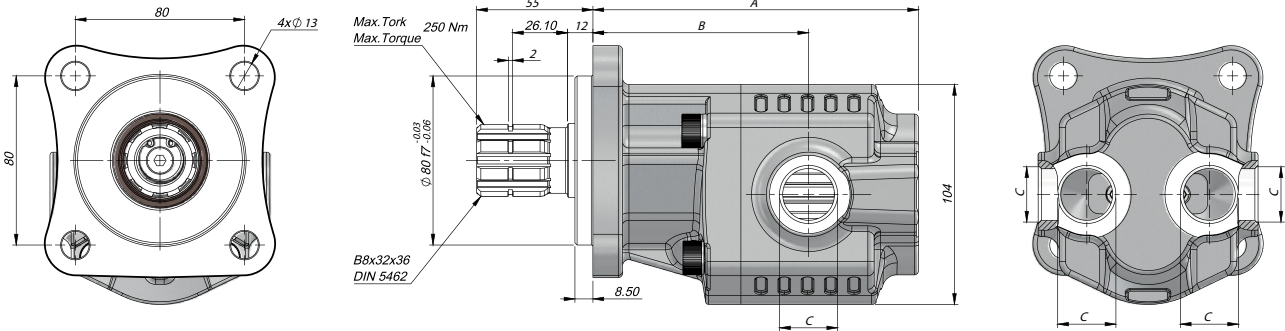


20 SERIE GEAR PUMP ISO BI-ROTATIONAL

20 SERİ DİŞLİ POMPA ISO ÇİFT YÖNLÜ



Inlet Pressure	0.3÷ 2 bar		
Operating Viscosity	-12:100 cSt		
Fluid Temperature	-40 °C+145 °C		
Working Pressure	Contamination NAS 1638	ISO 4406	Filtre βx=75
≥200 bar	11	20/17	25 μm
≤200 bar	12	21/18	40 μm



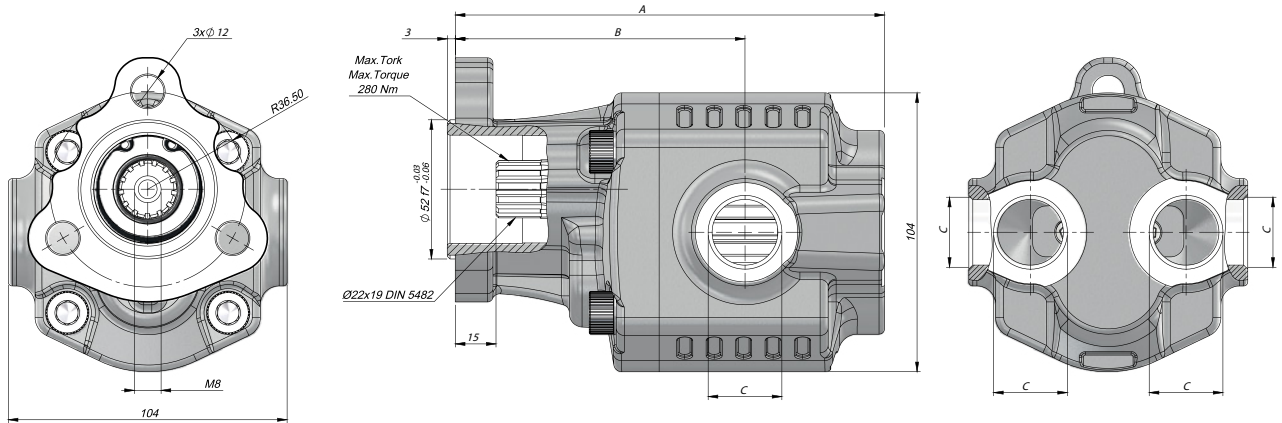
Code	Displacement	Max.Continuous Pressure	Min. Speed	Max.Continuous Speed	A	B	Inlet	Outlet
20-ISO	(cm ³ /rev)	(100%) (BAR)	(RPM)	(RPM)	(mm)	(mm)	C	C
32000651	6	280	300	2300	124	90	G 1/2"	G 1/2"
32001051	10				130	96		
32001651	16				140	96		
32002051	20	260			146	100		
32002551	25	220			154	102		
32003251	32	190		2100	165	113	G 3/4"	G 3/4"
32004051	40	180		1900	178	126		

20 SERIE GEAR PUMP UNI BI-ROTATIONAL

20 SERİ DİŞLİ POMPA UNI ÇİFT YÖNLÜ



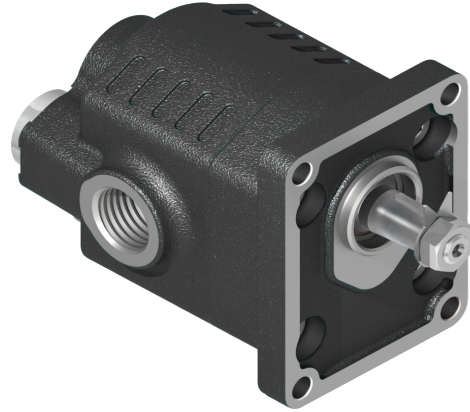
Inlet Pressure	0.3÷ 2 bar		
Operating Viscosity	-12:100 cSt		
Fluid Temperature	-40 °C+145 °C		
Working Pressure	Contamination NAS 1638	ISO 4406	Filtre βx=75
≥200 bar	11	20/17	25 μm
≤200 bar	12	21/18	40 μm



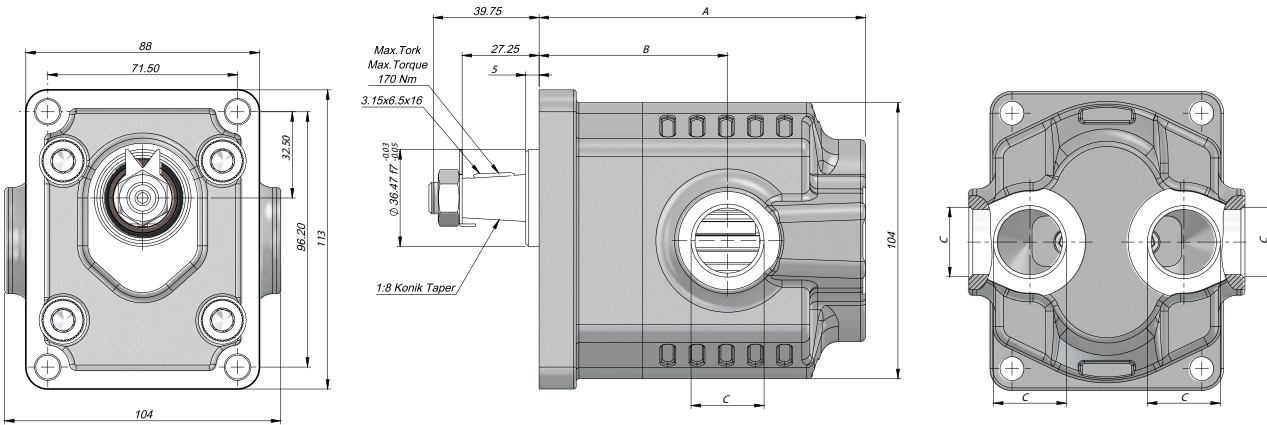
Code	Displacement (cm³/rev)	Max. Continuous Pressure (100%) (BAR)	Min. Speed (RPM)	Max. Continuous Speed (RPM)	A (mm)	B (mm)	Inlet	Outlet
20-UNI							C	C
32000641	6	280	300	2300	130	96	G 1/2"	G 1/2"
32001041	10				136	102		
32001641	16				146	102		
32002041	20				152	106		
32002541	25	220		2100	160	108	G 3/4"	G 3/4"
32003241	32	190			171	119		
32004041	40	180			184	132		

20 SERIE GEAR PUMP K KEYED BI-ROTATIONAL

20 SERİ DİŞLİ POMPA K KAMALI ÇİFT YÖNLÜ



Inlet Pressure	0.3 ÷ 2 bar		
Operating Viscosity	-12:100 cSt		
Fluid Temperature	-40 °C +145 °C		
Working Pressure	Contamination NAS 1638	ISO 4406	Filtre βx=75
≥200 bar	11	20/17	25 μm
≤200 bar	12	21/18	40 μm



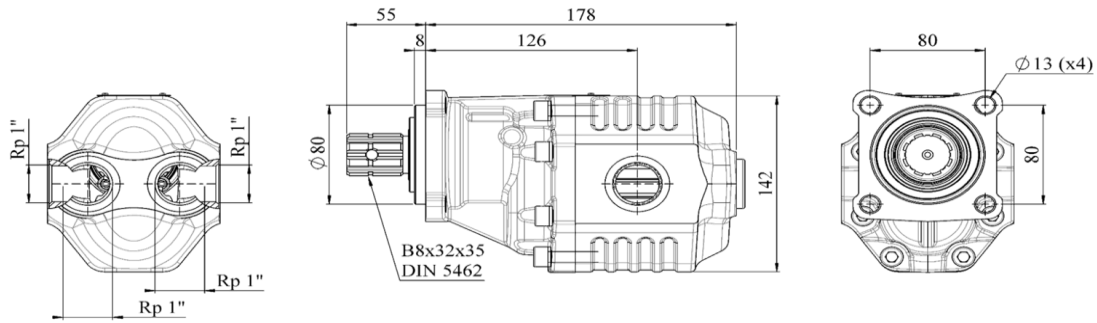
Code	Displacement	Max. Continuous Pressure	Min. Speed	Max. Continuous Speed	A	B	Inlet	Outlet
	(cm³/rev)	(100%) (BAR)	(RPM)	(RPM)	(mm)	(mm)	C	C
20-UNI								
32000661	6	280	300	2300	93	96	G 1/2"	G 1/2"
32001061	10				99	65		
32001661	16				109	65		
32002061	20				115	69		
32002561	25	220		2100	123	71	G 3/4"	G 3/4"
32003261	32	190			134	82		
32004061	40	180			147	95		

20 SERIE GEAR PUMPS
20 SERİ DİŞLİ POMPA LAR

HYDRAULIC PUMPS
HİDROLİK POMPA LAR



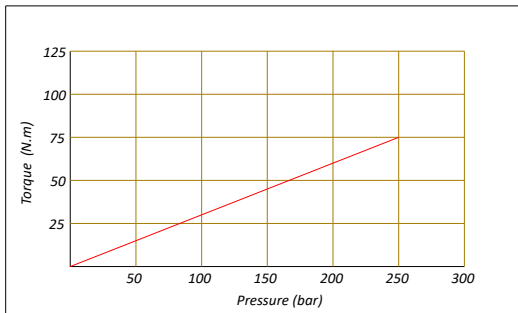
17 cc ISO 4 Bolt Bi-Rotational Gear Pump 4 Port



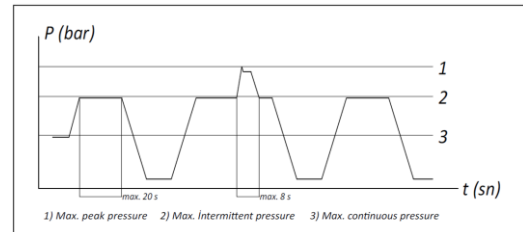
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33001751	17 cc/rev.	bi-rotational	290 bar	315 bar	325 bar	2500 1/min.	3000 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	11,2 kg

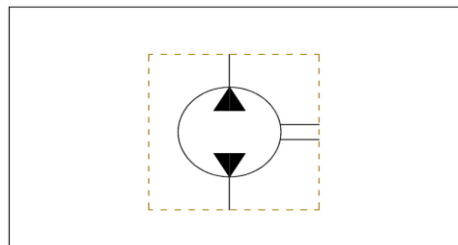
Torque - Pressure charesteristics



Pressure definition

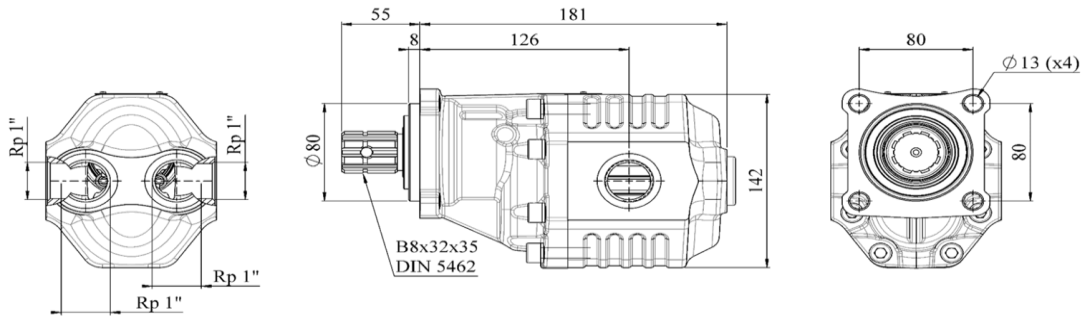


Hydraulic Pump Symbol





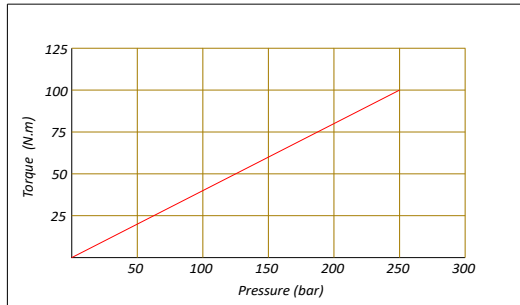
22 cc ISO 4 Bolt Bi-Rotational Gear Pump 4 Port



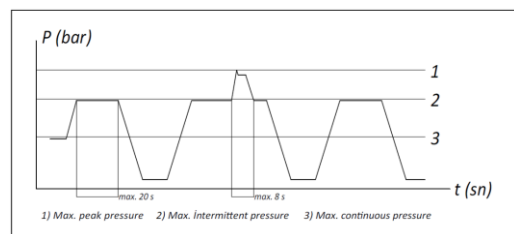
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33002251	22 cc/rev.	bi-rotational	290 bar	315 bar	325 bar	2500 1/min.	3000 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	11,5 kg

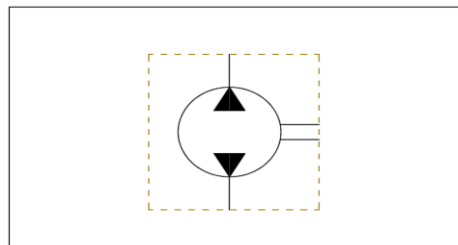
Torque - Pressure charesteristics



Pressure definition

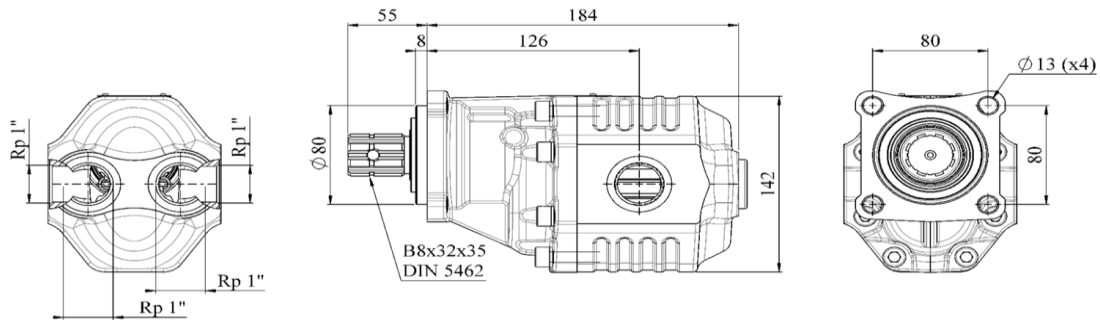


Hydraulic Pump Symbol





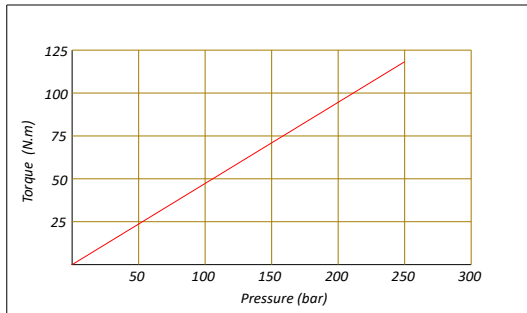
27 cc ISO 4 Bolt Bi-Rotational Gear Pump 4 Port



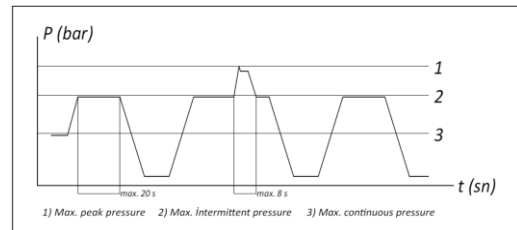
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33002751	27 cc/rev.	bi-rotational	290 bar	315 bar	325 bar	2500 1/min.	3000 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	11,7 kg

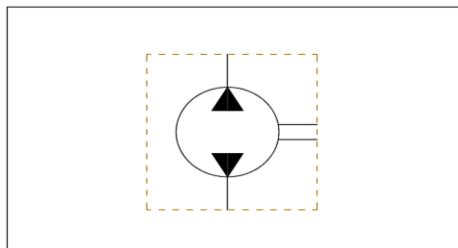
Torque - Pressure characteristics



Pressure definition

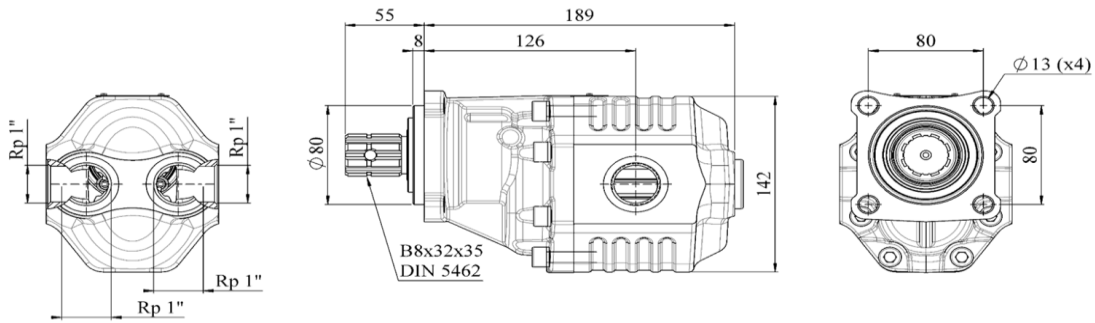


Hydraulic Pump Symbol





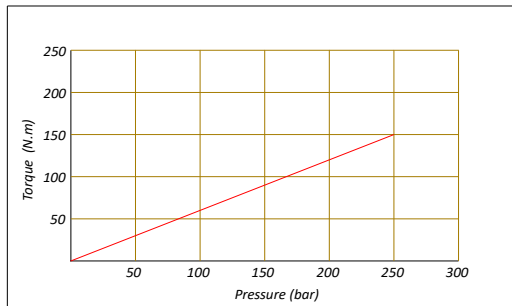
34 cc ISO 4 Bolt Bi-Rotational Gear Pump 4 Port



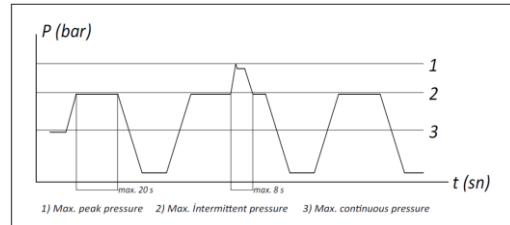
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33003451	34 cc/rev.	bi-rotational	280 bar	300 bar	310 bar	2200 1/min.	2800 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	12,1 kg

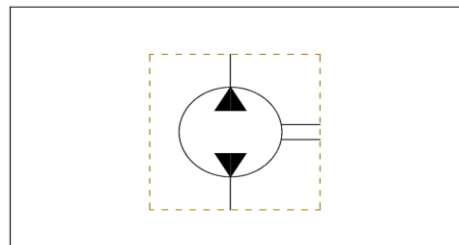
Torque - Pressure charesteristics

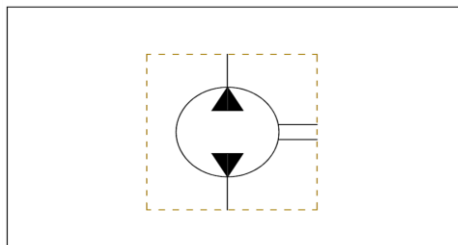


Pressure definition



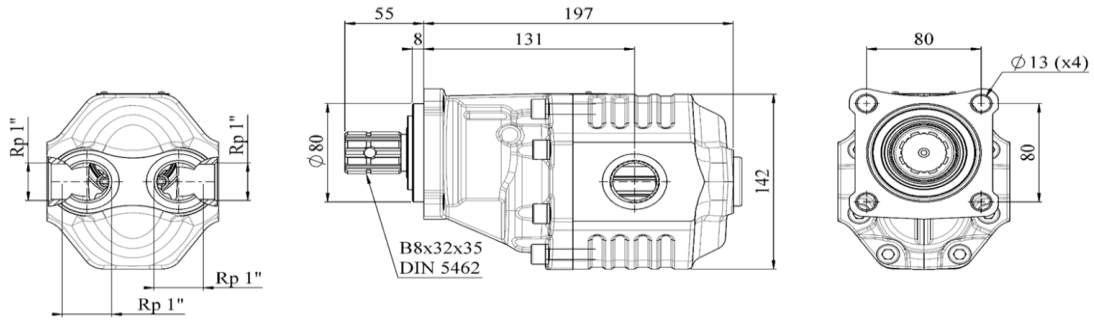
Hydraulic Pump Symbol







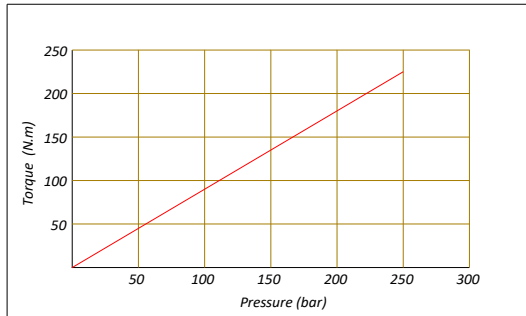
51 cc ISO 4 Bolt Bi-Rotational Gear Pump 4 Port



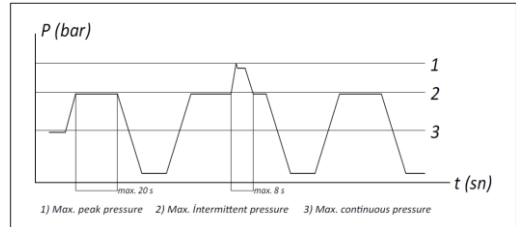
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33005151	51 cc/rev.	bi-rotational	240 bar	260 bar	280 bar	2000 1/min.	2500 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	12,8 kg

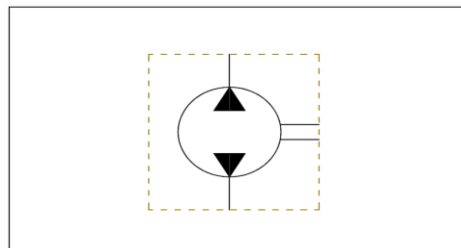
Torque - Pressure charesteristics



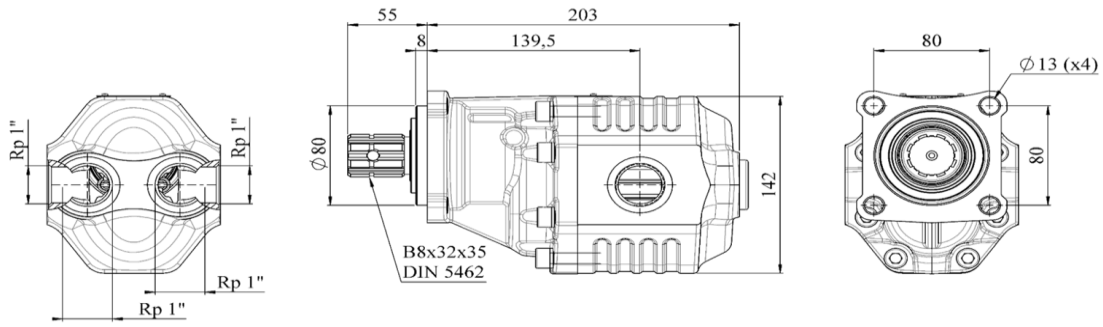
Pressure definition



Hydraulic Pump Symbol



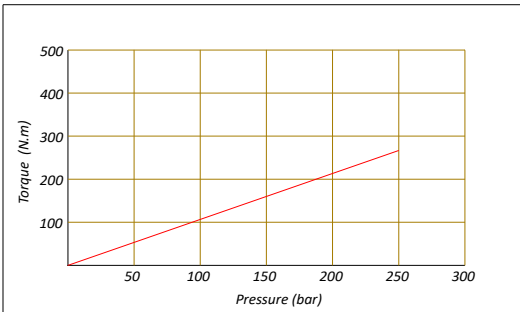
61 cc ISO 4 Bolt Bi-Rotational Gear Pump 4 Port



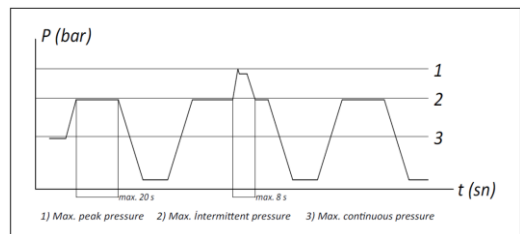
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33006151	61 cc/rev.	bi-rotational	220 bar	240 bar	250 bar	1900 1/min.	2500 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	13,3 kg

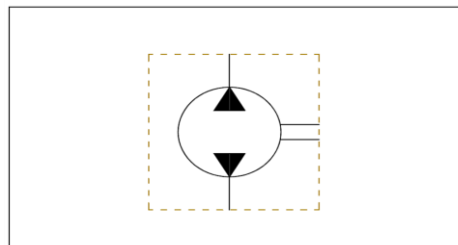
Torque - Pressure characteristics



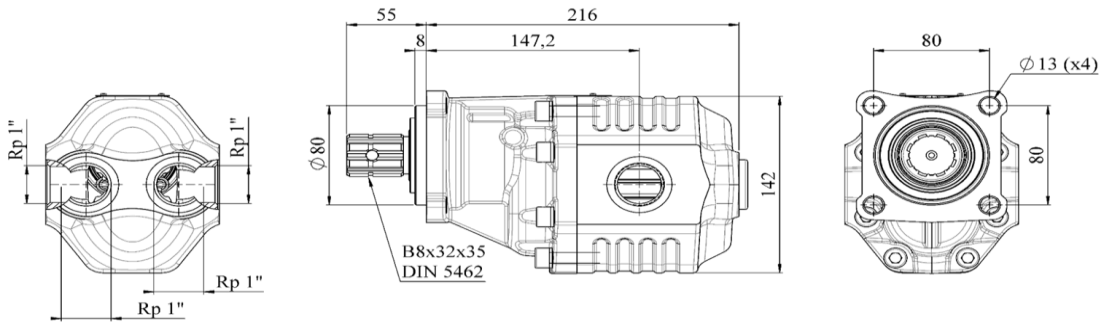
Pressure definition



Hydraulic Pump Symbol



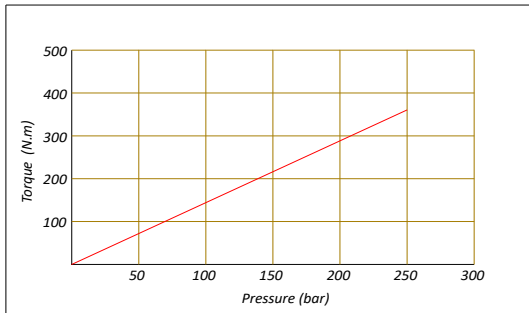
82 cc ISO 4 Bolt Bi-Rotational Gear Pump 4 Port



