



HYDRAULIC PUMPS



OMFB Hydraulic Pumps

Product:	Description:	Page:
NPH UNI	3 HOLES-UNI HYDRAULIC GEAR PUMPS	6-01
LTH UNI	3 HOLES-UNI REVERSABLE HYDRAULIC GEAR PUMPS	6-03
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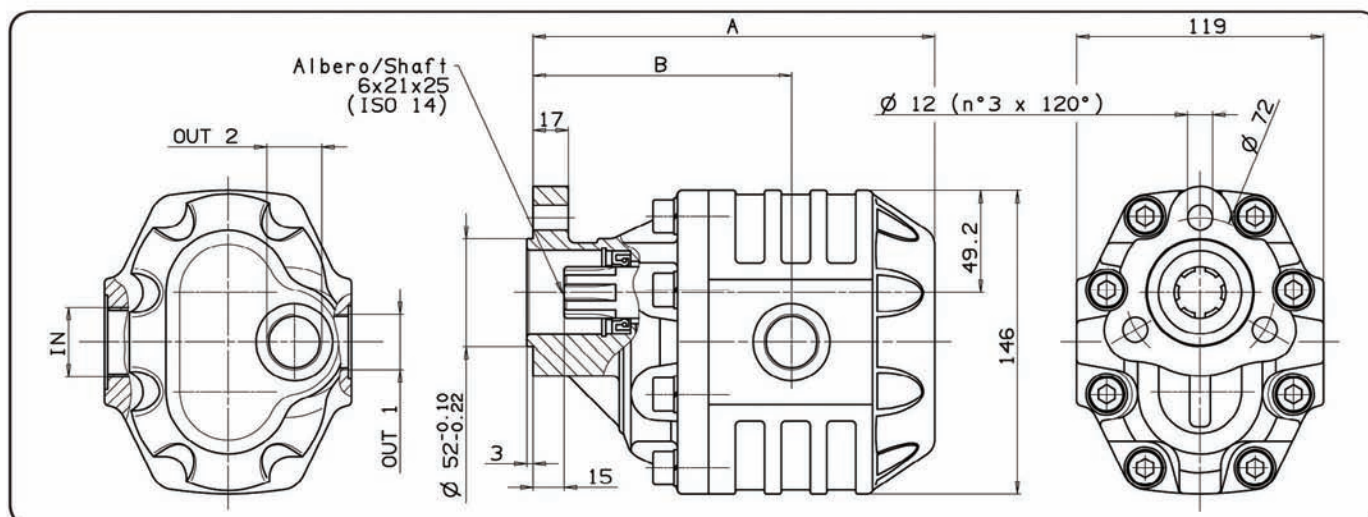


We reserve the right to make changes without notice.





Fluid	Mineral or synthetic compatible with the following seals: NBR, FKM, FPM, Nylon				
Kinematic viscosity suggested	Average ambient temp. (°C)	< -10	-10÷10	10÷35	> 35
	VG (cSt = mm²/s)	22	32	46	68
Optimale kinematic viscosity			VG= 10 cSt ÷ 100 cSt		
Max kinematic viscosity suggested at the start-up			VG= 750 cSt		
Viscosity index suggested			VI > 100		
Oil filtering			> 200 bar: 10 µm < 200 bar: 25 µm		
Inlet pressure			-0,3 ÷ 2 bar		
Pump rotation			Unidirectional (Right or Left)		

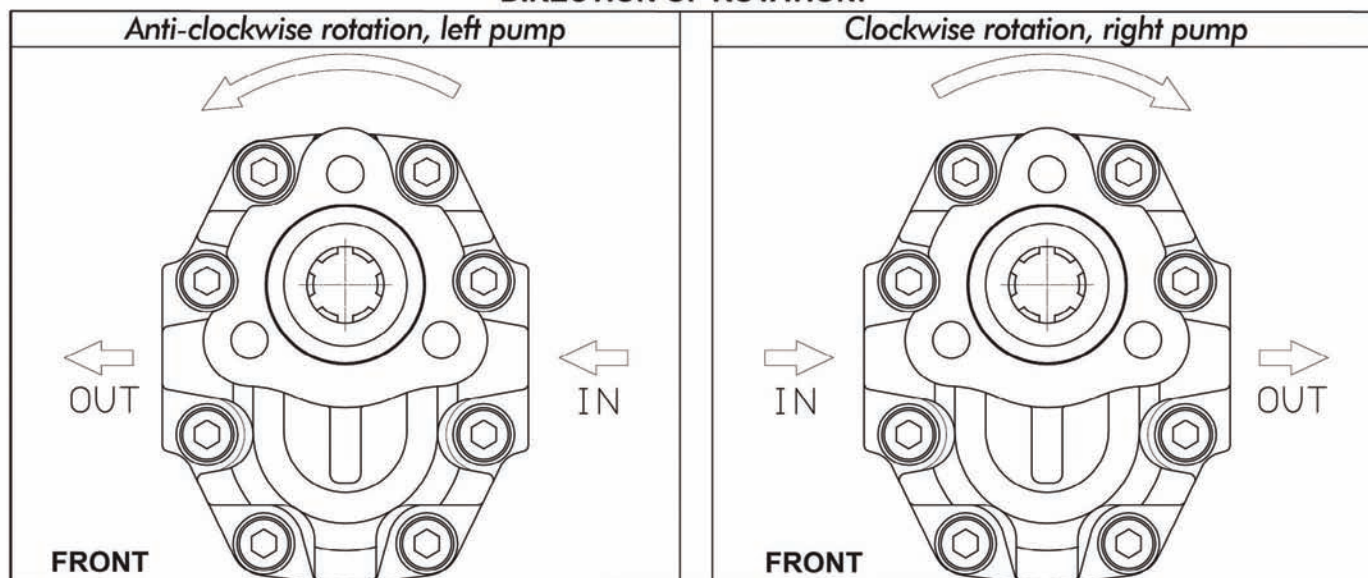


Pump type	Rotation		IN	OUT 1	OUT 2	A	B	Weight
	Right	Left						
			ISO 228	ISO 228	ISO 228	mm	mm	Kg
NPH-17	105-011-00175	105-011-00184	G 1/2	G 1/2		152.5	103.5	8.5
NPH-22	105-011-00228	105-011-00237				156	105.5	9
NPH-27	105-011-00273	105-011-00282	G 3/4			158.5	108	9.5
NPH-34	105-011-00344	105-011-00353				163.5	109	10.5
NPH-43	105-011-00433	105-011-00442	G1			169.5	114	11
NPH-51	105-011-00513	105-011-00522				174.5	114.5	11.5
NPH-61	105-011-00611	105-011-00620				180.5	120.5	12
NPH-73	105-011-00737	105-011-00746				188.5	119.5	12.5
NPH-82	105-011-00826	105-011-00835	G1 1/4			193.5	124.5	13
NPH-90	105-011-00906	105-011-00915				204.5	132.5	13.5
NPH-100	105-011-01003	105-011-01012		G 1	G 3/4	210.5	138.5	14
NPH-125	105-011-01254	105-011-01263				226.5	142.5	16

Pump type	Displacement cm ³ /rev	Pressure			Max. continuous speed rpm	Max. intermittent speed rpm	Min. speed rpm
		P1 bar	P2 bar	P3 bar			
NPH-17	17.04	290	315	325	2500	3000	300
NPH-22	22.15						
NPH-27	26.18						
NPH-34	33.88	280	300	310	2200	2800	
NPH-43	43.12	270	290	300	2000	2500	
NPH-51	50.82	240	260	280			
NPH-61	60.06	220	240	250	1800	2000	
NPH-73	72.88	200	220	230	1600	1800	
NPH-82	81.08	190	210	220	1500		
NPH-90	90.43	180	200	220			
NPH-100	98.18	180	200	220			
NPH-125	122.72	160	180	200			

Max. continuous pressure (100%)
 Max. Intermittent pressure (20 sec.max.)
 Max. peak pressure (6 sec.max.)

