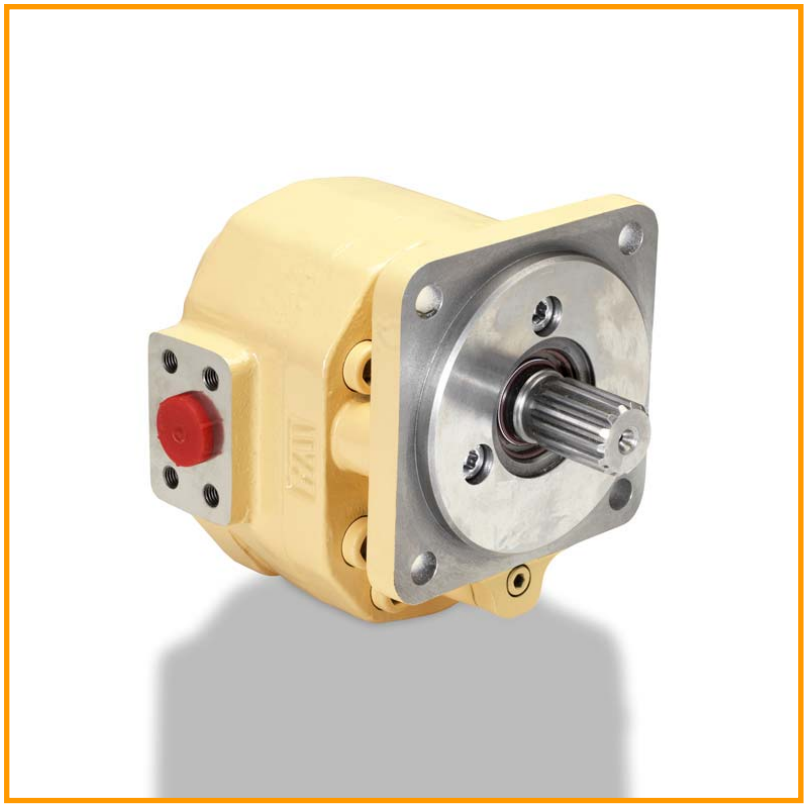
01.04

Gear pumps



Series 2400

01.2400 - 0902

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 mm2/sec Maximum continuous.....250 mm2/sec Minimum continuous.....10 mm2/sec Optimum. 15-25 mm2/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 reversibile (D) when applicable, view from shaft end

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

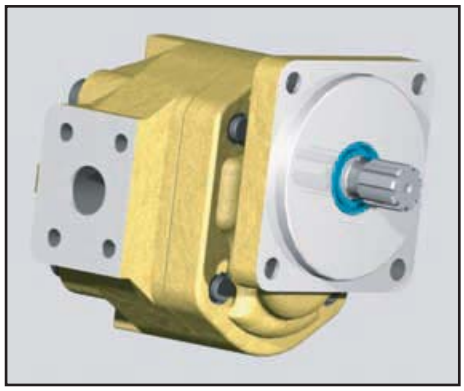
*** INLET CONDITIONS:**

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 obser-ve 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 lenghts in suction lines to minimize pressure losses; ensure that fluid velocity does not exceed above limits.
- Never run pumps dry; particolar 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 tha 0,8 bar absolute @ normal viscosity of 23 mm2/sec

Data, ordering key



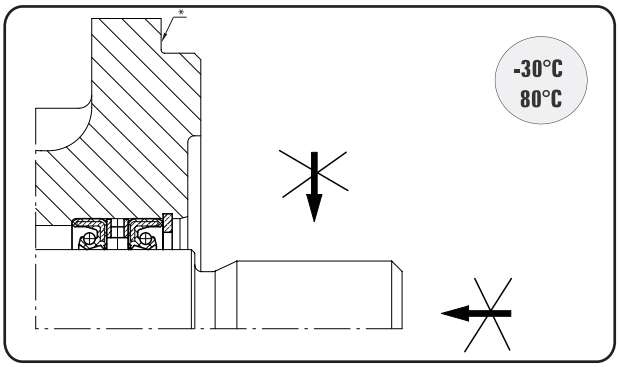
Model	2411	2413	2415	2416	2419
Displacement [ccm/rev]	87,3	103,6	119,8	132,7	155,4
Rated pressure [MPa]	21				
Max speed [rpm]	2700				