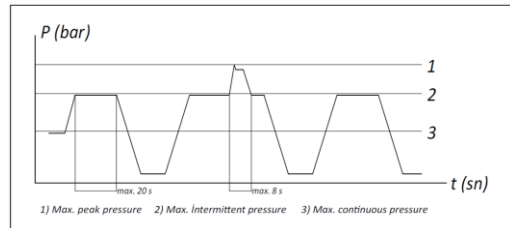
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33008251	82 cc/rev.	bi-rotational	205 bar	225 bar	230 bar	1900 1/min.	2500 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	14,4 kg

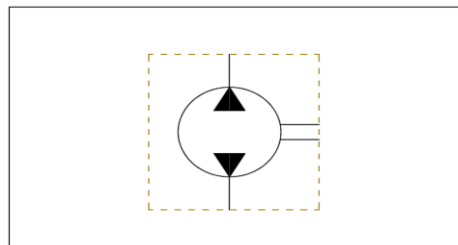
Torque - Pressure charesteristics



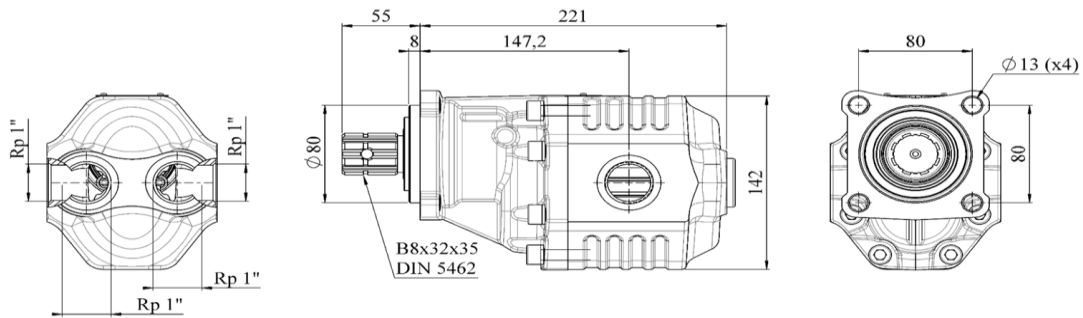
Pressure definition



Hydraulic Pump Symbol



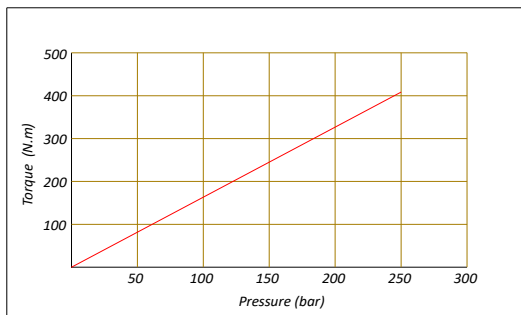
92 cc ISO 4 Bolt Bi-Rotational Gear Pump 4 Port



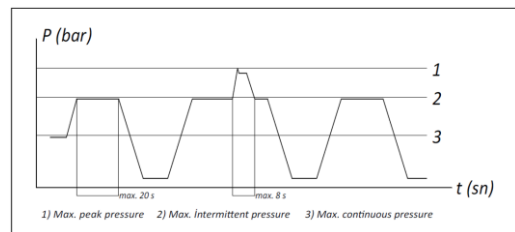
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33009251	92 cc/rev.	bi-rotational	180 bar	200 bar	220 bar	1900 1/min.	2500 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	14,9 kg

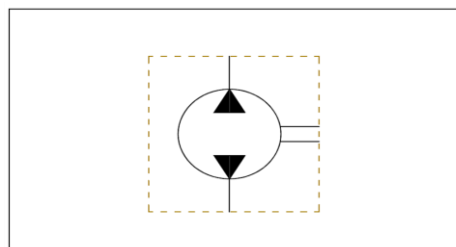
Torque - Pressure charesteristics



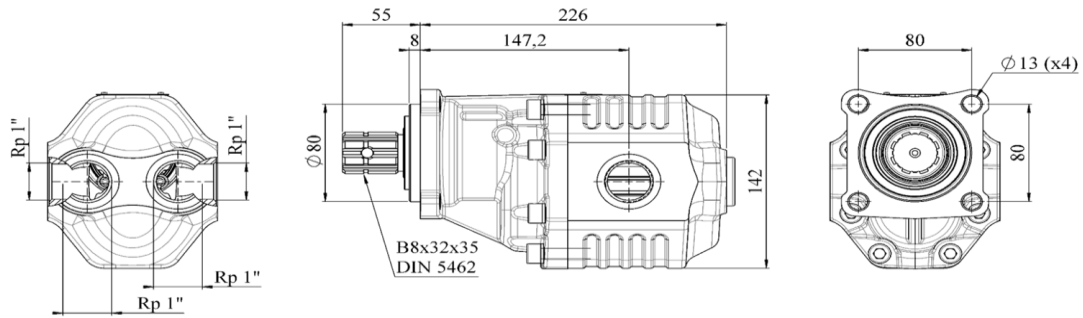
Pressure definition



Hydraulic Pump Symbol



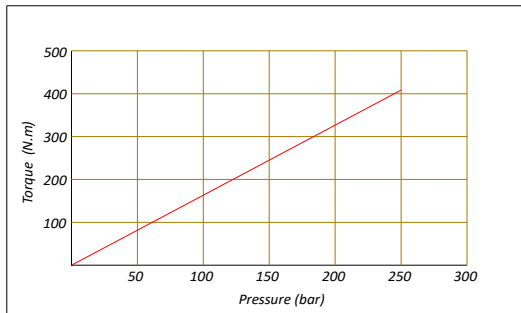
100 cc ISO 4 Bolt Bi-Rotational Gear Pump 4 Port



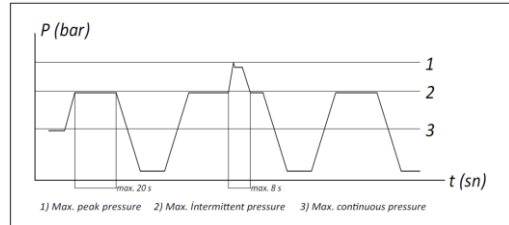
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33010051	100 cc/rev.	bi-rotational	180 bar	200 bar	220 bar	1500 1/min.	1800 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	15,3 kg

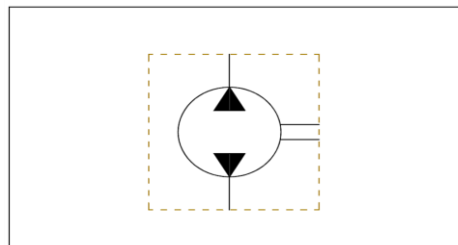
Torque - Pressure charesteristics



Pressure definition

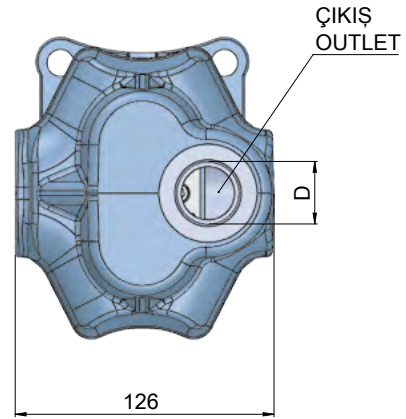
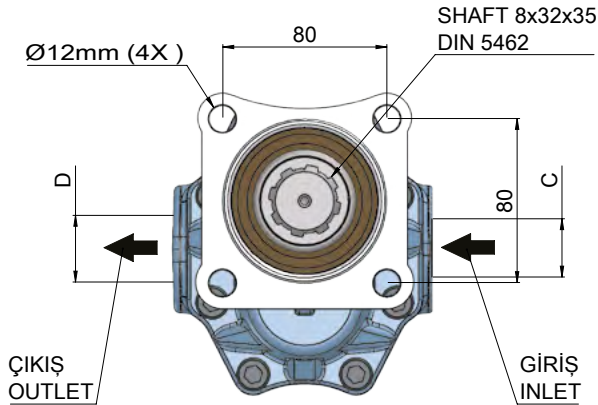
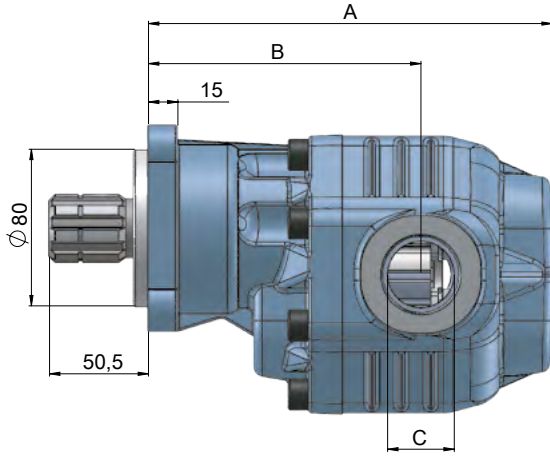


Hydraulic Pump Symbol



30 SINGLE ROTATION ISO

30 TEK DÖNÜŞLÜ ISO



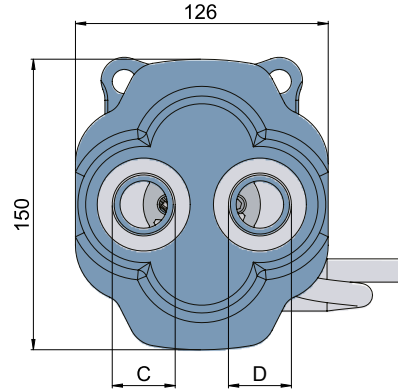
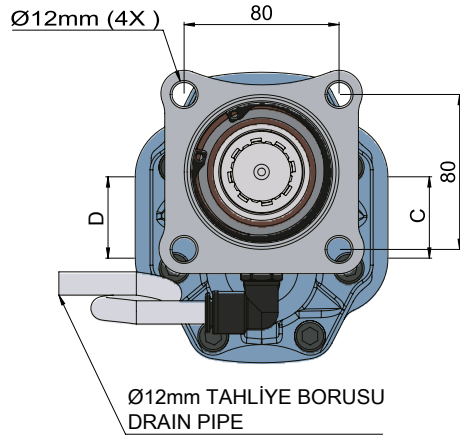
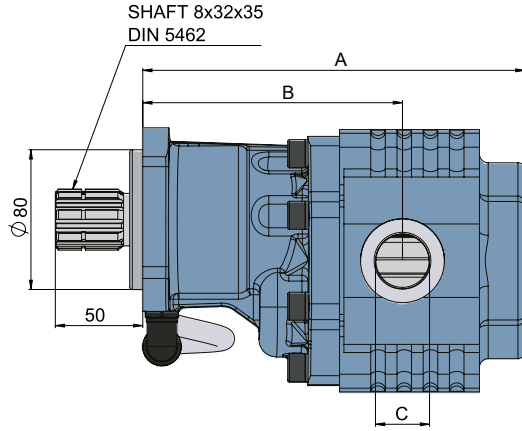
30 SERIES GEAR PUMPS
30 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

POMPA KODU PUMP CODES	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
33001731	RIGHT/SAĞ	17	201	126	R1/2"-14	R1/2"-14	265	300
33001732	LEFT/SOL							
33002731	RIGHT/SAĞ	27	208	130	R3/4"-14	R3/4"-14	260	290
33002732	LEFT/SOL							
33003431	RIGHT/SAĞ	34	183	132	R1"-11	R1"-11	250	280
33003432	LEFT/SOL							
33004331	RIGHT/SAĞ	43	190	135	R1 1/4"-11	R1 1/4"-11	240	270
33004332	LEFT/SOL							
33005131	RIGHT/SAĞ	51	193	137			220	250
33005132	LEFT/SOL							
33006131	RIGHT/SAĞ	61	201	138			210	240
33006132	LEFT/SOL							
33008231	RIGHT/SAĞ	82	315	147			180	220
33008232	LEFT/SOL							

30 PF SERIES BI-ROTATIONAL ISO

30 PF SERİSİ ÇİFT DÖNÜŞLÜ ISO



30 SERIES GEAR PUMPS
30 SERİSİ DİŞLİ POMPA

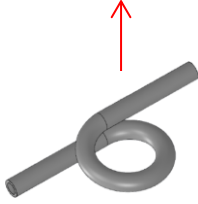
HYDRAULIC PUMPS
HİDROLİK POMPA

CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pık Basınç (Pmax)
PF33003451	BI-ROTATIONAL-ÇİFT	34	199	146	R3/4"-14	R3/4"-14	250	280
PF33004351	BI-ROTATIONAL-ÇİFT	43	207	149			240	270
PF33005151	BI-ROTATIONAL-ÇİFT	51	210	151	R1"-14	R1"-14	220	250
PF33006151	BI-ROTATIONAL-ÇİFT	61	216	152			210	240
PF33008251	BI-ROTATIONAL-ÇİFT	82	226	161			180	220

ISO PF SERIES POINTS TO BE CONSIDERED DURING INSTALLATION

- 1- The elements that must be used in the pump are defined below.

12x8 mm 50 cm
Transparent Drain Hose

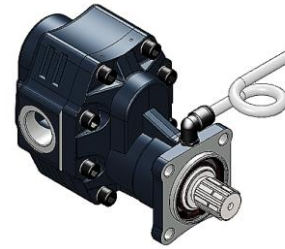
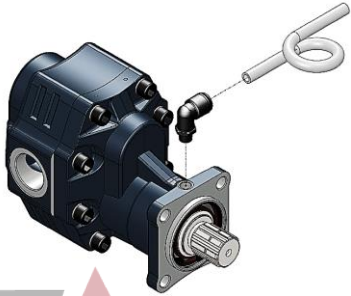


1/4 Elbow Ø12
Air Fitting



Picture -1

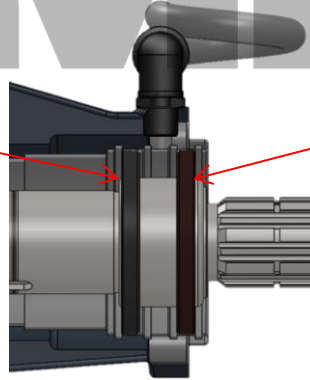
- 2- Transparent hose and pneumatic fitting are assembled as shown in picture -2. If the pump is not used with the specified elements, our company will not be responsible for the failure of the pump and the vehicle.



Picture -2

- 3- When assembling, the transparent hose should not be in contact with places such as (PTO, Pump, Main Transmission, Exhaust, etc.) in order not to be affected by temperature.
- 4- As seen in Figure-3, there are two oil seals in ISO Pumps. One of them is responsible for holding the oil coming from the main gearbox and the other one from the pump. In PF Series pumps, the distance between the two seals is more than other pumps and it notifies possible leaks more quickly. Another benefit is that it ensures that the two oils do not mix.

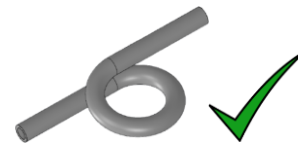
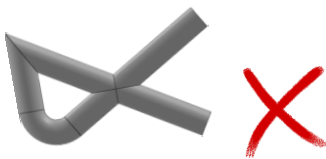
Seal holding the oil from the pump



Seal holding the oil from the main gearbox

Picture -3

- 5- Every working day, the pump should be checked with the help of a hose. If there is oil in the hose, contact the nearest service center. If there is dirt or soil blocking the hose, it is cleaned and checked.
- 6- Oil coming from the drain hose is a harbinger of a malfunction. If the hose is folded, oil leakage cannot be observed and may cause a bigger malfunction. Correct and incorrect installation of the air discharge hose is shown in picture-4.



Picture -4

ADVANTAGES OF PF SERIES IN HYDRAULIC PUMPS

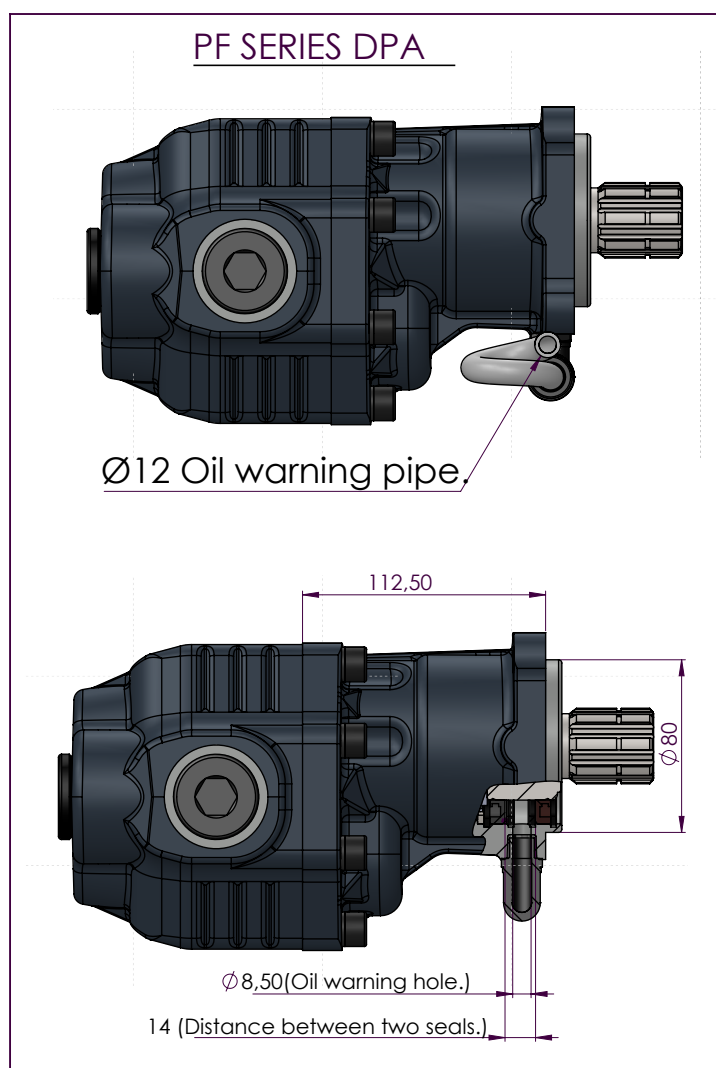


Figure 1.

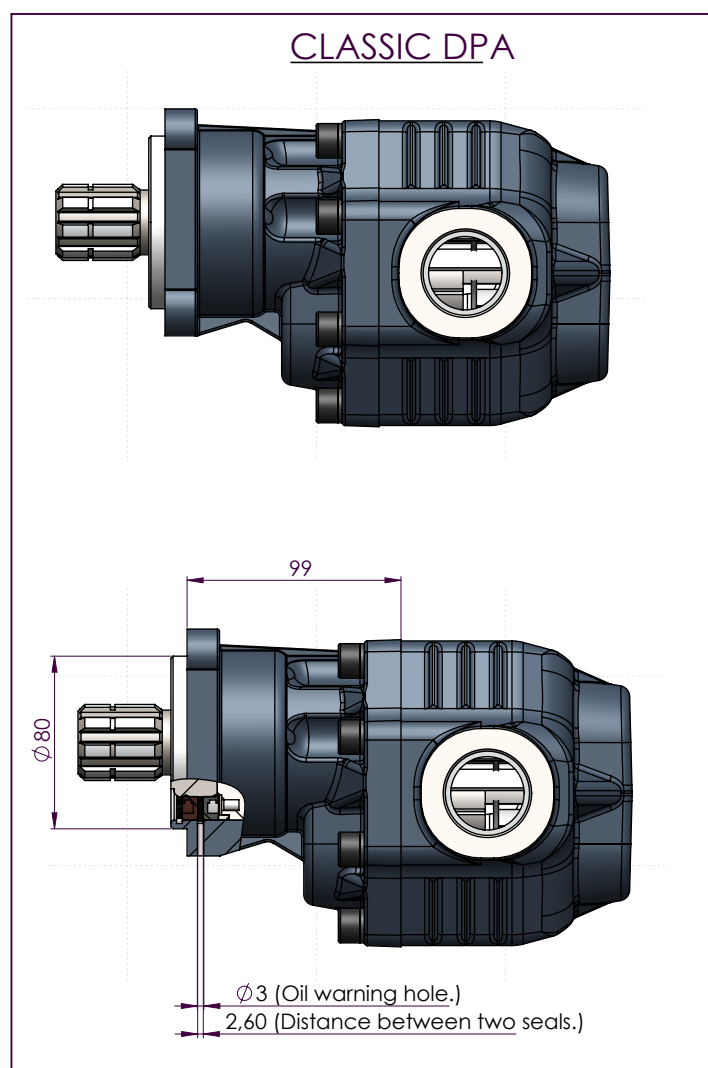


Figure 2.

1) PF series pumps, the distance between the two seals is wider than the classical DPA pumps, allowing the seal leakage that occurs over time to be recognised more quickly thanks to the transparent hose.

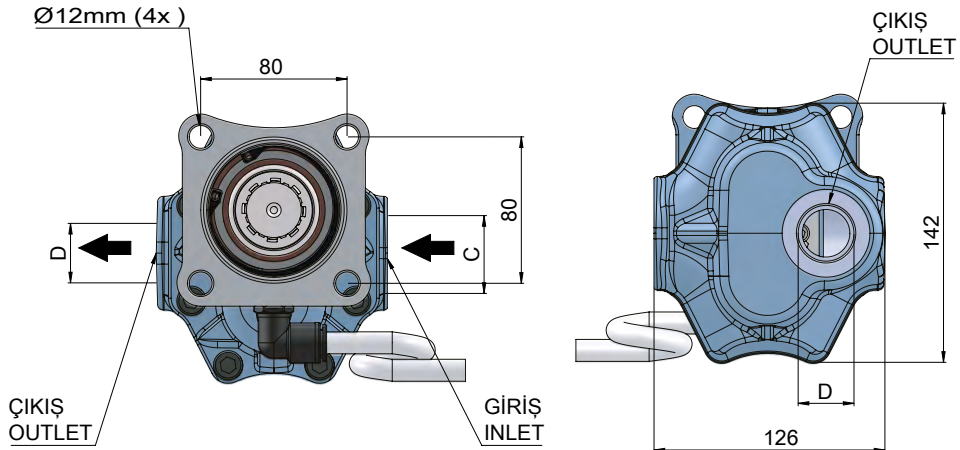
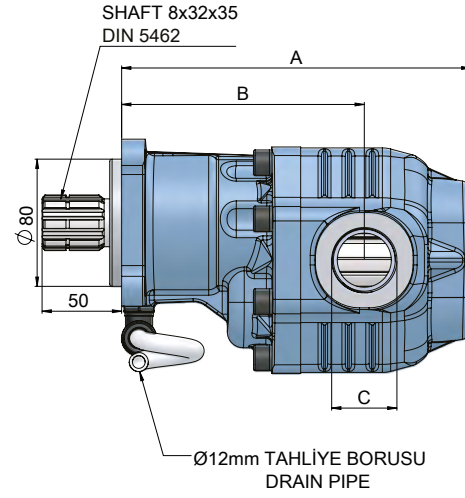
You can see the difference between the distance between the seals and the oil warning holes in Figure 1 and Figure 2.

2) Since the oil warning hole (Figure 2.) is Ø3mm in classical DPA pumps, oil leaks become invisible as dust, mud etc. factors will cover the hole more easily. Such a situation has been prevented by designing PF series.

3) PF series covers are in ISO standard dimensions like classic DPA covers and there is no problem in installation.

30 PF SERIES SINGLE ROTATIONAL ISO

30 PF SERİSİ TEK DÖNÜŞLÜ İSO

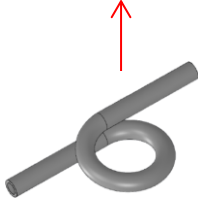


CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. PİK Basınç (Pmax)
PF33001731	RIGHT/SAĞ	17	179	134	R1/2"-14	R1/2"-14	265	300
PF33001732	LEFT/SOL							
PF33002731	RIGHT/SAĞ	27	186	138	R3/4"-14	R3/4"-14	260	290
PF33002732	LEFT/SOL							
PF33003431	RIGHT/SAĞ	34	191	140	R1"-11	R1"-11	250	280
PF33003432	LEFT/SOL							
PF33004331	RIGHT/SAĞ	43	198	143	R1 1/4"-11	R1 1/4"-11	240	270
PF33004332	LEFT/SOL							
PF33005131	RIGHT/SAĞ	51	201	145	R1 1/4"-11	R1 1/4"-11	220	250
PF33005132	LEFT/SOL							
PF33006131	RIGHT/SAĞ	61	209	146	R1 1/4"-11	R1 1/4"-11	210	240
PF33006132	LEFT/SOL							
PF33008131	RIGHT/SAĞ	82	323	155	R1 1/4"-11	R1 1/4"-11	180	220
PF33008132	LEFT/SOL							

ISO PF SERIES POINTS TO BE CONSIDERED DURING INSTALLATION

- 1- The elements that must be used in the pump are defined below.

12x8 mm 50 cm
Transparent Drain Hose

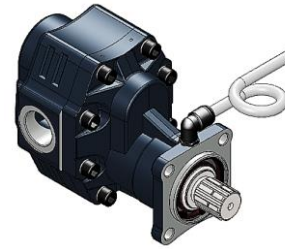
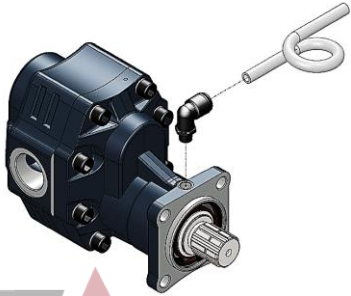


1/4 Elbow Ø12
Air Fitting



Picture -1

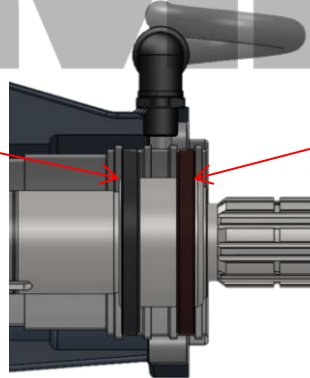
- 2- Transparent hose and pneumatic fitting are assembled as shown in picture -2. If the pump is not used with the specified elements, our company will not be responsible for the failure of the pump and the vehicle.



Picture -2

- 3- When assembling, the transparent hose should not be in contact with places such as (PTO, Pump, Main Transmission, Exhaust, etc.) in order not to be affected by temperature.
- 4- As seen in Figure-3, there are two oil seals in ISO Pumps. One of them is responsible for holding the oil coming from the main gearbox and the other one from the pump. In PF Series pumps, the distance between the two seals is more than other pumps and it notifies possible leaks more quickly. Another benefit is that it ensures that the two oils do not mix.

