# GROUP 1 PUMPS

**GEAR HOUSING**

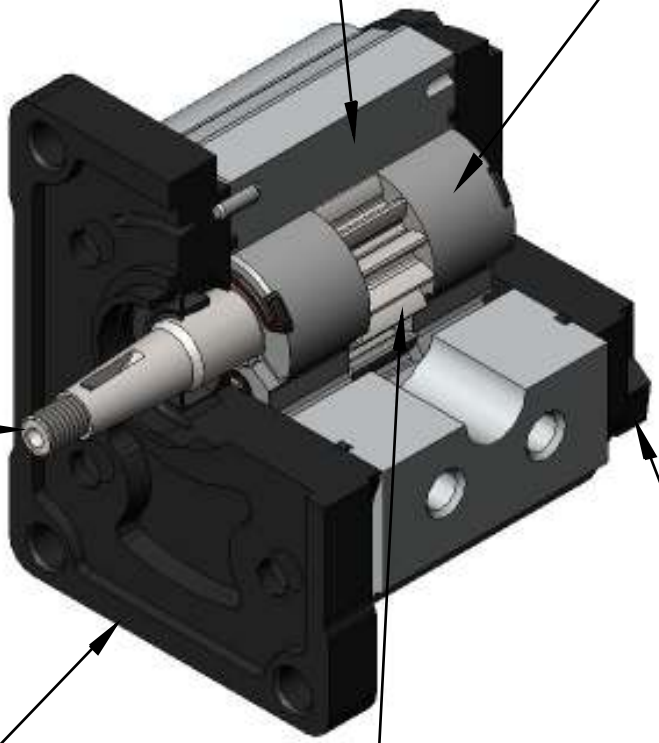
Extruded in aluminium alloy

**DRIVE SHAFTS**

Choice of several standard drive shafts

**BEARINGS**

Hi-resistant aluminium alloy with DU sleeve bearings to offer high performances.



**MOUNTING FLANGES**

Choice of several mounting flanges in cast iron

**GEARS**

Designed specifically to reduce the noise level and offer the best performance between flow pulsation and displacements

**COVER**

Made in cast iron material and available with suction port

# GROUP 1 PUMPS

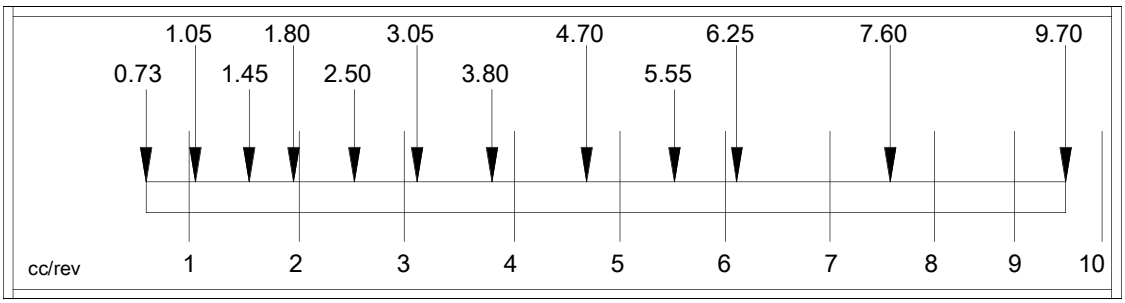
## CONSTRUCTIVE CHARACTERISTICS:

| PART | MATERIAL | CHARACTERISTICS |
|---|---|---|
| GEARS | **Hardened steel UNI 7846** | **Rs= 1250 N/mm$^2$**<br>**Rm= 1450 N/mm$^2$** |
| FLANGE AND COVER | **G25 / G30 cast iron** | **Rs= 300 N/mm$^2$**<br>**Rm= 450 N/mm$^2$** |
| BEARINGS | **Sical 3**<br>**Bearings with DU** | **Rs= 350 N/mm$^2$**<br>**Rm= 390 N/mm$^2$** |
| BODY | **Etruded in aluminium alloy**<br>**Series 7020** | **Rs= 350 N/mm$^2$**<br>**Rm= 390 N/mm$^2$** |
| O-RINGS | **Buna N**<br>**Viton** | **90 Shore, up to 90°C**<br>**80 Shore, for high temperature** |
| ANTIEXTRUSION | **Zitel** | **With glass fibres** |

**Rs= Enervation load**
**Rm= Breaking load**

## GENERAL CHARACTERISTICS:

**Maximum pressures up to 300 bar**
**Weight : from 0.9 Kg to 1.6 kg**
**Maximum speed up to 5.000 rpm**
**Type of shafts:** **Taper 1:8**
**Oldham**
**Slined DIN 5482**
**SAE AA**
**Keyed**
**Type of flanges:** **European standard**
**Standard for power units**
**SAE AA standard**
**Displacements from 0.73 cc/rev to 9.9 cc/rev**
**The displacements are available according this table:**




**There is also available a special version with built-in support and a bigger taper 1:8 shaft ( diameter Ø14 ) for 9.9 cc/rev pump.**
**In the range there are tandem pumps with unloading valve in the back cover and pumps with built in maximum pressure relief valve ( with internal or external drain )**

## DRIVE:

**The connection of the pump to the motor must be done preferably with the use of a flexible coupling to avoid any radial and/or axial force on the shaft, otherwise pump efficiency will dramatically drop due to early wear of inner moving parts.**
**In any applications where the motion is trasmitted through belts, it is necessary to use a support to avoid any radial or axial load to the pump shaft.**
**In any applications where are used splined shafts ot Oldham couplings, it is suggested to assure a costant lubrification through grease or similar products.**

# GROUP 1 PUMPS

## WORKING CONDITIONS- LIMIT PERFORMANCES

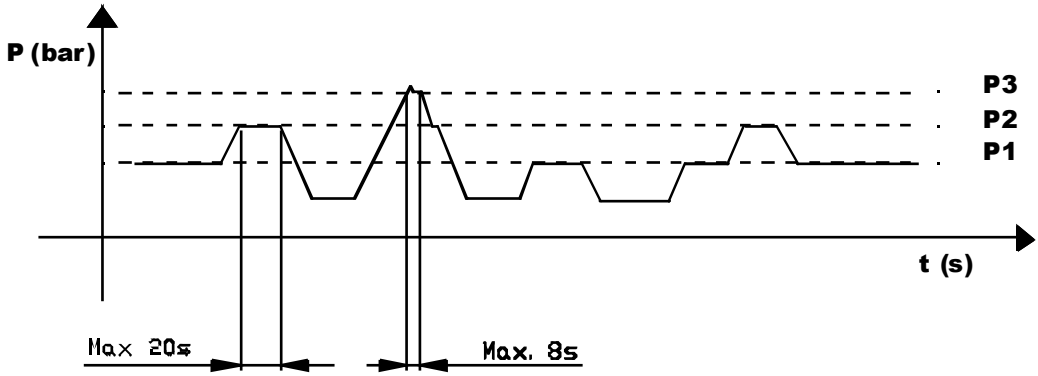
**In normal working conditions there must be, in the suction pipe, a pressure lower than the atmospheric pressure.**

**The pressure range in suction must be:**

| | |
|---|---|
| Min. 0.75 bar (absolute) | Max 2,0 bar (absolute) |

**The maximun pressure values "P1" are referred to a continuous working at 1500 rpm with standard hydraulic fluids with minimum viscosity of 10 cSt.**
**For heavier working conditions ( viscosity or high temperature ) it is necessary to reduce the "P1" values.**

**In the following table are described the admitted pressures:**

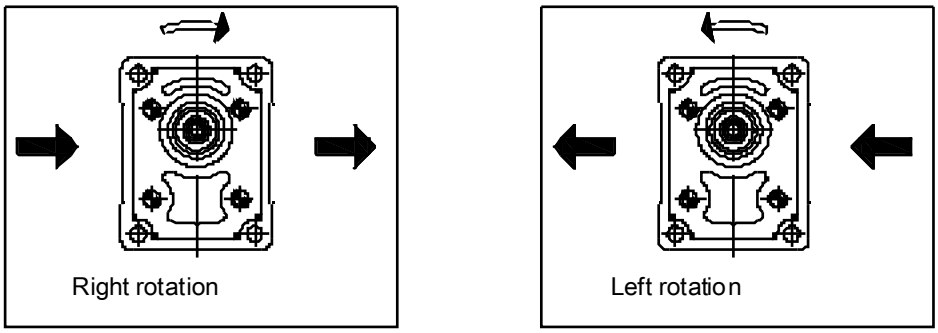



P3 Maximum peak pressure.
P2 Maximum intermittent pressure.
P1 Maximum continuous pressure.

**The standard working speeds ( minimum and maximum) are the following:**

| | |
|---|---|
| Min. = 750 rpm | Max = ( See following tables ) |

## DIRECTION OF ROTATION LOOKING AT THE SHAFT:



# GROUP 1 PUMPS

## FLUID FILTRATION

**It is known that in many cases the premature pump performances reduction is due to a non correct filtration in the circuit.**
**The presence of contamination particles in the fluid usually corresponds to an irreparable wear of the pump internal parts.**
**It is raccomanded to pay attention to the plant cleaning, mainly in the starting activity.**
**The starting fluid contamination it must be according to the Norms ISO 4406 and it should not exceed the Class 19/16 with a filter 3x75.**

**Here below the technical parameters to respect:**

| | |
|---|---|
| FILTRATION IN SUCTION LINE | **30 / 60 Nominal micron** |
| FILTRATION IN PRESSURE LINE | **10 / 25 absolute micron** |
| MAXIMUM SPEED IN SUCTION | **0.5 / 1.5 m/s** |
| MAXIMUM SPEED IN OUTPUT | **3.0 / 5.5 m/s** |

**Sometime in contaminated places it is racommended to improve the filtration in pressure line and fit also an air filter.**

## HYDRAULIC FLUIDS

**It is recommended the use of fluids made for hydraulic circuits.**
**Usually they are hydraulic oils with mineral basis HLP HV ( DIN 51524 ).**
**Here below the technical parameters to respect:**

| | |
|---|---|
| MINIMUM VISCOSITY | **10 $mm^2/s$** |
| MAXIMUM VISCOSITY | **100 $mm^2/s$** |
| SUGGESTED VISCOSITY | **20 $mm^2/s$ / 100 mm /s** |
| SUGGESTED TEMPERATURE | **30°C / 50°C** |
| WORKING TEMPERATURE | **-15°C / +80°C** |

**For applications with water-glycol ( HF-C ) it is racommended to consider the following limitations: 1500 rpm maximum speed and 200 bar maximum pressure.**
**For applications with phosphate ester fluids, please contact our Technical department.**

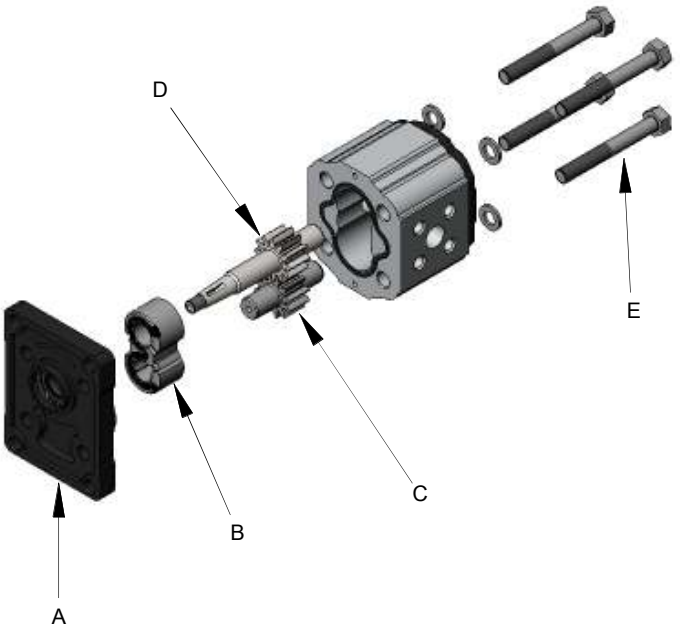
## ISTALLATION INSTRUCTION

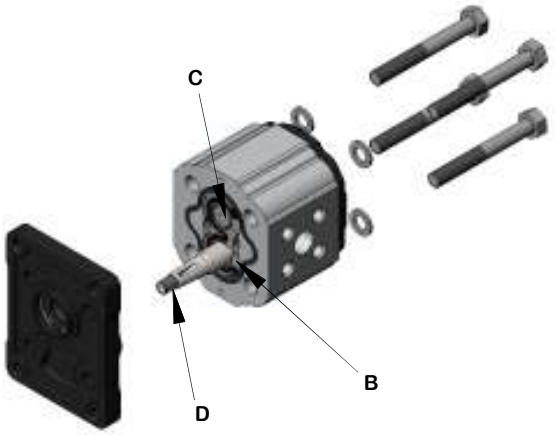
**During the first starting it is racommended:**
**- to set the maximum pressure relief valves to a low value and gradually increase the pressure.**
**- to check, with single rotation pumps, that the rotation direction it is correct.**
**- to check that the connection betwen the motor and pump shaft is correct: without radial or axial load.**
**- to avoid starting under pressure in low temperature conditions or after long period of inactivity**
**- to check the fluid level in the tank**
**- to disconnect the return pipe and purge any air in the circuit**
**- to protect the pumpshaft seal when painting power pack**
**- to use suitable systems in the return lines to tank, to avoid turbulence in the circuit and ingress of air, water or contamination**
**- to check the torque that must be lower than the maximum torque admissible on the pump shaft**
**- to use new oil filters with absence of water or any other emulsifying substance**
**- to avoid starting with a air-oil solution**
**It is important to specify an oil tank at least twice the flow from the pump.**

# GROUP 1 PUMPS- CHANGING ROTATION

**TO CHANGE ROTATION OF OT100 PUMP IT'S NECESSARY TO OPERATE IN THE FOLLOWING WAY:**

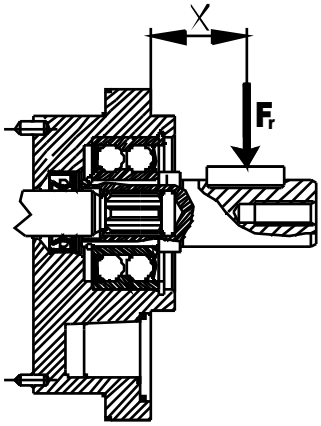
1. **Clean the pump externally with care.**
2. **Loosen, and remove, the clamp bolts (E).**
3. **Coat the sharp edges of the drive shaft (D) with adesive tape and smear a layer of clean grease on the shaft end extension to avoid damaging the lip of the shaft seal when removing the mounting flange.**
4. **Remove the mounting flange (A), taking care to keep the flange as straight as possible during removal. Ensure that while removing the front mounting flange, the drive shaft and other components ramain in position.**
5. **Ease the drive gear (D) up to facilitate removal of bearings (B), taking care that the precision ground surfaces do not become damaged, and removed the drive gear.**
6. **Remove the driven gear (D) without overturning. The rear flange has not to be removed.**
7. **Re-locate the driven gear (C) in the position previously occupied by the drive gear (D).**
8. **Re-locate the drive gear (D) in the position previously occupied by the driven gear (C).**
9. **Replace the front flange (A) in its original position.**
10. **Gently wipe the machined surface of the front flange (A) and the body with a canvas.**
11. **Refit the front mounting flange (A) turned by 180° from its original position.**
12. **Refit the clamp bolts (E).(SCREW TIGHTENING TORQUE = 28 Nm)**
13. **Check that the pump rotates freely when the drive shaft (D) is turned by hand. If not a pressure plate seal may be pinched.**
14. **The pump is ready for installation with the original rotation reversed.**




# GROUP 1 PUMPS- WITH FRONT BEARING

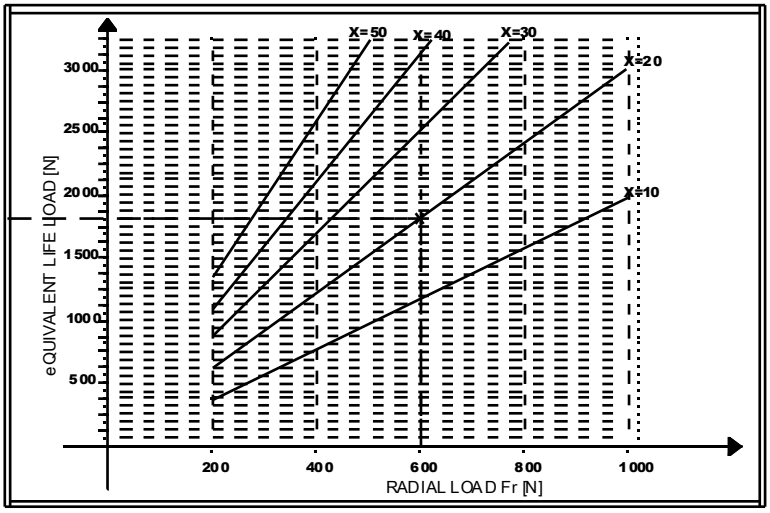
**VERIFY OF BEARING LIFE**

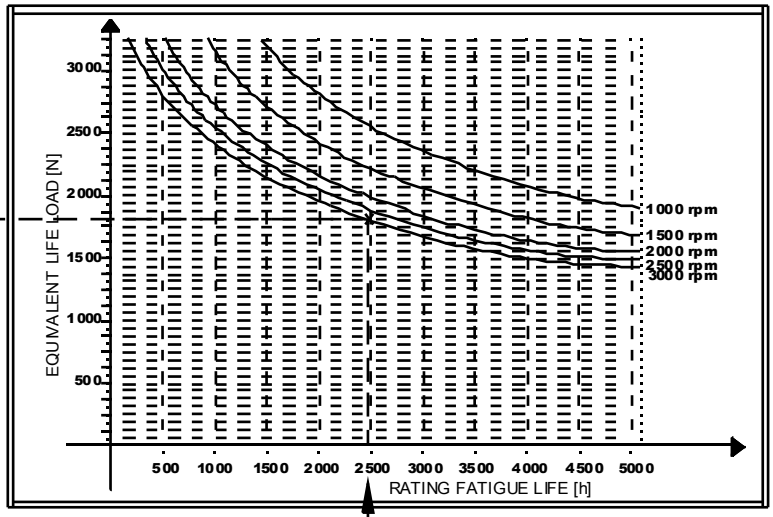



**X = Distance of the radial flange result from the mounting flange**

**Each curve has been obtained at:**
**Lubrificant oil ISO VG 46**
**Temperature 60° C (140° F)**
**Without or with very low axial load**

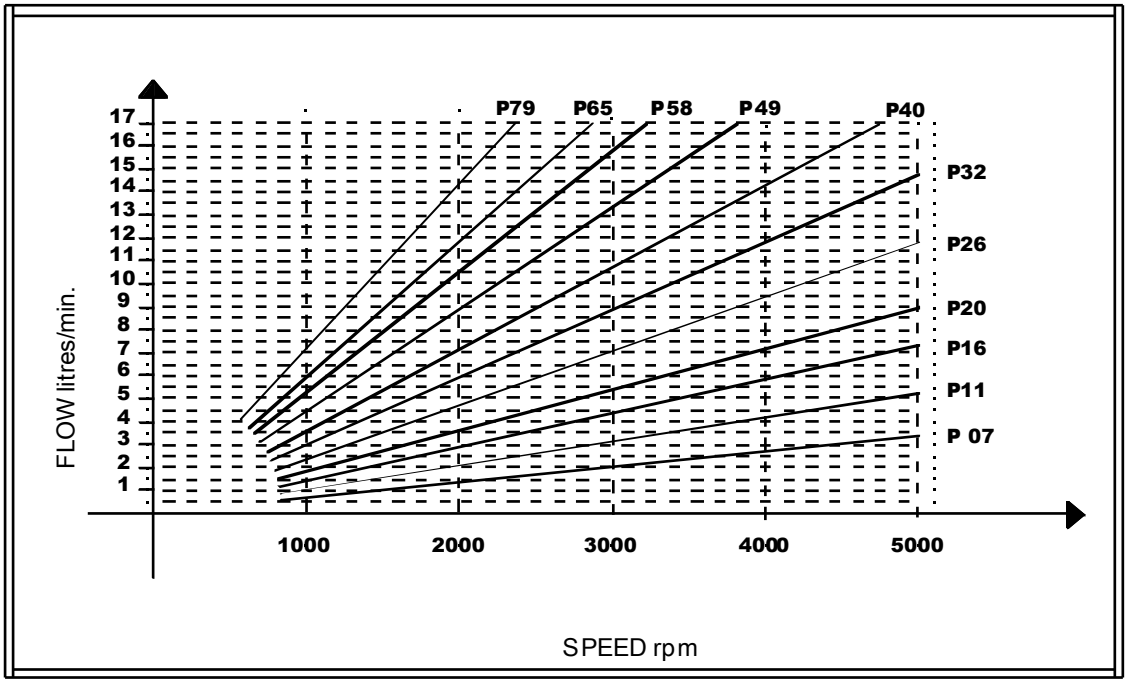
**Example**
**Fr = 600 N**
**X = 20 mm**
**Speed = 3000 rpm**
**Rating fatigue life ≈ 2500 h**



