

# PUMPS TO MEET YOUR FLUID HANDLING NEEDS





API 610 PUMPS FOR THE OIL AND GAS INDUSTRY

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## INTRODUCTION

The Renroc Group is pleased to provide a large range of API and specialty centrifugal pumps for the demanding applications. The range of pumps includes single stage, multistage, reciprocating process pumps and heavy-duty process pumps.

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Renroc are dedicated to bringing our customers the best solutions in API pumps.

- API 610 11th edition type OH, BB and VS single & multi stage horizontal radially split and heavy-duty centerline mounted process pumps.
- API 610 material classes S-6, S-8, C-6 and A-8, D1 & D2 (Other material combinations are available).
- Sealless pumps including API685
- Specialist High Pressure pumps
- Side Channel
- ANSI B73.1 and 2
- Reciprocating process pumps according to API 674 and ISO 13710

Services covered but not limited by the Renroc Group pump range include:

- Column reflux
- Column bottoms
- Reboiler
- Injection fuel blending
- Heat transfer
- Gas oil
- Heavy gas oil
- Hot oil
- Column charge
- Reactor feed
- Coker unit
- Stabilizer overhead
- Scrubber circulation
- Tower bottoms
- Off-site hydrocarbon
- Stripper overhead
- Gasoline
- Water
- Propanes
- Crude oil
- Vis-breaker
- RO and water treatment
- LPG systems

The pumps are designed for the delivery of most fluids found in refinery processes. The application ranges from liquid gases at low temperatures through light and heavy fuels up to gas oil containing solids and distillation residues at the highest temperatures.

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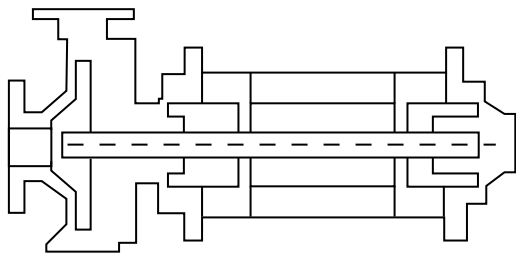
## SEALLESS CANNED MOTOR

Canned motor pumps are characterised by a compact, integrated unit without mechanical seal. The motor and pump form a unit with the rotor and the impeller fitted onto a common shaft. The rotor is guided by two identical, medium-lubricated slide bearings. The stator on the drive motor is separated from the rotor space using a thin stator liner.

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### PUMP TYPE CANNED MOTOR

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**Double sealing cover:** even in very rare cases of can destruction no liquid will penetrate to the outside, it is 100% leakage-free.

**No mechanical seals:** these cost-intensive wearing parts are cancelled by the seal-less method of construction, therefore optimal MTBF values (mean time between failure), reduced maintenance costs and long service life.

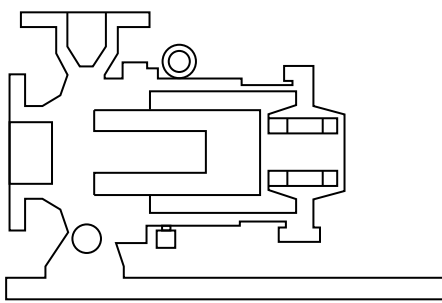
## SEALLESS MAGNETICALLY COUPLED

Magnetic coupled pumps are of sealless design. The containment shell forms a closed system with hermetically sealed liquid end. Magnetic driven pumps are designed to improve plant and personnel safety, especially when handling toxic, explosive or other dangerous liquids, which react on contact with the atmosphere.

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### PUMP TYPE MAGNETICALLY COUPLED

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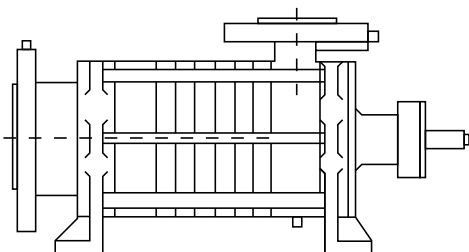


Magnetic drive/magnetic coupling technology offers distinct long and short term advantages over conventional sealing systems on extreme and hazardous process applications. This technology does away with the need for shafts to pass from liquid to non-liquid environments which means that glands and face seals can be dispensed with.

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### PUMP TYPE SELF-PRIMING GAS HANDLING

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Side channel pumps are self priming pumps ideal for emptying tanks and handling fluids close to boiling point with low NPSHA. The hydraulic delivers high heads at low flows to meet many challenging pump applications.

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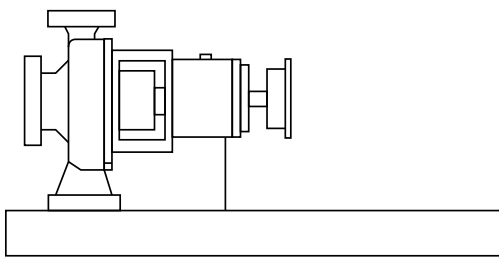
## OVERHUNG PUMPS

Overhung pumps come in a variety of configurations and are manufactured to a number of international standards including API, ANSI and ISO. Pumps range in size from small industrial 25mm end suction designs to large API 610 compliant pumps. No matter what your application we will select a pump that meets your requirements.

