ENGINEERING
TOMORROW

D1P Open Circuit High Power Axial Piston Pumps

Flexible by design.
Robust by performance.

www.danfoss.com/D1P

High flow hydraulics with **global expertise**

Danfoss D1P open circuit high power axial piston pumps are designed to fit a flexible range of applications. Robust, reliable and equipped with a broad range of controls, with D1P you gain efficiency and optimization even in the harshest of conditions.

Choose a pump that makes a difference and join us in pursuing global **change for better**.

Target markets

Marine, oil and gas
drill rigs, pipe handling equipment, hydraulic power units, artificial lifts

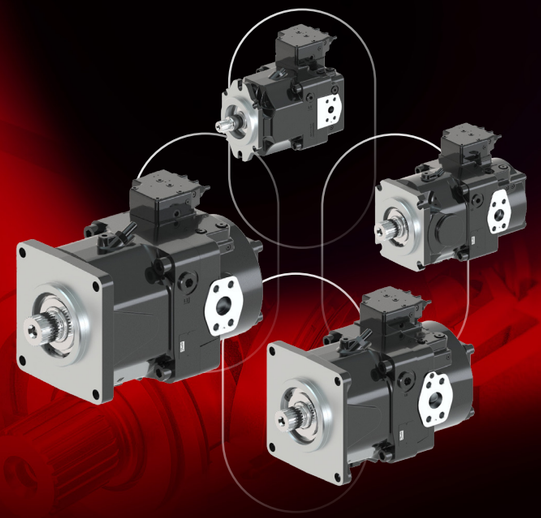
Mining
road headers

Construction
wheel loaders, dumpers

Material handling
crawler crane

Forestry
harvesters, mulchers, feller bunchers

D1P product **benefits**



Heavy duty design ensuring robustness and reliability
2500 rpm 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 programing time.

Easy installation and packaging
Best-in-class installation footprint for easy, compact packaging.

Standard port interfaces, and DEUTSCH connectors for electric control.

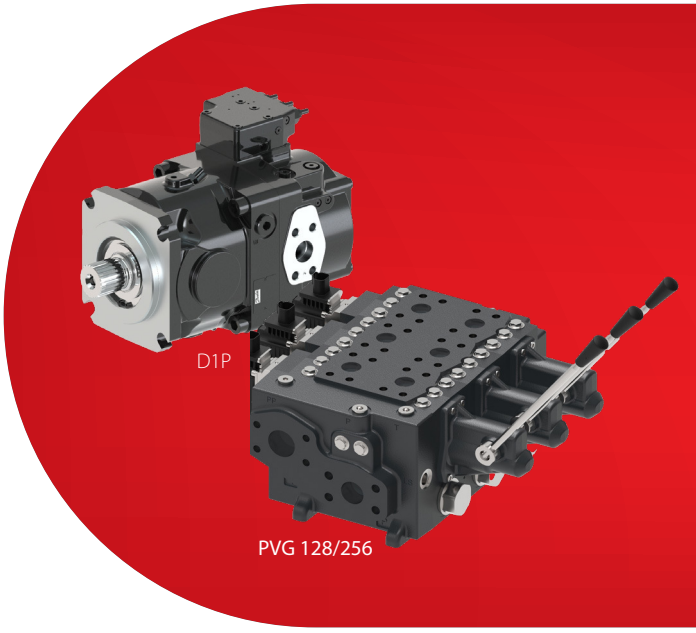
Control options

NPNN:	Pressure compensated control
NPNR:	Pressure compensated control + Remote pressure compensated control
NPSN:	Pressure compensated control + Load sensing control
TPSN:	Pressure compensated control + Mechanical power control + Load sensing control
NNES:	Electric displacement control + Load sensing control
TPE2/TPE5:	Pressure compensated control + Mechanical power control + Electric displacement control
TPH1:	Pressure compensated control + Mechanical power control + Hydraulic displacement control
ENSN:	Electric pressure compensated control + Load sensing control
NPE2/NPE0:	Pressure compensated control + Electric displacement control

ENGINEERING
TOMORROW

Expanding the open circuit pump portfolio, the D1P offers high-flow options up to 667 liters per minute (179 gallons per minute). These pumps are designed for seamless integration with the PVG 128/256 high flow valves, providing a complete solution for your high flow system needs.

With a high pressure rating of 350 bar continuous and 400 bar intermittent, the D1P pump offers comparable load-life to our H1 pumps. Advanced open circuit control options, including power and displacement controls, make the D1P pump ideal for the evolving functionalities of today's machines.



Technical **specifications**

Technical specifications features		Unit	65	130		145		160		193		260
			Without impeller pump	Without impeller pump	With impeller pump	Without impeller pump	With impeller pump	Without impeller pump	With impeller pump	Without impeller pump	With impeller pump	With impeller pump
Displacement		cm^3 [in^3]	65 [3.84]	130 [7.93]	130 [7.93]	145 [8.85]	145 [8.85]	160 [9.77]	160 [9.77]	193 [11.78]	193 [11.78]	260 [15.87]
Available rotation		CW [R]	•	•	•	•	•	•	•	•	•	•
		CCW [L]		•	•	•	•	•	•		•	•
Input speed	Min.	rpm	500	500	500	500	500	500	500	500	500	500
	Rated		2550	2200	2500	2200	2500	2200	2500	2200	2500	2300
	Max.		3000	2500	2500	2200	2500	2200	2500	2500	2500	2300
Theoretical flow		l/min [US gal/min]	165 [44]	286 [76]	325 [86]	319 [84]	363 [96]	352 [93]	400 [106]	425 [112]	483 [128]	598 [158]
System (working) pressure	Max. working pressure	bar [psi]	350 [5076]									
	Max. pressure		400 [5802]									
Inlet pressure (absolute)	Min.	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]	0.8 [11.6]	0.6 [8.7]	0.6 [8.7]
	Max.		30 [435]	30 [435]	2 [29]	30 [435]	2 [29]	30 [435]	2 [29]	30 [435]	2 [29]	2 [29]
Case pressure (absolute)	Max. above inlet	bar [psi]	1.2 [17.4]									
	Max.		2 [29]									