RPS Australia
PUMPS AND SYSTEM DESIGN

Certified System
Quality
ISO 9001
SAI GLOBAL

RPS GROUP RBR BB2 PUMPS ACC API 610

Bespoke engineered pump system solutions for oil & gas, geothermal and chemical applications.

Features RPS BB2

- Between bearing pump, single stage
- Double suction impeller pump
- Casing is center line mounted and with case wear ring
- Removal of rotor or inner elements is possible without disconnecting suction or discharge piping or moving the driver.
- Enclosed impellers with wear rings.
- Inherent axial thrust balancing because of double suction impeller.
- Impeller is keyed to the shaft
- Impellers located using impeller nut with threads to tighten by liquid drag on the impeller during normal rotation.
- Shaft supported on antifriction bearings
- DE – A roller bearing with C3 clearance
- NDE – A pair of angular contact ball bearing in back to back arrangement
- Thrust bearing is located on the shaft with the help of lock washer and lock nut.

RPS BB2 Series

The BB2, type RBR is a between bearing pump, single stage, double suction impeller pump conforming to API 610.

The casing is center line mounted and with case wear ring. These pumps are suitable and used in application of fluid handing in oil refineries, geothermal and petrochemical industry.

Contact us

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Pump Casing
The casing is radially split and centerline mounted on pedestals. This reduces the effect of non-uniform thermal expansion of casing caused when pump is subjected to high temperature working liquid and/or external nozzle loads.

All casings are double volute type to take care of radial load generated during operational of the pump. The double volute design minimizes shaft deflection and eliminates unpredictable bearing and seal failures.

Nozzle orientation arrangement & pressure ratings
Possible suction & discharge nozzle arrangements available are Top-Top, Side-Top or Side-Side. Depending on customer's requirement pump with any of the above configurations can be designed & manufactured. Depending upon MAWP of pump, nozzle rating according to ASME B16.5 ranging from Class #150 to #600 with Raised Face (RF) & with Ring Type Joint (RTJ) above Cl.#900 are available.

Auxiliary Connections
Pumps with Top-Top & Side-Top nozzle orientations are with self-Venting arrangement whereas drain connection of ¾ inch is taken out from the bottom of casing & flange connection is provided within battery limit. Drain connection with Flanged + Valve arrangement can be provided if specified.

Casing Gasket
An 18-8 stainless steel spiral wound gasket with non-Asbestos filter is provided between the casing cover and the pump casing.

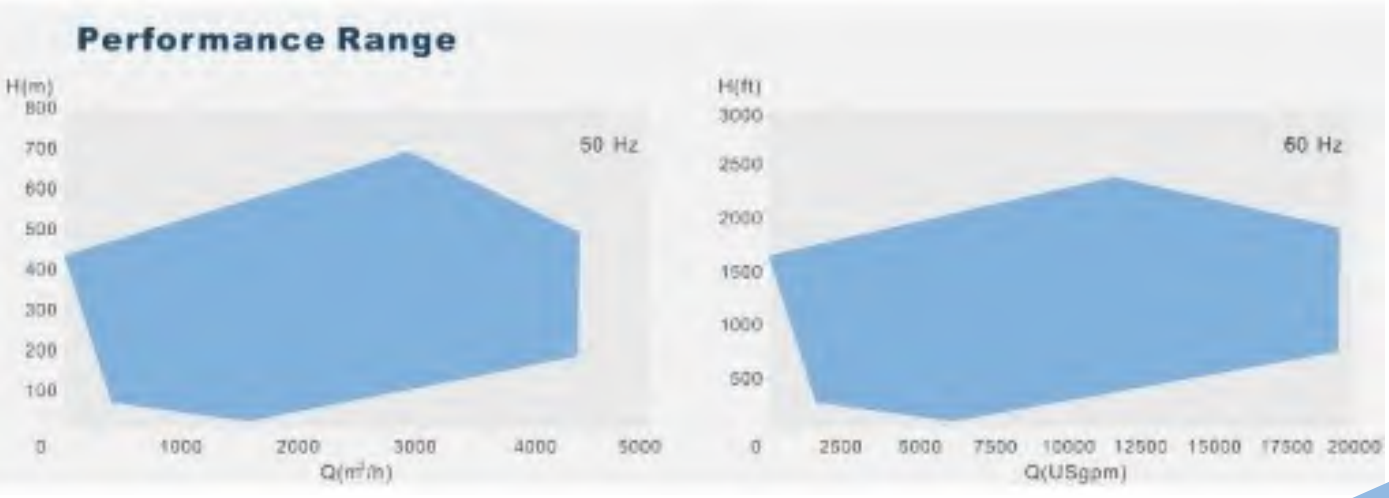
Stuffing box
The stuffing box is deep enough to accept various seal designs including tandem and double seals. Pump with conversion kit can also be supplied at site. After reaching pump to site this conversion kit can be removed & job specific seal can be assembled. Water cooled or steam heated stuffing box designs are available at extra cost when specified or required. Hydro-test pressure for standard water jacket is 9.8 bar (G).

