



**I.Mak**®  
REDÜKTÖR & VARYATÖR A.Ş.

## ***Kovan Montajlı Redüktörler***

Shaft Mounted Helical Gear Unit  
***Motoréducteurs hélicoïdaux pendulaires***

**X 01**



SERIES  
**iRNX**

2021  
TR | EN | FR

Gearboxes and Drives / Moto Réducteurs



**İRNX Serisi Redüktörlerin Genel Özellikleri**Descriptions and Specifications of the İRNX Serie / *Descriptions et specifications de la serie İRNX***Redüktör Bağlantı Varyasyonları**Mounting Options and Variations / *Options de montage et d'accouplement***Redüktör Komponent Varyasyonları**Gearboxes Components Variations / *Options et variations***Servis Faktörü**Service Factor / *Service facteur***Redüktör Yükleme Karakteristikleri**Load Characteristics of Gearboxes / *Types de machines et applications***Radyal Yükler**Overhung Loads / *Charges radiales***Motor İşletme Değerleri**Motor Performance / *Performance Moteurs***Geri Dönüş Kilitli Redüktörlerde Dönme Yönü**Direction of Rotation of the Gearbox With a Backstop / *Sens de rotation des roulement anti-retour***Moment Kolu**Torque arm / *Bras d'attraction***İRNX Serisi Çıkış Moment Değerleri**İRNX Series Output Torque Values / *Couple de sortie des réducteurs de la série İRNX***Montaj Pozisyonları ve Yağ Miktarları**Mounting Positions and Oil Quantities / *Positions de montage et quantités d'huiles***Redüktörlerin Kontrol ve Bakımları**Control and Mintenance of Gearboxes / *Contrôle et maintenance des réducteurs***FYX\_H'f'G'dUf'**Gearbox Ordering / *Ö [ { { æ â^: Á[ d^Á..â~ &c^' /*

**FNX'GYf]g]FYX`\_H'f`Yf'; ~ , j Y8 Yj Jf`HUV`c`Ufi**

Power Ratings and Output Speed Table for IRNX Series / ÜNXÁÙ!ã•Á`ã•æ&^•Áóã^••^•Á^Á  
•/!ã•

**FNX'GYf]g]FYX`\_H'f`Yf`x`, ~ `GUnZU`Ufi**

Dimensions Pages / Öã ^}•ã}•

**MYXY`\_DUf, U` Ya Ugi`j Y`@ghYg]**

General Parts List / Šã c^Á^•Á`ã&^•Á.æ&@^•



# General Information

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Información general

# İRNX

SERİSİ / SERIES / SÉRIES



- 510 Nm'den 24460 Nm'ye kadar tork seçeneği
- Motor gücü aralığı 0,37 kW – 200 kW
- 11 farklı gövde büyüklüğü
- 16MnCr5 dişli malzemesi

- Torque ranging from 510 nm to 24460 nm
- Motor configuration from 0,37 kW to 200 kW
- 11 different sizes of housings
- 16MnCr5 gears material

- *Couple allant de 510 nm à 24460 nm*
- *Puissance moteur de 0,37 kw à 200 kw*
- *11 tailles de carter*
- *Pignons fabriqués à partir d'acier 16MnCr5*

## İRNX serisi redüktörlerin genel özellikleri

Şaft montajlı helisel dişlili (İRNX serisi) redüktör konveyör ve tahıl ambarları (silo) için en uygun çözümdür. Kilitli kovan ve rulman özelliği sayesinde eğimli konveyörlerde ağır yükleri yürütmeye olanak sağlar ve konveyorda ileri-geri operasyonlarda riski minimuma indirir. Ayrıca, İRNX serisi redüktörler düşük servis ihtiyacı ve yüksek güvenilirliği ile size yardımcı olur.

Ürün Avantajları:

- Kolay montaj
- Kilitli rulman seçeneği
- Ağır yük dayanımı
- Kolay temizleme ve toz korumaya özel dizayn gövde tasarımı

## Descriptions and specifications of the İRNX serie.

The shaft mounted gear series ( İRNX ) are the best solutions for conveyors and grain storage sectors. The backstop feature of the gearboxes allows you to load heavy charges on your inclined conveyors and run the systems without any risk of back driving. The İRNX series also assist you with low maintenance and high reliability.

Product advantages :

- Easy mounting and quick maintenance
- Backstop feature
- Heavy load resistance
- Designed for easy cleaning and dust resistance

## Descriptions et spécifications de la série İRNX

*Grace à ses différentes caractéristiques techniques le réducteur de la série İRNX est particulièrement adaptés aux applications de type convoyeurs et élévateurs. Très fortement utilisés dans les secteurs des mines ainsi que le stockage et la transformation des grains, les réducteurs de la série İRNX bénéficient d'un montage simple et d'un entretien aisé. Leur option d'anti-retour garantit la sécurité de vos convoyeurs en empêchant le recul des charges en cas d'arrêt.*

Avantages du produit :

- *Montage simple et rapide*
- *Option anti-retour*
- *Résistance aux charges élevées*
- *Entretien simple et haute résistance en environnement poussiéreux ou difficile.*