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

Ordering key

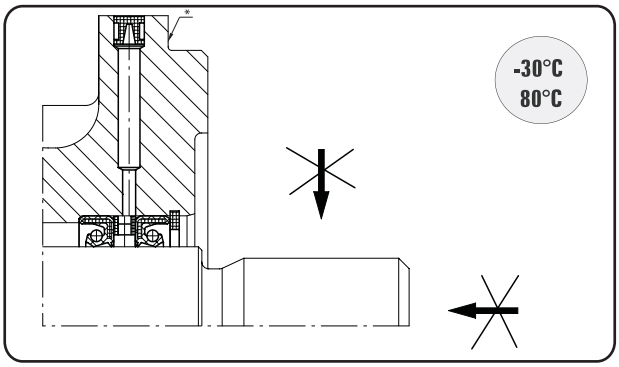
P- PUMP M- MOTOR	Design level 1- without 2 or 3	Seal design	Bearings roller - without	Size	Drive shaft	Flange	Ports	Rotation A- anticlockwise C- clockwise D- birotation
P		C		2411	C	4	B26	C
P		A C E	roller	2411 2413 2415 2416 2419	C G L	4 5	B26	A C

Seal design



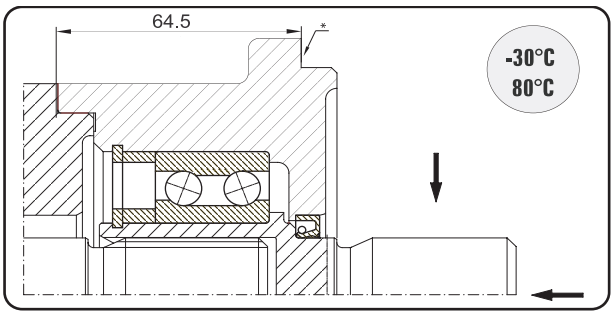
code A

Suitable for drives with load



code C

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

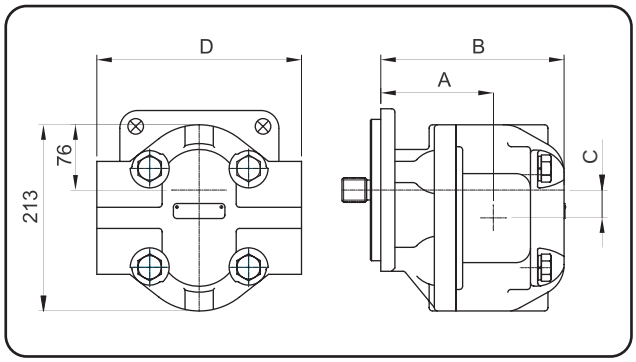


code E

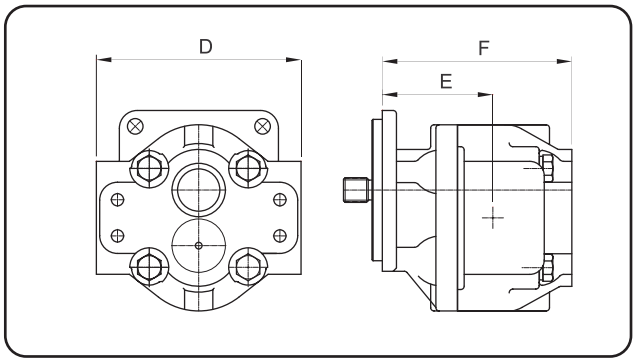
Suitable for drives with heavy axial load and some radial on to drive shaft

