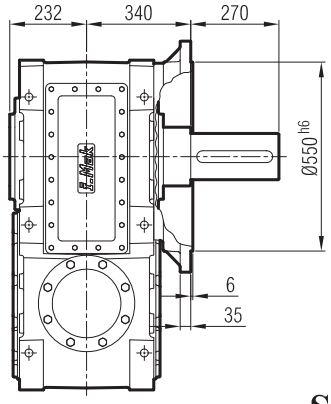

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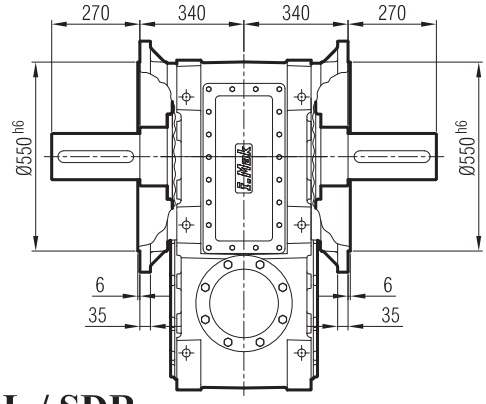

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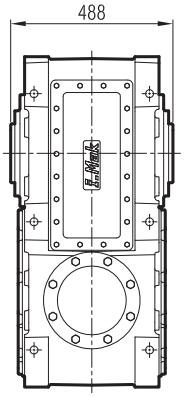

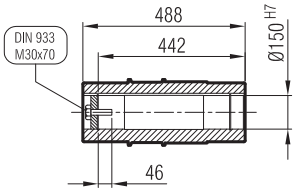

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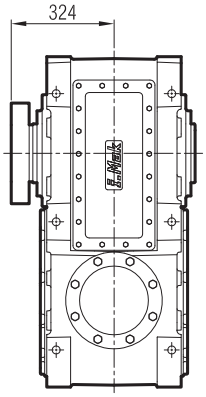

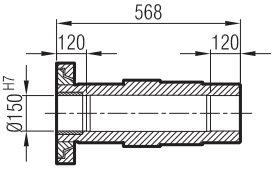

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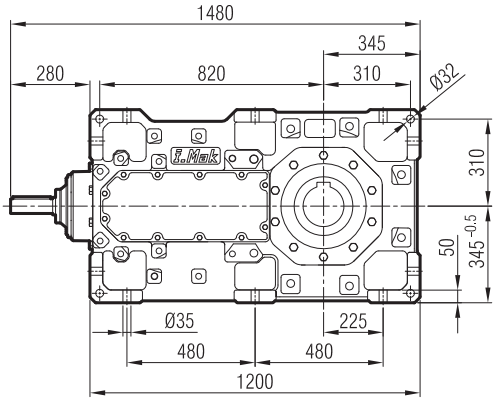
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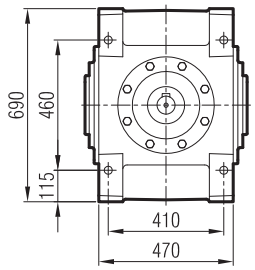
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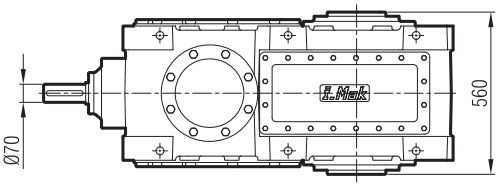
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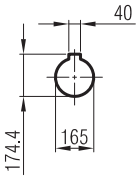
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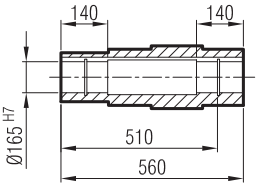
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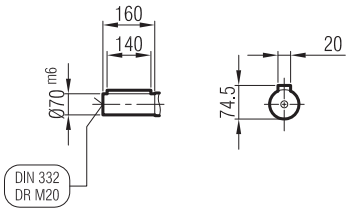
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MA / MK 110_

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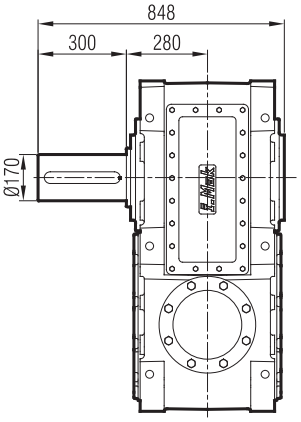

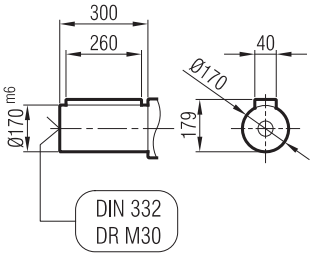

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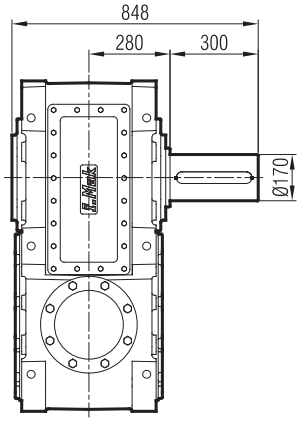

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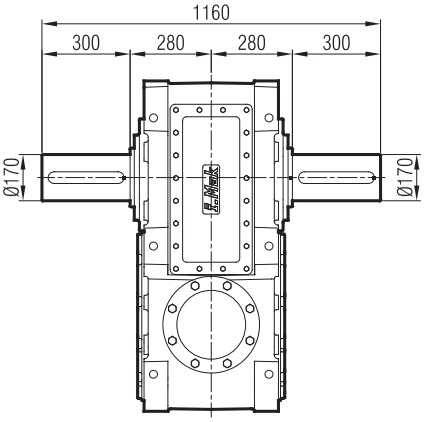

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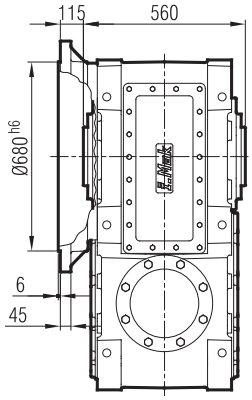

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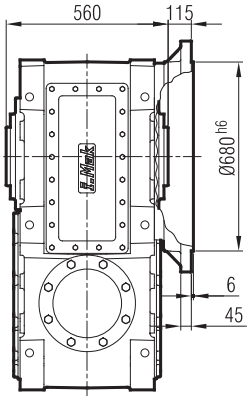

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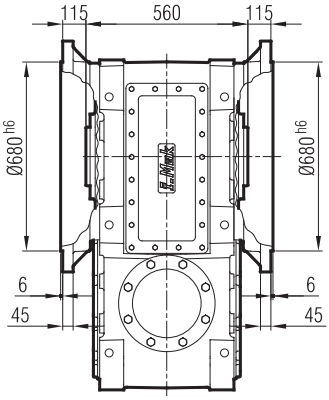

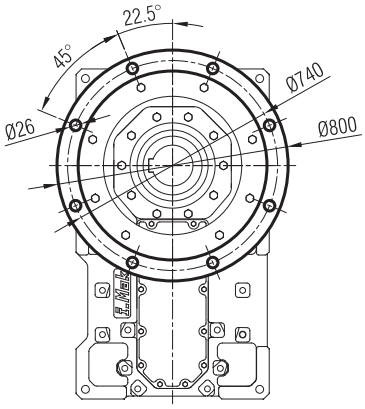

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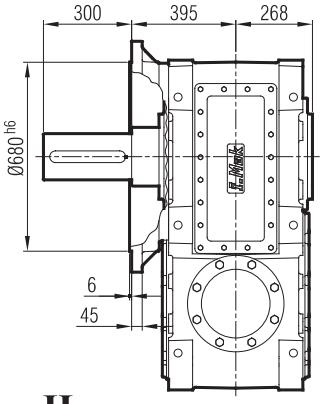

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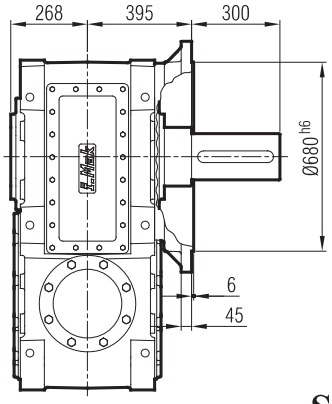

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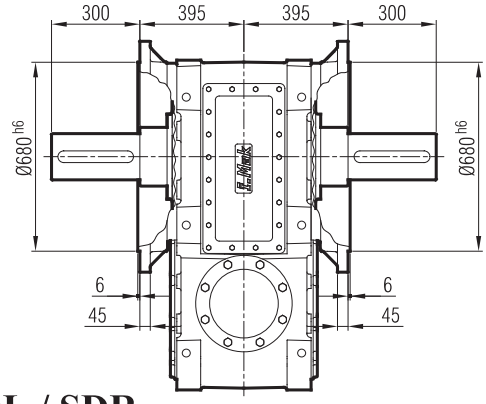

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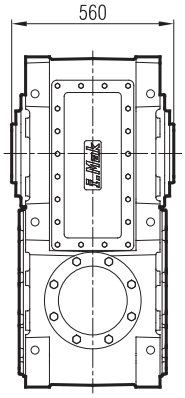

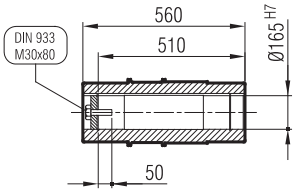

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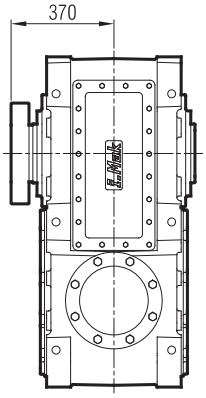

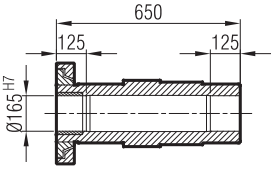

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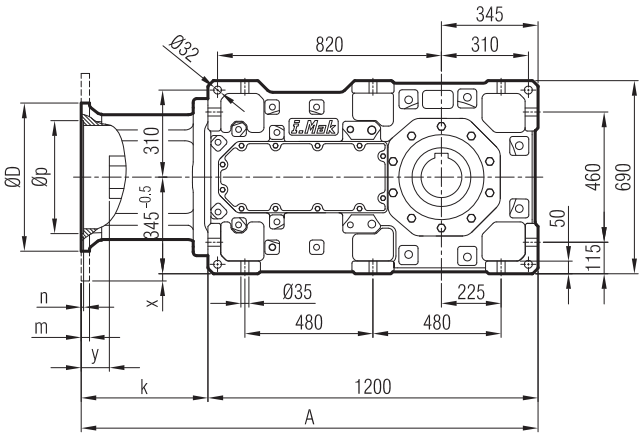

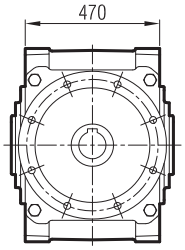

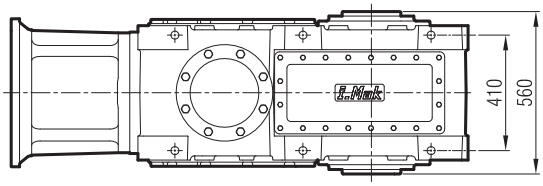

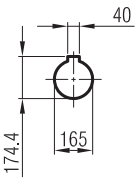

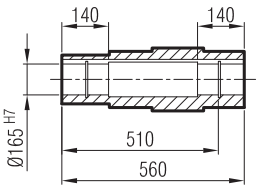

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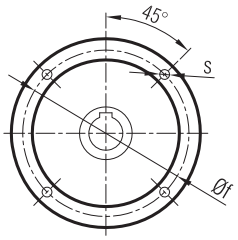

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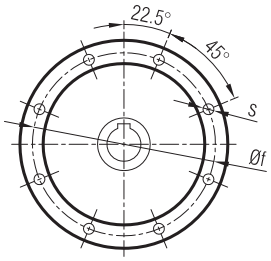

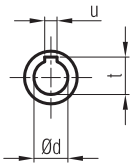

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225/B5	1640	350	400	450	M16	440	22	6	60	64.4	18	-	57
250/B5	1640	450	500	550	M16	440	25	6.5	65	69.4	18	-	52
280/B5	1640	450	500	550	M16	440	25	6.5	75	75.9	20	-	45
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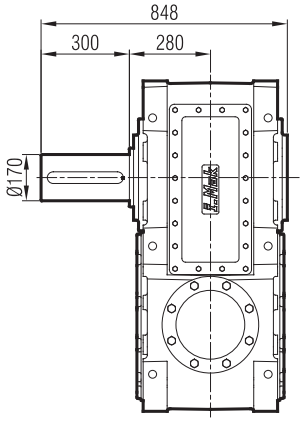
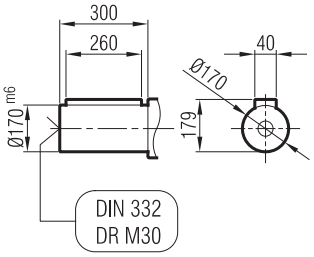
MA / MK 110_

...-SL





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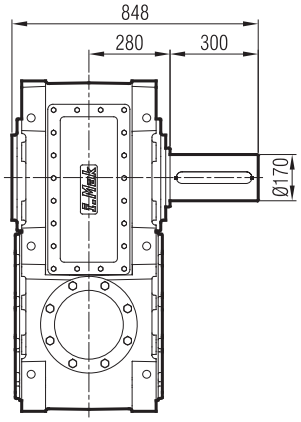

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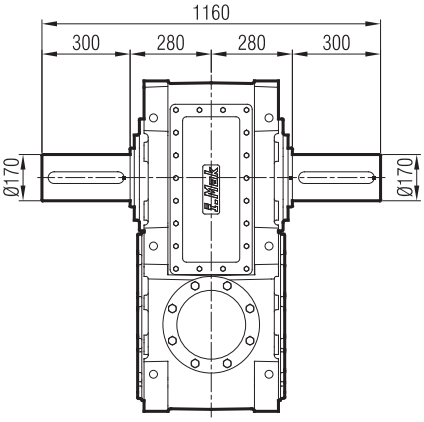

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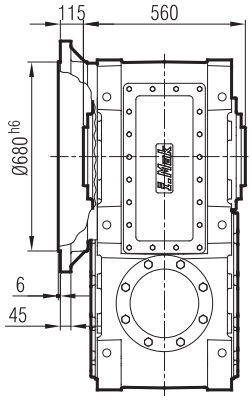

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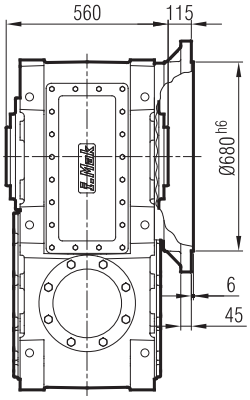

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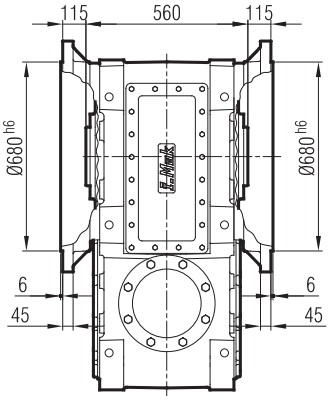

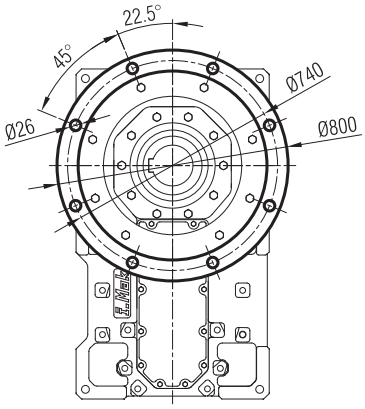

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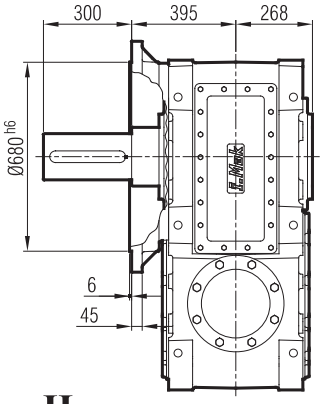

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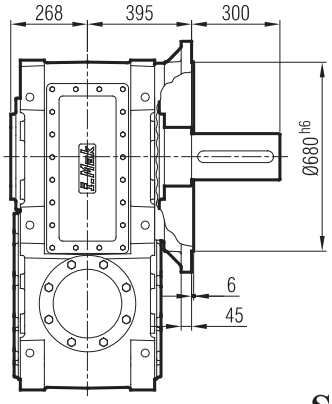

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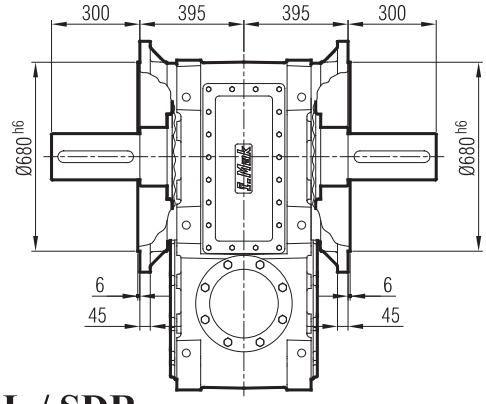

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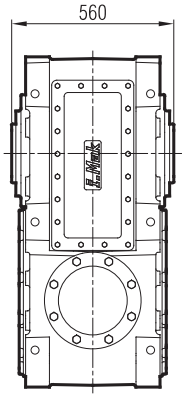

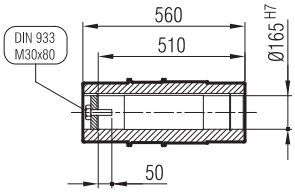

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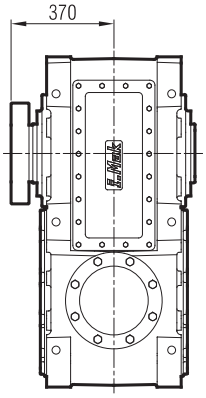
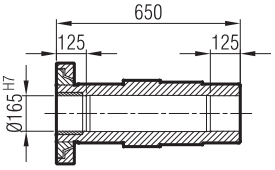
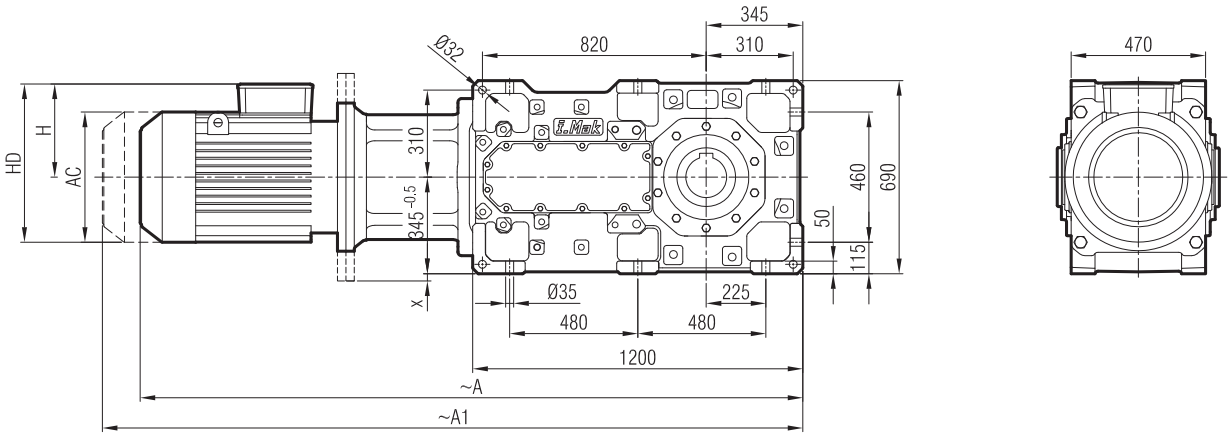
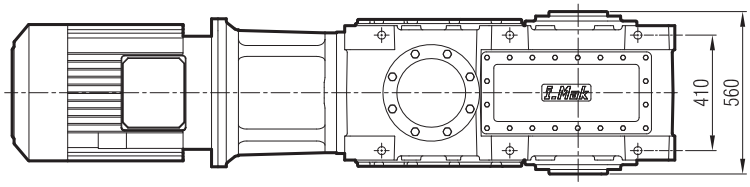
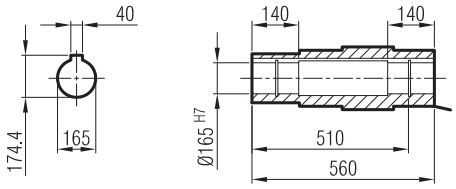




MKM 1103-G09







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A	2306	2325	2385	2435	2525	2525	2706	2706	2817	2817	2817
A1	2453	2472	2532	2582	2773	2773	2954	2954	3075	3075	3075
H	300	313	313	366	398	398	518	518	518	518	518
HD	500	538	538	616	678	678	833	833	833	833	833
AC	394	456	456	489	547.5	547.5	652	652	652	652	652
x	-	-	-	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

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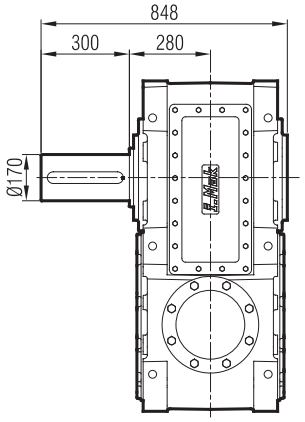

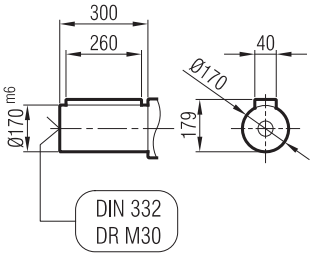

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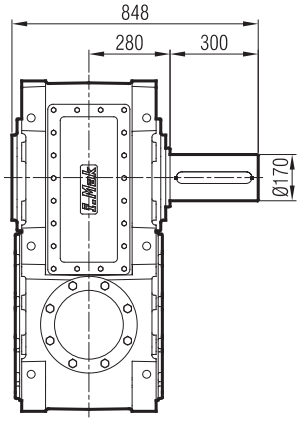

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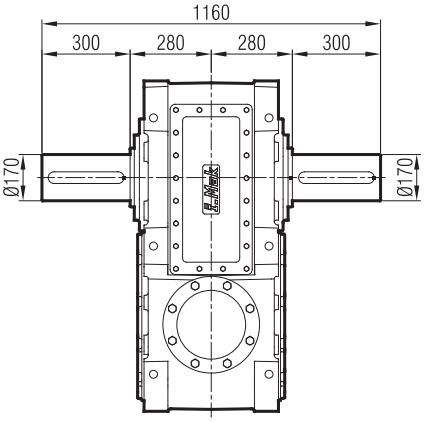

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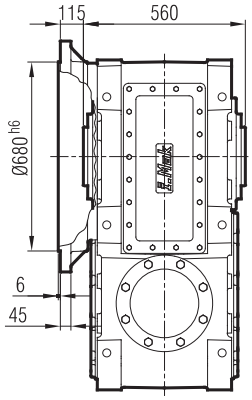

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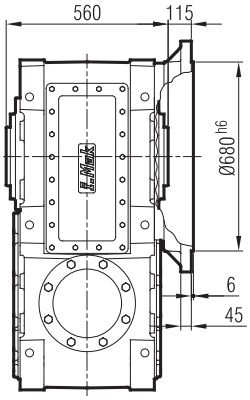

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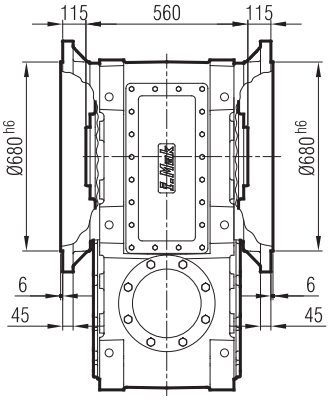

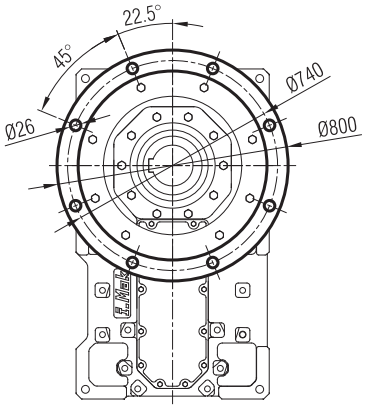

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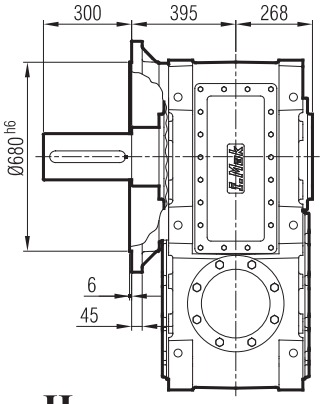

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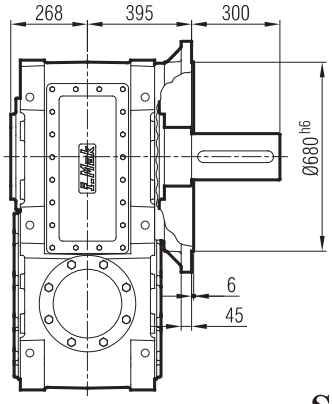

