

RADIAL PISTON PUMP (RKP)

Reliable, silent, energy efficient



Moog offers eight sizes of Radial Piston Pumps (RKP) ranging from 19 cm³ to 250 cm³ that are available with variable displacements. The latest generation of RKPs have been optimized to ensure durability and low noise levels, following extensive in-house testing at both our German and UK facilities, and offer low flow and pressure pulsation. The pump's robust design makes it particularly suitable for demanding industrial applications in the plastics, metal forming and press, heavy industry, marine and test sectors. It is the product of choice for operational settings that require highly dynamic control of hydraulic flow and pressure, and can be combined with other RKPs or pumps with standard interfaces.

Moog has designed the RKP for use in open circuit systems, and it features a large suction port and flow optimized suction path that ensures robust suction behavior and a high speed limit. All sizes are equipped with a proven, rugged control system with a sliding stroke ring. Manufactured with ferrous metals featuring hardened, wear resistant surfaces the RKP provides outstanding longevity, while the design also allows for special pump versions for use with HFA, HFC and HFD, mineral oil, emulsion fluids and phosphate esters.

The pump's modular design offers a range of control options, including pressure compensator (F2), a combined pressure flow compensator (R1), fixed displacement (B1) and dual displacement (N1).

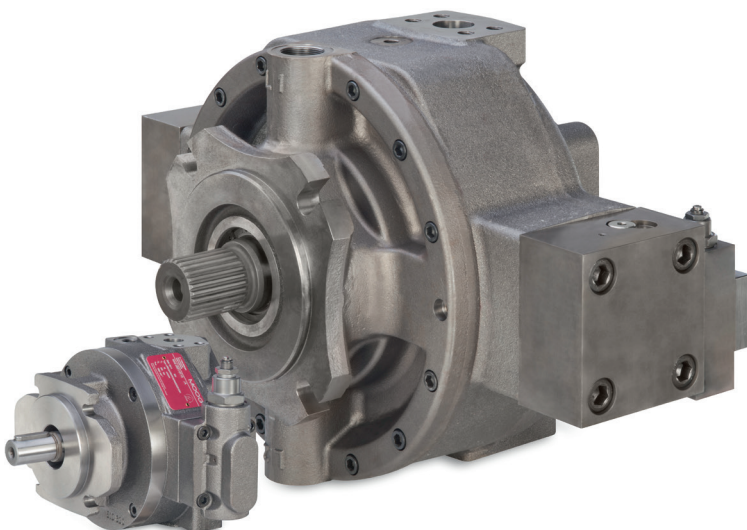
The RKP with digital control (RKP-D) offers highly dynamic electrohydraulic control (D1 to D8) and can be configured with the Moog Valve and Pump Configuration Software (MoVaPuCo). Status information, set and actual values are displayed graphically for quick and easy performance monitoring, trouble shooting and tuning.

ADVANTAGES

- Proven, robust design for long service life, low noise and high energy efficiency
- Suitable for use in demanding operational environments with a broad range of special fluids (HFA, HFC, HFD, others upon request)
- Available in explosion proof versions for hazardous environments
- Supplied as medium pressure series (280 bar) and optionally as high-pressure series (350 bar)
- Digital version reduces requirement for central control hardware

APPLICATIONS

- Plastics machinery
- Die casting
- Metal forming and presses
- General industrial machinery
- Marine applications
- Test rigs



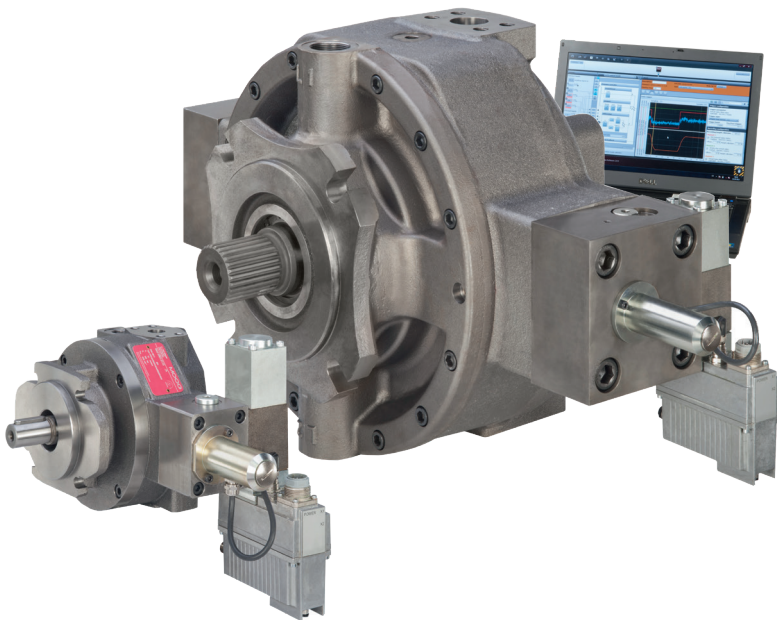
SPECIFICATIONS

TECHNICAL DATA

Displacement [cm ³ /rev]		19	32	45	63	80	100	140	250	
Type of construction	Pump for open circuit with various control devices									
Weight [kg (lb)]		22 (49)	33 (73)		71 (157)			105 (232)	236 (521)	
Inertia [kg/cm ² (lb/in ²)]		17.7 (6.0)	61.0 (20.8)		186.3 (63.7)			380.0 (129.9)	1555.0 (531.4)	
Ambient temperature range [°C (°F)]	-15 to +60 (+5 to +140)									
Maximum speed [min ⁻¹]	at inlet pressure 1 bar (14.5 psi) abs.	2,900	2,850 ¹⁾	2,200 ¹⁾	2,700 ¹⁾	2,250 ¹⁾	1,850	2,100	1,850	
	at inlet pressure 0.8 bar (11.6 psi) abs.	2,750	2,750 ¹⁾	2,100 ¹⁾	2,550 ¹⁾	2,150 ¹⁾	1,800	1,900	1,800	
Maximum operating pressure [bar (psi)]	medium pressure series	280 (4,000)							—	
	high pressure series	350 (5,000)		—		350 (5,000)		—		350 (5,000)

¹⁾ Maximum speed increase upon request

RKP WITH DIGITAL CONTROL (RKP-D)



ADVANTAGES

- Can be controlled digitally via a fieldbus interface or by analog command signals
- Compatible with several PLC architectures
- Ideal solution for pressure, flow and power control
- Especially valuable for sequential machine processes, which require adaptation of parameters during operation
- Fast and convenient commissioning, diagnostics, and configuration with Moog configuration software
- All relevant parameters are displayed graphically and may be modified easily

MOOG GLOBAL SUPPORT

Moog Global Support is our promise to offer world-class Repair and Maintenance Services delivered expertly by our trained technicians. With the reliability only available from a leading manufacturer with facilities around the world, Moog offers you service and expertise you can count on to keep your equipment operating as it should. For more information on Moog Global Support, visit www.moog.com/industrial/service.



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info@moog.com

www.moog.com/industrial

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