



www.kazeloglu.com

KAZEL®

HYDRAULIC EQUIPMENTS

1982'den bugüne her yükün
altından başarıyla kalktık...
we have successfully performed
all the tasks since 1982



ÜRÜN KATALOĞU **2016**
PRODUCT CATALOGUE





Kazeloğulları Limited Şirketi 1982 yılında Konya'da kurulmuş olup, yüksek teknolojik alt yapısı ve alanında uzman kadrosuyla; pompa grupları, valf grupları, tank grupları, aktarma ve bağlantı elemanları üretmektedir. Firmamız ISO 9001–2008 KALİTE YÖNETİM SİSTEMİ belgesine sahip, 11000 m² açık ve 6000 m² kapalı alanda dünya standartlarındaki modern tesisi ile hizmet vermektedir. Teknolojik imkan ve kabiliyetleri yüksek olan tesisimizde;

- Bilgisayar destekli cad/cam programları,
 - CNC torna tezgahları,
 - CNC işleme merkezleri,
 - Standart üstü, hassas takımlar, ürünlere özel modeller ve bağlantı aparatları,
 - CNC azdırma ve fellow tezgahları,
 - CNC taşlama tezgahı
 - Raspa tezgahları,
 - Üniversal tezgahlar,
 - Çeşitli kapasitelerdeki hidrolik, pnömatik ve eksantrik presler,
- İle etkin tecrübesini harmanlayarak ürün yelpazesini geliştirerek üretimine devam etmektedir.

Firmamız kalite kontrol laboratuvarı bünyesinde

- Son teknoloji ürünü 3 koordinatlı (CMM) ölçme tezgahı,
- Düzlem ölçüm cihazı,
- Sertlik ölçüm cihazı,
- Tam otomatik ve NC kontrollü deneme tezgahları, ile kalite hedeflerini ürünlerine yansıtmaktadır.

Teknolojimiz ve dünyada edindiğimiz yeri beraberce daha ileriye taşımak dileğiyle.

Kazeloğulları Ltd Company was established in Konya in 1982 and it has been manufacturing pump series, valve series, tank series, power take offs data and fittings with the high-tech infrastructure and its professional staff. Our Firm has ISO 9001-2008 QUALITY MANAGEMENT SYSTEM certificate and serves in its 11000 m² open and 6000 m² closed modern building is in the world standards. In Our Facility, with high-tech potentiality and capabilities;

- Computer-aided CAD/Cam programs,
 - CNC Turning Lathes,
 - CNC Machining Centers,
 - Over standard, sensitive kits, special moulds for products and connecting devices,
 - CNC Gear Hobbing Machines and Fellow Benches,
 - CNC Grinding machine
 - Scraper Benches,
 - Universal Benches,
 - In Various Capacity Hydraulic, Pneumatic and Eccentric Presses,
- By the help of all above, our firm goes on its production by improving its products range with its wide experience.

Within Our firm Quality Control Laboratory System;

- 3 coordinate (CMM) measuring bench which is state of the art technology product,
- Plane measuring device,
- Hardness measuring device,
- Full automatic and NC controlled test benches, by the help of all above, our firm reflects its quality targets to its products.

We wish to carry our high technology and the place we obtain in the world together further away.



KAZEL®

İNDEKS/INDEX

20 Serisi Edna Dişli Pompa
20 Series Edna Gear Pump

03

08

30 Serisi Ehass Dişli Pompa
30 Series Ehass Gear Pump

09

28

35 Serisi Ercah Dişli Pompa
35 Series Ercah Gear Pump

29

34

40 Serisi Gani Dişli Pompa
40 Series Gani Gear Pump

35

46

16-19-22 Serisi Dişli Pompa
16-19-22 Series Gear Pump

47

64

Pistonlu Pompa Serisi
Piston Pump Series

65

76

Güç Aktarma Kutusu
Power Take Offs

77

98

Valf
Valves

99

106

Adaptör-Flanş-Kaplin
Adapter-Flange-Coupling

107

114

Yağ Tankı
Oil Tank

115

126

Yedek Parça
Spare Parts

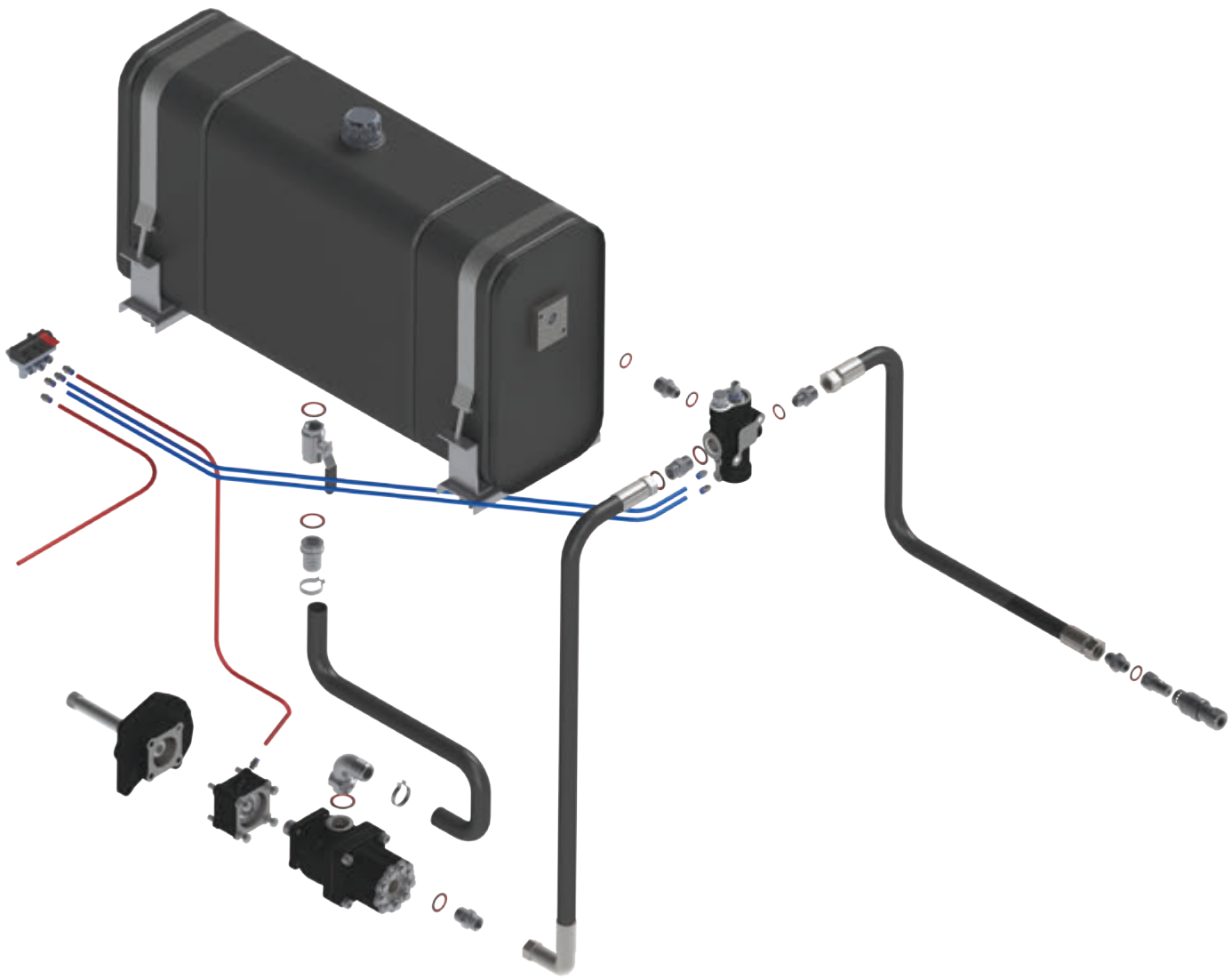
127

134

Teknik Veri
Technical Data

135

142



KAZEL®

EDNAGEAR PUMP

20 SERIES

Kodlama Sistemi
Coding System

04

Ön Kapaklar
Front Covers

05

Şaft Tipleri
Shaft Types

06

Teknik Veriler
Technical Data

07






KODLAMA SİSTEMİ | CODING SYSTEM




G	20				3	1
ÜRÜN TİPİ PRODUCT TYPE	POMPA SERİSİ PUMP SERIES	LİTRE LITER	KAPAK TİPİ COVER TYPE	ŞAFT TİPİ SHAFT TYPE	DÖNÜŞ YÖNÜ ROTATION	GİRİŞ-ÇIKIŞ DELİKLERİ INLET-OUTLET PORTS

006	6.1 cm³/rev
010	10.02 cm³/rev
016	16.20 cm³/rev
020	20.12 cm³/rev
025	25.05 cm³/rev
032	32.18 cm³/rev
040	40.15 cm³/rev

Bk. Sayfa 07
See Page

S	4 Delikli ISO 4 Holes ISO	
U	3 Delikli UNI 3 Holes UNI	
K	4 Delikli K 4 Holes K	

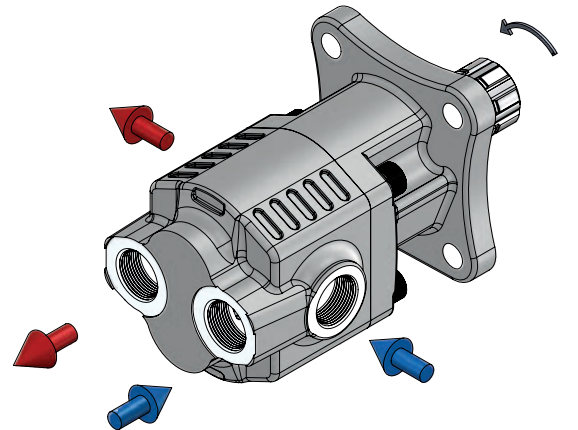
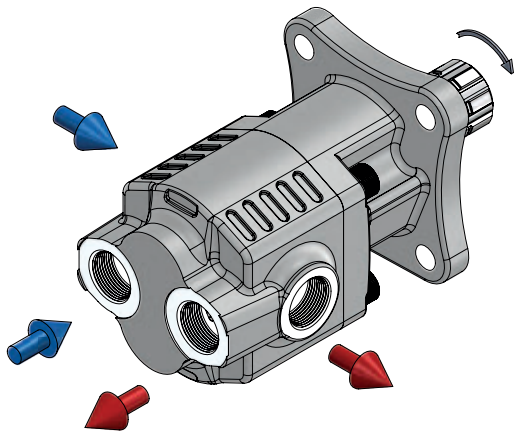
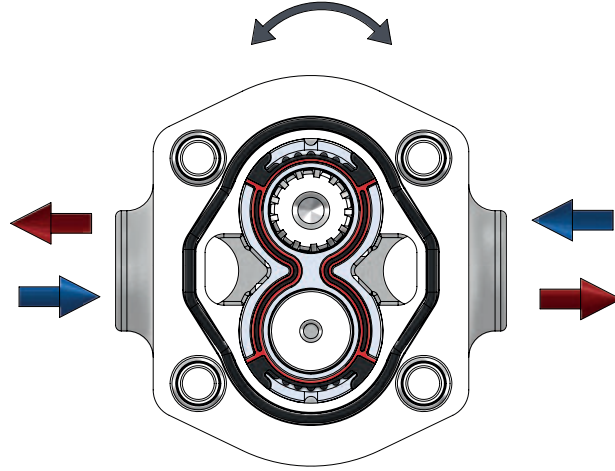
Bk. Sayfa 05
See Page

F1	8x32x36 DIN 5462	
F7	Ø22 19 Teeth -SAE J-498	
K6	1:8 Konik Kamalı Şaft Conic Keyed Shaft	

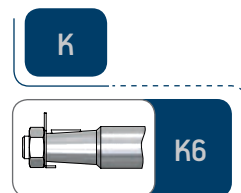
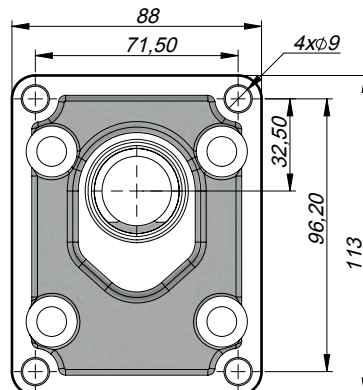
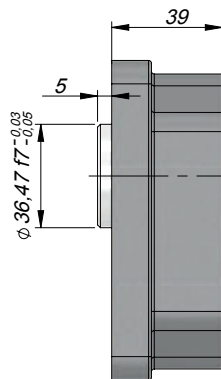
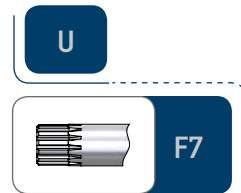
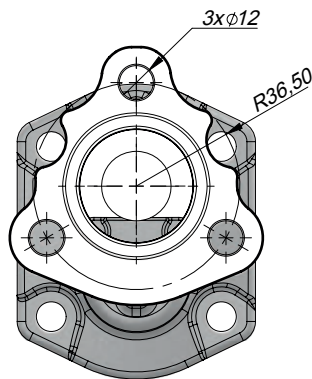
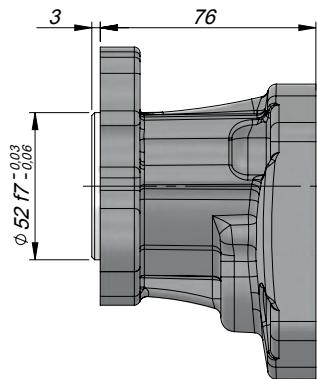
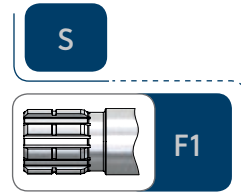
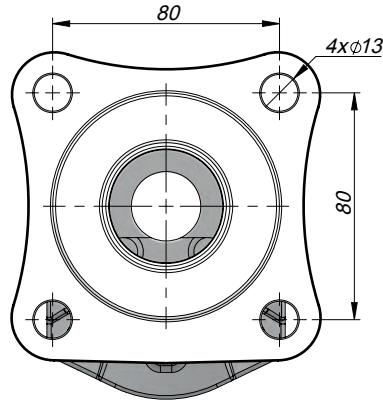
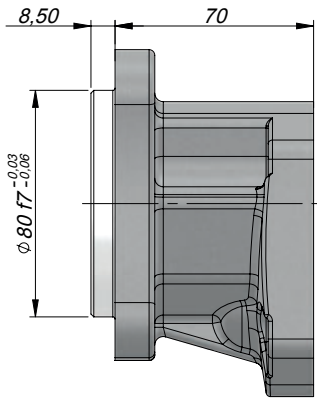
Bk. Sayfa 06
See Page

3	ÇİFT YÖNLÜ BI-DIRECTIONAL
----------	-------------------------------------

1	RAKORLU BAĞLANTI PIPE THREAD CONNECTION
----------	---

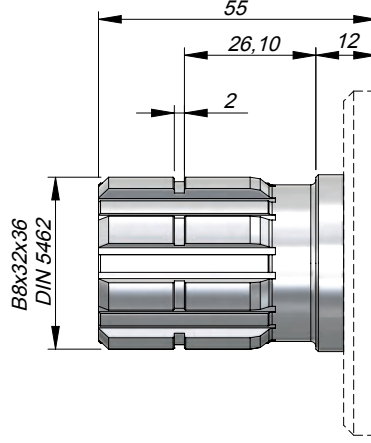


ÖN KAPAKLAR | FRONT COVERS

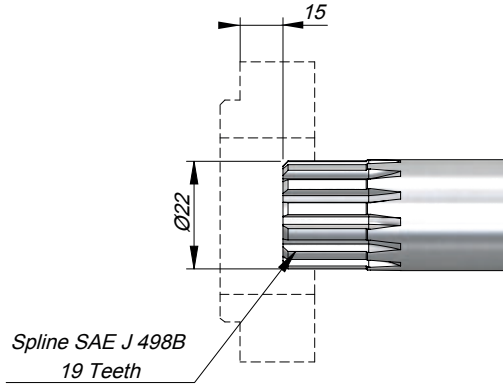


ŞAFT TIPLERİ | SHAFT TYPES**F1**

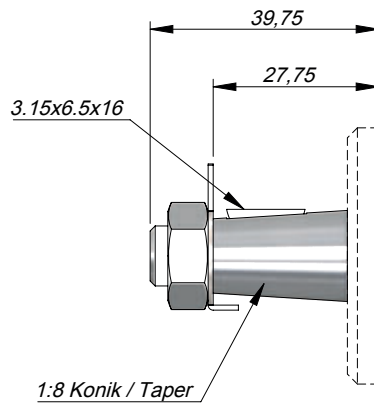
MAX 280 Nm

**F7**

MAX 280 Nm

**K6**

MAX 170 Nm

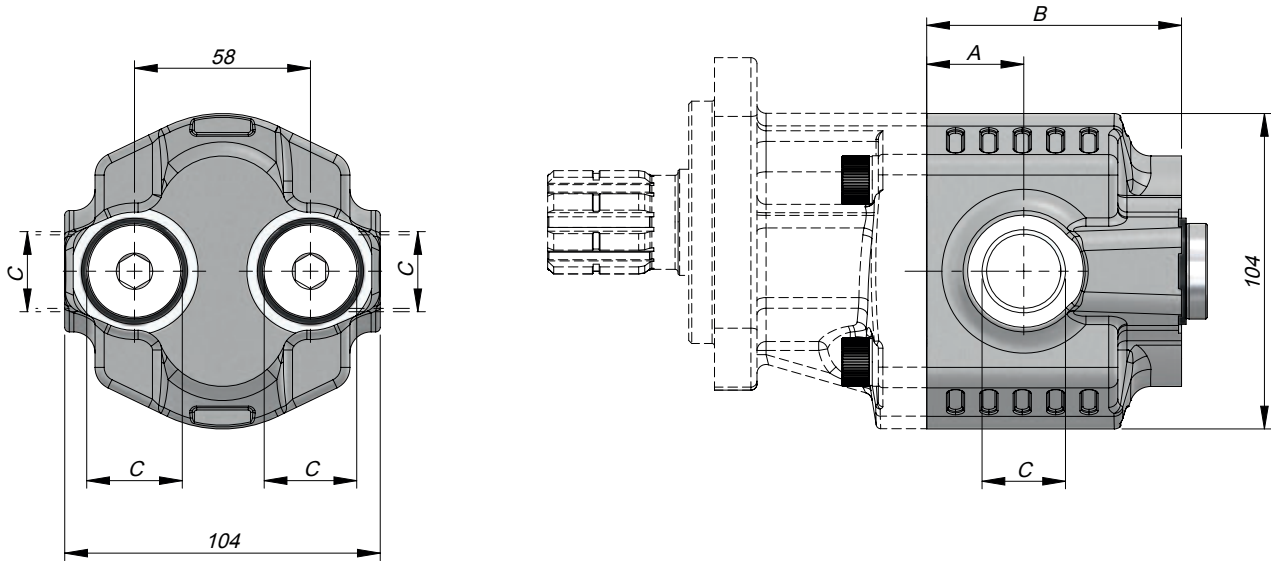


TEKNİK VERİLER | TECHNICAL DATA

Giriş Basıncı Inlet Pressure		0.7÷ 3 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
≥200 bar	11	20/17	25 μm
≤200 bar	12	21/18	40 μm



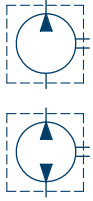
HİDROLİK SEMBOL
HYDRAULIC SYMBOL



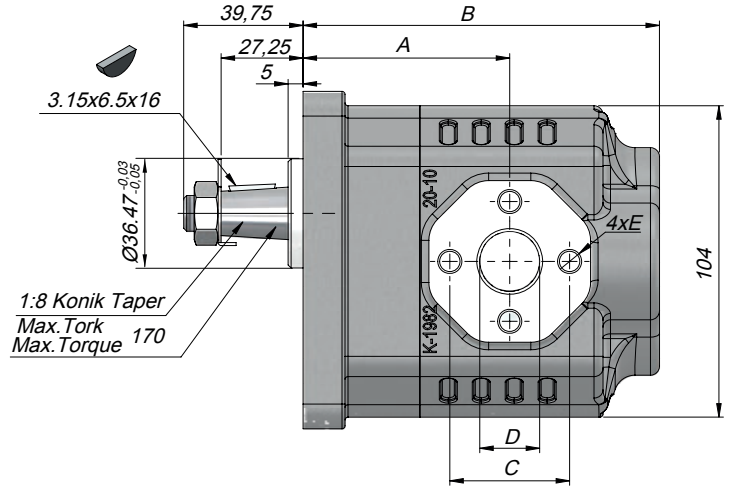
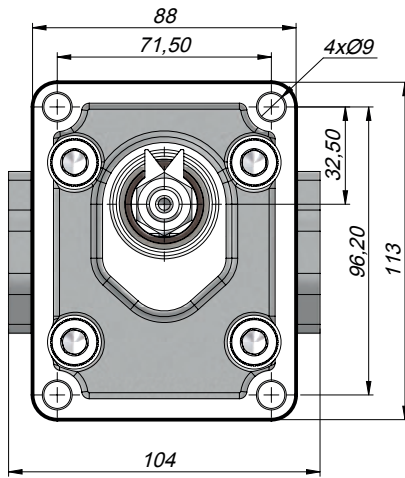
İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet	Çıkış Outlet
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	C
6	280	300	330	2300	3100	300	20	54	G1/2"	G1/2"
10							26	60		
16							26	70		
20	260	280	300	2100	2900	300	30	76	G3/4"	G3/4"
25	220	250	270				32	84		
32	190	200	220				43	95		
40	180	190	200	1900	2600		56	108		

TEKNİK VERİLER | TECHNICAL DATA

K ADAPTÖRÜ DİŞLİ POMPA | K GEAR PUMP WITH ADEPTER

HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Giriş Basıncı Inlet Pressure		0.7÷ 3 bar		
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt		
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C		
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter	
	NAS 1638	ISO 4406	βx=75	
≥200 bar	11	20/17	25 µm	
≤200 bar	12	21/18	40 µm	



Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Araklık Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Araklık Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet			Çıkış Outlet		
										(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
*G2010KK6(1)2	10	280	300	330	2300	3100	300	69	119	40	20	M8	30	13	M6
*G2010KK6(2)2										40	20	M8	30	13	M6
*G2010KK6(3)2										40	20	M8	40	20	M8

* (1) - Left - Sol

(2) - Right - Sağ

(3) - Bi-Directional (Çift Yönlü)

KAZEL®

EHASS GEAR PUMP

30 SERIES

Kodlama Sistemi
Coding System

11

Ön Kapaklar
Front Covers

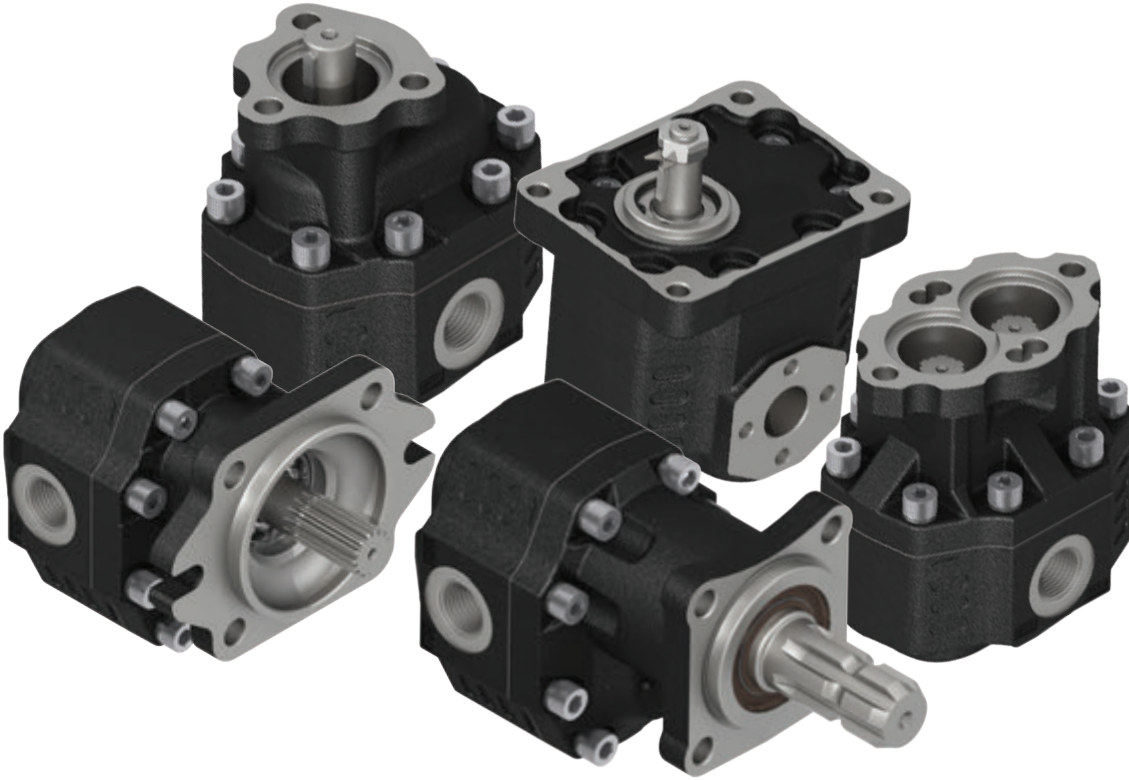
12

Şaft Tipleri
Shaft Types

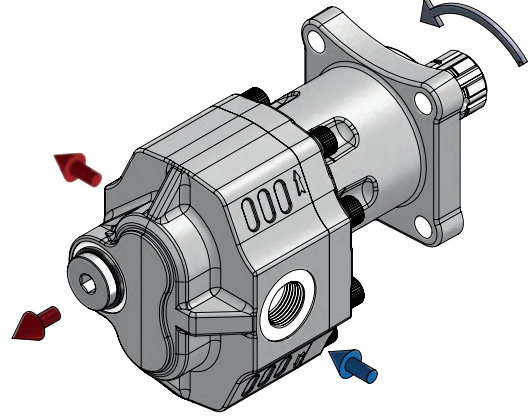
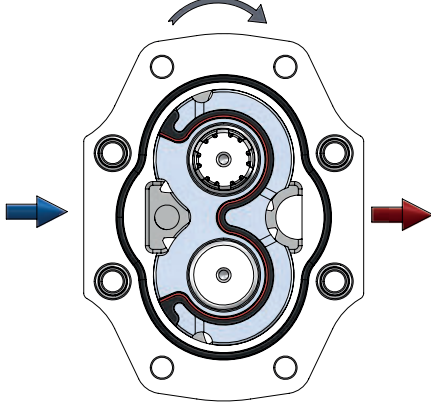
14

Teknik Veriler
Technical Data

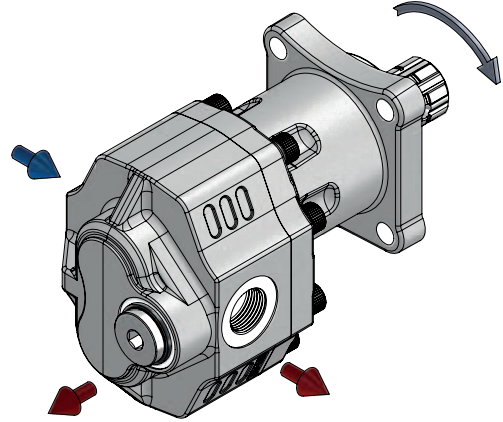
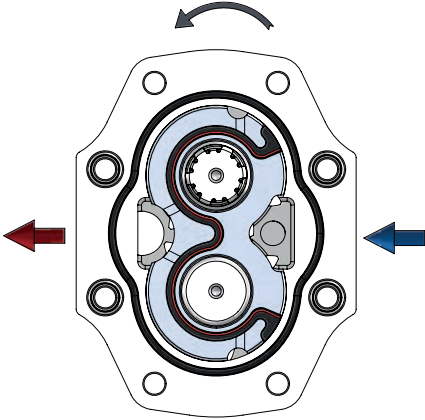
16



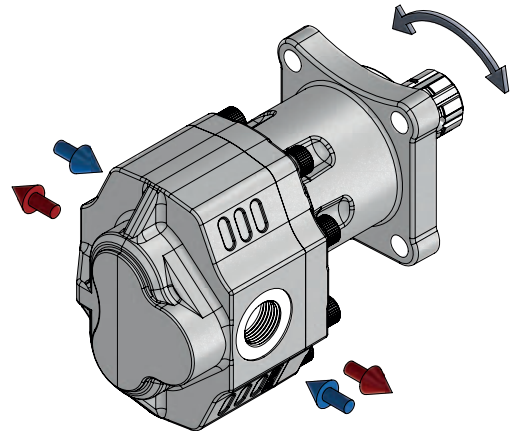
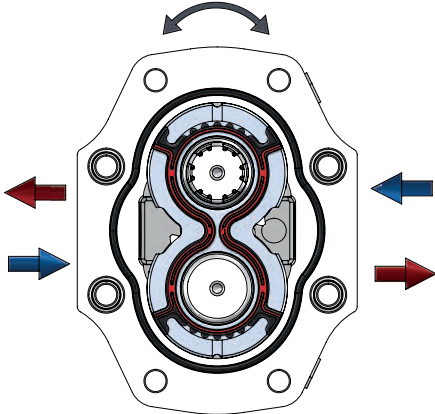
Sağ DönüŖlü Pompa
Clockwise Rotation Pump



Sol DönüŖlü Pompa
Anticlockwise Rotation Pump



Çift DönüŖlü Pompa
Bi-Directional Pump



KODLAMA SİSTEMİ | CODING SYSTEM

G

ÜRÜN TİPİ
PRODUCT TYPE

30

POMPA SERİSİ
PUMP SERIES

LİTRE
LITER

KAPAK TİPİ
COVER TYPE







ŞAFT TİPİ
SHAFT TYPE

DÖNÜŞ YÖNÜ
ROTATION














GİRİŞ-ÇIKIŞ DELİKLERİ
INLET-OUTLET PORTS

017	17.2 cm ³ /rev
027	27.3 cm ³ /rev
034	33.8 cm ³ /rev
043	43.8 cm ³ /rev
051	51.73 cm ³ /rev
061	61.95 cm ³ /rev
082	82.13 cm ³ /rev
100	102.50 cm ³ /rev
125	127.50 cm ³ /rev




Bk. Sayfa
See Page 16


S	4 Delikli ISO 4 Holes ISO	
U	3 Delikli UNI 3 Holes UNI	
F	3 Delikli F-UNI 3 Holes F-UNI	
D	6 Delikli D-UNI 6 Holes D-UNI	
K	4 Delikli K 4 Holes K	
B	2+4 SAE B 2+4 SAE B	

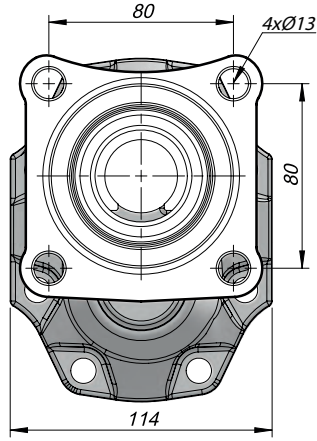
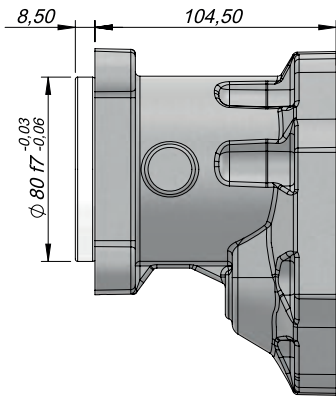
Bk. Sayfa
See Page 12

F1	8x32x36 DIN 5462	
F2	1-3/8" ASAE DIN 9611 85 mm	
F3	1-3/8" ASAE DIN 9611	
F4	6x21x25 21 UNI 222	
F5	13 Teeth SAE J498B	
F6	15 Teeth SAE J498B	
F8	1-3/8" ASAE DIN 9611 105 mm	
K1	6.35x6.35x25.4 Kamalı Şaft Keyed Shaft	
K2	4.79x4.76x32 Kamalı Şaft Keyed Shaft	
K3	6.35x6.35x31.8 Kamalı Şaft Keyed Shaft	
K4	6x6x25 Kamalı Şaft Keyed Shaft 18.50 mm	
K5	6x6x25 Kamalı Şaft Keyed Shaft 23.50 mm	
K6	1:8 Konik Kamalı Şaft Tapered Keyed Shaft	

Bk. Sayfa
See Page 14

1	SOL LEFT	
2	SAĞ RIGHT	
3	ÇİFT YÖNLÜ BI-DIRECTIONAL	

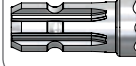
1	RAKORLU BAĞLANTI PIPE THREAD CONNECTION	
2	ADAPTÖRLÜ BAĞLANTI ADAPTER CONNECTION	
3	HİDROMOTOR HYDROMOTOR	



S



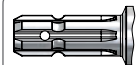
F1



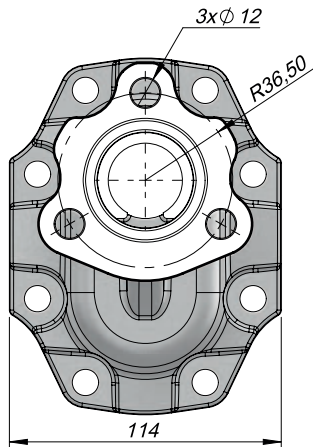
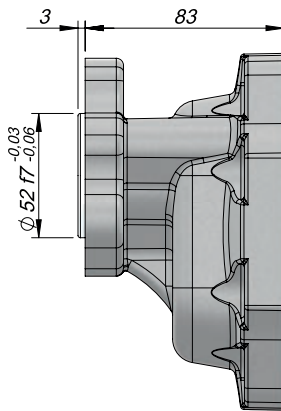
F2



F3



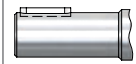
F8



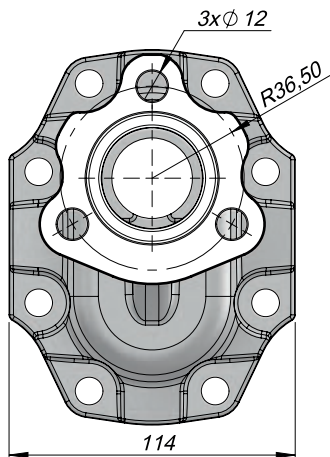
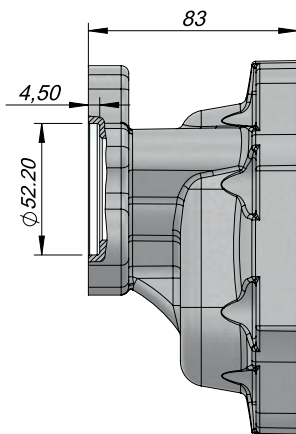
U



F4



K5

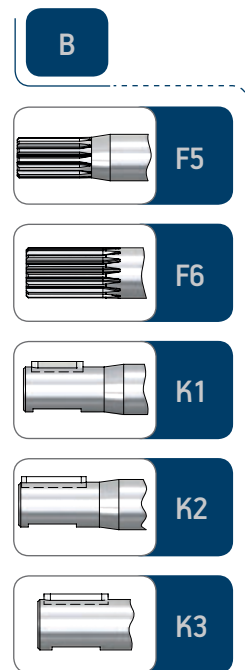
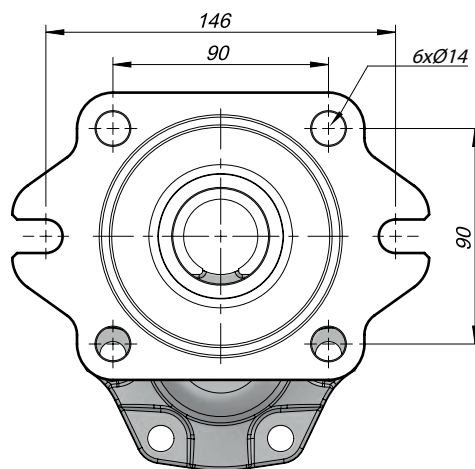
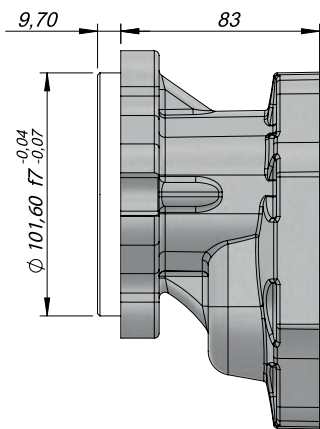
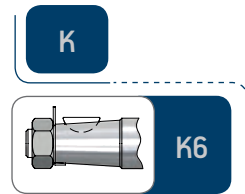
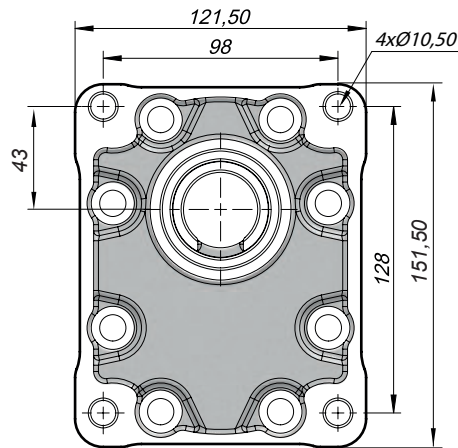
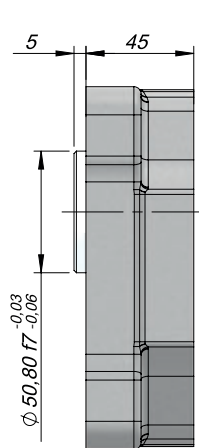
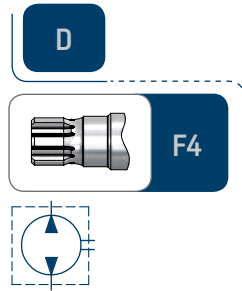
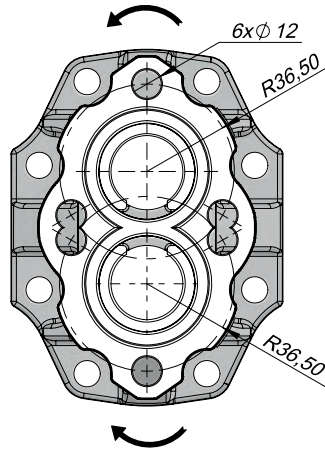
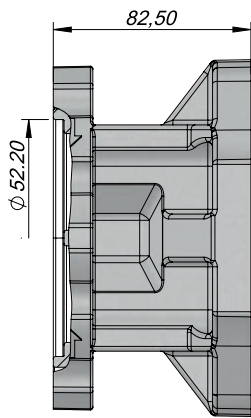


F



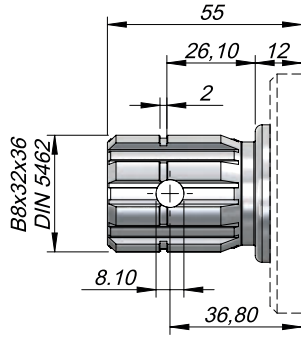
K4

ÖN KAPAKLAR | FRONT COVERS



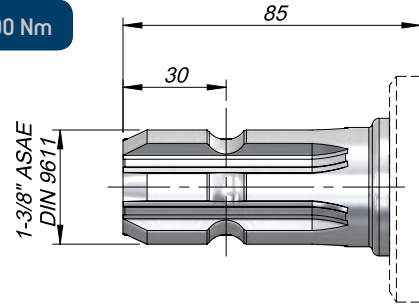
F1

MAX 300 Nm



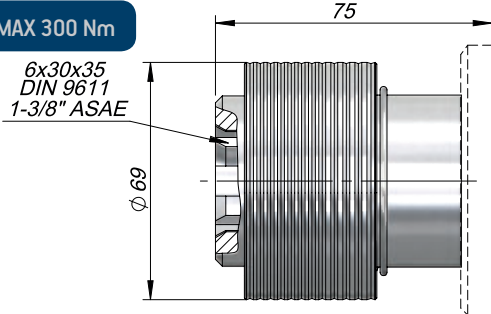
F2

MAX 300 Nm



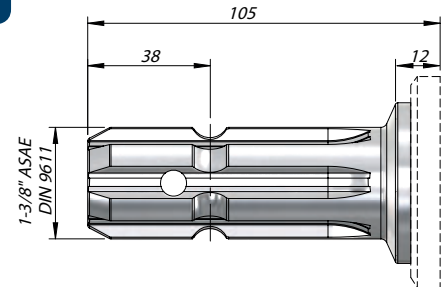
F3

MAX 300 Nm



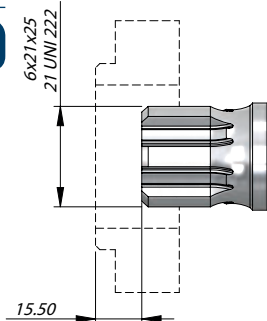
F8

MAX 300 Nm



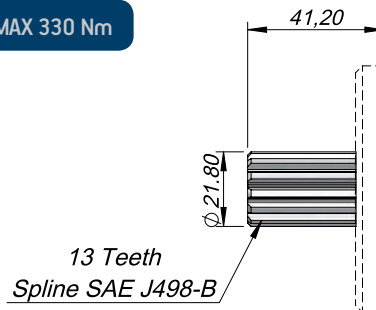
F4

MAX 360 Nm



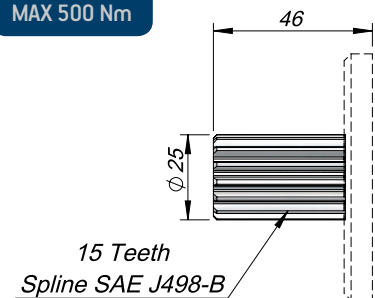
F5

MAX 330 Nm



F6

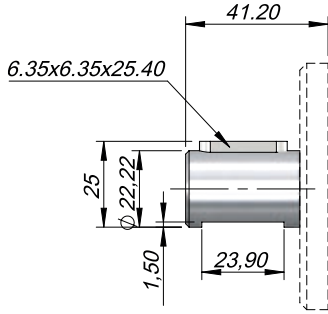
MAX 500 Nm



ŞAFT TIPLERİ | SHAFT TYPES

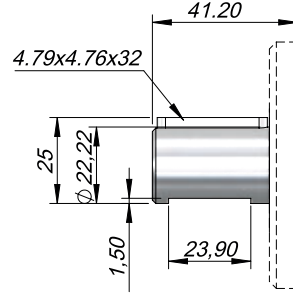
K1

MAX 200 Nm



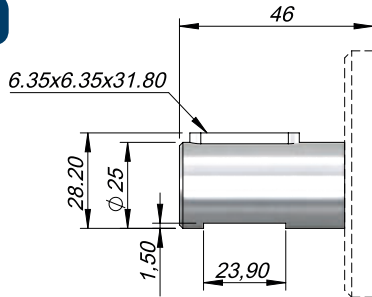
K2

MAX 200 Nm



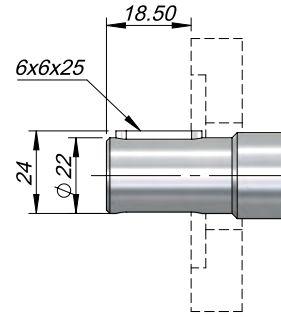
K3

MAX 280 Nm



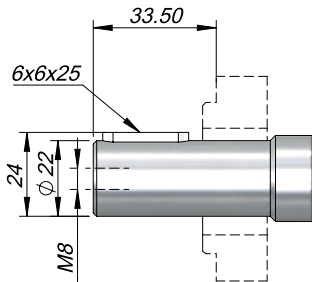
K4

MAX 145 Nm



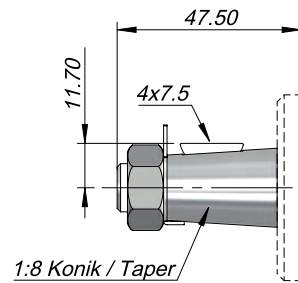
K5

MAX 145 Nm



K6

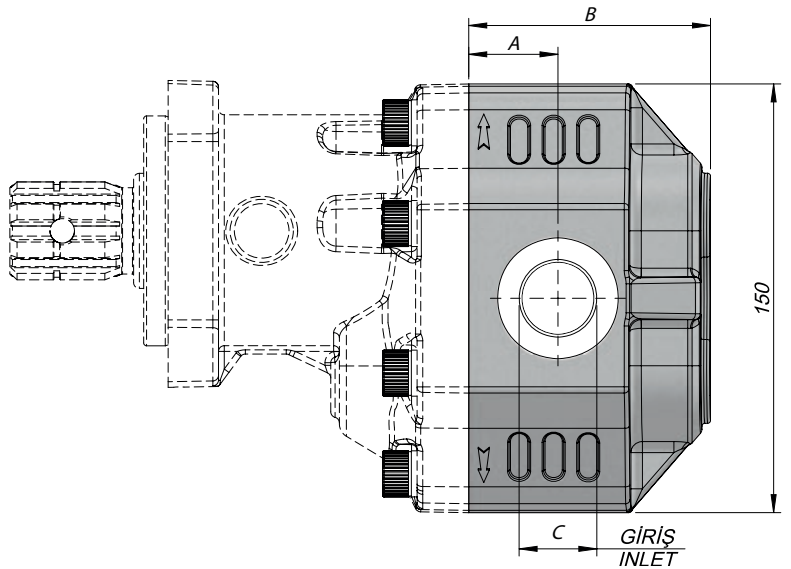
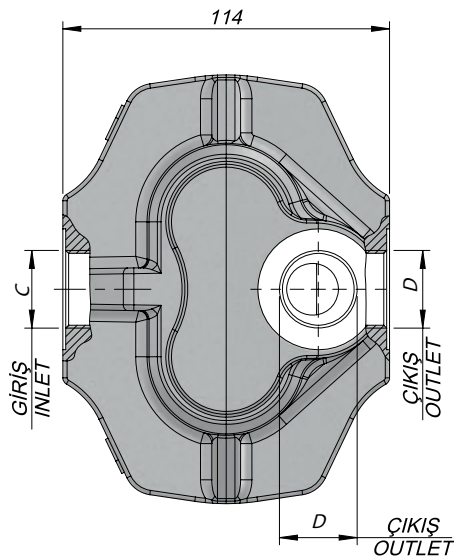
MAX 170 Nm





HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
≥200 bar	11	20/17	25 μ m
≤200 bar	12	21/18	40 μ m



İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet	Çıkış Outlet
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	D
17	300	310	320	2600	3000	300	20	67	G1/2"	G1/2"
27	290	300	310				25	73		
34	285	295	305	2300	2900		26	78	G3/4"	G3/4"
43	280	290	300				31	84		
51	230	260	280	2100	2600		31	89	G1"	G1"
61	225	240	260				37,5	97		
82	200	210	220	1700	1900		41,50	108	G1 1/4"	G1" G3/4" (Alternative)
100	190	200	220			55,50	121			
125	170	190	200	1600		59,50	137			

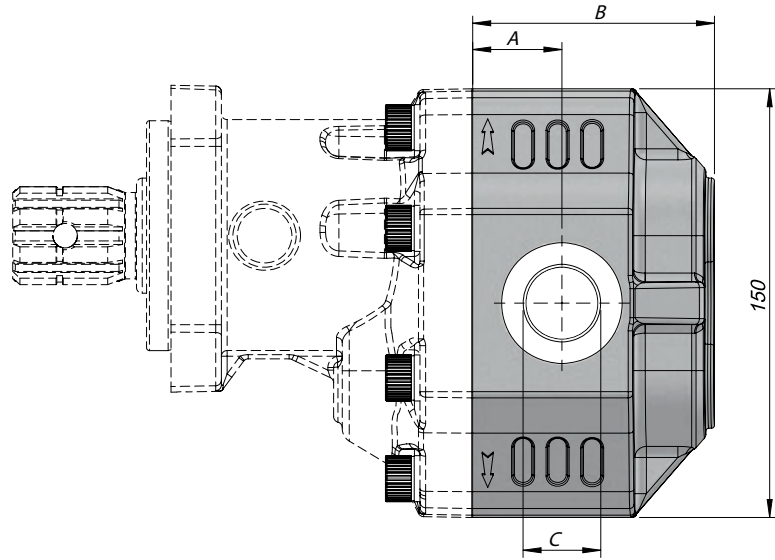
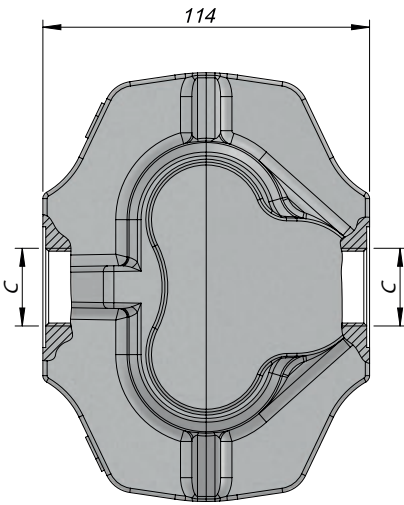
TEKNİK VERİLER | TECHNICAL DATA

ÇİFT YÖNLÜ RAKOR BAĞLANTILI DİŞLİ POMPA | BI-DIRECTIONAL GEAR PUMP WITH PIPE THREAD

Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
≥ 200 bar	11	20/17	25 μm
≤ 200 bar	12	21/18	40 μm



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



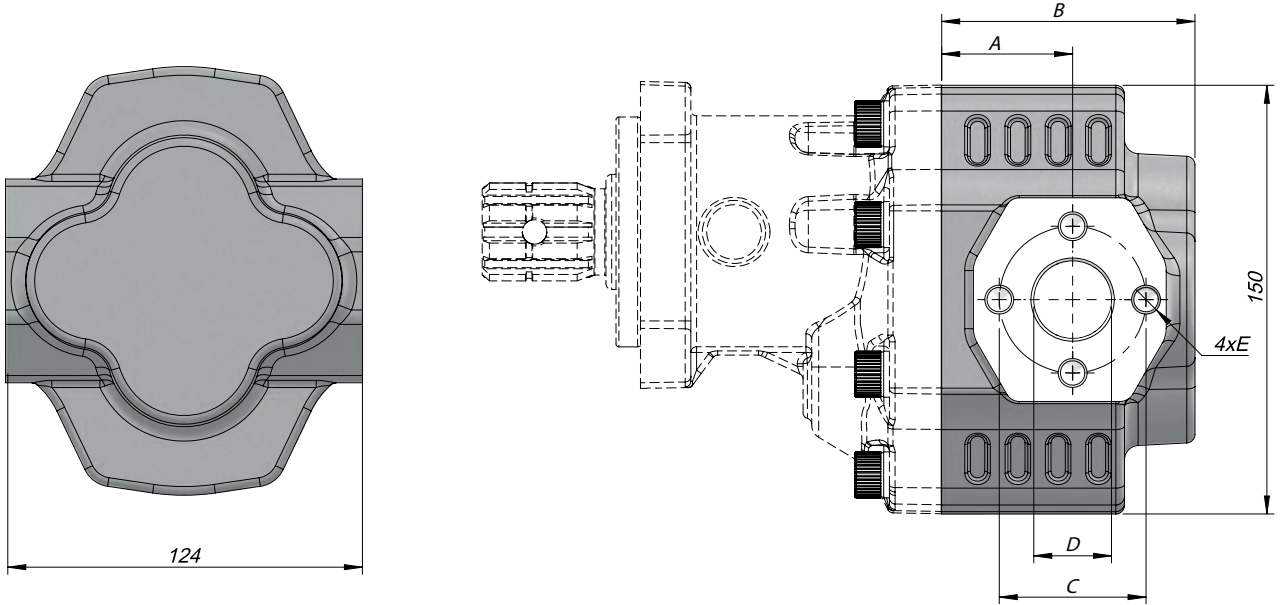
İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet	Çıkış Outlet
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	C
17	300	310	320	2600	3000	300	20	67	G1/2"	G1/2"
27	290	300	310				25	73		
34	285	295	305	2300	2900		26	78	G3/4"	G3/4"
43	280	290	300				31	84		
51	230	260	280	2100	2600					
61	225	240	260				2000	2100		
82	200	210	220	1700	1900				41,50	108
100	190	200	220				1600	1900	55,50	121
125	170	190	200	59,50	137					

TEK ve ÇİFT YÖNLÜ BAĞLANTILI DİŞLİ POMPA | SINGLE & BI-DIRECTIONAL GEAR PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar		
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt		
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C		
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter	
	NAS 1638	ISO 4406	βx=75	
≥200 bar	11	20/17	25 μm	
≤200 bar	12	21/18	40 μm	



TEK YÖNLÜ BAĞLANTILI DİŞLİ POMPA | SINGLE ROTATION GEAR PUMP

İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet			Çıkış Outlet		
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	D	E	C	D	E
22	300	310	320	2600	3000	300	35,5	75	51	25	M10	40	19	M8
34	285	295	305	2300	2900	300	39,5	82						
43	280	290	300	2100	2600	300	45,5	88						
51	230	260	280	2100	2600	300	42,5	93						

ÇİFT YÖNLÜ BAĞLANTILI DİŞLİ POMPA | BI-DIRECTIONAL GEAR PUMP

İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet			Çıkış Outlet		
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	D	E	C	D	E
22	300	310	320	2600	3000	300	35,5	75	51	25	M10	51	25	M10
34	285	295	305	2300	2900	300	39,5	82						
43	280	290	300	2100	2600	300	45,5	88						
51	230	260	280	2100	2600	300	42,5	93						

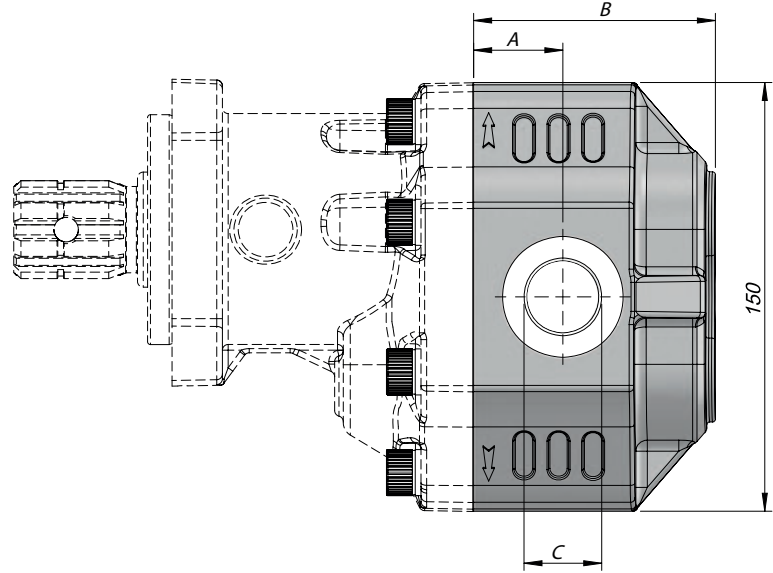
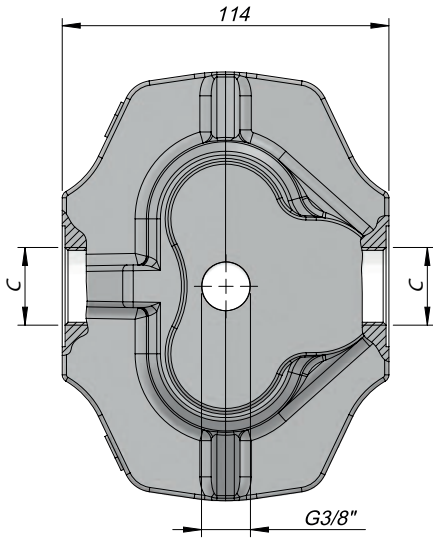
TEKNİK VERİLER | TECHNICAL DATA

ÇİFT YÖNLÜ RAKOR BAĞLANTILI HİDROMOTOR | BI-DIRECTIONAL HYDROMOTOR WITH PIPE THREAD

Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
≥ 200 bar	11	20/17	25 μm
≤ 200 bar	12	21/18	40 μm

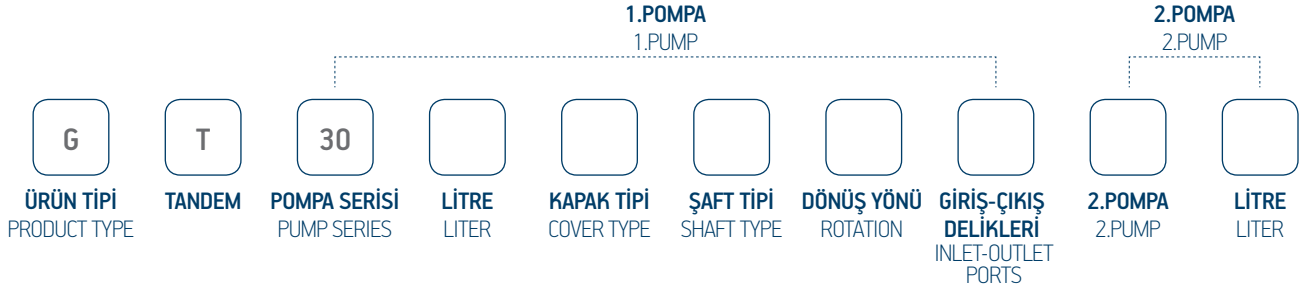


HİDROLİK SEMBOL
HYDRAULIC SYMBOL



İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet	Çıkış Outlet
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	C
17	300	310	320	2600	3000	300	20	67	G1/2"	G1/2"
27	290	300	310				25	73		
34	285	295	305	2300	2900		26	78	G3/4"	G3/4"
43	280	290	300	2100	2600		31	84		
51	230	260	280				31	89		
61	225	240	260	2000	2100		37,50	97	G1"	G1"
82	200	210	220	1700	1900		41,50	108		
100	190	200	220	1600			55,50	121	G1	G1
125	170	190	200				59,50	137	G1 1/4"	G1 1/4"

TANDEM POMPA KODLAMA SİSTEMİ | TANDEM PUMP CODING SYSTEM



*

027	27.3 cm ³ /rev	
034	33.8 cm ³ /rev	
036	35.8 cm ³ /rev	
038	38.2 cm ³ /rev	
043	43.8 cm ³ /rev	
061	61.95 cm ³ /rev	
082	82.13 cm ³ /rev	

Bk. Sayfa 21
See Page

1	SOL LEFT	
2	SAĞ RIGHT	
3	ÇİFT YÖNLÜ BI-DIRECTIONAL	

20	Serisi Series
30	Serisi Series

S	4 Delikli ISO 4 Holes ISO	
U	3 Delikli UNI 3 Holes UNI	
F	3 Delikli F-UNI 3 Holes F-UNI	
K	4 Delikli K 4 Holes K	
B	2+4 SAE B 2+4 SAE B	

Bk. Sayfa 12
See Page

F1	8x32x36 DIN 5462	
F2	1-3/8" ASAE DIN 9611	 85 mm
F3	1-3/8" ASAE DIN 9611	
F4	6x21x25 21 UNI 222	
F5	13 Teeth SAE J498B	
F6	15 Teeth SAE J498B	
F8	1-3/8" ASAE DIN 9611	 105 mm
K1	6.35x6.35x25.4 Kamalı Şaft Keyed Shaft	
K2	4.79x4.76x32 Kamalı Şaft Keyed Shaft	
K3	6.35x6.35x31.8 Kamalı Şaft Keyed Shaft	
K4	6x6x25 Kamalı Şaft Keyed Shaft	 18.50 mm
K5	6x6x25 Kamalı Şaft Keyed Shaft	 23.50 mm
K6	1:8 Konik Kamalı Şaft Tapered Keyed Shaft	

Bk. Sayfa 14
See Page

1	RAKORLU BAĞLANTI PIPE THREAD CONNECTION	
2	ADAPTÖRLÜ BAĞLANTI ADAPTER CONNECTION	

* Litrelere göre bağlantı tipleri tabloda gösterilmiştir.