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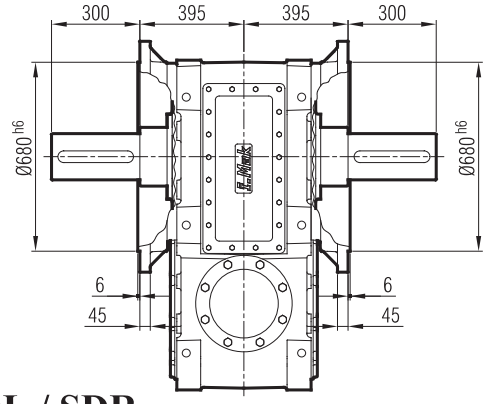

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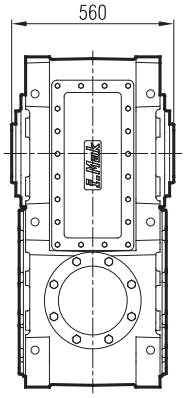

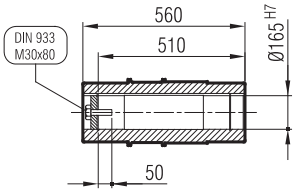

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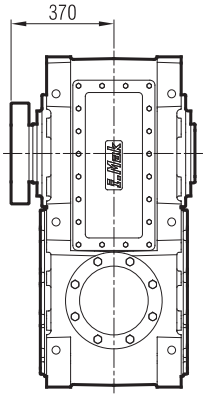

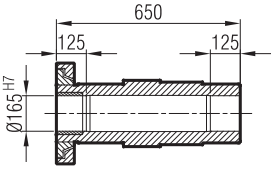

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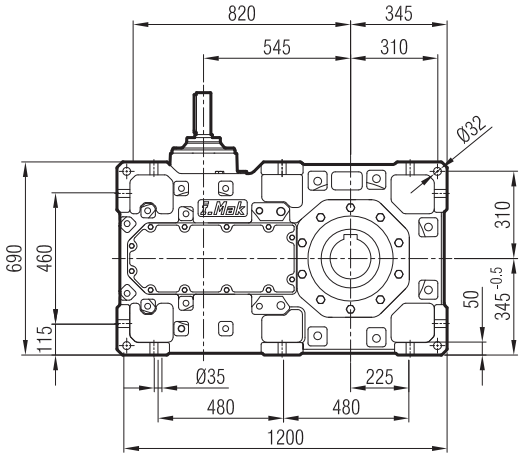
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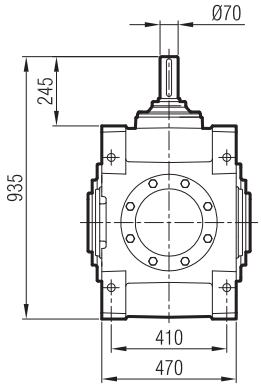
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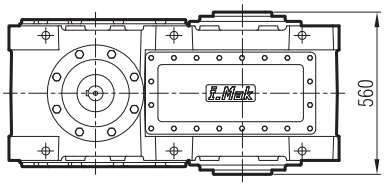
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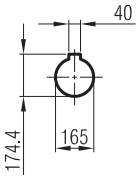
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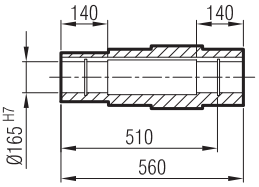
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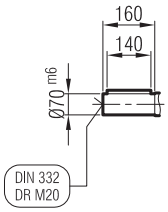
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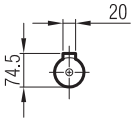
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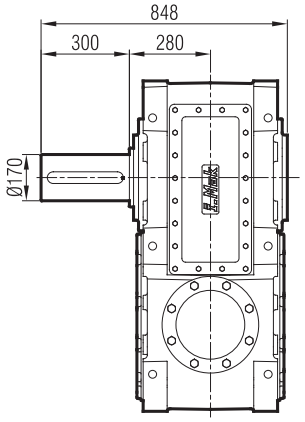

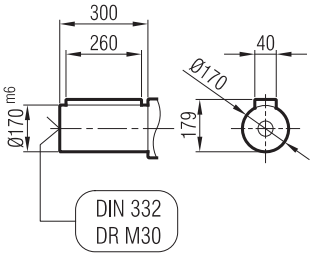

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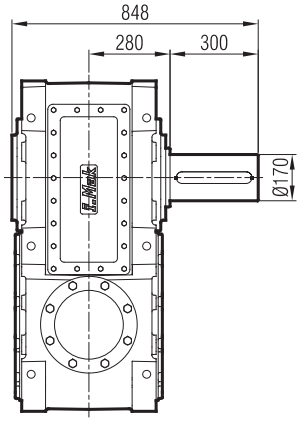

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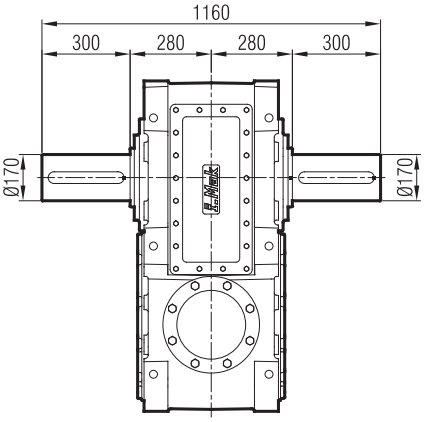

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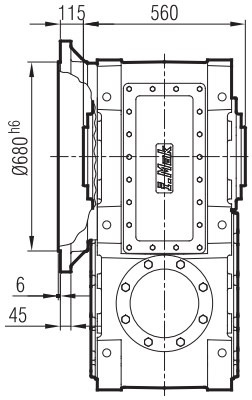

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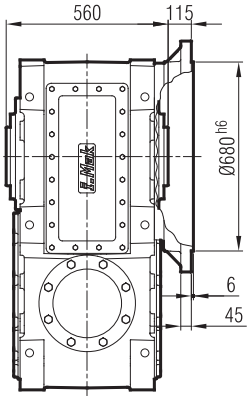

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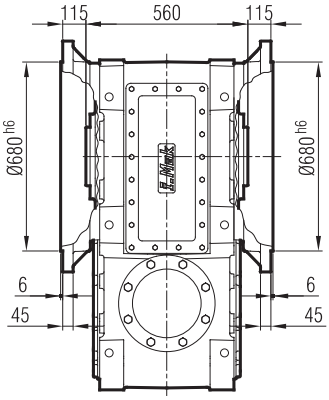

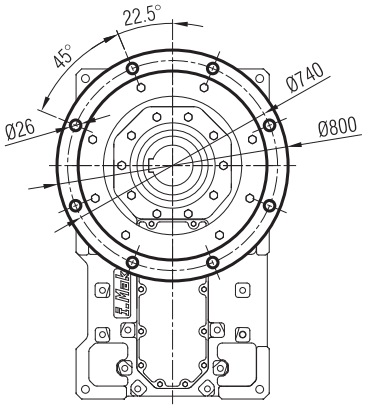

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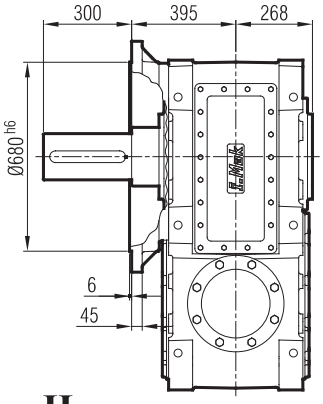

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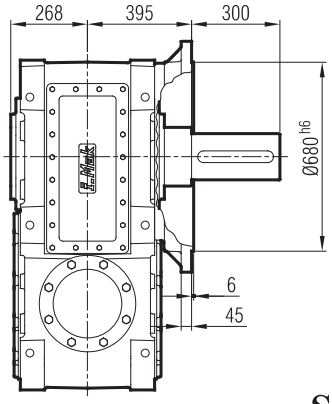

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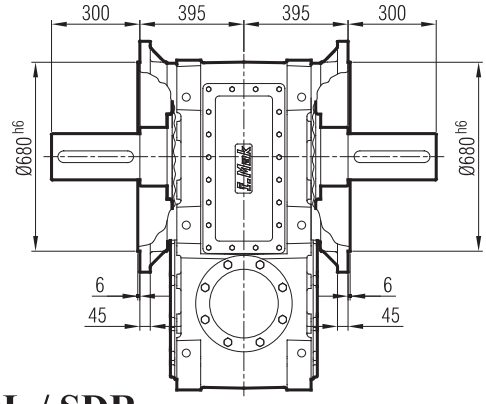

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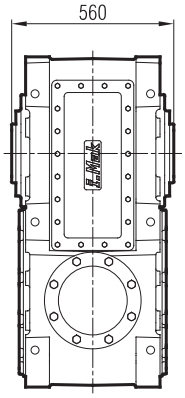

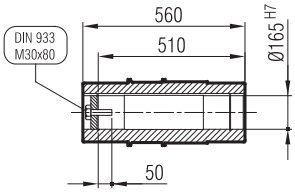

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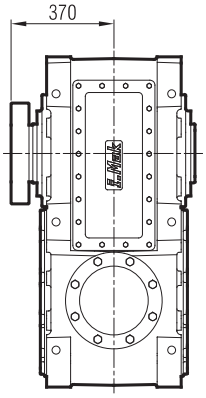

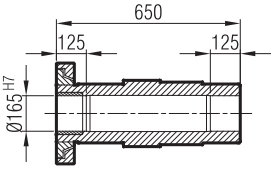

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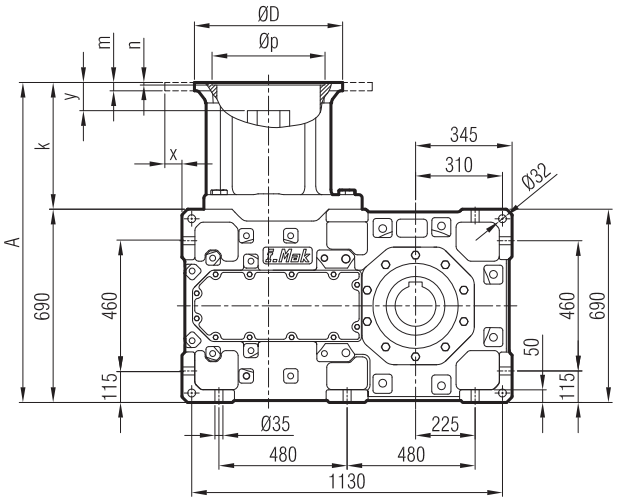

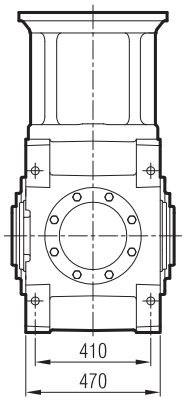

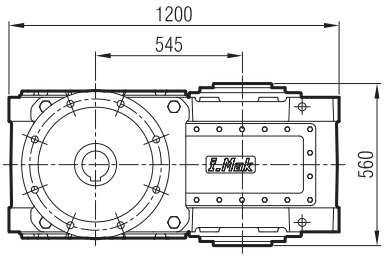

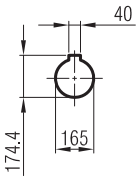

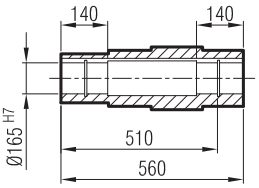

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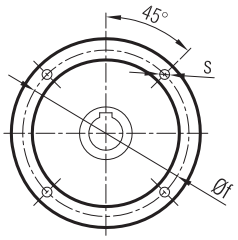

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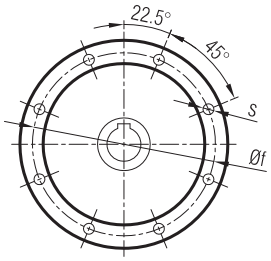

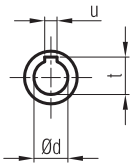

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225/B5	1095	350	400	450	M16	405	22	6	60	64.4	18	-	57
250/B5	1095	450	500	550	M16	405	25	6.5	65	69.4	18	-	52
280/B5	1095	450	500	550	M16	405	25	6.5	75	75.9	20	-	45
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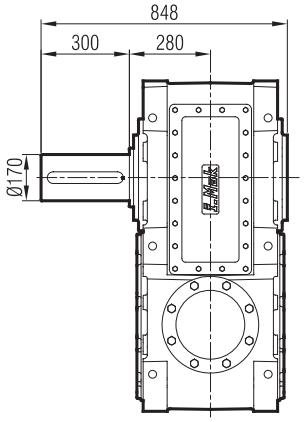
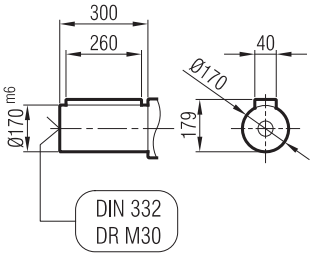
MA / MK 110_

...-SL





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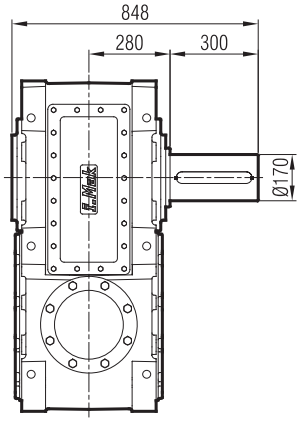

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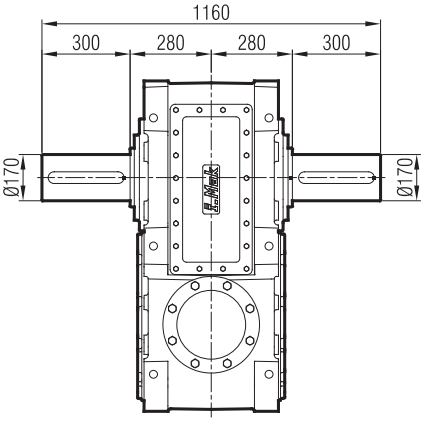

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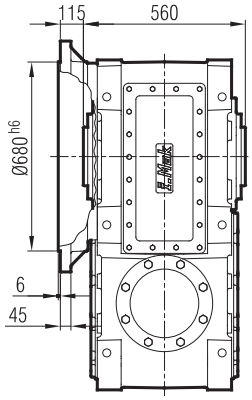

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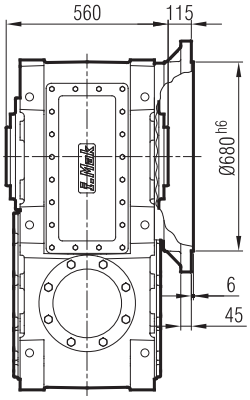

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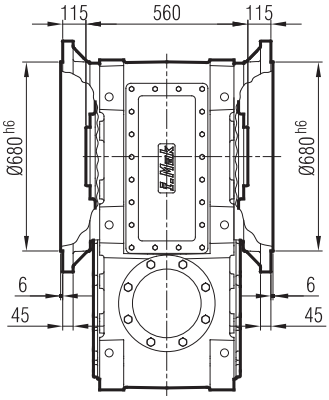

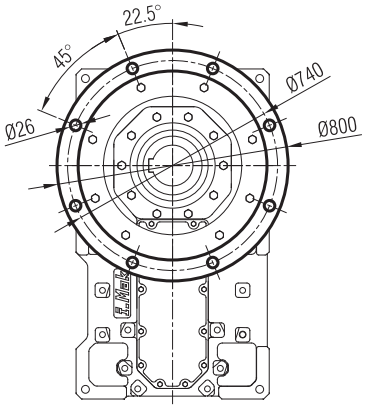

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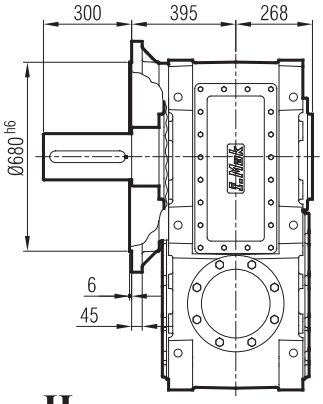

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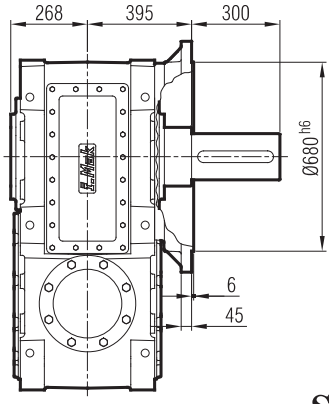

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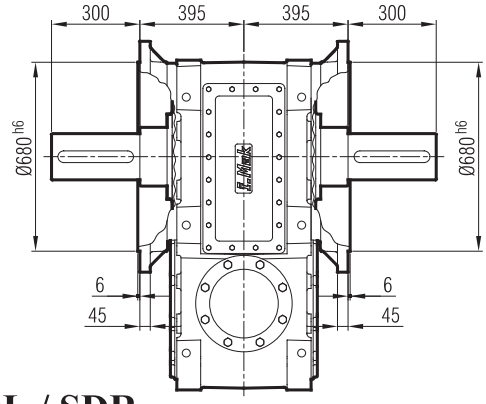

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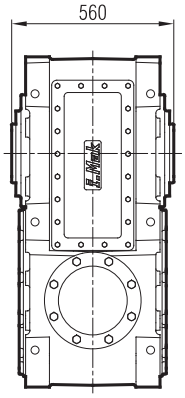

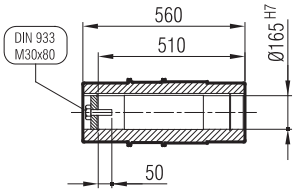

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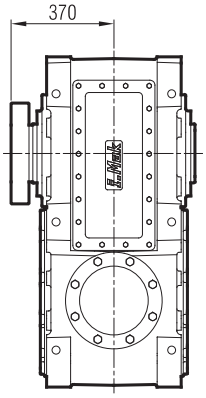

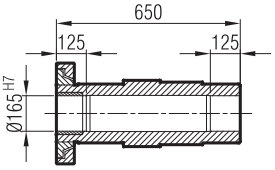

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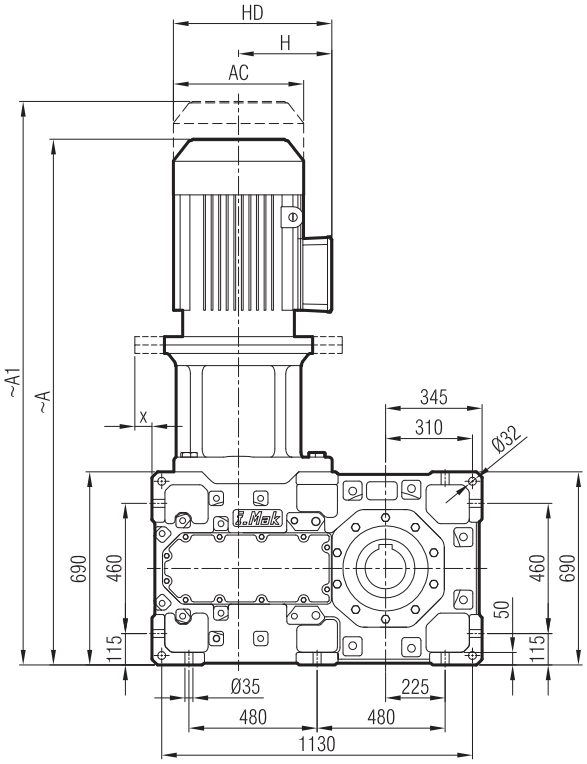

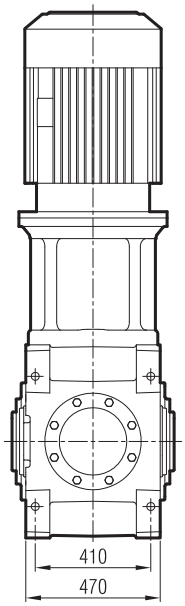

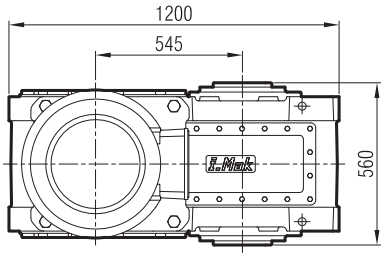

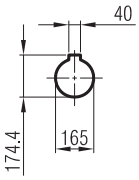

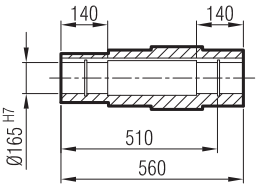

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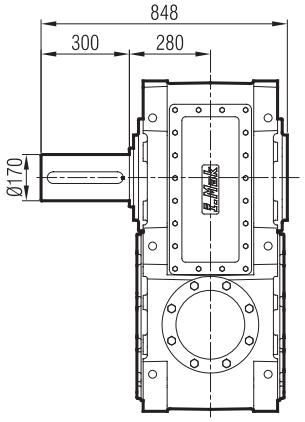
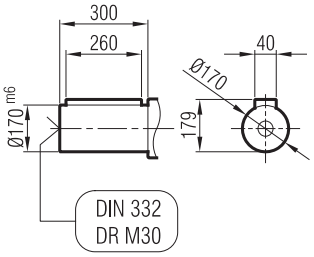
A1	1908	1927	1987	2037	2228	2228	2409	2409	2530	2530	2530
H	300	313	313	366	398	398	518	518	518	518	518
HD	500	538	538	616	678	678	833	833	833	833	833
AC	394	456	456	489	547.5	547.5	652	652	652	652	652
x	-	-	-	-	-	-	20	20	20	20	20

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 110_

...-SL





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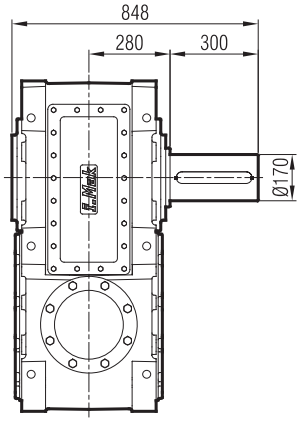

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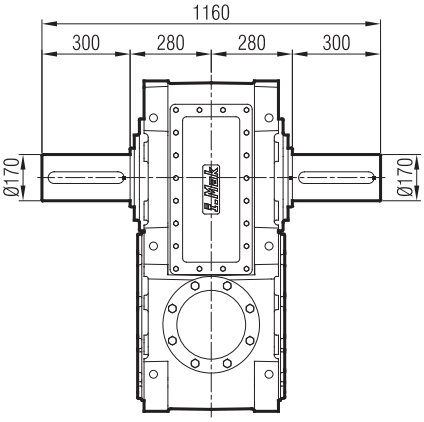

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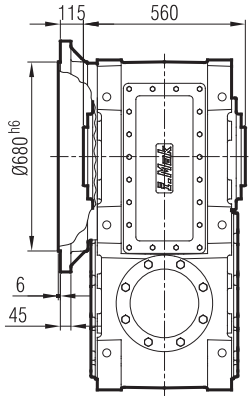

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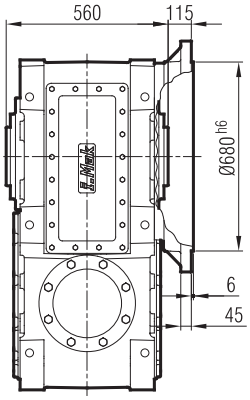

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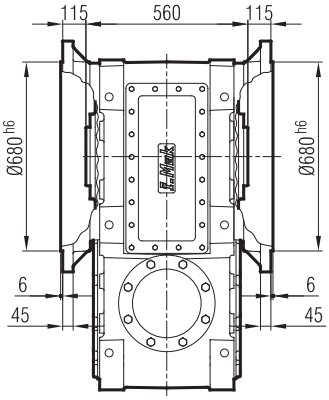

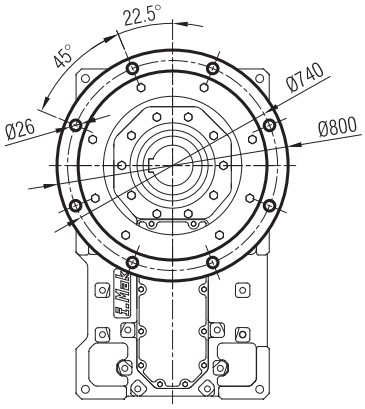

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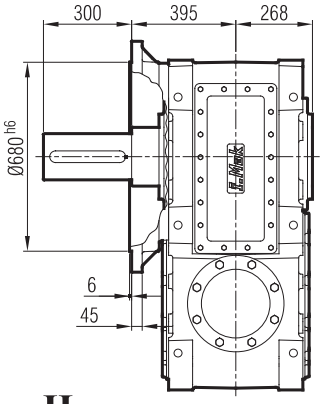

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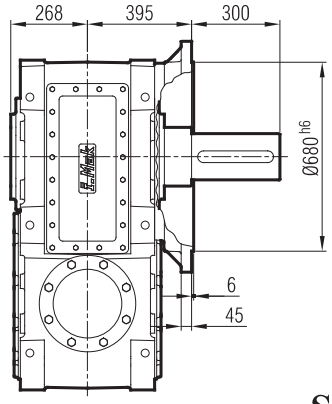

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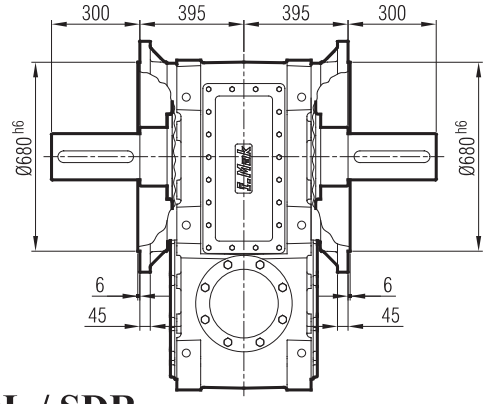

