



## PRODUCT CARD



# GEAR PUMPS AND MOTORS "B" SERIES GROUP 2.5

E0.16.0703.02.01

**sajami** ™

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**E0.16.0703.02.01**

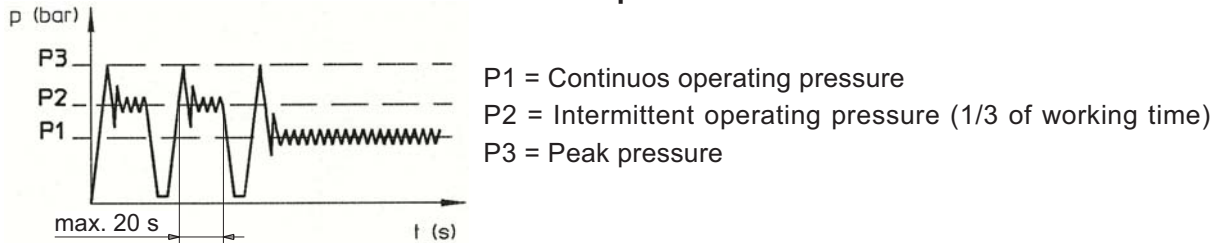
The data in this catalogue refers to the standard product.

The policy of Salami S.p.A. consists of a continuous improvement of its products. It reserves the right to change the specifications of the different products whenever necessary and without giving prior information.

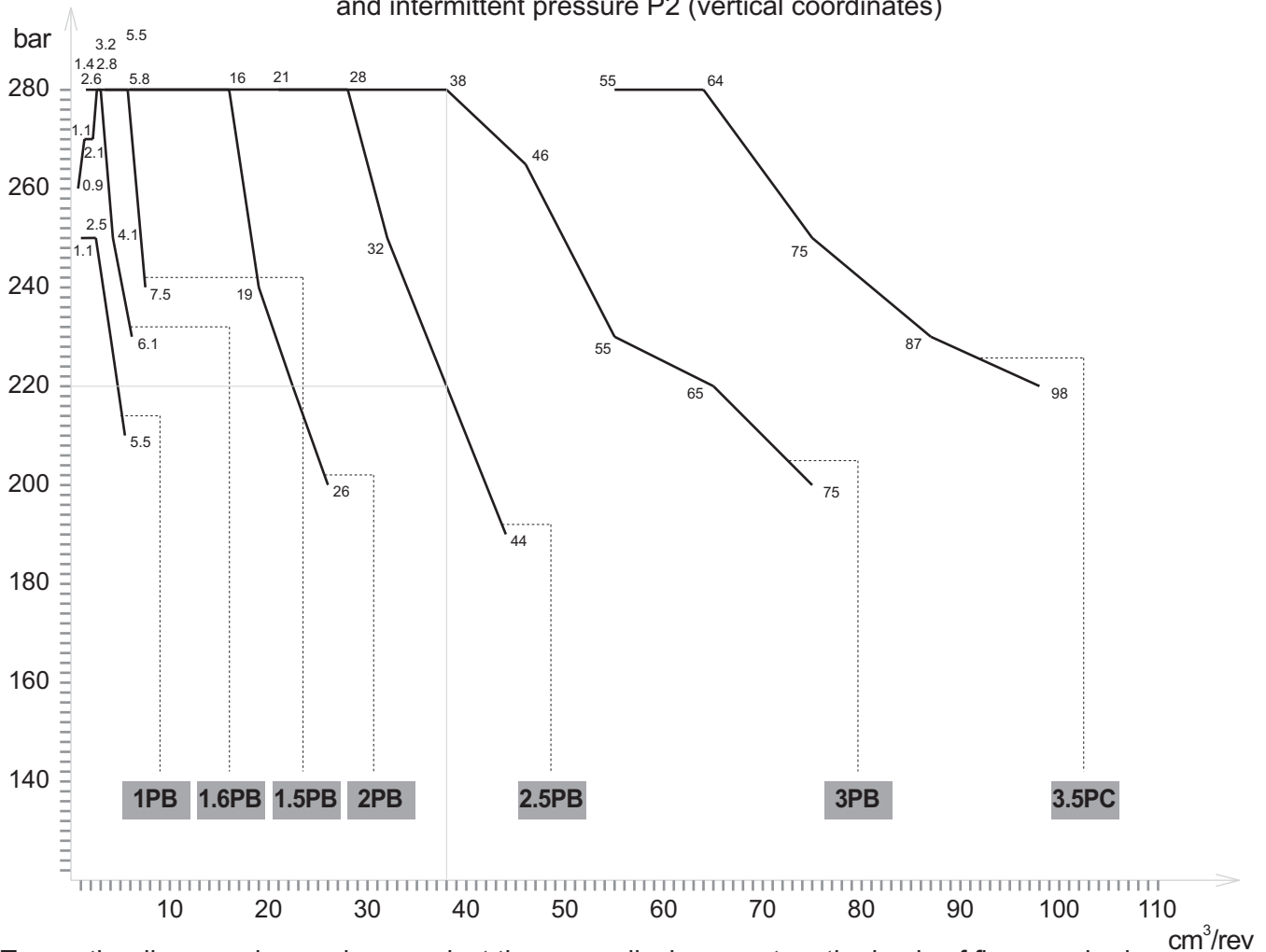
If any doubts, please get in touch with our sales department.

### QUICK GUIDE TO SELECT THE RIGHT PUMP SIZE

#### Definition of pressures



The diagram shown here below is used as a first dimensioning aid for the choice of pump group. It is based on the value of displacements (horizontal coordinates) and intermittent pressure  $P2$  (vertical coordinates)



To use the diagram shown above, select the pump displacement on the basis of flow required. Then draw a vertical line to intersect the line representing the pump series. Now you can select the group on the basis of required application pressure.

**Example: 38  $\text{cm}^3/\text{rev}$  — 2.5PB 38 220 bar (3140 psi)**  
**If required application pressure is more than 220 bar, use a 3 PB**



**GENERAL**

SALAMI gear pumps and motors are available in seven series giving options of displacements from 1.1 cm<sup>3</sup>/rev to 98 cm<sup>3</sup>/rev (from 0.06 cu.in./rev to 6.03 cu.in./rev).

All pumps are available as multiple units either of the same or different series.

With all sizes of pumps and motors there are options of shafts, flanges and ports as for European, German and American standards.

SALAMI gear pumps and motors offer:

- High volumetric efficiency by innovative design and accurate control of machining tolerances.
- Axial compensation achieved by the use of floating bushes that allow high volumetric efficiency throughout the working pressure range.
- DU bearings ensure high pressure capability.
- 12 teeth integral gear and shaft.
- Extruded alluminum body.
- Die cast alluminum cover and flange - cast iron rear.
- Double shafts seals in all pump series except Group 1.
- Nitrile seals as standard and viton seals in high temperature applications.

All pumps and motors are hydraulic tested after assembly to ensure the high standard performance required by SALAMI'S engineering.

**WORKING CONDITIONS**

**THE VALUES OF PRESSURE ARE ABSOLUTE**

- Pump inlet pressure ..... 0,7 to 2,5 bar  
10 to 36 *psi*
- Return pipe line continuous pressure for motors ..... MAX 2,5 bar - 36 *psi*
- Return pipe line intermit. pressure for motors ..... MAX 6 bar for 15 sec - 85 *psi*
- Return pipe line peak pressure for motors ..... MAX 15 bar - 215 *psi*
- Minimum operating fluid viscosity ..... 12 mm<sup>2</sup> / sec
- Max starting viscosity ..... 800 mm<sup>2</sup> / sec
- Suggested fluid viscosity range ..... 17 - 65 mm<sup>2</sup> / sec
- Fluid operating temperature range ..... -15 to +85 °C
- Hydraulic fluid ..... mineral oil

Important:

in case of assembling of pumps without shaft seals (eg. B2 - B3...), you have to keep the value of min. suction pressure ( 0.7 bar (abs)) in the vane between pump and coupling too.

Lower pressure can lead to suction of oil through the front flange (seat of the shaft without seal); this can damage seriously the pump.

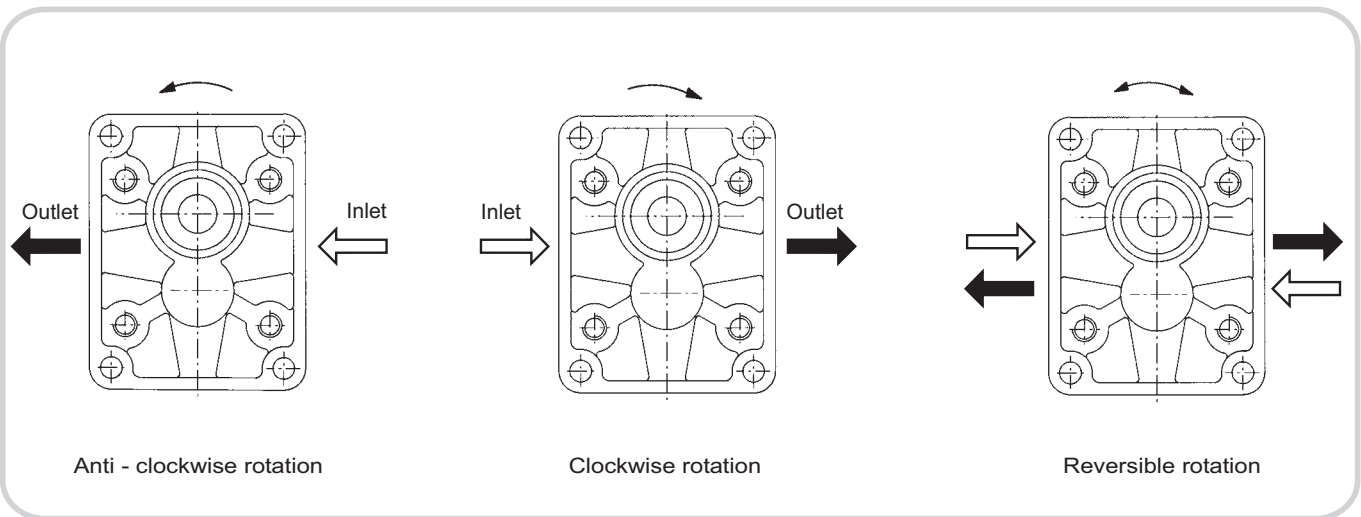
**FIRE RESISTENT FLUID**

Type	Description	Max pressure	Max speed (rpm)	Temperature
HFB	oil emulsion with 40% water	130 bar/1880 <i>psi</i>	2500	3°C +65°C
HFC	Water glycol	180 bar/2600 <i>psi</i>	1500	-20°C +65°C
HFD	Phosphate esters		1750	-10°C +80°C