DIRECTION OF ROTATION:



TO CHANGE THE DIRECTION OF ROTATION SEE SECTION

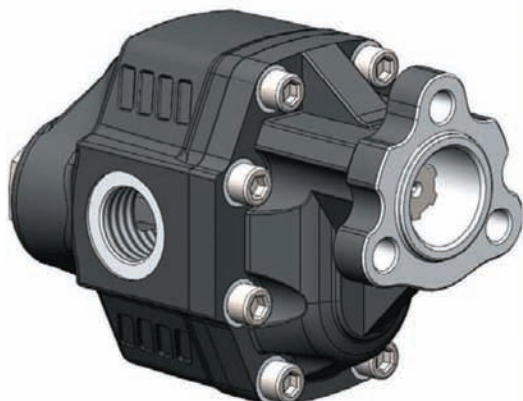
SEAL KIT

NPH 17cc-82cc - 105-900-00188
NPH100cc-125cc - 105-900-00320

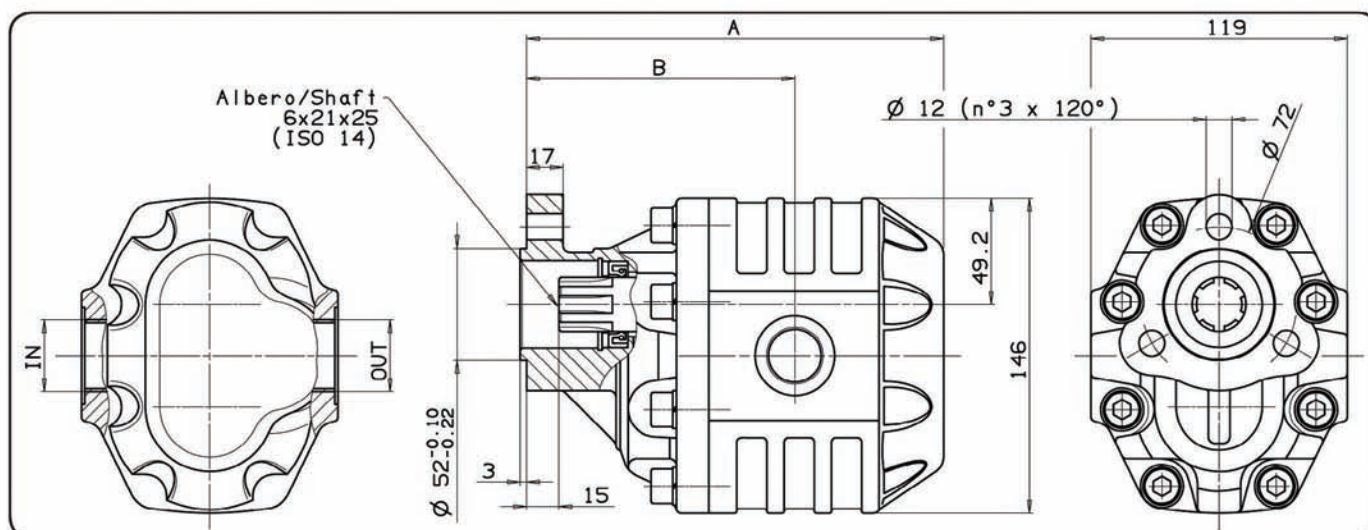


We reserve the right to make changes without notice.





Fluid	<i>Mineral or synthetic compatible with the following seals: NBR, FKM, FPM, Nylon</i>				
Kinematic viscosity suggested	Average ambient temp. (°C)	< -10	-10 ÷ 10	10 ÷ 35	> 35
	VG (cSt = mm²/s)	22	32	46	68
Optimale kinematic viscosity			VG= 10 cSt ÷ 100 cSt		
Max kinematic viscosity suggested at the start-up			VG= 750 cSt		
Viscosity index suggested			VI > 100		
Oil filtering			> 200 bar: 10 µm < 200 bar: 25 µm		
Inlet pressure			-0,3 ÷ 2 bar		
Pump rotation			Bidirectional		

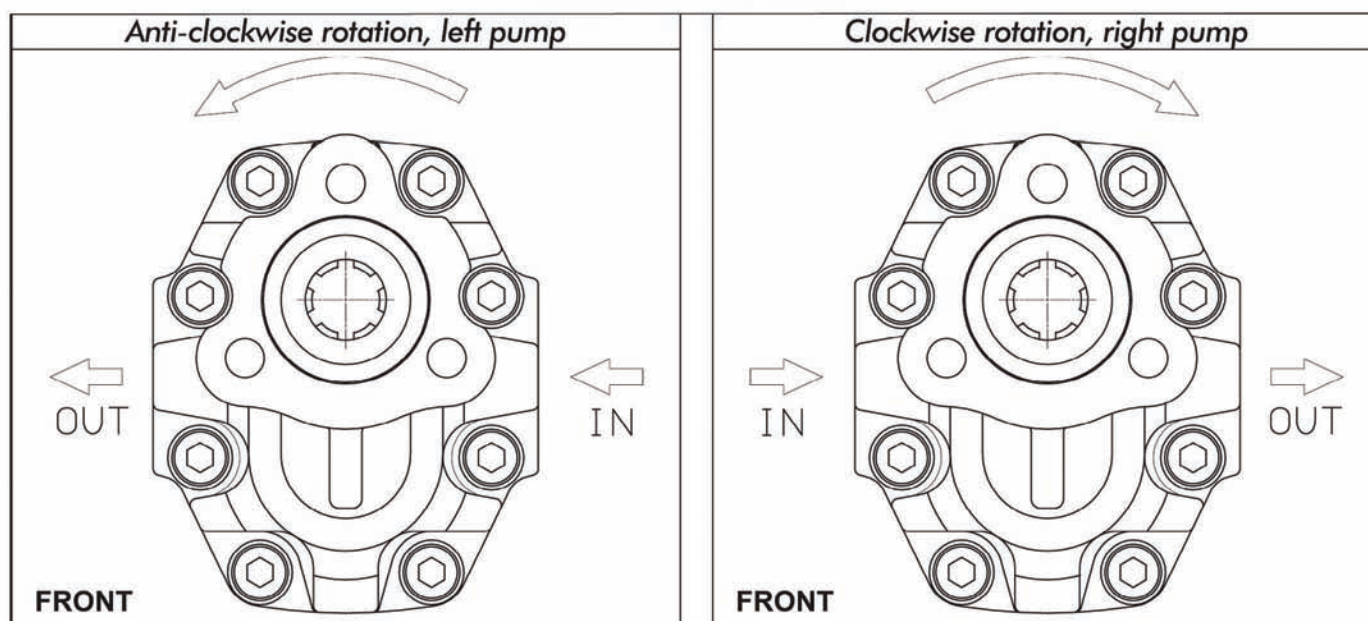


Pump type	Order code	IN	OUT	A	B	Weight
		ISO 228	ISO 228	mm	mm	Kg
LTH-61	105-028-00612	G 1	G 1	180,5	120,5	12
LTH-82	105-028-00827			193,5	124,5	13
LTH-100	105-028-01004	G 1 1/4	G 1 1/4	210,5	138,5	14

Pump type	Displacement	P1	P2	P3	Max. continuous speed	Max. intermittent speed	Min. speed
	cm³/rev	bar	bar	bar	rpm	rpm	rpm
LTH-61	60,06	190	200	210	1500	1800	300
LTH-82	81,08	160	180	190	1400	1700	
LTH-100	98,18						

Max. continuous pressure (100%)
 Max. intermittent pressure (20 sec.max.)
 Max. peak pressure (6 sec.max.)

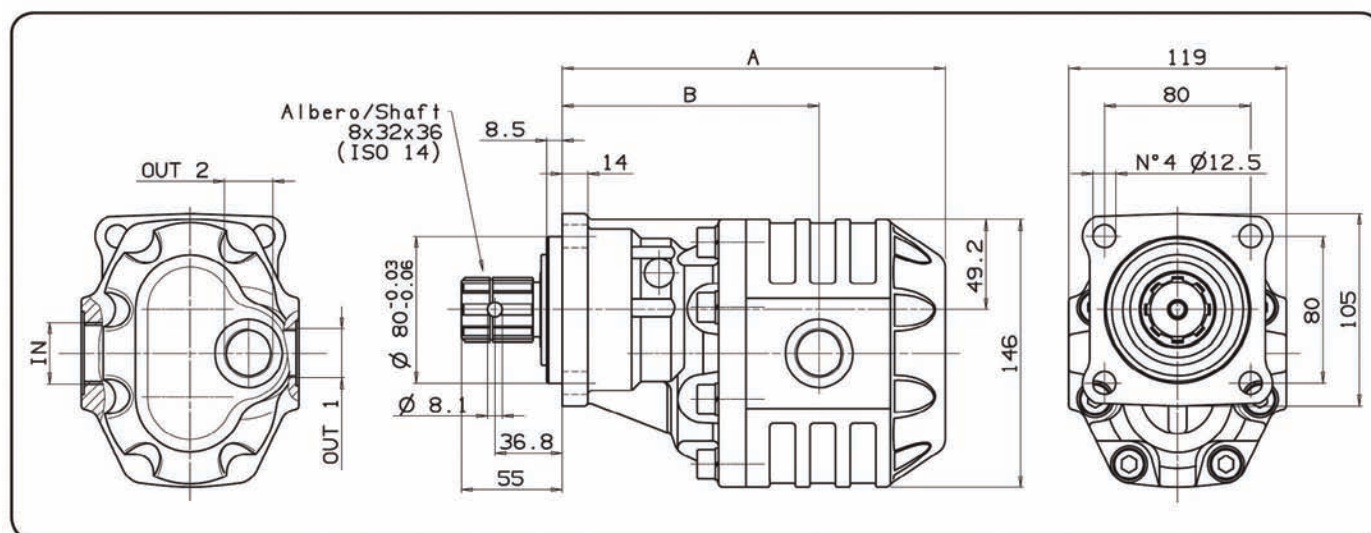
TECHNICAL FEATURES:



SEAL KIT - 105-900-00348



Fluid	Mineral or synthetic compatible with the following seals: NBR, FKM, FPM, Nylon				
Kinematic viscosity suggested	Average ambient temp. (°C)	< -10	-10 ÷ 10	10 ÷ 35	> 35
	VG (cSt = mm²/s)	22	32	46	68
Optimale kinematic viscosity		VG= 10 cSt ÷ 100 cSt			
Max kinematic viscosity suggested at the start-up		VG= 750 cSt			
Viscosity index suggested		VI > 100			
Oil filtering		> 200 bar: 10 µm < 200 bar: 25 µm			
Inlet pressure		-0,3 ÷ 2 bar			
Pump rotation		Unidirectional (Right or Left)			

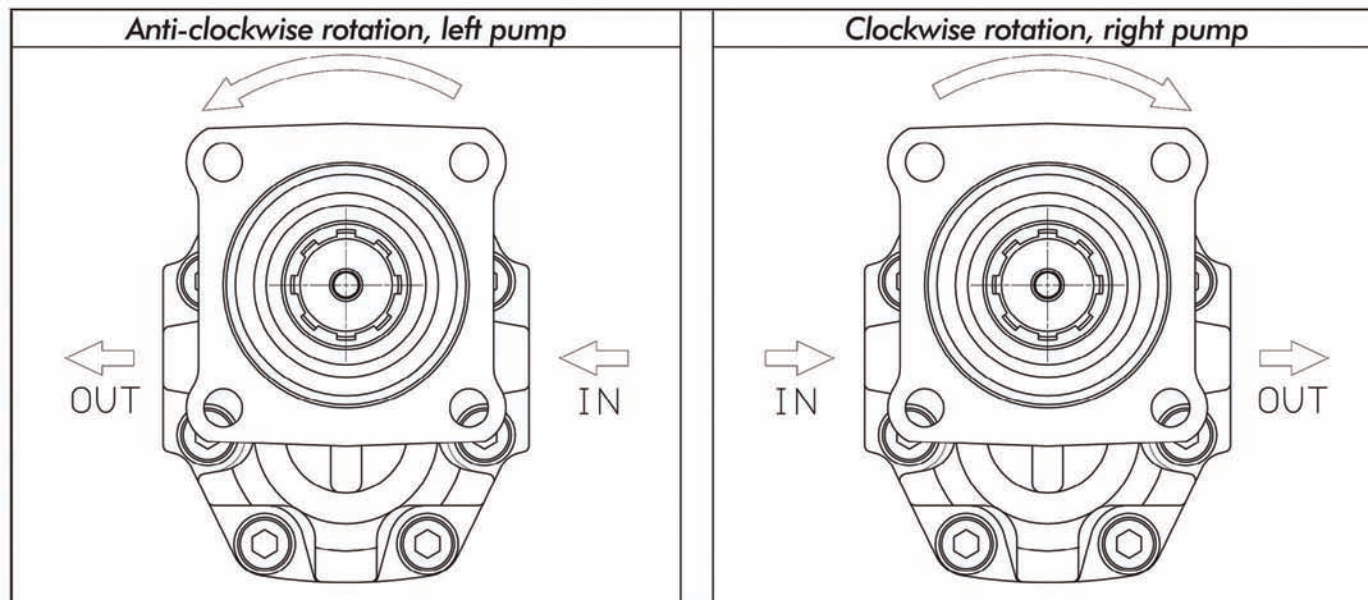


Pump type	Rotation		IN	OUT 1	OUT 2	A	B	Weight
	Right	Left						
			ISO 228	ISO 228	ISO 228	mm	mm	Kg
NPH-17	105-011-10173	105-011-10182	G 1/2	G 1/2		168.5	119.5	11
NPH-22	105-011-10226	105-011-10235				172	121.5	11.5
NPH-27	105-011-10271	105-011-10280				174.5	124	12
NPH-34	105-011-10342	105-011-10351	G 3/4	G 3/4		179.5	125	13
NPH-43	105-011-10431	105-011-10441				185.5	130	13.5
NPH-51	105-011-10511	105-011-10520				190.5	130.5	14
NPH-61	105-011-10619	105-011-10628	G1	G 3/4		196.5	136.5	14.5
NPH-73	105-011-10735	105-011-10744				204.5	135.5	15
NPH-82	105-011-10824	105-011-10833				209.5	140.5	15.5
NPH-100	105-011-11001	105-011-11010	G1 1/4	G 1	G 3/4	226.5	154.5	15
NPH-125	105-011-11252	105-011-11261				242.5	158.5	17

<i>Pump type</i>	<i>Displacement</i>	P1	P2	P3	<i>Max. continuous speed</i>	<i>Max. intermittent speed</i>	<i>Min. speed</i>
	cm ³ /rev	bar	bar	bar	rpm	rpm	rpm
NPH-17	17.04	290	315	325	2500	3000	300
NPH-22	22.15						
NPH-27	26.18						
NPH-34	33.88	280	300	310	2200	2800	
NPH-43	43.12	270	290	300	2000	2500	
NPH-51	50.82	240	260	280			
NPH-61	60.06	220	240	250	1800	2000	
NPH-73	72.88	200	220	230	1600	1800	
NPH-82	81.08	190	210	220			
NPH-100	98.18	180	200				
NPH-125	122.72	160	180	200			

Max. continuous pressure (100%)
 Max. Intermittent pressure (20 sec.max.)
 Max. peak pressure (6 sec.max.)

DIRECTION OF ROTATION:



SEAL KIT

NPH 17cc-82cc - 105-900-00197
NPH100cc-125cc - 105-900-00339



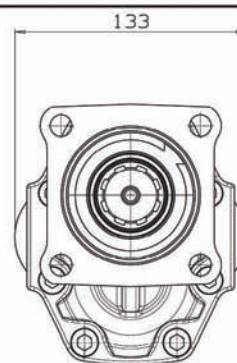
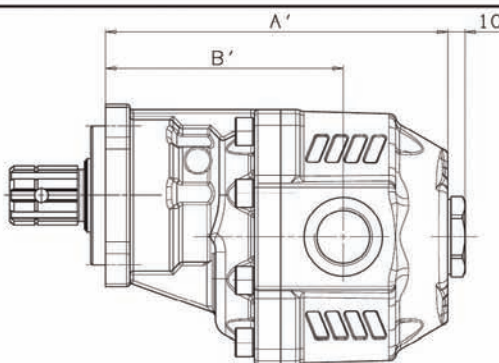
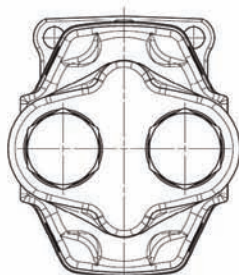
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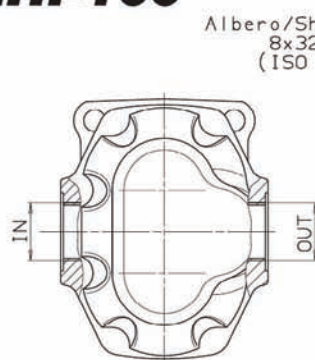


Fluid	<i>Mineral or synthetic compatible with the following seals: NBR, FKM, FPM, Nylon</i>				
Kinematic viscosity suggested	<i>Average ambient temp. (°C)</i>	< -10	-10 ÷ 10	10 ÷ 35	> 35
	<i>VG (cSt = mm²/s)</i>	22	32	46	68
<i>Optimale kinematic viscosity</i>			VG= 10 cSt ÷ 100 cSt		
<i>Max kinematic viscosity suggested at the start-up</i>			VG= 750 cSt		
<i>Viscosity index suggested</i>			VI > 100		
<i>Oil filtering</i>			> 200 bar: 10 µm < 200 bar: 25 µm		
<i>Inlet pressure</i>			-0,3 ÷ 2 bar		
<i>Pump rotation</i>			Bidirectional		