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

**Ccw** Saat Yönünün Tersİ  
**Cw** Saat Yönü

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

**Ccw** Counterclock ise  
**Cw** Clock ise

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

**Ccw** Sens anti-horaire  
**Cw** Sens horaire



## Moment Kolu

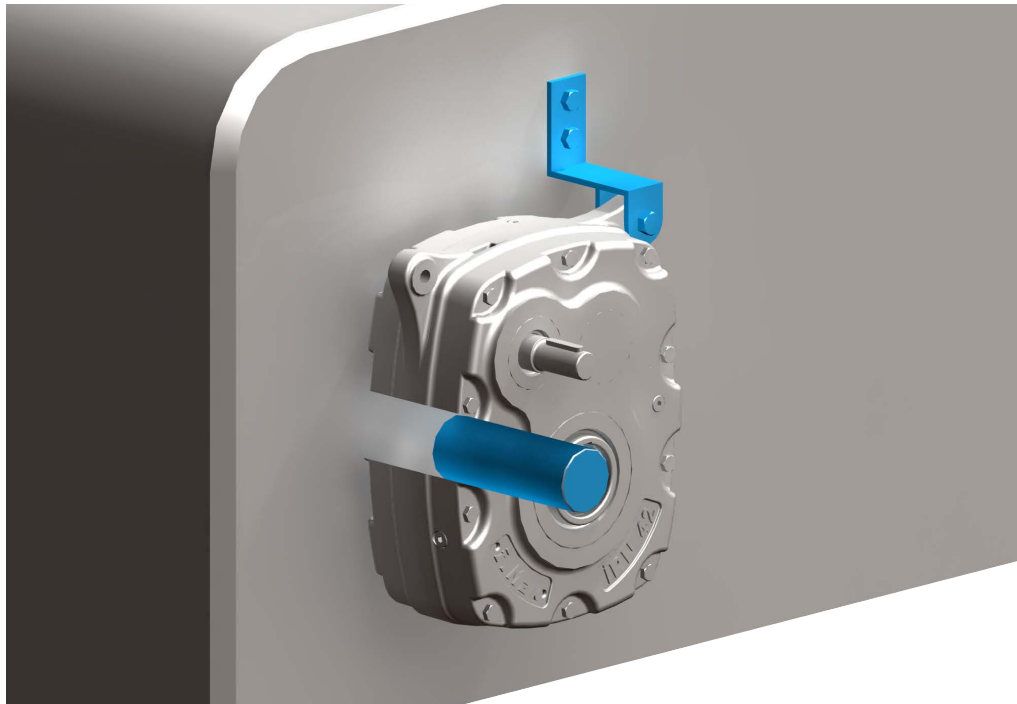
İRNX tip redüktörler için özel olarak tasarlanmış montaj lastikleri ile, redüktörlerin kolayca montajını gerçekleştirebilirsiniz. Moment kolu prensibi mantığında çalışacak bir sistemde, redüktör ani kalkışlara ve mil salgılarına karşı korunmuş olacaktır. Sistemsel kasma ve gerilmeler de minimize edilmiş olacaktır.

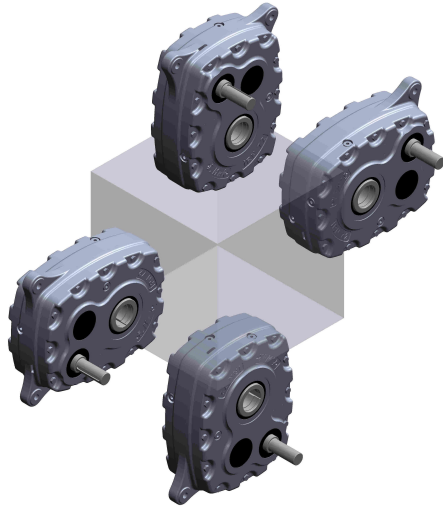
## Torque arm

The IRNX Series gearbox are configured with special mounting options. The rubber rings are working as torque arms for the gearbox, the special rubber material is also designed to resist shocks and absorb the vibration of the housing and output shaft.

## Bras d'attraction

Les réducteurs de la série IRNX sont équipés d'anneaux en caoutchouc pour faciliter le montage avec une configuration en arbre creux. Les composants de ces anneaux sont spécialement étudiés pour résister aux chocs tout en absorbant un maximum les vibrations transmises par l'application en marche.

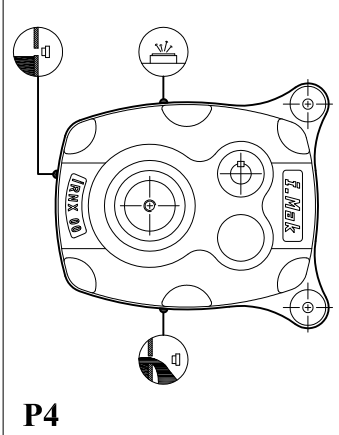
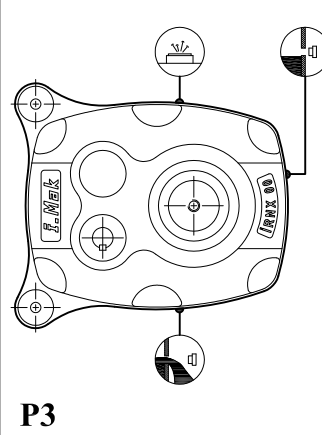
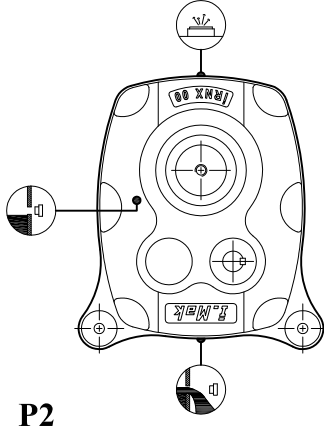
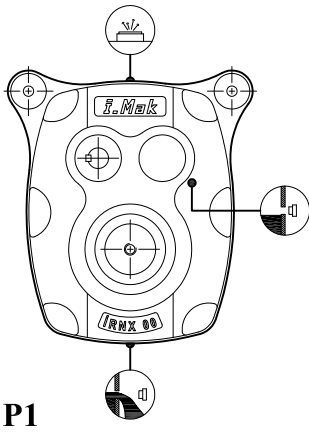




\*Belirtilen montaj pozisyonları görsel amaçlıdır. Montaj yüzeylerini bağlayıcı değildir.

\*The specified mounting positions are for visual purposes. Mounting surfaces are not binding.

\*Die angegebene Einbaulage ist für heute. Die Montagefläche ist nicht bindend.



Semboller :  
Seymbols :  
Seymboles :



