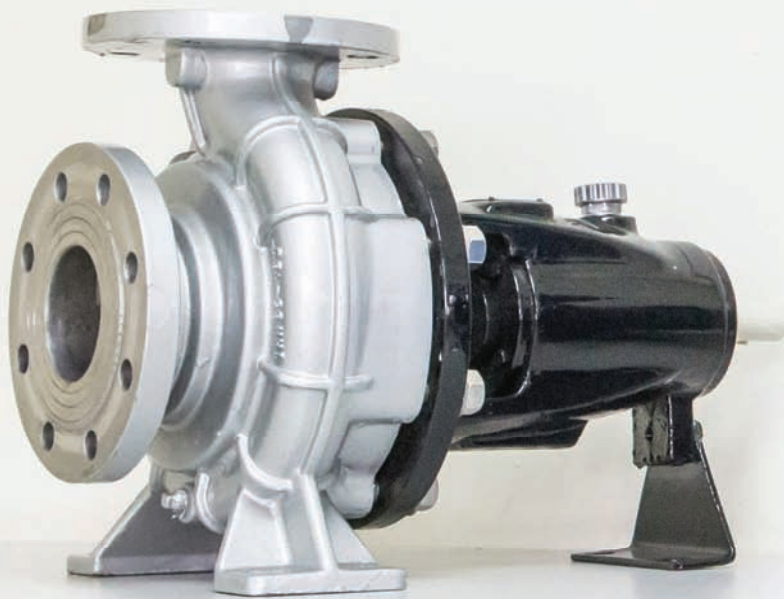




**THE LEADER IN  
PUMPING SOLUTIONS**

**ROTAMAC**

# ROTAMAC



## **PUMP DESIGN**

The success of an installation starts with selecting the right pump. The type, size, seal and accessories must satisfy the Requirements presented by the pumped medium.

## **MATERIAL ADVICE**

Whether you require pump materials, seal materials or changes in process affecting the pumps – our material specialists will offer you an individual recommendation, with full commitment.

## **OPERATING CONCEPT**

Whether you want to monitor centrifugal pumps or operate complex vacuum installations, we will work with you to devise the right operating concept which meets your needs – from manual to fully automatic.

## **DOCUMENTATION**

You need documentation? Whether standard or project, according to your requirements we create your individual project documentation.

## **INDIVIDUAL APPROVAL**

All centrifugal and vacuum pumps as well as package pumping systems are tested at factory before they are delivered: Together with our customers, specific details and processes are tested and discussed.

## **ON-SITE SUPPORT**

Whether it is for initial start-up or for training your personnel. Our engineers are also available to assist you on site.



## EXPERTISE IN INDUSTRIAL PUMP SYSTEMS

ROTAMAC is an experienced partner and supplier of industrial pumps, solid handling pumps and chemical process pumps to customers in the building, waterworks, chemical, petrochemical, power, rubber, sugar, food and beverage, and pulp and paper industries.

We can supply a range of centrifugal pumps designed and manufactured in accordance with EN 733 / DIN 24255, ISO 5199 / ISO 2858 or API 610 / ISO 13709.

The basis for our comprehensive pump range are the two material groups Metal and Plastics. This wide variety of materials and more than 30 different pump types offer the right solution for your project.

In close communication with you our experienced project teams develop individual concepts for your sophisticated application. And if you need a standardized application just profit from our extensive pump range.





# CONSULTING, SALES AND SERVICES FOR PUMPING SYSTEMS, THE EXPERIENCE AND KNOW-HOW TO PROVIDE RELIABLE SOLUTIONS

## HOW CAN WE SUPPORT YOUR BUSINESS?

At ROTAMAC, we believe the right solution for you goes beyond simply supplying a product.

We work together with you to better understand your needs. We deliver the right solutions for all your fluid handling challenges, no matter how simple or how complex.

Our diverse pool of people, knowledge and specializations feeds a culture of innovation that continuously improves our offering to better meet your evolving challenges.

ROTAMAC is committed to delivering reliability, efficiency and reassurance. We do this by understanding your needs.

Every day we aim to earn your confidence. We work hard to become and remain your preferred partner

CENTRIFUGAL PUMPS

CHEMICAL PROCESS PUMPS

SLURRY AND SOLIDS HANDLING

PULP AND PAPER MILL PROCESS

API PROCESS

PLASTIC PUMPS

MAGNETIC DRIVE PUMPS

VACUUM PUMPS

DIAPHRAGM PUMPS

GEAR PUMPS

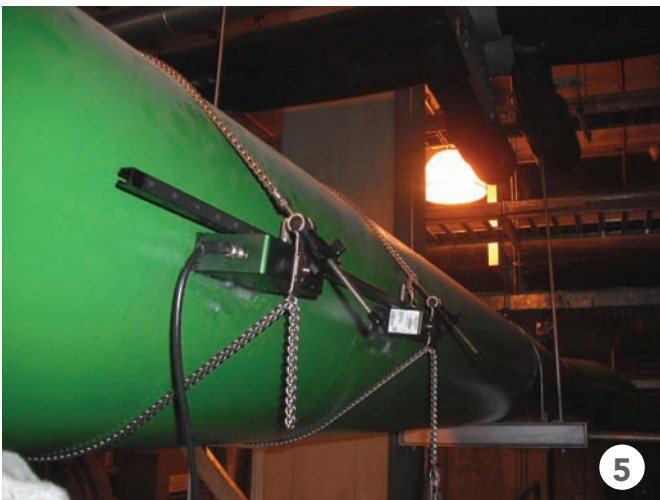
PROGRESSIVE CAVITY PUMPS

SCREW PUMPS

ROTARY LOBE PUMPS

FIRE FIGHTING PACKAGES

PRESSURE BOOSTER PACKAGES



# EXPERTISE IN SERVICE SOLUTIONS

Our services are tailored and integrated to suit your resources, plant requirements, and budget. Qualified and experienced engineers will work with you to implement the improvements to your system and then help you to maintain the resulting performance gains which usually give very rapid returns on your investment.



