



Series 1900

01.1900 - 0902

Gear pumps & motors

01.02

GEAR PUMPS

OPERATING PARAMETERS

Maximum outlet pressure:	See on the following pages
Inlet pressure:	See below*
Speed range:	See on the following pages
Fluid temperature:	Minimum at start up.....-40 °C Maximum continuous.....+80 °C Maximum intermittent+100 °C
Fluid viscosity:	Maximum at start up.....2000 mm ² /sec Maximum continuous.....250 mm ² /sec Minimum continuous.....10 mm ² /sec Optimum.15-25 mm ² /sec
Fluid cleanliness class:	ISO4406.....21/16/13 NAS 1638.....9
Fluid velocity:	Maximum in inlet line.....2.5 m/sec Optimum in inlet line.....1.5 m/sec
Fluids:	Hydraulic mineral oils HL and HLP (DIN 51524)
Rotation:	Clockwise (C), anticlockwise (A) and reversible (D) when applicable, view from shaft end

For characteristics diagrams (pressure - flow - efficiency - maximum power) and driving shaft's loads please consult the general technical data sheet available on our web site.

* INLET CONDITIONS:

It is extremely important that pumps are installed so that they can always fill with fluid in any working condition.

Pumps' inlet ports are designed to facilitate full volume fill, however it is important to observe the following recommendations in order to optimize pump's performance and life:

- Use large diameter pipes and fittings and possibly avoid sharp bends and long lengths in suction lines to minimize pressure losses; ensure that fluid velocity does not exceed above limits.
- Never run pumps dry; particular care should be taken to open any shut-off valves.
- If necessary fill inlet line with fluid and ensure that inlet line is air tight.
- Particular care should be taken where high speeds and/or high fluid viscosities are involved. As a general rule pressure at the pump inlet port should not be less than 0,8 bar absolute @ normal viscosity of 23 mm²/sec

Data, ordering key



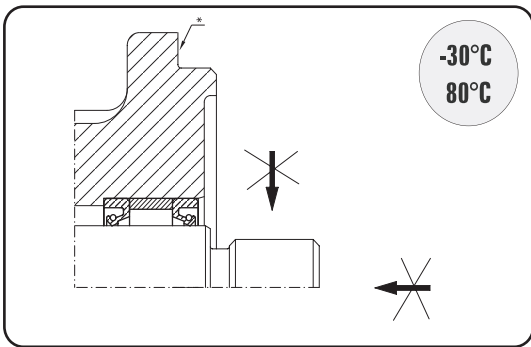
Model	1905	1907	1909	1911	1913
Displacement [ccm/rev]	22,0	33,4	41,5	51,8	62,1
Rated pressure [MPa]	21	21	21	21	21
Max speed [rpm]	pumps 2700 motors 3000				
Max torque motors [Nm]	-	100	122	154	184

- Seal design
- Dimensions data
- Drive shaft
- Mounting flange
- Ports

Ordering key

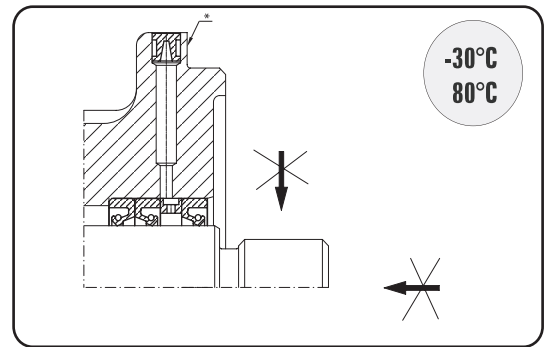
P- PUMP M- MOTOR	Design level 1- without 2 or 3	Seal design	Bearings roller - without plain - P	Size	Drive shaft	Flange	Ports	Rotation A- anticlockwise C- clockwise D- birotation
P		C	P	1905	Q	2	C25	C
P M		A C E A2P A2PV C2P C2PV	roller-plain	1905 1907 1909 1911 1913	B Q R AP	1 2 3 4 5 8	B25 B26	A C D

