50 yıl

İMAK®

REDÜKTÖR & VARYATÖR A.Ş.

Ağır Hizmet Tipi Redüktörler

Horizontal Helical Gear Unit

Motoréducteurs hélicoïdaux à usage industriel

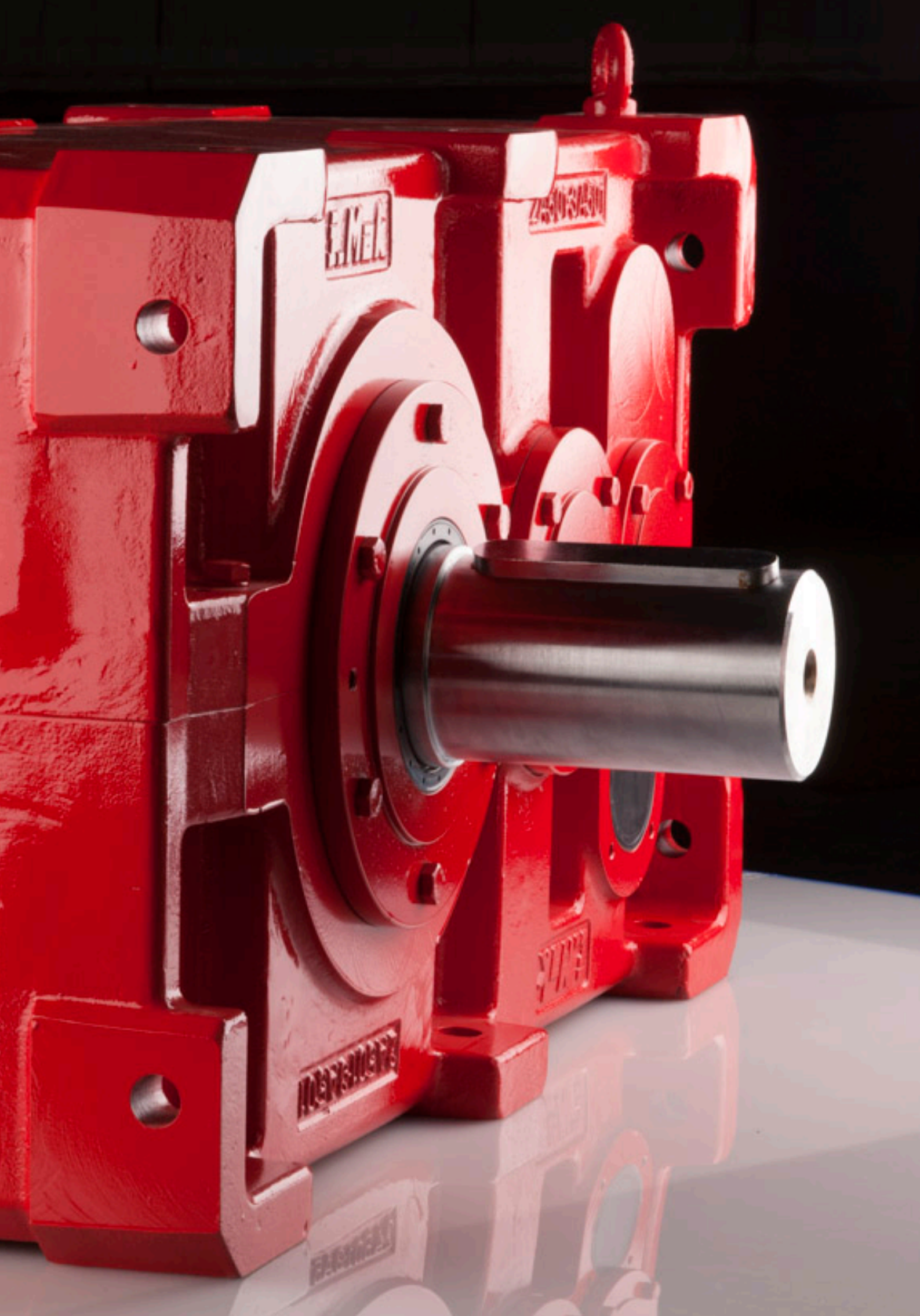
A00

SERIES A

2024

TR | EN | FR

Gearboxes and Drives / Moto Réducteurs



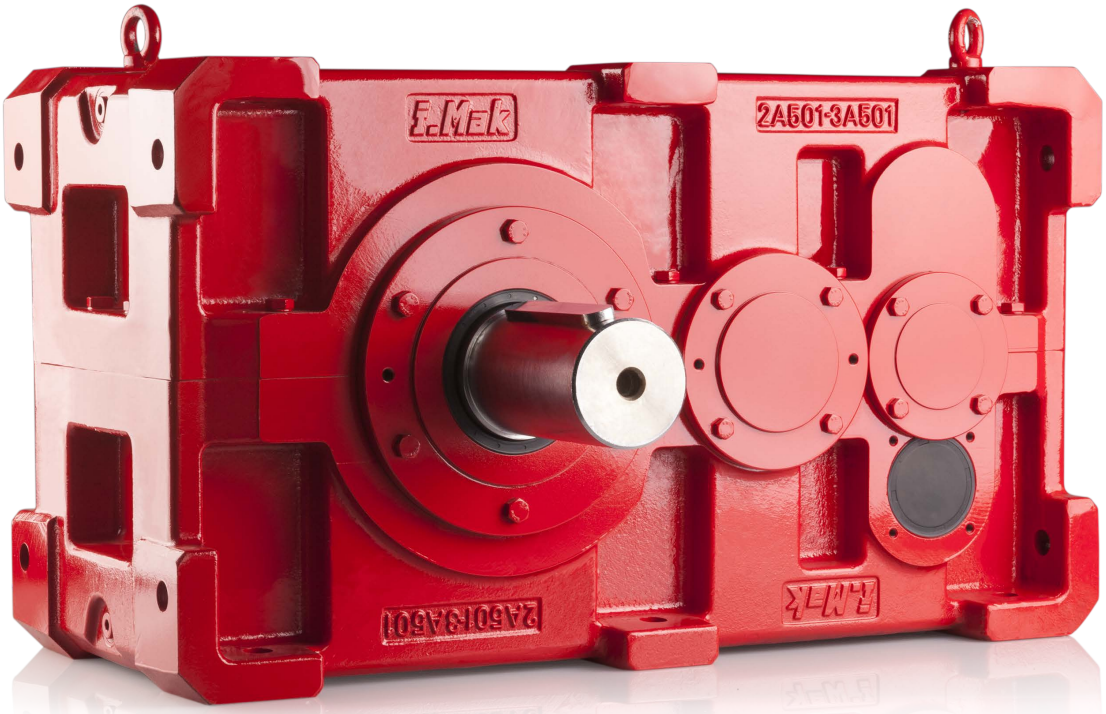
İÇİNDEKİLER / INDEX / *TABLE DES MATIÈRES*

Genel Bilgiler

General Information
Informations générales

A

SERİSİ / SERIES / SÉRIES



- 8 Farklı gövde büyüklüğü
- 880 – 33000 Nm moment aralığı
- 4 – 487 Tahvil aralığı

- 8 Size of housing
- Torque range from 880 to 33000 Nm
- Ratio range from 4 to 487

- *8 tailles de carter*
- *Couple allant de 880 à 33000 Nm*
- *Rapport de réduction compris entre 4 et 487*

	Redüktör Opsiyonları	Gearboxes options	*Options des motoréducteurs*
Kod / Code	**Opsiyon**	**Options**	**Options**
EL	Ekstruder	Extruder	Extruder
OTS	Yağ sıcaklık sensörü	Oil temperature sensor	Capteur de température d'huile

	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

	Giriş 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	Connection coupling	Couplage de connexion

	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 température -40C° VG220 (SHC 630)

	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

	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.*

Servis Faktörü (S_f)
Servis Faktörü = İşletme Katsayısı = (S_f)

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 S_f = 2 bulunur.

Service Factor (S_f)

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 S_f = 2 is taken from Table 2.

Service facteur (S_f)

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 S_f = 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** / Hydraulic / *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 Cylinder) *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 Cylinder) *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** / Hydraulic / *Hydraulique*	0…..3	0.8	1	1.5
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	10…24	1.25	1.5	2
Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylinder) *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 Cylinder) *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** / Hydraulic / *Hydraulique*	0…..3	0.8	1	1.5
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Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylinder) *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 Cylinder) *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*		
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Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylinder) *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 Cylinder) *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

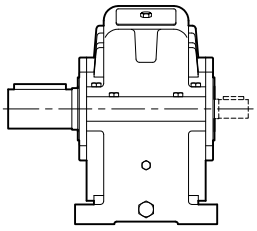
La charge radiale en bout d'arbre se calcule en utilisant la formule suivante:

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

$F_R[N]$ = 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.

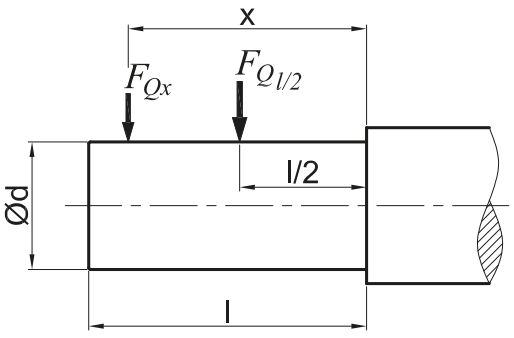
Radyal Yük Hesabı, Çıkış Miline etkiyen Durum için
Calculation of Overhung Load for State Acting on Output Shaft
Calculs des charges radiales appliquées sur l'arbre de sortie



A Serisi / A Series / *A Serie*

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

A Serisi / A Series / *A Serie*				
Tip/Type/*Typ*	**k**	**c**	**d**	**l**
A 200	293.5	228.5	80	130
2A 200	293.5	228.5	80	130
2A 180	227.75	187.75	45	80
2A 225	242	197	55	90
2A 275	270.75	218.25	65	105
2A 350	330.5	265.5	80	130
2A 430	421	331	105	180
2A 501	489.75	384.75	120	210
3A 430	421	331	105	180
3A 501	489.75	384.75	120	210
3A 750	650	525	140	250
4A 750	650	525	140	250

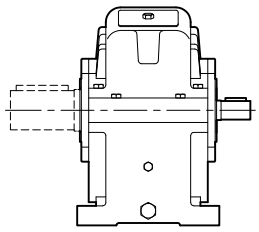


Radyal yük, milin orta noktasında değil ise $F_{Qx} = F_{Q\,l/2} \cdot \frac{k}{c+x}$ **formülü ile hesaplanır.**

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 $F_{Qx} = F_{Q\,l/2} \cdot \frac{k}{c+x}$

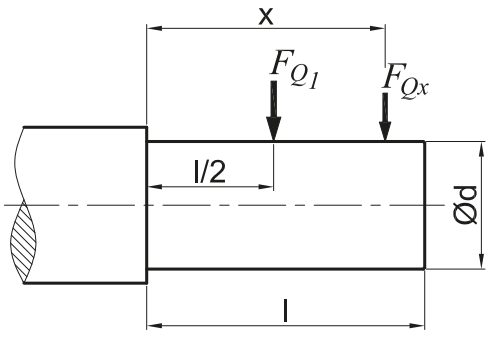
Radyal Yük Hesabı, Giriş Miline etkiyen Durum için
Calculation of Overhung Load for State Acting on Input Shaft
Calcul des charges appliquées sur l'arbre d'entrée



A Serisi
A Series / *A Serie*

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

A Serisi / A Series / *A Serie*				
Tip/Type/*Typ*	**k**	**c**	**d**	**l**
A 200	269.75	162.5	48-55	80-90
2A 200	264.75	154.5	38	60
2A 180	204.25	279	24	50
2A 225	219.25	147.5	28	60
2A 275	252.75	149.5	32	60
2A 350	297.75	180.5	42	80
2A 430	374.25	189.5	45	80
2A 501	420.25	211.5	45	80
3A 430	372.25	193.5	42	80
3A 501	420.25	212.5	42	80
3A 750	350.5	298	60	105
4A 750	321.25	281.25	45	80



Radyal yük, milin orta noktasında değil ise $F_{Qx} = F_{Q_1} \cdot \frac{k}{c+x}$ **formülü ile hesaplanır.**

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

Dans le cas où les charges radiales ne sont appliquées au centre de l'arbre d'entrée, la formule à appliquer est

$$F_{Qx} = F_{Q^{l/2}} \cdot \frac{k}{c+x}$$

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*
63M4a	0,12	1315	0,42	0,88	50,0	49,8	IE1	S1
63M4b	0,18	1320	0,58	1,30	57,0	56,5		
71M4a	0,25	1375	0,71	1,80	68,5	66,1	IE2	
71M4b	0,37	1375	1,12	2,50	66,0	64,9		
80M4a	0,55	1410	1,55	3,70	77,1	74,5		
80M4b	0,75	1435	1,90	5,00	82,5	81,0	IE3	
90S4a	1,1	1435	2,55	7,35	84,1	82,9		
90L4a	1,5	1450	3,40	9,9	85,3	84,8		
100L4a	2,2	1450	4,90	14,5	86,7	86,7		
100L4b	3	1450	6,40	19,8	87,7	87,3		
112M4a	4	1450	8,20	26,3	88,6	87,8		
132S4a	5,5	1460	11,5	35,8	89,6	89,3		
132M4a	7,5	1460	15,9	49,1	90,4	89,1		
160M4a	11	1470	22,9	71,6	91,4	91,4		
160L4a	15	1470	30,5	97,5	92,1	90,3		
180M4a	18,5	1475	36,3	120	92,6	92,5		
180L4a	22	1480	44,5	143	93,0	92,6		
200L4a	30	1470	52,5	195	93,6	92,4		
225S4a	37	1470	64,8	240	93,9	93,6		
225M4a	45	1480	81,0	290	94,2	93,4		
250M4a	55	1480	96,0	355	94,6	94,6		
280S4a	75	1490	128,6	481	96,0	95,2	IE4	
280M4a	90	1490	153,0	577	96,1	94,5		
315S4a	110	1489	193,5	705	96,3	95,4		
315M4a	132	1488	230,0	847	96,4	95,2		
315M4b	160	1485	271,7	1029	96,6	96,1		
315L4a	185	1482	317,7	1195	96,6	96,3		
315L4b	200	1486	347,1	1285	96,7	96,6		
355M4a	250	1485	460,0	1608	96,7	96,5		
355M4b	315	1484	535,3	2027	96,7	96,6		
355L4c	355	1485	588,7	2286	96,7	96,5		
355L4d	400	1482	686,2	2577	96,7	96,3		
400L4a	450	1483	754,7	2898	96,7	96,4		

* Motor teknik değerleri İ.Mak-A marka motorlar içindir, kullanılan diğer markalar için değişiklik gösterebilir.

1000 d/d Motorlar / 1000 r.p.m. Motors / *Moteurs 1000 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*
71M6a	0,18	835	0,75	2,00	45,5	43,6	IE1	S1
71M6b	0,25	860	0,80	2,70	52,1	46,3		
80M6a	0,37	950	1,15	3,73	73,5	72,5	IE3	
80M6b	0,55	950	1,60	5,64	74,4	73,6		
90S6a	0,75	940	2,05	7,62	78,9	77,5		
90L6a	1,1	935	3,05	11,30	81,0	78,5		
10L6a	1,5	940	3,60	15,3	82,5	81,5		
112M6a	2,2	970	5,10	21,2	84,3	83,5		
132S6a	3	970	6,90	29,7	85,6	87,4		
132M6a	4	965	8,75	39,6	86,8	87,6		
132M6b	5,5	960	12,5	54,6	88,0	87,7		
160M6a	7,5	975	16,2	73,5	89,1	89,8		
160L6a	11	975	25,0	107,7	90,3	89,9		
180L6a	15	975	30,0	147,0	91,2	91,0		
200L6a	18,5	980	35,0	181	91,7	91,1		
200L6b	22	975	43,0	215	92,2	91,6		
225M6a	30	985	58,0	290	92,9	92,0		
250M6a	37	985	69,5	360	93,3	92,2		
280S6a	45	985	90,2	436	93,7	93,5		
280M6a	55	985	109,8	530	94,1	93,3		
315S6a	75	995	145,6	719	95,4	95,4	IE4	
315M6a	90	995	168,3	869	95,6	95,5		
315M6b	110	992	209,3	1059	95,8	95,6		
315L6a	132	991	236,2	1272	96,0	95,8		
355M6a	160	990	289,2	1543	96,2	96,2		
355M6b	200	992	365,6	1930	96,3	96,2		
355M6c	250	992	437,8	2407	96,5	96,2		
355L6a	315	991	547,2	3035	96,6	96,5		
355L6b	355	990	602,8	3424	96,6	96,5		

* Motor teknik değerleri İ.Mak-A marka motorlar içindir, kullanılan diğer markalar için değişiklik gösterebilir.

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.

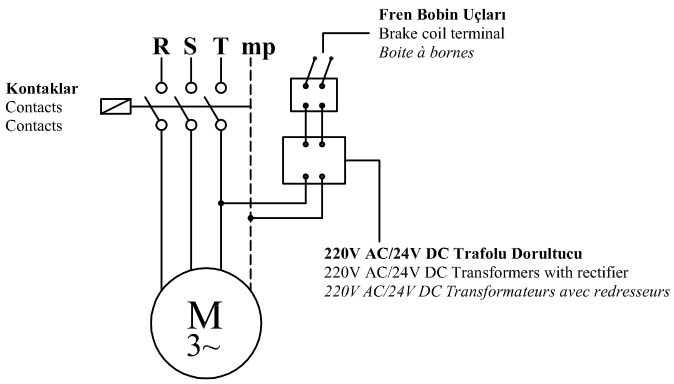
Données Nécessaire à la Commande d'un Frein.

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

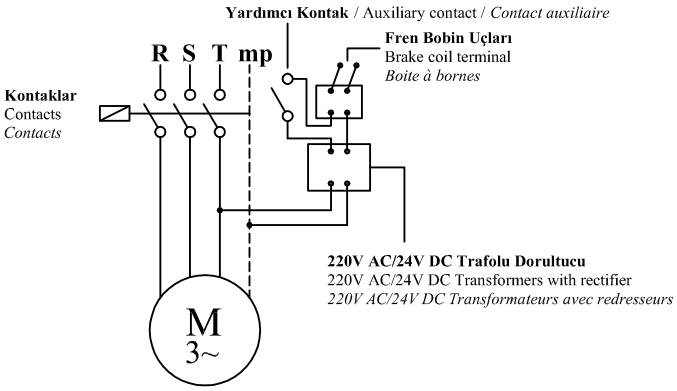
Veillez à nous informer si une unité de transformation 220/30V est nécessaire au branchement de votre frein (24 V)

Type de connexion des freins

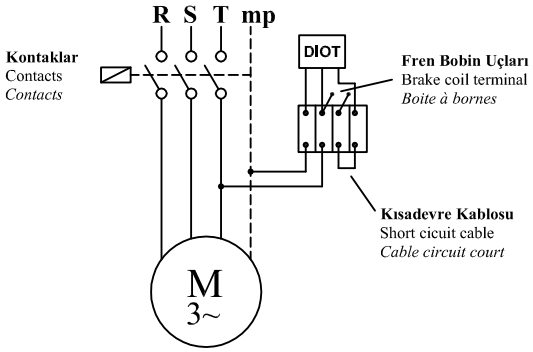
Gecikmeli Frenleme (24V)
Delayed Running Brake (24V)
Frein à retardement (24 V)



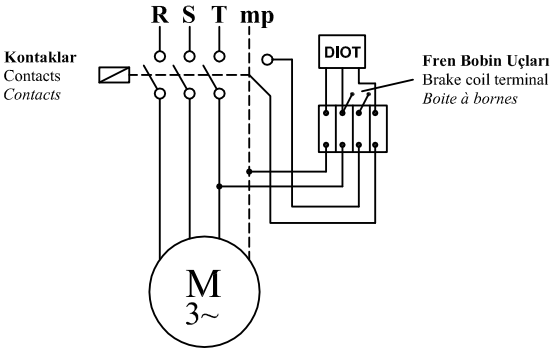
Ani Frenleme (24V)
Sudden Running Brake (24V)
Frein à arrêt immédiat(24 V)



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*

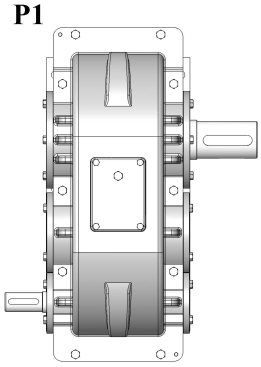
Motor büyüklüğü Motor size *Dimensions du moteur*	n1 d/d / r.p.m / r.p.m			
	750	1000	1500	3000
	Güç / Power / *Puissance* [kW]			
63			0,12 - 0,18	0,18 - 0,25
71	0,09 - 0,12	0,18 - 0,28	0,25 - 0,37	0,37 - 0,55
80	0,18 - 0,25	0,37 - 0,55	0,55 - 0,75	0,75 - 1,1
90 S	0,37	0,75	1,1	1,5
90 L	0,55	1,1	1,5	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																				

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

P1



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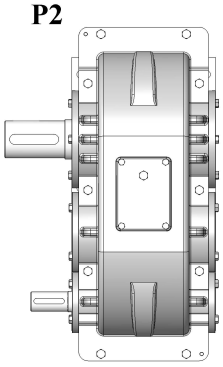

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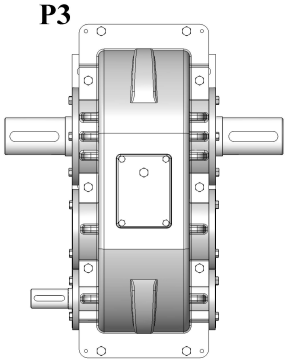

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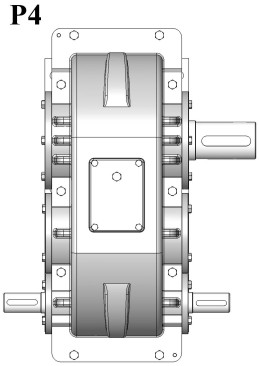

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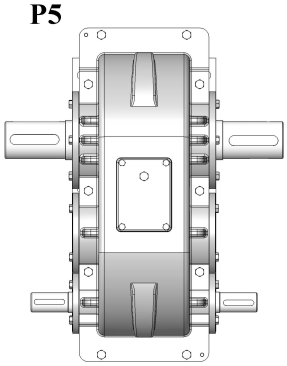

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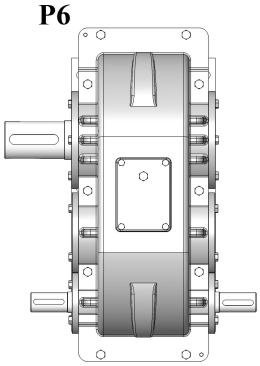

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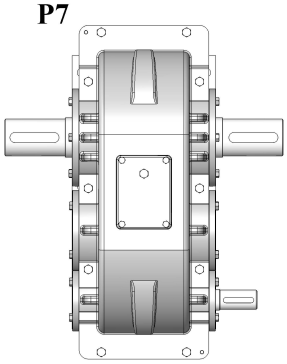

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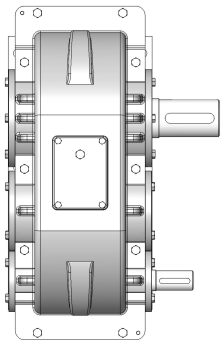

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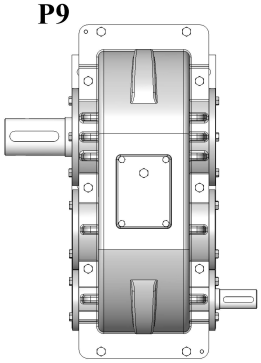
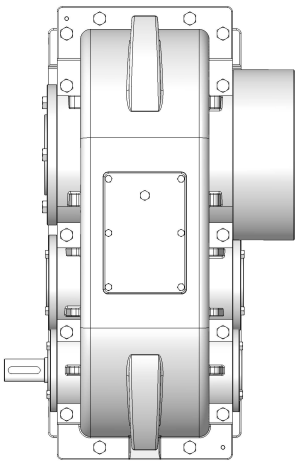


TİP Type *Typ*	**Bağlantı Pozisyonları için Yağ Miktarları (litre)** Oil Quantities for Mounting Positions (liter) *Ölmengen Tabellen für Bauformen (liter)*								
	P1	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
A 200	10								
2A 200	10								
2A 180	4								
2A 225	7								
2A 275	10								
2A 350	18								
2A 430	25								
2A 501	32								
3A 430	25								
3A 501	32								
3A 750	65								
4A 750	65								

P1



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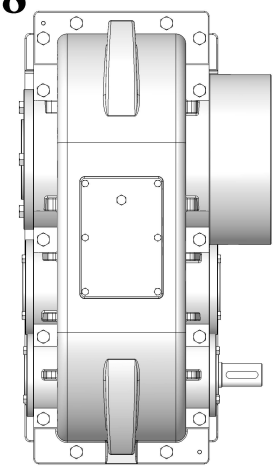

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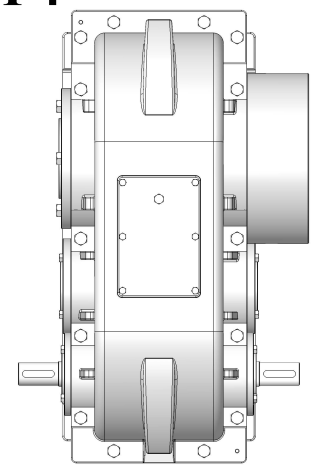
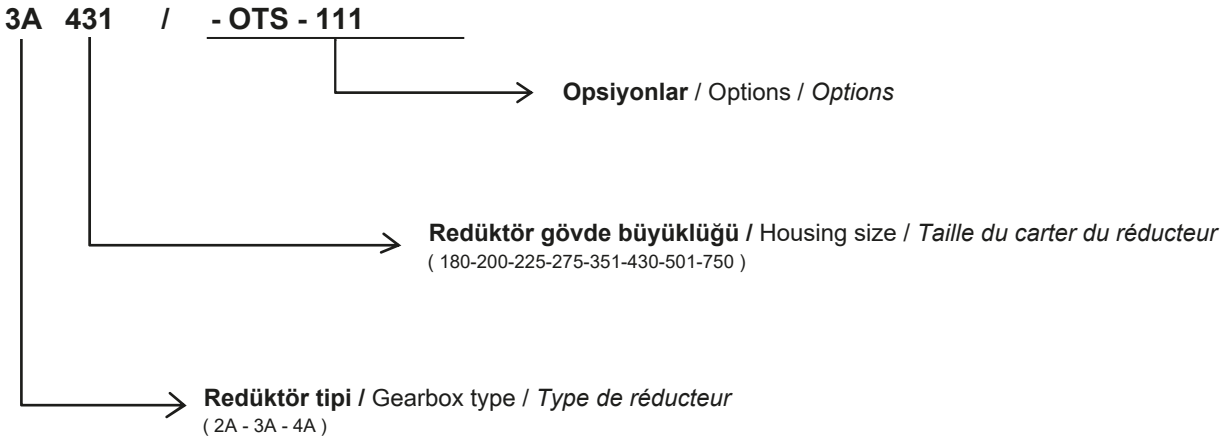


TİP Type *Typ*	**Bağlantı Pozisyonları için Yağ Miktarları (litre)** Oil Quantities for Mounting Positions (liter) *Ölmengen Tabellen für Bauformen (liter)*		
	P1	**P4**	**P8**
2AE 225	7		
2AE 275	10		
2AE 350	18		
2AE 430	25		
2AE 501	32		
3AE 430	25		
3AE 501	32		
3AE 750	65		


3A 431 / - OTS - 111
Opsiyonlar / Options / *Options*
Redüktör gövde büyüklüğü / Housing size / *Taille du carter du réducteur*
(180-200-225-275-351-430-501-750)
Redüktör tipi / Gearbox type / *Type de réducteur*
(2A - 3A - 4A)

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.