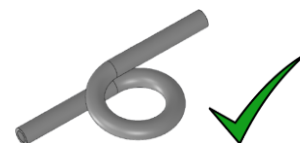
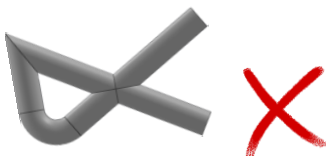
Seal holding the oil from the pump



Seal holding the oil from the main gearbox

Picture -3

- 5- Every working day, the pump should be checked with the help of a hose. If there is oil in the hose, contact the nearest service center. If there is dirt or soil blocking the hose, it is cleaned and checked.
- 6- Oil coming from the drain hose is a harbinger of a malfunction. If the hose is folded, oil leakage cannot be observed and may cause a bigger malfunction. Correct and incorrect installation of the air discharge hose is shown in picture-4.



Picture -4

ADVANTAGES OF PF SERIES IN HYDRAULIC PUMPS

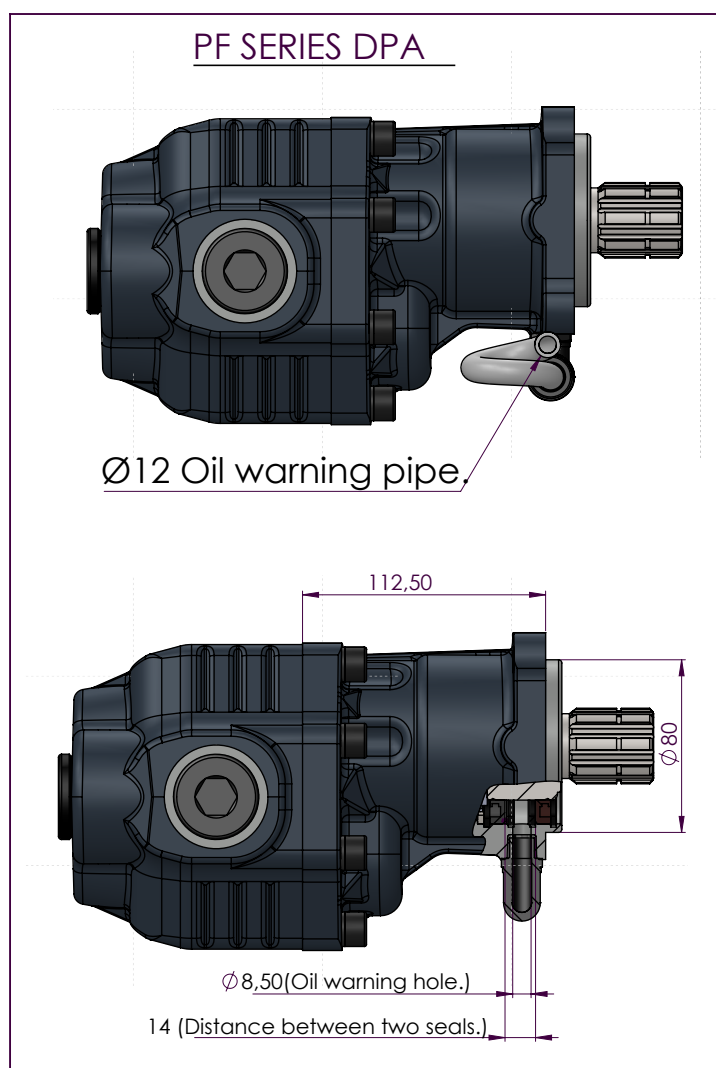


Figure 1.

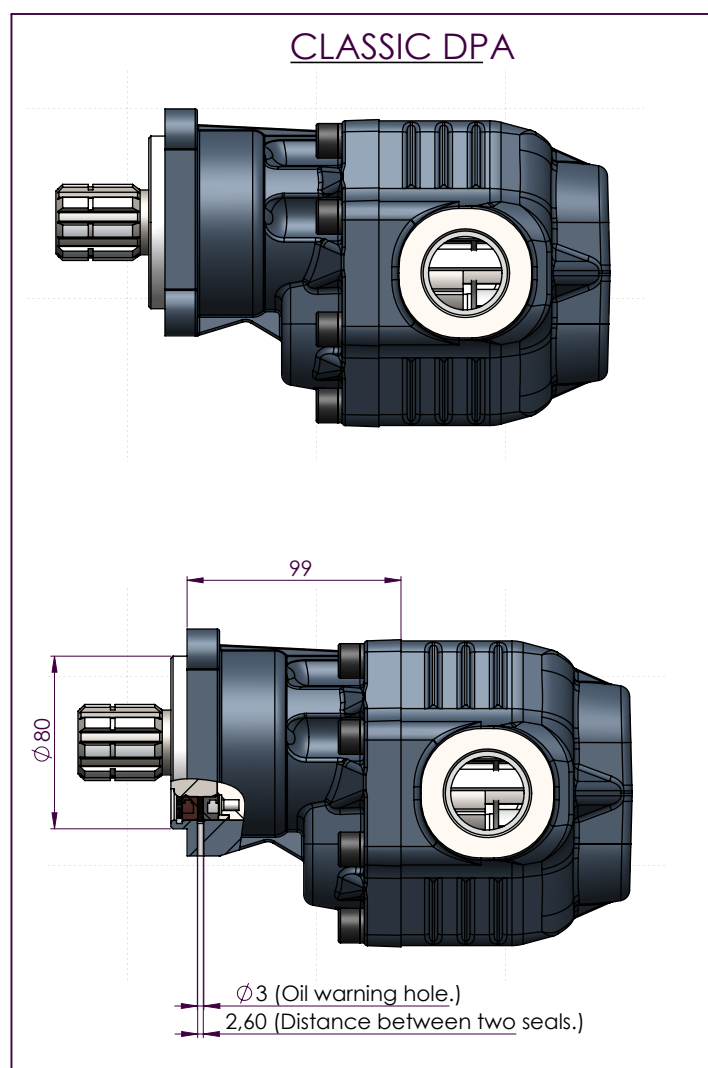


Figure 2.

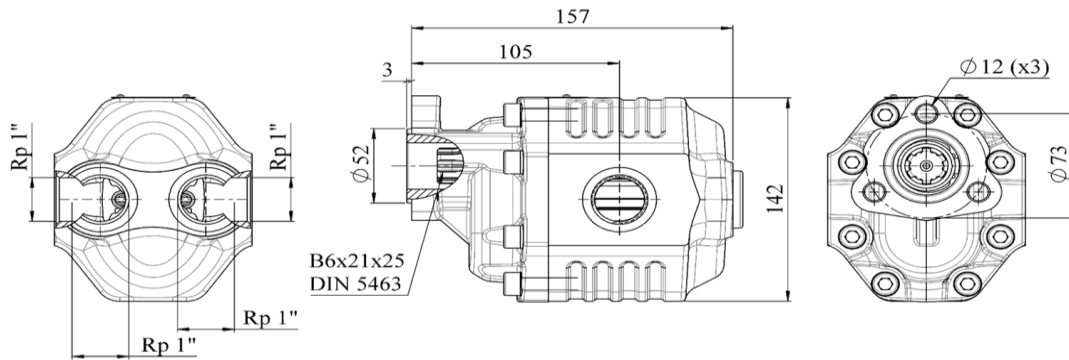
1) PF series pumps, the distance between the two seals is wider than the classical DPA pumps, allowing the seal leakage that occurs over time to be recognised more quickly thanks to the transparent hose.

You can see the difference between the distance between the seals and the oil warning holes in Figure 1 and Figure 2.

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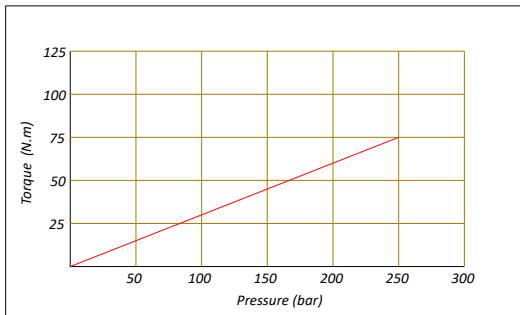
17 cc UNI 3 Bolt Bi-Rotational Gear Pump 4 Port



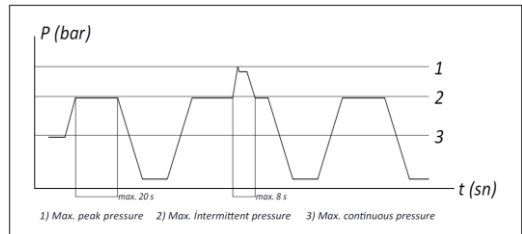
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33001741	17 cc/rev.	bi-rotational	290 bar	315 bar	325 bar	2500 1/min.	3000 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	11,2 kg

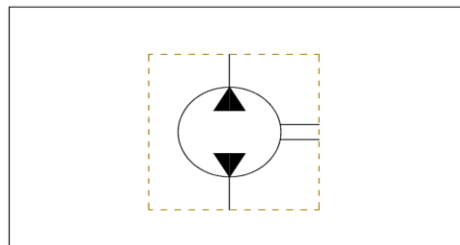
Torque - Pressure charesteristics



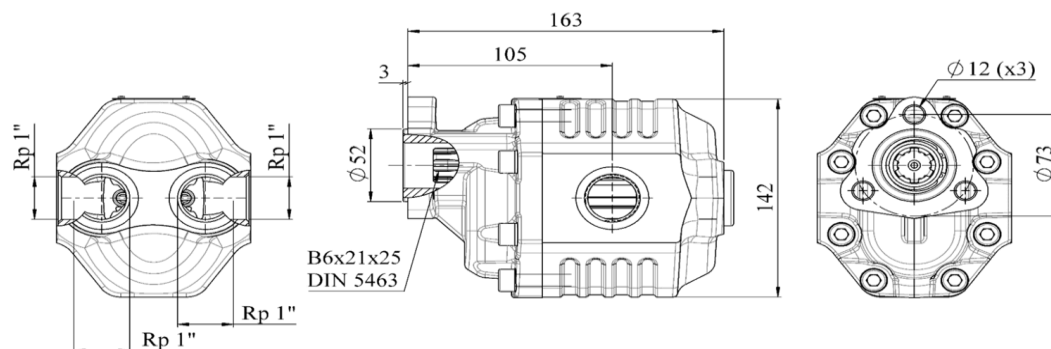
Pressure definition



Hydraulic Pump Symbol



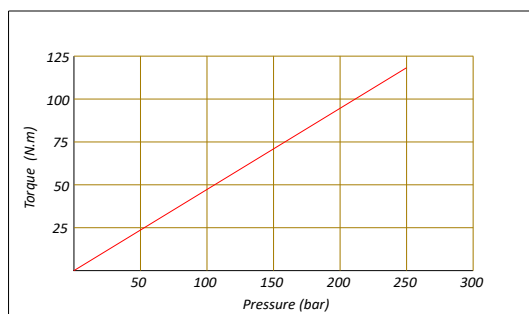
27 cc UNI 3 Bolt Bi-Rotational Gear Pump 4 Port



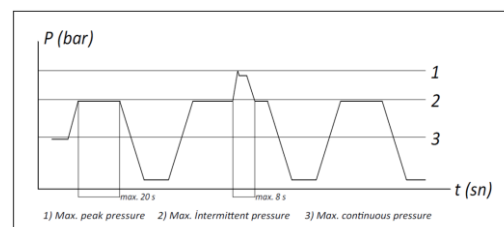
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33002741	27 cc/rev.	bi-rotational	290 bar	315 bar	325 bar	2500 1/min.	3000 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	11,7 kg

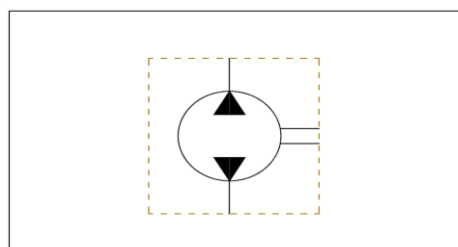
Torque - Pressure charesteristics



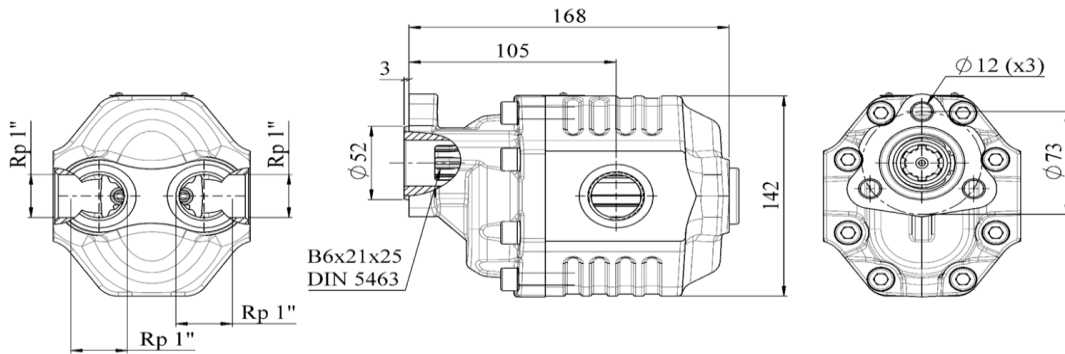
Pressure definition



Hydraulic Pump Symbol



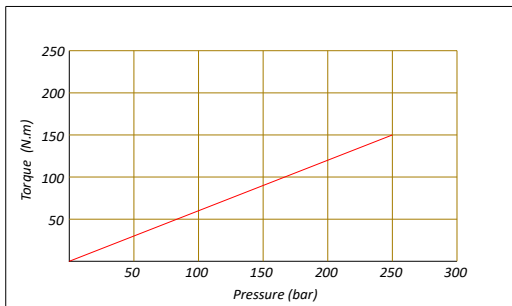
34 cc UNI 3 Bolt Bi-Rotational Gear Pump 4 Port



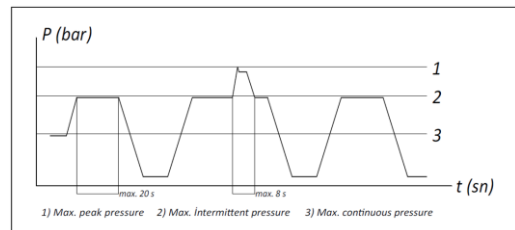
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33003441	34 cc/rev.	bi-rotational	280 bar	300 bar	310 bar	2200 1/min.	2800 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	12,1 kg

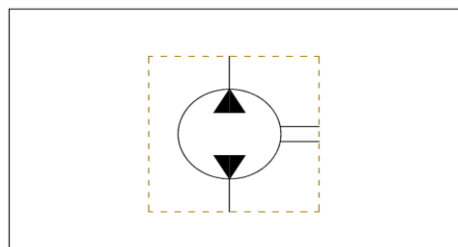
Torque - Pressure charesteristics



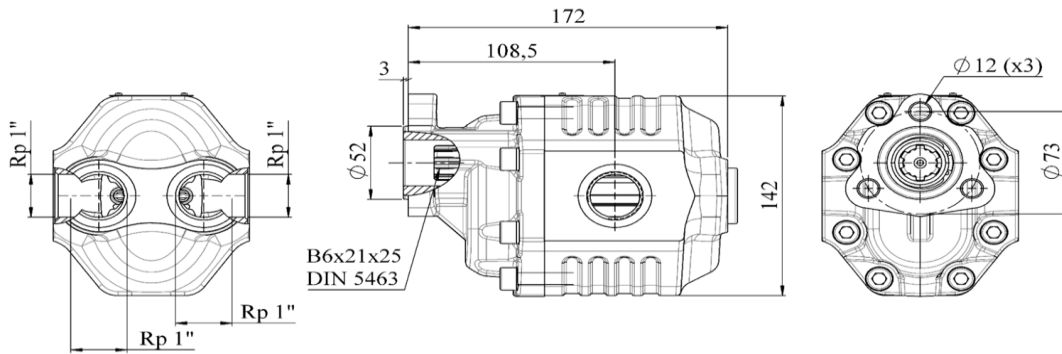
Pressure definition



Hydraulic Pump Symbol



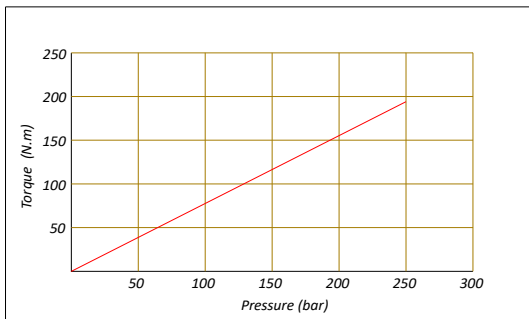
43 cc UNI 3 Bolt Bi-Rotational Gear Pump 4 Port



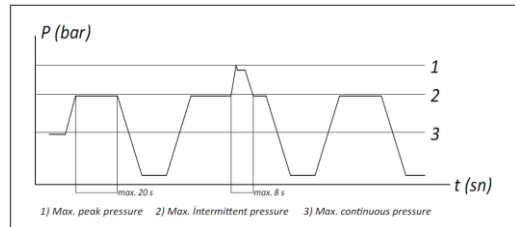
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33004341	43 cc/rev.	bi-rotational	270 bar	290 bar	300 bar	2000 1/min.	2500 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	12,5 kg

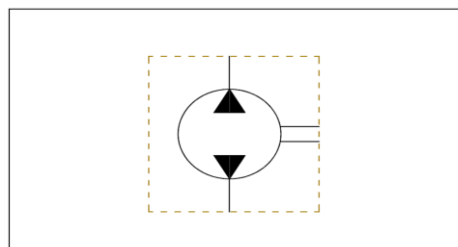
Torque - Pressure charesteristics



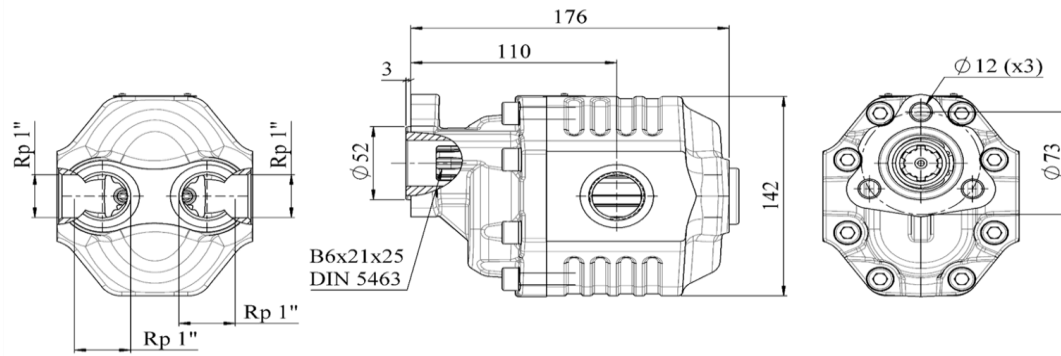
Pressure definition



Hydraulic Pump Symbol



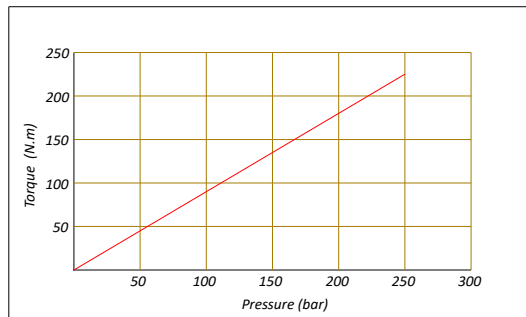
51 cc UNI 3 Bolt Bi-Rotational Gear Pump 4 Port



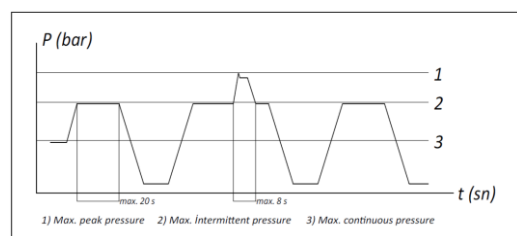
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33005141	51 cc/rev.	bi-rotational	240 bar	260 bar	280 bar	2000 1/min.	2500 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	12,8 kg

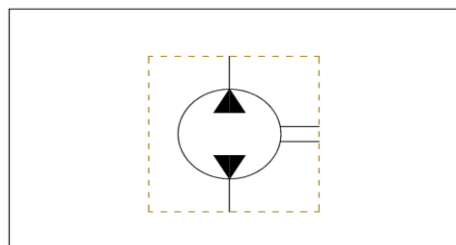
Torque - Pressure charesteristics

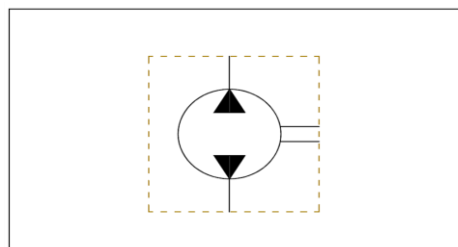


Pressure definition

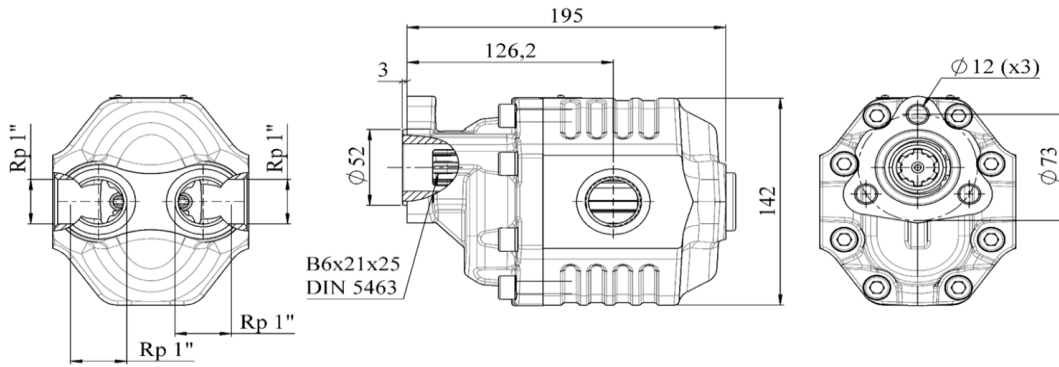


Hydraulic Pump Symbol





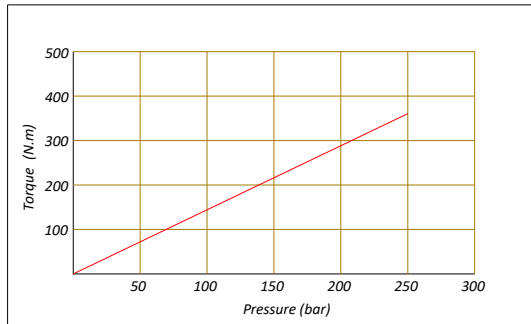
82 cc UNI 3 Bolt Bi-Rotational Gear Pump 4 Port



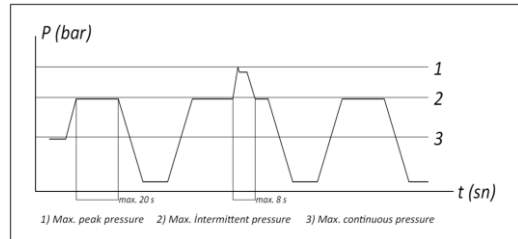
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33008241	82 cc/rev.	bi-rotational	205 bar	225 bar	230 bar	1900 1/min.	2500 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	14,4 kg

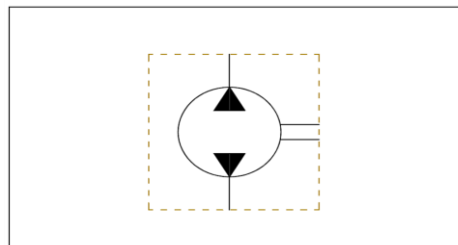
Torque - Pressure charesteristics



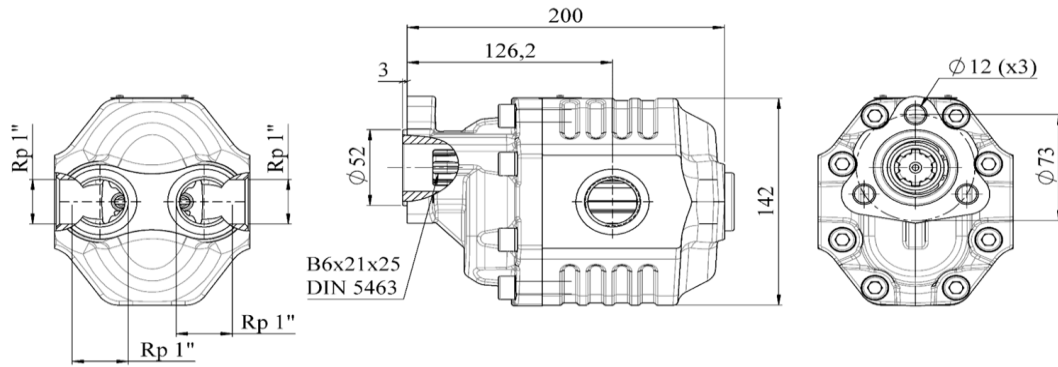
Pressure definition



Hydraulic Pump Symbol



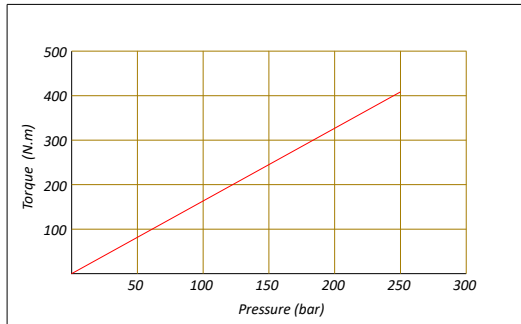
92 cc UNI 3 Bolt Bi-Rotational Gear Pump 4 Port



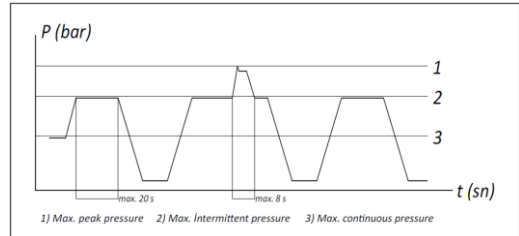
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33009241	92 cc/rev.	bi-rotational	180 bar	200 bar	220 bar	1900 1/min.	2500 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	14,9 kg

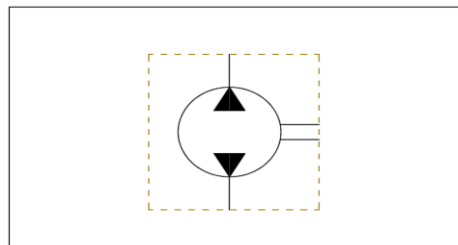
Torque - Pressure charesteristics



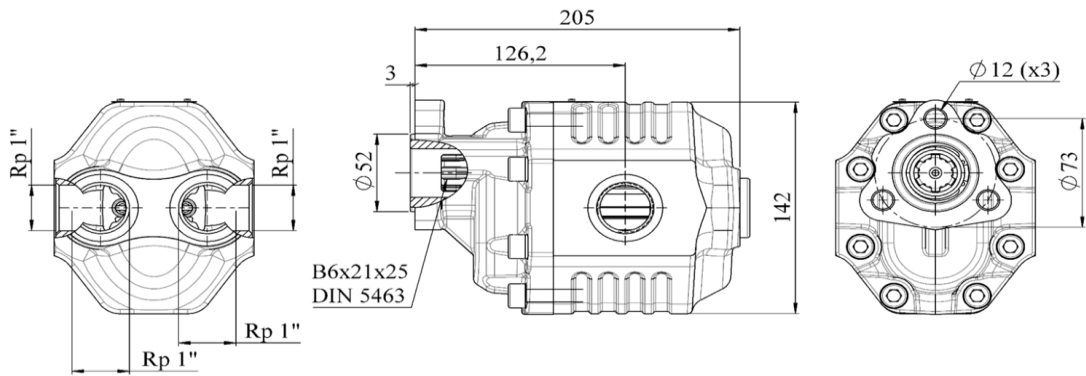
Pressure definition



Hydraulic Pump Symbol



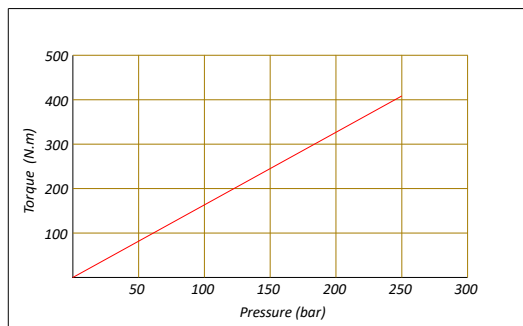
100 cc UNI 3 Bolt Bi-Rotational Gear Pump 4 Port



