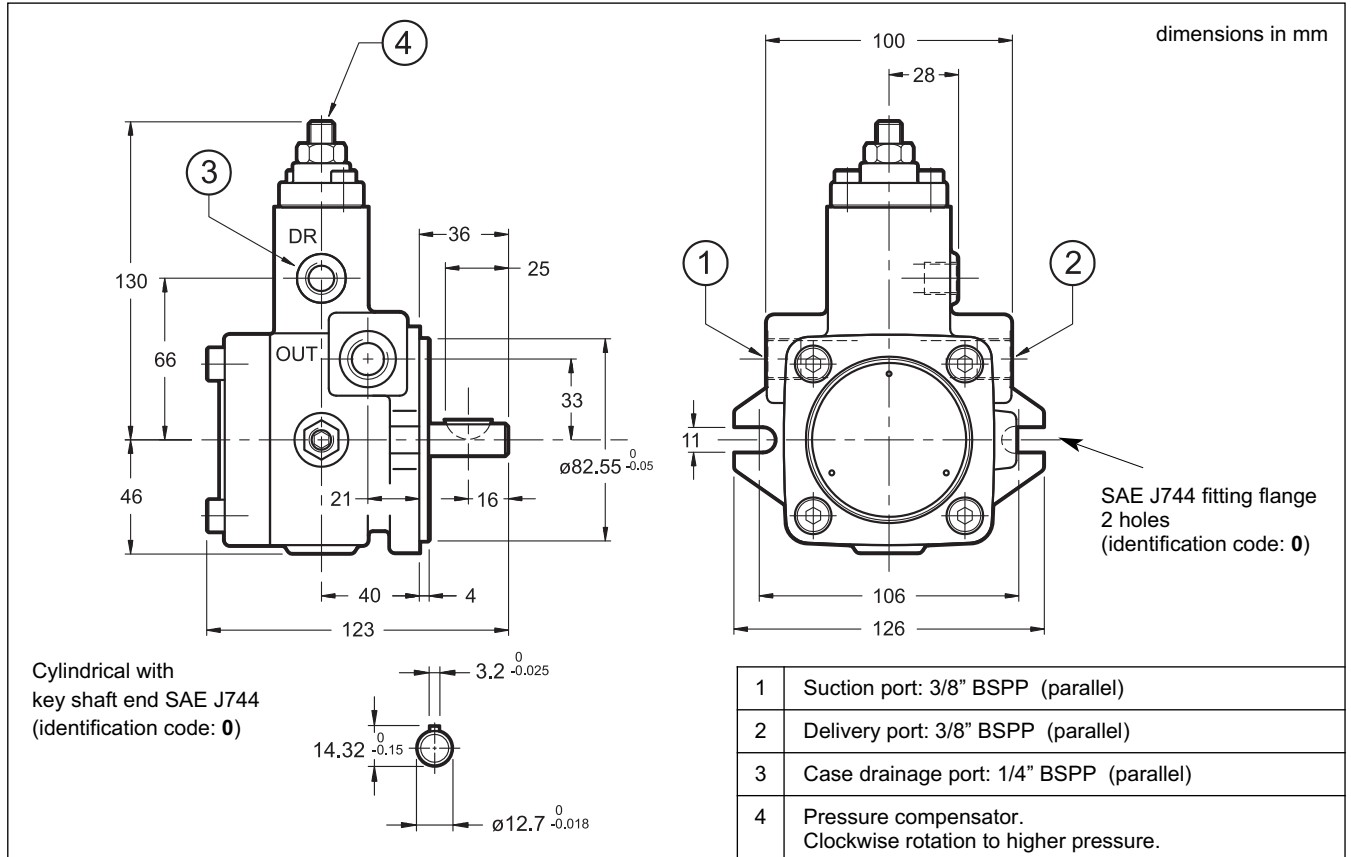
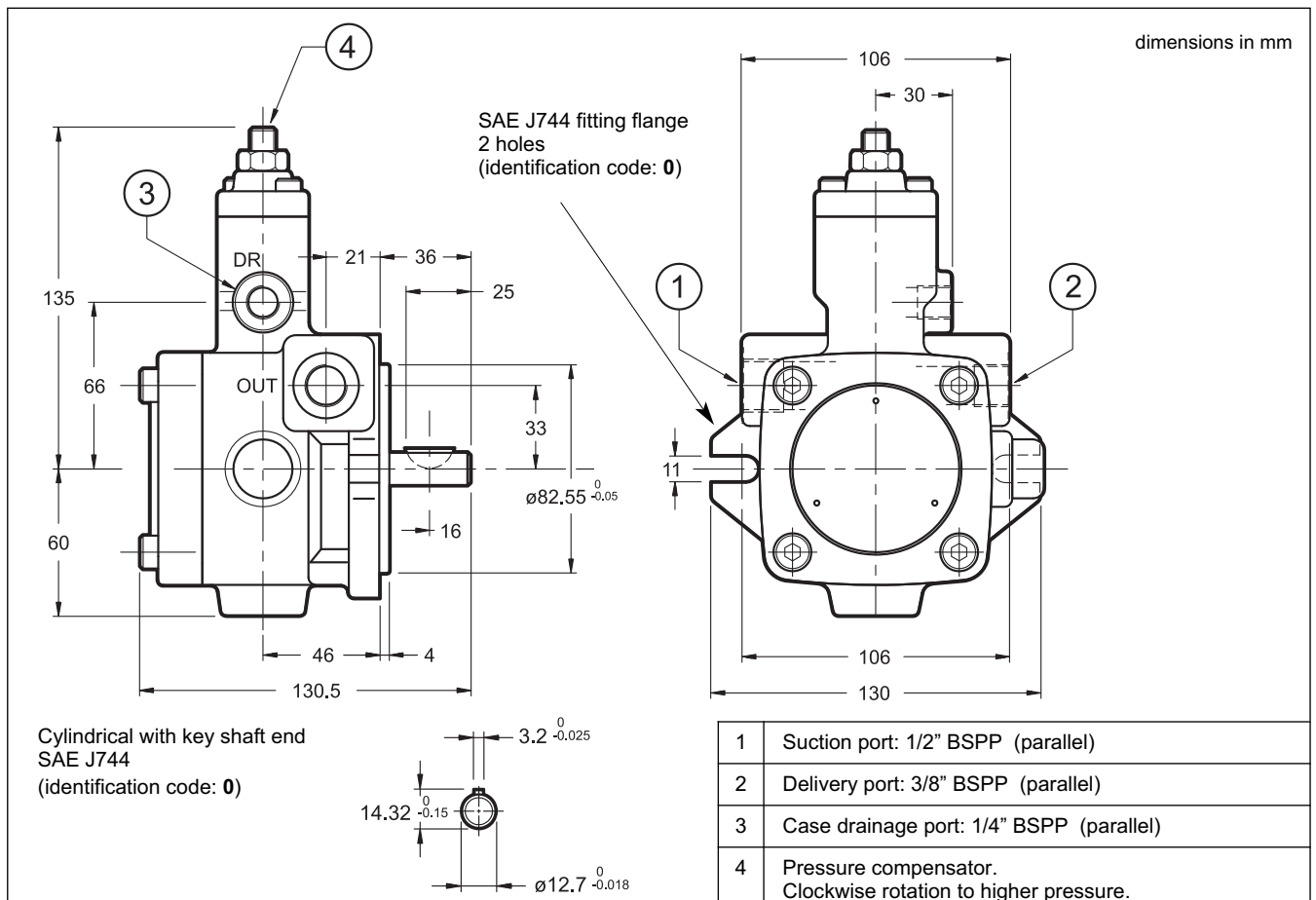