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



**Yağ Seviye Tespit**  
Oil Level  
*Niveau d'huile*

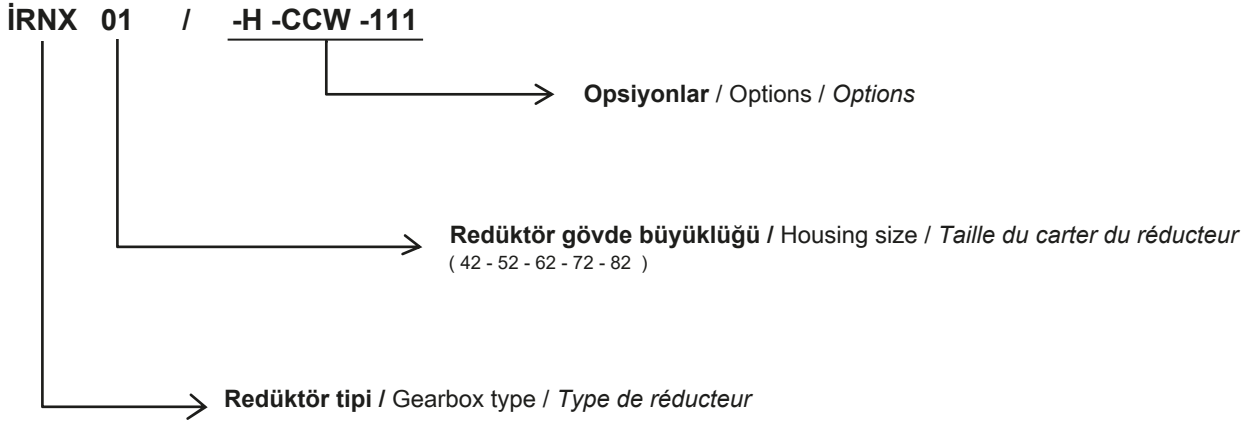


**Yağ Boşaltma**  
Oil Drain Plug  
*Bouchon de drainage*

TİP Type	Bağlantı Pozisyonları ve Yağ Miktarları ( litre ) Oil Quantities for Mounting Positions ( liter ) <i>Quantites d'huiles en fonction da la position de montage ( litres )</i>			
	P1	P2	P3	P4
İRNX 01	0.8	0.4	0.8	0.6
İRNX 02	1.2	0.6	1	0.8
İRNX 03	1.8	0.9	1.3	1.2
İRNX 04	2.4	1.8	2.2	1.8
İRNX 05	3.5	2.9	3.4	3.4
İRNX 06	5	4.5	6.2	6.2
İRNX 07	7.8	6.2	7	7
İRNX 08	13.4	12.5	12.8	13
İRNX 09	20	19	19.5	20
İRNX 10	34	32	33	34
İRNX 11	66	62	64	66

Yağ Cinsi Lubrifiant Art des Lubrifiant	ISO Viskozite sinifi Viscosity class Catégorie de viscosite	DIN 51517-3	Kullanım sicaklığı Usage temperature Gebrauchs temperatur 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 600XP320	Degol BG 320	Energol GR-XP 320	OmalaS2 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	OmalaS2 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	OmalaS2 GX 150	Alpha SP 150	Klüberoil GEM 1 N 150	Recompound FL 150
	ISO VG 100	CLP	-15.....+90	Mobilgear 600 XP 100	-	-	OmalaS2 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	Energol SG-XP320	OmalaS4 GX V 320	Optigear Synthetic PD 320 ES	Klübersynth GEM 4N 320	Recompound Syn 320
	ISO VG 220	CLP HC	-35.....+110	Mobil SHC Gear 220	Degol GS 220	Energol SG-XP220	OmalaS4 GX V 220	Optigear Synthetic PD 220 ES	Klübersynth GEM 4N 220	Recompound Syn 220
	ISO VG 150	CLP HC	-40.....+110	Mobil SHC Gear 150	Degol GS 150	Energol SG-XP150	OmalaS4 GX V 150	Optigear Synthetic PD 150 ES	Klübersynth GEM 4N 150	Recompound Syn 150
	ISO VG 100	CLP HC	-45.....+110	Mobil SHC 627	-	-	-	Optigear Synthetic PD 100 ES	Klübersynth GEM 4N 100	Recompound Syn 100





## İRN Serisi Redüktörler Güç ve Devir Tabloları

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İRN Series Power Ratings and Output Speed  
*İRN Series puissances et vitesses de sorties*



Çıkış Devri (d/d)	İRNX Güç Tablosu (kW) (Servis Faktörü Sf=1 için)									Çevrim Oranı İ:13 ve 20		
	01	02	03	04	05	06	07	08	09	10	11	12
10	0,53	0,85	1,33	1,90	3,31	4,91	7,74	10,3	13,0	18,7	25,6	
12	0,64	1,02	1,59	2,27	3,97	5,89	9,29	12,3	15,6	22,5	30,7	
14	0,75	1,19	1,86	2,65	4,63	6,87	10,8	14,4	18,2	26,2	35,8	
16	0,85	1,36	2,13	3,03	5,29	7,85	12,4	16,4	20,8	30,0	41,0	
18	0,96	1,53	2,39	3,41	5,95	8,84	13,9	18,5	23,4	33,7	46,1	
20	1,07	1,70	2,66	3,79	6,61	9,82	15,5	20,5	26,0	37,5	51,2	
22	1,17	1,87	2,92	4,17	7,28	10,8	17,0	22,6	28,6	41,2	56,3	
24	1,28	2,04	3,19	4,55	7,94	11,8	18,6	24,6	31,2	45,0	61,4	
26	1,39	2,21	3,46	4,93	8,60	12,8	20,1	26,7	33,8	48,7	66,6	
28	1,49	2,38	3,72	5,31	9,26	13,7	21,7	28,7	36,4	52,5	71,7	
30	1,60	2,55	3,99	5,69	9,92	14,7	23,2	30,8	39,0	56,2	76,8	
32	1,70	2,72	4,25	6,07	10,6	15,7	24,8	32,9	41,6	59,9	81,9	
34	1,81	2,89	4,52	6,44	11,2	16,7	26,3	34,9	44,2	63,7	87,0	
38	2,02	3,23	5,05	7,20	12,6	18,7	29,4	39,0	49,4	71,2	97,3	
40	2,13	3,40	5,32	7,58	13,2	19,6	31,0	41,1	52,0	74,9	102	
42	2,24	3,57	5,58	7,96	13,9	20,6	32,5	43,1	54,6	78,7	108	
46	2,45	3,91	6,11	8,72	15,2	22,6	35,6	47,2	59,8	86,2	118	
50	2,66	4,25	6,65	9,48	16,5	24,5	38,7	51,3	65,0	93,7	128	
52	2,77	4,42	6,91	9,86	17,2	25,5	40,3	53,4	67,6	97,4	133	
54	2,88	4,59	7,18	10,2	17,9	26,5	41,8	55,4	70,2	101	138	
58	3,09	4,93	7,71	11,0	19,2	28,5	44,9	59,5	75,4	109	148	
62	3,30	5,27	8,24	11,8	20,5	30,4	48,0	63,7	80,6	116	159	
66	3,52	5,61	8,77	12,5	21,8	32,4	51,1	67,8	85,8	124	169	
70	3,73	5,95	9,30	13,3	23,2	34,4	54,2	71,9	91,0	131	179	
74	3,94	6,29	9,84	14,0	24,5	36,3	57,3	76,0	96,2	139	189	
78	4,16	6,63	10,4	14,8	25,8	38,3	60,4	80,1	101	146	200	
80	4,26	6,80	10,6	15,2	26,5	39,3	62,0	82,1	104	150	205	
85	4,53	7,22	11,3	16,1	28,1	41,7	65,8	87,3	110	159	218	
90	4,79	7,65	12,0	17,1	29,8	44,2	69,7	92,4	117	169	230	
95	5,06	8,07	12,6	18,0	31,4	46,6	73,6	97,5	123	178	243	
100	5,33	8,50	13,3	19,0	33,1	49,1	77,4	103	130	187	256	
Max. Moment (Nm)	<b>509</b>	<b>812</b>	<b>1270</b>	<b>1811</b>	<b>3160</b>	<b>4690</b>	<b>7400</b>	<b>9810</b>	<b>12421</b>	<b>17900</b>	<b>24460</b>	