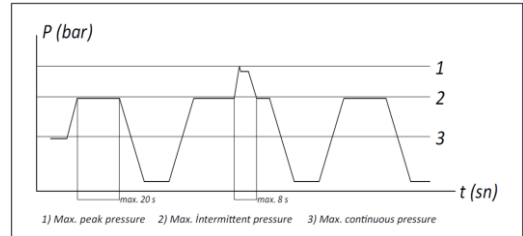
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33010041	100 cc/rev.	bi-rotational	180 bar	200 bar	220 bar	1500 1/min.	1800 1/min.	-20 & 80 °C	12 & 100 cSt	G 1"	G 1"	15,3 kg

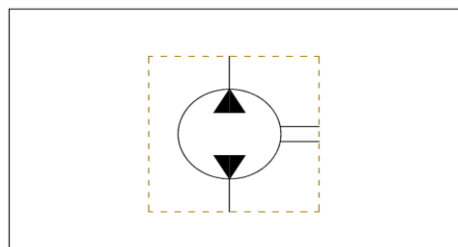
Torque - Pressure charesteristics



Pressure definition

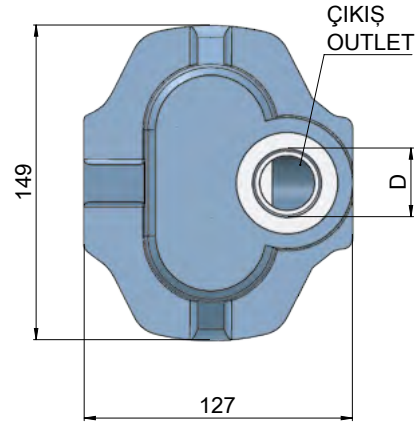
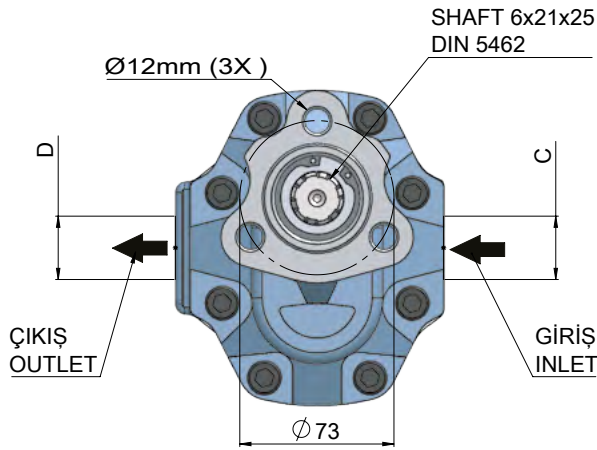
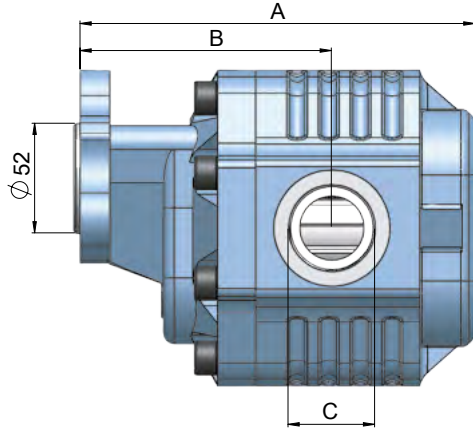


Hydraulic Pump Symbol



30 SINGLE ROTATIONAL UNI

30 TEK DÖNÜŞLÜ UNI



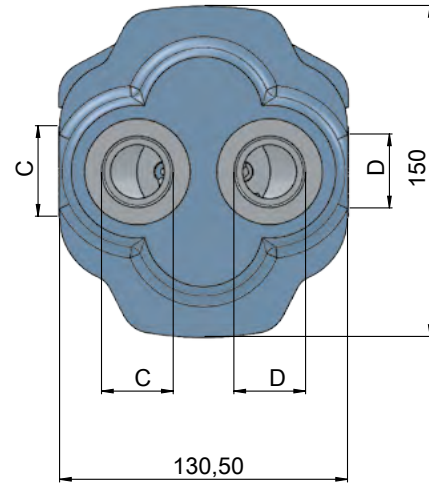
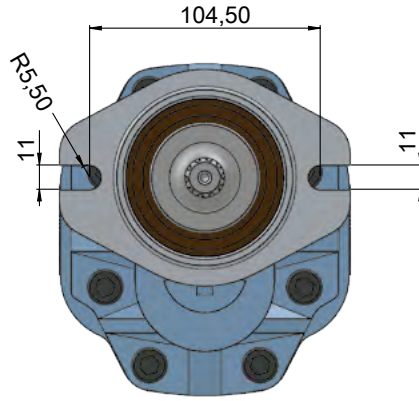
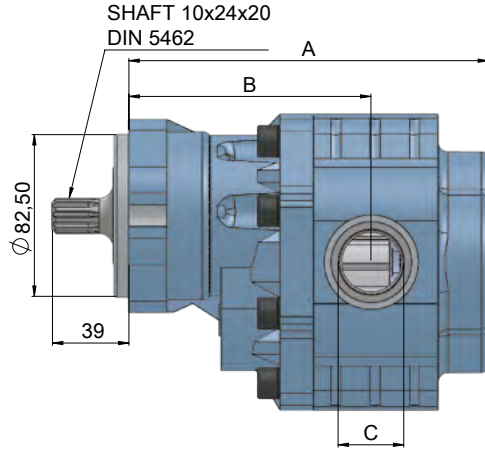
30 SERIES GEAR PUMPS
30 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
33001711	RIGHT/SAĞ	17	150,5	105,5	R1/2"-14	R1/2"-14	265	300
33001712	LEFT/SOL							
33002711	RIGHT/SAĞ	27	157,5	109,5	R3/4"-14	R3/4"-14	260	290
33002712	LEFT/SOL							
33003411	RIGHT/SAĞ	34	162,5	111,5	R1"-11	R3/4"-14	250	280
33003412	LEFT/SOL							
33004311	RIGHT/SAĞ	43	169,5	114,5	R1"-11	R1"-11	240	270
33004312	LEFT/SOL							
33005111	RIGHT/SAĞ	51	172,5	116,5	R1 1/4"-11	R1"-11	220	250
33005112	LEFT/SOL							
33006111	RIGHT/SAĞ	61	180,5	117,5	R1 1/4"-11	R1"-11	210	240
33006112	LEFT/SOL							
33008211	RIGHT/SAĞ	82	294,5	126,5	R1 1/4"-11	R1"-11	180	220
33008212	LEFT/SOL							

30 SAE A SERIES BI-ROTATIONAL

30 SAE A SERİSİ ÇİFT DÖNÜŞLÜ



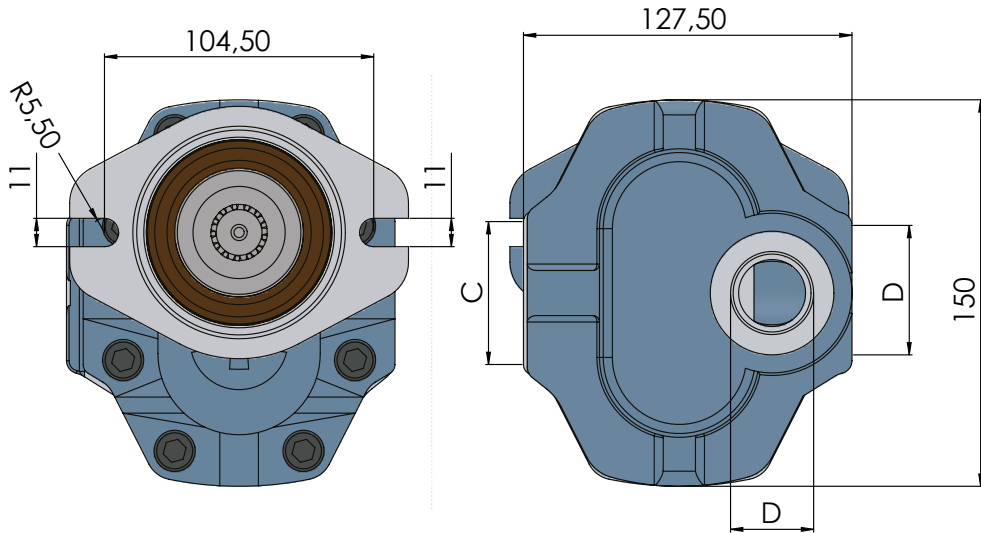
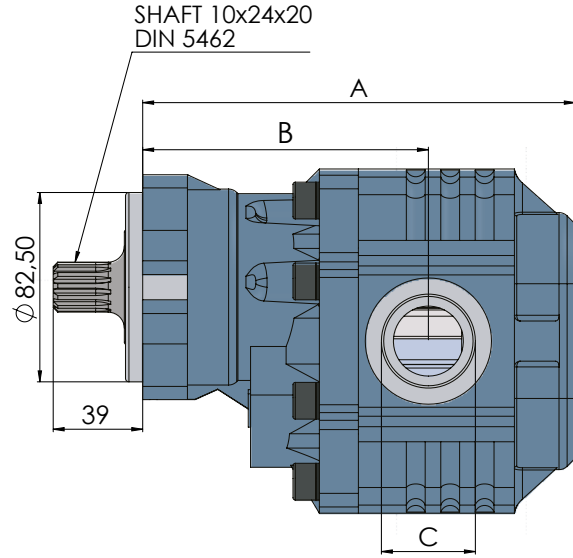
CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
33003461	BI-ROTATIONAL-ÇİFT	34	199	146	R3/4"-14	R3/4"-14	250	280
33004361	BI-ROTATIONAL-ÇİFT	43	207	149			240	270
33005161	BI-ROTATIONAL-ÇİFT	51	210	151			220	250
33006161	BI-ROTATIONAL-ÇİFT	61	216	152	R1"-14	R1"-14	210	240
33008261	BI-ROTATIONAL-ÇİFT	82	226	161			180	220

30 SERIES GEAR PUMPS
30 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

30 SAE A SERIES SINGLE ROTATIONAL

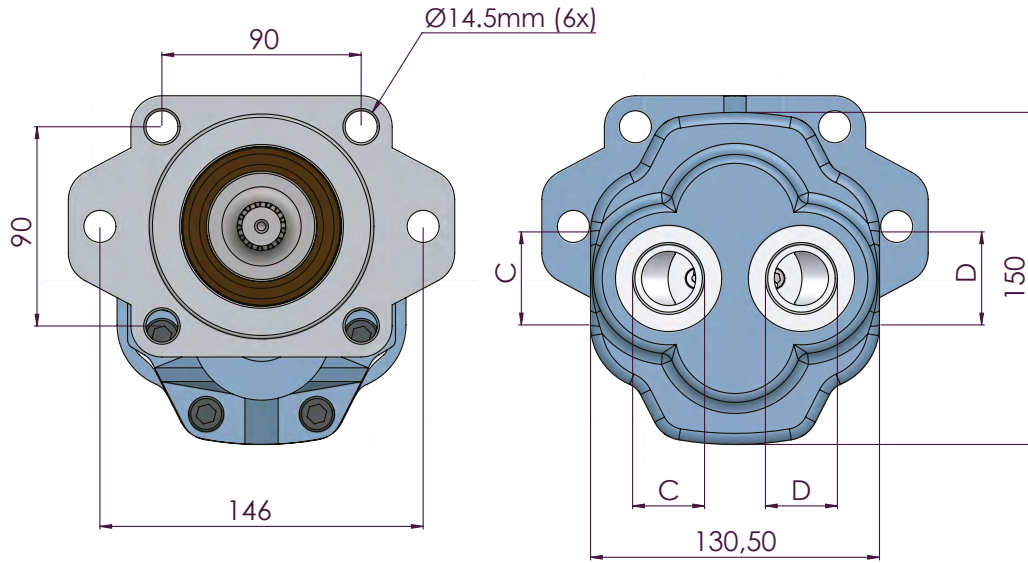
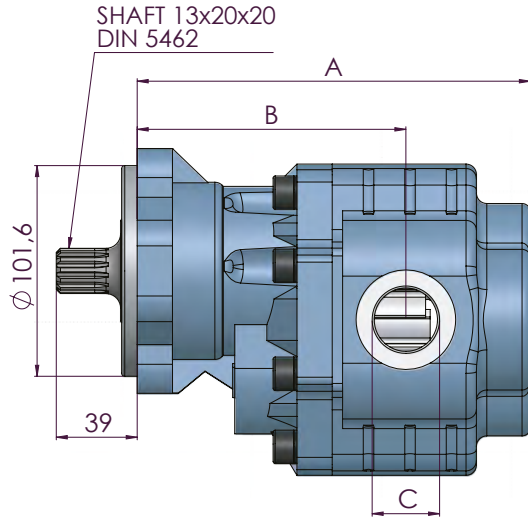
30 SAE A SERİSİ TEK DÖNÜŞLÜ



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. PİK Basınç (Pmax)
33001762	RIGHT/SAĞ	17	171	126	R1/2"-14	R1/2"-14	265	300
33001763	LEFT/SOL							
33002762	RIGHT/SAĞ	27	178	130	R3/4"-14	R3/4"-14	260	290
33002763	LEFT/SOL							
33003462	RIGHT/SAĞ	34	183	132	R1"-11	R1"-11	250	280
33003463	LEFT/SOL							
33004362	RIGHT/SAĞ	43	190	135	R1 1/4"-11	R1 1/4"-11	240	270
33004363	LEFT/SOL							
33005162	RIGHT/SAĞ	51	193	137	R1 1/4"-11	R1 1/4"-11	220	250
33005163	LEFT/SOL							
33006162	RIGHT/SAĞ	61	201	138	R1 1/4"-11	R1 1/4"-11	210	240
33006163	LEFT/SOL							
33008262	RIGHT/SAĞ	82	315	147	R1 1/4"-11	R1 1/4"-11	180	220
33008263	LEFT/SOL							

30 SAE B SERIES BI-ROTATIONAL

30 SAE B SERİSİ ÇİFT DÖNÜŞLÜ



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
33003471	BI-ROTATIONAL-ÇİFT	34	199	146	R3/4"-14	R3/4"-14	250	280
33004371	BI-ROTATIONAL-ÇİFT	43	207	149			240	270
33005171	BI-ROTATIONAL-ÇİFT	51	210	151	R1"-14	R1"-14	220	250
33006171	BI-ROTATIONAL-ÇİFT	61	216	152			210	240
33008271	BI-ROTATIONAL-ÇİFT	82	226	161			180	220

30 SERIES GEAR PUMPS
30 SERİSİ DİŞLİ POMPA

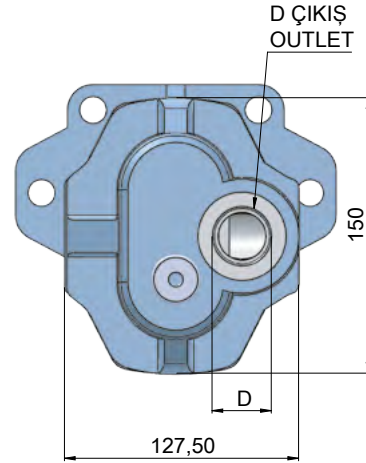
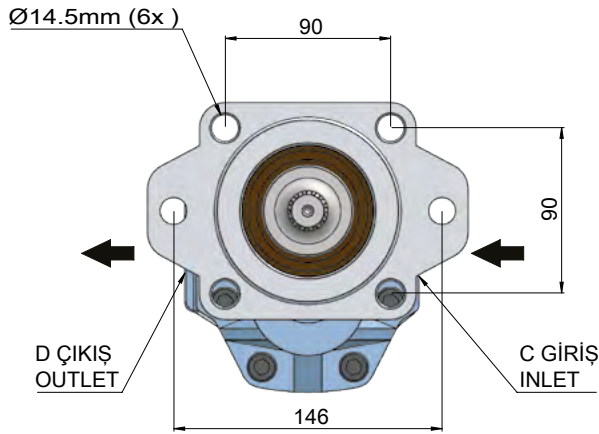
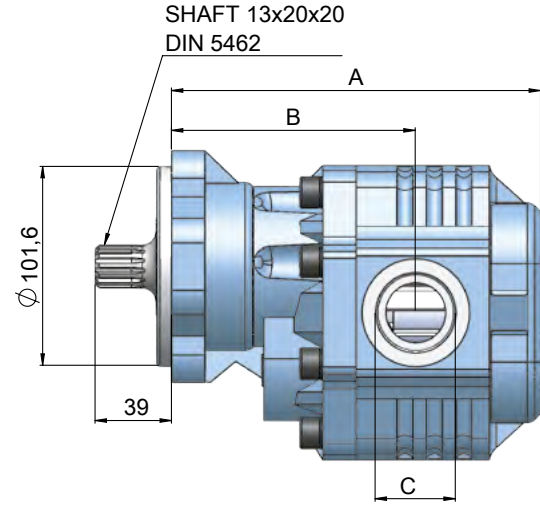
HYDRAULIC PUMPS
HİDROLİK POMPA

30 SAE B SERIES SINGLE ROTATIONAL

30 SAE B SERİSİ TEK DÖNÜŞLÜ

30 SERIES GEAR PUMPS
30 SERİSİ DİŞLİ POMPA

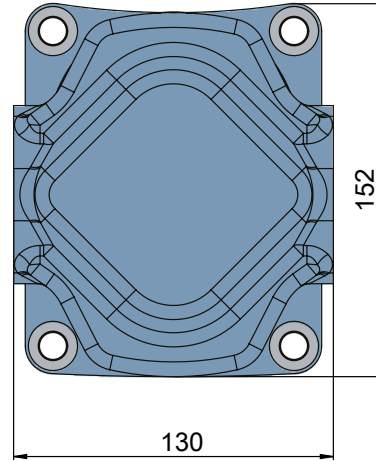
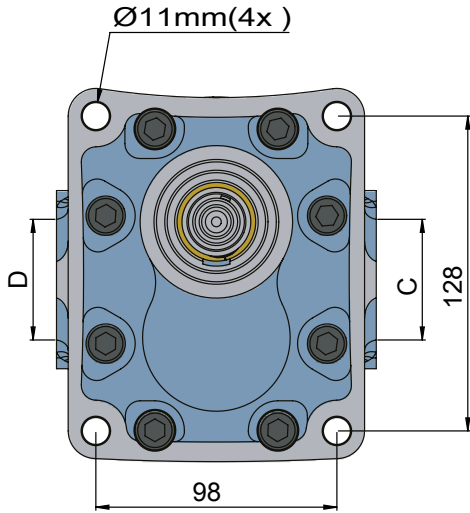
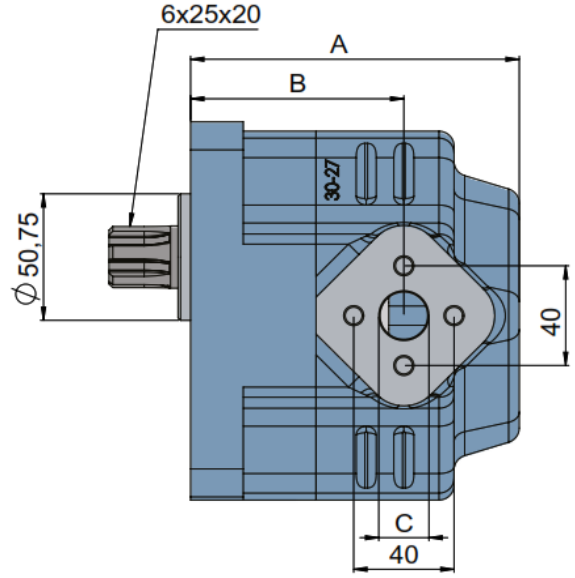
HYDRAULIC PUMPS
HİDROLİK POMPALAR



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
33001772	RIGHT/SAĞ	17	171	126	R1/2"-14	R1/2"-14	265	300
33001773	LEFT/SOL							
33002772	RIGHT/SAĞ	27	178	130	R3/4"-14	R3/4"-14	260	290
33002773	LEFT/SOL							
33003472	RIGHT/SAĞ	34	183	132	R1"-11	R1"-11	250	280
33003473	LEFT/SOL							
33004372	RIGHT/SAĞ	43	190	135	R1 1/4"-11	R1 1/4"-11	240	270
33004373	LEFT/SOL							
33005172	RIGHT/SAĞ	51	193	137	R1 1/4"-11	R1 1/4"-11	220	250
33005173	LEFT/SOL							
33006172	RIGHT/SAĞ	61	201	138	R1 1/4"-11	R1 1/4"-11	210	240
33006173	LEFT/SOL							
33008272	RIGHT/SAĞ	82	315	147	R1 1/4"-11	R1 1/4"-11	180	220
33008273	LEFT/SOL							

30 K SERIES

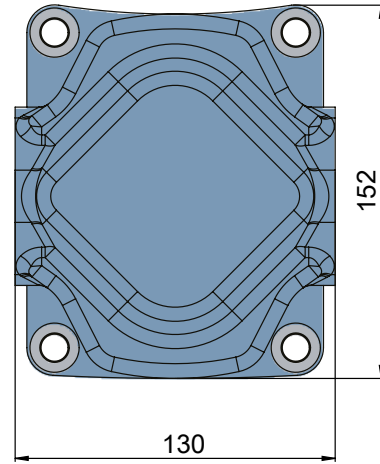
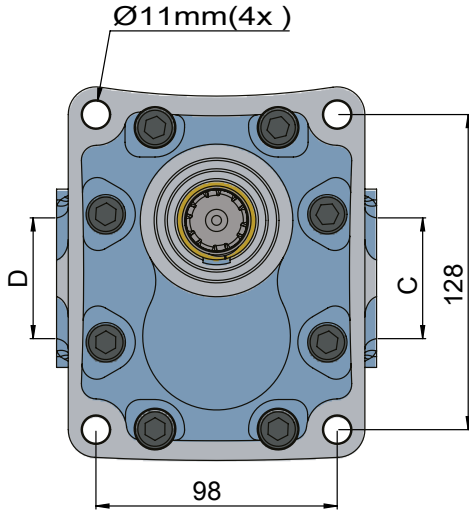
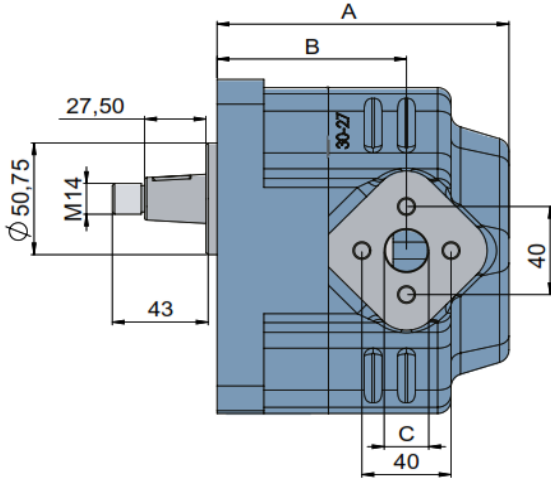
30 K SERİSİ



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
33611711	RIGHT/SAĞ	17	125	79	Ø27-M10x4	Ø19-M8x4	265	300
33611712	LEFT/SOL							
33612711	RIGHT/SAĞ	27	131	85			260	290
33612712	LEFT/SOL							
33613411	RIGHT/SAĞ	34	136	90			250	280
33613412	LEFT/SOL							
33614311	RIGHT/SAĞ	43	142	96			240	270
33614312	LEFT/SOL							
33615111	RIGHT/SAĞ	51	147	101			220	250
33615112	LEFT/SOL							
33616111	RIGHT/SAĞ	61	152	106			210	240
33616112	LEFT/SOL							

30 K SERIES CONICAL SHAFT

30 K SERİSİ KONİK MİL



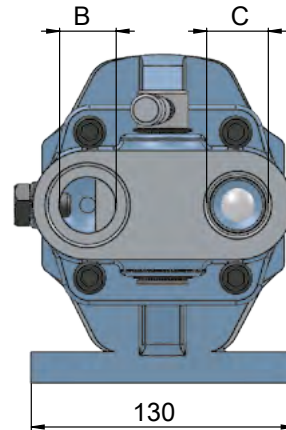
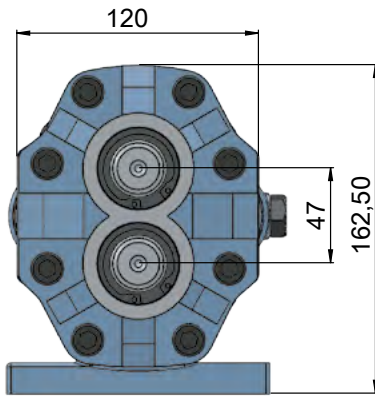
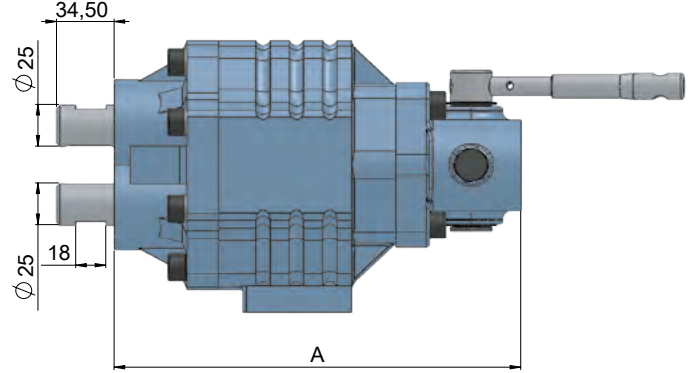
30 SERIES GEAR PUMPS
30 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
33601711	RIGHT/SAĞ	17	125	79	Ø27-M10x4	Ø19-M8x4	265	300
33601712	LEFT/SOL							
33602711	RIGHT/SAĞ	27	131	85			260	290
33602712	LEFT/SOL							
33603411	RIGHT/SAĞ	34	136	90			250	280
33603412	LEFT/SOL							
33604311	RIGHT/SAĞ	43	142	96			240	270
33604312	LEFT/SOL							
33605111	RIGHT/SAĞ	51	147	101			220	250
33605112	LEFT/SOL							
33606111	RIGHT/SAĞ	61	152	106			210	240
33606112	LEFT/SOL							

