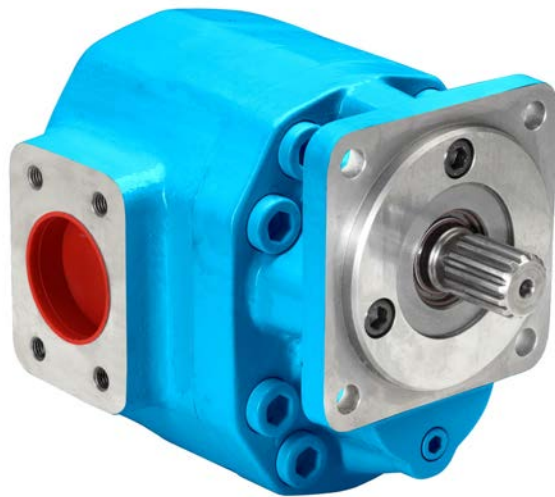


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Gear pumps 2400

1.01.04

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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 way they can always be filled with fluid in any working conditions.

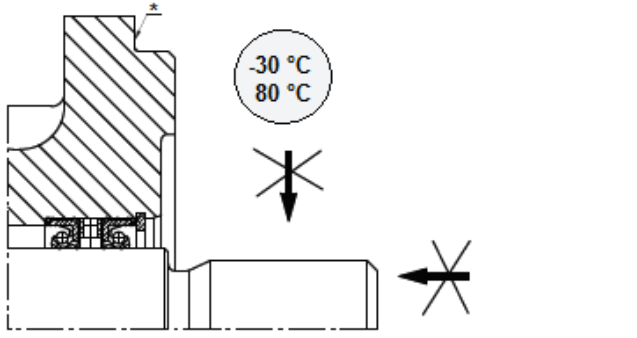
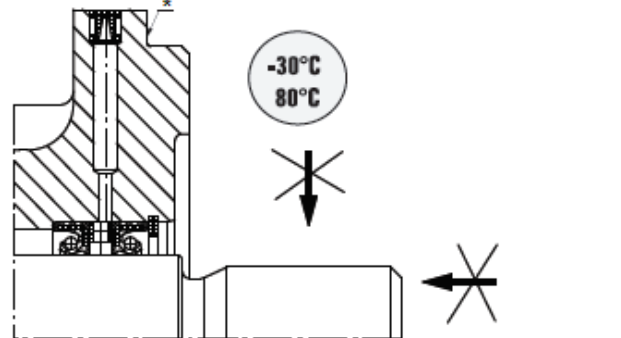
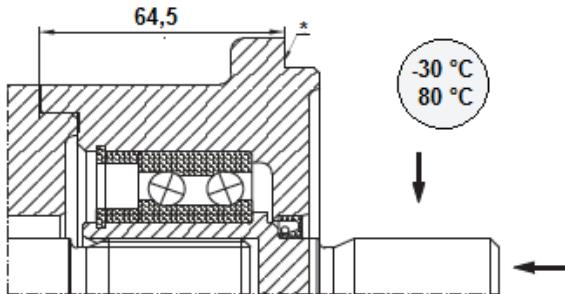
Pump inlet ports are designed to allow the complete filling, however it is recommended to observe the following advices in order to optimize pump performances and lifecycle:

- 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

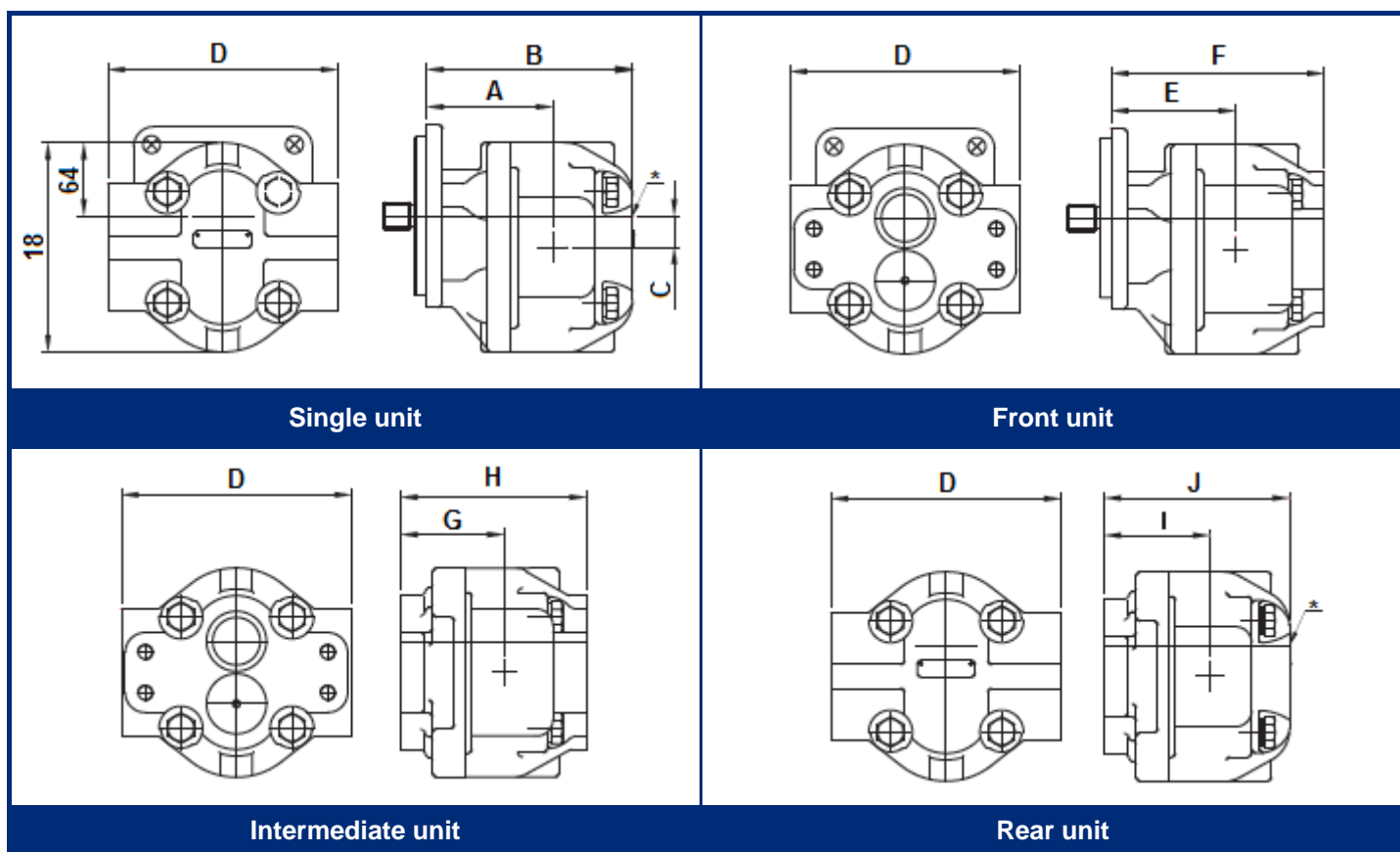
Technical features

	Model	2411	2413	2415	2416	2419
	Displacement (cc/rev)	87,3	103,6	119,8	132,7	155,4
	Working pressure (MPa)	21				
	Maximum speed (RPM)	2700				

Seal configurations

	
<p>A Standard seal for applications without load</p>	<p>C Applications without loads, with external drain hole to prevent the mixing of the gear box lubrication oil and the hydraulic fluid</p>
	