* standard flange mounting surface

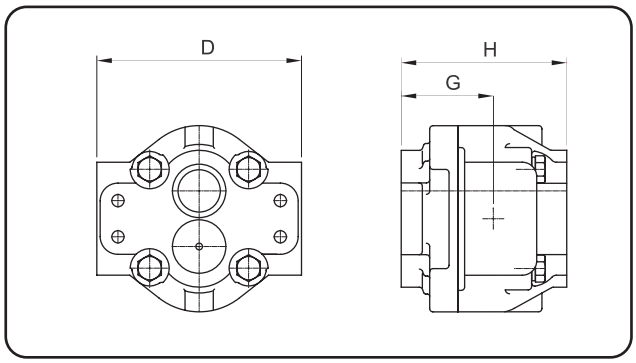
Installation dimensions



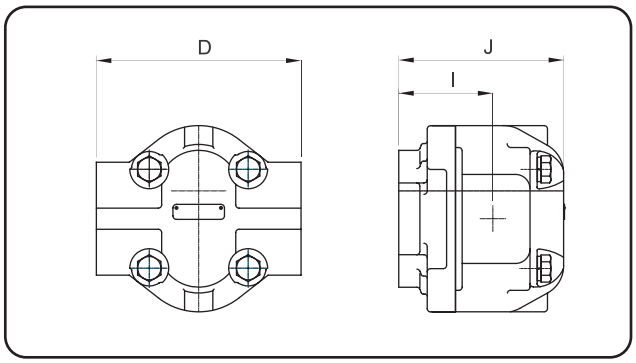
Single unit



Front unit



Intermediate unit

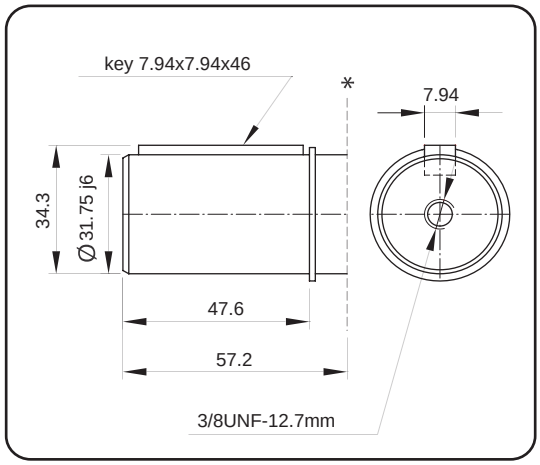


Rear unit

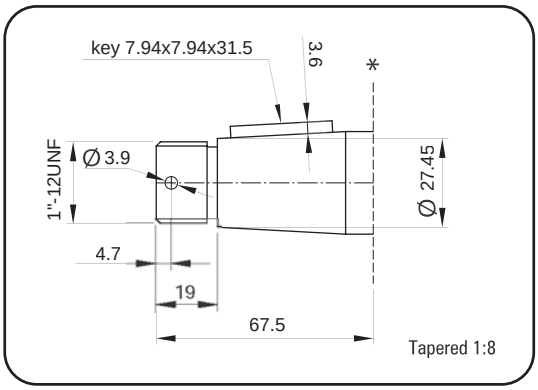
	Single unit				Front unit			Intermediate unit			Rear unit			
SIZE	A	B	C*	WEIGHT [kg]	E	F	WEIGHT [kg]	G	H	WEIGHT [kg]	I	J	WEIGHT [kg]	D
2411	111	178	30,2	29	115	192	30	99	176	29	95	162	28	193,6
2413	111	178	30,2	29	115	197	30	99	181	29	95	162	28	193,6
2415	118	188	30,2	30	115	203	30	99	187	30	102	172	29	193,6
2416	118	188	30,2	30	121	207	31	105	191	30	102	172	29	193,6
2419	121	203	30,2	30	121	207	31	105	191	30	105	187	30	193,6