30 DPM MECHANIC VALVE BI-ROTATIONAL

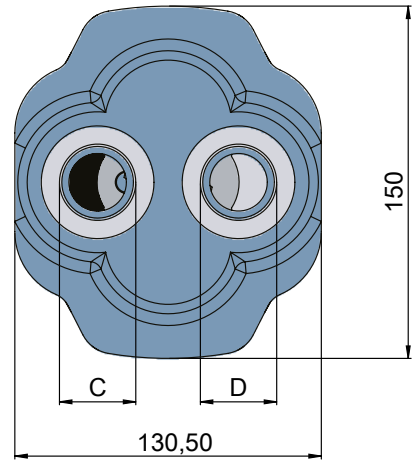
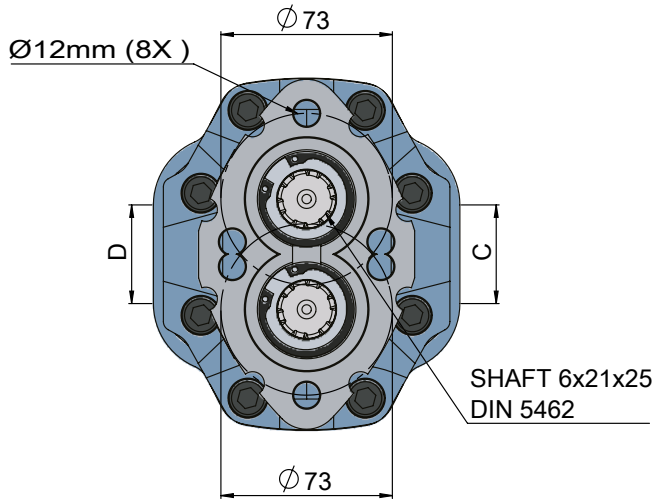
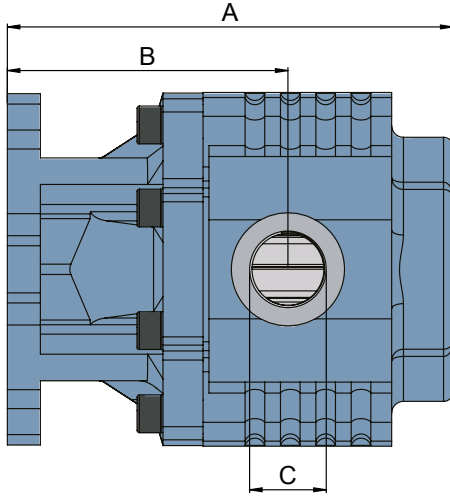
30 DPM MEKANİK VENTİLLİ ÇİFT DÖNÜŞLÜ



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	INLET GİRİŞ (B)	OUTLET ÇIKIŞ (C)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. PİK Basınç (Pmax)
33004371	BI-ROTATIONAL-ÇİFT	43	220	R1 1/4"-11	R1"-11	240	270
33006171	BI-ROTATIONAL-ÇİFT	61	230			210	240
33008271	BI-ROTATIONAL-ÇİFT	82	243			180	220

30 T2 SERIES BI-ROTATIONAL

30 T2 SERİSİ ÇİFT DÖNÜŞLÜ



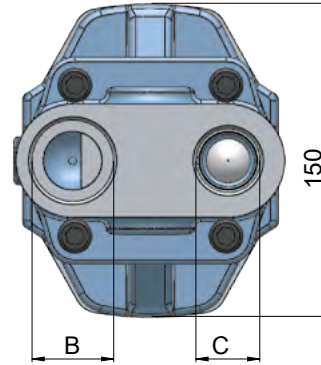
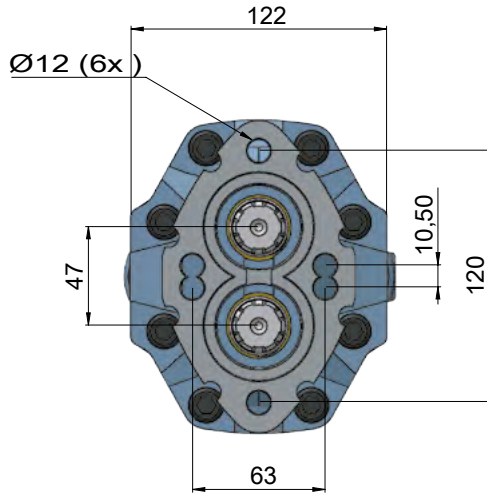
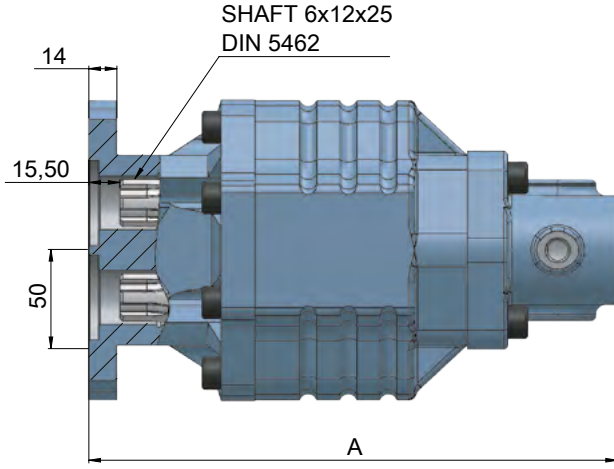
CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. PİK Basınç (Pmax)
33001723	BI-ROTATIONAL-ÇİFT	17	147,5	102,5	R1/2"-14	R1/2"-14	265	300
33002723	BI-ROTATIONAL-ÇİFT	27	154,5	106,5	R3/4"-14	R3/4"-14	260	290
33003423	BI-ROTATIONAL-ÇİFT	34	159,5	108,5			250	280
33004323	BI-ROTATIONAL-ÇİFT	43	166,5	111,5	R1"-11	R1"-11	240	270
33005123	BI-ROTATIONAL-ÇİFT	51	169,5	113,5			220	250
33006123	BI-ROTATIONAL-ÇİFT	61	177,5	114,5	R1 1/4"-11	R1"-11	210	240
33008223	BI-ROTATIONAL-ÇİFT	82	291,5	123,5			180	220

30 SERIES GEAR PUMPS
30 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

30 DPV PNEUMATIC VALVES BI-ROTATIONAL

30 DPV PNÖMATİK VENTİLLİ ÇİFT DÖNÜŞLÜ



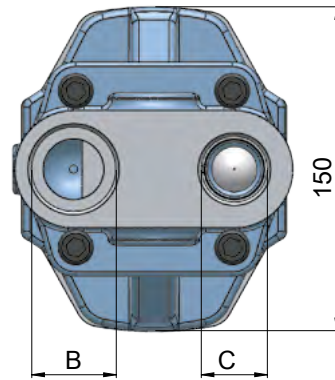
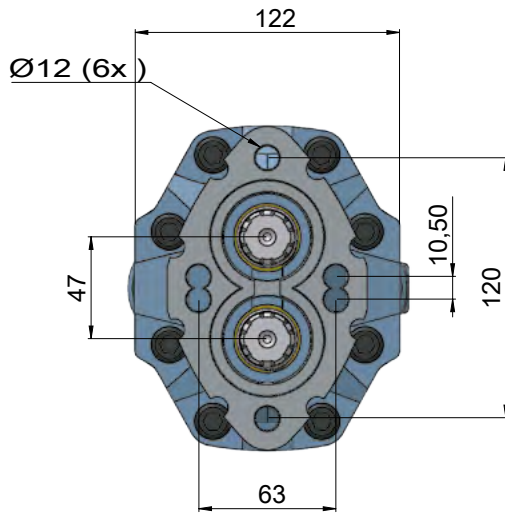
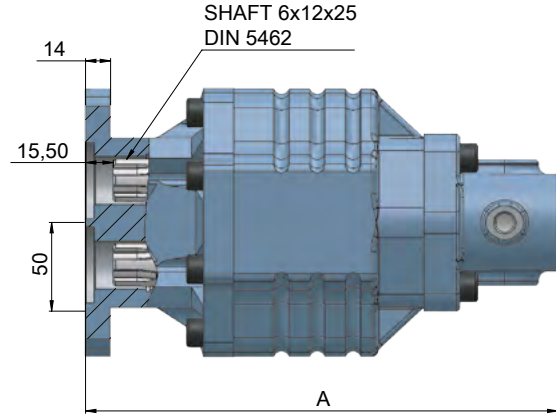
30 SERIES GEAR PUMPS
30 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	INLET GİRİŞ (B)	OUTLET ÇIKIŞ (C)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. PİK Basınç (Pmax)
33006181	BI-ROTATIONAL-ÇİFT	61	237	R1 1/4"-11	R1"-11	210	240
33008281	BI-ROTATIONAL-ÇİFT	82	247			180	220
33009581	BI-ROTATIONAL-ÇİFT	95	258			170	210

30 DPV PNEUMATIC VALVE SINGLE ROTATIONAL

30 DPV PNÖMATİK VENTİLLİ TEK DÖNÜŞLÜ



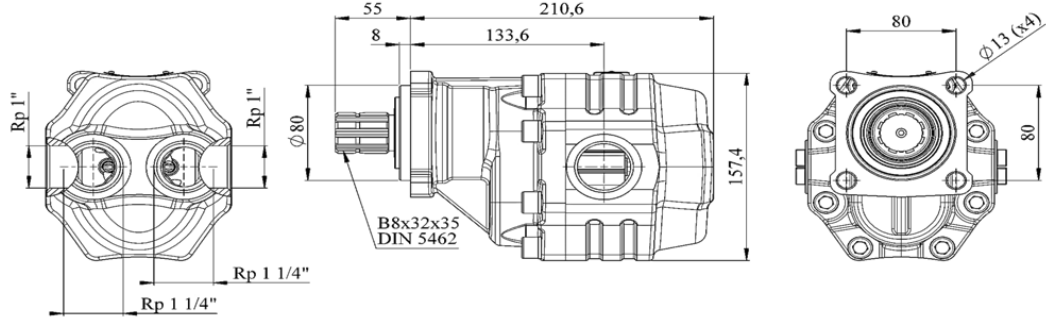
CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	INLET GİRİŞ (B)	OUTLET ÇIKIŞ (C)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
33006182	RIGHT/SAĞ	61	240	R1 1/4"-11	R1"-11	210	240
33006183	LEFT/SOL						
33008282	RIGHT/SAĞ	82	264	R1 1/4"-11	R1"-11	210	264
33008283	LEFT/SOL						



TECHNICAL DATA

TEKNİK VERİLER

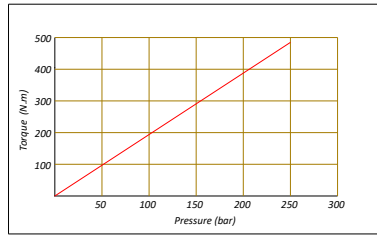
63 cc ISO Bi-Directional Gear Pump



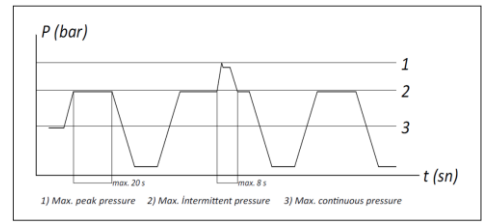
Specifications

Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max. continuous speed	Max.speed at intermit. pressure	Oil temperature range	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33506351	63 cc/rev.	bi-rotational	290 bar	315 bar	325 bar	1800 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cS	G 1 1/4"	G 1"	17 kg

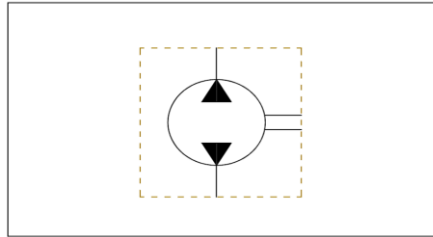
Torgue - Pressure charesteristics



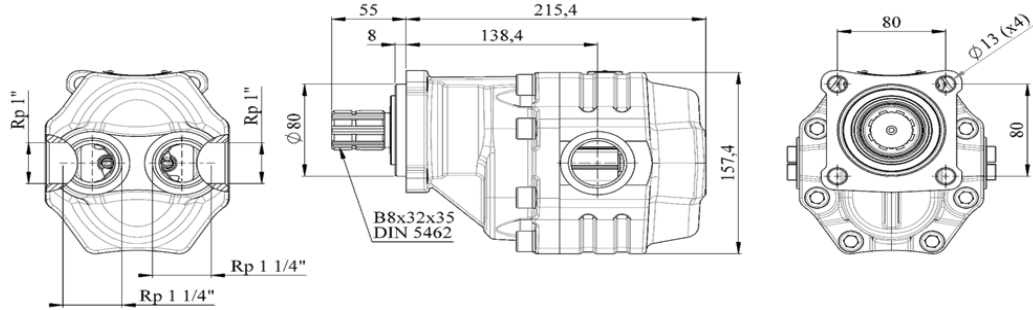
Pressure definition



Hydraulic Pump Symbol



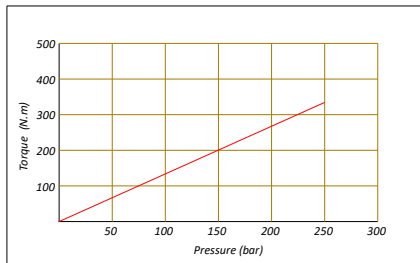
75 cc ISO Bi-Directional Gear Pump



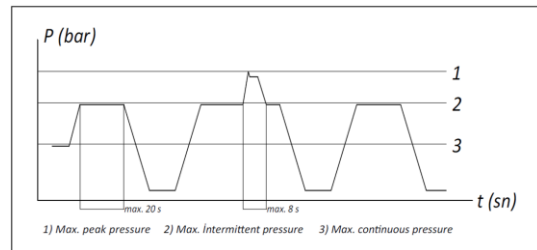
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature range	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33507551	75 cc/rev.	bi-rotational	280 bar	300 bar	315 bar	1800 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1"	17,5 kg

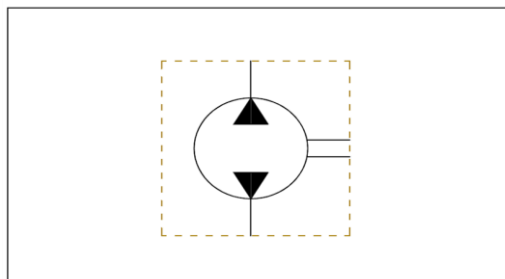
Torque - Pressure charesteristics



Pressure definition



Hydraulic Pump Symbol

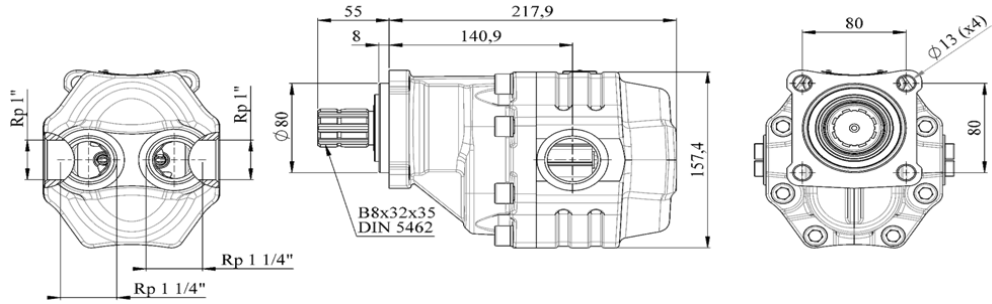




TECHNICAL DATA

TEKNIK VERİLER

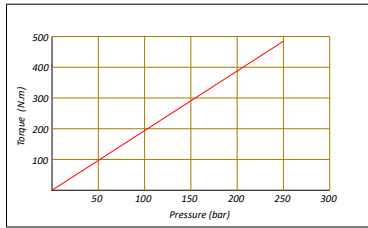
82 cc ISO Bi-Directional Gear Pump



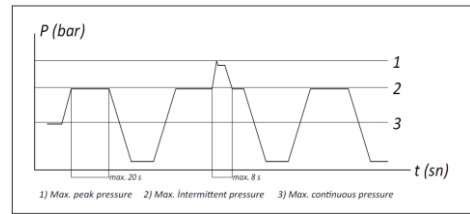
Specifications

Code	Displacement	Rotation	Working Pressure	Max.intermittent Pressure	Max.peak Pressure	Max. Continuous Speed	Max.Speed at Intermit. Pressure	Oil Temperature Range	Operating Viscosity Range	Oil Inlet Diameter	Oil Outlet Diameter	Weight
33508251	82 cc/rev.	bi-rotational	260 bar	280 bar	290 bar	1800 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1"	18 kg

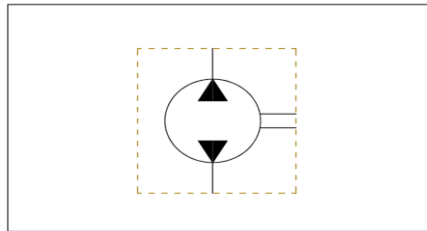
Torque - Pressure characteristics



Pressure definition



Hydraulic Pump Symbol

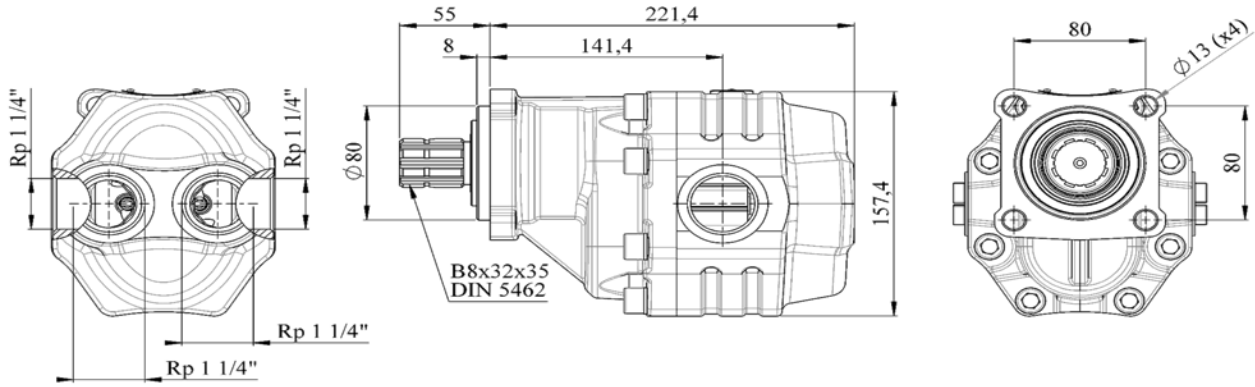


35 SERIES GEAR PUMPS
35 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPALAR



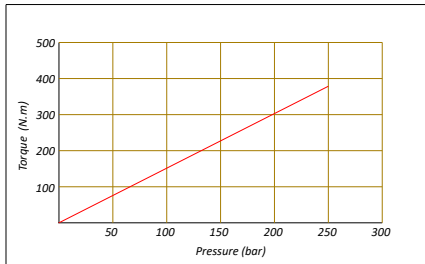
90 cc ISO Bi-Directional Gear Pump



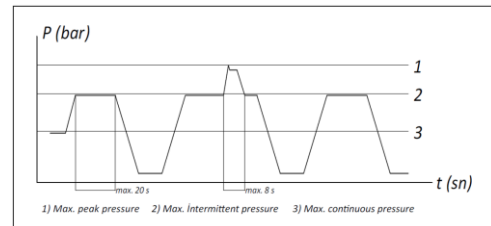
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33509051	90 cc/rev.	bi-rotational	260 bar	280 bar	290 bar	1800 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1 1/4"	18,5 kg

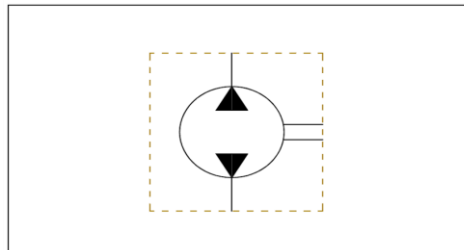
Torque - Pressure charesteristics



Pressure definition



Hydraulic Pump Symbol

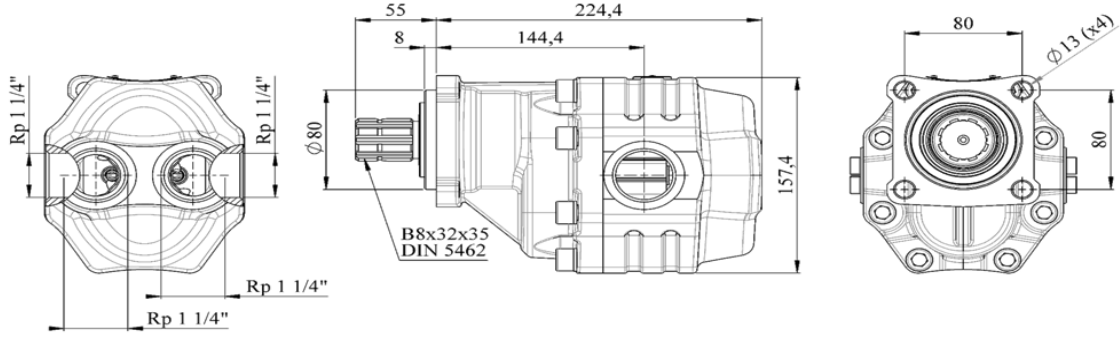




TECHNICAL DATA

TEKNİK VERİLER

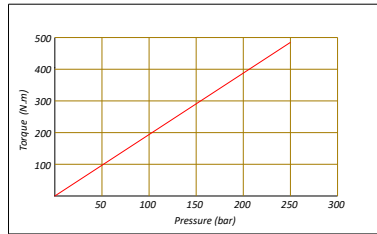
100 cc ISO Bi-Directional Gear Pump



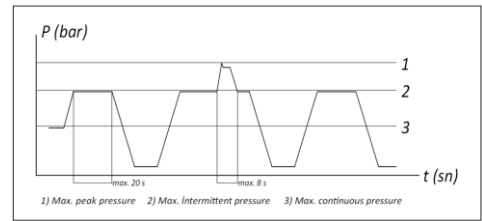
Specifications

Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuos speed	Max.speed at intermit. pressure	Oil temperature range	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33510051	100 cc/rev.	bi-rotational	250 bar	270 bar	280 bar	1800 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1 1/4"	19 kg

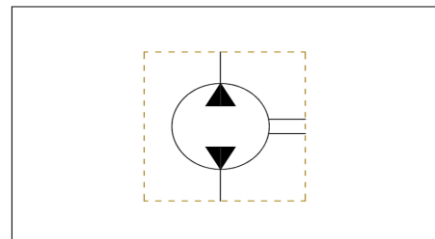
Torgue - Pressure charesteristics



Pressure definition

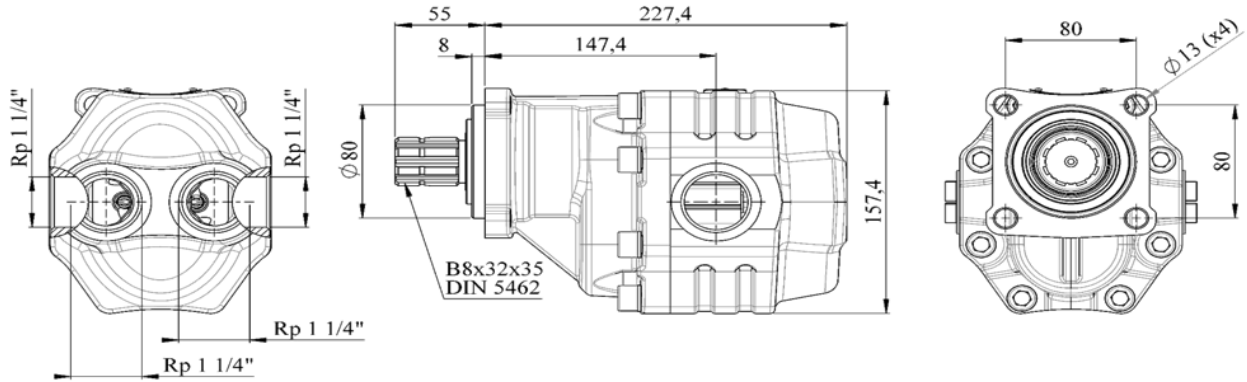


Hydraulic Pump Symbol





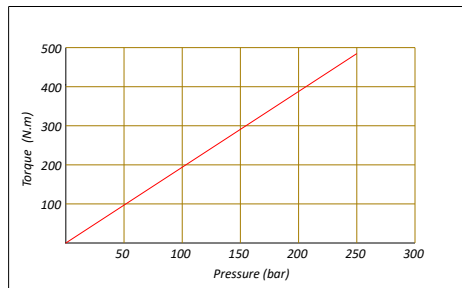
110 cc ISO Bi-Directional Gear Pump



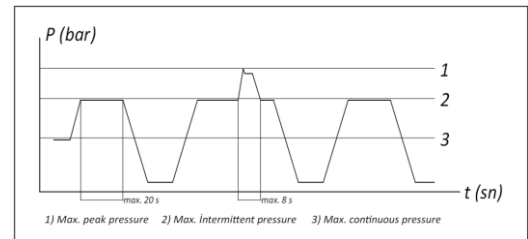
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature range	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33511051	110 cc/rev.	bi-rotational	240 bar	260 bar	270 bar	1500 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1 1/4"	19,5 kg

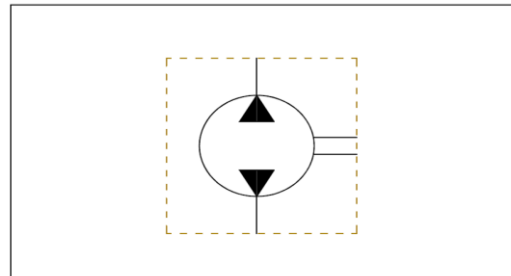
Torque - Pressure charesteristics



Pressure definition

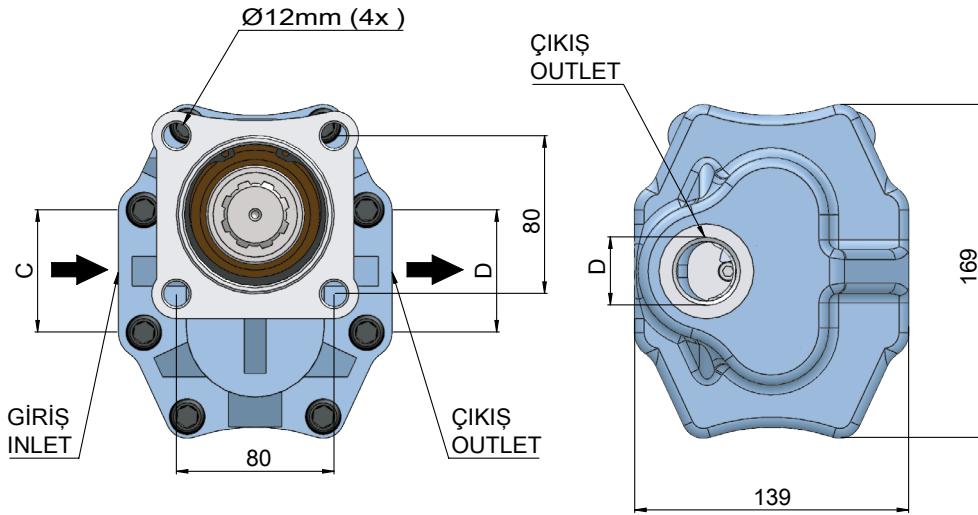
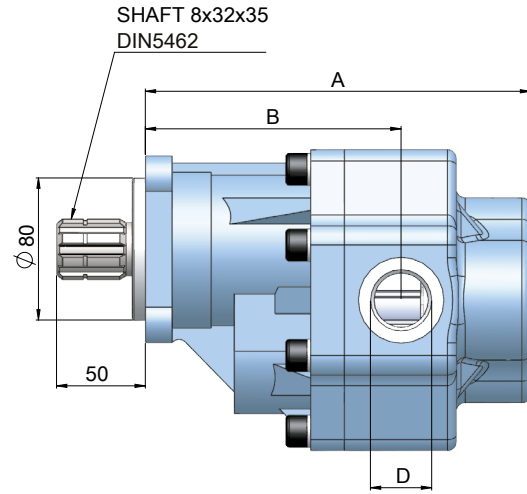