* All liters are listed in tables as per connection types

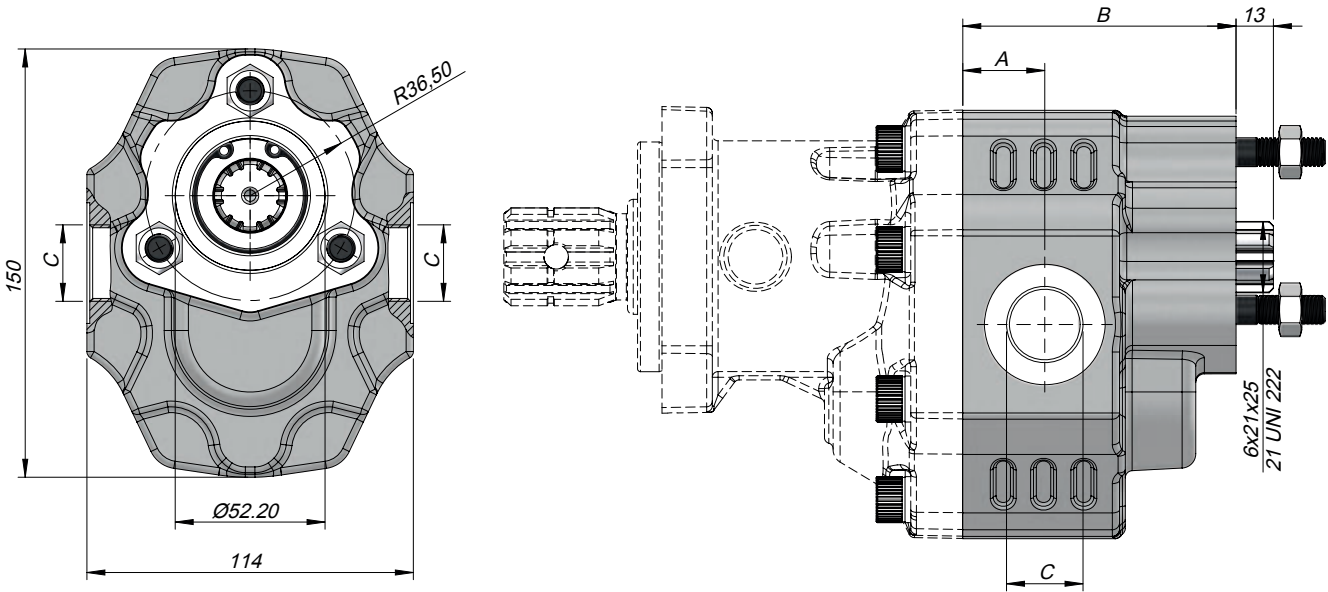
TEKNİK VERİLER | TECHNICAL DATA

TEK ve ÇİFT YÖNLÜ RAKOR BAĞLANTILI TANDEM DİŞLİ POMPA
SINGLE & BI-DIRECTIONAL TANDEM GEAR PUMP WITH PIPE THREAD

Giriş Basıncı Inlet Pressure		0.7 ÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
≥200 bar	11	20/17	25 µm
≤200 bar	12	21/18	40 µm



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



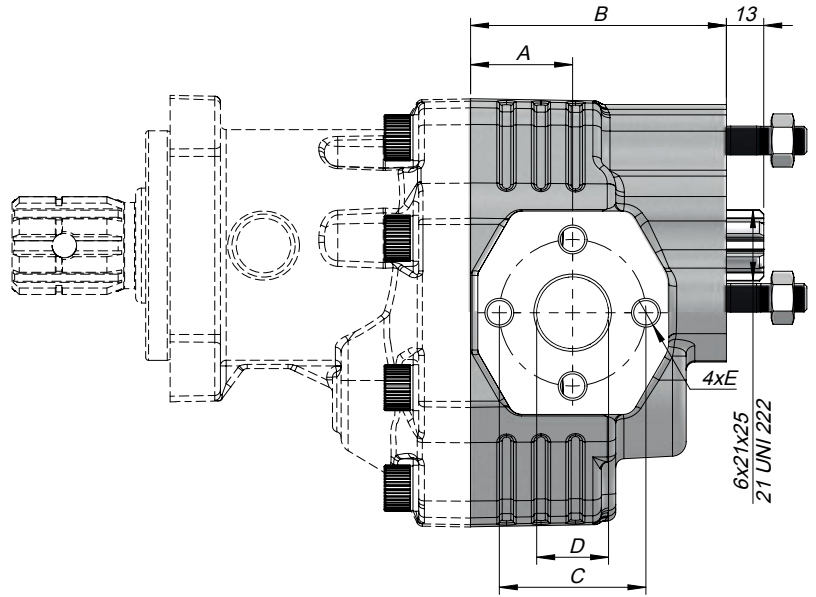
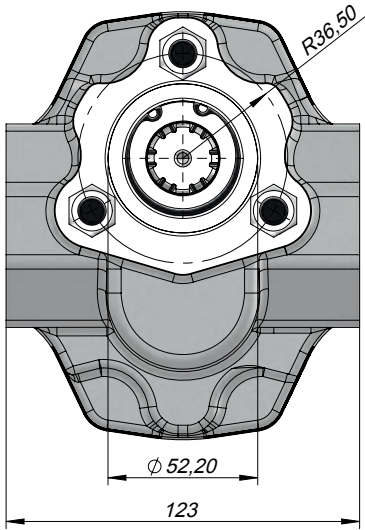
İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet	Çıkış Outlet
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	C
27	290	300	310	2600	3000	300	22	84	G1/2"	G1/2"
34	285	295	305	2300	2900		36	89	G3/4"	G3/4"
36							36	90,5		
38							36	91		
43							29	95		
61	225	240	260	2000	2100		34	108	G1"	G1"
82	200	210	220	1700	1900		42	119		

TEK ve ÇİFT YÖNLÜ ADAPTÖR BAĞLANTILI TANDEM DİŞLİ POMPA
SINGLE & BI-DIRECTIONAL TANDEM GEAR PUMP WITH ADAPTER CONNECTION



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

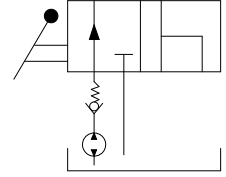
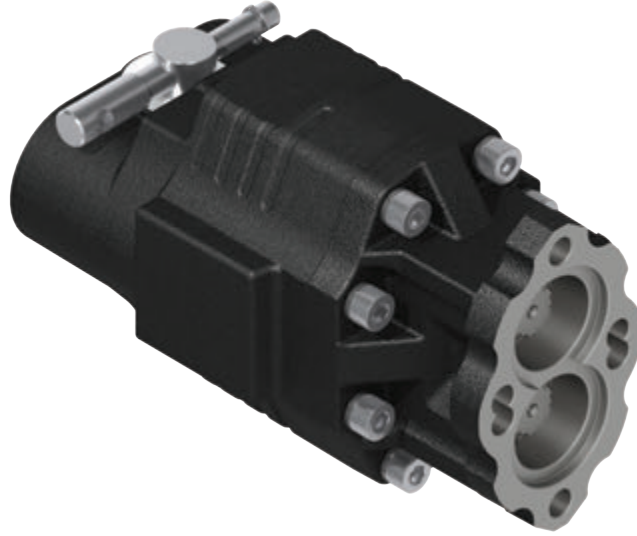
Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
≥ 200 bar	11	20/17	25 μm
≤ 200 bar	12	21/18	40 μm



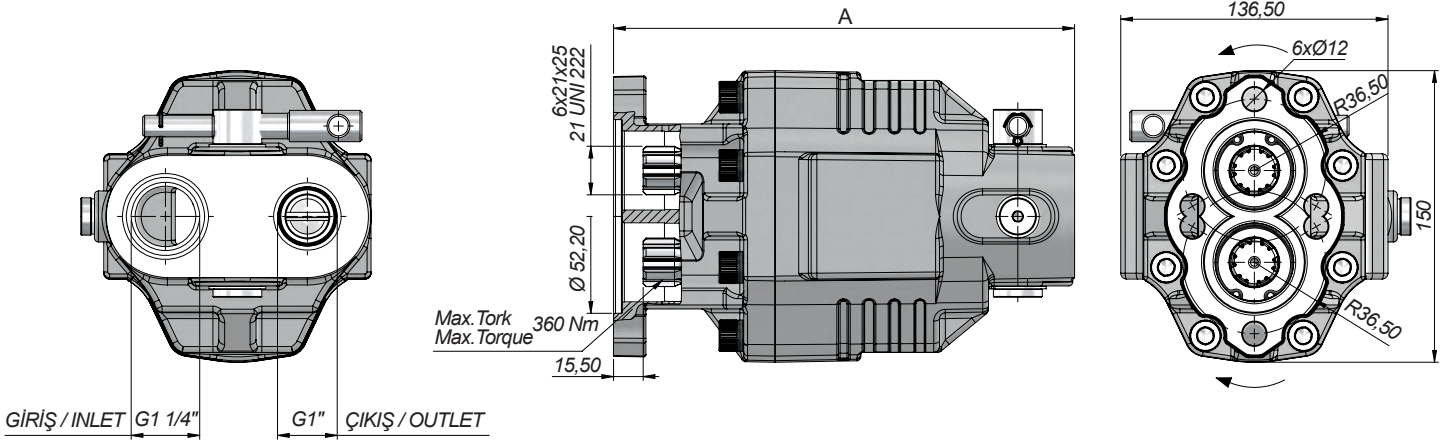
İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş / Çıkış Inlet / Outlet		
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	D	E
34	285	295	305	2300	2900	300	36	89	51	25	M10
36								90,5			
38								91			
43	280	290	300	2100	2600			95			

TEKNİK VERİLER | TECHNICAL DATA

6 DELİKLİ D-UNI ÇİFT YÖNLÜ PNÖMATİK VALF DİŞLİ POMPA
6 HOLES D-UNI BI-DIRECTIONAL GEAR PUMP WITH PNEUMATIC VALVE



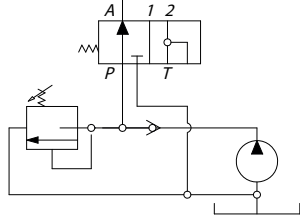
HİDROLİK SEMBOL
HYDRAULIC SYMBOL



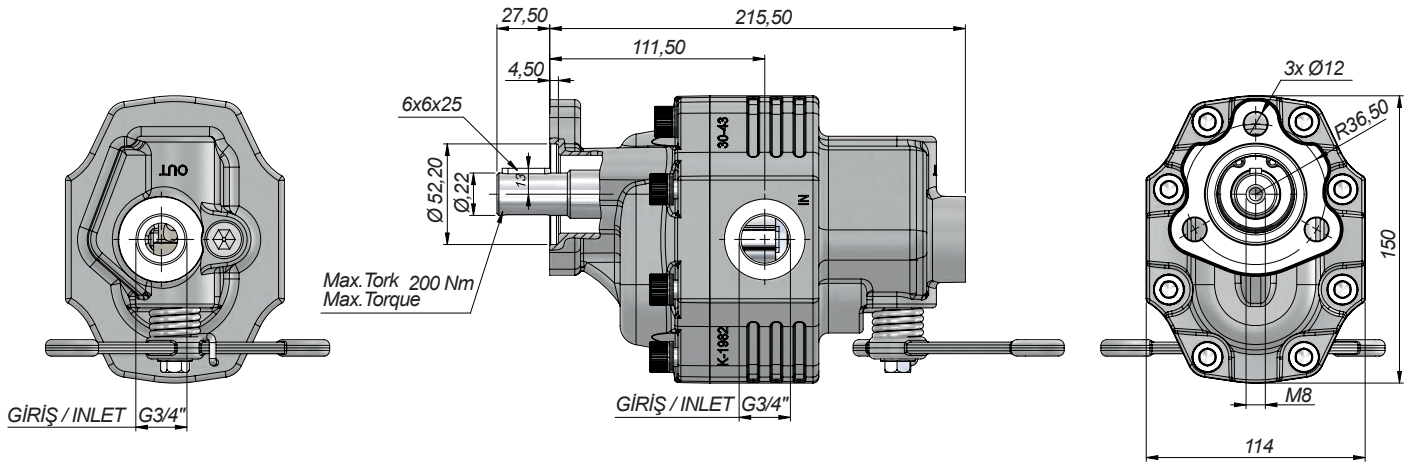
Kod Code	İletim Hacmi Displacement (cm ³ /rev)	A Ölçüsü Dimension A (mm)	Maks.Sürekli Basınç Max.Continuous Pressure (100%)(BAR)	Maks.Aralıklı Basınç Max.Intermittent Pressure (20 sec.max.)(BAR)	Maks.Anlık Basınç Max.Peak Pressure (6 sec.max.)(BAR)	Maks.Sürekli Hız Max.Continuous Speed (RPM)	Maks.Aralıklı Hız Max.Intermittent Speed (RPM)	Min. Hız Min.Speed (RPM)
G3043DF43MV	43,8	212,5	280	290	300	2100	2600	300
G3082DF43MV	82,13	235,5	200	210	220	1700	1900	

TEKNİK VERİLER | TECHNICAL DATA

**3 DELİKLİ F-UNI MEKANİK VALFLİ DİŞLİ POMPA
3 HOLES F-UNI GEAR PUMP WITH MECHANICAL VALVE**



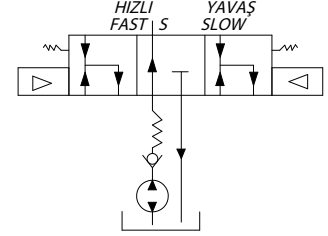
**HİDROLİK SEMBOL
HYDRAULIC SYMBOL**



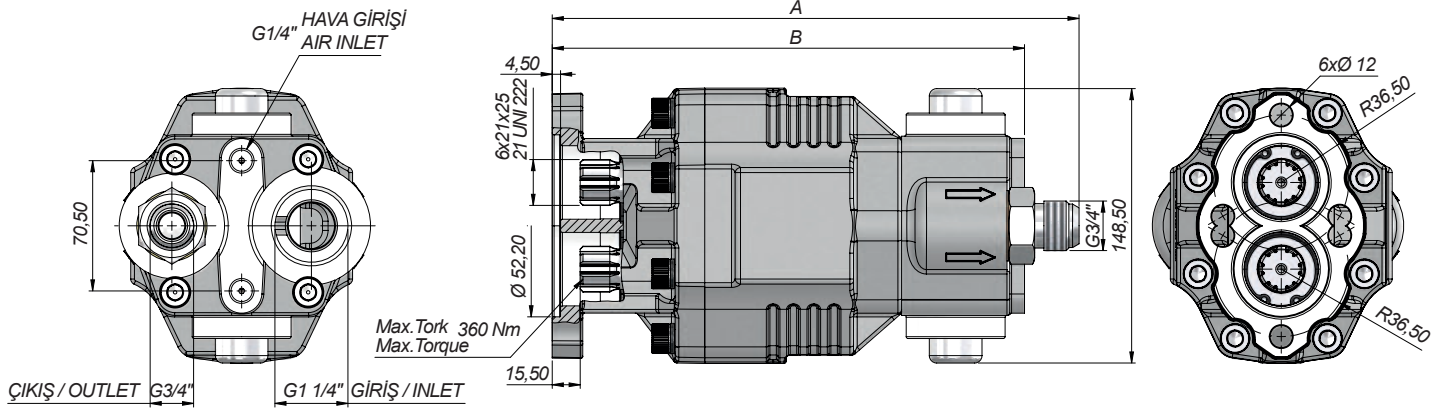
Kod Code	İletim Hacmi Displacement (cm ³ /rev)	Maks.Sürekli Basınç Max.Continuous Pressure (100%)(BAR)	Maks.Aralıklı Basınç Max.Intermittent Pressure (20 sec.max.)(BAR)	Maks.Anlık Basınç Max.Peak Pressure (6 sec.max.)(BAR)	Maks.Sürekli Hız Max.Continuous Speed (RPM)	Maks.Aralıklı Hız Max.Intermittent Speed (RPM)	Min. Hız Min.Speed (RPM)
G3043FK81MVK	43,8	280	290	300	2100	2600	300

TEKNİK VERİLER | TECHNICAL DATA

6 DELİKLİ D-UNI ÇİFT YÖNLÜ PNÖMATİK VALF DİŞLİ POMPA
6 HOLES D-UNI BI-DIRECTIONAL GEAR PUMP WITH PNEUMATIC VALVE

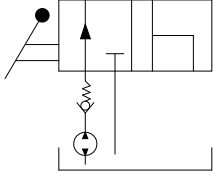


HİDROLİK SEMBOL
HYDRAULIC SYMBOL

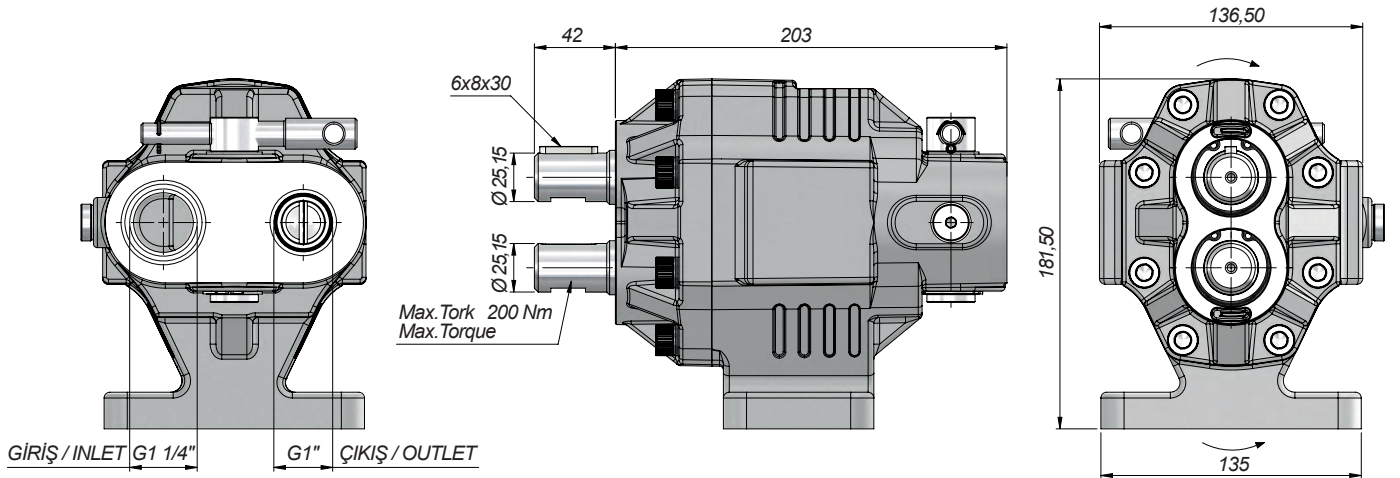
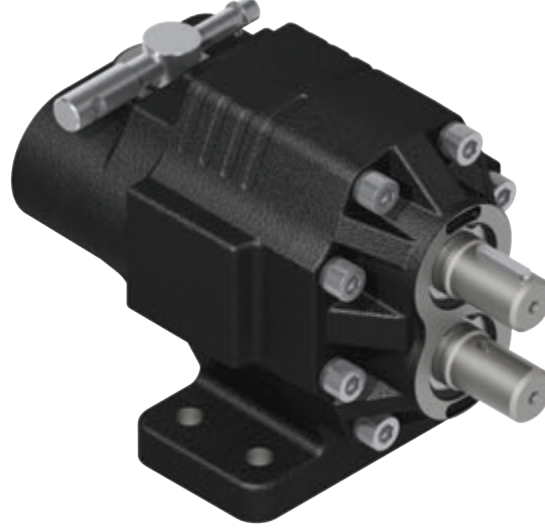


Kod Code	İletim Hacmi Displacement	A Ölçüsü Dimension A	B Ölçüsü Dimension B	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(mm)	(mm)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)
G30082DF43V	82,13	282,5	255	200	210	220	1700	1900	300
G30109DF43V	109	300,5	273	180	200	220	1600	1900	300

MEKANİK VALFLİ ÇİFT YÖNLÜ DİŞLİ POMPA
BI-DIRECTIONAL GEAR PUMP WITH MECHANICAL VALVE



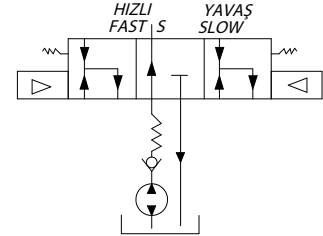
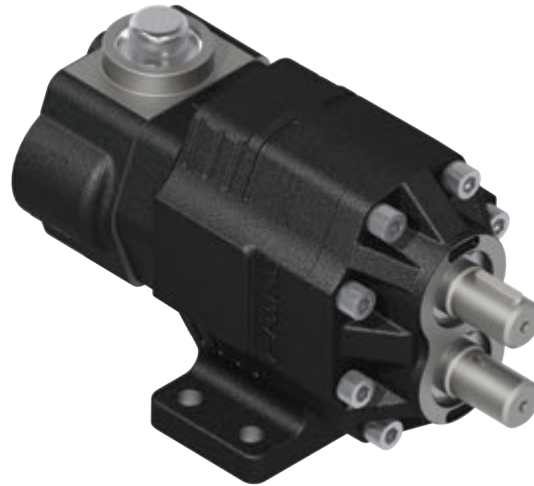
HİDROLİK SEMBOL
HYDRAULIC SYMBOL



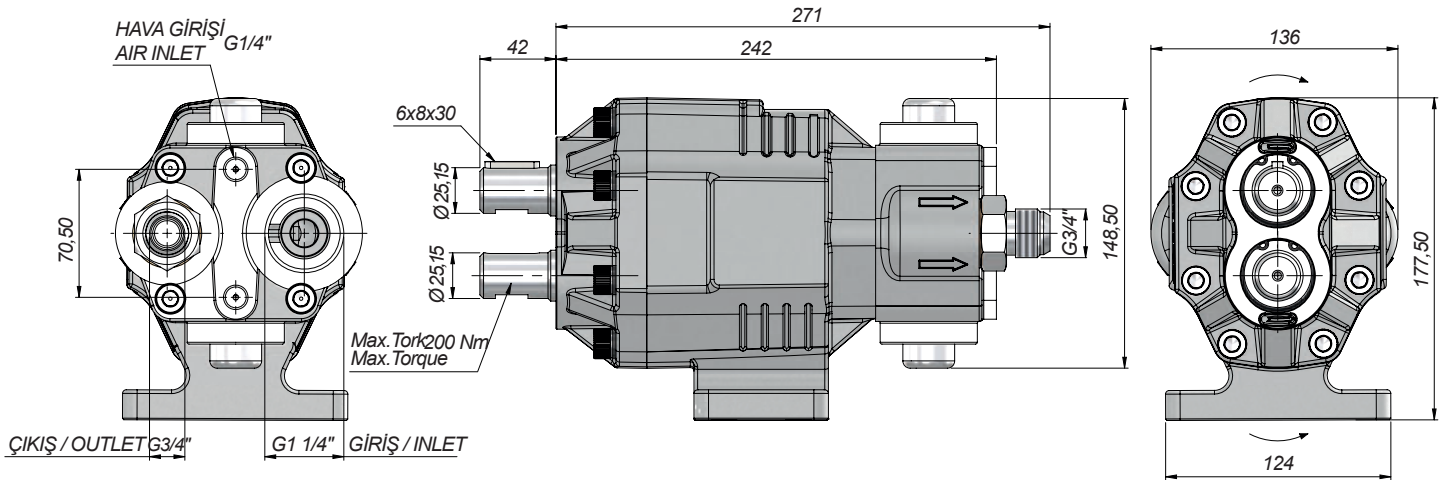
Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)
G3082VK73MVA	82,13	200	210	220	1700	1900	300

TEKNİK VERİLER | TECHNICAL DATA

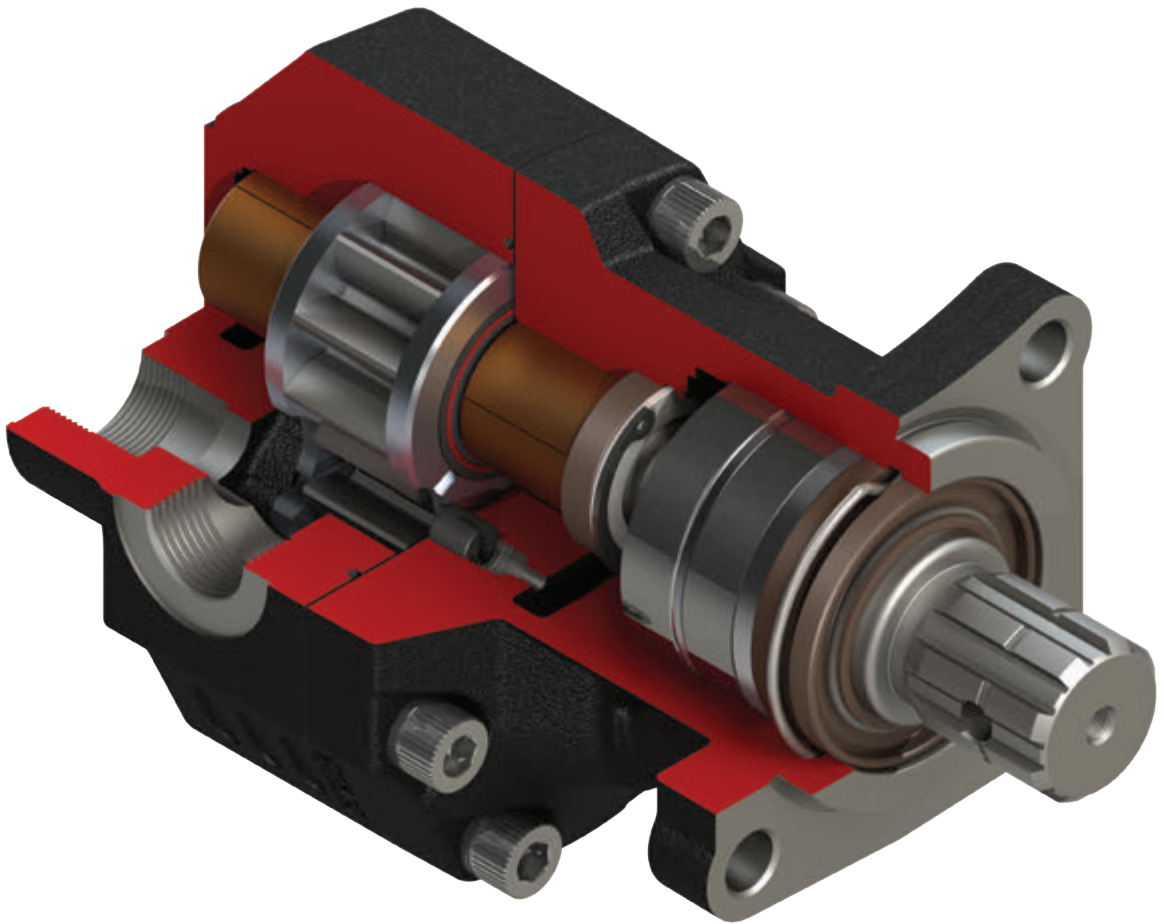
PNÖMATİK VALFLİ ÇİFT YÖNLÜ POMPA
BI-DIRECTIONAL GEAR PUMP WITH PNEUMATIC VALVE



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)
G30109VK73VA	110	180	200	220	1600	1900	300



KAZEL®

ERCAH GEAR PUMP

35 SERIES

Kodlama Sistemi
Coding System

30

Ön Kapaklar
Front Covers

31

Şaft Tipleri
Shaft Types

31

Teknik Veriler
Technical Data

32



KODLAMA SİSTEMİ | CODING SYSTEM

ERCAH SERIES
GEAR PUMP

G

ÜRÜN TİPİ
PRODUCT TYPE

35

POMPA SERİSİ
PUMP SERIES

LİTRE
LITER

KAPAK TİPİ
COVER TYPE

ŞAFT TİPİ
SHAFT TYPE

3

DÖNÜŞ YÖNÜ
ROTATION






GİRİŞ-ÇIKIŞ DELİKLERİ
INLET-OUTLET PORTS

060	63.5 cm ³ /rev
082	82.10 cm ³ /rev
090	90.20 cm ³ /rev
110	114.50 cm ³ /rev

Bk. Sayfa 32
See Page


S	4 Delikli ISO 4 Holes ISO	
U	3 Delikli UNI 3 Holes UNI	

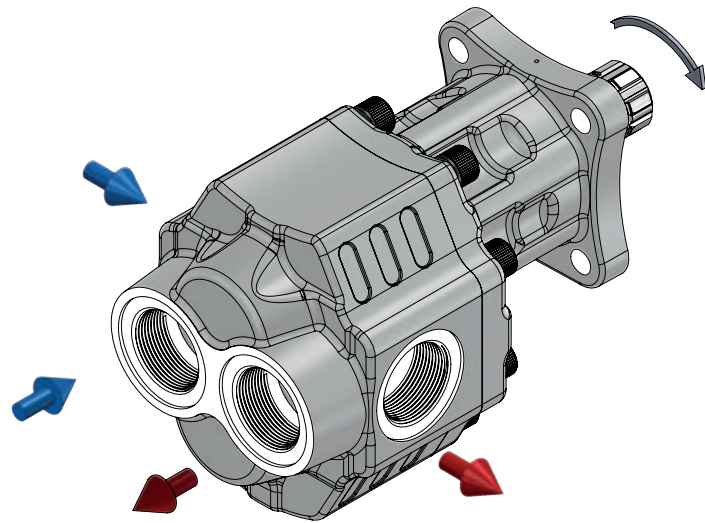
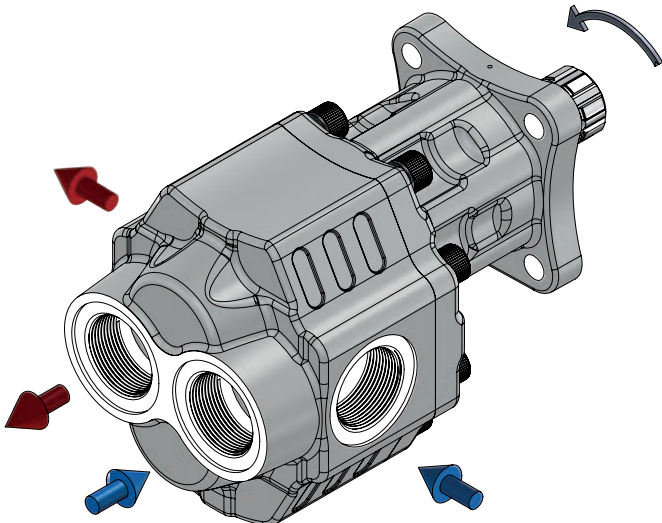
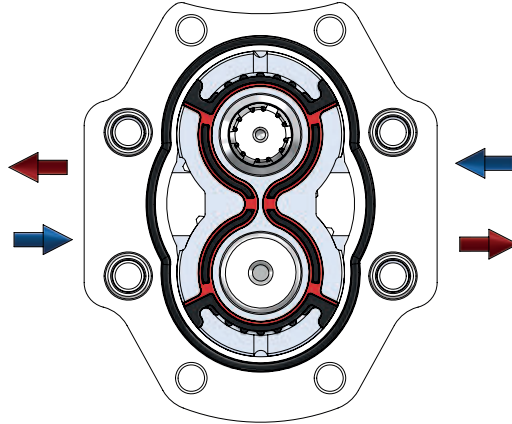
Bk. Sayfa 31
See Page

F1	8x32x36 DIN 5462	
F2	1-3/8" ASAE DIN 9611	 85 mm
F4	6x21x25 21 UNI 222	
F8	1-3/8" ASAE DIN 9611	 105 mm
K9	6x8x30 Kamalı Şaft Keyed Shaft	

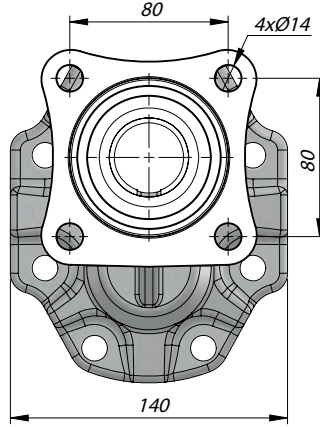
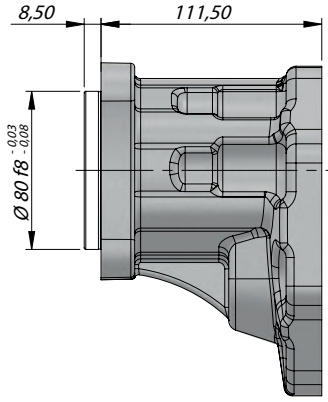
Bk. Sayfa 31
See Page

3	ÇİFT YÖNLÜ BI-DIRECTIONAL	
---	------------------------------	---

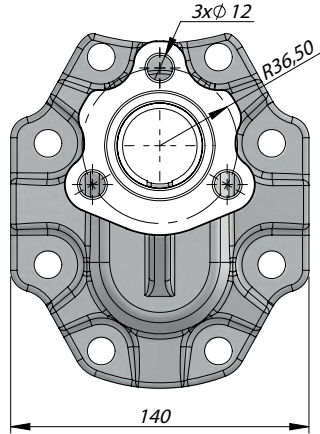
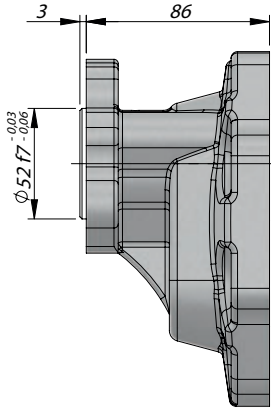
1	BORU DİŞ/RAKORLU PIPE THREAD/FITTING	
2	HİDROMOTOR HYDROMOTOR	



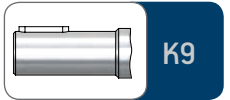
ÖN KAPAKLAR | FRONT COVERS



S



U

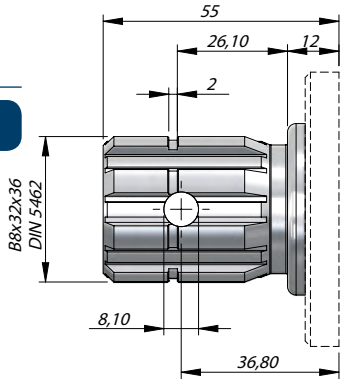


ERCAH SERIES
GEAR PUMP

ŞAFT TIPLERİ | SHAFT TYPES

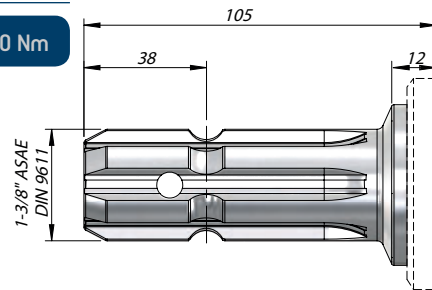
F1

MAX 300 Nm



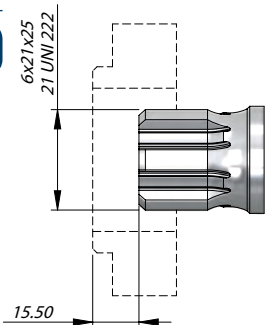
F8

MAX 300 Nm



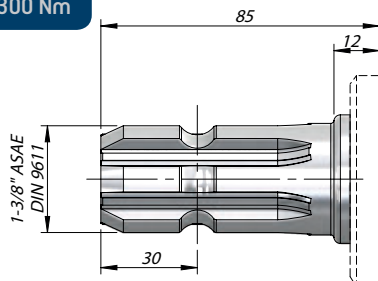
F4

MAX 360 Nm



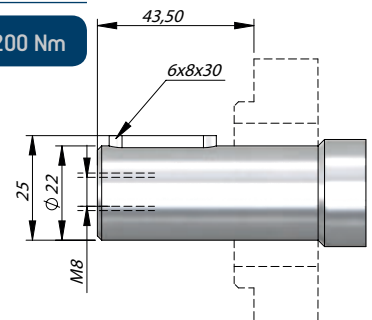
F2

MAX 300 Nm



K9

MAX 200 Nm



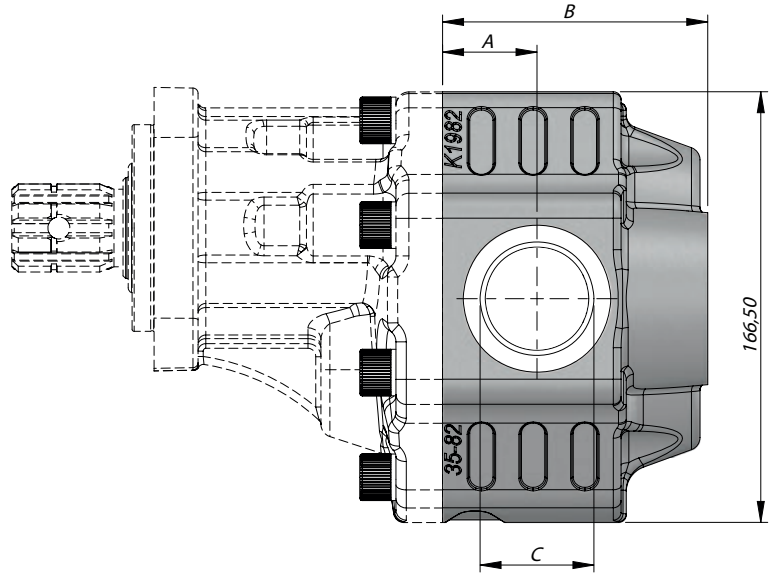
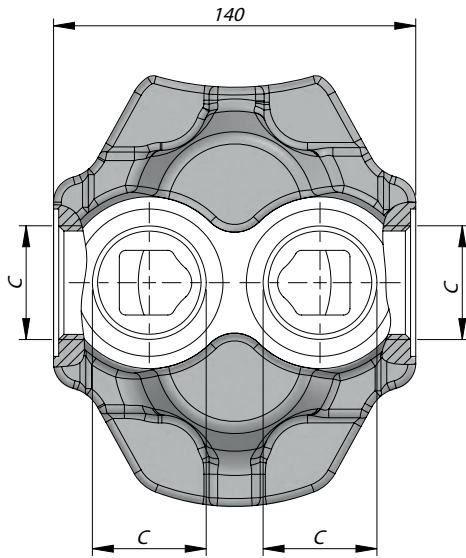
ÇİFT YÖNLÜ RAKOR BAĞLANTILI DİŞLİ POMPA | BI-DIRECTIONAL GEAR PUMP WITH PIPE THREAD

ERCAH SERIES
GEAR PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Giriş Basıncı Inlet Pressure		0.7÷ 3 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
≥200 bar	11	20/17	25 μ m
≤200 bar	12	21/18	40 μ m



İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet	Çıkış Outlet
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	C
60	250	270	290	1800	2500	300	34,5	93,5	G1"	C
82	240	260	280				36,5	102,5		
90	230	250	270				40,5	106,5	G1 1/4"	C
110	205	220	250				43	118,5		

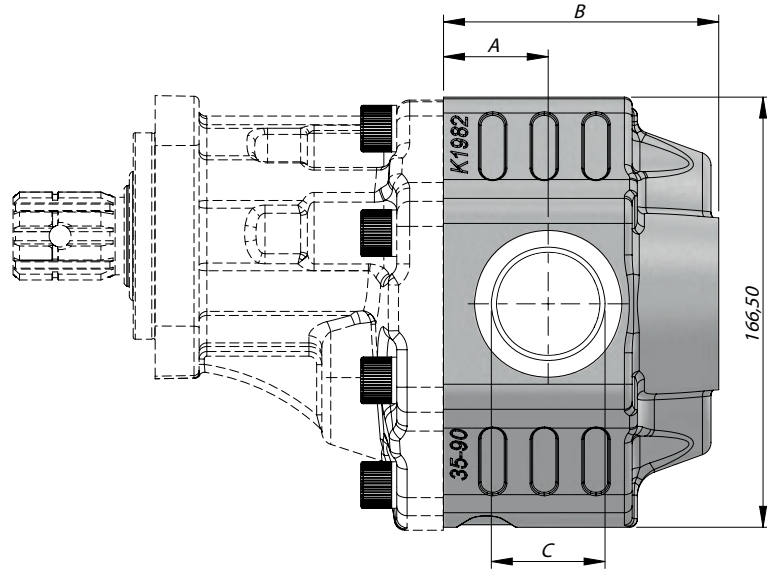
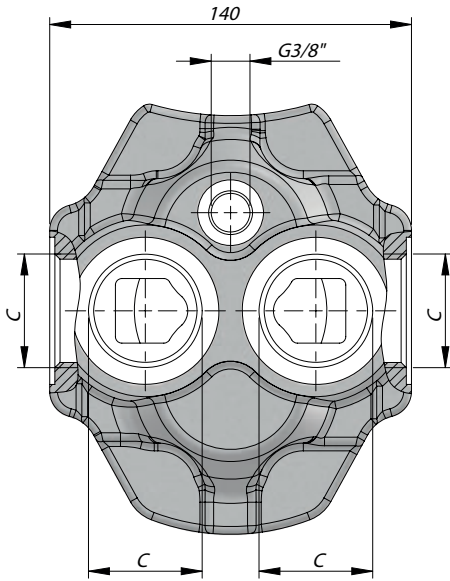
TEKNİK VERİLER | TECHNICAL DATA

ÇİFT YÖNLÜ RAKOR BAĞLANTILI HİDROMOTOR | BI-DIRECTIONAL HYDROMOTOR WITH PIPE THREAD

Giriş Basıncı Inlet Pressure		0.7÷ 3 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
	≥ 200 bar	11 20/17	25 μm
≤ 200 bar	12 21/18	40 μm	



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

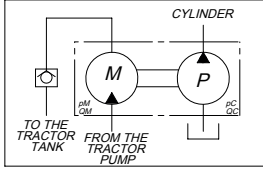


İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet	Çıkış Outlet
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	C
60	250	270	290	1800	2500	300	34,5	93,5	G1"	C
82	240	260	280				36,5	102,5		
90	230	250	270				40,5	106,5	G1 1/4"	
110	205	220	250				43	118,5		

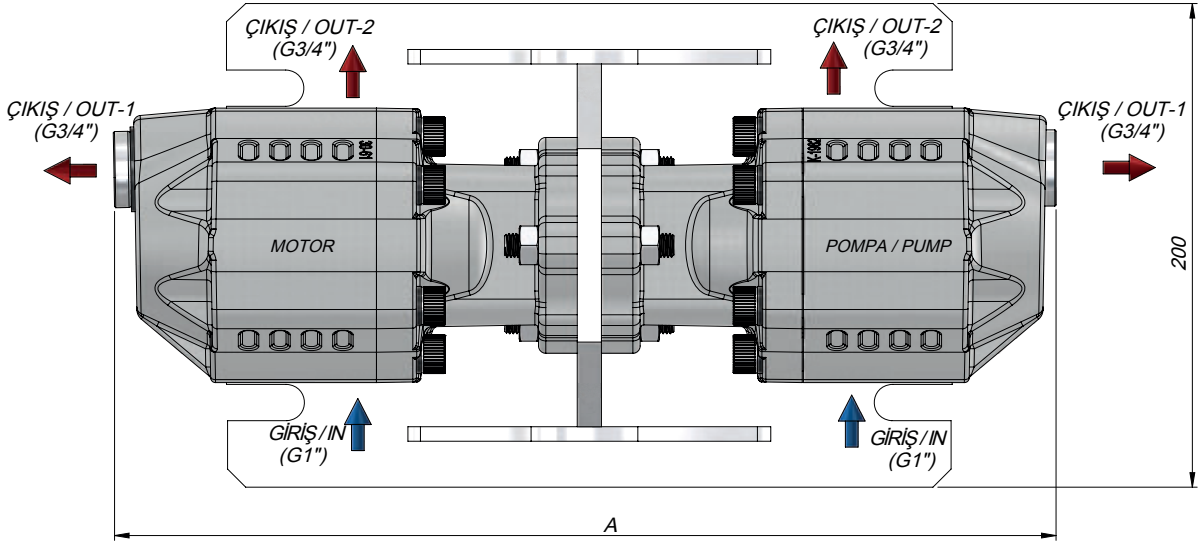
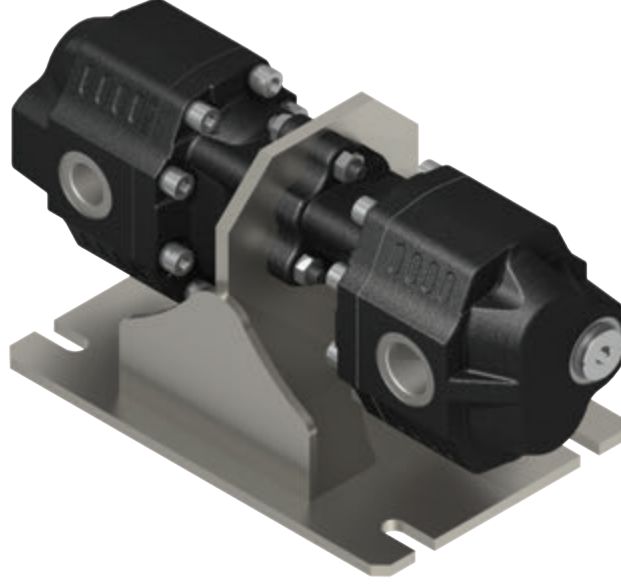
TEKNİK VERİLER | TECHNICAL DATA

ÇİFT YÖNLÜ RAKOR BAĞLANTILI DİŞLİ POMPA | BI-DIRECTIONAL GEAR PUMP WITH PIPE THREAD

ERCAH SERIES
GEAR PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



Kodu Code	Motor Motor	Pompa Pump	A
GM3061316111	UNI 61 cc BD	UNI 61 cc Left	385
GM3061317111	UNI 61 cc BD	UNI 73 cc Left	390
GM3073316111	UNI 73 cc BD	UNI 61 cc Left	390

KAZEL®

GANI GEAR PUMP

40 SERIES

Kodlama Sistemi
Coding System

37

Ön Kapaklar
Front Covers

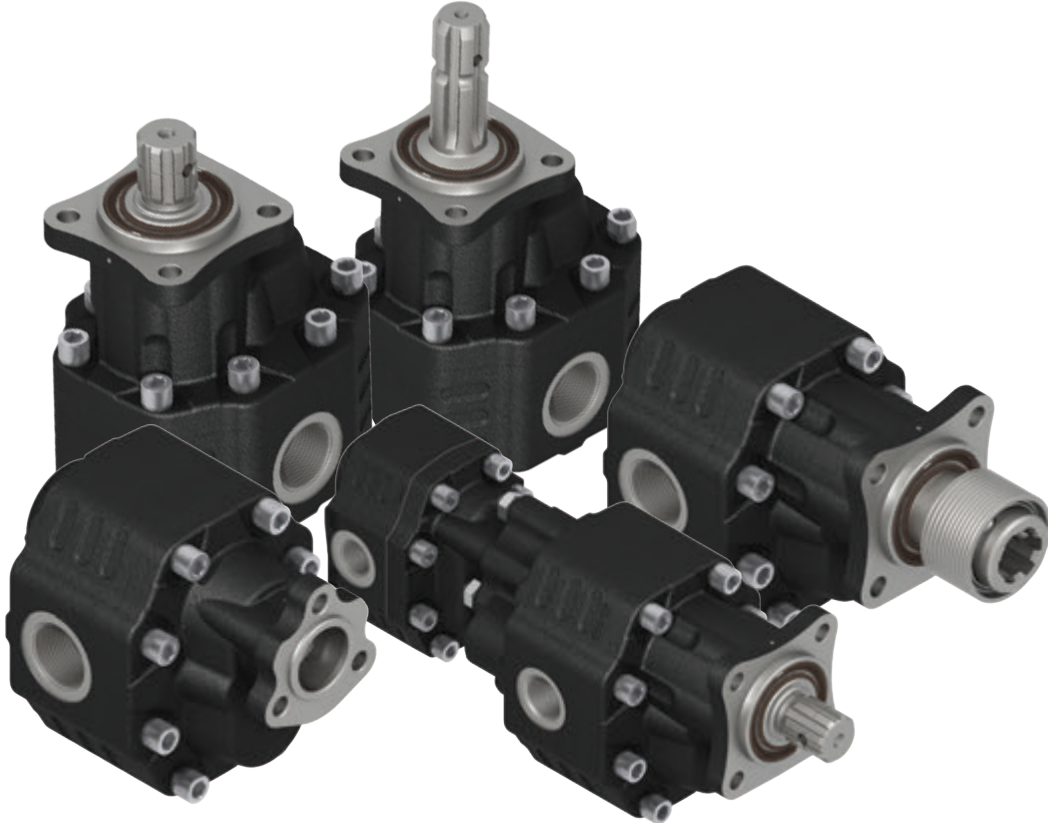
38

Şaft Tipleri
Shaft Types

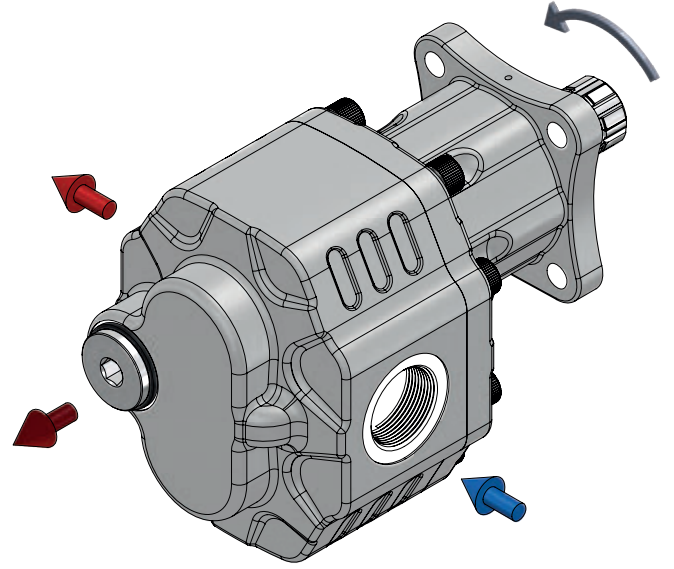
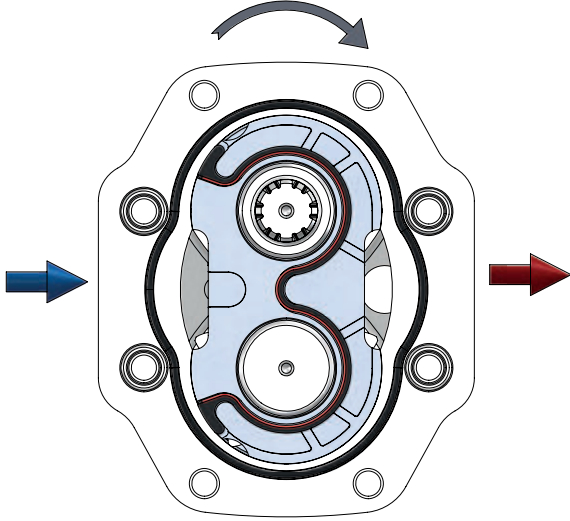
39

Teknik Veriler
Technical Data

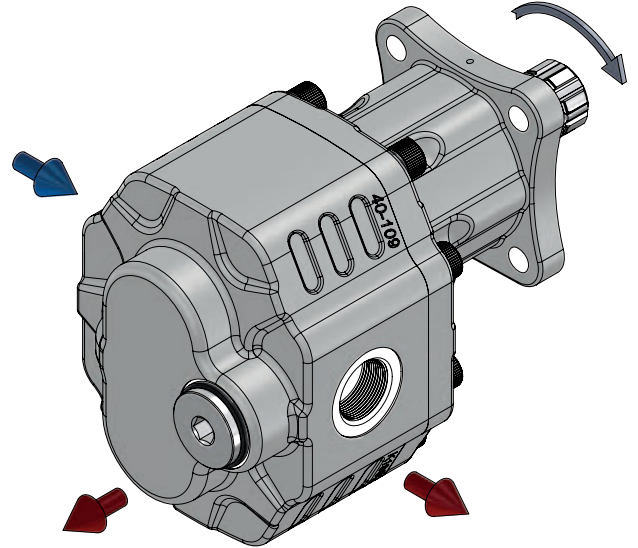
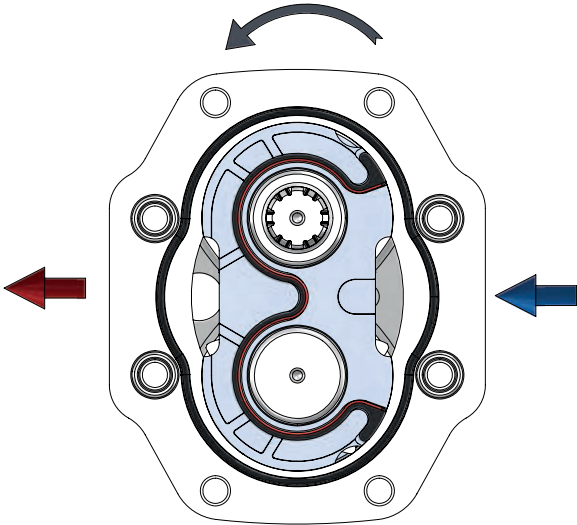
41



Sağ Dönüslü Pompa
Clockwise Rotation Pump



Sol Dönüslü Pompa
Anticlockwise Rotation Pump



KODLAMA SİSTEMİ | CODING SYSTEM

G

ÜRÜN TİPİ
PRODUCT TYPE

40

POMPA SERİSİ
PUMP SERIESLİTRE
LITERKAPAK TİPİ
COVER TYPEŞAFT TİPİ
SHAFT TYPEDÖNÜŞ YÖNÜ
ROTATION

1

GİRİŞ-ÇIKIŞ DELİKLERİ
INLET-OUTLET PORTS

063	63.2 cm ³ /rev
073	73.10 cm ³ /rev
087	87.25 cm ³ /rev
109	108.90 cm ³ /rev
133	132.95 cm ³ /rev
151	151.10 cm ³ /rev