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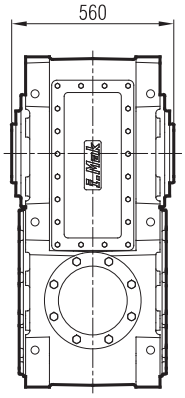

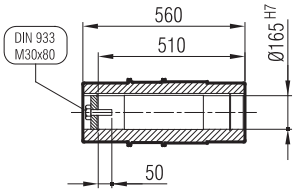

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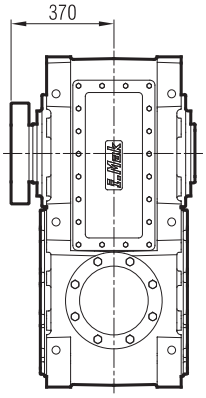
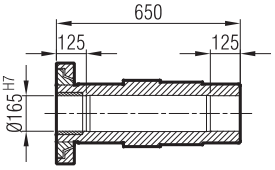
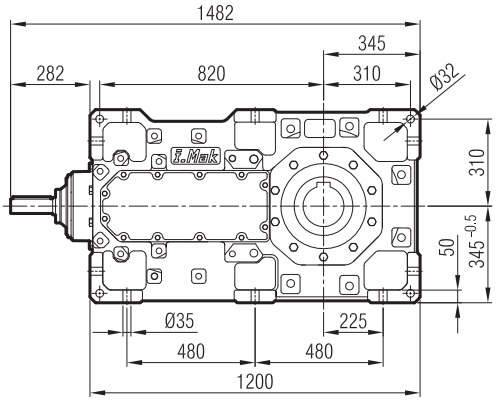




MK 1104-G07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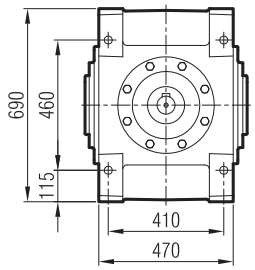
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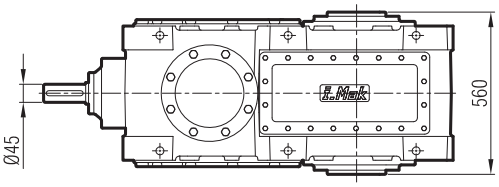
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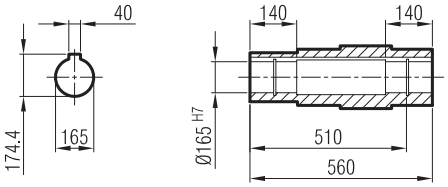
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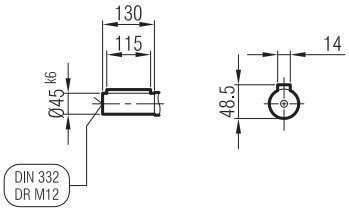
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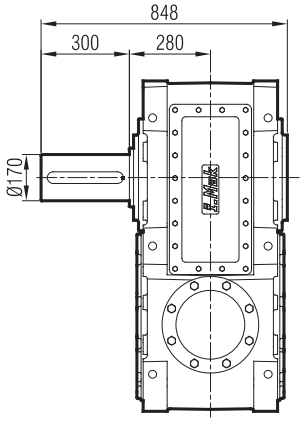
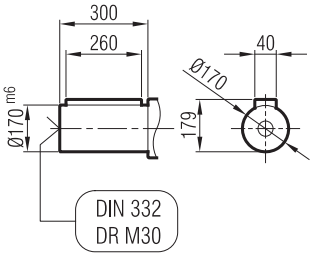
MA / MK 110_

...-SL





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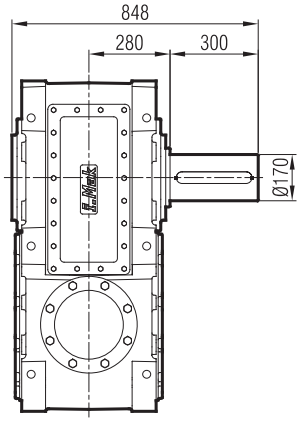

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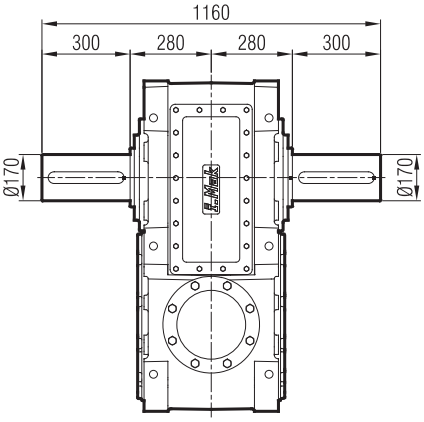

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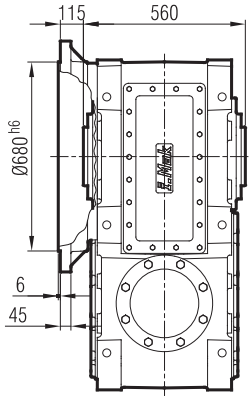

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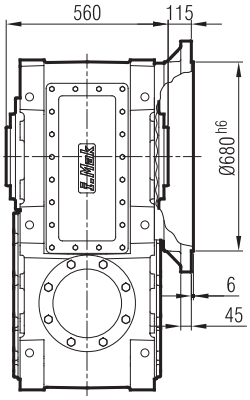

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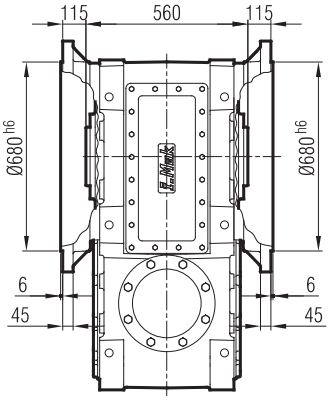

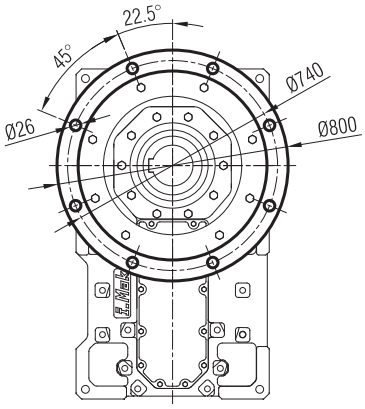

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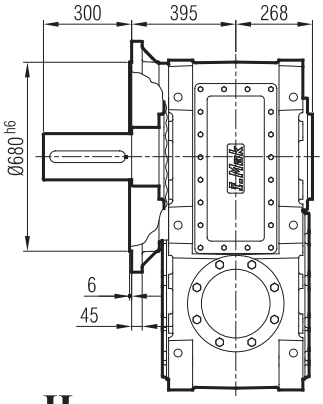

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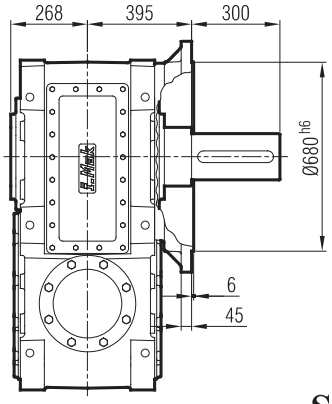

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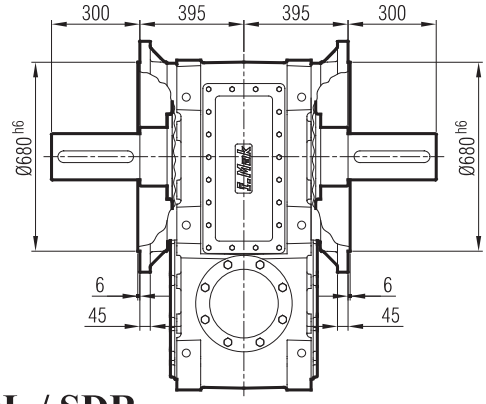

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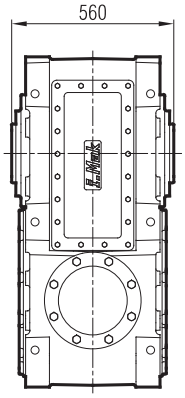

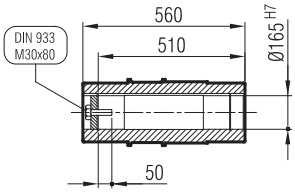

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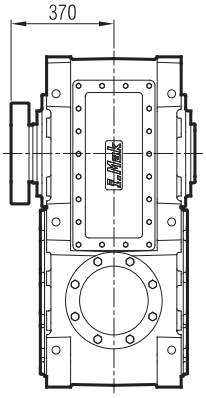
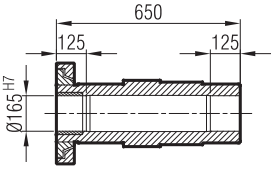
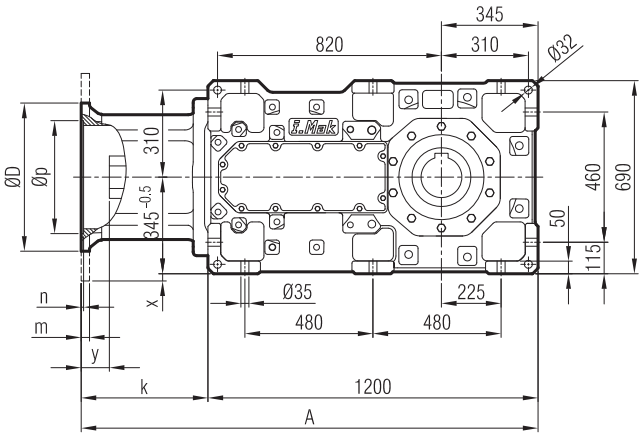
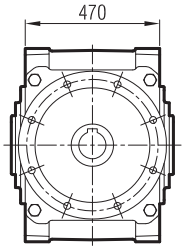
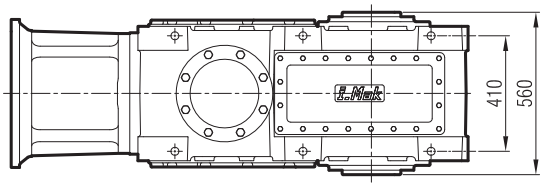


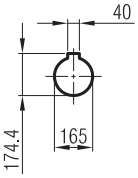


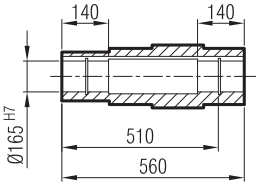
MKP 1104-G09











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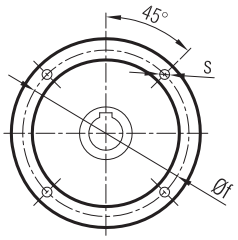

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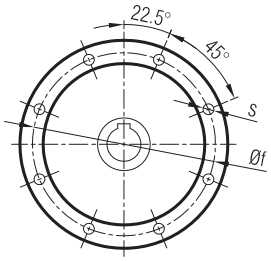

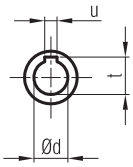

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180/B5	1597	250	300	350	M14	397	20	6	48	51.8	14	-	48
200/B5	1597	300	350	400	M16	397	22	6	55	59.3	16	-	48
225/B5	1640	350	400	450	M16	440	22	6	60	64.4	18	-	80
250/B5	1640	450	500	550	M16	440	25	6.5	65	69.4	18	-	75
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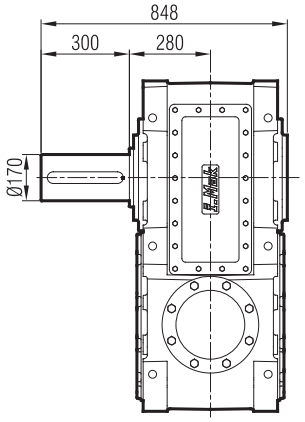
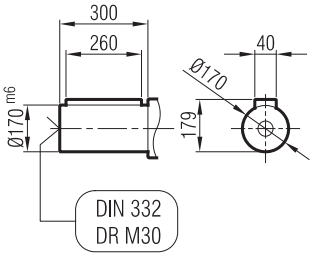
MA / MK 110_

...-SL





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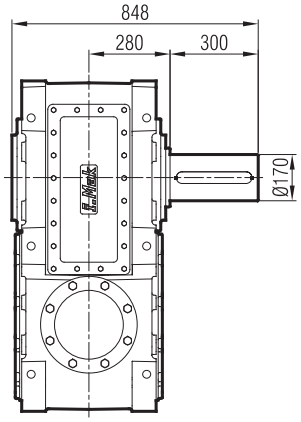

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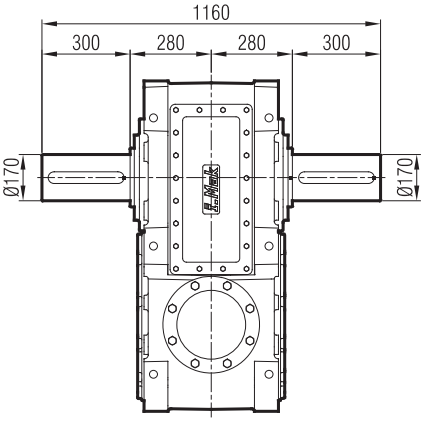

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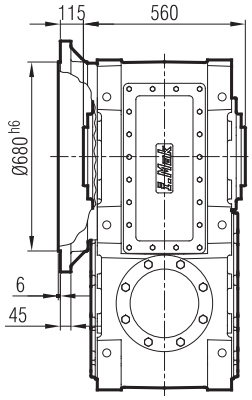

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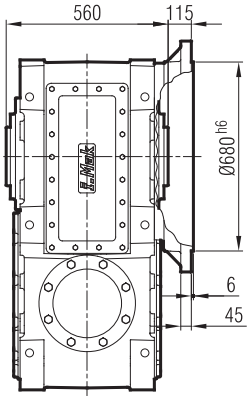

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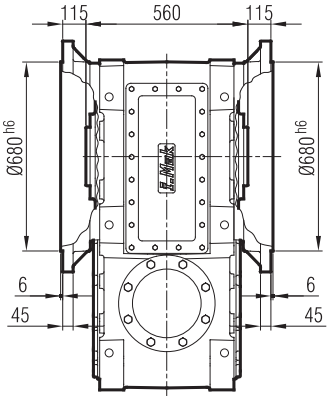

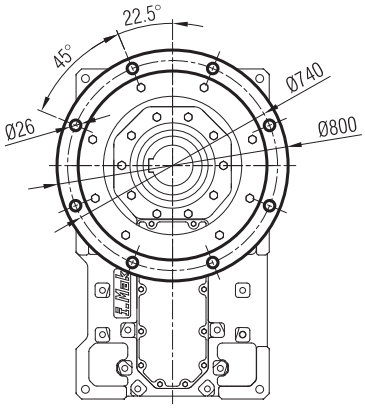

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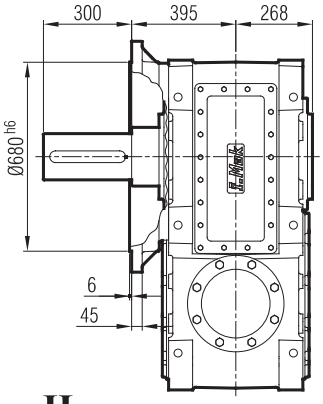

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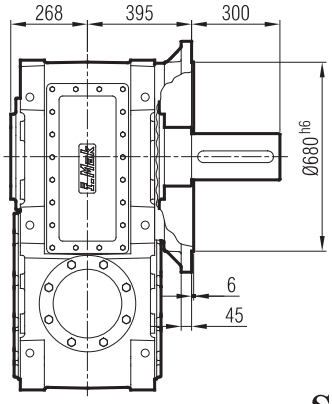

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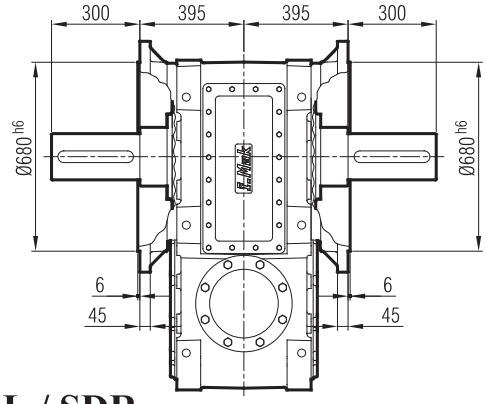

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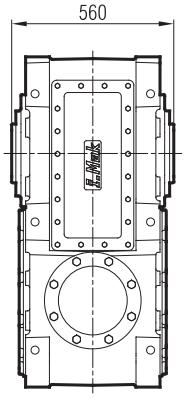

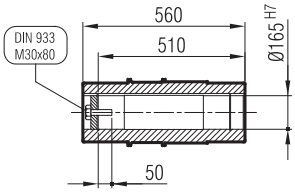

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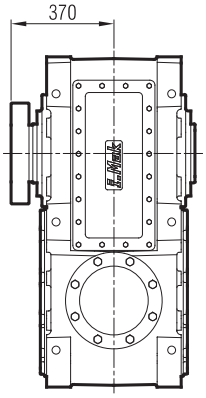
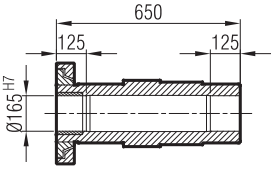
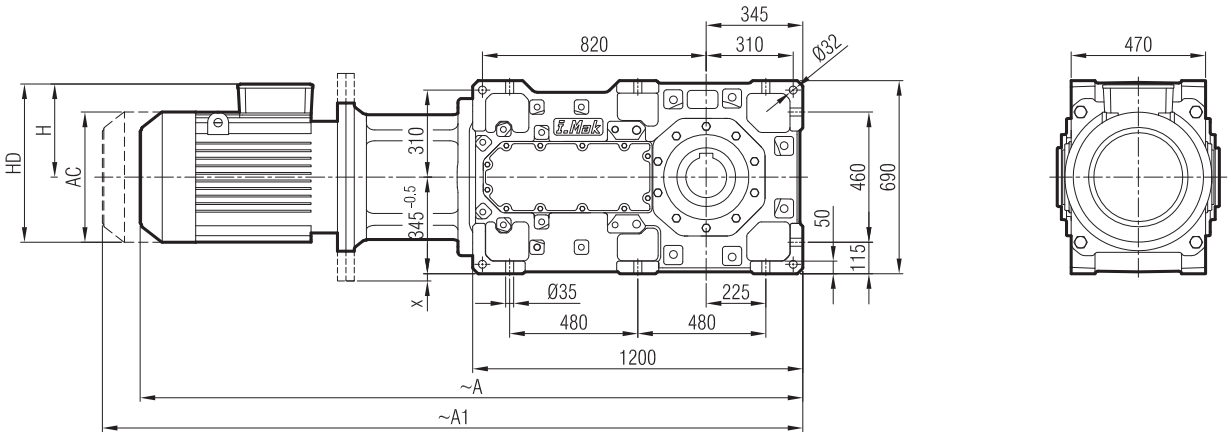
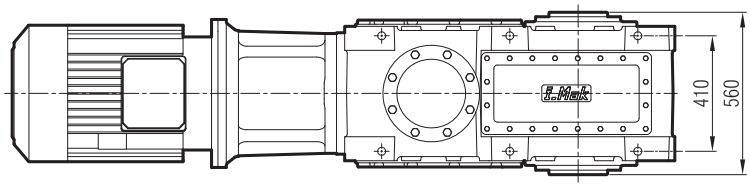
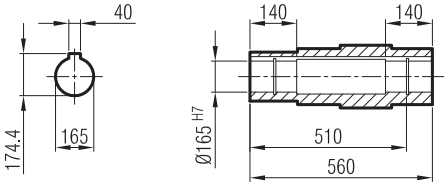




MKM 1104-G09







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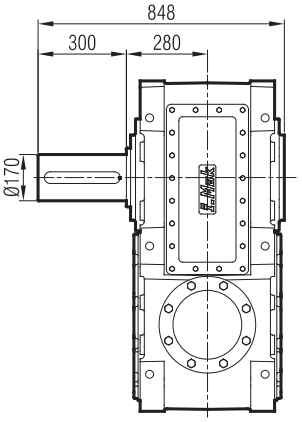
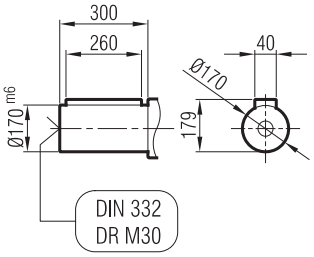
A1	2234	2279	2374	2374	2453	2472	2532	2582	2773	2773
H	240	240	260	260	300	313	313	366	398	398
HD	400	400	440	440	500	538	538	616	678	678
AC	315	315	357	357	394	456	456	489	547.5	547.5
x	-	-	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 110_

...-SL





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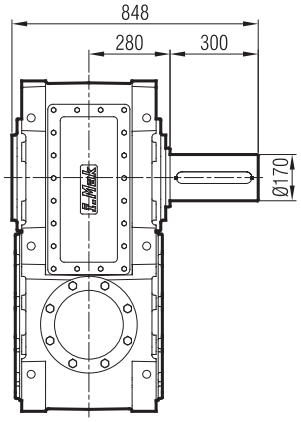

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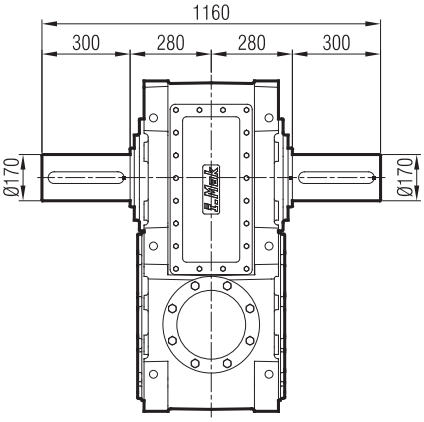

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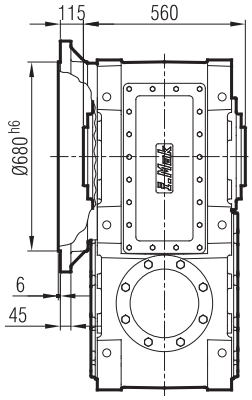

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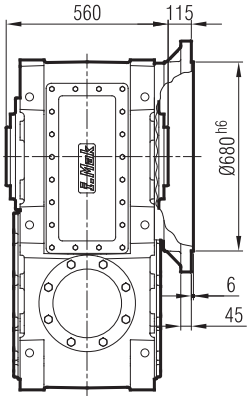

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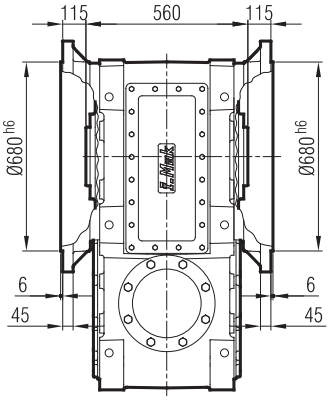

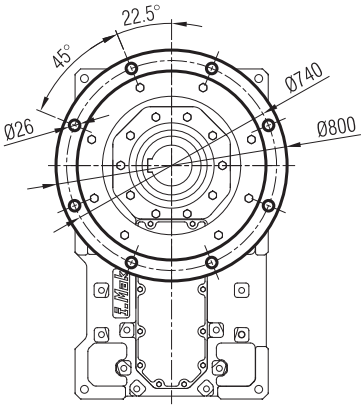

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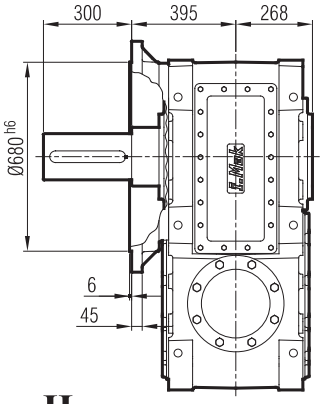

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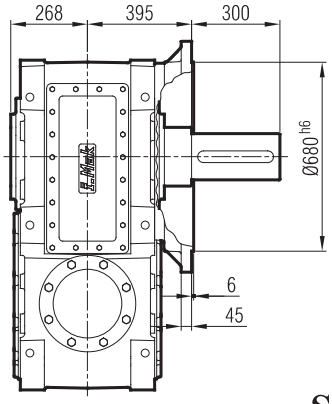

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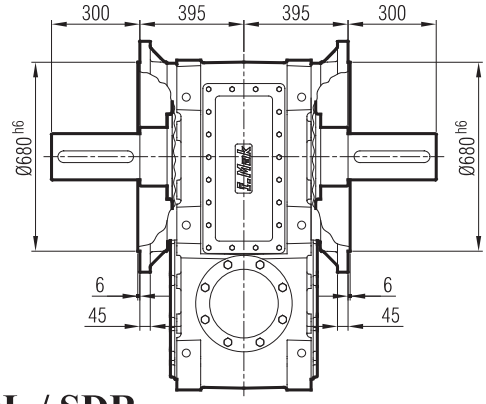

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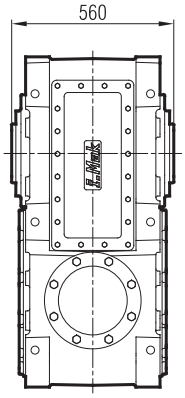