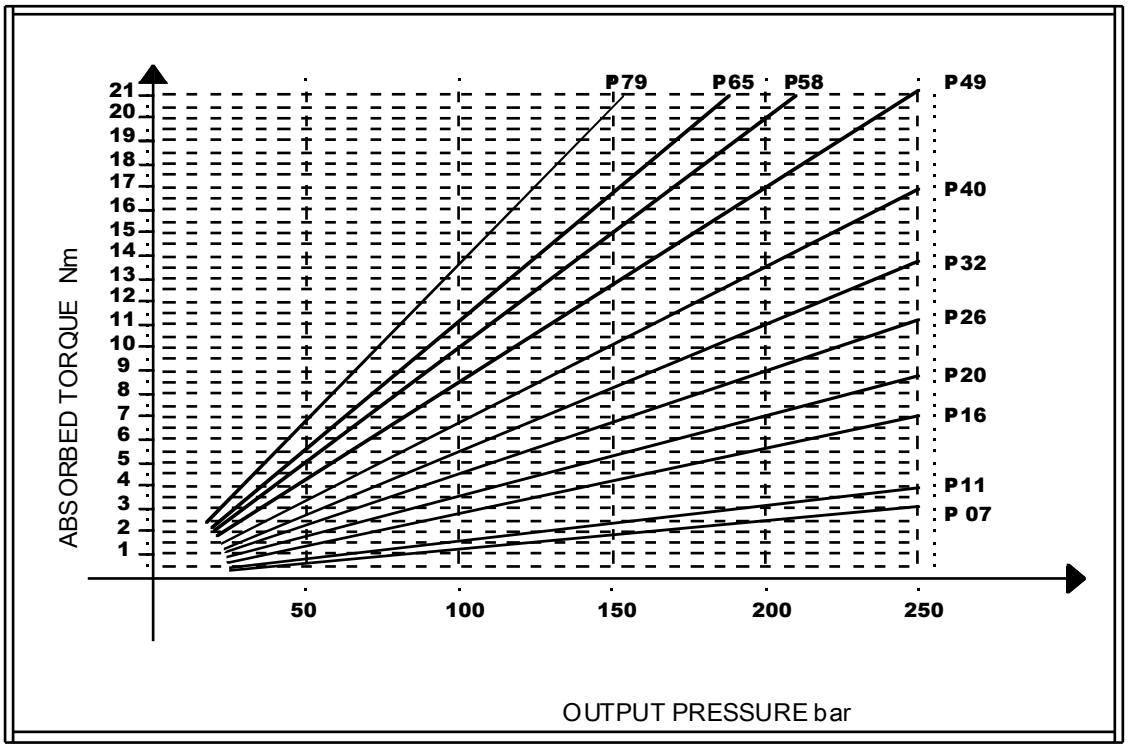



# GROUP 1 PUMPS

**FLOW CHARACTERISTICS CURVES**




**ABSORBED TORQUE**




**NOTE**

**Above flow characteristics curves have been made considering a volumetric efficiency of 95%**

## PUMP CALCULATION

| | | |
|---|---|---|
| V | **Displacement** | **cc / rev** |
| Q | **Flow** | **l/min** |
| P | **Power** | **kW** |
| C | **Torque** | **N · m** |
| N | **Speed** | **rpm** |
| $\Delta P$ | **Pressure** | **bar** |
| $n_v$ | **Volumetric efficiency** | **0.95** |
| $n_m$ | **Mechanical efficiency** | **0.9** |
| $n_t$ | **Total efficiency** | **0.85** |

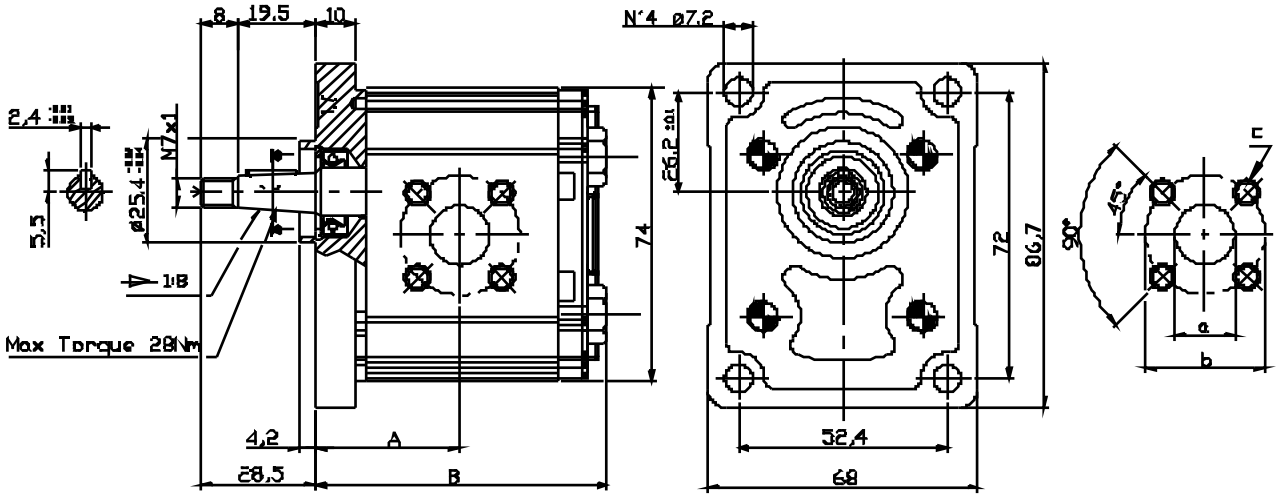
$$Q = V \cdot n_v \cdot N \cdot 10^{-3} \qquad l/min$$

$$C = \frac{\Delta P \cdot V}{62.8 \cdot n_m} \qquad N \cdot m$$

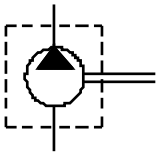
$$P = \frac{\Delta P \cdot V \cdot N}{612000 \cdot n_t} \qquad kW$$

# GROUP 1 PUMPS- EUROPEAN STANDARD

**VERSION:** B18 P1




| Port | a | b | c |
|---|---|---|---|
| | mm | mm | Thread |
| Outlet | 13 | 30 | M6x12 |
| Inlet | 13 | 30 | M6x12 |



| Type | Displacement (cc/rev) | Max working pressure P1 (bar) | Peak pressure P3 (bar) | Max speed (r.p.m) | Dimension A (mm) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) | Code (Anti-clockwise) | Code (Clockwise) |
|---|---|---|---|---|---|---|---|---|---|
| OT 100 P07 | 0.73 | 200 | 240 | 5000 | 31.30 | 64.5 | 1.8 | PS1007081S | PS1007081D |
| OT 100 P11 | 1.05 | 250 | 290 | 5000 | 31.90 | 65.6 | 2.4 | PS1007082S | PS1007082D |
| OT 100 P16 | 1.45 | 260 | 300 | 5000 | 32.75 | 67.3 | 4.2 | PS1007083S | PS1007083D |
| OT 100 P20 | 1.80 | 260 | 300 | 5000 | 33.45 | 68.7 | 5.2 | PS1007084S | PS1007084D |
| OT 100 P25 | 2.45 | 260 | 300 | 5000 | 34.50 | 70.8 | 6.7 | PS1007085S | PS1007085D |
| OT 100 P32 | 3.05 | 260 | 300 | 5000 | 35.50 | 72.8 | 8.3 | PS1007086S | PS1007086D |
| OT 100 P40 | 3.80 | 260 | 300 | 4500 | 36.90 | 75.6 | 10.1 | PS1007087S | PS1007087D |
| OT 100 P49 | 4.70 | 240 | 280 | 4500 | 38.45 | 78.7 | 12.7 | PS1007088S | PS1007088D |
| OT 100 P58 | 5.55 | 200 | 240 | 4000 | 40.00 | 81.8 | 15.0 | PS1007089S | PS1007089D |
| OT 100 P65 | 6.25 | 190 | 230 | 3750 | 41.25 | 84.3 | 16.8 | PS1007090S | PS1007090D |
| OT 100 P79 | 7.60 | 170 | 220 | 3500 | 43.60 | 89.0 | 20.5 | PS1017091S | PS1017091D |

## EXAMPLE OF ORDERING CODE

**OT100 P 20 S / B 18 P1**

- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S / B — Rotation

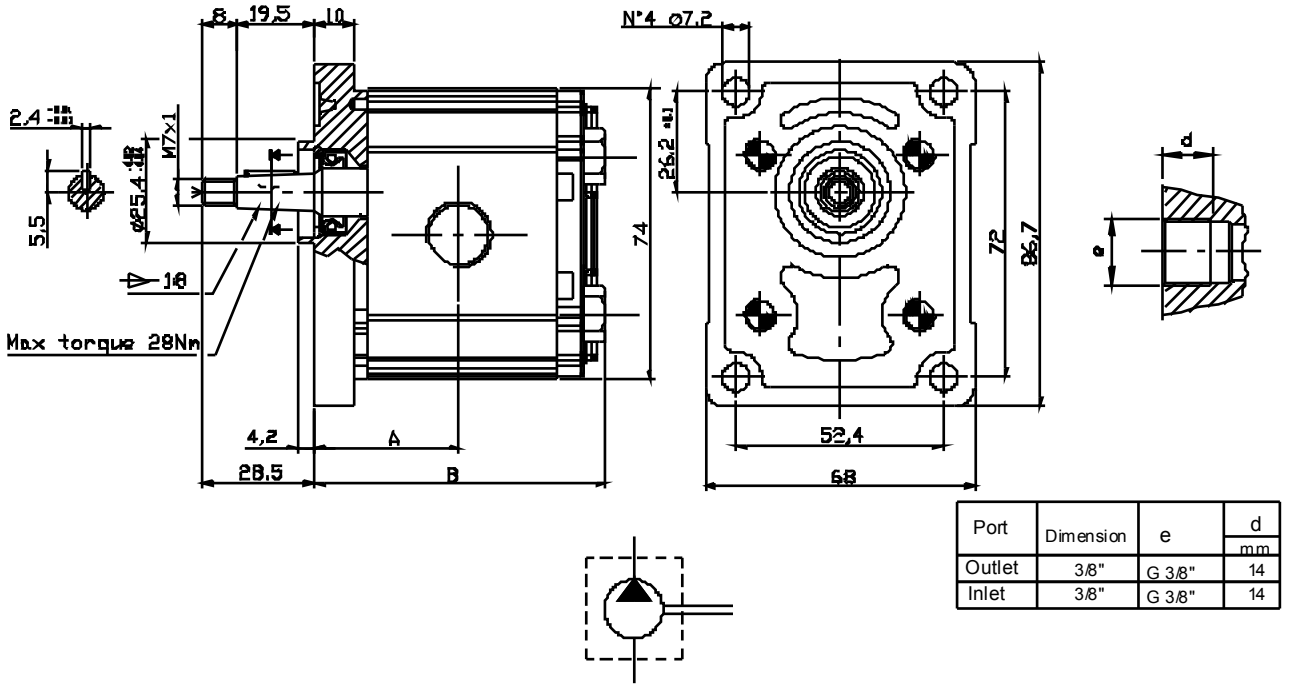
| | |
|---|---|
| S | Anti-clockwise |
| D | Clockwise |

- 18 — Taper shaft ( 1:8 )
- P1 — European standard flange
- B — Body for European flanges

AVAILABLE FOR QUANTITIES

# GROUP 1 PUMPS- EUROPEAN STANDARD

**VERSION:** G18 P1




| Port | Dimension | e | d mm |
|---|---|---|---|
| Outlet | 3/8" | G 3/8" | 14 |
| Inlet | 3/8" | G 3/8" | 14 |



| Type | Displacement ( cc/rev ) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( r.p.m) | Dimension A (mm) | Dimension B (mm) | Absorbed torque at 150 bar ( Nm ) | Code ( Anti-clockwise ) | Code ( Clockwise ) |
|---|---|---|---|---|---|---|---|---|---|
| OT 100 P07 | 0.73 | 200 | 240 | 5000 | 31.30 | 64.5 | 1.8 | PS1007061S | PS1007061D |
| OT 100 P11 | 1.05 | 240 | 280 | 5000 | 31.90 | 65.6 | 2.4 | PS1007062S | PS1007062D |
| OT 100 P16 | 1.45 | 260 | 300 | 5000 | 32.75 | 67.3 | 4.2 | PS1007063S | PS1007063D |
| OT 100 P20 | 1.80 | 260 | 300 | 5000 | 33.45 | 68.7 | 5.2 | PS1007064S | PS1007064D |
| OT 100 P25 | 2.45 | 260 | 300 | 5000 | 34.50 | 70.8 | 6.7 | PS1007065S | PS1007065D |
| OT 100 P32 | 3.05 | 260 | 300 | 5000 | 35.50 | 72.8 | 8.3 | PS1007066S | PS1007066D |
| OT 100 P40 | 3.80 | 260 | 300 | 4500 | 36.90 | 75.6 | 10.1 | PS1007067S | PS1007067D |
| OT 100 P49 | 4.70 | 240 | 280 | 4500 | 38.45 | 78.7 | 12.7 | PS1007068S | PS1007068D |
| OT 100 P58 | 5.55 | 200 | 240 | 4000 | 40.00 | 81.8 | 15.0 | PS1007069S | PS1007069D |
| OT 100 P65 | 6.25 | 190 | 230 | 3750 | 41.25 | 84.3 | 16.8 | PS1007070S | PS1007070D |
| OT 100 P79 | 7.60 | 170 | 220 | 3500 | 43.60 | 89.0 | 20.5 | PS1017071S | PS1017071D |

## EXAMPLE OF ORDERING CODE

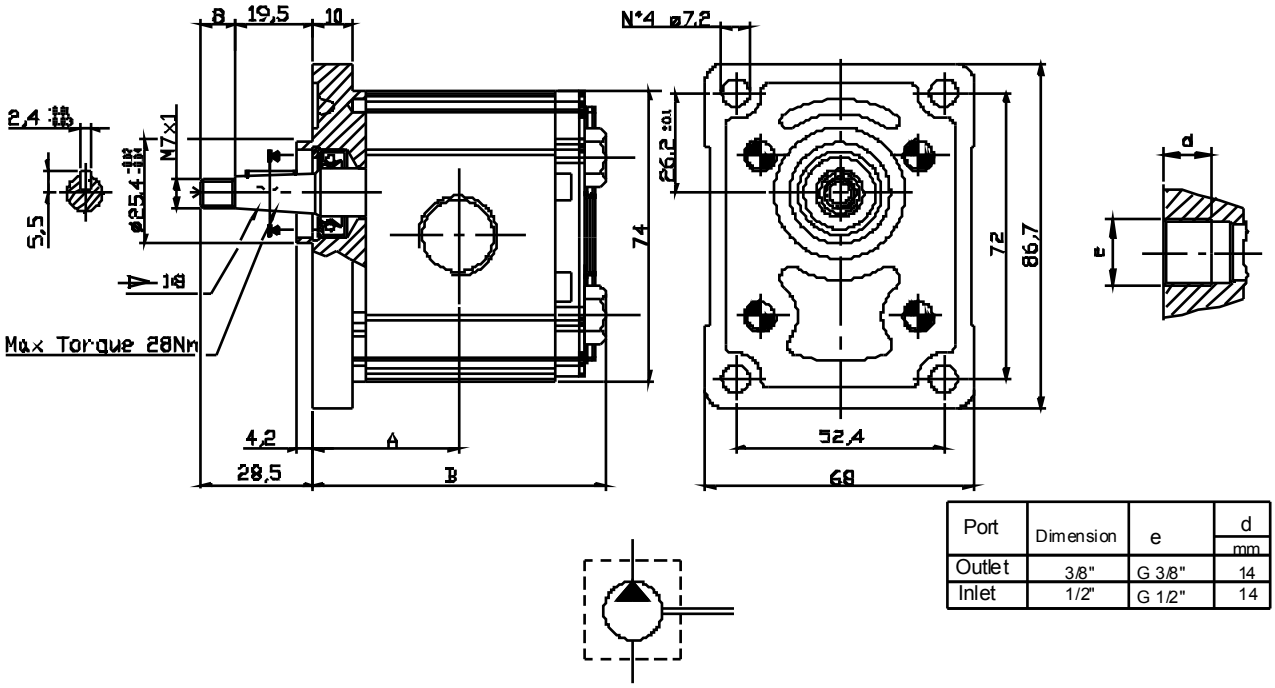
**OT100 P 20 S / G 18 P1**

- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S — Rotation: S Anti-clockwise, D Clockwise
- G — Body with threated ports ( BSP )
- 18 — Taper shaft ( 1:8 )
- P1 — European standard flange

AVAILABLE FOR QUANTITIES

# GROUP 1 PUMPS- EUROPEAN STANDARD

**VERSION:** G2 18 P1




| Port | Dimension | e | d mm |
|---|---|---|---|
| Outlet | 3/8" | G 3/8" | 14 |
| Inlet | 1/2" | G 1/2" | 14 |

| Type | Displacement ( cc/rev ) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( r.p.m) | Dimension A ( mm ) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) | Code ( Anti-clockwise ) | Code ( Clockwise ) |
|---|---|---|---|---|---|---|---|---|---|
| **OT 100 P49** | 4.70 | 240 | 280 | 4500 | 38.45 | 78.7 | 12.7 | PS1027035S | PS1027035D |
| **OT 100 P58** | 5.55 | 200 | 240 | 4000 | 40.00 | 81.8 | 15.0 | PS1027036S | PS1027036D |
| **OT 100 P65** | 6.25 | 190 | 230 | 3750 | 41.25 | 84.3 | 16.8 | PS1027037S | PS1027037D |
| **OT 100 P79** | 7.60 | 170 | 220 | 3500 | 43.60 | 89.0 | 20.5 | PS1027038S | PS1027038D |

## EXAMPLE OF ORDERING CODE

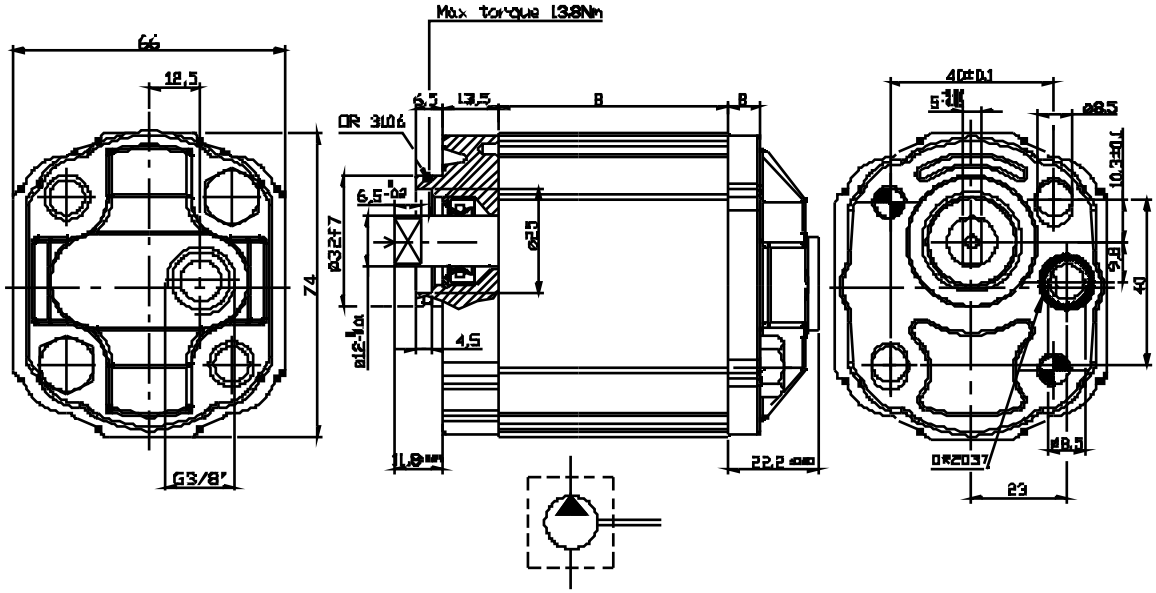
**OT100 P 65 S / G2 18 P1**

- OT100 — Series
- P — Pump
- 65 — Displacement ( see above table )
- S — Rotation: S Anti-clockwise, D Clockwise
- G2 — Body with threated ports ( BSP ) Inlet G 1/2"
- 18 — Taper shaft ( 1:8 )
- P1 — European standard flange

AVAILABLE FOR QUANTITIES

# GROUP 1 PUMPS- FOR POWER UNITS

**VERSION:** N 14 B2




| Type | Displacement ( cc/ rev) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( rpm ) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) | Code ( Clockwise ) |
|---|---|---|---|---|---|---|---|
| **OT 100 P07** | 0.73 | 200 | 240 | 5000 | 36.7 | 1.8 | PS1007001D |
| **OT 100 P11** | 1.05 | 240 | 280 | 5000 | 37.8 | 2.4 | PS1007002D |
| **OT 100 P16** | 1.45 | 260 | 300 | 5000 | 39.5 | 4.2 | PS1007003D |
| **OT 100 P20** | 1.80 | 240 | 300 | 5000 | 40.9 | 5.2 | PS1007004D |
| **OT 100 P26** | 2.45 | 240 | 280 | 5000 | 43.0 | 6.7 | PS1007005D |
| **OT 100 P32** | 3.05 | 240 | 280 | 5000 | 45.0 | 8.3 | PS1007006D |
| **OT 100 P40** | 3.80 | 220 | 260 | 4500 | 47.8 | 10.1 | PS1007007D |
| **OT 100 P49** | 4.70 | 200 | 240 | 4500 | 50.9 | 12.7 | PS1007008D |
| **OT 100 P58** | 5.55 | 180 | 220 | 4000 | 54.0 | 15.0 | PS1007009D |
| **OT 100 P65** | 6.25 | 160 | 200 | 3750 | 56.5 | 16.8 | PS1007010D |
| **OT 100 P79** | 7.60 | 140 | 180 | 3500 | 61.2 | 20.5 | PS1017001D |

## EXAMPLE OF ORDERING CODE

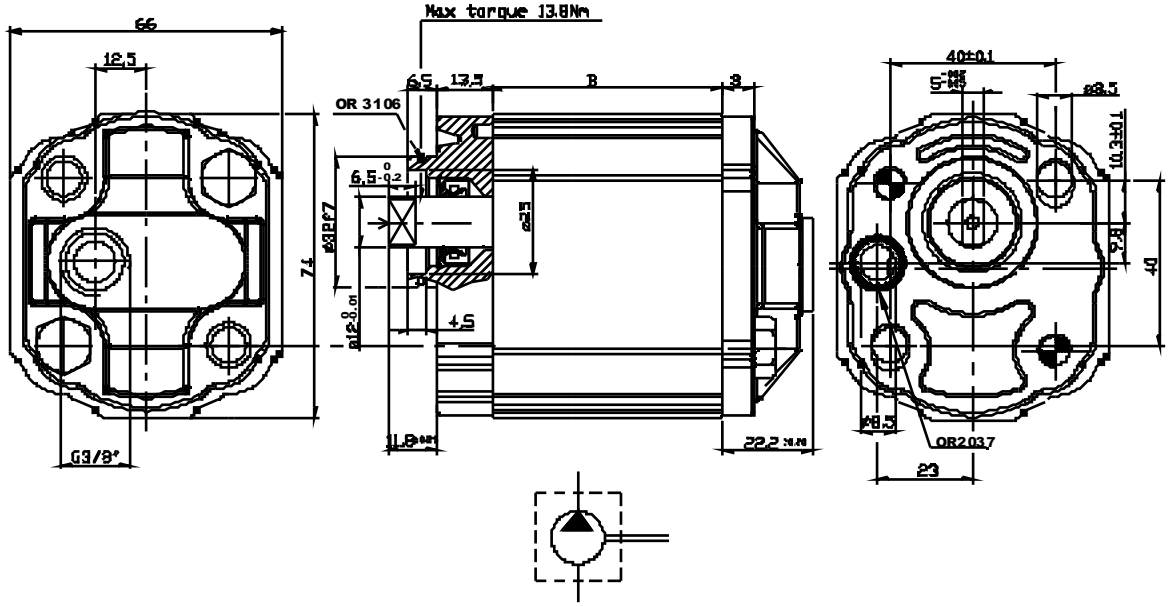
**OT100 P 20 D / N 14 B2**

- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- D — Rotation: D = clockwise
- N — Body without ports
- 14 — Tang shaft
- B2 — B2= Flange for clockwise