Hydraulic Pump Symbol



35 SINGLE ROTATIONAL ISO

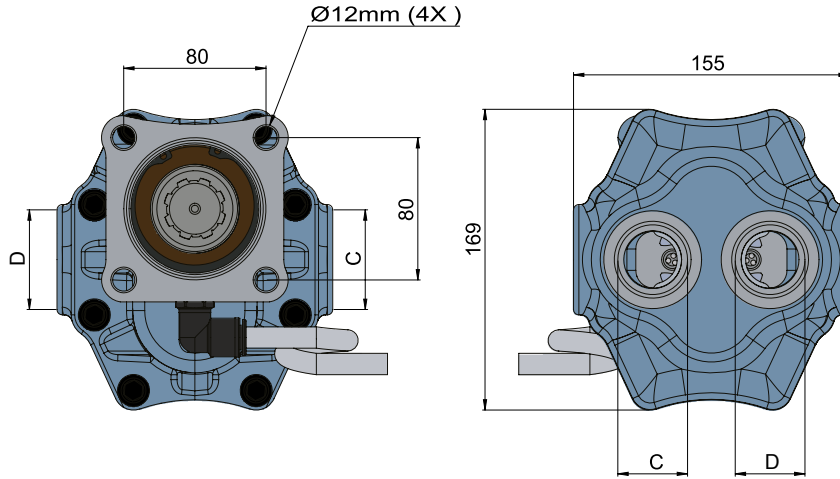
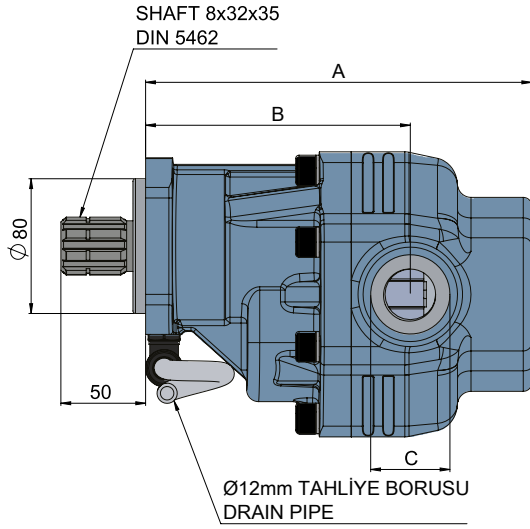
35 TEK DÖNÜŞLÜ ISO



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (P _{nom})	Max. Peak Pressure Max. Pık Basınç (P _{max})
33509031	RIGHT/SAĞ	90	211	138,5	R1 1/4"-11	R1"-1	220	250
33509032	LEFT/SOL							
33511031	RIGHT/SAĞ	110	219	146,5	R1 1/4"-11	R1"-1	210	240
33511032	LEFT/SOL							

35 PF SERIES BI-ROTATIONAL ISO

35 PF SERİSİ ÇİFT DÖNÜŞLÜ ISO



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
PF33509051	BI-ROTATIONAL-ÇİFT	90	223	155	R1 1/4"-11	R1 1/4"-11	210	250
PF33511051	BI-ROTATIONAL-ÇİFT	110	231	163			200	240

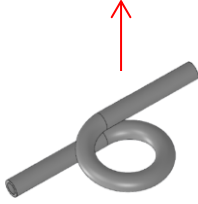
35 SERIES GEAR PUMPS
35 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

ISO PF SERIES POINTS TO BE CONSIDERED DURING INSTALLATION

- 1- The elements that must be used in the pump are defined below.

12x8 mm 50 cm
Transparent Drain Hose

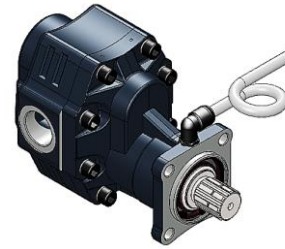
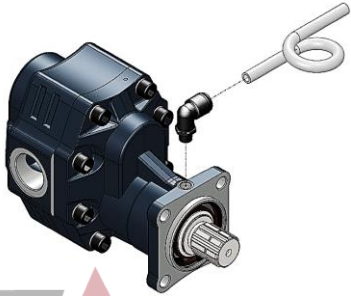


1/4 Elbow Ø12
Air Fitting



Picture -1

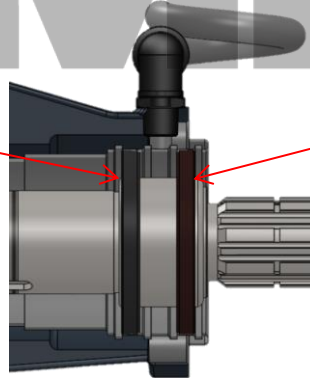
- 2- Transparent hose and pneumatic fitting are assembled as shown in picture -2. If the pump is not used with the specified elements, our company will not be responsible for the failure of the pump and the vehicle.



Picture -2

- 3- When assembling, the transparent hose should not be in contact with places such as (PTO, Pump, Main Transmission, Exhaust, etc.) in order not to be affected by temperature.
- 4- As seen in Figure-3, there are two oil seals in ISO Pumps. One of them is responsible for holding the oil coming from the main gearbox and the other one from the pump. In PF Series pumps, the distance between the two seals is more than other pumps and it notifies possible leaks more quickly. Another benefit is that it ensures that the two oils do not mix.

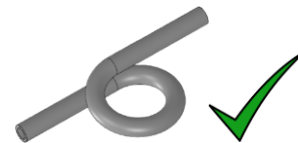
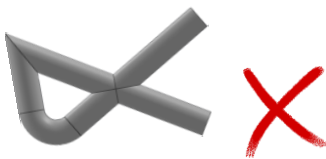
Seal holding the oil from the pump



Seal holding the oil from the main gearbox

Picture -3

- 5- Every working day, the pump should be checked with the help of a hose. If there is oil in the hose, contact the nearest service center. If there is dirt or soil blocking the hose, it is cleaned and checked.
- 6- Oil coming from the drain hose is a harbinger of a malfunction. If the hose is folded, oil leakage cannot be observed and may cause a bigger malfunction. Correct and incorrect installation of the air discharge hose is shown in picture-4.



Picture -4

ADVANTAGES OF PF SERIES IN HYDRAULIC PUMPS

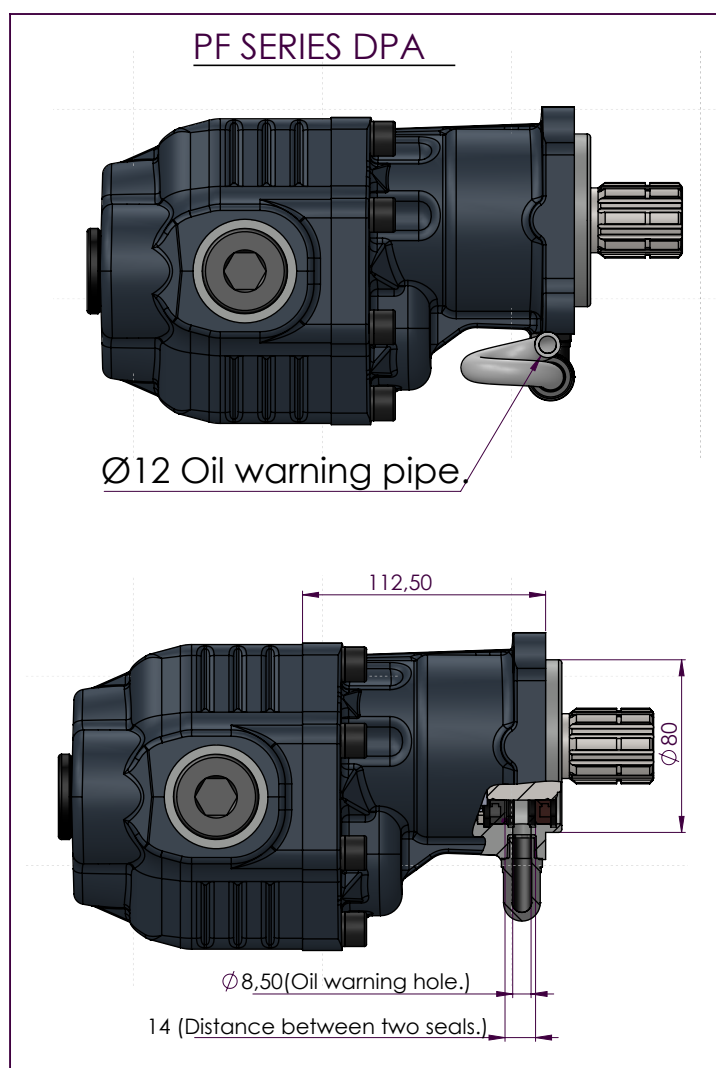


Figure 1.

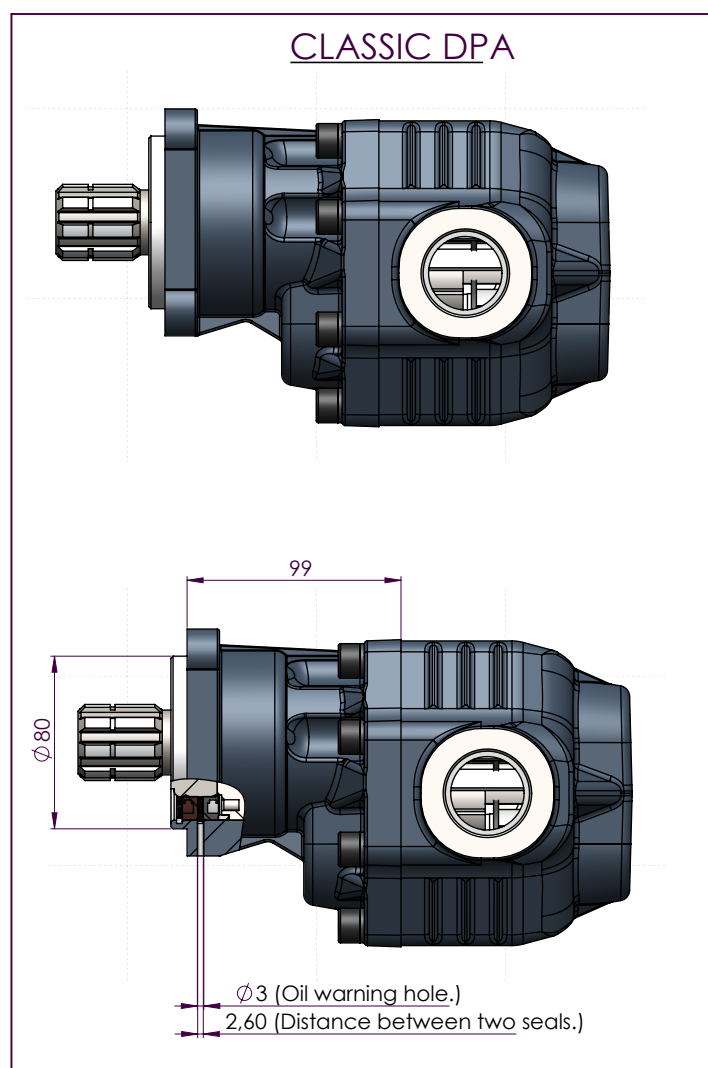


Figure 2.

1) PF series pumps, the distance between the two seals is wider than the classical DPA pumps, allowing the seal leakage that occurs over time to be recognised more quickly thanks to the transparent hose.

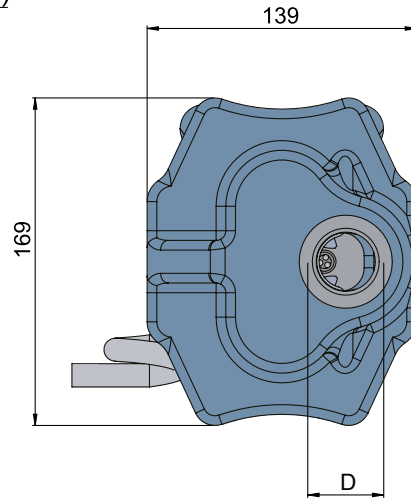
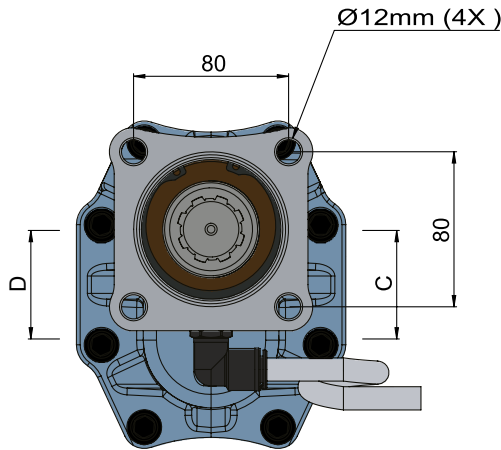
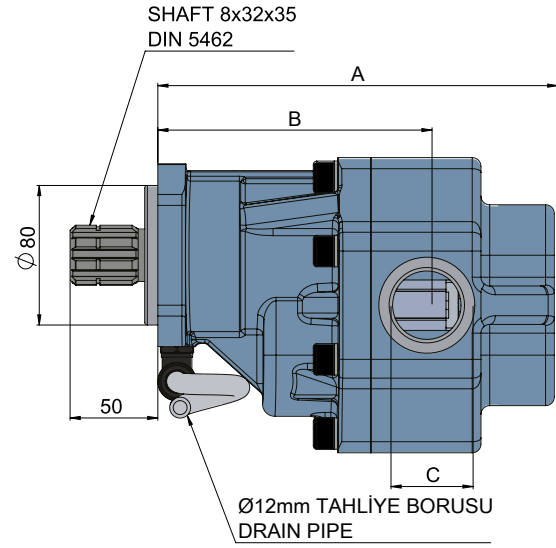
You can see the difference between the distance between the seals and the oil warning holes in Figure 1 and Figure 2.

2) Since the oil warning hole (Figure 2.) is Ø3mm in classical DPA pumps, oil leaks become invisible as dust, mud etc. factors will cover the hole more easily. Such a situation has been prevented by designing PF series.

3) PF series covers are in ISO standard dimensions like classic DPA covers and there is no problem in installation.

35 PF SERIES SINGLE ROTATIONAL ISO

35 PF SERİSİ TEK DÖNÜŞLÜ ISO

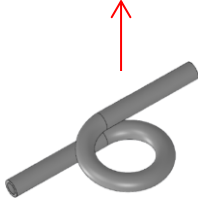


CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
PF33509031	RIGHT/SAĞ	90	225	152,5	R1 1/4"-11	R1"-1	220	250
PF33509032	LEFT/SOL							
PF33511031	RIGHT/SAĞ	110	233	160,5	R1 1/4"-11	R1"-1	210	240
PF33511032	LEFT/SOL							

ISO PF SERIES POINTS TO BE CONSIDERED DURING INSTALLATION

- 1- The elements that must be used in the pump are defined below.

12x8 mm 50 cm
Transparent Drain Hose

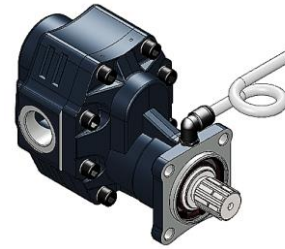
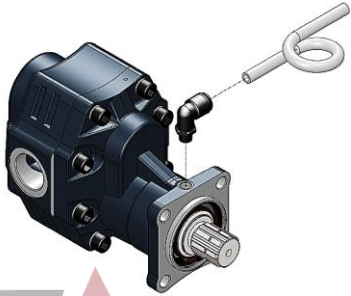


1/4 Elbow Ø12
Air Fitting



Picture -1

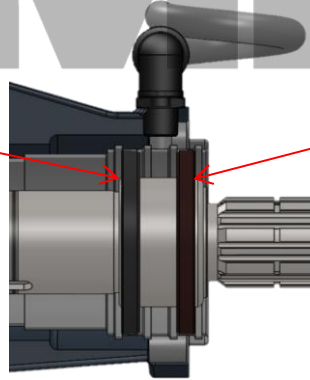
- 2- Transparent hose and pneumatic fitting are assembled as shown in picture -2. If the pump is not used with the specified elements, our company will not be responsible for the failure of the pump and the vehicle.



Picture -2

- 3- When assembling, the transparent hose should not be in contact with places such as (PTO, Pump, Main Transmission, Exhaust, etc.) in order not to be affected by temperature.
- 4- As seen in Figure-3, there are two oil seals in ISO Pumps. One of them is responsible for holding the oil coming from the main gearbox and the other one from the pump. In PF Series pumps, the distance between the two seals is more than other pumps and it notifies possible leaks more quickly. Another benefit is that it ensures that the two oils do not mix.

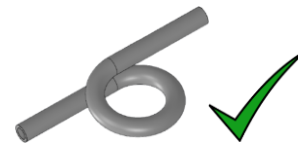
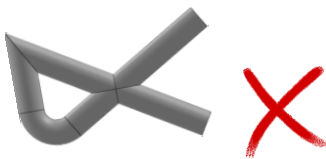
Seal holding the oil from the pump



Seal holding the oil from the main gearbox

Picture -3

- 5- Every working day, the pump should be checked with the help of a hose. If there is oil in the hose, contact the nearest service center. If there is dirt or soil blocking the hose, it is cleaned and checked.
- 6- Oil coming from the drain hose is a harbinger of a malfunction. If the hose is folded, oil leakage cannot be observed and may cause a bigger malfunction. Correct and incorrect installation of the air discharge hose is shown in picture-4.



Picture -4

ADVANTAGES OF PF SERIES IN HYDRAULIC PUMPS

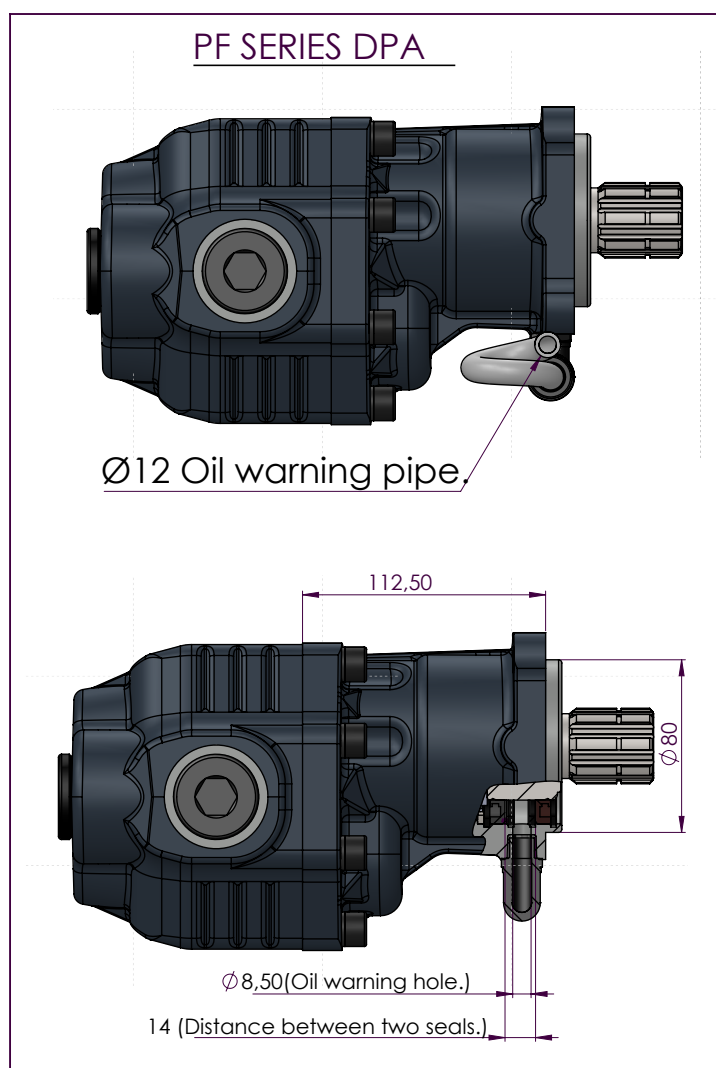


Figure 1.

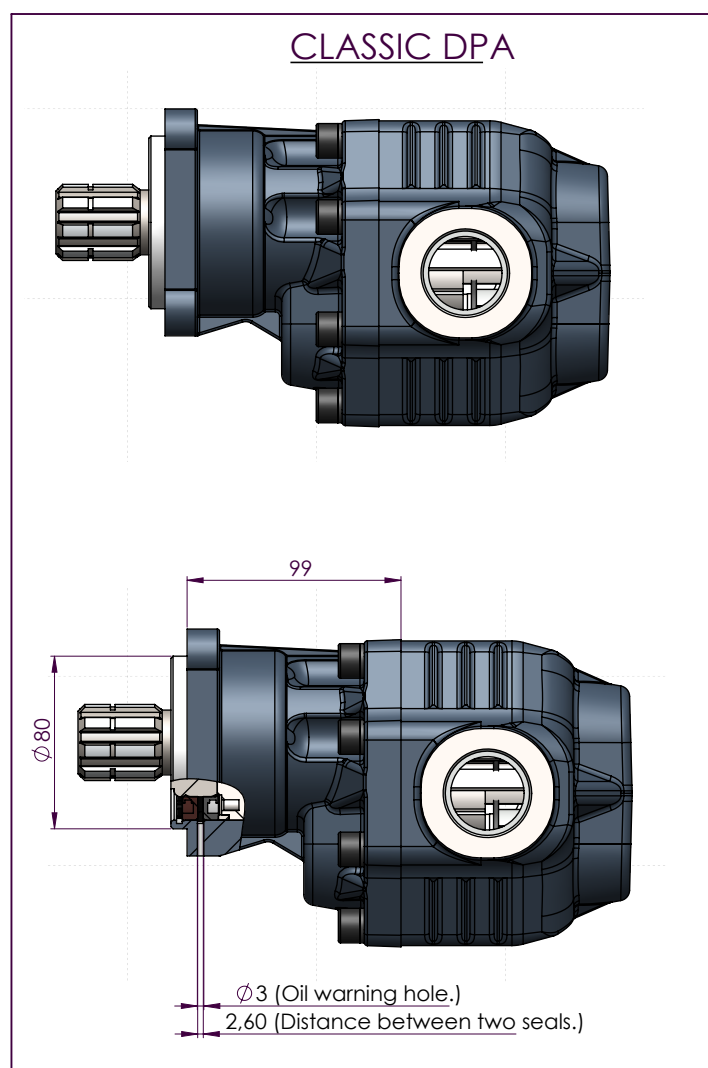


Figure 2.

1) PF series pumps, the distance between the two seals is wider than the classical DPA pumps, allowing the seal leakage that occurs over time to be recognised more quickly thanks to the transparent hose.

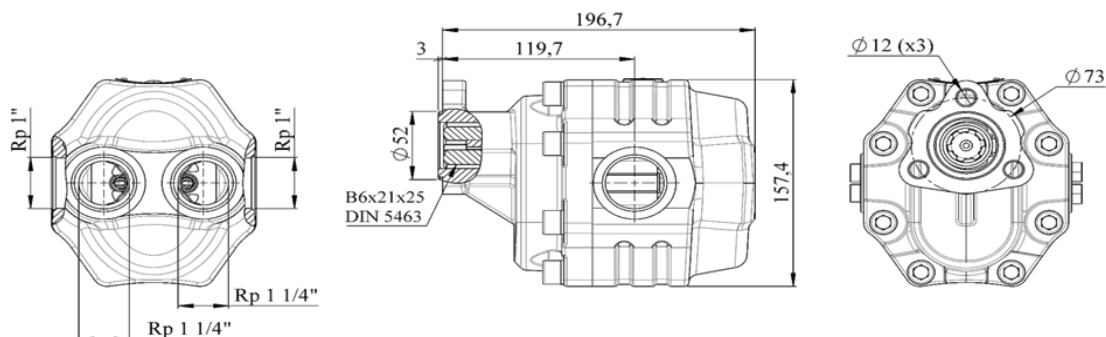
You can see the difference between the distance between the seals and the oil warning holes in Figure 1 and Figure 2.

2) Since the oil warning hole (Figure 2.) is Ø3mm in classical DPA pumps, oil leaks become invisible as dust, mud etc. factors will cover the hole more easily. Such a situation has been prevented by designing PF series.

3) PF series covers are in ISO standard dimensions like classic DPA covers and there is no problem in installation.



