Fluidea

...we know how!

Gear pumps & motors 1900 1.01.02

Index:

Operating parameters

Maximum outlet pressure:	See following pages
Inlet pressure:	See below*
Speed:	See following pages
Fluid temperature:	Minimum at start up -40°C
	Maximum continuous +80°C
	Maximum intermittent +100°C
Fluid viscosity:	Minimum at start up 2000 cSt
	Maximum continuous 250 cSt
	Minimum continuous 10 cSt
	Optimum 15-25 cSt
Contamination class:	ISO 4406 21/16/13
	NAS 1638 9
Fluid speed:	Maximum (inlet) 2.5 m/sec
	Optimum (inlet) 1.5 m/sec
Fluids:	Hydraulic mineral oils HL e HLP (DIN 51524)
Rotation:	Clockwise (C), Counter-clockwise (A) and reversible (D), when available, view from shaft end

For characteristic diagrams (pressure - flow - efficiency - maximum power) and driving shaft loads, please consult the general technical data sheet available on our website.

*** INLET CONDITIONS:**

It's extremely important that pumps are installed in a wat they can always be filled with fluid in any working conditions.

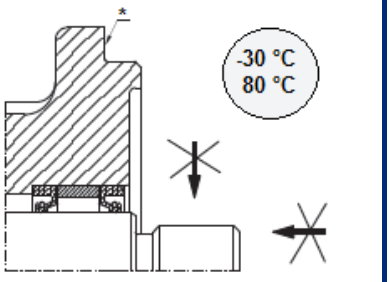
Pump inlet ports are designed to allow the complete filling, however is recommended to observe the following advices in order to optimize pump performances and lifecycle:

- In suction lines, use large diameter pipes and fittings avoiding bending and long sections to minimize pressure losses; ensure that fluid speed doesn't exceed the values shown above.
- Never run pumps dry; ensure that all the valves on the inlet ports are opened.
- If needed, fill the inlet line with fluid and ensure that there are no bubbles.
- Special care is needed for fluids with high speed or high viscosity. As general rule, pressure at the inlet line should not be less than 0,8 bar absolute with viscosity of 23 cSt

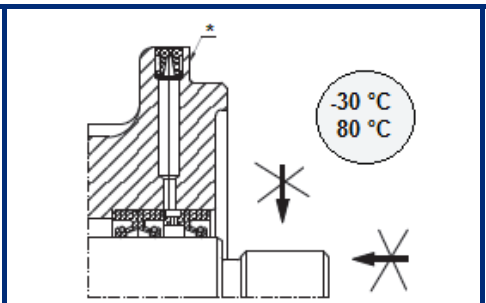
Technical features

Model	1905	1907	1909	1911	1913
Displacement (cc/rev)	22,0	33,4	41,5	51,8	62,1
Working pressure (MPa)	21	21	21	21	21
Maximum speed (RPM)	2700 pumps 3000 motors				
Maximum torque Motor (Nm)	-	100	122	154	184

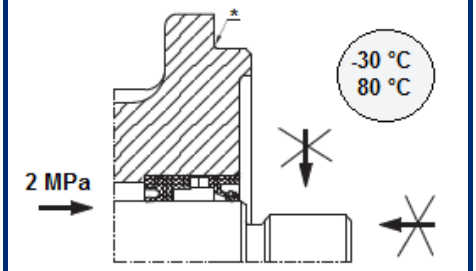
Seal configurations



A Standard seal for applications without load

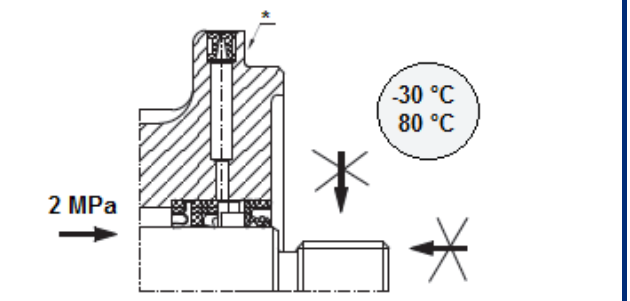


C Applications without loads, with external drain hole to prevent the mixing of the gear box lubrication oil and the hydraulic fluid



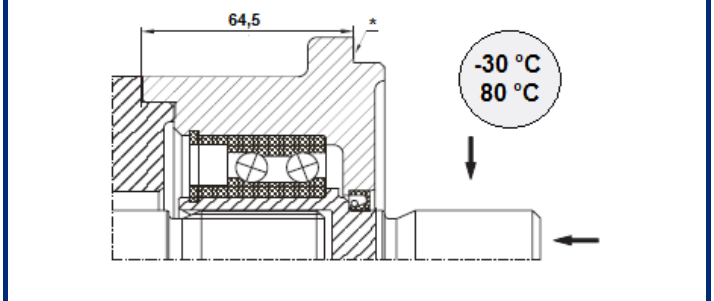
A2P High pressure seal for applications without load and without check valves.