Seal design



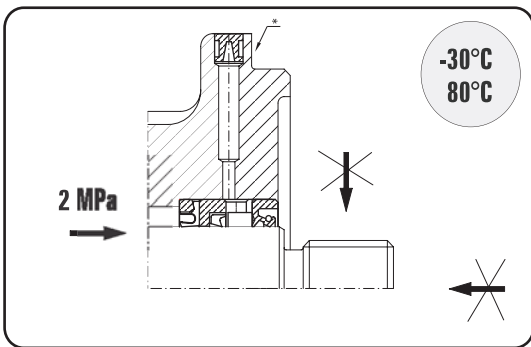
code A

Suitable for external drives and flexible coupling



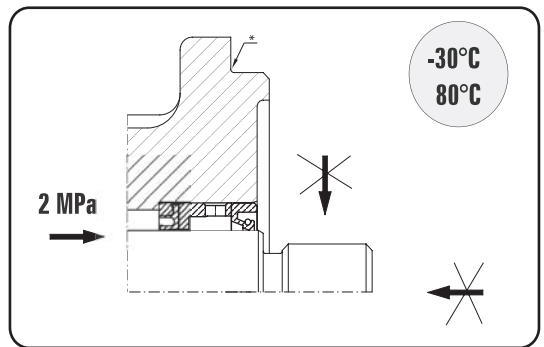
code C

Visible-bleed drilling suitable for drives with no load for direct mounting on torque converters and gear boxes



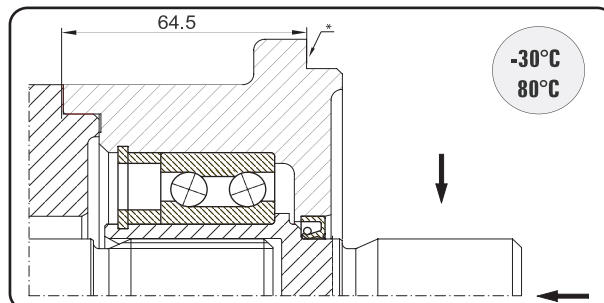
code C2P, C2PV

Options of high pressure shaft seal



code A2P, A2PV

Options of high pressure shaft seal

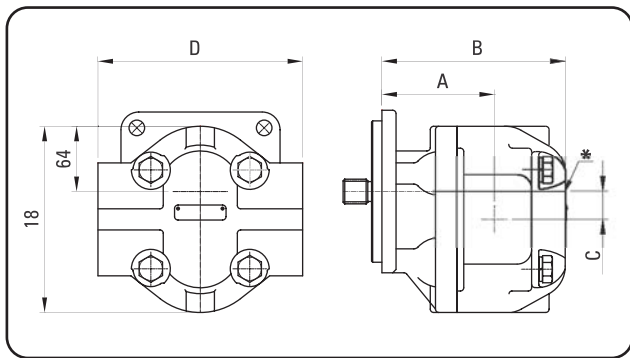


code E

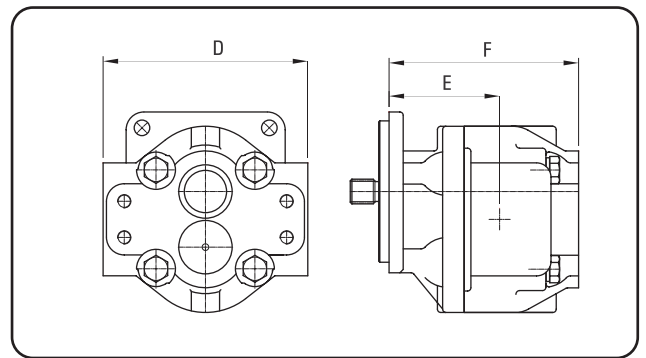
Suitable for drives with heavy axial load and some radial on to drive shaft