Screws tightening torque : 28÷30 Nm

# GROUP 1 PUMPS **FOR POWER UNITS**

**VERSION:** N 14 B1




| Type | Displacement (cc/ rev) | Max working pressure P1 (bar) | Peak pressure P3 (bar) | Max speed (rpm) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) | Code (Anti- Clockwise) |
|---|---|---|---|---|---|---|---|
| **OT 100 P07** | 0.73 | 200 | 240 | 5000 | 36.7 | 1.8 | PS1007001S |
| **OT 100 P11** | 1.05 | 240 | 280 | 5000 | 37.8 | 2.4 | PS1007002S |
| **OT 100 P16** | 1.45 | 260 | 300 | 5000 | 39.5 | 4.2 | PS1007003S |
| **OT 100 P20** | 1.80 | 240 | 300 | 5000 | 40.9 | 5.2 | PS1007004S |
| **OT 100 P26** | 2.45 | 240 | 280 | 5000 | 43.0 | 6.7 | PS1007005S |
| **OT 100 P32** | 3.05 | 240 | 280 | 5000 | 45.0 | 8.3 | PS1007006S |
| **OT 100 P40** | 3.80 | 220 | 260 | 4500 | 47.8 | 10.1 | PS1007007S |
| **OT 100 P49** | 4.70 | 200 | 240 | 4500 | 50.9 | 12.7 | PS1007008S |
| **OT 100 P58** | 5.55 | 180 | 220 | 4000 | 54.0 | 15.0 | PS1007009S |
| **OT 100 P65** | 6.25 | 160 | 200 | 3750 | 56.5 | 16.8 | PS1007010S |
| **OT 100 P79** | 7.60 | 140 | 180 | 3500 | 61.2 | 20.5 | PS1017001S |

## EXAMPLE OF ORDERING CODE

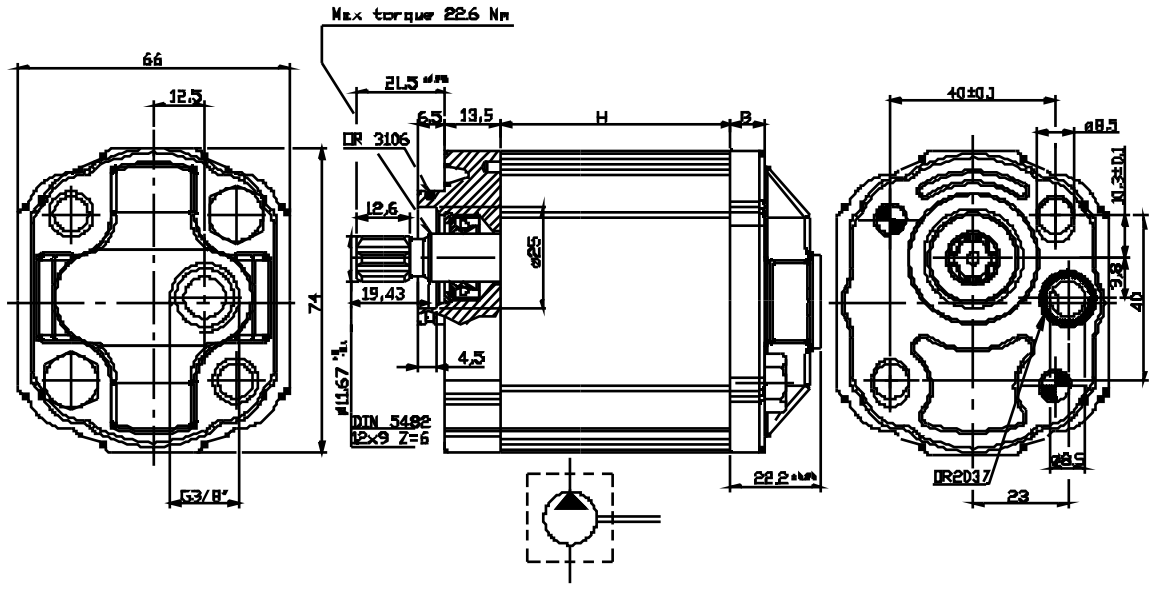
**OT100 P 20 S / N 14 B1**

- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S — Rotation: S = Anti-clockwise
- N — Body without ports
- 14 — Tang shaft
- B1 — B1= Flange for Anti-clockwise

Screws tightening torque : 28 ÷ 30 Nm

# GROUP 1 PUMPS- FOR POWER UNITS

**VERSION:** N 16 B2




| Type | Displacement (cc/rev) | Max working pressure P1 (bar) | Peak pressure P3 (bar) | Max speed (rpm) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) | Code (Clockwise) |
|---|---|---|---|---|---|---|---|
| **OT 100 P07** | 0.73 | 200 | 240 | 5000 | 36.7 | 1.8 | PS1007101D |
| **OT 100 P11** | 1.05 | 240 | 280 | 5000 | 37.8 | 2.4 | PS1007102D |
| **OT 100 P13** | 1.25 | 240 | 280 | 5000 | 38.5 | 2.4 | PS1007102D |
| **OT 100 P16** | 1.45 | 260 | 300 | 5000 | 39.5 | 4.2 | PS1007103D |
| **OT 100 P20** | 1.80 | 240 | 300 | 5000 | 40.9 | 5.2 | PS1007104D |
| **OT 100 P26** | 2.50 | 240 | 280 | 5000 | 43.0 | 6.7 | PS1007105D |
| **OT 100 P32** | 3.05 | 240 | 280 | 5000 | 45.0 | 8.3 | PS1007106D |
| **OT 100 P40** | 3.80 | 220 | 260 | 4500 | 47.8 | 10.1 | PS1007107D |
| **OT 100 P43** | 4.30 | 200 | 240 | 4500 | 49.5 | 12.0 | PS1027075D |
| **OT 100 P49** | 4.70 | 200 | 240 | 4500 | 50.9 | 12.7 | PS1007108D |
| **OT 100 P58** | 5.55 | 180 | 220 | 4000 | 54.0 | 15.0 | PS1007109D |
| **OT 100 P65** | 6.25 | 160 | 200 | 3750 | 56.5 | 16.8 | PS1007110D |
| **OT 100 P79** | 7.60 | 140 | 180 | 3500 | 61.2 | 20.5 | PS1017111D |
| **OT 100 P99** | 9.70 | 130 | 170 | 3500 | 70.0 | 26.3 | PS1027082D |

## EXAMPLE OF ORDERING CODE

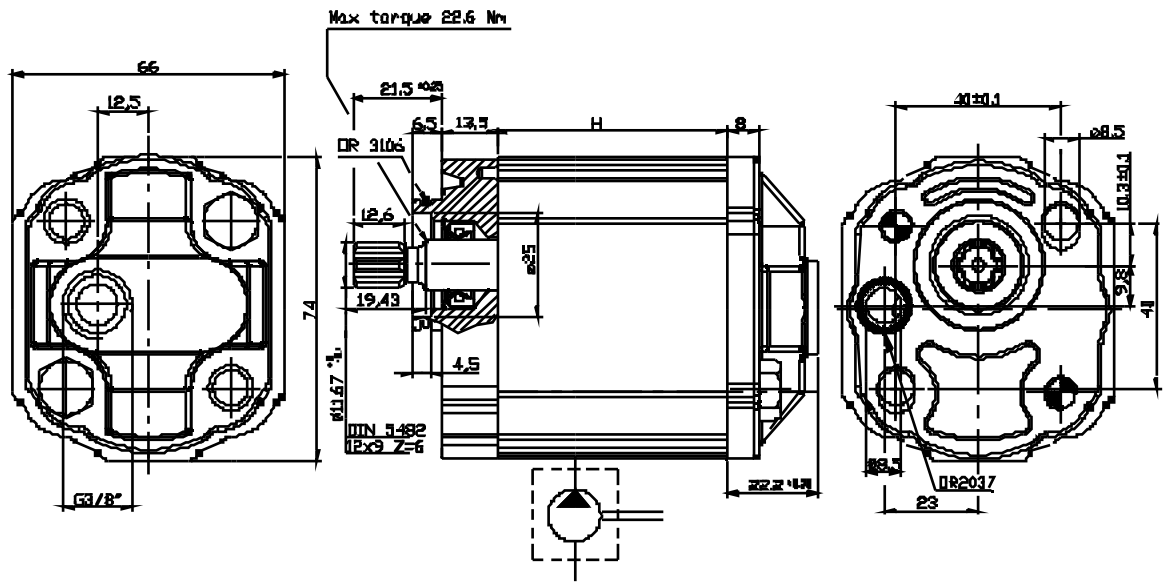
**OT100 P 20 D / N 16 B2**

- OT100 — Series
- P — Pump
- 20 — displacement ( see above table )
- D — Rotation: Clockwise
- N — Body without ports
- 16 — Splined shaft ( DIN5482 )
- B2 — B2= Flange for clockwise

Screws tightening torque : 28÷30 Nm

# GROUP 1 PUMPS- FOR POWER UNITS

**VERSION:** N 16 B1




| Type | Displacement ( cc/ rev) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( rpm ) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) | Code (Anti- Clockwise ) |
|---|---|---|---|---|---|---|---|
| **OT 100 P07** | 0.73 | 200 | 240 | 5000 | 36.7 | 1.8 | PS1007101S |
| **OT 100 P11** | 1.05 | 240 | 280 | 5000 | 37.8 | 2.4 | PS1007102S |
| **OT 100 P13** | 1.25 | 240 | 280 | 5000 | 38.5 | 2.4 | PS1007102S |
| **OT 100 P16** | 1.45 | 260 | 300 | 5000 | 39.5 | 4.2 | PS1007103S |
| **OT 100 P20** | 1.80 | 240 | 300 | 5000 | 40.9 | 5.2 | PS1007104S |
| **OT 100 P26** | 2.50 | 240 | 280 | 5000 | 43.0 | 6.7 | PS1007105S |
| **OT 100 P32** | 3.05 | 240 | 280 | 5000 | 45.0 | 8.3 | PS1007106S |
| **OT 100 P40** | 3.80 | 220 | 260 | 4500 | 47.8 | 10.1 | PS1007107S |
| **OT 100 P43** | 4.30 | 200 | 240 | 4500 | 49.5 | 12.0 | PS1027075S |
| **OT 100 P49** | 4.70 | 200 | 240 | 4500 | 50.9 | 12.7 | PS1007108S |
| **OT 100 P58** | 5.55 | 180 | 220 | 4000 | 54.0 | 15.0 | PS1007109S |
| **OT 100 P65** | 6.25 | 160 | 200 | 3750 | 56.5 | 16.8 | PS1007110S |
| **OT 100 P79** | 7.60 | 140 | 180 | 3500 | 61.2 | 20.5 | PS1017111S |
| **OT 100 P99** | 9.70 | 130 | 170 | 3500 | 70.0 | 26.3 | PS1027082S |

## EXAMPLE OF ORDERING CODE

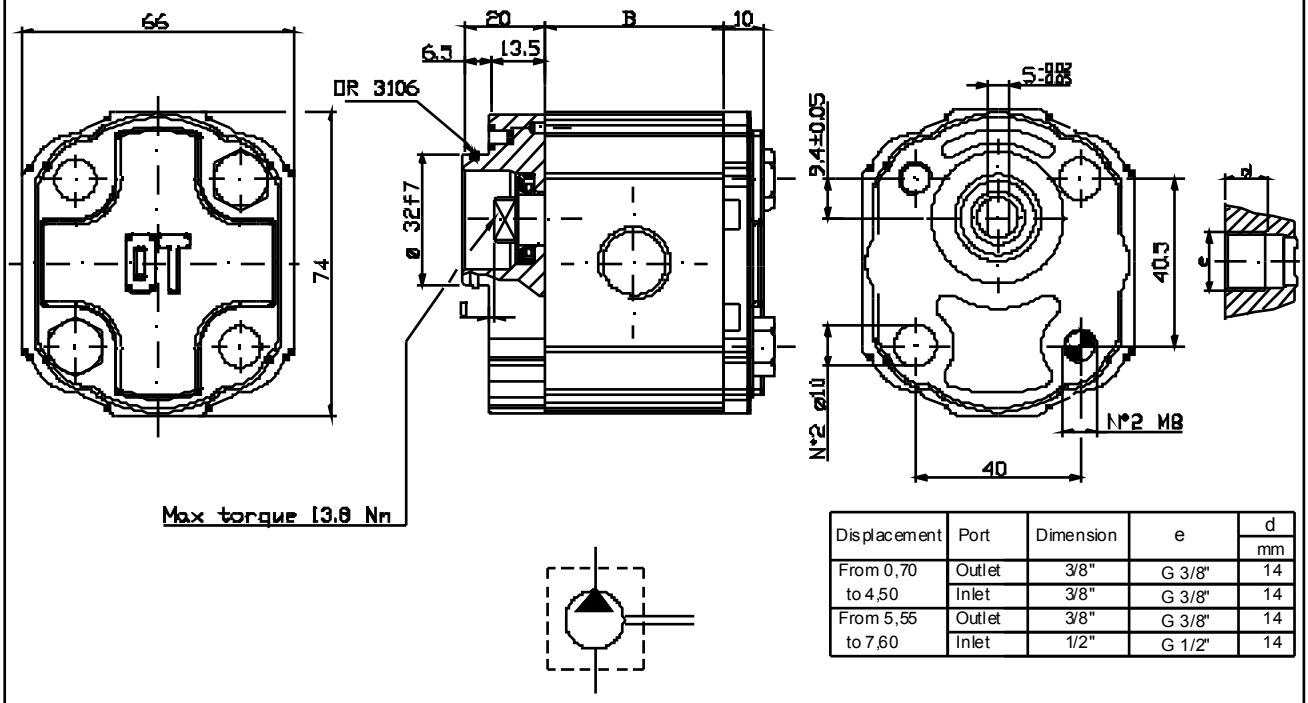
**OT100 P 20 S / N 16 B1**

- OT100 — Series
- P — Pump
- 20 — displacement ( see above table )
- S — Rotation: S = Anticlockwise
- N — Body without ports
- 16 — Splined shaft ( DIN5482 )
- B1 — B1= Flange for anticlockwise

Screws tightening torque : 28÷30 Nm

# GROUP 1 PUMPS- FOR POWER UNITS

**VERSION:** G 13 B0




| Displacement | Port | Dimension | e | d mm |
|---|---|---|---|---|
| From 0,70 to 4,50 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 3/8" | G 3/8" | 14 |
| From 5,55 to 7,60 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 1/2" | G 1/2" | 14 |



| Type | Displacement ( cc/ rev) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( rpm ) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) | Code ( Anti-clockwise ) | Code ( Clockwise ) |
|---|---|---|---|---|---|---|---|---|
| OT 100 P07 | 0.73 | 200 | 240 | 5000 | 36.7 | 1.8 | PS1007031S | PS1007031D |
| OT 100 P11 | 1.05 | 240 | 280 | 5000 | 37.8 | 2.4 | PS1007032S | PS1007032D |
| OT 100 P16 | 1.45 | 260 | 300 | 5000 | 39.5 | 4.2 | PS1007033S | PS1007033D |
| OT 100 P20 | 1.80 | 240 | 300 | 5000 | 40.9 | 5.2 | PS1007034S | PS1007034D |
| OT 100 P26 | 2.50 | 240 | 280 | 5000 | 43.0 | 6.7 | PS1007035S | PS1007035D |
| OT 100 P32 | 3.05 | 240 | 280 | 5000 | 45.0 | 8.3 | PS1007036S | PS1007036D |
| OT 100 P40 | 3.80 | 220 | 260 | 4500 | 47.8 | 10.1 | PS1007037S | PS1007037D |
| OT 100 P49 | 4.70 | 200 | 240 | 4500 | 50.9 | 12.7 | PS1007038S | PS1007038D |
| OT 100 P58 | 5.55 | 180 | 220 | 4000 | 54.0 | 15.0 | PS1007039S | PS1007039D |
| OT 100 P65 | 6.25 | 160 | 200 | 3750 | 56.5 | 16.8 | PS1007040S | PS1007040D |
| OT 100 P79 | 7.60 | 140 | 180 | 3500 | 61.2 | 20.5 | PS1017031S | PS1017031D |

## EXAMPLE OF ORDERING CODE

**OT100 P 20 S / G 13 B0**

- OT100 — Series
- P — Pump
- 20 — displacement ( see above table )
- S / G — Body with threated ports ( BSP )
- 13 — Tang shaft short type
- B0 — Neutral flange

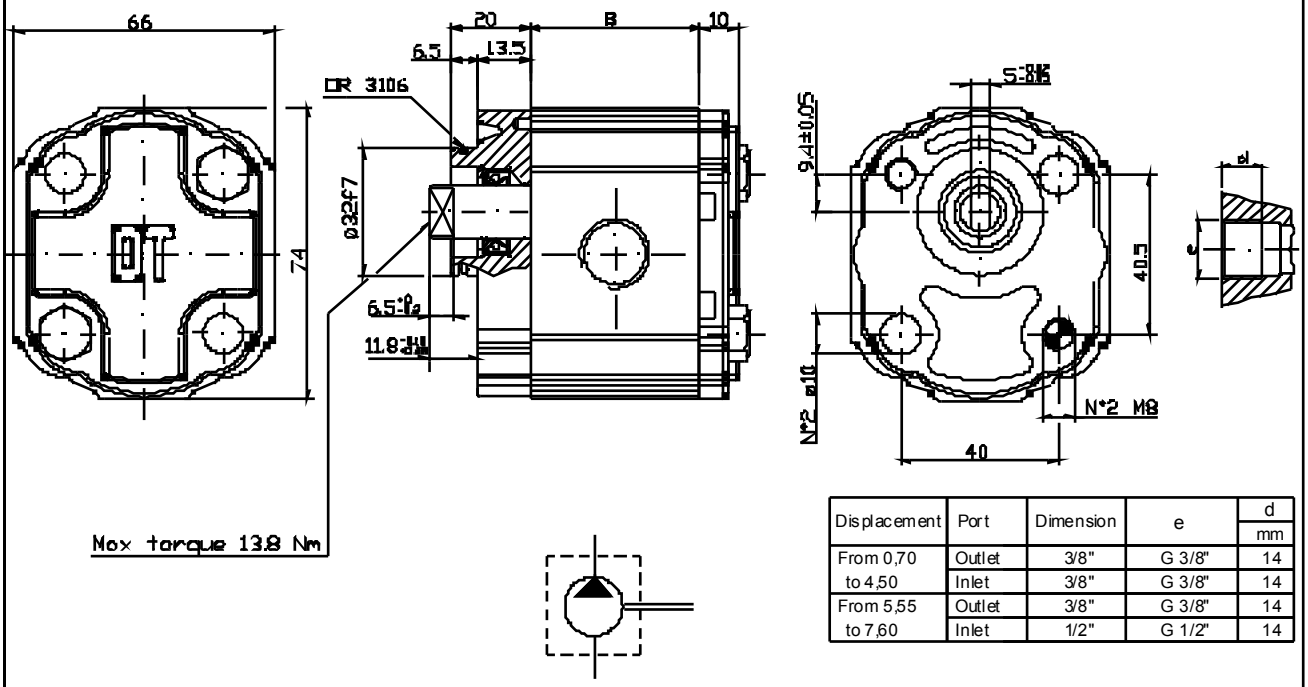
| Rotation | |
|---|---|
| S | Anti-clockwise |
| D | Clockwise |

Screws tightening torque : 28÷30 Nm

AVAILABLE FOR QUANTITIES

# GROUP 1 PUMPS **FOR POWER UNITS**

**VERSION : G14 B0**




| Displacement | Port | Dimension | e | d mm |
|---|---|---|---|---|
| From 0,70 to 4,50 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 3/8" | G 3/8" | 14 |
| From 5,55 to 7,60 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 1/2" | G 1/2" | 14 |

| Type | Displacement (cc/rev) | Max working pressure P1 (bar) | Peak pressure P3 (bar) | Max speed (rpm) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) | Code (Anti-clockwise) | Code (Clockwise) |
|---|---|---|---|---|---|---|---|---|
| **OT 100 P07** | 0.73 | 200 | 240 | 5000 | 36.7 | 1.8 | PS1017001S | PS1017001D |
| **OT 100 P11** | 1.05 | 240 | 280 | 5000 | 37.8 | 2.4 | PS1017002S | PS1017002D |
| **OT 100 P16** | 1.45 | 260 | 300 | 5000 | 39.5 | 4.2 | PS1017003S | PS1017003D |
| **OT 100 P20** | 1.80 | 240 | 300 | 5000 | 40.9 | 5.2 | PS1017004S | PS1017004D |
| **OT 100 P26** | 2.50 | 240 | 280 | 5000 | 43.0 | 6.7 | PS1017005S | PS1017005D |
| **OT 100 P32** | 3.05 | 240 | 280 | 5000 | 45.0 | 8.3 | PS1017006S | PS1017006D |
| **OT 100 P40** | 3.80 | 220 | 260 | 4500 | 47.8 | 10.1 | PS1017007S | PS1017007D |
| **OT 100 P49** | 4.70 | 200 | 240 | 4500 | 50.9 | 12.7 | PS1017008S | PS1017008D |
| **OT 100 P58** | 5.55 | 180 | 220 | 4000 | 54.0 | 15.0 | PS1017009S | PS1017009D |
| **OT 100 P65** | 6.25 | 160 | 200 | 3750 | 56.5 | 16.8 | PS1017010S | PS1017010D |
| **OT 100 P79** | 7.60 | 140 | 180 | 3500 | 61.2 | 20.5 | PS1017012S | PS1017012D |