### DRIVE SHAFT

Radial and axial loads on the shafts must be avoided since they reduce the life of the unit. Pumps driven by power take - off on engines must always be connected by placing an "Oldham" coupling or coupling having convex toothed hub. This is to ensure that inevitable misalignment during assembly is reduced to minimum.

### PUMP ROTATION DIRECTION VIEWED AT THE DRIVE SHAFT



### HYDRAULIC PIPE LINE

To ensure favorable suction conditions it is important to keep pressure drop in suction pipe line to a minimum value (see WORKING CONDITIONS).

To calculate hydraulic pipe line size, the designer can use; as an approximate guide, the following fluid speed figures:

From 1 to 2 m/sec on suction pipe line  
From 6 to 10 m/sec on pressure pipe line

From 3.28 to 6.36 ft/sec on suction pipe line  
From 19.7 to 32.8 ft/sec on pressure pipe line

The lowest fluid speed values in pipe lines is recommended when the operating temperature range is high and/or for continuous duty.

The highest value is recommended when the temperature difference is low and/or for intermittent duty.

**When tandem pumps are supplied by 2 different reservoirs with 2 different fluids it is necessary to specify "AS" version.**

In case of reversible motor allowance must be made to ensure the motor is not drained, through the case drain, when stationary.

**FILTRATION INDEX RECOMMENDED**

Working pressure	> 200 bar / 2900 psi	< 200 bar / 2900 psi
Contamination class NAS 1638	9	10
Contamination class ISO 4406	18/15	19/16
Achieved with filter $\beta_x = 75$	15 $\mu\text{m}$	25 $\mu\text{m}$

**TIGHTENING TORQUE**

**OUR BOLTS AND TIE-RODS HAVE ALWAYS HEATING TREATMENT OF BLACK BURNISHING**

PUMP TYPE		BOLT TYPE		TORQUE Nm	FOR SCREWS ZINC PLATED REDUCE TIGHTENING TORQUE OF 10%
SIZE	SERIE	DIAMETER	CLASS		
1	B SINGLE	M 8 x 1.25	8.8	20.5 - 25.5	
1	B MULTIPLE	M 8 x 1.25	8.8	20.5 - 25.5	
2	B SINGLE	M 10 x 1.5	8.8	47-51	
2	B MULTIPLE	M 10 x 1.5	10.9	50-55	
2.5	B SINGLE	M 12	8.8	70-75	
2.5	B MULTIPLE	M 12	10.9	75-80	
3	B	M 10	HEX. BOLT <b>10.9</b> HEX. SOCKET H.C.B. <b>12.9</b>	47-51	
3.5	C	M 12	8.8	74-85	
3	H	M 14	10.9	BOLT 180 150-160 TIE ROD	

**COMMON FORMULAS**

$$C = \text{Input torque} = \frac{q \cdot \Delta p}{62.8 \cdot \eta_m} \text{ (Nm)}$$

$$P = \text{Input power} = \frac{q \cdot n \cdot \Delta p \cdot 10^{-3}}{600 \eta_m} \text{ (kW)}$$

$$Q = \text{Outlet flow} = \frac{q \cdot n \cdot \eta_v}{1000} \text{ (l/min)}$$

**LEGENDA**

$\Delta p$  = Working pressure (bar)

$q$  = Displacement ( $\text{cm}^3/\text{rev}$ )

$n$  = Speed ( $\text{min}^{-1}$ )

$\eta_m$  = Mechanical eff. (0.92)

$\eta_v$  = Volumetric eff. (0.95)

### Description of the product identification label

Based on the firm certification ISO 9001 - UNI EN 29001, section 4.8 (identification and traceability of the product), we have adopted a new identification label starting from the 1<sup>st</sup> march 1995. Pls, see following example:

A			
B			
C		D	
E	salami	F	G

- A = Product short description (VD8A/FDD/U4G).**
- B = Customer part number.**
- C = Salami part number (6235 0025 0).**
- D = Production batch (for Salami management)**
- E = Rotation sense (only for pumps).**
- F = Manufacturing date (see data sheet here below)**
- G = Progressive number of assembling.**

Only for pumps 2PB and 2PZ (except triple 2PB) the identification product is marked on the top of the pump body as shown here below:



**SALAMI 09/02**  
**MADE IN ITALY 4010998**  
**612271211 nr. 13**  
**2PB 19S B25 B5**

- Product short description. \_\_\_\_\_
- Salami part number and progressive number of assembling. \_\_\_\_\_
- Production code (for Salami management). \_\_\_\_\_
- Month and year of made: maybe in the future you can find this type of production date in the label beside too. \_\_\_\_\_
- Rotation sense. \_\_\_\_\_

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
JANUARY	0A	1A	2A	3A	4A	5A	6A	7A	8M	9M	0M	1M	2M	3M	4M	5M
FEBRUARY	0B	1B	2B	3B	4B	5B	6B	7B	8N	9N	0N	1N	2N	3N	4N	5N
MARCH	0C	1C	2C	3C	4C	5C	6C	7C	8P	9P	0P	1P	2P	3P	4P	5P
APRIL	0D	1D	2D	3D	4D	5D	6D	7D	8Q	9Q	0Q	1Q	2Q	3Q	4Q	5Q
MAY	0E	1E	2E	3E	4E	5E	6E	7E	8R	9R	0R	1R	2R	3R	4R	5R
JUNE	0F	1F	2F	3F	4F	5F	6F	7F	8S	9S	0S	1S	2S	3S	4S	5S
JULY	0G	1G	2G	3G	4G	5G	6G	7G	8T	9T	0T	1T	2T	3T	4T	5T
AUGUST	0H	1H	2H	3H	4H	5H	6H	7H	8U	9U	0U	1U	2U	3U	4U	5U
SEPTEMBER	0I	1I	2I	3I	4I	5I	6I	7I	8V	9V	0V	1V	2V	3V	4V	5V
OCTOBER	0J	1J	2J	3J	4J	5J	6J	7J	8Z	9Z	0Z	1Z	2Z	3Z	4Z	5Z
NOVEMBER	0K	1K	2K	3K	4K	5K	6K	7K	8X	9X	0X	1X	2X	3X	4X	5X
DECEMBER	0L	1L	2L	3L	4L	5L	6L	7L	8Y	9Y	0Y	1Y	2Y	3Y	4Y	5Y





## Rotation changing instructions for pumps GROUP 2 - 2.5 - 3 - 3.5

Before starting, be sure that the pump is cleaned externally as well as the working area to avoid that particles dangerous for pump working can find their way into the pump.

Pump represented is aclockwise rotation pump.

To obtain an anti\_clockwise rotation read carefully the following instructions.

### Picture "A"

- 1 - Loosen and fully unscrew the clamp bolts.
- 2 - Lay the pump on the working area in order to have the mounting flange turned upside.
- 3 - Coat the shaft extension with grease to avoid damaging the shaft seal.
- 4 - Remove the flange and lay it on the working area; verify that the seal is correctly located in the body seat.

### Picture "B"

- 1 - Mark the position of the bushing and eventually the thrust plate, relative to the body.
- 2 - Remove the bushing, thrust plate and the driving gear taking care to avoid driven gear axial shifts.

### Picture "C"

- 1 - Draw out the driven gear from its housing, taking care to avoid rear cover axial shifts.
- 2 - Re-locate the driven gear in the position previously occupied by the driving gear.

