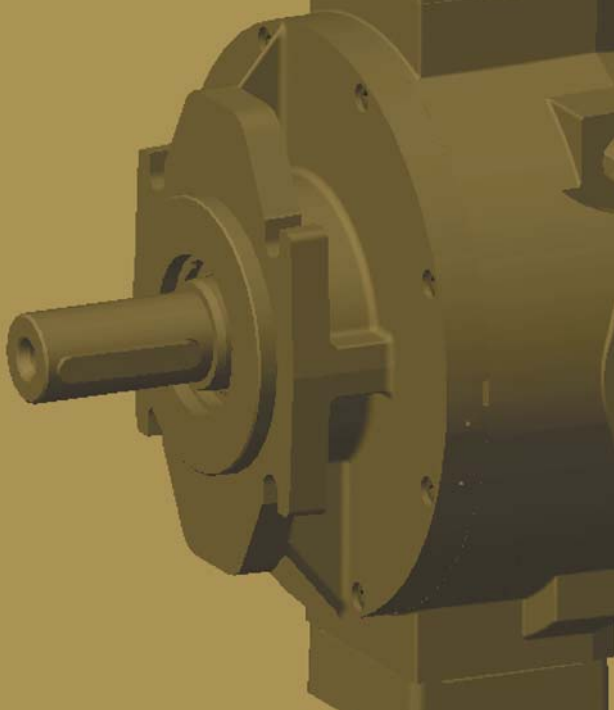


RADIAL PISTON PUMPS (RKP)



PRODUCT OVERVIEW

MOOG

MOOG PRODUCT RANGE

Moog is a world leader in providing high-performance motion control solutions for key industrial applications. Our teams of experts work collaboratively with customers to overcome technical challenges and move their ideas forward. Moog designs and manufactures products including servo valves, proportional valves, pumps, hydraulic manifold systems, servomotors and drives, motion controllers and electronics, and electromechanical actuators.

MOOG SUPPORT

Moog support services are as flexible as our motion control solutions. Our international network of expert service technicians are on call for Moog Authentic Repair® services and support including troubleshooting, on-site installation, and ongoing maintenance. Whatever it takes to give you personal, expert support and help you get the most from your equipment investment.



Moog Radial Piston Pumps, or RKP, are high-performance variable displacement pumps for applications that require a new level of machine performance.

The RKP is the ideal solution for applications requiring robust performance, low noise, contamination-resistant design, and unsurpassed reliability. It is available in various sizes, single and multiple configurations, and a wide array of control options and mounting flanges.

Key applications include all stationary hydraulic installations and machines in metal forming, plastics, machine tools, test and simulation, among others.

RKP-II

The RKP's proven technology has been improved with the second generation design (RKP-II). This new version has a completely reengineered housing with an increased number of pistons and a sliding stroke ring. Designed to meet the needs of performance-driven engineers across a variety of industries, Moog RKP-II units combine innovative technologies with functionality suited to demanding applications. Moog expertise and close collaboration with customers worldwide ensure solutions that meet today's toughest machine challenges.

RKP-D

RKP-II models can be equipped with a proportional valve with digital onboard control electronics for volume flow and pressure control. This pump with digital control via fieldbus (RKP-D) offers precalibrated plug-and-play parameters, remote maintenance via PC, and flexible configuration of parameters.



RADIAL PISTON PUMPS

Features of the second generation RKP-II

- Proven product with high reliability
- Low noise emission for noise-sensitive applications
- Rugged and compact design
- Wide range of control options
- Suitable for various fluids such as mineral oil, transmission oil, biodegradable oil, cutting emulsion, HFA, HFB, HFC, HFD, Skydrol® and Hyjet®
- ATEX-certified version available
- Multiple pump arrangements up to a displacement of 310 cm³/U [82 cm³/rev]¹
- Tandem mounting of auxiliary pumps with SAE-A, -B, and -C flange arrangements

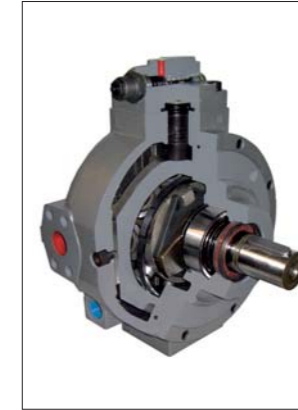
The RKP-II is also available with digital control (RKP-D²).