* dimension refers to all pictures

Keyed shafts

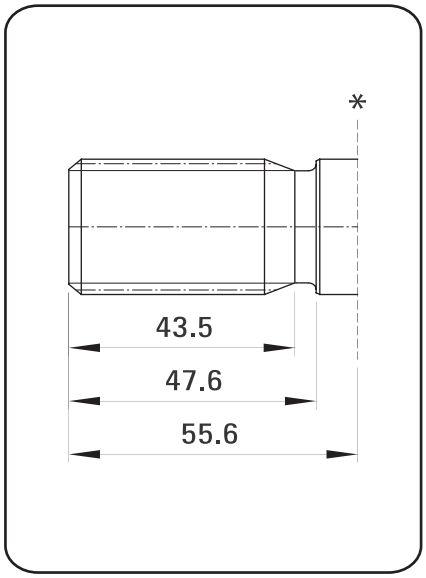


code G



code L

Involute splined shafts

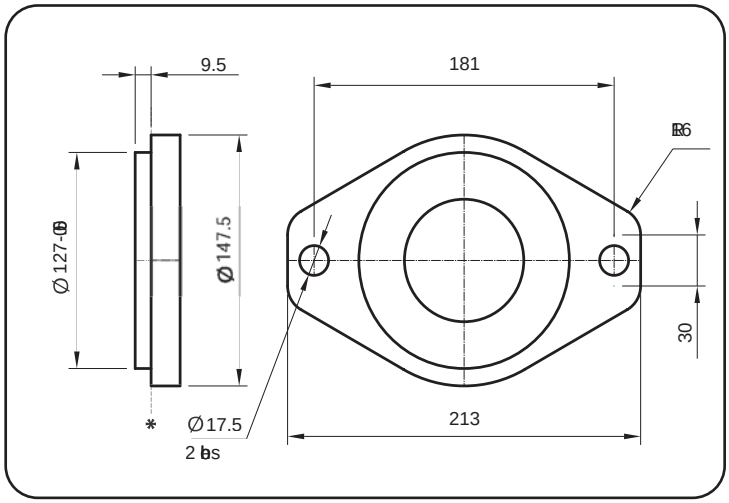


code C

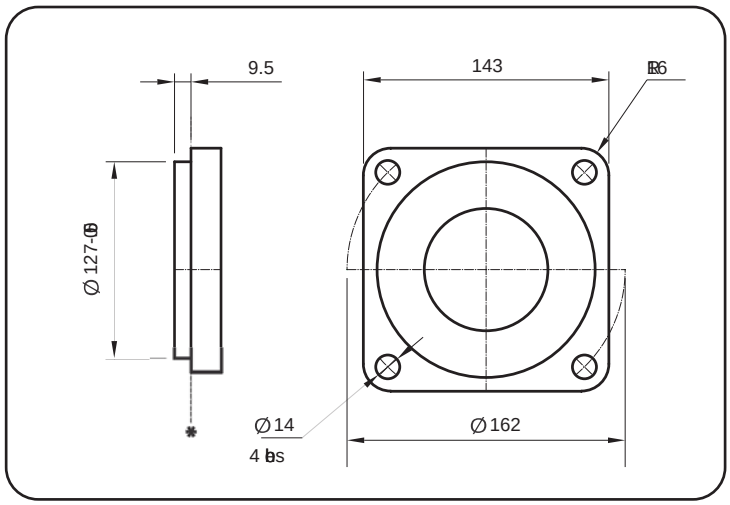
* standard flange mounting surface

	size	side fit	diametral pitch	pressure angle	number of teeth	major diameter
code C	SAE C 1 1/4"	flat root	12/24	30 °	14	31,20/ 31,12

SAE C



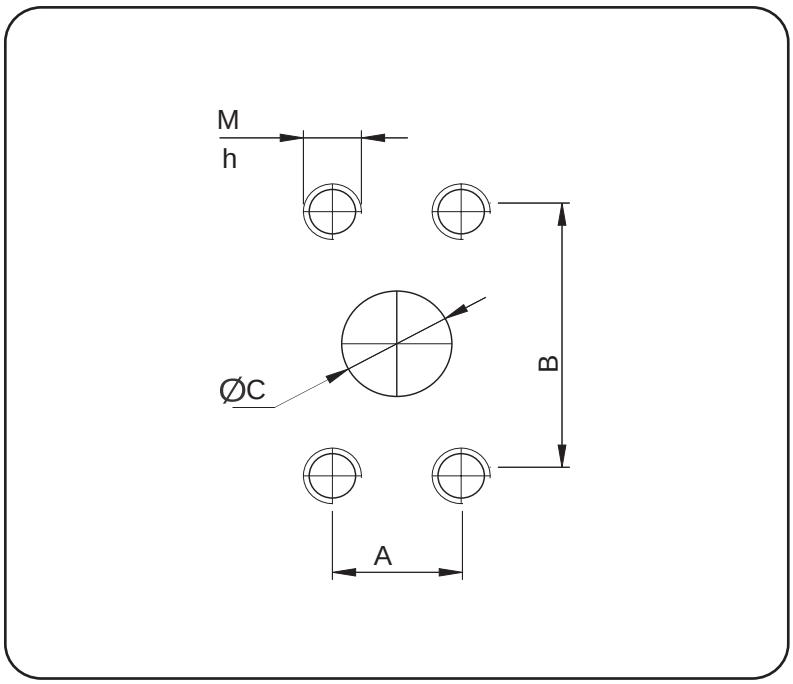
code 4



code 5

*flange mounting

Ports



TYPE	PUMPS													
	INLET							OUTLET						
	B2		B2/B26			B26		B2		B2/B26			B26	
	M	h	A	B	C	M	h	M	h	A	B	C	M	h
2411	1/2-13UNC	21	35,7	69,8	38	M12	25	7/16-14UNC	19	30,2	58,7	31	M10	25
2413														
2415														
2416			42,9	77,8	50									
2419														

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