		**YERLİ MALI BELGESİ** Domestic goods certificate *Certificat de produit national*
	TSEK	**TÜRK STANDARTLARI ENSTİTÜSÜ KRİTERE UYGUNLUK BELGESİ** Certificate of conformity to Turkish standards *Certificats de conformité aux standards Turcs*
	TÜRK PATENT ENSTİTÜSÜ	**MARKA YENİLEME BELGESİ** Certificate of trademark registration *Certificat d'enregistrement de marque*
	ISO	**ISO 9001:2008 YÖNETİM SİSTEMİ** ISO 9000:2008 Quality management system *ISO 9000:2008 : Sytémes de management de la qualité*
	ISO	**ISO10002:2004 MÜŞTERİ MEMNUNİYETİ YÖNETİM SİSTEMİ** ISO 10002:2004 Customer satisfaction management system *ISO 10002:2004 Management de la qualité - Satisfaction clients*
	ISO	**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*
	CE	**AT UYGUNLUK BEYANI** CE Declaration of conformity *Déclaration de conformité aux standards CE*
	Ex	**EC TYPE EXAMINATION CERTIFICATE** ATEX Certificate *Certificat ATEX*

A Serisi Redüktörler Güç ve Devir Tabloları

A Series Power Ratings and Output Speed
A Series puissances et vitesses de sorties

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
1.71	**1400**	820	132	3,57	1514	3700	24000			
			110	4,29	1262	3700	24000			
			90	5,25	1032	3700	24000			
	900	525	110	2,86	1971	3700	24800			
			90	3,50	1613	3700	24800			
			75	4,20	1344	3700	24800			
	700	410	90	2,83	2065	3700	25750			
			75	3,40	1344	3700	25750			
			55	4,63	1262	3700	25750			
	500	290	75	2,45	2433	3700	26500			
			55	3,34	985	3700	26500			
			45	4,08	1460	3700	26500			
1.87	**1400**	745	132	3,40	1667	3700	24000			
			110	4,09	1389	3700	24000			
			90	5,00	1136	3700	24000			
	900	480	110	2,27	2156	3700	24800			
			90	3,33	1764	3700	24800			
			75	4,00	1470	3700	24800			
	700	370	90	2,66	2288	3700	25750			
			75	3,20	1907	3700	25750			
			55	4,36	1398	3700	25750			
	500	270	75	2,30	2613	3700	26500			
			55	3,13	1916	3700	26500			
			45	3,83	1568	3700	26500			
2.06	**1400**	680	132	3,23	1826	3700	24000	**A**	**200**	658	190
			110	3,88	1522	3700	24000			
			90	4,75	1245	3700	24000			
	900	440	110	2,42	2352	3700	24800			
			90	2,95	1324	3700	24800			
			75	3,55	1603	3700	24800			
	700	340	90	2,50	2490	3700	25750			
			75	3,00	2075	3700	25750			
			55	4,09	1522	3700	25750			
	500	240	75	2,15	2940	3700	26500			
			55	2,93	2156	3700	26500			
			45	3,58	1764	3700	26500			
2.27	**1400**	615	132	3,23	2019	3700	24000			
			110	3,88	1683	3700	24000			
			90	4,75	1377	3700	24000			
	900	395	110	3,04	2620	3700	25750			
			90	3,65	2143	3700	25750			
			75	4,46	1786	3700	25750			
	700	310	90	2,42	2731	3700	25750			
			75	2,96	2276	3700	25750			
			55	3,55	1669	3700	25750			
	500	220	75	2,01	3207	3700	26500			
			55	2,75	2352	3700	26500			
			45	3,36	1924	3700	26500			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
2.51	**1400**	555	110	3,4	1864	3700	24000			
			90	4,15	1525	3700	24000			
			75	4,98	1271	3700	24000			
	900	360	90	2,78	2352	3700	25750			
			75	3,33	1960	3700	25750			
			55	4,55	1437	3700	25750			
	700	280	75	2,60	2520	3700	26500			
			55	3,55	1840	3700	26500			
			45	4,33	1512	3700	26500			
	500	200	55	2,60	2587	3700	26500			
			45	3,17	2117	3700	26500			
			37	3,86	1740	3700	26500			
2.80	**1400**	500	110	3,20	2069	3700	24800			
			90	3,91	1693	3700	24800			
			75	4,69	1411	3700	24800			
	900	320	90	2,62	1693	3700	25750			
			75	3,15	1411	3700	25750			
			55	4,20	1035	3700	25750			
	700	250	75	2,42	2822	3700	26500			
			55	3,30	2069	3700	26500			
			45	4,03	1693	3700	26500			
	500	180	55	2,40	2874	3700	26500			
			45	2,93	2352	3700	26500			
			37	3,56	1934	3700	26500			
3.13	**1400**	450	110	2,92	2299	3700	24800	**A**	**200**	658	190
			90	3,57	1881	3700	24800			
			75	4,29	1568	3700	24800			
	900	290	90	2,35	2919	3700	25750			
			75	2,82	2433	3700	25750			
			55	3,85	1784	3700	25750			
	700	225	75	2,23	3136	3700	26500			
			55	3,05	2299	3700	26500			
			45	3,73	1881	3700	26500			
	500	160	55	2,20	3234	3700	26500			
			45	2,68	2646	3700	26500			
			37	3,27	2175	3700	26500			
3.52	**1400**	400	90	3,26	2117	3700	25750			
			75	3,92	1764	3700	25750			
			55	5,34	1293	3700	25750			
	900	255	75	2,60	2767	3700	26500			
			55	3,54	2029	3700	26500			
			45	4,33	1660	3700	26500			
	700	200	55	2,78	2587	3700	26500			
			45	3,40	2117	3700	26500			
			37	4,13	1740	3700	26500			
	500	140	45	2,43	3024	3700	26500			
			37	2,96	2486	3700	26500			
			30	3,65	2016	3700	26500			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
4.00	1400	350	90	3,00	2419	3700	25750			
			75	3,60	2016	3700	25750			
			55	4,90	1478	3700	25750			
	900	225	75	2,32	3136	3700	26500			
			55	3,16	2299	3700	26500			
			45	3,86	1881	3700	26500			
	700	175	55	2,51	2956	3700	26500			
			45	3,06	2419	3700	26500			
			37	3,73	1989	3700	26500			
	500	125	45	2,20	3386	3700	27250			
			37	2,67	2784	3700	27250			
			30	3,30	2258	3700	27250			
4.58	1400	305	90	2,66	2776	3700	25750			
			75	3,20	2313	3700	25750			
			55	4,36	1696	3700	25750			
	900	195	75	2,08	3618	3700	26500			
			55	2,83	2653	3700	26500			
			45	3,46	2171	3700	26500			
	700	150	55	2,21	3449	3700	26500			
			45	2,70	2822	3700	26500			
			37	3,28	2320	3700	26500			
	500	110	45	1,93	3848	3700	27250			
			37	2,35	3164	3700	27250			
			30	2,90	2565	3700	27250			
4.93	1400	285	75	3,00	2475	3700	26500	**A**	**200**	658	190
			55	4,09	1815	3700	26500			
			45	5,00	1485	3700	26500			
	900	180	55	2,65	2874	3700	26500			
			45	3,23	2352	3700	26500			
			37	3,93	1934	3700	26500			
	700	140	45	2,53	3024	3700	26500			
			37	3,08	2486	3700	26500			
			30	3,80	2016	3700	26500			
	500	100	37	2,23	3480	3700	27250			
			30	2,75	2822	3700	27250			
			22	3,75	2069	3700	27250			
5.33	1400	260	75	2,80	2713	3700	26500			
			55	3,82	1990	3700	26500			
			45	4,66	1628	3700	26500			
	900	170	55	2,45	3043	3700	26500			
			45	3,00	2490	3700	26500			
			37	3,65	2047	3700	26500			
	700	130	45	2,33	3256	3700	27250			
			37	2,84	2677	3700	27250			
			30	3,50	2171	3700	27250			
	500	95	37	2,06	3664	3700	27250			
			30	2,55	2971	3700	27250			
			22	3,48	2178	3700	27250			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
5.78	**1400**	240	75	2,60	2940	3700	26500			
			55	3,55	2156	3700	26500			
			45	4,33	1764	3700	26500			
	900	155	55	2,29	3338	3700	26500			
			45	2,80	2731	3700	26500			
			37	3,41	2245	3700	26500			
	700	120	45	2,20	3528	3700	27250			
			37	2,67	2900	3700	27250			
			30	3,30	2352	3700	27250			
	500	85	37	1,90	4095	3700	27250			
			30	2,35	3320	3700	27250			
			22	3,20	2435	3700	27250			
6.30	**1400**	220	75	2,40	3207	3700	26500	**A**	**200**	658	190
			55	3,27	2352	3700	26500			
			45	4,00	1924	3700	26500			
	900	140	55	2,10	3696	3700	26500			
			45	2,56	3024	3700	26500			
			37	3,11	2486	3700	26500			
	700	110	45	2,00	3848	3700	27250			
			37	2,43	3164	3700	27250			
			30	3,00	2565	3700	27250			
	500	80	37	1,74	4351	3700	27250			
			30	2,15	3528	3700	27250			
			22	2,93	2587	3700	27250			
6.91	**1400**	200	75	2,73	3528	3700	26500			
			55	3,32	2587	3700	26500			
			45	4,10	2117	3700	26500			
	900	130	55	2,20	3980	3700	27250			
			45	3,00	3256	3700	27250			
			37	3,66	2677	3700	27250			
	700	100	45	1,93	4233	3700	27250			
			37	2,36	3480	3700	27250			
			30	2,87	2822	3700	27250			
	500	72	37	1,93	4834	3700	27250			
			30	2,23	3919	3700	27250			
			22	2,75	2874	3700	27250			
7.17	**1400**	195	45	2,73	2138	3700	26500			
			37	3,32	1758	3700	26500			
			30	3,48	1425	3700	26500			
	900	125	37	2,07	2742	3700	27250			
			30	2,55	2223	3700	27250			
			22	3,48	1630	3700	27250			
	700	100	30	2,15	2779	3700	27250	**2A**	**200**	659	215
			22	2,94	2038	3700	27250			
			18,5	3,50	1714	3700	27250			
	500	70	22	2,11	2911	3700	27250			
			18,5	2,50	2448	3700	27250			
			15	3,09	1985	3700	27250			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
7.91	1400	180	37	3,12	1904	3700	26500			
			30	3,85	1544	3700	26500			
			22	5,25	1132	3700	26500			
	900	115	30	2,55	2417	3700	27250			
			22	3,49	1772	3700	27250			
			18,5	4,15	1490	3700	27250			
	700	90	22	2,76	2264	3700	27250			
			18,5	3,29	1904	3700	27250			
			15	4,05	1544	3700	27250			
	500	60	18,5	2,35	2856	3700	27800			
			15	2,89	2316	3700	27800			
			11	3,95	1698	3700	27800			
8.75	1400	160	37	2,91	2142	3700	26500			
			30	2,58	1737	3700	26500			
			22	4,90	1274	3700	26500			
	900	100	30	2,40	2779	3700	27250			
			22	3,27	2038	3700	27250			
			18,5	3,89	1714	3700	27250			
	700	80	22	2,55	2547	3700	27250			
			18,5	3,03	2142	3700	27250			
			15	3,74	1737	3700	27250			
	500	60	18,5	2,22	2142	3700	27800			
			15	2,73	1737	3700	27800			
			11	3,73	1274	3700	27800			
9.73	1400	145	37	2,77	2364	3700	26500	**2A**	**200**	659	215
			30	3,42	1917	3700	26500			
			22	4,67	1405	3700	26500			
	900	90	30	2,21	3088	3700	27250			
			22	3,02	2264	3700	27250			
			18,5	3,60	1904	3700	27250			
	700	70	22	2,37	2911	3700	27250			
			18,5	2,82	2448	3700	27250			
			15	3,48	1985	3700	27250			
	500	50	18,5	2,04	3427	3700	27800			
			15	2,52	2779	3700	27800			
			11	3,44	2038	3700	27800			
10.88	1400	130	30	3,08	2138	3700	27250			
			22	4,21	1568	3700	27250			
			18,5	5,00	1318	3700	27250			
	900	80	22	2,76	2547	3700	27250			
			18,5	3,28	2142	3700	27250			
			15	4,05	1737	3700	27250			
	700	65	18,5	2,60	2637	3700	27800			
			15	3,21	2138	3700	27800			
			11	4,38	1568	3700	27800			
	500	45	15	2,31	3088	3700	28350			
			11	3,15	2264	3700	28350			
			7,5	4,63	1544	3700	28350			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
12.24	**1400**	115	30	2,82	2417	3700	27250			
			22	3,84	1772	3700	27250			
			18,5	4,57	1490	3700	27250			
	900	75	22	2,55	2717	3700	27250			
			18,5	3,03	2285	3700	27250			
			15	3,75	1853	3700	27250			
	700	60	18,5	2,37	2856	3700	27800			
			15	2,93	2316	3700	27800			
			11	4,00	1698	3700	27800			
	500	40	15	2,09	3474	3700	28350			
			11	2,86	2547	3700	28350			
			7,5	4,19	1737	3700	28350			
13.90	**1400**	100	30	2,58	2779	3700	27250			
			22	3,52	2038	3700	27250			
			18,5	4,19	1714	3700	27250			
	900	65	22	2,27	3135	3700	27800			
			18,5	2,70	2637	3700	27800			
			15	3,33	3138	3700	27800			
	700	50	18,5	2,14	3427	3700	27800			
			15	2,64	2779	3700	27800			
			11	3,61	2038	3700	27800			
	500	35	15	1,89	3970	3700	28350			
			11	2,58	2911	3700	28350			
			7,5	3,79	1985	3700	28350			
15.94	**1400**	90	30	2,31	3088	3700	27250	**2A**	**200**	659	215
			22	3,15	2264	3700	27250			
			18,5	3,74	1904	3700	27250			
	900	55	22	2,04	3705	3700	27800			
			18,5	2,42	3116	3700	27800			
			15	3,00	2526	3700	27800			
	700	45	18,5	1,88	3808	3700	28350			
			15	2,32	3088	3700	28350			
			11	3,17	2264	3700	28350			
	500	30	15	1,66	4632	3700	28350			
			11	2,27	3397	3700	28350			
			7,5	3,33	2316	3700	28350			
17.16	**1400**	80	30	2,15	3474	3700	27250			
			22	2,93	2547	3700	27250			
			18,5	3,49	2142	3700	27250			
	900	50	22	1,90	4076	3700	27800			
			18,5	2,26	3427	3700	27800			
			15	2,79	2779	3700	27800			
	700	40	18,5	1,77	4284	3700	28350			
			15	2,18	3474	3700	28350			
			11	2,97	2547	3700	28350			
	500	30	15	1,58	4632	3700	28350			
			11	2,16	3397	3700	28350			
			7,5	3,33	2316	3700	28350			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
18.53	1400	75	30	2,02	3705	3700	27250			
			22	2,75	2717	3700	27250			
			18,5	3,28	2285	3700	27250			
	900	50	22	1,76	4076	3700	27800			
			18,5	2,09	3427	3700	27800			
			15	2,58	2779	3700	27800			
	700	40	18,5	1,63	4284	3700	28350			
			15	2,01	3474	3700	28350			
			11	2,75	2547	3700	28350			
	500	25	15	1,47	5558	3700	29000			
			11	1,99	4076	3700	29000			
			7,5	2,92	2779	3700	29000			
20.11	1400	70	30	1,88	3970	3700	27250			
			22	2,56	2911	3700	27250			
			18,5	3,04	2448	3700	27250			
	900	45	22	1,64	4529	3700	28350			
			18,5	1,95	3808	3700	28350			
			15	2,41	3088	3700	28350			
	700	35	18,5	1,53	4896	3700	28350			
			15	1,90	3970	3700	28350			
			11	2,59	2911	3700	28350			
	500	25	15	1,35	5558	3700	29000			
			11	1,85	4076	3700	29000			
			7,5	2,71	2779	3700	29000			
21.52	1400	65	30	1,73	4275	3700	27800	**2A**	**200**	659	215
			22	2,35	3135	3700	27800			
			18,5	2,80	2637	3700	27800			
	900	40	22	1,55	5095	3700	28350			
			18,5	1,83	4284	3700	28350			
			15	2,27	3474	3700	28350			
	700	30	18,5	1,42	5712	3700	28350			
			15	1,75	4632	3700	28350			
			11	2,39	3397	3700	28350			
	500	20	15	1,26	6948	3700	29000			
			11	1,72	5095	3700	29000			
			7,5	2,52	3474	3700	29000			
24.04	1400	60	30	1,58	4632	3700	27800			
			22	2,15	3397	3700	27800			
			18,5	2,56	2856	3700	27800			
	900	40	22	1,38	5095	3700	28350			
			18,5	1,63	4284	3700	28350			
			15	2,02	3474	3700	28350			
	700	30	18,5	1,28	5712	3700	28350			
			15	1,57	4632	3700	28350			
			11	2,15	3397	3700	28350			
	500	20	15	1,15	6948	3700	29000			
			11	1,57	5095	3700	29000			
			7,5	2,31	3474	3700	29000			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
6.98	**1400**	200	11	1,45	509	2850	7600			
			7,5	2,15	347	2850	7600			
			5,5	2,95	255	2850	7600			
	900	130	7,5	1,35	534	2850	7600			
			5,5	1,87	392	2850	7600			
			4	2,60	285	2850	7600			
	700	100	5,5	1,45	509	2850	7850			
			4	2,00	371	2850	7850			
			3	2,70	278	2850	7850			
	500	72	4	1,42	515	2850	8000			
			3	1,91	386	2850	8000			
			2,2	2,63	283	2850	8000			
9.51	**1400**	150	11	1,52	679	2850	7600			
			7,5	2,95	463	2850	7600			
			5,5	3,09	340	2850	7600			
	900	95	7,5	1,43	731	2850	8000			
			5,5	1,98	536	2850	8000			
			4	2,72	390	2850	8000			
	700	75	5,5	1,51	679	2850	8000			
			4	2,10	494	2850	8000			
			3	2,84	371	2850	8000			
	500	50	4	1,49	741	2850	8350			
			3	2,00	556	2850	8350			
			2,2	2,50	408	2850	8350			
11.75	**1400**	120	7,5	1,85	579	2850	7850	**2A**	**180**	660	58
			5,5	1,55	425	2850	7850			
			4	3,51	309	2850	7850			
	900	75	5,5	1,61	679	2850	8000			
			4	2,24	494	2850	8000			
			3	3,00	371	2850	8000			
	700	60	4	1,73	618	2850	8350			
			3	2,32	463	2850	8350			
			2,2	3,18	340	2850	8350			
	500	40	3	1,64	695	2850	8600			
			2,2	2,25	509	2850	8600			
			1,5	3,34	347	2850	8600			
14.88	**1400**	95	7,5	1,55	731	2850	8000			
			5,5	2,14	536	2850	8000			
			4	2,97	390	2850	8000			
	900	60	5,5	1,35	849	2850	8350			
			4	1,89	618	2850	8350			
			3	2,53	463	2850	8350			
	700	50	4	1,45	741	2850	8350			
			3	1,96	556	2850	8350			
			2,2	2,69	408	2850	8350			
	500	35	3	1,38	794	2850	8600			
			2,2	1,90	582	2850	8600			
			1,5	2,82	397	2850	8600			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
16.62	1400	85	5,5	1,82	599	2850	8000			
			4	2,52	436	2850	8000			
			3	3,37	327	2850	8000			
	900	55	4	1,60	674	2850	8350			
			3	2,15	505	2850	8350			
			2,2	2,95	371	2850	8350			
	700	40	3	1,66	695	2850	8600			
			2,2	2,29	509	2850	8600			
			1,5	3,37	347	2850	8600			
	500	30	2,2	1,62	679	2850	8600			
			1,5	2,40	463	2850	8600			
			1,1	3,29	340	2850	8600			
18.15	1400	80	5,5	1,65	637	2850	8000			
			4	2,28	463	2850	8000			
			3	3,05	347	2850	8000			
	900	50	4	1,45	741	2850	8350			
			3	1,95	556	2850	8350			
			2,2	2,68	408	2850	8350			
	700	40	3	1,51	695	2850	8600			
			2,2	2,08	509	2850	8600			
			1,5	3,08	347	2850	8600			
	500	30	2,2	1,46	679	2850	8600			
			1,5	2,18	463	2850	8600			
			1,1	2,98	340	2850	8600			
20.01	1400	70	4	2,08	529	2850	8350	**2A**	**180**	660	58
			3	2,79	397	2850	8350			
			2,2	3,82	291	2850	8350			
	900	45	3	1,77	618	2850	8600			
			2,2	2,43	453	2850	8600			
			1,5	3,59	309	2850	8600			
	700	35	2,2	1,88	582	2850	8600			
			1,5	2,78	397	2850	8600			
			1,1	3,81	291	2850	8600			
	500	25	1,5	1,97	556	2850	8900			
			1,1	2,70	408	2850	8900			
			0,75	3,99	278	2850	8900			
23.75	1400	60	4	1,75	618	2850	8350			
			3	2,35	463	2850	8350			
			2,2	3,22	340	2850	8350			
	900	40	3	1,49	695	2850	8600			
			2,2	2,05	509	2850	8600			
			1,5	3,00	347	2850	8600			
	700	30	2,2	1,58	679	2850	8600			
			1,5	2,35	463	2850	8600			
			1,1	3,82	340	2850	8600			
	500	20	1,5	1,66	695	2850	8900			
			1,1	2,29	509	2850	8900			
			0,75	3,38	347	2850	8900			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
30.80	1400	45	3	1,75	618	2850	8600			
			2,2	2,40	453	2850	8600			
			1,5	3,55	309	2850	8600			
	900	30	2,2	1,52	679	2850	8600			
			1,5	2,25	463	2850	8600			
			1,1	3,10	340	2850	8600			
	700	23	1,5	1,74	604	2850	8900			
			1,1	2,40	443	2850	8900			
			0,75	3,54	302	2850	8900			
	500	16	1,1	1,70	637	2850	8900			
			0,75	2,51	434	2850	8900			
			0,55	3,45	318	2850	8900			
35.78	1400	40	2,2	2,06	509	2850	8600			
			1,5	3,04	347	2850	8600			
			1,1	4,17	255	2850	8600			
	900	25	1,5	1,94	556	2850	8900			
			1,1	2,67	408	2850	8900			
			0,75	3,93	278	2850	8900			
	700	20	1,1	2,05	509	2850	8900			
			0,75	3,03	347	2850	8900			
			0,55	4,16	255	2850	8900			
	500	14	0,75	2,15	496	2850	8900			
			0,55	2,95	364	2850	8900			
			0,37	2,40	245	2850	8900			
38.80	1400	35	2,2	1,92	582	2850	8600	**2A**	**180**	660 58
			1,5	2,83	397	2850	8600			
			1,1	3,89	291	2850	8600			
	900	23	1,5	1,80	604	2850	8900			
			1,1	2,48	443	2850	8900			
			0,75	3,66	302	2850	8900			
	700	18	1,1	1,91	566	2850	8900			
			0,75	2,83	386	2850	8900			
			0,55	2,88	283	2850	8900			
	500	13	0,75	2,01	534	2850	8900			
			0,55	2,76	392	2850	8900			
			0,37	4,13	264	2850	8900			
46.02	1400	30	2,2	1,30	679	2850	8600			
			1,5	1,93	463	2850	8600			
			1,1	2,65	340	2850	8600			
	900	20	1,5	1,22	695	2850	8900			
			1,1	1,69	509	2850	8900			
			0,75	2,50	347	2850	8900			
	700	15	1,1	1,30	679	2850	8900			
			0,75	1,93	463	2850	8900			
			0,55	2,65	340	2850	8900			
	500	11	0,75	1,35	632	2850	8900			
			0,55	1,86	463	2850	8900			
			0,37	2,80	312	2850	8900			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
7.32	1400	190	22	1,95	1073	3550	8250				
			18,5	2,32	902	3550	8250				
			15	2,88	731	3550	8250				
	900	120	18,5	1,45	1428	3550	8250				
			15	1,83	1158	3550	8250				
			11	2,52	849	3550	8250				
	700	95	15	1,41	1463	3550	8500				
			11	1,95	1073	3550	8500				
			7,5	2,88	731	3550	8500				
	500	70	11	1,38	1456	3550	8900				
			7,5	2,03	993	3550	8900				
			5,5	2,80	728	3550	8900				
10.52	1400	133	22	1,85	1532	3550	8250				
			18,5	2,21	1289	3550	8250				
			15	2,73	1045	3550	8250				
	900	85	18,5	1,40	2016	3550	8800				
			15	1,73	1635	3550	8800				
			11	2,38	1199	3550	8800				
	700	65	15	1,34	2138	3550	9000				
			11	1,84	1568	3550	9000				
			7,5	2,73	1069	3550	9000				
	500	45	11	1,31	2264	3550	9280				
			7,5	1,94	1544	3550	9280				
			5,5	2,67	1132	3550	9280	2A	225	661	94
11.04	1400	125	18,5	1,35	1371	3550	8250	2AE		671	134
			15	1,68	1112	3550	8250				
			11	2,30	815	3550	8250				
	900	80	15	1,05	1737	3550	8800				
			11	1,46	1274	3550	8800				
			7,5	2,17	868	3550	8800				
	700	63	11	1,13	1617	3550	9000				
			7,5	1,68	1103	3550	9000				
			5,5	2,30	809	3550	9000				
	500	45	7,5	1,18	1544	3550	9280				
			5,5	1,63	1132	3550	9280				
			4	2,25	823	3550	9280				
14.12	1400	100	15	1,55	1390	3550	8500				
			11	2,13	1019	3550	8500				
			7,5	3,15	695	3550	8500				
	900	65	11	1,35	1568	3550	9000				
			7,5	2,00	1069	3550	9000				
			5,5	2,50	784	3550	9000				
	700	50	7,5	1,54	1390	3550	9000				
			5,5	2,13	1019	3550	9000				
			4	2,92	741	3550	9000				
	500	35	5,5	1,50	1456	3550	9280				
			4	2,19	1059	3550	9280				
			3	2,80	794	3550	9280				

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		 kg
15.60	**1400**	90	11	2,15	1132	3550	8800			
			7,5	3,17	772	3550	8800			
			5,5	4,35	566	3550	8800			
	900	60	7,5	2,00	1158	3550	9000			
			5,5	2,78	849	3550	9000			
			4	3,78	618	3550	9000			
	700	45	5,5	2,14	1132	3550	9280			
			4	2,95	823	3550	9280			
			3	3,92	618	3550	9280			
	500	32	4	2,11	1158	3550	9280			
			3	2,83	868	3550	9280			
			2,2	2,89	637	3550	9280			
17.30	**1400**	80	11	1,80	1274	3550	8800			
			7,5	2,66	868	3550	8800			
			5,5	3,65	637	3550	8800			
	900	50	7,5	1,68	1390	3550	9000			
			5,5	2,33	1019	3550	9000			
			4	3,22	741	3550	9000			
	700	40	5,5	1,80	1274	3550	9280			
			4	2,49	926	3550	9280			
			3	3,33	695	3550	9280			
	500	30	4	1,76	1235	3550	9280			
			3	2,37	926	3550	9280			
			2,2	3,25	679	3550	9280	**2A**	**225**	661 94
21.25	**1400**	65	7,5	2,70	1069	3550	9000	**2AE**		671 134
			5,5	3,70	784	3550	9000			
			4	5,10	570	3550	9000			
	900	42	5,5	2,35	1213	3550	9280			
			4	3,26	882	3550	9280			
			3	4,36	662	3550	9280			
	700	33	4	2,52	1123	3550	9280			
			3	3,38	842	3550	9280			
			2,2	4,63	618	3550	9280			
	500	24	3	2,40	1158	3550	9600			
			2,2	3,39	849	3550	9600			
			1,5	4,84	579	3550	9600			
24.14	**1400**	60	7,5	2,15	1158	3550	9000			
			5,5	2,95	849	3550	9000			
			4	4,17	618	3550	9000			
	900	37	5,5	1,88	1377	3550	9280			
			4	2,60	1001	3550	9280			
			3	3,49	751	3550	9280			
	700	29	4	2,00	1278	3550	9600			
			3	2,69	958	3550	9600			
			2,2	3,69	703	3550	9600			
	500	21	3	1,91	1323	3550	9600			
			2,2	2,63	970	3550	9600			
			1,5	3,88	662	3550	9600			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
32.12	**1400**	45	7,5	1,75	1544	3550	9280	**2A**	**225**	661	94
			5,5	2,40	1132	3550	9280	**2AE**		671	134
			4	3,32	823	3550	9280				
	900	28	5,5	1,45	1820	3550	9600				
			4	2,02	1323	3550	9600				
			3	2,71	993	3550	9600				
	700	22	4	1,55	1684	3550	9600				
			3	2,10	1263	3550	9600				
			2,2	2,88	926	3550	9600				
	500	16	3	1,48	1737	3550	9600				
			2,2	2,05	1274	3550	9600				
			1,5	3,02	868	3550	9600				
35.79	**1400**	40	7,5	1,29	1737	3550	9280				
			5,5	1,77	1274	3550	9280				
			4	2,46	926	3550	9280				
	900	25	5,5	1,12	2038	3550	9600				
			4	1,56	1482	3550	9600				
			3	2,10	1112	3550	9600				
	700	20	4	1,21	1853	3550	9600				
			3	1,63	1390	3550	9600				
			2,2	2,23	1019	3550	9600				
	500	14	3	1,14	1985	3550	9600				
			2,2	1,57	1456	3550	9600				
			1,5	2,38	993	3550	9600				
38.92	**1400**	36	5,5	1,55	1415	3550	9280				
			4	2,15	1029	3550	9280				
			3	2,88	772	3550	9280				
	900	23	4	1,36	1611	3550	9600				
			3	1,83	1208	3550	9600				
			2,2	2,52	886	3550	9600				
	700	18	3	1,41	1544	3550	9600				
			2,2	1,94	1132	3550	9600				
			1,5	2,87	772	3550	9600				
	500	13	2,2	1,37	1568	3550	9600				
			1,5	2,04	1069	3550	9600				
			1,1	2,80	784	3550	9600				
46.69	**1400**	30	4	1,65	1235	3550	9280				
			3	2,21	926	3550	9280				
			2,2	3,04	679	3550	9280				
	900	19	3	1,41	1463	3550	9600				
			2,2	1,94	1073	3550	9600				
			1,5	2,87	731	3550	9600				
	700	15	2,2	1,49	1073	3550	9600				
			1,5	2,20	731	3550	9600				
			1,1	3,03	536	3550	9600				
	500	11	1,5	1,57	1263	3550	9600				
			1,1	2,16	926	3550	9600				
			0,75	3,19	632	3550	9600				

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
6.26	1400	220	45	2,66	1895	4800	17500				
			37	3,24	1558	4800	17500				
			30	4,00	1263	4800	17500				
	900	144	37	2,13	2380	4800	17500				
			30	2,63	1930	4800	17500				
			22	3,58	1415	4800	17500				
	700	112	30	2,03	2481	4800	18250				
			22	2,78	1820	4800	18250				
			18,5	3,30	1530	4800	18250				
	500	80	22	1,98	2547	4800	19000				
			18,5	2,36	2142	4800	19000				
			15	2,91	1737	4800	19000				
7.83	1400	180	45	2,18	2316	4800	17500				
			37	2,65	1904	4800	17500				
			30	3,27	1544	4800	17500				
	900	115	37	1,70	2980	4800	18250				
			30	2,10	2417	4800	18250				
			22	2,86	1772	4800	18250				
	700	90	30	1,63	3088	4800	19000				
			22	2,23	2264	4800	19000				
			18,5	2,65	1904	4800	19000				
	500	64	22	1,59	3184	4800	19650				
			18,5	1,89	2678	4800	19650				
			15	2,33	2171	4800	19650	2A 2AE	275	662 672	153 205
9.69	1400	145	45	1,68	2875	4800	17500				
			37	2,05	2364	4800	17500				
			30	2,52	1917	4800	17500				
	900	93	37	1,31	3685	4800	19000				
			30	1,62	2988	4800	19000				
			22	2,21	2191	4800	19000				
	700	72	30	1,26	3860	4800	19000				
			22	1,71	2831	4800	19000				
			18,5	2,04	2380	4800	19000				
	500	52	22	1,22	3919	4800	19650				
			18,5	1,46	3296	4800	19650				
			15	1,80	2672	4800	19650				
11.79	1400	120	37	1,82	2856	4800	18250				
			30	2,24	2316	4800	18250				
			22	3,06	1698	4800	18250				
	900	76	30	1,44	3657	4800	19000				
			22	1,96	2682	4800	19000				
			18,5	2,34	2255	4800	19000				
	700	60	22	1,53	3397	4800	19650				
			18,5	1,81	2856	4800	19650				
			15	2,24	2316	4800	19650				
	500	42	18,5	1,30	4080	4800	20400				
			15	1,60	3308	4800	20400				
			11	2,18	2426	4800	20400				

