

Individual pumps

1.1 Variable displacement axial piston pump type V80M

Variable displacement axial piston pumps operate according to the bent axis principle. They adjust the geometric output volume from maximum to zero. As a result they vary the flow rate that is provided to the loads.

The axial piston pump type V80M is designed for open circuits in mobile hydraulics and operate according to the swash plate principle. They are available with the option of a thru-shaft for operating additional hydraulic pumps in series.

The sturdy pump is particularly suitable for continuous operation in challenging applications. The range of pump controllers allows the axial piston pump to be used in a variety of applications.

Features and benefits:

- High speed
- High nominal pressure
- Less installation space
- Full torque available at the second pump in tandem pump applications

Intended applications:

- Machines for forestry and agricultural purposes
- Cranes and lifting equipment
- Construction machines



Nomenclature:	Axial piston pump
Version:	Single pump Multiple pump
p_{max}:	System pressure: 400 bar Peak pressure: 450 bar
V_{g max}:	202 cm ³ /rev

Design and order coding example

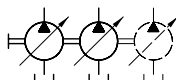
V80M	- 200	R	S	F	N	- 1	- 1	- XX	/LN	-2	/120	- 200
												Pressure specification [bar]
												Torque setting [Nm]
												Additional versions
												Controller See section "Controller"
												Release
												swash plate angle indicator With/without swash plate angle indicator
												Versions with housing With/without thru-shaft
												Seals
												▪ NBR (N)
												▪ FKM (V)
												Flange version
												▪ DIN (W)
												▪ SAE (F)
												Shaft version
												▪ Spline shaft (DIN 5480) (D)
												▪ Spline shaft and flange SAE (S)
												Rotating direction Counter clockwise (L), clockwise (R)
												Nominal size
												Basic type

Function

Single pump



Multiple pump



Controller
Pressure controller:

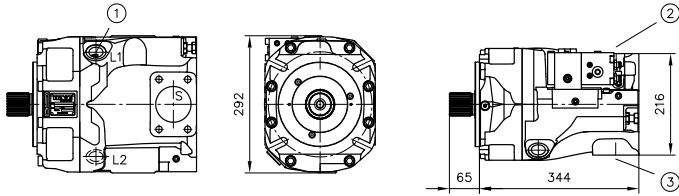
- Pressure controller (N)

Flow controller:

- Load-sensing controller (LSN)

Power controller:

- Power controller (L)

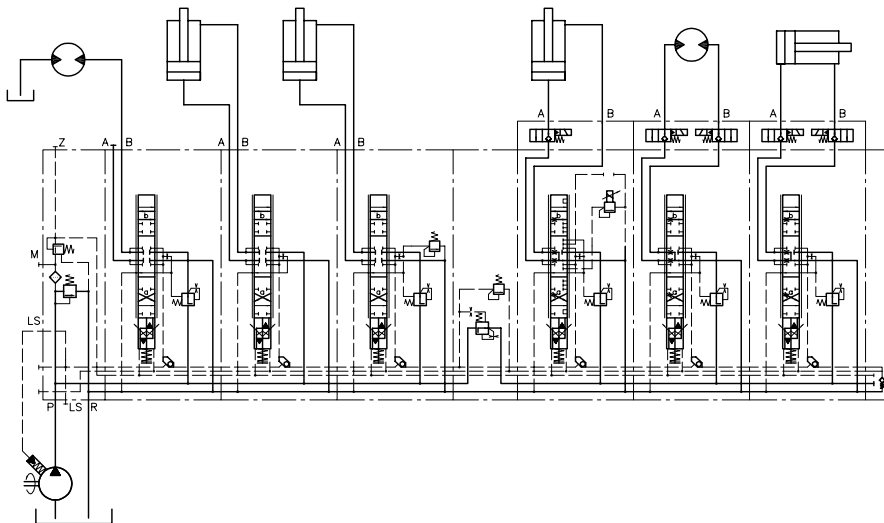
General parameters and dimensions


(connection locations for clockwise operation)

- 1 Drain port
- 2 Suction port
- 3 Pressure connection

Parameters

	Geom. output volume V_g [cm ³ /rev]	Nominal pressure p_{nom} (p_{max}) [bar]	Self-suction speed n [min ⁻¹]	Ports			m [kg] (with controller)
				Drain port	Suction port	Pressure port	
V80M - 200	200	400 (450)	1800	G 1	3"	1 1/2"	130 (136)

Circuit example:

Associated technical data sheets:

- [Variable displacement axial piston pump V80M: D 7962 M](#)

Similar products:

- Variable displacement axial piston pump type V30D: [Page 20](#)
- Variable displacement axial piston pump type V30E: [Page 16](#)
- Variable displacement axial piston pump type V60N: [Page 26](#)
- Fixed displacement axial piston pump type K60N: [Page 30](#)

Suitable prop. directional spool valve:

- Type EDL: [Page 82](#)
- Type PSL/PSV size 2, 3 and 5: [Page 90](#)
- Type PSLF/PSVF size 3, 5 and 7: [Page 96](#)

Suitable accessories:

- Proportional amplifier type EV1M3: [Page 272](#)
- Proportional amplifier type EV2S: [Page 274](#)
- Proportional amplifier type EV1D: [Page 272](#)