RADIAL PISTON PUMP SIZE 140 CM³/rev

Additional size available for high pressures up to 350 bar (5,000 psi) operating pressure

The RKP 140 is the product of choice for dynamic control of hydraulic flow and pressure. The pump is now available in a high-pressure version for maximum operating pressure of 350 bar (5,000 psi) and peak pressure up to 420 bar according to ISO 5598.

The range of sizes now includes 19, 32, 63, 80, 140 and 250 cm³/rev pumps. Size 140 cm³/rev is the portfolio extension in the high-pressure field. The entire range from 19 to 250 cm³/rev is also available with Moog's medium-pressure (280 bar) RKP series.

The pump is designed to be used in open-circuit systems, has an enlarged suction port and a flow optimized suction channel, ensuring suction behavior at low pressure losses, a high operating speed and low noise.

Consistent with the design of the other RKP sizes, the RKP 140 is also equipped with the proven, robust turbine system with sliding stroke ring. The exclusive use of ferrous metals with hardened, wear-resistant surfaces at the sliding contacts leads to outstanding longevity of this product line in the field.

This design allows special pump versions for use with HFC and HFD fluids. Moog offers a modular design concept with a range of different compensator options: Pressure compensator, combined pressure and flow compensator, fixed displacement, dual displacement and digital control. The RKP is also available as explosion-proof or ATEX certified version.

ADVANTAGES

- Proven, robust design with long service life, low noise and high efficiency
- Maximum operating pressures of 350 bar (5,000 psi)
- Two-quadrant applications where high-pressure is required
- Dynamic electrohydraulic control for increased productivity, process stability, and condition monitoring capability
- Flexible configuration with a broad range of compensator types
- Well suited for a broad variety of special fluids (HFC, HFD, others upon request)
- Explosion-proof version available

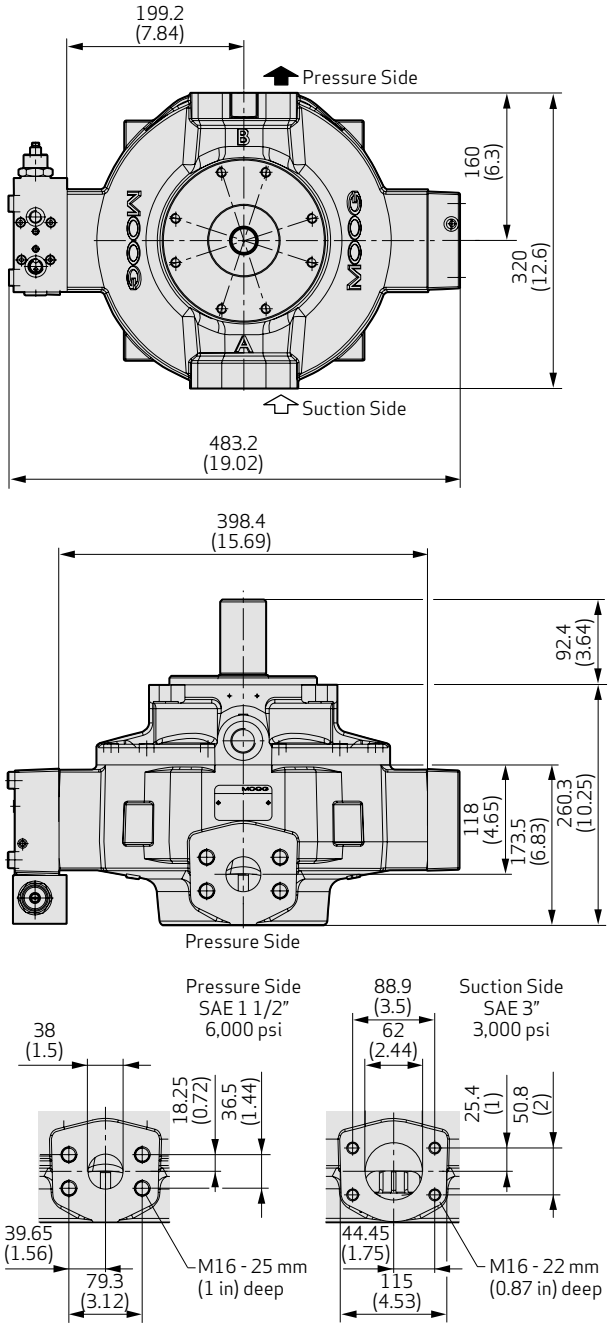
APPLICATIONS

- Metal forming and Presses
- Heavy industry
- Hydraulic Power Units for industrial applications

SPECIFICATIONS

TECHNICAL DATA

Displacement [cm³/rev]	140
Type of construction	Pump for open circuit with various control options
Type of mounting	End mounting, centering and hole-circle Ø to ISO 3019-2 (metric) Mounting flange to ISO 3019-1 (inch) Mounting flange to ISO 3019-2 (metric)
Mounting position	Any
Weight [kg (lb)]	105 (232)
Mass moment of inertia [kg cm² (10⁻⁴ lbf in s²)]	380 (3,363)
Drain line inner Ø [mm (in)]	18 (3/4")
Type of drive	Direct drive with coupling (please inquire with your Moog contact for other types)
Ambient temperature range [°C (°F)]	-15 to +60 (+5 to +140)
Maximum housing pressure	2 bar (29 psi) (1 bar (15 psi) gauge pressure)
Maximum speed	
At inlet pressure 0.8 bar (12 psi) absolute [min⁻¹][1)]	1,800
At inlet pressure 1 bar (15 psi) absolute [min⁻¹][1)]	1,900
High pressure series	
Maximum operating pressure [bar (psi)][2)]	350 (5,000)
Pressure peak [bar (psi)][2)]	420 (6,000)
Viscosity	Same viscosity as all other displacements, see catalog.
Filtering[3)]	Same filtering as all other RKP sizes, see catalog.



1) Maximum speed increase upon request
2) According to ISO 5598
3) Dirt particles retention rate › 20 µm is 1:75, i.e. 98.67 %

Note: For special fluids like HFC and HFD the above pressure, viscosity and filtration parameters may be different.

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

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For product information, visit

www.moog.com/industrial

For service information, visit

www.moogglobalsupport.com

Radial Piston Pump RKP 140 for High Pressure
Hirth/Laasner/Rev. A, October 2017, CDL52611-en

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

MOOG