

GEAR PUMP

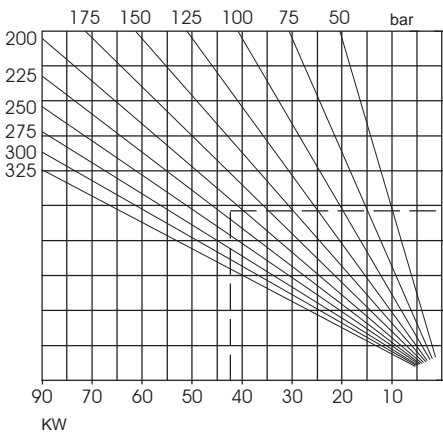
3.1.2.3.

SERIES

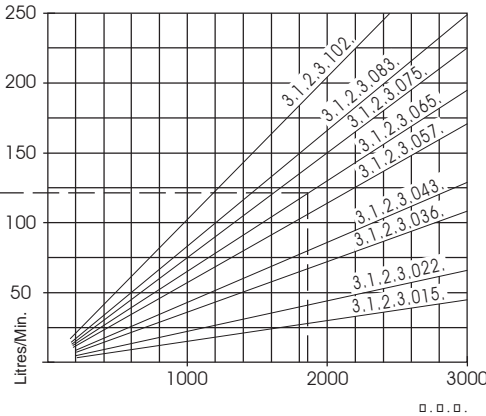
XP



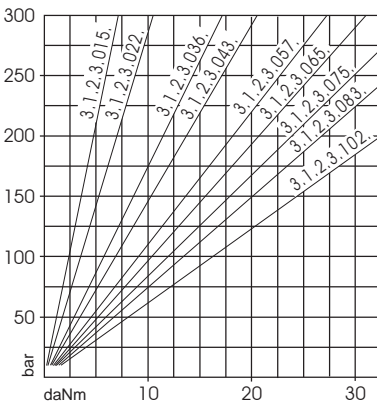
CODE	DESCR.	DISPLACEMENT		Max PRESSURE		Max SPEED R.P.M.	WEIGHT Kg.
		cm³/rev.	GMP (IMP)	Bar	PSI		
3.1.2.3.015.X.0.X	XP 15	15	3,3	315/340	4550/4950	3000	6,7
3.1.2.3.022.X.0.X	XP 22	22	4,8	305/330	4450/4800	3000	7,2
3.1.2.3.036.X.0.X	XP 36	36	7,9	300/325	4350/4700	3000	8,1
3.1.2.3.043.X.0.X	XP 43	43	9,5	280/305	4050/4450	3000	8,6
3.1.2.3.057.X.0.X	XP 57	57	12,5	260/285	3750/4150	3000	9,5
3.1.2.3.065.X.0.X	XP 65	65	14,3	240/265	3500/3850	3000	9,9
3.1.2.3.075.X.0.X	XP 75	75	16,5	220/240	3200/3500	3000	10,6
3.1.2.3.083.X.0.X	XP 83	83	18,3	210/230	3050/3350	3000	11,2
3.1.2.3.102.X.0.0	XP 102	102	22,5	180/200	2600/2900	2500	12,2