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
14.29	1400	98	37	1,46	3497	4800	19000			
			30	1,80	2836	4800	19000			
			22	2,45	2080	4800	19000			
	900	63	30	1,15	4411	4800	19650			
			22	1,57	3235	4800	19650			
			18,5	1,87	2720	4800	19650			
	700	50	22	1,22	4076	4800	19650			
			18,5	1,45	3427	4800	19650			
			15	1,80	2779	4800	19650			
	500	35	18,5	1,04	4896	4800	20400			
			15	1,28	3970	4800	20400			
			11	1,75	2911	4800	20400			
17.96	1400	78	30	1,46	3569	4800	19000			
			22	1,99	2613	4800	19000			
			18,5	2,36	2197	4800	19000			
	900	50	22	1,28	4076	4800	19650			
			18,5	1,52	3427	4800	19650			
			15	1,87	2779	4800	19650			
	700	40	18,5	1,18	4284	4800	20400			
			15	1,45	3474	4800	20400			
			11	1,98	2547	4800	20400			
	500	28	15	1,04	4963	4800	21000			
			11	1,42	3639	4800	21000			
			7,5	2,08	2481	4800	21000	**2A**	662	153
20.00	1400	70	30	1,58	3970	4800	19000	**2AE**	672	205
			22	2,15	2911	4800	19000	**275**		
			18,5	2,56	2448	4800	19000			
	900	45	22	1,38	4529	4800	20400			
			18,5	1,64	3808	4800	20400			
			15	2,03	3088	4800	20400			
	700	34	18,5	1,28	5040	4800	20400			
			15	1,58	4087	4800	20400			
			11	2,15	2997	4800	20400			
	500	25	15	1,12	5558	4800	21000			
			11	1,53	4076	4800	21000			
			7,5	2,25	2779	4800	21000			
23.77	1400	58	22	1,55	3514	4800	19650			
			18,5	1,84	2955	4800	19650			
			15	2,27	2396	4800	19650			
	900	37	18,5	1,18	4632	4800	20400			
			15	1,46	3755	4800	20400			
			11	1,99	2754	4800	20400			
	700	29	15	1,13	4791	4800	21000			
			11	1,54	3514	4800	21000			
			7,5	2,27	2396	4800	21000			
	500	21	11	1,11	4852	4800	21000			
			7,5	1,62	3308	4800	21000			
			5,5	2,21	2426	4800	21000			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
29.25	**1400**	48	15	1,62	2895	4800	20400				
			11	2,21	2123	4800	20400				
			7,5	3,25	1447	4800	20400				
	900	30	11	1,42	3397	4800	20400				
			7,5	2,08	2316	4800	20400				
			5,5	2,83	1698	4800	20400				
	700	24	7,5	1,62	2895	4800	21000				
			5,5	2,21	2123	4800	21000				
			4	3,03	1544	4800	21000				
	500	17	5,5	1,58	2997	4800	21000				
			4	2,17	2180	4800	21000				
			3	2,89	1635	4800	21000				
37.91	**1400**	37	15	1,12	3755	4800	20400				
			11	1,52	2754	4800	20400				
			7,5	2,23	1878	4800	20400				
	900	24	11	0,98	4246	4800	21000				
			7,5	1,43	2895	4800	21000				
			5,5	1,96	2123	4800	21000	**2A 2AE**	**275**	662 672	153 205
	700	19	7,5	1,12	3657	4800	21000				
			5,5	1,53	2682	4800	21000				
			4	2,10	1950	4800	21000				
	500	13	5,5	1,09	3919	4800	21000				
			4	1,50	2850	4800	21000				
			3	2,00	2138	4800	21000				
47.50	**1400**	30	11	1,21	3397	4800	20400				
			7,5	1,77	2316	4800	20400				
			5,5	2,42	1698	4800	20400				
	900	19	7,5	1,14	3657	4800	21000				
			5,5	1,55	2682	4800	21000				
			4	2,13	1950	4800	21000				
	700	15	5,5	1,20	3397	4800	21000				
			4	1,65	2470	4800	21000				
			3	2,21	1853	4800	21000				
	500	10	4	1,18	3705	4800	21000				
			3	1,58	2779	4800	21000				
			2,2	2,15	2038	4800	21000				
6.50	**1400**	215	75	2,28	3231	8300	22300				
			55	3,12	2370	8300	22300				
			45	3,81	1939	8300	22300				
	900	140	55	1,99	3639	8300	22300				
			45	2,44	2978	8300	22300				
			37	2,97	2448	8300	22300	**2A 2AE**	**350**	663 673	287 342
	700	108	45	1,89	3860	8300	25500				
			37	2,30	3174	8300	25500				
			30	2,84	2573	8300	25500				
	500	77	37	1,65	4451	8300	25750				
			30	2,03	3609	8300	25750				
			22	2,77	2647	8300	25750				

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
10.03	1400	140	75	2,18	4963	8300	22300			
			55	2,98	3639	8300	22300			
			45	3,64	2978	8300	22300			
	900	90	55	1,91	5661	8300	25750			
			45	2,33	4632	8300	25750			
			37	2,84	3808	8300	25750			
	700	70	45	1,81	5955	8300	25750			
			37	2,21	4896	8300	25750			
			30	2,72	3970	8300	25750			
	500	50	37	1,57	6855	8300	26250			
			30	1,94	5558	8300	26250			
			22	2,65	4076	8300	26250			
14.38	1400	97	55	2,04	5253	8300	25750			
			45	2,49	4298	8300	25750			
			37	3,03	3534	8300	25750			
	900	63	45	1,60	6617	8300	26250			
			37	1,95	5440	8300	26250			
			30	2,40	4411	8300	26250			
	700	50	37	1,51	6855	8300	26250			
			30	1,86	5558	8300	26250			
			22	2,55	4076	8300	26250			
	500	35	30	1,33	7940	8300	27000			
			22	1,81	5823	8300	27000			
			18,5	2,16	4896	8300	27000	**2A**	663	287
16.04	1400	90	55	1,91	5661	8300	25750	**2AE** **350**	673	342
			45	2,33	4632	8300	25750			
			37	2,84	3808	8300	25750			
	900	56	45	1,50	7444	8300	26250			
			37	1,82	6121	8300	26250			
			30	2,25	4963	8300	26250			
	700	44	37	1,41	7790	8300	27000			
			30	1,75	6316	8300	27000			
			22	2,38	4632	8300	27000			
	500	31	30	1,25	8965	8300	27000			
			22	1,70	6574	8300	27000			
			18,5	2,03	5528	8300	27000			
20.08	1400	70	45	1,83	5955	8300	25750			
			37	2,23	4896	8300	25750			
			30	2,75	3970	8300	25750			
	900	45	37	1,43	7617	8300	27000			
			30	1,76	6176	8300	27000			
			22	2,41	4529	8300	27000			
	700	35	30	1,37	7940	8300	27000			
			22	1,86	5823	8300	27000			
			18,5	2,22	4896	8300	27000			
	500	25	22	1,33	8152	8300	27500			
			18,5	1,59	6855	8300	27500			
			15	1,96	5558	8300	27500			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		 kg
23.41	1400	60	37	1,45	5712	8300	26250			
			30	1,78	4632	8300	26250			
			22	2,44	3397	8300	26250			
	900	38	30	1,15	7313	8300	27000			
			22	1,56	5363	8300	27000			
			18,5	1,86	4510	8300	27000			
	700	30	22	1,22	6793	8300	27000			
			18,5	1,45	5712	8300	27000			
			15	1,78	4632	8300	27000			
	500	21	18,5	1,04	8161	8300	27500			
			15	1,28	6617	8300	27500			
			11	1,74	4862	8300	27500			
31.50	1400	44	30	1,69	6316	8300	27000			
			22	2,30	4632	8300	27000			
			18,5	2,74	3895	8300	27000			
	900	28	22	1,48	7278	8300	27500			
			18,5	1,76	6121	8300	27500			
			15	2,17	4963	8300	27500			
	700	22	18,5	1,37	7790	8300	27500			
			15	1,69	6316	8300	27500			
			11	2,30	4632	8300	27500			
	500	16	15	1,21	8685	8300	27500			
			11	1,65	6369	8300	27500			
			7,5	2,42	4342	8300	27500	**2A**	**350**	663 287
35.00	1400	40	22	1,93	5095	8300	27000	**2AE**		673 342
			18,5	2,29	4284	8300	27000			
			15	2,83	3474	8300	27000			
	900	26	18,5	1,47	6591	8300	27500			
			15	1,82	5344	8300	27500			
			11	2,48	3919	8300	27500			
	700	20	15	1,41	6948	8300	27500			
			11	1,93	5095	8300	27500			
			7,5	2,83	3474	8300	27500			
	500	14	11	1,38	7278	8300	27500			
			7,5	2,02	4963	8300	27500			
			5,5	2,76	3639	8300	27500			
48.97	1400	29	18,5	1,35	5909	8300	27500			
			15	1,67	4791	8300	27500			
			11	2,21	3514	8300	27500			
	900	18	15	1,07	7720	8300	27500			
			11	1,46	5661	8300	27500			
			7,5	2,14	3860	8300	27500			
	700	14	11	1,13	7278	8300	27500			
			7,5	1,66	4963	8300	27500			
			5,5	2,27	3639	8300	27500			
	500	10	7,5	1,18	6948	8300	27500			
			5,5	1,62	5095	8300	27500			
			4	2,22	3705	8300	27500			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
6.18	**1400**	227	160	3,30	6529	8550	60000			
			132	4,00	5387	8550	60000			
			110	4,80	4489	8550	60000			
	900	145	132	2,57	8433	8550	60000			
			110	3,08	7027	8550	60000			
			90	3,77	5750	8550	60000			
	700	113	110	2,40	9018	8550	61500			
			90	2,93	7378	8550	61500			
			75	3,52	6148	8550	61500			
	500	81	90	2,09	10293	8550	63000			
			75	2,51	8577	8550	63000			
			55	3,43	6290	8550	63000			
7.04	**1400**	200	160	2,88	7411	8550	60000			
			132	3,49	6114	8550	60000			
			110	4,19	5095	8550	60000			
	900	130	132	2,24	9406	8550	61500			
			110	2,69	7838	8550	61500			
			90	3,29	6413	8550	61500			
	700	100	110	2,09	10190	8550	63000			
			90	2,56	8337	8550	63000			
			75	3,07	6948	8550	63000			
	500	71	90	1,82	11742	8550	63000			
			75	2,19	9785	8550	63000			
			55	2,99	7176	8550	63000	**2A**	**430**	664 535
8.07	**1400**	174	160	2,51	8518	8550	60000	**2AE**		674 610
			132	3,04	7027	8550	60000			
			110	3,65	5856	8550	60000			
	900	112	132	1,95	10918	8550	63000			
			110	2,35	9098	8550	63000			
			90	2,87	7444	8550	63000			
	700	87	110	1,82	11712	8550	63000			
			90	2,23	9583	8550	63000			
			75	2,67	7986	8550	63000			
	500	62	90	1,59	13447	8550	64500			
			75	1,91	11206	8550	64500			
			55	2,60	8218	8550	64500			
9.32	**1400**	150	160	2,17	9881	8550	60000			
			132	2,63	8152	8550	60000			
			110	3,16	6793	8550	60000			
	900	97	132	1,69	12606	8550	63000			
			110	2,03	10505	8550	63000			
			90	2,48	8595	8550	63000			
	700	75	110	1,57	13586	8550	63000			
			90	1,92	11116	8550	63000			
			75	2,31	9264	8550	63000			
	500	54	90	1,37	15439	8550	64500			
			75	1,65	12866	8550	64500			
			55	2,25	9435	8550	64500			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		 kg
10.86	**1400**	130	132	2,27	9406	8550	61500			
			110	2,73	7838	8550	61500			
			90	3,33	6413	8550	61500			
	900	83	110	1,75	12277	8550	63000			
			90	2,14	10045	8550	63000			
			75	2,57	8371	8550	63000			
	700	64	90	1,66	13027	8550	64500			
			75	1,99	10856	8550	64500			
			55	2,72	7961	8550	64500			
	500	46	75	1,42	15104	8550	68000			
			55	1,94	11076	8550	68000			
			45	2,37	9062	8550	68000			
12.81	**1400**	109	132	1,96	11218	8550	63000			
			110	2,35	9348	8550	63000			
			90	2,87	7649	8550	63000			
	900	70	110	1,51	14557	8550	63000			
			90	1,85	11910	8550	63000			
			75	2,22	9925	8550	63000			
	700	55	90	1,43	15158	8550	64500			
			75	1,72	12632	8550	64500			
			55	2,35	9264	8550	64500			
	500	39	75	1,23	17814	8550	68000			
			55	1,67	13064	8550	68000			
			45	2,05	10689	8550	68000	**2A**	**430**	664 535
15.36	**1400**	91	110	1,92	11198	8550	63000	**2AE**		674 610
			90	2,34	9162	8550	63000			
			75	2,81	7635	8550	63000			
	900	59	90	1,51	14131	8550	64500			
			75	1,81	11776	8550	64500			
			55	2,47	8635	8550	64500			
	700	46	75	1,41	15104	8550	68000			
			55	1,92	11076	8550	68000			
			45	2,35	9062	8550	68000			
	500	33	55	1,37	15439	8550	68000			
			45	1,67	13632	8550	68000			
			37	2,03	10386	8550	68000			
16.96	**1400**	83	90	2,18	10045	8550	63000			
			75	2,62	8371	8550	63000			
			55	3,57	6138	8550	63000			
	900	53	75	1,68	13109	8550	64500			
			55	2,29	9613	8550	64500			
			45	2,80	7865	8550	64500			
	700	41	55	1,78	12427	8550	68000			
			45	2,18	10167	8550	68000			
			37	2,65	8360	8550	68000			
	500	30	45	1,55	13895	8550	68000			
			37	1,89	11425	8550	68000			
			30	2,38	9264	8550	68000			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
18.84	1400	74	90	1,98	11266	8550	63000	2A 2AE 430	664	535
			75	2,38	9389	8550	63000		674	610
			55	3,24	6885	8550	63000			
	900	48	75	1,52	14474	8550	68000			
			55	2,08	10614	8550	68000			
			45	2,54	8685	8550	68000			
	700	37	55	1,61	13770	8550	68000			
			45	1,98	11266	8550	68000			
			37	2,40	9264	8550	68000			
	500	27	45	1,41	15439	8550	70000			
			37	1,72	12694	8550	70000			
			30	2,11	10293	8550	70000			
23.18	1400	60	75	1,85	11579	8550	64500			
			55	2,53	8492	8550	64500			
			45	3,09	6948	8550	64500			
	900	39	55	1,62	13064	8550	68000			
			45	1,98	10689	8550	68000			
			37	2,41	8788	8550	68000			
	700	30	45	1,54	13895	8550	68000			
			37	1,87	11425	8550	68000			
			30	2,31	9264	8550	68000			
	500	22	37	1,34	15580	8550	70000			
			30	1,65	12632	8550	70000			
			22	2,25	9264	8550	70000			
7.28	1400	192	160	2,11	7720	8900	76000			
			132	2,56	6369	8900	76000			
			110	3,07	5307	8900	76000			
	900	124	132	1,64	9861	8900	76000			
			110	1,97	8218	8900	76000			
			90	2,41	6724	8900	76000			
	700	96	110	1,54	10614	8900	78000			
			90	1,87	8685	8900	78000			
			75	2,25	7237	8900	78000			
	500	69	90	1,34	12083	8900	81000			
			75	1,61	10069	8900	81000			
			55	2,19	7384	8900	81000			
10.48	1400	134	160	2,02	11061	8900	76000	2A 2AE 501	665	800
			132	2,45	9125	8900	76000		675	880
			110	2,95	7604	8900	76000			
	900	86	132	1,57	14218	8900	80000			
			110	1,88	11849	8900	80000			
			90	2,30	9694	8900	80000			
	700	67	110	1,47	15209	8900	81000			
			90	1,80	12444	8900	81000			
			75	2,15	10370	8900	81000			
	500	48	90	1,28	17369	8900	82500			
			75	1,53	14474	8900	82500			
			55	2,09	10614	8900	82500			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
12.89	**1400**	109	160	1,74	13598	8900	78000				
			132	2,10	11218	8900	78000				
			110	2,52	9348	8900	78000				
	900	70	132	1,35	17468	8900	80000				
			110	1,63	14557	8900	80000				
			90	1,99	11910	8900	80000				
	700	55	110	1,26	18527	8900	81000				
			90	1,55	15158	8900	81000				
			75	1,85	12632	8900	81000				
	500	40	90	1,11	20843	8900	82500				
			75	1,32	17369	8900	82500				
			55	1,80	12737	8900	82500				
15.09	**1400**	95	132	2,27	12871	8900	80000				
			110	2,73	10726	8900	80000				
			90	3,33	8776	8900	80000				
	900	60	110	1,75	16983	8900	81000				
			90	2,14	13895	8900	81000				
			75	2,56	11579	8900	81000				
	700	50	90	1,66	16674	8900	81000				
			75	1,99	13895	8900	81000				
			55	2,72	10190	8900	81000				
	500	35	75	1,42	19850	8900	82500				
			55	1,94	14557	8900	82500				
			45	2,37	11910	8900	82500	**2A**	**501**	665	800
16.98	**1400**	82	132	1,83	15285	8900	80000	**2AE**		675	880
			110	2,20	12737	8900	80000				
			90	2,69	10421	8900	80000				
	900	53	110	1,41	19226	8900	81000				
			90	1,73	15730	8900	81000				
			75	2,07	13109	8900	81000				
	700	41	90	1,34	20335	8900	82500				
			75	1,61	16945	8900	82500				
			55	2,20	12427	8900	82500				
	500	30	75	1,15	23159	8900	82500				
			55	1,56	16983	8900	82500				
			45	1,92	13895	8900	82500				
18.51	**1400**	76	110	2,22	13408	8900	80000				
			90	2,71	10970	8900	80000				
			75	3,25	9142	8900	80000				
	900	49	90	1,74	17015	8900	82500				
			75	2,09	14149	8900	82500				
			55	2,85	10398	8900	82500				
	700	38	75	1,63	18283	8900	82500				
			55	2,22	13408	8900	82500				
			45	2,71	10970	8900	82500				
	500	27	55	1,58	18870	8900	85000				
			45	1,94	15439	8900	85000				
			37	2,35	12694	8900	85000				

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
21.50	**1400**	65	110	1,93	15677	8900	81000			
			90	2,36	12826	8900	81000			
			75	2,83	10689	8900	81000			
	900	42	90	1,51	19850	8900	82500			
			75	1,81	16542	8900	82500			
			55	2,48	12131	8900	82500			
	700	33	75	1,41	21053	8900	82500			
			55	1,93	15439	8900	82500			
			45	2,35	12632	8900	82500			
	500	23	55	1,37	22152	8900	85000			
			45	1,68	18124	8900	85000			
			37	2,04	14902	8900	85000			
25.41	**1400**	55	90	1,98	15158	8900	81000			
			75	2,38	12632	8900	81000			
			55	3,24	9264	8900	81000			
	900	35	75	1,52	19850	8900	82500			
			55	2,08	14557	8900	82500			
			45	2,54	11910	8900	82500			
	700	28	55	1,62	18196	8900	85000			
			45	1,97	14888	8900	85000			
			37	2,40	12241	8900	85000			
	500	20	45	1,41	20843	8900	85000			
			37	1,71	17137	8900	85000			
			30	2,11	13895	8900	85000	**2A 2AE**	**501**	665 838 675 918
30.31	**1400**	45	75	2,25	15200	8900	82500			
			55	3,06	11147	8900	82500			
			45	3,71	9120	8900	82500			
	900	29	55	1,95	17297	8900	85000			
			45	2,41	14152	8900	85000			
			37	2,93	11636	8900	85000			
	700	22	45	1,87	18655	8900	85000			
			37	2,28	15339	8900	85000			
			30	2,81	12437	8900	85000			
	500	16	37	1,62	21091	8900	90000			
			30	2,00	17100	8900	90000			
			22	2,73	12540	8900	90000			
36,59	**1400**	38	75	2,25	18287	8900	82500			
			55	3,06	13411	8900	82500			
			45	3,71	10972	8900	82500			
	900	25	55	1,95	20384	8900	85000			
			45	2,41	16678	8900	85000			
			37	2,93	13713	8900	85000			
	700	19	45	1,87	21945	8900	85000			
			37	2,28	18044	8900	85000			
			30	2,81	14630	8900	85000			
	500	14	37	1,62	24488	8900	90000			
			30	2,00	19855	8900	90000			
			22	2,73	14560	8900	90000			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
25.24	**1400**	56	75	1,67	12215	7600	64500				
			55	2,28	8957	7600	64500				
			45	2,80	7329	7600	64500				
	900	36	55	1,46	13934	7600	68000				
			45	1,78	11400	7600	68000				
			37	2,17	9374	7600	68000				
	700	28	45	1,39	14658	7600	70000				
			37	1,68	12052	7600	70000				
			30	2,08	9772	7600	70000				
	500	20	37	1,21	16872	7600	70000				
			30	1,49	13680	7600	70000				
			22	2,03	10032	7600	70000				
29.77	**1400**	47	55	2,02	10673	7600	68000				
			45	2,47	8732	7600	68000				
			37	3,00	7180	7600	68000				
	900	30	45	1,58	13680	7600	68000				
			37	1,93	11248	7600	68000				
			30	2,38	9120	7600	68000				
	700	24	37	1,50	14060	7600	70000				
			30	1,85	11400	7600	70000				
			22	2,52	8360	7600	70000				
	500	17	30	1,32	16095	7600	70000				
			22	1,80	11803	7600	70000				
			18,5	2,15	9925	7600	70000	**3A**	**430**	666	546
33.41	**1400**	42	55	2,00	11943	7600	68000	**3AE**		676	621
			45	2,44	9772	7600	68000				
			37	2,97	8035	7600	68000				
	900	27	45	1,57	15200	7600	70000				
			37	1,90	12498	7600	70000				
			30	2,35	10134	7600	70000				
	700	21	37	1,48	16069	7600	70000				
			30	1,82	13029	7600	70000				
			22	2,48	9555	7600	70000				
	500	15	30	1,30	18241	7600	70000				
			22	1,77	13376	7600	70000				
			18,5	2,11	11248	7600	70000				
40.07	**1400**	35	55	1,54	14332	7600	68000				
			45	1,88	11726	7600	68000				
			37	2,29	9641	7600	68000				
	900	23	45	1,21	17844	7600	70000				
			37	1,47	14672	7600	70000				
			30	1,82	11896	7600	70000				
	700	18	37	1,15	18747	7600	70000				
			30	1,41	15200	7600	70000				
			22	1,93	11147	7600	70000				
	500	13	30	1,01	21047	7600	72500				
			22	1,38	15434	7600	72500				
			18,5	1,64	12979	7600	72500				

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
49.89	**1400**	28	45	1,46	14658	7600	70000				
			37	1,77	12052	7600	70000				
			30	2,19	9772	7600	70000				
	900	18	37	1,14	18747	7600	70000				
			30	1,40	15200	7600	70000				
			22	1,91	11147	7600	70000				
	700	14	30	1,09	19543	7600	72500				
			22	1,48	14332	7600	72500				
			18,5	1,77	12052	7600	72500				
	500	10	22	1,06	20065	7600	72500				
			18,5	1,26	16872	7600	72500				
			15	1,55	13680	7600	72500				
56.62	**1400**	25	37	1,60	13498	7600	70000				
			30	1,97	10944	7600	70000				
			22	2,69	8026	7600	70000				
	900	16	30	1,27	17100	7600	70000				
			22	1,73	12540	7600	70000				
			18,5	2,06	10545	7600	70000				
	700	12	22	1,35	16720	7600	72500				
			18,5	1,60	14060	7600	72500				
			15	1,98	11400	7600	72500				
	500	9	18,5	1,14	18747	7600	74000				
			15	1,40	15200	7600	74000				
			11	1,92	11147	7600	74000	**3A**	**430**	666	546
71.98	**1400**	20	30	1,55	13680	7600	70000	**3AE**		676	621
			22	2,11	10032	7600	70000				
			18,5	2,51	8436	7600	70000				
	900	13	22	1,36	15434	7600	72500				
			18,5	1,62	12979	7600	72500				
			15	1,99	10523	7600	72500				
	700	10	18,5	1,25	16872	7600	72500				
			15	1,55	13680	7600	72500				
			11	2,11	10032	7600	72500				
	500	7	15	1,10	19543	7600	74000				
			11	1,50	14332	7600	74000				
			7,5	2,20	9772	7600	74000				
83.18	**1400**	17	22	1,99	11803	7600	70000				
			18,5	2,37	9925	7600	70000				
			15	2,92	8047	7600	70000				
	900	11	18,5	1,52	15339	7600	72500				
			15	1,87	12437	7600	72500				
			11	2,55	9120	7600	72500				
	700	8,5	15	1,45	16095	7600	74000				
			11	1,99	11803	7600	74000				
			7,5	2,92	8047	7600	74000				
	500	6	11	1,42	16720	7600	74000				
			7,5	2,08	11400	7600	74000				
			5,5	2,84	8360	7600	74000				

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			
											kg
99.05	**1400**	14	18,5	1,41	12052	7600	72500	**3A 3AE**	**430**	666	546
			15	1,74	9772	7600	72500			676	621
			11	2,37	7166	7600	72500				
	900	9	15	1,12	15200	7600	74000				
			11	1,53	11147	7600	74000				
			7,5	2,24	7600	7600	74000				
	700	7	11	1,18	14332	7600	74000				
			7,5	1,72	9772	7600	74000				
			5,5	2,35	7166	7600	74000				
	500	5	7,5	1,23	13680	7600	74000				
			5,5	1,68	10032	7600	74000				
			4	2,31	7296	7600	74000				
121.40	**1400**	11,5	11	1,58	8724	7600	72500				
			7,5	2,32	5948	7600	72500				
			5,5	3,16	4362	7600	72500				
	900	7,5	7,5	1,49	9120	7600	74000				
			5,5	2,03	6688	7600	74000				
			4	2,79	4864	7600	74000				
	700	6	5,5	1,59	8360	7600	74000				
			4	2,19	6080	7600	74000				
			3	2,92	4560	7600	74000				
	500	4	4	1,55	9120	7600	74000				
			3	2,06	6840	7600	74000				
			2,2	2,81	5016	7600	74000				
144.85	**1400**	9,5	7,5	1,96	7200	7600	74000				
			5,5	2,68	5280	7600	74000				
			4	3,69	3840	7600	74000				
	900	6,2	5,5	1,72	8091	7600	74000				
			4	2,37	5884	7600	74000				
			3	3,16	4413	7600	74000				
	700	5	4	1,84	7296	7600	74000	**3A 3AE**	**501**	667	838
			3	2,45	5472	7600	74000			677	918
			2,2	3,34	4013	7600	74000				
	500	3,5	3	1,78	7817	7600	74000				
			2,2	2,43	5733	7600	74000				
			1,5	3,57	3909	7600	74000				
38.34	**1400**	37	55	1,96	13557	7500	82500				
			45	2,39	11092	7500	82500				
			37	2,91	9120	7500	82500				
	900	23	45	1,54	17844	7500	85000				
			37	1,87	14672	7500	85000				
			30	2,31	11896	7500	85000				
	700	18	37	1,45	18747	7500	90000				
			30	1,79	15200	7500	90000				
			22	2,44	11147	7500	90000				
	500	13	30	1,27	21047	7500	95000				
			22	1,74	15434	7500	95000				
			18,5	2,07	12979	7500	95000				

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
49.86	**1400**	28	45	1,87	14658	7500	85000			
			37	2,27	12052	7500	85000			
			30	2,81	9772	7500	85000			
	900	18	37	1,45	18747	7500	90000			
			30	1,80	15200	7500	90000			
			22	2,45	11147	7500	90000			
	700	14	30	1,40	19543	7500	95000			
			22	1,90	14332	7500	95000			
			18,5	2,26	12052	7500	95000			
	500	10	22	1,36	20065	7500	95000			
			18,5	1,62	16872	7500	95000			
			15	1,99	13680	7500	95000			
76.13	**1400**	18	37	1,59	18747	7500	90000			
			30	1,95	15200	7500	90000			
			22	2,67	11147	7500	90000			
	900	12	30	1,26	22801	7500	95000			
			22	1,71	16720	7500	95000			
			18,5	2,04	14060	7500	95000			
	700	9	22	1,34	22294	7500	100000			
			18,5	1,59	18747	7500	100000			
			15	1,96	15200	7500	100000			
	500	6,5	18,5	1,12	25958	7500	100000			
			15	1,38	21047	7500	100000			
			11	1,89	15434	7500	100000	**3A**	667	838
101.38	**1400**	14	22	1,63	14332	7500	95000	**3AE** **501**	677	918
			18,5	1,94	12052	7500	95000			
			15	2,39	9772	7500	95000			
	900	9	18,5	1,23	18747	7500	100000			
			15	1,52	15200	7500	100000			
			11	2,08	11147	7500	100000			
	700	7	15	1,19	19543	7500	100000			
			11	1,63	14332	7500	100000			
			7,5	2,39	9772	7500	100000			
	500	5	11	1,15	20065	7500	100000			
			7,5	1,70	13680	7500	100000			
			5,5	2,31	10032	7500	100000			
148.69	**1400**	9,5	18,5	1,60	17760	7500	100000			
			15	1,97	14400	7500	100000			
			11	2,68	10560	7500	100000			
	900	6	15	1,97	22801	7500	100000			
			11	2,69	16720	7500	100000			
			7,5	3,95	11400	7500	100000			
	700	5	11	1,35	20065	7500	100000			
			7,5	1,97	13680	7500	100000			
			5,5	2,69	10032	7500	100000			
	500	3,5	7,5	1,42	19543	7500	100000			
			5,5	1,95	14332	7500	100000			
			4	2,67	10423	7500	100000			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			 kg
213.93	**1400**	6,5	15	1,39	21047	7500	100000	**3A**	**501**	667	838
			11	1,90	15434	7500	100000	**3AE**		677	918
			7,5	2,78	10523	7500	100000				
	900	4	11	1,22	25081	7500	100000				
			7,5	1,80	17100	7500	100000				
			5,5	2,45	12540	7500	100000				
	700	3,3	7,5	1,41	20728	7500	100000				
			5,5	1,92	15200	7500	100000				
			4	2,65	11055	7500	100000				
	500	2,3	5,5	1,34	21809	7500	100000				
			4	1,84	15861	7500	100000				
			3	2,46	11896	7500	100000				
310.01	**1400**	4,5	11	1,21	22294	7500	100000				
			7,5	1,77	15200	7500	100000				
			5,5	2,42	11147	7500	100000				
	900	3	7,5	1,14	22801	7500	100000				
			5,5	1,55	16720	7500	100000				
			4	2,14	12160	7500	100000				
	700	2,2	5,5	1,18	22801	7500	100000				
			4	1,63	16582	7500	100000				
			3	2,17	12437	7500	100000				
	500	1,6	4	1,18	22801	7500	100000				
			3	1,58	17100	7500	100000				
			2,2	2,15	12540	7500	100000				
15.01	**1400**	93	185	2,60	18142	7750	135000				
			160	3,01	15691	7750	135000				
			132	3,65	12945	7750	135000				
	900	60	160	1,93	24321	7750	135000				
			132	2,34	20065	7750	135000				
			110	2,81	16720	7750	135000				
	700	47	132	1,82	25614	7750	137500				
			110	2,18	21345	7750	137500				
			90	2,67	17464	7750	137500				
	500	33	110	1,56	30401	7750	139000				
			90	1,90	24873	7750	139000				
			75	2,28	20728	7750	139000	**3A**	**750**	668	1380
16.49	**1400**	85	160	2,87	17168	7750	135000	**3AE**		678	1470
			132	3,48	14163	7750	135000				
			110	4,17	11803	7750	135000				
	900	55	132	2,23	21889	7750	137500				
			110	2,68	18241	7750	137500				
			90	3,28	14924	7750	137500				
	700	42	110	2,08	23886	7750	139000				
			90	2,54	19543	7750	139000				
			75	3,05	16286	7750	139000				
	500	30	90	1,82	27361	7750	139000				
			75	2,18	22801	7750	139000				
			55	2,98	16720	7750	139000				