Bk. Sayfa 41
See Page

S	4 Delikli ISO 4 Holes ISO	
U	3 Delikli UNI 3 Holes UNI	
R	4 Delikli SAE C 4 Holes SAE C	
C	2+4 Delikli SAE C 2+4 Holes SAE C	

Bk. Sayfa 38
See Page

F1	8x32x36 DIN 5462	
F2	1-3/8" ASAE DIN 9611 85 mm	
F3	1-3/8" ASAE DIN 9611	
F4	6x21x25 21 UNI 222	
F8	1-3/8" ASAE DIN 9611 105 mm	
F9	16 Teeth SAE J498B	
F10	14 Teeth SAE J498B	
K10	8x8x45 Kamalı Key Keyed Shaft	
K11	8x8x38.10 55.60 mm Kamalı Key Keyed Shaft	
K12	8x8x38.10 58.50 mm Kamalı Key Keyed Shaft	

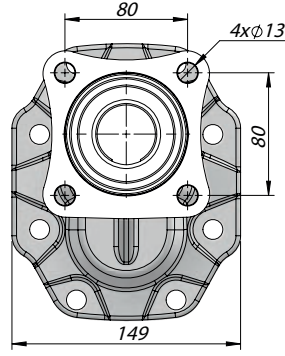
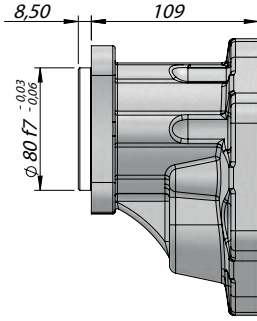
Bk. Sayfa 39
See Page

1	SOL LEFT	
2	SAĞ RIGHT	

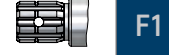
1	RAKORLU BAĞLANTI PIPE THREAD/FITTING	
---	---	--

ÖN KAPAKLAR | FRONT COVERS

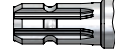
GANI SERIES
GEAR PUMP



S



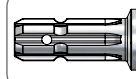
F1



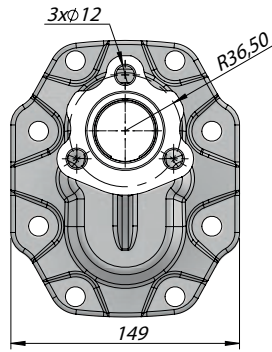
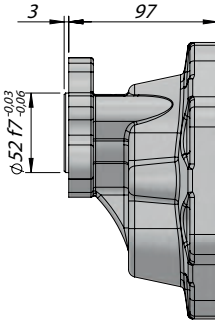
F2



F3



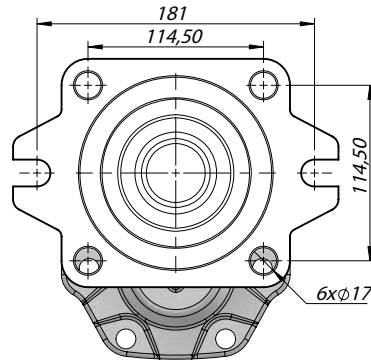
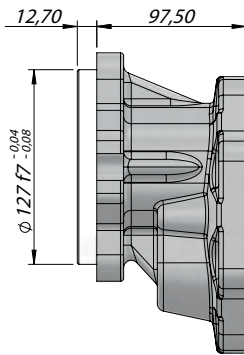
F8



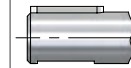
U



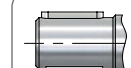
F4



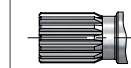
C



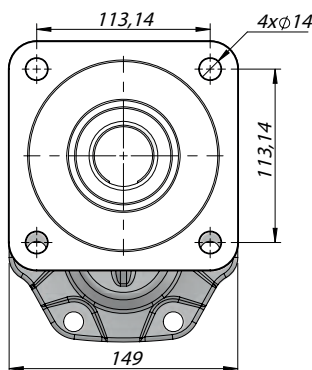
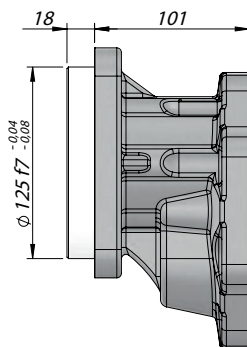
K10



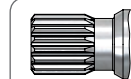
K11



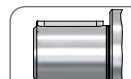
F10



R



F9

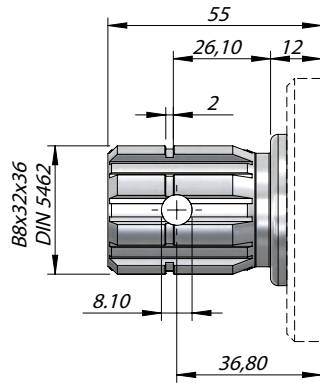


K12

ŞAFT TIPLERİ | SHAFT TYPES

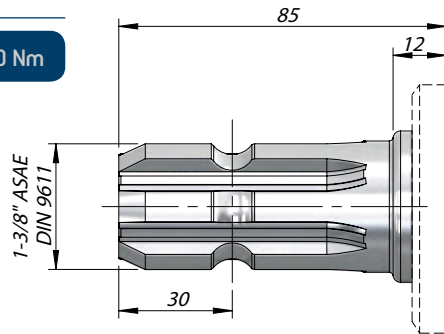
F1

MAX 350 Nm



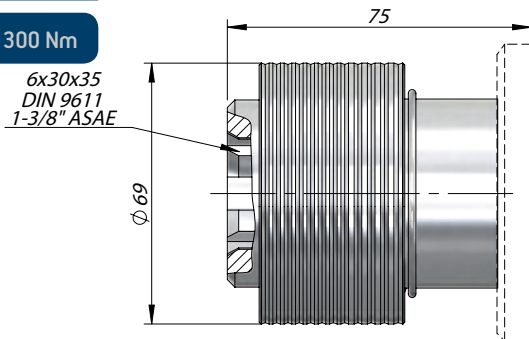
F2

MAX 350 Nm



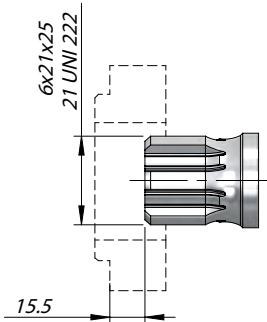
F3

MAX 300 Nm



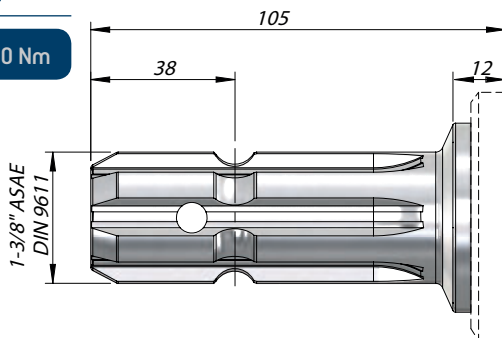
F4

MAX 400 Nm



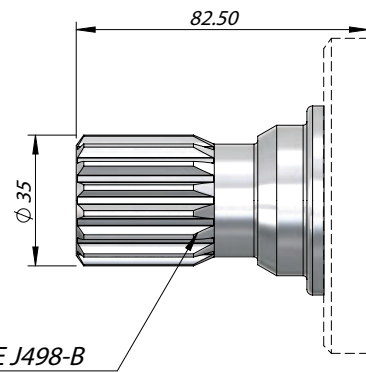
F8

MAX 350 Nm



F9

MAX 350 Nm



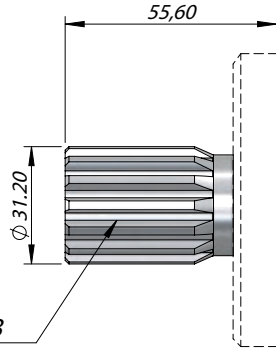
ŞAFT TIPLERİ | SHAFT TYPES

GANI SERIES
GEAR PUMP

F10

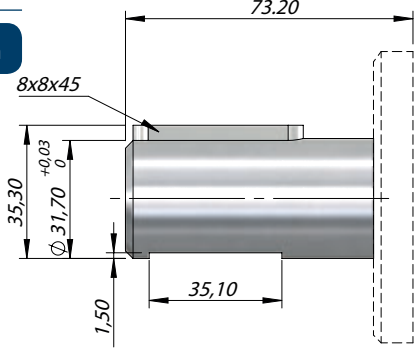
MAX 900 Nm

14 Teeth
Spline SAE J498-B



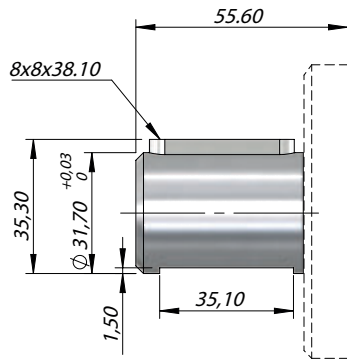
K10

MAX 600 Nm



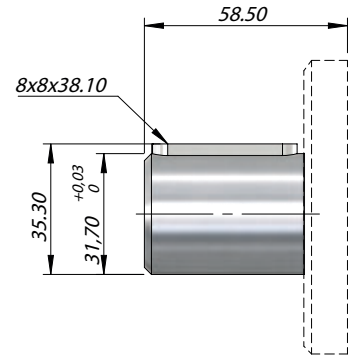
K11

MAX 600 Nm



K12

MAX 600 Nm



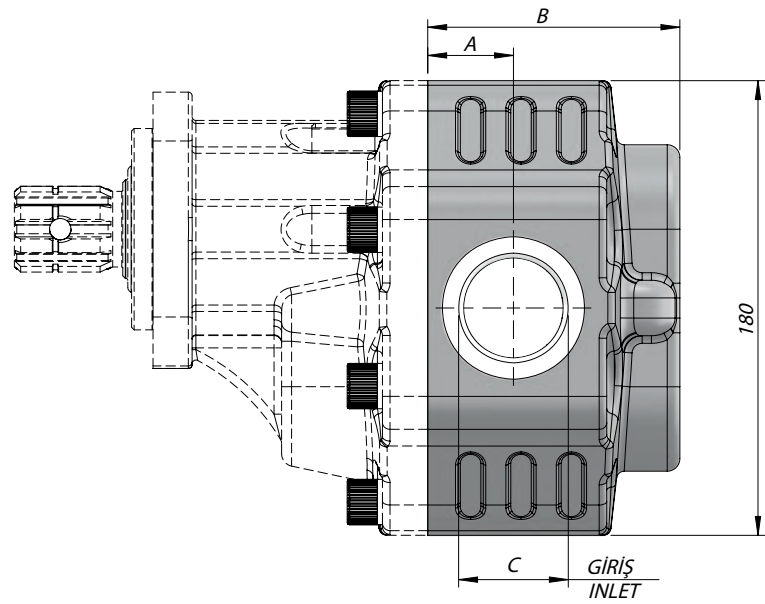
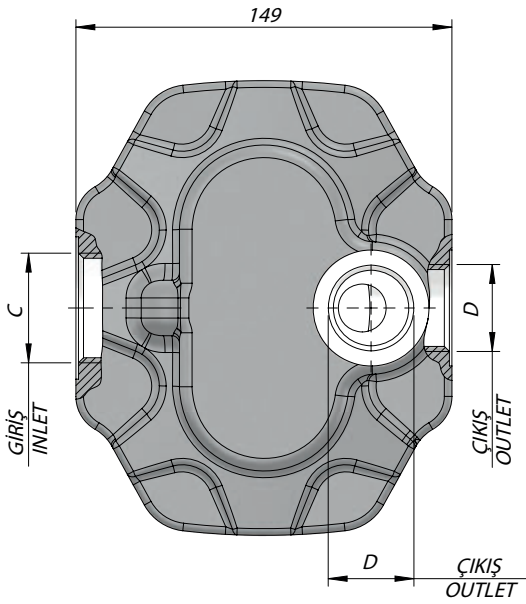
TEKNİK VERİLER | TECHNICAL DATA

TEK YÖNLÜ RAKOR BAĞLANTILI DİŞLİ POMPA | SINGLE ROTATION GEAR PUMP WITH PIPE THREAD

Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
	≥ 200 bar	11	20/17
≤ 200 bar	12	21/18	40 μm

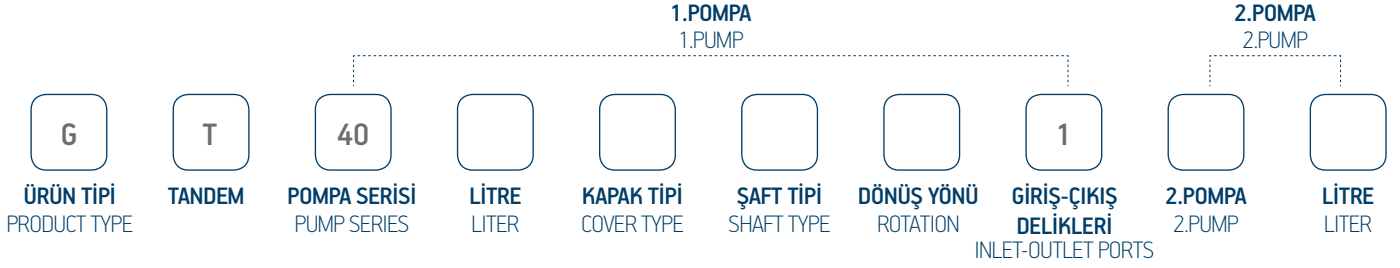


HİDROLİK SEMBOL
HYDRAULIC SYMBOL



İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet	Çıkış Outlet
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	D
63	280	310	330	1800	2800	300	30	91	G1"	G3/4"
73	275	300	320				30	95		
87	265	285	300				34	100	G1 1/4"	
109	240	260	285				40	108		
133	230	250	270	1500	2500	300	41	117	G1 1/2"	
151	180	200	230				43,50	123		

TANDEM POMPA KODLAMA SİSTEMİ | TANDEM PUMP CODING SYSTEM



063	63.2 cm ³ /rev
073	73.10 cm ³ /rev
087	87.25 cm ³ /rev
109	108.90 cm ³ /rev
133	132.95 cm ³ /rev
151	151.10 cm ³ /rev

Bk. Sayfa 43
See Page

S	4 Delikli ISO 4 Holes ISO	
U	3 Delikli UNI 3 Holes UNI	
R	2+4 Delikli SAE C 2+4 Holes SAE C	
C	4 Delikli SAE C 4 Holes SAE C	

Bk. Sayfa 38
See Page

1	SOL LEFT	
2	SAĞ RIGHT	

1	BORU DIŞ/RAKORLU PIPE THREAD/FITTING	
---	---	--

20	Serisi Series
30	Serisi Series
40	Serisi Series

F1	8x32x36 DIN 5462	
F2	1-3/8" ASAE DIN 9611 85 mm	
F3	1-3/8" ASAE DIN 9611	
F4	6x21x25 21 UNI 222	
F8	1-3/8" ASAE DIN 9611 105 mm	
F9	16 Teeth SAE J498B	
F10	14 Teeth SAE J498B	
K10	8x8x45 Kamalı Key Keyed Shaft	
K11	8x8x38.10 55.60 mm Kamalı Key Keyed Shaft	
K12	8x8x38.10 58.50 mm Kamalı Key Keyed Shaft	

Bk. Sayfa 39
See Page

TEKNİK VERİLER | TECHNICAL DATA

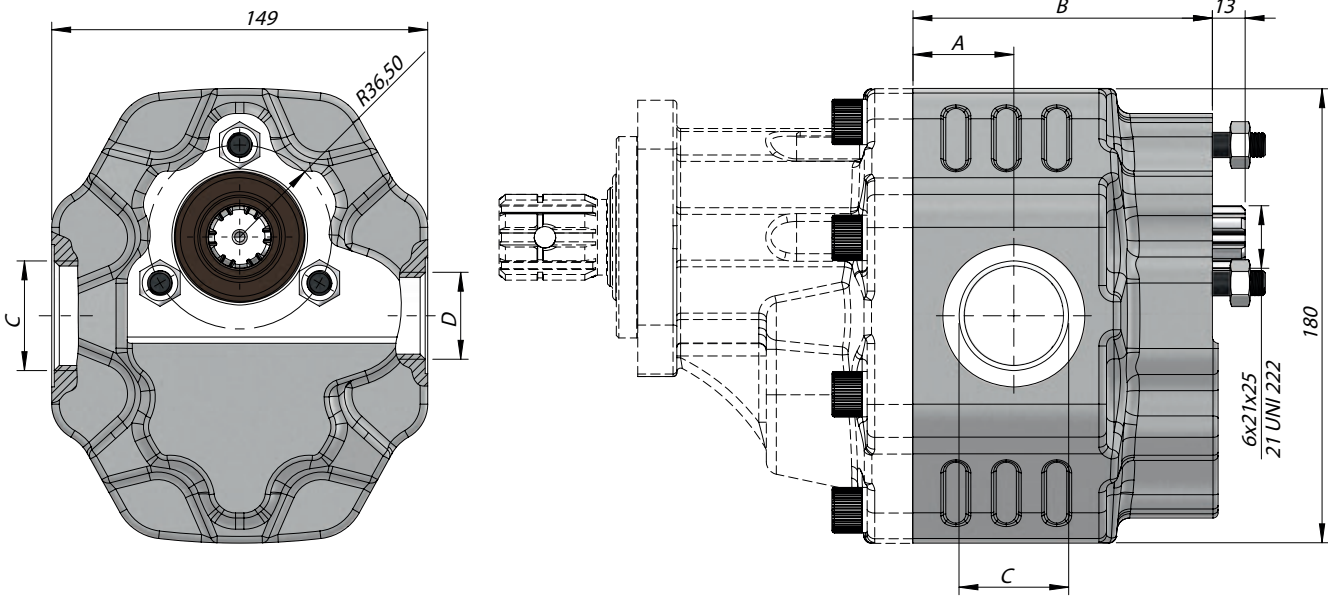
TEK YÖNLÜ RAKOR BAĞLANTILI TANDEM DİŞLİ POMPA | SINGLE ROTATION TANDEM GEAR PUMP WITH PIPE THREAD

Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination	Filtre Filter	
	NAS 1638	ISO 4406	$\beta_x=75$
≥200 bar	11	20/17	25 μ m
≤200 bar	12	21/18	40 μ m



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

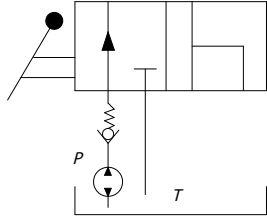
GANI SERIES
GEAR PUMP



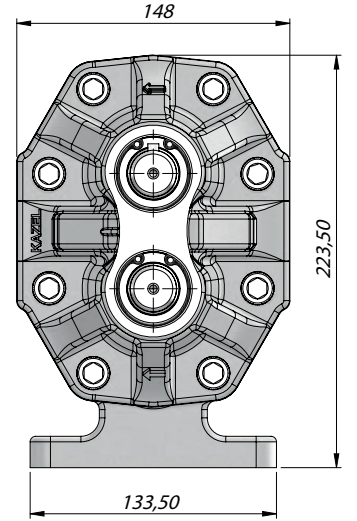
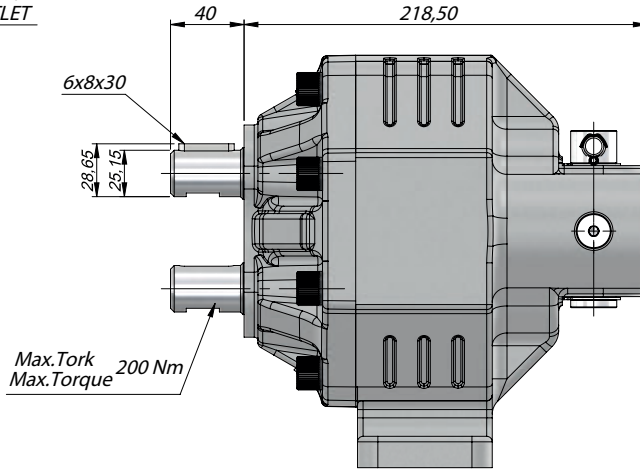
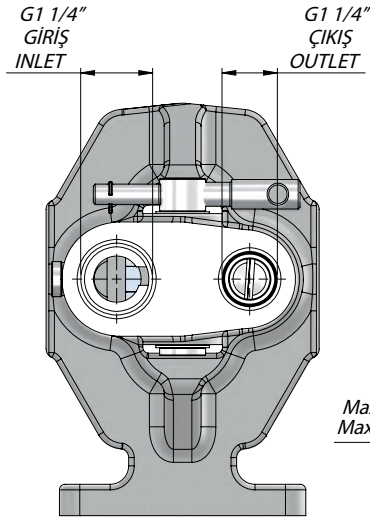
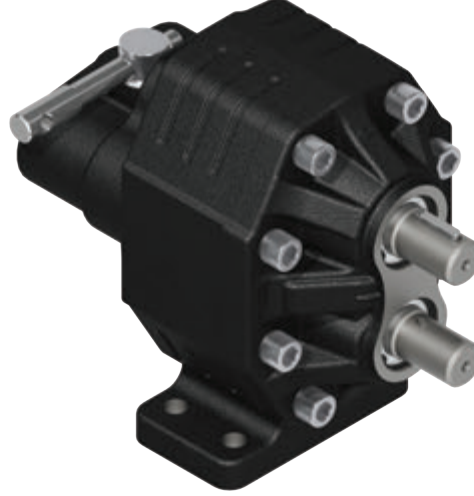
İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B	Giriş Inlet	Çıkış Outlet
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	C	D
63	280	310	330	1800	2800	300	30	102	G1"	G3/4"
73	275	300	320				30	106		
87	265	285	300				34	111	G1 1/4"	
109	240	260	285				40	119		
133	230	250	270	1500	2500	300	41	128	G1 1/2"	G1"
151	180	200	230				43,50	134		

ÇİFT YÖNLÜ MEKANİK VALFLİ DİŞLİ POMPA | BI-DIRECTIONAL GEAR PUMP WITH MECHANICAL VALVE

GANI SERIES
GEAR PUMP



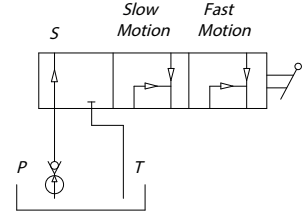
HİDROLİK SEMBOL
HYDRAULIC SYMBOL



Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)
G40109VK73MVA	108.90	240	260	285	1800	2800	300

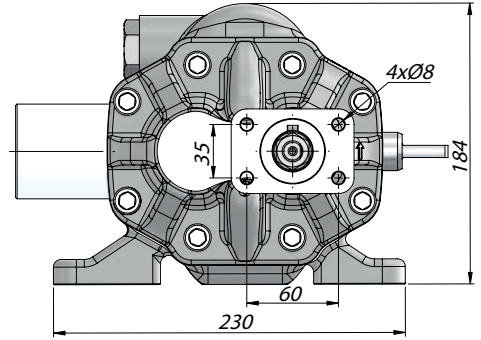
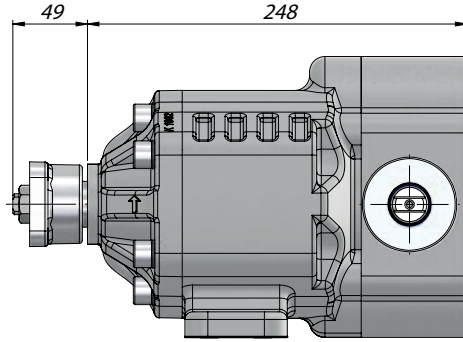
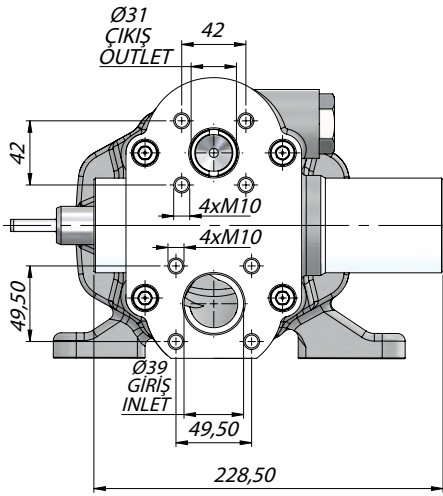
TEKNİK VERİLER | TECHNICAL DATA

TEK YÖNLÜ MEKANİK VALFLİ DİŞLİ POMPA | SINGLE ROTATION GEAR PUMP WITH MECHANICAL VALVE



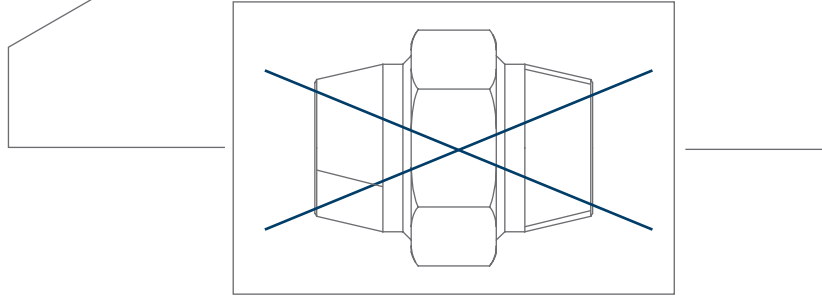
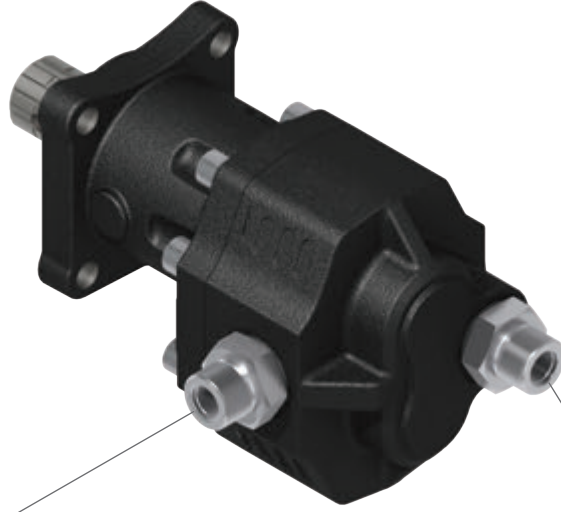
HİDROLİK SEMBOL
HYDRAULIC SYMBOL

GANI SERIES
GEAR PUMP

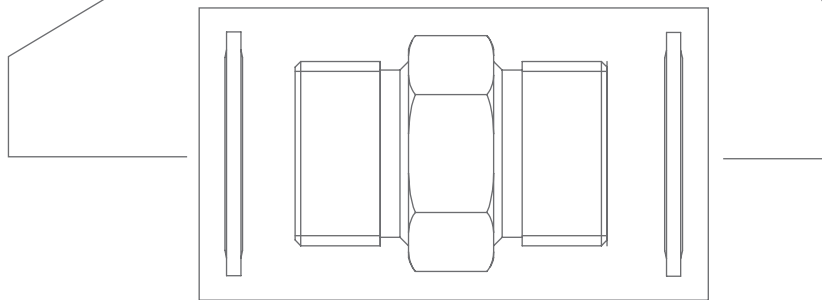
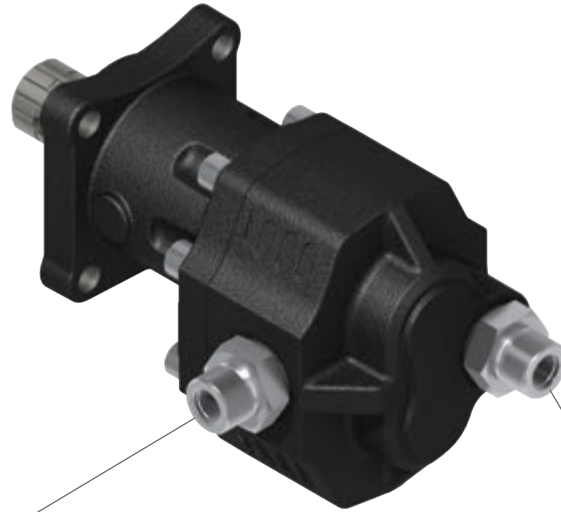


Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)
G40133VK6(1)MVA	132.95	230	250	270	1500	2500	300
G40133VK6(2)MVA							

(1) Sol-Left
(2) Sağ-Right



YANLIŞ/WRONG



DOĞRU/CORRECT

KAZEL®

AKSA-NEVİ-AKVA

GEAR PUMP

16 19 22 SERIES

Kodlama Sistemi
Coding System

48

52

57

Ön Kapaklar
Front Covers

49

53

58

Şaft Tipleri
Shaft Types

50

53

59

Teknik Veriler
Technical Data

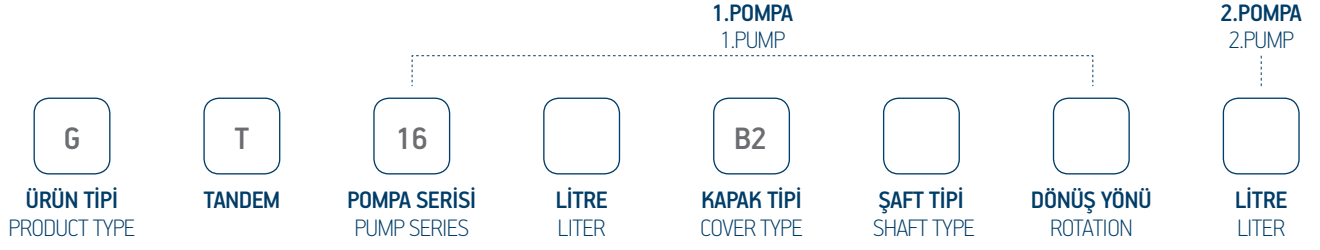
51

54

60



TANDEM POMPA KODLAMA SİSTEMİ | TANDEM PUMP CODING SYSTEM








23	23 cm ³ /rev
36	36 cm ³ /rev



Bk. Sayfa 51
See Page

B2	2 Delikli SEA B 2 Holes SEA B	
-----------	----------------------------------	---

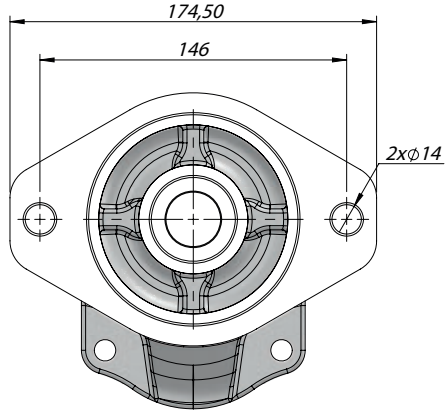
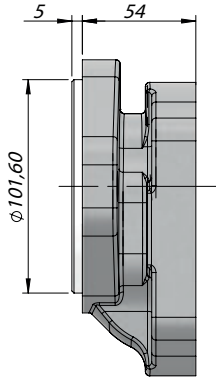
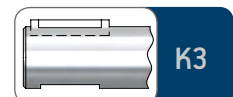
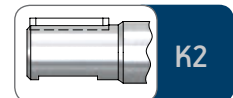
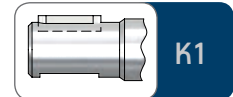
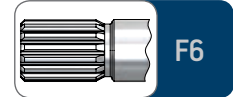
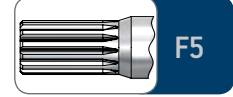
Bk. Sayfa 49
See Page

F5	13 TEETH SAE J498B	
F6	15 TEETH SAE J498B	
K1	6.35x6.35x25.4 Kamalı Şaft Keyed Shaft	
K2	4.79x4.76x32 Kamalı Şaft Keyed Shaft	
K3	6.35x6.35x31.8 Kamalı Şaft Keyed Shaft	

Bk. Sayfa 50
See Page

1	SOL LEFT	
2	SAĞ RIGHT	

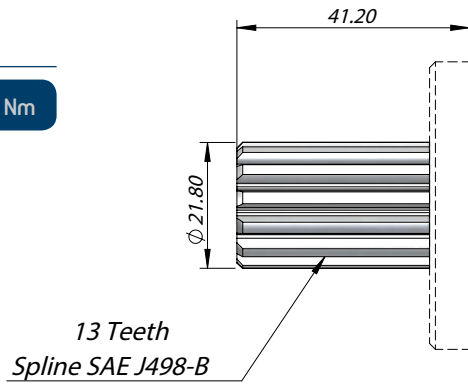
23	23 cm ³ /rev
29	29 cm ³ /rev
36	36 cm ³ /rev

ÖN KAPAK | FRONT COVER**B2**

ŞAFT TIPLERİ | SHAFT TYPES

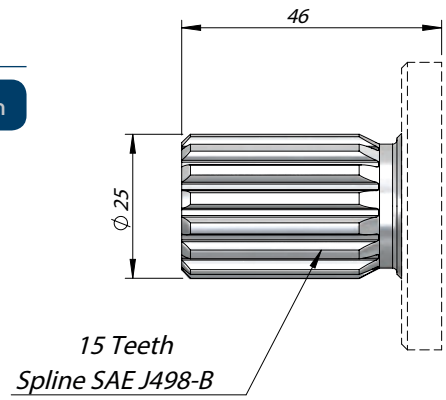
F5

MAX 330 Nm



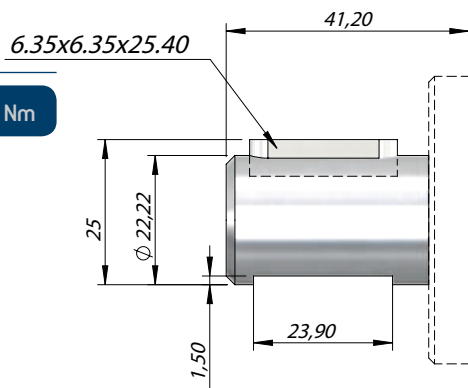
F6

MAX 500 Nm



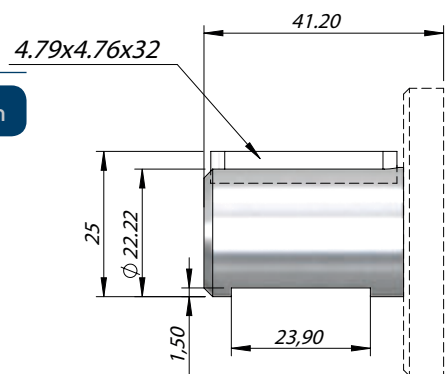
K1

MAX 200 Nm



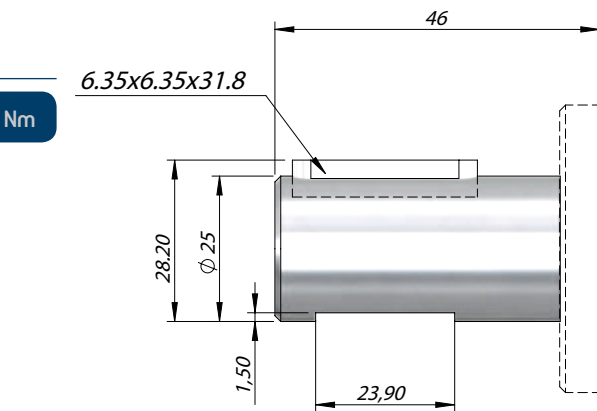
K2

MAX 200 Nm



K3

MAX 280 Nm



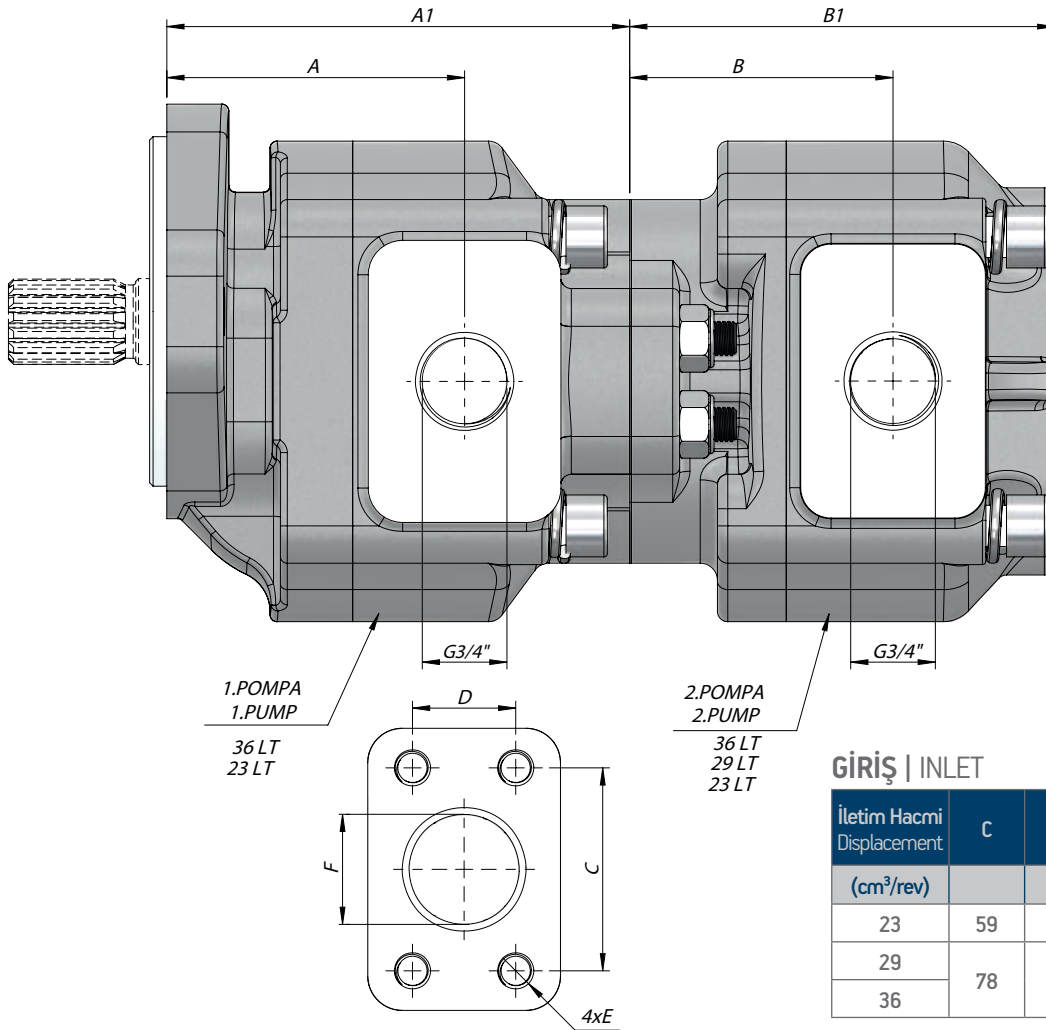
TEKNİK VERİLER | TECHNICAL DATA

TEK YÖNLÜ TANDEM DİŞLİ POMPA | SINGLE ROTATION TANDEM GEAR PUMP

Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
	≥ 200 bar	11	20/17
≤ 200 bar	12	21/18	40 μm



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



GİRİŞ | INLET

İletim Hacmi Displacement	C	D	E	F
(cm^3/rev)				
23	59	30	M10	32
29	78	43	M12	45
36				

İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min. Speed	1.Pompa First Pump		2.Pompa Second Pump	
							A	A1	B	B1
(cm^3/rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)				
23	280	290	300	1500	2500	300	86,5	134,5	75,5	122,5
29	270	285	300				-	-	85,5	133,5
36	250	260	280				95	148,5	85,5	133,5

G
ÜRÜN TİPİ
PRODUCT TYPE

19
POMPA SERİSİ
PUMP SERIES

LİTRE
LITER

B4
KAPAK TİPİ
COVER TYPE

ŞAFT TİPİ
SHAFT TYPE

DÖNÜŞ YÖNÜ
ROTATION

35	35 cm ³ /rev
55	55 cm ³ /rev

Bk. Sayfa 54
See Page

B4	4 Delikli SAE B 4 Holes SAE B
----	----------------------------------

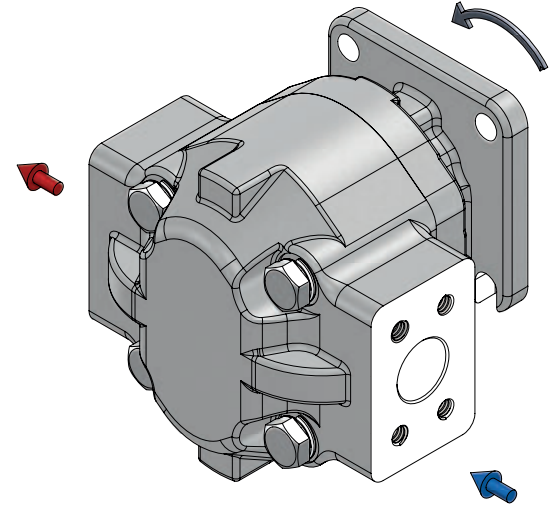
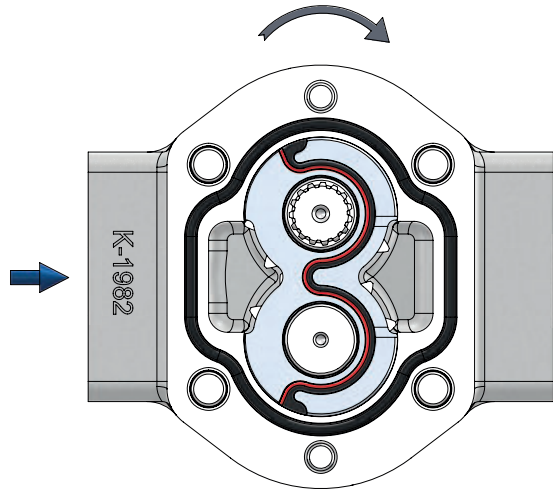
Bk. Sayfa 53
See Page

F5	13 Teeth SAE J498B
F6	15 Teeth SAE J498B

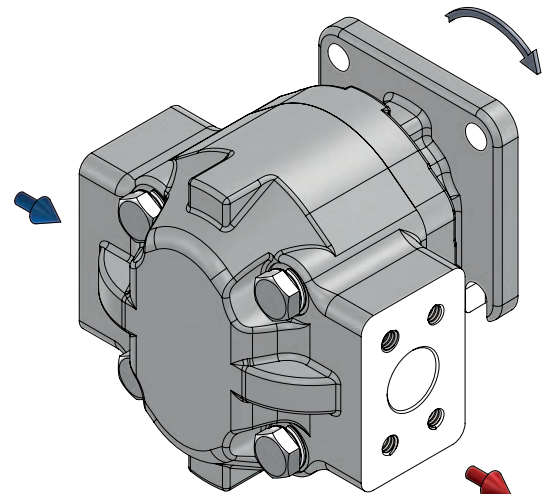
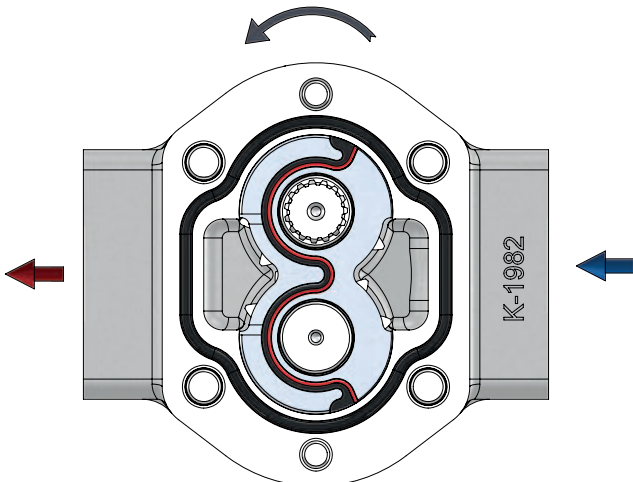
Bk. Sayfa 53
See Page

1	SOL LEFT
2	SAĞ RIGHT

Sağ Dönüslü Pompa
Clockwise Rotation Pump

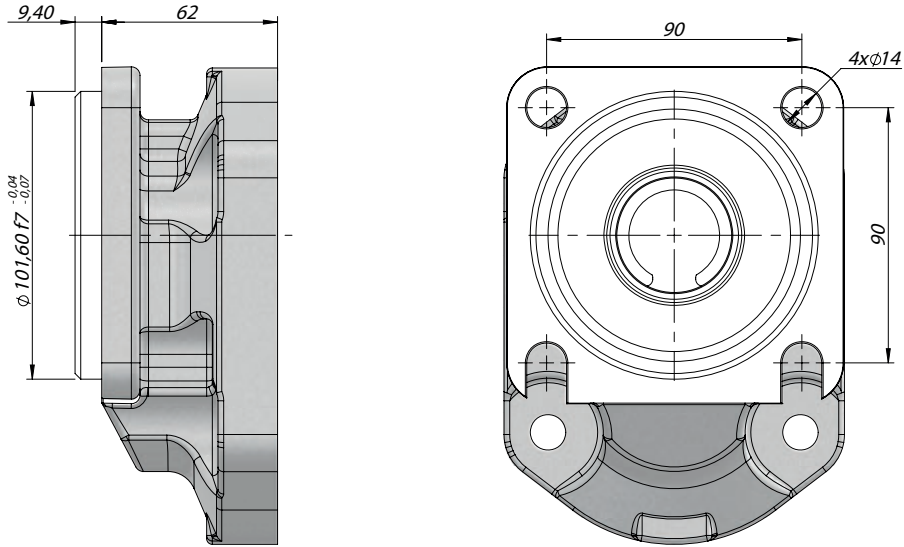


Sol Dönüslü Pompa
Anticlockwise Rotation Pump



ÖN KAPAKLAR | FRONT COVERS

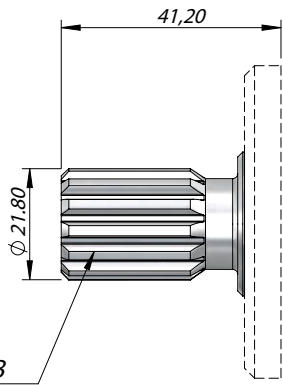
B4



ŞAFT TIPLERİ | SHAFT TYPES

F5

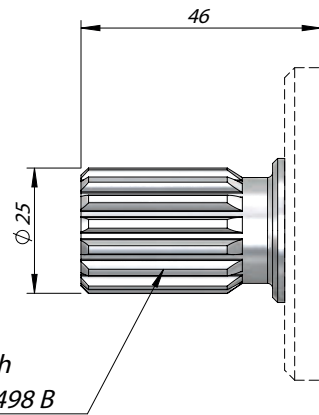
MAX 300 Nm



13 Teeth
Spline Sae J 498 B

F6

MAX 500 Nm



15 Teeth
Spline Sae J 498 B

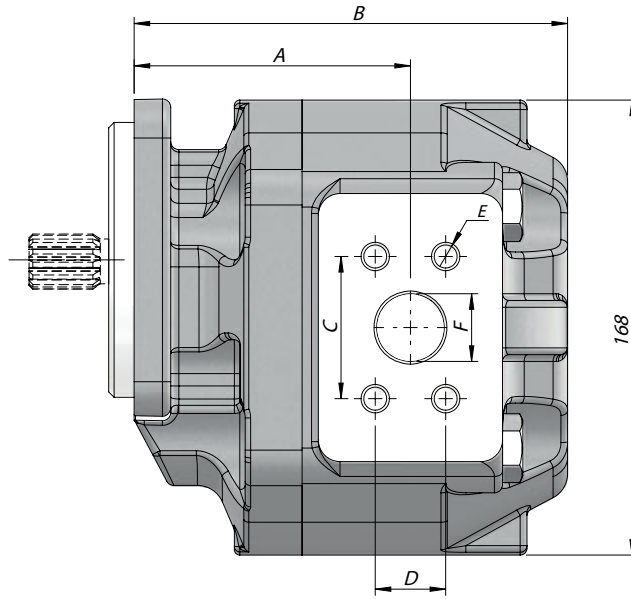
TEKNİK VERİLER | TECHNICAL DATA

TEK YÖNLÜ DİŞLİ POMPA | SINGLE ROTATION GEAR PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

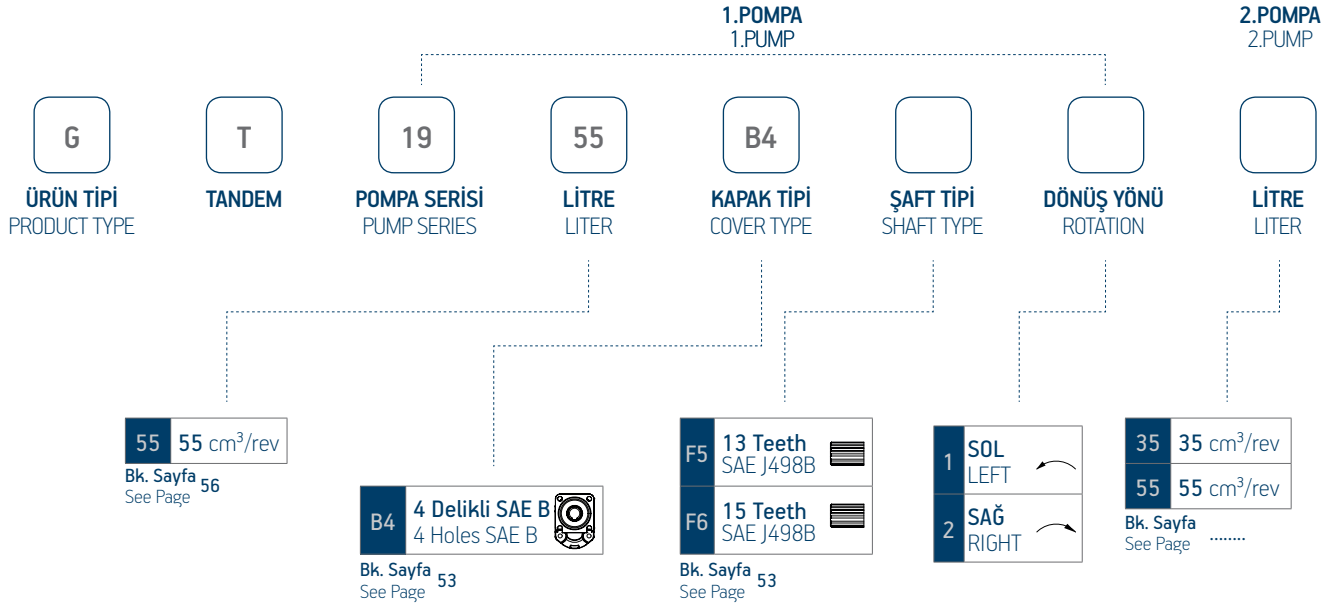
Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
≥ 200 bar	11	20/17	25 μm
≤ 200 bar	12	21/18	40 μm



Giriş Inlet	C	D	E	F
(cm^3/rev)				
35	52.50	26	M10	25
55	59	30	M10	32

Çıkış Outlet	C	D	E	F
(cm^3/rev)				
35	47.60	22	M10	19
55	52.50	26	M10	25

İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B
(cm^3/rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)
35	240	255	270	2500	3500	300	93.50	150
55	230	245	260				102	160

TANDEM POMPA
KODLAMA SİSTEMİ | TANDEM PUMP
CODING SYSTEM

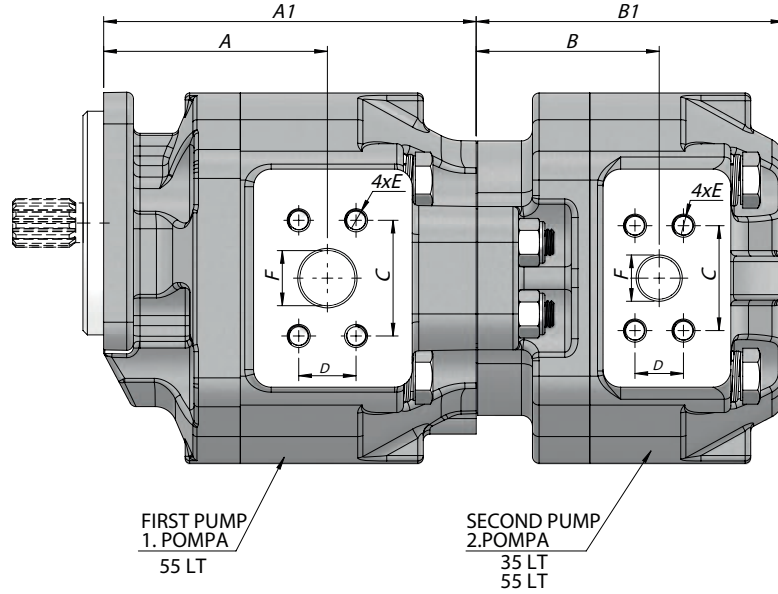
TEKNİK VERİLER | TECHNICAL DATA

TEK YÖNLÜ TANDEM DİŞLİ POMPA | SINGLE ROTATION TANDEM GEAR PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
≥ 200 bar	11	20/17	25 μm
≤ 200 bar	12	21/18	40 μm



Giriş Inlet	C	D	E	F
(cm ³ /rev)				
55 LT 1.Pompa First Pump	70	36	M12	38
55 LT 2.Pompa Second Pump	59	30	M10	32
35 LT 2.Pompa Second Pump	52.50	26		25

Çıkış Outlet	C	D	E	F
(cm ³ /rev)				
55 LT 1.Pompa First Pump	52.50	26	M10	25
55 LT 2.Pompa Second Pump				19
35 LT 2.Pompa Second Pump	47.60	22		19

İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	A1	B	B1
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)	(mm)	(mm)
35	240	255	270	1500	2500	300	-	-	825	139
55	230	245	260				101.5	169	91	149

KODLAMA SİSTEMİ | CODING SYSTEM

G	22				
ÜRÜN TİPİ PRODUCT TYPE	POMPA SERİSİ PUMP SERIES	LİTRE LITER	KAPAK TİPİ COVER TYPE	ŞAFT TİPİ SHAFT TYPE	DÖNÜŞ YÖNÜ ROTATION

035	55 cm ³ /rev
058	58 cm ³ /rev
075	70 cm ³ /rev
085	85 cm ³ /rev
100	100 cm ³ /rev

Bk. Sayfa
See Page

B2	2 Delikli SAE B 2 Holes SAE B	
B4	4 Delikli SAE B 4 Holes SAE B	
C	4 Delikli SAE C 4 Holes SAE C	

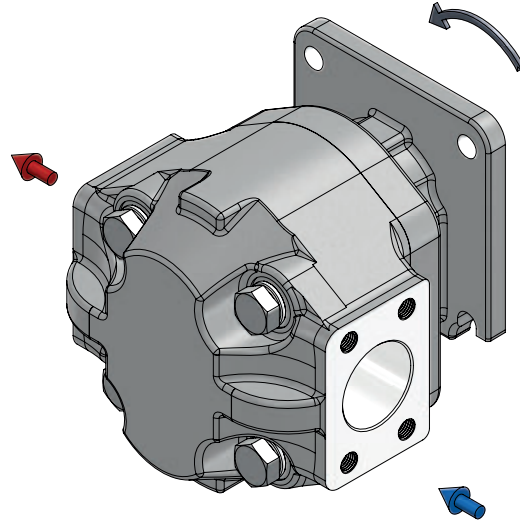
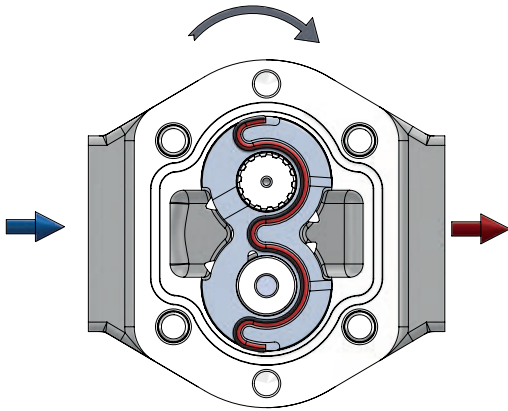
Bk. Sayfa
See Page

F10	14 Teeth SAE J498-B	
F6	15 Teeth SAE J498-B	
K13	8x8x45 Kamalı Şaft Keyed Shaft	

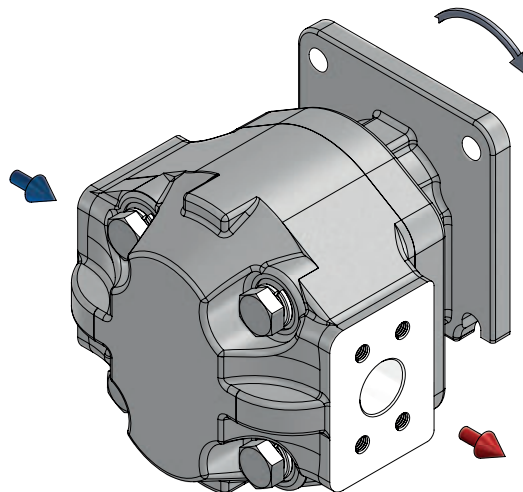
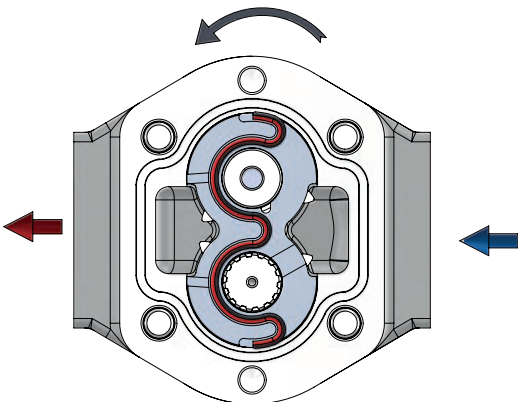
Bk. Sayfa
See Page