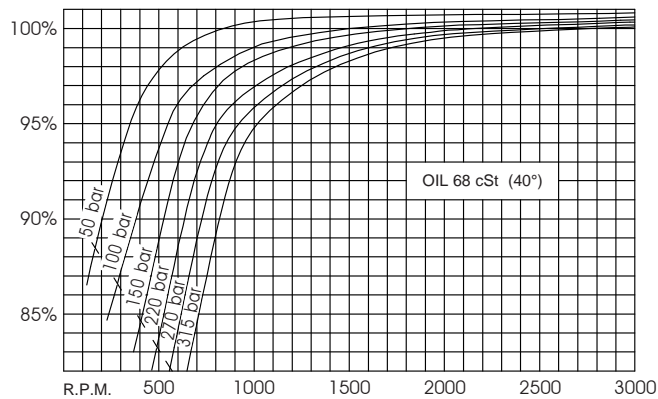
INPUT POWER



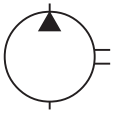
DELIVERY



INPUT TORQUE



VOLUMETRIC EFFICIENCY



3.1.2.3.XXX.X.0.X

BASIC SERIAL NUMBER

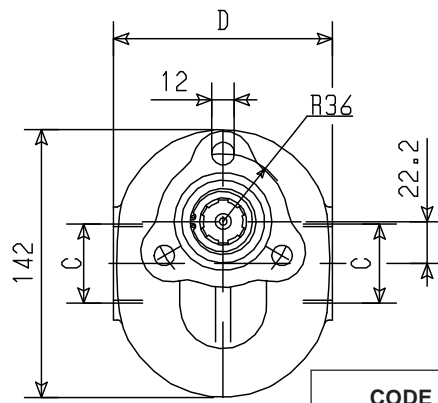
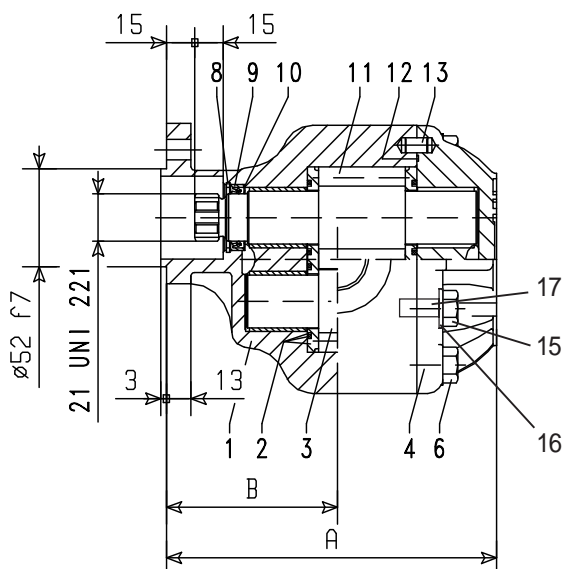
SPECIAL OPTIONS

- 0** = STANDARD OPTION
- 1** = TANDEM FITTING

DISPLACEMENT

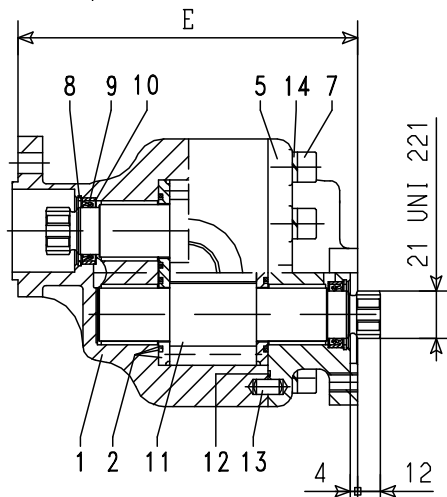
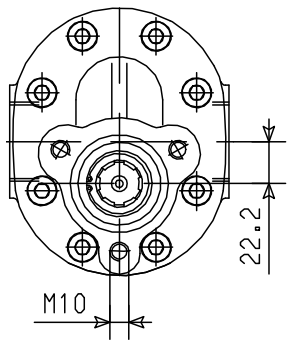
ROTATION

- 1** = ANTICLOCKWISE
- 2** = CLOCKWISE



* Pump sizes 015-057 are standard with an additional 3/4" BSPP pressure port in the rear cover for optional use.

