

# Your Profits are being Corroded. Surprisingly, you are Paying for it!



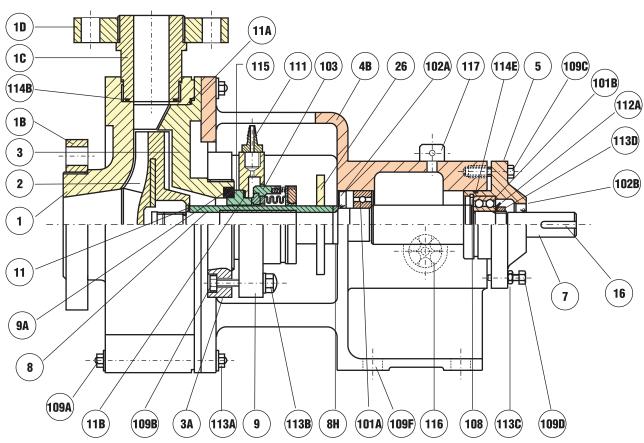
more pumping power for less electric power

Fight Corrosion With Raje-Dia



# Series (N) PPE & RD

Over years of experience, Raje-Dia has developed corrosion resistant pumps for a wide range of applications. These pumps are provided with injection moulded wetted parts (except PTFE) and have a robust construction. The materials used are Polypropylene, Glass Filled Polypropylene, PTFE, etc. The material of construction is specially selected depending on the specific application. This ensures the highest corrosion resistance and stability. The shaft sleeve and Mechanical Seal are selected to suit the service condition.

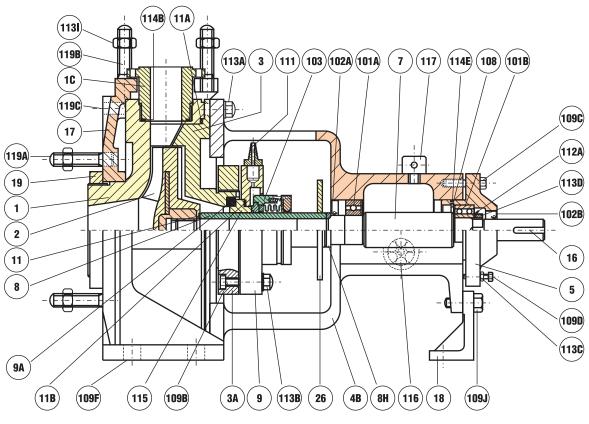


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No.	Qty.	Part Name	Material	No.	Qty.	Part Name	Material	No.	Qty.	Part Name	Material
1	1	CASING	PP/GFP	11	1	IMPELLER GASKET	PTFE	109D	2	HEX. BOLT	STEEL
1B	1	SUCTION FLANGE	PP/GFP	11A	1	GASKET	PTFE	109F	4	MOUNTING BO LT	STEEL
1C	1	DISCHARGE BRANCH	PP/GFP	11B	1	GASKET	PTFE	111	2	NIPPLE	PP
1D	1	DISCHARGE FLANGE	PP/GFP	16	1	KEY	STEEL/SS316	112A	1	LOCKING WASHER	STEEL
2	1	IMPELLER	PP/GFP	26	1	DEFLECTOR	PP	113A	6	NUT	STEEL WITH GRP
3	1	BACK PLATE	PP/GFP	101A	1	INBOARD BEARING	STEEL	113B	4	NUT	STEEL WITH GRP
<i>3A</i>	1	BACK PLATE FLANGE	GFP	101B	1	OUTBOARD BEARING	STEEL	113C	2	LOCK NUT	STEEL
4B	1	BEARING FRAME	CI	102A	1	INBOARD OIL SEAL	NEOPRENE	113D	1	BEARING LOCK NUT	STEEL
5	1	BEARING CUP	CI	102B	1	OUTBOARD OIL SEAL	NEOPRENE	114B	1	'O' RING	VITON
7	1	SHAFT	EN8/SS316	103	1	ROTARY	GFT/CERAMIC	114E	1	'O' RING	NEOPRENE
8	1	SLEEVE	HB/CERAMIC/A-20	108	1	CIRCLIP (INTERNAL)	STEEL	115	1	MATING RING	CERAMIC
8H	1	SLEEVE SUPPO RTER	EN8/SS316	109A	6	HEX. BOLT	STEEL WITH GRP	116	1	OIL VIEWER	PLASTIC/ALLUMINUM
9	1	GLAND	BAKELITE	109B	4	HEX. BOLT	STEEL	117	1	BREATHER	STEEL
9A	1	CFT BUSH	CFT	109C	4	HEX. BOLT	STEEL				

pumps handling fluids containing suspended particles, slurry etc., and for effluent service, special seals with suitable faces are available with proper environment control arrangements.