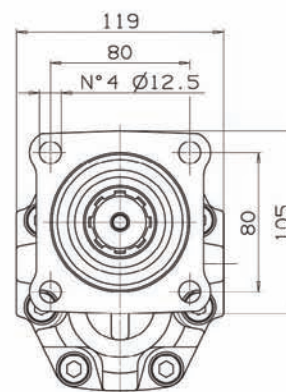
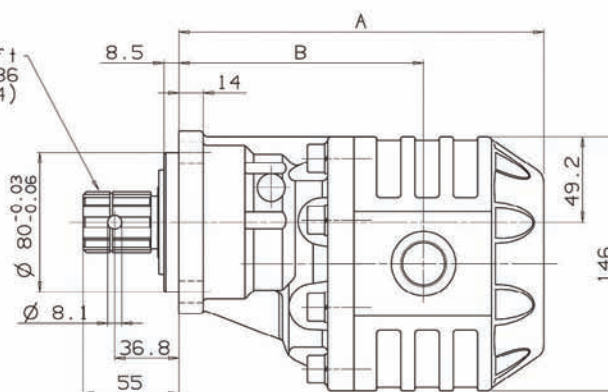
LTH-61 - LTH-82



LTH-100



Albero/Shaft
8x32x36
(ISO 14)



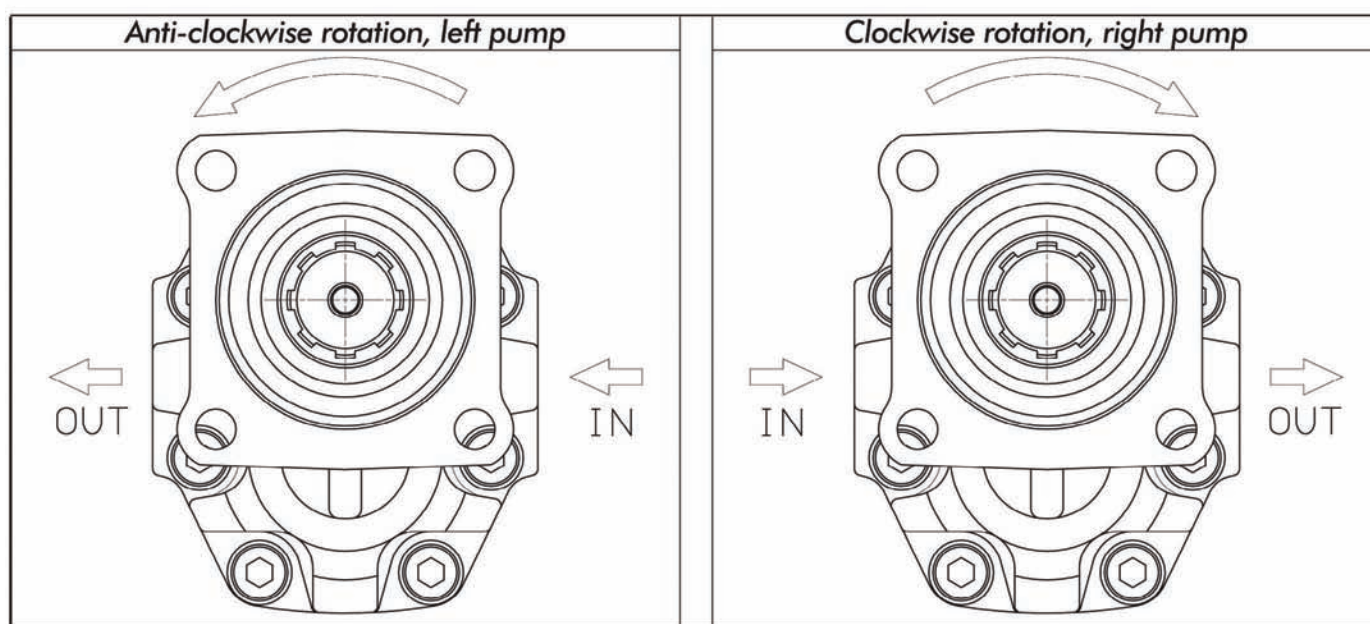
Pump type	Order code	IN	OUT	A	B	A'	B'	Weight
		ISO 228	ISO 228	mm	mm			Kg
LTH-61	105-028-10610	G 1	G 1			196,5	136,5	14,5
LTH-82	105-028-10825					209,5	140,5	15,5
LTH-100	105-028-11002	G 1 1/4	G 1 1/4	226,5	154,5			15

Pump type	Displacement	P1	P2	P3	Max. continuous speed	Max. intermittent speed	Min. speed
	cm ³ /rev	bar	bar	bar	rpm	rpm	rpm
LTH-61	60,06	190	200	210	1500	1800	300
LTH-82	81,08	160	180	190	1400	1700	
LTH-100	98,18						

Max. continuous pressure
 Max. Intermittent pressure
 Max. peak pressure

(100%)
 (20 sec.max.)
 (6 sec.max)

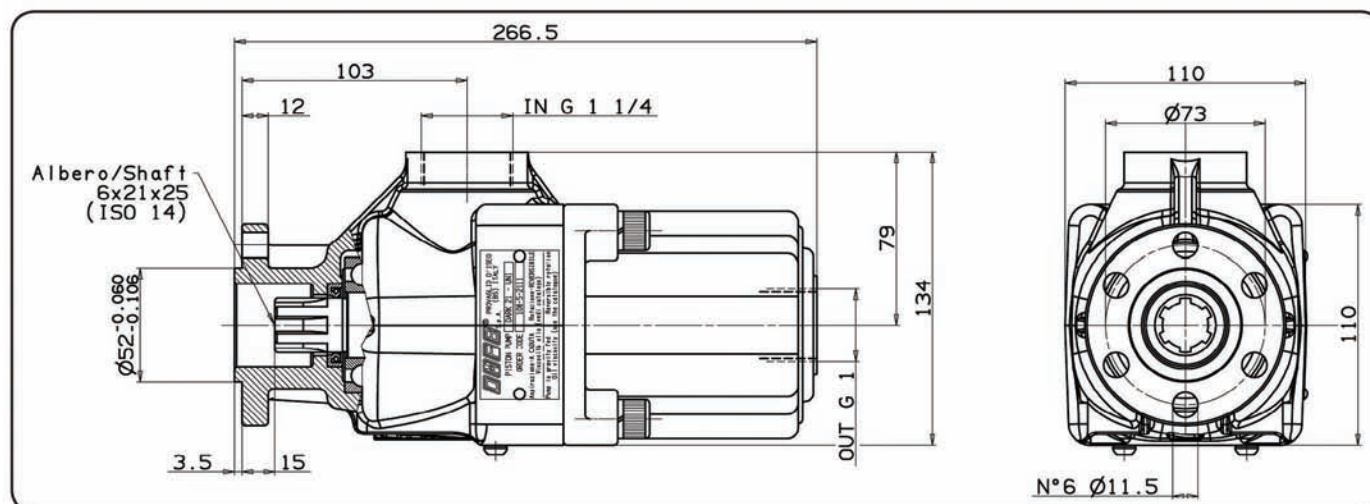
TECHNICAL FEATURES:



SEAL KIT - 105-900-00357



Fluid	Mineral or synthetic compatible with the following seals: NBR, FKM, FPM, Nylon				
Kinematic viscosity suggested	Average ambient temp. (°C)	< -10	-10÷10	10÷35	> 35
	VG (cSt = mm²/s)	16	22	32	46
Optimale kinematic viscosity			VG= 10 cSt ÷ 100 cSt		
Max kinematic viscosity suggested at the start-up			VG= 750 cSt		
Viscosity index suggested			VI > 100		
Oil filtering			> 200 bar: 10 µm < 200 bar: 25 µm		
Inlet pressure			0,85 ÷ 2 bar assoluti/absolut		
Pump rotation			Bidirectional		
Verify that pump is, at least, 100 mm under the minimum level of the tank. Before starting the pump bleed the air.					



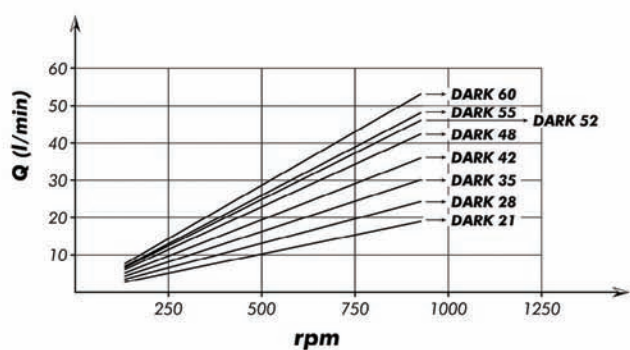
Pump type	Code	Displacement cm³/rev	Pressure		Max speed rpm	Weight kg
			Massima Max bar	Picco Peak bar		
DARK-21	108-005-02111	20,25	350	350	1800	13,5
DARK-28	108-005-02817	27				
DARK-35	108-005-03512	33,75				
DARK-42	108-005-04217	40,5				
DARK-48	108-005-04815	47,25				
DARK-52	108-005-05216	51,97	300	350	1500	13,3
DARK-55	108-005-05510	54				
DARK-60	108-005-05912	59,3				



