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APV "R" Series Rotary Pumps

Reliable Performance

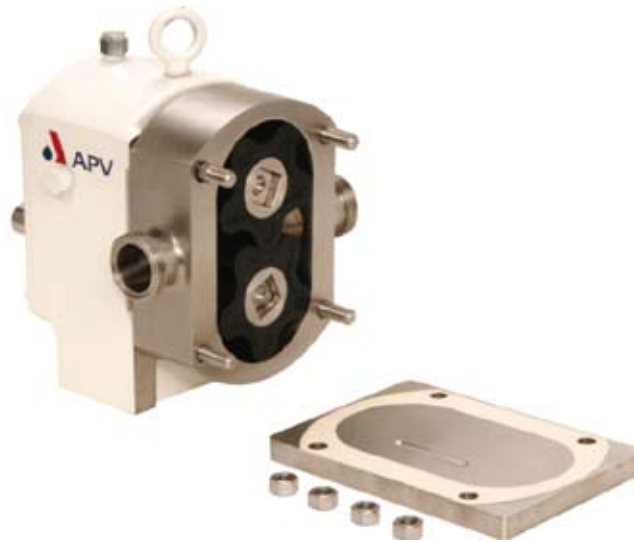


Sanitary, Positive Displacement Rotary Pumps

APV "R" Series Rotary Pumps are known all over the world for their rugged, long lasting design and efficient performance. Backed by a worldwide sales, engineering and service organization, "R" Series Rotary Pumps are designed and built in a modern manufacturing facility using the latest programmable automated machine tools. Each component must meet rigid quality control standards. APV offers an exceptional range of capacities, rotor types, mounting configurations and options. The exclusive resilient rotors form a continuous flexible seal between suction and discharge. Product flow is positive, continuous, nonagitating and completely controlled at all times.

APV Rotary Pumps Feature:

- High quality stainless steel, sanitary construction
- Mounting flexibility to meet the most demanding installation
- Easy disassembly and cleanup
- Minimum maintenance and down time
- Interchangeable components



General Specifications

MODEL SIZES

FEATURES		0	1	2	3 & 3 HD	4 & 4 HD	6 & 6 HD	700 HD
MAXIMUM CAPACITY*	U.S. gpm	2.5	6	9	55	145	240	200
	m ³ /hr	0.57	1.36	2.0	8.2	20.4	34.1	45.4
DISPLACEMENT PER 100 REVOLUTIONS	gal/100 rev.	0.46	1.00	1.50	6.40	17.50	29.0	58.0
	liter/100 rev/	1.75	3.88	5.80	24.3	66.2	111.0	220.0
MAXIMUM RPM		600	600	600	900	900	900	400
CONNECTION SIZES (STANDARD)	in	1½	1½	1½	2	2 or 3	3	4
	mm	38	38	38	51	51 or 76	76	102
RECTANGULAR INLET (OPTIONAL)	in	N/A	N/A	¾ x 2½	1½ x 4½	1¾ x 9¼	3 x 9¼	6⅞ x 9¼
	mm			22 x 63	38 x 114	44 x 235	76 x 235	168 x 235
MAXIMUM POWER REQUIREMENT**	BHP	0.5	0.9	1.5	7.5	20	30	20
	kw	0.37	0.67	1.12	5.6	14.9	22.4	15
ROTORS	NO. OF LOBES	2	5	5	5	5	5 & SGL	5 & SGL
	MATERIAL	R	R	R	R, SE & M	R, SE & M	R, SE & M	R, SE & M

* Based on 70°F(21°C) water at 0 psig. R = Rubber

SE= Sealed Epoxy

M = Metal

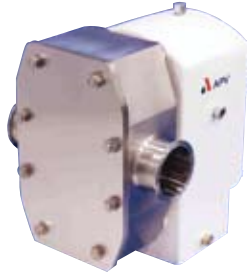
SGL= Single

** Maximum power requirement increases with product viscosity

Options Available

Body and Mounting Configurations

Side Inlet/Outlet is the basic standard design for all size APV Rotary Pumps used for pumping light to medium viscosity products. Round connections are available in all popular fitting types. Four tapped mounting holes are provided in bottom of gear case.



Top Feed is designed for use with round bottom outlet tanks or hoppers. Includes removable pedestal support. Available in all size Rotary Pumps and all popular connection types.



Top Feed-Rectangular Inlet is a similar configuration to the top feed design but with a large rectangular inlet replacing the standard round connection. The larger inlet accommodates heavy viscous products, or products with large particulates or chunks. Used with hoppers or holding tanks fitted with a mating companion flange outlet. Includes removable pedestal support. Available in pump sizes 2 RI through 700 RI.