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		
18.17	**1400**	77	132	3,13	15635	7750	135000			
			110	3,76	13029	7750	135000			
			90	4,59	10660	7750	135000			
	900	50	110	2,41	20065	7750	137500			
			90	2,95	16416	7750	137500			
			75	3,54	13680	7750	137500			
	700	39	90	2,29	21047	7750	139000			
			75	2,75	17539	7750	139000			
			55	3,75	12862	7750	139000			
	500	28	75	1,96	24429	7750	140500			
			55	2,67	17915	7750	140500			
			45	3,27	14658	7750	140500			
20.58	**1400**	68	132	2,02	17704	7750	135000			
			110	2,43	14753	7750	135000			
			90	2,97	12071	7750	135000			
	900	44	110	1,56	22801	7750	139000			
			90	1,91	18655	7750	139000			
			75	2,29	15546	7750	139000			
	700	34	90	1,48	24142	7750	139000			
			75	1,77	20118	7750	139000			
			55	2,42	14753	7750	139000			
	500	24	75	1,27	28501	7750	140500			
			55	1,73	20901	7750	140500			
			45	2,11	17100	7750	140500	**3A** **3AE**	**750**	668 678	1380 1470
25.29	**1400**	55	110	1,96	18241	7750	137500			
			90	2,39	14924	7750	137500			
			75	2,87	12437	7750	137500			
	900	36	90	1,54	22801	7750	139000			
			75	1,85	19001	7750	139000			
			55	2,52	13934	7750	139000			
	700	28	75	1,43	24429	7750	140500			
			55	1,96	17915	7750	140500			
			45	2,40	14658	7750	140500			
	500	20	55	1,40	25081	7750	140500			
			45	1,71	20521	7750	140500			
			37	2,08	16872	7750	140500			
34.96	**1400**	43	75	2,01	15907	7750	139000			
			55	2,75	11665	7750	139000			
			45	3,35	9544	7750	139000			
	900	27	55	1,76	18578	7750	140500			
			45	2,15	15200	7750	140500			
			37	2,62	12498	7750	140500			
	700	21	45	1,67	19543	7750	140500			
			37	2,03	16069	7750	140500			
			30	2,50	13029	7750	140500			
	500	15	37	1,45	22497	7750	142700			
			30	1,80	18241	7750	142700			
			22	2,45	13376	7750	142700			

İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		 kg
44.31	1400	32	55	2,09	15675	7750	139000			
			45	2,56	12825	7750	139000			
			37	3,11	10545	7750	139000			
	900	20	45	1,64	20521	7750	140500			
			37	1,99	16872	7750	140500			
			30	2,46	13680	7750	140500			
	700	16	37	1,55	21091	7750	142700			
			30	1,91	17100	7750	142700			
			22	2,61	12540	7750	142700			
	500	11	30	1,37	24873	7750	142700			
			22	1,86	18241	7750	142700			
			18,5	2,22	15339	7750	142700			
63.88	1400	22	37	2,13	15339	7750	140500			
			30	2,63	12437	7750	140500			
			22	3,58	9120	7750	140500			
	900	14	30	1,69	19543	7750	142700			
			22	2,31	14332	7750	142700			
			18,5	2,75	12052	7750	142700			
	700	11	22	1,78	18241	7750	142700			
			18,5	2,12	15339	7750	142700			
			15	2,61	12437	7750	142700			
	500	8	18,5	1,52	21091	7750	145500			
			15	1,87	17100	7750	145500			
			11	2,55	12540	7750	145500	**3A**	**750**	668 1380
81.75	1400	17	22	2,58	11803	7750	142700	**3AE**		678 1470
			18,5	3,06	9925	7750	142700			
			15	3,78	8047	7750	142700			
	900	11	18,5	1,97	15339	7750	142700			
			15	2,43	12437	7750	142700			
			11	3,32	9120	7750	142700			
	700	8,5	15	1,90	16095	7750	145500			
			11	2,59	11803	7750	145500			
			7,5	3,81	8047	7750	145500			
	500	6	11	1,84	16720	7750	145500			
			7,5	2,70	11400	7750	145500			
			5,5	3,68	8360	7750	145500			
118.50	1400	12	18,5	2,17	14060	7750	142700			
			15	2,67	11400	7750	142700			
			11	3,64	8360	7750	142700			
	900	7,5	15	1,72	18241	7750	145500			
			11	2,35	13376	7750	145500			
			7,5	3,44	9120	7750	145500			
	700	6	11	1,82	16720	7750	145500			
			7,5	2,67	11400	7750	145500			
			5,5	3,65	8360	7750	145500			
	500	4	7,5	1,90	17100	7750	145500			
			5,5	2,60	12540	7750	145500			
			4	3,57	9120	7750	145500			

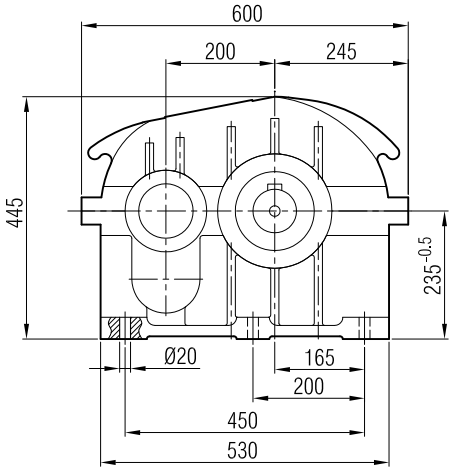
İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
140.30	**1400**	10	15	2,69	13680	7750	142700			
			11	3,67	10032	7750	142700			
			7,5	5,38	6840	7750	142700			
	900	6,5	11	2,35	15434	7750	145500			
			7,5	3,44	10523	7750	145500			
			5,5	4,69	7717	7750	145500			
	700	5	7,5	2,69	13680	7750	145500			
			5,5	3,66	10032	7750	145500			
			4	5,04	7296	7750	145500			
	500	3,5	5,5	2,64	14332	7750	145500			
			4	3,63	10423	7750	145500			
			3	4,84	7817	7750	145500			
154.20	**1400**	9	15	2,20	14978	7150	147000			
			11	3,01	10984	7150	147000			
			7,5	4,41	7489	7150	147000			
	900	6	11	1,92	16475	7150	147000			
			7,5	2,81	11233	7150	147000			
			5,5	3,83	8238	7150	147000			
	700	4,5	7,5	2,17	14978	7150	147000			
			5,5	2,96	10984	7150	147000			
			4	4,08	7988	7150	147000			
	500	3,2	5,5	2,11	15446	7150	147000			
			4	2,90	11233	7150	147000			
			3	3,86	8425	7150	147000	**4A**	**750**	669	1410
187.10	**1400**	7,5	15	1,82	17973	7150	147000			
			11	2,48	13180	7150	147000			
			7,5	3,64	8987	7150	147000			
	900	5	11	1,60	19770	7150	147000			
			7,5	2,35	13480	7150	147000			
			5,5	3,20	9885	7150	147000			
	700	3,8	7,5	1,82	17737	7150	147000			
			5,5	2,48	13007	7150	147000			
			4	3,41	9460	7150	147000			
	500	2,7	5,5	1,76	18306	7150	147000			
			4	2,42	13313	7150	147000			
			3	3,23	9985	7150	147000			
222.23	**1400**	6	11	2,10	16475	7150	147000			
			7,5	3,08	11233	7150	147000			
			5,5	4,20	8238	7150	147000			
	900	4	7,5	1,95	16850	7150	147000			
			5,5	2,65	12357	7150	147000			
			4	3,65	8987	7150	147000			
	700	3	5,5	2,06	16475	7150	147000			
			4	2,84	11982	7150	147000			
			3	3,78	8987	7150	147000			
	500	2	4	2,01	17973	7150	147000			
			3	2,68	13480	7150	147000			
			2,2	3,66	9885	7150	147000			

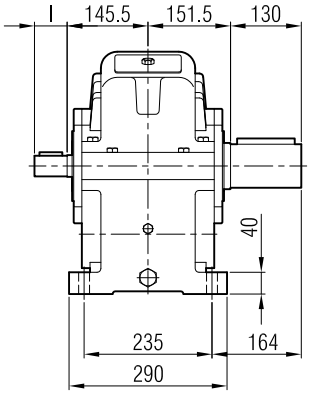
İ Tahvil Oranı Ratio *Übersetzung*	n_1 Giriş Devri Input Speeds *Antriebswelle Drehzahlen* [r.p.m]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m]	P_1 GÜÇ Power *Leistung* [kW]	S_f Servis Faktörü Service Factor *Betriebsfaktor*	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{q1} Rad. Yük Over Loads *Querkräfte* [N]	$F_{q1/2}$ Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*		kg
282.32	**1400**	5	7,5	2,25	13480	7150	147000			
			5,5	3,60	9885	7150	147000			
			4	4,21	7189	7150	147000			
	900	3,2	5,5	2,00	15446	7150	147000			
			4	2,75	11233	7150	147000			
			3	3,67	8425	7150	147000			
	700	2,5	4	2,15	14378	7150	147000			
			3	2,86	10784	7150	147000			
			2,2	3,91	7908	7150	147000			
	500	1,7	3	1,95	15859	7150	147000			
			2,2	2,66	11630	7150	147000			
			1,5	3,90	7929	7150	147000			
327.87	**1400**	4,2	7,5	1,98	14340	7150	147000			
			5,5	2,70	10516	7150	147000			
			4	3,71	7648	7150	147000			
	900	2,7	5,5	1,74	18306	7150	147000			
			4	2,38	13313	7150	147000			
			3	3,18	9985	7150	147000			
	700	2	4	1,85	17973	7150	147000			
			3	2,47	13480	7150	147000			
			2,2	3,37	9885	7150	147000			
	500	1,5	3	1,77	17973	7150	147000			
			2,2	2,41	13180	7150	147000			
			1,5	3,53	8987	7150	147000	**4A**	**750**	669	1410
412.40	**1400**	3,5	5,5	2,15	14122	7150	147000			
			4	2,95	10270	7150	147000			
			3	3,94	7703	7150	147000			
	900	2,2	4	1,91	16339	7150	147000			
			3	2,55	12254	7150	147000			
			2,2	3,48	8987	7150	147000			
	700	1,7	3	1,97	15859	7150	147000			
			2,2	2,68	11630	7150	147000			
			1,5	3,94	7929	7150	147000			
	500	1,2	2,2	1,89	16475	7150	147000			
			1,5	2,78	11233	7150	147000			
			1,1	3,79	8238	7150	147000			
487.32	**1400**	3	5,5	1,84	16475	7150	147000			
			4	2,53	11982	7150	147000			
			3	3,37	8987	7150	147000			
	900	1,8	4	1,57	19970	7150	147000			
			3	2,09	14978	7150	147000			
			2,2	2,85	10984	7150	147000			
	700	1,4	3	1,63	19257	7150	147000			
			2,2	2,22	14122	7150	147000			
			1,5	3,25	9628	7150	147000			
	500	1	2,2	1,58	19770	7150	147000			
			1,5	2,32	13480	7150	147000			
			1,1	3,17	9885	7150	147000			

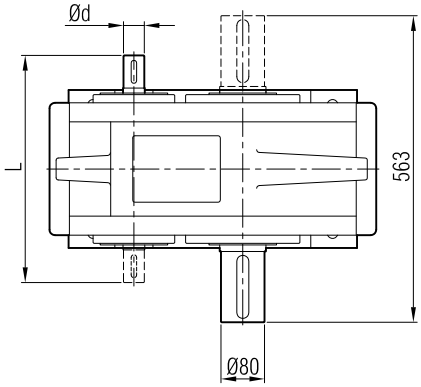
A Serisi Redüktörler Ölçü Sayfaları

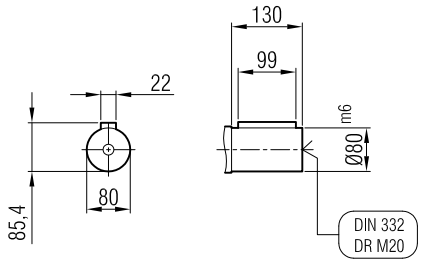
Dimensions Pages
Dimensions

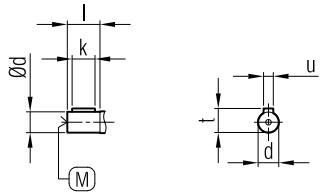
A 200





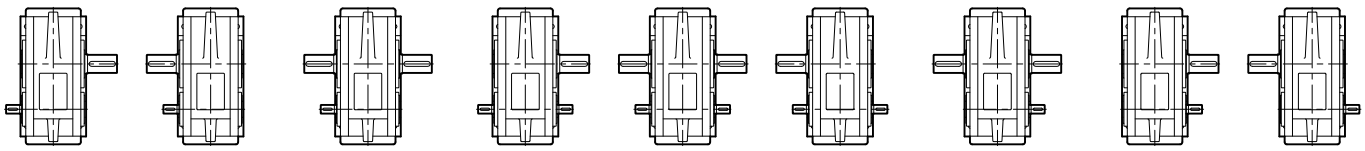






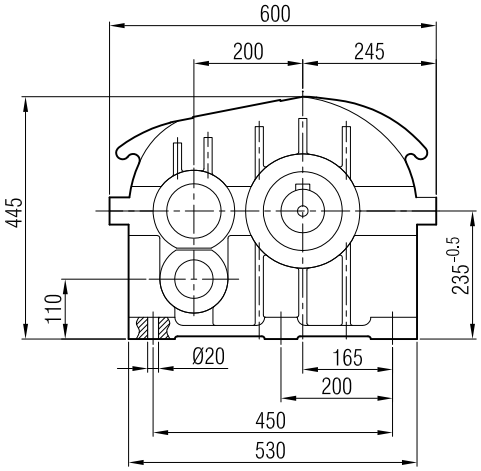
M	d	u	t	k	l	L	Tahvil
M20	55	16	59,3	75	90	471	i ≤ 2,84
M16	48	14	51,8	65	80	451	3 < i ≤ 6,91

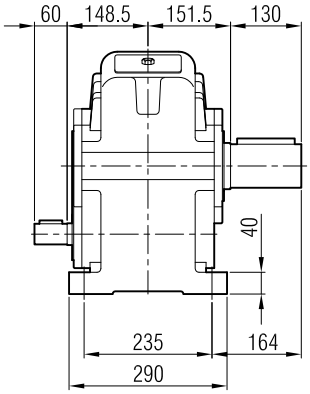
Bağlantı Pozisyonları
Mounting Positions
Bauformen

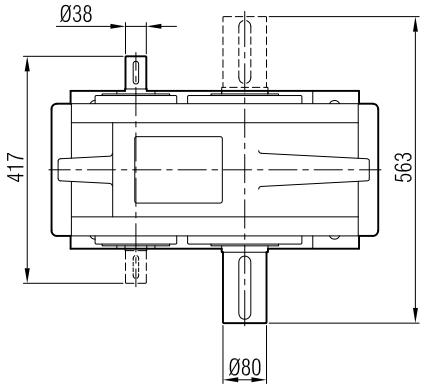


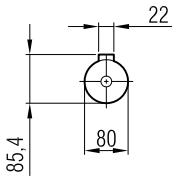
P1 P2 P3 P4 P5 P6 P7 P8 P9

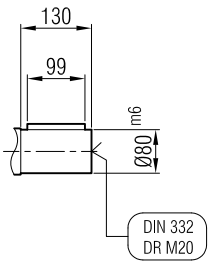
2A 200

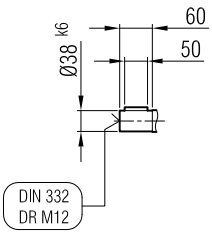


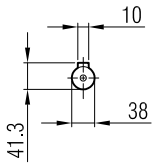




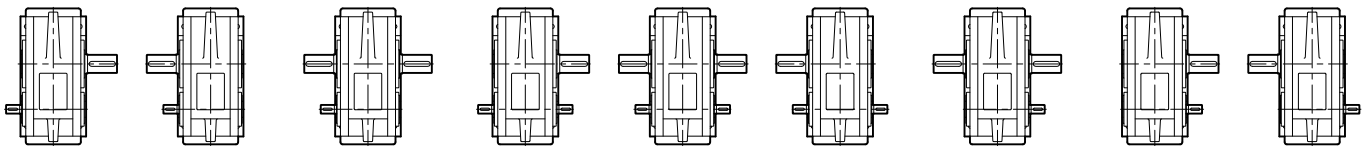








Bağlantı Pozisyonları
Mounting Positions
Bauformen



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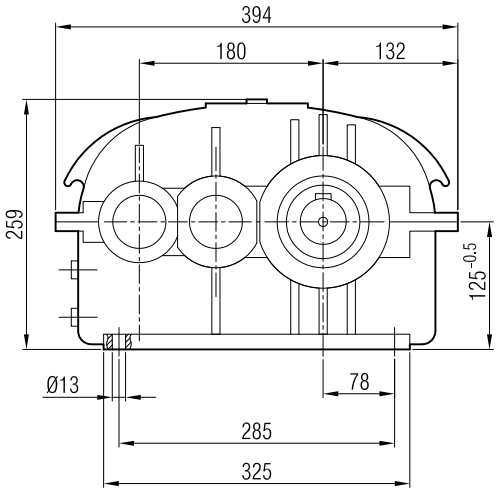
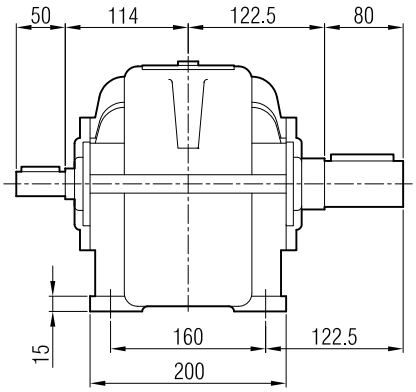
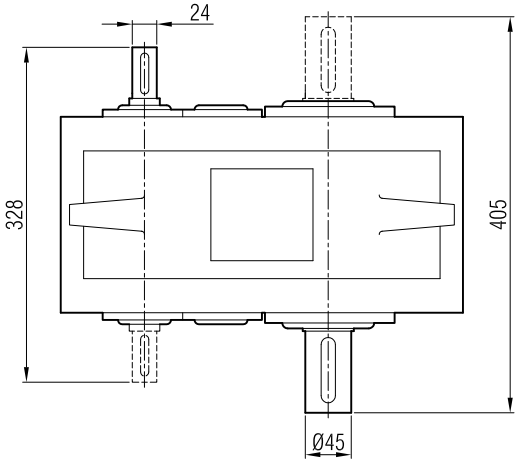
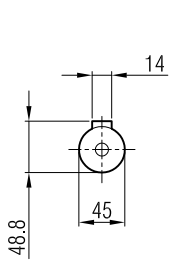
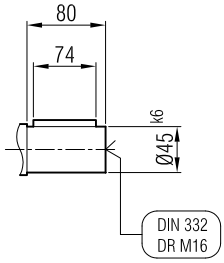
2A 180

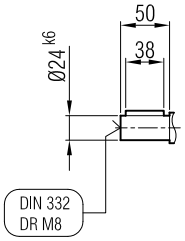


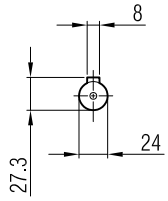




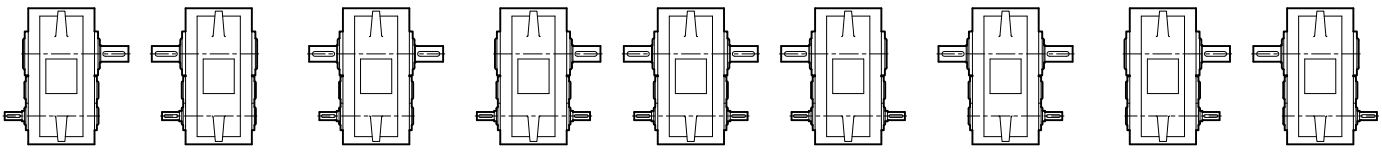






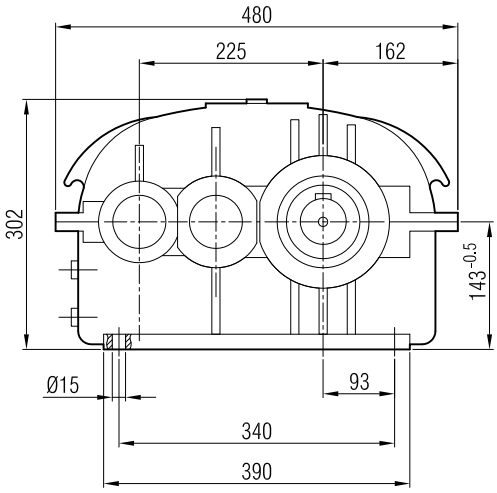


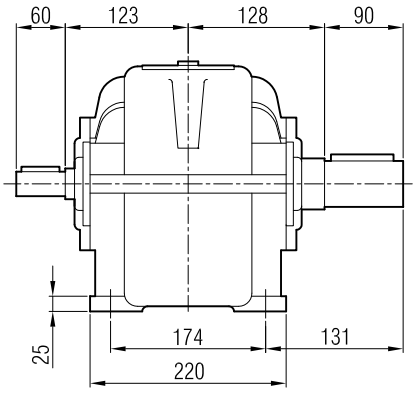
Bağlantı Pozisyonları
Mounting Positions
Bauformen

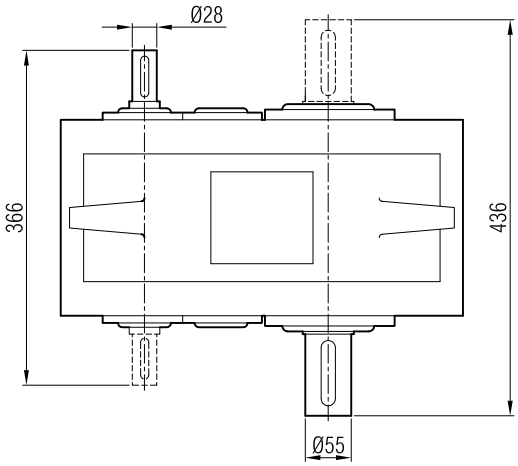


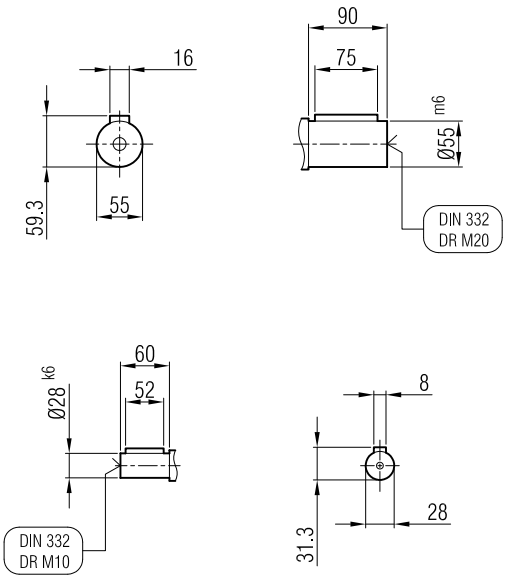
P1 **P2** **P3** **P4** **P5** **P6** **P7** **P8** **P9**

2A 225

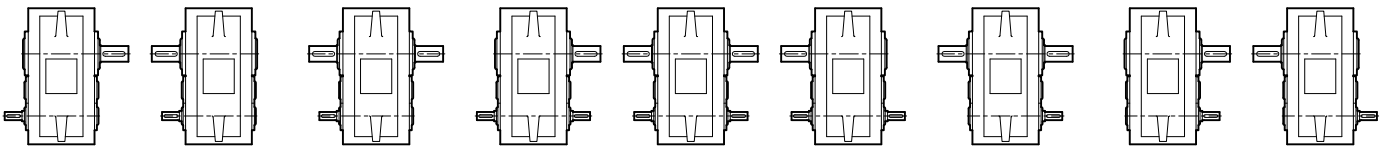








Bağlantı Pozisyonları
Mounting Positions
Bauformen



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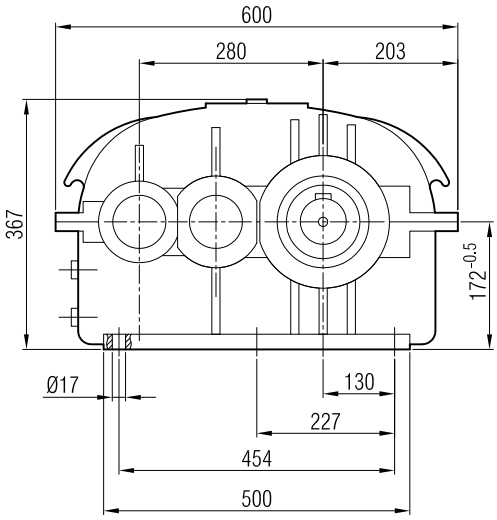
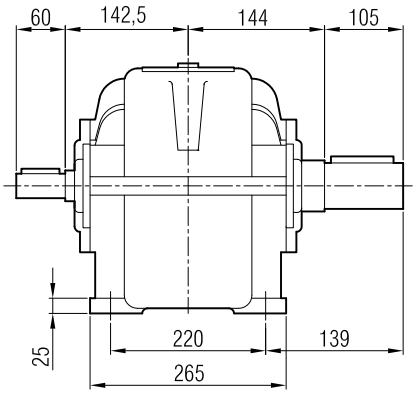
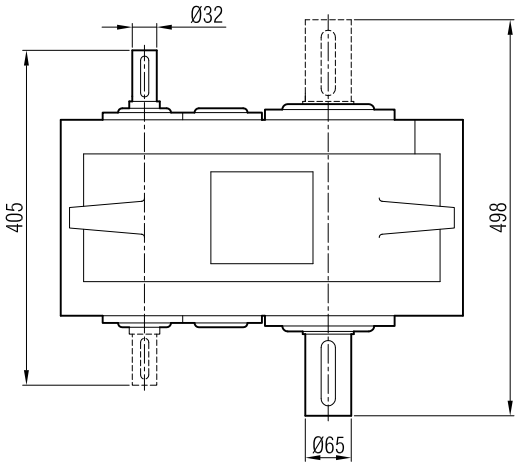
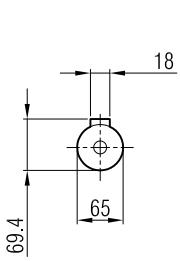
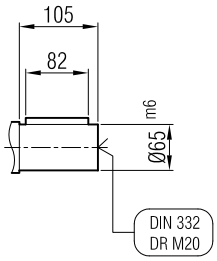
2A 275

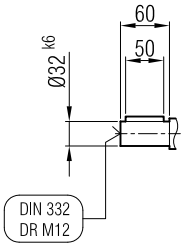


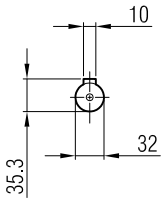




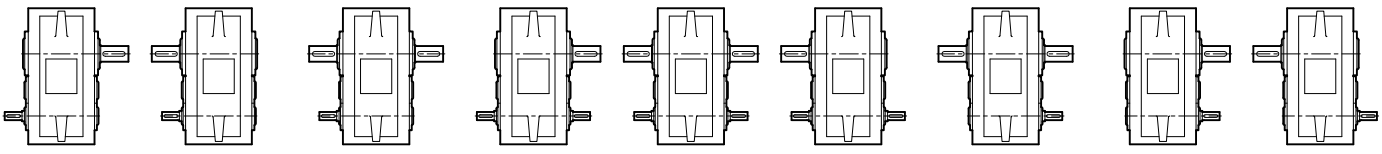






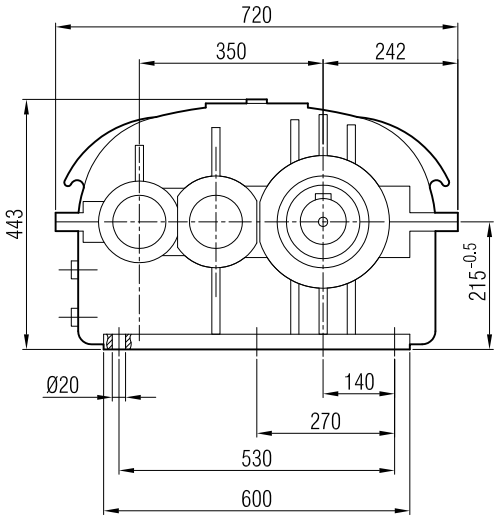


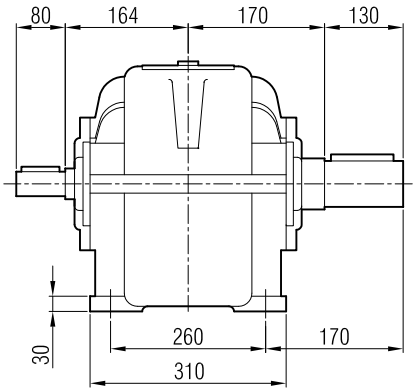
Bağlantı Pozisyonları
Mounting Positions
Bauformen