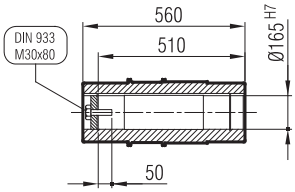

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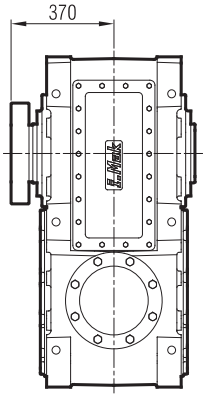
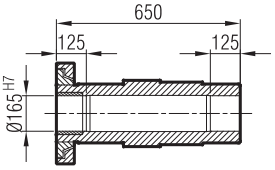
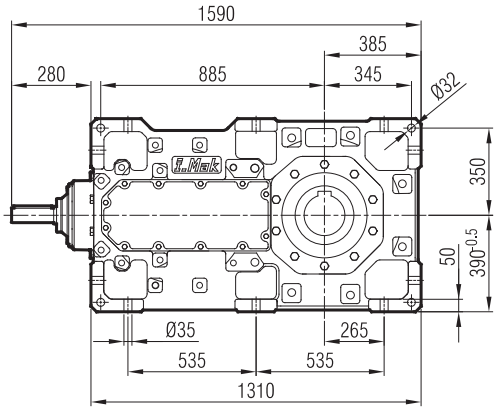




MK 1203-G07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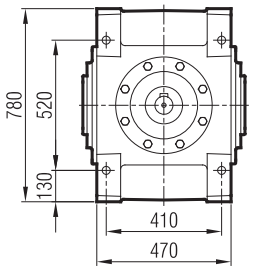
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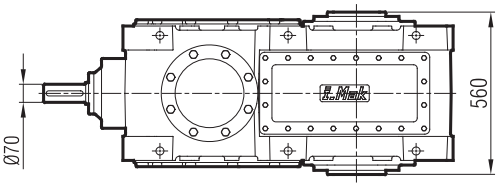
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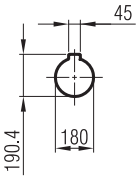
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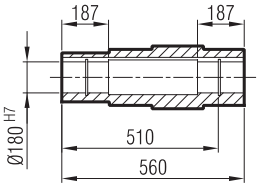
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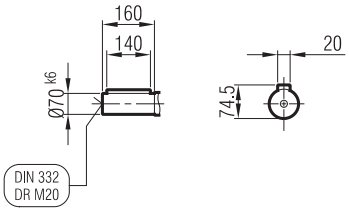
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MA / MK 120_

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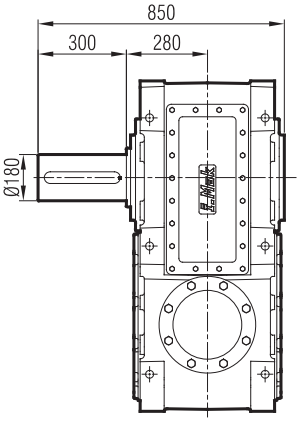

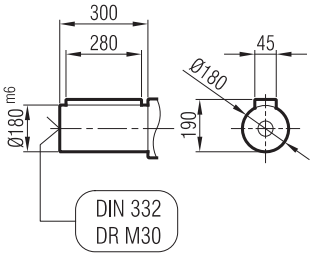

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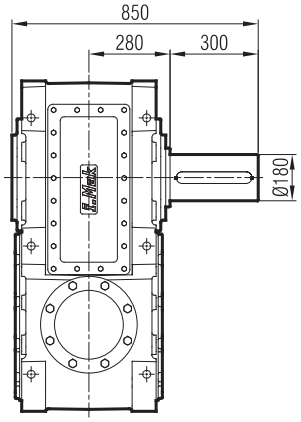

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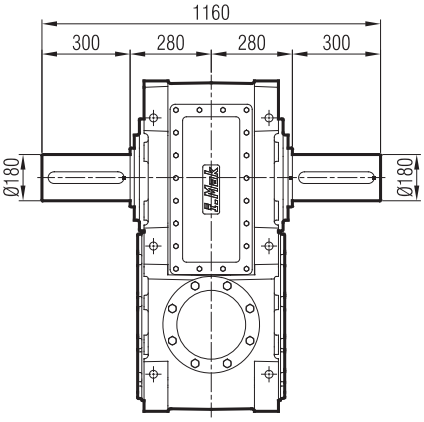

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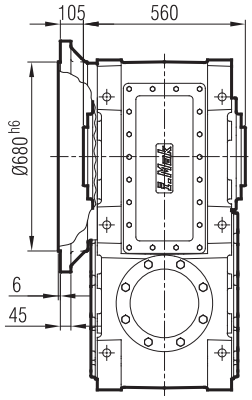

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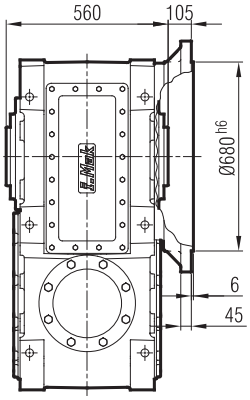

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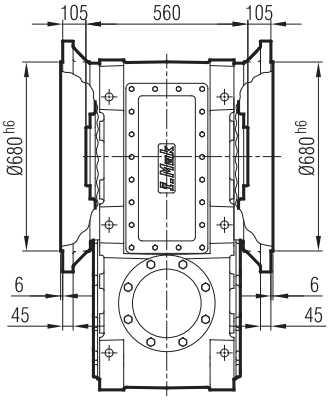

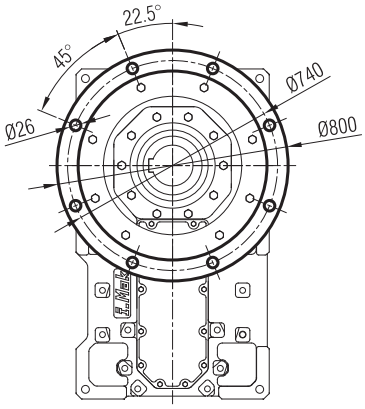

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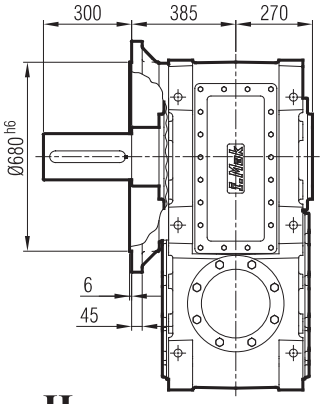

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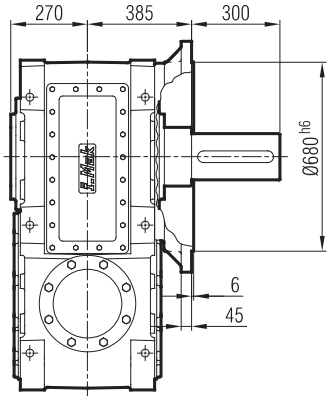

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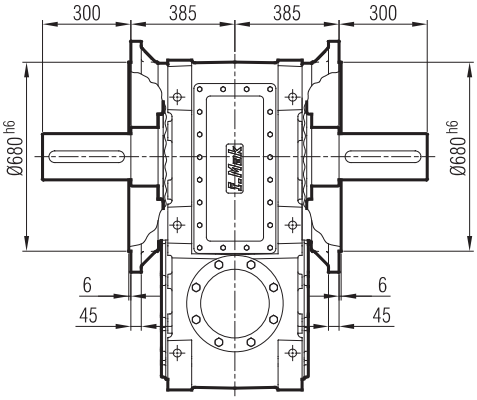

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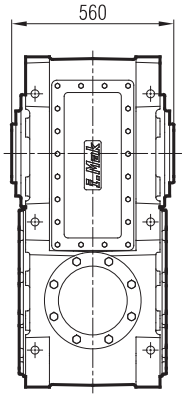
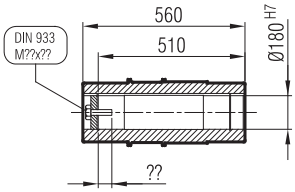
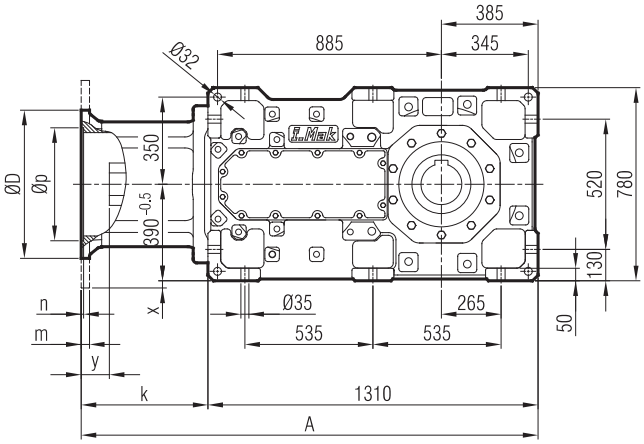
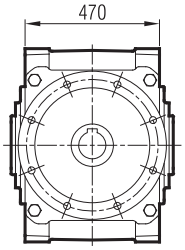
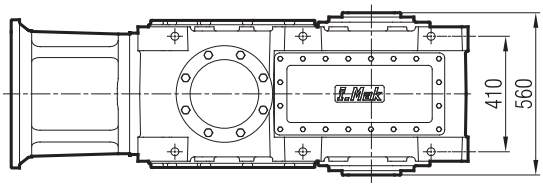


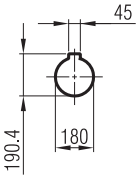


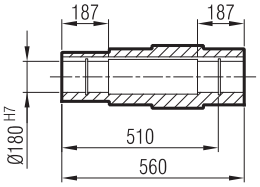
MKP 1203-G09











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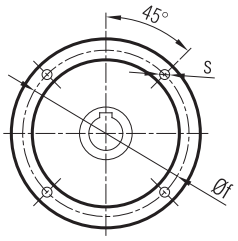

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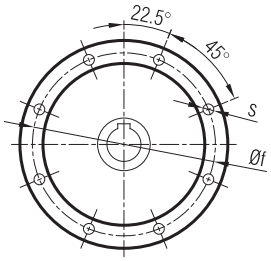

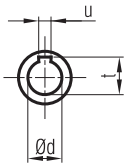

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250/B5	1750	450	500	550	M16	440	25	6.5	65	69.4	18	-	52
280/B5	1750	450	500	550	M16	440	25	6.5	75	75.9	20	-	45
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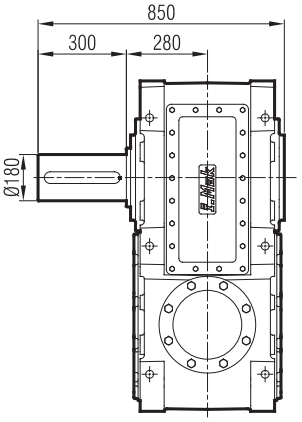
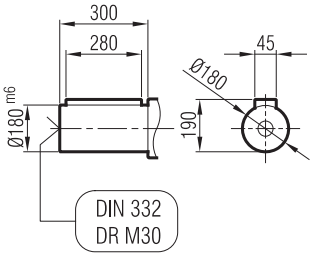
MA / MK 120_

...-SL





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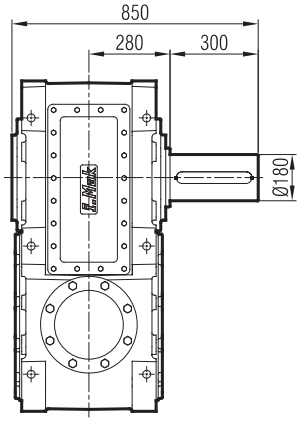

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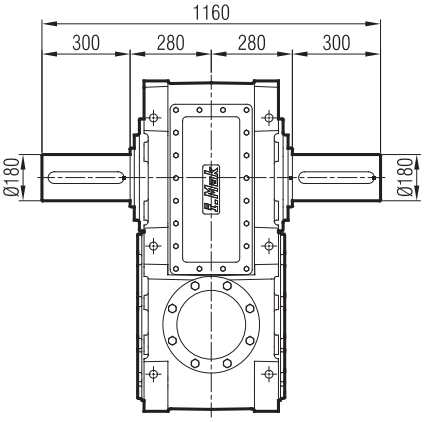

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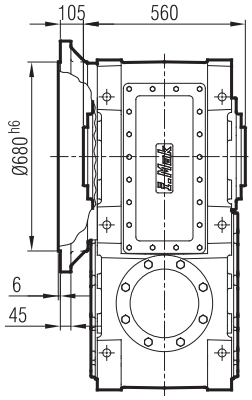

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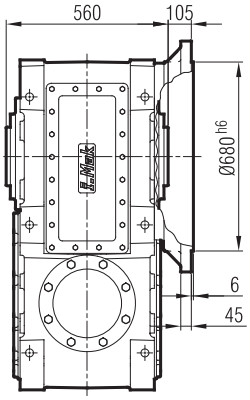

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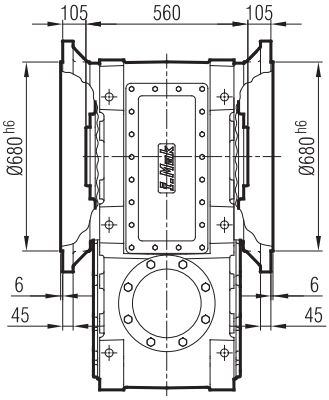

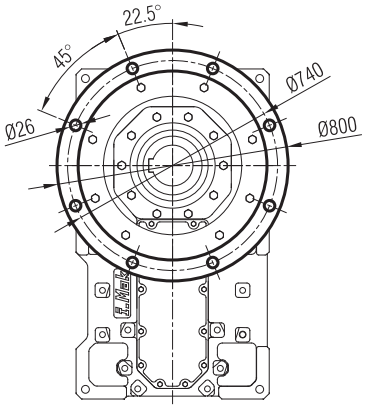

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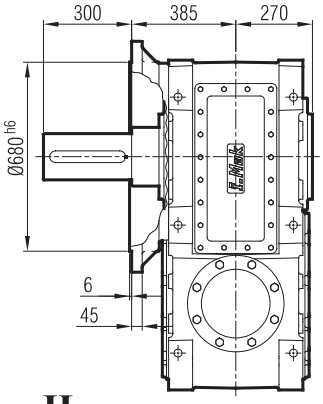

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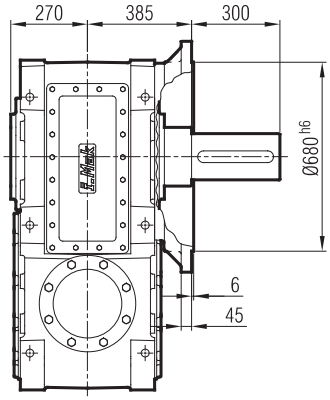

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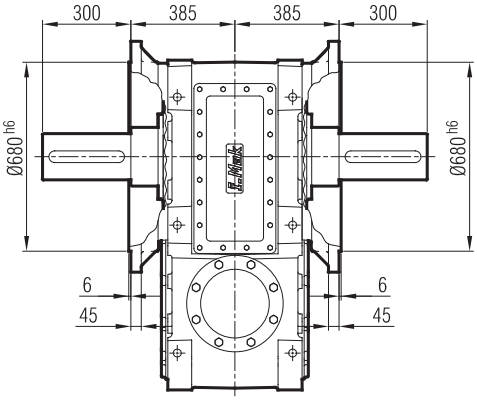

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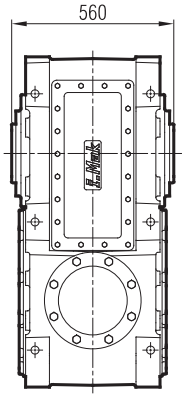
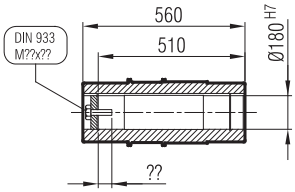
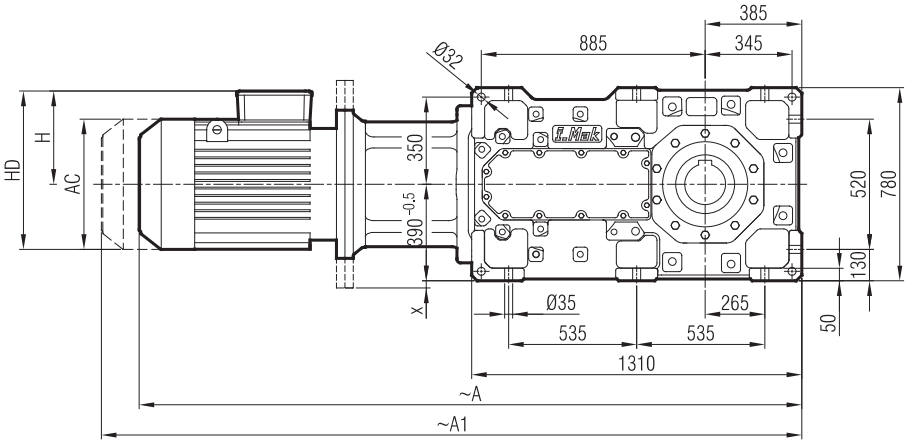
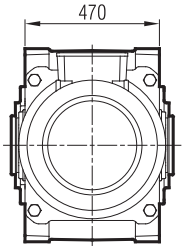
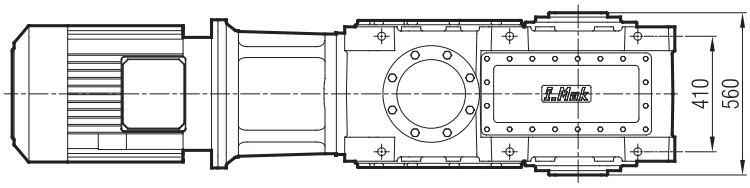


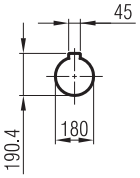


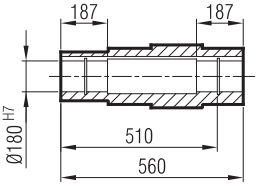
MKM 1203-G09











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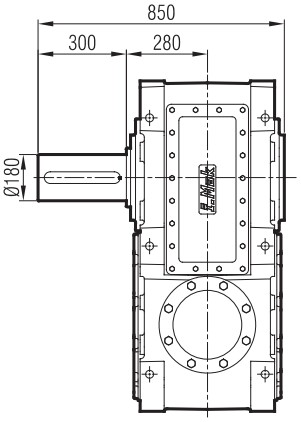
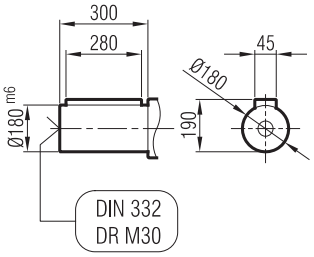
A	2495	2545	2635	2635	2816	2816	2927	2927	2940
A1	2642	2692	2883	2883	3064	3064	3185	3185	3198
H	313	366	398	398	518	518	518	518	518
HD	538	616	678	678	833	833	833	833	833
AC	456	489	547.5	547.5	652	652	652	652	652
x	-	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 120_

...-SL





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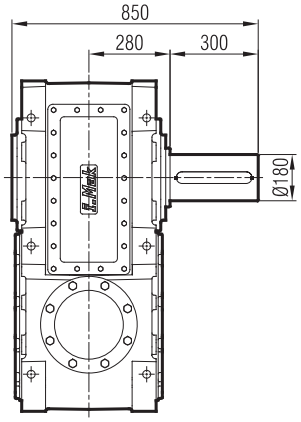

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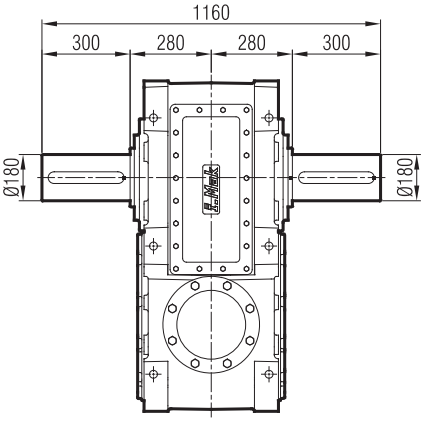

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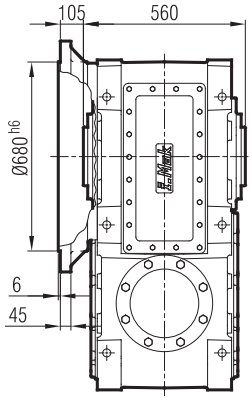

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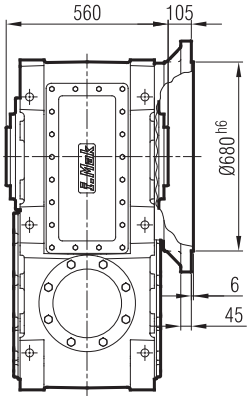

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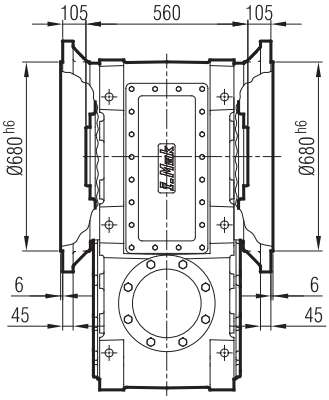

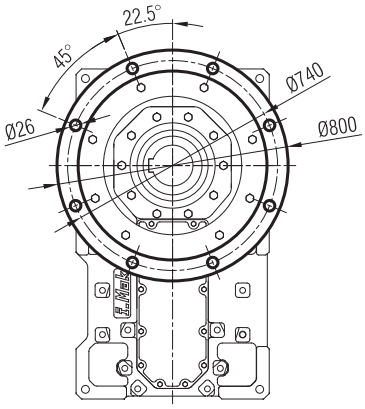

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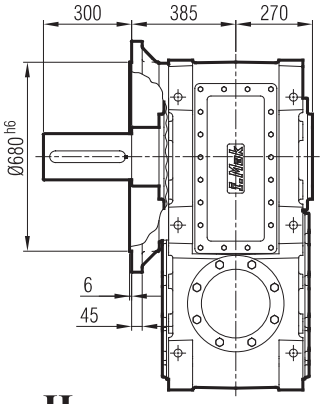

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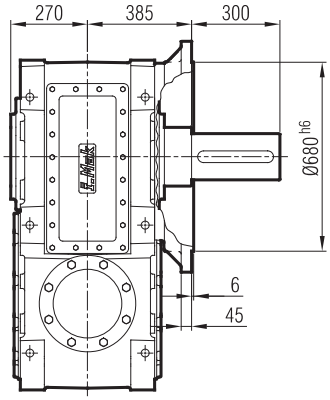

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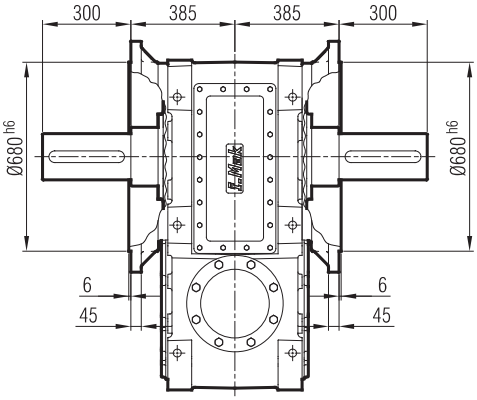

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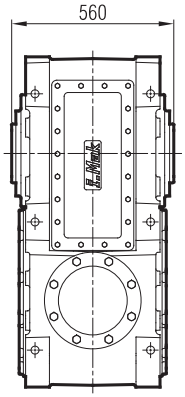
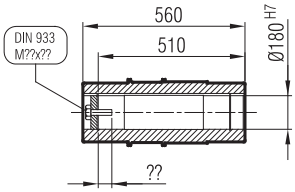
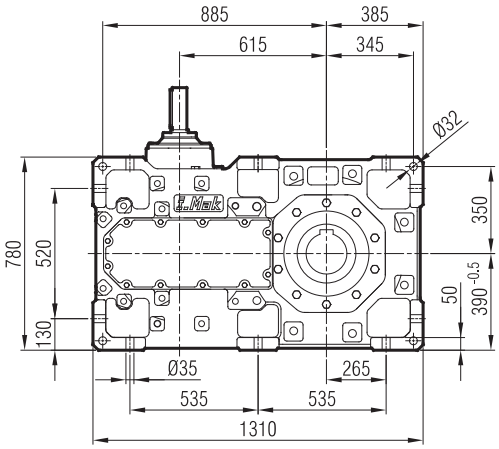




MK 1203-G08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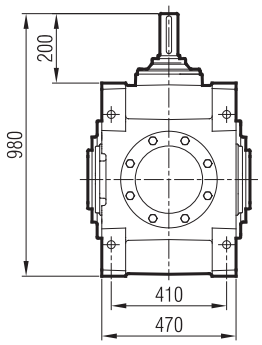
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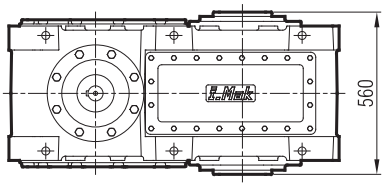
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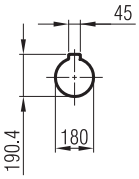
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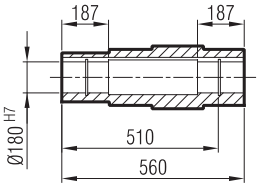
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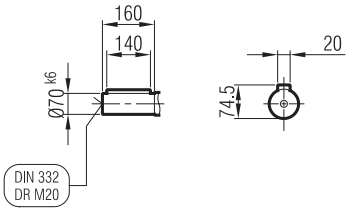
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MA / MK 120_