### Picture "D"

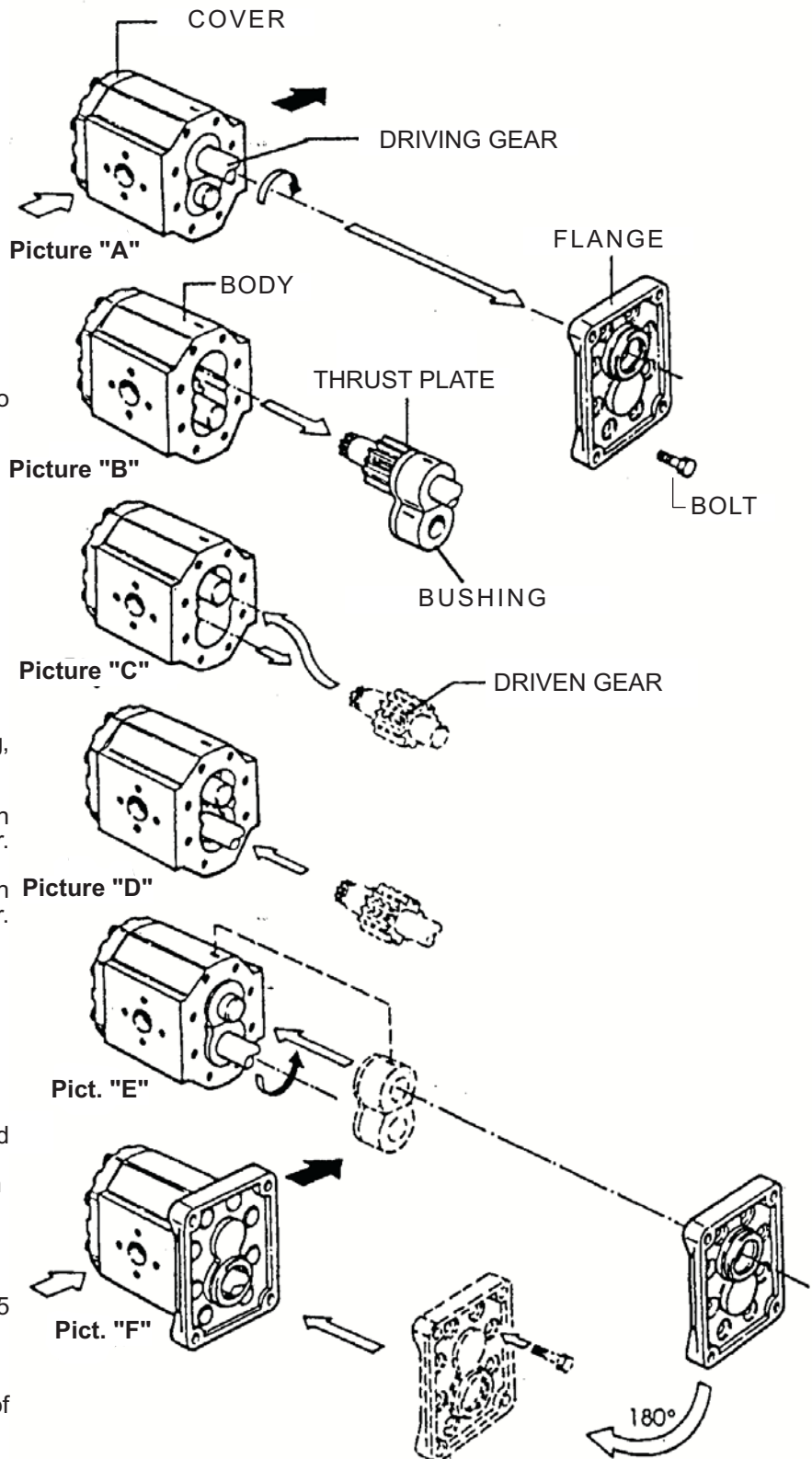
- 1 - Re-locate the driving gear in the position previously occupied by the driven gear.

### Picture "E"

- 1 - Replace the bushing and thrust plate taking care that:
  - marks are located as on the picture
  - surface containing the seal is visible
  - seal and its protection are correctly located

### Picture "F"

- 1 - Clean body and mounting flange refaced surfaces.
- 2 - Verify that the two plugs are located in the body.
- 3 - Refit the mounting flange, turned 180° from its original position.
- 4 - Replace the clamp bolts and tighten crosswise evenly to a torque of 40 - 45 Nm for 2PB, 2.5PB, 45 - 50 Nm for 3PB, 3.5PB.
- 5 - Check that the shaft rotates freely.
- 6 - Mark on the flange the new direction of rotation.



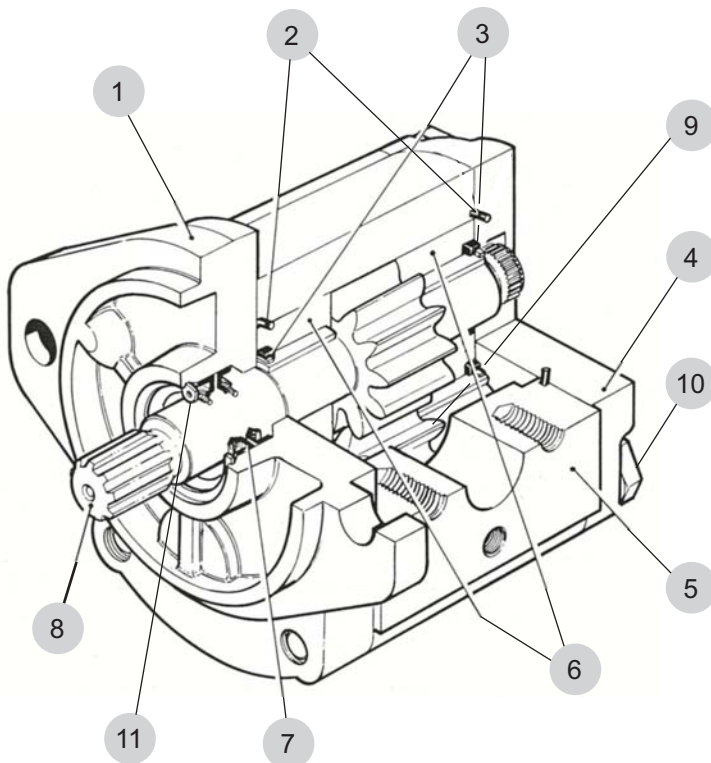
**IMPORTANT: TO AVOID A PERFORMANCE LOSS DO NOT CHANGE MOTOR ROTATION**



## 2.5P/MB Group 2.5



### GEAR PUMP IN DETAIL

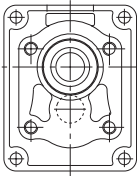
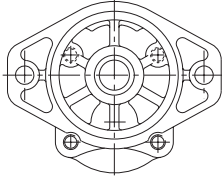
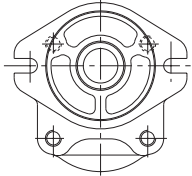
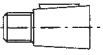






- 1 - Flange
- 2 - Body seal
- 3 - Bushing seals and anti-extrusion
- 4 - Cover
- 5 - Body
- 6 - Bushings
- 7 - Rotary shaft seal
- 8 - Drive gear
- 9 - Driven gear
- 10 - Screws
- 11 - Stop ring

This drawing can be considered an example of standard components of group 2.5 pump.



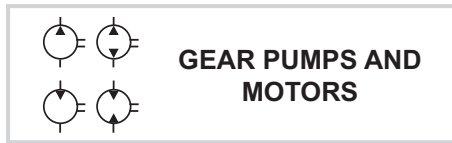
**COMBINATION WITH TYPES OF FLANGES AND DRIVES SHAFTS AVAILABLE**

<b>2.5PB</b>	 <b>P2</b>	 <b>S3</b>	 <b>S2</b>
 <b>38</b>	<p>38 P2</p>		
 <b>53</b>			<p>53 S2</p>
 <b>54</b>			<p>54 S2</p>
 <b>55</b>			<p>55 S2</p>
 <b>87</b>			<p>87 S2</p>

# 2.5P/MB Group 2.5

# GEAR PUMPS AND MOTORS "B" SERIES

Displacements up to 2.69 cu.in./rev  
Pressure up to 4300 psi



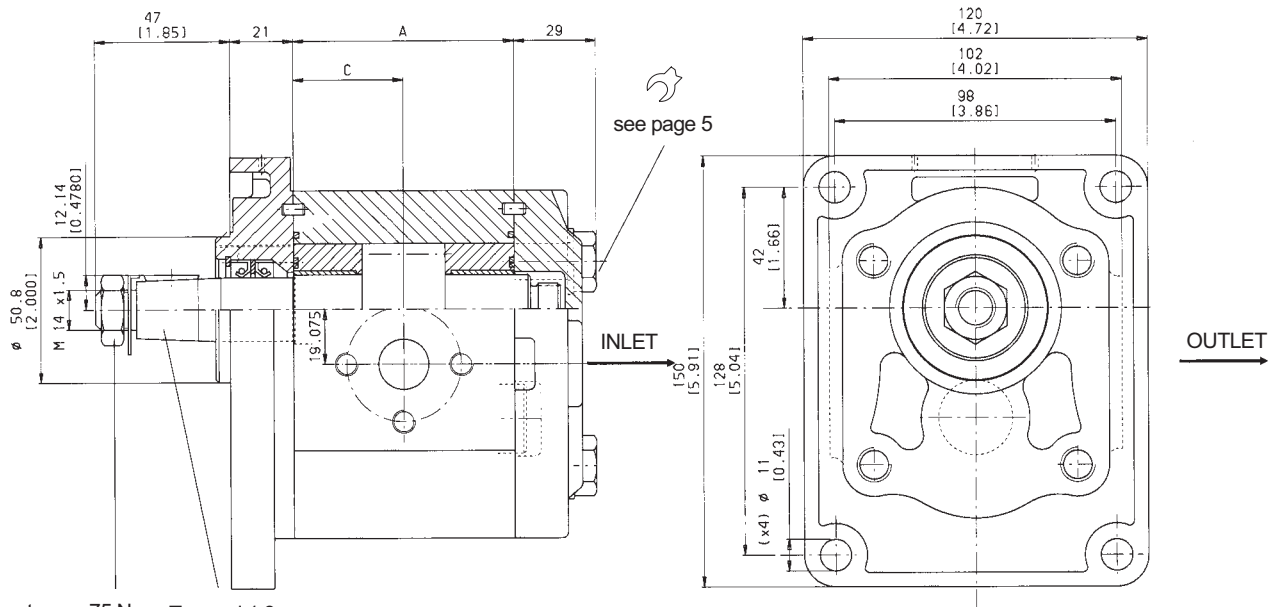
Displacements up to 44.2 cm<sup>3</sup>/rev  
Pressure up to 300 bar