* standard flange mounting surface

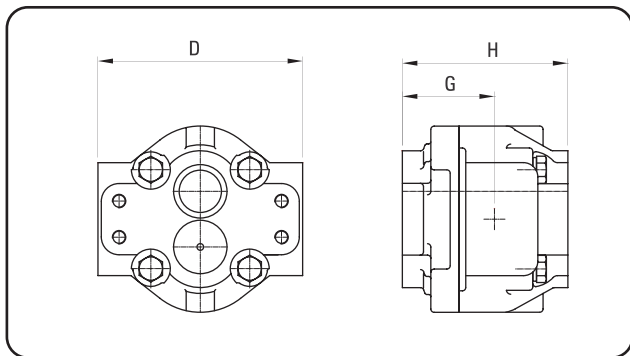
Installation dimensions



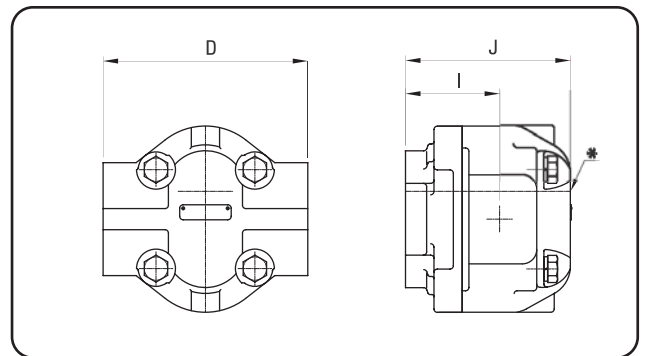
Single unit



Front unit



Intermediate unit



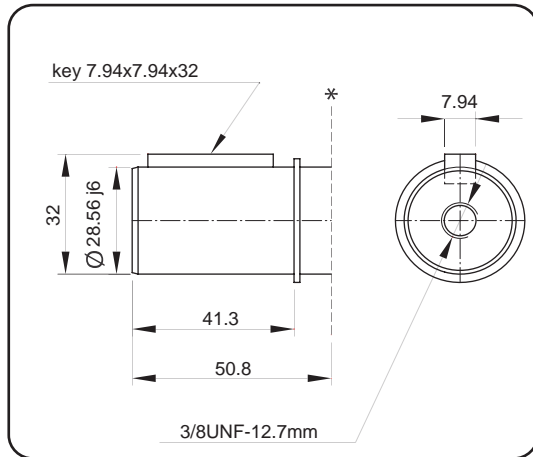
Rear unit

SIZE	Single unit				Front unit			Intermediate unit			Rear unit			
	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