1	SOL LEFT	
2	SAĞ RIGHT	

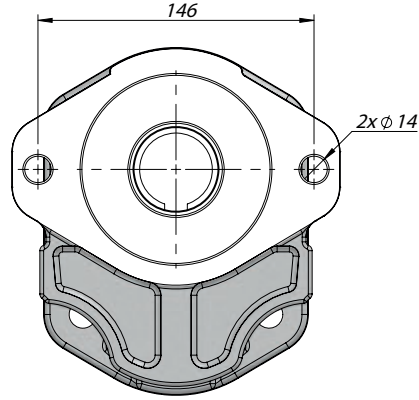
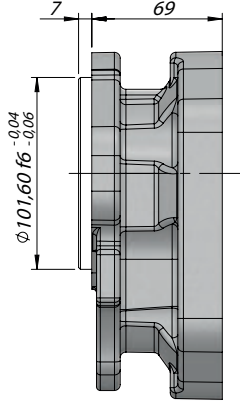
Sağ Dönüslü Pompa
Clockwise Rotation Pump



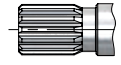
Sol Dönüslü Pompa
Anticlockwise Rotation Pump



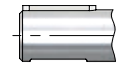
ÖN KAPAKLAR | FRONT COVERS



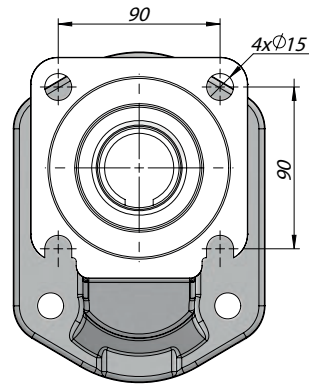
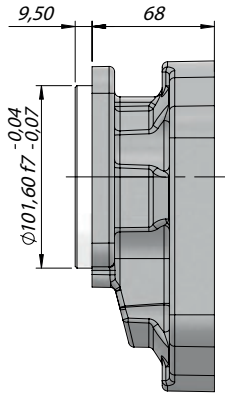
B2



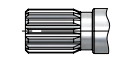
F10



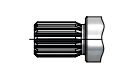
K13



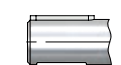
B4



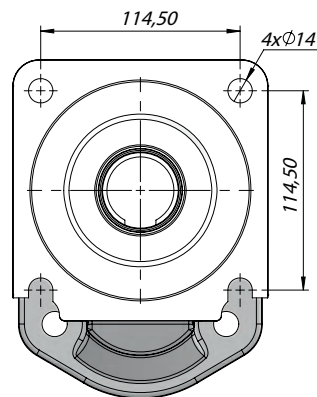
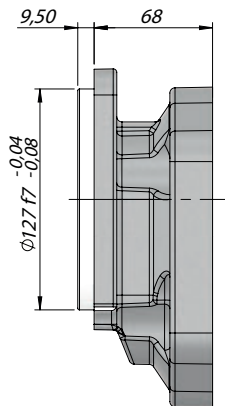
F10



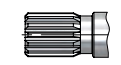
F6



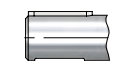
K13



C



F10

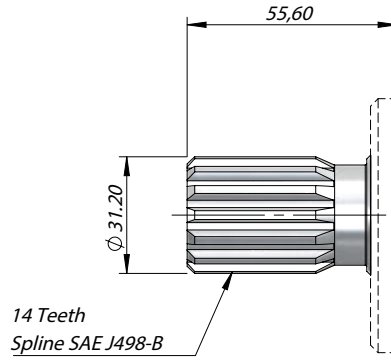


K13

ŞAFT TIPLERİ | SHAFT TYPES

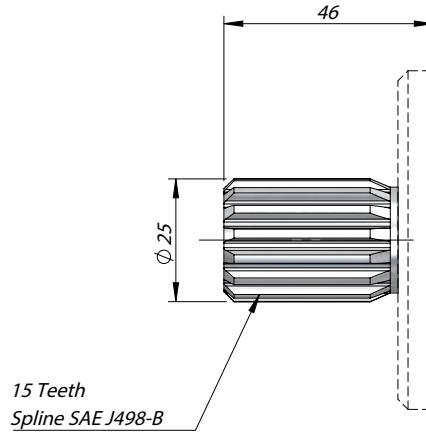
F10

MAX 900 Nm



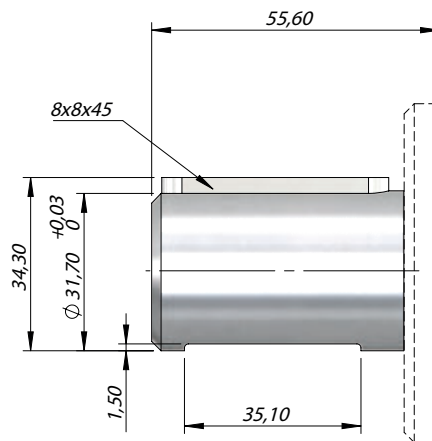
F6

MAX 500 Nm



K13

MAX 600 Nm



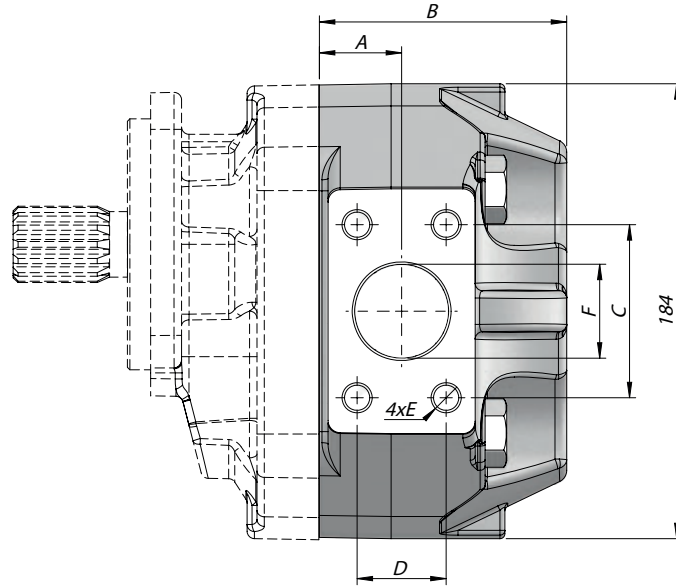
TEKNİK VERİLER | TECHNICAL DATA

TEK YÖNLÜ DİŞLİ POMPA | SINGLE ROTATION GEAR PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar	
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt	
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C	
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter
	NAS 1638	ISO 4406	$\beta_x=75$
≥ 200 bar	11	20/17	25 μ m
≤ 200 bar	12	21/18	40 μ m

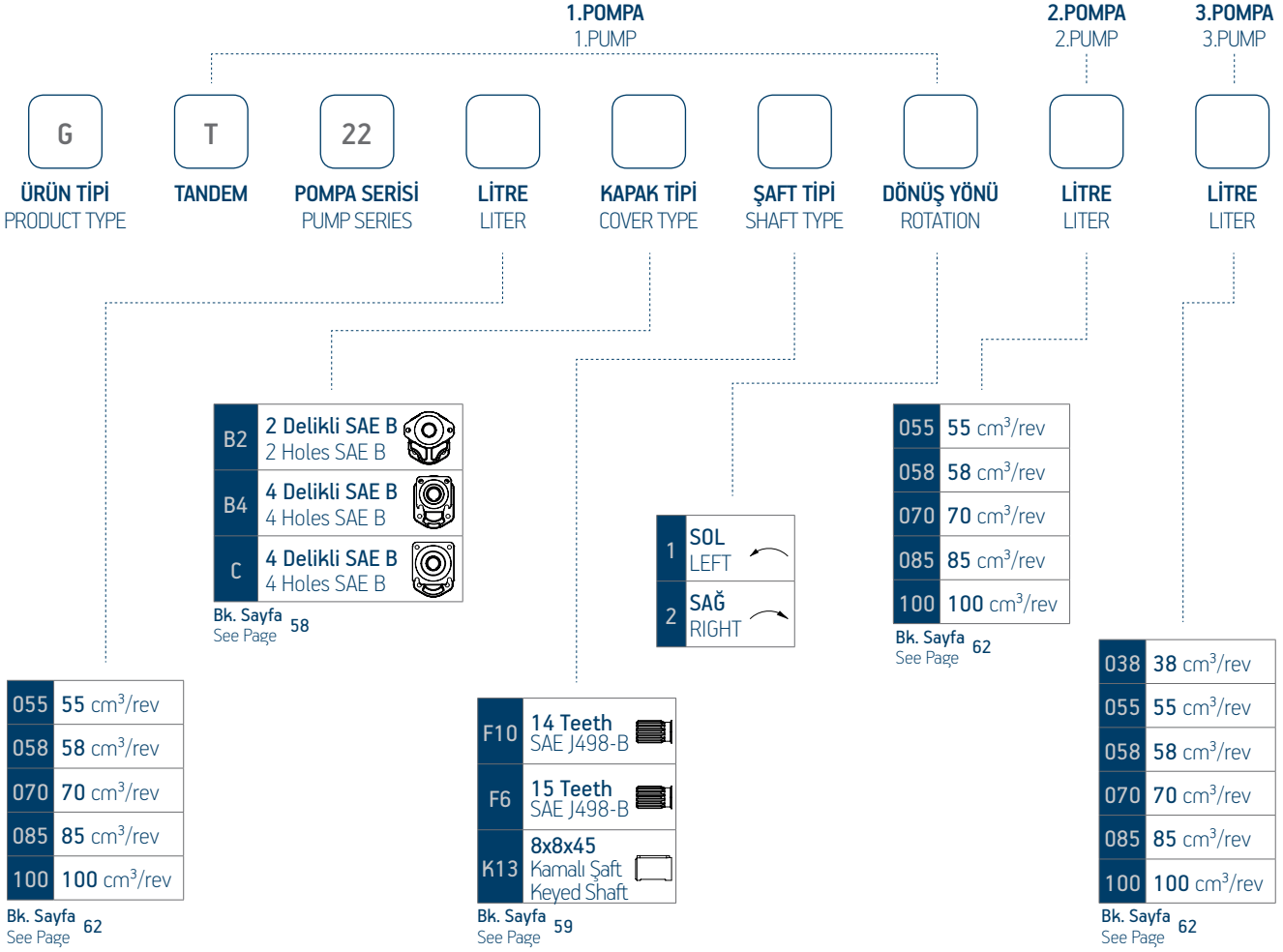


Giriş Inlet	C	D	E	F
(cm ³ /rev)				
55	70	36	M12	38
58				
70				
85	78	43		51
100				

Çıkış Outlet	C	D	E	F
(cm ³ /rev)				
55	59	30	M10	32
58				
70				
85	78	43		51
100				

İletim Hacmi Displacement	Maks.Sürekli Basıncı Max.Continuous Pressure	Maks.Aralıklı Basıncı Max.Intermittent Pressure	Maks.Anlık Basıncı Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	A	B
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)	(mm)	(mm)
55	250	270	280	1500	2500	300	33	100
58								
70								
85	230	250	270				42,5	111
100							48,5	117

TANDEM POMPA KODLAMA SİSTEMİ | TANDEM PUMP CODING SYSTEM



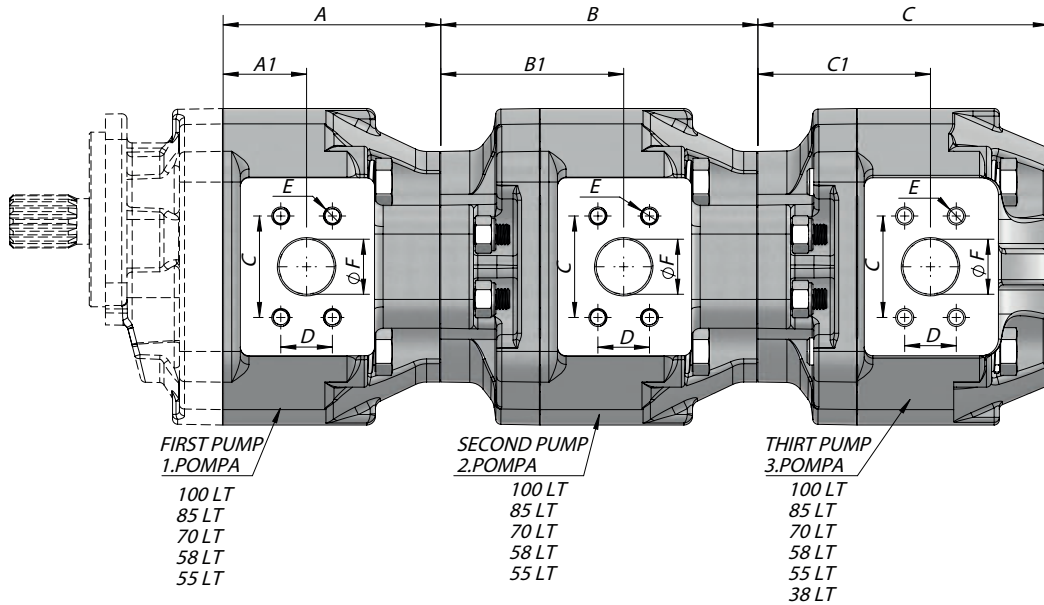
TEKNİK VERİLER | TECHNICAL DATA

TEK YÖNLÜ DİŞLİ POMPA | SINGLE ROTATION GEAR PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Giriş Basıncı Inlet Pressure		0.7÷ 1.5 bar		
Çalışma Viskozite Seviyesi Operating Viscosity Range		-12:100 cSt		
Sıvı Sıcaklığı Fluid Temperature		-10 °C+80 °C		
Çalışma Basıncı Working Pressure	Kirlilik Contamination		Filtre Filter	
	NAS 1638	ISO 4406	βx=75	
≥200 bar	11	20/17	25 μm	
≤200 bar	12	21/18	40 μm	



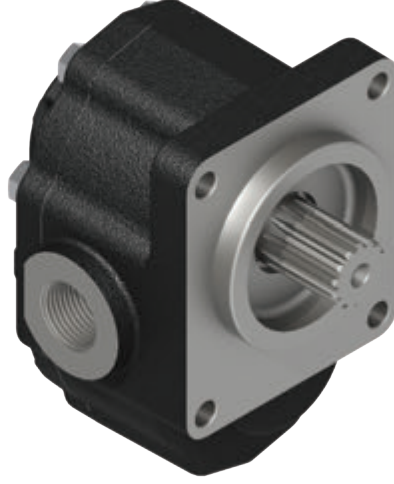
Giriş Inlet	C	D	E	F
(cm ³ /rev)				
38	52.5	26	M10	25.5
55	70	36	M12	38
58				
70				
85	78	43		51
100				

Çıkış Outlet	C	D	E	F
(cm ³ /rev)				
38	47.6	22	M10	19
55	59	30		32
58				
70				
85	78	43		51
100				

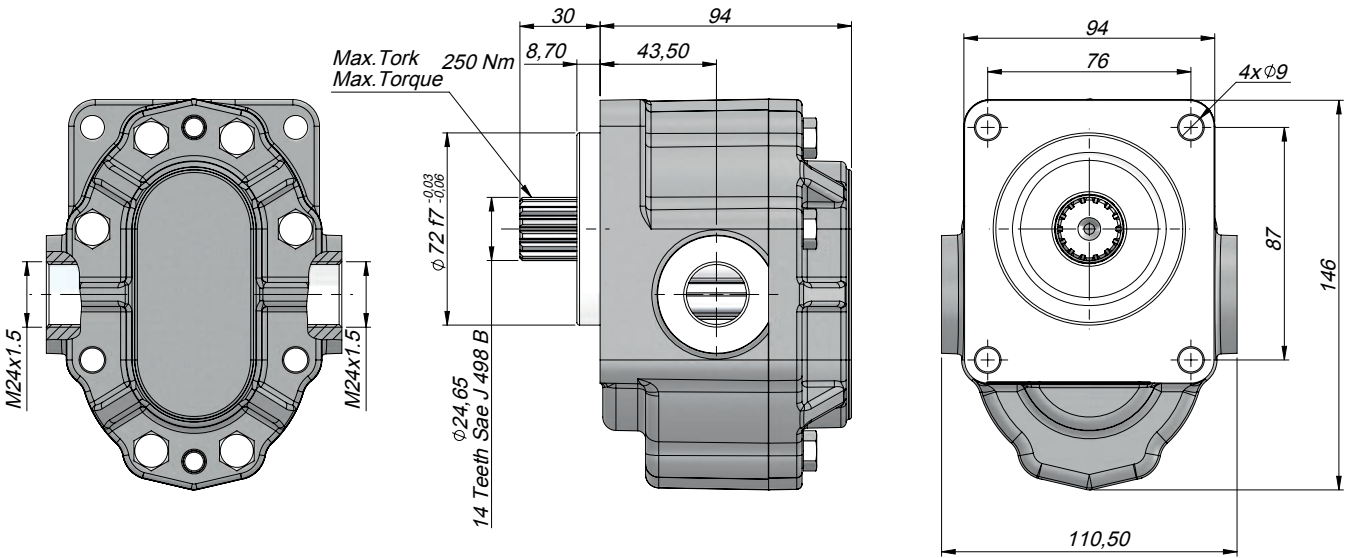
İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Maks.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed	1.Pompa First Pump		2.Pompa Second Pump		3.Pompa Thirt Pump	
							A	A1	B	B1	C	C1
(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)	(RPM)						
38	250	270	280	1500	2500	300	-	-	-	-		
55							109,5	38	167	95,5	157,5	90,5
58							110,5	40	168	97,5		
70							119,5	45,5	177	103	168,5	100
85							125,5	48,5	183	106	174,5	106
100	230	250	270									

TEKNİK VERİLER | TECHNICAL DATA

4 DELİKLİ ÇİFT YÖNLÜ DİŞLİ POMPA | 4 HOLES BI-DIRECTIONAL GEAR PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



AKSA-NEVI-ARVA
GEAR PUMP

Kod Code	İletim Hacmi Displacement (cm ³ /rev)	Maks.Sürekli Basınç Max.Continuous Pressure (100%)(BAR)	Maks.Aralıklı Basınç Max.Intermittent Pressure (20 sec.max.)(BAR)	Maks.Anlık Basınç Max.Peak Pressure (6 sec.max.)(BAR)	Maks.Sürekli Hız Max.Continuous Speed (RPM)	Max.Aralıklı Hız Max.Intermittent Speed	Min. Hız Min.Speed (RPM)
G1040WF1031	40	280	300	320	2500	3500	300



KAZEL[®]

PISTON PUMP

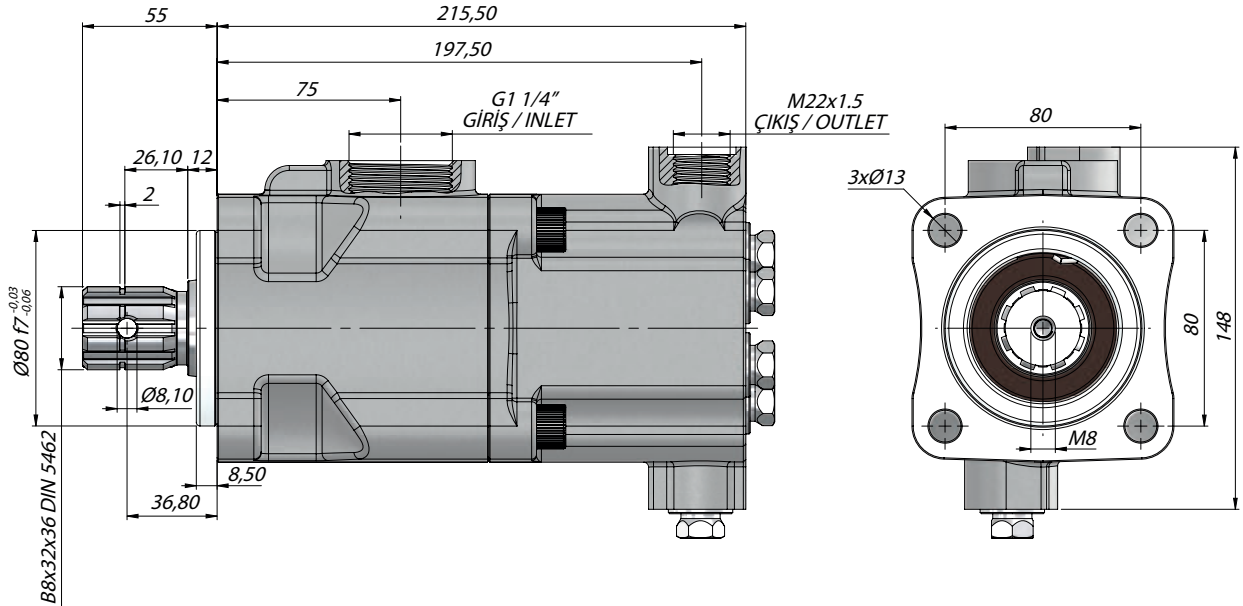
YED-ISRAK-KAVI
CELAL-FEYZ
SERIES



PISTON
PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



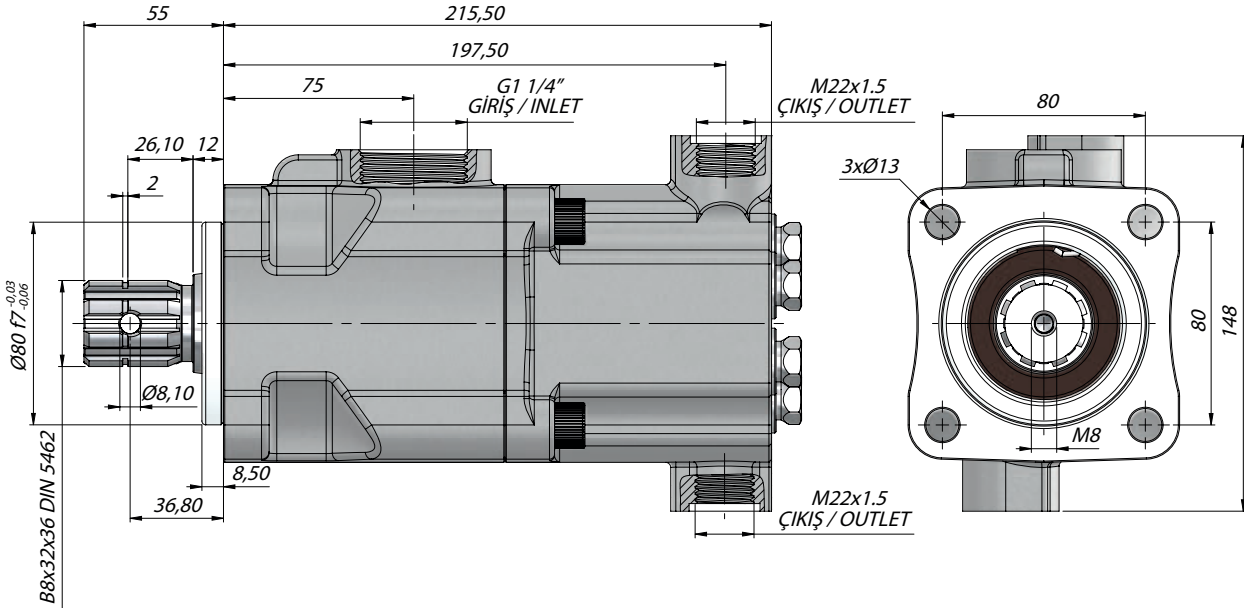
Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
P0626SF131	26	250	270	300	1800	300
P0635SF131	35					
P0641SF131	41					
P0652SF131	52					

TEKNİK VERİLER | TECHNICAL DATA

4 DELİKLİ ISO ÇİFT ÇIKIŞLI PİSTONLU POMPA | 4 HOLES ISO TWIN FLOW PISTON PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



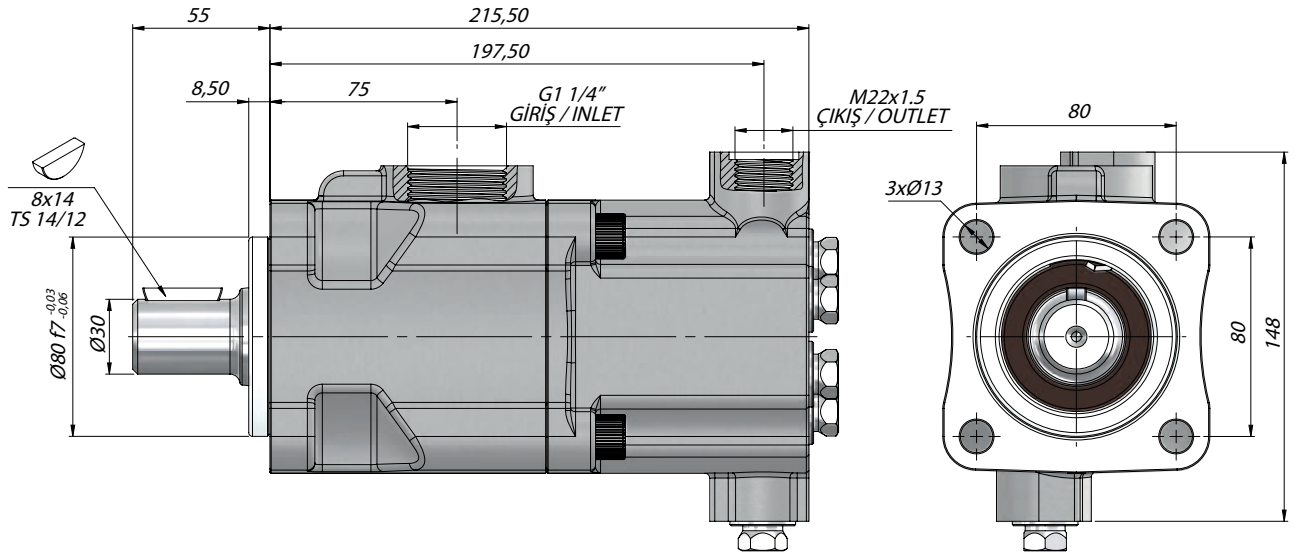
PISTON
PUMP

Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
P062020SF131	20+20	250	270	300	1800	300
P062614SF131	26+14					
P063418SF131	34+18					
P062626SF131	26+26					

4 DELİKLİ KAMALI ISO PİSTONLU POMPA | 4 HOLES ISO PISTON PUMP WITH KEYED SHAFT



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



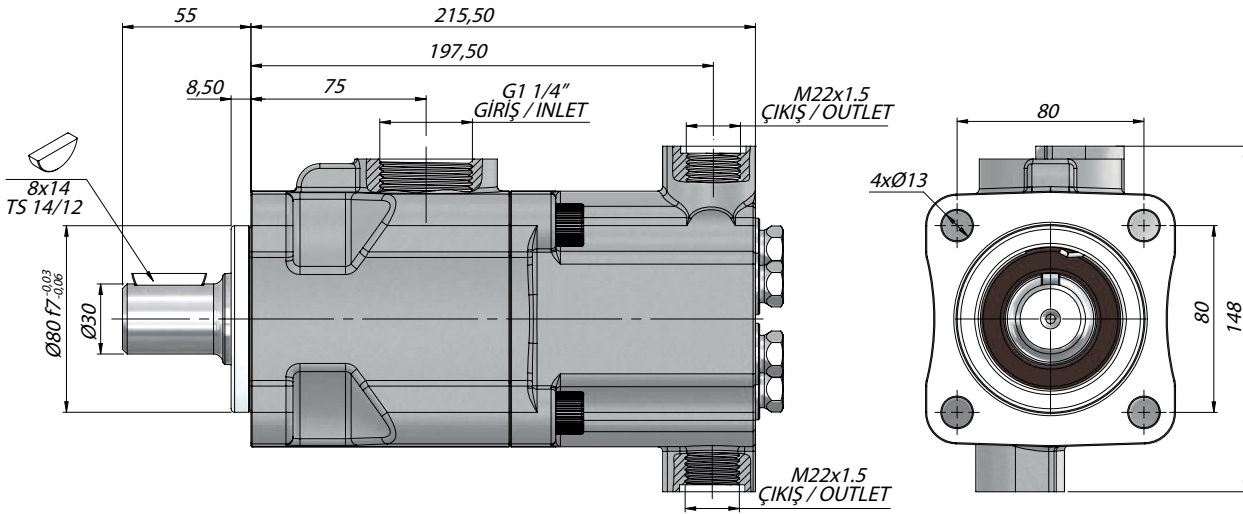
Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
P0626SK1531	26	250	270	300	1800	300
P0635SK1531	35					
P0641SK1531	41					
P0652SK1531	52					

TEKNİK VERİLER | TECHNICAL DATA

4 DELİKLİ KAMALI ISO ÇİFT ÇIKIŞLI PİSTONLU POMPA | 4 HOLES ISO TWIN FLOW PISTON PUMP WITH KEYPED SHAFT



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

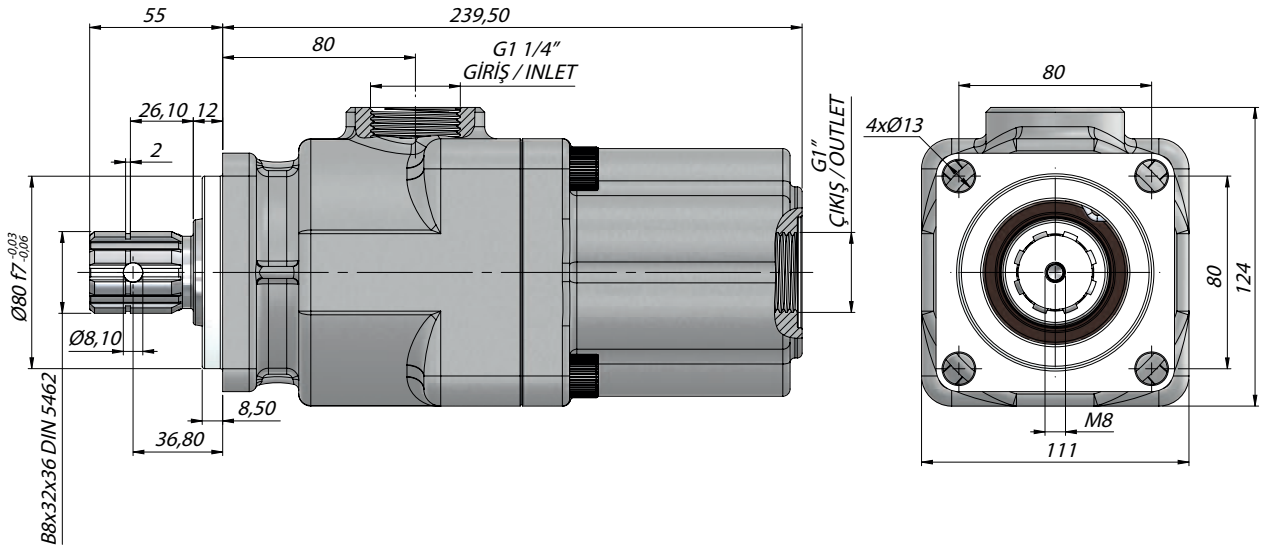


PISTON
PUMP

Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
P062020SK1531	20+20	250	270	300	1800	300
P062614SK1531	26+14					
P063418SK1531	34+18					
P062626SK1531	26+26					



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



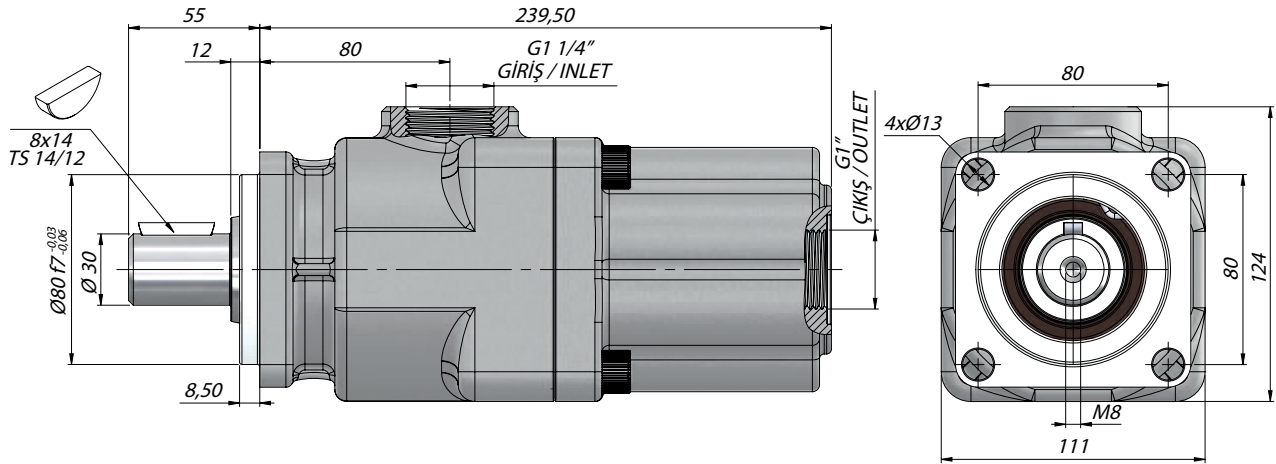
Kod Code	İletim Hacmi Displacement (cm ³ /rev)	Maks.Sürekli Basınç Max.Continuous Pressure (100%)(BAR)	Maks.Aralıklı Basınç Max.Intermittent Pressure (20 sec.max.)(BAR)	Maks.Anlık Basınç Max.Peak Pressure (6 sec.max.)(BAR)	Maks.Sürekli Hız Max.Continuous Speed (RPM)	Min. Hız Min.Speed (RPM)
P0820SF131	20	350	370	400	1800	300
P0826SF131	26					
P0834SF131	34					
P0842SF131	42					
P0846SF131	46					
P0852SF131	52					
P0855SF131	55	300	320	350	1500	
P0860SF131	60					

TEKNİK VERİLER | TECHNICAL DATA

4 DELİKLİ ISO KAMALI PİSTONLU POMPA | 4 HOLES ISO PISTON PUMP WITH KEYSHAFT



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

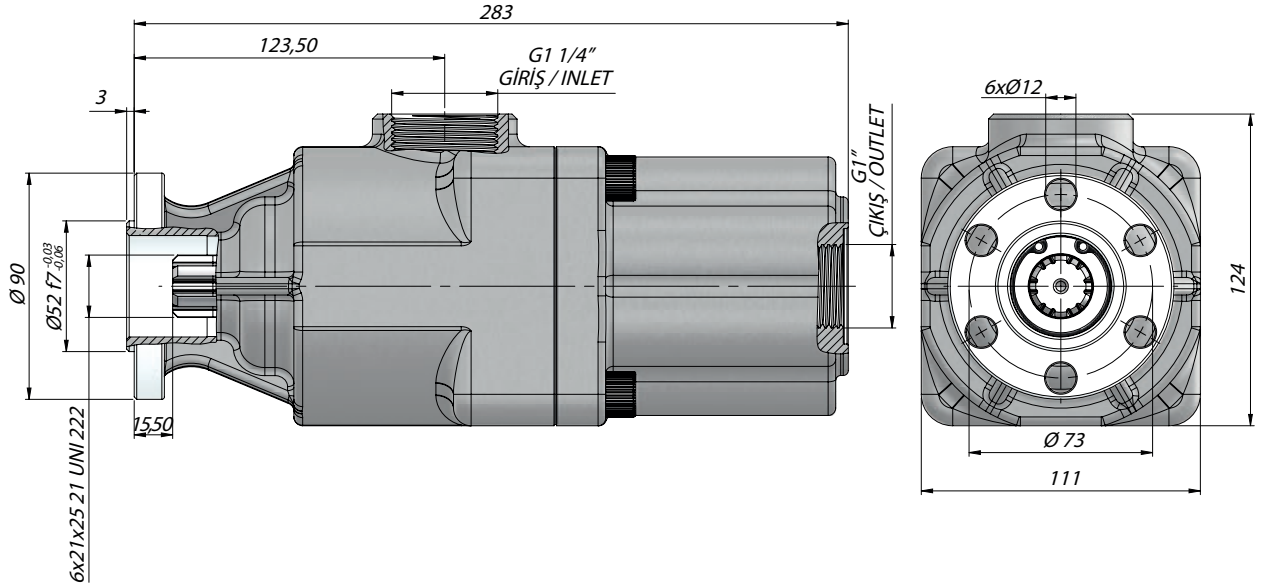


PISTON
PUMP

Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
P0820SK1531	20	350	370	400	1800	300
P0826SK1531	26					
P0834SK1531	34					
P0842SK1531	42					
P0846SK1531	46					
P0852SK1531	52	300	320	350	1500	
P0855SK1531	55					
P0860SK1531	60					



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



PISTON
PUMP

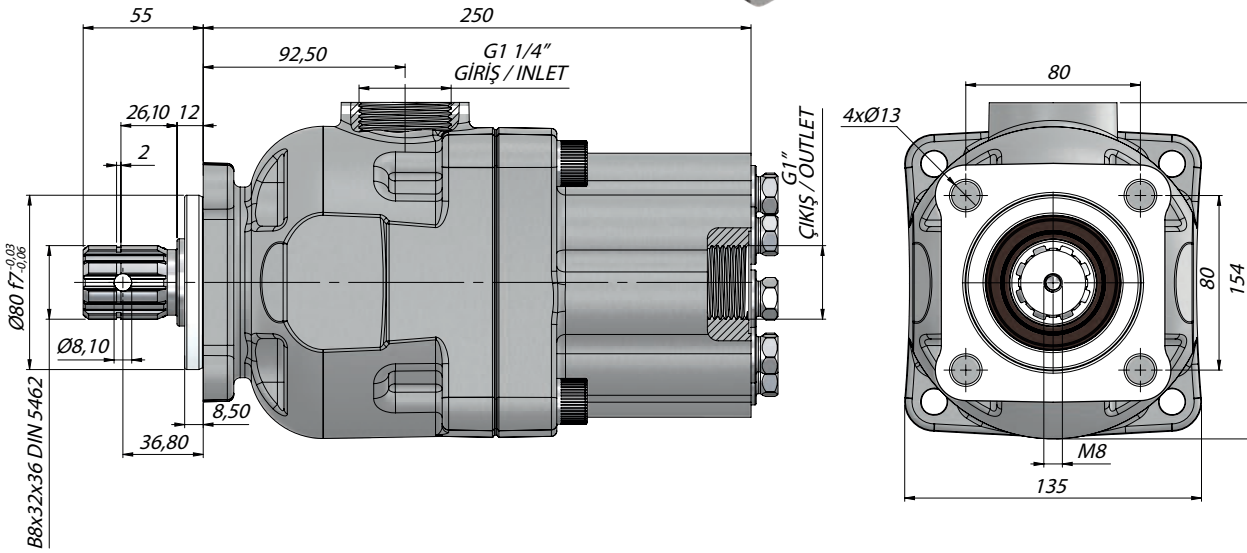
Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
P0820UF431	20	350	370	400	1800	300
P0826UF431	26					
P0834UF431	34					
P0842UF431	42					
P0846UF431	46					
P0852UF431	52	300	320	350	1500	
P0855UF431	55					
P0860UF431	60					

TEKNİK VERİLER | TECHNICAL DATA

4 DELİKLİ ISO PİSTONLU POMPA | 4 HOLES ISO PISTON PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



A SERİSİ BURÇLU ÇELİK KRANK | A SERIES BUSH STEEL CRANK

Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
P0960SF131A	60	270	285	300	1500	300
P0980SF131A	80					

B SERİSİ RULMANLI DÖKÜM KRANK | B SERIES BEARING CASTING CRANK

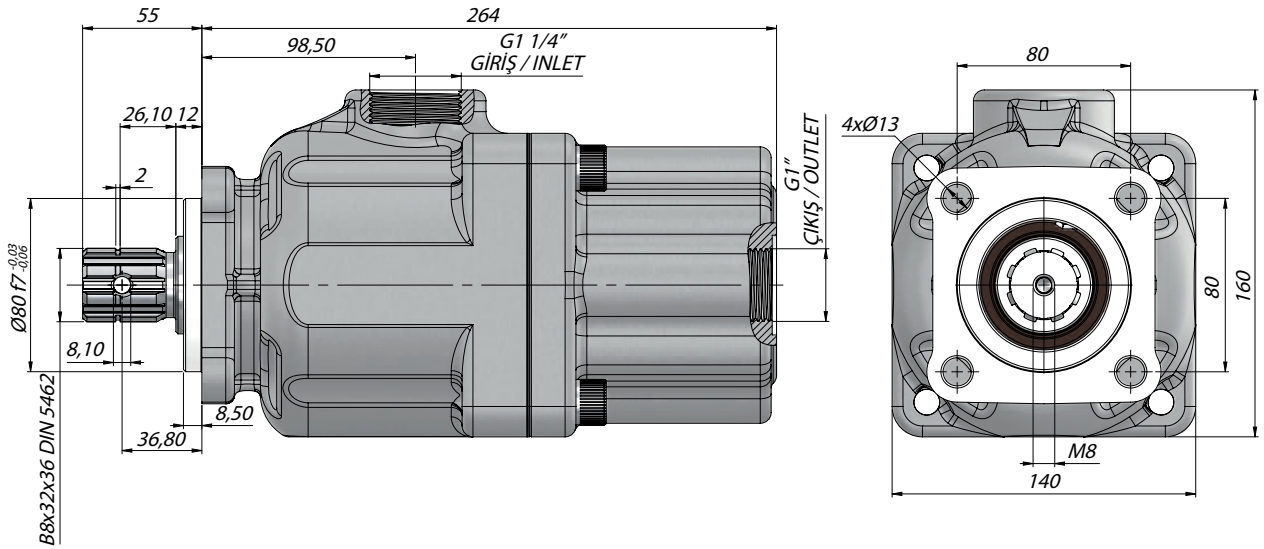
Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
P0960SF131B	60	270	285	300	1500	300
P0980SF131B	80					

C SERİSİ RULMANLI ÇELİK KRANK | C SERIES BEARING STEEL CRANK

Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
P0960SF131C	60	270	285	300	1500	300
P0980SF131C	80					



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



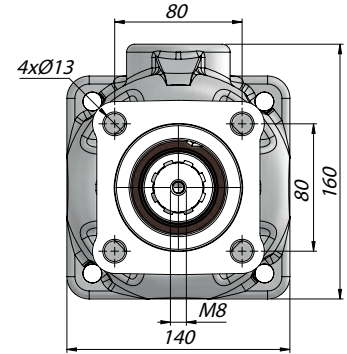
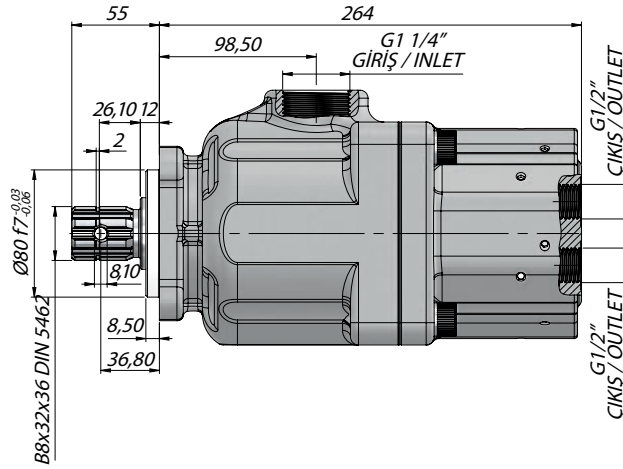
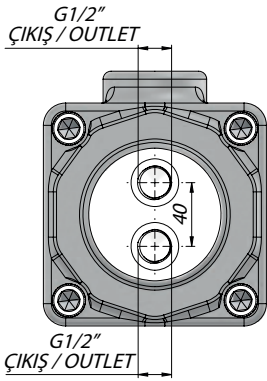
Kod Code	İletim Hacmi Displacement (cm ³ /rev)	Maks.Sürekli Basınç Max.Continuous Pressure (100%)(BAR)	Maks.Aralıklı Basınç Max.Intermittent Pressure (20 sec.max.)(BAR)	Maks.Anlık Basınç Max.Peak Pressure (6 sec.max.)(BAR)	Maks.Sürekli Hız Max.Continuous Speed (RPM)	Min. Hız Min.Speed (RPM)
P10060SF131	60	300	320	350	1500	300
P10070SF131	70					
P10080SF131	80					
P10090SF131	90					
P10100SF131	100					

TEKNİK VERİLER | TECHNICAL DATA

4 DELİKLİ ISO ÇİFT ÇIKIŞLI PİSTONLU POMPA | 4 HOLES ISO TWIN FLOW PISTON PUMP



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

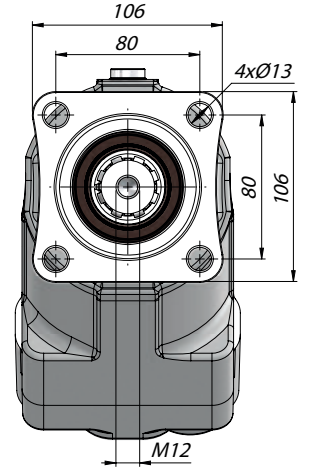
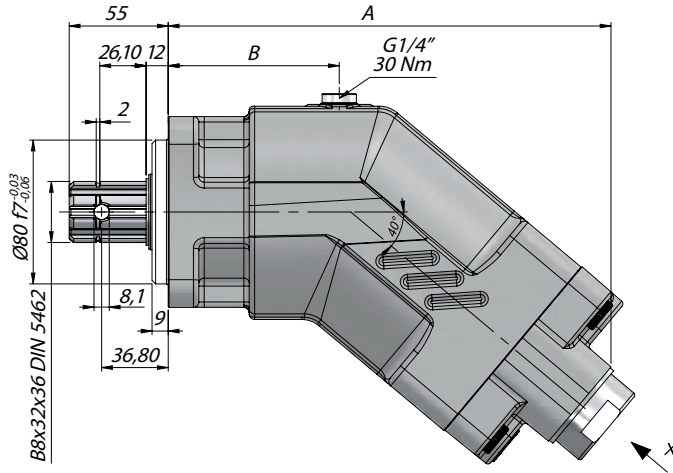
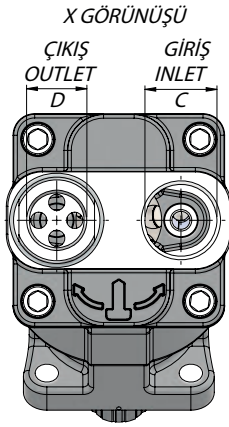


PISTON
PUMP

Kod Code	İletim Hacmi Displacement	Maks.Sürekli Basınç Max.Continuous Pressure	Maks.Aralıklı Basınç Max.Intermittent Pressure	Maks.Anlık Basınç Max.Peak Pressure	Maks.Sürekli Hız Max.Continuous Speed	Min. Hız Min.Speed
	(cm ³ /rev)	(100%)(BAR)	(20 sec.max.)(BAR)	(6 sec.max.)(BAR)	(RPM)	(RPM)
P103535SF131	35+35	300	320	350	1500	300
P105030SF131	50+30					
P104545SF131	45+45					
P105050SF131	50+50					
P103672SF131	36+72					



HİDROLİK SEMBOL
HYDRAULIC SYMBOL



PISTON
PUMP

Tapaların Sıkma Torku
Tightening Torque Of The Plugs

G1/2"	200 Nm
G3/4"	330 Nm
G1"	480 Nm
G1 1/4"	720 Nm

Kod Code	İletim Hacmi Displacement (cm ³ /rev)	Maks.Sürekli Basınç Max.Continuous Pressure (100%)(BAR)	Maks.Aralıklı Basınç Max.Intermittent Pressure (20 sec.max.)(BAR)	Maks.Anlık Basınç Max.Peak Pressure (6 sec.max.)(BAR)	Maks.Sürekli Hız Max.Continuous Speed (RPM)	Min. Hız Min.Speed (RPM)	A (mm)	B (mm)	C Giriş / Inlet	D Çıkış / Outlet
AP022SF1(1)1 AP022SF1(2)1	22	300	320	350	2920	300	172	60	G3/4"	G1/2"
AP033SF1(1)1 AP033SF1(2)1	33				2890					
AP045SF1(1)1 AP045SF1(2)1	45				2250					
AP056SF1(1)1 AP056SF1(2)1	56				2300		80	G1"	G3/4"	
AP065SF1(1)1 AP065SF1(2)1	65				2300					
AP080SF1(1)1 AP080SF1(2)1	80				2135		95	G1 1/4"	G1"	
AP107SF1(1)1 AP107SF1(2)1	107				1850					
AP125SF1(1)1 AP125SF1(2)1	125	250	270	300	1790	256				

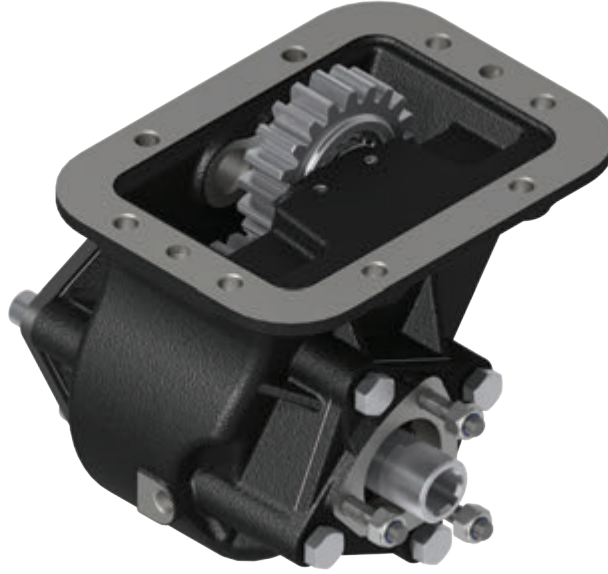
* (1) - Left - Sol
(2) - Right - Sağ

KAZEL[®]

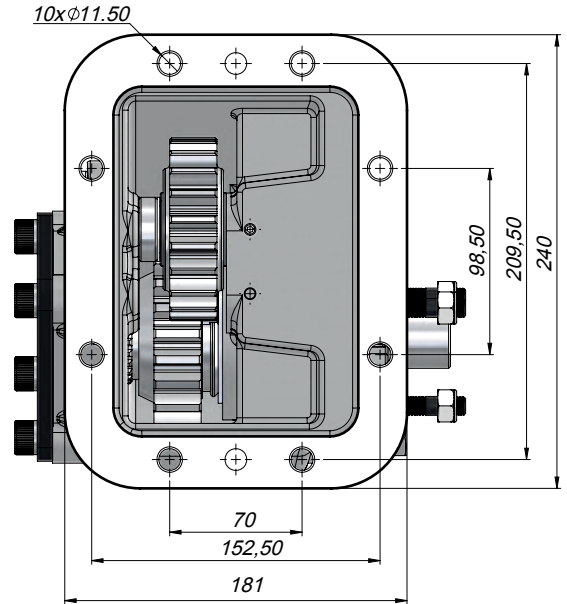
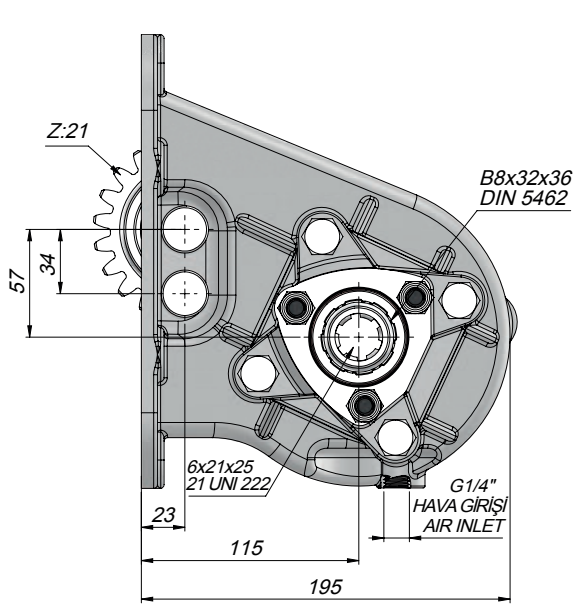
POWER TAKE OFFS P.T.O SERIES



POWER TAKE
OFFS

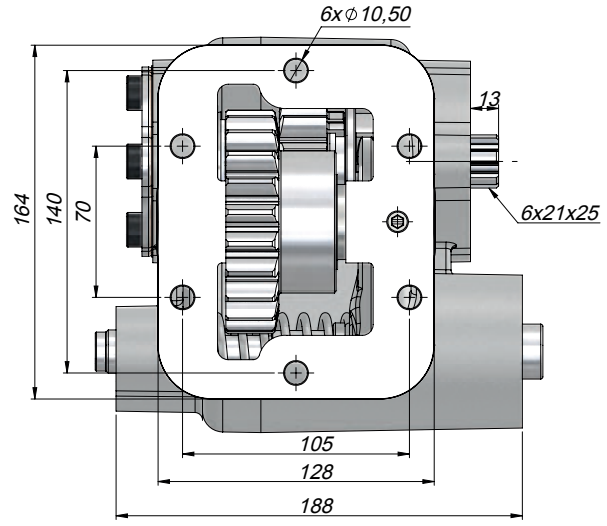
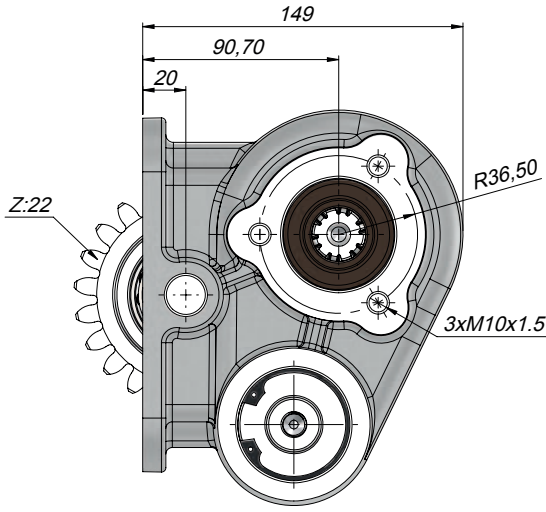
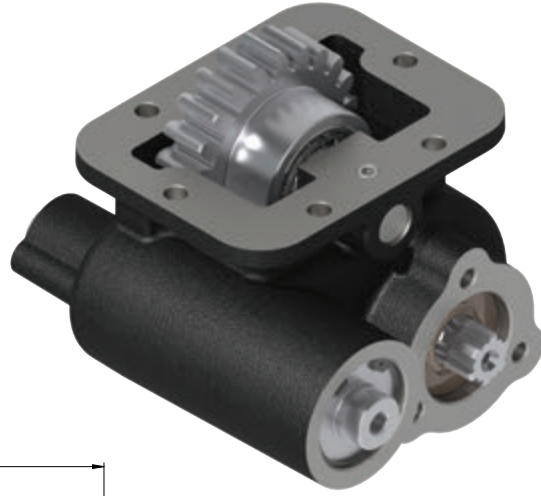


POWER TAKE
OFFS

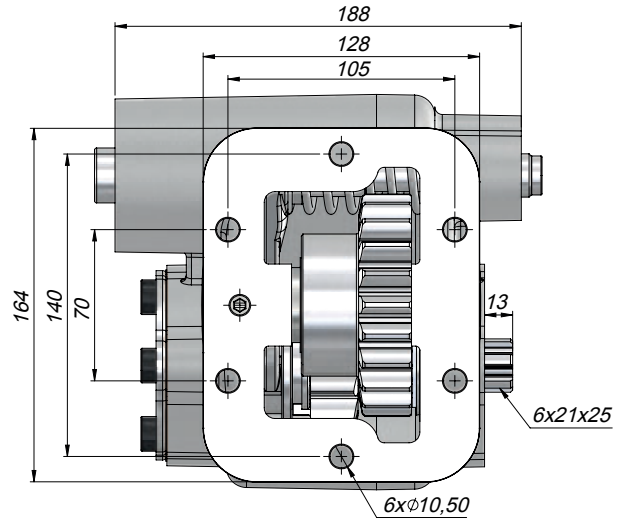
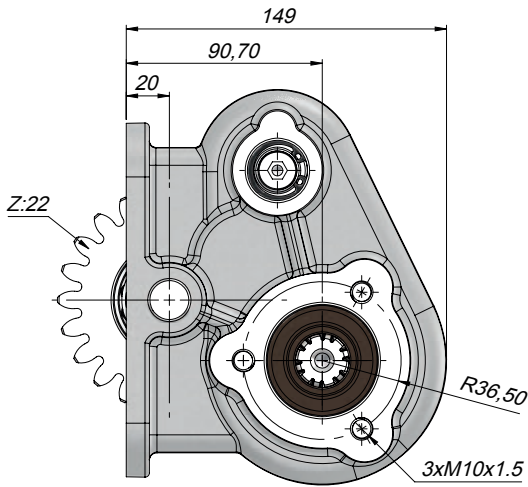