## ASSEMBLING DIMENSIONS AND VALUES OF PRESSURE AND SPEED

Type		5.5	8.3	11.5	13.8	16	19	22	25	28	32	38	44	
Displacement	cm <sup>3</sup> /rev.	5.97	8.29	11.76	14.07	16	19.3	22.2	25.2	27.6	32.4	38.1	44.2	
	cu.in./rev.	0.36	0.50	0.72	0.86	0.97	1.17	1.35	1.53	1.68	1.97	2.32	2.69	
Dimension A	mm.	52.2	54.6	58.2	60.6	63	66.5	70	72.5	85	90.5	96.5	103	
	in.	2.05	2.15	2.29	2.38	2.45	2.59	2.73	2.82	3.31	3.52	3.76	4.06	
Dimension C	mm.	26.1	27.3	29.1	30.3	31.5	33.25	35	36.25	42.5	45.25	48.25	51.5	
	in.	1.02	1.07	1.14	1.19	1.22	1.29	1.36	1.41	1.65	1.76	1.88	2.03	
Working pressure	p1											230	200	170
		bar											3300	2900
Intermittent pressure	p2											250	220	190
		bar											3600	3140
Peak pressure	p3											260	240	210
		bar											3750	3450
Max. speed at	p2	3000										2750	2500	
Min. speed at	p1	600					500					400		
Weight	kg	3.4	3.6	3.8	4.1	3.4	3.6	3.8	4.1	4.5	4.75	5	5.30	
	lbs	7.48	7.92	8.36	9.02	7.48	7.92	8.36	9.02	9.92	10.47	11.00	11.66	

### IMPORTANT:

The displacements **5.5 - 8.3 - 11.5 - 13.8**, are always available as rear pump.  
Displacements **11.5 - 13.8** are available as single pump only with drive shaft "55"

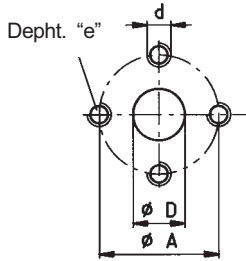


Tightening torque 75 Nm Tapered 1:8



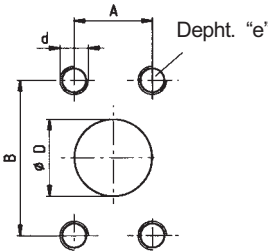
The pump shown is:  
**2,5PB 25D - P38 P2**

**FLANGED PORTS**



Type	INLET				OUTLET			
	ØD	ØA	d	e	ØD	ØA	d	e
<b>From 5.5 to 8.3</b>	13 (0.51")	30 (1.18")	M6	13 (0.51")	13 (0.51")	30 (1.18")	M6	13 (0.51")
<b>From 11.5 to 19</b>	20 (0.78")	40 (1.56")	M8	13 (0.51")	13 (0.51")	30 (1.18")	M6	13 (0.51")
<b>From 22 to 44</b>	25 (0.97")	51 (2.01")	M10	16 (0.62")	18 (0.70")	40 (1.56")	M8	18 (0.70")

**code P**



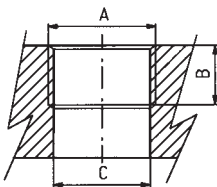
Type	INLET					OUTLET				
	ØD	B	A	d	e	ØD	B	A	d	e
<b>From 16 to 44</b>	25 (0.97")	52.4 (2.06")	26.2 (1.02")	3/8 16 UNC	16 (0.62")	18 (0.70")	47.6 (1.87")	22.2 (0.86")	3/8 16 UNC	16 (0.62")

For the other displacements, please contact our sales department.

**code S**

Available for quantity (contact our sales dept.)

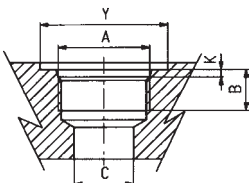
**THREADED PORTS**



Type	INLET			OUTLET		
	A	B	C	A	B	C
<b>From 5.5 to 22</b>	G3/4	16 (0.62")	20 (0.78")	G1/2	15 (0.58")	15 (0.58")
<b>From 25 to 44</b>	G1	19 (0.74")	23 (0.91")	G3/4	16 (0.62")	20 (0.78")

**code G**

Available for quantity (contact our sales dept.).  
British standard pipe parallel (BSPP)

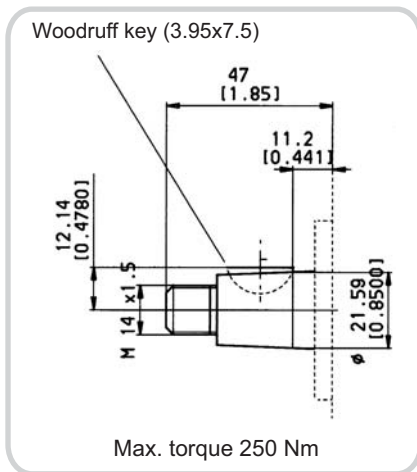


Type	INLET					OUTLET				
	A	B	C	Y	K	A	B	C	Y	K
<b>From 5.5 to 22</b>	1-1/16 12 UNF	19 (0.74")	20 (0.78")	41 (1.16")	3.3 (0.12")	7/8 14 UNF	14 (0.54")	15 (0.58")	34 (1.34")	2.5 (0.10")
<b>From 25 to 44</b>	1-5/16 12 UNF	19 (0.74")	23 (0.91")	49 (1.93")	3.3 (0.12")	1-1/16 12 UNF	19 (0.74")	20 (0.78")	41 (1.61")	3.3 (0.12")

**code R**

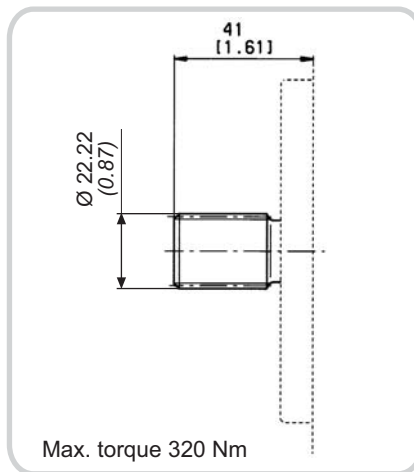
SAE threaded (ODT)

## DRIVE SHAFTS



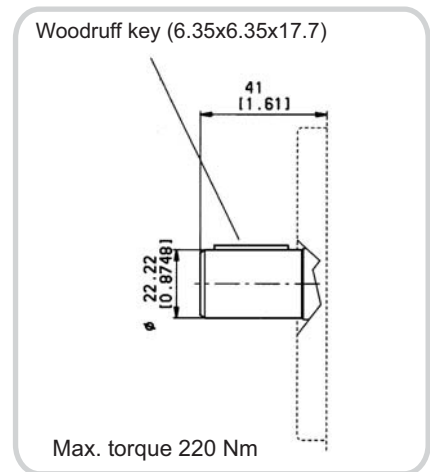
**code 38**

Tapered 1:8



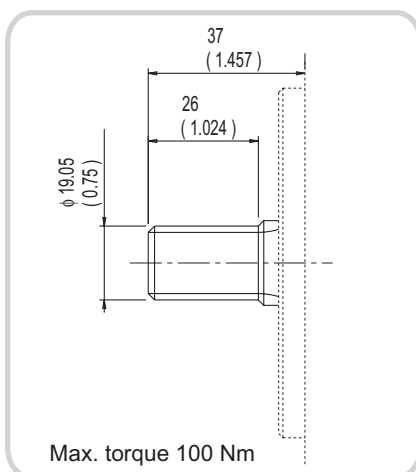
**code 55**

SAE B 13T-16/32DP  
Ansi B92 1a 1976



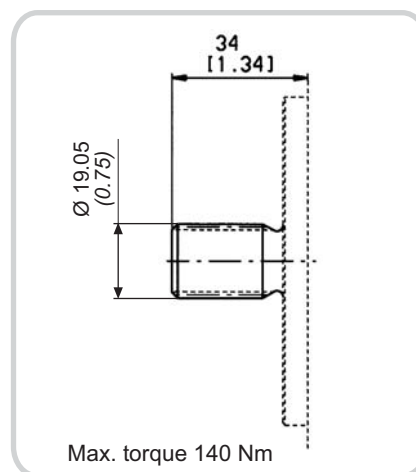
**code 87**

SAE B parallel



**code 53**

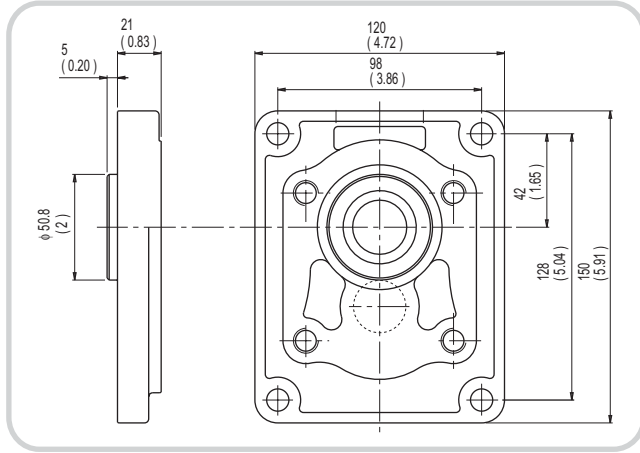
Splined SAE A 10T-16/32DP  
Available for quantity  
(contact our sales dept.)



