

ENGINEERING  
TOMORROW

*Danfoss*

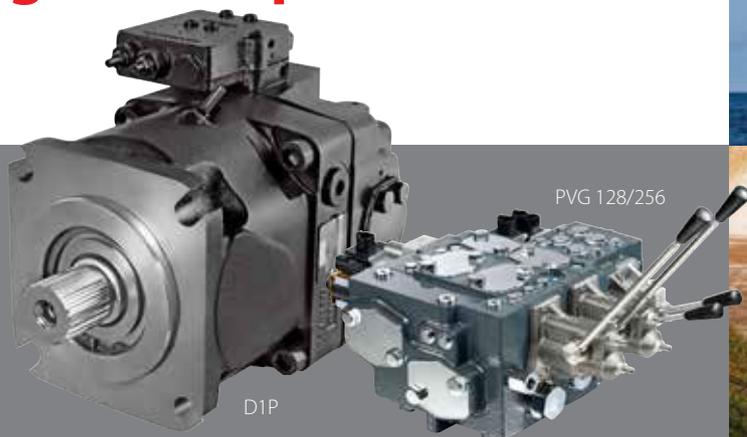
D1P High Power Open Circuit Pumps

Designed for **high performance** and **reliability** in **heavy duty** applications



[www.danfoss.com](http://www.danfoss.com)

# High flow hydraulics with **global expertise**



The D1 pump expands the open circuit pump portfolio to include high-flow up to 600 lpm [160 gpm] hydraulic pump options for customers. Designed to work seamlessly with the PVG 128/256 high flow valves, Danfoss can provide you with all your high flow system needs.

The D1 pump is a high-pressure [350 bar cont. / 400bar int.] pump with equivalent load-life as our H1 pumps. The high-performance variable axial piston pump design ensures the high reliability in heavy duty applications you expect from Danfoss. The advanced open circuit control options (such as power and displacement controls), make the D1 pump ideal for the evolving application functionalities used in today's machines.