Kod Code	Araç Markası Vehicle Brand Track	Flanş Takımı Flange Kit	Dönüştürme Kiti Conversion Kit	Dişli Tipi Gear Type	Tork Torque	Int.Oranı Int.Ratio	Diş Sayısı Teeth Number
					Nm		
GBEF21UF43	Mercedes Eaton	FL SPICER 1120 / DIN00 X PF 3292-3293 FL SPICER 1300 / DIN00 X PF 3292-3293	Pnömatik / Mekanik Pneumatic / Mechanic	Düz-Flat	400	0.96	21

TEKNİK VERİLER | TECHNICAL DATA



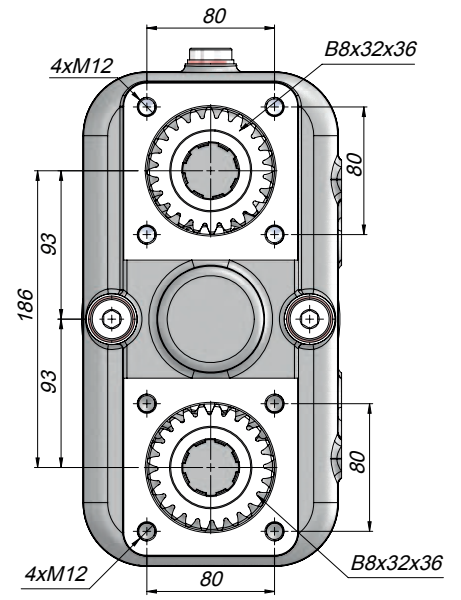
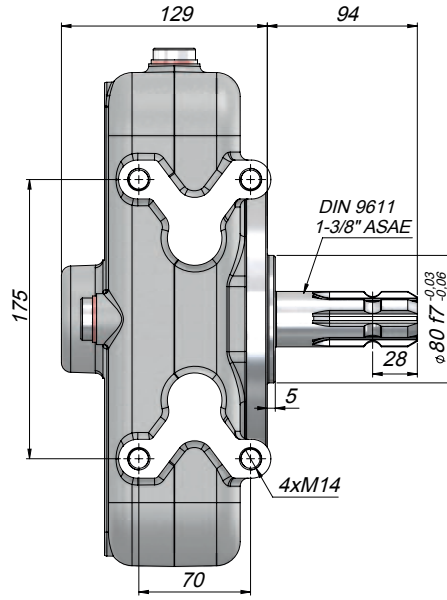
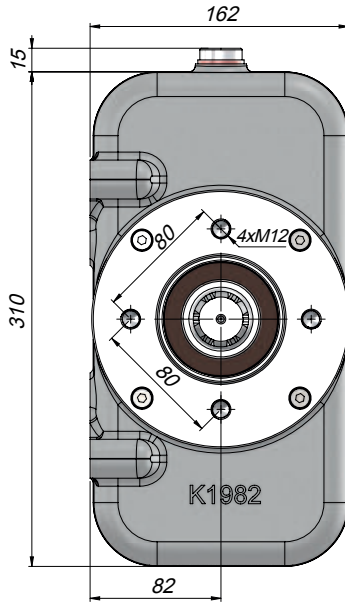
Kod Code	Araç Markası Vehicle Brand Track	Dişli Tipi Gear Type	P.T.O Tipi P.T.O Type	Kontrol Sistemi Control System	P.T.O Mil Dönüş Yönü P.T.O Shaft Rotation	Çıkış Tork Output Torque	Pto Mil Çıkış Devri Output Speed	Güç Power (Hp)
GBKM22UF42	Kamaz	Düz-Flat	Çift Dişli Double Teeth	Havalı Pneumatic	Sağ Right	25	600	213



Kod Code	Araç Markası Vehicle Brand Track	Dişli Tipi Gear Type	P.T.O Tipi P.T.O Type	Kontrol Sistemi Control System	P.T.O Mil Dönüş Yönü P.T.O Shaft Rotation	Çıkış Tork Output Torque	Pto Mil Çıkış Devri Output Speed	Güç Power (Hp)
GBKM22UF41	Kamaz	Düz-Flat	Çift Dişli Double Teeth	Havalı Pneumatic	Sol Left	25	600	213

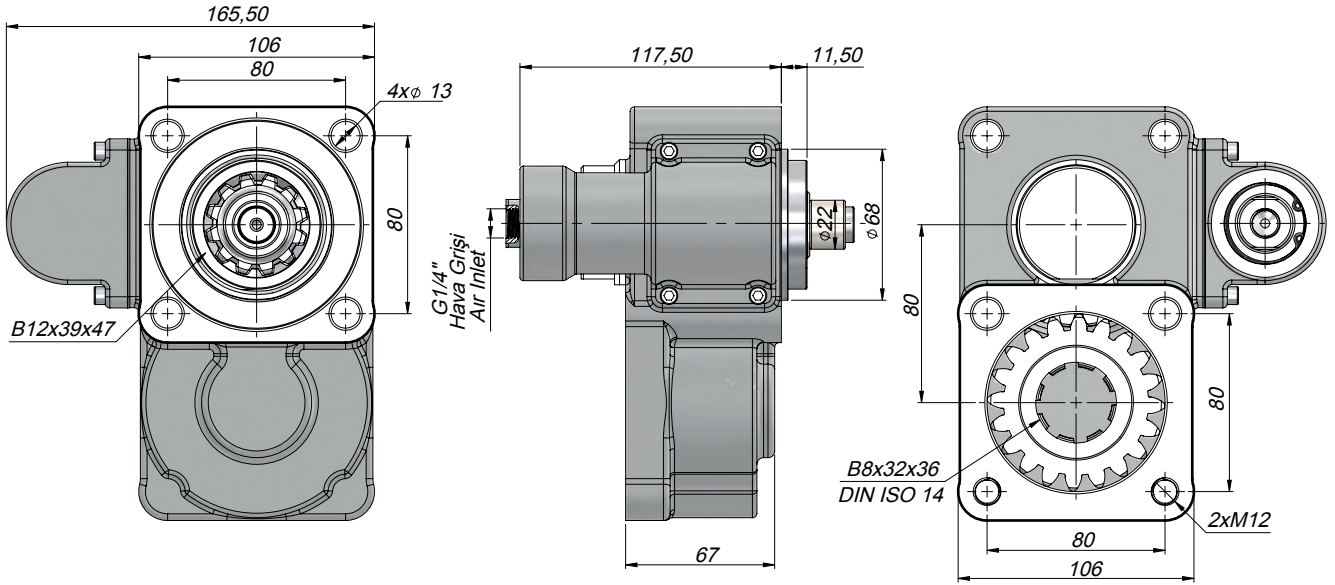
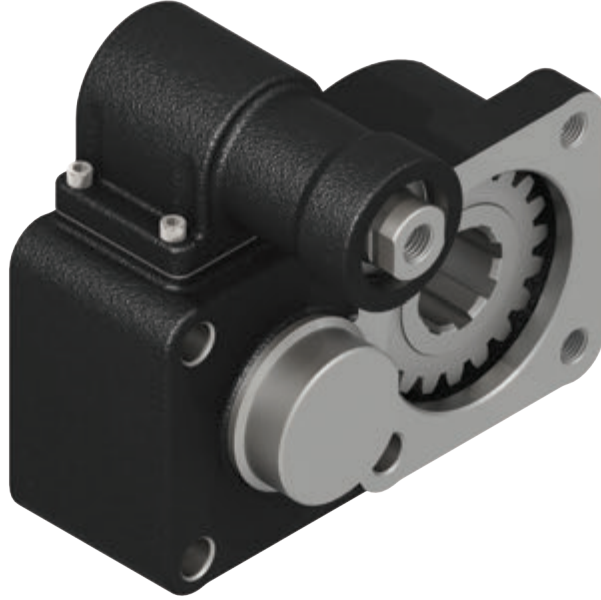


POWER TAKE OFFS



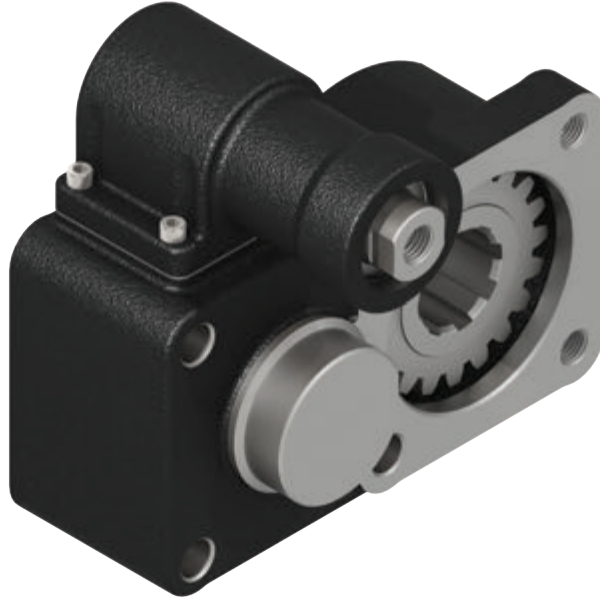
Kod Code	Dişli Oranı Gear Ratio	Sürekli Giriş Torkü Continuous Input Torque	Maksimum Giriş Torkü Max.Input Torque	Sürekli Çıkış Torkü Continuous Output Torque	Maksimum Çıkış Torkü Max.Output Torque	Yağlama Yağı Aralıklı Çalışma Lubrication Oil Intermittent Operation	Ağırlık Weight
		(Nm)				(l)	(Kg)
PT2SBSF2	1:1.54	700	1000	230	320	0,5	20

TEKNİK VERİLER | TECHNICAL DATA

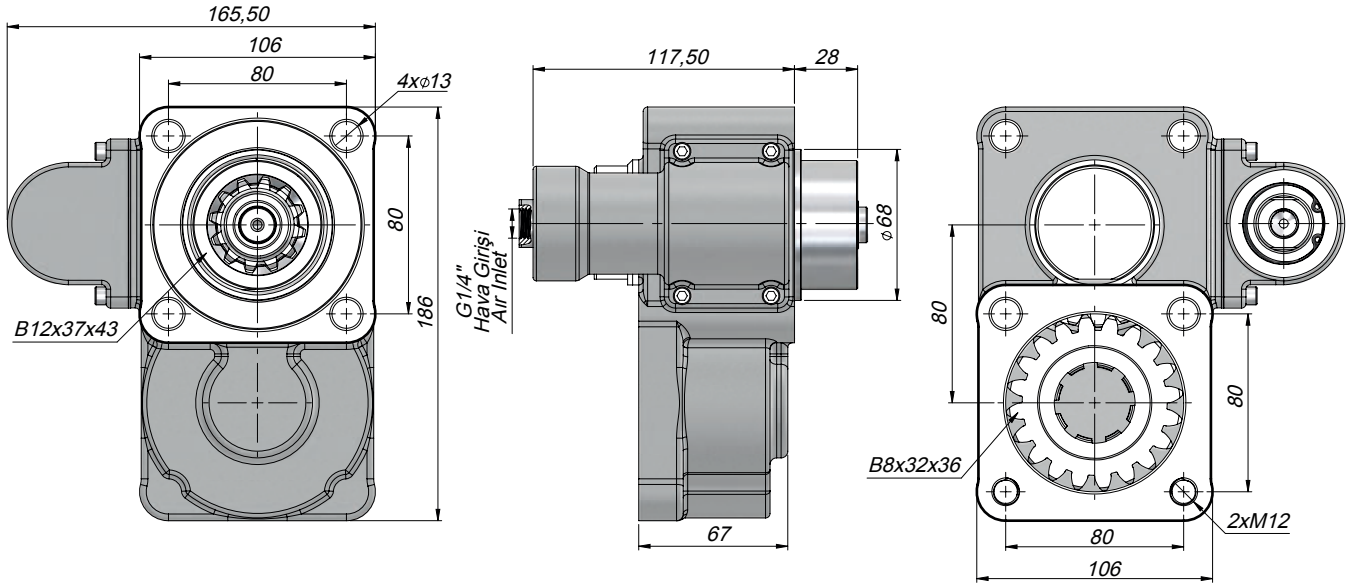


POWER TAKE
OFFS

Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çevrim Oranı Ratio	Çıkış Tork Outlet Torque	Güç Power	Çıkış Hızı Output Speed	Dönüş Yönü Direction Of Rotation
		(Bar)			(Kg \cdot m) (Nm)	(Kw) 1000 dev/dak	(dev/dak)	
PT2ZFS12	16S-130- 160-190	7-12	Havalı Pneumatic	1,19	29 284	28,2 Hp 20,7 Kw	700	Sol Left

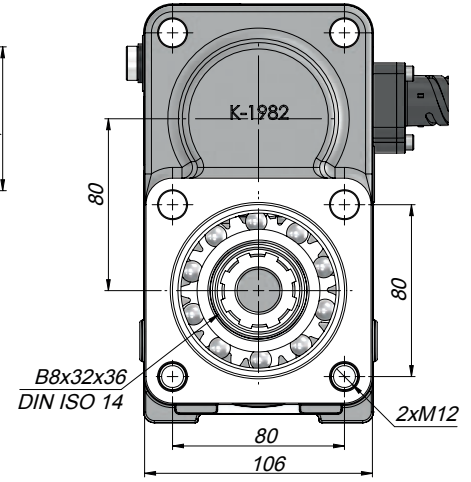
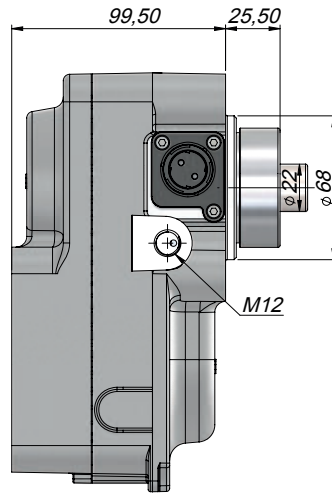
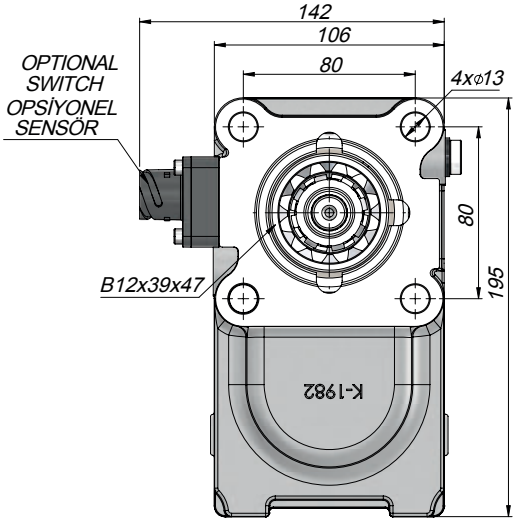


POWER TAKE
OFFS



Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı Pneumatical Working Pressure (Bar)	Kontrol Sistemi Control System	Çevrim Oranı Ratio	Çıkış Tork Outlet Torque (Kg _m) (Nm)		Güç Power (Kw) 1000 dev/dak	Çıkış Hızı Output Speed (dev/dak)	Dönüş Yönü Direction Of Rotation
PT2AXS12	Axor	7-12	Havalı Pneumatic	1,19	29	284	28.2 Hp 20.7 Kw	700	Sol Left

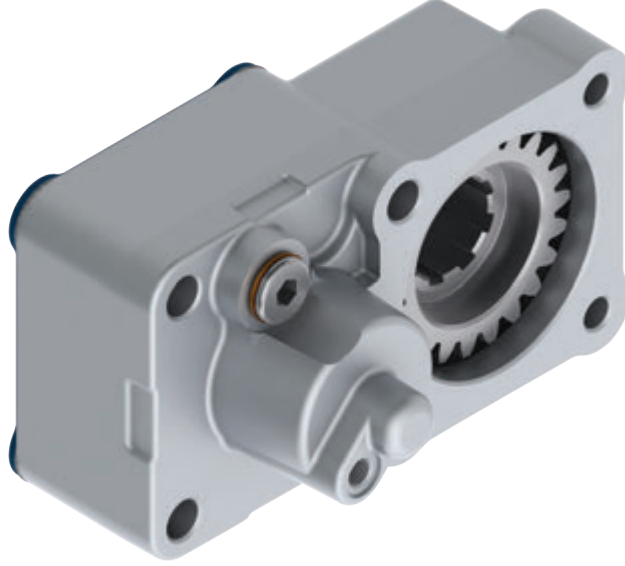
TEKNİK VERİLER | TECHNICAL DATA



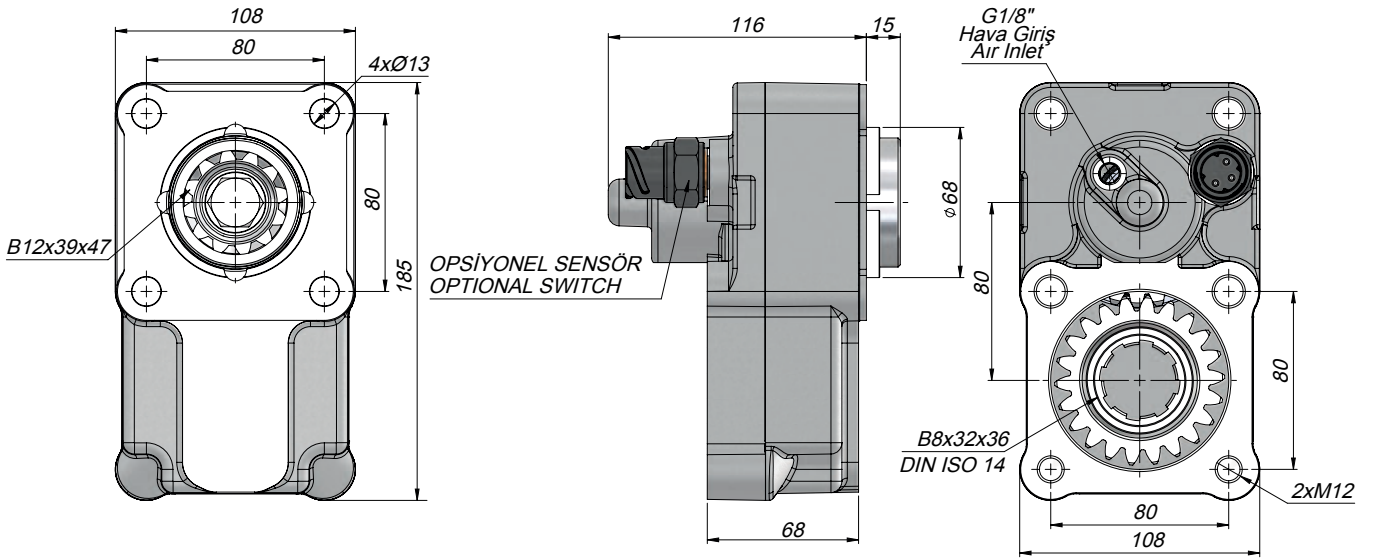
POWER TAKE
OFFS

Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı	Kontrol Sistemi Control System	Çevrim Oranı Ratio	Çıkış Tork Outlet Torque		Güç Power		Çıkış Hızı Output Speed (dev/dak)	Dönüş Yönü Direction Of Rotation
		(Bar)			(Kgm)	(Nm)	(Kw) 1000 dev/dak			
PT2NHS12WS	16S-130-160-190	7-12	Havalı Pneumatic	1,28	43.80	430	30 Hp	22 Kw	700	Sol Left
PT2NHS12SW										

*(SW) - Switch
(WS) - Without Switch



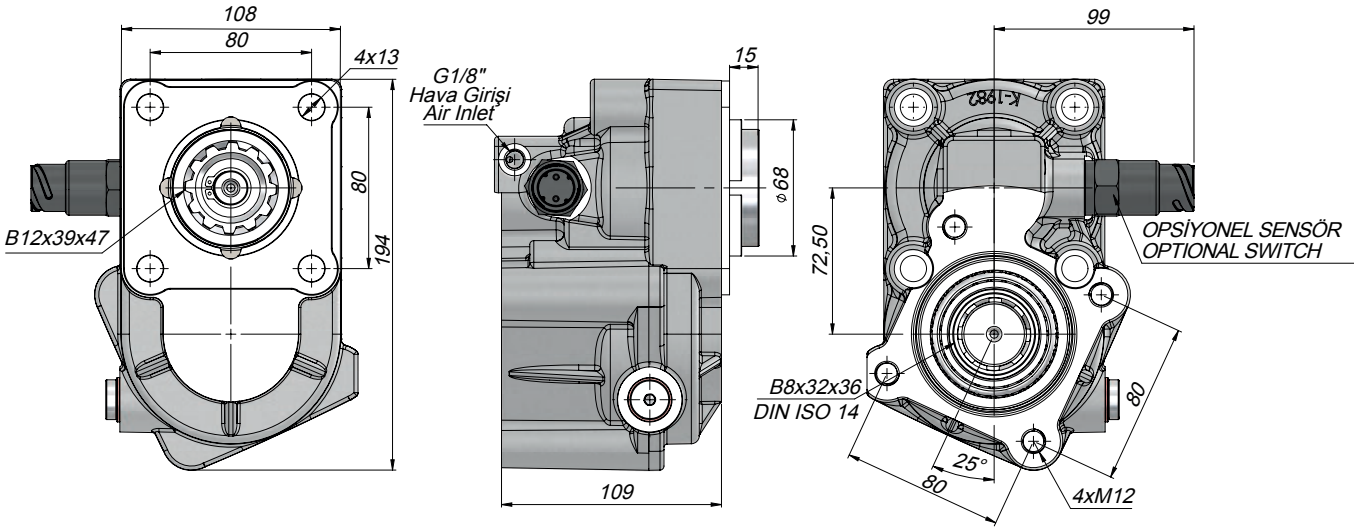
POWER TAKE
OFFS



Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çevrim Oranı Ratio	Çıkış Tork Outlet Torque		Güç Power		Çıkış Hızı Output Speed	Dönüş Yönü Direction Of Rotation
		(Bar)			(Kgm)	(Nm)	(Kw) 1000 dev/dak		(dev/dak)	
PT2ZFAS12WS	ZF-168	7-12	Havalı Pneumatic	1.35	43.8	300	30 Hp	22 Kw	700	Sol Left
PT2ZFAS12SW										

* (SW) - Switch
(WS) - Without Switch

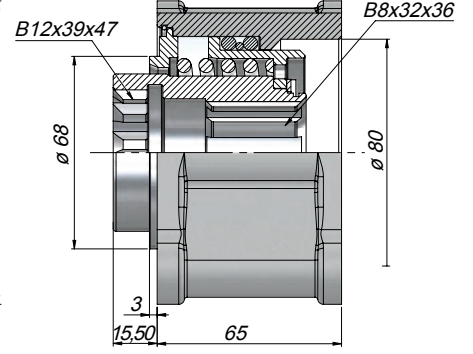
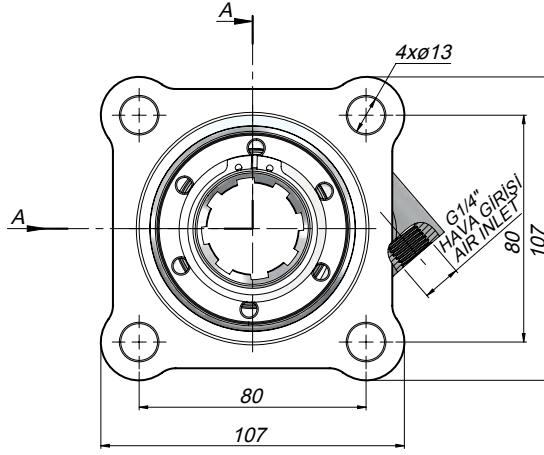
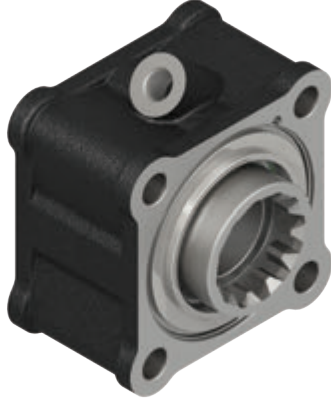
TEKNİK VERİLER | TECHNICAL DATA



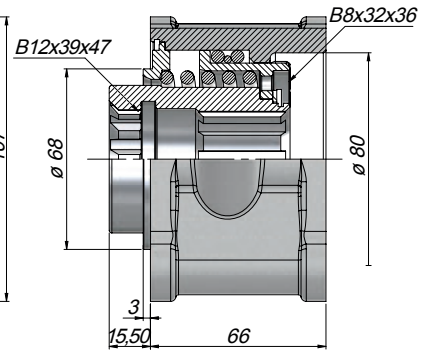
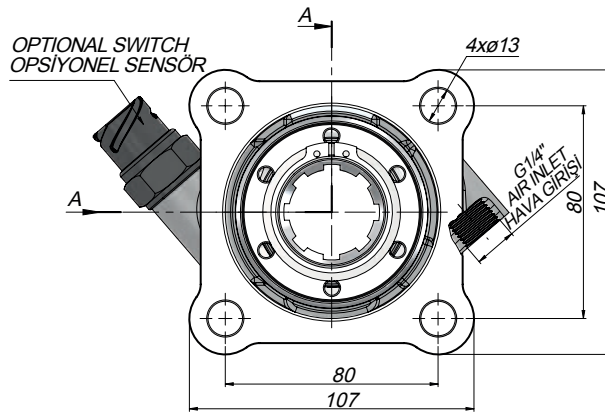
POWER TAKE
OFFS

Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çevrim Oranı Ratio	Çıkış Tork Outlet Torque		Güç Power		Çıkış Hızı Output Speed (dev/dak)	Dönüş Yönü Direction Of Rotation
		(Bar)			(Kgm)	(Nm)	(Kw) 1000 dev/dak			
PT2VCS12WS	12-41-42-43	7-12	Havalı Pneumatic	1,53	40	400	28.2 Hp	20.7 Kw	700	Sol Left
PT2VCS12SW										

*(SW) - Switch
(WS) - Without Switch



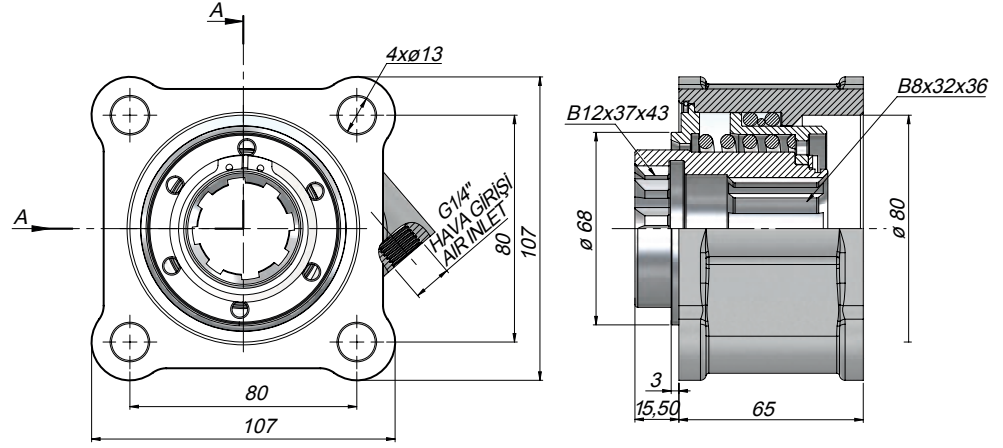
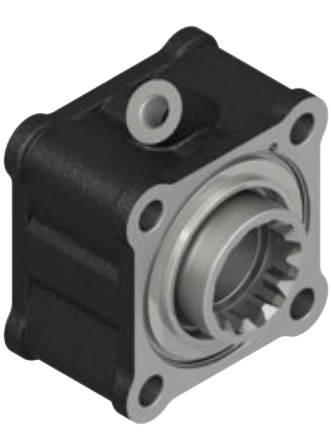
Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çıkış Tork Outlet Torque		Güç Power		Çıkış Hızı Output Speed
		(Bar)		(Kg _m)	(Nm)	(Kw) 1000 dev/dak	(dev/dak)	
PT1ZFS12	4.90/120/150 6.36/65/70/75/80/90	7-12	Havalı Pneumatic	57	230	35 Hp	25.7 Kw	500



Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çıkış Tork Outlet Torque		Güç Power		Çıkış Hızı Output Speed
		(Bar)		(Kg _m)	(Nm)	(Kw) 1000 dev/dak	(dev/dak)	
PT1ZFS12(SW)	16S-130-160-190	7-12	Havalı Pneumatic	57	230	35 Hp	25.7 Kw	500
PT1ZFS12(WS)								

* (SW) - Switch
(WS) - Without Switch

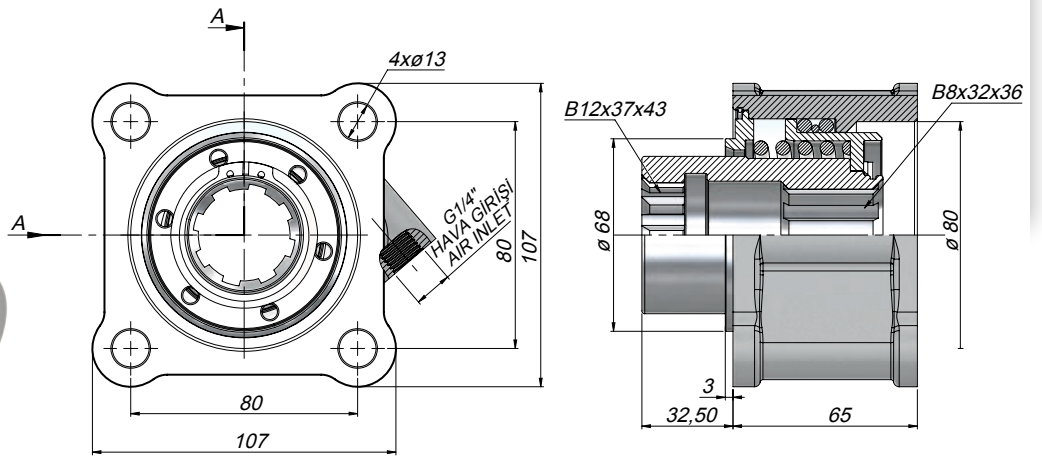
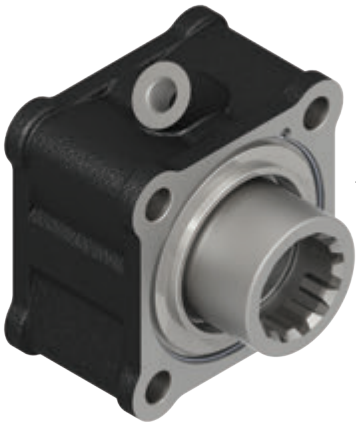
TEKNİK VERİLER | TECHNICAL DATA



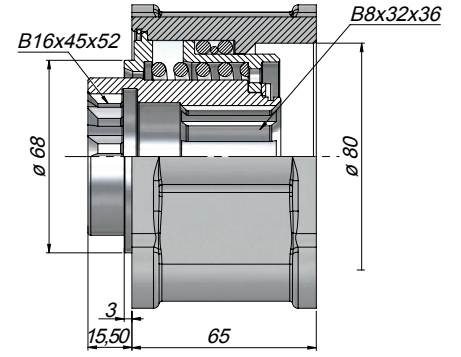
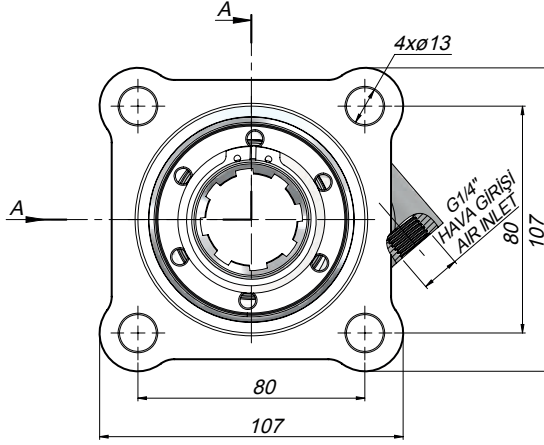
Kod Code	Şanzuman Modeli Gear Box Model	Havali Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çıkış Tork Outlet Torque		Güç Power		Çıkış Hızı Output Speed
				(Kg _m)	(Nm)	(Kw) 1000 dev/dak	(dev/dak)	
PT1AXS12S	4.90/120/150	7-12	Havali Pneumatic	57	230	35 Hp	25.7 Kw	500
PT1ACS12S	6.36/65/70/75/80/90							

* (AX) - Axor
(AC) - Actros

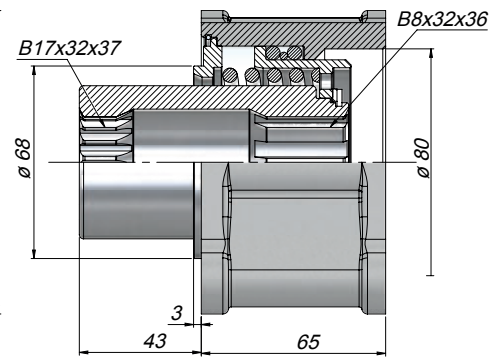
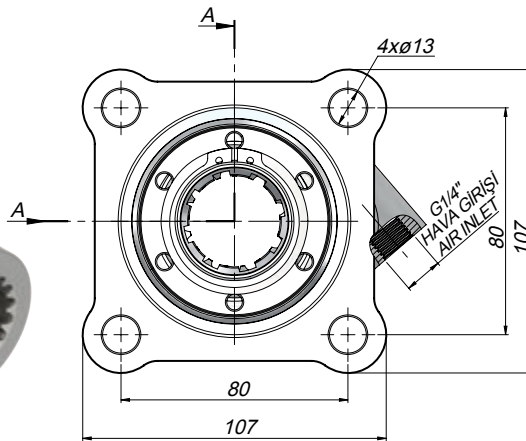
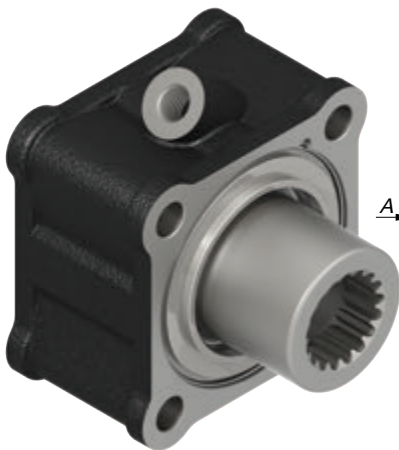
TEKNİK VERİLER | TECHNICAL DATA



Kod Code	Şanzuman Modeli Gear Box Model	Havali Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çıkış Tork Outlet Torque		Güç Power		Çıkış Hızı Output Speed
				(Kg _m)	(Nm)	(Kw) 1000 dev/dak	(dev/dak)	
PT1AXS12L	4.90/120/150 6.36/65/70/75/80/90	7-12	Havali Pneumatic	57	230	35 Hp	25.7 Kw	500

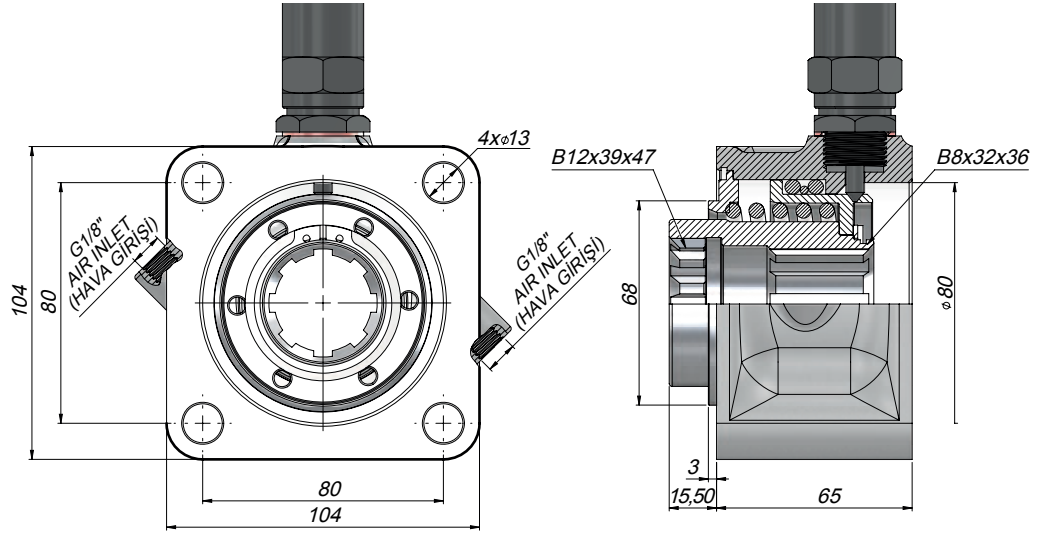


Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çıkış Tork Outlet Torque		Güç Power		Çıkış Hızı Output Speed
		(Bar)		(Kçgm)	(Nm)	(Kw) 1000 dev/dak	(dev/dak)	
PT1VLS16	4.90/120/150 6.36/65/70/75/80/90	7-12	Havalı Pneumatic	57	230	35 Hp	25.7 Kw	500



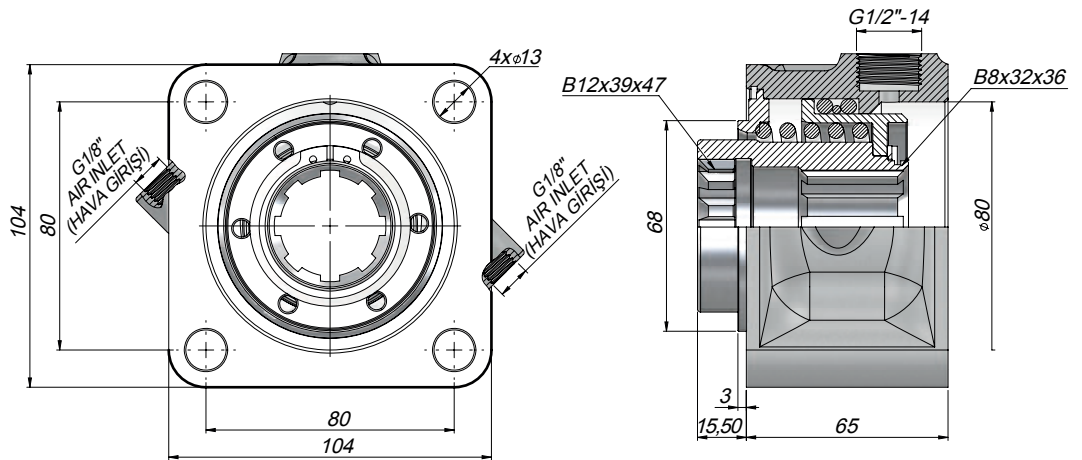
Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çıkış Tork Outlet Torque		Güç Power		Çıkış Hızı Output Speed
		(Bar)		(Kçgm)	(Nm)	(Kw) 1000 dev/dak	(dev/dak)	
PT1ATS17	4.90/120/150 6.36/65/70/75/80/90	7-12	Havalı Pneumatic	57	230	35 Hp	25.7 Kw	500

TEKNİK VERİLER | TECHNICAL DATA

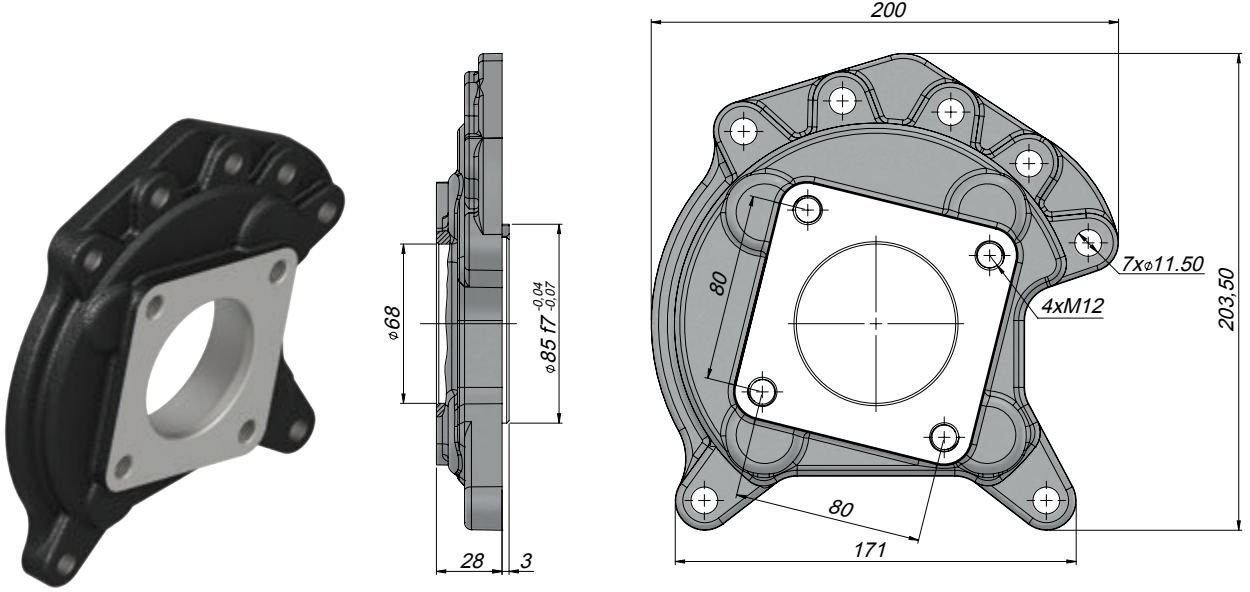


Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çıkış Tork Outlet Torque	Güç Power	Çıkış Hızı Output Speed
		(Bar)		(Kçm) (Nm)	(Kw) 1000 dev/dak	(dev/dak)
PT1ZFAS12SW	16S-130-160-190	7-12	Havalı Pneumatic	57 230	35 Hp 25.7 Kw	500

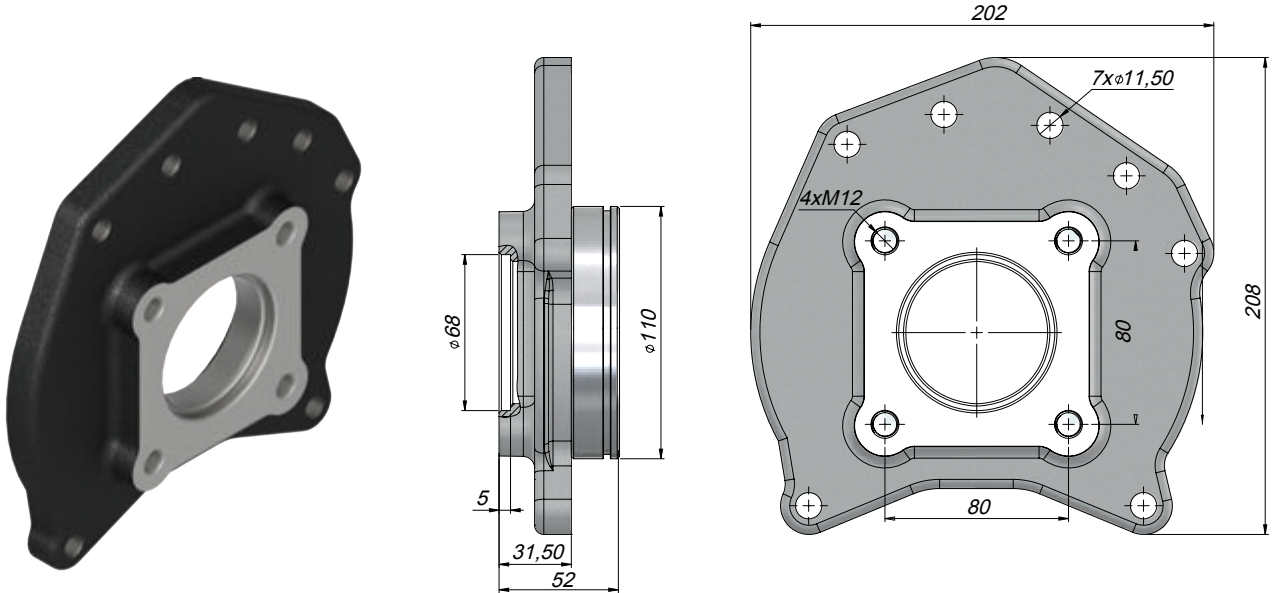
* (SW) - Switch



Kod Code	Şanzuman Modeli Gear Box Model	Havalı Çalışma Basıncı Pneumatical Working Pressure	Kontrol Sistemi Control System	Çıkış Tork Outlet Torque	Güç Power	Çıkış Hızı Output Speed
		(Bar)		(Kçm) (Nm)	(Kw) 1000 dev/dak	(dev/dak)
PT1ZFAS12	16S-130-160-190	7-12	Havalı Pneumatic	57 230	35 Hp 25.7 Kw	500

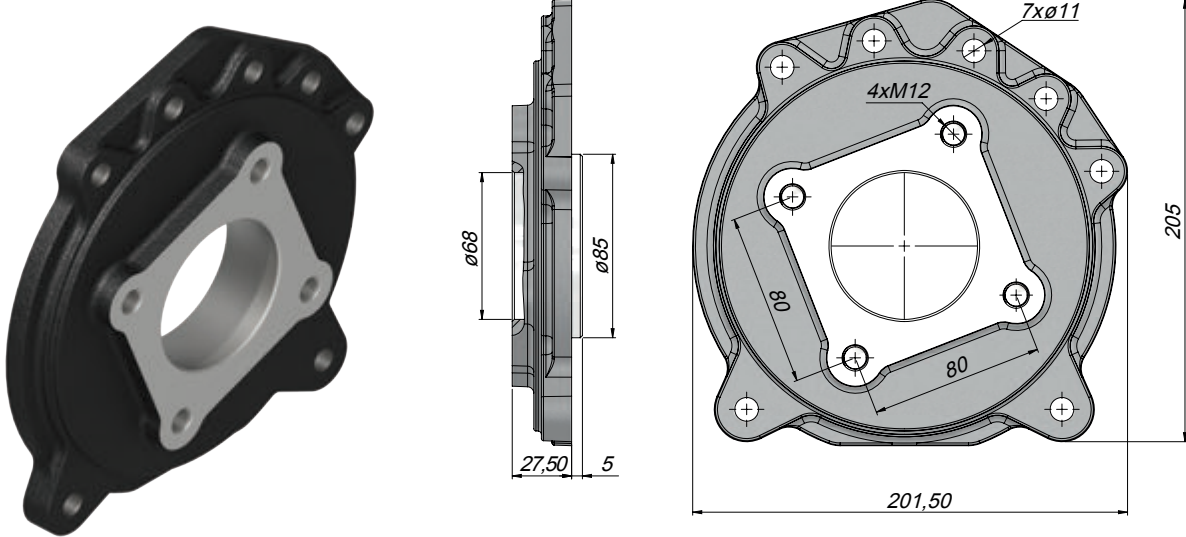


Kod Code	Araç Markası-Kamyon Vehicle Brand-Truck
PL68M6SP	Mercedes 6 Speed



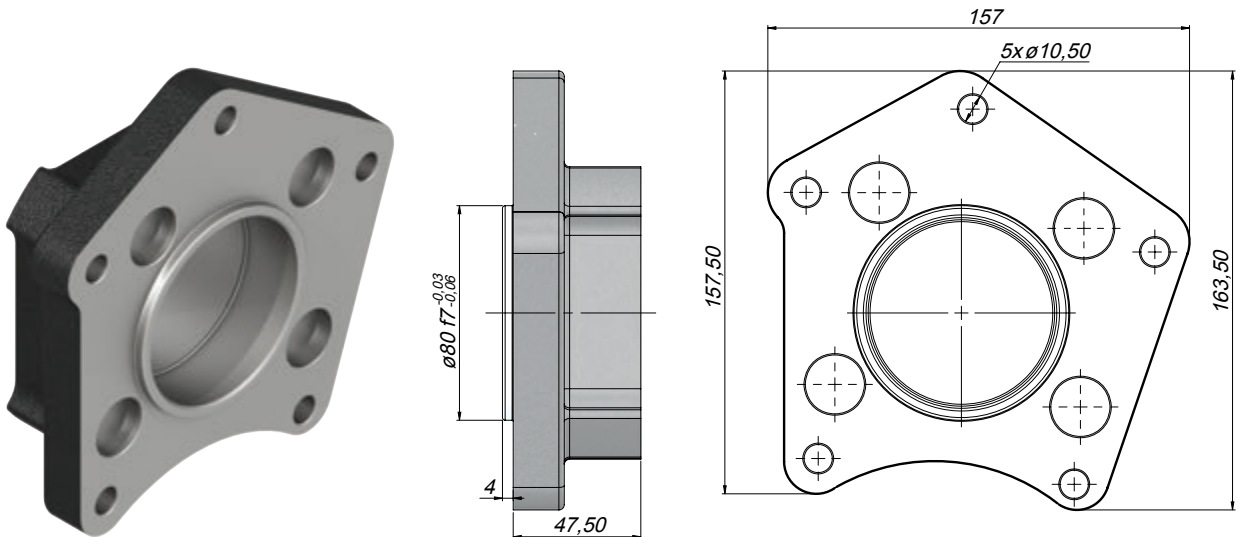
Kod Code	Araç Markası-Kamyon Vehicle Brand-Truck
PL68M1735	Mercedes 1735

TEKNİK VERİLER | TECHNICAL DATA

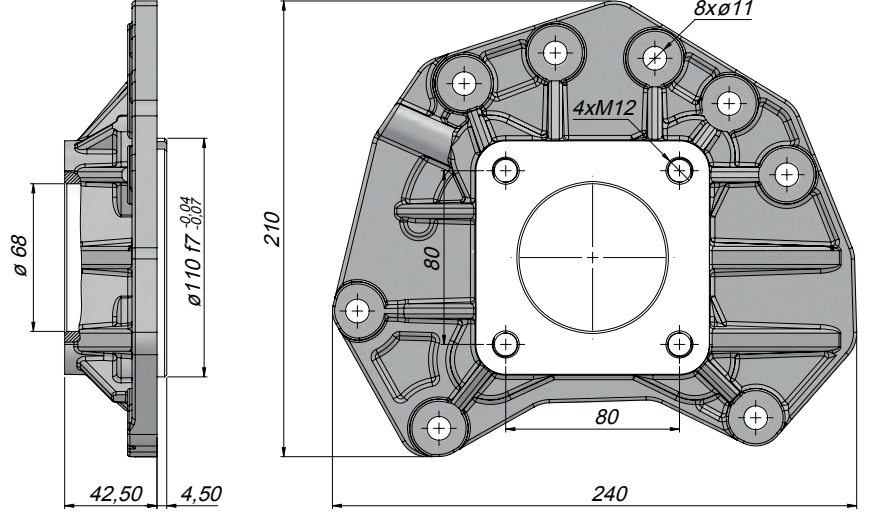


Kod Code	Araç Markası-Kamyon Vehicle Brand-Truck
PL68M2517	Mercedes 2517

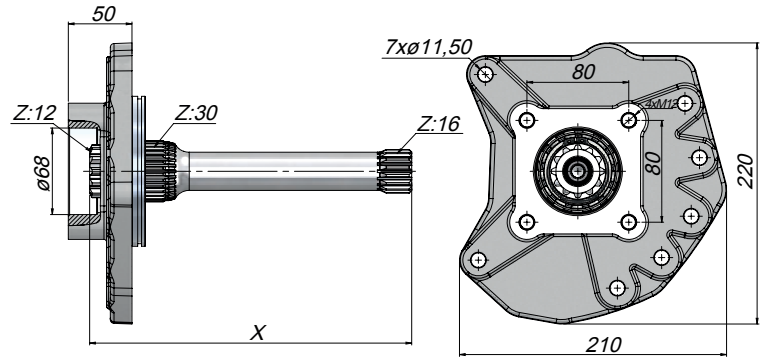
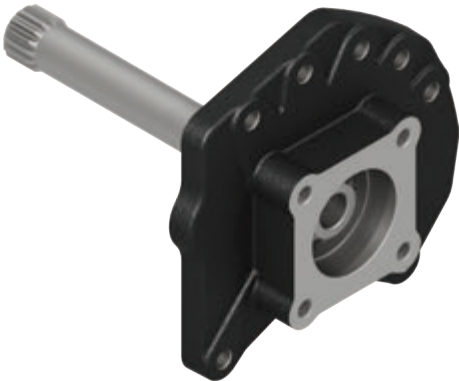
TEKNİK VERİLER | TECHNICAL DATA



Kod Code	Araç Markası-Kamyon Vehicle Brand-Truck
PL80AT47	Mercedes G3/36-40-45-50-60-61

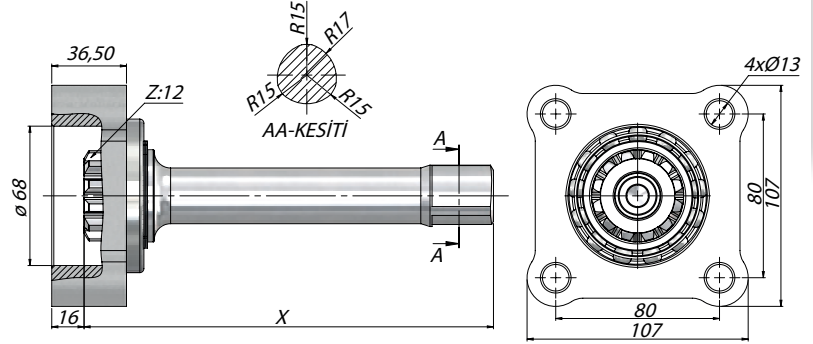
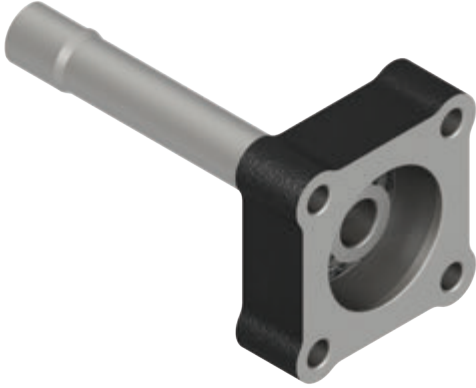
KAZEL**MERCEDES
G150-260
P.T.O.****TEKNİK VERİLER | TECHNICAL DATA**

Kod Code	Araç Markası-Kamyon Vehicle Brand-Truck
PL68MG150	Mercedes G150-260

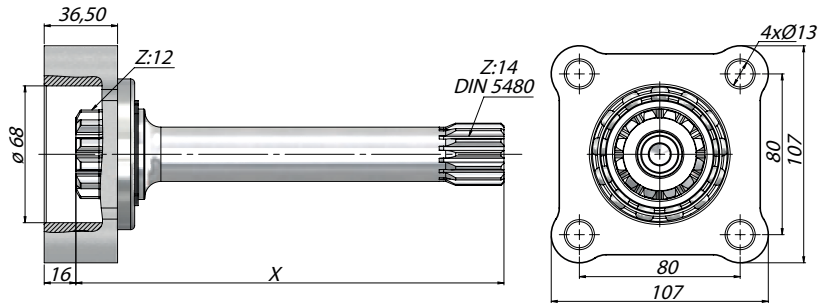
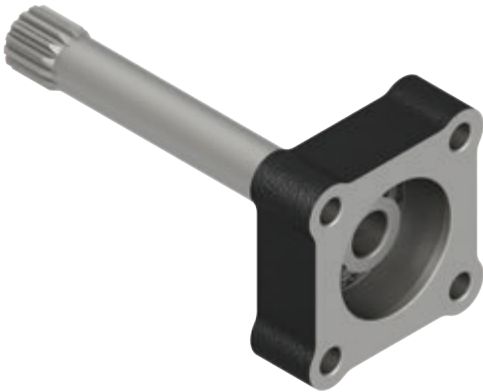
KAZEL**AXOR
ACTORS
P.T.O.****TEKNİK VERİLER | TECHNICAL DATA**

Kod Code	Şanzuman Modeli Gear Box Model	X
CSAXS16253	Mercedes G125-G260 AXOR	253
CSACS16275	Mercedes G125-G210 Reterdar Voith ACTROS	275,5