<p>E Applications with high axial load and low radial load.</p>	

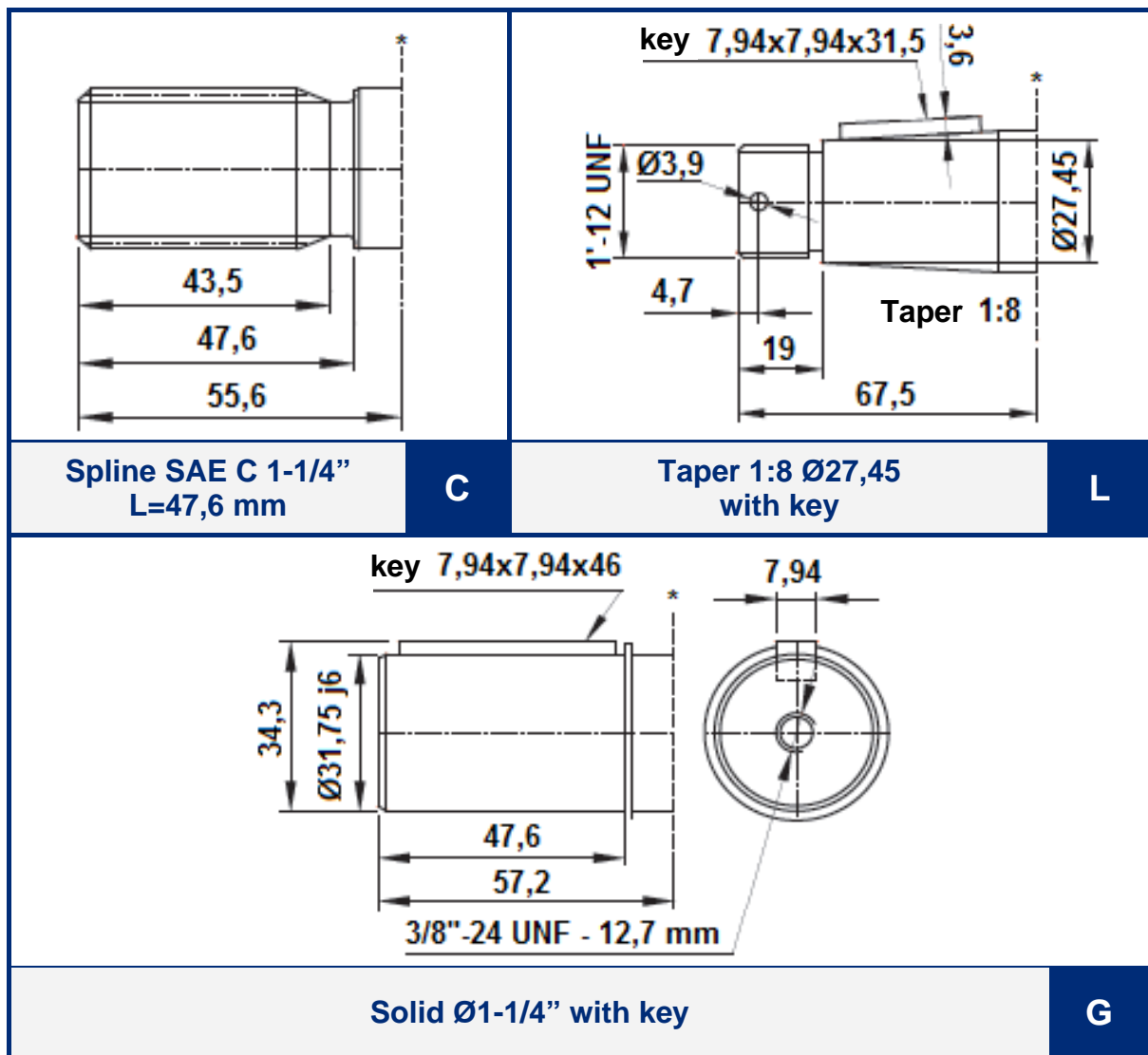
Overall dimensions



Model	Single unit				Front			Intermediate			Rear			D
	A	B	C*	Weight [kg]	E	F	Weight [kg]	G	H	Weight [kg]	I	J	Weight [kg]	
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

* drain port (for motors)

Shafts



* Standard mounting flange surface.

