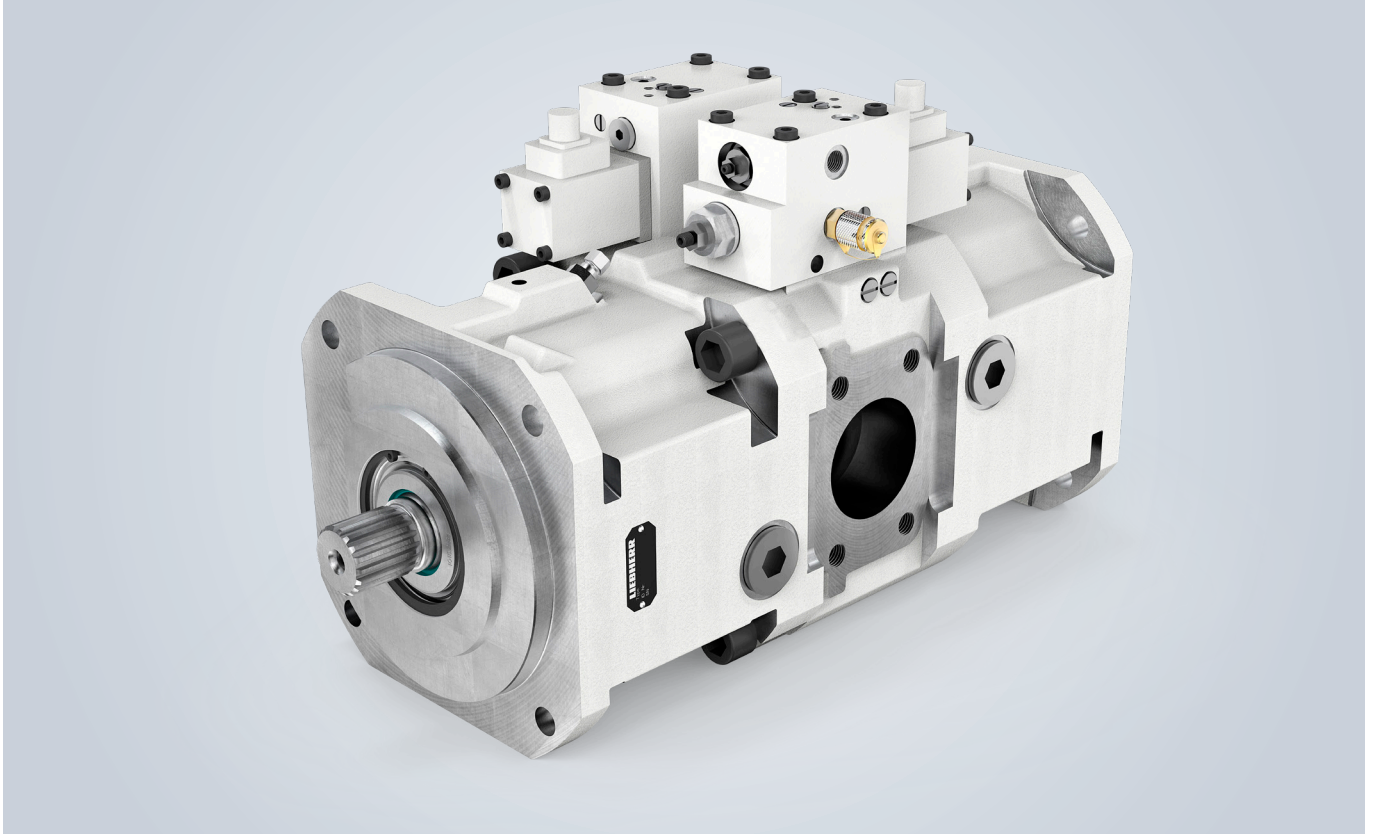


Short description

# Axial piston pump DPVD



The Liebherr axial piston double pumps in the DPVD series are designed as swashplates for open circuits.

These variable displacement double pumps are available in nominal sizes from 108–108 to 165–165. The nominal pressure of the units is 5,802 psi (400 bar) and the maximum pressure is 6,527 psi (450 bar) absolute.

The model is available as a double pump with a back to back arrangement. Connecting the hydraulic lines is greatly simplified by a shared suction port.

The inverse drive with a swivel angle of 22° is very efficient and has a very high power density.