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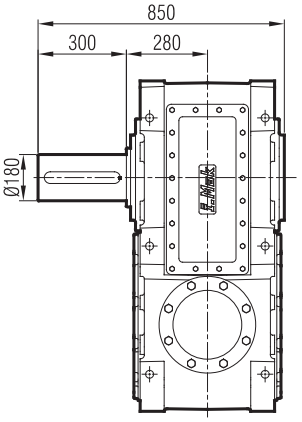

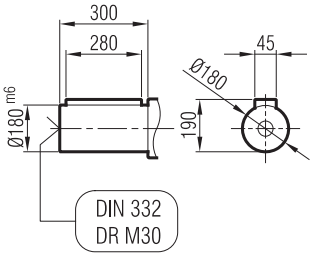

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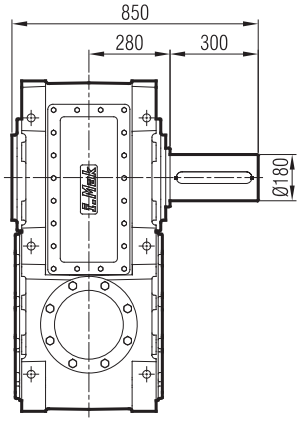

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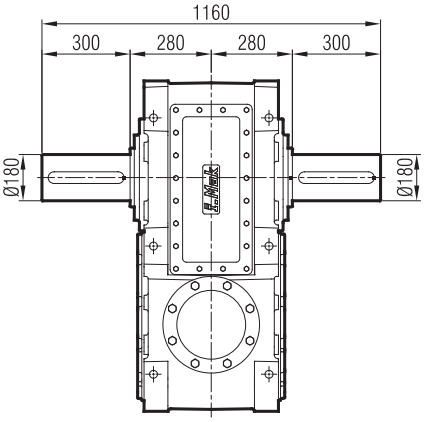

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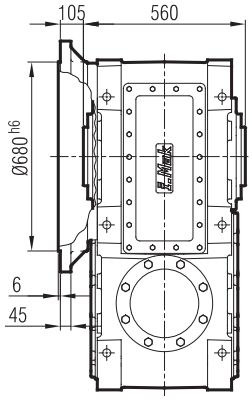

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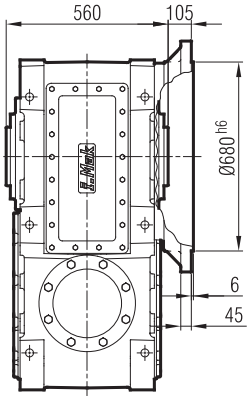

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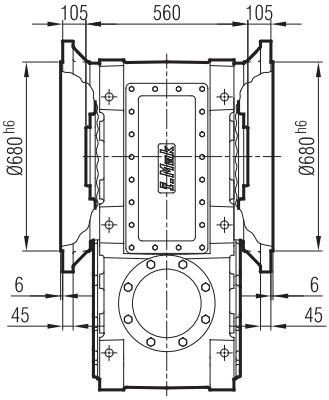

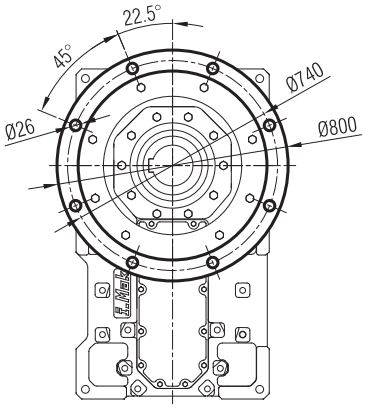

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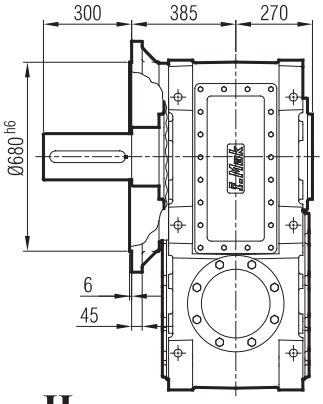

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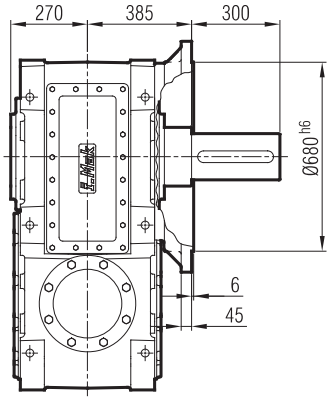

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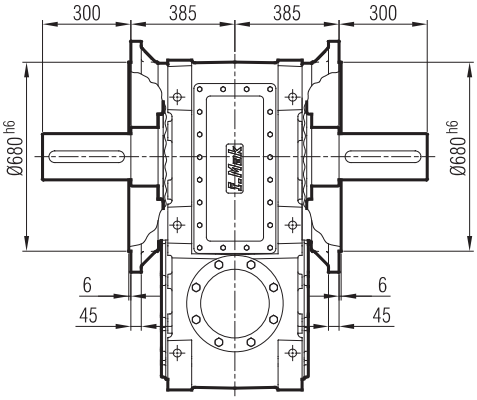

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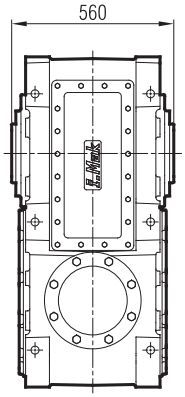
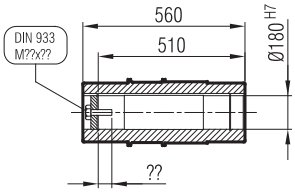
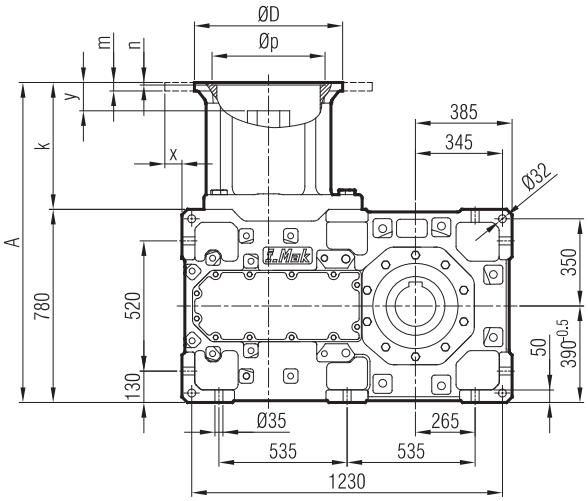
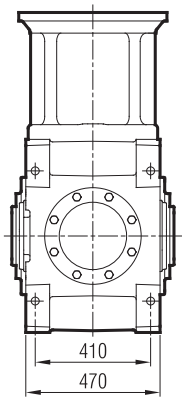
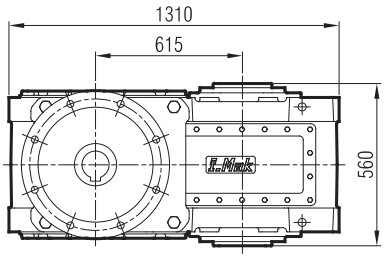


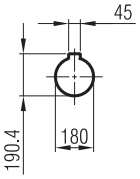


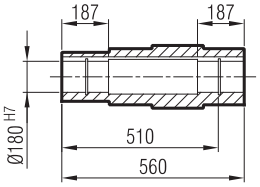
MKP 1203-G10











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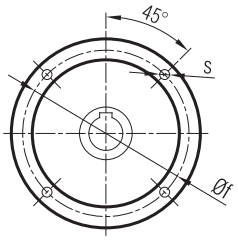

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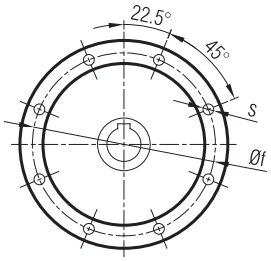

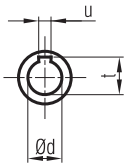

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250/B5	1185	450	500	550	M16	405	25	6.5	65	69.4	18	-	52
280/B5	1185	450	500	550	M16	405	25	6.5	75	75.9	20	-	45
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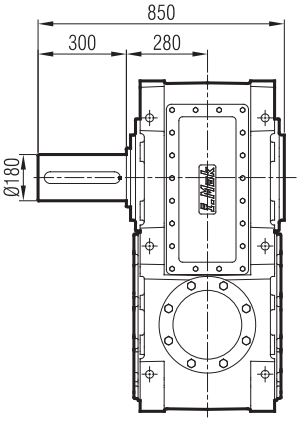
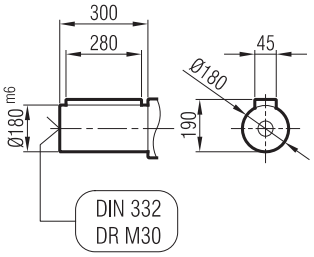
MA / MK 120_

...-SL





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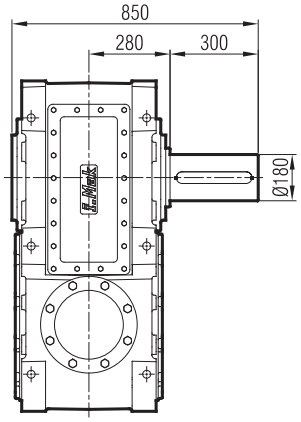

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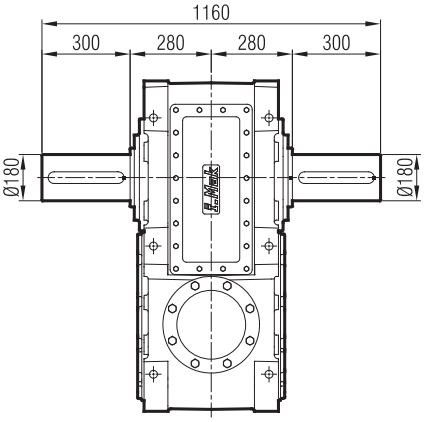

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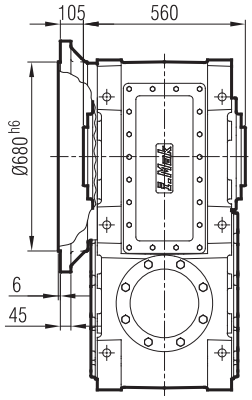

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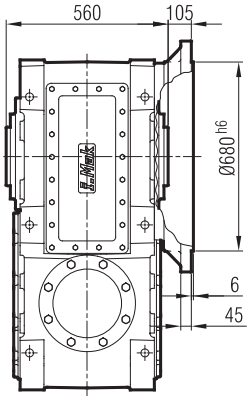

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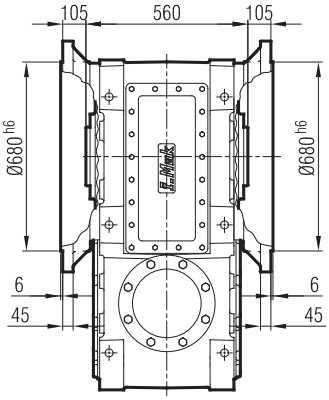

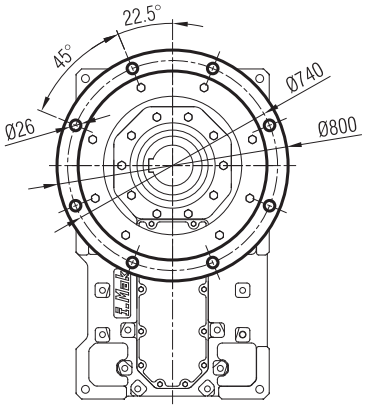

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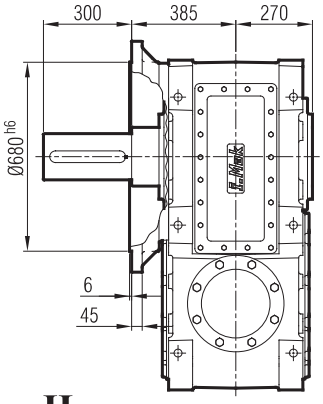

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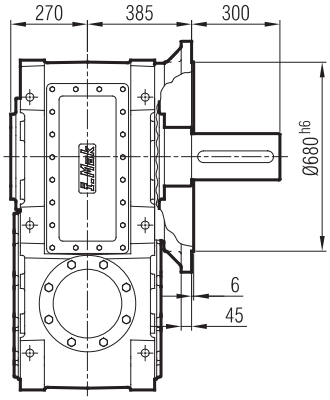

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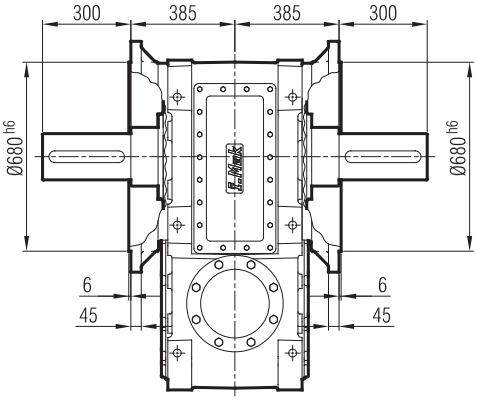

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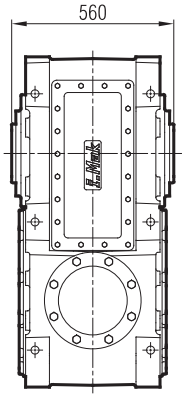
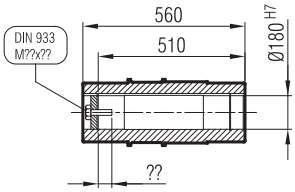
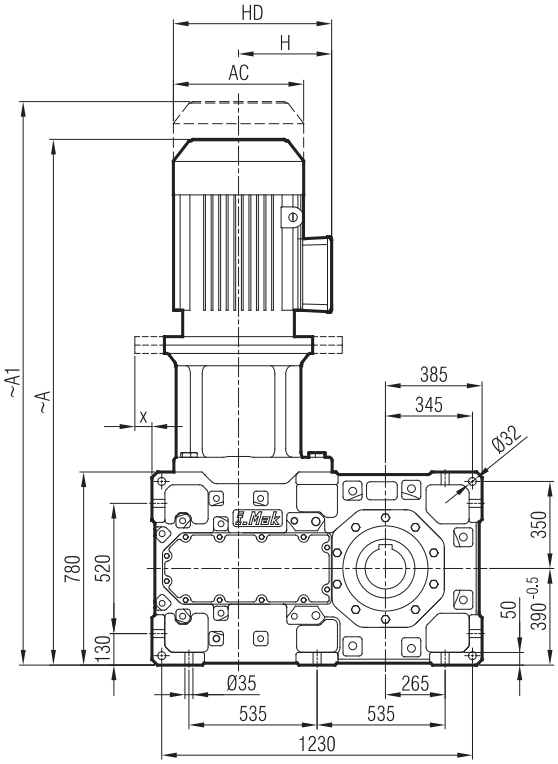
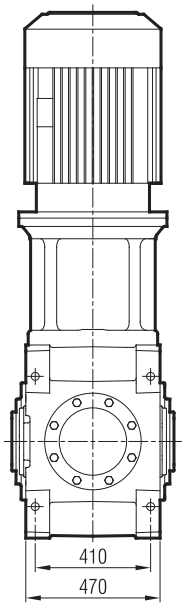
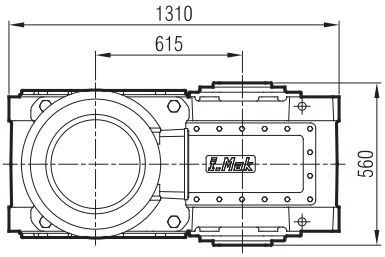


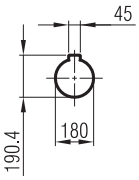


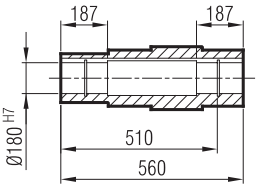
MKM 1203-G10











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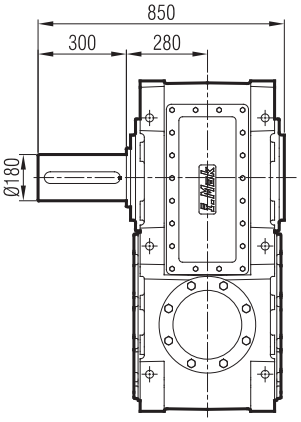
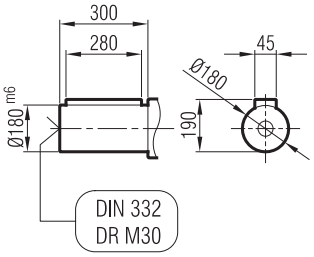
A	1930	1980	2070	2070	2251	2251	2362	2362	2375
A1	2077	2127	2318	2318	2499	2499	2620	2620	2633
H	313	366	398	398	518	518	518	518	518
HD	538	616	678	678	833	833	833	833	833
AC	456	489	547.5	547.5	652	652	652	652	652
x	-	-	-	-	20	20	20	20	20

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 120_

...-SL





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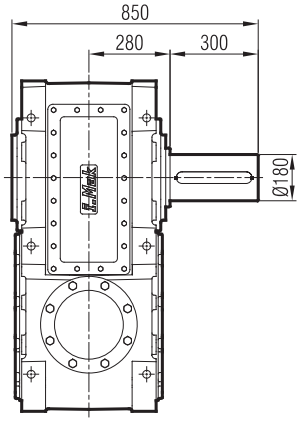

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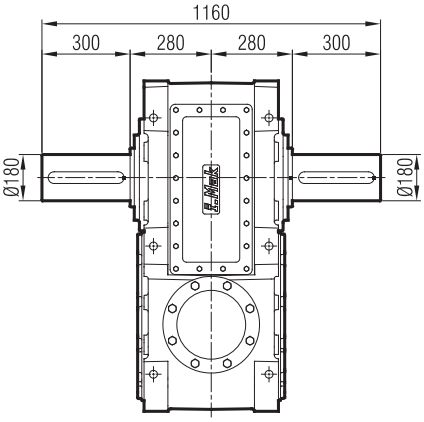

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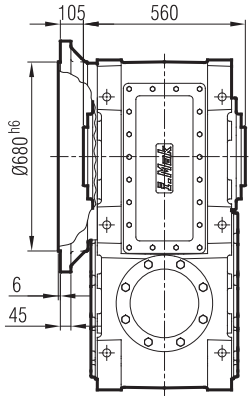

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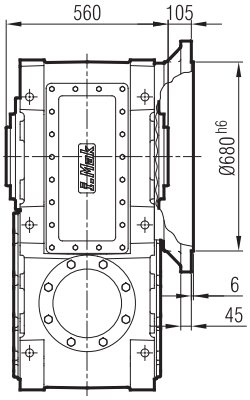

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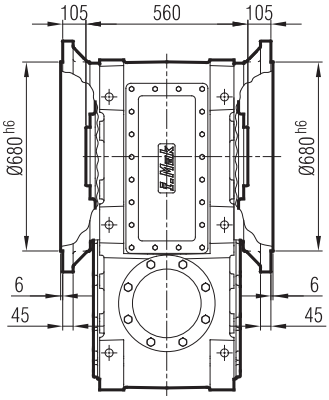

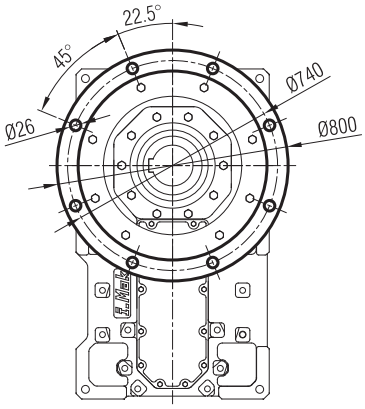

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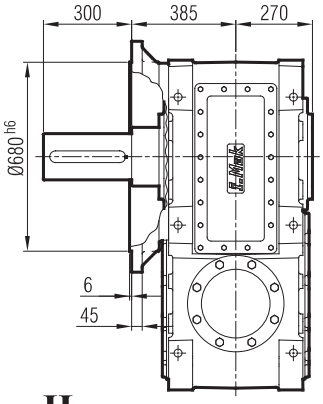

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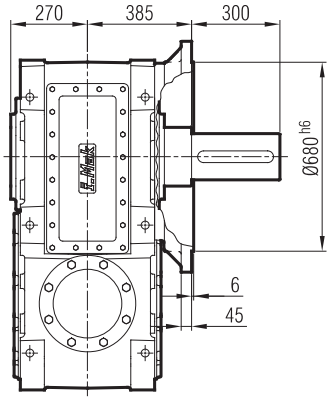

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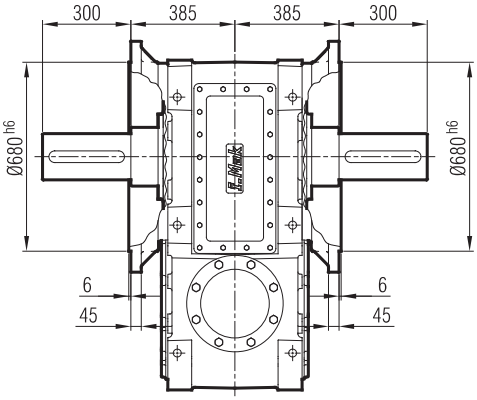

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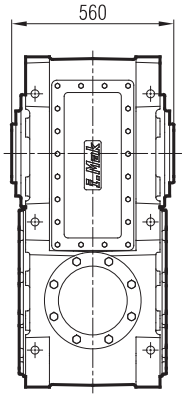
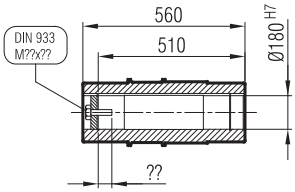
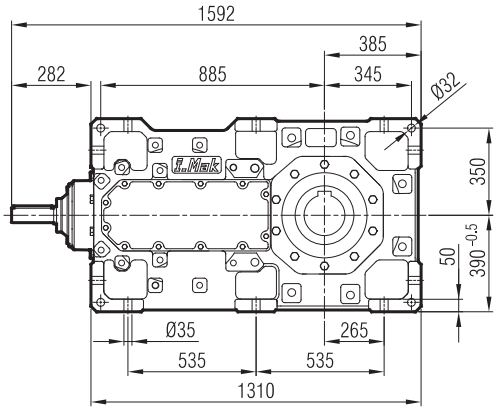




MK 1204-G07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535
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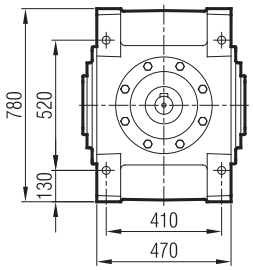
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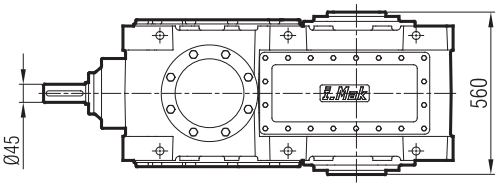
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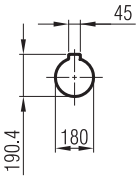
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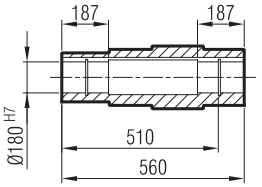
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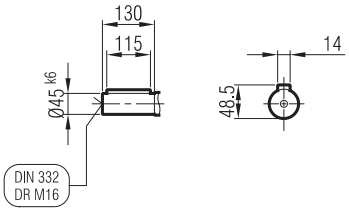
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DR M16
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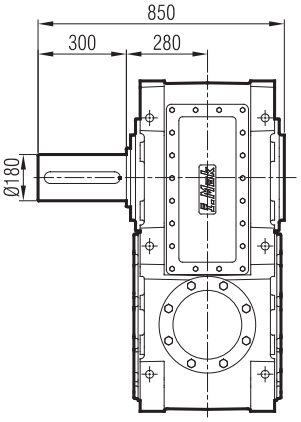
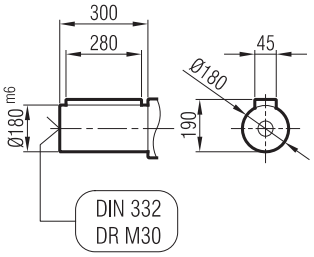
MA / MK 120_

...-SL





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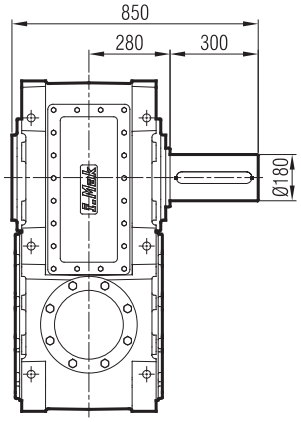

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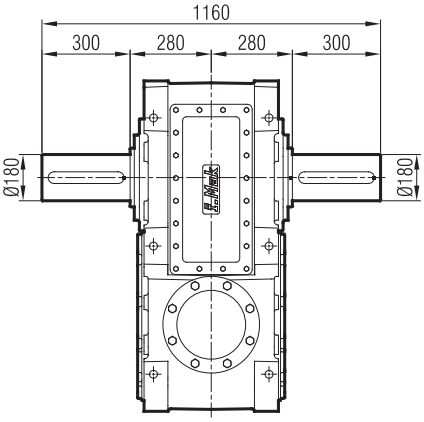