## EXAMPLE OF ORDERING CODE

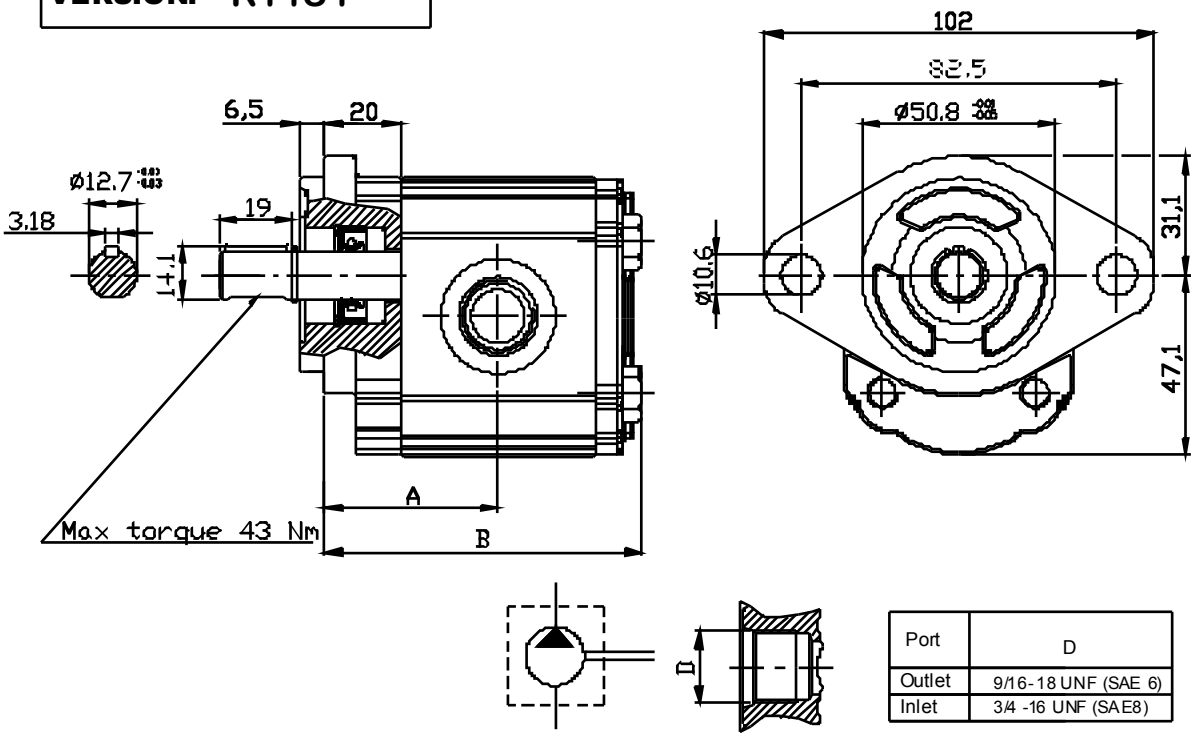
**OT100 P 20 S / G 14 B0**

- OT100 — Series
- P — Pump
- 20 — displacement (see above table)
- S — Rotation: S Anti-clockwise, D Clockwise
- G — Body with threated ports (BSP)
- 14 — Tang shaft
- B0 — Neutral flange

Screws tightening torque : 28 ÷ 30 Nm

# GROUP 1 PUMPS- SAE "AA" STANDARD

**VERSION:** R11S1




| Port | D |
|---|---|
| Outlet | 9/16-18 UNF (SAE 6) |
| Inlet | 3/4 -16 UNF (SAE8) |

| Type | Displacement ( cc/rev ) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( r.p.m) | Dimension A ( mm ) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) | Code ( Anti-clockwise ) | Code ( Clockwise ) |
|---|---|---|---|---|---|---|---|---|---|
| **OT 100 P07** | 0.73 | 200 | 240 | 5000 | 38.35 | 69.00 | 1.8 | PS1007120S | PS1007120D |
| **OT 100 P11** | 1.05 | 240 | 280 | 5000 | 38.90 | 70.10 | 2.4 | PS1007121S | PS1007121D |
| **OT 100 P16** | 1.55 | 260 | 300 | 5000 | 39.75 | 71.80 | 4.2 | PS1007122S | PS1007122D |
| **OT 100 P20** | 1.90 | 260 | 300 | 5000 | 40.45 | 72.75 | 5.2 | PS1007123S | PS1007123D |
| **OT 100 P25** | 2.50 | 260 | 300 | 5000 | 41.50 | 75.30 | 6.7 | PS1007124S | PS1007124D |
| **OT 100 P32** | 3.10 | 260 | 300 | 5000 | 42.50 | 77.30 | 8.3 | PS1007125S | PS1007125D |
| **OT 100 P40** | 3.80 | 260 | 300 | 4500 | 43.90 | 80.10 | 10.1 | PS1007126S | PS1007126D |
| **OT 100 P49** | 4.70 | 240 | 280 | 4500 | 45.45 | 83.20 | 12.7 | PS1007127S | PS1007127D |
| **OT 100 P58** | 5.55 | 200 | 240 | 4000 | 47.00 | 86.30 | 15.0 | PS1007128S | PS1007128D |
| **OT 100 P65** | 6.25 | 190 | 230 | 3750 | 48.25 | 88.80 | 16.8 | PS1007129S | PS1007129D |
| **OT 100 P79** | 7.60 | 170 | 220 | 3500 | 50.60 | 93.50 | 20.5 | PS1007130S | PS1007130D |

## EXAMPLE OF ORDERING CODE

**OT100 P 20 S / R 11 S1**

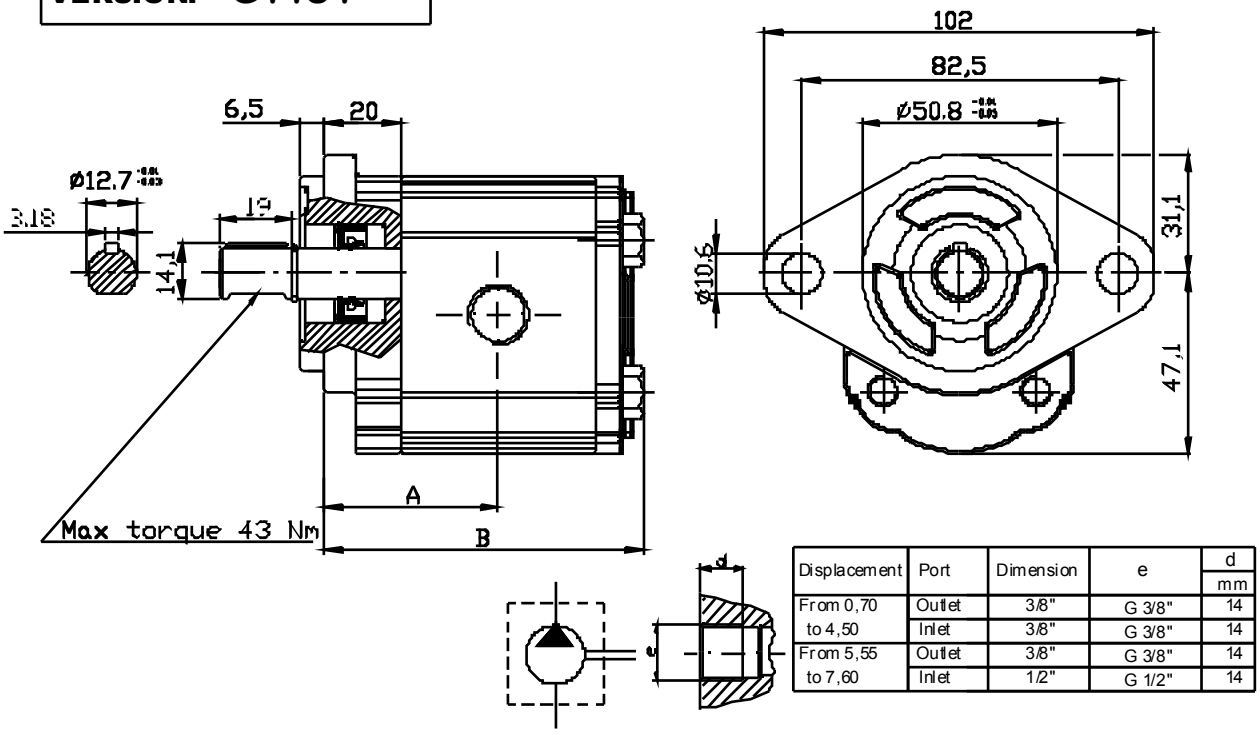
- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S — Rotation: S Anti-clockwise, D Clockwise
- R — Body with O-ring boss ports
- 11 — SAE AA cilindrical shaft
- S1 — SAE- AA flange 2 bolts

Screws tightening torque : 28 ÷ 30 Nm

AVAILABLE FOR QUANTITIES

# GROUP 1 PUMPS- SAE "AA" STANDARD

**VERSION:** G11S1




| Displacement | Port | Dimension | e | d mm |
|---|---|---|---|---|
| From 0,70 to 4,50 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 3/8" | G 3/8" | 14 |
| From 5,55 to 7,60 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 1/2" | G 1/2" | 14 |

| Type | Displacement (cc/rev) | Max working pressure P1 (bar) | Peak pressure P3 (bar) | Max speed (r.p.m) | Dimension A (mm) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) | Code (Anti-clockwise) | Code (Clockwise) |
|---|---|---|---|---|---|---|---|---|---|
| OT 100 P07 | 0.73 | 200 | 240 | 5000 | 38.35 | 69.00 | 1.8 | PS1007131S | PS1007131D |
| OT 100 P11 | 1.05 | 240 | 280 | 5000 | 38.90 | 70.10 | 2.4 | PS1007132S | PS1007132D |
| OT 100 P16 | 1.55 | 260 | 300 | 5000 | 39.75 | 71.80 | 4.2 | PS1007133S | PS1007133D |
| OT 100 P20 | 1.90 | 260 | 300 | 5000 | 40.45 | 72.75 | 5.2 | PS1007134S | PS1007134D |
| OT 100 P25 | 2.50 | 260 | 300 | 5000 | 41.50 | 75.30 | 6.7 | PS1007135S | PS1007135D |
| OT 100 P32 | 3.10 | 260 | 300 | 5000 | 42.50 | 77.30 | 8.3 | PS1007136S | PS1007136D |
| OT 100 P40 | 3.80 | 260 | 300 | 4500 | 43.90 | 80.10 | 10.1 | PS1007137S | PS1007137D |
| OT 100 P49 | 4.70 | 240 | 280 | 4500 | 45.45 | 83.20 | 12.7 | PS1007138S | PS1007138D |
| OT 100 P58 | 5.55 | 200 | 240 | 4000 | 47.00 | 86.30 | 15.0 | PS1007139S | PS1007139D |
| OT 100 P65 | 6.25 | 190 | 230 | 3750 | 48.25 | 88.80 | 16.8 | PS1007140S | PS1007140D |
| OT 100 P79 | 7.60 | 170 | 220 | 3500 | 50.60 | 93.50 | 20.5 | PS1007141S | PS1007141D |

## EXAMPLE OF ORDERING CODE

**OT100 P 20 S / G 11 S1**

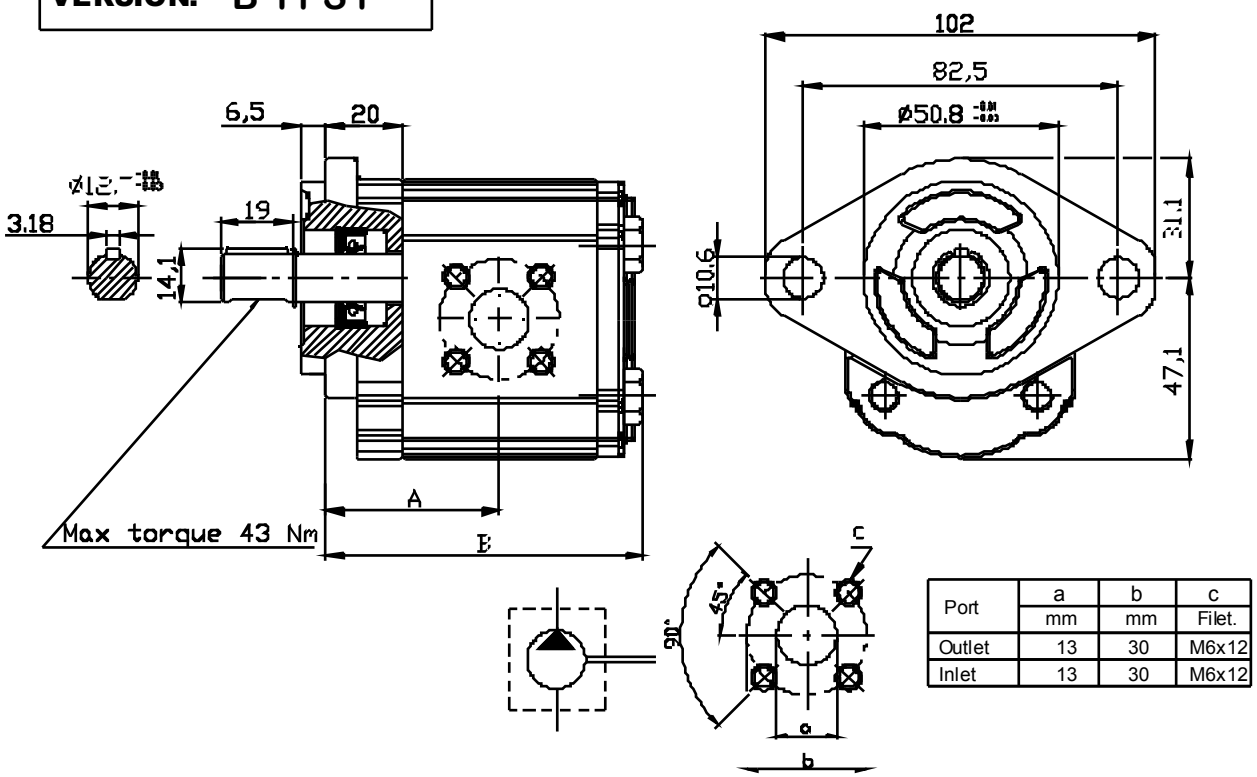
- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S — Rotation: S Anti-clockwise, D Clockwise
- G — Body with threated ports ( BSP )
- 11 — SAE AA cilindrical shaft
- S1 — SAE- AA flange 2 bolts

Screws tightening torque : 28 ÷ 30 Nm

AVAILABLE FOR QUANTITIES

# GROUP 1 PUMPS- SAE "AA" STANDARD

**VERSION: B 11 S1**




| Port | a | b | c |
|---|---|---|---|
| | mm | mm | Filet. |
| Outlet | 13 | 30 | M6x12 |
| Inlet | 13 | 30 | M6x12 |

| Type | Displacement ( cc/rev ) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( r.p.m) | Dimension A (mm) | Dimension B (mm) | Absorbed torque at 150 bar ( Nm ) | Code ( Anti-clockwise ) | Code ( Clockwise ) |
|---|---|---|---|---|---|---|---|---|---|
| OT 100 P07 | 0.73 | 200 | 240 | 5000 | 38.35 | 69.00 | 1.8 | PS1007142S | PS1007142D |
| OT 100 P11 | 1.05 | 240 | 280 | 5000 | 38.90 | 70.10 | 2.4 | PS1007143S | PS1007143D |
| OT 100 P16 | 1.55 | 260 | 300 | 5000 | 39.75 | 71.80 | 4.2 | PS1007144S | PS1007144D |
| OT 100 P20 | 1.90 | 260 | 300 | 5000 | 40.45 | 72.75 | 5.2 | PS1007145S | PS1007145D |
| OT 100 P25 | 2.50 | 260 | 300 | 5000 | 41.50 | 75.30 | 6.7 | PS1007146S | PS1007146D |
| OT 100 P32 | 3.10 | 260 | 300 | 5000 | 42.50 | 77.30 | 8.3 | PS1007147S | PS1007147D |
| OT 100 P40 | 3.80 | 260 | 300 | 4500 | 43.90 | 80.10 | 10.1 | PS1007148S | PS1007148D |
| OT 100 P49 | 4.70 | 240 | 280 | 4500 | 45.45 | 83.20 | 12.7 | PS1007149S | PS1007149D |
| OT 100 P58 | 5.55 | 200 | 240 | 4000 | 47.00 | 86.30 | 15.0 | PS1007150S | PS1007150D |
| OT 100 P65 | 6.25 | 190 | 230 | 3750 | 48.25 | 88.80 | 16.8 | PS1007151S | PS1007151D |
| OT 100 P79 | 7.60 | 170 | 220 | 3500 | 50.60 | 93.50 | 20.5 | PS1007152S | PS1007152D |

## EXAMPLE OF ORDERING CODE

**OT100 P 20 S / B 11 S1**

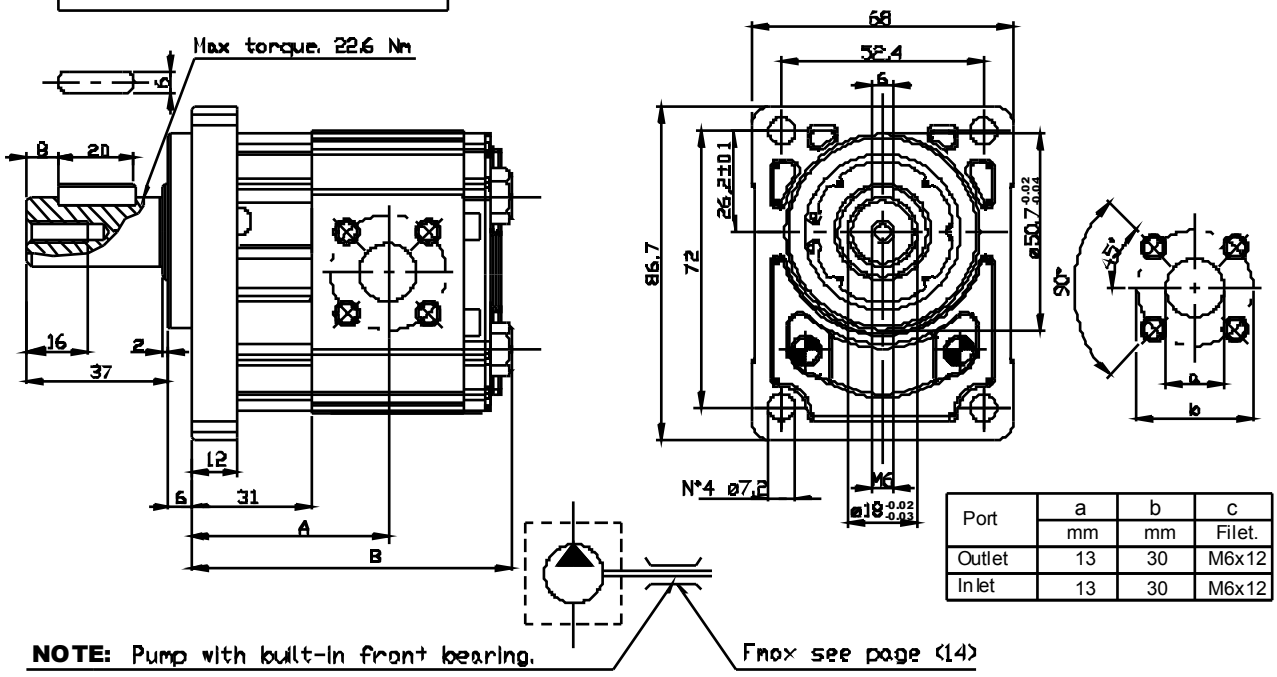
- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S — Rotation: S Anti-clockwise, D Clockwise
- B — Body for European flanges
- 11 — SAE AA cilindrical shaft
- S1 — SAE- AA flange 2 bolts

Screws tightening torque : 28 ÷ 30 Nm

AVAILABLE FOR QUANTITIES

# GROUP 1 PUMPS- WITH FRONT BEARING

**VERSION:** B16 T P1




| Port | a | b | c |
|---|---|---|---|
| | mm | mm | Filet. |
| Outlet | 13 | 30 | M6x12 |
| Inlet | 13 | 30 | M6x12 |

**NOTE:** Pump with built-in front bearing. Fmax see page (14)

| Type | Displacement (cc/rev) | Max working pressure P1 (bar) | Peak pressure P3 (bar) | Max speed (r.p.m) | Dimension A (mm) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) | Code (Anti-clockwise) | Code (Clockwise) |
|---|---|---|---|---|---|---|---|---|---|
| OT 100 P07 | 0.73 | 200 | 240 | 5000 | 49.30 | 82.5 | 1.8 | PS1027101S | PS1027101D |
| OT 100 P11 | 1.05 | 240 | 280 | 5000 | 49.90 | 83.6 | 2.4 | PS1027102S | PS1027102D |
| OT 100 P13 | 1.25 | 260 | 300 | 5000 | 50.60 | 84.3 | 3.2 | PS1027125S | PS1027125D |
| OT 100 P16 | 1.45 | 260 | 300 | 5000 | 50.75 | 85.3 | 4.2 | PS1027103S | PS1027103D |
| OT 100 P20 | 1.80 | 260 | 300 | 5000 | 51.45 | 86.7 | 5.2 | PS1027104S | PS1027104D |
| OT 100 P25 | 2.50 | 260 | 300 | 5000 | 52.50 | 88.8 | 6.7 | PS1027105S | PS1027105D |
| OT 100 P32 | 3.05 | 260 | 300 | 5000 | 53.50 | 90.8 | 8.3 | PS1027106S | PS1027106D |
| OT 100 P40 | 3.80 | 260 | 300 | 4500 | 54.90 | 93.6 | 10.1 | PS1027107S | PS1027107D |
| OT 100 P43 | 4.30 | 240 | 280 | 4500 | 55.45 | 95.7 | 12.0 | PS1027124S | PS1027124D |
| OT 100 P49 | 4.50 | 240 | 280 | 4500 | 56.45 | 96.7 | 12.7 | PS1027108S | PS1027108D |
| OT 100 P58 | 5.55 | 200 | 240 | 4000 | 58.00 | 99.8 | 15.0 | PS1027109S | PS1027109D |
| OT 100 P65 | 6.25 | 190 | 230 | 3750 | 59.25 | 102.3 | 16.8 | PS1027110S | PS1027110D |
| OT 100 P79 | 7.60 | 170 | 220 | 3500 | 61.60 | 107.0 | 20.5 | PS1027111S | PS1027111D |
| OT 100 P99 | 9.90 | 130 | 170 | 3500 | 70.40 | 115.8 | 26.3 | PS1027123S | PS1027123D |