CODE	DESCR.	DIMENSIONS			
		A	B	C	D
3.1.2.3.015.X.0.X	XP 15	139	76	G 3/4"	116
3.1.2.3.022.X.0.X	XP 22	144	76	G 3/4"	116
3.1.2.3.036.X.0.X	XP 36	154	76	G 3/4"	116
3.1.2.3.043.X.0.X	XP 43	159	90,5	G 1"	116
3.1.2.3.057.X.0.X	XP 57	169	90,5	G 1"	116
3.1.2.3.065.X.0.X	XP 65	174	90,5	G 1"	116
3.1.2.3.075.X.0.X	XP 75	182	90,5	G 1"	116
3.1.2.3.083.X.0.X	XP 83	189	90,5	G 1"	116
3.1.2.3.102.X.0.0	XP 102	201	99,5	G 1 1/4"	120



SPECIAL OPTIONS

DESCRIPTION	CODE
Adapter for double pump	1

CODE	DESCR.	DIMENSIONS
		E
3.1.2.3.015.X.0.1	XP 15 X	144
3.1.2.3.022.X.0.1	XP 22 X	149
3.1.2.3.036.X.0.1	XP 36 X	159
3.1.2.3.043.X.0.1	XP 43 X	164
3.1.2.3.057.X.0.1	XP 57 X	174
3.1.2.3.065.X.0.1	XP 65 X	179
3.1.2.3.075.X.0.1	XP 75 X	187
3.1.2.3.083.X.0.1	XP 83 X	194
3.1.2.3.102.X.0.1	XP 102 X	206

REF.	CODE	DESCRIPTION	QT.
1	2.11.012.0000	Pump body (for 3.1.2.3.015 Anticlockwise)	1
	2.11.011.0000	Pump body (for 3.1.2.3.015 Clockwise)	
	2.11.013.0000	Pump body (for 3.1.2.3.022 Anticlockwise)	
	2.11.014.0000	Pump body (for 3.1.2.3.022 Clockwise)	
	2.11.015.0000	Pump body (for 3.1.2.3.036 Anticlockwise)	
	2.11.016.0000	Pump body (for 3.1.2.3.036 Clockwise)	
	2.11.017.0000	Pump body (for 3.1.2.3.043 Anticlockwise)	
	2.11.018.0000	Pump body (for 3.1.2.3.043 Clockwise)	
	2.11.019.0000	Pump body (for 3.1.2.3.057 Anticlockwise)	
	2.11.020.0000	Pump body (for 3.1.2.3.057 Clockwise)	
	2.11.021.0000	Pump body (for 3.1.2.3.065 Anticlockwise)	
	2.11.022.0000	Pump body (for 3.1.2.3.065 Clockwise)	
	2.11.044.0000	Pump body (for 3.1.2.3.075 Anticlockwise)	
	2.11.045.0000	Pump body (for 3.1.2.3.075 Clockwise)	
2	2.06.001.0000	Thrust plate	2
	1.12.02.040.00	Driven gear (for 3.1.2.3.015)	
	1.12.02.001.00	Driven gear (for 3.1.2.3.022)	
	1.12.02.002.00	Driven gear (for 3.1.2.3.036)	
	1.12.02.003.00	Driven gear (for 3.1.2.3.043)	
	1.12.02.004.00	Driven gear (for 3.1.2.3.057)	
	1.12.02.005.00	Driven gear (for 3.1.2.3.065)	
3	1.12.02.003.00	Driven gear (for 3.1.2.3.043)	1
	1.12.02.004.00	Driven gear (for 3.1.2.3.057)	
	1.12.02.005.00	Driven gear (for 3.1.2.3.065)	
	1.12.02.048.00	Driven gear (for 3.1.2.3.075)	
	1.12.02.006.00	Driven gear (for 3.1.2.3.083)	
	1.12.02.060.00	Driven gear (for 3.1.2.3.102)	
4	2.12.004.0000	Pump cover	1
	2.12.005.0000	Tandem pump cover (for Anticlockwise rot. pump)	
5	2.12.006.0000	Tandem pump cover (for Clockwise rotating pump)	1
	2.12.023.0000	Pump cover (for 3.1.2.3.102)	
6	0.01.01.065.00	Hex screw TE M10x30 UNI 5739 10.9 (for 3.1.2.3.102)	4
	0.01.01.065.00	Hex screw TE M10x30 UNI 5739 10.9	