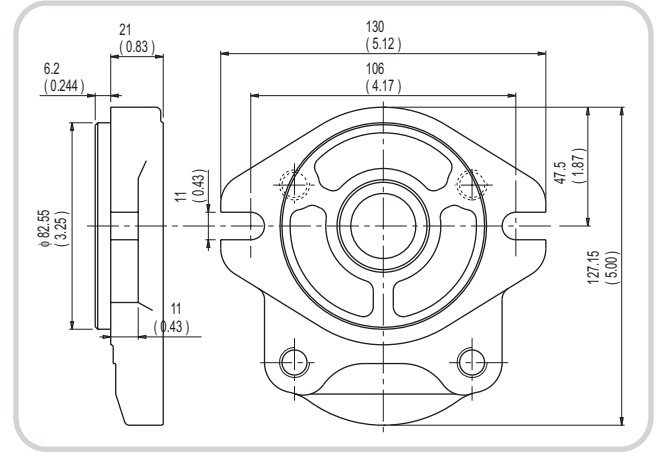
**code 54**

SAE A 11T-16/32DP  
Ansi B92 1a 1976  
Available for quantity  
(contact our sales dept.)

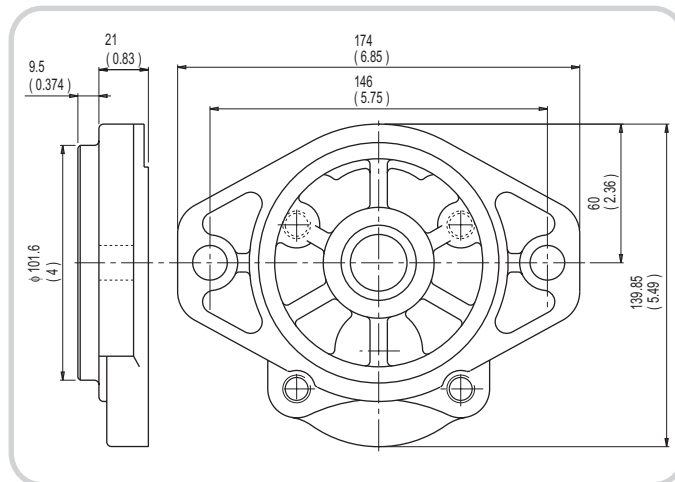
**MOUNTING FLANGES**



**code P2** With drive shaft code 38

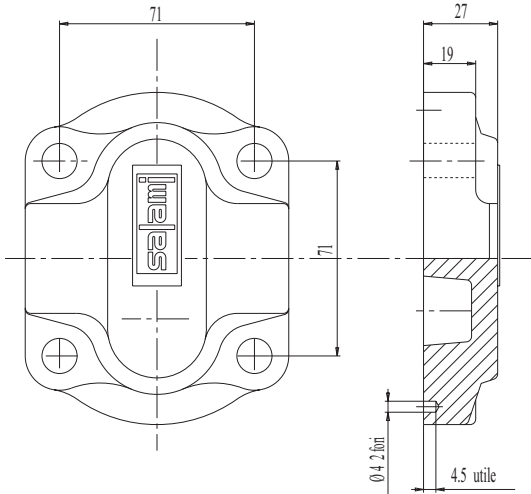


**code S2** With drive shafts code 53 - 54 - 55 - 87

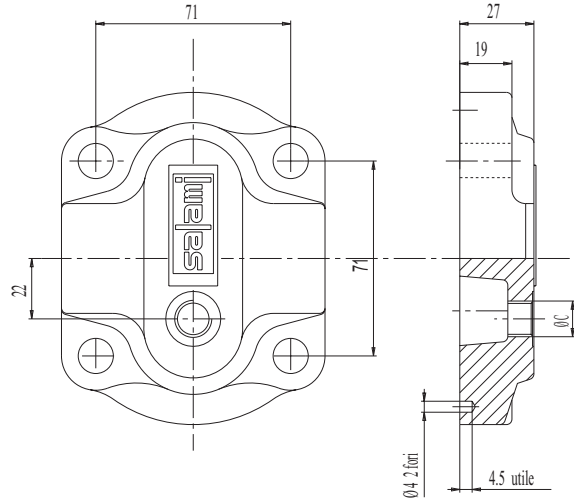


**code S3** With drive shafts code 55-87

## REAR COVERS

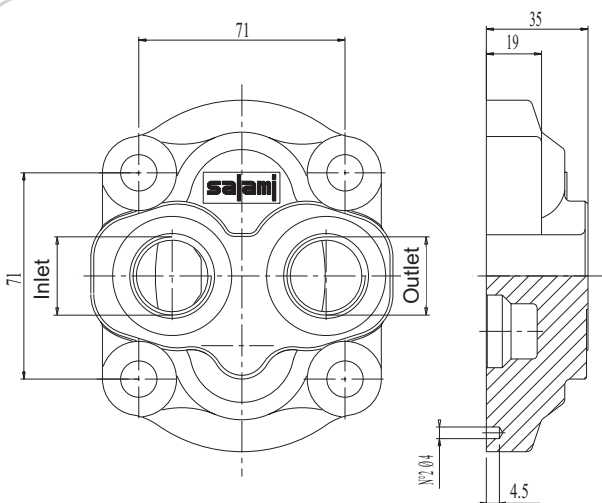


Standard rear cover for unidirectional pumps.



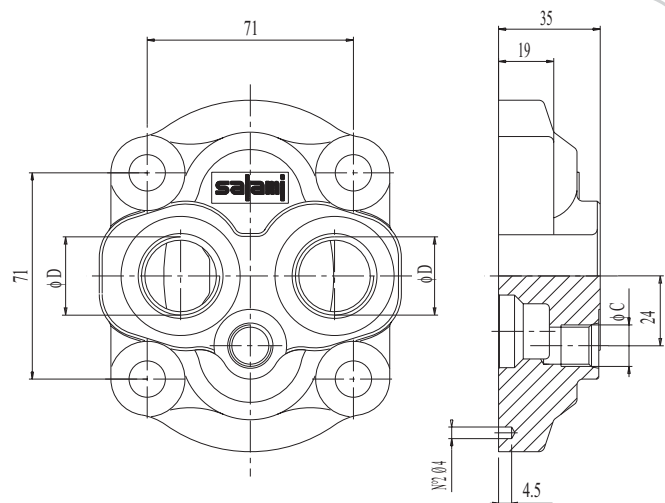
Standard cover for reversible pumps and motors, with external drain port  $\varnothing C$ .  
For dimension  $\varnothing C$  please see the table here below.

## REAR COVERS WITH INLET/OUTLET PORTS



Rear cover with INLET/OUTLET ports, for unidirectional pumps and motors.

INLET	OUTLET
1-5/16-12 UN-2B (SAE 16)	1-1/16-12 UN-2B (SAE 12)
G 1	G 3/4



Rear cover with INLET/OUTLET ports and external drain  $\varnothing C$ , for bidirectional pumps and motors.

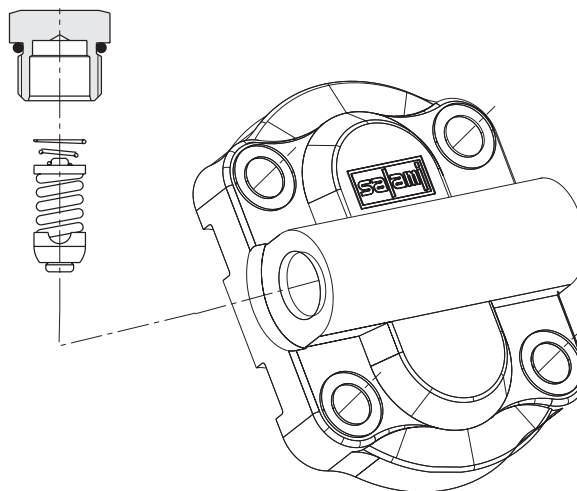
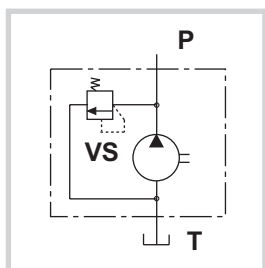
D	C
1-1/16-12 UN-2B (SAE 12)	9/16-18 UNF-2B (SAE 6)
G 3/4	G 3/8

code 1

In phase of order please specify D and C dimensions



**REAR COVER WITH MAIN RELIEF VALVE**

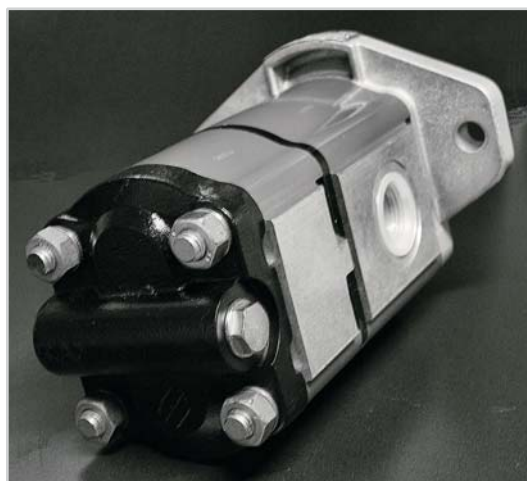


Rear cover with fixed setting main relief valve.  
Available values of fixed setting (bar/psi)