A2PV High pressure seal for applications without load and with check valves



C2P High pressure seal, without check valves and with external drain hole.

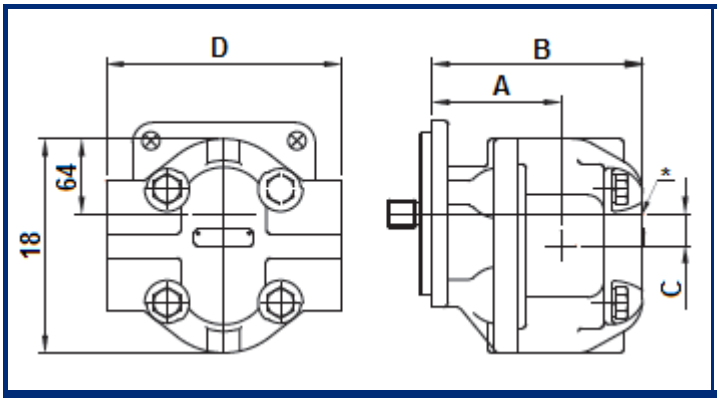
C2PV High pressure seal, with check valves and external drain hole.



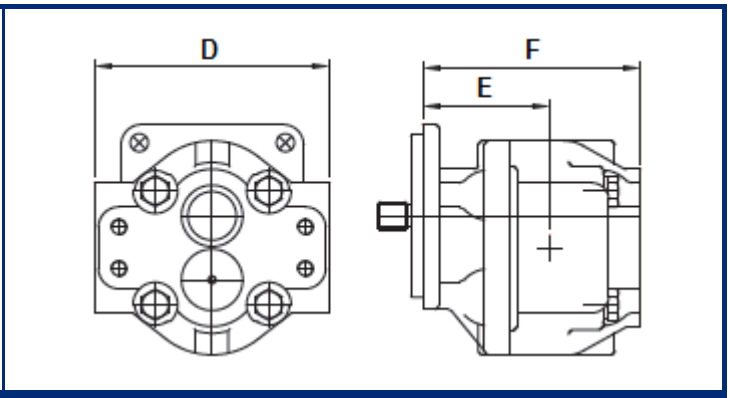
E Applications with high axial load and low radial load.

* Standard mounting flange surface.