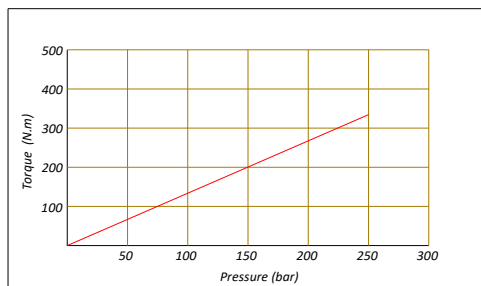
63 cc UNI Bi-Directional Gear Pump



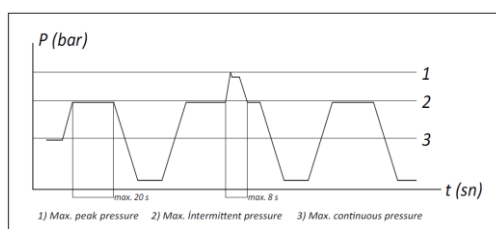
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature range	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33506341	63 cc/rev.	bi-rotational	290 bar	315 bar	325 bar	1800 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1"	15,0 kg

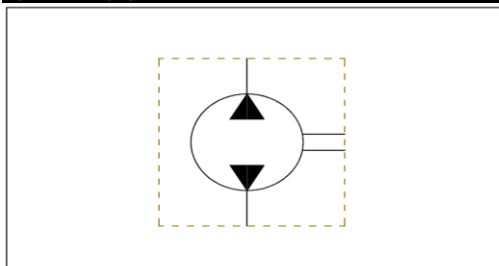
Torque - Pressure charesteristics



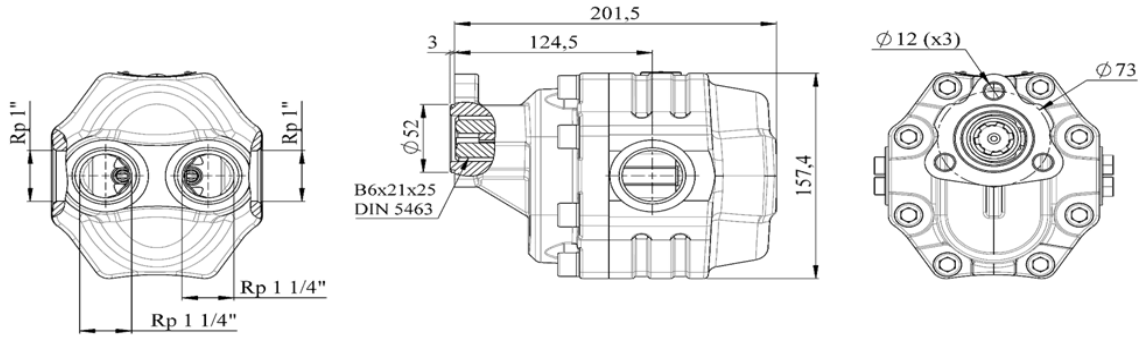
Pressure definition



Hydraulic Pump Symbol



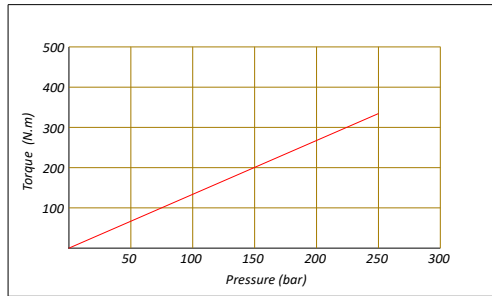
75 cc UNI Bi-Directional Gear Pump



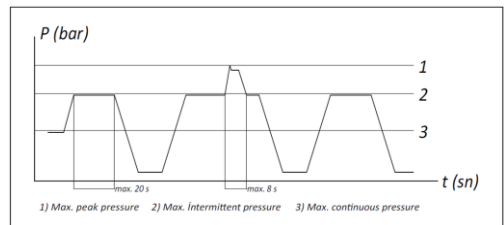
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature range	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33507541	75 cc/rev.	bi-rotational	280 bar	300 bar	315 bar	1800 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1"	15,5 kg

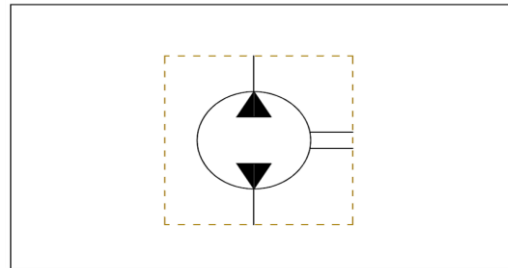
Torque - Pressure charesteristics



Pressure definition



Hydraulic Pump Symbol



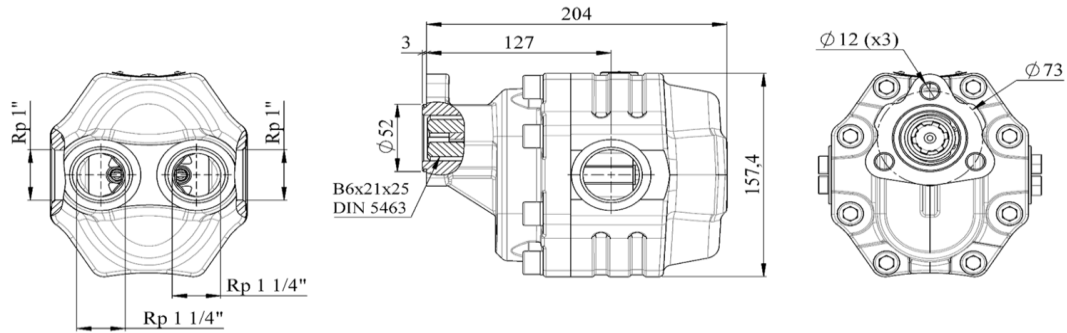


TECHNICAL DATA

TEKNIK VERİLER



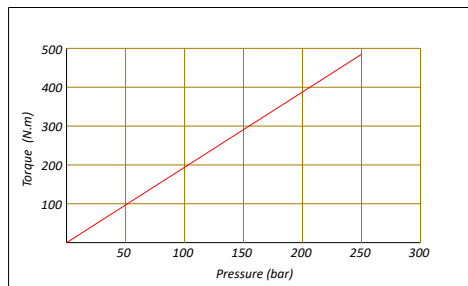
82 cc UNI Bi-Directional Gear Pump



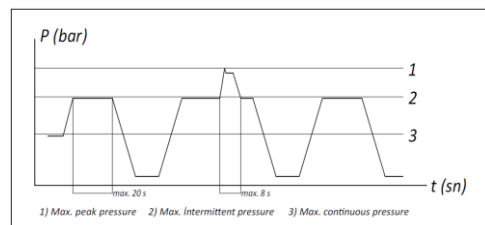
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature range	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33508241	82 cc/rev.	bi-rotational	260 bar	280 bar	290 bar	1800 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1"	16, kg

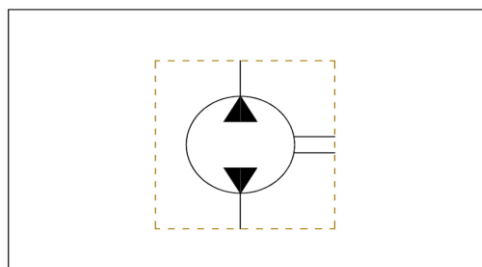
Torque - Pressure characteristics



Pressure definition



Hydraulic Pump Symbol



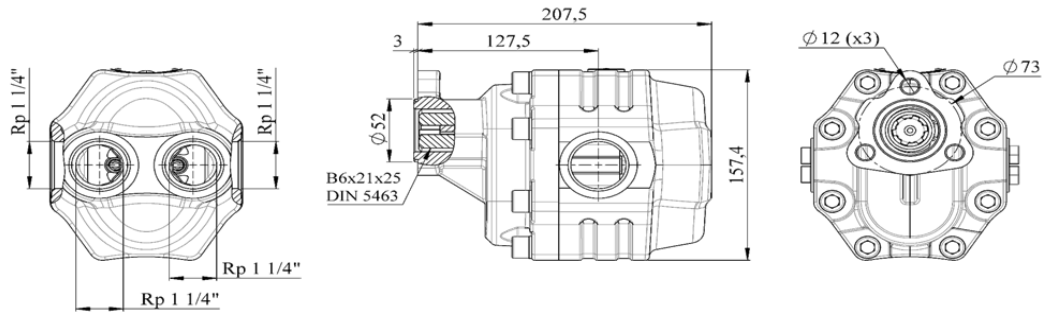


TECHNICAL DATA

TEKNİK VERİLER



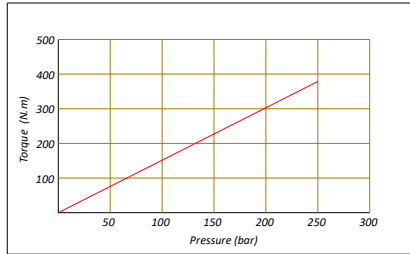
90 cc UNI Bi-Directional Gear Pump



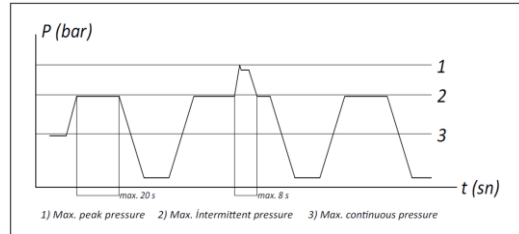
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature range	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33509041	90 cc/rev.	bi-rotational	260 bar	280 bar	290 bar	1800 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1 1/4"	16,5 kg

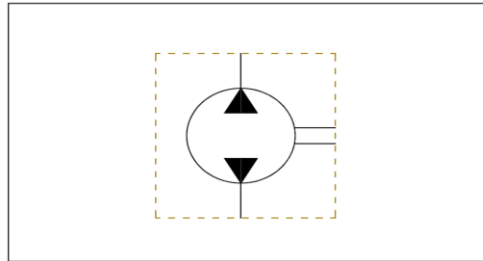
Torgue - Pressure charesteristics



Pressure definition



Hydraulic Pump Symbol



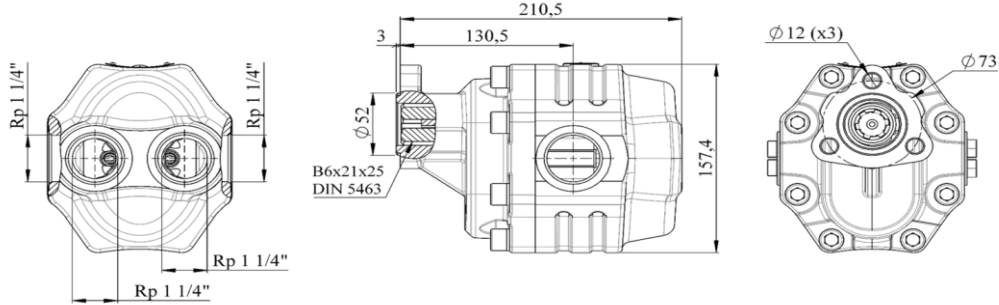


TECHNICAL DATA

TEKNIK VERİLER



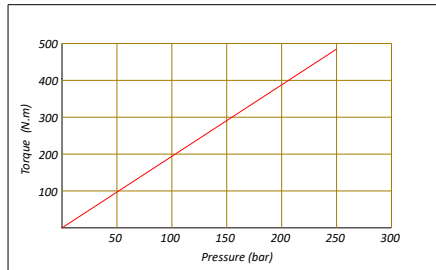
100 cc UNI Bi-Directional Gear Pump



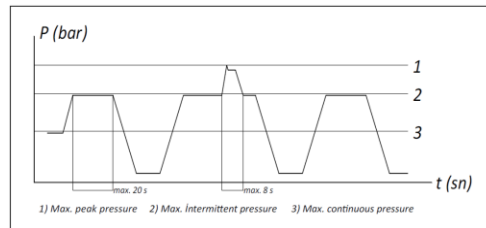
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max.intermittent pressure	Max.peak pressure	Max.continuous speed	Max.speed at intermit. pressure	Oil temperature range	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33510041	100 cc/rev.	bi-rotational	250 bar	270 bar	280 bar	1800 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1 1/4"	17, kg

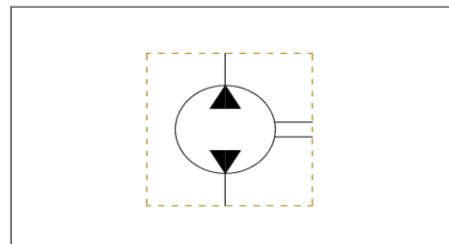
Torque - Pressure charesteristics



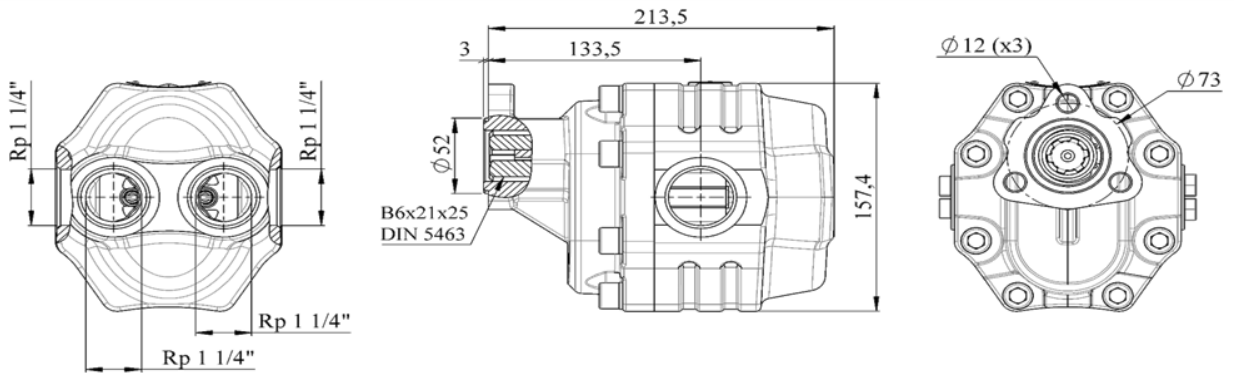
Pressure definition



Hydraulic Pump Symbol



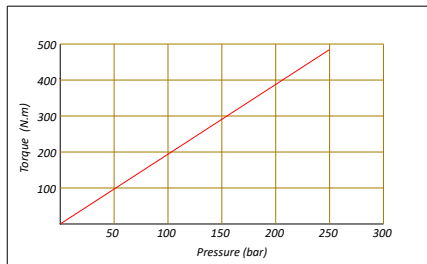
110 cc UNI Bi-Directional Gear Pump



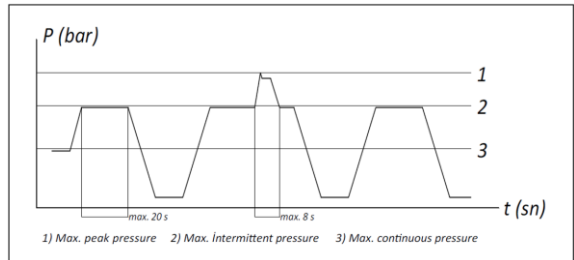
Specifications

Product Code	Displacement	Rotation	Working Pressure	Max. intermittent	Max. peak pressure	Max. continuous speed	Max. speed at intermit. pressure	Oil temperature range	Operating Viscosity Range	Oil inlet diameter	Oil Outlet diameter	Weight
33511041	110 cc/rev.	bi-rotational	240 bar	260 bar	270 bar	1500 1/min.	2700 1/min.	-20 & 80 °C	12 & 100 cSt	G 1 1/4"	G 1 1/4"	17,5 kg

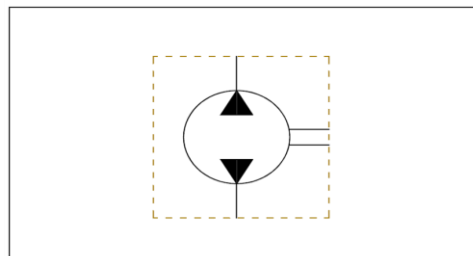
Torgue - Pressure charesteristics



Pressure definition

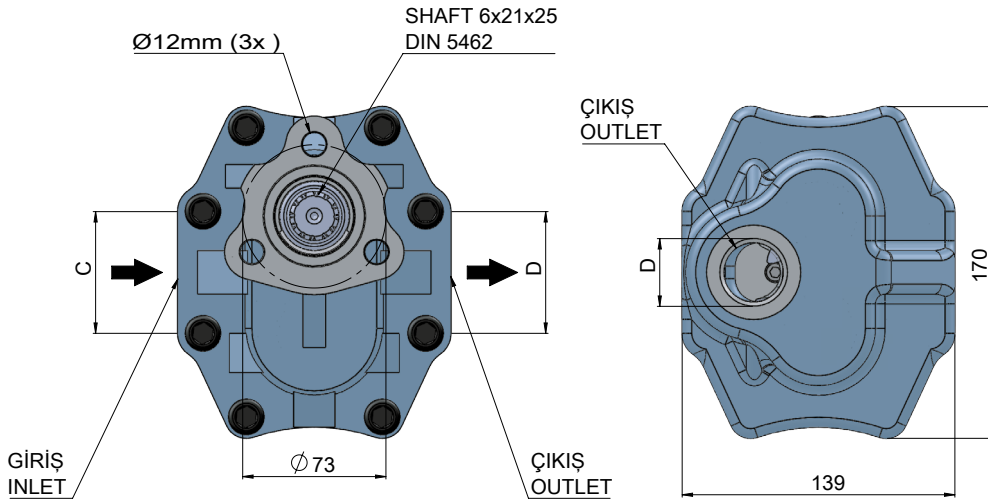
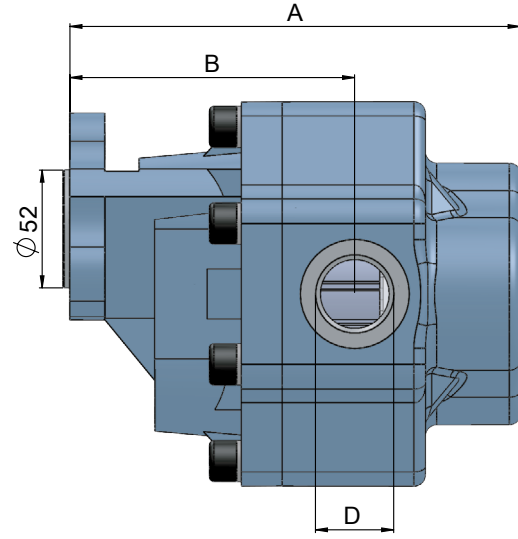


Hydraulic Pump Symbol



35 SINGLE ROTATIONAL UNI

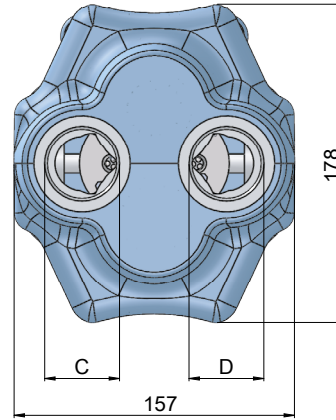
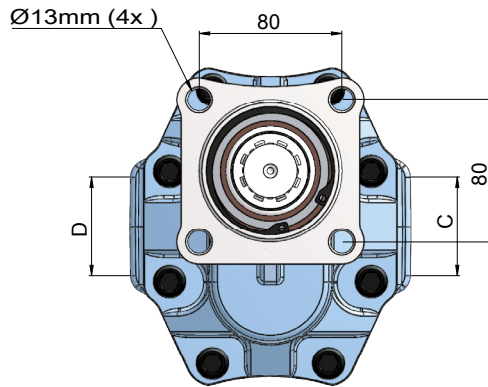
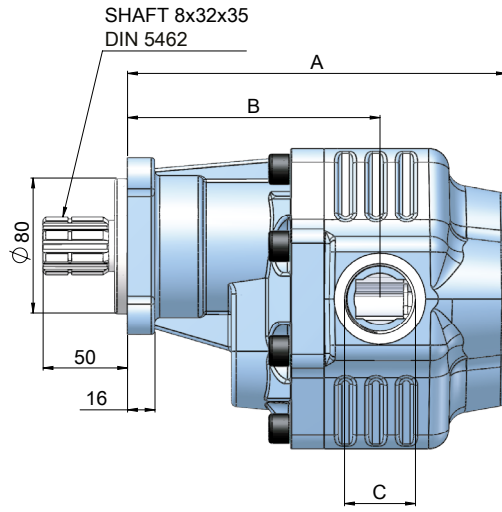
35 TEK DÖNÜŞLÜ UNI



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pık Basınç (Pmax)
33509011	RIGHT/SAĞ	90	191	118,5	R1 1/4"-11	R1"-1	220	250
33509012	LEFT/SOL							
33511011	RIGHT/SAĞ	110	199	126,5	R1 1/4"-11	R1"-1	210	240
33511012	LEFT/SOL							

40 BI-ROTATIONAL ISO

40 ÇİFT DÖNÜŞLÜ ISO



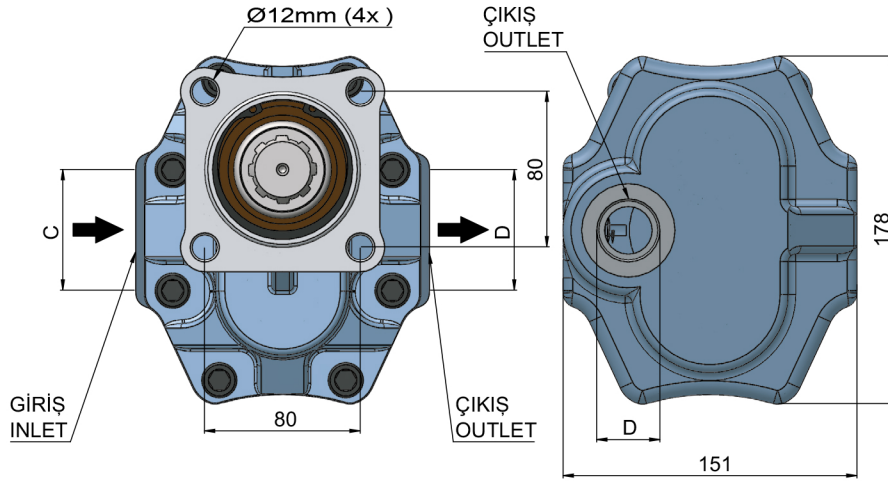
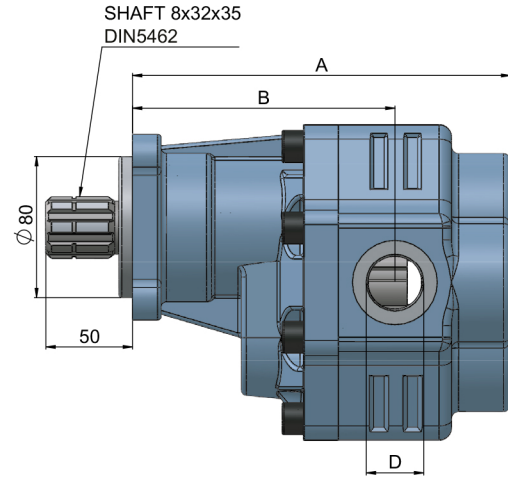
CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
34007351	BI-ROTATIONAL-ÇİFT	73	207	140	R1"-11	R1"-11	240	275
34008751	BI-ROTATIONAL-ÇİFT	87	212	144			220	250
34010951	BI-ROTATIONAL-ÇİFT	109	219	145	R1 1/4"-11	R1 1/4"-11	210	240

40 SERIES GEAR PUMPS
40 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

40 SINGLE ROTATIONAL ISO

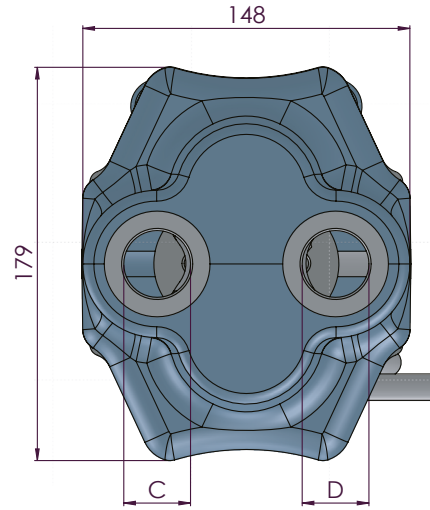
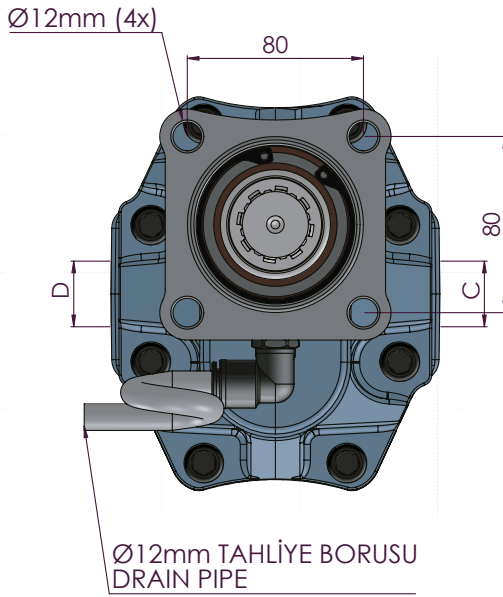
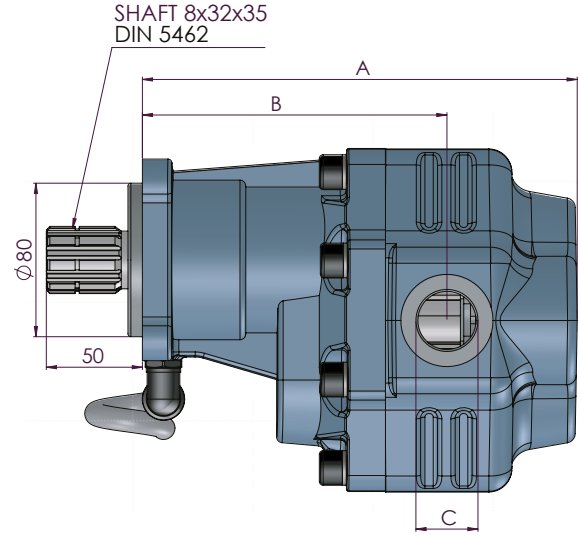
40 TEK DÖNÜŞLÜ ISO



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
34006331	RIGHT/SAĞ	63	202	139	R1"-11	R3/4"-14	250	285
34006332	LEFT/SOL							
34007331	RIGHT/SAĞ	73	207	142	R1 1/4"-11	R1"-11	240	275
34007332	LEFT/SOL							
34008731	RIGHT/SAĞ	87	210	144	R1 1/4"-11	R1"-11	220	250
34008732	LEFT/SOL							
34010931	RIGHT/SAĞ	109	218	145	R1 1/4"-11	R1"-11	210	240
34010932	LEFT/SOL							
34013331	RIGHT/SAĞ	133	233	145	R1 1/2"-11	R1"-11	200	230
34013332	LEFT/SOL							
34015131	RIGHT/SAĞ	151	241	148	R1 1/2"-11	R1"-11	170	210
34015132	LEFT/SOL							

40 PF SERIES BI-ROTATIONAL ISO

40 PF SERİSİ ÇİFT DÖNÜŞLÜ ISO

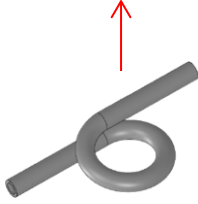


CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
PF34007351	BI-ROTATIONAL-ÇİFT	73	221	154	R1"-11	R1"-11	240	275
PF34008751	BI-ROTATIONAL-ÇİFT	87	226	158			220	250
PF34010951	BI-ROTATIONAL-ÇİFT	109	233	159	R1 1/4"-11	R1 1/4"-11	210	240

ISO PF SERIES POINTS TO BE CONSIDERED DURING INSTALLATION

- 1- The elements that must be used in the pump are defined below.

12x8 mm 50 cm
Transparent Drain Hose

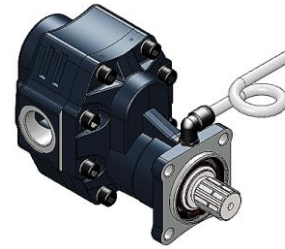
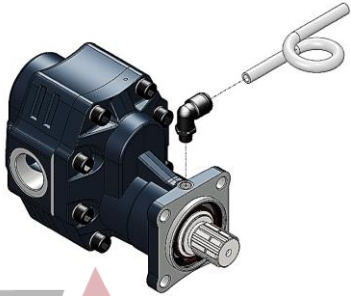


1/4 Elbow Ø12
Air Fitting



Picture -1

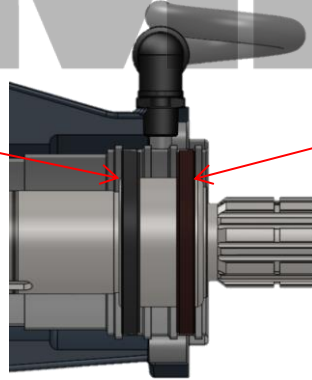
- 2- Transparent hose and pneumatic fitting are assembled as shown in picture -2. If the pump is not used with the specified elements, our company will not be responsible for the failure of the pump and the vehicle.



Picture -2

- 3- When assembling, the transparent hose should not be in contact with places such as (PTO, Pump, Main Transmission, Exhaust, etc.) in order not to be affected by temperature.
- 4- As seen in Figure-3, there are two oil seals in ISO Pumps. One of them is responsible for holding the oil coming from the main gearbox and the other one from the pump. In PF Series pumps, the distance between the two seals is more than other pumps and it notifies possible leaks more quickly. Another benefit is that it ensures that the two oils do not mix.