RD series pumps (also known as rigid pumps) along with the above functions are ideal for heavy duty application. These pumps have a Back Pull-out construction for easy maintenance without disturbing the piping. The Metallic armour provides maximum protection against suction and the discharge nozzles of the pump, therefore can handle maximum misalignment, distortion and piping loads.





No.	Qty.	Part Name	Material	No.	Qty.	Part Name	Material	No.	Qty.	Part Name	Material
1	1	CASING	PP/GFP	17	1	ARMOUR	CI	112A	1	LOCKING WASHER	STEEL
1C	1	DISCHARGE BRANCH	PP/GFP	18	1	SUPPORT PLATE	CI	113A	6	NUT	STEEL WITH GRP
2	1	IMPELLER	PP/GFP	19	1	CLAMPING RING	PP	113B	4	NUT	STEEL WITH GRP
3	1	BACK PLATE	PP/GFP	26	1	DEFLECTOR	PP	113C	2	LOCK NUT	STEEL
<i>3A</i>	1	BACK PLATE FLANGE	GFP	101A	1	INBOARD BEARING	STEEL	113D	1	BEARING LOCK NUT	STEEL
4B	1	BEARING FRAME	CI	101B	1	OUTBOARD BEARING	STEEL	1131	8	NUT	STEEL
5	1	BEARING CUP	CI	102A	1	INBOARD OIL SEAL	NEOPRENE	114B	1	'O' RING	VITON
7	1	SHAFT	EN8/SS316	102B	1	OUTBOARD OIL SEAL	NEOPRENE	114E	1	'O' RING	NEOPRENE
8	1	SLEEVE	HB/CERAMIC/A-20	103	1	ROTARY	GFT/CERAMIC	115	1	MATING RING	CERAMIC
8H	1	SLEEVE SUPPO RTER	EN8/SS316	108	1	CIRCLIP (INTERNAL)	STEEL	116	1	OIL VIEWER	PLASTIC/ALUMINIUM
9	1	GLAND	BAKELITE	109B	4	HEX. BOLT	STEEL	117	1	BREATHER	STEEL
9A	1	CFT BUSH	CFT	109C	4	HEX. BOLT	STEEL	119A	4	STUD	STEEL
11	1	IMPELLER GASKET	PTFE	109D	2	HEX. BOLT	STEEL	119B	4	STUD	STEEL
11A	1	GASKET	PTFE	109J	1	HEX. BOLT	STEEL	119C	6	CASING STUD	STEEL
11B	1	GASKET	PTFE	109F	4	HEX. BOLT	STEEL				
16	1	KEY	STEEL/SS316	111	2	NIPPLE	PP				

# **MATERIAL OF CONSTRUCTION**

As a standard, wetted parts are offered in (PP) Polypropylene, UHMW HDPE for clear fluids upto 80°C Temp. Glass Filled Polypropylene (GFP) having good resistance to erosion, is used for fluids having suspended particles and slurry service as well as for temperatures upto 120°C. For fluids where PP, UHMW HDPE and GFP are not compatible, PTFE wetted parts are recommended.

## **IMPELLER**

The Impeller has a radial semi-open design, with large contoured flow passages. It is a one piece robust construction, statically balanced and lightweight. It is manufactured by an injection moulding process and is provided with back vanes to minimise axial thrust for enhanced bearing life.



'O' Rings and Gaskets Sealing are provided in the joints to ensure better sealing even at high pressure.