## Target markets

### Marine, Oil and Gas

drill rigs, pipe handling equipment, hydraulic power units, artificial lifts

### Mining

road headers

### Construction

wheel loaders, dumpers

### Material Handling

crawler crane

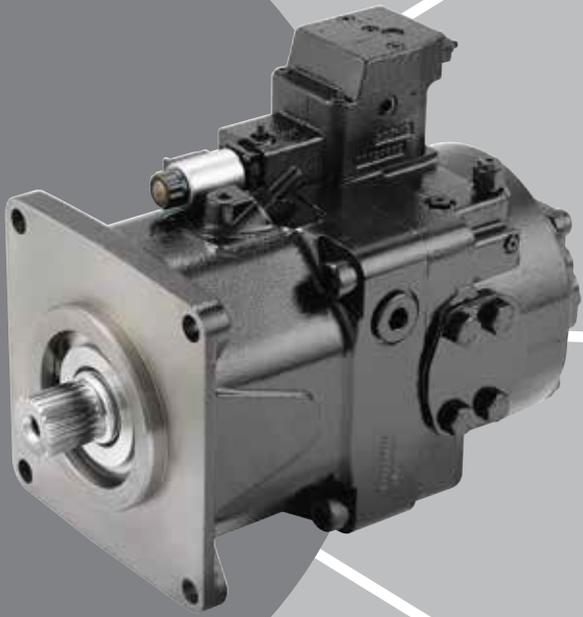
### Forestry

harvesters, mulchers, feller bunchers

## Technical specifications

Features		Unit	65		130		145		193		260
			W/O Impeller pump	W/O Impeller pump	W/ Impeller pump	W/O Impeller pump	W/ Impeller pump	W/O Impeller pump	W/ Impeller pump	W/ Impeller pump	
Displacement	Maximum	cm <sup>3</sup> [in <sup>3</sup> ]	65 [3.84]	130 [7.93]	130 [7.93]	145 [8.85]	145 [8.85]	193 [11.78]	193 [11.78]	260 [15.87]	
	Minimum		0	0	0	0	0	0	0	0	
Available Rotation		CCW [L]	•	•	•	•	•	•	•	•	
		CW [R]	•	•	•	•	•	•	•	•	
Input Speed	Min.	rpm	500	500	500	500	500	500	500	500	
	Rated at max. displacement (Vg max.)		2500	2200 <sup>1</sup>	2500 <sup>2</sup>	2200 <sup>1</sup>	2500 <sup>2</sup>	2200 <sup>1</sup>	2500 <sup>1</sup>	2300 <sup>2</sup>	
	Maximum at Vg < Vg max. <sup>3</sup>		3000	2500	2500	2200	2500	2500	2500	2300	
Flow at max. speed & displacement (n max. & Vg max.)		l/min [US gal/min]	165 [44]	286 [76]	325 [86]	319 [84]	363 [96]	425 [112]	483 [128]	598 [158]	
System (working) pressure <sup>4</sup>	Max. working pressure	bar [psi]	350 [5076]								
	Max. pressure		400 [5802]								
Inlet pressure (absolute)	Minimum	bar [psi]	0.8 [11.6]	0.8 [11.6]	0.6 [8.7]	0.8 [11.6]	0.6 [8.7]	0.8 [11.6]	0.6 [8.7]	0.6 [8.7]	
	Maximum		30 [435]	30 [435] <sup>5</sup>	2 [29]	30 [435]	2 [29]	30 [435]	2 [29]	2 [29]	
Case pressure (absolute)	Maximum above inlet	bar [psi]	1.2 [17.4]								
	Maximum		2 [29]								

# D1P Product **benefits**



## Heavy duty design ensuring robustness and reliability

2550rpm maximum speed rating provides best in class power density, achieved by integrated charge pump and advanced cylinder-block design

Robust rotating group ensures high reliability in tough applications, with equivalent load-life rating as the H1 and Series 90 pump families



## Expanded control functionality

Mechanical Torque Control prevents engines stall or electric motor overload

Electric Displacement control, with manual override function, makes for simple and precise work function speed control

PLUS+1® compliant EDC control with available software block reduces programming time



## Easy installation and packaging

Best-in-class installation footprint for easy, compact packaging

Standard port interfaces, and DEUTSCH connectors for electric controls



## Control options

- NPNN:** Pressure compensated control
- NPNR:** Pressure compensated control + Remote pressure compensated control
- NPSN:** Pressure compensated control + Load sensing control
- TPSN:** Mechanical power control + Pressure compensated control + Load sensing control
- NNES:** Electric displacement control + Load sensing control
- TPE2/TPE5:** Mechanical power control + Pressure compensated control + Electric displacement control
- TPH1:** MTC + PC + HDC
- ENSN:** ETC + LS

## About Danfoss Power Solutions

**Danfoss Power Solutions** is a global manufacturer and supplier of high-quality hydraulic and electric components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway market as well as the marine sector. Building on our extensive applications expertise, we work closely with you to ensure exceptional performance for a broad range of applications. We help you and other customers around the world speed up system development, reduce costs and bring vehicles and vessels to market faster.

We offer you expert worldwide support for ensuring the best possible solutions for outstanding performance. And with an extensive network of Global Service Partners, we also provide you with comprehensive global service for all of our components.

Danfoss Power Solutions – your strongest partner in mobile hydraulics and mobile electrification.

### Products we offer:

- DCV directional control valves
- Electric converters
- Electric machines
- Electrical motors
- Hydrostatic motors
- Hydrostatic pumps
- Orbital motors
- PLUS+1<sup>®</sup> controllers
- PLUS+1<sup>®</sup> displays
- PLUS+1<sup>®</sup> joysticks and pedals
- PLUS+1<sup>®</sup> operator interfaces
- PLUS+1<sup>®</sup> sensors
- PLUS+1<sup>®</sup> software services, support and training
- PLUS+1<sup>®</sup> software
- Position controls and sensors
- PVG proportional valves
- Steering components and systems
- Telematics

Go to [www.danfoss.com](http://www.danfoss.com) for further product information.

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