25	32	40	50	63	80	100	125	140	160	175	190	210	230	250	280	315	350
362	464	580	725	914	1160	1450	1813	2030	2320	2538	2756	3046	3336	3626	4061	4569	5076

**code VS**

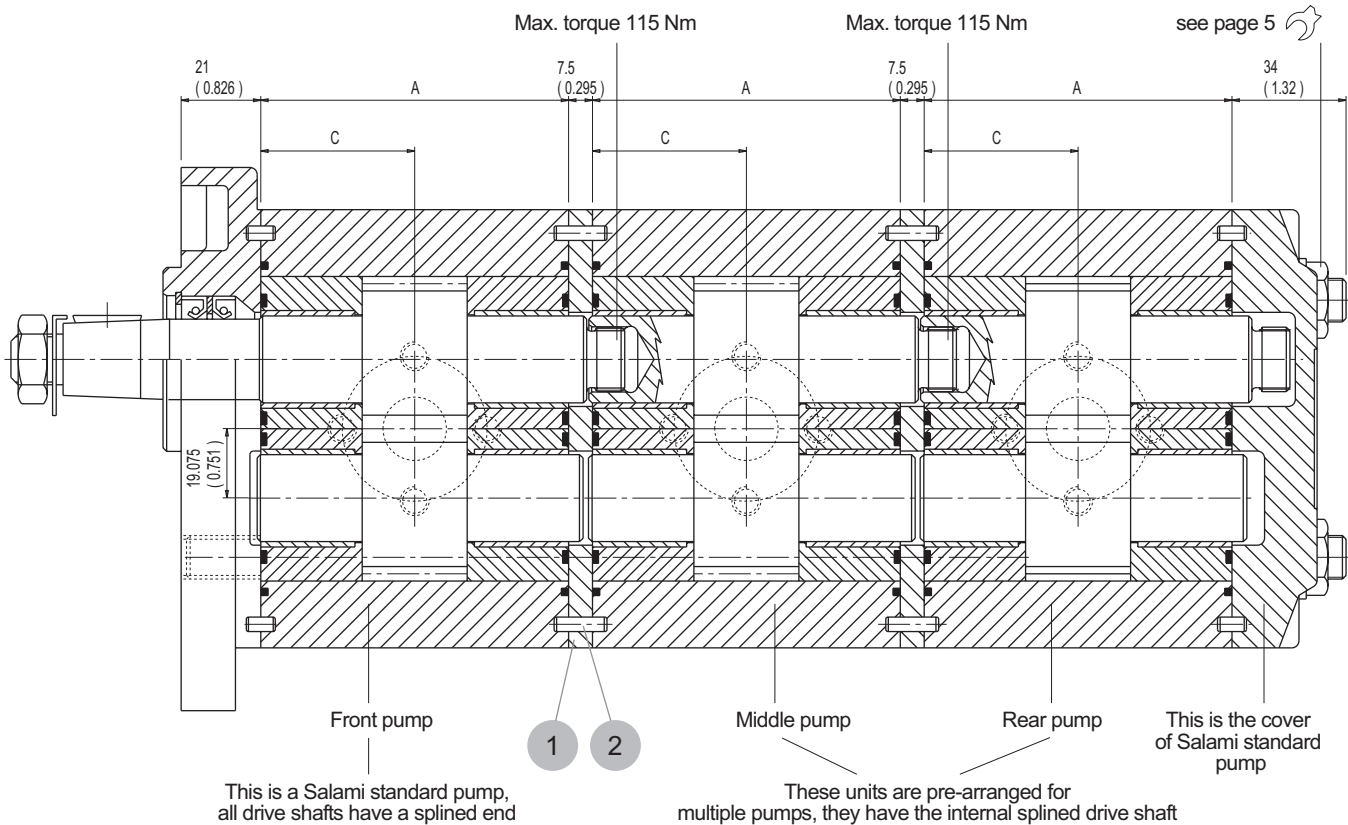
Main relief valve with  
internal unloading line.



### ASSEMBLING DIMENSIONS



Type		5.5	8.3	11.5	13.8	16	19	22	25	28	32	38	44
Dimension A	mm	52.2	54.6	58.2	60.6	63	66.5	70	72.5	85	90.5	96.5	103
	in.	2.05	2.15	2.29	2.38	2.48	2.62	2.76	2.85	3.35	3.56	3.80	4.06
Dimension C	mm	26.1	27.3	29.1	30.3	31.5	33.25	35	36.25	42.5	45.25	48.25	51.5
	in.	1.03	1.07	1.14	1.19	1.22	1.29	1.36	1.41	1.65	1.76	1.88	2.03



Finally to assembly the multiple pump you need to order tie rods of the right length

1 2 = kit multiple pumps

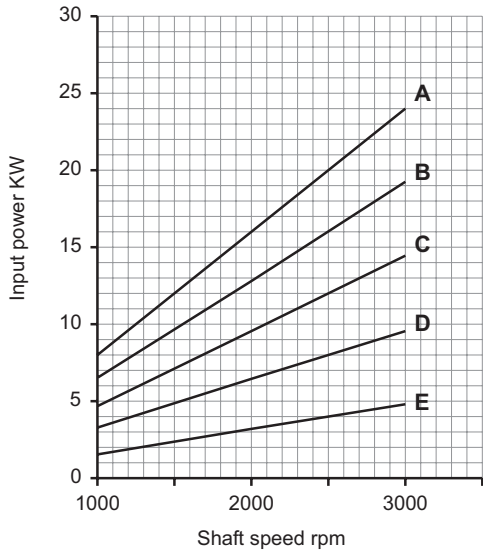
The **2.5PB** pumps can be easily transformed into front pump in the multiple units. All drive shafts are pre-arranged and have a splined end according DIN 5482. The first unit must always be the same size or bigger than following units. The features and performances are the same of the corresponding single units: only in the case of simultaneous operating you have to verify that the inlet torque is lower than the max. transmissible by the drive shaft.

A=250 bar - (3600 psi)  
 B=200 bar - (2900 psi)  
 C=150 bar - (2175 psi)  
 D=100 bar - (1450 psi)  
 E= 50 bar - (725 psi)

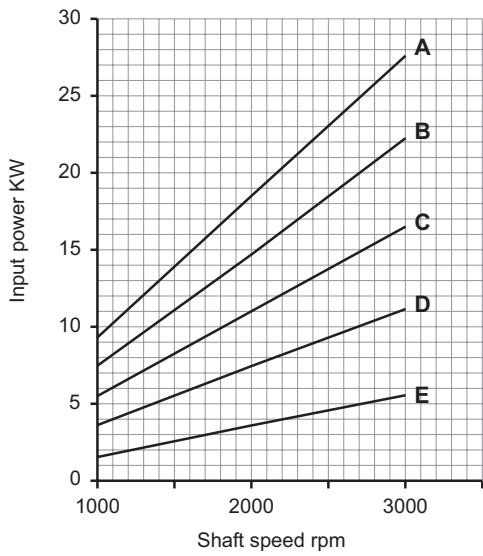
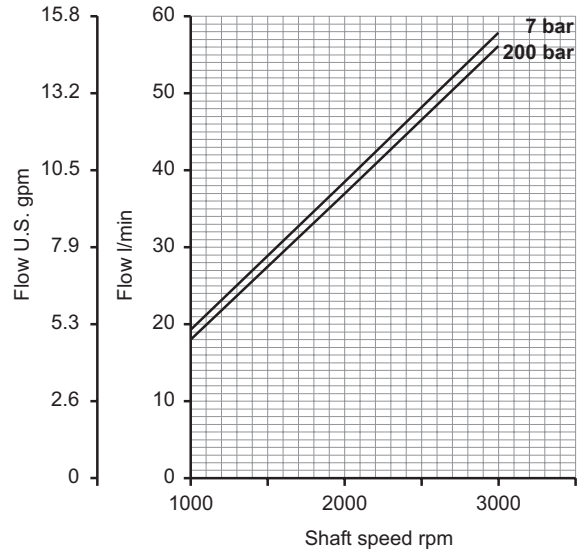
# 2.5PB Group 2.5

Performance curves carried out with oil viscosity at 16 cST and oil temperature at 60°C