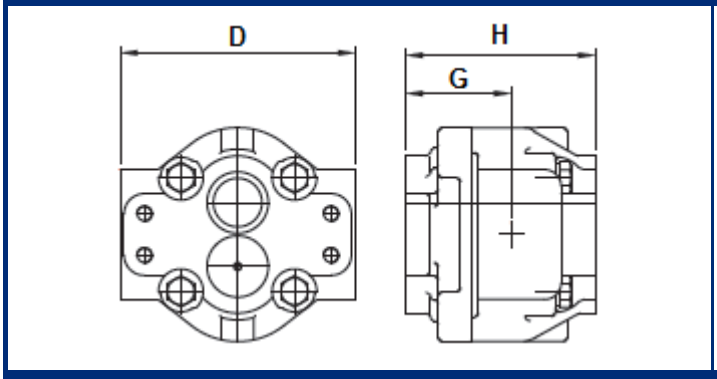
Overall dimensions



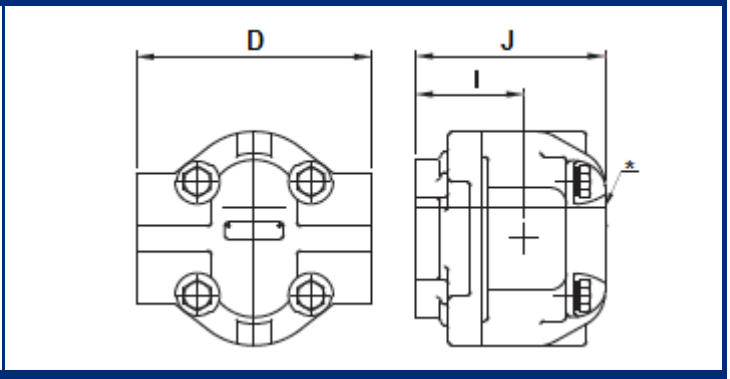
Single unit



Front unit



Intermediate unit

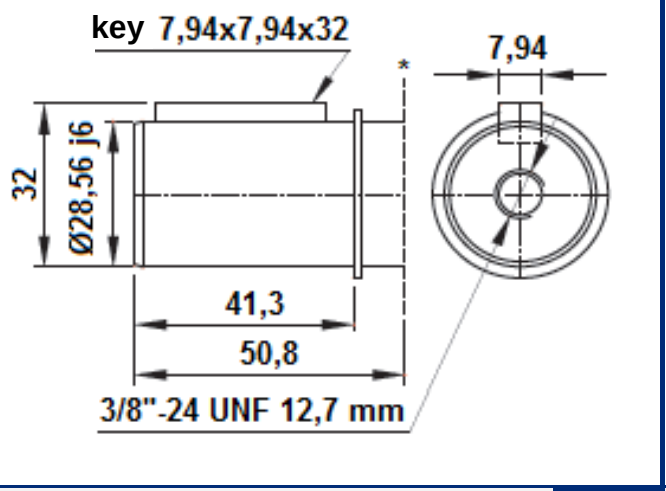


Rear unit

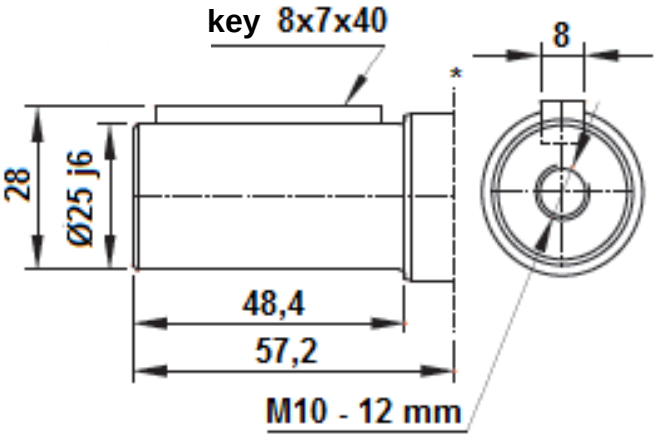
	Single unit				Front			Intermediate			Rear			
Model	**A**	**B**	**C**	**Weight [kg]**	**E**	**F**	**Weight [kg]**	**G**	**H**	**Weight [kg]**	**I**	**J**	**Weight [kg]**	**D***
1905	94	143	25	18	94	156	19	83	145	18	83	132	17	184
1907	94	143	25	18	94	162	19	83	151	19	83	132	17	184
1909	97	159	25	18	97	167	19	86	156	19	86	148	18	184
1911	102	159	25	18	102	167	19	91	156	19	91	148	18	184
1913	102	172	25	19	102	179	20	91	169	19	91	161	19	184

* drain port (for motors)