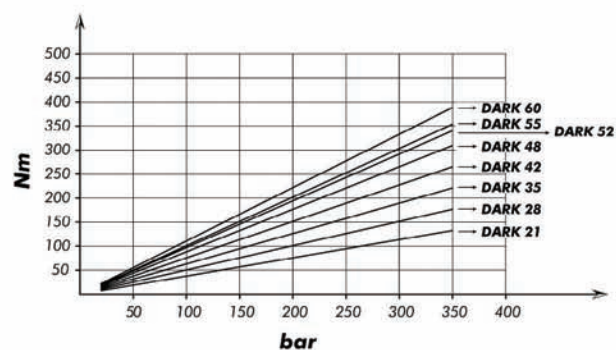
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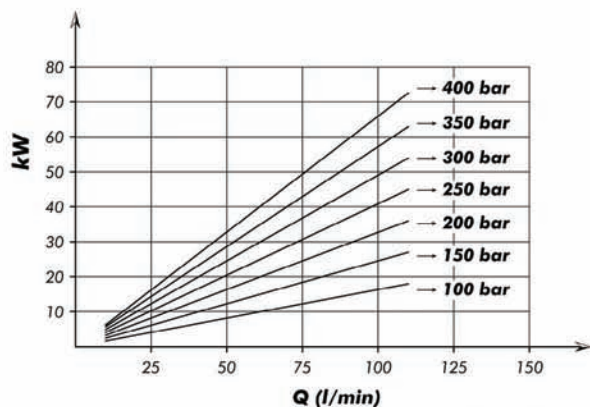
FLOW



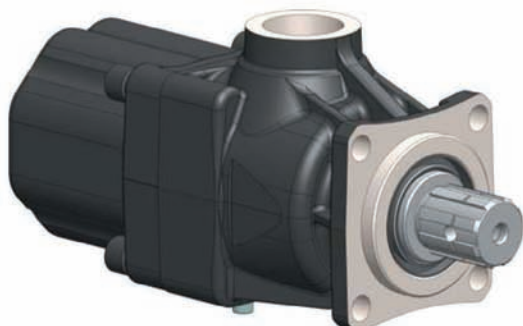
DRIVE TORQUE



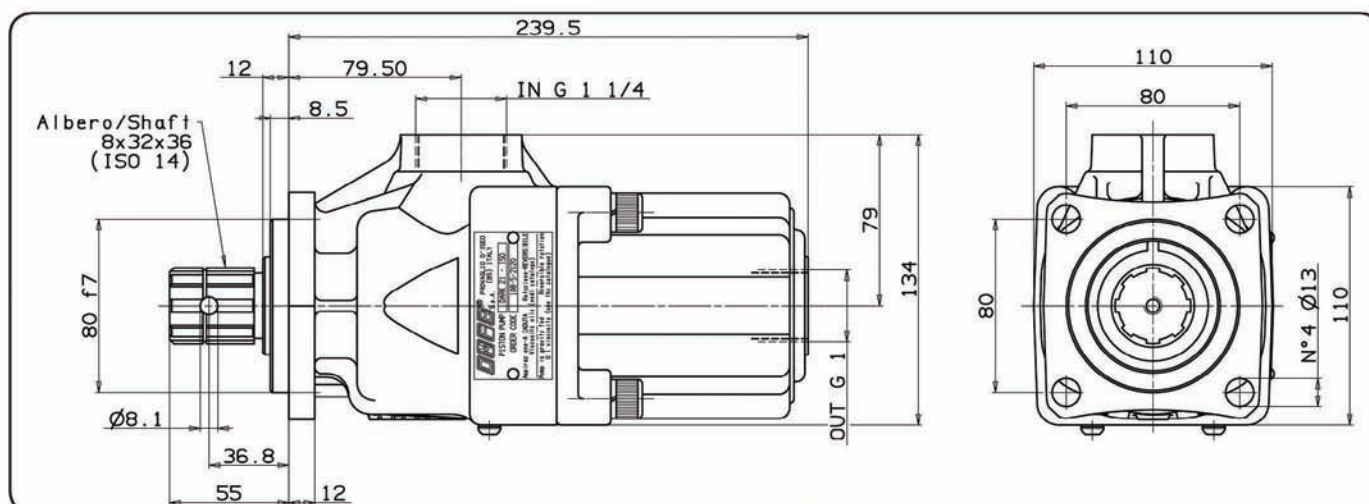
POWER INPUT



SEAL KIT - 108-903-00018



Fluid	Mineral or synthetic compatible with the following seals: NBR, FKM, FPM, Nylon				
Kinematic viscosity suggested	Average ambient temp. (°C)	< -10	-10÷10	10÷35	> 35
	VG (cSt = mm²/s)	16	22	32	46
Optimale kinematic viscosity			VG= 10 cSt ÷ 100 cSt		
Max kinematic viscosity suggested at the start-up			VG= 750 cSt		
Viscosity index suggested			VI > 100		
Oil filtering			> 200 bar: 10 µm < 200 bar: 25 µm		
Inlet pressure			0,85 ÷ 2 bar assoluti/absolut		
Pump rotation			Bidirectional		
Verify that pump is, at least, 100 mm under the minimum level of the tank. Before starting the pump bleed the air.					



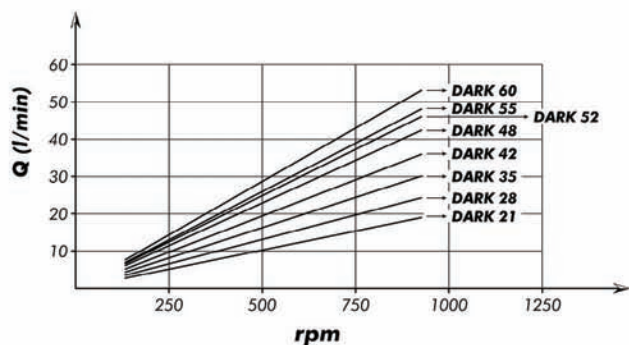
Pump type	Code	Displacement cm³/rev	Pressure		Max speed rpm	Weight kg
			Massima Max bar	Picco Peak bar		
DARK-21	108-005-02120	20,25	350	350	1800	14,1
DARK-28	108-005-02826	27				
DARK-35	108-005-03521	33,75				
DARK-42	108-005-04226	40,5				
DARK-48	108-005-04824	47,25				
DARK-52	108-005-05225	51,97	300	350	1500	13,9
DARK-55	108-005-05529	54				
DARK-60	108-005-05921	59,3				



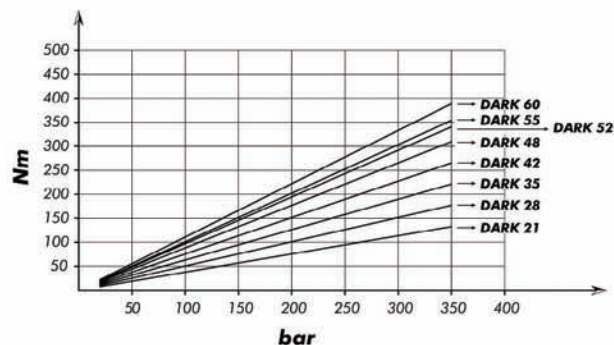
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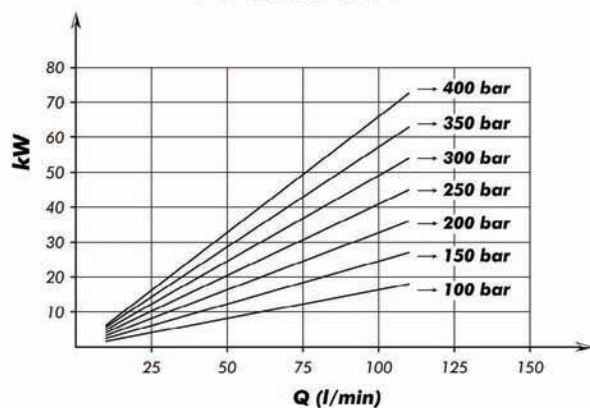
FLOW