REF.	CODE	DESCRIPTION	QT.
7	0.01.03.005.00	Hex screw TCEI M10x30 UNI 5931 CL RES 8.8 (only for tandem pump)	8
	0.07.02.001.00	Circlip 35i UNI 7437	
8	0.07.02.001.00	Circlip 35i UNI 7437 (only for tandem pump)	2
	0.08.01.076.00	Seal BABSL 25x35x6/6,5	
9	0.08.01.076.00	Seal BABSL 25x35x6/6,5 (only for tandem pump)	2
	1.27.01.034.00	Washer 34,8x26x0,5	
10	1.27.01.034.00	Washer 34,8x26x0,5 (only for tandem pump)	2
	1.12.01.046.00	Drive gear (for 3.1.2.3.015.X.0.0)	
11	1.12.01.046.00	Drive gear (for 3.1.2.3.015.X.0.1)	1
	1.12.01.001.00	Drive gear (for 3.1.2.3.022.X.0.0)	
	1.12.01.001.00	Drive gear (for 3.1.2.3.022.X.0.1)	
	1.12.01.002.00	Drive gear (for 3.1.2.3.036.X.0.0)	
	1.12.01.002.00	Drive gear (for 3.1.2.3.036.X.0.1)	
	1.12.01.003.00	Drive gear (for 3.1.2.3.043.X.0.0)	
	1.12.01.003.00	Drive gear (for 3.1.2.3.043.X.0.1)	
	1.12.01.004.00	Drive gear (for 3.1.2.3.057.X.0.0)	
	1.12.01.004.00	Drive gear (for 3.1.2.3.057.X.0.1)	
	1.12.01.005.00	Drive gear (for 3.1.2.3.065.X.0.0)	
	1.12.01.005.00	Drive gear (for 3.1.2.3.065.X.0.1)	
	1.12.01.054.00	Drive gear (for 3.1.2.3.075.X.0.0)	
	1.12.01.054.00	Drive gear (for 3.1.2.3.075.X.0.1)	
	1.12.01.006.00	Drive gear (for 3.1.2.3.083.X.0.0)	
	1.12.01.006.00	Drive gear (for 3.1.2.3.083.X.0.1)	
	1.12.01.106.00	Drive gear (for 3.1.2.3.102.X.0.0)	
1.12.01.106.00	Drive gear (for 3.1.2.3.102.X.0.1)		
12	0.08.02.001.00	O-ring OR 2-43	1
	0.11.02.001.00	Dowel 8x12	
13	0.11.02.001.00	Dowel 8x12	2
	0.04.08.001.00	Lockwasher 10,5 DIN 7980 (only for tandem pump)	
14	0.04.08.001.00	Lockwasher 10,5 DIN 7980 (only for tandem pump)	8
	0.01.01.063.00	Hex screw TE M10x45 UNI 5737 CL RES 10.9 (for 3.1.2.3.102)	
15	0.01.01.063.00	Hex screw TE M10x45 UNI 5737 CL RES 10.9 (for 3.1.2.3.102)	4
	0.04.06.005.00	Lockwasher 10,5 DIN 137 B (for 3.1.2.3.102)	
16	0.04.06.005.00	Lockwasher 10,5 DIN 137 B (for 3.1.2.3.102)	4
	1.25.02.041.00	Bushing (for 3.1.2.3.102)	
17	1.25.02.041.00	Bushing (for 3.1.2.3.102)	4

HYDRAULIC SYSTEM

OIL

Use exclusively good quality hydraulic oil with anti-foam, anti-emulsion and anti-wear additives. The following viscosities are recommended:

very cold climate	22 cSt
cold climate	46 cSt
temperate climate	68 cSt
hot climate	100 cSt