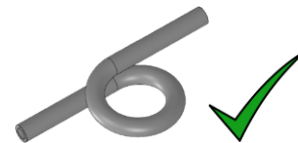
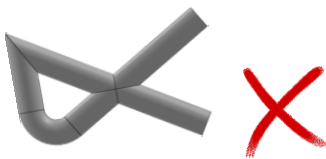
Seal holding the oil from the pump



Seal holding the oil from the main gearbox

Picture -3

- 5- Every working day, the pump should be checked with the help of a hose. If there is oil in the hose, contact the nearest service center. If there is dirt or soil blocking the hose, it is cleaned and checked.
- 6- Oil coming from the drain hose is a harbinger of a malfunction. If the hose is folded, oil leakage cannot be observed and may cause a bigger malfunction. Correct and incorrect installation of the air discharge hose is shown in picture-4.



Picture -4

ADVANTAGES OF PF SERIES IN HYDRAULIC PUMPS

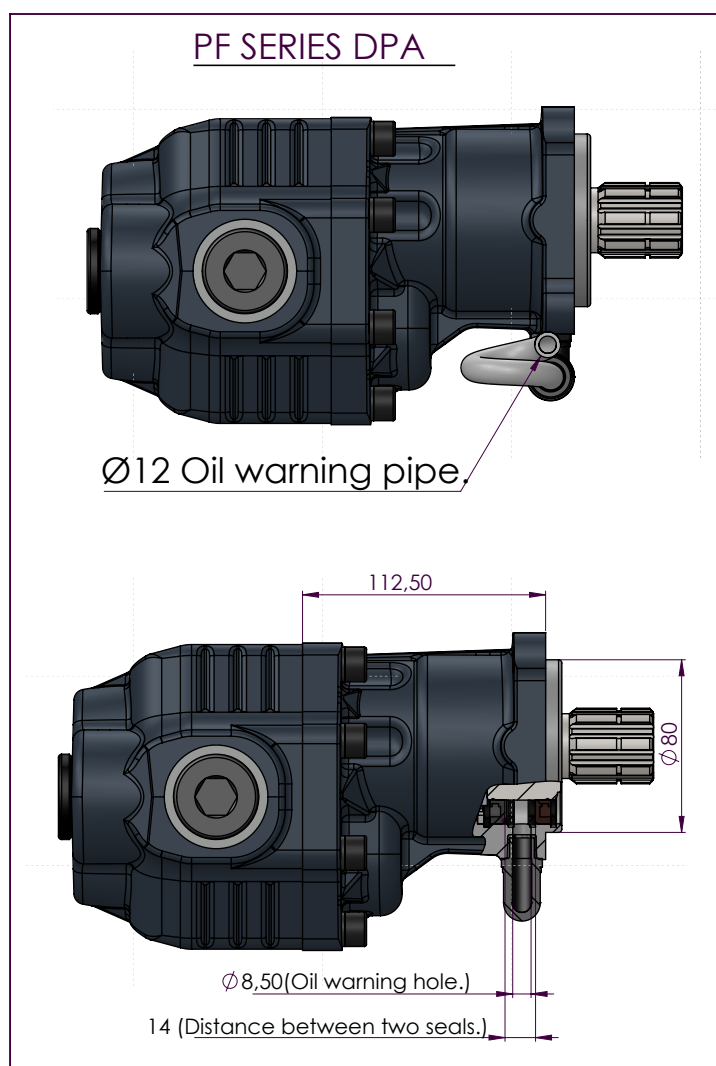


Figure 1.

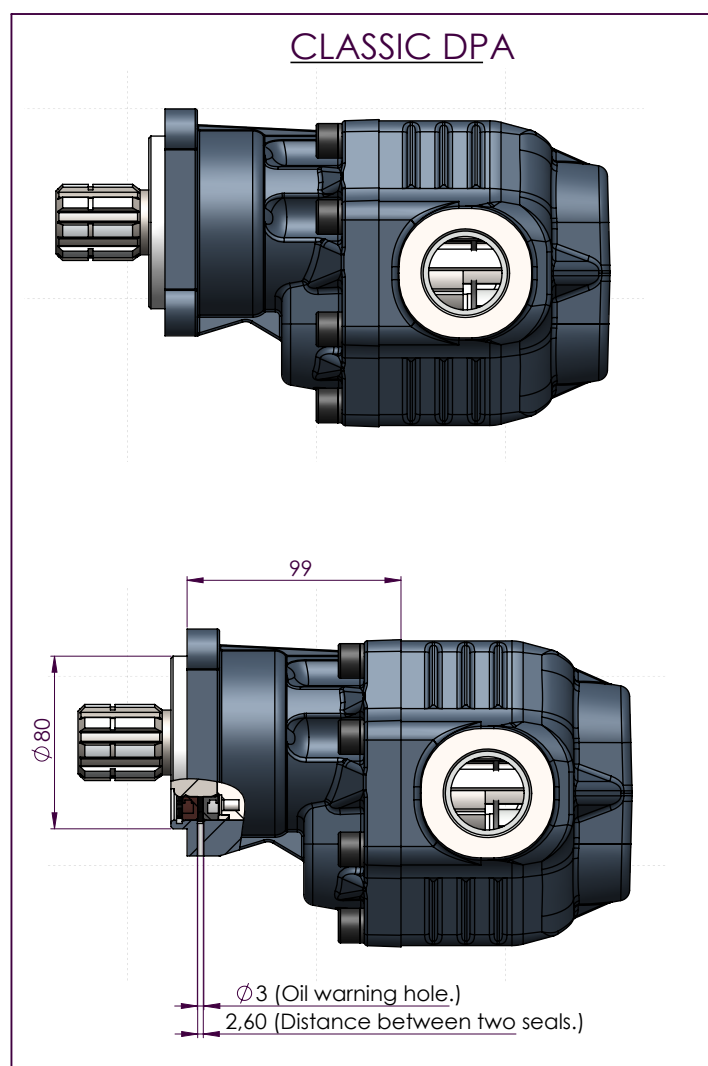


Figure 2.

1) PF series pumps, the distance between the two seals is wider than the classical DPA pumps, allowing the seal leakage that occurs over time to be recognised more quickly thanks to the transparent hose.

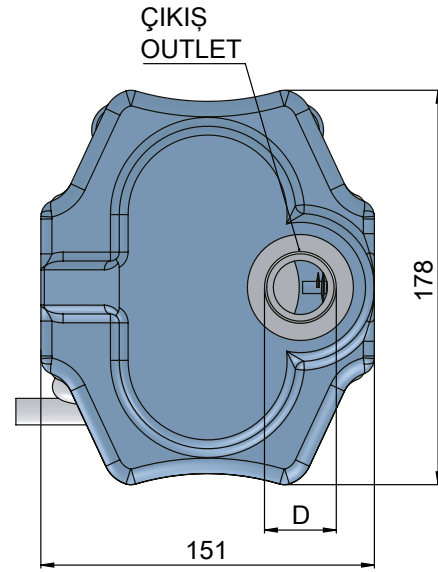
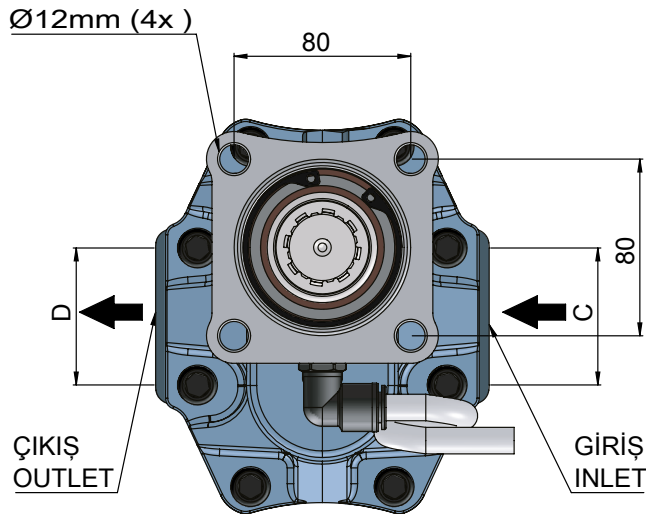
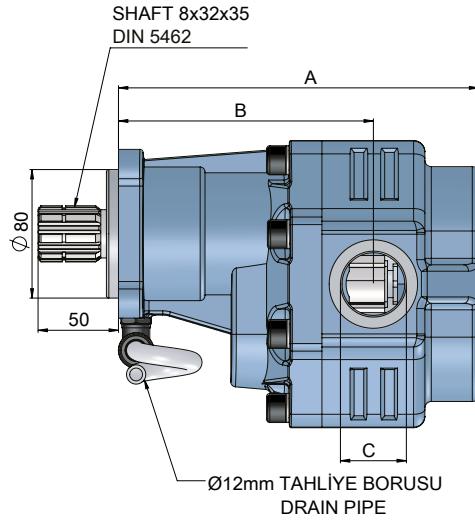
You can see the difference between the distance between the seals and the oil warning holes in Figure 1 and Figure 2.

2) Since the oil warning hole (Figure 2.) is Ø3mm in classical DPA pumps, oil leaks become invisible as dust, mud etc. factors will cover the hole more easily. Such a situation has been prevented by designing PF series.

3) PF series covers are in ISO standard dimensions like classic DPA covers and there is no problem in installation.

40 PF SERIES SINGLE ROTATIONAL ISO

40 PF SERİSİ TEK DÖNÜŞLÜ ISO



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
PF34006331	RIGHT/SAĞ	63	216	153	R1"-11	R3/4"-14	250	285
PF34006332	LEFT/SOL							
PF34007331	RIGHT/SAĞ	73	221	156	R1 1/4"-11	R1"-11	240	275
PF34007332	LEFT/SOL							
PF34008731	RIGHT/SAĞ	87	224	158	R1 1/2"-11	R1"-11	220	250
PF34008732	LEFT/SOL							
PF34010931	RIGHT/SAĞ	109	232	159	R1 1/2"-11	R1"-11	210	240
PF34010932	LEFT/SOL							
PF34013331	RIGHT/SAĞ	133	247	159	R1 1/2"-11	R1"-11	200	230
PF34013332	LEFT/SOL							
PF34015131	RIGHT/SAĞ	151	255	162	R1 1/2"-11	R1"-11	170	210
PF34015132	LEFT/SOL							

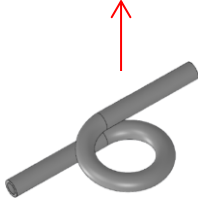
40 SERIES GEAR PUMPS
40 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

ISO PF SERIES POINTS TO BE CONSIDERED DURING INSTALLATION

- 1- The elements that must be used in the pump are defined below.

12x8 mm 50 cm
Transparent Drain Hose

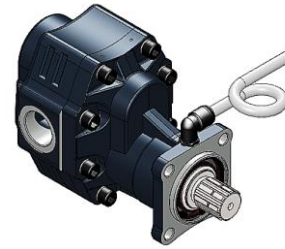
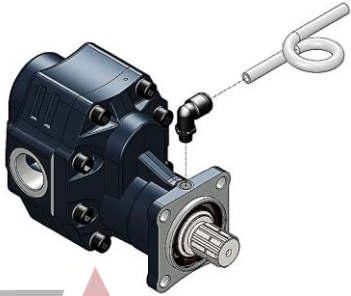


1/4 Elbow Ø12
Air Fitting



Picture -1

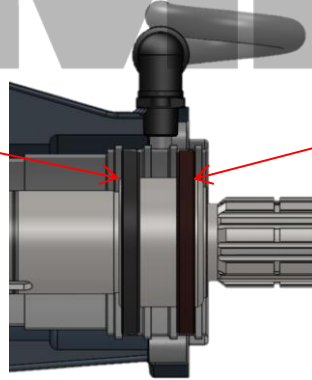
- 2- Transparent hose and pneumatic fitting are assembled as shown in picture -2. If the pump is not used with the specified elements, our company will not be responsible for the failure of the pump and the vehicle.



Picture -2

- 3- When assembling, the transparent hose should not be in contact with places such as (PTO, Pump, Main Transmission, Exhaust, etc.) in order not to be affected by temperature.
- 4- As seen in Figure-3, there are two oil seals in ISO Pumps. One of them is responsible for holding the oil coming from the main gearbox and the other one from the pump. In PF Series pumps, the distance between the two seals is more than other pumps and it notifies possible leaks more quickly. Another benefit is that it ensures that the two oils do not mix.

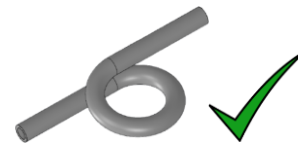
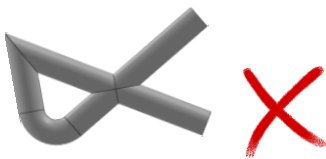
Seal holding the oil from the pump



Seal holding the oil from the main gearbox

Picture -3

- 5- Every working day, the pump should be checked with the help of a hose. If there is oil in the hose, contact the nearest service center. If there is dirt or soil blocking the hose, it is cleaned and checked.
- 6- Oil coming from the drain hose is a harbinger of a malfunction. If the hose is folded, oil leakage cannot be observed and may cause a bigger malfunction. Correct and incorrect installation of the air discharge hose is shown in picture-4.



Picture -4

ADVANTAGES OF PF SERIES IN HYDRAULIC PUMPS

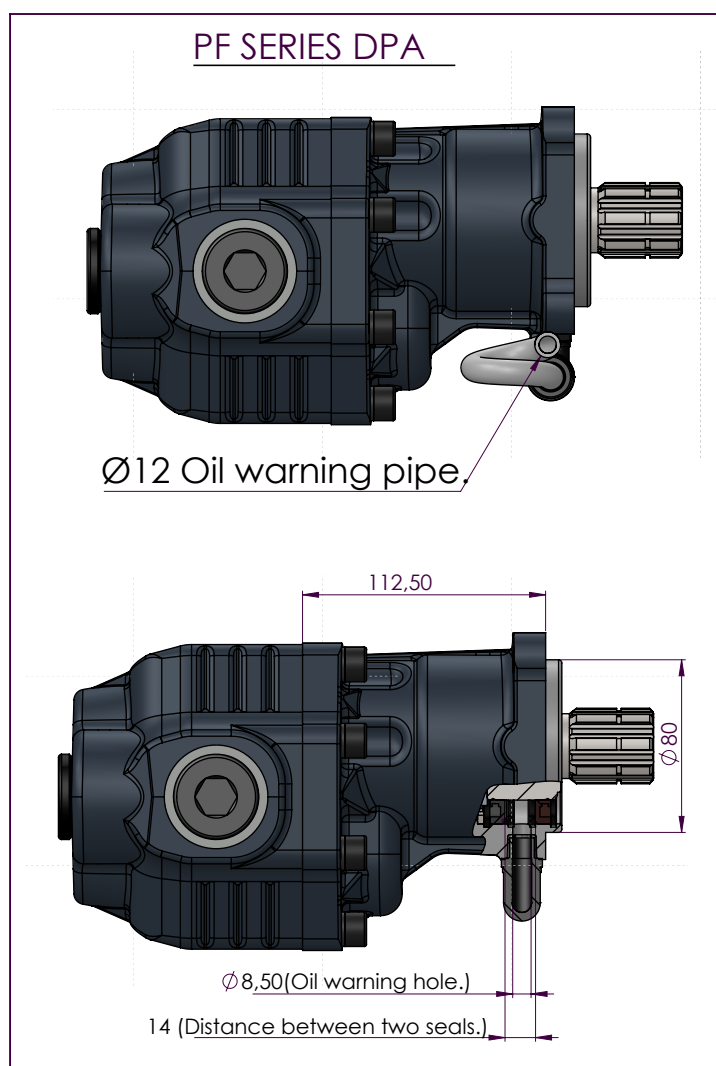


Figure 1.

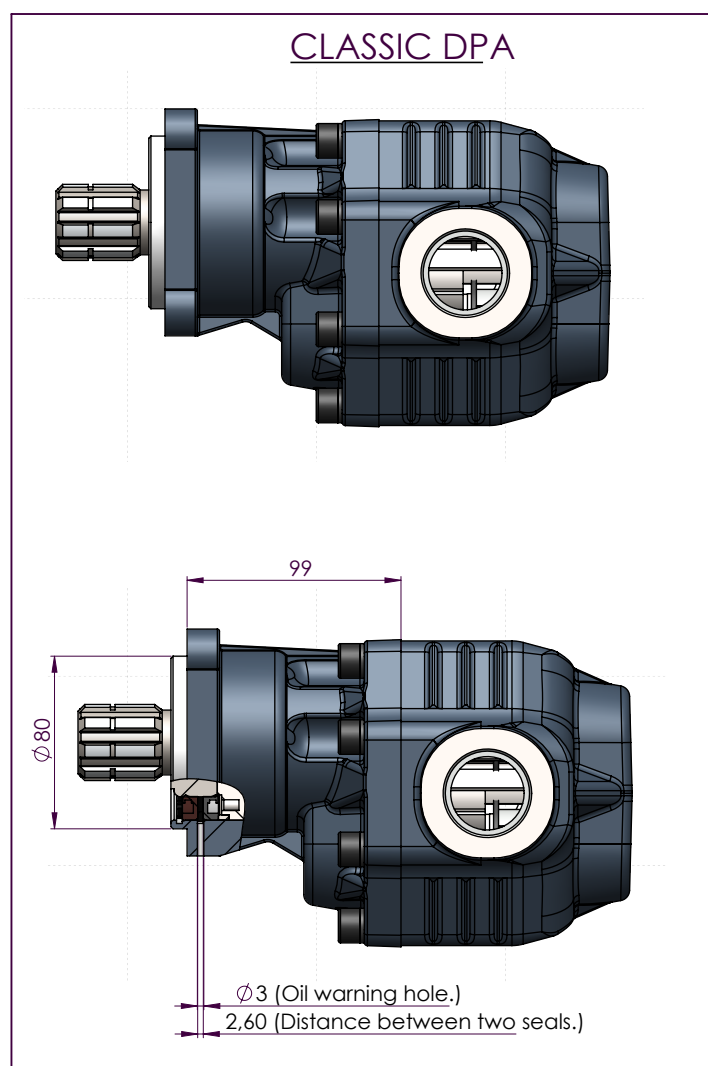


Figure 2.

1) PF series pumps, the distance between the two seals is wider than the classical DPA pumps, allowing the seal leakage that occurs over time to be recognised more quickly thanks to the transparent hose.

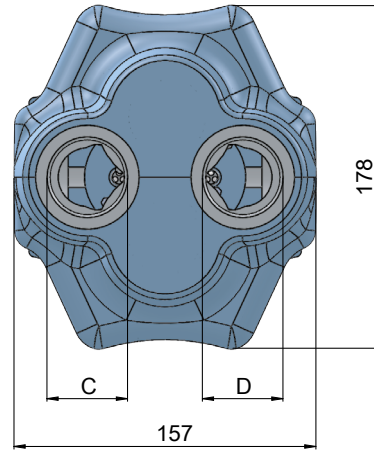
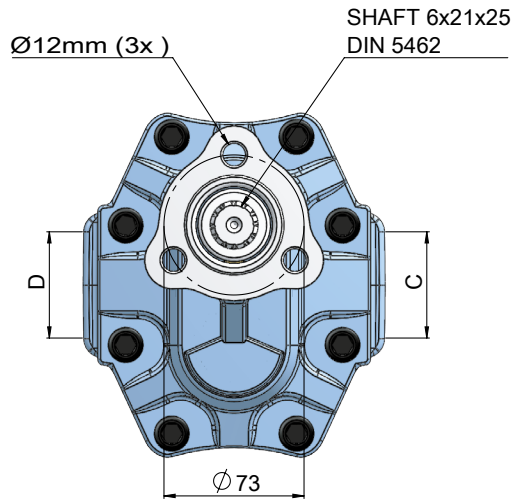
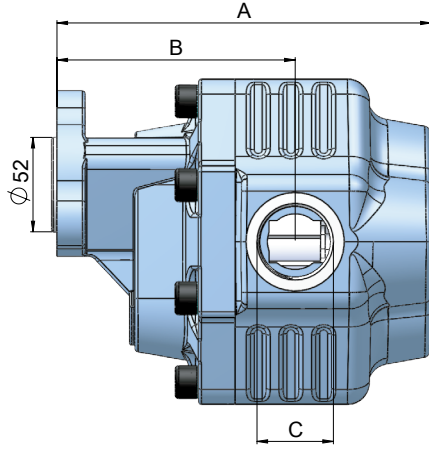
You can see the difference between the distance between the seals and the oil warning holes in Figure 1 and Figure 2.

2) Since the oil warning hole (Figure 2.) is Ø3mm in classical DPA pumps, oil leaks become invisible as dust, mud etc. factors will cover the hole more easily. Such a situation has been prevented by designing PF series.

3) PF series covers are in ISO standard dimensions like classic DPA covers and there is no problem in installation.

40 BI-ROTATIONAL UNI

40 ÇİFT DÖNÜŞLÜ UNI



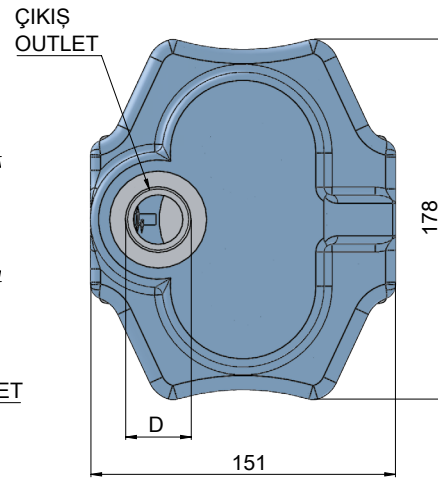
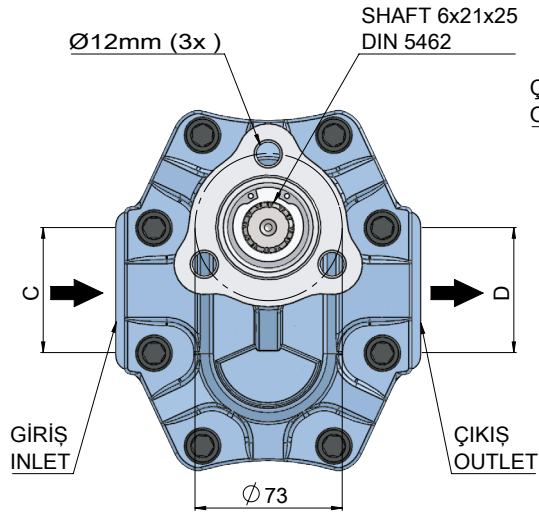
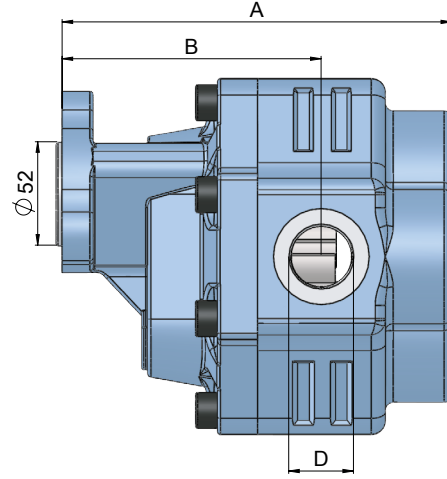
40 SERIES GEAR PUMPS
40 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
34007341	BI-ROTATIONAL-ÇİFT	73	196	129	R1"-11	R1"-11	240	275
34008741	BI-ROTATIONAL-ÇİFT	87	201	133			220	250
34010941	BI-ROTATIONAL-ÇİFT	109	208	134			210	240

40 SINGLE ROTATIONAL UNI

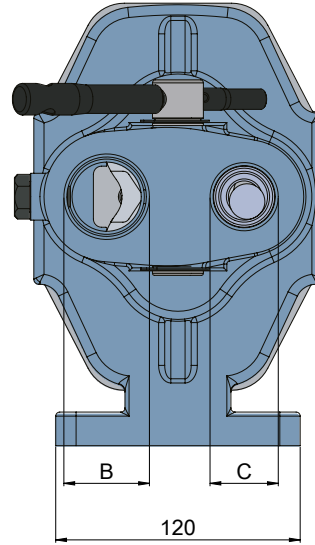
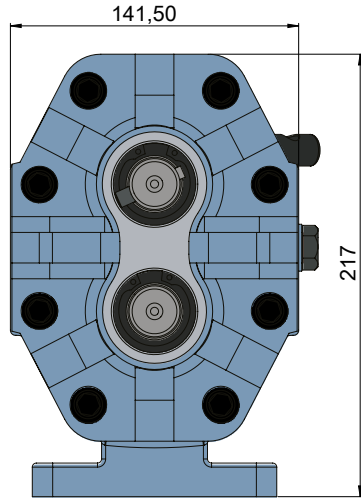
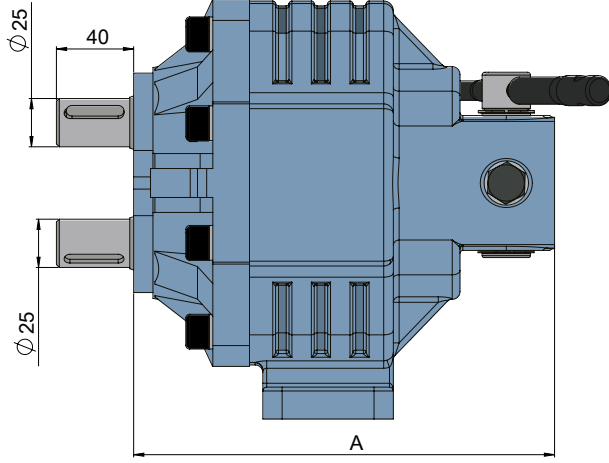
40 TEK DÖNÜŞLÜ UNI



CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	B (mm)	INLET GİRİŞ (C)	OUTLET ÇIKIŞ (D)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. Pik Basınç (Pmax)
34006311	RIGHT/SAĞ	63	191	128	R1"-11	R3/4"-14	250	285
34006312	LEFT/SOL							
34007311	RIGHT/SAĞ	73	196	131	R1 1/4"-11	R1"-11	240	275
34007312	LEFT/SOL							
34008711	RIGHT/SAĞ	87	199	133	R1 1/4"-11	R1"-11	220	250
34008712	LEFT/SOL							
34010911	RIGHT/SAĞ	109	207	134	R1 1/2"-11	R1"-11	210	240
34010912	LEFT/SOL							
34013311	RIGHT/SAĞ	133	222	134	R1 1/2"-11	R1"-11	200	230
34013312	LEFT/SOL							
34015111	RIGHT/SAĞ	151	230	137	R1 1/2"-11	R1"-11	170	210
34015112	LEFT/SOL							

40 DPM MECHANIC VALVES BI-ROTATIONAL

40 DPM MEKANİK VENTİLLİ ÇİFT DÖNÜŞLÜ



40 SERIES GEAR PUMPS
40 SERİSİ DİŞLİ POMPA

HYDRAULIC PUMPS
HİDROLİK POMPA

CODE KOD	ROTATION YÖN	DISPLACEMENT DEBİ (Lt/min)	A (mm)	INLET GİRİŞ (B)	OUTLET ÇIKIŞ (C)	Max. Continuous Pressure Max. Sürekli Basınç (Pnom)	Max. Peak Pressure Max. PİK Basınç (Pmax)
34010971	BI-ROTATIONAL-ÇİFT	109	218	R1 1/4"-11	R1"-11	210	240