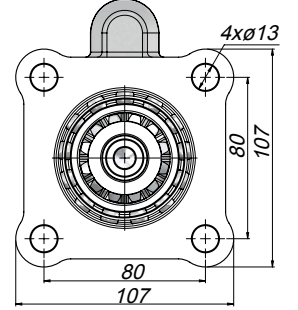
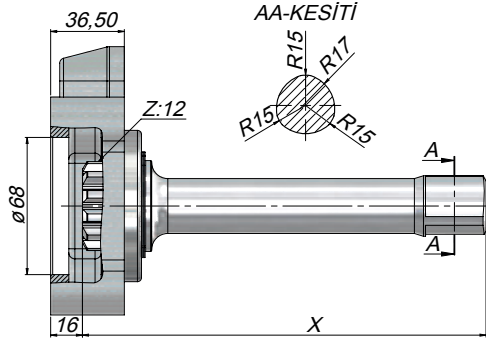
TEKNİK VERİLER | TECHNICAL DATA



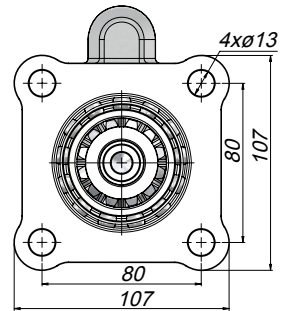
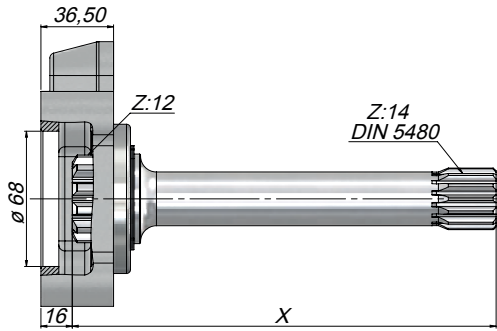
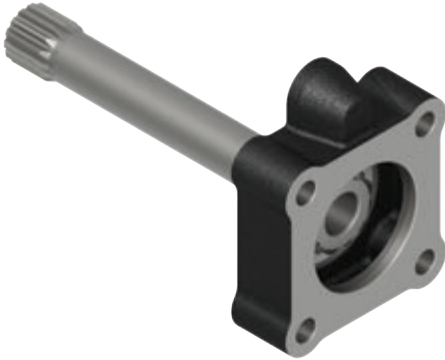
Kod Code	Şanzuman Modeli Gear Box Model	X
CSMNSR195	ZF-16 S 130	195
CSMNSR200	ZF-16 S 130	200
CSMNSR213	ZF-16 S 160.....221	213,5
CSMNSR217	ZF-16 S 130	217
CSMNSR238	ZF-16 S 150	238
CSMNSR257	ZF-16 S 220	257
CSMNSR288	ZF-16 S 160 A	288



Kod Code	Şanzuman Modeli Gear Box Model	X
CSMNS14200	ZF-16 S 151	200
CSMNS14213	ZF-16 S 151	213
CSMNS14215	ZF-16 S 151	215
CSMNS14226	ZF-16 S 151	226
CSMNS14249	ZF-16 AS 2200	249
CSMNS14253	ZF-16 S 151.....221	253
CSMNS14272	ZF-16 AS 1800-2200	272,5
CSMNS14288	ZF-16 S 251	288,5

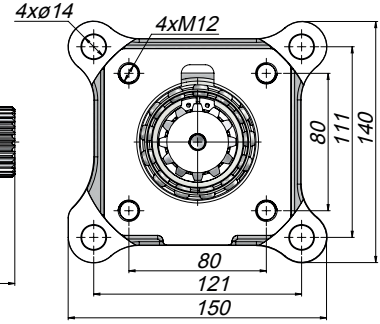
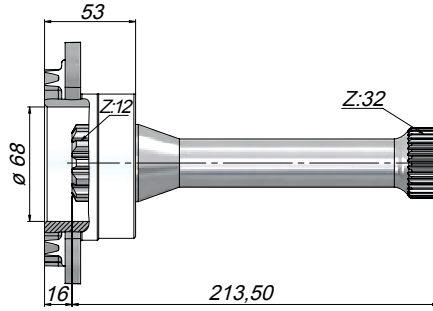


Kod Code	Şanzuman Modeli Gear Box Model	X
CSRTSR195	ZF-16 S 130	195
CSRTSR200	ZF-16 S 130	200
CSRTSR213	ZF-16 S 160.....221	213,5
CSRTSR217	ZF-16 S 130	217
CSRTSR238	ZF-16 S 150	238
CSRTSR257	ZF-16 S 220	257
CSRTSR288	ZF-16 S 160 A	288

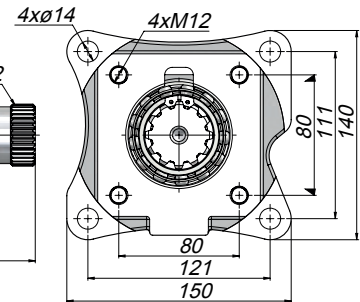
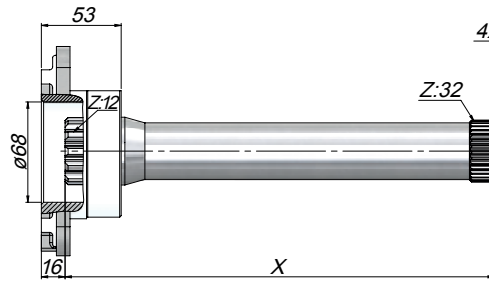


Kod Code	Şanzuman Modeli Gear Box Model	X
CSINS14200	ZF-16 S 151+INTARDER	200
CSINS14213	ZF-16 S 151+INTARDER	213
CSINS14215	ZF-16 S 151+INTARDER	215
CSINS14226	ZF-16 S 151+INTARDER	226
CSINS14249	ZF-16 AS 2200	249
CSINS14253	ZF-16 S 151.....221	253
CSINS14272	ZF-16 AS 1800-2200	272,5
CSINS14288	ZF-16 S 251	288,5

TEKNİK VERİLER | TECHNICAL DATA



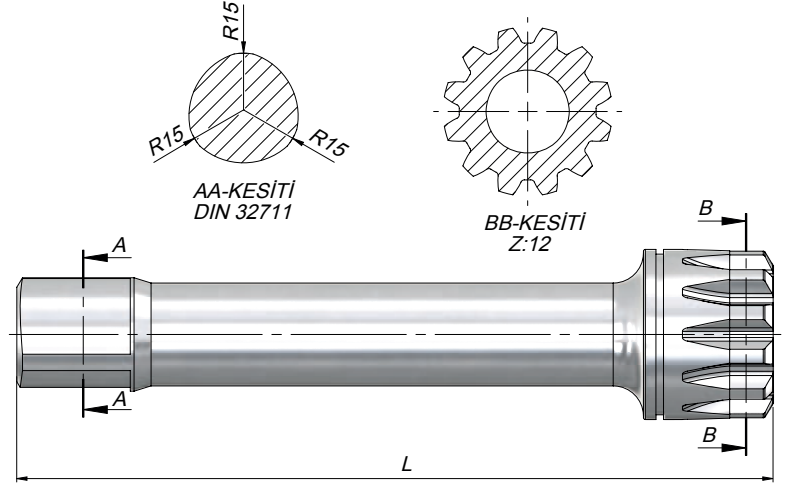
Kod Code	Şanzuman Modeli Gear Box Model
CSVLS32213	VT 2400 New VT 2415 Euro SR 1400-SR 1700 SR 2000-SRO 2000 FH 16-FH 12-VT



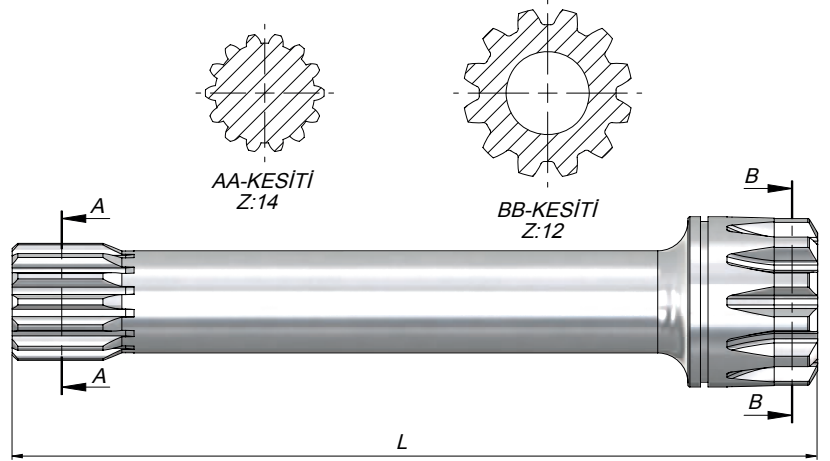
Kod Code	Şanzuman Modeli Gear Box Model	X
CSVLS32249	Volvo Vt 2400 New Volvo Vt 2415 Euro	249
CSVLS32285	Volvo Vt 2014+Retarder Voith	285



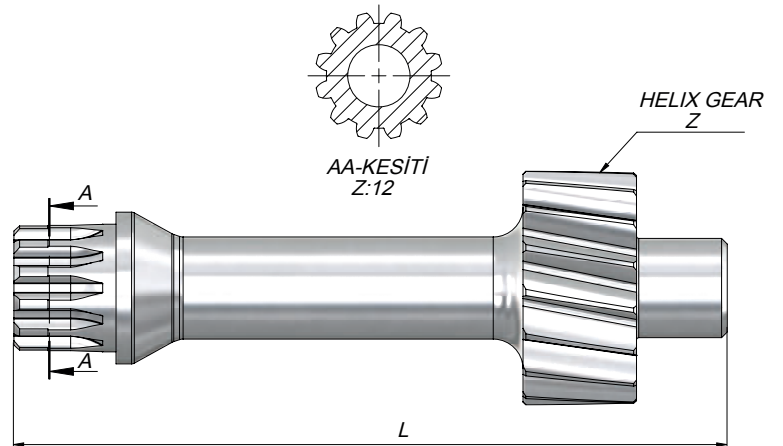
Kod Code	Şanzuman Modeli Gear Box Model	L
CS16S130195	ZF-16 S 130	195
CS16S130200	ZF-16 S 130	200
CS16S130213	ZF-16 S 160.....221	213,5
CS16S130217	ZF-16 S 130	217
CS16S150238	ZF-16 S 150	238
CS16S220257	ZF-16 S 220	257
CS16S160288	ZF-16 S 160 A	288



Kod Code	Şanzuman Modeli Gear Box Model	L
CS16S151200	ZF-16 S 151	200
CS16S151213	ZF-16 S 151	213
CS16S151215	ZF-16 S 151	215
CS16S151226	ZF-16 S 151	226
CS16S220249	ZF-16 AS 2200	249
CS16S151253	ZF-16 S 151.....221	253
CS16S180272	ZF-16 AS 1800-2200	272,5
CS16S251288	ZF-16 S 251	288,5



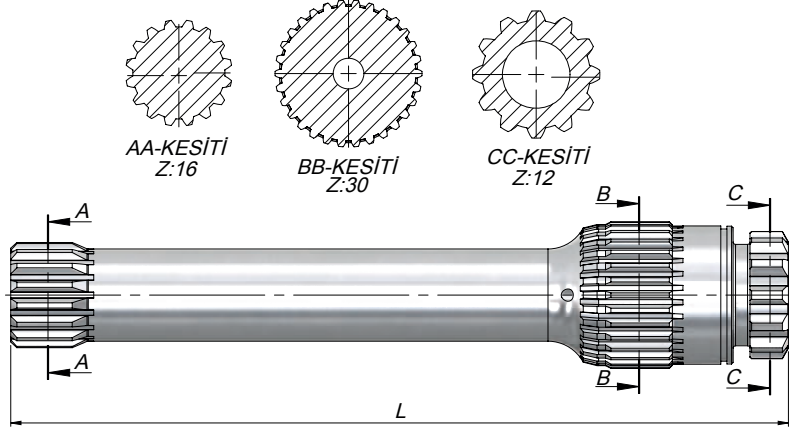
Kod Code	Şanzuman Modeli Gear Box Model	L	Z
CS912287	ZF-9 S 109 / 12.92-1.0	287	12
	ZF-16 S 109/13.30-1.0		
	ZF-9 S 109/12.91-1.0		
	ZF-16 S 109/13.31-1.0		
CS917287	ZF-9 S 109/10.25-0.74	247,5	17
	ZF-16 S 109/11.86-0.85		
	ZF-16 S 109/13.53-0.86		
CS916247	ZF-9 S 75/13.16-1.0	247,5	16



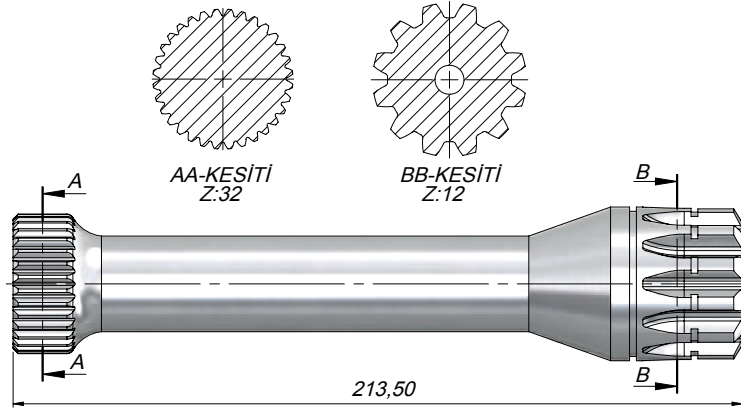
TEKNİK VERİLER | TECHNICAL DATA



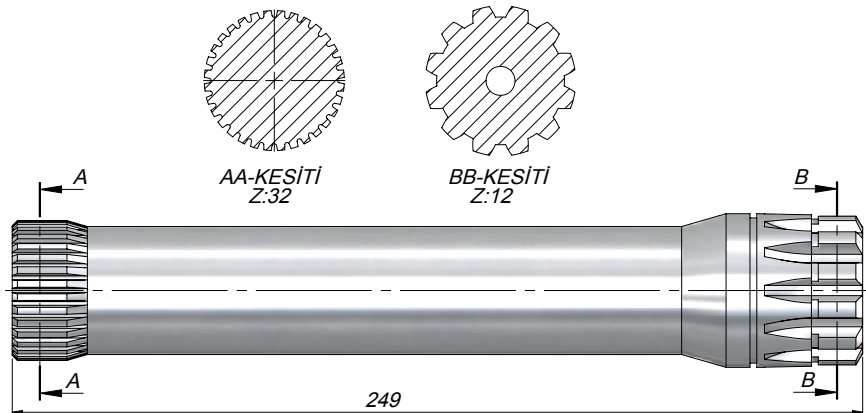
Kod Code	Şanzuman Modeli Gear Box Model	L
CSMC1612243	Mercedes	243
CSMC1612253K	Mercedes Kamalı	253
CSAX1612253	Mercedes G125-G260 AXOR	253
CSAC1612275	Mercedes G125-G260 Retarder Voith ACTROS	275,5



Kod Code	Şanzuman Modeli Gear Box Model
CSVL3212213	VOLVO F12-F16



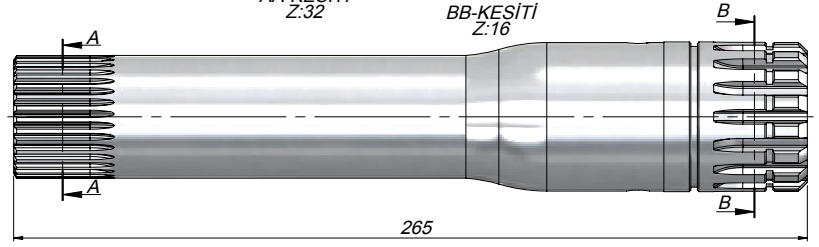
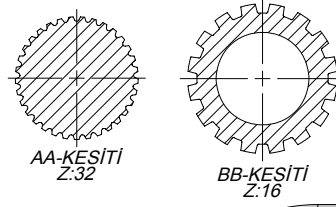
Kod Code	Şanzuman Modeli Gear Box Model
CSVL3212249	Volvo-FH-12 Volvo FH-16



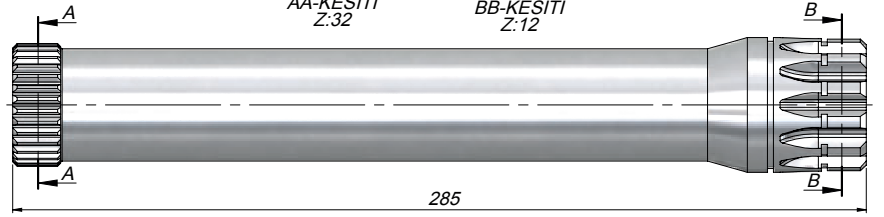
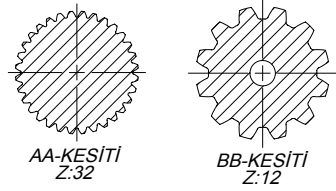
POWER TAKE
OFFS



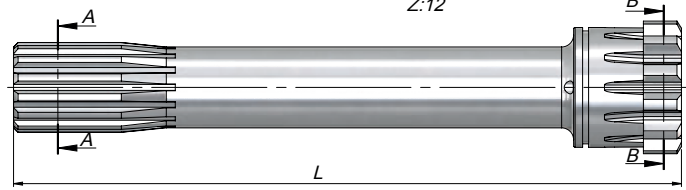
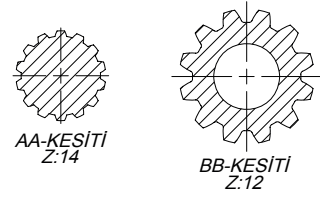
Kod Code	Şanzuman Modeli Gear Box Model
CSVL3216265	VOLVO F7-F12 F88-F89 N-10.27



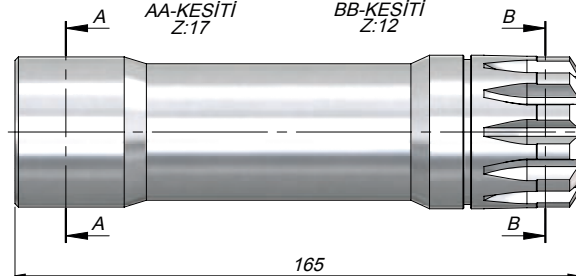
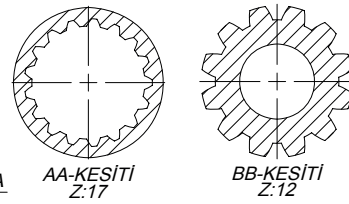
Kod Code	Şanzuman Modeli Gear Box Model
CSVL3212285	VOLVO F12-F16



Kod Code	Şanzuman Modeli Gear Box Model	L
CSHW223	HW-18710 HW-18710-T	223
CSHW286	HW-20716 HW-1910	286



Kod Code	Şanzuman Modeli Gear Box Model
CSZF1712165	ZF-110



KAZEL[®] VALVE

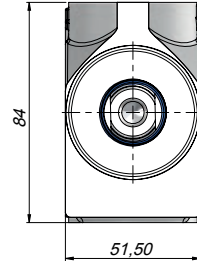
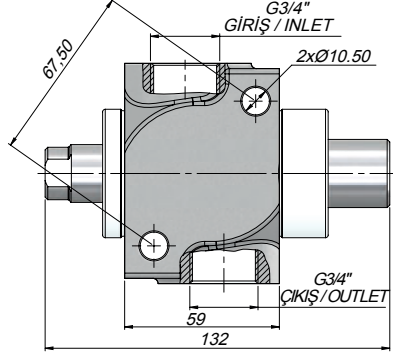
VALVE SERIES



VALVES

TEKNİK VERİLER | TECHNICAL DATA

SINIR KONTROL VALFİ / KAPALI DEVRE | LIMIT CONTROL VALVE / CLOSED-LOOP



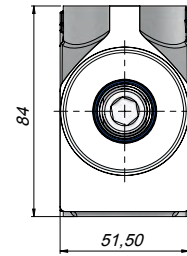
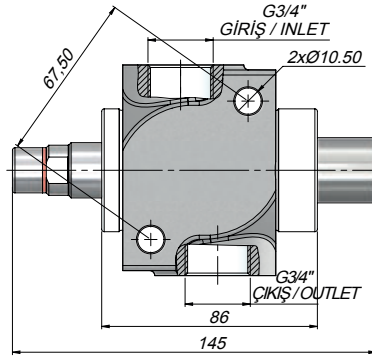
Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Vizkosite Seviyesi Operating Viscosity Range
	(l/dk)	(Bar)	(°C)	(cSt)
VK1110	110	190	-10 ~+80~	-12-100 cSt



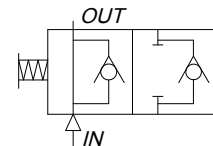
HİDROLİK SEMBOL
HYDRAULIC SYMBOL

TEKNİK VERİLER | TECHNICAL DATA

SINIR KONTROL VALFİ / AÇIK DEVRE | LIMIT CONTROL VALVE / OPEN-LOOP



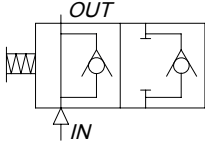
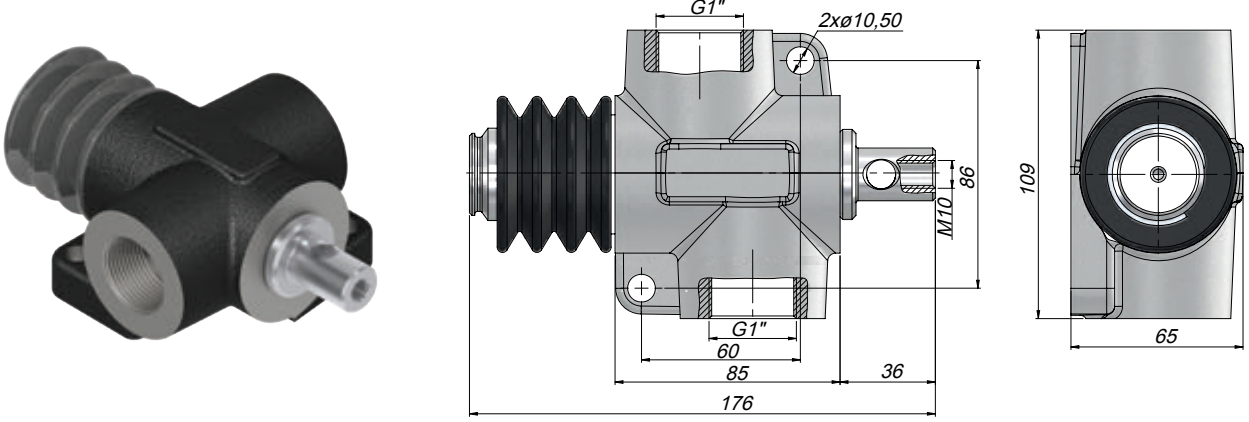
Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Vizkosite Seviyesi Operating Viscosity Range
	(l/dk)	(Bar)	(°C)	(cSt)
VK2110	110	190	-10 ~+80~C	-12-100 cSt



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

TEKNİK VERİLER | TECHNICAL DATA

2 YOLLU 1 POZİSYONLU SINIR KONTROL VALFİ | LIMIT CONTROL VALVE WITH 2 WAY AND 1 POSITION

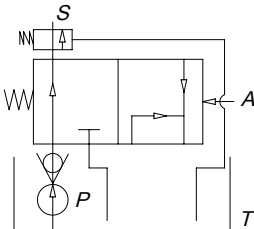
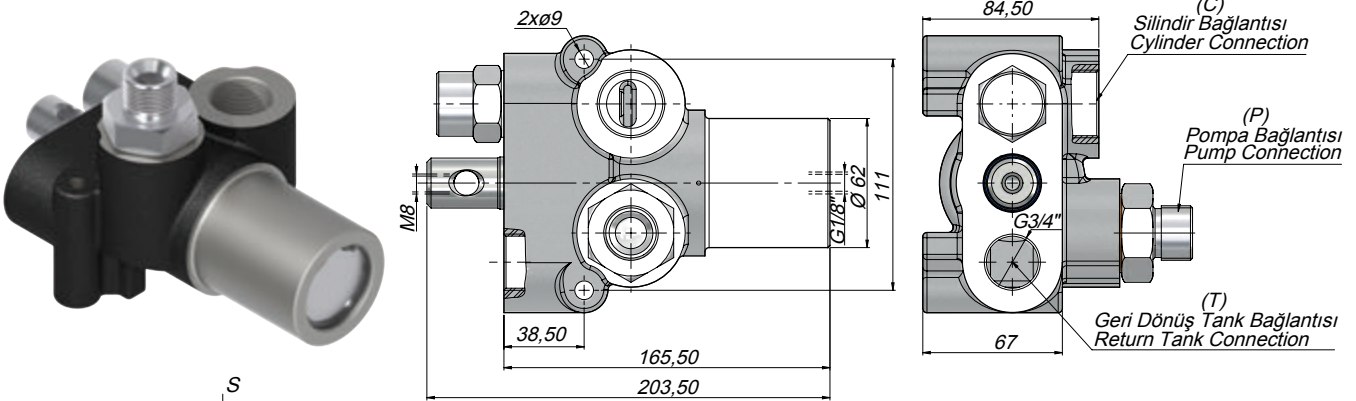


HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Viskosite Seviyesi Operating Viscosity Range
	(l/dk)	(Bar)	(°C)	(cSt)
VK3180	180	350	-10 ~+80~	-12-100 cSt

TEKNİK VERİLER | TECHNICAL DATA

TEK YÖNLÜ VALF | SINGLE CONTROLLED VALVE

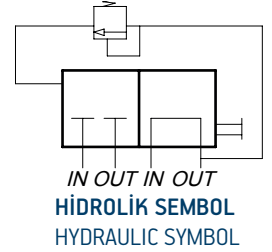
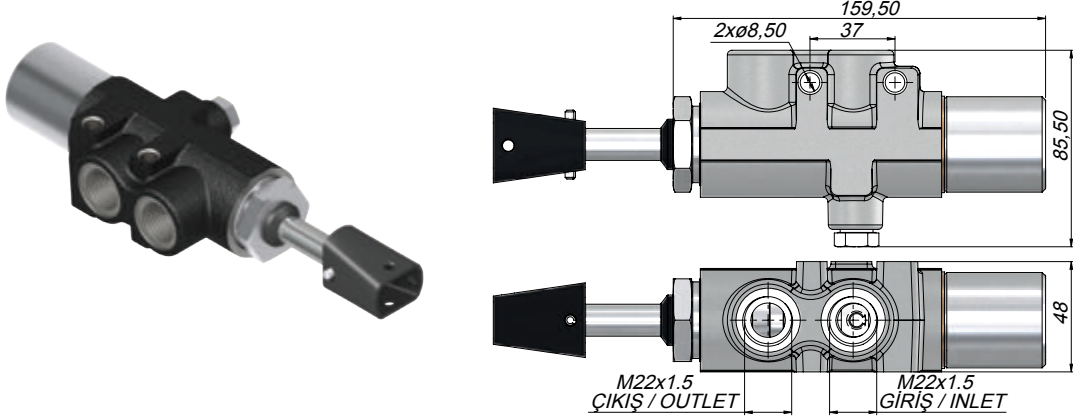


HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Viskosite Seviyesi Operating Viscosity Range
	(l/dk)	(Bar)	(°C)	(cSt)
VMS140	140	350	-10 ~+80~	-12-100 cSt

TEKNİK VERİLER | TECHNICAL DATA

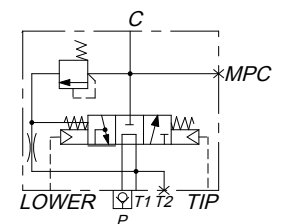
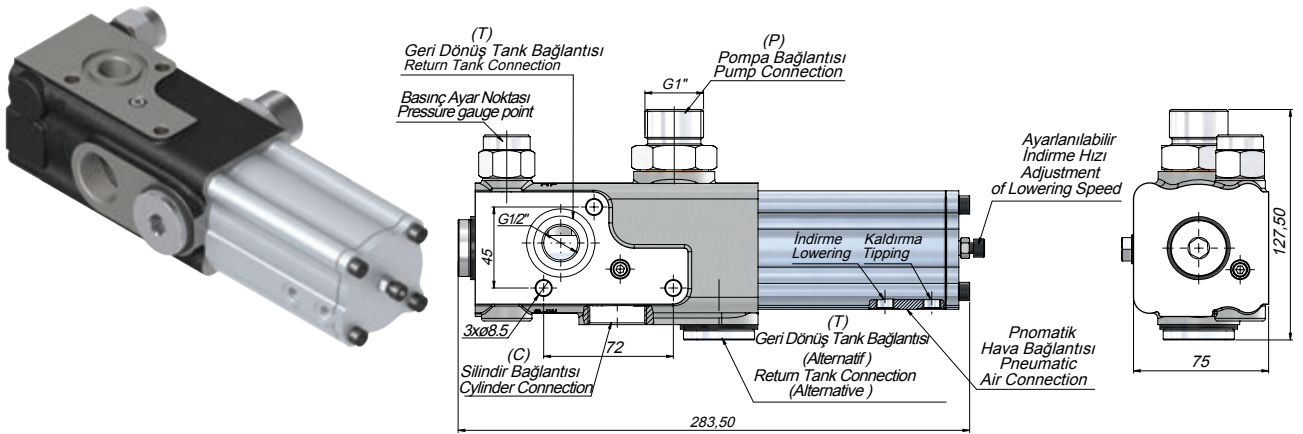
MEKANİK İNDİRME VALFİ | MECHANICAL LOWERING VALVE



Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Vizkosite Seviyesi Operating Viscosity Range	Havalı Çalışma Basıncı Pneumatic Working Pressure
	(l/dk)	(Bar)	(°C)	(cSt)	(Bar)
VZR110	110	220	-10 ~+80~	-12-100 cSt	7-12

TEKNİK VERİLER | TECHNICAL DATA

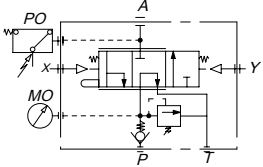
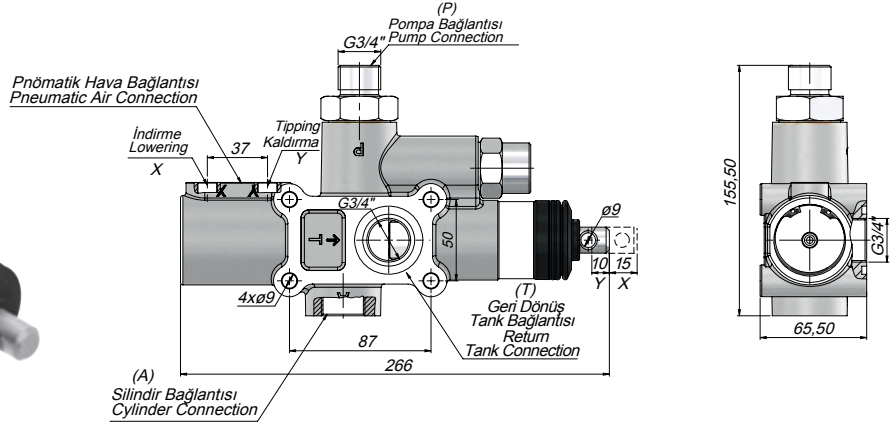
KAPALI DEVRE YÖN KONTROL VALFİ | CLOSED-LOOP DIRECTIONAL CONTROL VALVE



Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Vizkosite Seviyesi Operating Viscosity Range	Havalı Çalışma Basıncı Pneumatic Working Pressure
	(l/dk)	(Bar)	(°C)	(cSt)	(Bar)
VFR180	180	350	-10 ~+80~	-12-100 cSt	7-12

TEKNİK VERİLER | TECHNICAL DATA

KAPALI DEVRE YÖN KONTROL VALFİ | CLOSED-LOOP DIRECTIONAL CONTROL VALVE

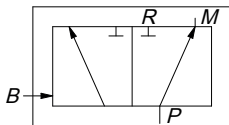
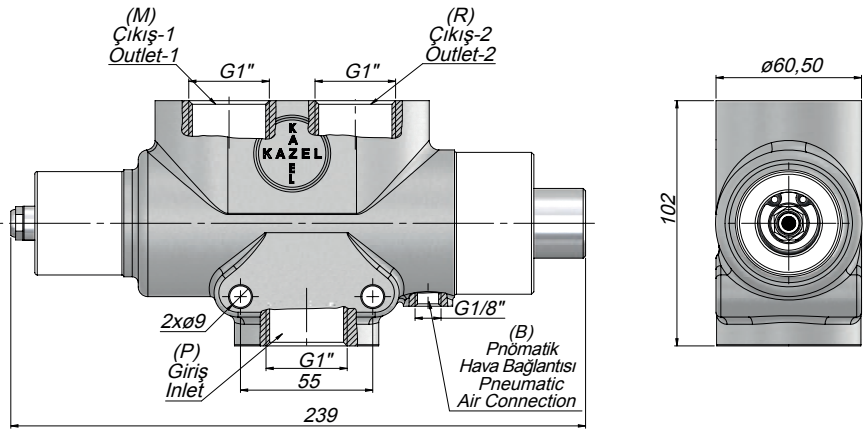


HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Viskosite Seviyesi Operating Viscosity Range	Havalı Çalışma Basıncı Pneumatic Working Pressure
	(l/dk)	(Bar)	(°C)	(cSt)	(Bar)
VZM140	140	350	-10 ~+80~	-12-100 cSt	7-12

TEKNİK VERİLER | TECHNICAL DATA

3 YOLLU VE 2 POZİSYONLU VALF | 3 WAY AND 2 POSITION VALVE

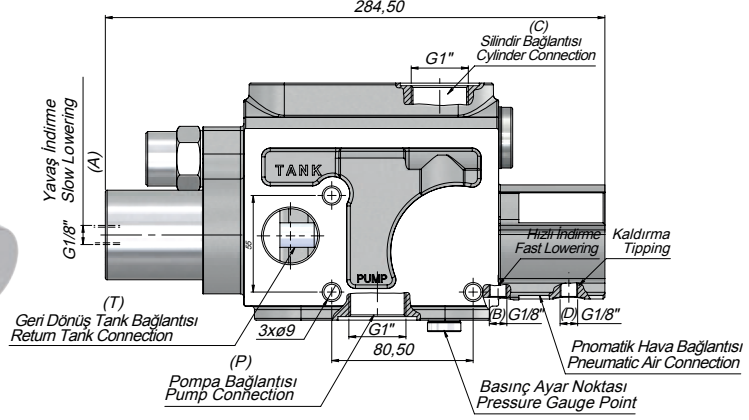


HİDROLİK SEMBOL
HYDRAULIC SYMBOL

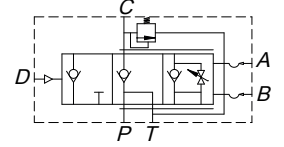
Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Viskosite Seviyesi Operating Viscosity Range	Havalı Çalışma Basıncı Pneumatic Working Pressure
	(l/dk)	(Bar)	(°C)	(cSt)	(Bar)
VSM250	250	350	-10 ~+80~	-12-100 cSt	7-12

TEKNİK VERİLER | TECHNICAL DATA

AÇIK DEVRE YÖN KONTROL VALFİ | OPEN LOOP DIRECTIONAL CONTROL VALVE



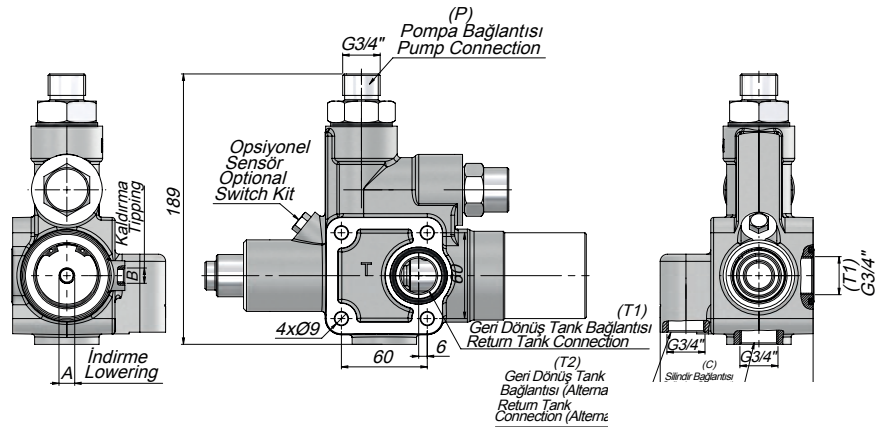
Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Vizkosite Seviyesi Operating Viscosity Range	Havalı Çalışma Basıncı Pneumatic Working Pressure
	(l/dk)	(Bar)	(°C)	(cSt)	(Bar)
VHD180	180	350	-10 ~+80~	-12-100 cSt	7-12



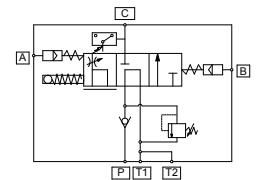
HİDROLİK SEMBOL
HYDRAULIC SYMBOL

TEKNİK VERİLER | TECHNICAL DATA

İNDİRME VE KALDIRMA VALFİ | LOWERING AND TIPPING VALVE



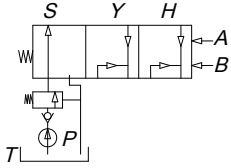
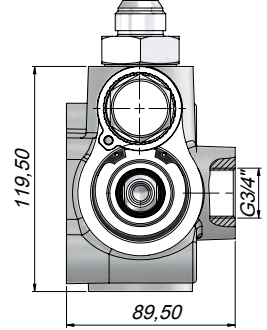
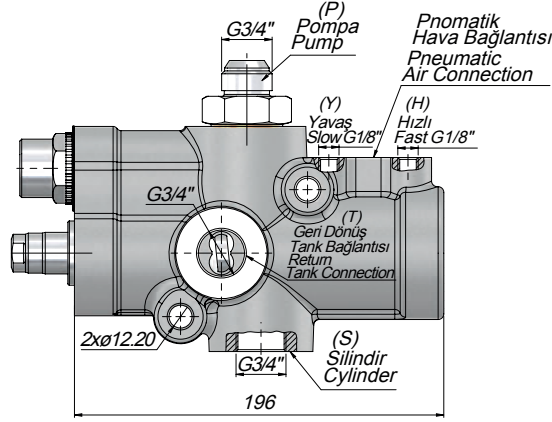
Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Vizkosite Seviyesi Operating Viscosity Range	Havalı Çalışma Basıncı Pneumatic Working Pressure
	(l/dk)	(Bar)	(°C)	(cSt)	(Bar)
VSL150	150	280	-10 ~+80~	-12-100 cSt	7-12



HİDROLİK SEMBOL
HYDRAULIC SYMBOL

TEKNİK VERİLER | TECHNICAL DATA

YÖN KONTROL VALFİ | DIRECTIONAL CONTROL VALVE

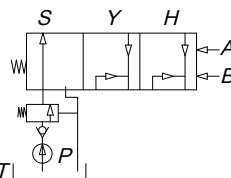
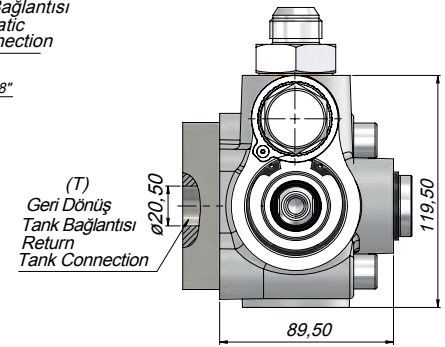
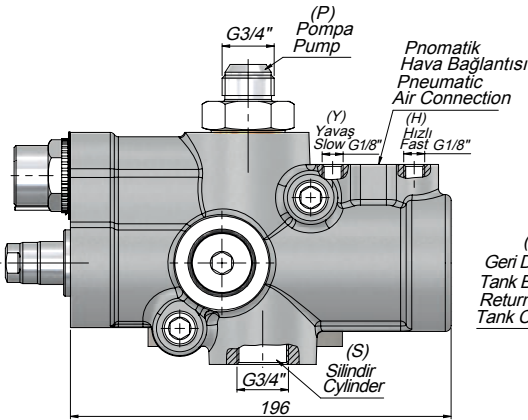


HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Viskosite Seviyesi Operating Viscosity Range	Havalı Çalışma Basıncı Pneumatic Working Pressure
	(l/dk)	(Bar)	(°C)	(cSt)	(Bar)
VHL140	140	350	-10 ~+80~	-12-100 cSt	7-12

TEKNİK VERİLER | TECHNICAL DATA

TANK TİPİ YÖN KONTROL VALFİ | TANK TYPE DIRECTIONAL CONTROL VALVE

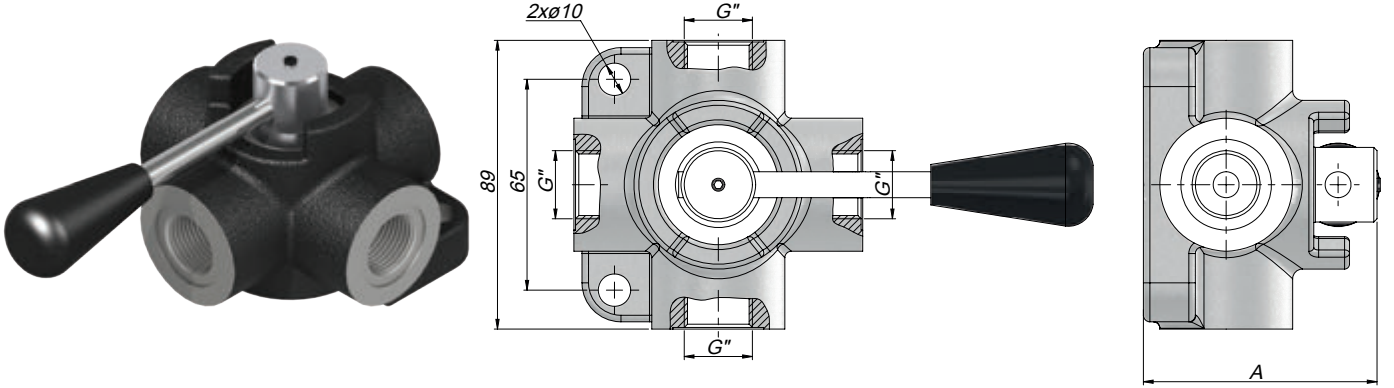


HİDROLİK SEMBOL
HYDRAULIC SYMBOL

Kod Code	Debi Oranı Flow Rate	Max.Çalışma Basıncı Max.Working Pressure	Sıvı Sıcaklığı Fluid Temperature	Çalışma Viskosite Seviyesi Operating Viscosity Range	Havalı Çalışma Basıncı Pneumatic Working Pressure
	(l/dk)	(Bar)	(°C)	(cSt)	(Bar)
VHL140T	140	350	-10 ~+80~	-12-100 cSt	7-12

TEKNİK VERİLER | TECHNICAL DATA

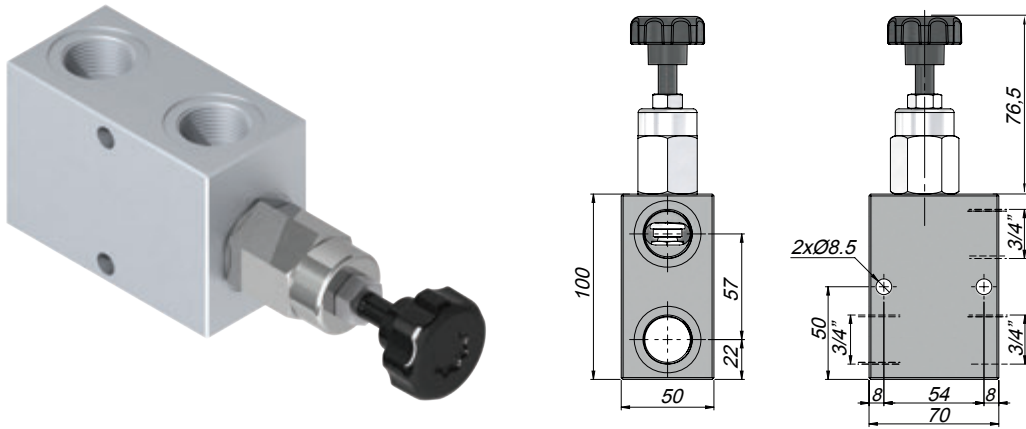
3 YOLLU VANA-4 YOLLU VANA | 3 WAY VALVE-4 WAY VALVE



3 Yollu Vana 3 Way Vane			4 Yollu Vana 3 Way Vane			
Code	V3Y180	V3Y2120	V3Y3180	V4Y180	V4Y2120	V4Y3180
A	74	81	95	74	81	95
B	84	90	100	84	90	100
C	1/2"	3/4"	1"	1/2"	3/4"	1"
Debi lt/dk Flow cc/min	80	120	180	80	120	180
P.Max.Bar	350	350	350	350	350	350

TEKNİK VERİLER | TECHNICAL DATA

BASINÇ KONTROL VALFİ | PRESSURE CONTROL VALVE



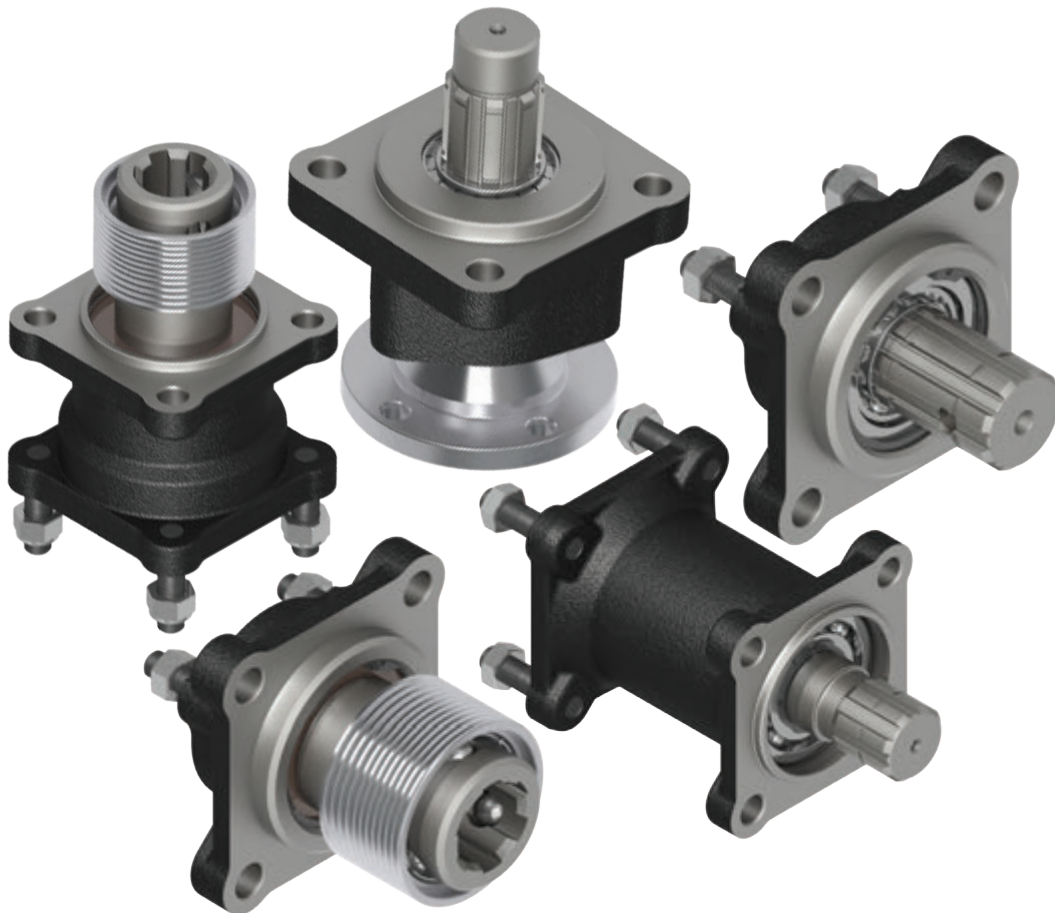
Kod Code	Max.Bar	Max.Litre Max.Liter	Özellikleri Features
	(Bar)	(L/min)	
VEF346V	210	100	3/4" Valve 50-200 bar-Vane

KAZEL[®]

ADAPTER

FLANGE-COUPLING

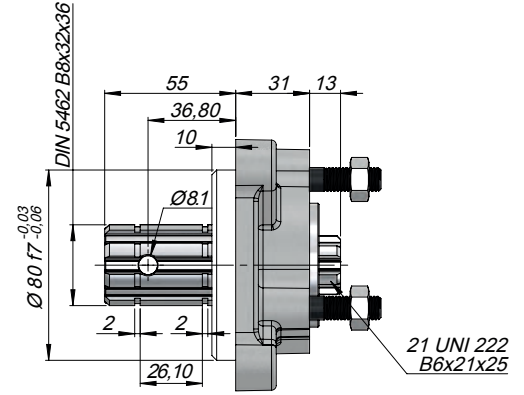
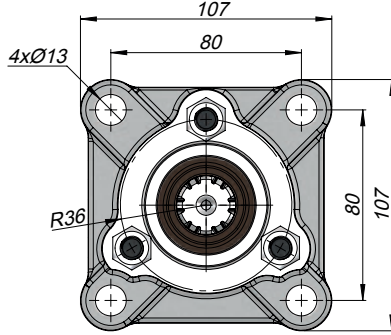
ADAPTER SERIES



ADAPTER
FLANGE-COUPLING

TEKNİK VERİLER | TECHNICAL DATA

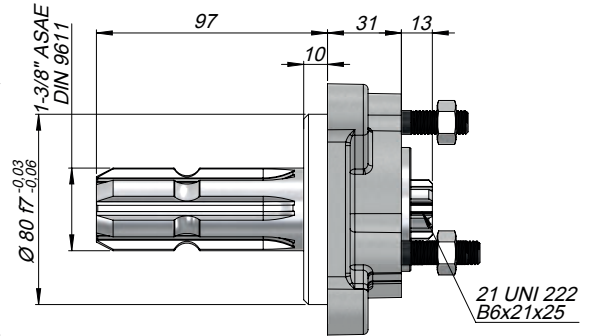
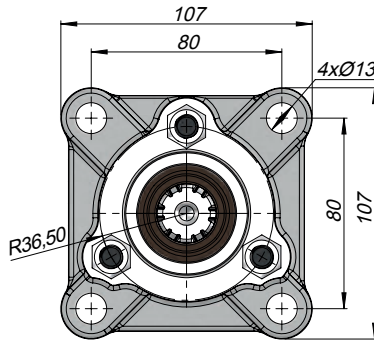
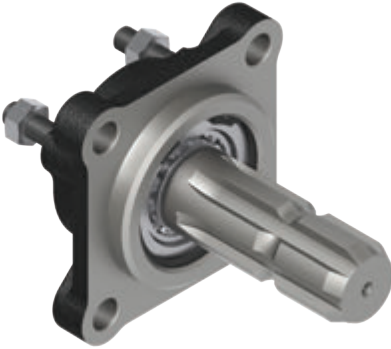
3/4 KISA ADAPTÖR | 3/4 SHORT ADAPTER



Kod
Code AK34SF1

TEKNİK VERİLER | TECHNICAL DATA

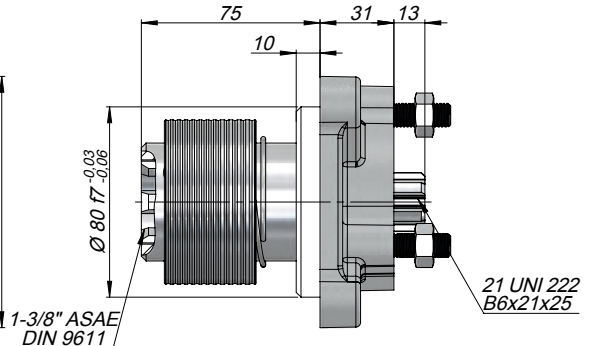
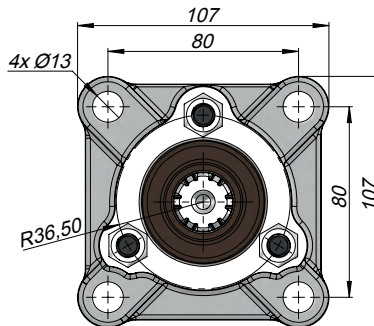
3/4 KISA ADAPTÖR | 3/4 SHORT ADAPTER



Kod
Code AK34SF2

TEKNİK VERİLER | TECHNICAL DATA

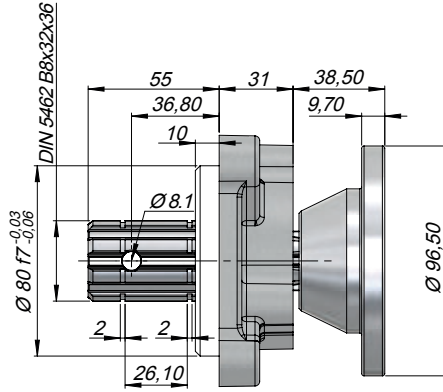
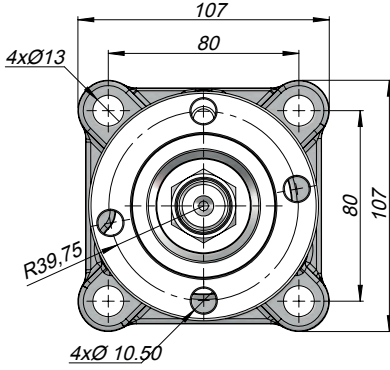
3/4 KISA TRC ADAPTÖR | 3/4 SHORT TRC ADAPTER



Kod
Code AK34SF3

TEKNİK VERİLER | TECHNICAL DATA

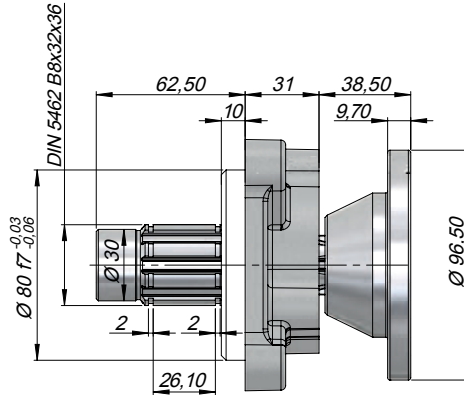
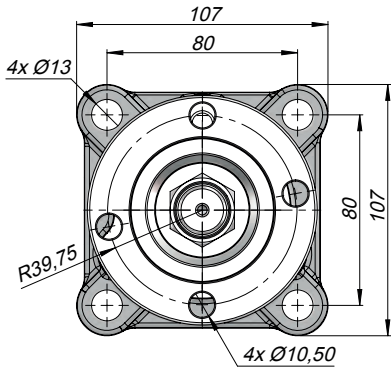
3/4 KISA FLANSLI ADAPTÖR | 3/4 SHORT FLANSLI ADAPTER



Kod
Code AKF34SF1

TEKNİK VERİLER | TECHNICAL DATA

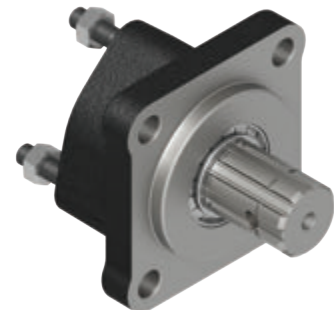
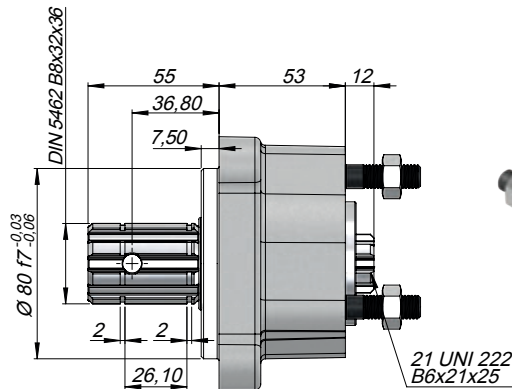
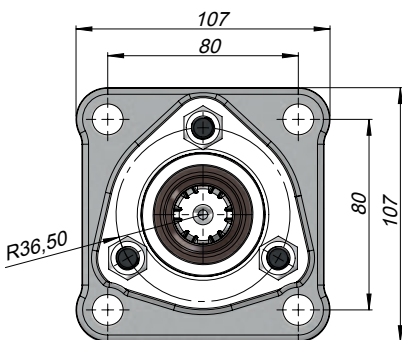
3/4 KISA RULMANLI FLANSLI ADAPTÖR | 3/4 ADAPTER WITH SHORT BEARING AND FLANGE