DRIVE TORQUE



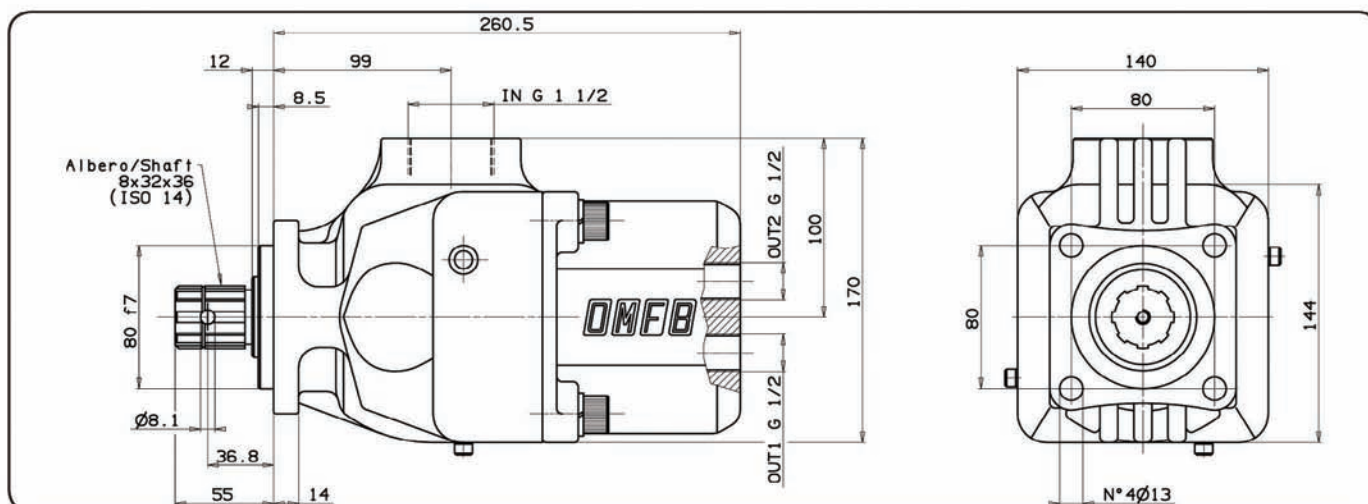
POWER INPUT



SEAL KIT - 108-903-00027



Fluid	Mineral or synthetic compatible with the following seals: NBR, FKM, FPM, Nylon				
Kinematic viscosity suggested	Average ambient temp. (°C)	< -10	-10÷10	10÷35	> 35
	VG (cSt = mm²/s)	16	22	32	46
Optimale kinematic viscosity			VG= 10 cSt ÷ 100 cSt		
Max kinematic viscosity suggested at the start-up			VG= 750 cSt		
Viscosity index suggested			VI > 100		
Oil filtering			> 200 bar: 10 µm < 200 bar: 25 µm		
Inlet pressure			0,85 ÷ 2 bar assoluti/absolut		
Pump rotation			Bidirectional		
Verify that pump is, at least, 100 mm under the minimum level of the tank. Before starting the pump bleed the air.					



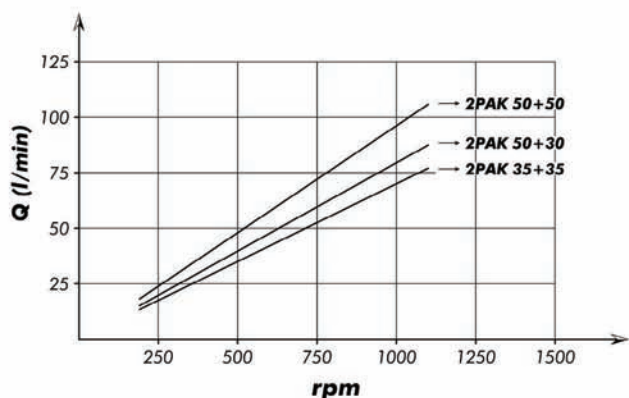
Pump type	Code	Displacement cm³/rev	Pressure		Max speed rpm	Weight kg
			Massima Max bar	Picco Peak bar		
2PAK-35+35	108-008-35351	35+35	300	350	1500	21,4
2PAK-50+30	108-008-50307	50+30				21,2
2PAK-50+50	108-008-50503	50+50				



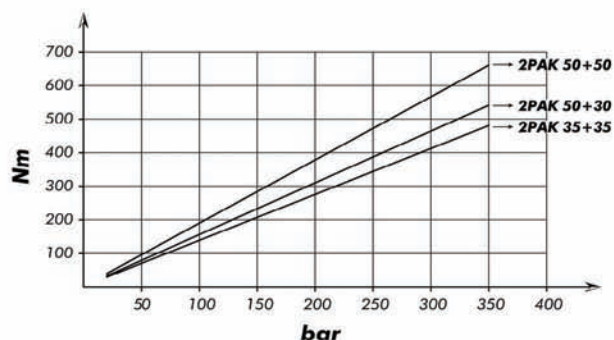
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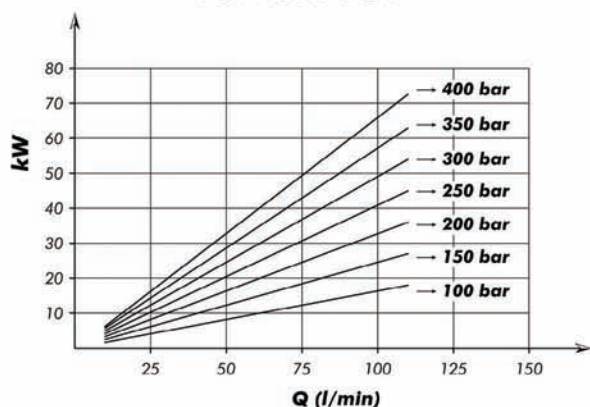
FLOW