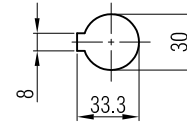
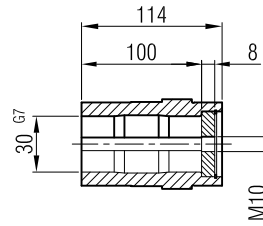
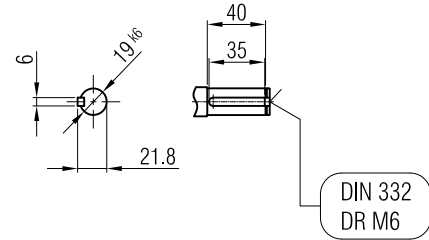
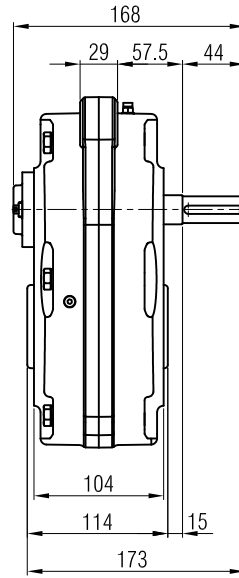
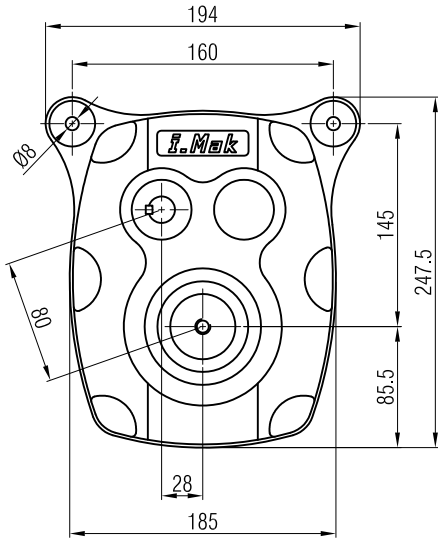
Çıkış Devri (d/d)	İRNX Güç Tablosu (kW) (Servis Faktörü Sf=1 için)									Çevrim Oranı İ:5		
	01	02	03	04	05	06	07	08	09	10	11	12
100	5,42	8,53	13,5	19,0	33,0	46,8	78,1	104				
110	5,96	9,38	14,9	20,8	36,3	51,5	85,9	114				
120	6,51	10,2	16,2	22,7	39,6	56,1	93,7	125				
130	7,05	11,1	17,6	24,6	42,9	60,8	101	135				
140	7,59	11,9	18,9	26,5	46,2	65,5	109	145				
150	8,13	12,8	20,3	28,4	49,5	70,2	117	156				
160	8,67	13,6	21,6	30,3	52,7	74,9	125	166				
170	9,22	14,5	23,0	32,2	56,0	79,5	133	176				
180	9,76	15,4	24,3	34,1	59,3	84,2	141	187				
190	10,3	16,2	25,7	36,0	62,6	88,9	148	197				
200	10,8	17,1	27,0	37,9	65,9	93,6	156	208				
210	11,4	17,9	28,4	39,8	69,2	98,2	164	218				
220	11,9	18,8	29,7	41,7	72,5	103	172	228				
230	12,5	19,6	31,1	43,6	75,8	108	180	239				
240	13,0	20,5	32,4	45,5	79,1	112	187	249				
250	13,6	21,3	33,8	47,4	82,4	117	195	260				
260	14,1	22,2	35,1	49,3	85,7	122	203	270				
270	14,6	23,0	36,5	51,2	89,0	126	211	280				
280	15,2	23,9	37,8	53,1	92,3	131	219	291				
290	15,7	24,7	39,2	55,0	95,6	136	226	301				
300	16,3	25,6	40,5	56,9	98,9	140	234	311				
310	16,8	26,4	41,9	58,8	102	145	242	322				
320	17,3	27,3	43,2	60,7	105	150	250	332				
330	17,9	28,1	44,6	62,5	109	154	258	343				
340	18,4	29,0	45,9	64,4	112	159	265	353				
350	19,0	29,9	47,3	66,3	115	164	273	363				
360	19,5	30,7	48,6	68,2	119	168	281	374				
370	20,1	31,6	50,0	70,1	122	173	289	384				
380	20,6	32,4	51,3	72,0	125	178	297	395				
390	21,1	33,3	52,7	73,9	129	182	304	405				
400	21,7	34,1	54,0	75,8	132	187	312	415				
Max. Moment (Nm)	<b>518</b>	<b>815</b>	<b>1290</b>	<b>1811</b>	<b>3150</b>	<b>4470</b>	<b>7460</b>	<b>9920</b>				

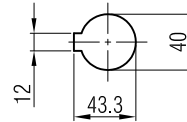
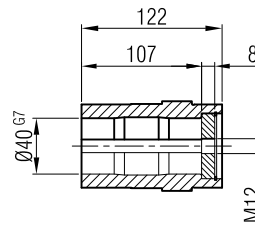
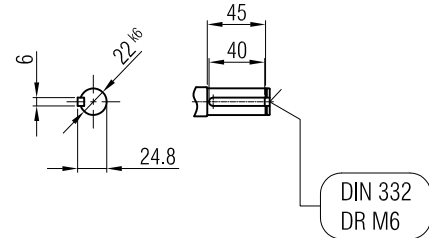
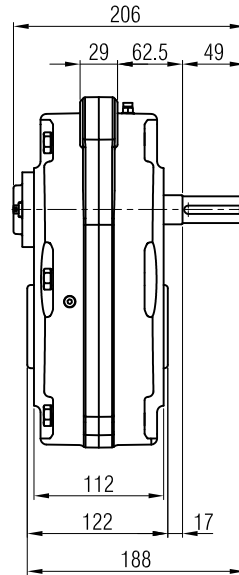
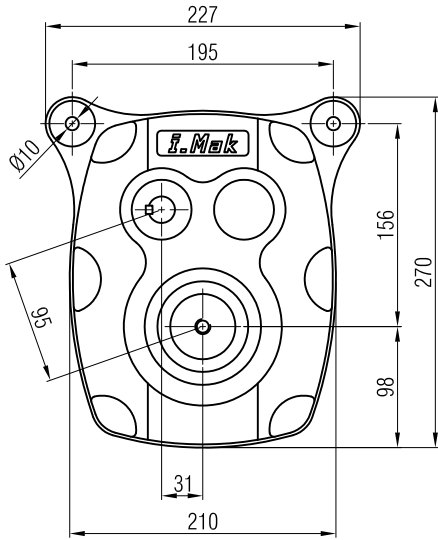
# İRN Serisi Redüktörler Ölçü Sayfaları