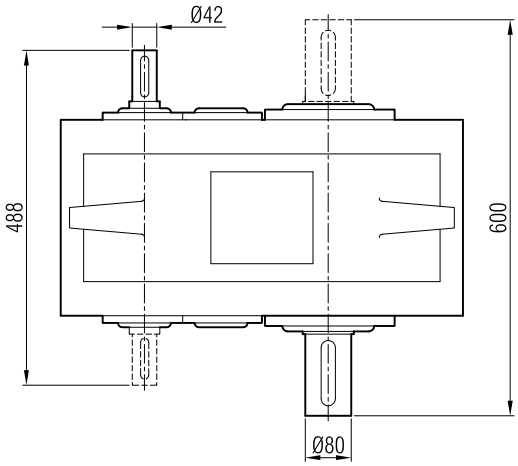


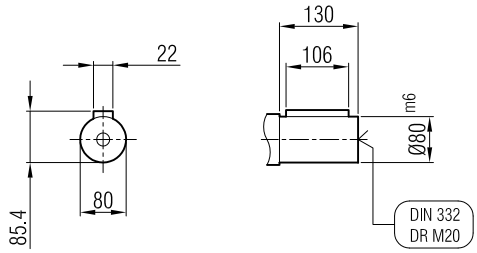
P1 **P2** **P3** **P4** **P5** **P6** **P7** **P8** **P9**

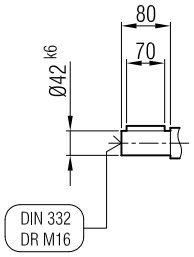
2A 350

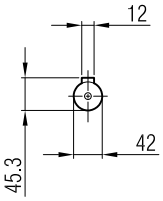




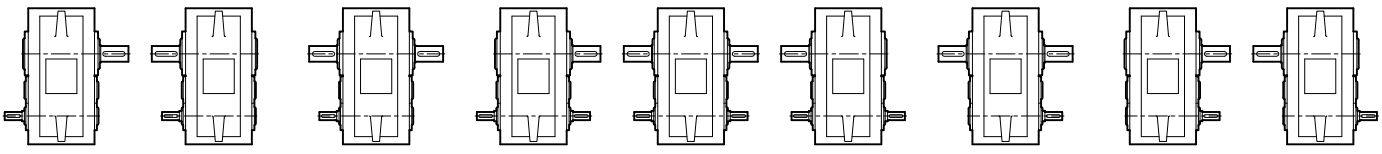






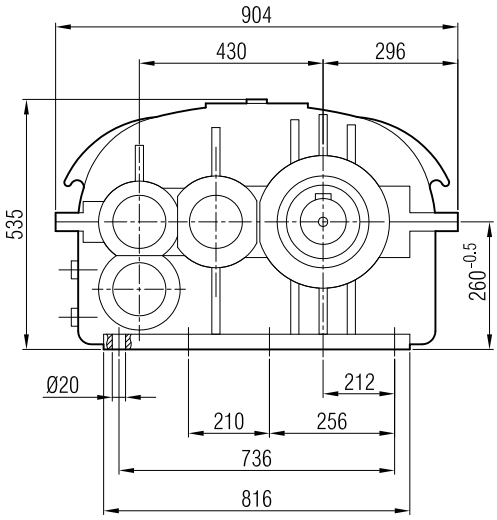


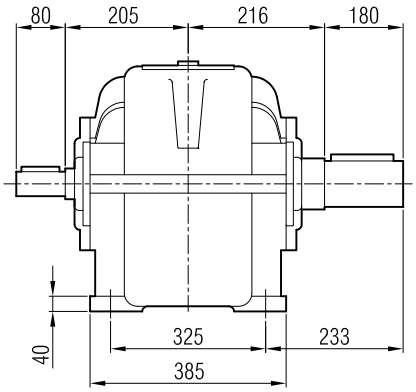
Bağlantı Pozisyonları
Mounting Positions
Bauformen

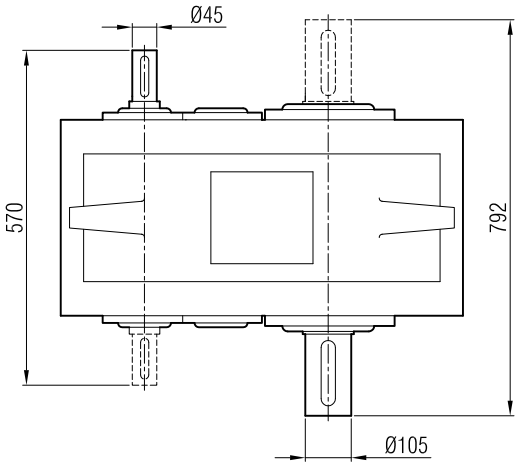


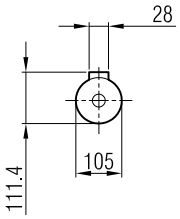
P1 P2 P3 P4 P5 P6 P7 P8 P9

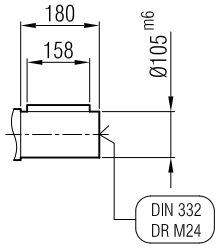
2A 430

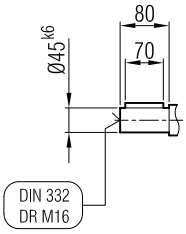


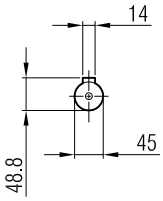




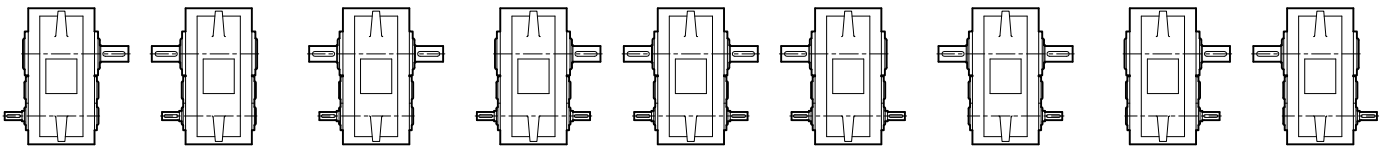






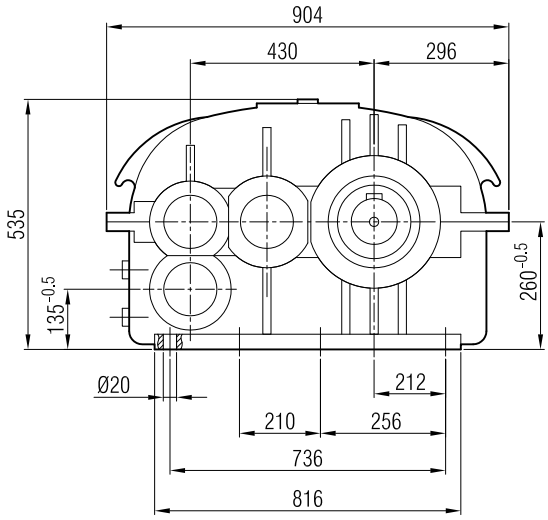


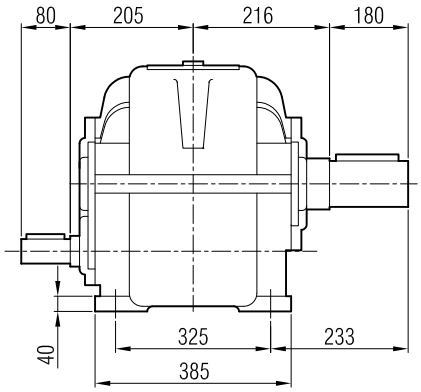
Bağlantı Pozisyonları
Mounting Positions
Bauformen

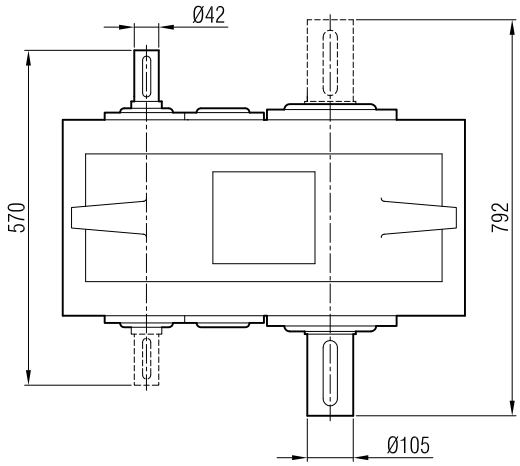


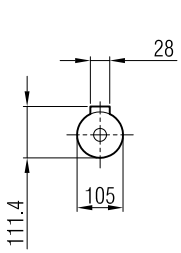
P1 **P2** **P3** **P4** **P5** **P6** **P7** **P8** **P9**

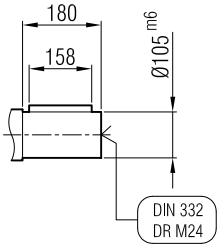
3A 430

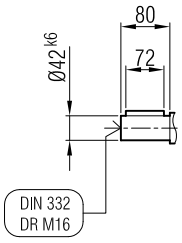


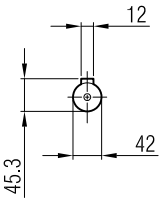




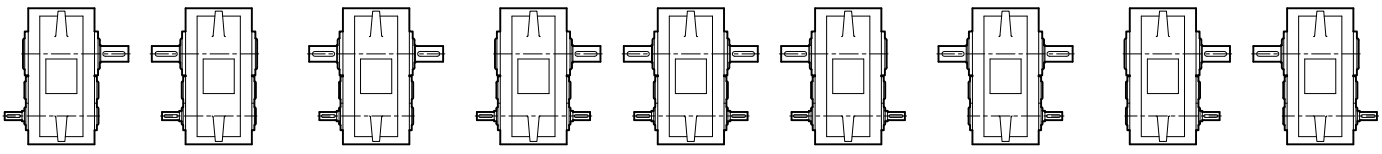






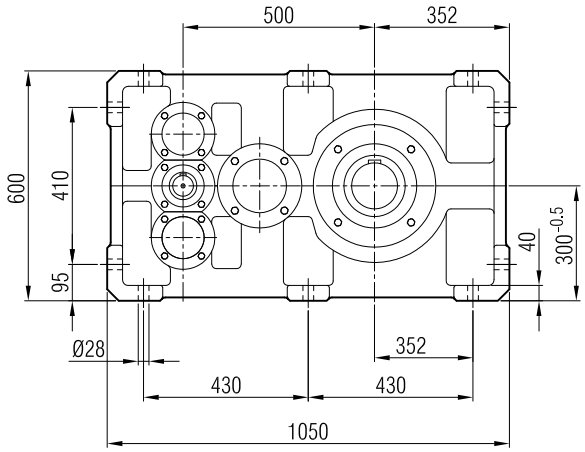


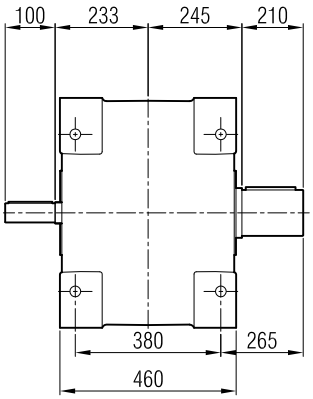
Bağlantı Pozisyonları
Mounting Positions
Bauformen

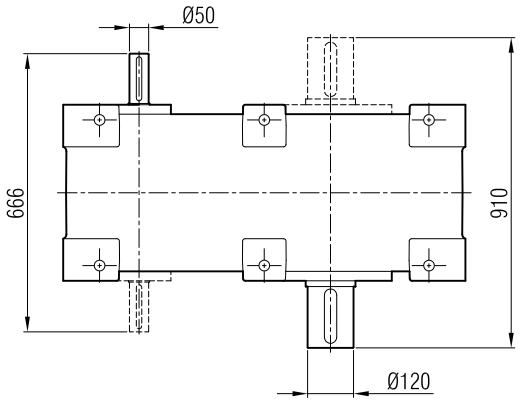


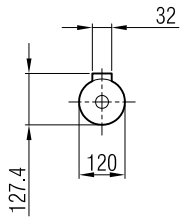
P1 **P2** **P3** **P4** **P5** **P6** **P7** **P8** **P9**

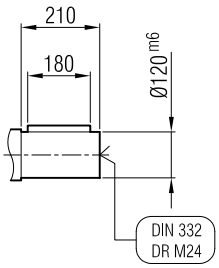
2A 501

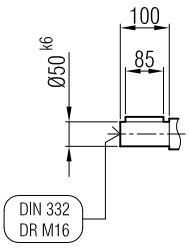


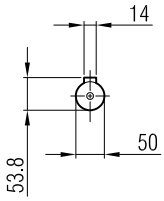




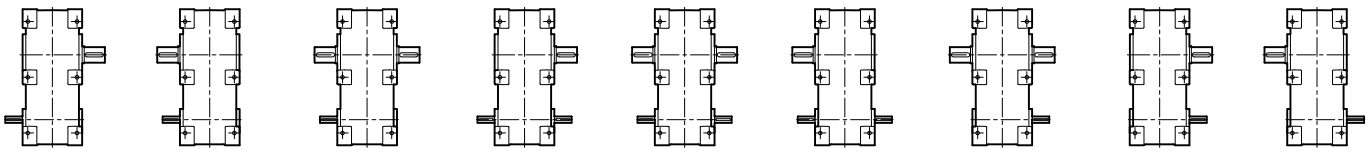






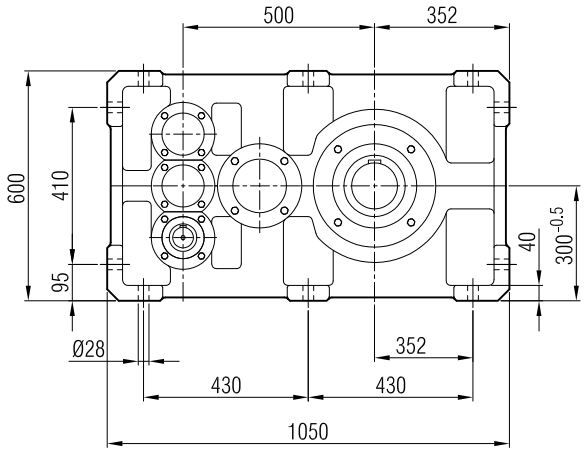


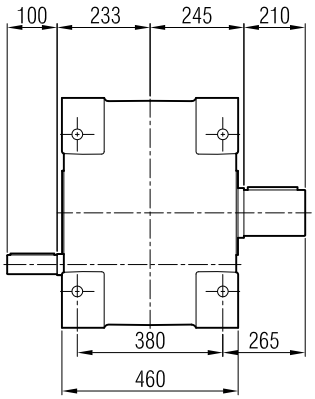
Bağlantı Pozisyonları
Mounting Positions
Bauformen

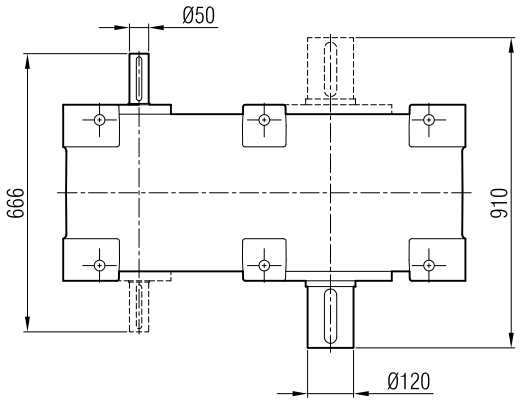


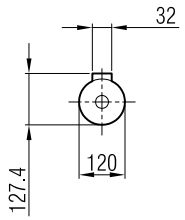
P1 **P2** **P3** **P4** **P5** **P6** **P7** **P8** **P9**

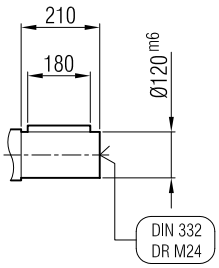
3A 501

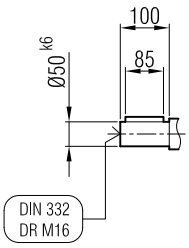


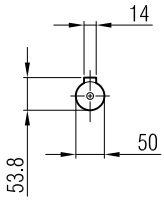




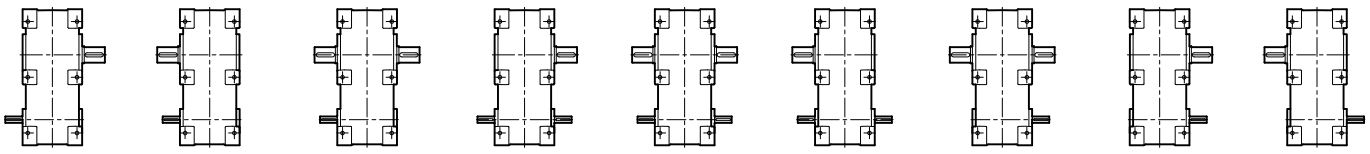






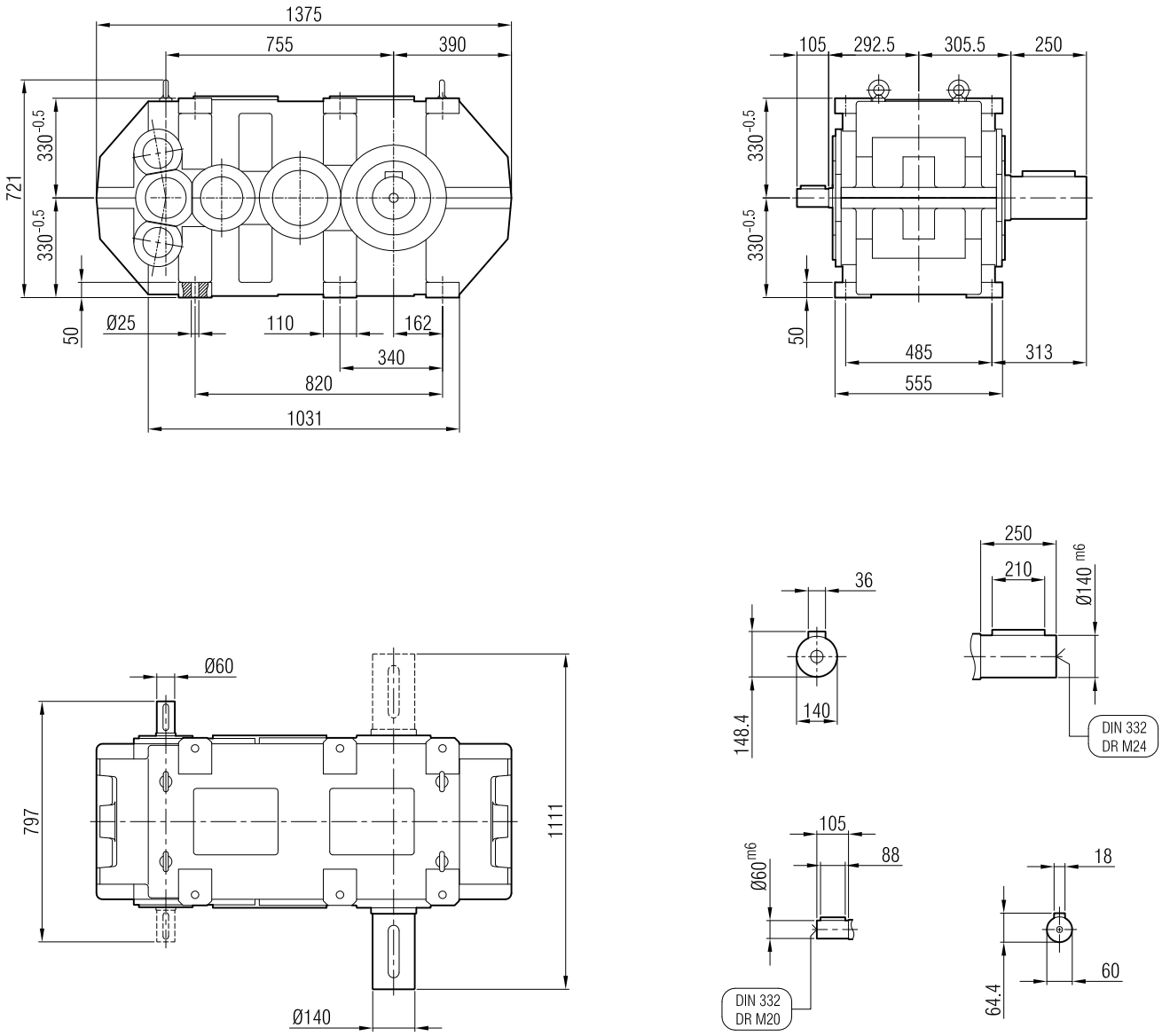


Bağlantı Pozisyonları
Mounting Positions
Bauformen

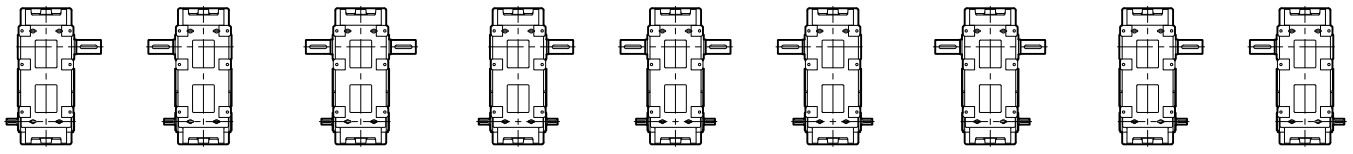


P1 **P2** **P3** **P4** **P5** **P6** **P7** **P8** **P9**

3A 750

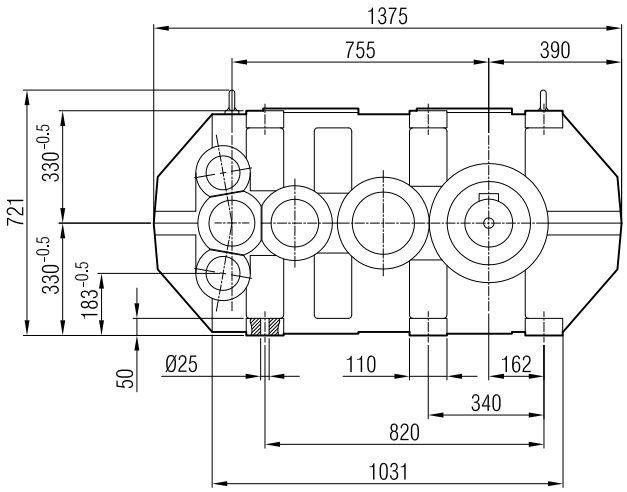


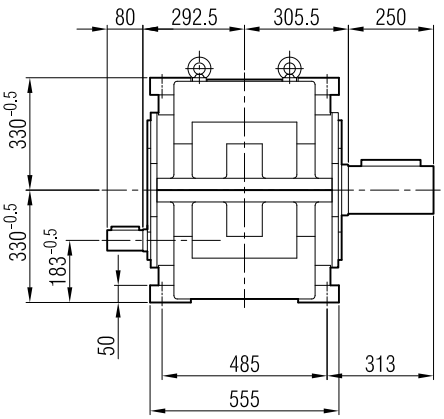
Bağlantı Pozisyonları
Mounting Positions
Bauformen

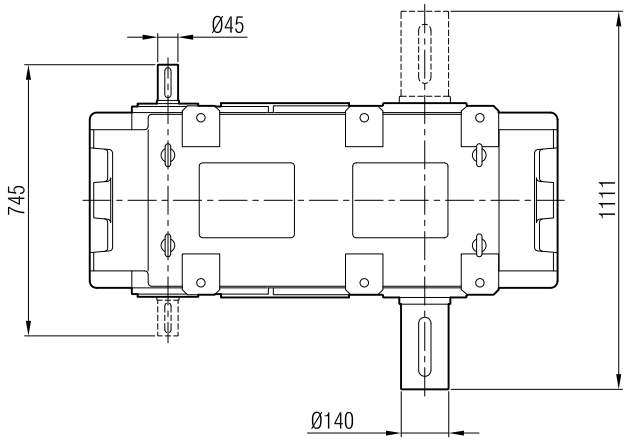


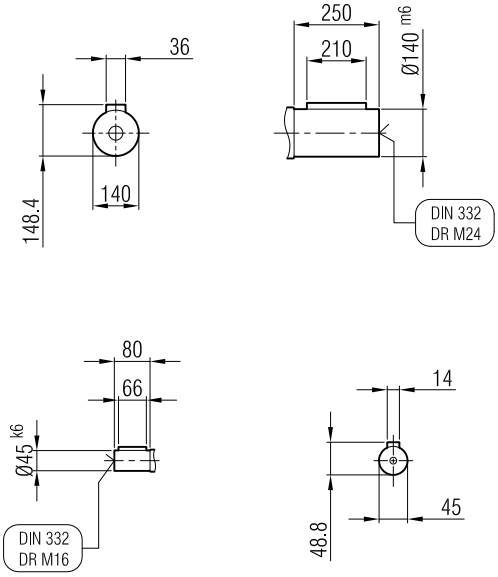
P1 **P2** **P3** **P4** **P5** **P6** **P7** **P8** **P9**