Kod
Code AKR34SF1

TEKNİK VERİLER | TECHNICAL DATA

3/4 UZUN ADAPTÖR | 3/4 LONG ADPTÖR



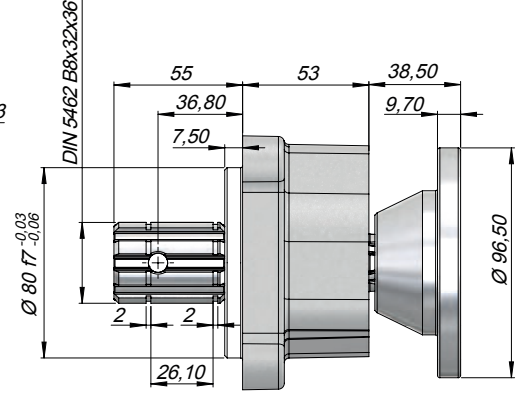
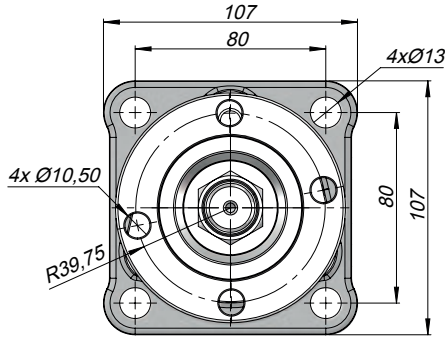
Kod
Code AU34SF1

TEKNİK VERİLER | TECHNICAL DATA

3/4 UZUN FLANSLI ADAPTÖR | 3/4 LONG FLANGE ADAPTER



Kod
Code AUF34SF1

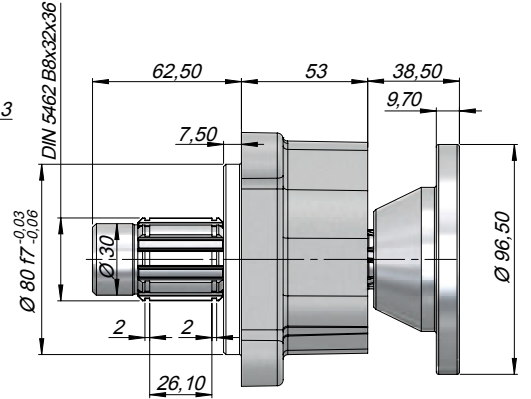
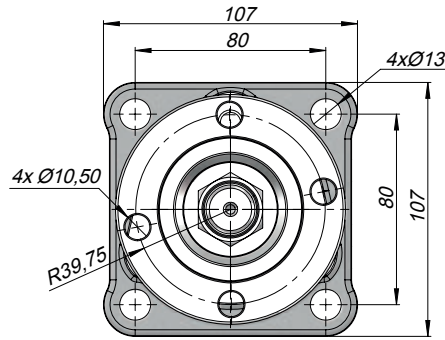


TEKNİK VERİLER | TECHNICAL DATA

3/4 UZUN RULMANLI FLANSLI ADAPTÖR | 3/4 ADAPTER WITH LONG BEARING AND FLANGE



Kod
Code AUR34SF1

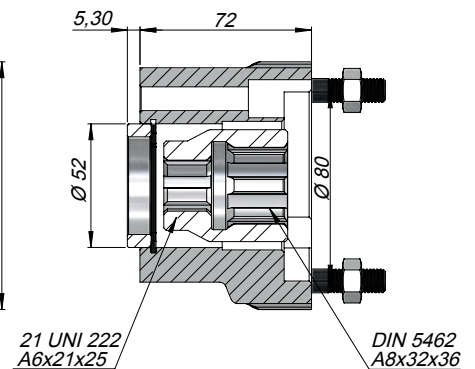
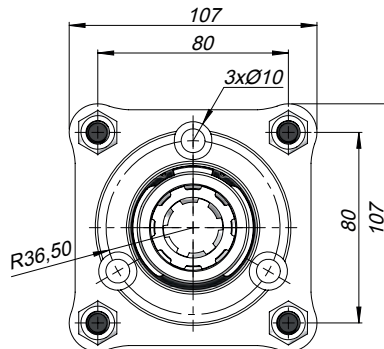


TEKNİK VERİLER | TECHNICAL DATA

4/3 ADAPTÖR | 4/3 ADAPTER

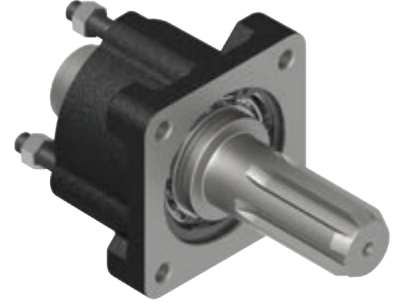
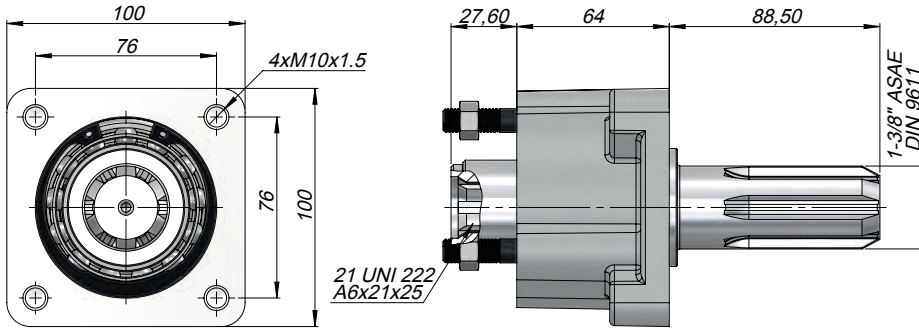


Kod
Code AU43SF1



TEKNİK VERİLER | TECHNICAL DATA

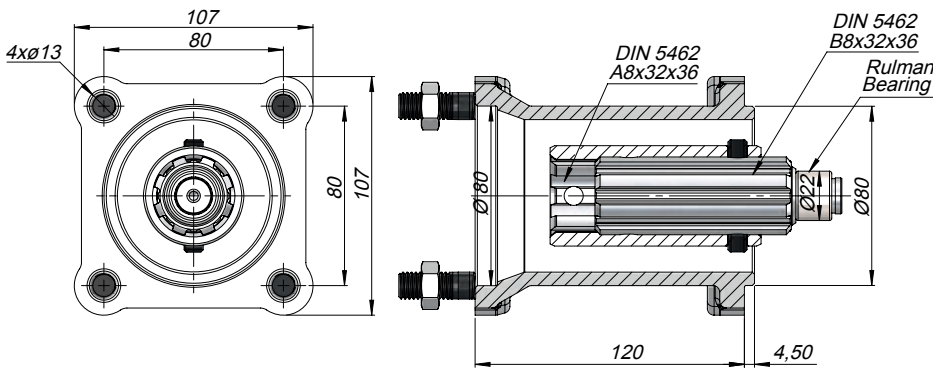
4/3 ASAE ADAPTÖR | 4/3 ASAE ADAPTER



Kod
Code AU43SF2

TEKNİK VERİLER | TECHNICAL DATA

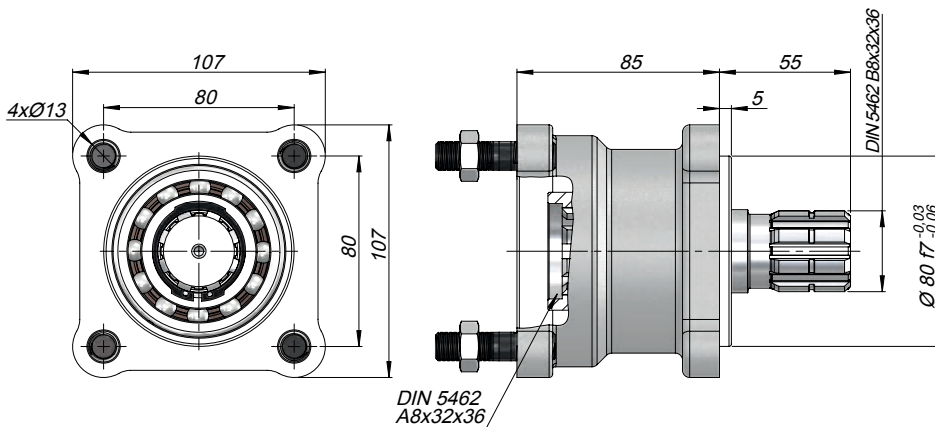
ARA UZATMA | PITCH LENGTHENING



Kod
Code AURSF1

TEKNİK VERİLER | TECHNICAL DATA

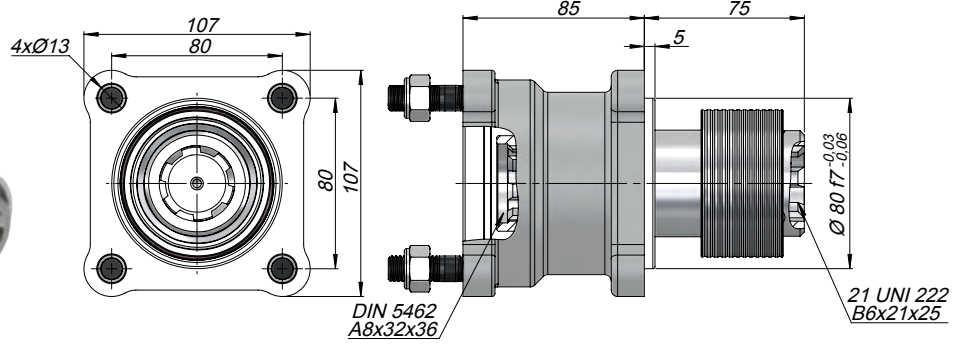
KISA ARA UZATMA RULMANLI | PITCH LENGTHENING



Kod
Code AKSF1

TEKNİK VERİLER | TECHNICAL DATA

ARA UZATMA | TRC ADAPTÖR

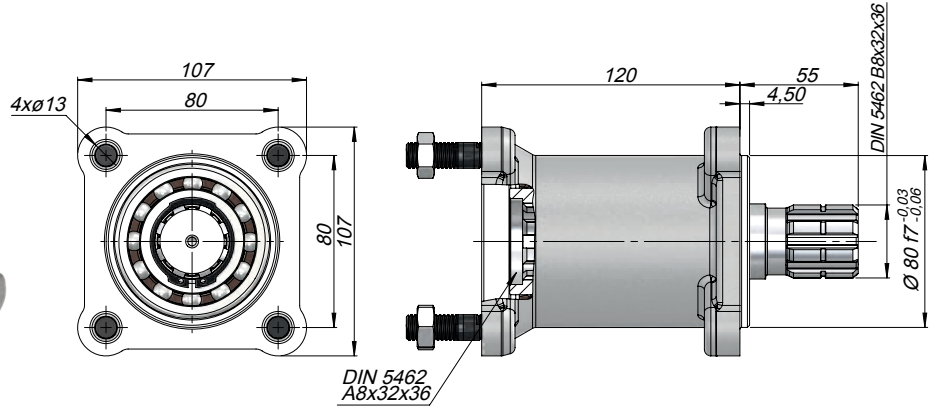
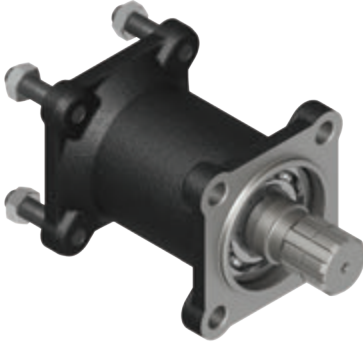


Kod
Code

AKSF3

TEKNİK VERİLER | TECHNICAL DATA

ARA UZATMA UZUN RULMANLI ADAPTÖR

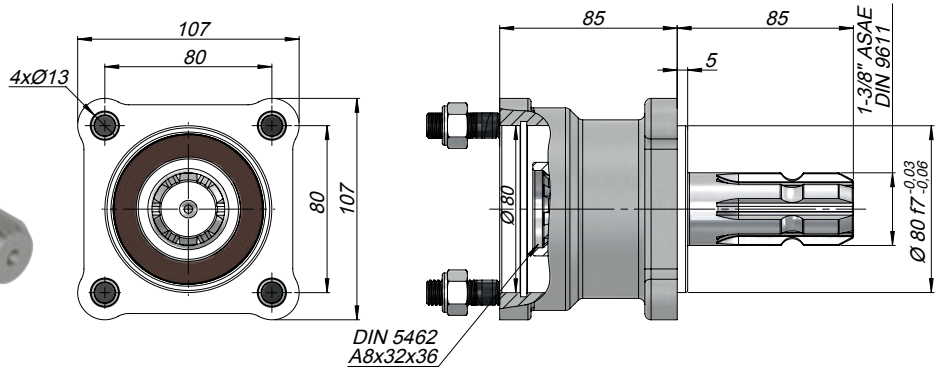
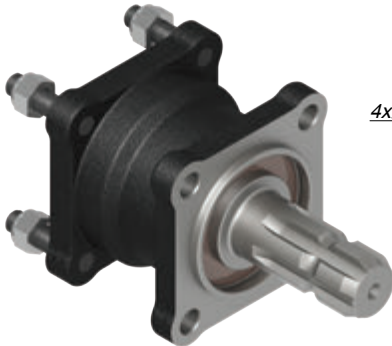


Kod
Code

AUSF1

TEKNİK VERİLER | TECHNICAL DATA

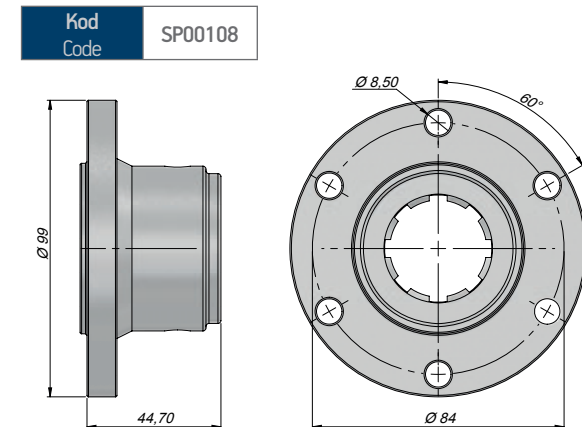
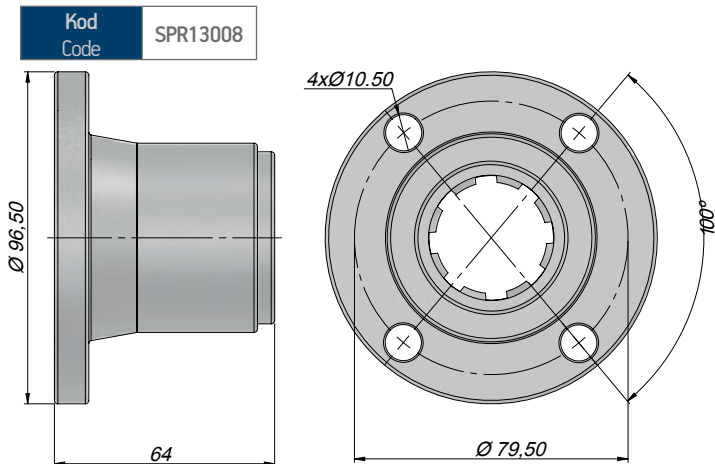
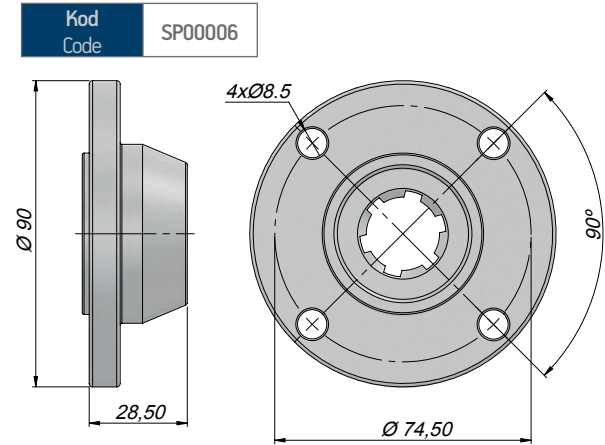
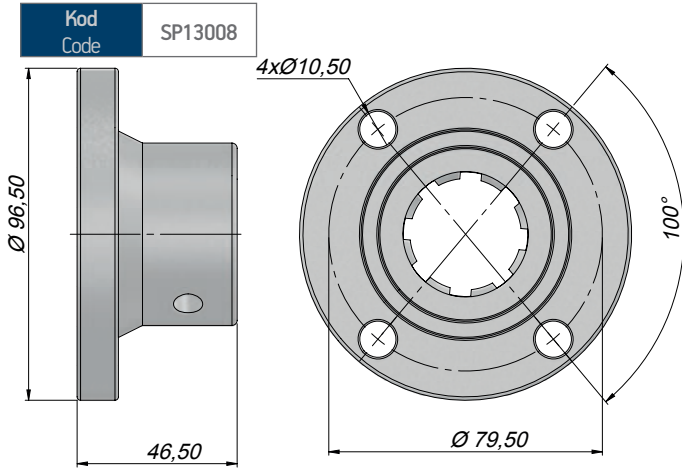
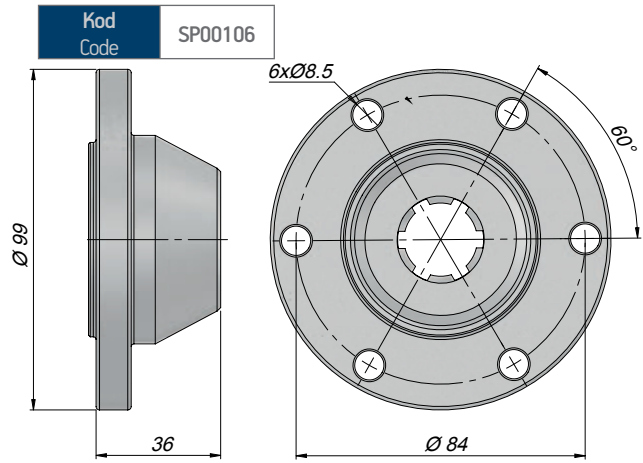
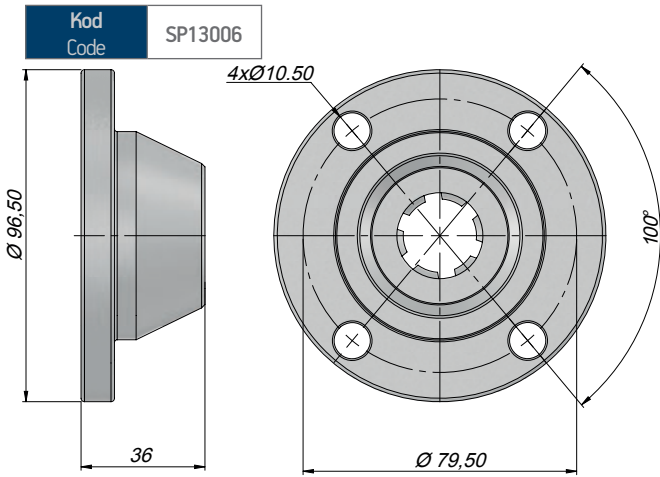
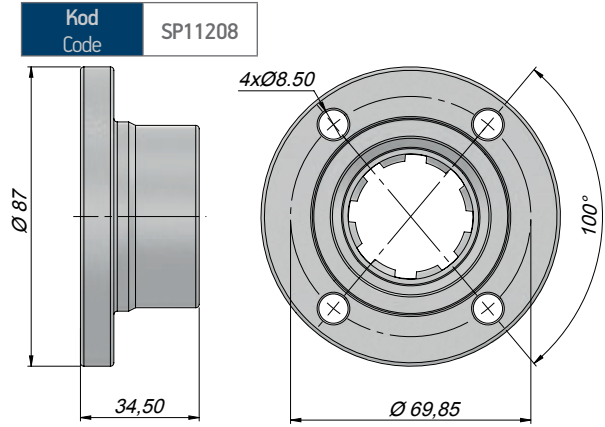
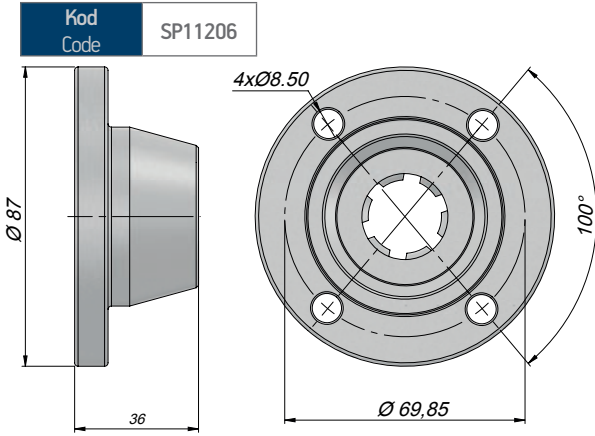
TRAKTÖR ADAPTÖR | TRACTOR ADAPTER

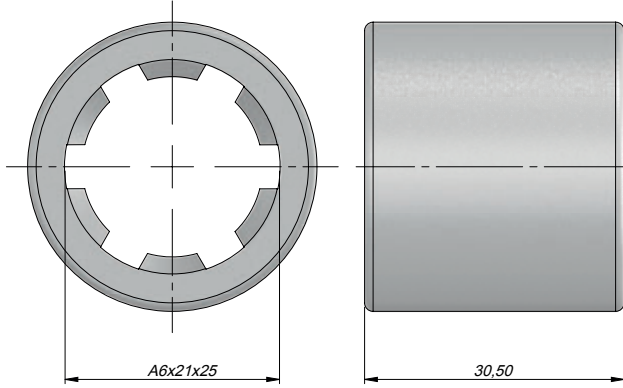


Kod
Code

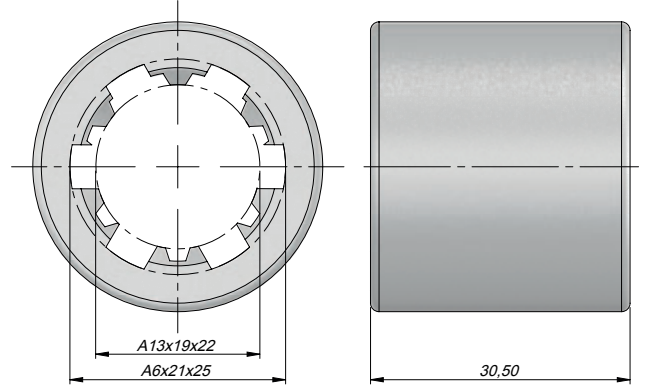
AKSF2

TEKNİK VERİLER | TECHNICAL DATA

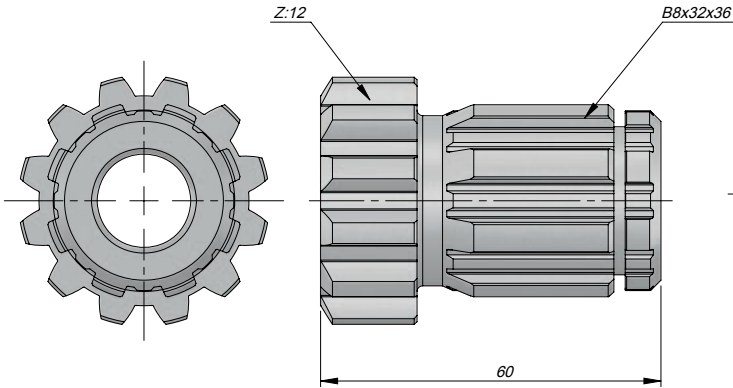




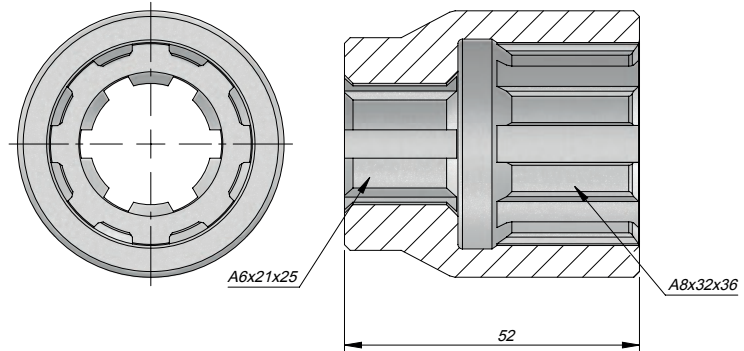
Kod
Code CP006



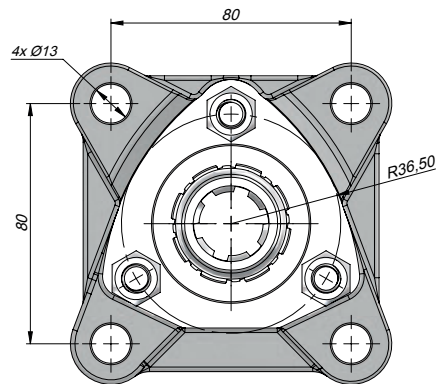
Kod
Code CP136



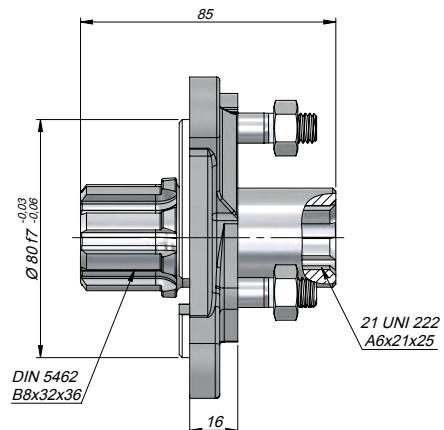
Kod
Code CP128



Kod
Code CP068

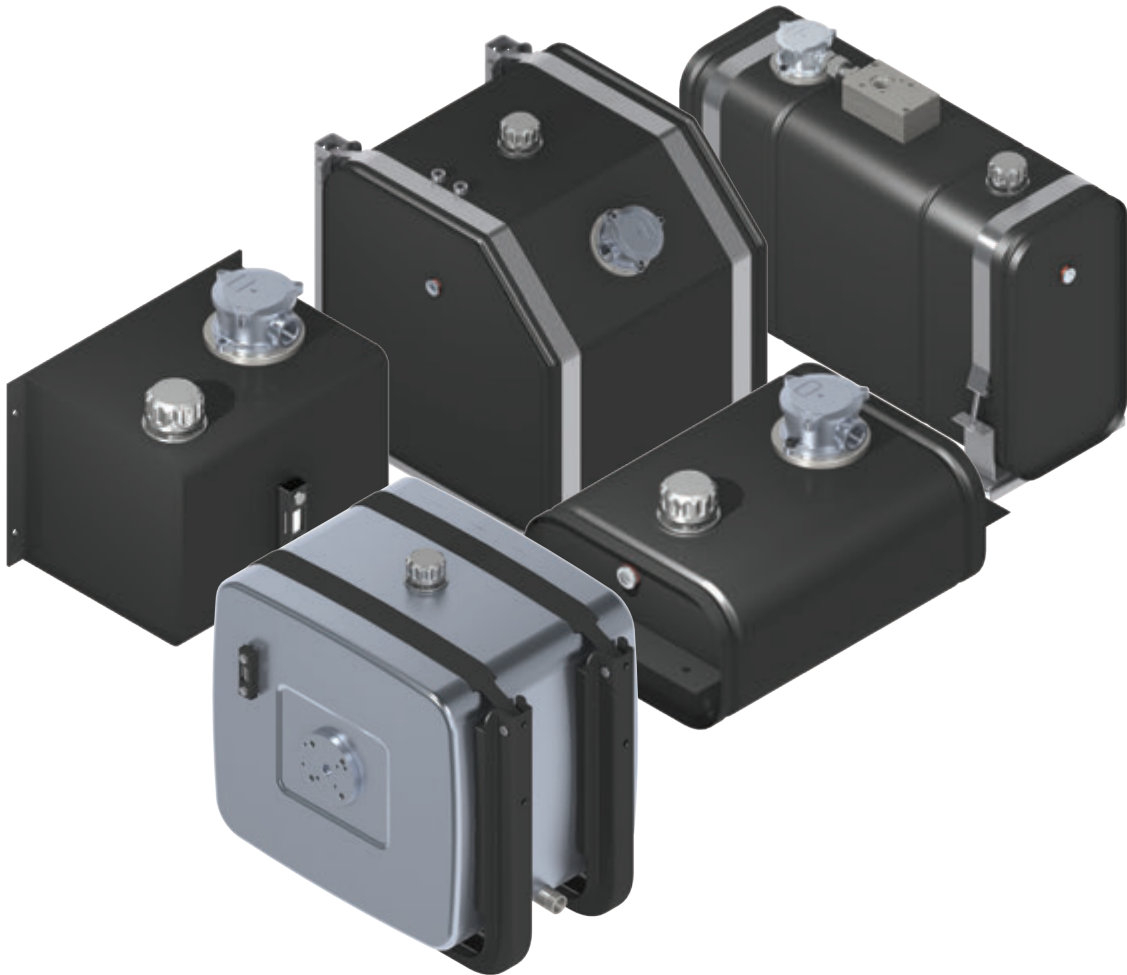


Kod
Code CPS8U6



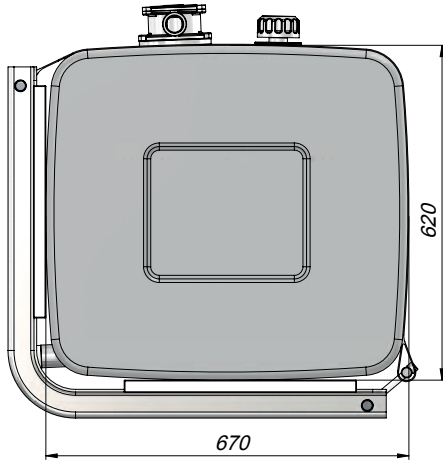
KAZEL[®] OIL TANKS

TANK SERIES

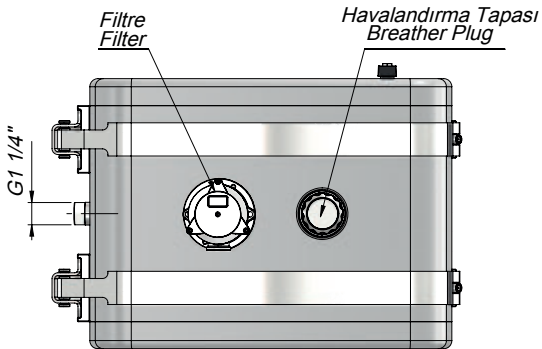
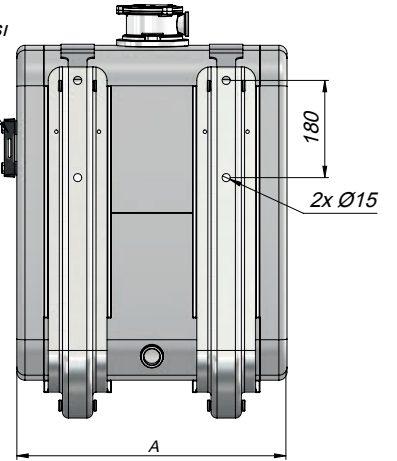


OIL TANK

FİLTRELİ ŞASE ALTI ÇELİK YAĞ TANKI | SIDE MOUNTED STEEL OIL TANK WITH FILTER



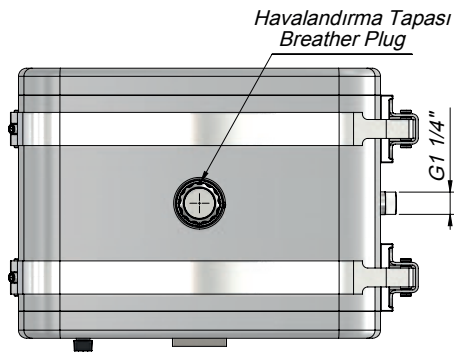
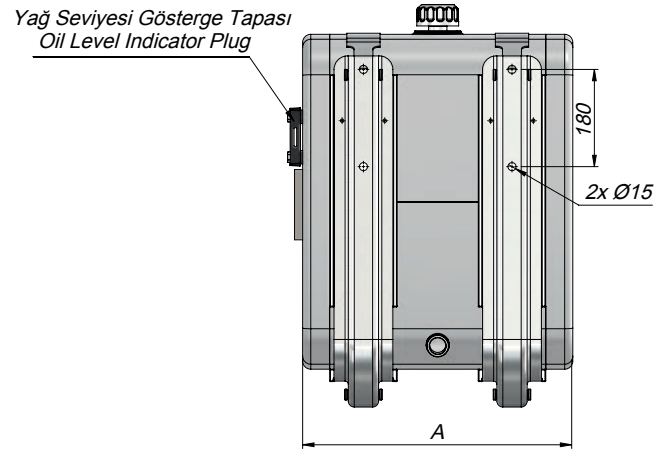
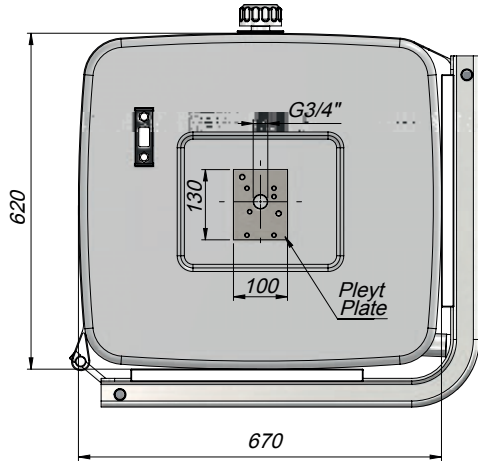
Yağ Seviyesi Gösterge Tapası
Oil Level Indicator Plug



Kod Code	Hacim Volume (Lt)	A
TSMRF1001	100	275
TSMRF1201	120	330
TSMRF1351	135	375
TSMRF1501	150	425
TSMRF1651	165	450
TSMRF1701	170	475
TSMRF1801	180	500
TSMRF1901	190	525
TSMRF2001	200	550
TSMRF2501	250	700

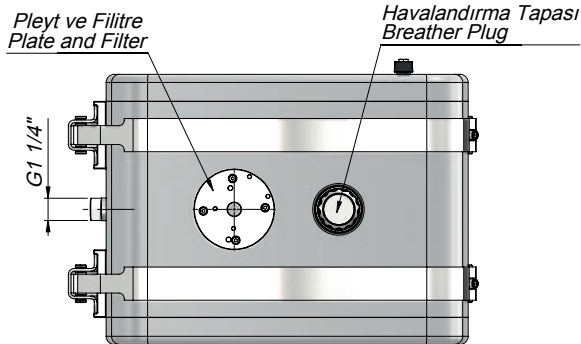
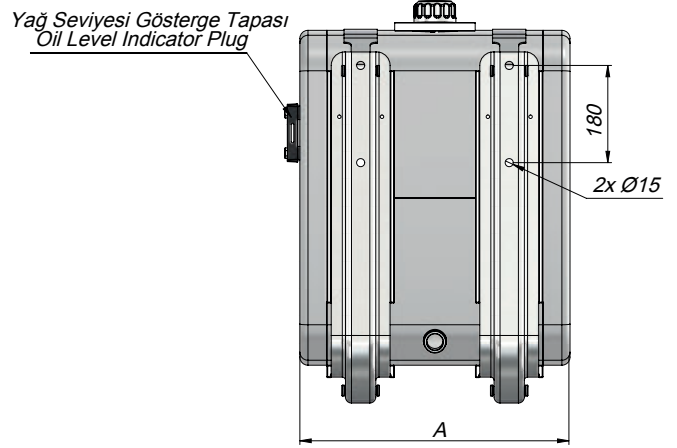
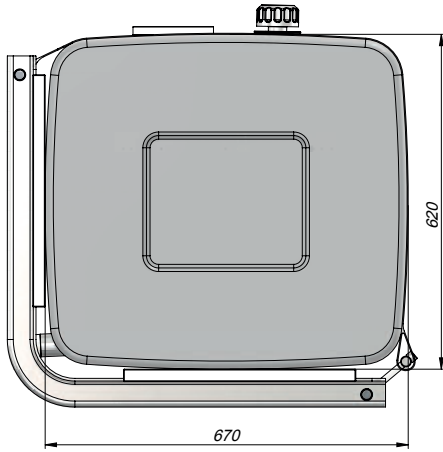
TEKNİK VERİLER | TECHNICAL DATA

FİLTRESİZ ŞASE ALTI ÇELİK YAĞ TANKI | SIDE MOUNTED OIL TANK WITHOUT FILTER



Kod Code	Hacim Volume (Lt)	A
TSMNF1001	100	275
TSMNF1201	120	330
TSMNF1351	135	375
TSMNF1501	150	425
TSMNF1651	165	450
TSMNF1701	170	475
TSMNF1801	180	500
TSMNF1901	190	525
TSMNF2001	200	550
TSMNF2501	250	700

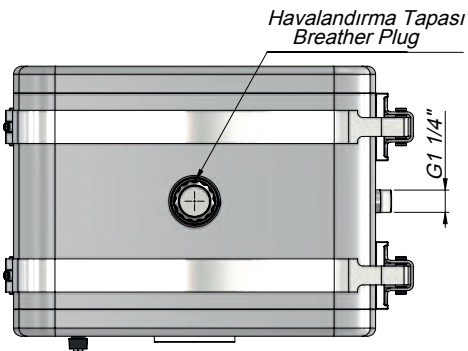
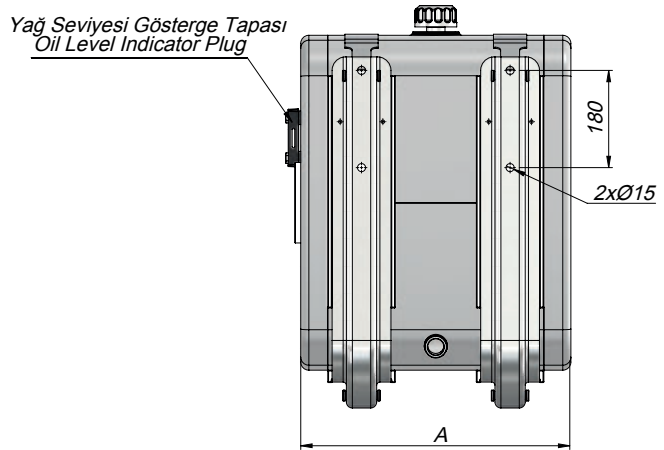
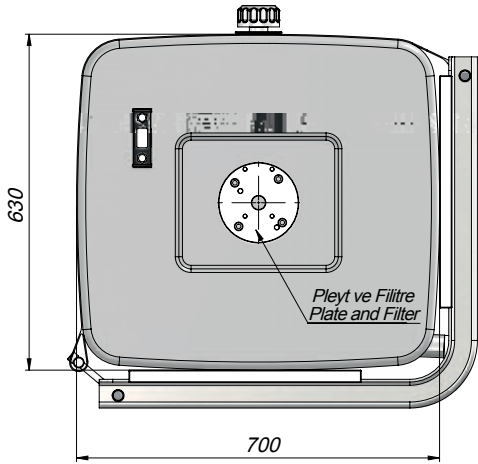
İÇTEN FİLTRELİ ŞASE ALTI ÇELİK YAĞ TANKI | SIDE MOUNTED STEEL OIL TANK WITH INTERNAL FILTER



Kod Code	Hacim Volume (Lt)	A
TSMIF1001	100	275
TSMIF1201	120	330
TSMIF1351	135	375
TSMIF1501	150	425
TSMIF1651	165	450
TSMIF1701	170	475
TSMIF1801	180	500
TSMIF1901	190	525
TSMIF2001	200	550
TSMIF2501	250	700

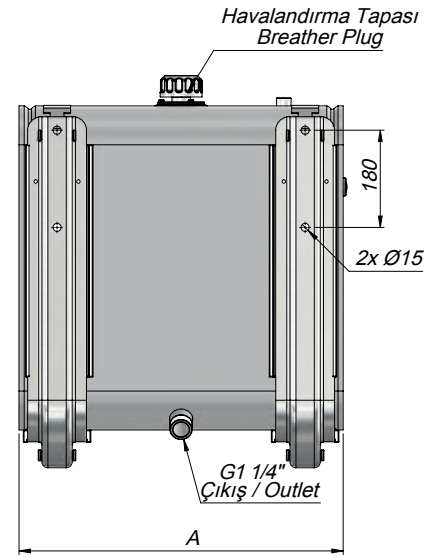
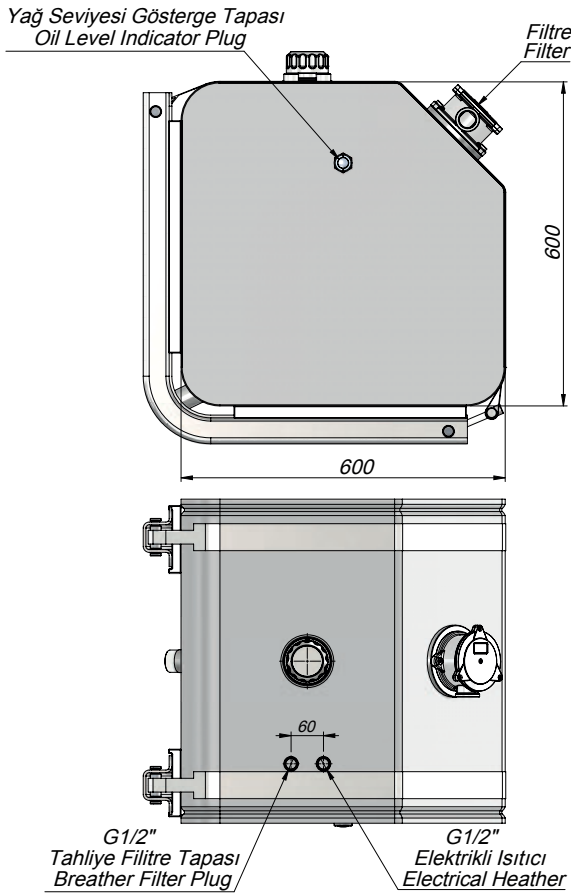
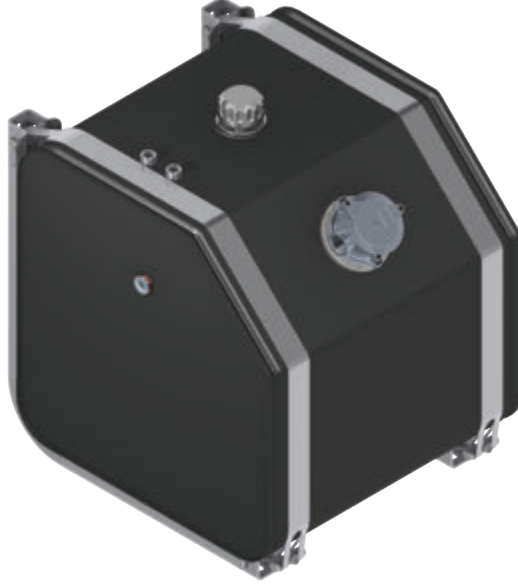
TEKNİK VERİLER | TECHNICAL DATA

FİLTRELİ ŞASE ALTI ALÜMİNYUM YAĞ TANKI | SIDE MOUNTED ALUMINIUM OIL TANK WITH INTERNAL FILTER



Kod Code	Hacim Volume (Lt)	A
T SMAIF1001	100	260
T SMAIF1201	120	320
T SMAIF1351	135	350
T SMAIF1501	150	400
T SMAIF1651	165	425
T SMAIF1701	170	450
T SMAIF1801	180	470
T SMAIF1901	190	500
T SMAIF2001	200	525
T SMAIF2501	250	650

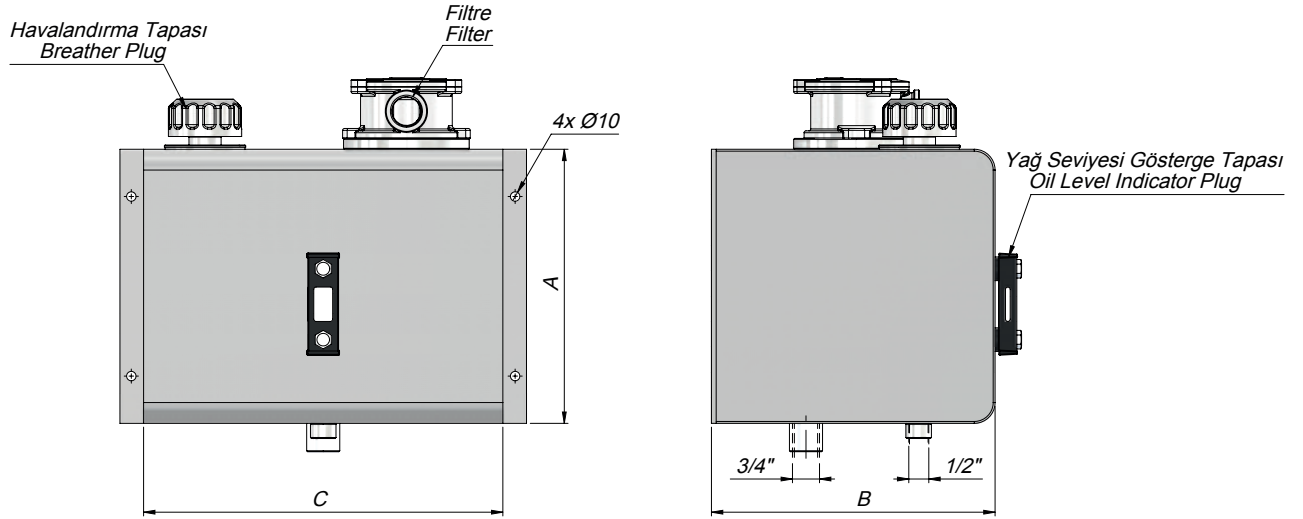
FİLTRELİ ŞASE ALTI AÇILI YAĞ TANKI | SIDE MOUNTED BEVELLED STEEL OIL TANK WITH FILTER



Kod Code	Hacim Volume (Lt)	A
TSMRF1002	100	350
TSMRF1502	150	500
TSMRF1802	180	600
TSMRF2502	250	800

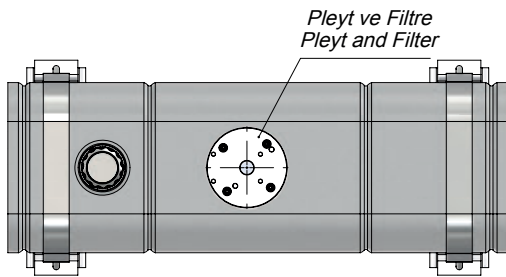
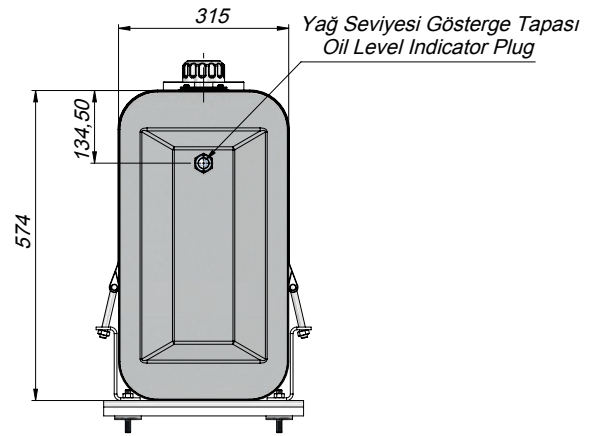
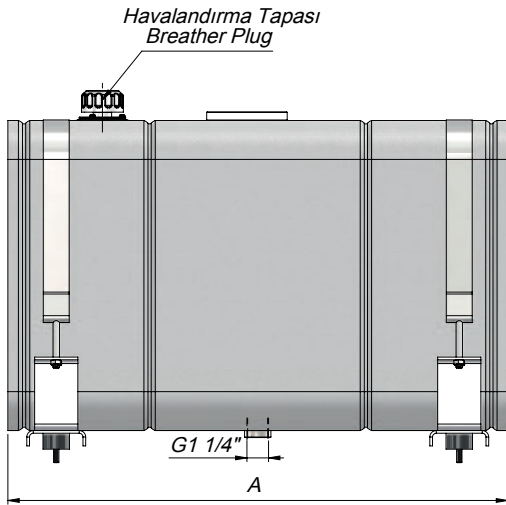
TEKNİK VERİLER | TECHNICAL DATA

FİLTRELİ ŞASE ALTI ÇELİK YAĞ TANKI | SIDE MOUNTED STEEL OIL TANK WITH FILTER



Kod Code	Hacim Volume (Lt)	A	B	C
TSMRF151	15	265	290	285
TSMRF251	25	265	290	400
TSMRF301	30	265	290	450
TSMRF401	40	475	290	330
TSMRF601	60	475	290	490
TSMRF801	80	475	290	650

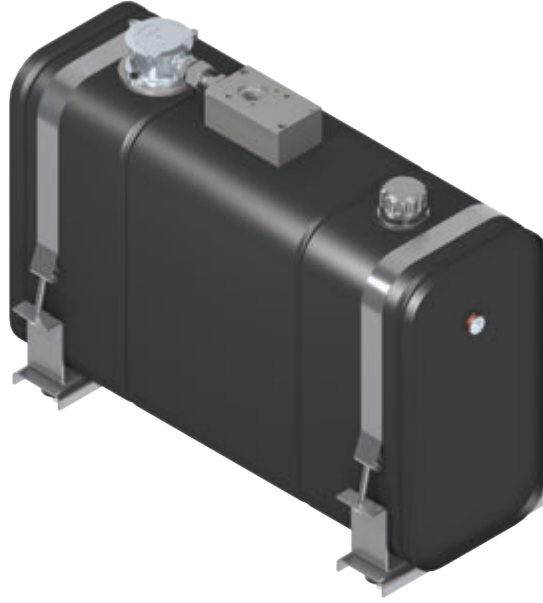
İÇTEN FİLTRELİ ŞASE ÜSTÜ ÇELİK YAĞ TANKI | REAR MOUNTED STEEL OIL TANK WITH INTERNAL FILTER



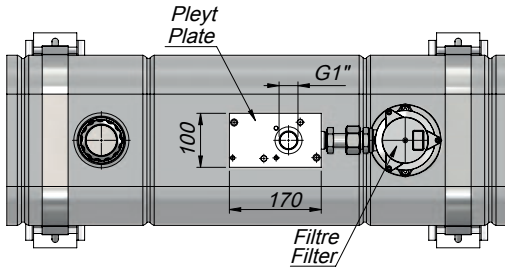
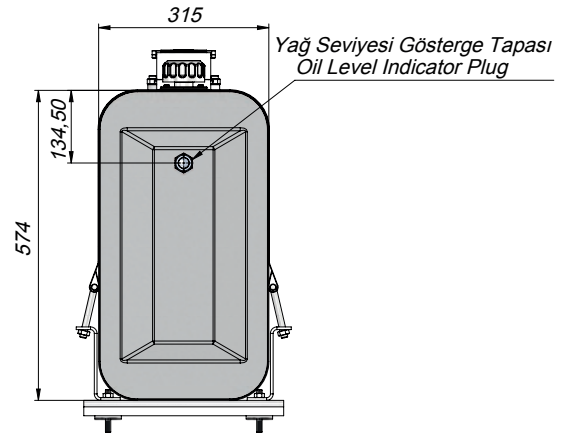
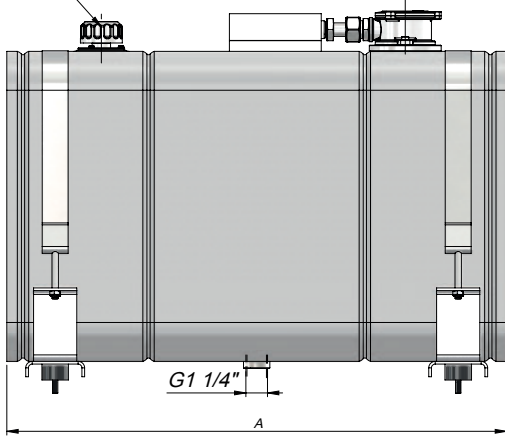
Kod Code	Hacim Volume (Lt)	A
TRMIF1001	100	650
TRMIF1201	120	745
TRMIF1501	150	925
TRMIF1801	180	1090
TRMIF2001	200	1200

TEKNİK VERİLER | TECHNICAL DATA

FİLTRELİ ŞASE ÜSTÜ ÇELİK YAĞ TANKI | REAR MOUNTED STEEL OIL TANK WITH FILTER FILTER

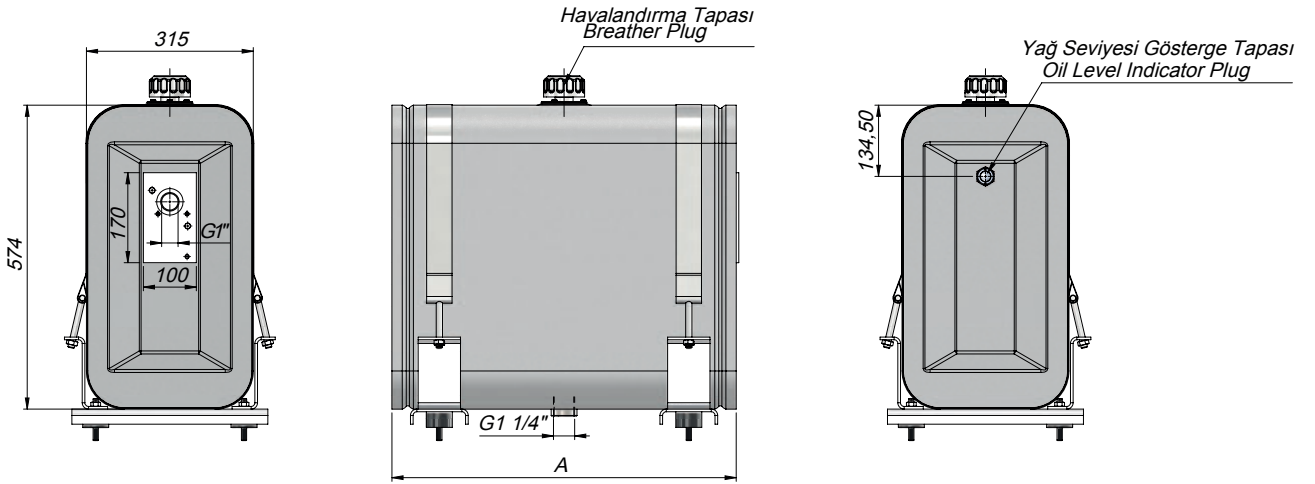


Havalandırma Tapası
Breather Plug



Kod Code	Hacim Volume (Lt)	A
TRMRF1001	100	650
TRMRF1201	120	745
TRMRF1501	150	925
TRMRF1801	180	1090
TRMRF2001	200	1200

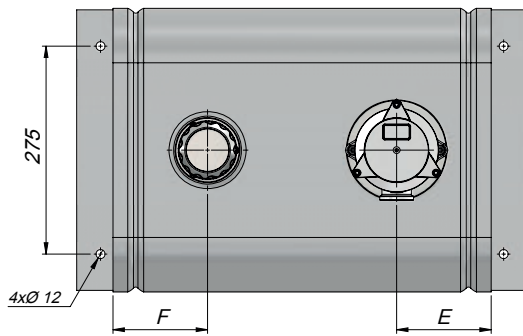
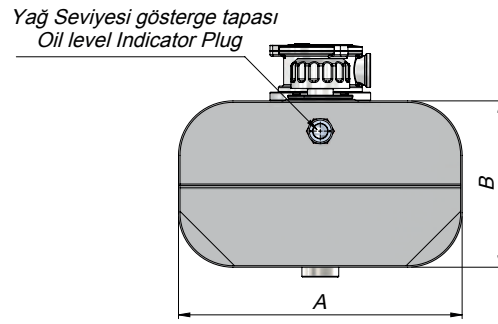
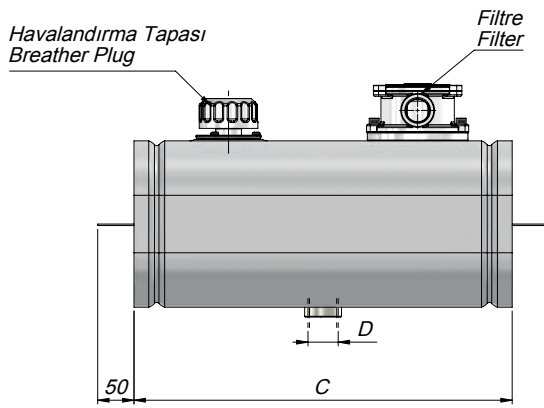
FİLTRESİZ ŞASE ÜSTÜ ÇELİK YAĞ TANKI | REAR MOUNTED STEEL OIL TANK WITHOUT FILTER