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PUMP TYPE OH1 - ANSI, ISO2858, ASME B73.1

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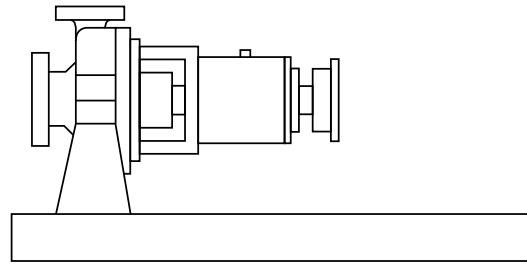


Foot-mounted single-stage overhung pumps (this type meets all requirements of the International Standard for ANSI and ISO).

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PUMP TYPE OH2

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Centreline-mounted single-stage overhung pumps. They have a single bearing housing to absorb all forces imposed upon the pump shaft and maintain rotor position during operation. The pumps are mounted on a baseplate and are flexibly coupled to their drivers.

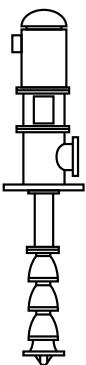
## VERTICAL SUSPENDED PUMPS

Vertical Suspended pumps are for applications ranging from waste water sump duties to highly specialized offshore fire fighting applications. Design configurations include side discharge units using end suction pump hydraulics in a vertical sump pump. Vertical can pumps can be designed to enable the pumps to operate in low NPSHa situations.

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PUMP TYPE VS1

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Wet pit, vertically suspended, single-casing diffuser pumps with discharge through the column.

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PUMP TYPE VS6

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Double-casing diffuser vertically suspended pumps.

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# BETWEEN BEARING PUMPS

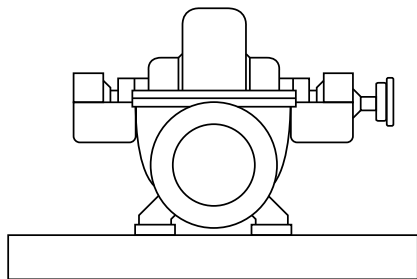
The Between Bearing pumps are designed for heavy duty, high pressure and high temperature applications in industrial and high pressure services. Applications range from light hydrocarbons at low temperatures, to corrosive fluids, coker furnace charge, vacuum bottoms and other services at high temperatures.

Features: Refinery, Petrochemical plants, Gas processing, Coal processing, Offshore installation and Desalination

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## PUMP TYPE BB1

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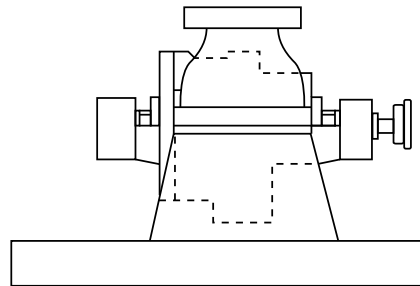


Axially Split one and two stage between-bearing pumps.

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## PUMP TYPE BB2

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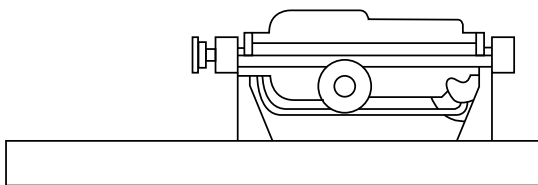


Radially Split one-and-two stage between-bearing pumps.

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## PUMP TYPE BB3

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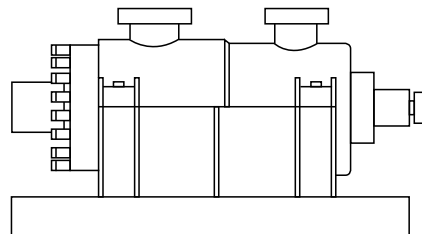


Axially split multistage between-bearing pumps.

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## PUMP TYPE BB5

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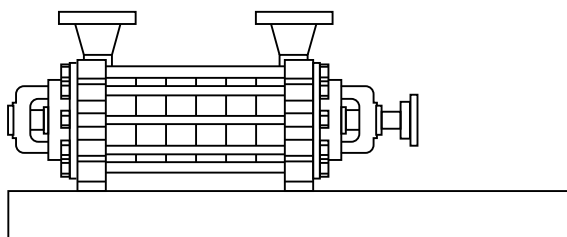


Double-casing radially split multistage between-bearing pumps (barrel pumps) shall be designated pump type BB5.

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## PUMP TYPE SPECIALITY HIGH PRESSURE PUMPS

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High pressure single- and multi-stage centrifugal pumps that have been designed and constructed according to the individual needs and requirements of the market. Custom designed and can be requested to be API 610 compliant.

- Horizontal, radial split, ring-section centrifugal pump (Operating pressure max 120 bar)
  - Horizontal or vertical, radial split, ring-section centrifugal pump (Operating pressure max 40 bar)
  - Horizontal, radial split, ring-section centrifugal pump (Operating pressure max 180 bar)
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## OUR PARTNERS

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For more information and to view our full pump range visit:  
[www.renrocgrouppumps.com](http://www.renrocgrouppumps.com)

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