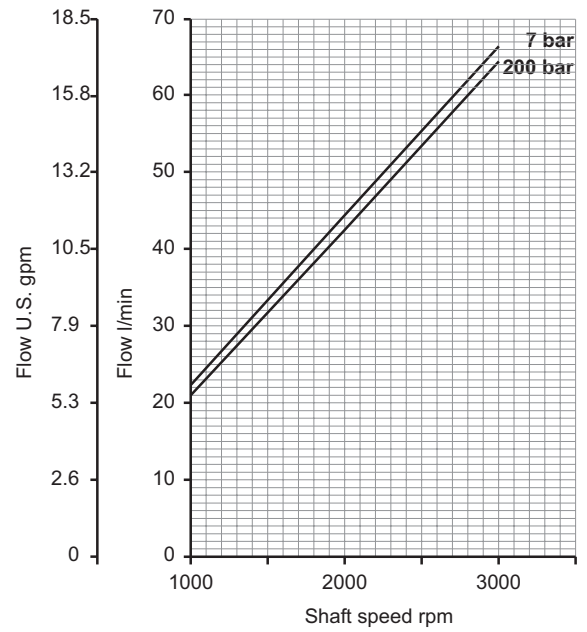
## PUMP PERFORMANCE CURVES



2.5PB 19



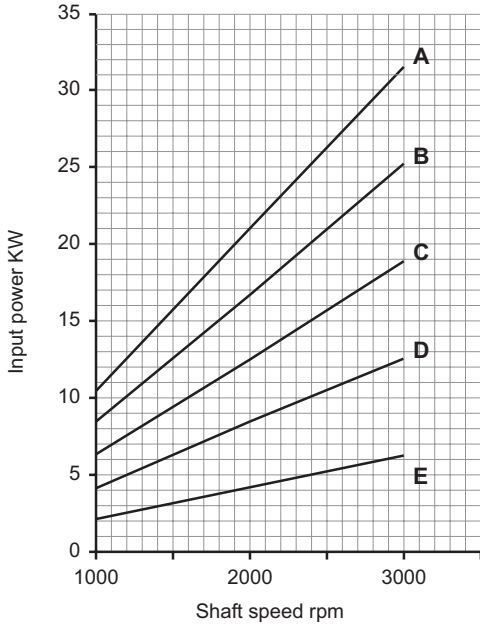
2.5PB 22



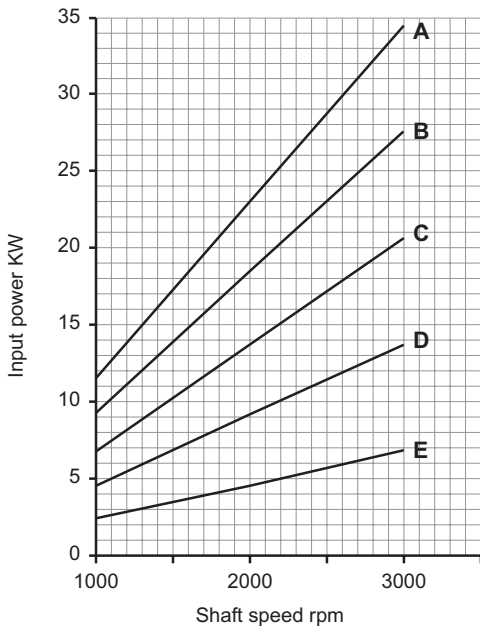
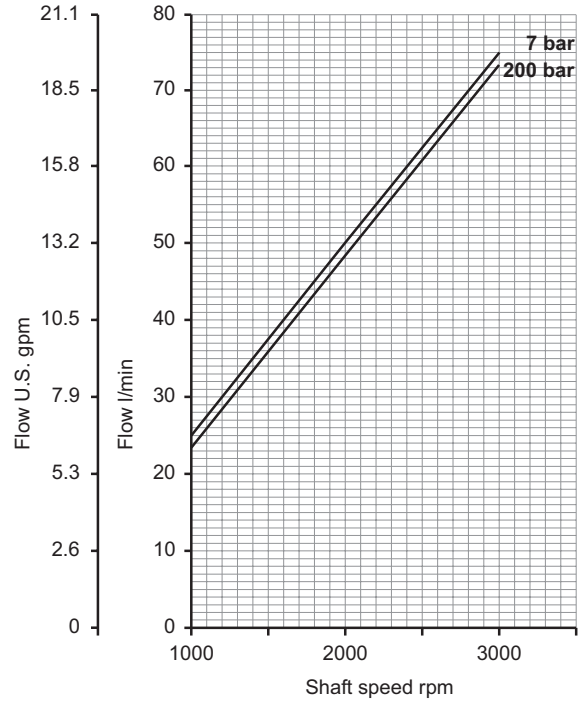
# 2.5PB Group 2.5

A=250 bar - (3600 psi)  
 B=200 bar - (2900 psi)  
 C=150 bar - (2175 psi)  
 D=100 bar - (1450 psi)  
 E= 50 bar - (725 psi)

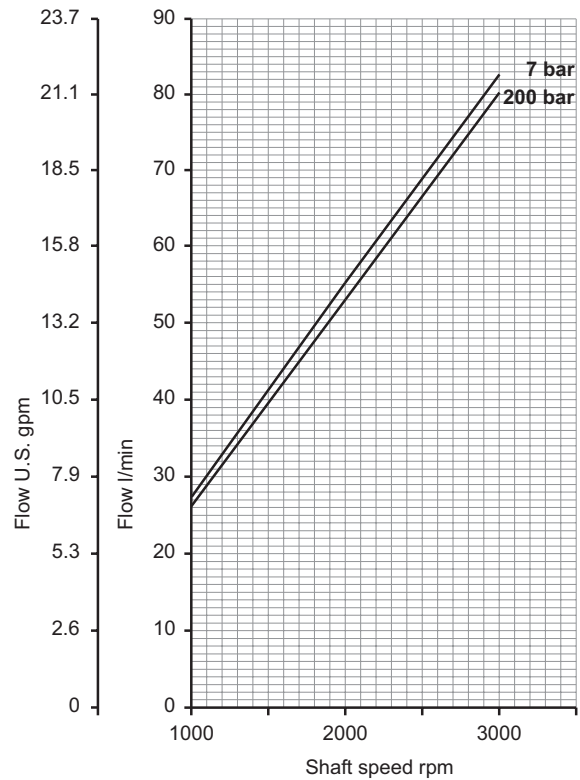
Performance curves carried out with oil viscosity at 16 cST and oil temperature at 60°C



2.5PB 25



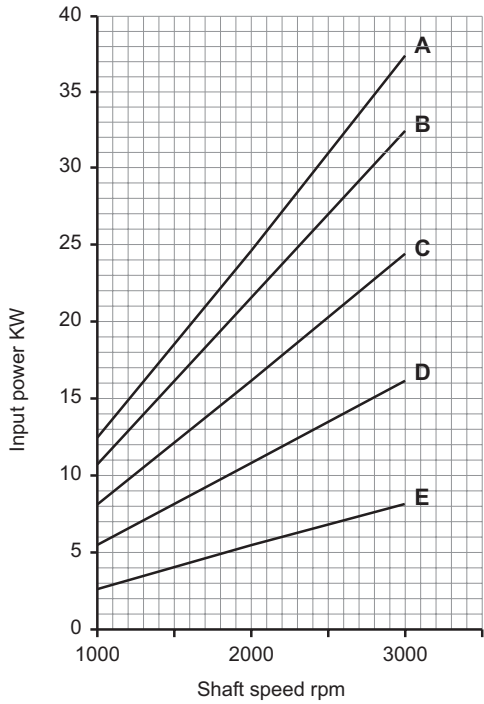
2.5PB 28



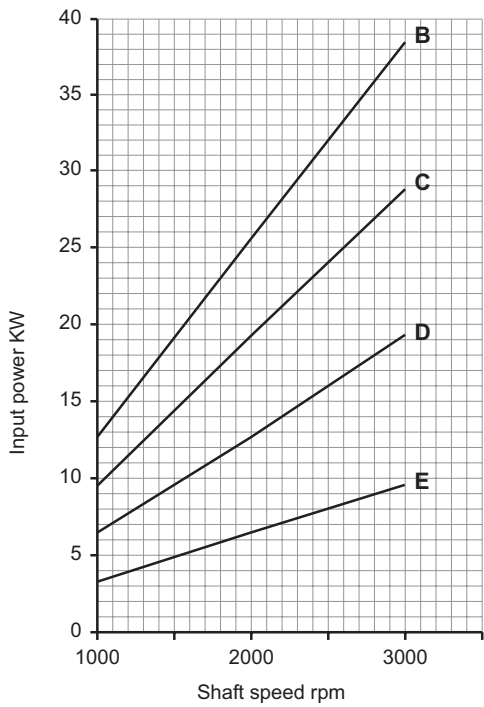
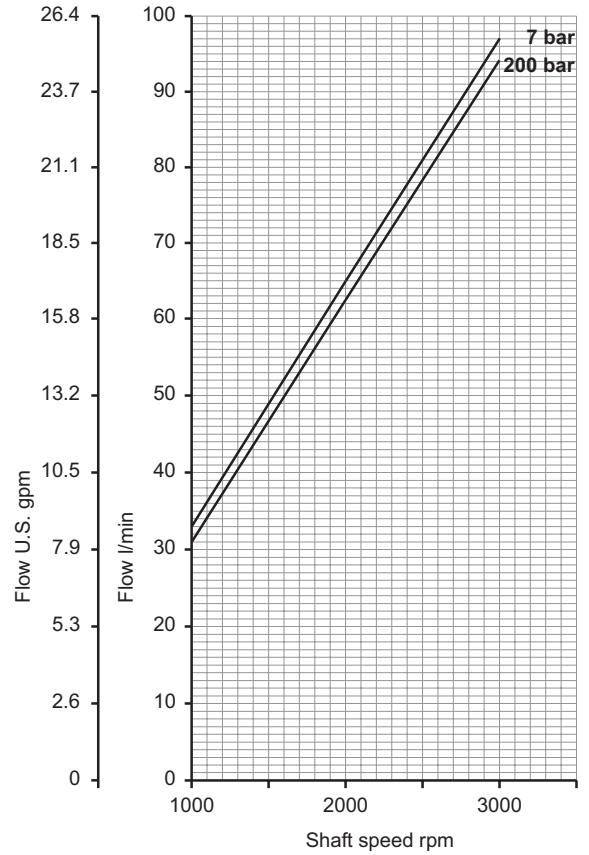
A=230 bar - (3600 psi)  
 B=200 bar - (2900 psi)  
 C=150 bar - (2175 psi)  
 D=100 bar - (1450 psi)  
 E= 50 bar - ( 725 psi)