## EXAMPLE OF ORDERING CODE

**OT100 P 20 S / B / T 16 P1**

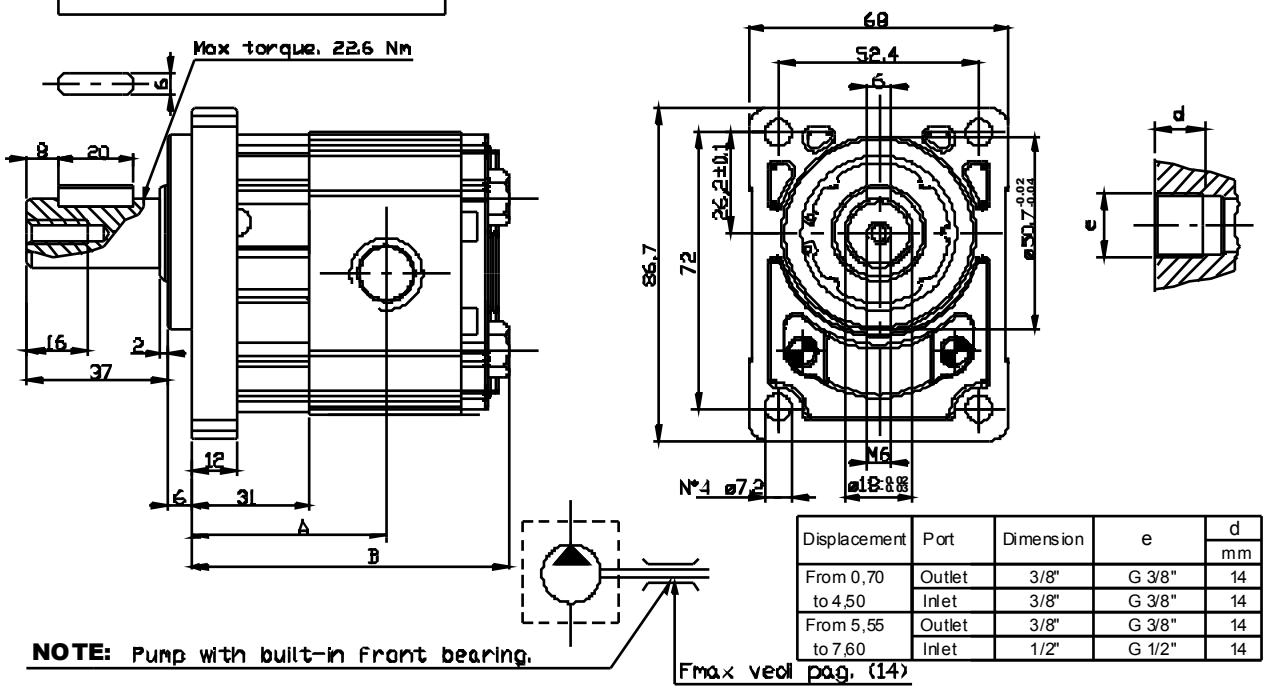
- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S — Rotation: S Anti-clockwise, D Clockwise
- B — Body for European flanges
- T — Front bearing
- 16 — Pump shaft
- P1 — European standard flange

Screws tightening torque : 28÷30 Nm

AVAILABLE FOR QUANTITIES

# GROUP 1 PUMPS- WITH FRONT BEARING

**VERSION: G 16 T P1**




**NOTE:** Pump with built-in front bearing.

Fmax vedi pag. (14)

| Displacement | Port | Dimension | e | d mm |
|---|---|---|---|---|
| From 0,70 to 4,50 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 3/8" | G 3/8" | 14 |
| From 5,55 to 7,60 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 1/2" | G 1/2" | 14 |

| Type | Displacement ( cc/rev ) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( r.p.m) | Dimension A ( mm ) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) | Code ( Anti-clockwise ) | Code ( Clockwise ) |
|---|---|---|---|---|---|---|---|---|---|
| **OT 100 P07** | 0.73 | 200 | 240 | 5000 | 49.30 | 82.5 | 1.8 | PS1027112S | PS1027112D |
| **OT 100 P11** | 1.05 | 240 | 280 | 5000 | 49.90 | 83.6 | 2.4 | PS1027113S | PS1027113D |
| **OT 100 P13** | 1.25 | 260 | 300 | 5000 | 50.60 | 84.3 | 3.2 | PS1027128S | PS1027128D |
| **OT 100 P16** | 1.45 | 260 | 300 | 5000 | 50.75 | 85.3 | 4.2 | PS1027114S | PS1027114D |
| **OT 100 P20** | 1.80 | 260 | 300 | 5000 | 51.45 | 86.7 | 5.2 | PS1027115S | PS1027115D |
| **OT 100 P25** | 2.50 | 260 | 300 | 5000 | 52.50 | 88.8 | 6.7 | PS1027116S | PS1027116D |
| **OT 100 P32** | 3.05 | 260 | 300 | 5000 | 53.50 | 90.8 | 8.3 | PS1027117S | PS1027117D |
| **OT 100 P40** | 3.80 | 260 | 300 | 4500 | 54.90 | 93.6 | 10.1 | PS1027118S | PS1027118D |
| **OT 100 P43** | 4.30 | 240 | 280 | 4500 | 55.45 | 95.7 | 12.0 | PS1027127S | PS1027127D |
| **OT 100 P49** | 4.50 | 240 | 280 | 4500 | 56.45 | 96.7 | 12.7 | PS1027119S | PS1027119D |
| **OT 100 P58** | 5.55 | 200 | 240 | 4000 | 58.00 | 99.8 | 15.0 | PS1027120S | PS1027120D |
| **OT 100 P65** | 6.25 | 190 | 230 | 3750 | 59.25 | 102.3 | 16.8 | PS1027121S | PS1027121D |
| **OT 100 P79** | 7.60 | 170 | 220 | 3500 | 61.60 | 107.0 | 20.5 | PS1027122S | PS1027122D |
| **OT 100 P99** | 9.90 | 130 | 170 | 3500 | 70.40 | 115.8 | 26.3 | PS1027126S | PS1027126D |

## EXAMPLE OF ORDERING CODE

**OT100 P 20 S / G / T 16 P1**

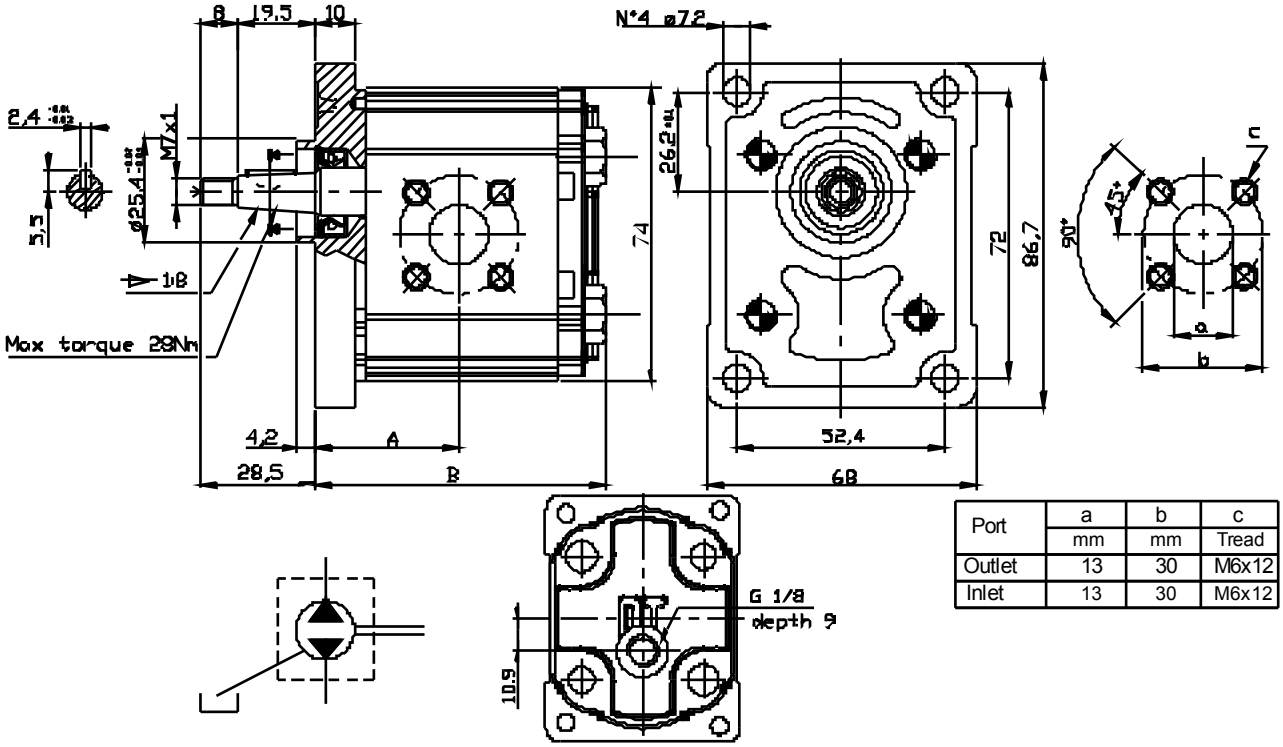
- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S / D — Rotation: S Anti-clockwise; D Clockwise
- G — Body with threated ports ( BSP )
- T — Front bearing
- 16 — Pump shaft
- P1 — European standard flange

Screws tightening torque : 28÷30 Nm

AVAILABLE FOR QUANTITIES

# GROUP 1 REVERSIBLE PUMPS- EUROPEAN STANDARD

**VERSION:** B18 P1




| Port | a | b | c |
|---|---|---|---|
| | mm | mm | Tread |
| Outlet | 13 | 30 | M6x12 |
| Inlet | 13 | 30 | M6x12 |

| Type | Displacement (cc/rev) | Max working pressure P1 (bar) | Peak pressure P3 (bar) | Max speed (r.p.m) | Dimension A (mm) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) | Code |
|---|---|---|---|---|---|---|---|---|
| **OT 100 P16** | 1.45 | 180 | 230 | 5000 | 32.75 | 67.3 | 4.2 | PS1007083R |
| **OT 100 P20** | 1.80 | 210 | 250 | 5000 | 33.45 | 68.7 | 5.2 | PS1007084R |
| **OT 100 P25** | 2.45 | 210 | 250 | 5000 | 34.50 | 70.8 | 6.7 | PS1007085R |
| **OT 100 P32** | 3.05 | 210 | 250 | 5000 | 35.50 | 72.8 | 8.3 | PS1007086R |
| **OT 100 P40** | 3.80 | 210 | 250 | 4500 | 36.90 | 75.6 | 10.1 | PS1007087R |
| **OT 100 P49** | 4.70 | 200 | 240 | 4500 | 38.45 | 78.7 | 12.7 | PS1007088R |
| **OT 100 P58** | 5.55 | 200 | 220 | 4000 | 40.00 | 81.8 | 15.0 | PS1007089R |
| **OT 100 P65** | 6.25 | 180 | 210 | 3750 | 41.25 | 84.3 | 16.8 | PS1007090R |
| **OT 100 P79** | 7.60 | 160 | 200 | 3500 | 43.60 | 89.0 | 20.5 | PS1017091R |

## EXAMPLE OF ORDERING CODE

**OT100 P 20 R / B 18 P1**

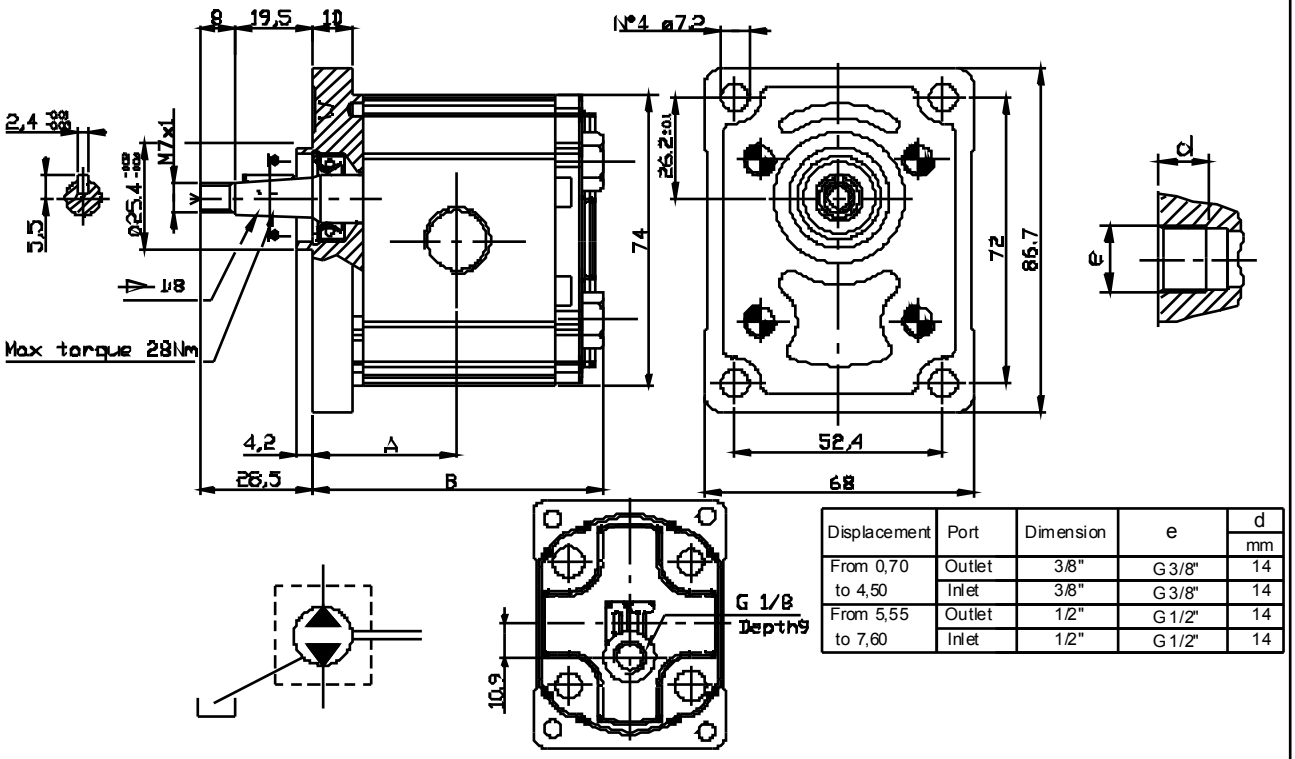
- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- R — Rotation: R = Reversible
- B — Body for European flanges
- 18 — Taper shaft ( 1:8 )
- P1 — European standard flange

Screws tightening torque : 25 ÷ 28 Nm

AVAILABLE FOR QUANTITIES

# GROUP 1 REVERSIBLE PUMPS- EUROPEAN STANDARD

**VERSION:** G 18 P1




| Displacement | Port | Dimension | e | d mm |
|---|---|---|---|---|
| From 0,70 to 4,50 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 3/8" | G 3/8" | 14 |
| From 5,55 to 7,60 | Outlet | 1/2" | G 1/2" | 14 |
| | Inlet | 1/2" | G 1/2" | 14 |

| Type | Displacement ( cc/rev ) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( r.p.m) | Dimension A ( mm ) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) | Code |
|---|---|---|---|---|---|---|---|---|
| **OT 100 P16** | 1.45 | 180 | 230 | 5000 | 32.75 | 67.3 | 4.2 | PS1007063R |
| **OT 100 P20** | 1.80 | 210 | 250 | 5000 | 33.45 | 68.7 | 5.2 | PS1007064R |
| **OT 100 P25** | 2.45 | 210 | 250 | 5000 | 34.50 | 70.8 | 6.7 | PS1007065R |
| **OT 100 P32** | 3.05 | 210 | 250 | 5000 | 35.50 | 72.8 | 8.3 | PS1007066R |
| **OT 100 P40** | 3.80 | 210 | 250 | 4500 | 36.90 | 75.6 | 10.1 | PS1007067R |
| **OT 100 P49** | 4.70 | 200 | 240 | 4500 | 38.45 | 78.7 | 12.7 | PS1007068R |
| **OT 100 P58** | 5.55 | 200 | 220 | 4000 | 40.00 | 81.8 | 15.0 | PS1007069R |
| **OT 100 P65** | 6.25 | 180 | 210 | 3750 | 41.25 | 84.3 | 16.8 | PS1007070R |
| **OT 100 P79** | 7.60 | 160 | 200 | 3500 | 43.60 | 89.0 | 20.5 | PS1017071R |

## EXAMPLE OF ORDERING CODE

**OT100 P 20 R / G 18 P1**

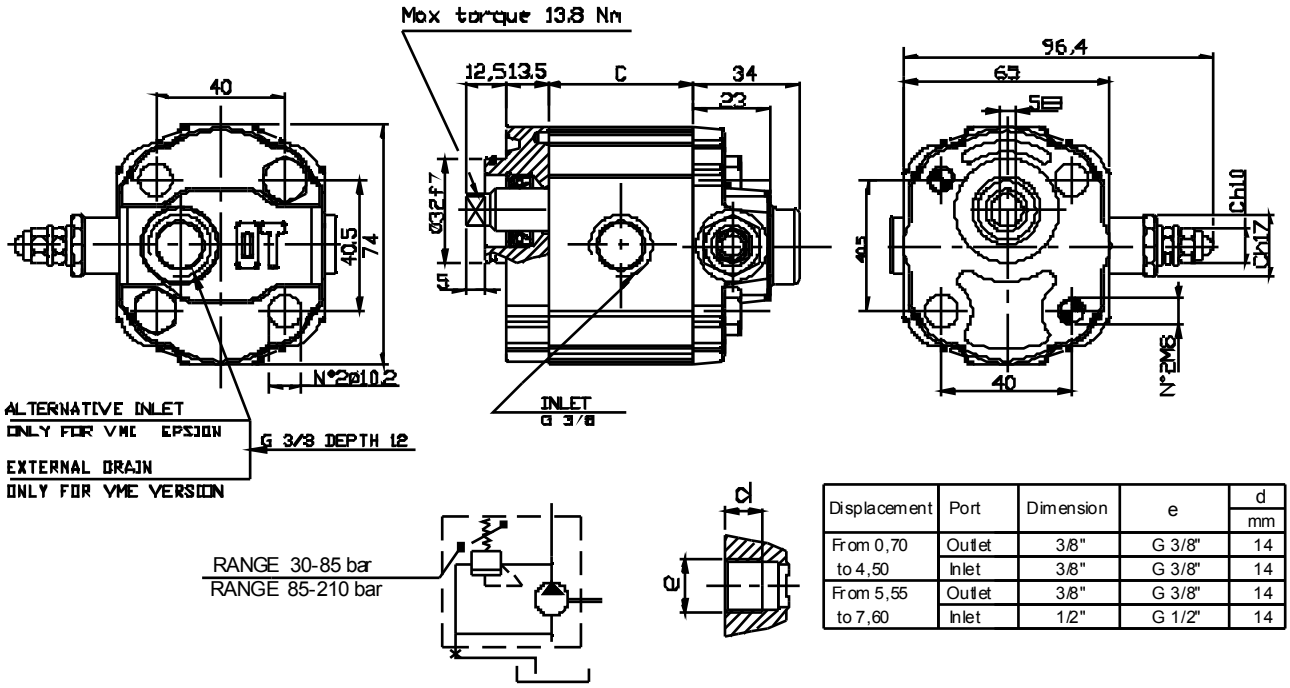
- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- R — Rotation: R Reversible
- G — Body with threated ports ( BSP )
- 18 — Taper shaft ( 1:8 )
- P1 — European standard flange

Screws tightening torque : 25 ÷ 28 Nm

AVAILABLE FOR QUANTITIES

# GROUP 1 PUMPS- WITH MAIN RELIEF VALVE

**VERSION: G14B0-VM**

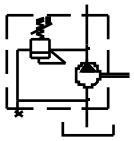



| Displacement | Port | Dimension | e | d mm |
|---|---|---|---|---|
| From 0,70 to 4,50 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 3/8" | G 3/8" | 14 |
| From 5,55 to 7,60 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 1/2" | G 1/2" | 14 |

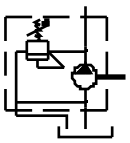
| Type | Displacement ( cc/rev ) | Max speed ( r.p.m) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) |
|---|---|---|---|---|
| **OT 100 P07** | 0.73 | 5000 | 36.7 | 1.8 |
| **OT 100 P11** | 1.05 | 5000 | 37.8 | 2.4 |
| **OT 100 P16** | 1.45 | 5000 | 39.5 | 4.2 |
| **OT 100 P20** | 1.80 | 5000 | 40.9 | 5.2 |
| **OT 100 P26** | 2.45 | 5000 | 43.0 | 6.7 |
| **OT 100 P32** | 3.05 | 5000 | 45.0 | 8.3 |
| **OT 100 P40** | 3.80 | 4500 | 47.8 | 10.1 |
| **OT 100 P49** | 4.70 | 4500 | 50.9 | 12.7 |
| **OT 100 P58** | 5.55 | 4000 | 54.0 | 15.0 |
| **OT 100 P65** | 6.25 | 3750 | 56.5 | 16.8 |
| **OT 100 P79** | 7.60 | 3500 | 61.2 | 20.5 |

AVAILABLE VERSIONS :

1) Lateral or alternative posterior inlet with internal drain.



2) Lateral inlet with external drain.