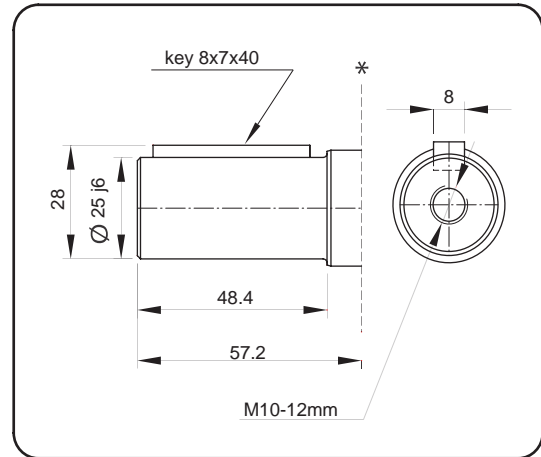
* drain port for motors

Drive shafts

Parallel keyed shafts

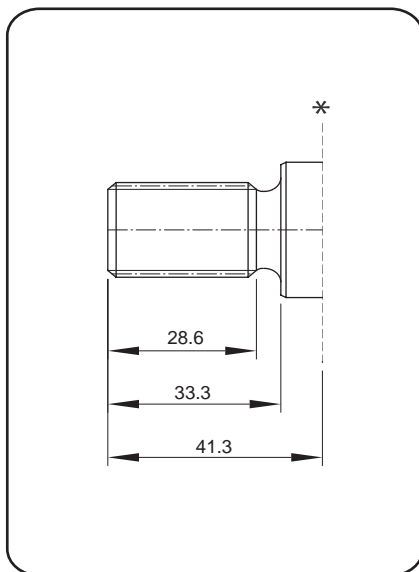


code R

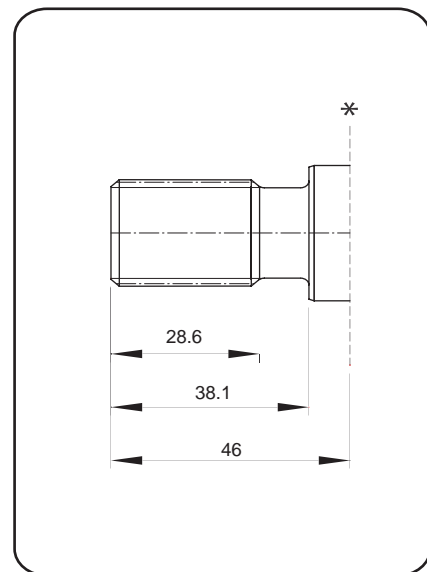


code AP

Involute splined shafts



code B



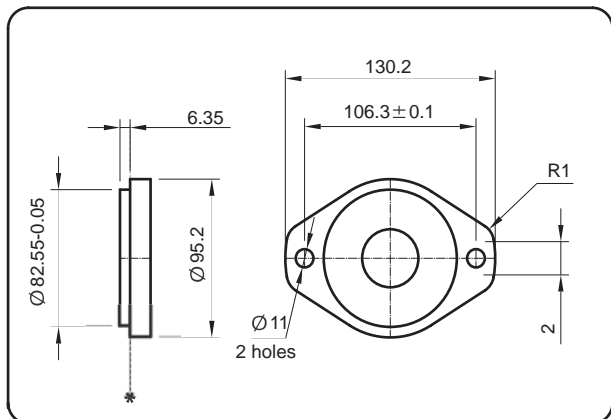
code Q

* standard flange mounting surface

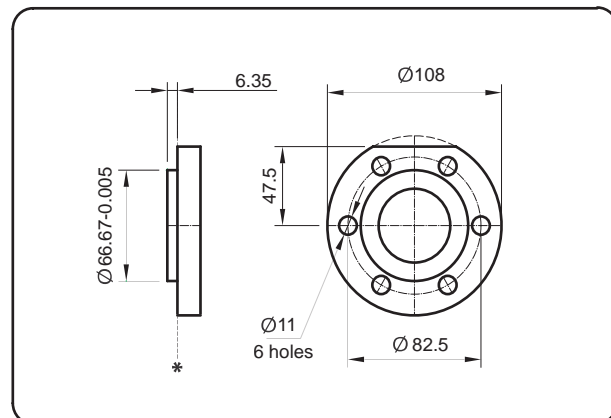
	size	side fit	diametral pitch	pressure angle	number of teeth	major diameter
code Q	SAE BB	flat root	16/32	30 °	15	24,97/ 24,87
	1"					
code B	SAE B	flat root	16/32	30 °	13	21,79/ 21,66
	7/8"					