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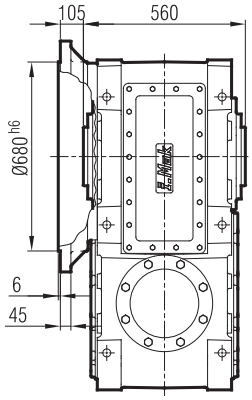

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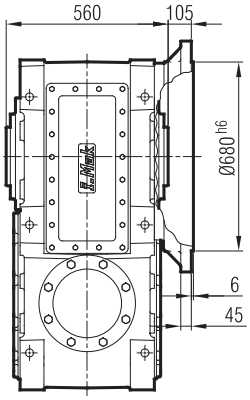

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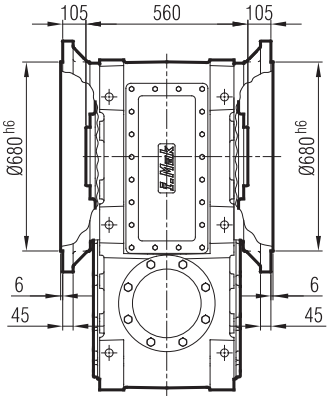

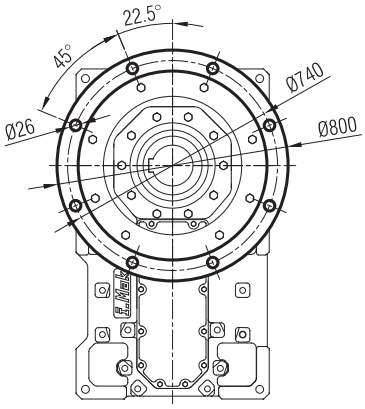

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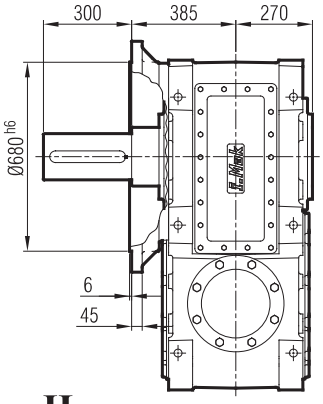
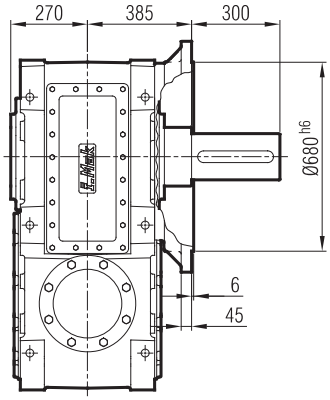


...-FR-SR



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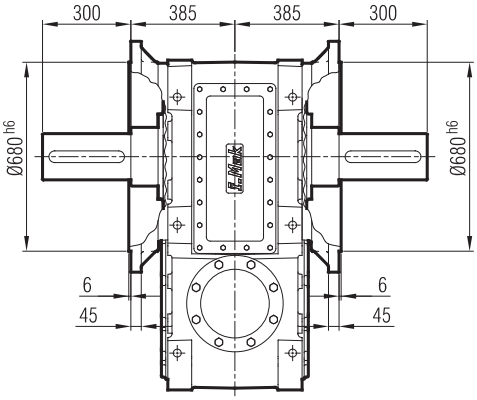

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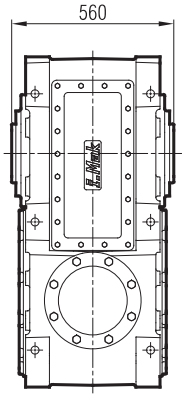
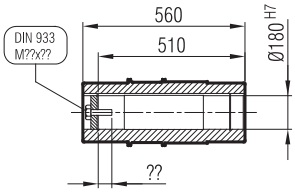
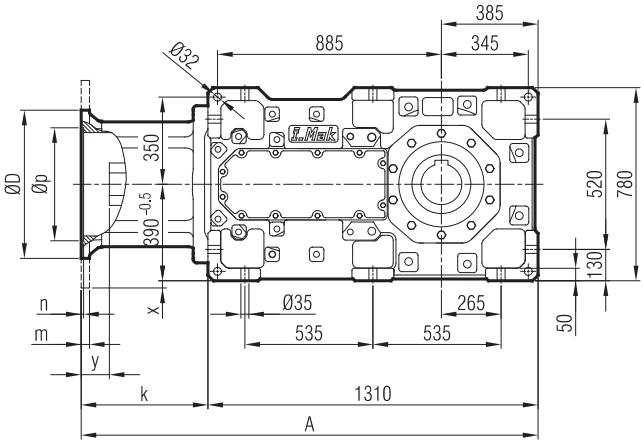
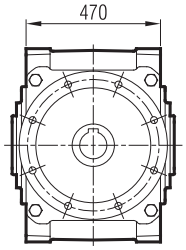
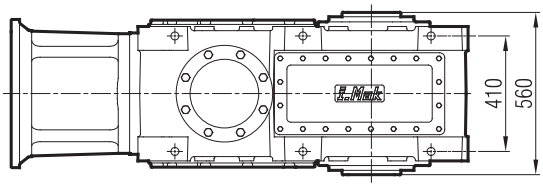


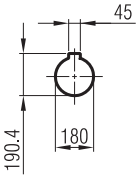


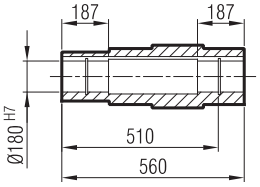
MKP 1204-G09

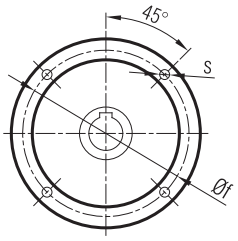


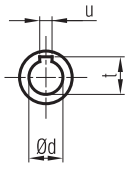












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180/B5	1707	250	300	350	M14	397	20	6	48	51.8	14	-	48
200/B5	1707	300	350	400	M16	397	22	6	55	59.3	16	-	48
225/B5	1750	350	400	450	M16	440	22	6	60	64.4	18	-	80
250/B5	1750	450	500	550	M16	440	25	6.5	65	69.4	18	-	75
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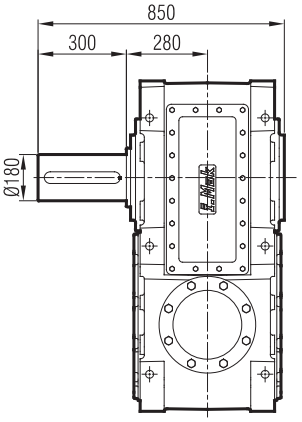
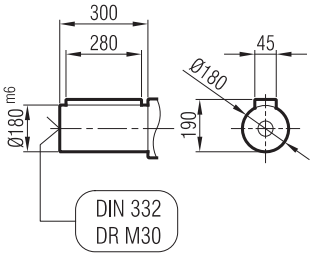
MA / MK 120_

...-SL





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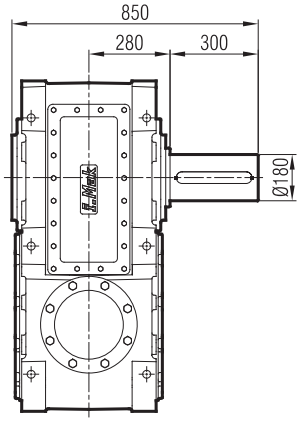

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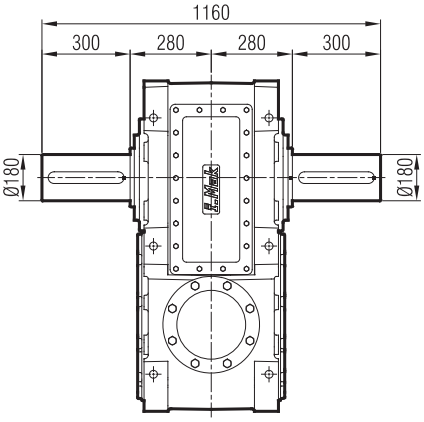

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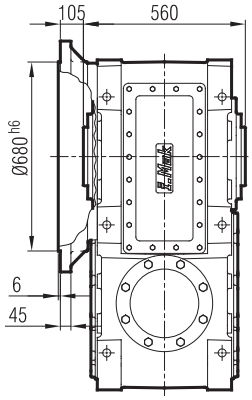

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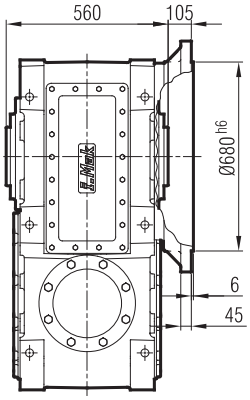

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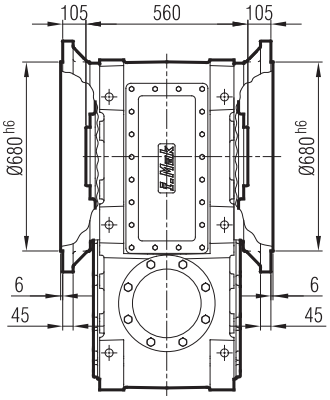

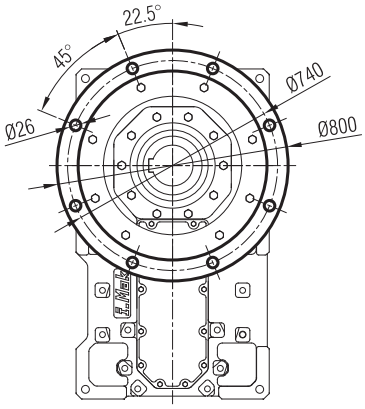

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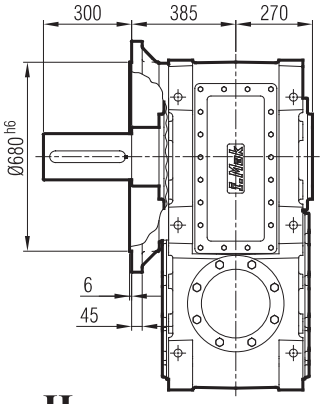

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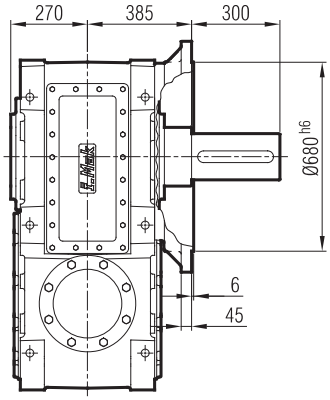

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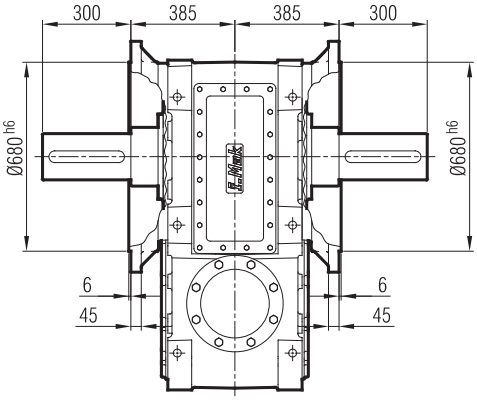

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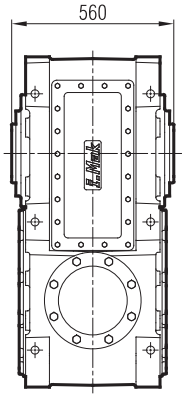
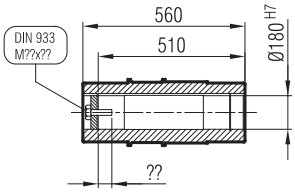
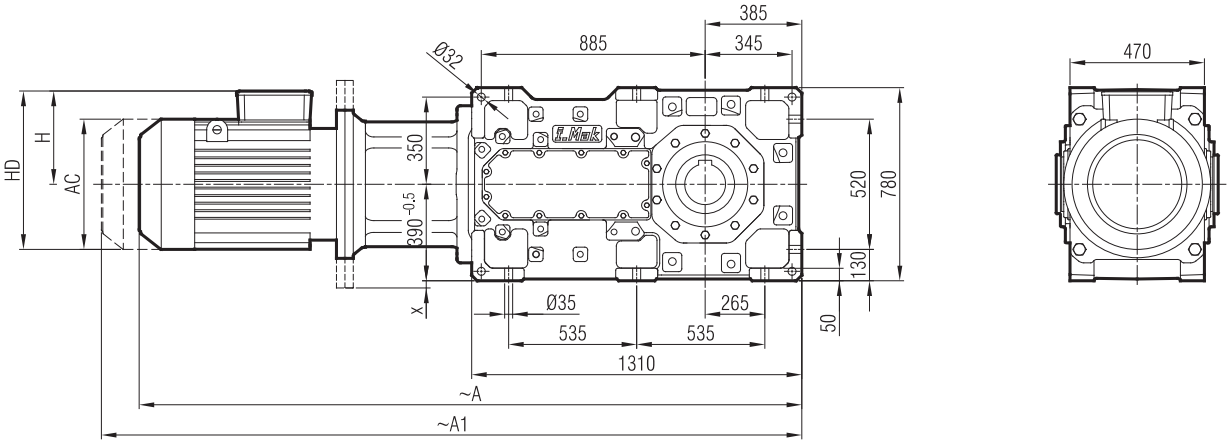
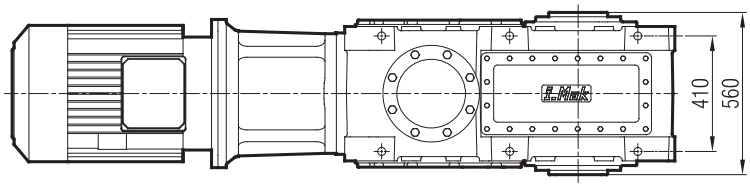
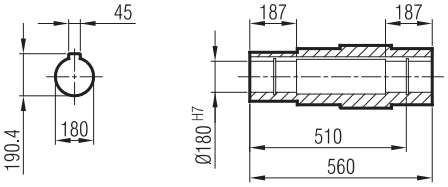




MKM 1204-G09





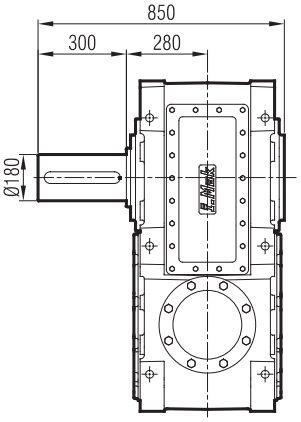


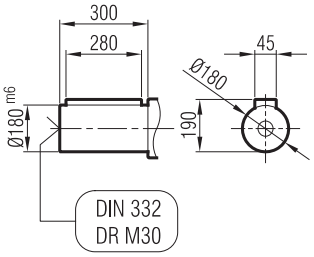
	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5
A	2227	2272	2348	2348	2416	2435	2495	2545	2635	2635
A1	2344	2389	2484	2484	2563	2582	2642	2692	2883	2883
H	240	240	260	260	300	313	313	366	398	398
HD	400	400	440	440	500	538	538	616	678	678
AC	315	315	357	357	394	456	456	489	547.5	547.5
x	-	-	-	-	-	-	-	-	-	-

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

MA / MK 120_

...-SL





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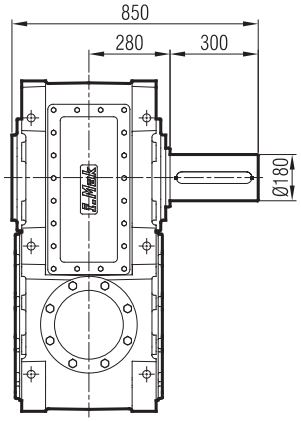

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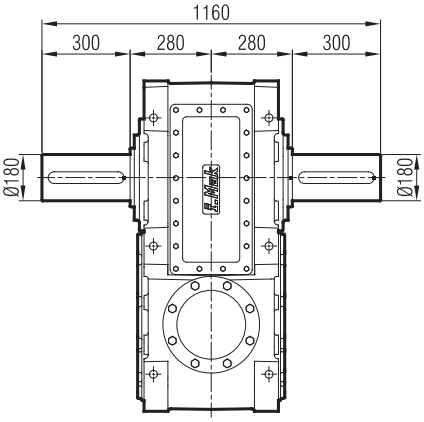

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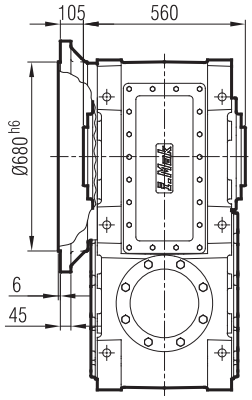

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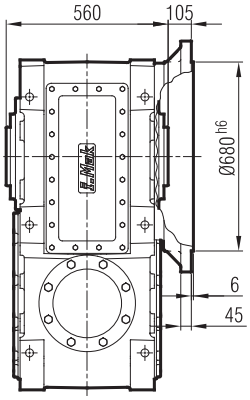

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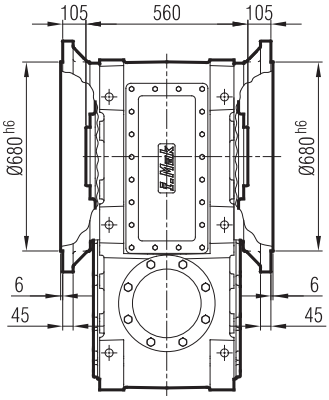
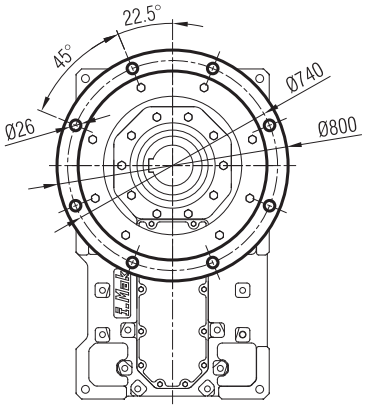
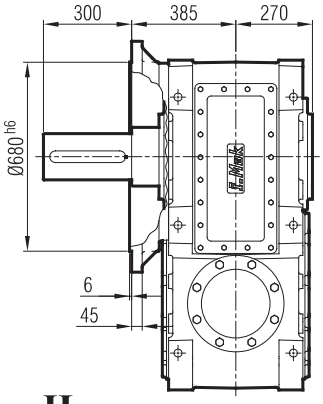
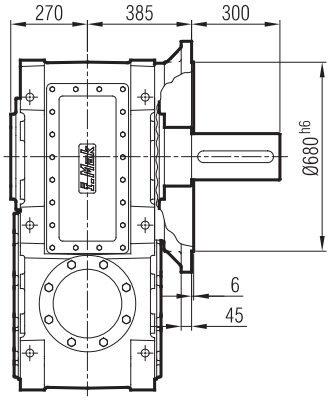




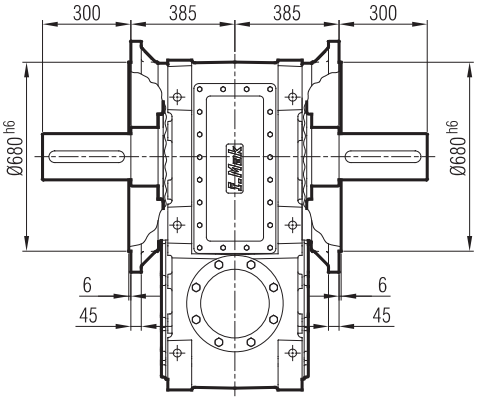
...-FL-SL



...-FR-SR



...-FD-SD



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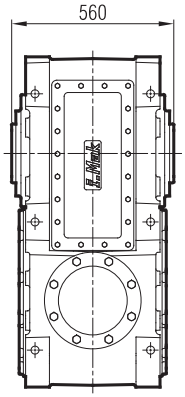
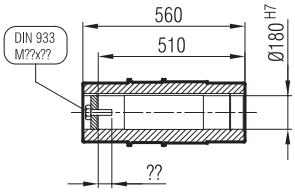
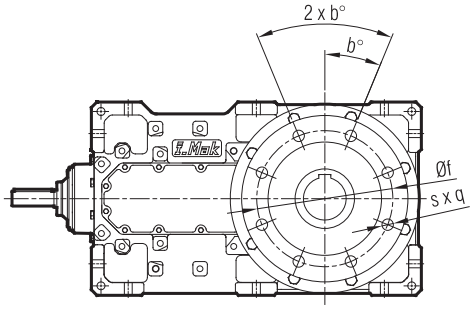




MKE .... / G07



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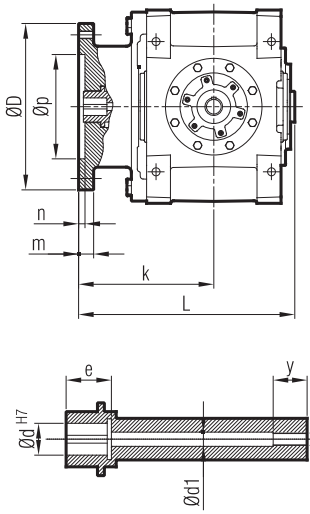

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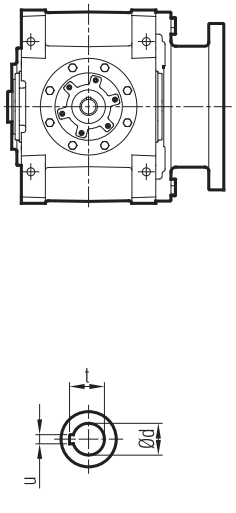
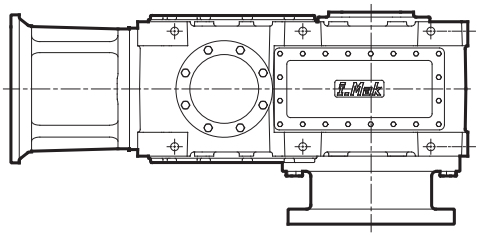


MKEP .... / G09



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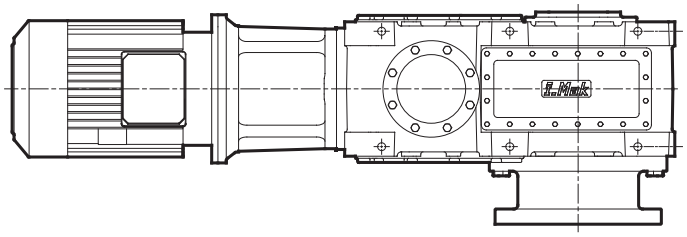
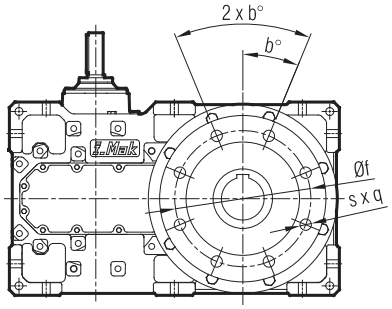


q: Adet / Quantity / *quantité*

	Øp	Øf	ØD	m	n	s	q	b°	Ød	Ød1	e	u	t	j	y	k	L
MKE... 404-403	250	280	320	30	10	M20	8	22.5°	Ø60	Ø26	125	18	64.4	M24	48	327	502
MKE... 504-503	290	325	370	30	10	M20	8	22.5°	Ø70	Ø26	135	20	74.9	M24	48	361	553.5
MKE... 604-603	340	375	420	35	10	M20	8	22.5°	Ø80	Ø40	145	22	85.4	M36	75	374	569
MKE... 704-703	355	400	450	40	15	M24	8	22.5°	Ø90	Ø40	145	25	95.4	M36	75	407.5	625
MKE... 804-803	395	440	490	40	15	M24	8	22.5°	Ø100	Ø40	160	28	106.4	M36	75	432.5	653
MKE... 904-903	425	480	540	45	17	M30	8	22.5°	Ø110	Ø40	170	28	116.4	M36	75	475	717
MKE... 1004-1003	455	500	560	45	17	M30	8	22.5°	Ø120	Ø50	185	32	127.4	M45	90	495	739
MKE... 1104-1103	500	560	630	50	17	M36	8	22.5°	Ø130	Ø50	190	32	137.4	M45	90	545	825
MKE... 1204-1203	535	600	680	55	17	M36	8	22.5°	Ø140	Ø50	230	36	148.4	M45	82	565	845

Redüktör gövde ölçüleri için standart ölçü sayfasına bakınız.
For gearbox housing dimensions please refer to the standart dimension pages.
La taille standard pour le boîtier de réducteur, reportez-vous à la taille de la page.