DRIVE TORQUE



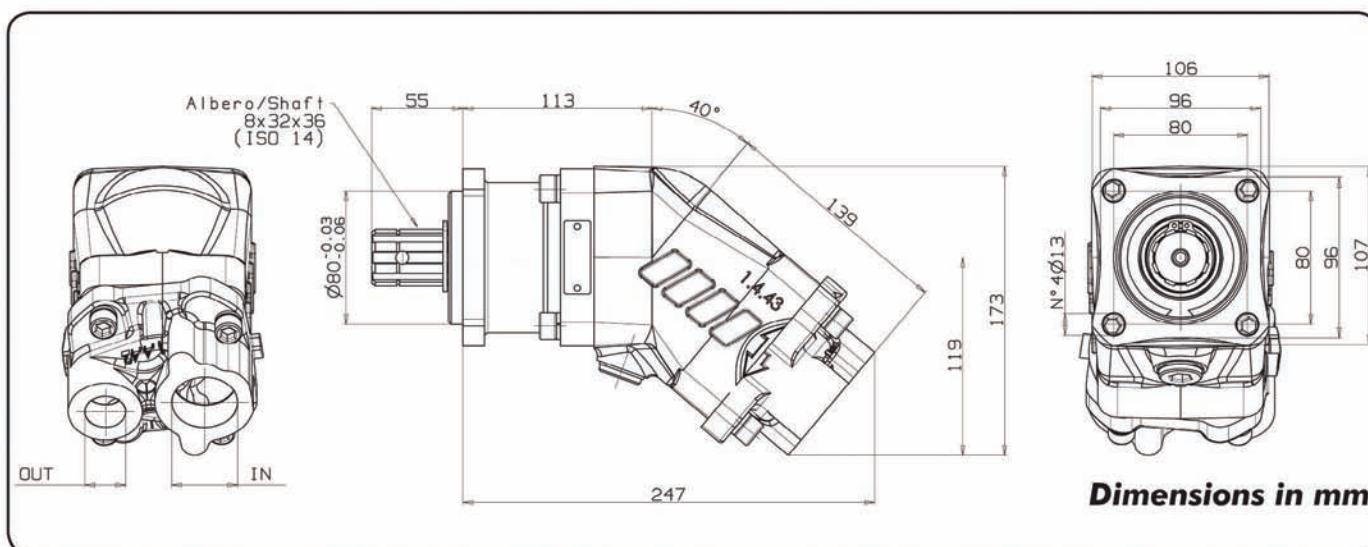
POWER INPUT



SEAL KIT - 108-903-00036



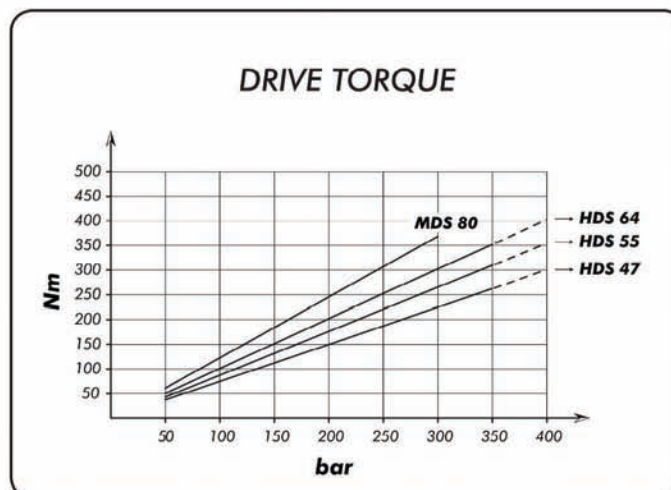
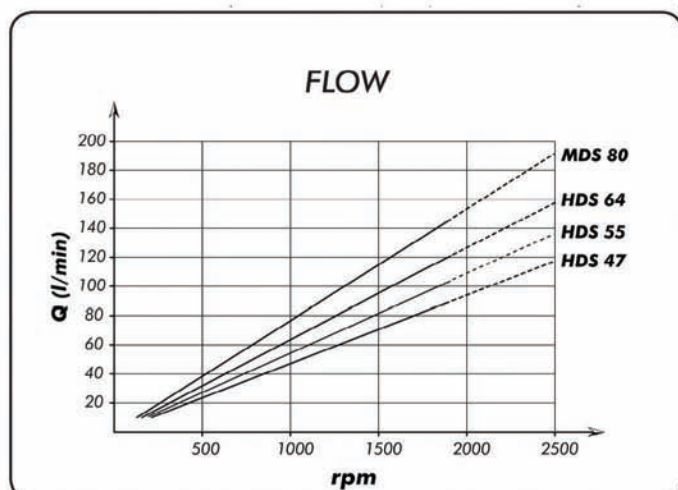
Fluid	Mineral or synthetic compatible with the following seals: HNBR				
Allowed temperature	-40 +140 °C				
Kinematic viscosity suggested	Average ambient temp. (°C)	< -40	-40÷10	10÷35	> 35
	VG (cSt = mm²/s)	16	22	32	46
Optimale kinematic viscosity			VG= 10 cSt ÷ 100 cSt		
Max kinematic viscosity suggested at the start-up			VG= 750 cSt		
Viscosity index suggested			VI > 100		
Oil filtering			> 200 bar: 10 µm < 200 bar: 25 µm		
Inlet pressure			0,85 ÷ 2 bar assoluti/absolut		
Pump rotation			Unidirectional (Right or Left)		
Verify that pump is, at least, 100 mm under the minimum level of the tank. Before starting the pump bleed the air.					



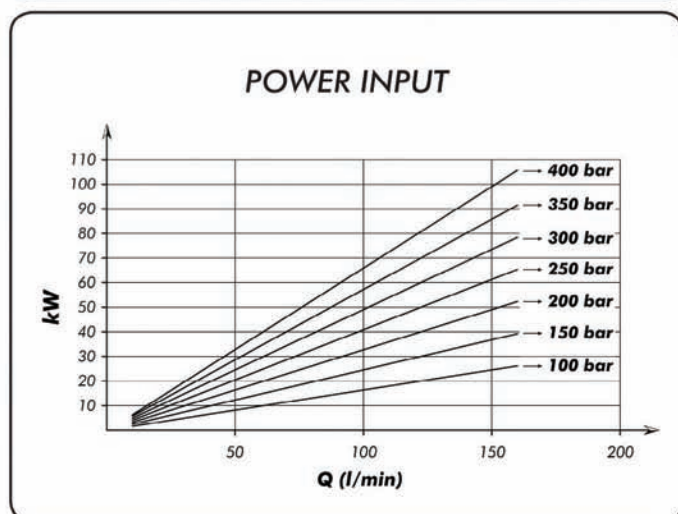
Pump type	Rotation		IN	OUT
	Right	Left	ISO 228	ISO 228
HDS-47	108-015-04733	108-015-04742	G 1 1/4	G 3/4
HDS-55	108-015-05536	108-015-05545	G 1 1/4	G 3/4
HDS-64	108-015-06035	108-015-06044	G 1 1/4	G 3/4

PUMP TYPE	DISPLACEMENT cm ³ /rev	PRESSURE			Max. continuous speed rpm	Max. intermittent speed rpm	Min. speed rpm	WEIGHT kg
		P1 bar	P2 bar	P3 bar				
HDS-47	47,13	350	370	400	1900	2500	300	12,6
HDS-55	56,7							
HDS-64	63,56							
MDS-80	77,25	300	300	300	1900	2500	300	

Max. continuous pressure (100%)
 Max. Intermittent pressure (20 sec.max.)
 Max. peak pressure (6 sec.max.)

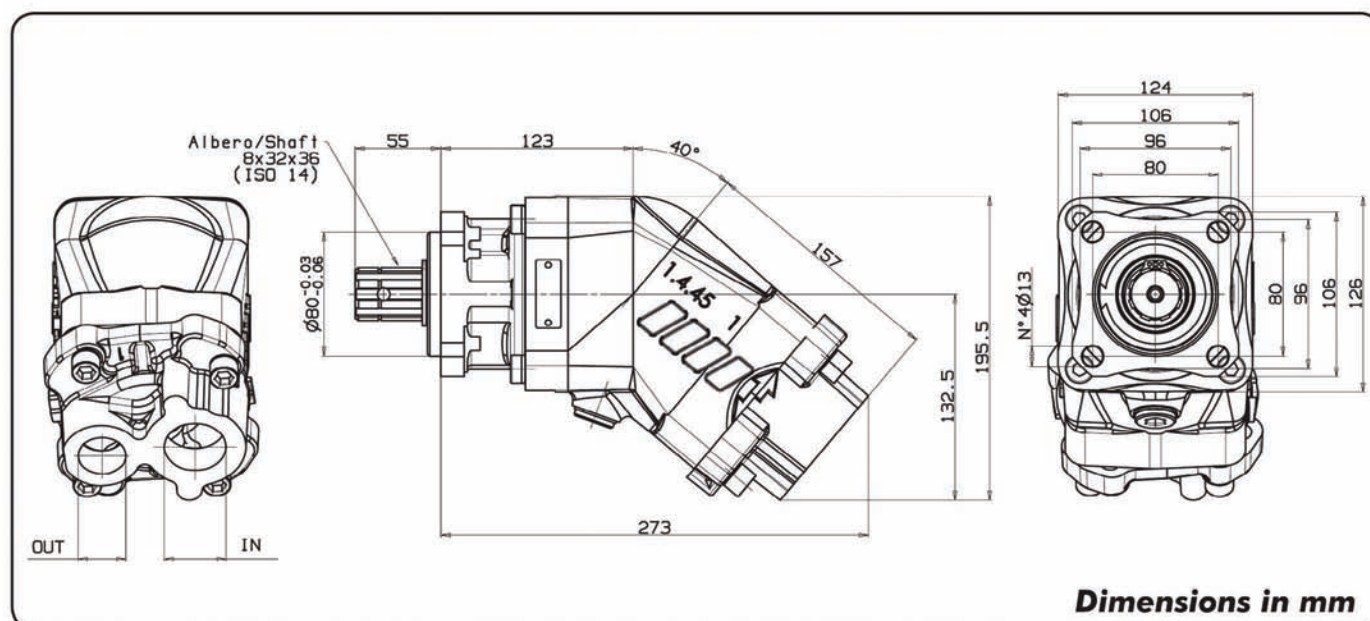


SEAL KIT - 108-903-47648





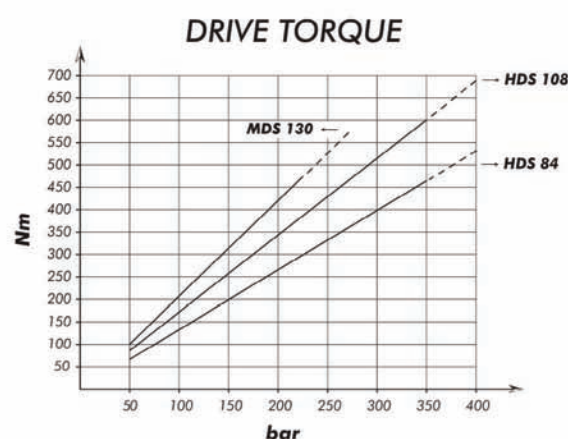
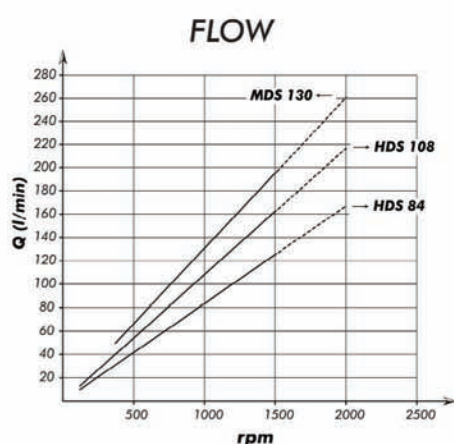
Fluid	Mineral or synthetic compatible with the following seals: HNBR				
Allowed temperature	-40 +140 °C				
Kinematic viscosity suggested	Average ambient temp. (°C)	< -40	-40÷10	10÷35	> 35
	VG (cSt = mm²/s)	16	22	32	46
Optimale kinematic viscosity			VG= 10 cSt ÷ 100 cSt		
Max kinematic viscosity suggested at the start-up			VG= 750 cSt		
Viscosity index suggested			VI > 100		
Oil filtering			> 200 bar: 10 µm < 200 bar: 25 µm		
Inlet pressure			0,85 ÷ 2 bar assoluti/absolut		
Pump rotation			Unidirectional (Right or Left)		
Verify that pump is, at least, 100 mm under the minimum level of the tank. Before starting the pump bleed the air.					



