RADIAL PISTON PUMP (RKP-II) - Second generation

CUSTOMISED FOR THE AVIATION INDUSTRY.
FOR USE WITH PHOSPHATE ESTER HYDRAULIC FLUIDS SUCH AS HYJET® AND SKYDROL®

Moog has manufactured radial piston pumps since 2001 and is one of the leading suppliers of variable displacement piston pumps used in industrial applications. The RKP-II's design has been optimized to meet industry demands for long life and lower noise, and continues to offer the same high performance and flexible options our product is known for in the marketplace.

For the manufacture and testing of aviation products, we offer a range of pumps compatible with Phosphate Ester Hydraulic Fluids such as Skydrol®. Upgrades to our current range, such as incorporating EPDM seals into the assembly process, ensures these pumps are now able to meet the challenges of the aviation manufacturing industry, where these types of hydraulic fluids are used.

The maximum pressure is 350 bar (5,076 psi), and is available in 3 different sizes (19, 32 and 80 cm/rev) for open circuits and offers 2 different control options (pressure compensator and load sensing). All pumps are featured with a flow limiter to adjust the maximum displacement. Pumps are also fitted with standard SAE-A and SAE-B flange arrangements providing compatibility with third party pumps.

Based on the RKP-II design, users of this enhanced version will benefit from proven advantages such as long-life, lower noise and high performance. Other improvements include more robust suction behavior and redesigned stroke rings for the highest reliability.

In addition our pumps are supplied with 12 months warranty and customers benefit from market-leading delivery times and worldwide technical support.

ADVANTAGES

- Compatible with Skydrol® to type V, LD4, 500B4, HyJet®
- Ability to uniquely operate to a maximum pressure of 350 bar (5,076 psi) enabling operators to use smaller valves and pumps
- Improved flexibility with standard SAE-A and SAE-B flange arrangements fitted to enable compatibility with third party pumps when operating in tandem
- Increased robustness, even under unfavourable operating conditions
- Improved durability, low maintenance requirements and longer pump life help to significantly reduce maintenance costs and encourage more uptime
- Helps machine and equipment manufacturers in implementing the European Union noise emission directive (2003/10/EC)

APPLICATIONS

- Aircraft testing and repair facilities
- Airframe construction
- Aircraft hydraulic component manufacturing facilities

SPECIFICATIONS

TECHNICAL INFORMATION

Displacement cm^3/rev	19	32	80
Theoretical flow rate at 1,500 rpm	28.5 l/min (7.5 US gal/min)	48.0 l/min (12.6 US gal/min)	120.0 l/min (31.5 US gal/min)
Theoretical flow rate at 1,800 rpm	34.2 l/min (9.0 US gal/min)	57.6 l/min (15.2 US gal/min)	144.0 l/min (38.0 US gal/min)
Maximum speed	1,800 rpm		
Type of mounting	Spline according to DIN 5480, 4 holes ISO flange according to DIN/ISO 3019/2 (metric, type B7)		
Mounting position	Any		
Type of drive	Direct Drive with coupling		
Continuous pressure	350 bar (5,000 psi)		
Maximum pressure to DIN 24312	385 bar (5,500 psi)		
Pressure peak	420 bar (6,000 psi)		
Hydraulic fluids	Skydrol® fluids up to Type V (Skydrol LD4, Skydrol 500B4, Skydrol 5)		
Hydraulic fluid temperature range	-15°C to +50°C (5°F to 122°F)		
Ambient temperature range	-15°C to +50°C (5°F to 122°F)		
Viscosity	Allowable operational range 8 to 100 mm^2/s (cSt). Recommended 16 to 46 mm^2/s (cSt). Maximum viscosity 500 mm^2/s during start-up with electric motor at 1,800 rpm		
Filtering	NAS 1638, class 9, ISO/DIN4406, class 20/18/15		
Line connections:	High pressure series 350 bar (5,000 psi) according to ISO6162		
Pressure port	SAE 3/4" 6,000 psi	SAE 1" 6,000 psi	SAE 1 1/4" 6,000 psi
Suction port	SAE 3/4" 6,000 psi	SAE 1 1/2" 3,000 psi	SAE 2" 3,000 psi

This technical data is based on current available information and is subject to change at any time by Moog. Specifications for specific systems or applications may vary.

Moog has offices around the world. For further information, or the office nearest you, contact us online.

e-mail: info@moog.com.

moog.com/industrial

Flyer_RKP-II-Skydrol_UK_11/2009_en

MOOG