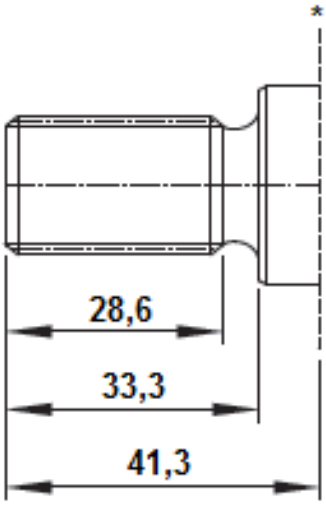
Shafts



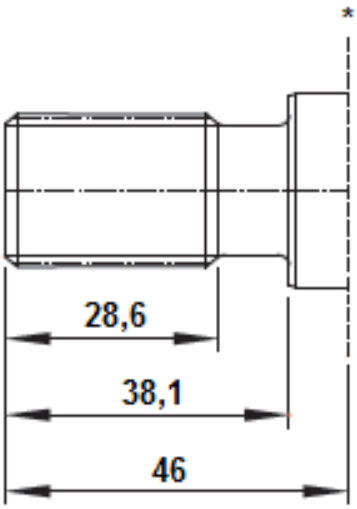
Solid Ø1-1/8" with key	R



Solid Ø25 with key	AP



Spline SAE BB 1"	B

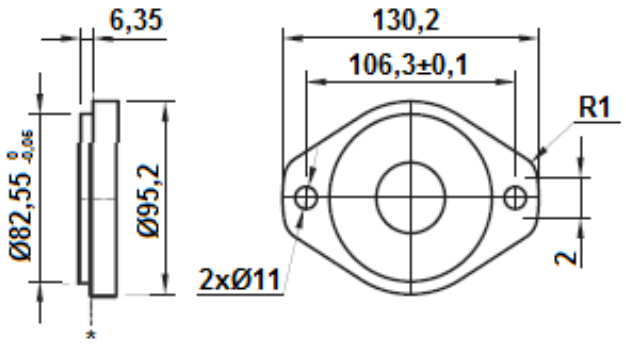


Spline SAE B 7/8"	Q

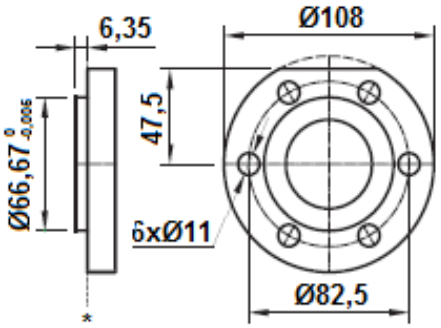
* Standard mounting flange surface.

OPTION	SIZE	SIDE FIT	DIAMETRAL PITCH	ANGLE OF PRESSURE	NUMBER OF TEETH	EXTERNAL DIAMETER
B	SAE BB 1"	Flat root	16/32	30°	15	24,97/24,87
Q	SAE B 7/8"	Flat root	16/32	30°	13	21,79/21,66