## EXAMPLE OF ORDERING CODE

**OT100 P 20 S / G 14 B0 - VMI 120**

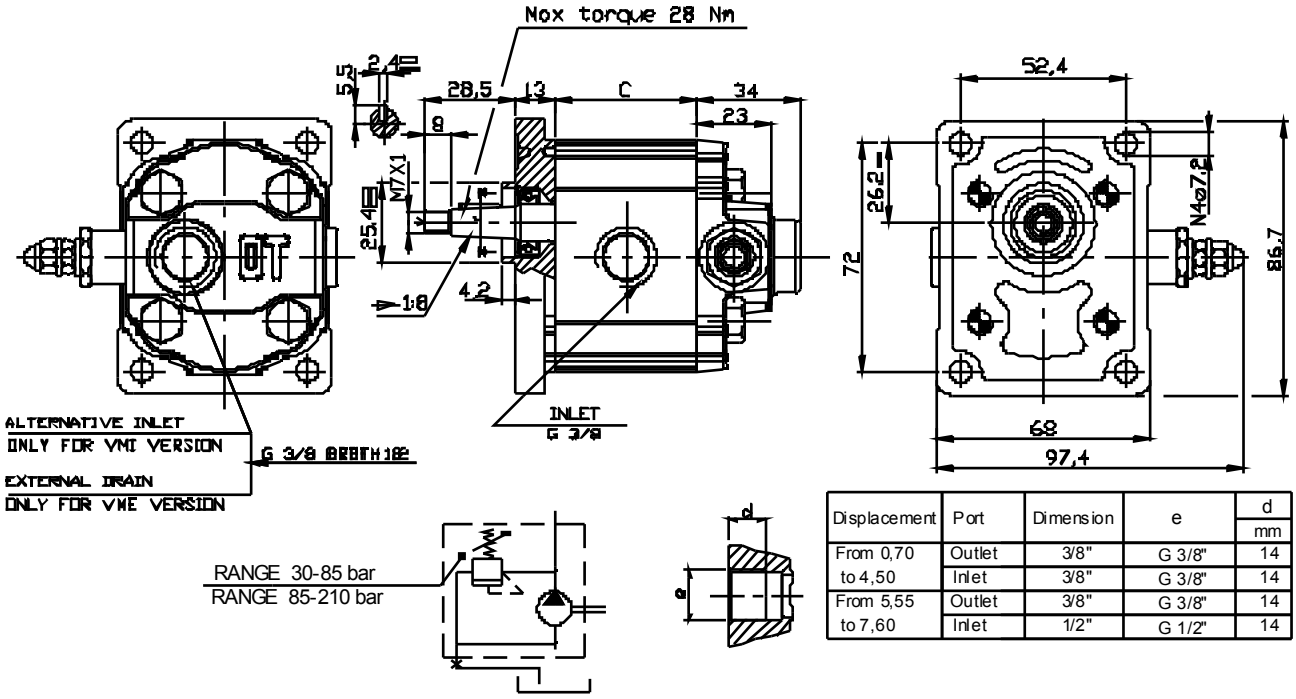
- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S — Rotation: S Anti-clockwise; D Clockwise
- G — See above corrispondent single pumps
- 14 — Neutral flange
- B0 — Tang shaft
- VMI — Relief valve: VMI Internal drain; VME External drain
- 120 — Setting 120 bar

Body with threated ports ( BSP )

Screws tightening torque : 25 ÷ 28 Nm

# GROUP 1 PUMPS- WITH MAIN RELIEF VALVE

**VERSION: G18P1-VM**

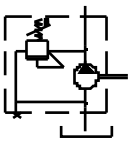



| Displacement | Port | Dimension | e | d mm |
|---|---|---|---|---|
| From 0,70 to 4,50 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 3/8" | G 3/8" | 14 |
| From 5,55 to 7,60 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 1/2" | G 1/2" | 14 |

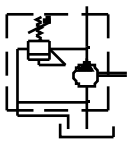
| Type | Displacement ( cc/rev ) | Max speed ( r.p.m) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) |
|---|---|---|---|---|
| **OT 100 P07** | 0.73 | 5000 | 36.7 | 1.8 |
| **OT 100 P11** | 1.05 | 5000 | 37.8 | 2.4 |
| **OT 100 P16** | 1.45 | 5000 | 39.5 | 4.2 |
| **OT 100 P20** | 1.80 | 5000 | 40.9 | 5.2 |
| **OT 100 P26** | 2.45 | 5000 | 43.0 | 6.7 |
| **OT 100 P32** | 3.05 | 5000 | 45.0 | 8.3 |
| **OT 100 P40** | 3.80 | 4500 | 47.8 | 10.1 |
| **OT 100 P49** | 4.70 | 4500 | 50.9 | 12.7 |
| **OT 100 P58** | 5.55 | 4000 | 54.0 | 15.0 |
| **OT 100 P65** | 6.25 | 3750 | 56.5 | 16.8 |
| **OT 100 P79** | 7.60 | 3500 | 61.2 | 20.5 |

AVAILABLE VERSIONS :

1) Lateral or alternative posterior inlet with internal drain.



2) Lateral inlet with external drain.



## EXAMPLE OF ORDERING CODE

**OT100 P 20 S / G 18 P1 - VMI 120**

- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S / G — Rotation

| | |
|---|---|
| S | Anti-clockwise |
| D | Clockwise |

- 18 — See above corrispondent single pumps
- P1 — Body with threated ports ( BSP )
- VMI — Relief valve

| | |
|---|---|
| VMI | Internal drain |
| VME | External drain |

- 120 — Setting 120 bar

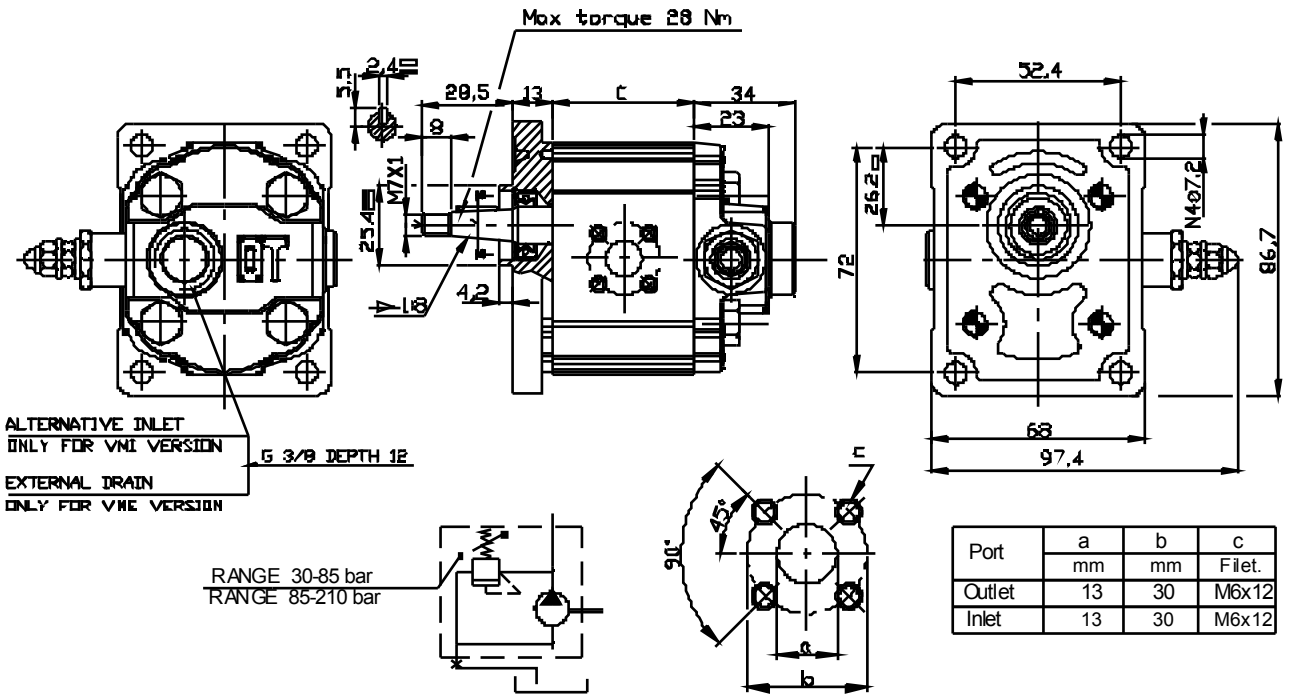
European standard flange

Taper shaft ( 1:8 )

Screws tightening torque : 25÷ 28 Nm

# GROUP 1 PUMPS- WITH MAIN RELIEF VALVE

**VERSION: B18P1-VM**

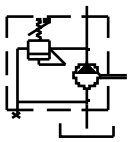



| Port | a | b | c |
|---|---|---|---|
| | mm | mm | Filet. |
| Outlet | 13 | 30 | M6x12 |
| Inlet | 13 | 30 | M6x12 |

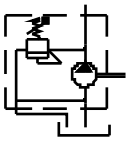
| Type | Displacement (cc/rev) | Max speed (r.p.m) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) |
|---|---|---|---|---|
| **OT 100 P07** | 0.73 | 5000 | 36.7 | 1.8 |
| **OT 100 P11** | 1.05 | 5000 | 37.8 | 2.4 |
| **OT 100 P16** | 1.45 | 5000 | 39.5 | 4.2 |
| **OT 100 P20** | 1.80 | 5000 | 40.9 | 5.2 |
| **OT 100 P26** | 2.45 | 5000 | 43.0 | 6.7 |
| **OT 100 P32** | 3.05 | 5000 | 45.0 | 8.3 |
| **OT 100 P40** | 3.80 | 4500 | 47.8 | 10.1 |
| **OT 100 P49** | 4.70 | 4500 | 50.9 | 12.7 |
| **OT 100 P58** | 5.55 | 4000 | 54.0 | 15.0 |
| **OT 100 P65** | 6.25 | 3750 | 56.5 | 16.8 |
| **OT 100 P79** | 7.60 | 3500 | 61.2 | 20.5 |

AVAILABLE VERSIONS :

1) Lateral or alternative posterior inlet with internal drain.



2) Lateral inlet with external drain.



## EXAMPLE OF ORDERING CODE

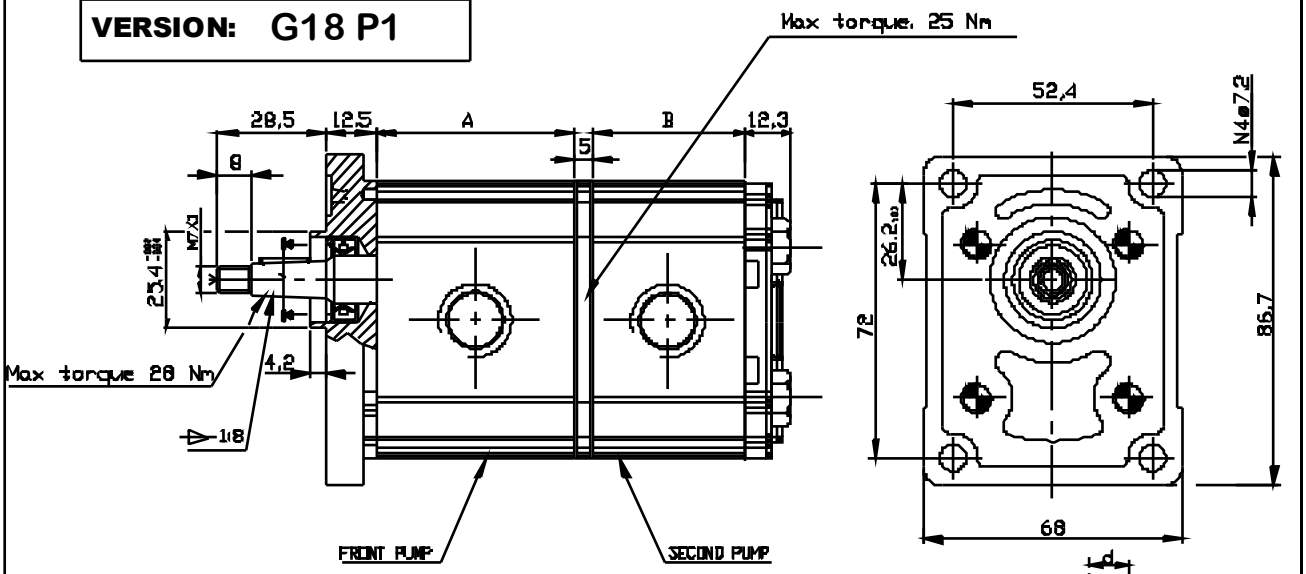
**OT100 P 20 S / B 18 P1 - VMI 120**

- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S — Rotation: S Anti-clockwise; D Clockwise
- B — See above corrispondent single pumps
- 18 — Body for European flanges
- P1 — Taper shaft ( 1:8 )
- - — European standard flange
- VMI — Relief valve: VMI Internal drain; VME External drain
- 120 — Setting 120 bar

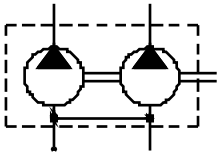
Screws tightening torque : 25÷28 Nm

# GROUP 1 PUMPS- TANDEM PUMPS

**VERSION:** G18 P1




**NOTE:** The biggest displacement pump must be in the front position



| Port | Dimension | e | d |
|---|---|---|---|
| | | | mm |
| Outlet | 3/8" | G 3/8" | 14 |
| Inlet | 3/8"/ 1/2" | G 3/8" / G1/2" | 14 |

| Type | Displacement ( cc/rev ) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( r.p.m) | Dimension A ( mm ) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) |
|---|---|---|---|---|---|---|---|
| OT 100 P07 | 0.73 | 200 | 240 | 4000 | 36.7 | 36.7 | 1.8 |
| **OT 100 P11** | 1.05 | 240 | 280 | 4000 | 37.8 | 37.8 | 2.4 |
| **OT 100 P16** | 1.55 | 260 | 300 | 4000 | 39.5 | 39.5 | 4.2 |
| **OT 100 P20** | 1.90 | 260 | 300 | 4000 | 40.9 | 40.9 | 5.2 |
| **OT 100 P26** | 2.50 | 260 | 300 | 4000 | 43.0 | 43.0 | 6.7 |
| **OT 100 P32** | 3.10 | 260 | 300 | 4000 | 45.0 | 45.0 | 8.3 |
| **OT 100 P40** | 3.80 | 260 | 300 | 3500 | 47.8 | 47.8 | 10.1 |
| **OT 100 P49** | 4.70 | 240 | 280 | 3500 | 50.9 | 50.9 | 12.7 |
| **OT 100 P58** | 5.55 | 200 | 240 | 3000 | 54.0 | 54.0 | 15.0 |
| **OT 100 P65** | 6.25 | 190 | 230 | 2750 | 56.5 | 56.5 | 16.8 |
| **OT 100 P79** | 7.60 | 170 | 220 | 2500 | 61.2 | 61.2 | 20.5 |

## EXAMPLE OF ORDERING CODE

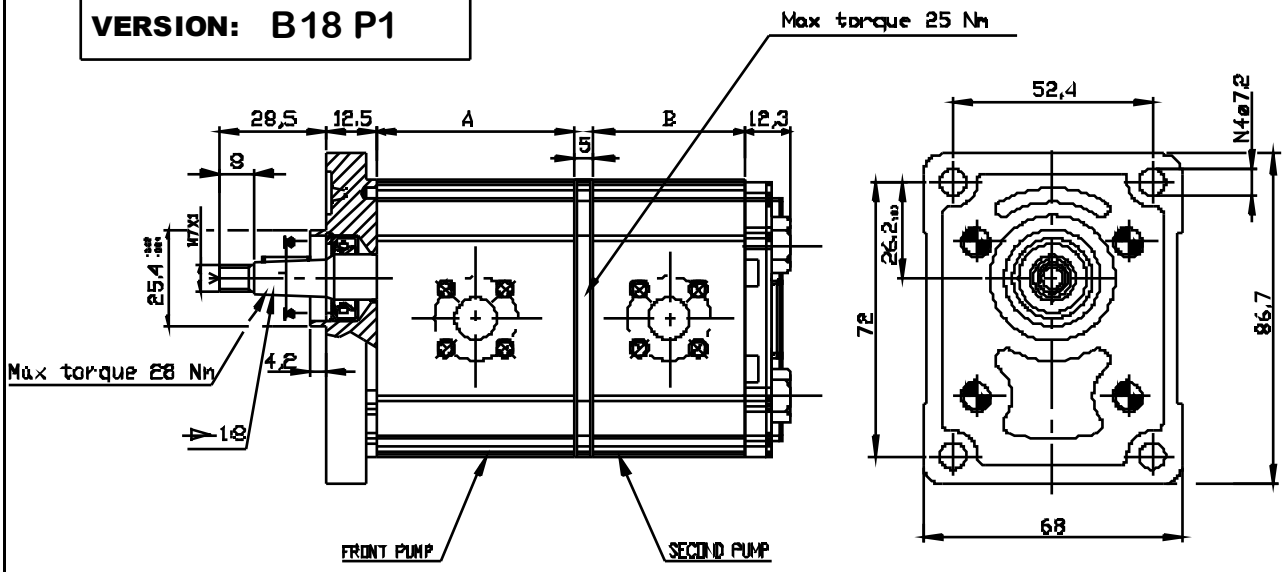
**OT100 P 40 / 20 S / G 18 P1 / 2**

- OT100 — Series
- P — Pump
- 40 — Front pump displacement ( see above table)
- 20 — Second pump displacement ( see above table)
- S — Rotation: S = Anti-clockwise, D = Clockwise
- G — Body with threated ports ( BSP )
- 18 — Taper shaft ( 1:8 )
- P1 — European standard flange
- 2 — 1 = One inlet port, 2 = Two inlet ports

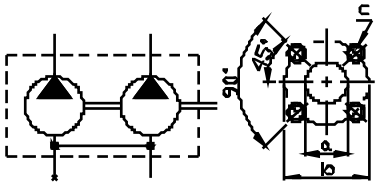
AVAILABLE FOR QUANTITIES AS SECOND PUMP

# GROUP 1 PUMPS- TANDEM PUMPS

**VERSION:** B18 P1




**NOTE:** The biggest displacement pump must be in the front position




| Port | a | b | c |
|---|---|---|---|
| | mm | mm | Tread |
| Outlet | 13 | 30 | M6x12 |
| Inlet | 13 | 30 | M6x12 |

| Type | Displacement (cc/rev) | Max working pressure P1 (bar) | Peak pressure P3 (bar) | Max speed (r.p.m) | Dimension A (mm) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) |
|---|---|---|---|---|---|---|---|
| OT 100 P07 | 0.73 | 200 | 240 | 4000 | 36.7 | 36.7 | 1.8 |
| OT 100 P11 | 1.05 | 240 | 280 | 4000 | 37.8 | 37.8 | 2.4 |
| OT 100 P16 | 1.55 | 260 | 300 | 4000 | 39.5 | 39.5 | 4.2 |
| OT 100 P20 | 1.90 | 260 | 300 | 4000 | 40.9 | 40.9 | 5.2 |
| OT 100 P26 | 2.50 | 260 | 300 | 4000 | 43.0 | 43.0 | 6.7 |
| OT 100 P32 | 3.10 | 260 | 300 | 4000 | 45.0 | 45.0 | 8.3 |
| OT 100 P40 | 3.80 | 260 | 300 | 3500 | 47.8 | 47.8 | 10.1 |
| OT 100 P49 | 4.70 | 240 | 280 | 3500 | 50.9 | 50.9 | 12.7 |
| OT 100 P58 | 5.55 | 200 | 240 | 3000 | 54.0 | 54.0 | 15.0 |
| OT 100 P65 | 6.25 | 190 | 230 | 2750 | 56.5 | 56.5 | 16.8 |
| OT 100 P79 | 7.60 | 170 | 220 | 2500 | 61.2 | 61.2 | 20.5 |

## EXAMPLE OF ORDERING CODE

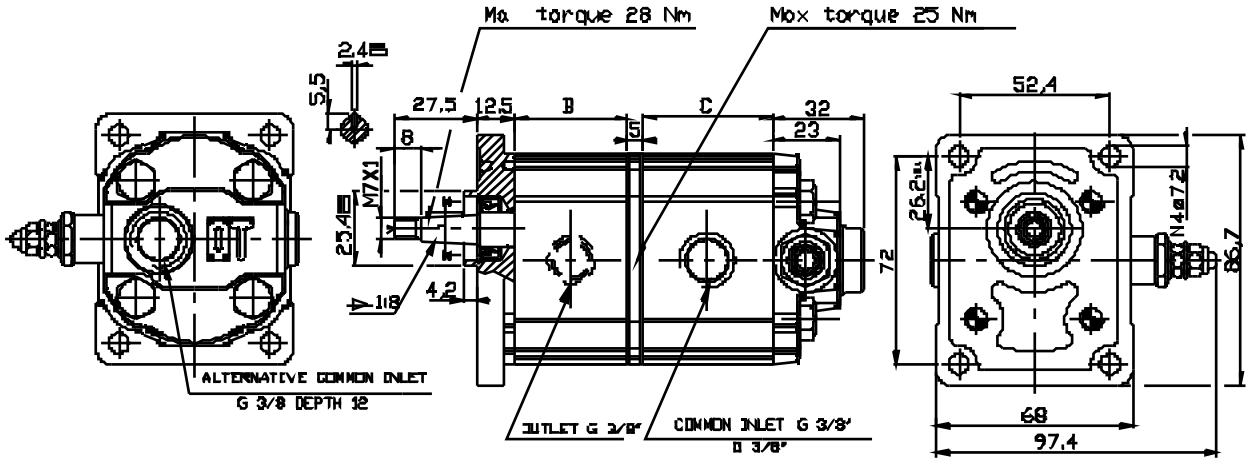
**OT100 P 40 / 20 S / B 18 P1 / 2**

- OT100 — Series
- P — Pump
- 40 — Front pump displacement ( see above table)
- 20 — Second pump displacement ( see above table)
- S — Rotation: S = Anti-clockwise, D = Clockwise
- B — Body for European flanges
- 18 — Taper shaft ( 1:8 )
- P1 — European standard flange
- 2 — 1 = One inlet port, 2 = Two inlet ports