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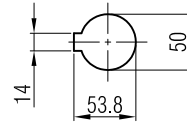
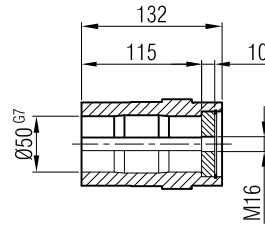
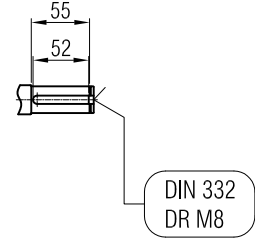
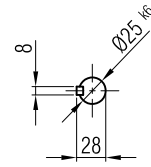
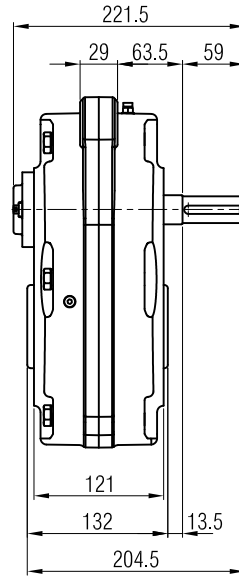
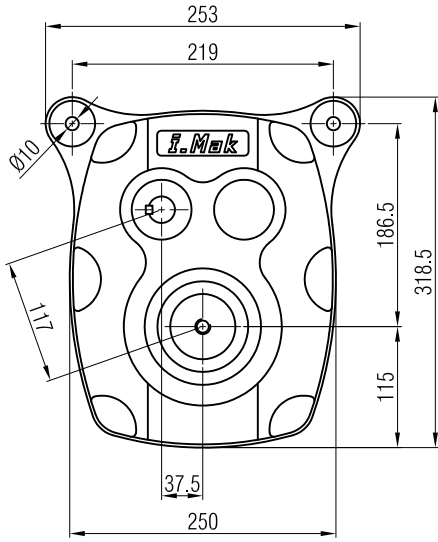
Dimensions Pages

*Dimensions*

**İRNX 01**

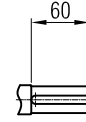
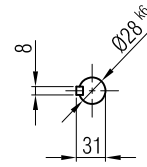
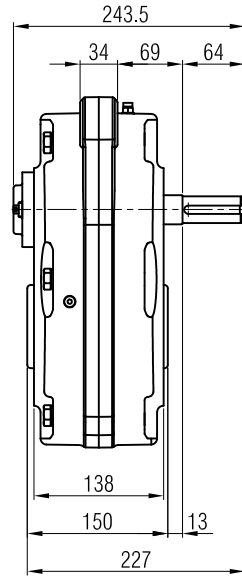
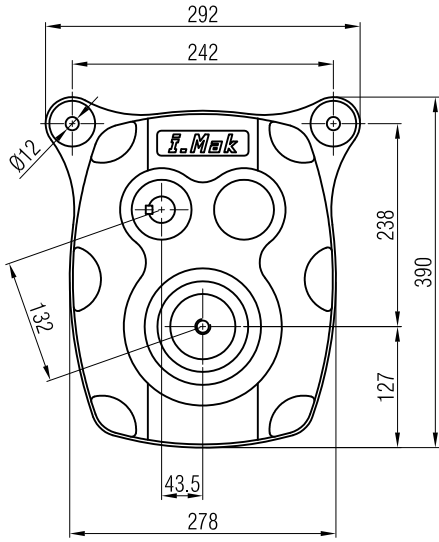
**İRNX 02**



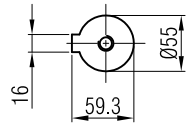
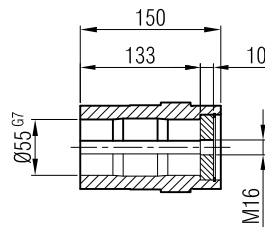
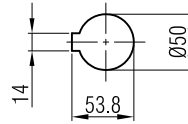
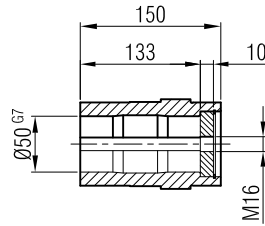
**İRNX 03**



**İRNX 04**



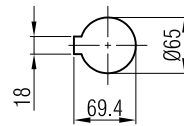
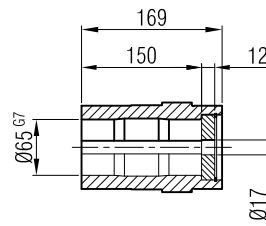
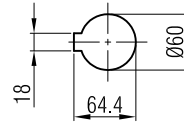
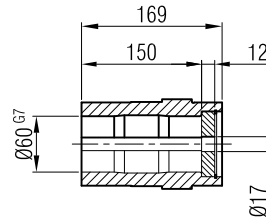
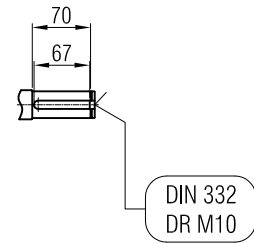
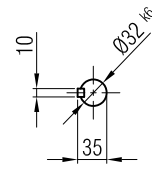
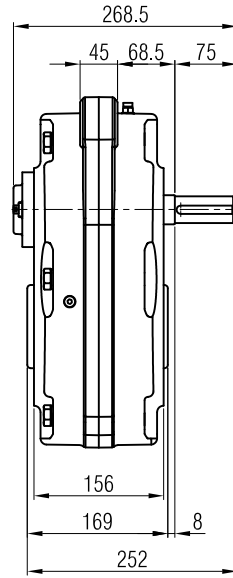
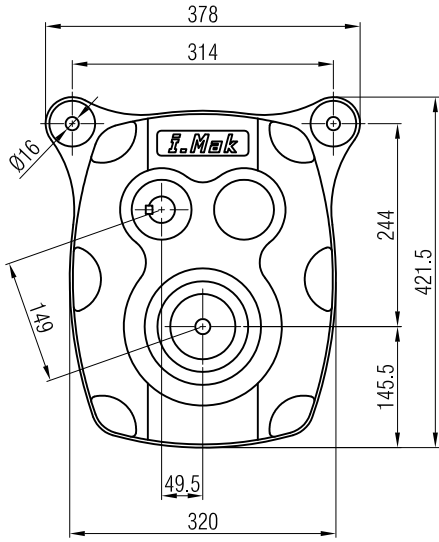
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( Opsiyonel / Optional / Optional )