4A 750

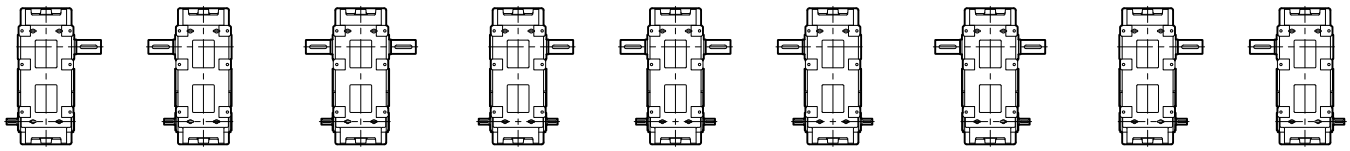






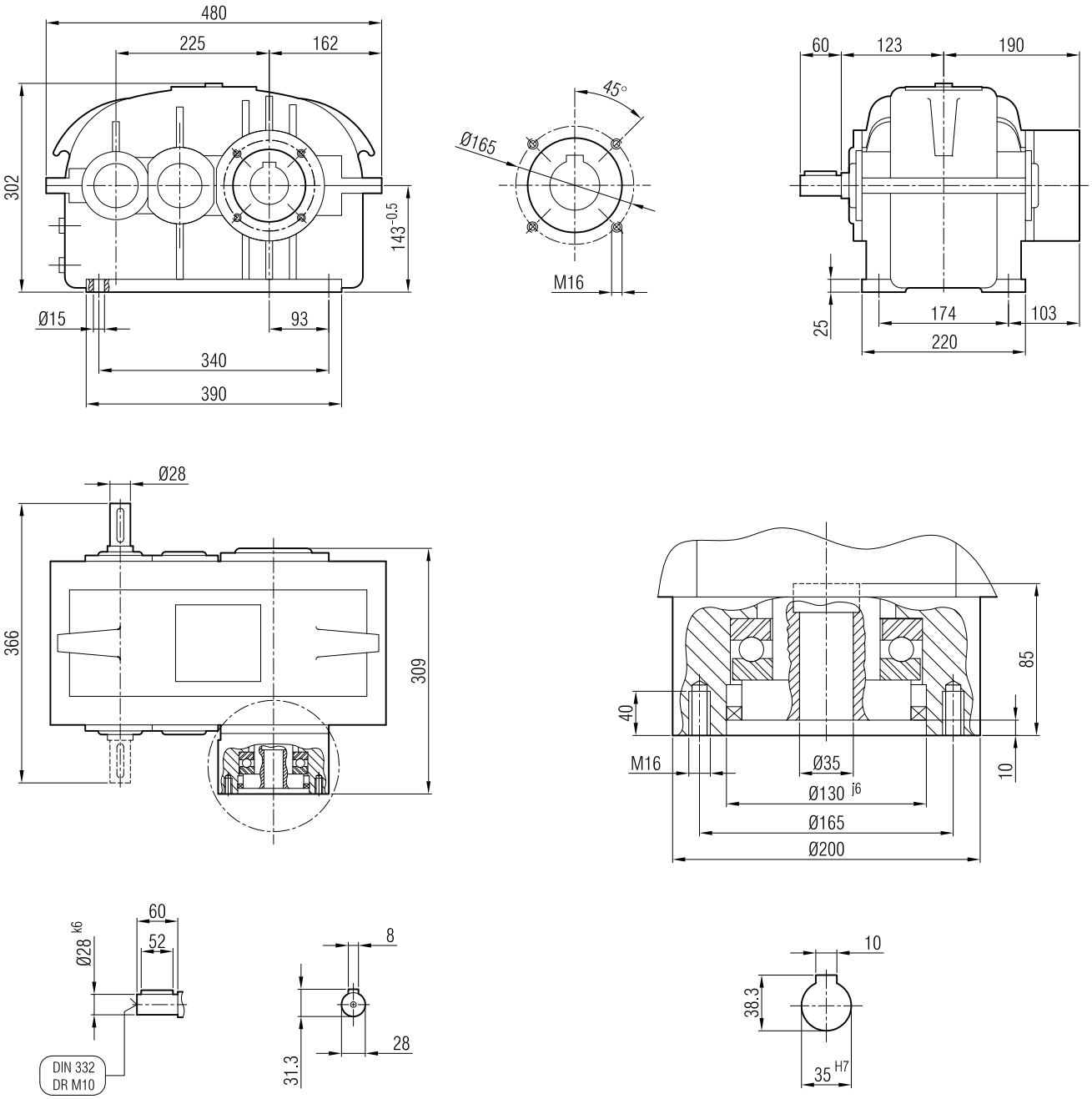


Bağlantı Pozisyonları
Mounting Positions
Bauformen

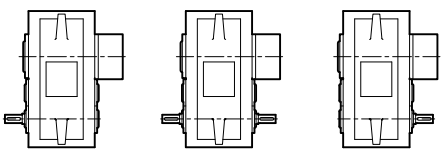


P1 **P2** **P3** **P4** **P5** **P6** **P7** **P8** **P9**

2AE 225

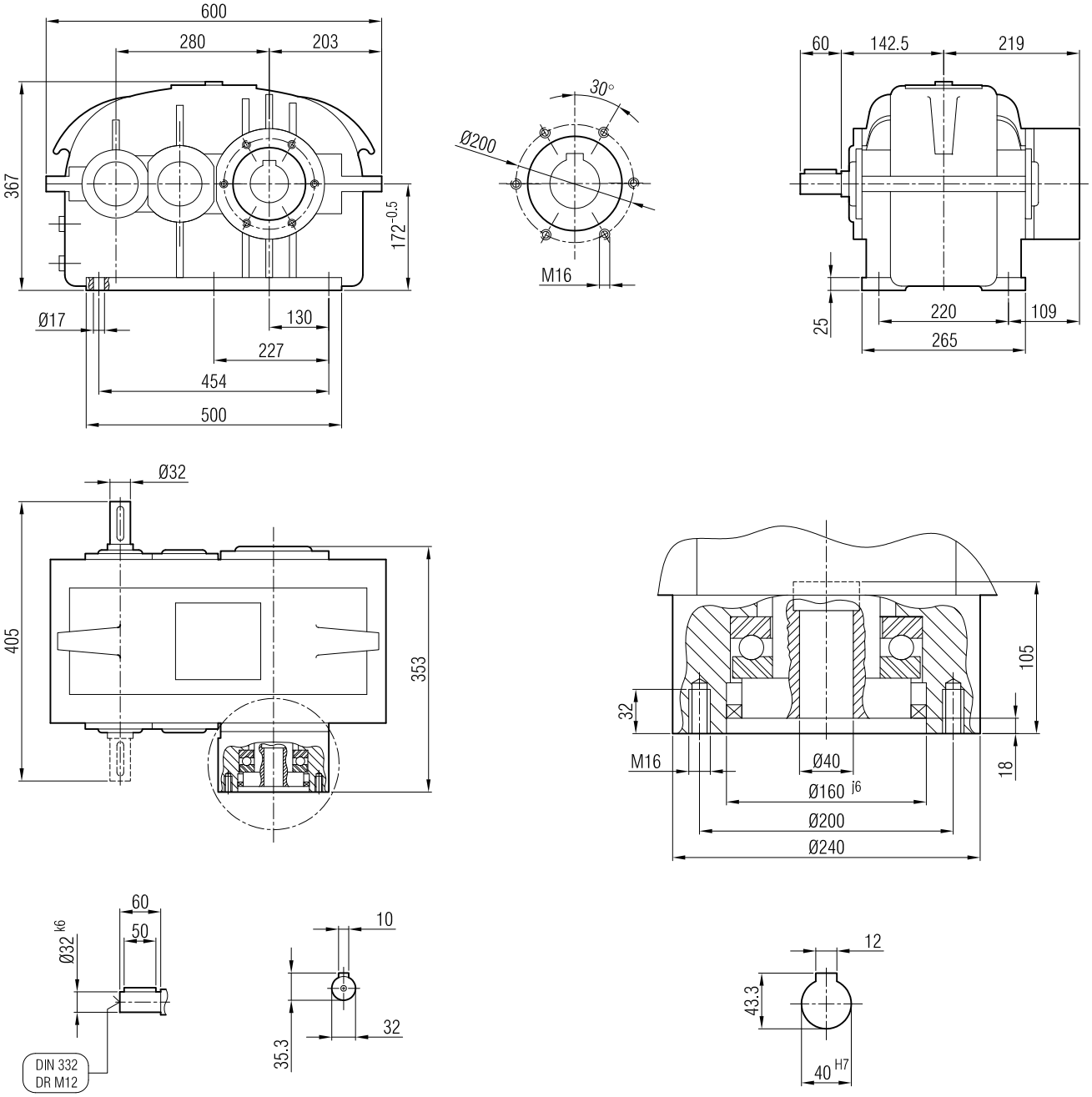


Bağlantı Pozisyonları
Mounting Positions
Bauformen

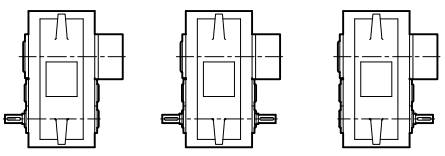


P1 **P4** **P8**

2AE 275

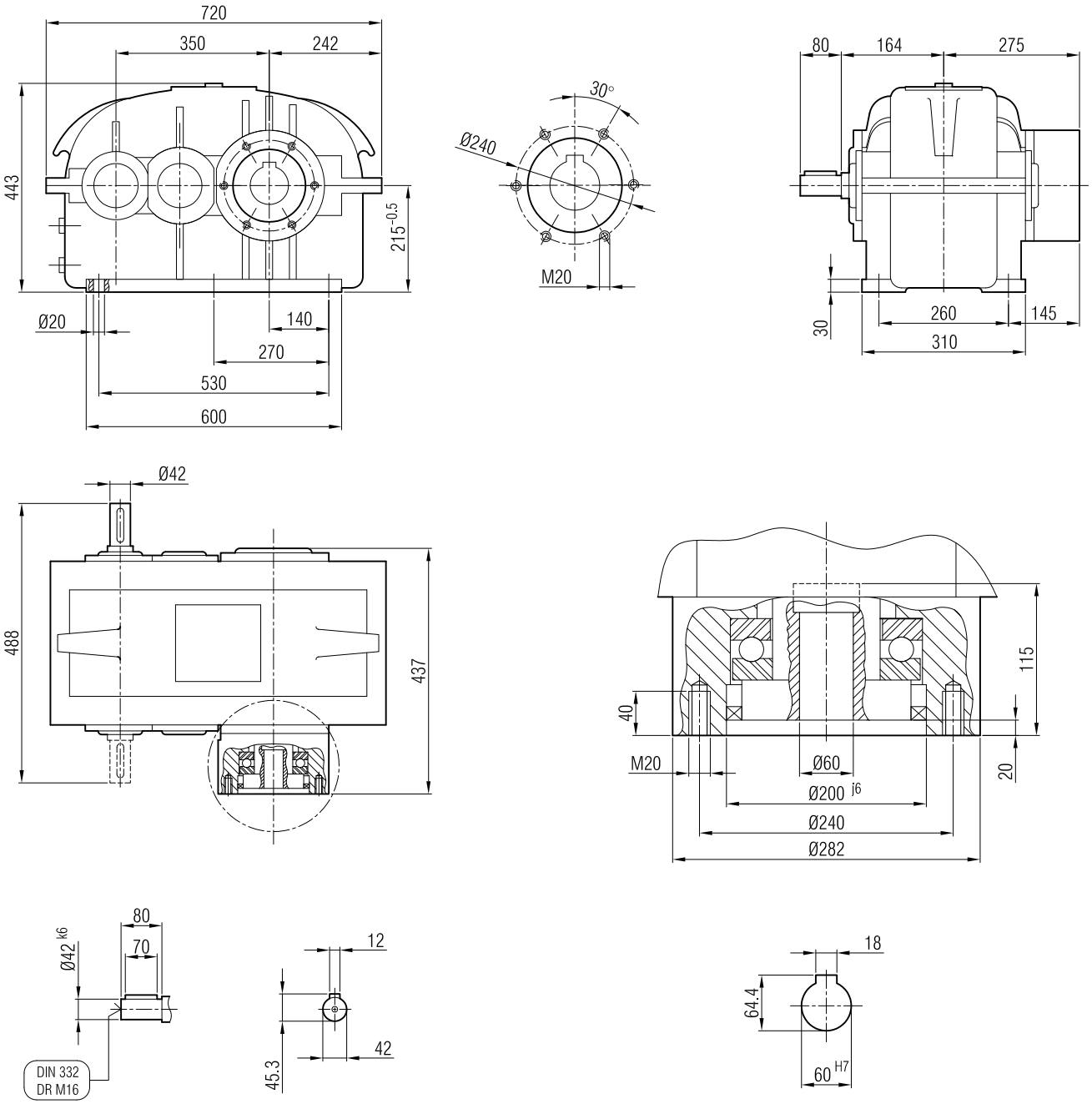


Bağlantı Pozisyonları
Mounting Positions
Bauformen

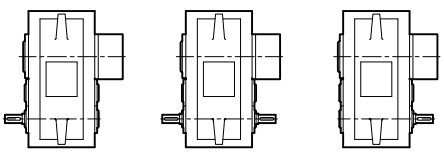


P1 **P4** **P8**

2AE 350

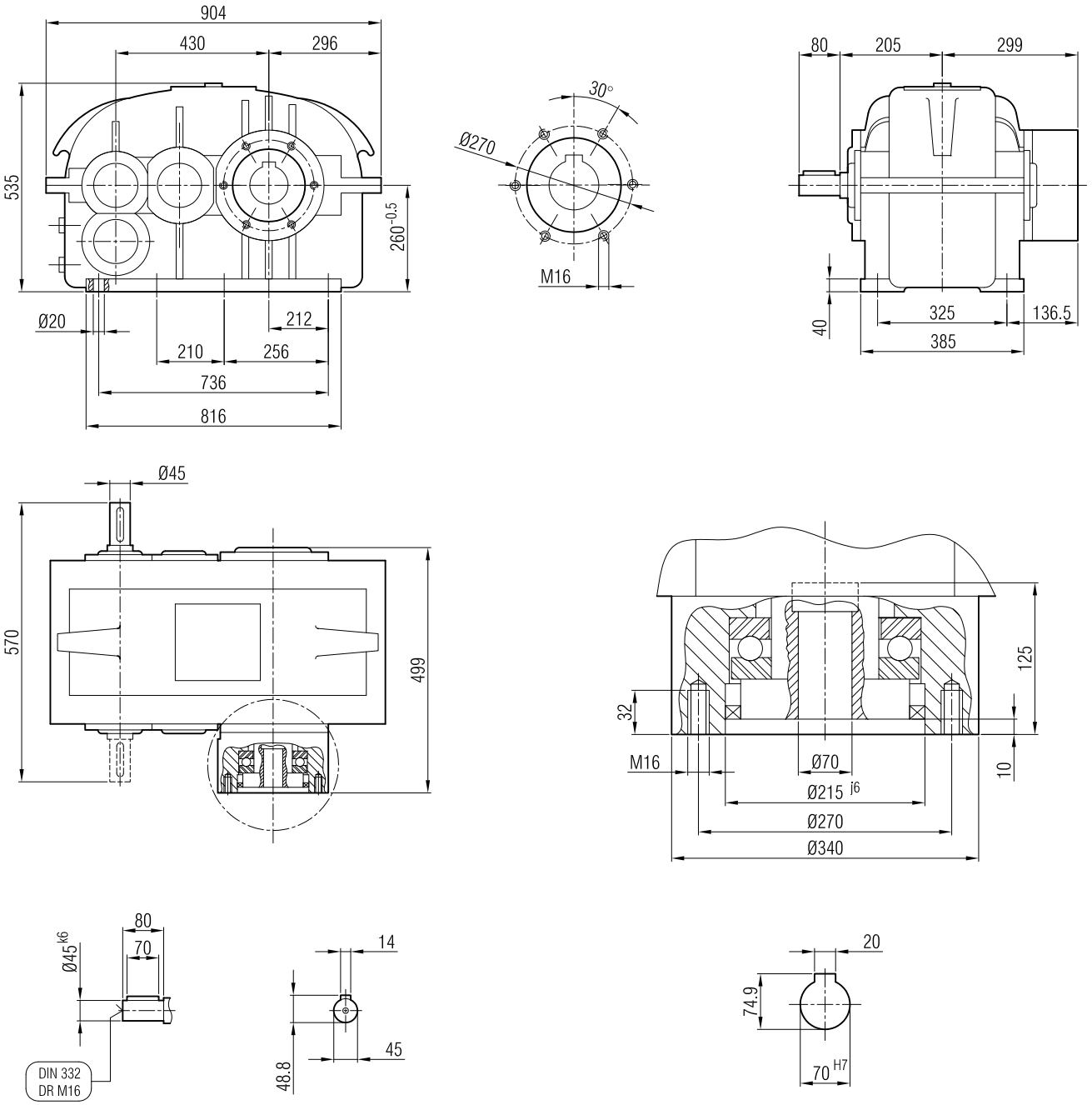


Bağlantı Pozisyonları
Mounting Positions
Bauformen

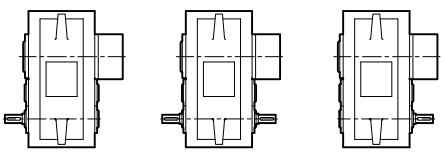


P1 **P4** **P8**

2AE 430

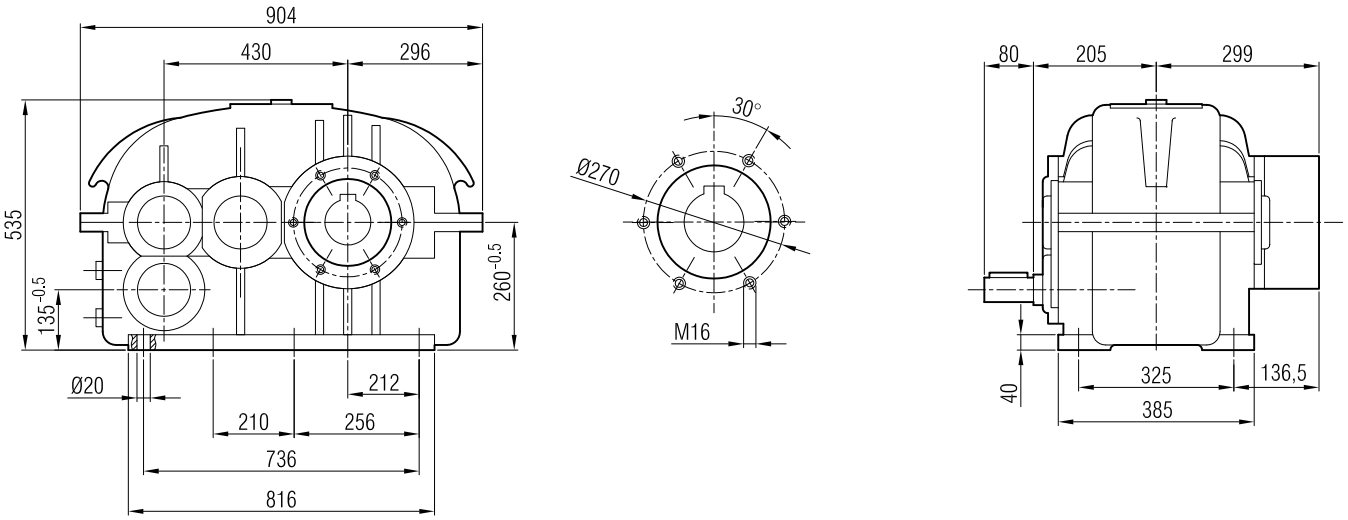


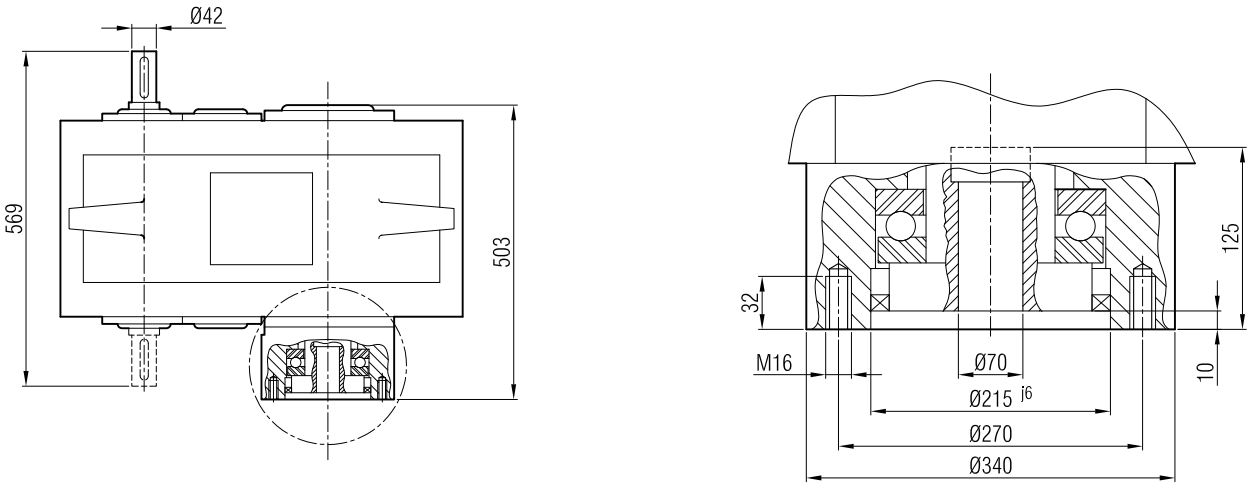
Bağlantı Pozisyonları
Mounting Positions
Bauformen