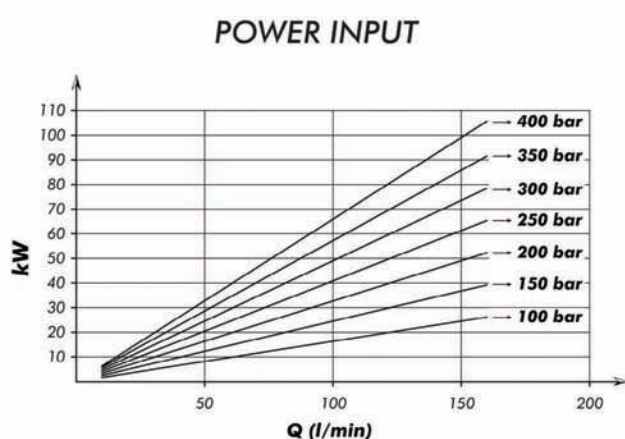
Pump type	Rotation		IN ISO 228 G 1 1/4	OUT ISO 228 G 1
	Right	Left		
HDS-84	108-015-08033	108-015-08042	G 1 1/4	G 1
HDS-108	108-015-10833	108-015-10842	G 1 1/2	G 1

Pump type	Displacement cm ³ /rev	P1 bar	P2 bar	P3 bar	Max. continuous speed rpm	Max. intermittent speed rpm	Min. speed rpm	Weight kg
HDS-84	84,33	350	370	400	1500	2000	300	17,8
HDS-108	107							

Max. continuous pressure (100%)
 Max. Intermittent pressure (20 sec.max.)
 Max. peak pressure (6 sec.max)



SEAL KIT - 108-903-84009

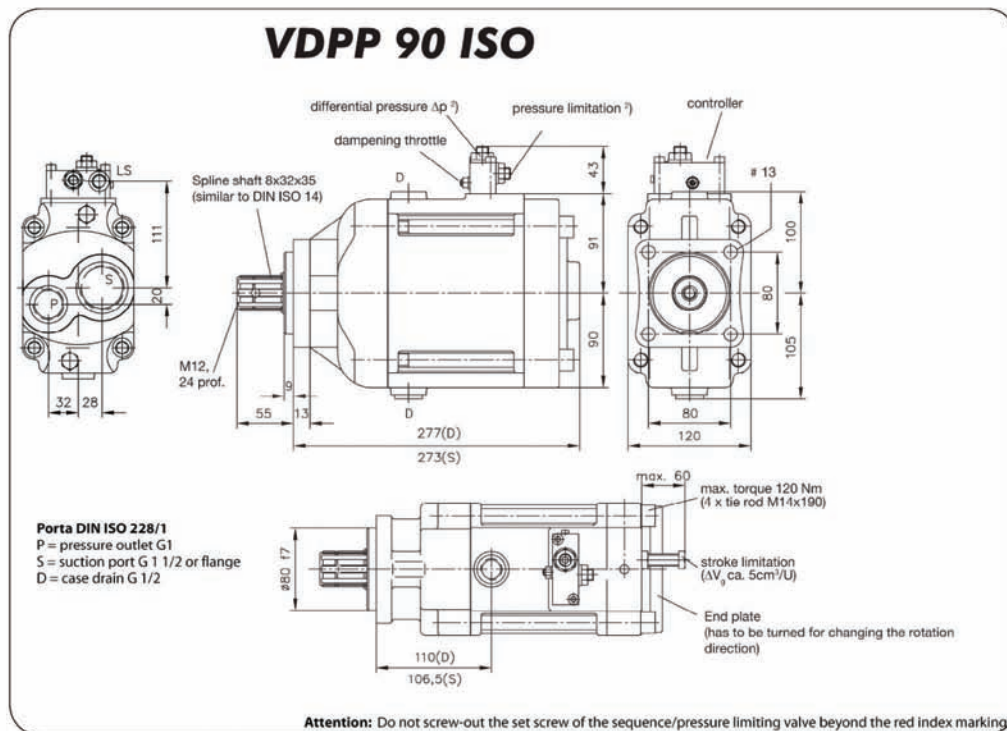




Installed position	preferably horizontal (other positions on request!)
Hydraulic fluid	hydraulic oil to DIN 51524 table 2 and 3; ISO VG 10 to 68 acc. to DIN 51519. Viscosity range: min. approx. 10; max. approx. 1000 mm ² /sec. Optimal operation range: approx. 10...35 mm ² /sec. Also suitable are biologically degradable pressure fluids type HEES (synth. Ester) at operation temperatures up to approx. +70°C.
Temperature	Ambient: approx. -40...+60°C. Fluid: -25...+80°C, pay attention to the viscosity range! Start temperature down to -40°C is allowable (Pay attention to the viscosity range during start!), as long as the operation temperature during subsequent running is at least 20K (Kelvin) higher.
Filtration	Recommended contamination level ≤ 18/13 conforming DIN ISO 4406.
Initial operation	All pipes should be flushed with the same fluid intended for the later service prior to initial operation. The housing of the pump should be primed via the upper case drain port. The case drain line must be routed in such a way the running empty is prevented. The pressure limiting valve should be set to 50 bar or lower for initial operation and the first few minutes of regular service. Attention: do not screw-out the set screw of the sequence/pressure limiting valve beyond the red index marking!

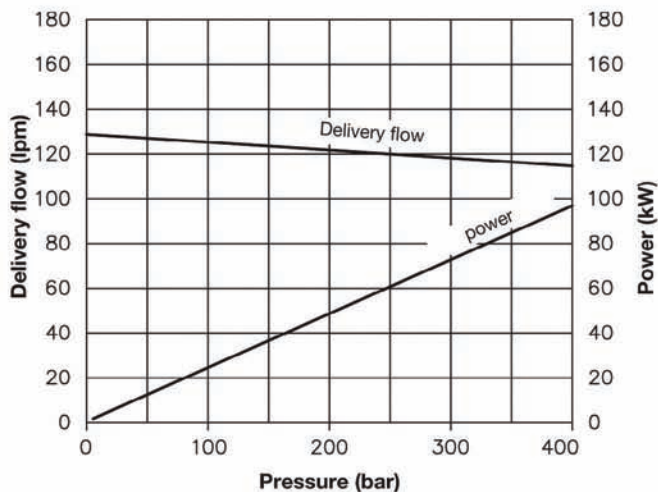
Angle of the swash plate	21,5°
Required inlet pressure abs. for open circuit	0,85 bar
Max. permissible drive torque	600 Nm
Max. rev. rating when self priming and max. angle of the swash plate at 1 bar abs. inlet pressure.	2300 rpm
Min. rev. rating for permanent running	500 rpm
Required torque at 100 bar	151 Nm
Drive power for 250 bar and 2000 rpm	79,5 kW
Weight torque	35,3 Nm
Inertia moment	0,008 kg m ²
Sound level at 250 bar, 1500 rpm and max. swash plate angle (Measured in a sound measuring room DIN ISO 4412, distance 1m)	75 dB(A)
Pressure range differential pressure	p 15...30bar (setting 25 bar)
Pressure limitation	50 ... 400 bar
Nomenclature axial piston pump according to the swash plate principle	
Direction of rotation clock wise or counter clock wise	
Changing the rotation direction turn the endplate and change the port plate.	

Pump type	Rotation		Nominal pressure bar	Maximum pressure bar	Displacement cm ³ /giro	Weight kg
	Right	Left				
VDPP 90 ISO	108-050-00903	108-050-00912	350	400	90	25,8



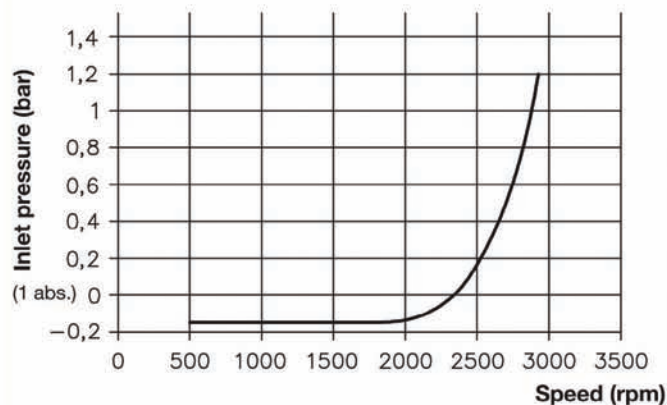
DELIVERY FLOW AND PERFORMANCE

The curves illustrate delivery flow/pressure (without) controller. Drive power at max. swash plate angle and drive power at zero stroke at 1500 rpm.



INLET PRESSURE

The curve was taken at viscosity 75 mm²/sec and max. swash plate angle.



SEAL KIT - 108-950-50897

DISTRIBUTOR PLATE - 108-950-10902 (right) 108-950-20900 (left)



We reserve the right to make changes without notice.