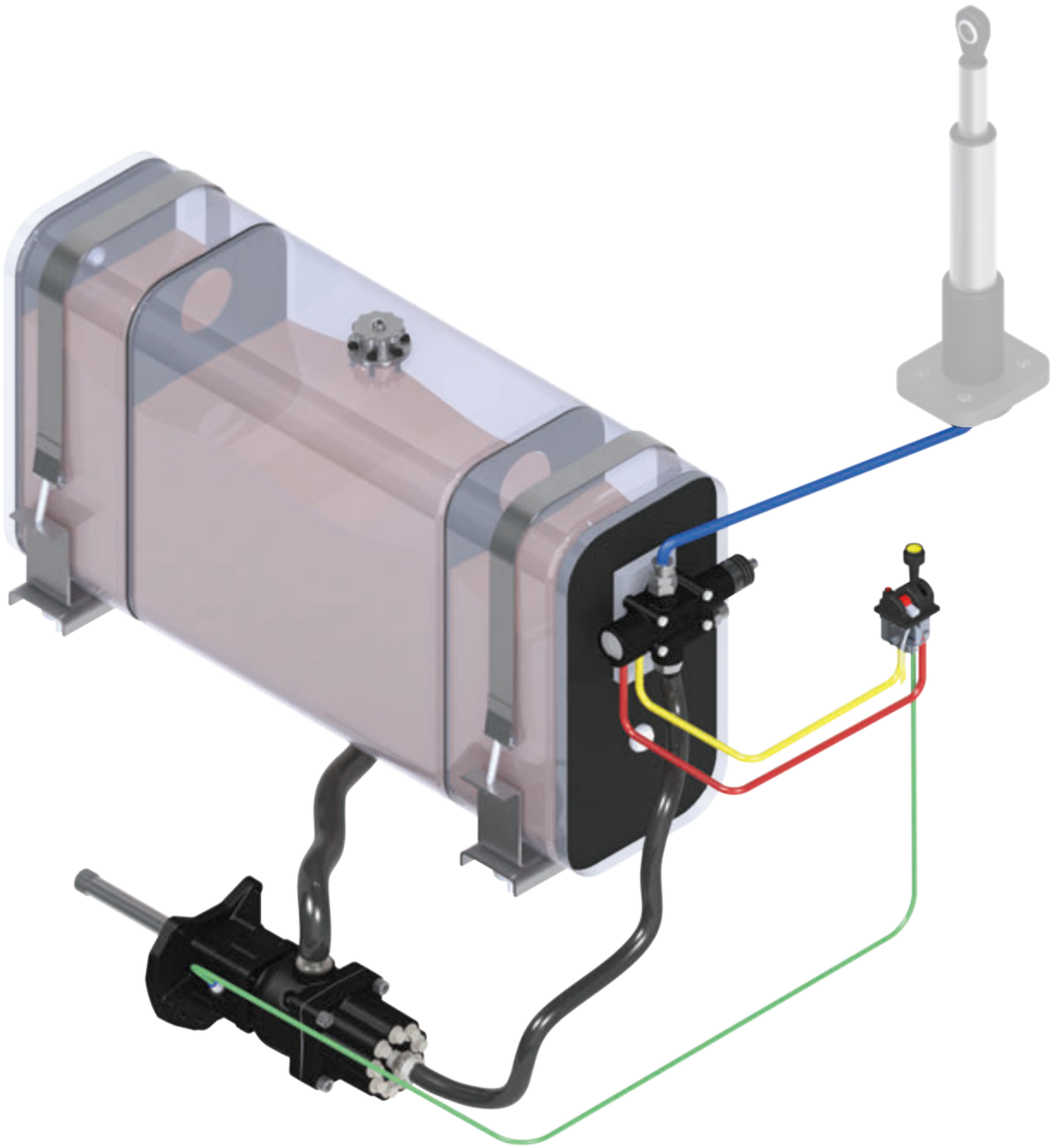
Kod Code	Hacim Volume (Lt)	A
TRMNF0551	55	370
TRMNF0701	70	470
TRMNF0801	80	520
TRMNF1001	100	650
TRMNF1201	120	740
TRMNF1801	180	1090
TRMNF2001	200	1200

TEKNİK VERİLER | TECHNICAL DATA

FİLTRELİ ŞASE ÜSTÜ ÇELİK YAĞ TANKI | REAR MOUNTED STEEL OIL TANK WITH FILTER



Kod Code	Hacim Volume (Lt)	A	B	C	D	E	F
TRMRF0201	20	370	220	250	G1"	100	75
TRMRF0251	25	370	270	300		100	75
TRMRF0351	35	370	220	400		100	75
TRMRF0501	50	360	320	500		150	100
TRMRF0601	60	360	300	600	G1" 1/4"	150	100



OIL TANK

KAZEL[®]

SPARE PARTS

PART SERIES



**SUCTION HOSE R4**

Kod Code	Uzunluk Length	Hortum Çapı Hose Diameter
	mm	
SPSH100034	1000	3/4"
SPSH15001	1500	1"
SPSH2000114	2000	1 1/4"
SPSH2500112	2500	1 1/2"
SPSH30002	3000	2"
SPSH3500	3500	

**PRESSURE HOSE R2
90° ELBOW - STRAIGHT**

Kod Code	Uzunluk Length	Hortum Çapı Hose Diameter
	mm	
SPPHSE100034	1000	3/4"
SPPHSE15001	1500	1"
SPPHSE2000114	2000	1 1/4"
SPPHSE2500112	2500	1 1/2"
SPPHSE30002	3000	2"
SPPHSE3500	3500	

**PRESSURE HOSE R2
STRAIGHT - STRAIGHT**

Kod Code	Uzunluk Length	Hortum Çapı Hose Diameter
	mm	
SPPHSS100034	1000	3/4"
SPPHSS15001	1500	1"
SPPHSS2000114	2000	1 1/4"
SPPHSS2500112	2500	1 1/2"
SPPHSS30002	3000	2"
SPPHSS3500	3500	

**PRESSURE HOSE R2
90° ELBOW - 90° ELBOW**

Kod Code	Uzunluk Length	Hortum Çapı Hose Diameter
	mm	
SPPHEE100034	1000	3/4"
SPPHSS15001	1500	1"
SPPHSS200114	2000	1 1/4"
SPPHSS2500112	2500	1 1/2"
SPPHSS30002	3000	2"
SPPHSS3500	3500	

TEKNİK VERİLER | TECHNICAL DATA



Kod Code	Oil Indicator
	Product Type
TSP0076	76 mm
TSP0127	127 mm



Kod Code	Filter Flange
	Product Type
TSPFF4	Square



Kod Code	Return Filter
	Product Type
TSPRF110	110 lt
TSPRF150	150 lt



Kod Code	Filter Flange
	Product Type
TSPRFC	-----



Kod Code	Return Filter
	Product Type
TSPRF240	240 lt
TSPRF260	260 lt



Kod Code	Ball Valve
	Product Type
SPBV12	R 1/2"
SPBV34	R 3/4"
SPBV01	R 1"
SPBV114	R 1 1/4"
SPBV112	R 1 1/2"
SPBV02	R 2"



Kod Code	Filler Cup
	Code
TSPFC	Filler Cup



Kod Code	Hose Clip
	Product Type
SPHC4446	Ø 44-Ø 46
SPHC4751	Ø 47-Ø 51
SPHC5255	Ø52 -Ø 55
SPHC5661	Ø 56-Ø 61
SPHC6266	Ø 62-Ø 66
SPHC7483	Ø 74-Ø 83



Kod Code	Filter Flange
	Product Type
TSPFF2	Oval



Kod Code	Hose Pillar Elbow 90°
	Product Type
SPHPE1121	R 1 1/2"
SPHPE21	R 2"



Kod Code	Hose Pillar Elbow 90°
	Product Type
SPHPE12	R 1"
SPHPE1142	R 1 1/4"
SPHPE1122	R 1 1/2"
SPHPE22	R 2"



Kod Code	Hose Pillar Straight
	Product Type
SPHPS132	R 1"-Ø 32
SPHPS11439	R 1 1/4"-Ø 39
SPHPS11245	R 1 1/2"-Ø 45
SPHPS251	R 2"-Ø 51



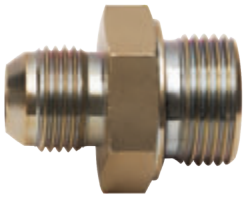
Kod Code	Hose Pillar Straight
	Product Type
SPHPS3432	R 3/4"-Ø 32
SPHPS139	R 1"-Ø 39
SPHPS11445	R 1 1/4"-Ø 45
SPHPS11251	R 1 1/2"-Ø 51



Kod Code	Quick Coupling
	Product Type
SPQC34	R 3/4"
SPQC01	R 1"
SPQC114	R 1 1/4"
SPQC112	R 1"-1/2"
SPQC002	R 2"



Kod Code	Hose Clip (Plastic)
	Product Type
SPHC272	Ø 27
SPHC272	Ø 27



Kod Code	Fitting
	Product Type
SPF158	R 1"-5/8 UNF
SPF11116	R 1"-1 1/16 UNF
SPF3478	R 3/4"-7/8 UNF
SPF11258	R 1 1/2"-5/8 UNF
SPF11516	R 1"-1 5/16 UNF
SPF1158	R 1"-1 5/8 UNF
SPF1341116	R 1 3/4"-1 1/16 UNF
SPF11278	R 1 1/2"-7/8 UNF



Kod Code	Fitting
	Product Type
SPF3434	R 3/4"-R 3/4"
SPF0101	R 1"- R1
SPF114114	R 1 1/4"-R 1 1/4"
SPF112112	R 1 1/2"-R 1 1/2"
SPF0202	R 2"-R 2"



Kod Code	Fitting
	Product Type
SPF2112	R 2"-R1 1/2"



Kod Code	Fitting (Unf)
	Product Type
SPF1516	R 1"- 5/16 UNF
SPF34116	R 3/4"- 1 1/16 UNF

TEKNİK VERİLER | TECHNICAL DATA



Kod Code	Fitting (Unf)
	Product Type
SPFS1516	R 1"-1 5/16 UNF
SPFS34116	R 3/4"-1 1/16 UNF



Kod Code	FITTING ELBOW 90°
	PRODUCT TYPE
SPFE58	5/8 UNF-5/8 UNF
SPFE78	7/8 UNF-7/8 UNF
SPFE1116	1 1/16 UNF-1 1/16 UNF
SPFE1516	1 5/16 UNF-1 5/16 UNF



Kod Code	Reducer
	Product Type
SPR3412	R 3/4"-R 1/2"
SPR134	R 1"-R 3/4"
SPR1141	R 1 1/4"-R 1"
SPR112114	R 1 1/2"-R 1 1/4"
SPR2114	R 2"-R 1 1/4"
SPR2112	R 2"-R 1 1/2"



Kod Code	Fitting Increase
	Product Type
SPFI1141	R 1 1/4"-R 1"
SPFI0134	R 1"-R 3/4"



Kod Code	Fitting "T" Nut
	Product Type
SPFT58	5/8 UNF
SPFT78	7/8 UNF
SPFT1116	1 1/16 UNF
SPFT1516	1 5/16 UNF



Kod Code	Fitting Female
	Code
SPFF38	R 3/8"
SPFF12	R 1/2"
SPFF34	R 3/4"
SPFF01	R 1"



Kod Code	Fitting "T" Male
	Product Type
SPFTM58	5/8 UNF
SPFTM78	7/8 UNF
SPFTM1116	1 1/16 UNF
SPFTM1516	1 5/16 UNF



Kod Code	Fitting For Tipping Valve
	Product Type
SPFV1	R 1"-REVERSE



Kod Code	Fitting For Tipping Valve
	Product Type
SPFV11516	R 1"-1 5/16 UNF
SPFV341116	R 3/4"-1 1/16 UNF



Kod Code	Blind Plug
	Product Type
SPBP14	R 1/4"
SPBP12	R 1/2"
SPBP34	R 3/4"
SPBP01	R 1"
SPBP114	R 1 1/4"



Kod Code	Washer
	Product Type
SPW38	R 3/8"
SPW34	R 3/4"
SPW101	R 1"
SPW114	R 1 1/4"



Kod Code	Washer With Seal
	Product Type
SPWS38	R 3/8"
SPWS12	R 1/2"
SPWS34	R 3/4"
SPWS101	R 1"
SPWS114	R 1 1/4"
SPWS112	R 1 1/2"
SPWS02	R 2"



Kod Code	Air Hose-Ø6
	Product Type
SPAH10	10 mt
SPAH15	15 mt
SPAH20	20 mt
SPAH25	25 mt
SPAH30	30 mt
SPAH35	35 mt



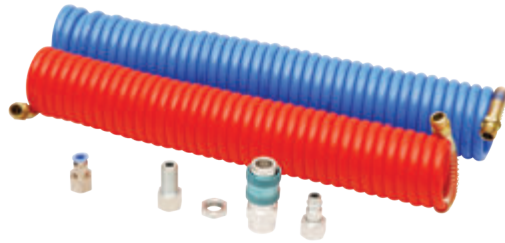
Kod Code	Air Fitting "T"
	Product Type
SPAFT12	M12
SPAFT14	R 1/4
SPAFT18	R 1/8



Kod Code	Air Fitting Elbow
	Product Type
SPAFE12	M12
SPAFE14	R 1/4
SPAFE18	R 1/8



Kod Code	Air Fitting Straight
	Product Type
SPAFS126	M12-Ø 6
SPAFS146	R 1/4-Ø 6
SPAFS186	R 1/8-Ø 6
SPAFS128	M12-Ø 8
SPAFS148	R 1/4-Ø 8
SPAFS188	R 1/8-Ø 8



Kod Code	Air Hose Kit With Pneumatic Fitting
	Product Type
SPAHK	Full Kit



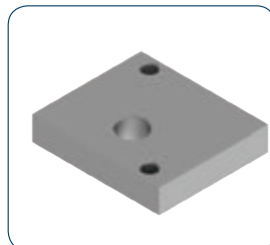
Kod Code	Filtreli Yağ Tank Kapağı
TSPRFC	Filter Oil Tank Cover



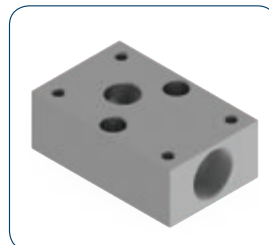
Kod Code	Filtreli Yağ Tank Kapağı
SPIC114	Filter Oil Tank Cover



Kod Code	Yağ Tank Pleyt
TSPTP1	Oil Tank Plate



Kod Code	Hilal Tank Pleyt
TSPHTP	Hilal Tank Plate



Kod Code	3B İzam Tank Pleyti
TSPITP	3B İzam Tank Plate



Kod Code	Tank Pleyt
TSPTP2	Tank Plate

TEKNİK VERİLER | TECHNICAL DATA



Kod Code Tekli Damper Valfi
Single Dumper Valve
SPSDV1



Kod Code İkilü Damper Valfi
Double Dumper Valve
SPSDV2



Kod Code Üçlü Damper Valfi
Tripple Dumper Valve
SPSDV3



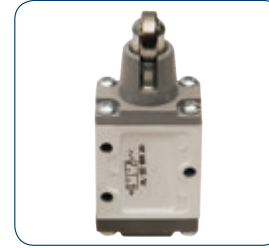
Kod Code Dörtlü Damper Valfi
Fourfold Dumper Valve
SPSDV4



Kod Code Pnömatik Kontrol
Pneumatic Control
SPPC01



Kod Code Elektrik Kontrol
Electric Control
SPEC3



Kod Code Limit Kontrol Valf
Limit Control Valve
SPLCV



Kod Code Pnömatik Valf
Pneumatic Valve
SPPV01



Kod Code Çıkış Rekoru
G3/4"-M22
Outlet Coupling
G3/4" - M22
SPOC3422



Kod Code Çıkış Rekoru
G3/4" 12- G3/4"14
Outlet Coupling
G3/4" 12- G3/4"14
SPOC3422



Kod Code Çıkış Rekoru
G1" - G3/4"
Outlet Coupling
G1" 12 - G3/4"
SPOC11234



Kod Code Nipel Bağlantısı
Union Straight
SPUS



Kod Code Saplama
M10x12x23x45
Stud M10x12x23x45
SPS1045



Kod Code Saplama
M12x15x23x50
Stud M12x15x23x50
SPS1250



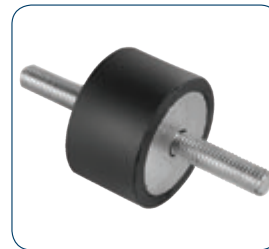
Kod Code Saplama
M12x15x32x115
Stud M12x15x32x115
SPS12115



Kod Code Yağ Tank Kapağı
Oil Tank Cover
TSPC



Kod Code Yağ Seviye Göstergesi
Oil Level Indicator
TSPLI



Kod Code Yağ Tank Takozu
Oil Tank Rubber
TSPTR



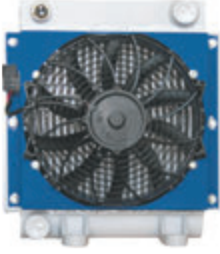
Kod Code Müşür
Switch
SW



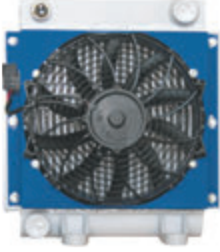
Kod Code Müşür G1/4
Switch G1/4
SW14



Kod Code	Max Debi	Kapasite Capacity	Basınç Pressure	Voltaj Voltage	Termostat Thermostat
	(lt/dk)	(kcal/h)	(bar)	(AC/DC)	(C)
CLR2020	90	6000	20	220V 12-24 V	50/60



Kod Code	Max Debi	Kapasite Capacity	Basınç Pressure	Voltaj Voltage	Termostat Thermostat
	(lt/dk)	(kcal/h)	(bar)	(AC/DC)	(C)
CLR2024	135	12000	20	220V 12-24 V	50/60



Kod Code	Max Debi	Kapasite Capacity	Basınç Pressure	Voltaj Voltage	Termostat Thermostat
	(lt/dk)	(kcal/h)	(bar)	(AC/DC)	(C)
CLR2030	150	24000	20	220V 12-24 V	50/60



Kod Code	Max Debi	Kapasite Capacity	Basınç Pressure	Voltaj Voltage	Termostat Thermostat
	(lt/dk)	(kcal/h)	(bar)	(AC/DC)	(C)
CLR2040	250	28000	20	220V 12-24 V	50/60



Kod Code	Max Debi	Kapasite Capacity	Basınç Pressure	Voltaj Voltage	Termostat Thermostat
	(lt/dk)	(kcal/h)	(bar)	(AC/DC)	(C)
CLR2050	350	40000	20	220V 12-24 V	50/60

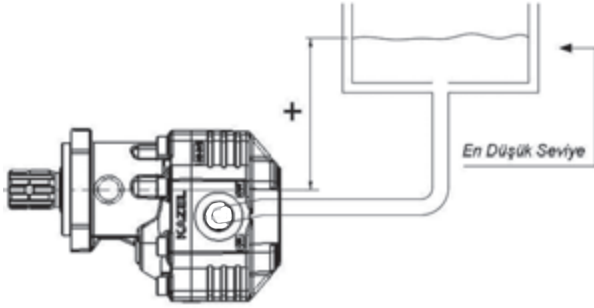


Kod Code	Max Debi	Kapasite Capacity	Basınç Pressure	Voltaj Voltage	Termostat Thermostat
	(lt/dk)	(kcal/h)	(bar)	(AC/DC)	(C)
CLR2075	480	60000	20	220V 12-24 V	50/60

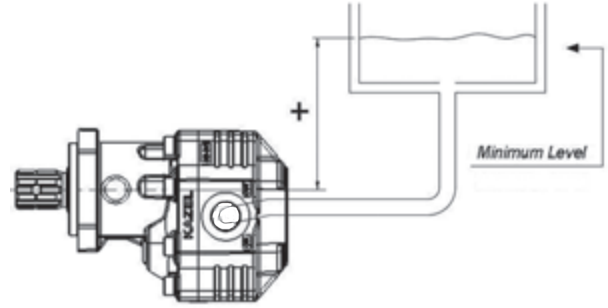
Hidrolik yağ soğutucular Hidrolik mobil vinçler hidrolik ile çalışan tüm makinalarda kullanılmak üzere tasarlanmış davlumbazı ve fanı ile kompakt bir üründür.
Because it is used in the whole machines which start with hydraulic in hydraulic oil cooling, hydraulic mobile winç, it is a compact product which is planned with paddle box and fan.

KAZEL[®]
TECHNICAL
DATA

YERLEŞTİRME KURALLARI



RULES OF INSTALLATION



HİDROLİK SIVILAR

Sıvı seçileceği zaman bütün sistem elemanları ile birlikte sistem içi uyumun göz önünde bulundurularak mineral yağa göre sıvı kullanılmasını tavsiye ediyoruz. Hidrolik sıvı kategori açıklaması onların durumuna göre olmalıdır. Akışkanlığına, derecesine, kullanımına göre.

STANDART SIVILAR

Sıvılar hl/hm/hv iso 6743-4 e göre. Bu sıvılar hidrolik sistemlerde çok fazla kullanılan sıvılardır. Onlar anti korozyon (paslanmayı engelleyici madde), aşınma önleyici ve oksitlenmeyi önleyici katkıları içermektedirler ve akışkanlık hakkındaki zaman aşımının muteber olduğunu temin eder. Bu yağlar bütün hidrolik parçalarla bağdaşabilir.

ÖZEL SIVILAR

Ateşe dayanıklı sıvılar (hf kategori) veya ekolojik (çevrebilimsel) sıvılar (he kategori) belki materyallerle uyumluluk problemlerine veya aksel piston ünitelerindeki hız yada en yüksek kabul edilmiş basıncı sınırlandıran niteliklerine sahip olabilir. Bu yüzden, bu sıvıların kullanımı zorunlu olduğu durumlarda teknik destek almanız

tavsiye ederiz. Ayrıca bütün parçalar mineral yağla test edildikten sonra sistemi toplamadan önce onlardan artan yağı tamamen boşaltmak zorunludur. Bunu yapabilmek için sizin sisteme göre ve çalışma sıcaklığına göre en iyi işletme akışkanlığını dikkate almanız gerekmektedir. Eğer

mineral yağlar kullanılır ise, akışkanlığı;

- Dişli pompalar için ≤ 1300 cst

- Piston pompalar için ≤ 1000 cst

≤ 1000 cst olarak başlıyor olmalıdır.

Çalışma esnasında 10 cst nin akışkanlığının en asgari olması gerekmektedir. En uygun çalışma alanı, 40 ve 15 cst arasında bir akışkanlık ile elde edilebilir.

HYDRAULIC FLUIDS

We recommend using fluids based on mineral oil; in particular, when selecting the fluid, the compatibility with all the systems elements has to be taken into consideration. The hydraulic fluid category explanation must be according to the situation of its viscosity, temperature and usage.

STANDARD FLUIDS

Fluids HL/HM/HV are according to ISO6743-4. These fluids are the most used fluids in the hydraulic systems. They contain anticorrosion, antiwear and anti oxidation additives, and provided that the prescriptions about viscosity are respected. These oils are compatible with all the hydraulic parts.

SPECIAL FLUIDS

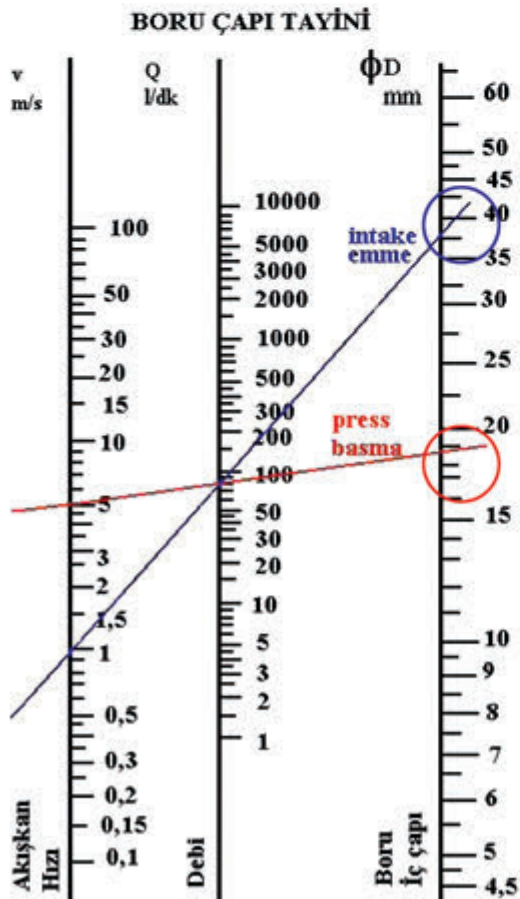
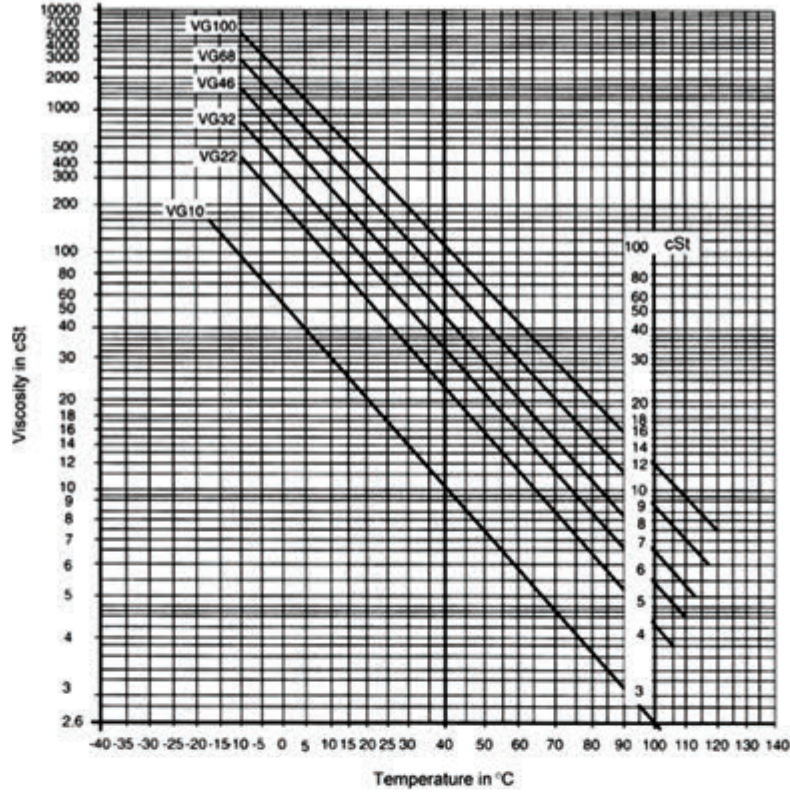
The flame-resistant fluids (HF category) or ecological fluids (HE category) may have compatibility problems with materials or may have characteristics that limit the admitted maximum pressure or speed in the axial piston units. Therefore, in case it is necessary to use these fluids, we recommend contacting our Technical Dept; moreover, since all the elements are tested with mineral oil, it is necessary to remove completely the residual oil from them before assembling the system to make this you have to take into consideration the optimal service viscosity according to the system and the working temperature. If mineral oils are used, the viscosity at starting should be;

- For gear pumps ≤ 1300 cSt

- For piston units ≤ 1000 cSt

During operation a minimal viscosity of cSt is required. The optimal operation range is obtained with a viscosity between 40 and 15 cSt.

TEKNİK VERİLER | TECHNICAL DATA



$$d = \sqrt{\frac{21 \times Q}{V}}$$

d=Boru iç çapı (mm)

Q=Pompa debisi (lt/dk)

V=Akış hızı (m/s)

V=11.5 m/s
emme

V=46 m/s
basma

Örnek: Pompa debisi 80 lt/dk olan bir sistemde emme ve basma hatlarında kullanılacak boru çaplarını bulunuz.

For example: Find the pipe diameters which will be used on the suction and force lines at a system whose flow of the pump is 80 lt /min.

$$d_{\text{emme(intake)}} = \sqrt{\frac{21 \times Q}{V_{\text{emme}}}} \quad d_{\text{emme(intake)}} = \sqrt{\frac{21 \times 80}{1}} \Rightarrow$$

$$d = 40 \text{ mm}$$

$$d_{\text{basma(press)}} = \sqrt{\frac{21 \times Q}{V_{\text{basma}}}} \quad d_{\text{basma(press)}} = \sqrt{\frac{21 \times 80}{5}} \Rightarrow$$

$$d = 18 \text{ mm}$$

Hidrolik pompaların çalıştırılması, kullanılması ve bakımı için tavsiyeler

1. Genel:

Bir hidrolik pompadan düzgün ve verimli çalışma alabilmek için üretici firmanın öğüt ve tavsiyelerini tümüyle yerine getirmek gerekir. Pompanın temizliği için gerekli önlemler alınmalı, özellikle iç parçalar hem montaj hem de çalışma anında temiz olmalıdır. Kullanılan yağın gerek özellik gerekse temizlik bakımından üretici firmanın koşullarına uygun olması gerekir. Aşağıdaki tavsiyeler hemen tüm pompalar için geçerlidir. Bazı özel pompalarda özel durumlar çıkabilse de üretici firma bu konuda gerekli açıklamayı yapacaktır.

2. Montaj:

2.1. Yıkama: Pompanın kullanılmadan önce, kullanılacak yağ ile iyice yıkanması gerekir. Bol yağ ile yapılacak yıkamada koruyucu özel maddeler atılmış olacaktır.

2.2. Donanım: Üreticinin tavsiyeleri doğrultusunda monte edilmelidir. Bağlantı için gerekli boru ve hortumlar özenle seçilmelidir.

2.3. Yağın depoya dönüşü: Tüm dönüş boruları depodaki yağ düzeyinin içine girecek şekilde olmalı, üstten akmamalıdır. Ayrıca boru çapları kayıp yaratmayacak büyüklükte olmalıdır. Sızıntıların depoya dönüş borusu pompa merkezinden yüksekçe olmalı ki sifon olayı yapıp pompanın içini yağsız bırakmasın.

2.4. Besleme boruları: Pompa cinsine göre seçilmelidir. Deponun çok yüksekte bulunması bakımından fazla basınç veya emiş hattındaki filtre, valf, ekleme parçası v.s. gibi daraltıcı öğeler nedeniyle fazla basınç kaybı olamamalıdır. Bu değerlerin pompanın çalışabileceği en az ve en çok değerleri aşmamasına dikkat edilmelidir. Tüm bağlantı ve sızdırmazlık öğeleri hava girişini kesinlikle önlemelidir.

3. İşletmeye geçiş:

3.1. Bağlantı: Pompa, üreticisinin tavsiyelerine uygun takılmış olmalıdır. Hatasız bağlantı, tam merkezleme, dönüş yönünün uygunluğu gerçekleştirilmelidir.

Suggestions for operation, usage and maintenance of hydraulic pumps

1- General

It is necessary to apply all the advises of manufacturer company completely to be able to get regular and productive working from the hydraulic pump. Necessary precautions must be taken for cleanliness of the pump, especially the inner parts must be clean both during montage and during working. Used oil has to be convenient to the conditions of the manufacturer company from the point of view, both cleanliness and its features. Below advises are valid about every type of pump. If some special situations appears on some special pumps, the producing company explains the necessary things on this subject.

2- Assembly

2.1- Washing; Before using the pump, it must be washed with the suitable oil. Completely by the plenty of oil washing, special materials which are the protective of pump will be excited.

2.2- Equipment; It must be assembled in the direction of the manufacturer advises. The pipe and hoses which are necessary for the bracket must be chosen carefully.

2.3-Return of the oil to the tank; All the return pipes must be in the form of penetration to the level of the oil which is in the tank and it musn't flow from above. Besides, diameters of them must be in the convenient size not to create any missing. The leakages 'turning pipe to the tank must be higher than the pump center that it can't leave oil - free inner of the pump by making siphon event.

2.4- Feed pipes; It must be chosen according to the type of the pump. Due to the tank which is on very high, there musn't be much pressure missing because of the reducer items such as too much pressure or the filter on the suction line, valve, extension piece etc.. Pay attention to these values not to exceed the least and most values of pump running. All bracket and leaking items must avoid the air inlet certainly.

3. Transition to operation;

3.1-Bracket; It must be put on properly according to the manufacturer suggestions. Faultless bracket, exact centering, convenience of the direction of rotation must be carried out.

TEKNİK VERİLER | TECHNICAL DATA

3.2. Elektrik bağlantılar: Elektrikle çalışan donanım, motor ve valflerin besleme gerilim ve akımına uygunluğu denetlenmelidir.

3.3. Pompanın dönüş yönü: Dönüş yönünün uygunluğu üzerindeki oktan anlaşılır. Ok yoksa emme ve basma deliklerine göre yağın nasıl bir hareket yapması gerektiği bilindiğinden kolayca bulunur. Pompa ters yönde çalıştırılmamalıdır.

3.4. Dolum: İlk hareketten önce emiş hattı ve pompanın içi yağla doldurulmalıdır. Böylece ilk dönmede yağsız çalışma önlenmelidir.

3.5. Pompalar çok değişik yapı ve özelliklerde üretilirler. Bu nedenle ilk hareket işlemi için öncelikle üreticinin tavsiyelerine uyulmalıdır. Çoğunluğu hareketi boşta alırlar fakat bazıları ise aşamalı bir ilk hareket gerektirirler. İlk hareketten önce emiş hattındaki tüm yolların açık olması denetlenmelidir. Pompa doğru ve kesintisiz basana dek motor çalıştırılıp devrini almadan durdurulur, bu işlem birkaç defa yinelenir.

3.6. Çalışmaya başlangıç: İlk harekette basınç hattındaki boruların havasının alınması gerekir. Bu işlem basınç bölümündeki bir rakorun gevşetilerek hava karışimsız (köpüksüz) yağ gelene dek beklenmesi ile yapılır. Değişken oranlı pompa konusunda üretici firmanın önerileri yoksa yarısında ayarlama yaparak pompayı çalıştırmaya başlamak en uygun olanıdır. İlk harekette devre dolmaya başlarken depodaki yağ düzeyinin normalin altına düşmemesi gereklidir. Eğer depoda önemli bir alçalma görülüyorsa yağ eklenerek normal düzeye getirilmelidir.

3.7. Basınç Sınırlaması: Basınç ayarları pompa normal devrinde çalışırken yapılır. Basınç yavaş yükseltilmelidir. Ayar yapıldıktan sonra, ayarın başkası tarafından değiştirilmemesi için gerekli önlemler alınmalıdır. Pompanın içindeki sızıntı yağı basıncının normalin üzerine çıkmamasına dikkat edilmelidir.

3.8.Sıcaklık: Üreticinin verdiği basınç ve hız değerleriyle kısa bir çalışma devrinden sonra pompa yataklarının, sızdırmazlık öğelerinin ve yağın Sıcaklığı denetlenmelidir.

4. çalışma anındaki denetimler:

4.1.Sürekli (periyodik) bakım: Üreticinin uyarıları ve deneyimler ışığında düzgün aralıklarla uygulanmalıdır.

3.2- Electricity Brackets; Equipment which is working by electricity,motor and valves must be checked for the convenience of feed voltage and current.

3.3-Direction of rotation of the pumps; The convenience of the direction of the rotation can be understood by the help of the arrow on it.If there isn't any arrow, it can be found easily according to the suction and force holes as it is known how the oil will move .The pump musn't be run at reverse direction.

3.4-Filling; Before the first action , suction line and inner of the pump must be fill ed with the oil. So that to run without oil in the first turning must be avoided.

3.5- The pumps are manufactured in very different features and structure. For this reason,for the first action operation,firstly you must obey the suggestions of manufacturer but for some few, the greater part moves in out of gear but require some a first movement stage. Before the first movement, it must be controlled that being open of all the ways on the suction line.Untill the pump depress accurate and continually, motor must be run and stop without revolve,this operation can be repeated a few times.

3.6- Starting of Running; At the first movement, it requires to be deflated of the pipes on the pressure line.This operation is done untill the unmixed air (sudless)oil come by unscrew the nipple which is in the pressure part .If there aren't any suggestions of the producing company on the variable rate pump, it is the most convenient to start to run the pump by adjusting in half. At the first action while the cycle is starting to fill,it shouldn't be less than the normal level of the oil in the tank. If there is an important decrease at the fluid level of the tank, the oil must be added and it must be brought into the normal level.

3.7- Restriction of Pressure; Pressure adjustings is done while the pump is running on the normal revolution.The pressure must be increased by slowly.After the adjustings are done, the necessary precautions must be taken not to be changed the adjustings by others. Pay attention not to raise above the normal the pressure of the leaking oil in the pump above the normal.

3.8-Temperature; After the short revolution working with, the pressure and speed values are given by the manufacturer, pump bearing, leaking items and temperature of oil must be controlled, temperature of leaking items, pump bearing and oil must be controlled.

4. Controls during the running;

4.1- Constant (periodic) treatment; It must be applied by regular intervals through the manufacturer's warnings and experiences.

4.2. Bağlantılar: Pompa motor bağlantısı normal işletme Sıcaklığı ve basıncı altında denetlenmelidir. Aynı zamanda devre öğelerinin de sıklığı ve bağlantıları denetlenmelidir.

4.3. Çalışma: Pompanın çalışırken beşinci bölümde belirtilen anormalliklerden hiç birini göstermediği denetlenmelidir.

4.4. Filtreler: emiş ve dönüş hattındaki filtreler denetlenmeli, temizlenmeli veya yenilenmelidir.

4.5. Aralı bakım: Pompalar belirli bir çalışma devresinden sonra bakıma alınmalıdır. Bu süre çalışma koşullarına, üreticinin tavsiyelerine ve kullanıcının deneyimine bağlıdır.

4.6. Üretici firmanın tavsiyeleri: Üreticinin bakımla ilgili öğütlerine tam olarak uyulmalıdır. Bir bakım kartı tutulması, malzemeyi koruyucu ve bozulmayı önleyici bakım tavsiye edilir. Sızdırmazlık öğeleri bozulmuş parçalar veya aşınan bölümler gerektiğinde yenilenmelidir. Toplama sırasında pompa içinde yabancı maddelerin kalmamasına özen gösterilmelidir.

4.7. Yedek pompa: İşletmeye ara vermemek için bir yedek pompa veya kovan (kanatların veya pistonların bulunduğu bölüm) bulundurulması tavsiye edilir. Böylece pompanın biri bozulduğunda veya bakıma alındığında diğeri çalışır ve işletme durmaz.

5. Arızaların giderilmesi:

5.1. Genel: Doğru olarak seçilen ve takılan hidrolik pompalar birkaç yıl sağlıklı çalışırlar. Bununla birlikte bazı nedenlerle arızalar ortaya çıkar. Bu durumda en kısa sürede arıza yapan noktanın saptanması ve giderilmesi gerekir. Bundan sonraki bölümler hataların bulunması için genel bir yol gösterici niteliğindedir. Arızaların giderilmesini kolaylaştırmak bakımından devre şemasının bulunması çok yararlıdır.

5.2. Arıza no 1: Pompanın çok ses yapması

5.2.1. Kavite olayı

NEDENİ

5.2.1.1. Emiş filtresinin kirden tıkalı olması.

Temizleyin veya değiştirin.

5.2.1.2. Emiş borusunun dar olması.

Daha geniş çapta boru kullanın

5.2.1.3. Emiş hattında fazla dirsek ve dönemeçler bulunması.

Ya şekil değiştirin veya daha geniş boru kullanın.

5.2.1.4. Emiş çapının daralması (tam açık olmayan bir vana, tek yön valfinin yayının çok sert olması, ezik boru veya yassılaştıran hortum).

Vanayı tam açın, tek yön valf yayının sertliğini değiştirin.

4.2- Brackets; Pump motor fitting must be controlled under the normal operation temperature and pressure. At the same time, the compactness of the cycle items and its fittings must be controlled.

4.3- Working; When the pump is working, it must be controlled not to be seen any anomalies which is stated in the fifth part.

4.4- Filters; The filters on the suction and rotational line must be controlled, cleaned or renovated.

4.5- Interval treatment; The pump must be taken to maintenance after the definite working process. This process is based on the working condition, the manufacturer advises and the experience of the user.

4.6- Advises of the manufacturer company; You must obey the manufacturer advises which is related with the maintenance exactly. It is advised to keep a maintenance card, and a maintenance which is productive of the materials and preventive of deformation. When needed, leaking items, deformed parts or ablative parts must be renovated. While assembling, you must make a point of not keeping any foreign materials in the pump.

4.7- Alternative Pump; Not to interrupt of the operation, it is advised to keep a spare pump or sleeve (the part which has pistons and wings). So that, when one of the pump breaks or is taken to maintenance, the other one runs and the operation doesn't stop.

5. Troubleshoot;

5.1- General; The pumps, which are chosen and mounted correctly, run smoothly for a few years. However, troubles appear because of the some reasons. In that case, the trouble point should be determined and troubleshooted soonest. Next parts are general guide way to be able to find the faults. It is very useful to being cycle diagram for simplifying the troubleshooting.

5.2- Trouble no 1: Making noisy of the pump ;

5.2.1: Cavitation Event

Reason

5.2.1.1 Clean and replace rt.

It should clean or change .

5.2.1.2 To be tight of suction pipe.

Use the pipe with more wide diameter .

5.2.1.3 There have been most curves and elbow on the suction line.

Change the shape or use more wide pipe.

5.2.1.4 Constriction of the suction diameter (not to exact be on a vane, to be very rough of the one way valve's spring, smashed pipe and flaked hose)

Open the vane exactly, change the roughness of the one way valve's spring.

TEKNİK VERİLER | TECHNICAL DATA**5.2.1.5.Yağın çok soğuk olması**

Yağı ısıtın

5.2.1.6.Yağın yapışkanlığının çok yüksek olması (yağın kalın olması).

Uygun yapışkanlıktaki yağla değiştirin

5.2.1.7.Buhar oluşması.

İşletme Sıcaklığını azaltın, yağ düzeyini tamamlayın, depoyu büyütün veya buharlaşma yapmayacak kalitede yağ kullanın.

5.2.1.8.Basınç valflerin de arıza.

Onarın veya değiştirin

5.2.1.9.Pompanın dönüş hızının fazla olması.

Dönme sayısını düşürün

5.2.1.10.Deponun hava almayacak şekilde tam kapalı olması.

Depoya hava emiş filtresi veya borusu takın

5.2.2.Yağda hava bulunması:**5.2.2.1.Pompa milindeki keçeden hava girmesi.**

Keçeyi veya mili değiştirin

5.2.2.2.Emiş borusundan hava girmesi.

Bağlantı ve sızdırmazlık öğelerini denetleyin, boruyu değiştirin

5.2.2.3.Emiş borusunun içinin pürüzlü olması.

Hortumu değiştirin.

5.2.2.4.Devrenin havasının iyice alınmamış olması.

Devrenin havasını alın

5.2.3.Mekanik titreşimler:**5.2.3.1.Hatalı hizalama veya kötü kavrama bağlantısı.**

Yeniden hizalayın veya esnek kavrama kullanın.

5.2.3.2.Boruların titreşim yapması.

Bağlantıları destekleyin.

5.2.4.Pompanın mekanik titreşimleri.**5.2.4.1.Aşınmış, bozulmuş veya kötü takılmış pompa.**

Onarın veya değiştirin.

5.2.4.2.Pompanın istenen özelliklere uygun olmaması.

Pompayı üreticisinin tavsiyesine göre değiştirin.

5.3. Arıza No 2:Kifayetsiz basınç veya hiç basınç olmaması**5.3.1.Emiş hattından hava girmesi.**

Onarın veya değiştirin.

5.3.2.Pompanın olağanüstü ısınması.**5.3.2.1.Pompanın aşınması veya bozulması.**

Onarın veya değiştirin.

5.3.2.2.Yağın yapışkanlığının çok düşük olması veya kötü ayarlanması.

Uygun yağ ile değiştirin.

5.2.1.5 To be very cold oil.

Heat the oil.

5.2.1.6 To be very high viscosity of the oil (to be thick of the oil)

Replace with the convenient viscosity oil.

5.2.1.7 To be vapour .

Reduce the operation temperature, complete the oil level,extend the tank or use the quality oil which is not to be vapour.

5.2.1.8 Trouble in pressure valve.

Repair or replace it.

5.2.1.9 To be very fast of the rotation speed of the pump.

Reduce the rotation number.

5.2.1.10 To exact be up the tank in the form of not receiving any air.

Put the suction filter or pipe on to the tank.

5.2.2 To be air in the oil.**5.2.2.1 Entrance of air from the seal of the pump shaft.**

Replace the seal or pump shaft.

5.2.2.2Entrance of air from the suction pipe

Control the fittings and leaking items, replace the pipe.

5.2.2.3 To be rugged of the inner of the suction hose.

Replace the hose.

5.2.2.4 Not to be deflated of the cycle perfectly.

Deflate the cycle.

5.2.3 Mechanical vibrations.**5.2.3.1 Faulty alignment or bad coupling fitting.**

Realign or use the flexible coupling.

5.2.3.2 To make vibration of the pipes.

Bracket the fittings.

5.2.4 Mechanical vibrations of the pump.**5.2.4.1 Worn,corrupt or bad montaged pump**

Repair or replace it.

5.2.4.2 Not to be convenient for requested

features of the pump.

Replace the pump according to its manufacturer advises.

5.3.Trouble no 2 : Scant pressure or not to be any pressure.**5.3.1 To be air blowing from the suction line.**

Repair or replace it.

5.3.2 To heat of the pump very extraordinarily.

Repair or replace it.

5.3.2.2 To be very low viscosity of the oil or its bad adjusting.

Replace with the convenient oil.

5.3.2.3. Soğutma donanımının yetersiz olması veya kötü ayarlanması.

Soğutucu büyüklüğünü arttırın veya ayarlayın. Besleme suyunun yeterli olup olmadığını bakın.

5.3.2.4. Yön valflerinin yanlış seçilmiş olması.

Devreyi tasarlayana danışın gerekirse yeni devre kurun.

5.3.2.5. Yağın devre içinde herhangi bir yerde ısınması.

Yerini bulun ve gidirin.

5.3.3. Pompanın devrinin çok düşük olması veya motor gücünün yeterli olmaması

Bağlantıları sıkın veya değiştirin.

5.3.3.1. Basınç valflerinde aşınma veya bozulma.

Onarın veya değiştirin.

5.3.3.2. Basınç sınırlama valfinin düşük basınca ayarlanmış olması.

Yeniden ayarlayın ve mühürleyin.

5.4. Arıza no. 3: Basınç ve debide değişiklikler ve kesiklikler:

5.4.4. Pompanın uygun seçilmemiş olması.

Üreticiye danışarak uygun olanı ile değiştirin.

5.4.5. Basınç valflerinin iyi çalışmaması.

Üreticiye danışarak uygun olanı ile değiştirin.

Söküp temizleyin, eğer varsa aşınmış ve bozulmuş parçaları yenileyin. Ayarlarını yapıp mühürleyin. Olumlu sonuç alınamıyorsa üreticisine danışın.

5.5. Arıza no 4: Anormal debi

5.5.1. Kavite olayı, yağda hava bulunması, pompayı tahrik eden motorun devir sayısının düşük olması veya momentinin yetersiz olması.

Onarın ve değiştirin.

5.5.2. Aşırı iç kaçaklar. Pompanın aşınma veya bozulması, devreye bağlı ayar elemanının bozuk veya aşınmış olması.

Onarın ve değiştirin.

5.5.3. Pompanın ters yönde dönmesi.

Kablo uçlarını değiştirin.

5.5.3.1. Elektrik motoru bağlantısında hata.

Pini değiştirin.

5.5.3.2. Donanımında, kasnak ve kavramada hata

Kavrama düzenini değiştirin.

5.6. Arıza no 5: Kaçaklar

Aşırı basınç nedeniyle bozulan sızdırmazlık öğeleri, çatlaklar.

Olayı yaratan noktayı bulun, bozuk malzemeleri değiştirin.

5.3.2.3 To be inadequate of the cooling equipment or its bad adjusting.

Raise the size of the cooler or adjust. Check the feed water whether it is enough or not.

5.3.2.4 To be wrong chosen of the directional valve.

Consult to the contemplating of cycle, if it requires, set up the new cycle.

5.3.2.5 To heat the oil at anywhere in the cycle.

Find its place and repair.

5.3.3 To be very low pump's speed or not to be enough power of the motor.

Tighten the fittings or replace.

5.3.3.1 Abrasion or deterioration at pressure valve.

Repair or replace it.

5.3.3.2 Tabe adjusted to the low pressure of pressure limiting valve.

Readjust or stamp.

5.4. Trouble no 3: Changings on pressure and flow rate and interruptions:

5.4.4 Not to be chosen the convenient pump.

Consult the manufacturer and replace it with the convenient one.

5.4.5 Not to work of the pressure valves perfectly.

Consult the manufacturer and replace it with the convenient one.

Disassemble and clean, if there are any worn and corrupt parts, replace them. make its adjusting and stamp. If the positive result is not received, consult the manufacturer .

5.5 Trouble no 4 : abnormal rate;

5.5.1 cavitation event ,to be air in the oil, to be low of the rotation number of the motor which drives the pump or to be inadequate of its momentum.

Repair and replace it.

5.5.2 Excessive interior leakage. To be worn or corrupt of the pump, to be worn or corrupt adjusting elements which are connected to the cycle.

Repair and replace it.

5.5.3 The rotation of the pump in the opposite direction.

Replace the edge of the cable.

5.5.3.1 Error in the fitting of the electromotor.

Replace the pins.

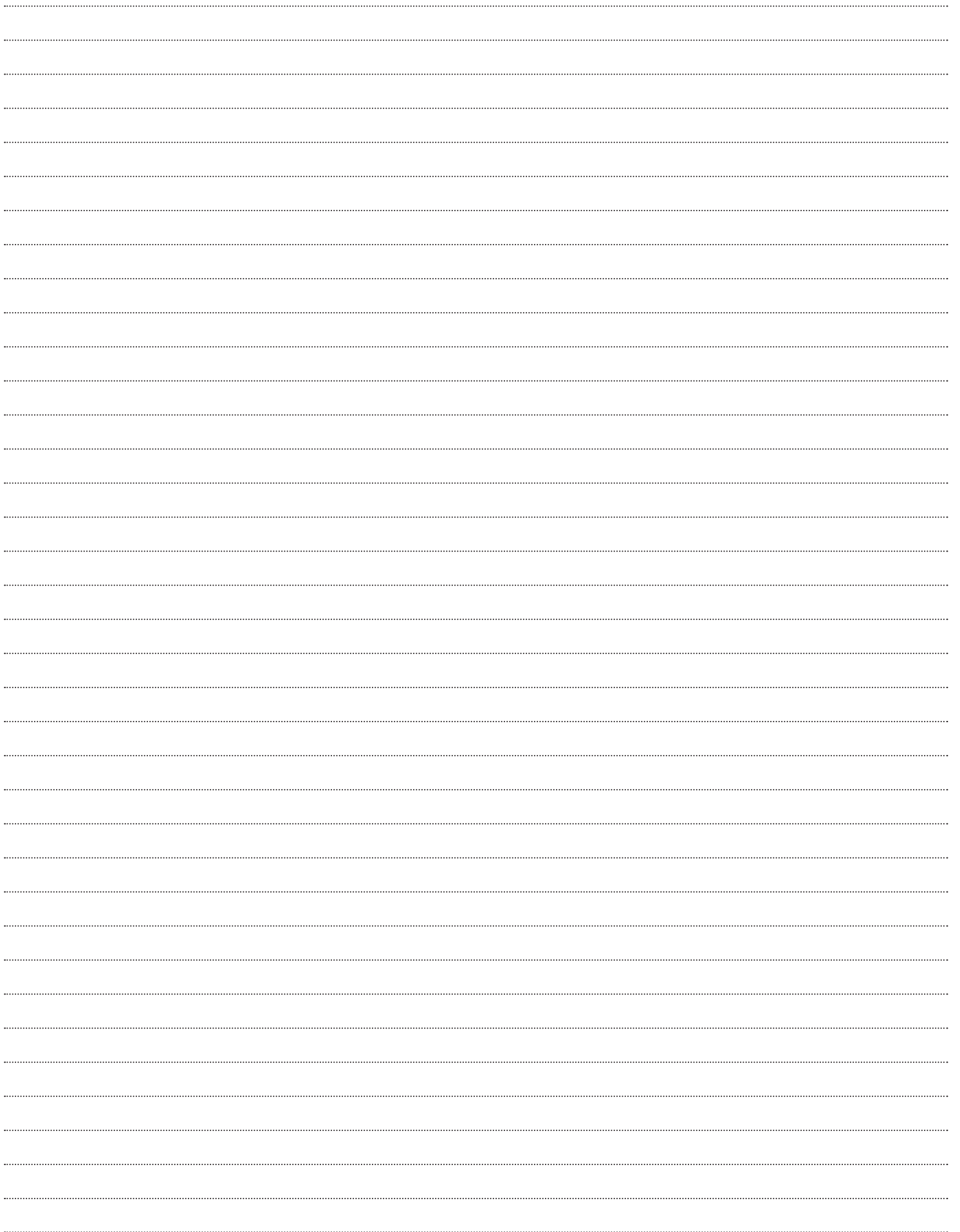
5.5.3.2 Error in equipment, pulley and coupling.

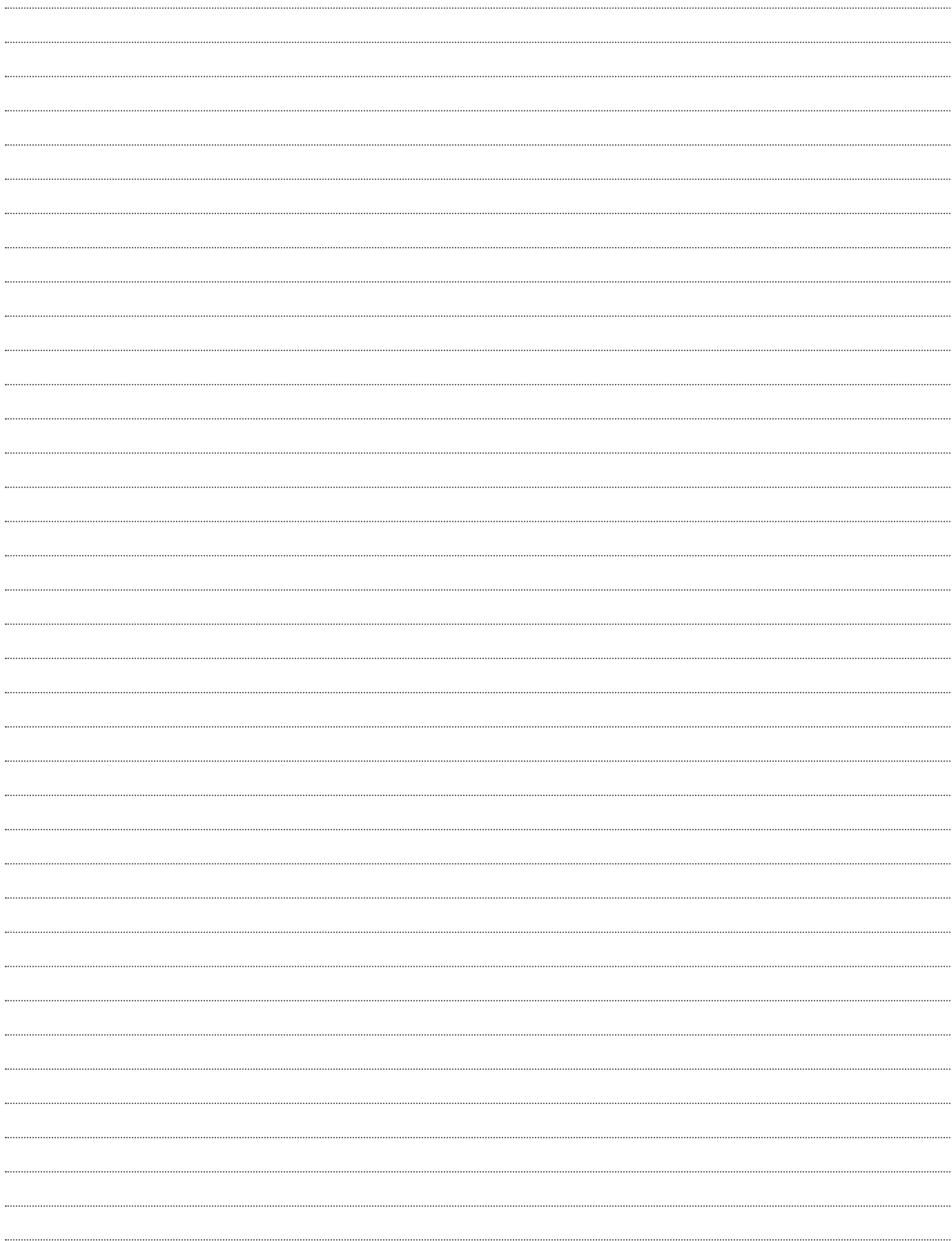
Replace the coupling sequence.

5.6 Trouble no 5 : Leakages,

Due to the overpressure, discarded leaking items, cracks.

Find the problem point, replace the discarded materials.





kazeloglu
.com.tr





KAZEL®

HYDRAULIC EQUIPMENTS

Konya Organize Sanayi Bölgesi 15. Sk.

No:2 Selçuklu / Konya / TÜRKİYE

T : +90 332 239 13 90 (pbx)

F : +90 332 239 13 93

www.kazeloglu.com

kazeloglu@kazeloglu.com