Impeller
The impeller is a closed & is double suction type. It is provided with both front and back wear rings fixed with grub screw to ensure positive fitment of wear rings on impeller hub. Being a double suction design it helps in balancing of axial thrust developed during operation of pump. It also helps in reducing the suction specific speed of the pump which sometimes becomes hurdle in technical acceptance of model. Optional Inducer design is also available for critical NPSH requirement or under critical suction conditions. These impellers are located on shaft using impeller nut with threads to tighten by liquid drag on the impeller during normal operation of pump.

Impeller wear-rings
The impeller wear rings are made in same material as that of impeller & held on with an interference fit and secured in positions with grub screws radially to ensure positive fitment on impeller hub. In case process liquid contains solid particles, then serrations or wear ring flushing can be provided to avoid choking of these solid particles in wear rings.

RPS BB2 Series

RPS RBR (BB2) acc API 610	EU	US
Design Standard	ISO 13709	API 610
Capacity	Up to 4500 m3/h	Up to 19800 Gpm
Head	Up to 700 m	Up to 2300 feet
Temperature Range	-80 to 425 °C	-176 to 842 °F
Pressure Range	Up to 150 bar	Up to 2200 psig
Material Range	Carbon Steel, SS, Duplex, Super Duplex , Hastelloy	
Nozzle Direction (Suc / Dis)	Top / Top (customized as per requirement)	
Motor Sync. Speed	1500/ 3000 rpm	1800 / 3600 rpm
Options	Two or Three Impellers	
Flange Standard	ANSI / HG / DIN/ JIS	



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Applications

- Fluid handling in oil refineries and petrochemical industry.
- High temperature and high pressure critical applications in chemical and allied industry
- Pumps as Hydraulic Power Recovery Turbine (HPRT) in chemical and process plants.

Pioneering Pump Engineering Solutions

At RPS Australia Group Pty. Ltd., we are a privately-owned leader in pump engineering, specialising in high-quality, state-of-the-art pumping systems. With a combined 50 years in the industry, our expertise is trusted across multiple sectors.

Offering a wide range of pumps complying with API 685, API 610, UL/FM and AS2941 fire systems, ANSI and ISO pumps alongside our expansive repairs and spare parts service.

ISO 9001 certified, we pride ourselves on providing only the best in quality, knowledge and experience, helping our customers achieve their objectives.

We supply to an array of industries including oil & gas, FMCG, mining, fire, hospital, marine & many more.

Services

RPS has over 40+ years of industry experience in pump repair & maintenance.

Our technicians have extensive knowledge in repairing a large range of styles and brands of pumps inc. SIHI, RuhrPumpen, Speck, and Dickow and many more.

Every repair is serviced with OEM parts, Hydro tested and delivered with a 1-year warranty on repairs.

RPS AUSTRALIA GROUP PTY LTD
PUMP SYSTEM SPECIALISTS

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