6 - OVERALL AND MOUNTING DIMENSIONS PVE-006



7 - OVERALL AND MOUNTING DIMENSIONS PVE-011



10 - MULTIPLE PUMPS

PVE-016 and PVE-023 pumps can be connected to external gear pumps (see available displacements in the table at par. 10.3). The possibility to couple two pumps makes possible to create multi-flow groups with independent hydraulic circuits.

10.1 - Maximum applicable torque

While sizing coupled pumps, consider that the shaft of the front pump must bear the torque generated by both pumps when they are loaded simultaneously.

NOTE: The maximum applicable torque at the shaft of the front pump is 62 Nm.

The input torque (M) for each pump is given by the following ratio:

$$M = \frac{9550 \cdot N}{n} = [\text{Nm}] \quad n = \text{rotation speed [rpm]}$$

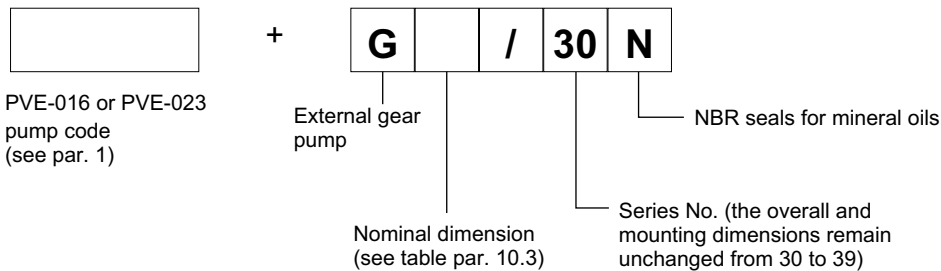
where the absorbed power (N) is given by:

$$N = \frac{Q \cdot \Delta p}{600 \cdot \eta_{\text{tot}}} = [\text{kW}]$$

Q = flow rate [l/min]
 Δp = differential pressure between the pump suction and delivery [bar]
 η_{tot} = total efficiency (coefficient = 0.8)

If the total of the obtained torques is higher than 62 Nm, it is necessary to reduce the working pressure / flow value of one or both the pumps until the total torque becomes lower than the maximum value indicated.

10.2 - Multiple pumps identification code



10.3 - Multiple pumps overall and mounting dimensions

dimensions in mm

Technical drawings showing dimensions in mm. The side view (left) shows a total width of 102.5 mm, a height of 60 mm, and a shaft diameter of $\phi 95.02^{+0.04}_0$. The front view (right) shows a total width of 106.5 mm and a height of 96 mm. Callouts 1-5 identify key features: 1 (Suction port), 2 (Delivery port), 3 (Case drainage port), 4 (Pressure compensator), and 5 (Volume adjustment). A detail drawing of the shaft end shows a diameter of $\phi 19.05^{+0.024}_{-0.021}$ mm and a length of 4.76 mm.

Cylindrical with key shaft end
SAE J744
(identification code: 0)

AVAILABLE GEAR PUMPS

Nominal dimension	Displacement [cm ³ /rev]	Max working pressure [bar]	Peak pressure [bar]	Min speed [rev/min]
0020	2	210	250	900
0025	2.5			850
0030	3			800
0040	4			
0050	5			
0060	6			
0075	7.5	175	210	
0090	9			
0105	10.5			
0120	12			

Gear pump weight: 1.7 kg

1	Suction port: 3/4" BSPP (parallel)
2	Delivery port: 1/2" BSPP (parallel)
3	Case drainage port: 1/4" BSPP (parallel)
4	Pressure compensator. Clockwise rotation to higher pressure.
5	Volume adjustment. Clockwise rotation to reduce flow.