Mounting flanges

SAE A

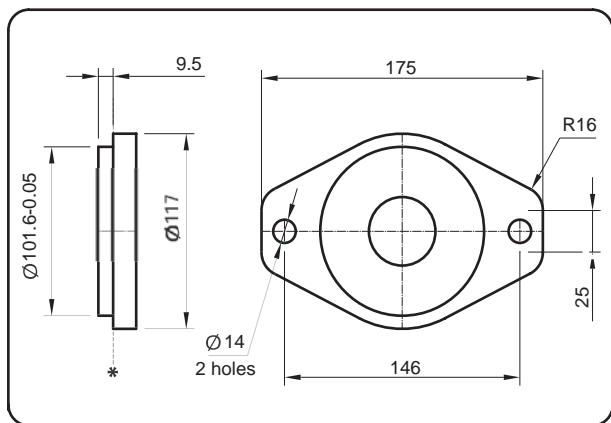


code 1

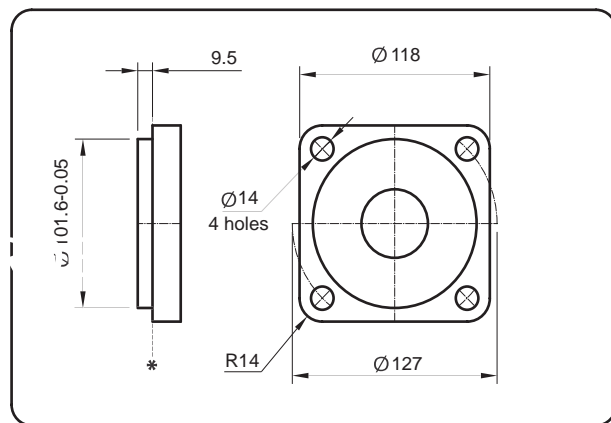


code 8

SAE B

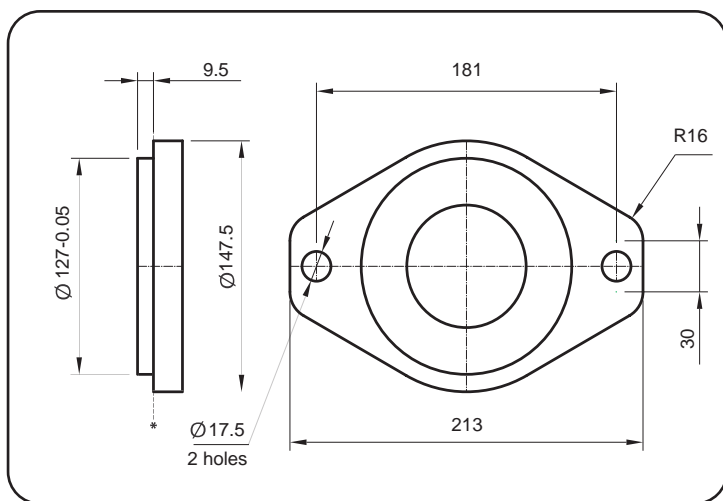


code 2

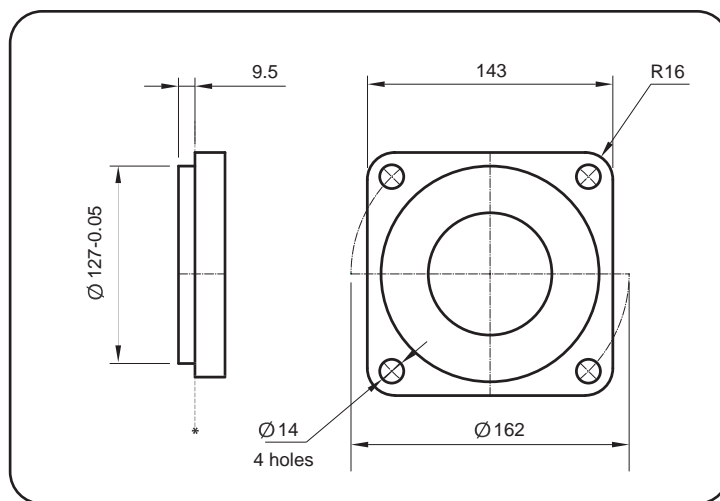


code 3

SAE C



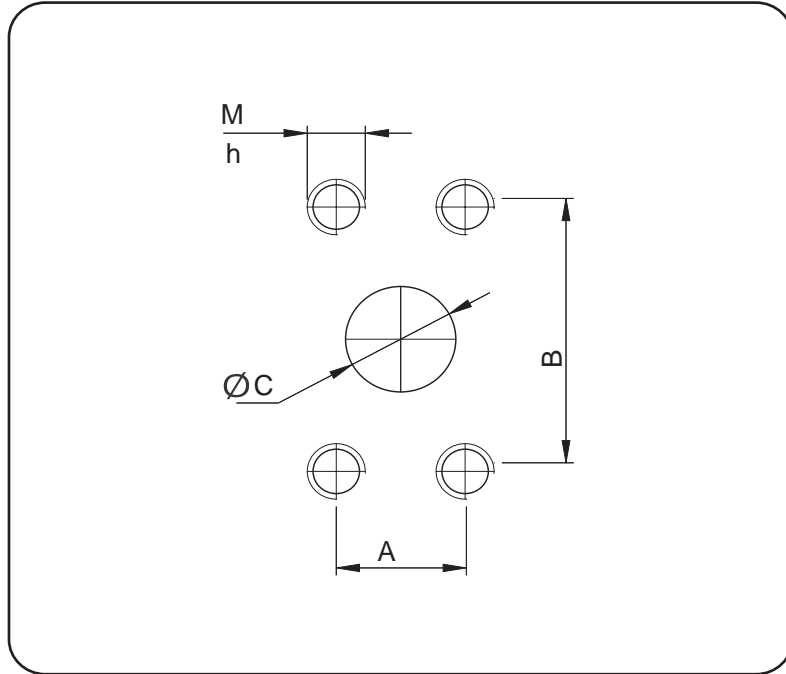
code 4



code 5

* standard flange mounting surface

Ports



MOTORS							TYPE	PUMPS														
INLET/OUTLET								INLET					OUTLET									
B2		B2/B25			B25			B2		B2/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 UNC	28,6	22,2	47,6	19	M10	25	1905	28,6	28,6	26,2	52,4	25	M10	25	3/8 UNC	28,6	22,2	47,6	19	M10	25	
		1907	26,2	52,4			25															
		1909	30,2	58,7			31															
		1911	35,7	69,8			38															
7/16 UNC		30,2	58,7	31			1913		1/2 UNC		35,7	69,8	38	M12		7/16 UNC		30,2	58,7	31		

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