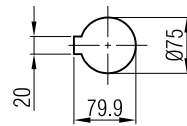
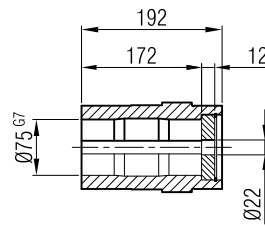
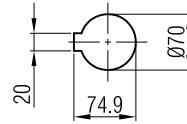
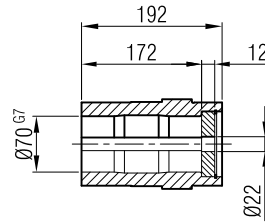
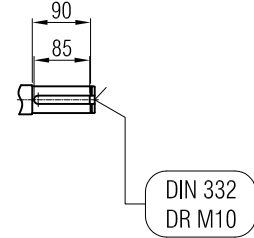
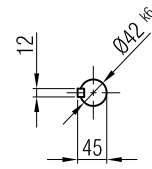
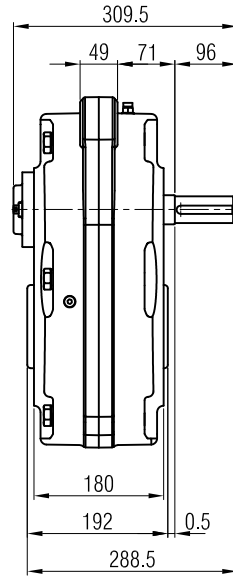
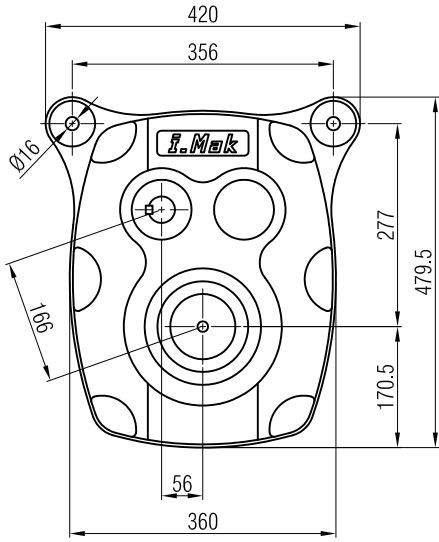
**İRNX 05**



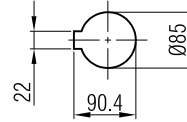
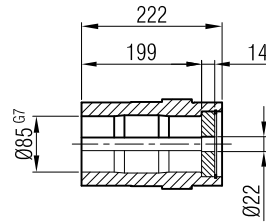
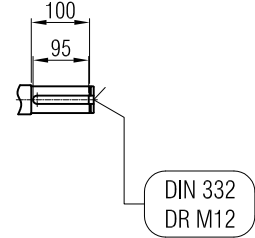
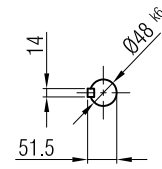
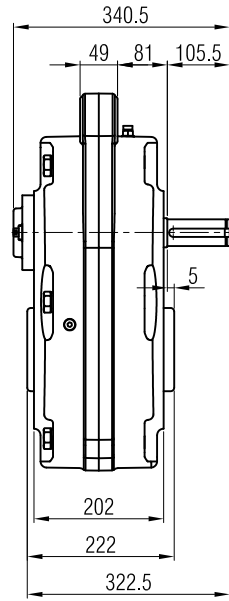
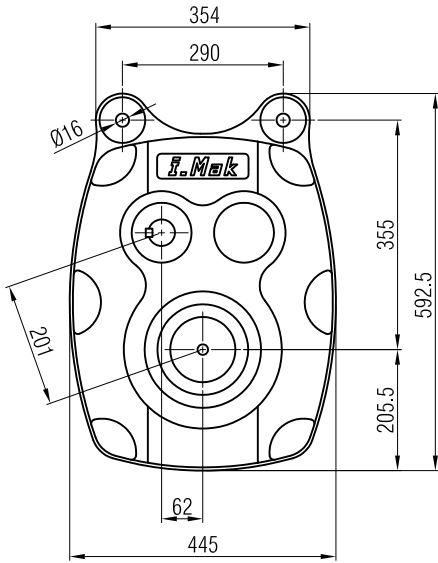
( Opsiyonel / Optional / Optional )



**İRNX 06**

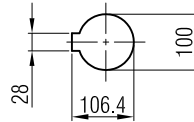
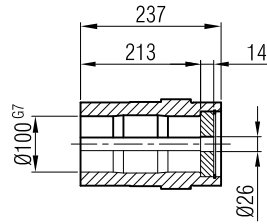
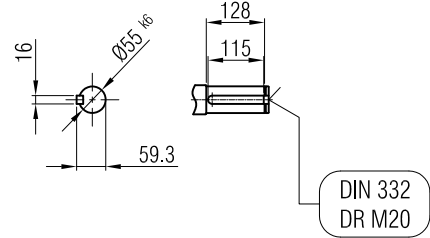
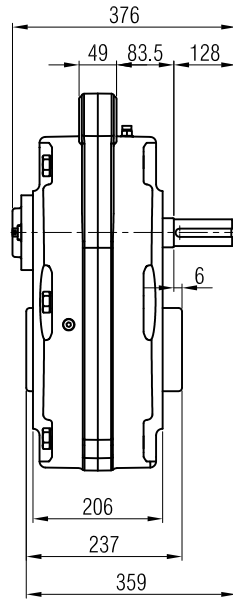
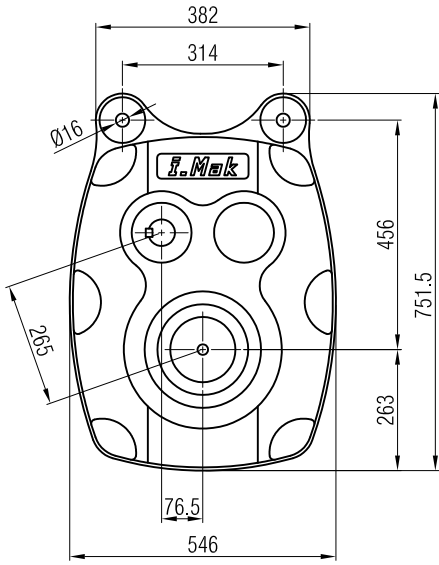


