

Variable displacement axial piston pump type V30D

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

The axial piston pump type V30D is designed for open circuits in industrial hydraulics and works according to the swash plate principle. It is 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:

- Low-noise emissions
- Wide range of controllers
- Full torque available at the second pump in tandem pump applications

Intended applications:

- Presses
- Industrial plants
- Marine cranes and winches
- Power pack assembly



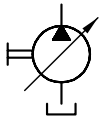
Nomenclature:	Variable displacement axial piston pump
Design:	Single pump Multiple pump
p_{max}:	Nominal pressure 350 bar, peak pressure 420 bar
V_{g max}:	45 ... 250 cm ³ /rev

Design and order coding example

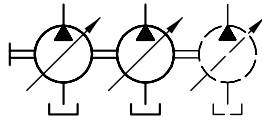
V30D	- 095	R	SF	N	- 1	- 1	- XX	/LN	-2	/120	- 200
Basic type	Nominal size	Rotating direction	Housing version	Seal material	Shaft version/flange version	Pivoting angle indicator	Release	Controller	Additional versions	Torque setting [Nm]	Pressure specification [bar]
		Anti-clockwise (L), clockwise (R)	With/without thru-shaft	<ul style="list-style-type: none"> ▪ NBR (N) ▪ EPDM (E) ▪ FKM (V) 	<ul style="list-style-type: none"> ▪ Spline shaft DIN 5480 (D) ▪ Spline shaft SAE J744 (S) ▪ Parallel key (K) 	With/without pivoting angle indicator		See section "Controller" Chapter , "Function"	e.g. stroke limitation		

Function

Single pump



Multiple pump



Controller

Pressure controller:

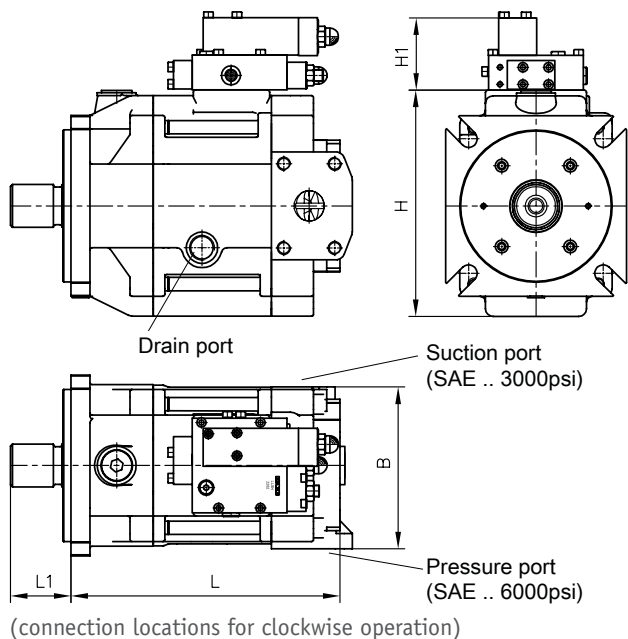
- Pressure controller (N)
- Pressure controller with remote-control port (P, Pb)

Delivery flow controller

- Load-sensing controller (LS)
- Load-sensing controller with integrated pressure limitation (LSN)
- Delivery flow controller for setting a constant, speed-independent volumetric flow (Q, Qb)
- Electro-proportional delivery flow controller with rising characteristic (V)
- Hydraulic-proportional delivery flow controller with rising characteristic (VH)

Power controller:

- Power controller (L)
- Power controller, hydraulically adjustable (Lf1)

General parameters and dimensions

Parameters

	Geom. output volume	Nom. pressure	Max speed	Dimensions [mm]					m [kg]
				V_g [cm ³ /rev]	p_{nom} (p_{max}) [bar]	n [rpm]	L	L1	
V30D - 045	45	350 (420)	2600	268	68	150	82	160	40 (46)
V30D - 075	75		2400	310	80	170	86	178	60 (66)
V30D - 095	95		2200	341	93	196	87	196	70 (76)
V30D - 115	115	250 (300) ¹⁾	2000	341	93	196	87	196	70 (76)
V30D - 140	140	350 (420)	2200	363	90	212	85	212	85 (91)
V30D - 160	160	250 (300) ¹⁾	1900	363	90	212	85	212	85 (91)
V30D - 250	265	350 (420)	1800	432	115	224	97	272	130 (136)