AVAILABLE FOR QUANTITIES AS SECOND PUMP

# GROUP 1 PUMPS- TANDEM WITH SEQUENCE VALVE HI-LOW

**VERSION:** G18 P1-SV

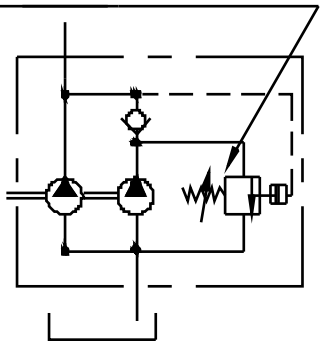



| FRONT PUMP | | | | |
|---|---|---|---|---|
| TIPO | P1 | P3 | B | Cy |
| OT 100 P11 | 240 | 280 | 37.8 | 1.05 |
| OT 100 P16 | 260 | 300 | 39.5 | 1.45 |
| OT 100 P20 | 260 | 300 | 40.9 | 1.80 |
| OT 100 P26 | 260 | 300 | 43 | 2.45 |
| OT 100 P32 | 260 | 300 | 40.9 | 3.05 |
| OT 100 P40 | 260 | 300 | 43 | 3.80 |

| SECOND PUMP | | | |
|---|---|---|---|
| TIPO | P1 | C | Cy |
| OT 100 P26 | 15/65 | 43 | 2.4 |
| OT 100 P40 | 15/65 | 47.8 | 3.8 |
| OT 100 P49 | 15/65 | 50.9 | 4.6 |
| OT 100 P65 | 15/65 | 50.9 | 6.2 |

P1 = working pressure (bar)
P3 = peak pressure (bar)
Cy= displacement (cc/rev )

RANGE 15/25 bar ( blue spring )
RANGE 25/65 bar ( red spring )



## EXAMPLE OF ORDERING CODE

**OT100 P 11 / 49 S / G 18 P1 - SV 30**

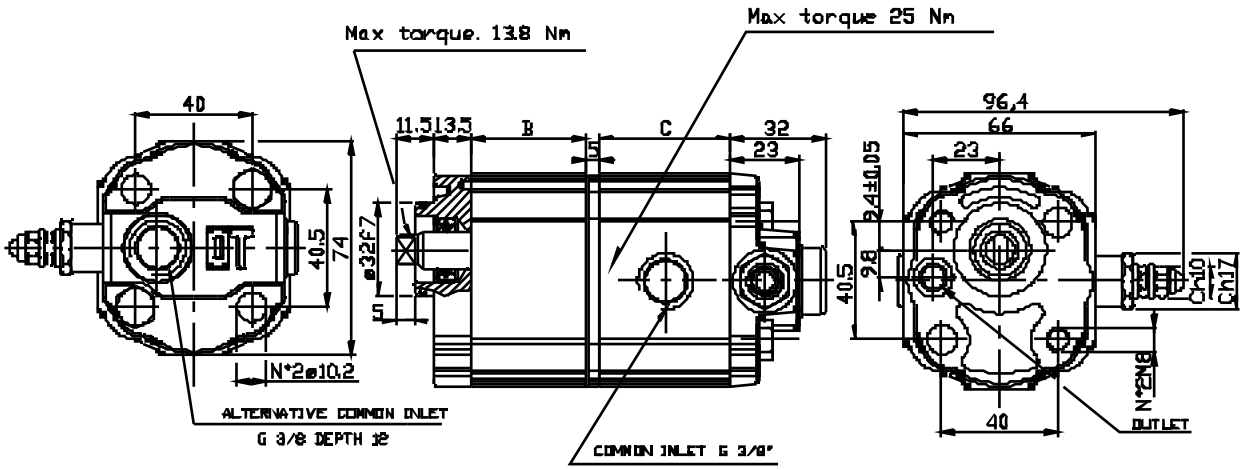
- OT100 — Series
- P — Pump
- 11 / 49 — Front pump displacement ( see above table) / Second pump displacement ( see above table)
- S / G — Rotation: S Anti-clockwise, D Clockwise
- 18 — See above corrispondent single pumps
- P1 — Body with threated ports ( BSP )
- SV — Sequence valve Hi-Low
- 30 — Setting value (bar)

European standard flange

Taper shaft ( 1:8 )

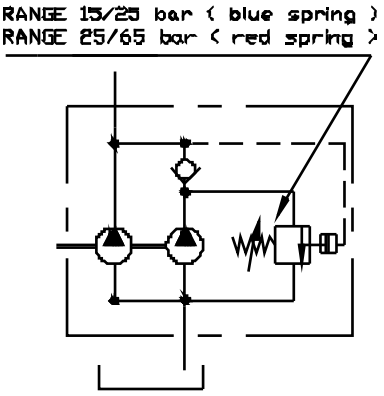
# GROUP 1 PUMPS- TANDEM WITH SEQUENCE VALVE HI-LOW

**VERSION:** N14 B1-SV




| FRONT PUMP | | | | |
|---|---|---|---|---|
| TIPO | P1 | P3 | B | Cy |
| OT 100 P11 | 240 | 280 | 37.8 | 1.05 |
| OT 100 P16 | 260 | 300 | 39.5 | 1.45 |
| OT 100 P20 | 260 | 300 | 40.9 | 1.80 |
| OT 100 P26 | 260 | 300 | 43 | 2.45 |
| OT 100 P32 | 260 | 300 | 40.9 | 3.05 |
| OT 100 P40 | 260 | 300 | 43 | 3.80 |

| SECOND PUMP | | | |
|---|---|---|---|
| TIPO | P1 | C | Cy |
| OT 100 P26 | 15/65 | 43 | 2.4 |
| OT 100 P40 | 15/65 | 47.8 | 3.8 |
| OT 100 P49 | 15/65 | 50.9 | 4.6 |
| OT 100 P65 | 15/65 | 50.9 | 6.2 |




P1 = work pressure (bar)
P3 = peak pressure (bar)
Cy= displacement (cc/rev )

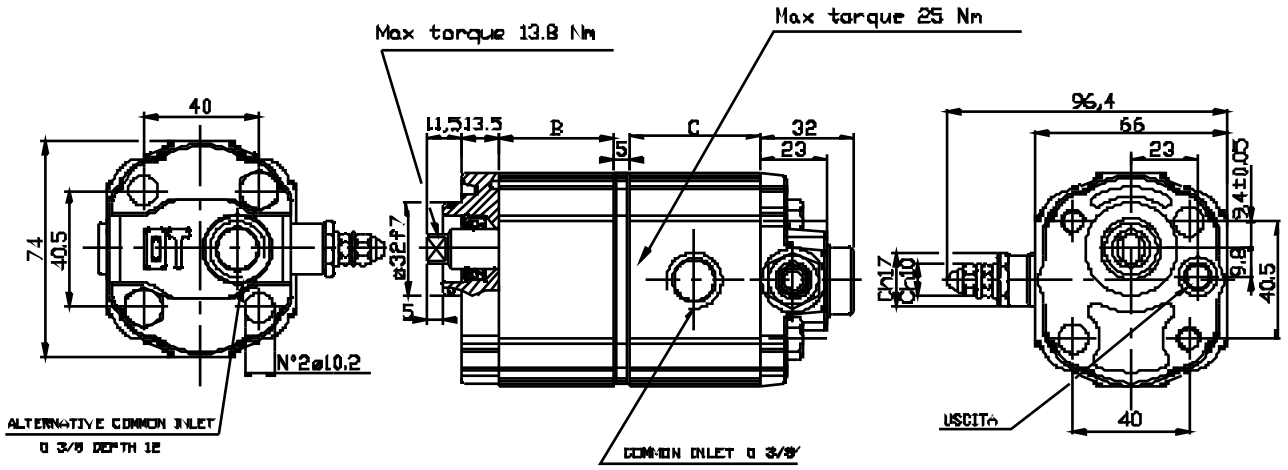
## EXAMPLE OF ORDERING CODE

**OT100 P 11 / 49 S / N 14 B1 - SV 30**

- OT100 — Series
- P — Pump
- 11 — Front pump displacement ( see above table)
- 49 — Second pump displacement ( see above table)
- S — Rotation: Anti-clockwise
- N — See above corrispondent single pumps
- 14 — Neutral body
- B1 — B1= Flange for Anti-clockwise
- SV — Sequence valve Hi-Low
- 30 — Setting value (bar)

# GROUP 1 PUMPS- WITH SEQUENCE VALVE HI-LOW

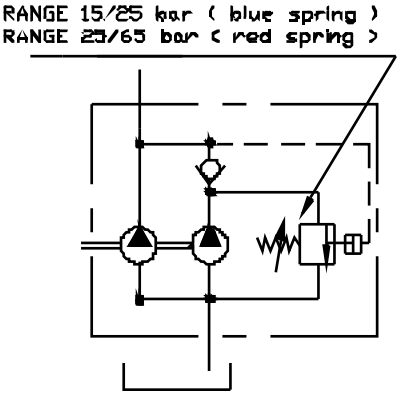
**VERSION: N14 B2-VS**




| FRONT PUMP | | | | |
|---|---|---|---|---|
| TIPO | P1 | P3 | B | Cy |
| OT 100 P11 | 240 | 280 | 37.8 | 1.05 |
| OT 100 P16 | 260 | 300 | 39.5 | 1.45 |
| OT 100 P20 | 260 | 300 | 40.9 | 1.80 |
| OT 100 P26 | 260 | 300 | 43 | 2.45 |
| OT 100 P32 | 260 | 300 | 40.9 | 3.05 |
| OT 100 P40 | 260 | 300 | 43 | 3.80 |

| SECOND PUMP | | | |
|---|---|---|---|
| TIPO | P1 | C | Cy |
| OT 100 P26 | 15/55 | 43 | 2.4 |
| OT 100 P40 | 15/55 | 47.8 | 3.8 |
| OT 100 P49 | 15/55 | 50.9 | 4.6 |
| OT 100 P65 | 15/55 | 50.9 | 6.2 |

P1 = work pressure (bar)
P3 = peak pressure (bar)
Cy = displacement (cc/rev)




## EXAMPLE OF ORDERING CODE

**OT100 P 11 / 49 D / N 14 B2 - SV 30**

- OT100 — Series
- P — Pump
- 11 — Front pump displacement ( see above table)
- 49 — Second pump displacement ( see above table)
- D — Rotation: D = Clockwise
- N — See above corrispondent single pumps
- 14 — Neutral body
- B2 — B2= Flange for clockwise
- SV — Sequence valve Hi-Low
- 30 — Setting value (bar)

# GROUP 1 MOTORS

## OT100 SINGLE ROTATION MOTORS GENERAL DATA

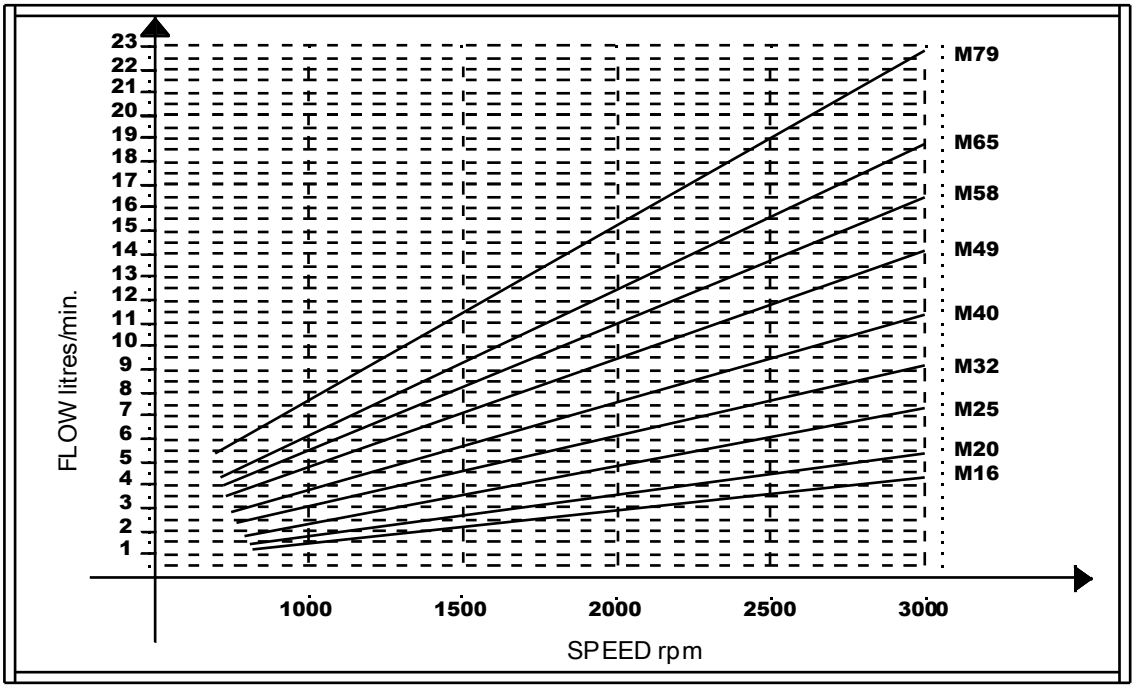
| MOTOR TYPE | DISPLACEMENT | MAX. PRESSURE | | | MAX. SPEED | MIN. SPEED |
|---|---|---|---|---|---|---|
| | | P1 | P2 | P3 | | |
| | cc / rev | bar | | | rev | rev |
| OT100 M16 | **1.45** | **250** | **280** | **300** | **5000** | **600** |
| OT100 M20 | **1.80** | | | | | |
| OT100 M25 | **2.45** | | | | | |
| OT100 M32 | **3.05** | | | | | |
| OT100 M40 | **3.80** | | | | | |
| OT100 M49 | **4.70** | **200** | **220** | **240** | **4500** | **500** |
| OT100 M58 | **5.55** | **200** | **210** | **230** | | |
| OT100 M65 | **6.25** | **170** | **190** | **220** | **3500** | |
| OT100 M79 | **7.60** | | | | | |

**P1= Max. continuous pressure** **P2= Max. intermittent pressure** **P3= Max. peak pressure**

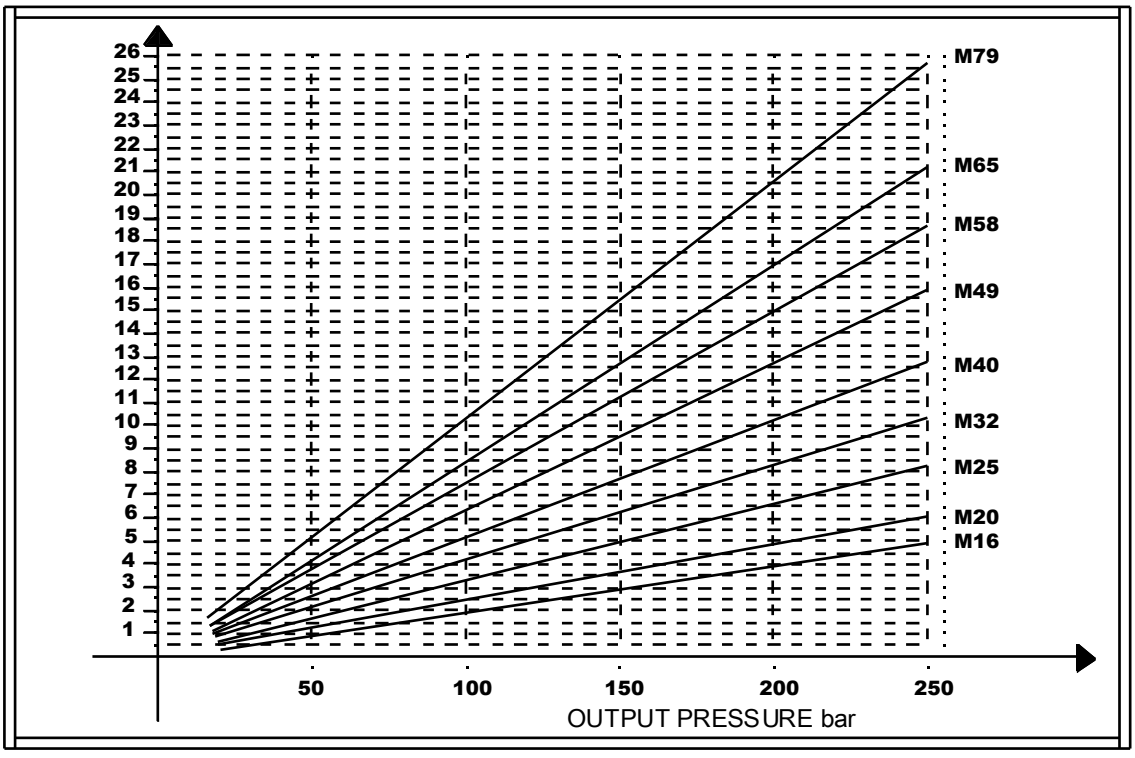
**FOR DIMENSION PLEASE CHECK**
**RELATIVE SINGLE PUMP TABLES**

# GROUP 1 MOTORS

## FLOW CHARACTERISTICS CURVES




## ABSORBED TORQUE




## NOTE

**The flow characteristics curves have been made at P1 pressure.**

# GROUP 1 MOTORS

## MOTOR CALCULATION

| | | |
|---|---|---|
| V | **Displacement** | **cc/rev** |
| Q | **Flow** | **l/min** |
| P | **Power** | **kW** |
| C | **Torque** | **N · m** |
| N | **Speed** | **rpm** |
| $\Delta P$ | **Pressure** | **bar** |
| $n_v$ | **Volumetric efficiency** | **0.95** |
| $n_m$ | **Mechanical efficiency** | **0.85** |
| $n_t$ | **Total efficiency** | **0.81** |

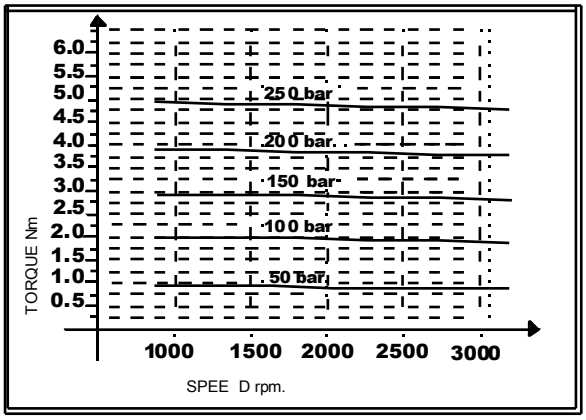
$$Q = \frac{V \cdot N \cdot 10^{-3}}{n_v} \quad \text{l/min}$$

$$C = \frac{\Delta P \cdot V \cdot n_m}{62.8} \quad \text{N} \cdot \text{m}$$

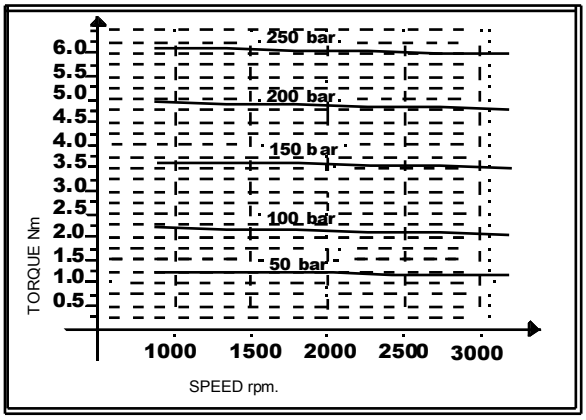
$$P = \frac{\Delta P \cdot V \cdot N \cdot n_t}{612000} \quad \text{kW}$$