( Opsiyonel / Optional / Optional )

**İRNX 07**

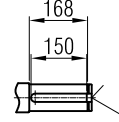
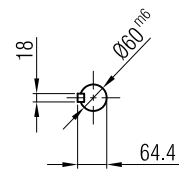
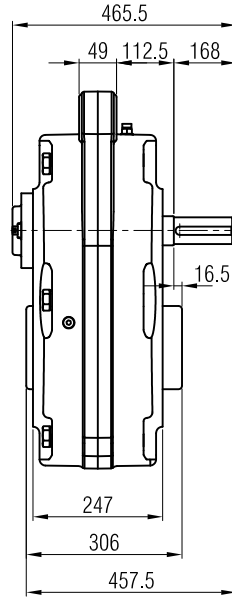
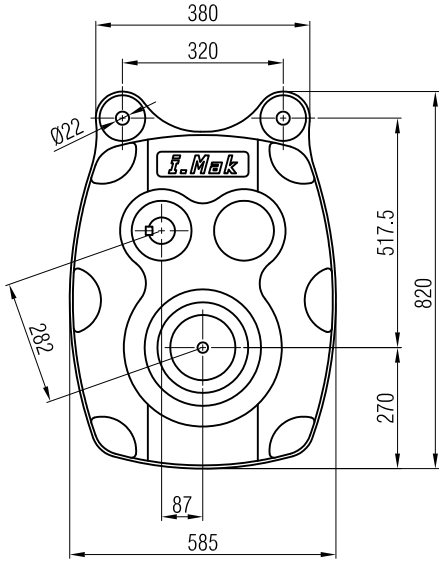


**İRNX 08**

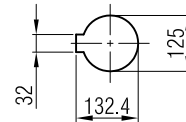
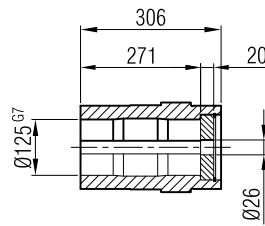
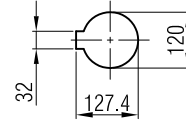
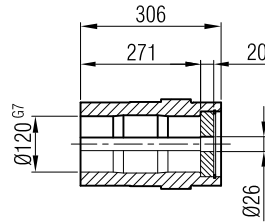




**İRNX 09**



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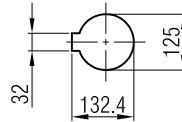
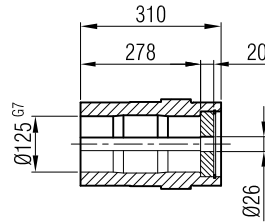
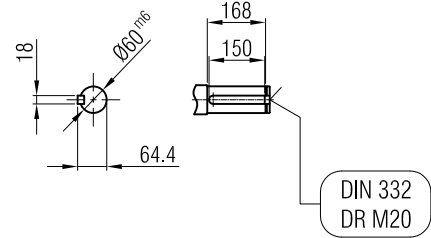
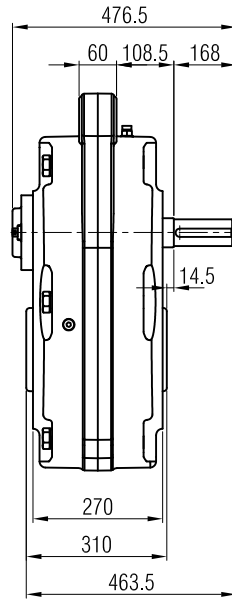
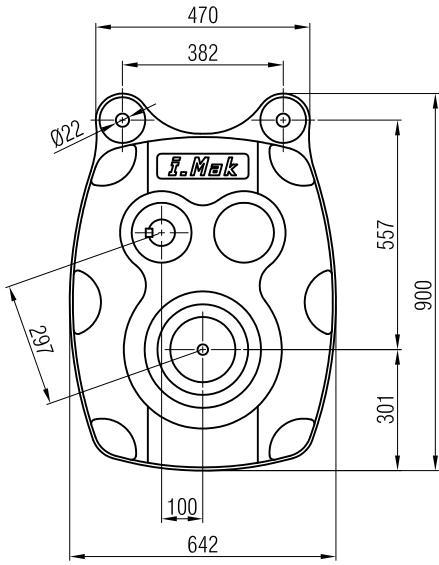


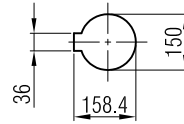
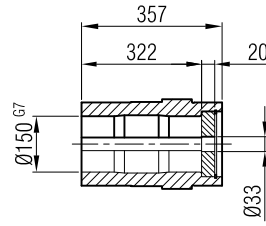
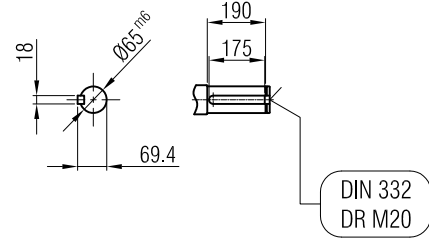
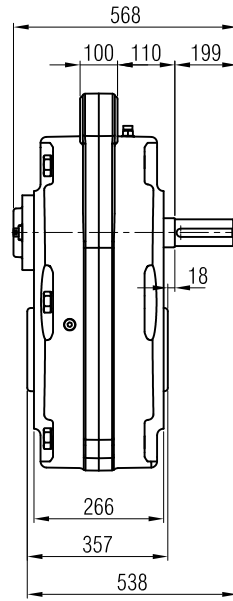
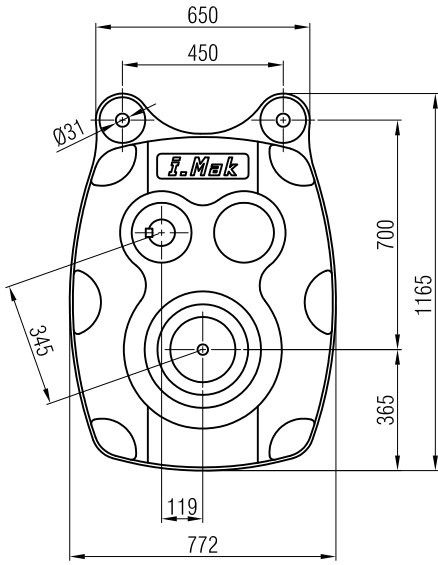
( Opsiyonel / Optional / Optional )