MKE .... / G08



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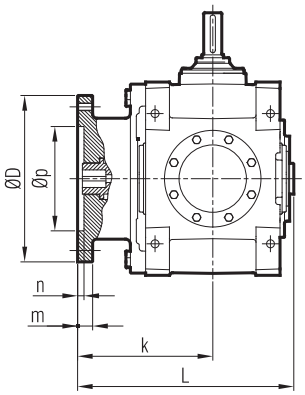

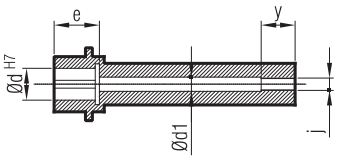

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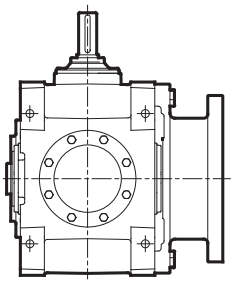
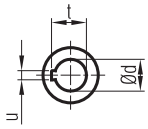
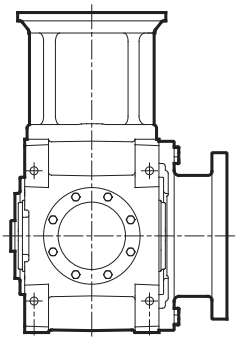
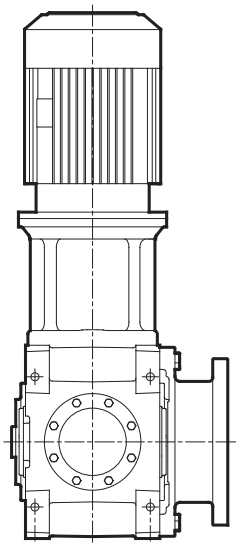




MKEP .... / G10



MKEM .... / G10



	Øp	Øf	ØD	m	n	s	q	b°	Ød	Ød1	e	u	t	j	y	k	L
MKE... 403	250	280	320	30	10	M20	8	22.5°	Ø60	Ø26	125	18	64.4	M24	48	327	502
MKE... 503	290	325	370	30	10	M20	8	22.5°	Ø70	Ø26	135	20	74.9	M24	48	361	553.5
MKE... 603	340	375	420	35	10	M20	8	22.5°	Ø80	Ø40	145	22	85.4	M36	75	374	569
MKE... 703	355	400	450	40	15	M24	8	22.5°	Ø90	Ø40	145	25	95.4	M36	75	407.5	625
MKE... 803	395	440	490	40	15	M24	8	22.5°	Ø100	Ø40	160	28	106.4	M36	75	432.5	653
MKE... 903	425	480	540	45	17	M30	8	22.5°	Ø110	Ø40	170	28	116.4	M36	75	475	717
MKE... 1003	455	500	560	45	17	M30	8	22.5°	Ø120	Ø50	185	32	127.4	M45	90	495	739
MKE... 1103	500	560	630	50	17	M36	8	22.5°	Ø130	Ø50	190	32	137.4	M45	90	545	825
MKE... 1203	535	600	680	55	17	M36	8	22.5°	Ø140	Ø50	230	36	148.4	M45	82	565	845

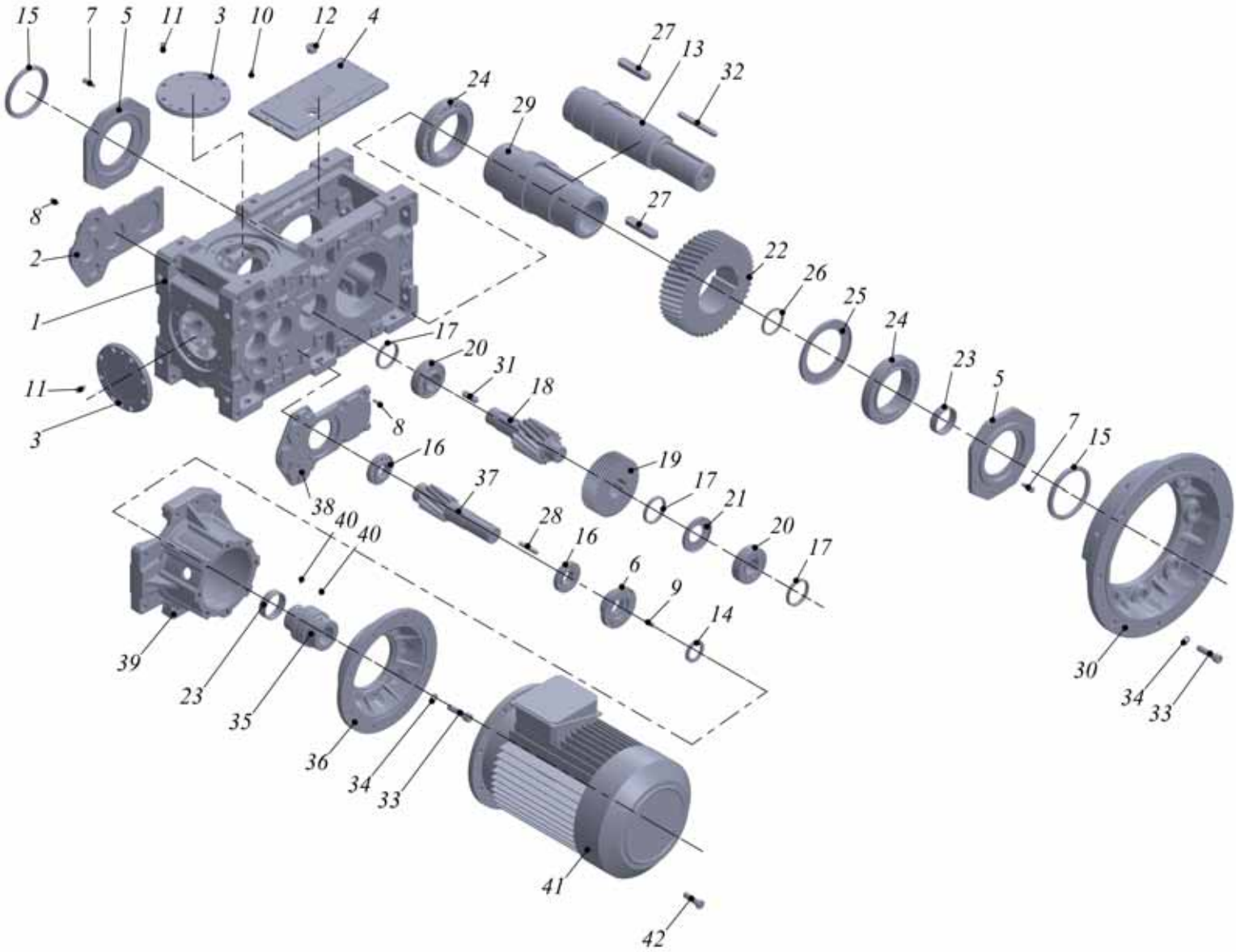
Redüktör gövde ölçüleri için standart ölçü sayfasına bakınız.
For gearbox housing dimensions please refer to the standart dimension pages.
La taille standard pour le boîtier de réducteur, reportez-vous à la taille de la page.

MA Serisi Redüktörler Yedek Parça Listeleri

General Parts List

Liste des pièces détachèes

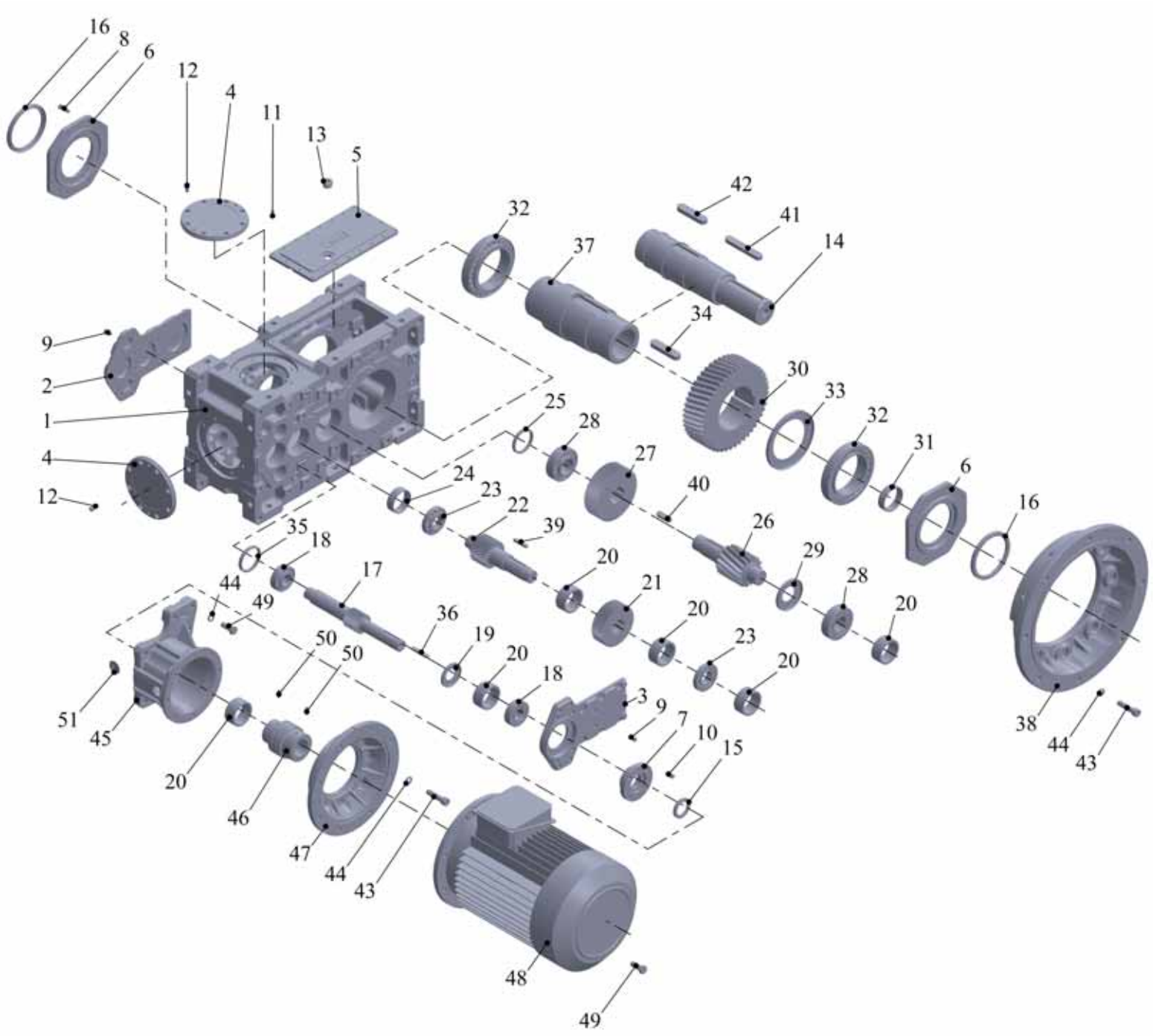
TİP / TYPE / *TYP*
MA - MAP - MAM 402 - 502 - 602 - 702 - 802 - 902 - 1002 - 1102 - 1202



TİP / TYPE / *TYP*
MA - MAP - MAM 402 - 502 - 602 - 702 - 802 - 902 - 1002 - 1102 - 1202

1 - Gövde	1 - Gear Case	*1 - Carter*
2 - Rulman Baskı Kapağı	2 - Bearing Cover	*2 - Couvercle de Roulement*
3 - Ön veya Üst Konik Kapağı	3 - Front or Top Conical Cover	*3 - Couvercle conique avant ou supérieur*
4 - Kapak	4 - Cover	*4 - Couvercle*
5 - Keçe Kapağı	5 - Seal Cover	*5 - Couvercle de joint*
6 - Keçe Kapağı	6 - Seal Cover	*6 - Couvercle de joint*
7 - Cıvata	7 - Bolt	*7 - Vis*
8 - Cıvata	8 - Bolt	*8 - Vis*
9 - Cıvata	9 - Bolt	*9 - Vis*
10 - Cıvata	10 - Bolt	*10 - Vis*
11 - Cıvata	11 - Bolt	*11 - Vis*
12 - Yağ Tapası	12 - Oil Plug	*12 - Bouchon d'huile*
13 - Çıkış Mili	13 - Output Shaft	*13 - Arbre de sortie*
14 - Keçe	14 - Seal	*14 - Joint*
15 - Keçe	15 - Seal	*15 - Joint*
16 - Rulman	16 - Bearing	*16 - Roulement*
17 - Burç	17 - Spacer	*17 - Anneau d'espacement*
18 - Dişli Z3	18 - Gear Z3	*18 - Pignon Z3*
19 - Dişli Z2	19 - Gear Z2	*19 - Pignon Z2*
20 - Rulman	20 - Bearing	*20 - Roulement*
21 - Nilos Ring	21 - Nilos Ring	*21 - Nilos Ring*
22 - Dişli Z4	22 - Gear Z4	*22 - Pignon Z4*
23 - Burç	23 - Spacer	*23 - Anneau d'espacement*
24 - Rulman	24 - Bearing	*24 - Roulement*
25 - Nilosring	25 - Nilos Ring	*25 - Nilos Ring*
26 - Burç	26 - Spacer	*26 - Anneau d'espacement*
27 - Kama	27 - Key	*27 - Clavette*
28 - Kama	28 - Key	*28 - Clavette*
29 - Kovan	29 - Hollow Shalt	*29 - Arbre creux*
30 - Flanş	30 - Flange	*30 - Bridge*
31 - Kama	31 - Key	*31 - Clavette*
32 - Kama	32 - Key	*32 - Clavette*
33 - Cıvata	33 - Bolt	*33 - Vis*
34 - Rondela	34 - Washer	*34 - Machine à laver*
35 - Kaplin	35 - Coupling	*35 - Couplage*
36 - Motor Bağlantı Flanşı	36 - Motor Mounting Flange	*36 - Bride moteur*
37 - Dişli Z1	37 - Gear Z1	*37 - Pignon Z1*
38 - Rulman Baskı Kapağı	38 - Bearing Cover	*38 - Couvercle de Roulement*
39 - Motor Bağlantı Boğazı	39 - Motor Mounting Adapter	*39 - Bride moteur*
40 - Setskur	40 - Setskur	*40 - Setskur*
41 - Elektrik Motoru	41 - Electric Motor	*41 - Moteur éléctrique*
42 - Cıvata	42 - Bolt	*42 - Vis*

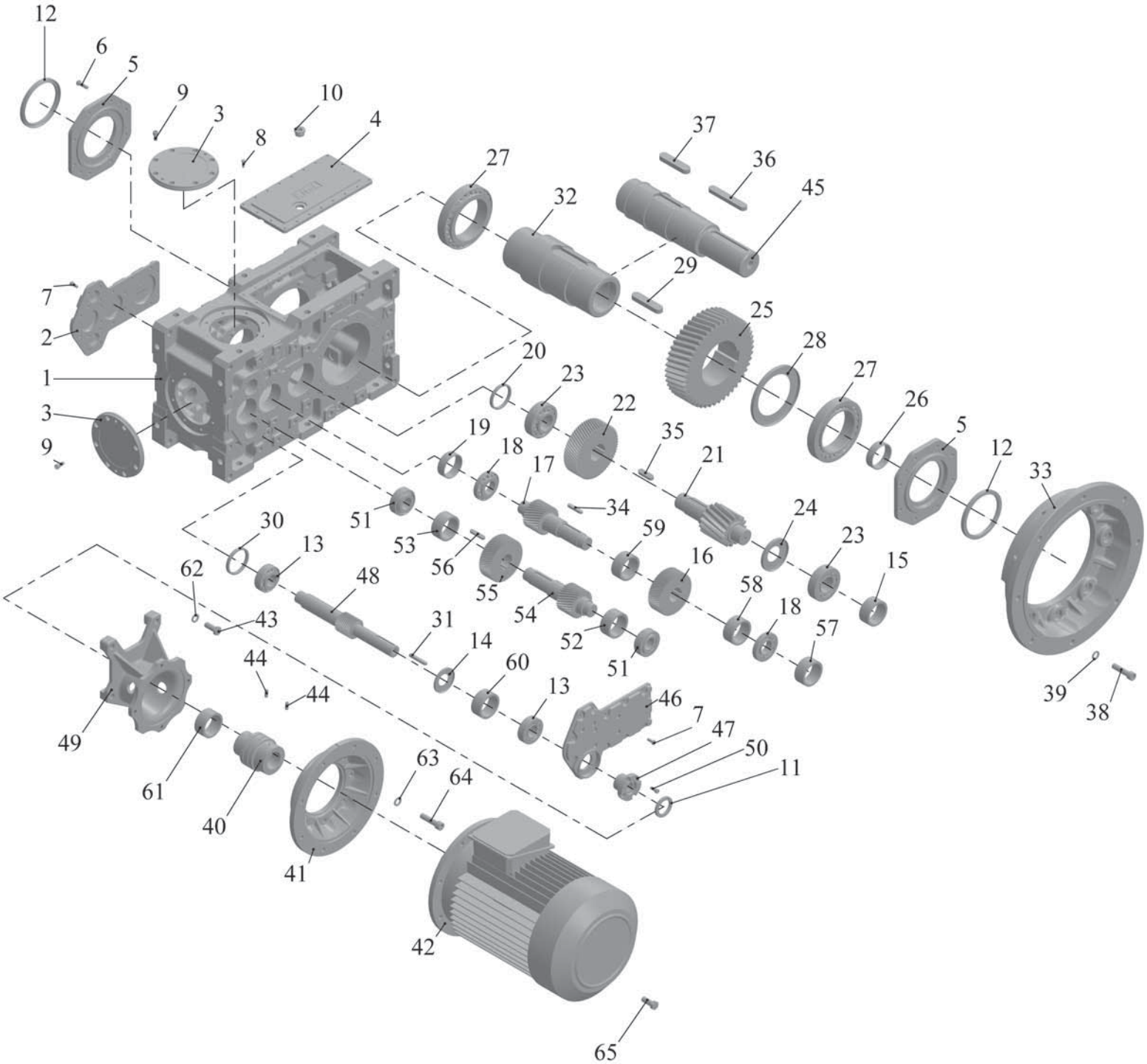
TİP / TYPE / *TYP*
MA - MAP - MAM 403 - 503 - 603 - 703 - 803 - 903 - 1003 - 1103 - 1203



TİP / TYPE / *TYP*
MA - MAP - MAM 403 - 503 - 603 - 703 - 803 - 903 - 1003 - 1103 - 1203

1 - Gövde	1 - Gear Case	*1 - Carter*
2 - Rulman Baskı Kapağı	2 - Bearing Cover	*2 - Couvercle de Roulement*
3 - Rulman Baskı Kapağı	3 - Bearing Cover	*3 - Couvercle de Roulement*
4 - Ön veya Üst Konik Kapağı	4 - Front or Top Conical Cover	*4 - Couvercle conique avant ou supérieur*
5 - Kapak	5 - Cover	*5 - Couvercle*
6 - Keçe Kapağı	6 - Seal Cover	*6 - Couvercle de joint*
7 - Keçe Kapağı	7 - Seal Cover	*7 - Couvercle de joint*
8 - Cıvata	8 - Bolt	*8 - Vis*
9 - Cıvata	9 - Bolt	*9 - Vis*
10 - Cıvata	10 - Bolt	*10 - Vis*
11 - Cıvata	11 - Bolt	*11 - Vis*
12 - Cıvata	12 - Bolt	*12 - Vis*
13 - Yağ Tapası	13 - Oil Plug	*13 - Bouchon d'huile*
14 - Çıkış Mili	14 - Output Shaft	*14 - Arbre de sortie*
15 - Keçe	15 - Seal	*15 - Joint*
16 - Keçe	16 - Seal	*16 - Joint*
17 - Dişli Z1	17 - Gear Z1	*17 - Pignon Z1*
18 - Rulman	18 - Bearing	*18 - Roulement*
19 - Nilos Ring	19 - Nilos Ring	*19 - Nilos Ring*
20 - Burç	20 - Spacer	*20 - Anneau d'espacement*
21 - Dişli Z2	21 - Gear Z2	*21 - Pignon Z2*
22 - Dişli Z3	22 - Gear Z3	*22 - Pignon Z3*
23 - Rulman	23 - Bearing	*23 - Roulement*
24 - Burç	24 - Spacer	*24 - Anneau d'espacement*
25 - Burç	25 - Spacer	*25 - Anneau d'espacement*
26 - Dişli Z5	26 - Gear Z5	*26 - Pignon Z5*
27 - Dişli Z4	27 - Gear Z4	*27 - Pignon Z4*
28 - Rulman	28 - Bearing	*28 - Roulement*
29 - Nilosring	29 - Nilos Ring	*29 - Nilos Ring*
30 - Dişli Z6	30 - Gear Z6	*30 - Pignon Z6*
31 - Burç	31 - Spacer	*31 - Anneau d'espacement*
32 - Rulman	32 - Bearing	*32 - Roulement*
33 - Nilos Ring	33 - Nilos Ring	*33 - Nilos Ring*
34 - Kama	34 - Key	*34 - Clavette*
35 - Burç	35 - Spacer	*35 - Anneau d'espacement*
36 - Kama	36 - Key	*36 - Clavette*
37 - Kovan	37 - Hollow Shalt	*37 - Arbre creux*
38 - Flanş	38 - Flange	*38 - Bridge*
39 - Kama	39 - Key	*39 - Clavette*
40 - Kama	40 - Key	*40 - Clavette*
41 - Kama	41 - Key	*41 - Clavette*
42 - Kama	42 - Key	*42 - Clavette*
43 - Cıvata	43 - Bolt	*43 - Vis*
44 - Rondela	44 - Washer	*44 - Machine à laver*
45 - Motor Bağlantı Boğazı	45 - Motor Mounting Adapter	*45 - Bride moteur*
46 - Kaplin	46 - Coupling	*46 - Couplage*
47 - Motor Bağlantı Flanşı	47 - Motor Mounting Flange	*47 - Bride moteur*
48 - Elektrik Motoru	48 - Electric Motor	*48 - Moteur éléctrique*
49 - Cıvata	49 - Bolt	*49 - Vis*
50 - Setskur	50 - Setskur	*50 - Setskur*
51 - Kapak	51 - Cover	*51 - Couvercle*

TİP / TYPE / *TYP*
MA - MAP - MAM 704 - 804 - 904 - 1004 - 1104 - 1204



TİP / TYPE / *TYP*

MA - MAP - MAM 704 - 804 - 904 - 1004 - 1104 - 1204

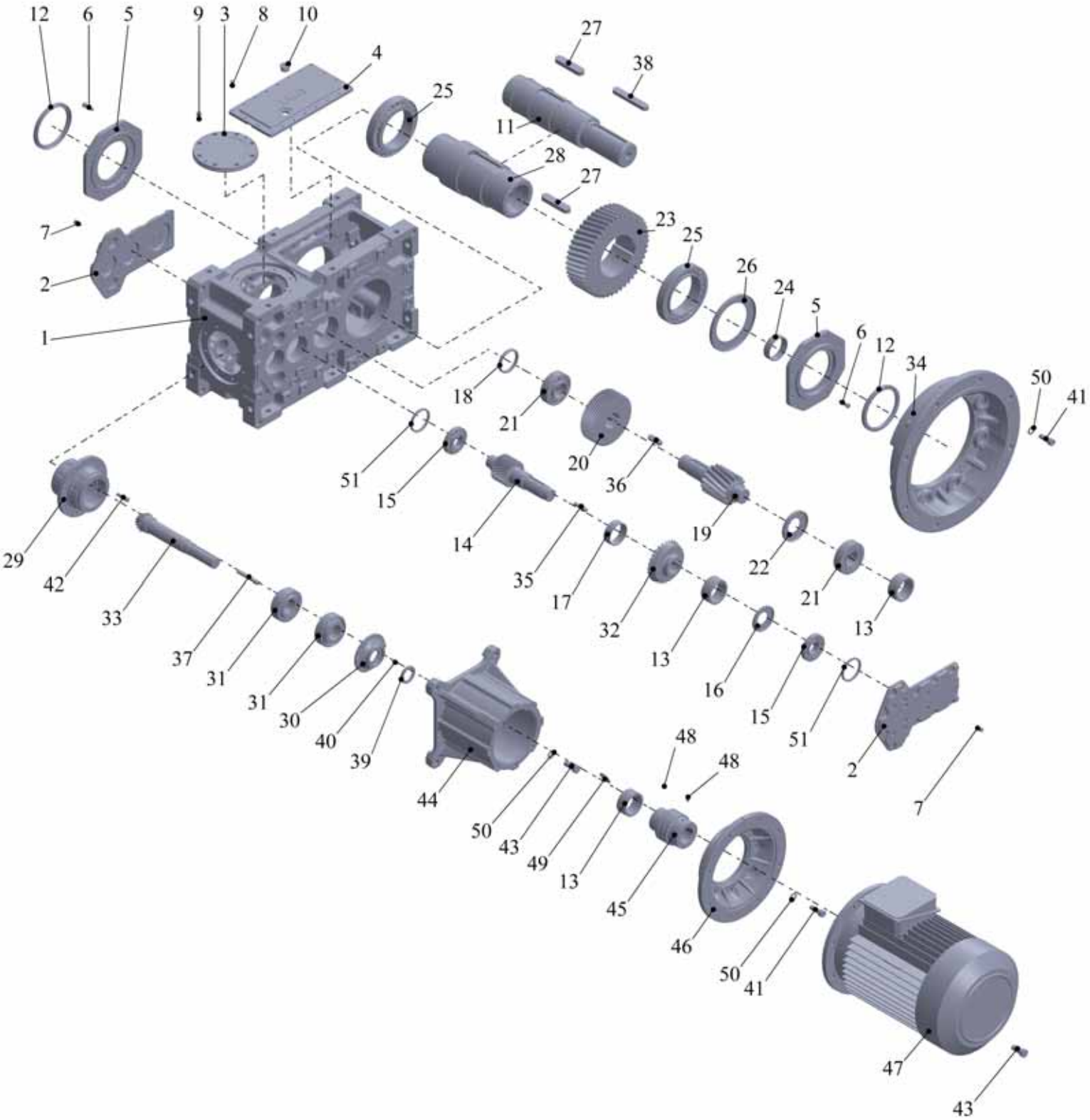
1 - Gövde	1 - Gear Case	*1 - Carter*
2 - Rulman Baskı Kapağı	2 - Bearing Cover	*2 - Couvercle de Roulement*
3 - Ön veya Üst Konik Kapağı	3 - Front or Top Conical Cover	*3 - Couvercle conique avant ou supérieur*
4 - Kapak	4 - Cover	*4 - Couvercle*
5 - Keçe Kapağı	5 - Seal Cover	*5 - Couvercle de joint*
6 - Cıvata	6 - Bolt	*6 - Vis*
7 - Cıvata	7 - Bolt	*7 - Vis*
8 - Cıvata	8 - Bolt	*8 - Vis*
9 - Cıvata	9 - Bolt	*9 - Vis*
10 - Yağ Tapası	10 - Oil Plug	*10 - Bouchon d'huile*
11 - Keçe	11 - Seal	*11 - Joint*
12 - Keçe	12 - Seal	*12 - Joint*
13 - Rulman	13 - Bearing	*13 - Roulement*
14 - Nilos Ring	14 - Nilos Ring	*14 - Nilos Ring*
15 - Burç	15 - Spacer	*15 - Anneau d'espacement*
16 - Dişli Z4	16 - Gear Z4	*16 - Pignon Z4*
17 - Dişli Z5	17 - Gear Z5	*17 - Pignon Z5*
18 - Rulman	18 - Bearing	*18 - Roulement*
19 - Burç	19 - Spacer	*19 - Anneau d'espacement*
20 - Burç	20 - Spacer	*20 - Anneau d'espacement*
21 - Dişli Z4	21 - Gear Z7	*21 - Pignon Z7*
22 - Dişli Z6	22 - Gear Z6	*22 - Pignon Z6*
23 - Rulman	23 - Bearing	*23 - Roulement*
24 - Nilosring	24 - Nilos Ring	*24 - Nilos Ring*
25 - Dişli Z8	25 - Gear Z8	*25 - Pignon Z8*
26 - Burç	26 - Spacer	*26 - Anneau d'espacement*
27 - Rulman	27 - Bearing	*27 - Roulement*
28 - Nilos Ring	28 - Nilos Ring	*28 - Nilos Ring*
29 - Kama	29 - Key	*29 - Clavette*
30 - Burç	30 - Spacer	*30 - Anneau d'espacement*
31 - Kama	31 - Key	*31 - Clavette*
32 - Kovan*	32 - Hollow Shalt	*32 - Arbre creux*
33 - Flanş	33 - Flange	*33 - Bridge*
34 - Kama	34 - Key	*34 - Clavette*
35 - Kama	35 - Key	*35 - Clavette*
36 - Kama	36 - Key	*36 - Clavette*
37 - Kama	37 - Key	*37 - Clavette*
38 - Cıvata	38 - Bolt	*38 - Vis*
39 - Rondela	39 - Washer	*39 - Machine à laver*
40 - Kaplin	40 - Coupling	*40 - Couplage*
41 - Motor Bağlantı Flanşı	41 - Motor Mounting Flange	*41 - Bride moteur*
42 - Elektrik Motoru	42 - Electric Motor	*42 - Moteur éléctrique*
43 - Cıvata	43 - Bolt	*43 - Vis*
44 - Setskur	44 - Setskur	*44 - Setskur*
45 - Çıkış Mili*	45 - Output Shaft	*45 - Arbre de sortie*
46 - Rulman Baskı Kapağı	46 - Bearing Cover	*46 - Couvercle de Roulement*
47 - Keçe Kapağı	47 - Seal Cover	*47 - Couvercle de joint*
48 - Dişli Z1	48 - Gear Z1	*48 - Pignon Z1*
49 - Motor Bağlantı Boğazı	49 - Motor Mounting Adapter	*49 - Bride moteur*
50 - Cıvata	50 - Bolt	*50 - Vis*
51 - Rulman	51 - Bearing	*51 - Roulement*
52 - Burç	52 - Spacer	*52 - Anneau d'espacement*
53 - Burç	53 - Spacer	*53 - Anneau d'espacement*
54 - Dişli Z3	54 - Gear Z3	*54 - Pignon Z3*
55 - Dişli Z2	55 - Gear Z2	*55 - Pignon Z2*
56 - Kama	56 - Key	*56 - Clavette*
57 - Burç	57 - Spacer	*57 - Anneau d'espacement*
58 - Burç	58 - Spacer	*58 - Anneau d'espacement*
59 - Burç	59 - Spacer	*59 - Anneau d'espacement*
60 - Burç	60 - Spacer	*60 - Anneau d'espacement*
61 - Burç	61 - Spacer	*61 - Anneau d'espacement*
62 - Rondela	62 - Washer	*62 - Machine à laver*
63 - Rondela	63 - Washer	*63 - Machine à laver*
64 - Cıvata	64 - Bolt	*64 - Vis*
65 - Cıvata	65 - Bolt	*65 - Vis*