FILTRATION

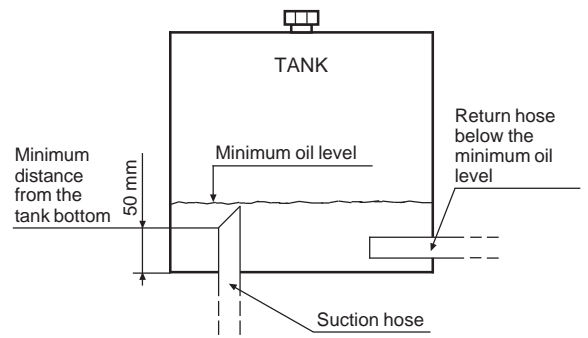
Suction filters should be avoided.

We recommend using a proper return line filter (25 micron for example).

TANK

The suction line should be approximately 50 mm above the tank floor and cut at an angle to increase the inlet section.

The return line should enter the tank well below the minimum oil level.



CLEANING THE HYDRAULIC CIRCUIT

We recommend that flushing of the system be carried out before operating a new system or after repairs.

OPERATING TEMPERATURE

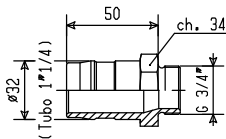
Oil temperature should be kept above -20°C and below 80°C.

SUCTION FITTINGS AND HOSES

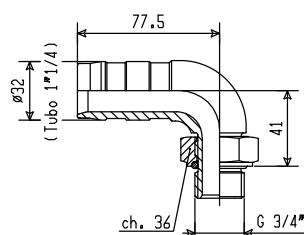
PZB low restriction suction fittings, as listed below, are recommended for easy installation.

Properly sized suction hose and clips are available on request.

Ø 32 - G 3/4"

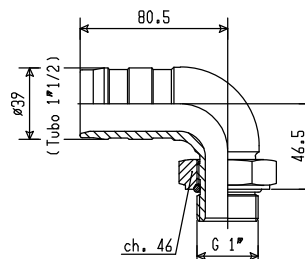


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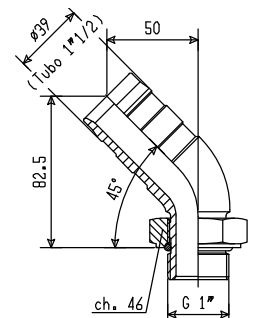


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Ø 39 - G 1"

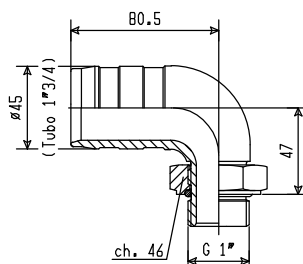


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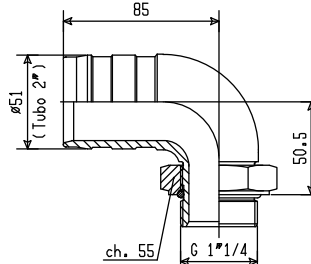
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Ø 45 - G 1"

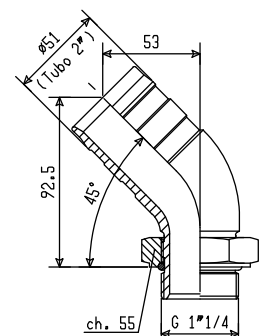


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Ø 51 - G 1"1/4



Code 2.17.009.0000



Code 2.17.015.0000

CALCULATING THE TORQUE

$$M \text{ (torque, kgm)} = \frac{P \text{ (working pressure, Bar)} \times V \text{ (pump displacement, litres/min at 1000 rpm)}}{628}$$

$$\text{Example pump 3.1.2.3.036 : } \frac{200 \text{ Bar (P)} \times 36 \text{ lt. (V)}}{628} = 11,4 \text{ kgm (M)}$$

Caution: the calculated torque M shall not exceed the rated torque of the PTO.

CALCULATING THE POWER

$$N \text{ (power, HP)} = \frac{Q \text{ (flow, litres/min.)} \times P \text{ (working pressure, Bar)}}{450}$$