# **SLEEVE**

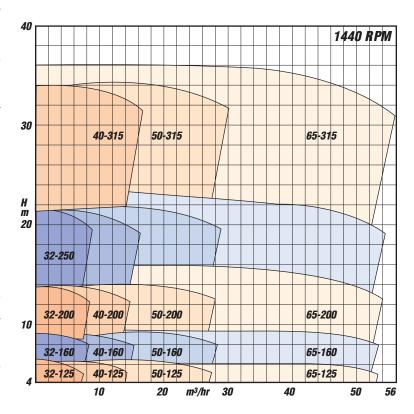
The Shaft Sleeve is made of Ceramic (99.5% Al-oxide), Hastelloy-B, Alloy-20, Monel, Titanium, etc. to suit various applications.

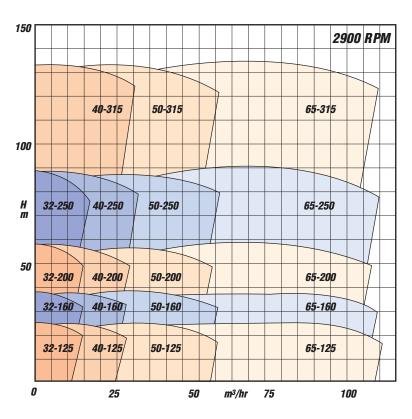
# PRIMING CHAMBER

This is specially used for negative suction. It is very effective in handling liquids with slurry or particles, as it does not get clogged as easily as the foot valve.

# **TROLLEY**

A specially designed vibration free trolley keeps the pump mobile, whenever required. Further the trolley can also be provided with FRV coating on those parts exposed to chemical drip.





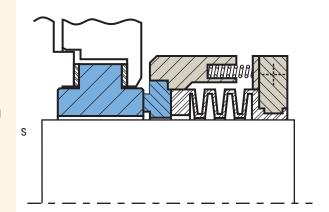
# **MECHANICAL SEALS**

## SERIES 20 M

These are teflon bellow seals recommended for extremely corrosive chemicals, including concentrated acids,salts, strong oxidising & reducing agents.

All components which come in contact with liquid being sealed are made of chemically inert material. These seal are externally mounted & easily replaceable.

Face material: GFT / Ceramic (99.5% )
Peek / Ceramic

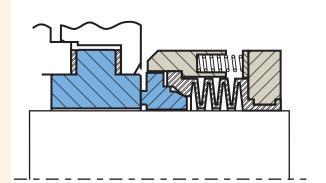


# **SERIES 20 RL**

These are teflon bellow seals available with replaceable faces. Seals are recommended for extremely corrosive chemicals, concentrated acids, salts and strong oxidising agents. No metal parts come in contact with liquid as they are mounted out side the media. These seals are externally mounted & can be easily replaced.

Face material: GFT / Ceramic (99.5%)

Silicon Carbide / Ceramic Carbon-R/Ceramic (99.5% ) Silicon Carbide / Silicon Carbide

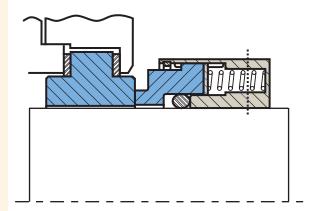


# **SERIES 88 B2R**

These are externally mounted balanced seals available with various face materials & elastomers. Seals are recommended for liquid with effluent, sludges & corrosive s evices as all metal components do not come in contact with liquid.

**Face material :** GFT / Ceramic (99.5%)

Silicon Carbide / Ceramic Carbon-R/Ceramic (99.5%) Silicon Carbide / Silicon Carbide



# **APPLICATIONS AND INDUSTRIES SERVED**

Chemical processing • Effluent treatment • Fumes scrubbing • Acid pickling

- Recirculation process Photographic processing Drugs and pharmaceuticals
  - Food processing Agro chemicals Perfumeries Detergents and caustics
- Breweries Petrochemicals Dyes and pigments Tanneries Paper and pulp industries



The Raje-Dia Group of Industries are dedicated to the manufacture of highly corrosive liquid handling systems for the core sector. An exhaustive survey was carried out on pumps built for handling corrosive liquids at high temperatures under various service conditions. To meet the growing demand, Raje-Dia has a fully equipped state-of-the-art manufacturing plant in Gujarat with comprehensive production, quality assurance and testing facilities.

Raje-Dia pumps are available all over the country with an efficient Dealers & aftersales service network.



# THE HI-TECH SOLUTION FOR CORROSION

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Authorised	Dealer	