Features of the digital control include:

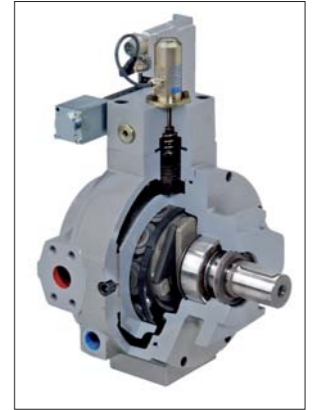
- Fieldbus interface
- Flow, pressure, and horsepower control
- Plug-and-play parameters precalibrated in the factory
- Remote maintenance via PC
- Flexible configuration of parameters

Benefits of the RKP-D

- Full functionality independent of operation mode (analog or fieldbus)
- High dynamics for shortest cycle time and highest precision
- Flexible configuration and commissioning via PC-based software tool
- Flexible multiple pump management using master-slave mode and hybrid mode
- User-friendly visualization and operation via Moog's configuration tool with integrated oscilloscope



RKP-II



RKP-D

Size and displacement	cm ³ /rev	19	32	45	63	80	100	140
Theoretical flow (basis mineral oil) at 1,500 rpm at 1,800 rpm	l/min [US gpm]	28.5 [7.5] 34.2 [9.0]	48 [12.6] 57.6 [15.2]	67.5 [17.7] 81 [21.4]	94.5 [24.8] 113.4 [30.0]	120 [31.5] 144 [38.0]	150 [39.5] 180 [47.6]	210 [55.2] 252 [66.6]
Continuous pressure standard design Continuous pressure high-pressure design	bar [psi]	280 [4,000] 350 [5,000]	280 [4,000] 350 [5,000]	280 [4,000] --	280 [4,000] 350 [5,000]	280 [4,000] 350 [5,000]	280 [4,000] --	280 [4,000] --
Maximum pressure standard design Maximum pressure high-pressure design	bar [psi]	315 [4,500] 385 [5,500]	315 [4,500] 385 [5,500]	315 [4,500] --	315 [4,500] 385 [5,500]	315 [4,500] 385 [5,500]	315 [4,350] --	315 [4,500] --
Pressure peak standard design³ Pressure peak high-pressure design³	bar [psi]	350 [5,000] 420 [6,100]	350 [5,000] 420 [6,100]	350 [5,000] --	350 [5,000] 420 [6,100]	350 [5,000] 420 [6,100]	350 [5,000] --	350 [5,000] --
Hydraulic fluid temperature range	Mineral oil to DIN 51524	-15 to +80 °C [5 to 176 °F]						
Ambient temperature range	°C [°F]	-15 to +60 °C [5 to 140 °F]						
Viscosity permissible recommended	mm ² /s [cSt]	12–100 mm ² /s [cSt] 16–46 mm ² /s [cSt] at +40 °C						
Filtering⁴		NAS 1638, level 9 ISO/DIN 4406, level 20/18/15 obtained with filter fineness of β ₂₀ = 75						

¹ At 210 bar [3000 psi]

² Suitable for mineral oil, transmission oil, biodegradable oil, special fluids such as cutting emulsion, HFC, HFD

³ To DIN 24312

⁴ Dirt particles retention rate >20 µm is 1:75, i. e. 98.67%

The products described herein are subject to change without notice. In case of doubt, please contact Moog.

⁵ Selected control options only. Please refer to our catalog for additional options

Control Options ⁵		Radial Piston Pump V [cm ³ /rev]						
B	Mechanical stroke adjustment (V=const.)	19	32	45	63	80	100	140
C	Servo control	19	32	45	63	80	100	--
D	Electrohydraulic control (RKP-D)	19	32	45	63	80	100	140
F	Pressure compensator, adjustable	19	32	45	63	80	100	--
H	Remote pressure compensator, hydraulically controlled	19	32	45	63	80	100	--
J	Combined pressure and flow compensator	19	32	45	63	80	100	--
R	Combined pressure and flow compensator with P-T control notch	19	32	45	63	80	100	140
S	Constant horsepower control	--	32	45	63	80	100	140

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WHAT MOVES YOUR WORLD