MK Serisi Redüktörler Yedek Parça Listeleri

General Parts List

Liste des pièces détachèes

TİP / TYPE / *TYP*
MK - MKP - MKM 403 - 503 - 603 - 703 - 803 - 903 - 1003 - 1103 - 1203 / G07 - G09

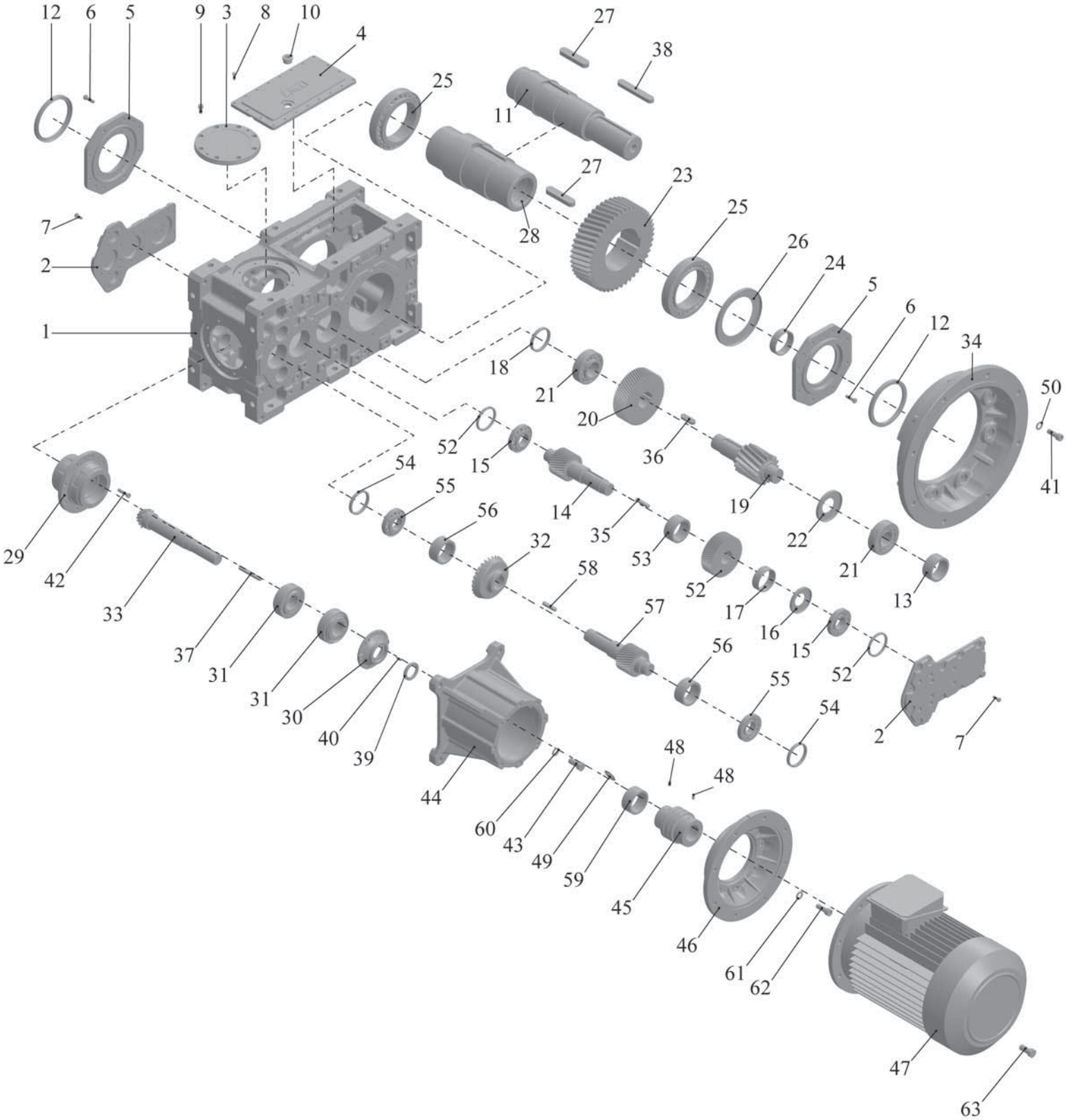


TİP / TYPE / *TYP*

MK - MKP - MKM 403 - 503 - 603 - 703 - 803 - 903 - 1003 - 1103 - 1203 / G07 - G09

1 - Gövde	1 - Gear Case	*1 - Carter*
2 - Rulman Baskı Kapağı	2 - Bearing Cover	*2 - Couvercle de Roulement*
3 - Ön veya Üst Konik Kapağı	3 - Front or Top Conical Cover	*3 - Couvercle conique avant ou supérieur*
4 - Kapak	4 - Cover	*4 - Couvercle*
5 - Keçe Kapağı	5 - Seal Cover	*5 - Couvercle de joint*
6 - Cıvata	6 - Bolt	*6 - Vis*
7 - Cıvata	7 - Bolt	*7 - Vis*
8 - Cıvata	8 - Bolt	*8 - Vis*
9 - Cıvata	9 - Bolt	*9 - Vis*
10 - Yağ Tapası	10 - Oil Plug	*10 - Bouchon d'huile*
11 - Çıkış Mili	11 - Output Shaft	*11 - Arbre de sortie*
12 - Keçe	12 - Seal	*12 - Joint*
13 - Burç	13 - Spacer	*13 - Anneau d'espacement*
14 - Dişli Z5	14 - Gear Z5	*14 - Pignon Z5*
15 - Rulman	15 - Bearing	*15 - Roulement*
16 - Nilos Ring	16 - Nilos Ring	*16 - Nilos Ring*
17 - Burç	17 - Spacer	*17 - Anneau d'espacement*
18 - Burç	18 - Spacer	*18 - Anneau d'espacement*
19 - Dişli Z7	19 - Gear Z5	*19 - Pignon Z5*
20 - Dişli Z6	20 - Gear Z4	*20 - Pignon Z4*
21 - Rulman	21 - Bearing	*21 - Roulement*
22 - Nilos Ring	22 - Nilos Ring	*22 - Nilos Ring*
23 - Dişli Z8	23 - Gear Z6	*23 - Pignon Z6*
24 - Burç	24 - Spacer	*24 - Anneau d'espacement*
25 - Rulman	25 - Bearing	*25 - Roulement*
26 - Nilos Ring	26 - Nilos Ring	*26 - Nilos Ring*
27 - Kama	27 - Key	*27 - Clavette*
28 - Kovan	28 - Hollow Shalt	*28 - Arbre creux*
29 - Motorsuz Kapak	29 - Gear Case Cover	*29 - Antriebsdeckel*
30 - Keçe Kapağı	30 - Seal Cover	*30 - Couvercle de joint*
31 - Rulman	31 - Bearing	*31 - Roulement*
32 - Ayna Dişli Z2	32 - Bevel Wheel Gear Z2	*32 - Pignon Z2*
33 - Mahruti Dişli Z1	33 - Bevel Pinion Gear Z1	*33 - Pignon Z1*
34 - Flanş	34 - Flange	*34 - Bridge*
35 - Kama	35 - Key	*35 - Clavette*
36 - Kama	36 - Key	*36 - Clavette*
37 - Kama	37 - Key	*37 - Clavette*
38 - Kama	38 - Key	*38 - Clavette*
39 - Keçe	39 - Seal	*39 - Joint*
40 - Cıvata	40 - Bolt	*40 - Vis*
41 - Cıvata	41 - Bolt	*41 - Vis*
42 - Cıvata	42 - Bolt	*42 - Vis*
43 - Cıvata	43 - Bolt	*43 - Vis*
44 - Motor Bağlantı Boğazı	44 - Motor Mounting Adapter	*44 - Bride moteur*
45 - Kaplin	45 - Coupling	*45 - Couplage*
46 - Motor Bağlantı Flanşı	46 - Motor Mounting Flange	*46 - Bride moteur*
47 - Elektrik Motoru	47 - Electric Motor	*47 - Moteur éléctrique*
48 - Setskur	48 - Setskur	*48 - Setskur*
49 - Kapak	49 - Cover	*49 - Couvercle*
50 - Rondela	50 - Washer	*50 - Machine à laver*
51 - Burç	51 - Spacer	*51 - Anneau d'espacement*

TİP / TYPE / *TYP*
MK - MKP - MKM 404 - 504 - 604 - 704 - 804 - 904 - 1004 - 1104 - 1204 / G07 - G09

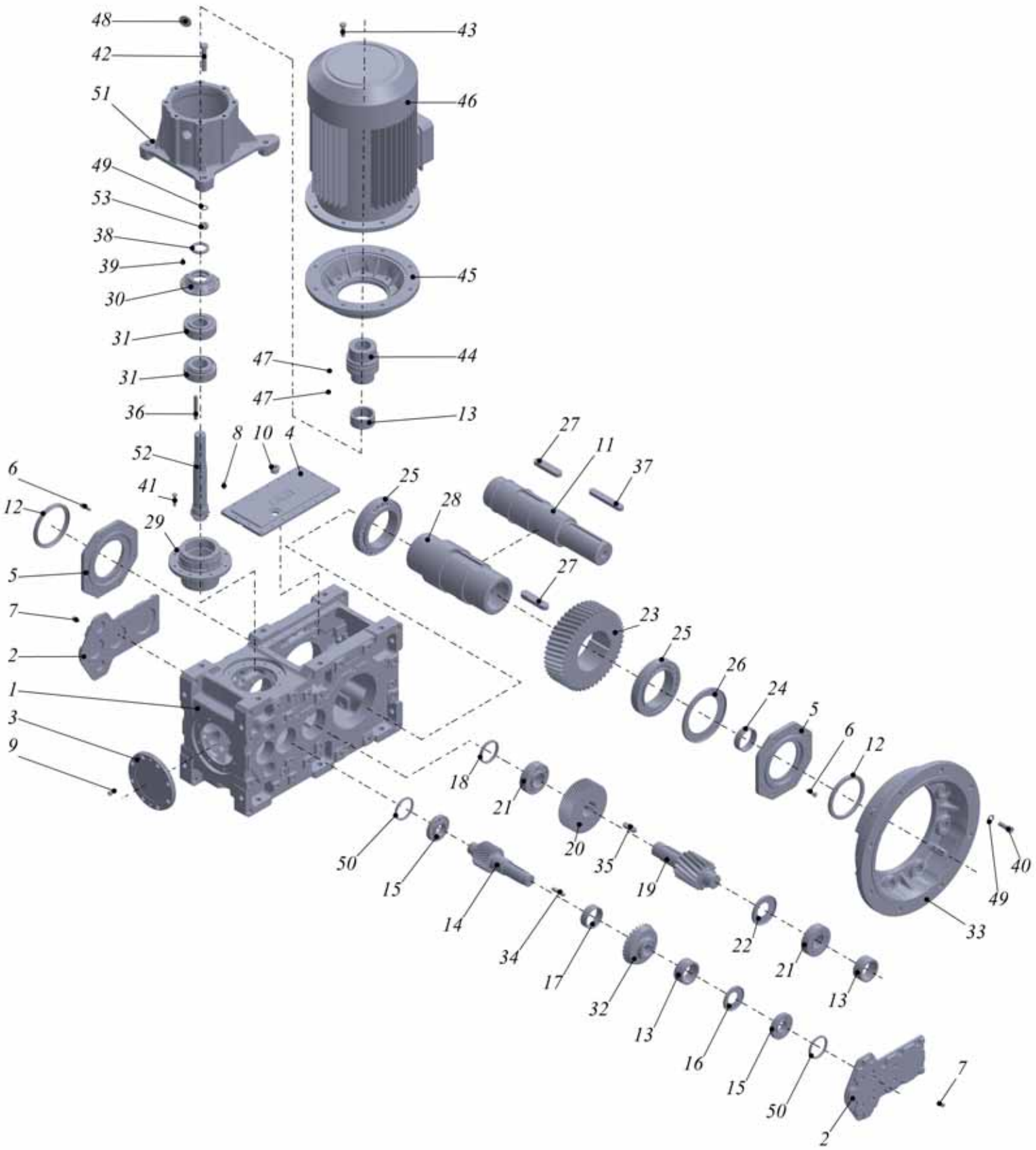


TİP / TYPE / *TYP*

MK - MKP - MKM 404 - 504 - 604 - 704 - 804 - 904 - 1004 - 1104 - 1204 / G07 - G09

1 - Gövde	1 - Gear Case	*1 - Carter*
2 - Rulman Baskı Kapağı	2 - Bearing Cover	*2 - Couvercle de Roulement*
3 - Ön veya Üst Konik Kapağı	3 - Front or Top Conical Cover	*3 - Couvercle conique avant ou supérieur*
4 - Kapak	4 - Cover	*4 - Couvercle*
5 - Keçe Kapağı	5 - Seal Cover	*5 - Couvercle de joint*
6 - Cıvata	6 - Bolt	*6 - Vis*
7 - Cıvata	7 - Bolt	*7 - Vis*
8 - Cıvata	8 - Bolt	*8 - Vis*
9 - Cıvata	9 - Bolt	*9 - Vis*
10 - Yağ Tapası	10 - Oil Plug	*10 - Bouchon d'huile*
11 - Çıkış Mili	11 - Output Shaft	*11 - Arbre de sortie*
12 - Keçe	12 - Seal	*12 - Joint*
13 - Burç	13 - Spacer	*13 - Anneau d'espacement*
14 - Dişli Z5	14 - Gear Z5	*14 - Pignon Z5*
15 - Rulman	15 - Bearing	*15 - Roulement*
16 - Nilos Ring	16 - Nilos Ring	*16 - Nilos Ring*
17 - Burç	17 - Spacer	*17 - Anneau d'espacement*
18 - Burç	18 - Spacer	*18 - Anneau d'espacement*
19 - Dişli Z7	19 - Gear Z5	*19 - Pignon Z5*
20 - Dişli Z6	20 - Gear Z4	*20 - Pignon Z4*
21 - Rulman	21 - Bearing	*21 - Roulement*
22 - Nilos Ring	22 - Nilos Ring	*22 - Nilos Ring*
23 - Dişli Z8	23 - Gear Z6	*23 - Pignon Z6*
24 - Burç	24 - Spacer	*24 - Anneau d'espacement*
25 - Rulman	25 - Bearing	*25 - Roulement*
26 - Nilos Ring	26 - Nilos Ring	*26 - Nilos Ring*
27 - Kama	27 - Key	*27 - Clavette*
28 - Kovan	28 - Hollow Shalt	*28 - Arbre creux*
29 - Motorsuz Kapak	29 - Gear Case Cover	*29 - Antriebsdeckel*
30 - Keçe Kapağı	30 - Seal Cover	*30 - Couvercle de joint*
31 - Rulman	31 - Bearing	*31 - Roulement*
32 - Ayna Dişli Z2	32 - Bevel Wheel Gear Z2	*32 - Pignon Z2*
33 - Mahruti Dişli Z1	33 - Bevel Pinion Gear Z1	*33 - Pignon Z1*
34 - Flanş	34 - Flange	*34 - Bridge*
35 - Kama	35 - Key	*35 - Clavette*
36 - Kama	36 - Key	*36 - Clavette*
37 - Kama	37 - Key	*37 - Clavette*
38 - Kama	38 - Key	*38 - Clavette*
39 - Keçe	39 - Seal	*39 - Joint*
40 - Cıvata	40 - Bolt	*40 - Vis*
41 - Cıvata	41 - Bolt	*41 - Vis*
42 - Cıvata	42 - Bolt	*42 - Vis*
43 - Cıvata	43 - Bolt	*43 - Vis*
44 - Motor Bağlantı Boğazı	44 - Motor Mounting Adapter	*44 - Bride moteur*
45 - Kaplin	45 - Coupling	*45 - Couplage*
46 - Motor Bağlantı Flanşı	46 - Motor Mounting Flange	*46 - Bride moteur*
47 - Elektrik Motoru	47 - Electric Motor	*47 - Moteur éléctrique*
48 - Setskur	48 - Setskur	*48 - Setskur*
49 - Kapak	49 - Cover	*49 - Couvercle*
50 - Rondela	50 - Washer	*50 - Machine à laver*
51 - Dişli Z1	51 - Gear Z4	*51 - Pignon Z4*
52 - Burç	52 - Spacer	*52 - Anneau d'espacement*
53 - Burç	53 - Spacer	*53 - Anneau d'espacement*
54 - Burç	54 - Spacer	*54 - Anneau d'espacement*
55 - Rulman	55 - Bearing	*55 - Roulement*
56 - Burç	56 - Spacer	*56 - Anneau d'espacement*
57 - Dişli Z3	57 - Gear Z3	*57 - Pignon Z3*
58 - Kama	58 - Key	*58 - Clavette*
59 - Burç	59 - Spacer	*59 - Anneau d'espacement*
60 - Rondela	60 - Washer	*60 - Machine à laver*
61 - Rondela	61 - Washer	*61 - Machine à laver*
62 - Cıvata	62 - Bolt	*62 - Vis*
63 - Cıvata	63 - Bolt	*63 - Vis*

TİP / TYPE / *TYP*
MK - MKP - MKM 403 - 503 - 603 - 703 - 803 - 903 - 1003 - 1103 - 1203 / G08 - G10



TİP / TYPE / *TYP*

MK - MKP - MKM 403 - 503 - 603 - 703 - 803 - 903 - 1003 -- 1103 - 1203 / G08 - G10

1 - Gövde	1 - Gear Case	*1 - Carter*
2 - Rulman Baskı Kapağı	2 - Bearing Cover	*2 - Couvercle de Roulement*
3 - Ön veya Üst Konik Kapağı	3 - Front or Top Conical Cover	*3 - Couvercle conique avant ou supérieur*
4 - Kapak	4 - Cover	*4 - Couvercle*
5 - Keçe Kapağı	5 - Seal Cover	*5 - Couvercle de joint*
6 - Cıvata	6 - Bolt	*6 - Vis*
7 - Cıvata	7 - Bolt	*7 - Vis*
8 - Cıvata	8 - Bolt	*8 - Vis*
9 - Cıvata	9 - Bolt	*9 - Vis*
10 - Yağ Tapası	10 - Oil Plug	*10 - Bouchon d'huile*
11 - Çıkış Mili	11 - Output Shaft	*11 - Arbre de sortie*
12 - Keçe	12 - Seal	*12 - Joint*
13 - Burç	13 - Spacer	*13 - Anneau d'espacement*
14 - Dişli Z3	14 - Gear Z3	*14 - Pignon Z3*
15 - Rulman	15 - Bearing	*15 - Roulement*
16 - Nilos Ring	16 - Nilos Ring	*16 - Nilos Ring*
17 - Burç	17 - Spacer	*17 - Anneau d'espacement*
18 - Burç	18 - Spacer	*18 - Anneau d'espacement*
19 - Dişli Z5	19 - Gear Z5	*19 - Pignon Z5*
20 - Dişli Z4	20 - Gear Z4	*20 - Pignon Z4*
21 - Rulman	21 - Bearing	*21 - Roulement*
22 - Nilos Ring	22 - Nilos Ring	*22 - Nilos Ring*
23 - Dişli Z6	23 - Gear Z6	*23 - Pignon Z6*
24 - Burç	24 - Spacer	*24 - Anneau d'espacement*
25 - Rulman	25 - Bearing	*25 - Roulement*
26 - Nilosring	26 - Nilos Ring	*26 - Nilos Ring*
27 - Kama	27 - Key	*27 - Clavette*
28 - Kovan	28 - Hollow Shalt	*28 - Arbre creux*
29 - Motorsuz Kapak	29 - Gear Case Cover	*29 - Antriebsdeckel*
30 - Keçe Kapağı	30 - Seal Cover	*30 - Couvercle de joint*
31 - Rulman	31 - Bearing	*31 - Roulement*
32 - Ayna Dişli Z2	32 - Bevel Wheel Gear Z2	*32 - Pignon Z2*
33 - Flanş	33 - Flange	*33 - Bridge*
34 - Kama	34 - Key	*34 - Clavette*
35 - Kama	35 - Key	*35 - Clavette*
36 - Kama	36 - Key	*36 - Clavette*
37 - Kama	37 - Key	*37 - Clavette*
38 - Keçe	38 - Seal	*38 - Joint*
39 - Cıvata	39 - Bolt	*39 - Vis*
40 - Cıvata	40 - Bolt	*40 - Vis*
41 - Cıvata	41 - Bolt	*41 - Vis*
42 - Cıvata	42 - Bolt	*42 - Vis*
43 - Cıvata	43 - Bolt	*43 - Vis*
44 - Kaplin	44 - Coupling	*44 - Couplage*
45 - Motor Bağlantı Flanşı	45 - Motor Mounting Flange	*45 - Bride moteur*
46 - Elektrik Motoru	46 - Electric Motor	*46 - Moteur éléctrique*
47 - Setskur	47 - Setskur	*47 - Setskur*
48 - Kapak	48 - Cover	*48 - Couvercle*
49 - Rondela	49 - Washer	*49 - Machine à laver*
50 - Burç	50 - Spacer	*50 - Anneau d'espacement*
51 - Motor Bağlantı Boğazı	51 - Motor Mounting Adapter	*51 - Bride moteur*
52 - Mahruti Dişli Z1	52 - Bevel Pinion Gear Z1	*52 - Pignon Z1*
53 - Somun	53 - Nut	*53 - Noix*

Notlar
Notes

REDÜKTÖR & VARYATÖR SAN. VE TİC. A.Ş.

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