**Valid for:**

DPVD 108–108  
DPVD 165–165

**Features:**

D series  
Open circuit

**Control types:**

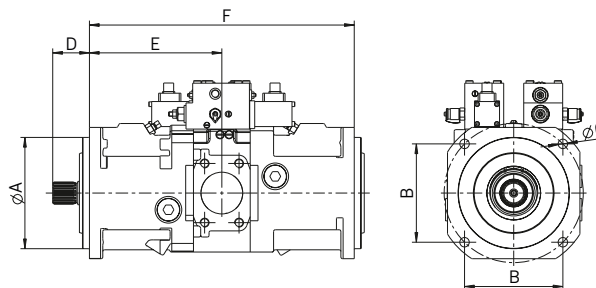
Load Sensing with pressure cut-off  
Electrical volume control with pressure cut-off

**Pressure range:**

Nominal pressure  $p_N = 5,802$  psi (400 bar)  
Maximum pressure  $p_{max} = 6,527$  psi (450 bar)

**LIEBHERR**

# Axial piston pump DPVD



**DPVD** variable displacement, open circuit, nominal pressure 5,802 psi (400 bar), maximum pressure 6,527 psi (450 bar) (all specifications per driving gear)

Nominal size			108	165
Displacement volume	$V_{g \max}$	inch <sup>3</sup> (cm <sup>3</sup> )	6.57 (107.7)	10.24 (167.8)
Max. speed	at $V_{g \max}$ , $n_{\max}$	rpm	2,200	2,100
Volume flow	at $n_{\max}$ , $Q_{v \max}$	US.liq.gal/min (l/min)	62.6 (237)	93.0 (352)
Drive power	$\Delta p = 5,802$ psi (400 bar), $P_{\max}$	hp (kW)	211.9 (158)	315.1 (235)
Drive torque	$\Delta p = 5,802$ psi (400 bar), $T_{\max}$	lbf-ft (Nm)	506.0 (686)	787.7 (1,068)
Available controls			EL-LS	

## Technical data

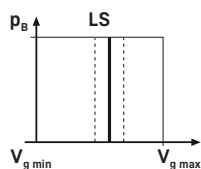
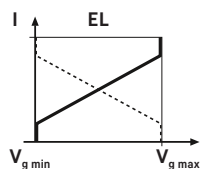
Product dimensions [inch (mm)]*			108	165
Splined shaft profile	DIN 5480 involute gear hub profile		W40 x 2 x 18	W45 x 2 x 21
Centering diameter	A		7.87 (200)	6.50 (165.1)
Connection spacing, screws	B		9.84 (250)	8.84 (224.5)
Fastening holes	C		0.67 (17)	0.16 (4)
Splined shaft length	D		2.60 (66)	2.74 (69.7)
Connection length, SAE flange (suction & pressure)	E		9.37 (238)	11.35 (288.3)
Shaft collar / mounting flange	F		18.74 (476)	25.77 (654.6)
Pressure connections	SAE J518 (6,000 psi)		1"	1½"
Suction port	SAE J518 (500 psi)		3"	4"
Leakage oil connection	ISO 9974-1		M33 x 2	M26 x 1.5

\* The dimensions can vary depending on the configuration and additional equipment (installation drawing available upon request).

**Control** - Other control function combinations possible upon request.

Electro-proportional regulation

Load sensing



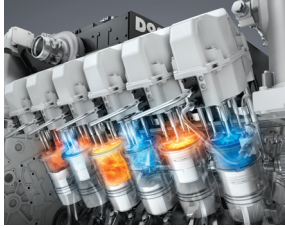
# Type code

<b>DPVD</b>	<b>0</b>	/	<b>1</b>						<b>A</b>				<b>0</b>
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.