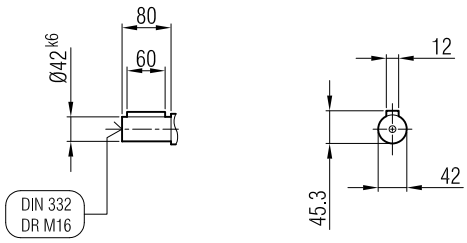


P1 **P4** **P8**

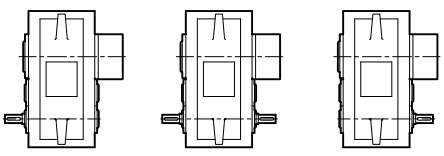
3AE 430





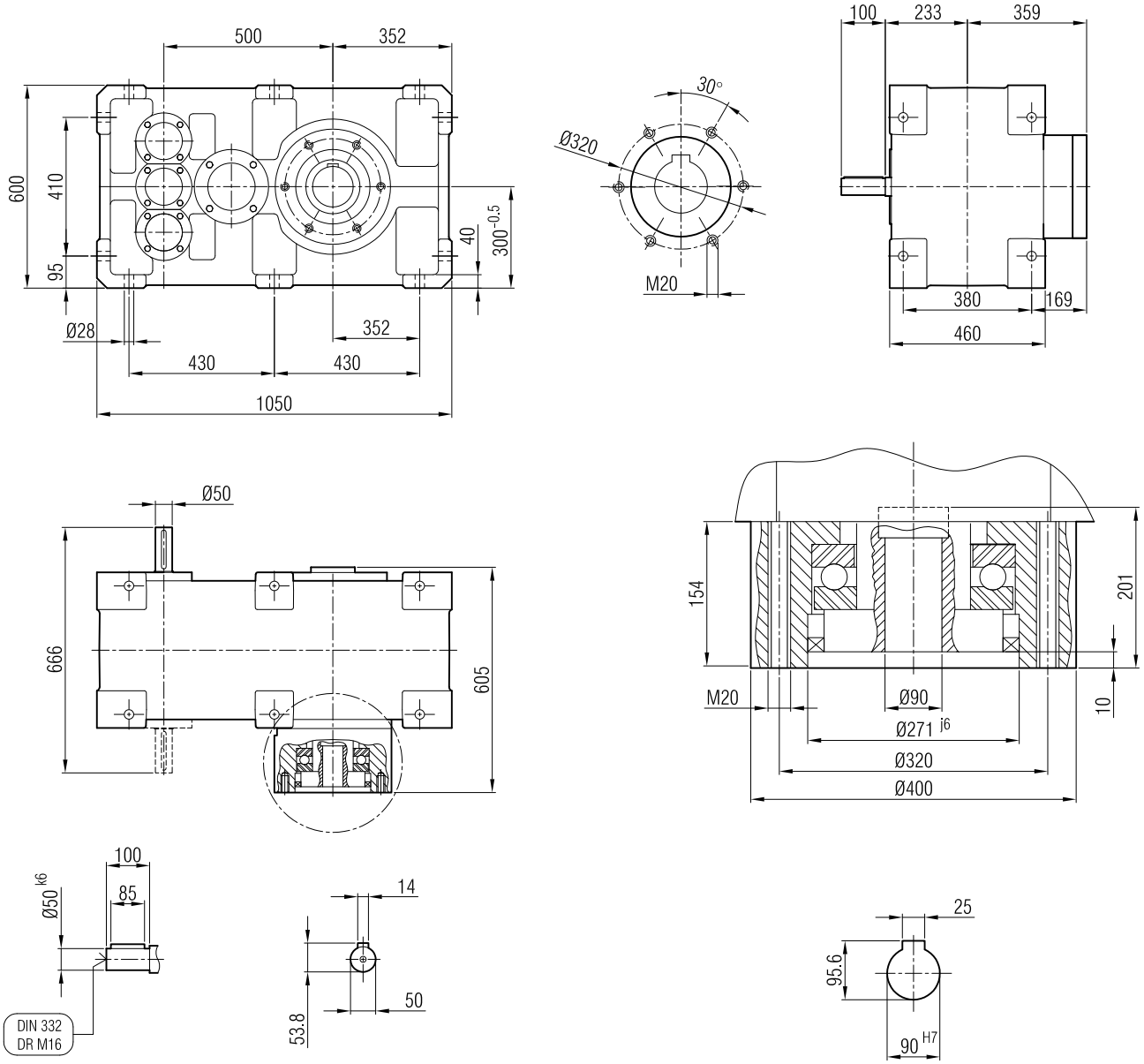


Bağlantı Pozisyonları
Mounting Positions
Bauformen

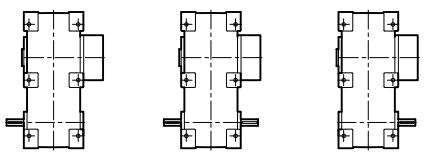


P1 **P4** **P8**

2A 501

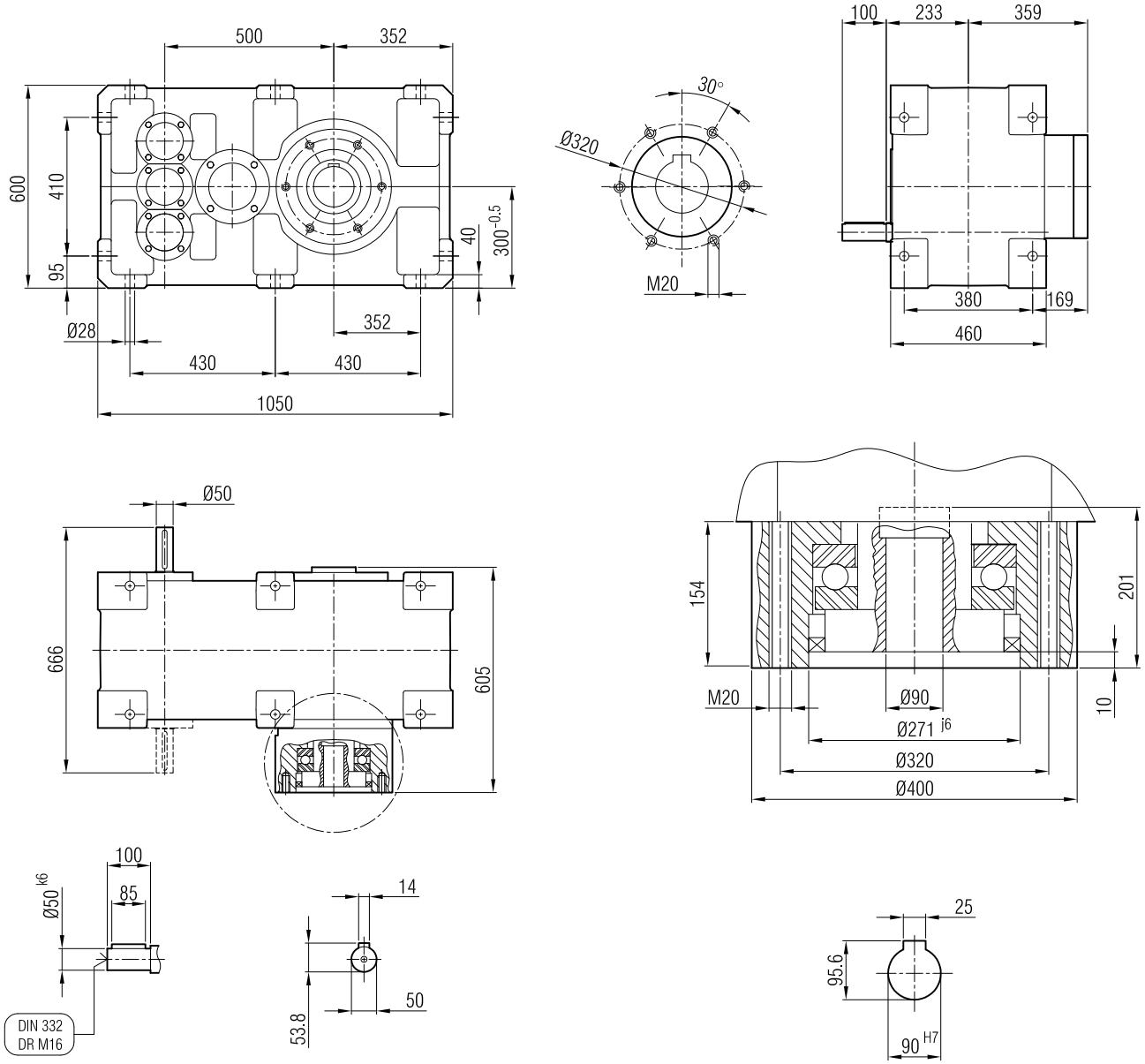


Bağlantı Pozisyonları
Mounting Positions
Bauformen

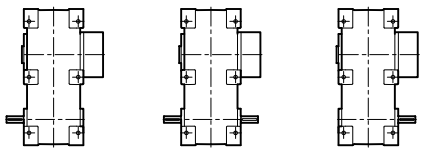


P1 **P4** **P8**

3A 501

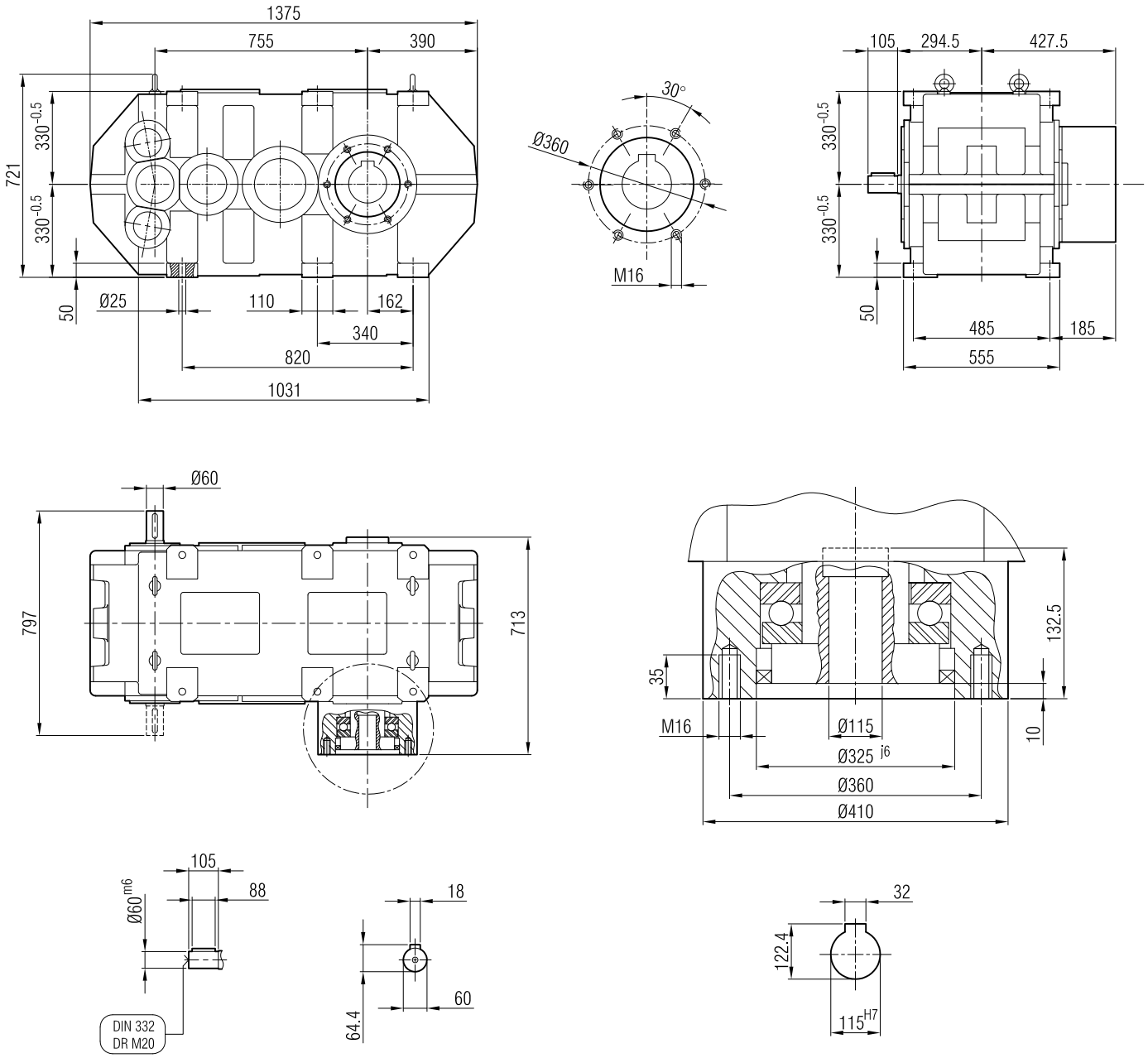


Bağlantı Pozisyonları
Mounting Positions
Bauformen

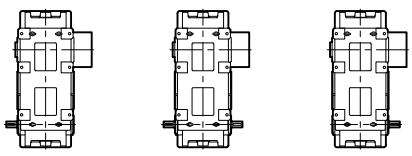


P1 **P4** **P8**

3AE 750



Bağlantı Pozisyonları
Mounting Positions
Bauformen



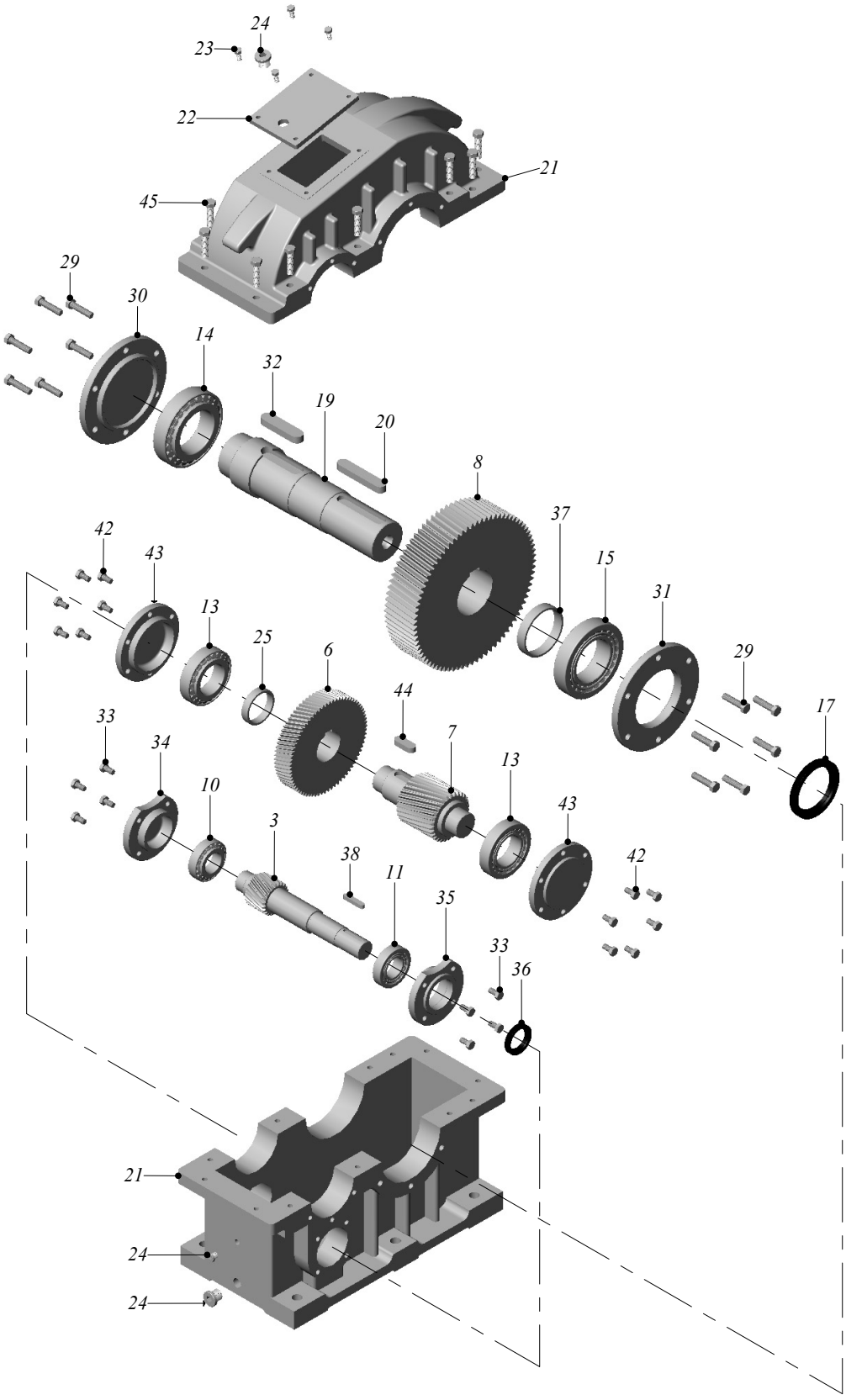
P1 **P4** **P8**

A Serisi Yedek Parça Listeleri

General Parts List

Liste des pièces détachèes

TİP / TYPE / *TYP*
A } 200

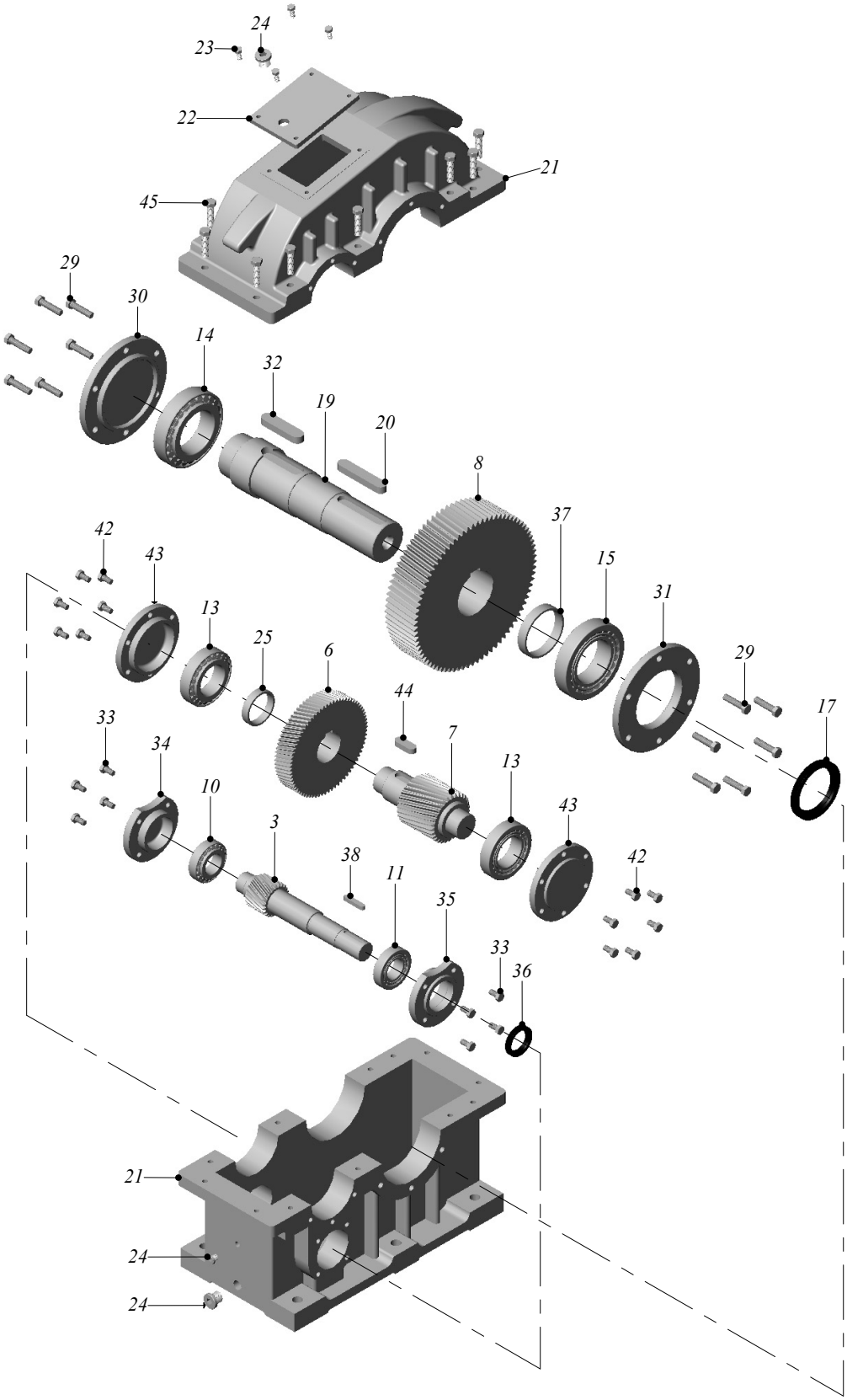


TİP / TYPE / *TYP*

A } 200

3 - Milli Dişli Z1 (Giriş Mili)	3 - Gear Z1	*3 - Ritzelwelle Z1*
7 - Milli Dişli Z5	7 - Gear Z5	*7 - Ritzelwelle Z5*
8 - Dişli Z6	8 - Gear Z6	*8 - Rad Z6*
10 - Rulman	10 - Bearing	*10 - Lager*
11 - Rulman	11 - Bearing	*11 - Lager*
13 - Rulman	13 - Bearing	*13 - Lager*
14 - Rulman	14 - Bearing	*14 - Lager*
15 - Rulman	15 - Bearing	*15 - Lager*
17 - Keçe	17 - Seal	*17 - Wellendichtring*
19 - Çıkış Mili	19 - Output Shaft	*19 - Abtriebswelle*
20 - Kama	20 - Key	*20 - Passfeder*
21 - Gövde	21 - Gear Case	*21 - Getriebegehäuse*
22 - Kapak	22 - Cover	*22 - Deckel*
23 - Cıvata	23 - Bolt	*23 - Sechskantschraube*
24 - Yağ Tapası	24 - Oil Plug	*24 - Ölschraube*
25 - Burç	25 - Spacer	*25 - Stützscheibe*
29 - Cıvata	29 - Bolt	*29 - Sechskantschraube*
30 - Rulman Baskı Kapağı	30 - Bearing Cover	*30 - Lagerdeckel*
31 - Keçe Kapağı	31 - Seal Cover	*31 - Dichtringflansch*
32 - Kama	32 - Key	*32 - Passfeder*
33 - Cıvata	33 - Bolt	*33 - Sechskantschraube*
34 - Rulman Baskı Kapağı	34 - Bearing Cover	*34 - Lagerdeckel*
35 - Keçe Kapağı	35 - Seal Cover	*35 - Dichtringflansch*
36 - Keçe	36 - Seal	*36 - Wellendichtring*
37 - Burç	37 - Spacer	*37 - Stützscheibe*
38 - Kama	38 - Key	*38 - Passfeder*
42 - Cıvata	42 - Bolt	*42 - Sechskantschraube*
43 - Rulman Baskı Kapağı	43 - Bearing Cover	*43 - Lagerdeckel*
25 - Burç	25 - Spacer	*25 - Stützscheibe*
45 - Cıvata	45 - Bolt	*45 - Sechskantschraube*

TİP / TYPE / *TYP*
2A } 200

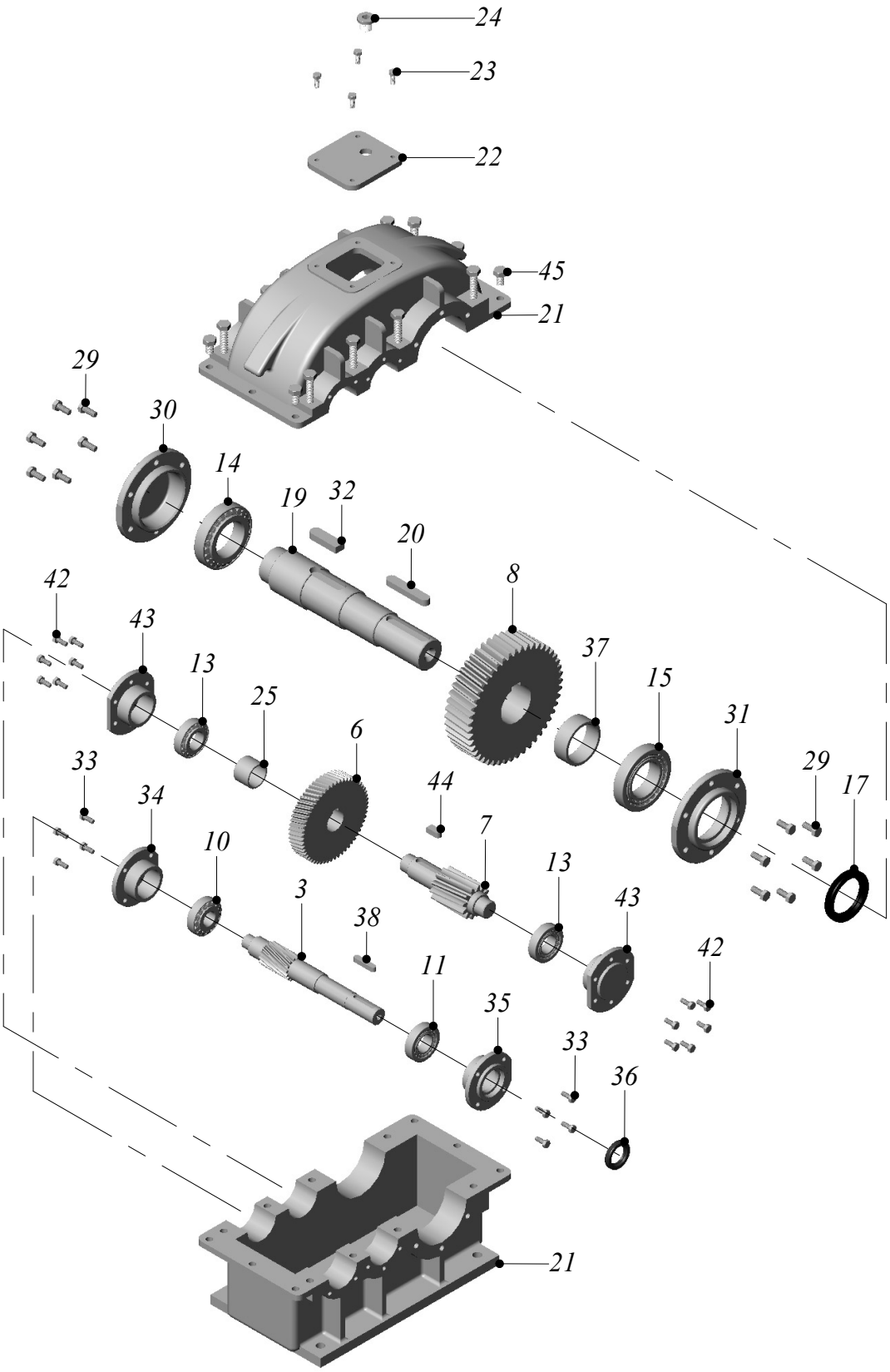


TİP / TYPE / *TYP*

2A } 200

3 - Milli Dişli Z1 (Giriş Mili)	3 - Gear Z1	*3 - Ritzelwelle Z1*
6 - Dişli Z4	6 - Gear Z4	*6 - Rad Z4*
7 - Milli Dişli Z5	7 - Gear Z5	*7 - Ritzelwelle Z5*
8 - Dişli Z6	8 - Gear Z6	*8 - Rad Z6*
10 - Rulman	10 - Bearing	*10 - Lager*
11 - Rulman	11 - Bearing	*11 - Lager*
13 - Rulman	13 - Bearing	*13 - Lager*
14 - Rulman	14 - Bearing	*14 - Lager*
15 - Rulman	15 - Bearing	*15 - Lager*
17 - Keçe	17 - Seal	*17 - Wellendichtring*
19 - Çıkış Mili	19 - Output Shaft	*19 - Abtriebswelle*
20 - Kama	20 - Key	*20 - Passfeder*
21 - Gövde	21 - Gear Case	*21 - Getriebegehäuse*
22 - Kapak	22 - Cover	*22 - Deckel*
23 - Cıvata	23 - Bolt	*23 - Sechskantschraube*
24 - Yağ Tapası	24 - Oil Plug	*24 - Ölschraube*
25 - Burç	25 - Spacer	*25 - Stützscheibe*
29 - Cıvata	29 - Bolt	*29 - Sechskantschraube*
30 - Rulman Baskı Kapağı	30 - Bearing Cover	*30 - Lagerdeckel*
31 - Keçe Kapağı	31 - Seal Cover	*31 - Dichtringflansch*
32 - Kama	32 - Key	*32 - Passfeder*
33 - Cıvata	33 - Bolt	*33 - Sechskantschraube*
34 - Rulman Baskı Kapağı	34 - Bearing Cover	*34 - Lagerdeckel*
35 - Keçe Kapağı	35 - Seal Cover	*35 - Dichtringflansch*
36 - Keçe	36 - Seal	*36 - Wellendichtring*
37 - Burç	37 - Spacer	*37 - Stützscheibe*
38 - Kama	38 - Key	*38 - Passfeder*
42 - Cıvata	42 - Bolt	*42 - Sechskantschraube*
43 - Rulman Baskı Kapağı	43 - Bearing Cover	*43 - Lagerdeckel*
25 - Burç	25 - Spacer	*25 - Stützscheibe*
45 - Cıvata	45 - Bolt	*45 - Sechskantschraube*

TİP / TYPE / *TYP*
2A } 180-225-275-350-430-501

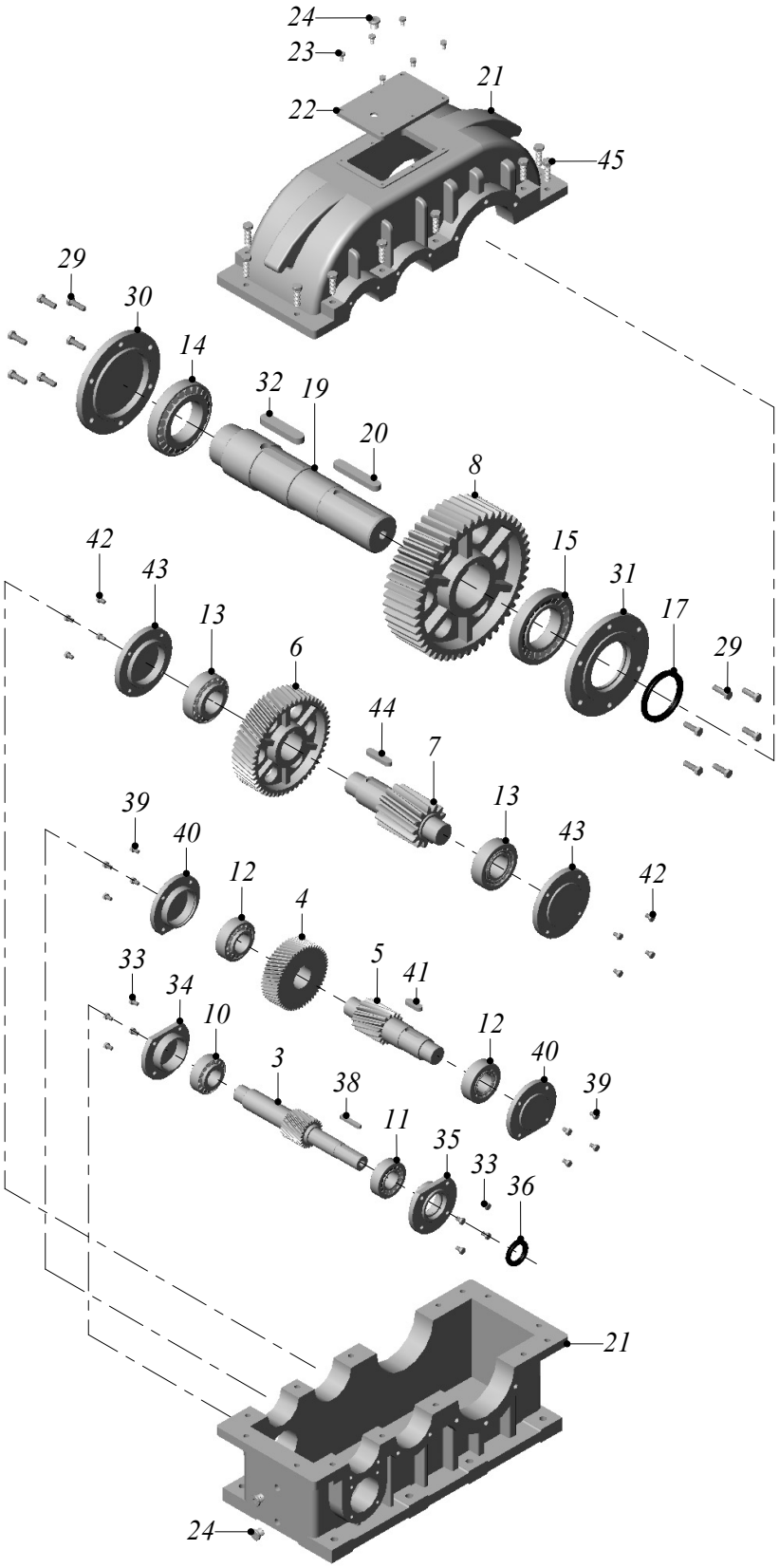


TİP / TYPE / *TYP*

2A } 180-225-275-350-430-501

3 - Milli Dişli Z1 (Giriş Mili)	3 - Gear Z1	*3 - Ritzelwelle Z1*
6 - Dişli Z4	6 - Gear Z4	*6 - Rad Z4*
7 - Milli Dişli Z5	7 - Gear Z5	*7 - Ritzelwelle Z5*
8 - Dişli Z6	8 - Gear Z6	*8 - Rad Z6*
10 - Rulman	10 - Bearing	*10 - Lager*
11 - Rulman	11 - Bearing	*11 - Lager*
13 - Rulman	13 - Bearing	*13 - Lager*
14 - Rulman	14 - Bearing	*14 - Lager*
15 - Rulman	15 - Bearing	*15 - Lager*
17 - Keçe	17 - Seal	*17 - Wellendichtring*
19 - Çıkış Mili	19 - Output Shaft	*19 - Abtriebswelle*
20 - Kama	20 - Key	*20 - Passfeder*
21 - Gövde	21 - Gear Case	*21 - Getriebegehäuse*
22 - Kapak	22 - Cover	*22 - Deckel*
23 - Cıvata	23 - Bolt	*23 - Sechskantschraube*
24 - Yağ Tapası	24 - Oil Plug	*24 - Ölschraube*
25 - Burç	25 - Spacer	*25 - Stützscheibe*
29 - Cıvata	29 - Bolt	*29 - Sechskantschraube*
30 - Rulman Baskı Kapağı	30 - Bearing Cover	*30 - Lagerdeckel*
31 - Keçe Kapağı	31 - Seal Cover	*31 - Dichtringflansch*
32 - Kama	32 - Key	*32 - Passfeder*
33 - Cıvata	33 - Bolt	*33 - Sechskantschraube*
34 - Rulman Baskı Kapağı	34 - Bearing Cover	*34 - Lagerdeckel*
35 - Keçe Kapağı	35 - Seal Cover	*35 - Dichtringflansch*
36 - Keçe	36 - Seal	*36 - Wellendichtring*
37 - Burç	37 - Spacer	*37 - Stützscheibe*
38 - Kama	38 - Key	*38 - Passfeder*
42 - Cıvata	42 - Bolt	*42 - Sechskantschraube*
43 - Rulman Baskı Kapağı	43 - Bearing Cover	*43 - Lagerdeckel*
44 - Kama	44 - Key	*44 - Passfeder*
45 - Cıvata	45 - Bolt	*45 - Sechskantschraube*

TİP / TYPE / *TYP*
3A } 430 - 501

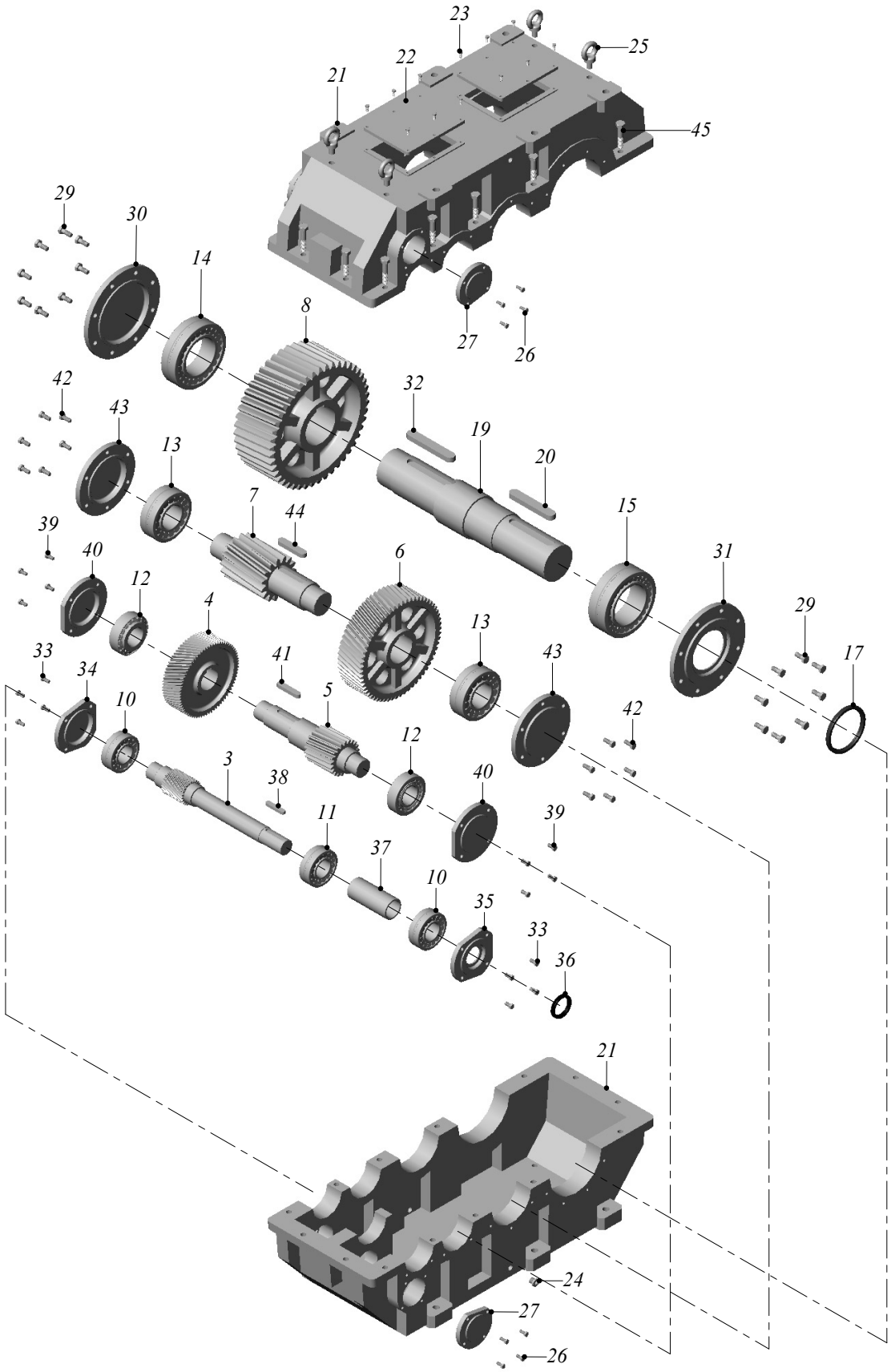


TİP / TYPE / *TYP*

3A } 430-501

3 - Milli Dişli Z1 (Giriş Mili)	3 - Gear Z1	*3 - Ritzelwelle Z1*
4 - Dişli Z2	4 - Gear Z2	*4 - Rad Z2*
5 - Milli Dişli Z3	5 - Gear Z3	*5 - Ritzelwelle Z3*
6 - Dişli Z4	6 - Gear Z4	*6 - Rad Z4*
7 - Milli Dişli Z5	7 - Gear Z5	*7 - Ritzelwelle Z5*
8 - Dişli Z6	8 - Gear Z6	*8 - Rad Z6*
10 - Rulman	10 - Bearing	*10 - Lager*
11 - Rulman	11 - Bearing	*11 - Lager*
12 - Rulman	12 - Bearing	*12 - Lager*
13 - Rulman	13 - Bearing	*13 - Lager*
14 - Rulman	14 - Bearing	*14 - Lager*
15 - Rulman	15 - Bearing	*15 - Lager*
17 - Keçe	17 - Seal	*17 - Wellendichtring*
19 - Çıkış Mili	19 - Output Shaft	*19 - Abtriebswelle*
20 - Kama	20 - Key	*20 - Passfeder*
21 - Gövde	21 - Gear Case	*21 - Getriebegehäuse*
22 - Kapak	22 - Cover	*22 - Deckel*
23 - Cıvata	23 - Bolt	*23 - Sechskantschraube*
24 - Yağ Tapası	24 - Oil Plug	*24 - Ölschraube*
29 - Cıvata	29 - Bolt	*29 - Sechskantschraube*
30 - Rulman Baskı Kapağı	30 - Bearing Cover	*30 - Lagerdeckel*
31 - Keçe Kapağı	31 - Seal Cover	*31 - Dichtringflansch*
32 - Kama	32 - Key	*32 - Passfeder*
33 - Cıvata	33 - Bolt	*33 - Sechskantschraube*
34 - Rulman Baskı Kapağı	34 - Bearing Cover	*34 - Lagerdeckel*
35 - Keçe Kapağı	35 - Seal Cover	*35 - Dichtringflansch*
36 - Keçe	36 - Seal	*36 - Wellendichtring*
38 - Kama	38 - Key	*38 - Passfeder*
39 - Cıvata	39 - Bolt	*39 - Sechskantschraube*
40 - Rulman Baskı Kapağı	40 - Bearing Cover	*40 - Lagerdeckel*
41 - Kama	41 - Key	*41 - Passfeder*
42 - Cıvata	42 - Bolt	*42 - Sechskantschraube*
43 - Rulman Baskı Kapağı	43 - Bearing Cover	*43 - Lagerdeckel*
44 - Kama	44 - Key	*44 - Passfeder*
45 - Cıvata	45 - Bolt	*45 - Sechskantschraube*