# GROUP 1 MOTORS - TORQUE CHARACTERISTICS CURVES

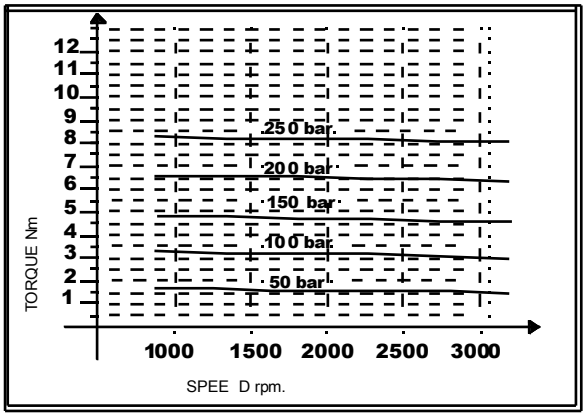
**MOTORS OT100 M16**



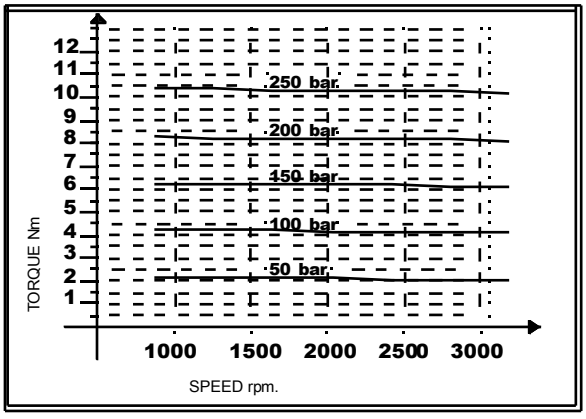

**MOTORS OT100 M20**



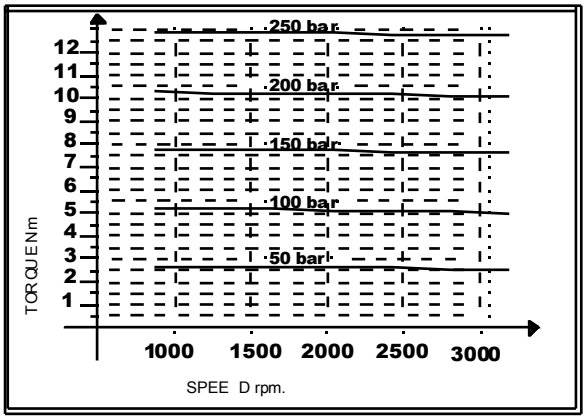

**MOTORS OT100 M25**



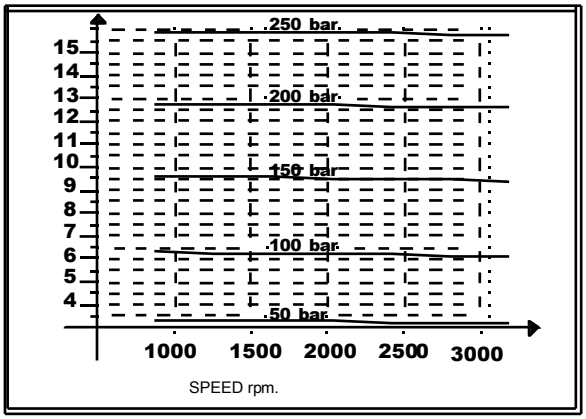

**MOTORS OT100 M32**




**MOTORS OT100 M40**

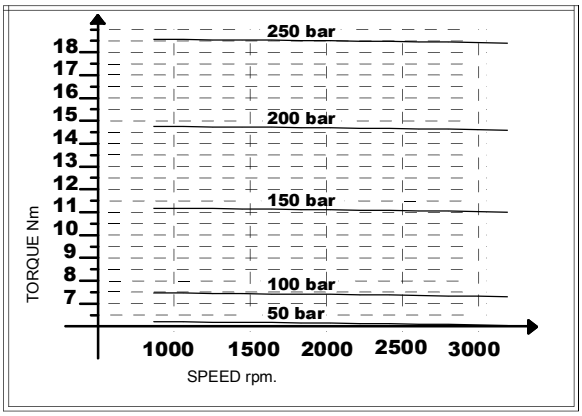



**MOTORS OT100 M49**

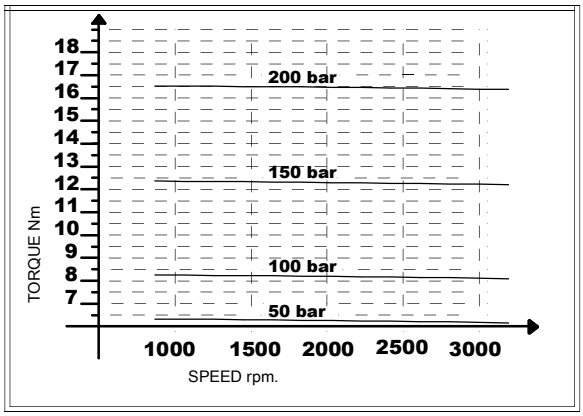


# GROUP 1 MOTORS - TORQUE CHARACTERISTICS CURVES

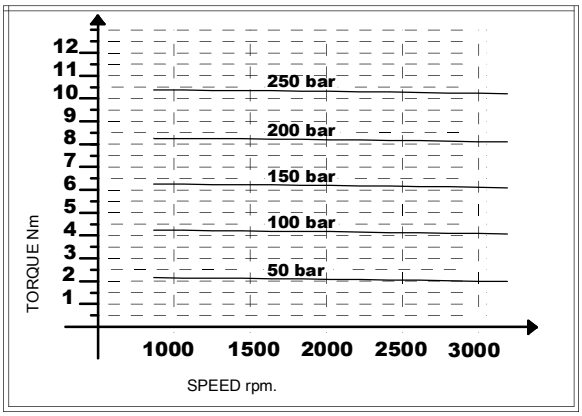
## MOTORS OT100 M58




## MOTORS OT100 M65

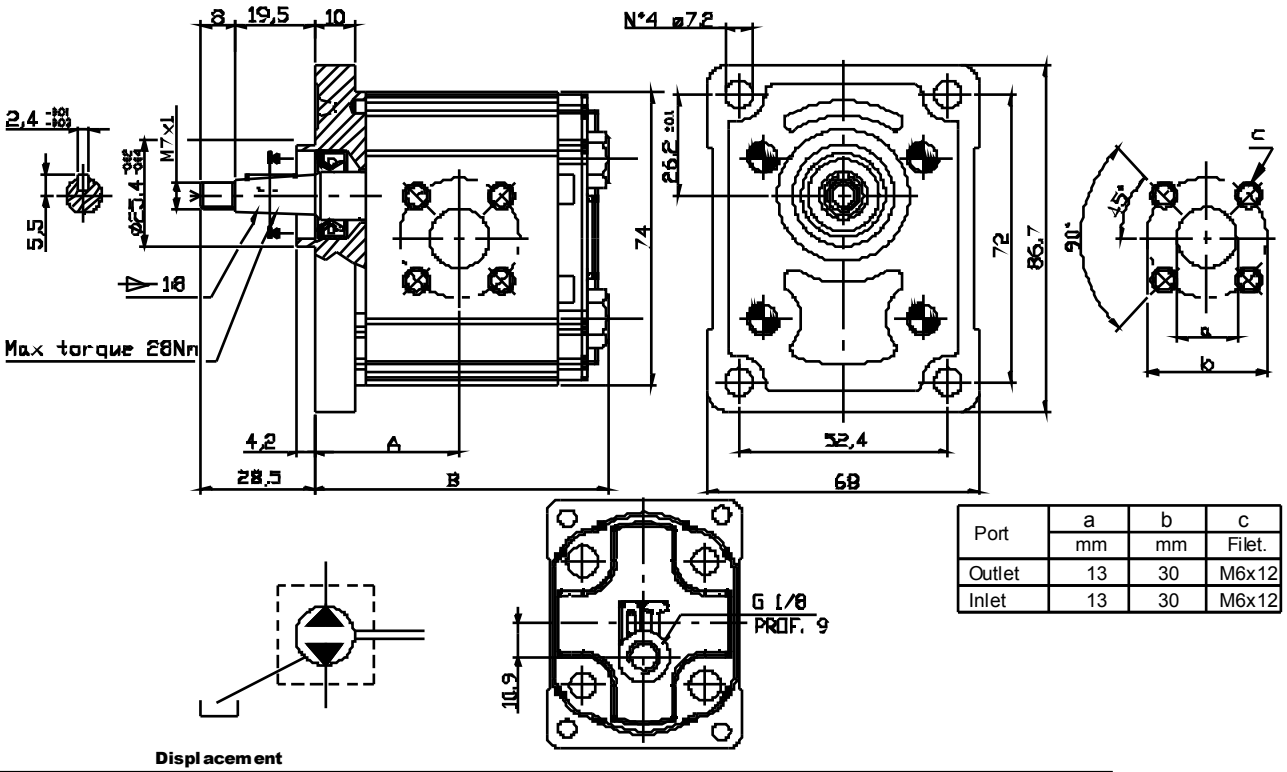



## MOTORS OT100 M79



# GROUP 1 REVERSIBLE MOTORS - EUROPEAN STANDARD

**VERSION:** B18 P1




| Port | a | b | c |
|---|---|---|---|
| | mm | mm | Filet. |
| Outlet | 13 | 30 | M6x12 |
| Inlet | 13 | 30 | M6x12 |

**Displacement**

| Type | ( cc/rev ) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( r.p.m) | Dimension A (mm) | Dimension B (mm) | Absorbed torque at 150 bar ( Nm ) | Code |
|---|---|---|---|---|---|---|---|---|
| **OT 100 M16** | 1.45 | 180 | 230 | 5000 | 32.75 | 67.3 | 4.2 | PS1009083R |
| **OT 100 M20** | 1.80 | 210 | 250 | 5000 | 33.45 | 68.7 | 5.2 | PS1009084R |
| **OT 100 M25** | 2.45 | 210 | 250 | 5000 | 34.50 | 70.8 | 6.7 | PS1009085R |
| **OT 100 M32** | 3.05 | 210 | 250 | 5000 | 35.50 | 72.8 | 8.3 | PS1009086R |
| **OT 100 M40** | 3.80 | 210 | 250 | 4500 | 36.90 | 75.6 | 10.1 | PS1009087R |
| **OT 100 M49** | 4.70 | 200 | 240 | 4500 | 38.45 | 78.7 | 12.7 | PS1009088R |
| **OT 100 M58** | 5.55 | 200 | 220 | 4000 | 40.00 | 81.8 | 15.0 | PS1009089R |
| **OT 100 M65** | 6.25 | 180 | 210 | 3750 | 41.25 | 84.3 | 16.8 | PS1009090R |
| **OT 100 M79** | 7.60 | 160 | 200 | 3500 | 43.60 | 89.0 | 20.5 | PS1019091R |

## EXAMPLE OF ORDERING CODE

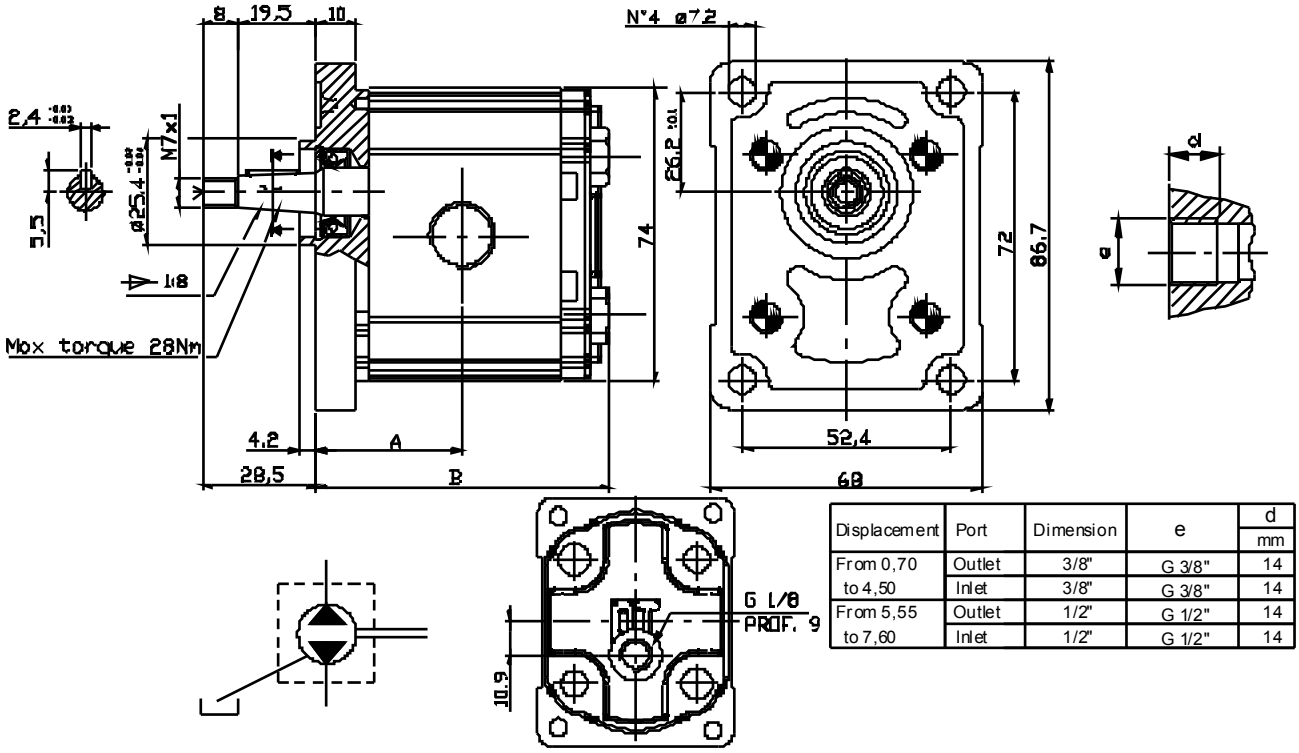
**OT100 M 20 R / B 18 P1**

- OT100 — Series
- M — Motor
- 20 — Displacement ( see above table )
- R — Rotation: R Reversible
- B — Body for European flanges
- 18 — Taper shaft ( 1:8 )
- P1 — European standard flange

Screws tightening torque : 25÷28 Nm

# GROUP 1 REVERSIBLE MOTORS - EUROPEAN STANDARD

**VERSION:** G 18 P1




| Displacement | Port | Dimension | e | d mm |
|---|---|---|---|---|
| From 0,70 to 4,50 | Outlet | 3/8" | G 3/8" | 14 |
| | Inlet | 3/8" | G 3/8" | 14 |
| From 5,55 to 7,60 | Outlet | 1/2" | G 1/2" | 14 |
| | Inlet | 1/2" | G 1/2" | 14 |

| Type | Displacement ( cc/rev ) | Max working pressure P1 ( bar ) | Peak pressure P3 ( bar ) | Max speed ( r.p.m) | Dimension A ( mm ) | Dimension B ( mm ) | Absorbed torque at 150 bar ( Nm ) | Code |
|---|---|---|---|---|---|---|---|---|
| **OT 100 M16** | 1.45 | 180 | 230 | 5000 | 32.75 | 67.3 | 4.2 | PS1009063R |
| **OT 100 M20** | 1.80 | 210 | 250 | 5000 | 33.45 | 68.7 | 5.2 | PS1009064R |
| **OT 100 M25** | 2.45 | 210 | 250 | 5000 | 34.50 | 70.8 | 6.7 | PS1009065R |
| **OT 100 M32** | 3.05 | 210 | 250 | 5000 | 35.50 | 72.8 | 8.3 | PS1009066R |
| **OT 100 M40** | 3.80 | 210 | 250 | 4500 | 36.90 | 75.6 | 10.1 | PS1009067R |
| **OT 100 M49** | 4.70 | 200 | 240 | 4500 | 38.45 | 78.7 | 12.7 | PS1009068R |
| **OT 100 M58** | 5.55 | 200 | 220 | 4000 | 40.00 | 81.8 | 15.0 | PS1009069R |
| **OT 100 M65** | 6.25 | 180 | 210 | 3750 | 41.25 | 84.3 | 16.8 | PS1009070R |
| **OT 100 M79** | 7.60 | 160 | 200 | 3500 | 43.60 | 89.0 | 20.5 | PS1019071R |

## EXAMPLE OF ORDERING CODE

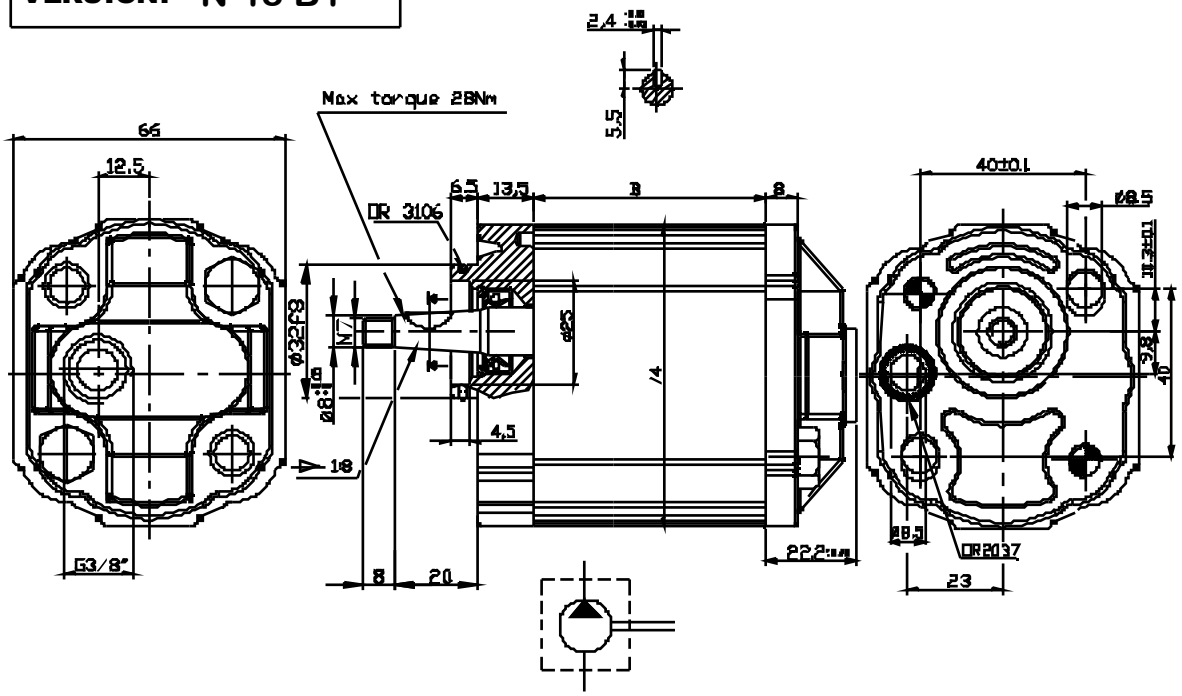
**OT100 M 20 R / G 18 P1**

- OT100 — Series
- M — Pump
- 20 — Displacement ( see above table )
- R — Rotation: R Reversible
- G — Body with threated ports ( BSP )
- 18 — Taper shaft ( 1:8 )
- P1 — European standard flange

Screws tightening torque : 25÷28 Nm

# GROUP 1 PUMPS- SPECIAL VERSION FOR POWER UNITS

**VERSION:** N 18 B1




| Type | Displacement (cc/ rev) | Max working pressure P1 (bar) | Peak pressure P3 (bar) | Max speed (rpm) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) | Code (Anti- Clockwise ) |
|---|---|---|---|---|---|---|---|
| **OT 100 P11** | 1.05 | 240 | 280 | 5000 | 37.8 | 2.4 | PS1007302S |
| **OT 100 P16** | 1.45 | 260 | 300 | 5000 | 39.5 | 4.2 | PS1007303S |
| **OT 100 P20** | 1.80 | 240 | 300 | 5000 | 40.9 | 5.2 | PS1007304S |
| **OT 100 P26** | 2.45 | 240 | 280 | 5000 | 43.0 | 6.7 | PS1007305S |
| **OT 100 P32** | 3.05 | 240 | 280 | 5000 | 45.0 | 8.3 | PS1007306S |
| **OT 100 P40** | 3.80 | 220 | 260 | 4500 | 47.8 | 10.1 | PS1007307S |
| **OT 100 P49** | 4.70 | 200 | 240 | 4500 | 50.9 | 12.7 | PS1007308S |
| **OT 100 P58** | 5.55 | 180 | 220 | 4000 | 54.0 | 15.0 | PS1007309S |
| **OT 100 P65** | 6.25 | 160 | 200 | 3750 | 56.5 | 16.8 | PS1007310S |
| **OT 100 P79** | 7.60 | 140 | 180 | 3500 | 61.2 | 20.5 | PS1017301S |

## EXAMPLE OF ORDERING CODE

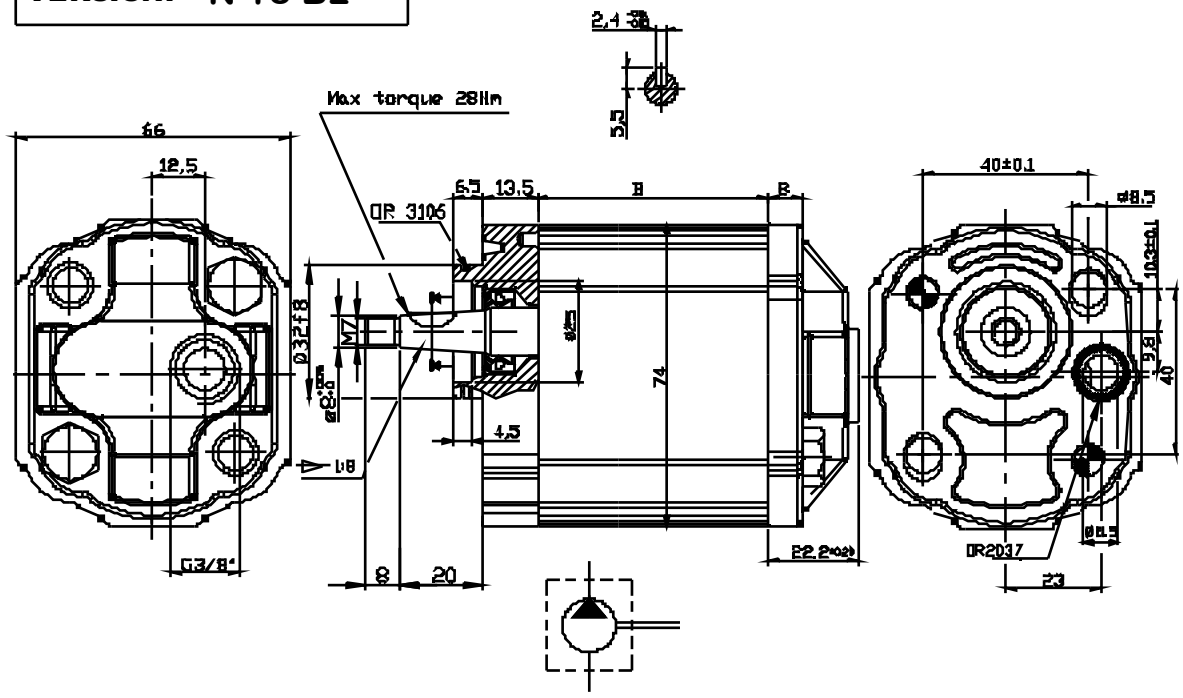
**OT100 P 20 S / N 18 B1**

- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- S — Rotation: S = Anti-clockwise
- N — Body without ports
- 18 — Taper shaft ( 1:8 )
- B1 — B1 = Flange for Anti-clockwise

Screws tightening torque : 28÷30 Nm

# GROUP 1 PUMPS **SPECIAL VERSION FOR POWER UNITS**

**VERSION:** N 18 B2




| Type | Displacement (cc/ rev) | Max working pressure P1 (bar) | Peak pressure P3 (bar) | Max speed (rpm) | Dimension B (mm) | Absorbed torque at 150 bar (Nm) | Code (Anti- Clockwise) |
|---|---|---|---|---|---|---|---|
| **OT 100 P11** | 1.05 | 240 | 280 | 5000 | 37.8 | 2.4 | PS1007302D |
| **OT 100 P16** | 1.45 | 260 | 300 | 5000 | 39.5 | 4.2 | PS1007303D |
| **OT 100 P20** | 1.80 | 240 | 300 | 5000 | 40.9 | 5.2 | PS1007304D |
| **OT 100 P26** | 2.45 | 240 | 280 | 5000 | 43.0 | 6.7 | PS1007305D |
| **OT 100 P32** | 3.05 | 240 | 280 | 5000 | 45.0 | 8.3 | PS1007306D |
| **OT 100 P40** | 3.80 | 220 | 260 | 4500 | 47.8 | 10.1 | PS1007307D |
| **OT 100 P49** | 4.70 | 200 | 240 | 4500 | 50.9 | 12.7 | PS1007308D |
| **OT 100 P58** | 5.55 | 180 | 220 | 4000 | 54.0 | 15.0 | PS1007309D |
| **OT 100 P65** | 6.25 | 160 | 200 | 3750 | 56.5 | 16.8 | PS1007310D |
| **OT 100 P79** | 7.60 | 140 | 180 | 3500 | 61.2 | 20.5 | PS1017301D |

## EXAMPLE OF ORDERING CODE

**OT100 P 20 D / N 18 B2**

- OT100 — Series
- P — Pump
- 20 — Displacement ( see above table )
- D — Rotation: D clockwise
- N — Body without ports
- 18 — Taper shaft ( 1:8 )
- B2 — B2= Flange for clockwise

□ Screws tightening torque : 28 ÷ 30 Nm