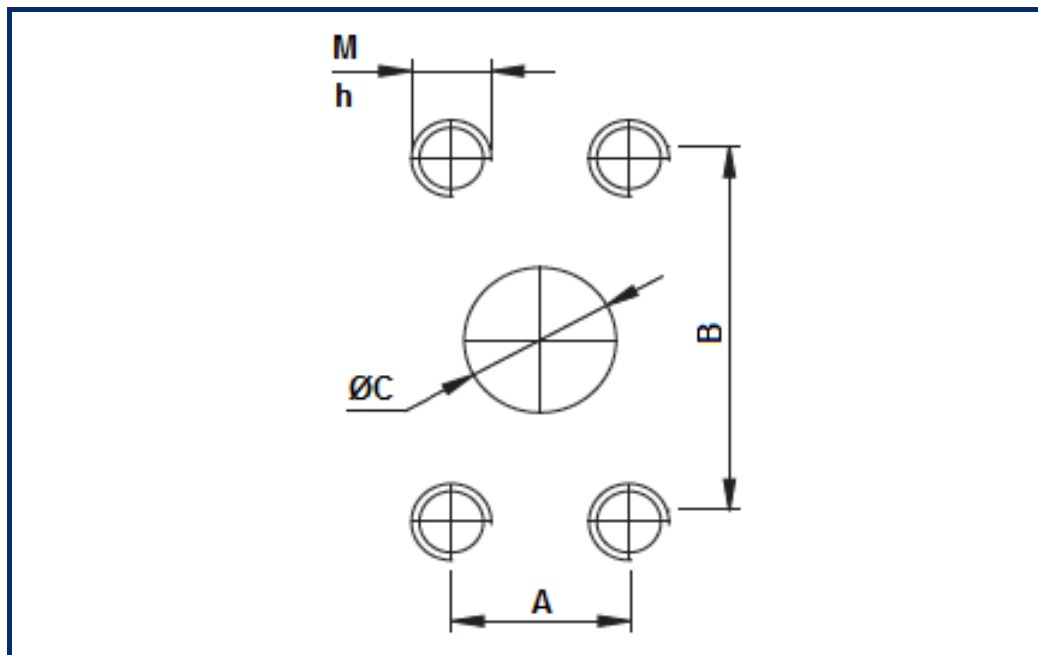
OPTION	SIZE	SIDE FIT	DIAMETRAL PITCH	ANGLE OF PRESSURE	NUMBER OF TEETH	EXTERNAL DIAMETER
C	SAE C 1-1/4"	Flat root	12/24	30°	14	31,20/31,12

Mounting flanges

<p align="center">SAE C 2 HOLES</p>	<p align="center">SAE C 4 HOLES</p>
<p>4</p>	<p>5</p>

* Standard mounting flange surface.

Ports



MODEL	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"-13 UNC	28,6	35,7	69,8	38	M12	25	7/16"-14 UNC	28,6	30,2	58,7	31	M10	25
2413														
2415			42,9	77,8	50									
2416														
2419														

Model coding

P	C	2411	C	4	B26	C	
							Rotation - A = Counter-clockwise - C = Clockwise
							Ports (page 7): - B26 = Pump
							Mounting flanges (page 7): - 4 = "SAE C" 2 holes - 5 = "SAE C" 4 holes
							Shaft (page 6): - C = Spline SAE C 1-1/4"L=47,6 mm - L = Taper 1:8 Ø27,45 with key - G = Solid Ø1-1/4" with key
							Models (page 5): 2411 - 2413 - 2415 - 2416 - 2419
							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.
							Series:
							Pump - P = Pump

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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