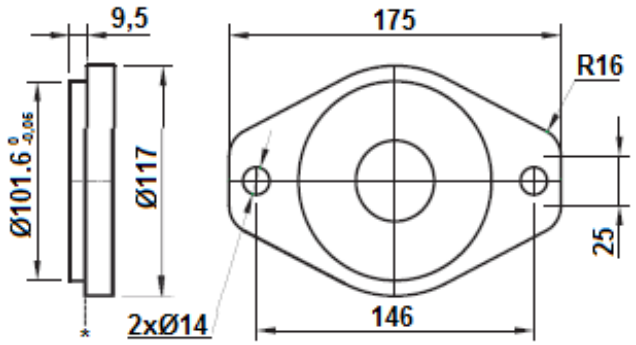
Mounting flanges



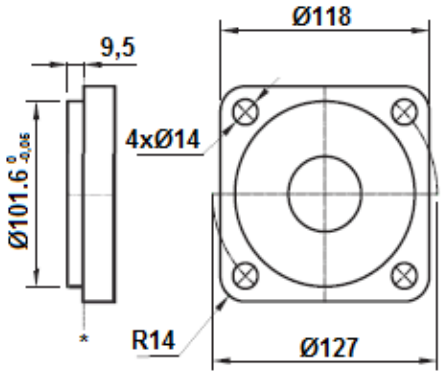
SAE A 2 HOLES	1



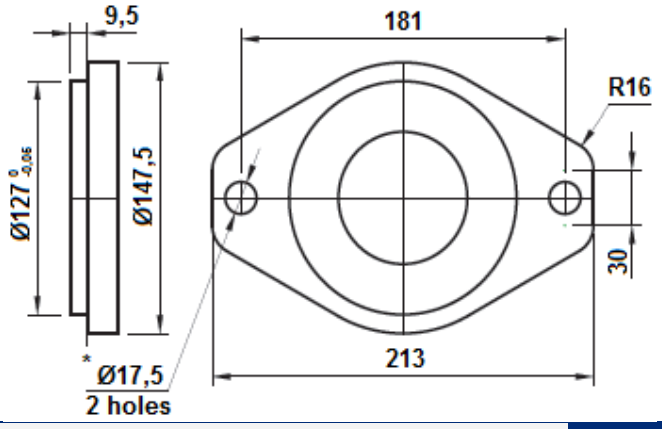
6 HOLES ROUND ADAPTER	8



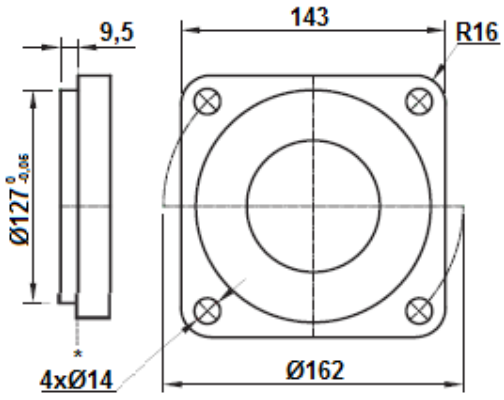
SAE B 2 HOLES	2



SAE B 4 HOLES	3



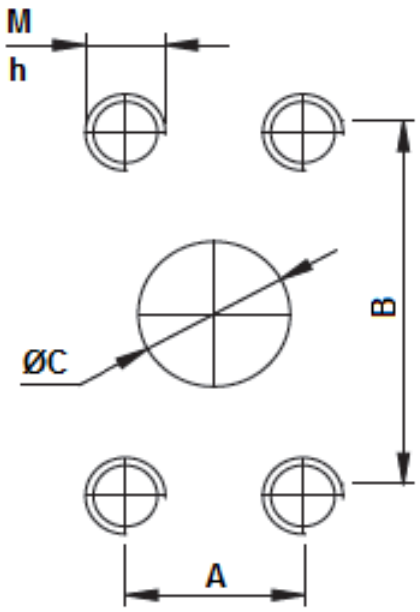
SAE C 2 HOLES	4



SAE C 4 HOLES	5

* Standard mounting flange surface.

Ports



MOTORS							MODEL	PUMPS												
INLET/OUTLET								INLET							OUTLET					
B2		B2/B25			B25			B2		B2/B26			B26		B2		B2/B26			B26	
M	h	A	B	C	M	h		M	h	A	B	C	M	h	M	h	A	B	C	M	h
3/8”-16 UNC	28,6	22,2	47,6	19	M10	25	1905	3/8”-16 UNC	28,6	26,2	52,4	25	M10	25	3/8”-16 UNC	28,6	22,2	47,6	19	M10	25
							1907														
		26,2	52,4	25			1909	7/16”-14 UNC		30,2	58,7	31					26,2	52,4	25		
							1911														
7/16”-14 UNC		30,2	58,7	31			1913	1/2”-13 UNC		35,7	69,8	38	M12		7/16”-14 UNC		30,2	58,7	31		

Model coding

P		C	1905	B	8	B25	C

Rotation
- **A** = Counter-clockwise
- **C** = Clockwise
- **D** = Bidirectional

Ports (page 8):
- **B25** = Motor
- **B26** = Pump

Mounting flanges (page 7):
- **1** = “SAE A” 2 holes
- **2** = “SAE B” 2 holes
- **3** = “SAE B” 4 holes
- **4** = “SAE C” 2 holes
- **5** = “SAE C” 4 holes
- **8** = 6 holes round adapter

Shafts (page 6):
- **R** = Solid Ø1-1/8” with key
- **AP** = Solid Ø25 with key
- **B** = Spline SAE BB 1”L=33,3 mm
- **Q** = Spline SAE B 7/8”L=38,1 mm

Models (page 5):
1905 - 1907 - 1909 - 1911 - 1913

Seals (page 4):
- **A** = Standard seal for applications without load
- **C** = Applications without loads, with external drain hole to prevent the mixing of the gear box lubrication oil and the hydraulic fluid
- **E** = Applications with high axial load and low radial load.
- **A2P** = High pressure seal for applications without load and without check valves.
- **A2PV** = High pressure seal for applications without load and with check valves
- **C2P** = High pressure seal, without check valves and with external drain hole.
- **C2PV** = High pressure seal, with check valves and external drain hole.

Series:

Pump/Motor:
- **P** = Pump
- **M** = Motor

Design and production of remote control components & systems

The comprehensive range includes the following manufactured and marketed equipment:

- Hydraulic pumps and motors
- Directional control valves
- Proportional pressure reducing valves
- Hydraulic, pneumatic and electric joysticks
- Radio controls and electronic controllers
- Control pads, dashboards and armrests
- Ergonomic, cylindrical and palm grips
- Electro-hydraulics pilot blocks
- Hydraulic filters
- heat exchangers and cooling systems
- Fluid monitoring and diagnostic equipment
- Bell housings, driving flanges & elastic couplings

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