**İRNX 10**



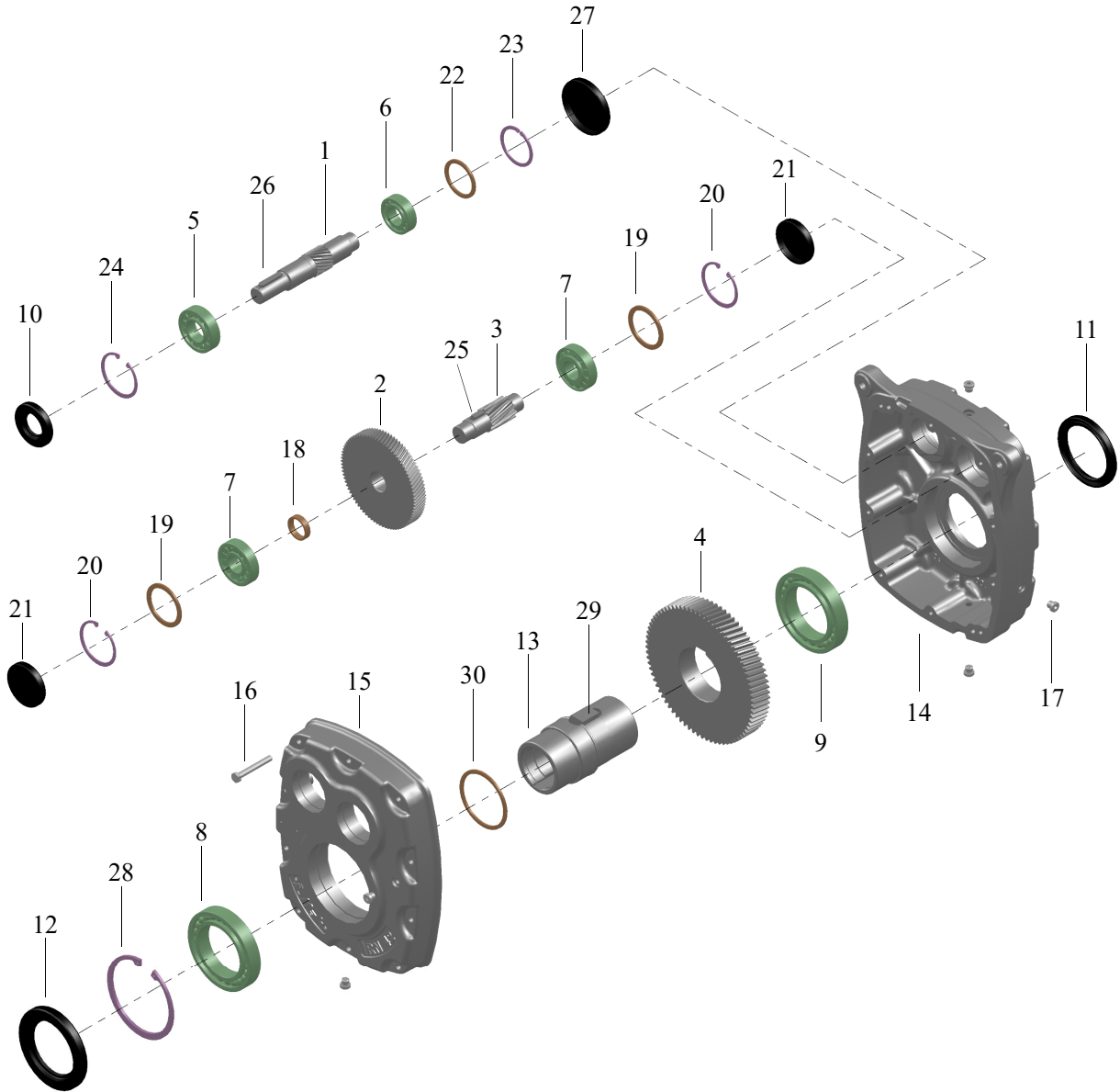
**İRNX 11**

## Yedek Parça Listeleri

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General Parts List

*Liste des pièces détachées*

**TİP / TYPE / TYP****İRNX } 01-02-03-04-05-06-07-08-09-10-11**

**TİP / TYPE / TYP****İRNX } 01-02-03-04-05-06-07-08-09-10-11**

<b>1 - Dişli Z1 (Giriş Mili)</b>	1 - Gear Z1 (Input Shaft)	1 - Pignon Z1
<b>2 - Dişli Z2</b>	2 - Gear Z2	2 - Pignon Z2
<b>3 - Millî Dişli Z3</b>	3 - Gear Z3	3 - Pignon Z3
<b>4 - Dişli Z4</b>	4 - Gear Z4	4 - Pignon Z4
<b>5 - Rulman</b>	5 - Bearing	5 - Roulement
<b>6 - Rulman</b>	6 - Bearing	6 - Roulement
<b>7 - Rulman</b>	7 - Bearing	7 - Roulement
<b>8 - Rulman</b>	8 - Bearing	8 - Roulement
<b>9 - Rulman</b>	9 - Bearing	9 - Roulement
<b>10 - Keçe</b>	10 - Seal	10 - Joint
<b>11 - Keçe</b>	11 - Seal	11 - Joint
<b>12 - Keçe</b>	12 - Seal	12 - Joint
<b>13 - Kovan</b>	13 - Hollow Shalt	13 - Arbre creux
<b>14 - Gövde</b>	14 - Gear Case	14 - Carter
<b>15 - Kapak</b>	15 - Cover	15 - Couvercle
<b>16 - Cıvata</b>	16 - Bolt	16 - Vis
<b>17 - Yağ Tapası</b>	17 - Oil Plug	17 - Bouchon d'huile
<b>18 - Burç</b>	18 - Spacer	18 - Anneau d'espacement
<b>19 - Pul</b>	19 - Washer	19 - Joint
<b>20 - Segman</b>	20 - Circlip	20 - Circlip
<b>21 - Tapa</b>	21 - Locking Cover	21 - Bouchon
<b>22 - Pul</b>	22 - Washer	22 - Joint
<b>23 - Segman</b>	23 - Circlip	23 - Circlip
<b>24 - Segman</b>	24 - Circlip	24 - Circlip
<b>25 - Kama</b>	25 - Key	25 - Clavette
<b>26 - Kama</b>	26 - Key	26 - Clavette
<b>27 - Tapa</b>	27 - Locking Cover	27 - Bouchon
<b>28 - Segman</b>	28 - Circlip	28 - Circlip
<b>29 - Kama</b>	29 - Key	29 - Clavette
<b>30 - Pul</b>	30 - Washer	30 - Joint

**Notlar**  
Notes



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