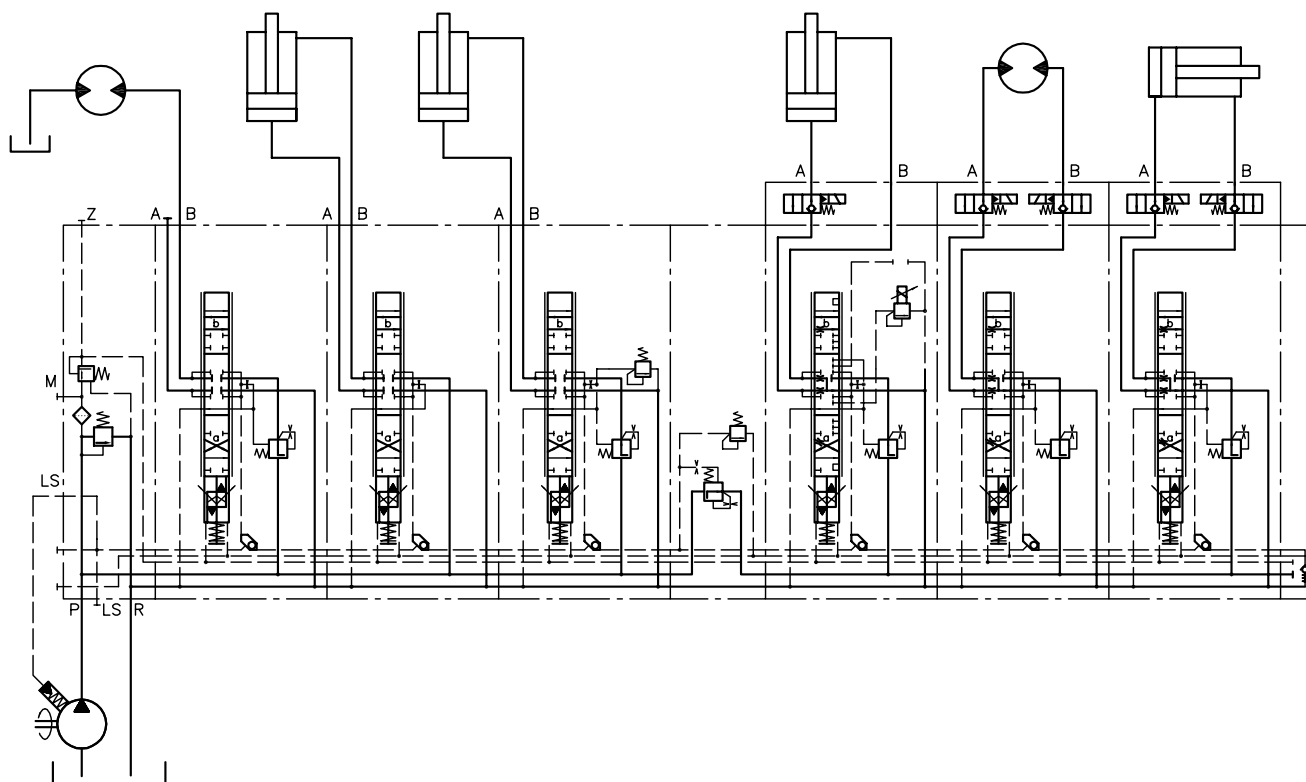
1) Higher pressure is possible with reduced geom. delivery flow

Ports

	Pressure port	Suction port	Drain port
V30D - 045	3/4" SAE J518	1 1/2 " SAE J518	G 1/2
V30D - 075	1" SAE J518	2" SAE J518	G 3/4
V30D - 095	1 1/4" SAE J518	2" SAE J518	G 3/4
V30D - 115	1 1/4" SAE J518	2" SAE J518	G 3/4
V30D - 140	1 1/4" SAE J518	2 1/2 " SAE J518	G 3/4
V30D - 160	1 1/4" SAE J518	2 1/2 " SAE J518	G 3/4
V30D - 250	1 1/2" SAE J518	3" SAE J518	M 33x 2

Example circuit:

V30D-250-LSF N-2-1/03-LSN-320



Associated technical data sheets:

- Variable displacement axial piston pump type V30D: [D 7960](#),

Similar products:

- Variable displacement axial piston pump type V30E: [D 7960 E](#)
- Variable displacement axial piston pump type V40M: [D 7961](#)
- Variable displacement axial piston pump type V60N: [D 7960 N](#)
- Axial piston motors type M60N: [D 7960 M](#)
- Variable displacement axial piston pump V80M: [D 7962 M](#)

Suitable proportional directional spool valve:

- Types PSL/PSV 2, 3 and 5: [D 7700-2](#), [D 7700-3](#), [D 7700-5](#)
- Type PSLF/PSVF 3, 5 and 7: [D 7700-3F](#), [D 7700-5F](#), [D 7700-7F](#)

Additional electrical components:

- Proportional amplifier: [D 7831/2](#), [D 7831 D](#), [D 7817/1](#)
- Programmable logic valve control type PLVC: [D 7845-41](#), [D 7845 M](#)
- CAN node type CAN-IO: [D 7845 IO](#)