# 2.5PB Group 2.5

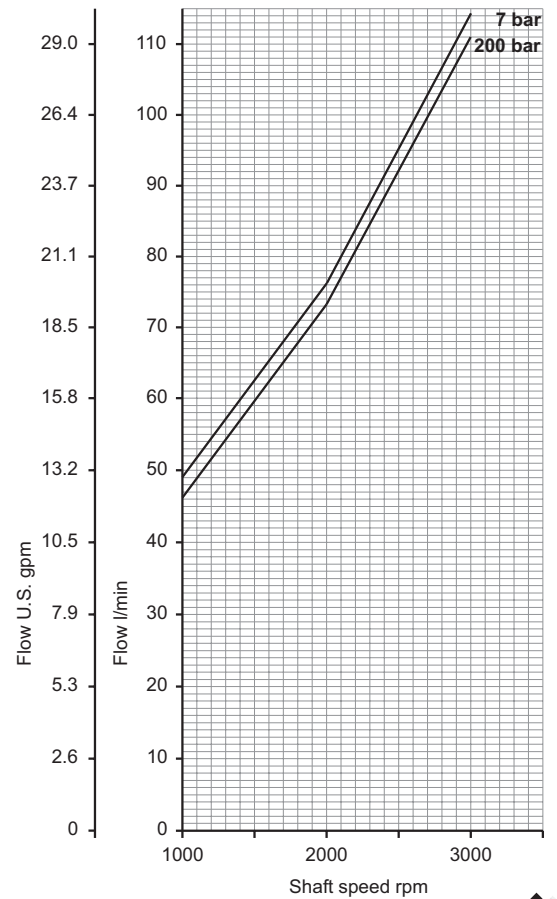
Performance curves carried out with oil viscosity at 16 cST and oil temperature at 60°C



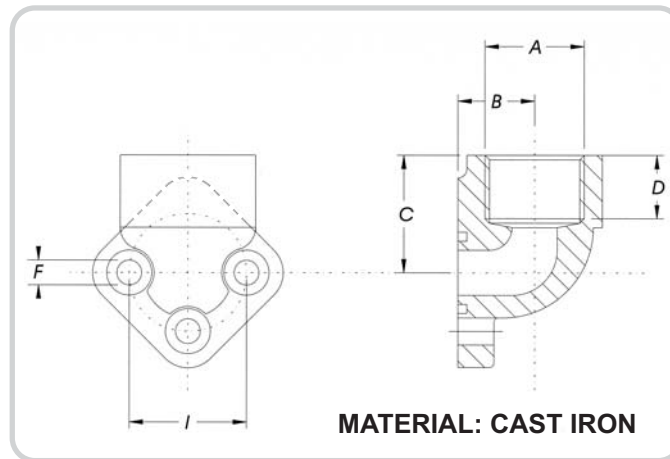
2.5PB 32



2.5PB 38



## PORT CONNECTORS



### Type G

#### AVAILABLE CONNECTORS - DIMENSIONS AND CODE

Type	C	B	I	D	Ø F	Ø A	ORDERING CODE COMPLETE OF SCREW - SPRING WASHER - O RING
1 G/2	26	17.5	30	14	6.5	G 3/8	4352 7005 0
1 G/3	26	17.5	30	14	6.5	G 1/2	4352 7006 0
2 G	36	21	40	16	8.5	G 3/4	4352 7011 0
3G	43	27	51	21	10.5	G 1	4352 7013 0

**SINGLE PUMPS**

2.5 P B 28 D - P 38 P2 - V 1 - VS

**DIMENSION**

FUNCTION	CODE
Pump	P
Motor	M

**SERIES**

TYPE	DISPLACEMENTS
11.5	11.76 cm <sup>3</sup> /rev. - 0.72 cu.in/rev.
13.8	14.07 cm <sup>3</sup> /rev. - 0.86 cu.in/rev.
16	16 cm <sup>3</sup> /rev. - 0.97 cu.in/rev.
19	19.3 cm <sup>3</sup> /rev. - 1.17 cu.in/rev.
22	22.2 cm <sup>3</sup> /rev. - 1.35 cu.in/rev.
25	25.2 cm <sup>3</sup> /rev. - 1.53 cu.in/rev.
28	27.6 cm <sup>3</sup> /rev. - 1.68 cu.in/rev.
32	32.4 cm <sup>3</sup> /rev. - 1.97 cu.in/rev.
38	38.1 cm <sup>3</sup> /rev. - 2.32 cu.in/rev.
44	44.2 cm <sup>3</sup> /rev. - 2.69 cu.in/rev.

IMPORTANT:  
The displacements 11.5 - 13.8 are available as single pump only with drive shaft "55".

ROTATION	CODE
Clockwise	D
Anti-clockwise	S

PORTS (pag. 11)	CODES
Flanged ports european standard	P
Flanged ports SAE (UNC)	S*
GAS threaded ports (BSPP)	G*
SAE threaded ports (ODT)	R

Values of fixed setting main relief valve (bar)  
See page 15

VALVE IN THE COVER	CODE
Fixed setting main relief valve (pag.15)	VS

PORTS POSITION	CODE
Lateral ports standard	
Rear ports (pag. 14)	1

SEAL	CODE
Buna Standard	
Viton	V

MOUNTING FLANGE (pag. 13)	CODES
European standard	P2
SAE A 2 Bolts	S2
SAE B 2 Bolts	S3

DRIVE SHAFTS (pag. 12)	CODES
Tapered 1:8	38
3/4" SAE A splined 10T	53*
3/4" SAE A splined 11T	54*
7/8" SAE B splined 13T	55
7/8" SAE B parallel shaft Ø 22.22	87

\* Available for quantity, please get in touch with our sales dept.

**Order example:**

Pump 2.5PB 19D, ports SAE (R), drive shaft (55), mounting flange (S2) with fixed setting main relief valve (190 bar): **2.5PB 19D-R55 S2-VS190**



### MULTIPLE PUMPS (pag. 16)

2.5pB 32 / 28 / 22 D - R 55 S3 - V 1 - VS .....

TYPE	DISPLACEMENTS
5.5	5.97 cm <sup>3</sup> /rev. - 0.36 cu.in/rev.
8.3	8.29 cm <sup>3</sup> /rev. - 0.50 cu.in/rev.
11.5	11.76 cm <sup>3</sup> /rev. - 0.72 cu.in/rev.
13.8	14.07 cm <sup>3</sup> /rev. - 0.86 cu.in/rev.
16	16 cm <sup>3</sup> /rev. - 0.97 cu.in/rev.
19	19.3 cm <sup>3</sup> /rev. - 1.17 cu.in/rev.
22	22.2 cm <sup>3</sup> /rev. - 1.35 cu.in/rev.
25	25.2 cm <sup>3</sup> /rev. - 1.53 cu.in/rev.
28	27.6 cm <sup>3</sup> /rev. - 1.68 cu.in/rev.
32	32.4 cm <sup>3</sup> /rev. - 1.97 cu.in/rev.
38	38.1 cm <sup>3</sup> /rev. - 2.32 cu.in/rev.
44	44.2 cm <sup>3</sup> /rev. - 2.69 cu.in/rev.

**IMPORTANT:**

The displacements **5.5 - 8.3 - 11.5 - 13.8**, are always available as rear pump.

Displacements **11.5 - 13.8** are available as single pump only with shaft "55"

ROTATION	CODE
Clockwise	D
Anti-clockwise	S

PORTS (pag. 11)	CODES
Flanged ports european standard	P
Flanged ports SAE (UNC)	S*
GAS threaded ports (BSPP)	G*
SAE threaded ports (ODT)	R

Values of fixed setting  
main relief valve (bar)  
See page 15

VALVE IN THE COVER	CODE
Fixed setting main relief valve (pag. 15)	VS

PORTS POSITION	CODE
Lateral ports standard	
Rear ports (pag. 14)	1

SEAL	CODE
Buna Standard	
Viton	V

MOUNTING FLANGE (pag. 13)	CODES
European standard	P2
SAE A 2 Bolts	S2
SAE B 2 Bolts	S3

DRIVE SHAFTS (pag.12)	CODES
Tapered 1:8	38
3/4" SAE A splined 10T	53*
3/4" SAE A splined 11T	54*
7/8" SAE B splined 13T	55
7/8" SAE B parallel shaft Ø 22.22	87

\* Available for quantity, please get in touch with our sales dept.

**Order example:**

Triple pump 2.5PB, displacements 38/28/22D, ports SAE (R), drive shaft (55), mounting flange (S2) with fixed setting main relief valve (190 bar): **2.5PB 38/28/22D-R55 S2-VS190**

## **WARRANTY**

- We warrant products sold by us to be free from defects in material and workmanship.
- Our sole obligation to buyer under this warranty is the repair or replacement, at our option, of any products or parts thereof which, under normal use and proper maintenance, have proven defective in material or workmanship, this warranty does not cover ordinary wear and tear, abuse, misuse, averloading, alteration.
- No claims under this warranty will be valid unless buyer notifies SALAMI in writing within a reasonable time of the buyer's discovery of such defects, but in no event later than twelve (12) months from date of shipment to buyer.
- Our obligation under this warranty shall not include any transportation charges or cost of installation, replacement, field repair, or other charges related to returning products to us; or any liability for direct, indirect or consequential damage or delay. If requested by us, products or parts for which a warranty claim is made are to be returned transportation prepaid to our factory. The risk of loss of any products or parts thereof returned to SALAMI will be on buyer.
- No employee or representative is authorized to change any warranty in any way or grant any other warranty unless such change is made in writing and signed by an officer of SALAMI.



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