

R & RV SERIES

Rubber Lined Slurry Pumps

Coming Soon:
www.TuffPumps.com

Standardization: With 8 horizontal pump sizes built around 4 power frames (designated as pump groups), the **R Series** maximizes bareshaft pump and spare parts interchangeability, and additionally reduces inventory requirements. In addition to the horizontal configuration, the **RV Series** provides a vertical cantilever (tank type mounting) option that covers all of the 8 available pump sizes. Each vertical cantilever pump is tailored to suit customer requirements.

Greater Wear Life: By utilizing superior pressure moulded, steel (skeleton) reinforced elastomer and/or polymeric materials; from natural rubber through to high grade synthetic rubbers and/or polymers (such as urethane), extra thick material sections, and sacrificial wear liners within high grade ductile iron casing volutes, the **R Series** maximizes wear life and reduces life-time costs. Where specifically requested or deemed a process necessity, the **R Series** can be supplied with polyurethane impellers and/or liners in place of or in conjunction with rubber lined parts. All pump fasteners are in 304 or 316SS unless otherwise specified.

Ease of Maintenance: Simplified and faster maintenance is facilitated by the incorporation of a half-casing back pullout design within the entire **R Series** pump range ~ with the ability to remove the complete back gland-half pump casing and bearing frame/rotating assembly without disturbing the suction-half casing, suction and discharge pipework, or pump driver.

Variable Speed: As impellers cannot be cut to size, the **R Series** is recommended to be directly coupled to a variable speed driver or gearbox drive system, and is even better suited to being v-belt driven from a fixed speed motor.

Compact Drive Design: With v-belt drives being highly recommend for speed variation ~ among others, the **R Series** additionally allows for more compact, space saving configurations by incorporating overhead motor mounting plate supports within the bearing frame, thereby allowing drive motors to be directly mounted above the bearing assembly.

High Performance: All **R Series** pumps have been designed with volutes and impellers that optimize erosive/corrosive solids handling abilities with high efficiencies and lower power costs. Impeller adjustment is facilitated by a lockable rotating element jacking screw arrangement on the bearing frame that enables the end user to counter normal suction liner/impeller wear and improve/restore pump efficiency whilst leaving the complete pump in situ.

High Pressure: Specific sizes of the **R Series** pump range ~ with details available upon request, can be furnished with special high pressure "extra thick" casings for particular use on relatively high pressure, series pumping applications.

Variable Discharge Nozzle Positions: Having separate casing feet, the **R Series** pump casings can be rotated through 360 degrees, thereby providing the end user with up to 5 (standard) discharge nozzle positions and maximization/optimization of discharge pipework.

High Shaft & Bearing Strength: Over and above wear part strengths and planned longevity of life, the **R Series** range of pumps has taken this design philosophy farther, by incorporating oversized high tensile or stainless steel alloy shafts and similarly oversized bearings; with the outboard, drive end bearing designed to take a combination of high radial and axial loads ~ such as those imposed by the v-belt drive system and impeller (thrust) action, whilst the inboard, impeller end bearing is designed as a floating bearing and more suited to withstanding the main radial loads imposed by the impeller.

Maximum Bearing Protection: All **R Series** pump bearings are double protected against the ingress of liquids and/or solid particles by an effective combination of outer defectors or labyrinth seals and inner double lip oil or grease seals with other, more complex options available should the duty and/or application necessitate same. Bearing condition and general pump health can be remotely analyzed by the incorporation of optional electronic bearing sensors.

Lubrication: The **R Series** pump range can be supplied with oil bath, oil mist, or grease lubricated bearings; with the standard default system being oil mist. Extra large oil sight glasses or constant oil levelers are fitted as standard, with electronic oil detectors available as an optional extra. Bearing housing oil cooling systems are also available upon request and/or should the application operating temperature dictate necessary.

Rotodynamic Sealing: The **R Series** pump range is fitted ~ as standard ~ with 316SS gland plates and high grade GFO packing, however, should the application and/or customer require otherwise, the **R Series** pump range can be fitted with the following options:-

- Single or Double Mechanical Seals
- Single or Double Dynamic Seals (otherwise known as Expellers)
- Auxiliary/External Sealing Systems
- Oversized Parallel and Oversized Tapered Stuffing Boxes for Mechanical Seals ~ providing superior cooling/lubrication and/or self-venting.

R & RV Series Pump Range ~ Maximum Performance Guide

Pump Size **Flow Rate = m³/hour & Head = metres & Speed = rpm**

Group 1 Pumps:

R2/2-10S	Maximum		Maximum	
	Flow / Head =	45 / 30	Speed =	1800

Group 2 Pumps:

R3/3-10S	Maximum	75 / 35	Maximum	1800
R3/3-10C	Flow / Head =	75 / 40	Speed =	2000

Group 3 Pumps:

R5/4-14C		190 / 45		1500
R5/5-14S	Maximum	270 / 35	Maximum	1400
R6/6-15S	Flow / Head =	360 / 35	Speed =	1300

Group 4 Pumps:

R8/6-18C	Maximum	360 / 45	Maximum	1200
R10/8-21C	Flow / Head =	720 / 45	Speed =	1000

Key Note: R8/6-18C = Rubber Lined Slurry Pump (R) with 8" N/B Dia. Suction Nozzle, 6" N/B Dia. Discharge Nozzle, and 18" Dia. (full) Size Open (S) Impeller. Closed Impeller = (C) after impeller diameter.



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