<b>1. Pump type</b>			
D series / pump / variable displacement / double			DPVD
<b>2. Type of circuit</b>			
Open			0
<b>3. Nominal size (per driving gear)</b>			
	108	165	
	■	■	
<b>4. Residual displacement from hydraulic pump (per driving gear), other values upon request</b>			
0-15 % of $V_{g \max}$ , enter value in $\text{inch}^3/\text{rev}$ ( $\text{cm}^3/\text{rev}$ )	■	■	
<b>5. Control (other controls upon request)</b>			
Electro-proportional regulation / pressure cut-off	■	□	EL/DA
Hyperbolic performance regulation / load sensing	□	□	LR/LS
Hyperbolic performance regulation / steering-pressure proportional hydraulic regulation / pressure cut-off	□	□	LR/SD/DA
Electro-proportional regulation / load sensing	□	■	EL/LS
Fan drive control	□	□	LU
Pressure control or pressure cut-off	□	□	DA
Total performance regulation / steering-pressure proportional hydraulic regulation	□	□	SL/SD
Load sensing / pressure cut-off	□	□	LS/DA
Steering-pressure proportional hydraulic regulation / Load-Sensing	□	□	SD/LS
<b>6. Design</b>			
	■	■	1
<b>7. Direction of rotation (viewed towards the drive shaft)</b>			
Right	■	■	R
Left	□	□	L
<b>8. Mounting flange (other mounting flanges upon request)</b>			
Diesel engine flange SAE 1 (SAE J617a)	■	■	11
Diesel engine flange SAE 2 (SAE J617a)	□	□	12
Diesel engine flange SAE 3 (SAE J617a)	□	□	13
Diesel engine flange SAE 4 (SAE J617a)	□	□	14
SAE E (SAE J744)	-	■	25
DIN / ISO 3019-2	□	□	31...
Special flange	□	□	51...
<b>9. Shaft end</b>			
Splined shaft DIN 5480	■	■	1
Splined shaft ANSI B92.1a	□	□	2
<b>10. Connections</b>			
ISO 6162-2 / SAE J518-2, high-pressure connection 6,000 psi	■	■	A
ISO 6162-1 / SAE J518-1, high-pressure connection 3,000 psi	□	□	B
<b>11. Add-on parts</b>			
No add-on parts	■	■	0
Impeller	□	□	I
<b>12. Gear pump</b>			
Without gear pump	□	□	00
With gear pump, $V_g = XX \text{ inch}^3(\text{cm}^3)$ enter value in $\text{inch}^3/\text{rev}$ ( $\text{cm}^3/\text{rev}$ )	□	■	24
<b>13. Through-drive (side P1 and/or P2)</b>			
No through drive	■	■	0
SAE B	■	■	B
Special flange with through-drive	□	□	K
<b>14. Valve</b>			
Without valve	■	■	0
<b>15. Sensors</b>			
Without sensor	■	■	0
With angle sensor	□	□	W
With pressure sensor	□	□	P
With speed sensor	□	□	D

■ Available □ On request - Not available

# Components



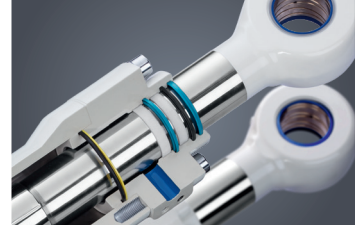
Diesel engines



Injection systems



Axial piston hydraulics



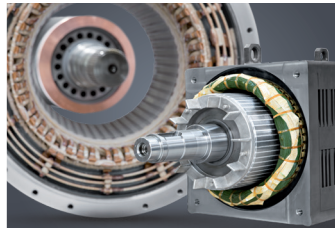
Hydraulic cylinders



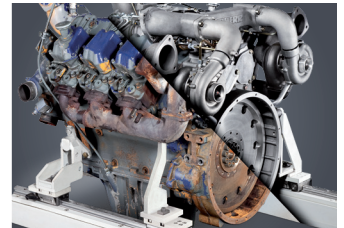
Large diameter bearings



Gearboxes and rope winches



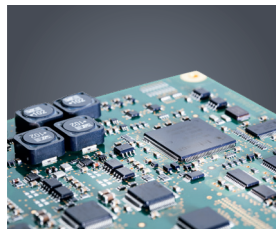
Electrical machines



Preparation of components



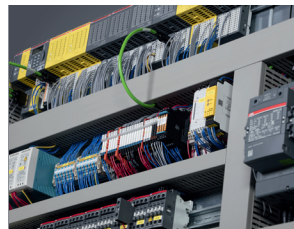
Human-machine interfaces and gateways



Control electronics and sensors



Power electronics



Switchgear



Software

From A to Z, the components division of the Liebherr Group offers a broad range of solutions for mechanical, hydraulic, electric and electronic drive and control technology. The efficient components and systems are produced at a total of ten production sites around the world to the highest standards of quality. Central contacts for all product lines are available to customers at Liebherr Component Technologies AG and our regional sales branches.

Liebherr is your partner for joint success: from product idea to development, manufacture and commissioning, right through to customer service solutions, such as preparation of components.

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