Side Feed-Rectangular Inlet is designed to adapt to discharge of auger feed hopper, grinders, blenders, or special hopper. Available in pump sizes 4 RI through 700 RI.



Front Covers

Standard flat cover for applications up to 100 psig (6.8 bar) discharge pressure.



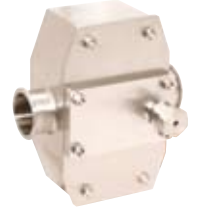
Optional Front Cover and Body Design with O-ring Gasket provides a reusable front cover gasket alternative to the standard single use, flat gasket.



Heavy Duty cover contains outboard bearing support to accommodate extended pump shafts for applications with discharge pressure higher than 100 psig (6.8 bar).



Vented cover is available in manual or pneumatic control. Limits maximum discharge pressure at a predetermined setting. Not available on size 0 or heavy duty pumps.



Degassing/Deaerating cover incorporates relief grooves and manifold to relieve trapped gas/air in viscous products. Available with or without front outlet feature on both standard or heavy duty pumps. Not available on sizes 0, 1, or 2.



Front Outlet cover replaces bottom outlet normally provided on RI pumps. Allows pump to be used under low height hopper and reduces discharge piping components.



Rotor Exchange Program:

APV offers a generous exchange program for all APV style stainless steel hub rotors, regardless of original manufacturer! In the exchange program, new rubber is molded around a used hub, offering users of APV R-Series pumps a fast, reliable, cost-effective method of replacing stainless steel hub rotors. By reusing otherwise discarded materials, users also help the environment.

Exchange Program Benefits Include:

- Genuine replacement rotors protect your pump warranty
- Fast turnaround direct from stock inventory
- Savings up to 30% on each reusable rotor
- Savings of 10% on a new rotor if the returned rotor is unusable
- 100% factory inspection of all returned rotors

Rotor Options

Precision molded and machined rotors have been the heart of the APV "R" Series Rotary Pump for more than 50 years. They are performance proven and are available in a variety of designs to meet specific application requirements. All APV rotors meet all FDA requirements.

Configurations

Standard 5-Lobe with recessed faces is provided on all pump sizes No. 1, 2, 3, 4, 6 and 700. These exclusive APV formulated resilient covered rotors are recommended for most applications. Normal size up to 135°F (57°C), undersize up to 250°F (121°C).



Flush Face is the same specification as standard 5-lobe except the faces are smooth (flush), not recessed. Available for pump sizes No. 2, 3, 4, 6 and 700. Used with abrasive or clinging products that might clog recessed face. Also used in degassing/deaerating pumps with front outlet covers. Normal size up to 135°F (57°C), undersize up to 250°F (121°C).



Single Lobe with recessed faces are available for pump sizes No. 6 and 700, same displacement as 5-lobe. Used with delicate or fragile products and large particulates or chunks. Normal size up to 135°F (57°C), undersize up to 250°F (121°C). Recommended operating limitations; 200 rpm maximum, 100 psig (6.8 bar maximum).



Materials

Metal non-galling and precision machined with 5-lobe profile. Available for pump sizes No. 3, 4, 6 and 700. Includes rotor face wear rings. Used with abrasive products containing hard particulates such as bone chips, seeds, etc. For up to 220°F (104°C).



Solid Epoxy is available for pump sizes No. 3, 4, 6 and 700. Recessed faces. 5-lobe design. Used with certain acids, alkalis or other corrosive products. Best suited for viscous liquids. For up to 220°F (104°C). Recommended operating limitation: 100 psig (6.8 bar) maximum.



Celcon qualities offer excellent abrasion resistance, toughness and a very low coefficient of friction against metals. They are available for pump sizes No. 1, 2 and 3 in flush face configuration. Normal size rotors are supplied up to 135°F (57°C) service and 0510 undersized for high temperature (up to 180°F/82°C) applications. Available with stainless steel hub.



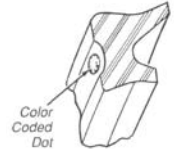
Seal-Shape

Pressure-Vacuum is the standard seal shape provided with Rotary Pumps. Seals effectively against pressure and vacuum.

Seal-Materials

APV offers four different seal options for the "R" Series pump. All seals have color coded dots for easy recognition:

- Red (Nitrile)
- (2) Orange (EPDM)
- Blue (Viton)
- Green (Neoprene)



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