TİP / TYPE / *TYP*
3A } 750

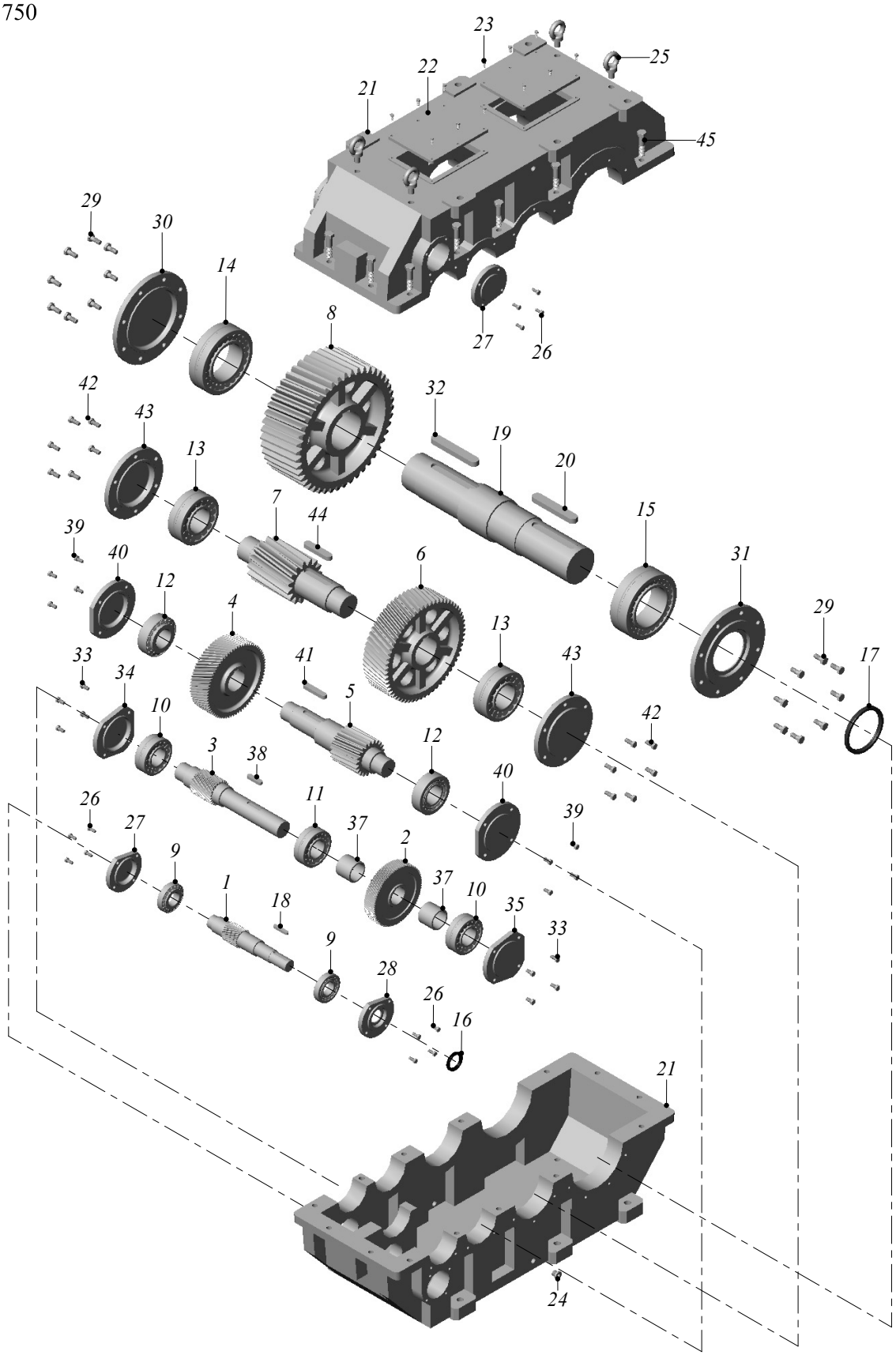


TİP / TYPE / *TYP*

3A } 750

3 - Milli Dişli Z1 (Giriş Mili)	3 - Gear Z1	*3 - Ritzelwelle Z1*
4 - Dişli Z2	4 - Gear Z2	*4 - Rad Z2*
5 - Milli Dişli Z3	5 - Gear Z3	*5 - Ritzelwelle Z3*
6 - Dişli Z4	6 - Gear Z4	*6 - Rad Z4*
7 - Milli Dişli Z5	7 - Gear Z5	*7 - Ritzelwelle Z5*
8 - Dişli Z6	8 - Gear Z6	*8 - Rad Z6*
10 - Rulman	10 - Bearing	*10 - Lager*
11 - Rulman	11 - Bearing	*11 - Lager*
12 - Rulman	12 - Bearing	*12 - Lager*
13 - Rulman	13 - Bearing	*13 - Lager*
14 - Rulman	14 - Bearing	*14 - Lager*
15 - Rulman	15 - Bearing	*15 - Lager*
17 - Keçe	17 - Seal	*17 - Wellendichtring*
19 - Çıkış Mili	19 - Output Shaft	*19 - Abtriebswelle*
20 - Kama	20 - Key	*20 - Passfeder*
21 - Gövde	21 - Gear Case	*21 - Getriebegehäuse*
22 - Kapak	22 - Cover	*22 - Deckel*
23 - Cıvata	23 - Bolt	*23 - Sechskantschraube*
24 - Yağ Tapası	24 - Oil Plug	*24 - Ölschraube*
25 - Taşıma Kancası	25 - Lifting Eye Bolt	*25 - Ringschraube*
26 - Cıvata	26 - Bolt	*26 - Sechskantschraube*
27 - Rulman Baskı Kapağı	27 - Bearing Cover	*27 - Lagerdeckel*
29 - Cıvata	29 - Bolt	*29 - Sechskantschraube*
30 - Rulman Baskı Kapağı	30 - Bearing Cover	*30 - Lagerdeckel*
31 - Keçe Kapağı	31 - Seal Cover	*31 - Dichtringflansch*
32 - Kama	32 - Key	*32 - Passfeder*
33 - Cıvata	33 - Bolt	*33 - Sechskantschraube*
34 - Rulman Baskı Kapağı	34 - Bearing Cover	*34 - Lagerdeckel*
35 - Keçe Kapağı	35 - Seal Cover	*35 - Dichtringflansch*
36 - Keçe	36 - Seal	*36 - Wellendichtring*
37 - Burç	37 - Spacer	*37 - Stützscheibe*
38 - Kama	38 - Key	*38 - Passfeder*
39 - Cıvata	39 - Bolt	*39 - Sechskantschraube*
40 - Rulman Baskı Kapağı	40 - Bearing Cover	*40 - Lagerdeckel*
41 - Kama	41 - Key	*41 - Passfeder*
42 - Cıvata	42 - Bolt	*42 - Sechskantschraube*
43 - Rulman Baskı Kapağı	43 - Bearing Cover	*43 - Lagerdeckel*
44 - Kama	44 - Key	*44 - Passfeder*
45 - Cıvata	45 - Bolt	*45 - Sechskantschraube*

TİP / TYPE / *TYP*
4A } 750

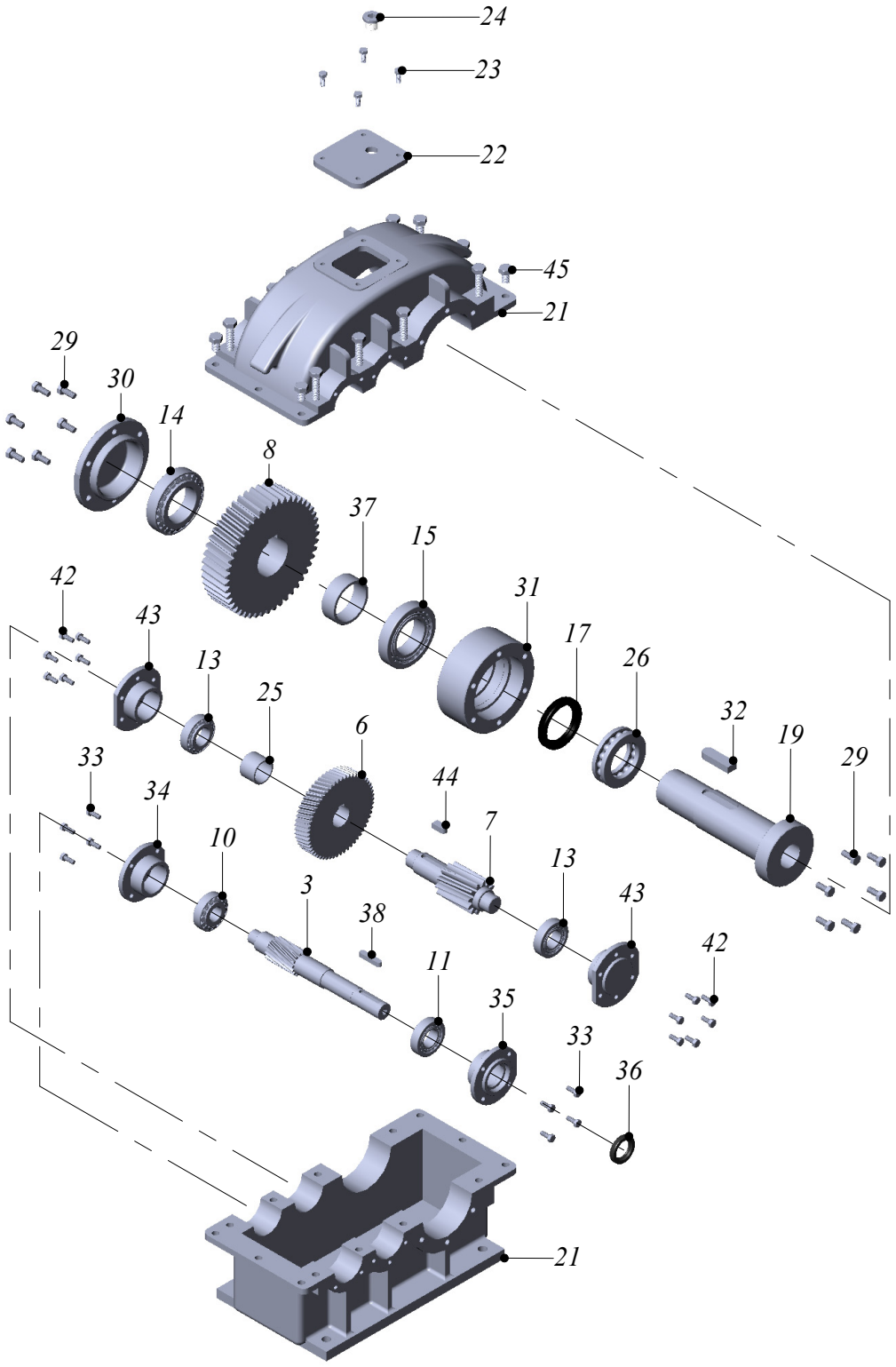


TİP / TYPE / *TYP*

4A } 750

1 - Dişli Z1 (Giriş Mili)	1 - Gear Z1	*1 - Rad Z1*
2 - Dişli Z2	2 - Gear Z2	*2 - Rad Z2*
3 - Milli Dişli Z3	3 - Gear Z3	*3 - Ritzelwelle Z3*
4 - Dişli Z4	4 - Gear Z4	*4 - Rad Z4*
5 - Milli Dişli Z5	5 - Gear Z5	*5 - Ritzelwelle Z5*
6 - Dişli Z6	6 - Gear Z6	*6 - Rad Z6*
7 - Milli Dişli Z7	7 - Gear Z7	*7 - Ritzelwelle Z7*
8 - Dişli Z8	8 - Gear Z8	*8 - Rad Z8*
9 - Rulman	9 - Bearing	*9 - Lager*
10 - Rulman	10 - Bearing	*10 - Lager*
11 - Rulman	11 - Bearing	*11 - Lager*
12 - Rulman	12 - Bearing	*12 - Lager*
13 - Rulman	13 - Bearing	*13 - Lager*
14 - Rulman	14 - Bearing	*14 - Lager*
15 - Rulman	15 - Bearing	*15 - Lager*
16 - Keçe	16 - Seal	*16 - Wellendichtring*
17 - Keçe	17 - Seal	*17 - Wellendichtring*
18 - Kama	18 - Key	*18 - Passfeder*
19 - Çıkış Mili	19 - Output Shaft	*19 - Abtriebswelle*
20 - Kama	20 - Key	*20 - Passfeder*
21 - Gövde	21 - Gear Case	*21 - Getriebegehäuse*
22 - Kapak	22 - Cover	*22 - Deckel*
23 - Cıvata	23 - Bolt	*23 - Sechskantschraube*
24 - Yağ Tapası	24 - Oil Plug	*24 - Ölschraube*
25 - Taşıma Kancası	25 - Lifting Eye Bolt	*25 - Ringschraube*
26 - Cıvata	26 - Bolt	*26 - Sechskantschraube*
27 - Rulman Baskı Kapağı	27 - Bearing Cover	*27 - Lagerdeckel*
28 - Keçe Kapağı	28 - Seal Cover	*28 - Dichtringflansch*
29 - Cıvata	29 - Bolt	*29 - Sechskantschraube*
30 - Rulman Baskı Kapağı	30 - Bearing Cover	*30 - Lagerdeckel*
31 - Keçe Kapağı	31 - Seal Cover	*31 - Dichtringflansch*
32 - Kama	32 - Key	*32 - Passfeder*
33 - Cıvata	33 - Bolt	*33 - Sechskantschraube*
34 - Rulman Baskı Kapağı	34 - Bearing Cover	*34 - Lagerdeckel*
35 - Rulman Baskı Kapağı	35 - Bearing Cover	*35 - Lagerdeckel*
37 - Burç	37 - Spacer	*37 - Stützscheibe*
38 - Kama	38 - Key	*38 - Passfeder*
39 - Cıvata	39 - Bolt	*39 - Sechskantschraube*
40 - Rulman Baskı Kapağı	40 - Bearing Cover	*40 - Lagerdeckel*
41 - Kama	41 - Key	*41 - Passfeder*
42 - Cıvata	42 - Bolt	*42 - Sechskantschraube*
43 - Rulman Baskı Kapağı	43 - Bearing Cover	*43 - Lagerdeckel*
44 - Kama	44 - Key	*44 - Passfeder*
45 - Cıvata	45 - Bolt	*45 - Sechskantschraube*

TİP / TYPE / *TYP*
2AE } 225-275-350-430-501

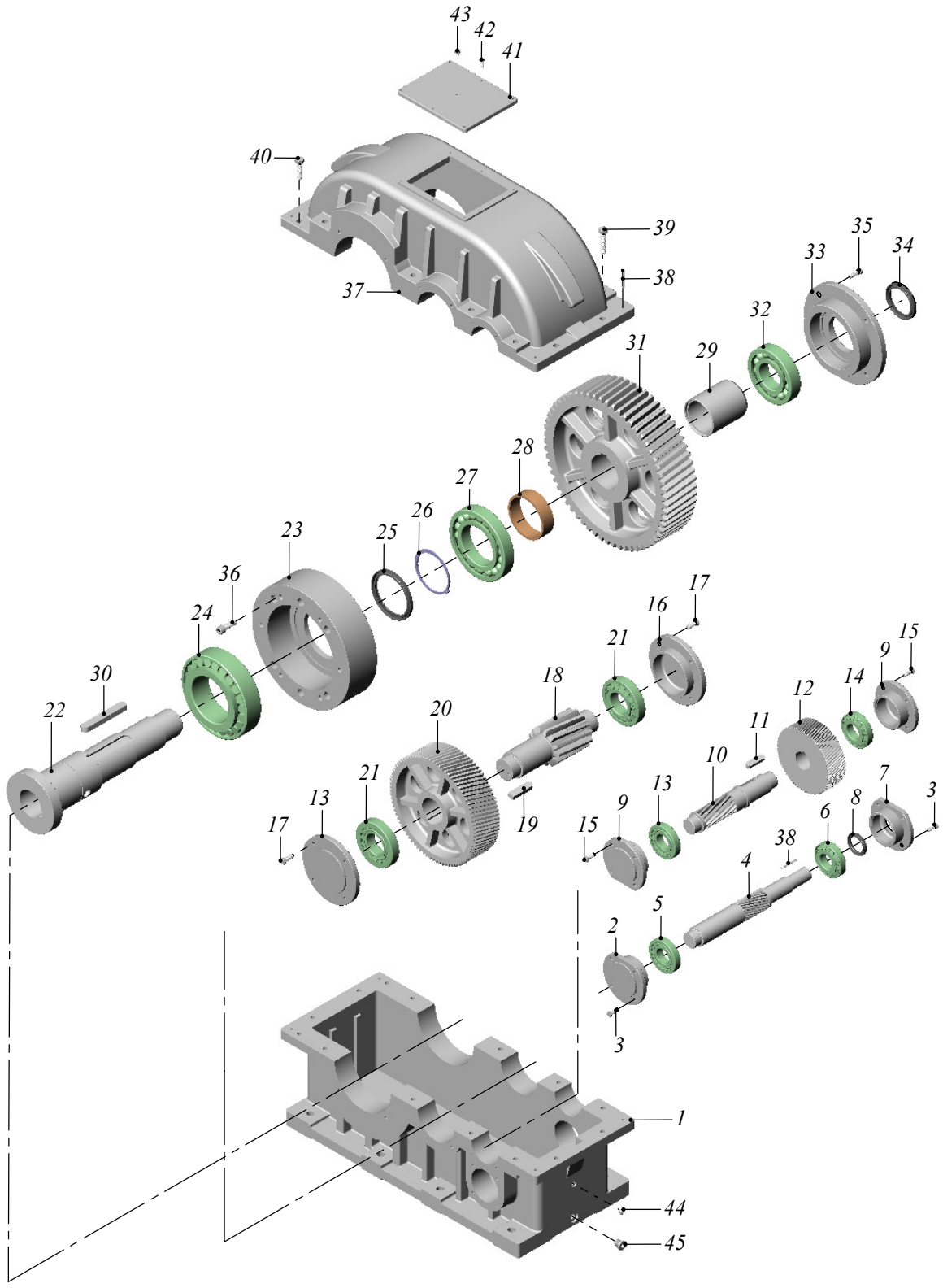


TİP / TYPE / *TYP*

2AE } 225-275-350-430-501

3 - Milli Dişli Z1 (Giriş Mili)	3 - Gear Z1	*3 - Ritzelwelle Z1*
6 - Dişli Z4	6 - Gear Z4	*6 - Rad Z4*
7 - Milli Dişli Z5	7 - Gear Z5	*7 - Ritzelwelle Z5*
8 - Dişli Z6	8 - Gear Z6	*8 - Rad Z6*
10 - Rulman	10 - Bearing	*10 - Lager*
11 - Rulman	11 - Bearing	*11 - Lager*
13 - Rulman	13 - Bearing	*13 - Lager*
14 - Rulman	14 - Bearing	*14 - Lager*
15 - Rulman	15 - Bearing	*15 - Lager*
17 - Keçe	17 - Seal	*17 - Wellendichtring*
19 - Çıkış Mili	19 - Output Shaft	*19 - Abtriebswelle*
20 - Kama	20 - Key	*20 - Passfeder*
21 - Gövde	21 - Gear Case	*21 - Getriebegehäuse*
22 - Kapak	22 - Cover	*22 - Deckel*
23 - Cıvata	23 - Bolt	*23 - Sechskantschraube*
24 - Yağ Tapası	24 - Oil Plug	*24 - Ölschraube*
25 - Burç	25 - Spacer	*25 - Stützscheibe*
29 - Cıvata	29 - Bolt	*29 - Sechskantschraube*
30 - Rulman Baskı Kapağı	30 - Bearing Cover	*30 - Lagerdeckel*
31 - Extruder Rulman Gövdesi	31 - Extruder Bearing Case	*31 - Extruder Lagergehäuse*
32 - Kama	32 - Key	*32 - Passfeder*
33 - Cıvata	33 - Bolt	*33 - Sechskantschraube*
34 - Rulman Baskı Kapağı	34 - Bearing Cover	*34 - Lagerdeckel*
35 - Keçe Kapağı	35 - Seal Cover	*35 - Dichtringflansch*
36 - Keçe	36 - Seal	*36 - Wellendichtring*
37 - Burç	37 - Spacer	*37 - Stützscheibe*
38 - Kama	38 - Key	*38 - Passfeder*
42 - Cıvata	42 - Bolt	*42 - Sechskantschraube*
43 - Rulman Baskı Kapağı	43 - Bearing Cover	*43 - Lagerdeckel*
44 - Kama	44 - Key	*44 - Passfeder*
45 - Cıvata	45 - Bolt	*45 - Sechskantschraube*

TİP / TYPE / *TYP*
3AE 430-501

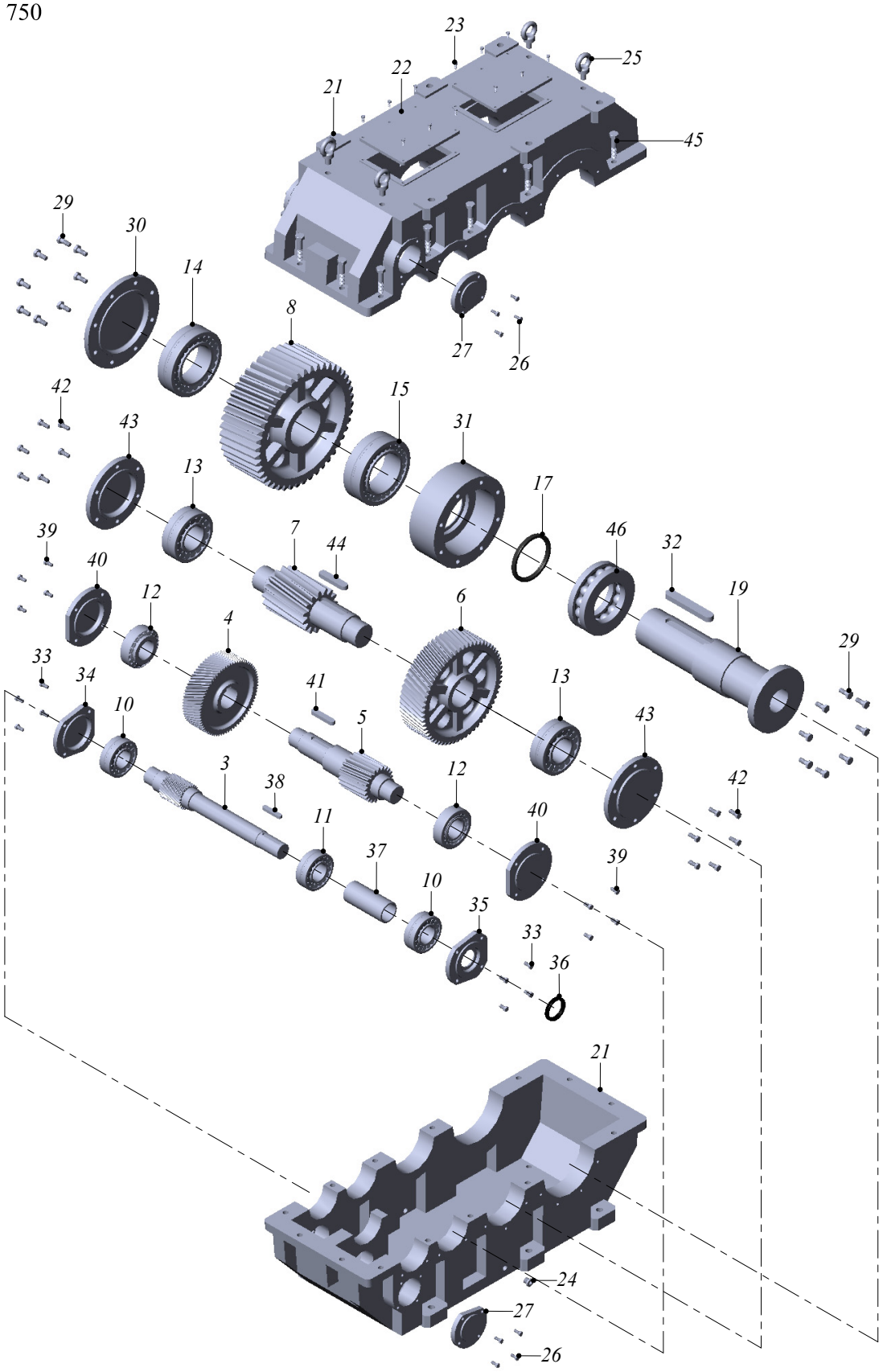


TİP / TYPE / *TYP*

3AE } 430-501

1- Gövde	1- Gear Case	*1- Getriebegehäuse*
2- Rulman Baskı Kapağı	2- Bearing Cover	*2- Lagerdeckel*
3- Cıvata	3- Bolt	*3- Sechskantschraube*
4- Milli Dişli Z1	4- Gear Z1	*4- Ritzelwelle Z1*
5- Rulman	5- Bearing	*5- Lager*
6- Rulman	6- Bearing	*6- Lager*
7- Keçe Kapağı	7- Seal Cover	*7- Dichtringflansch*
8- Keçe	8- Seal	*8- Wellendichtring*
9- Rulman Baskı Kapağı	9- Bearing Cover	*9- Lagerdeckel*
10- Milli Dişli Z3	10- Gear Z3	*10- Ritzelwelle Z3*
11- Kama	11- Key	*11- Passfeder*
12- Dişli Z2	12- Gear Z2	*12- Rad Z2*
13- Rulman	13- Bearing	*13- Lager*
14- Rulman	14- Bearing	*14- Lager*
15- Cıvata	15- Bolt	*15- Sechskantschraube*
16- Rulman Baskı Kapağı	16- Bearing Cover	*16- Lagerdeckel*
17- Cıvata	17- Bolt	*17- Sechskantschraube*
18- Milli Dişli Z5	18- Gear Z5	*18- Ritzelwelle Z5*
19- Kama	19- Key	*19- Passfeder*
20- Dişli Z4	20- Gear Z4	*20- Rad Z4*
21- Rulman	21- Bearing	*21- Lager*
22- Extruder Çıkış Mili	22- Extruder Output Shaft	*22- Extruder Abtriebswelle*
23- Extruder Rulman Gövdesi	23- Extruder Bearing Case	*23- Extruder Lagergehäuse*
24- Rulman	24- Bearing	*24- Lager*
25- Keçe	25- Seal	*25- Wellendichtring*
26- Segman	26- Circlip	*26- Sicherungsring*
27- Rulman	27- Bearing	*27- Lager*
28- Bilezik	28- Spacer	*28- Stützsheibe*
29- Burç	29- Spacer	*29- Stützsheibe*
30- Kama	30- Key	*30- Passfeder*
31- Dişli Z6	31- Gear Z6	*31- Rad Z6*
32- Rulman	32- Bearing	*32- Lager*
33- Rulman Baskı Kapağı	33- Bearing Cover	*33- Lagerdeckel*
34- Keçe	34- Seal	*34- Wellendichtring*
35- Cıvata	35- Bolt	*35- Sechskantschraube*
36- Cıvata	36- Bolt	*36- Sechskantschraube*
37- Üst Gövde	37- Gear Case (Upper Part)	*37- Getriebegehäuse (Überteil)*
38- Pim	38- Pin	*38- Stift*
39- Cıvata	39- Bolt	*39- Sechskantschraube*
40- Cıvata	40- Bolt	*40- Sechskantschraube*
41- Üst Kapak	41- Upper Cover	*41- Getriebedeckel*
42- Cıvata	42- Bolt	*42- Sechskantschraube*
43- Havalandırma Cıvatası	43- Vent Plug	*43- Entlüftungsschraube*
44- Yağ Seviye Tespit Cıvatası	44- Oil Level Plug	*44- Ölstandschraube*
45- Yağ Boşaltma Cıvatası	45- Drain Plug	*45- Verschluss-Schraube*

TİP / TYPE / *TYP*
3AE } 750



TİP / TYPE / *TYP*

3AE } 750

3 - Milli Dişli Z1 (Giriş Mili)	3 - Gear Z1	*3 - Ritzelwelle Z1*
4 - Dişli Z2	4 - Gear Z2	*4 - Rad Z2*
5 - Milli Dişli Z3	5 - Gear Z3	*5 - Ritzelwelle Z3*
6 - Dişli Z4	6 - Gear Z4	*6 - Rad Z4*
7 - Milli Dişli Z5	7 - Gear Z5	*7 - Ritzelwelle Z5*
8 - Dişli Z6	8 - Gear Z6	*8 - Rad Z6*
10 - Rulman	10 - Bearing	*10 - Lager*
11 - Rulman	11 - Bearing	*11 - Lager*
12 - Rulman	12 - Bearing	*12 - Lager*
13 - Rulman	13 - Bearing	*13 - Lager*
14 - Rulman	14 - Bearing	*14 - Lager*
15 - Rulman	15 - Bearing	*15 - Lager*
17 - Keçe	17 - Seal	*17 - Wellendichtring*
19 - Çıkış Mili	19 - Output Shaft	*19 - Abtriebswelle*
21 - Gövde	21 - Gear Case	*21 - Getriebegehäuse*
22 - Kapak	22 - Cover	*22 - Deckel*
23 - Cıvata	23 - Bolt	*23 - Sechskantschraube*
24 - Yağ Tapası	24 - Oil Plug	*24 - Ölschraube*
25 - Taşıma Kancası	25 - Lifting Eye Bolt	*25 - Ringschraube*
26 - Cıvata	26 - Bolt	*26 - Sechskantschraube*
27 - Rulman Baskı Kapağı	27 - Bearing Cover	*27 - Lagerdeckel*
29 - Cıvata	29 - Bolt	*29 - Sechskantschraube*
30 - Rulman Baskı Kapağı	30 - Bearing Cover	*30 - Lagerdeckel*
31 - Extruder Rulman Gövdesi	31 - Extruder Bearing Case	*31 - Extruder Lagergehäuse*
32 - Kama	32 - Key	*32 - Passfeder*
33 - Cıvata	33 - Bolt	*33 - Sechskantschraube*
34 - Rulman Baskı Kapağı	34 - Bearing Cover	*34 - Lagerdeckel*
35 - Keçe Kapağı	35 - Seal Cover	*35 - Dichtringflansch*
36 - Keçe	36 - Seal	*36 - Wellendichtring*
37 - Burç	37 - Spacer	*37 - Stützscheibe*
38 - Kama	38 - Key	*38 - Passfeder*
39 - Cıvata	39 - Bolt	*39 - Sechskantschraube*
40 - Rulman Baskı Kapağı	40 - Bearing Cover	*40 - Lagerdeckel*
41 - Kama	41 - Key	*41 - Passfeder*
42 - Cıvata	42 - Bolt	*42 - Sechskantschraube*
43 - Rulman Baskı Kapağı	43 - Bearing Cover	*43 - Lagerdeckel*
44 - Kama	44 - Key	*44 - Passfeder*
45 - Cıvata	45 - Bolt	*45 - Sechskantschraube*
46 - Rulman	46 - Bearing	*46 - Lager*

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