1. Pump Inspection, Overhaul, Installation and Running Test  
155 m<sup>3</sup>/h – 150 bar – 850 kW

2. Pump Inspection, Overhaul, Installation and Running Test  
Pump size : 800x600, 1670 HP

3. Laser Alignment for  
Critical High-Pressure Pump

4. Vibration Analysis for  
Chilled Water Pumps

5. Ultrasonic Flow Measurement for  
Large Capacity Double Suction Pumps

6. Pump Inspection and Final Alignment  
for Double Suction Pumps

7. Pump Inspection, Repair, Installation  
and Running Test for Self-Priming Pumps



# ROTAMAC



**Not just a pump supplier, but ROTAMAC has experience as a contractor for pumping stations.**

The pump is at heart of any water / wastewater / chemical transfer scheme.

ROTAMAC is not only a pump supplier but we have a long history of design of pumping stations. We are committed to providing a turnkey service to our customers where we can design, engineering, procure, construct and commission all the equipment within the pumping station. We have expertise in water distribution, wastewater, cooling, slurry, solids handling and process pumps.





1. Supply, Installation and Commissioning of Split Casing Double Suction Pumps  
2500 m<sup>3</sup>/h - 40 m - 355 kW

2. Supply, Installation and Commissioning of Vertical Shaft Mixed Flow Pumps  
1800 m<sup>3</sup>/h - 15 m - 110 kW

3. Supply, Installation and Commissioning of High Pressure Multi-Stage Pumps  
40 m<sup>3</sup>/h - 410 m - 110 kW

4. Supply, Final Alignment and Commissioning of ASME B73.1 Pumps

5. Supply, Final Alignment and Commissioning of Self Priming Pumps



6. Supply and Final Alignment of Split Casing Double Suction and DIN24255 Pumps

7. Supply and Commissioning of Liquid Ring Vacuum Pumps  
3100 m<sup>3</sup>/h - 846 mbar - 90 kW



## End Suction Centrifugal Pumps [ EN733 / DIN24255 ]



Single-stage horizontal shaft pumps with main dimensions and characteristics conforming to EN733 (DIN 24255) standards. The back pull out design allows for easy maintenance and repair as the rotating element may be removed without disturbing the system pipe work.

### MATERIALS

Wetted parts: Cast iron, ductile iron, 304/316 stainless steel  
 Shaft Seal: Single mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 1425 m<sup>3</sup>/h  
 Head to: 156 m  
 Pressure to: 16 bar  
 Temperature to: 105°C

## End Suction Close Coupled Pumps



Single-stage horizontal shaft pumps in back pull out design. The range consists of 2 series, available in cast iron, ductile iron and AISI 304 or AISI 316 stainless steel in a monobloc version.

### MATERIALS

Wetted parts: Cast iron, ductile iron, 304/316 stainless steel  
 Shaft Seal: Single mechanical seal

### SPECIFICATIONS

Flow to: 500 m<sup>3</sup>/h  
 Head to: 150 m  
 Pressure to: 16 bar  
 Temperature to: 85°C

## Vertical Multi-Stage Pumps / Immersible Pumps



Multi-stage, vertical high pressure centrifugal pumps, with suction and discharge connections of the same diameter and arranged. Immersible pumps are built for specific installation depths to fit machine tooling or filtering application.

### MATERIALS

Wetted parts: Cast iron, 304/316 stainless steel pump housing with other parts in stainless steel  
 Shaft Seal: Single mechanical seal

### SPECIFICATIONS

Flow to: 240 m<sup>3</sup>/h  
 Head to: 300 m  
 Pressure to: 33 bar  
 Temperature to: 120°C

## Horizontal Multi-Stage Pumps



The pumps are close-coupled type, multi-stage, primarily used as a built-in pump in OEM solutions and domestic boosters. The pumps are fitted with mains operated motors, whereas the motors can be integrated frequency converter.

### MATERIALS

Wetted parts: Cast iron, 304/316 stainless steel pump housing with other parts in stainless steel  
 Shaft Seal: Single mechanical seal

### SPECIFICATIONS

Flow to: 28 m<sup>3</sup>/h  
 Head to: 60 m  
 Pressure to: 8 bar  
 Temperature to: 120°C

# WATER / BUILDING SERVICES



## Split Casing Double Suction Pumps [ Small Sizes ]

These pumps have a horizontal pump shaft with the impeller placed in the middle of the shaft and with self contained combination bearing housing and seal chamber on both sides of the impeller. Available in both horizontal and vertically mounted configurations.

### MATERIALS

Wetted parts: Cast iron, ductile iron, 304/316/  
duplex stainless steel  
Shaft Seal: Single mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 3400 m<sup>3</sup>/h  
Head to: 190 m  
Pressure to: 25 bar  
Temperature to: 105°C

---

## Vertical Inline Pumps



The pumps are used in commercial buildings for air conditioning and heating applications. They are close coupled vertical inline design for space saving and reduce the amount of piping.

### MATERIALS

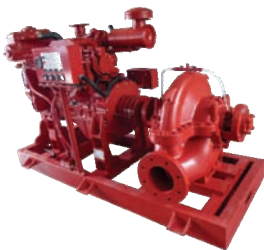
Wetted parts: Cast iron, ductile iron  
Shaft Seal: Single mechanical seal

### SPECIFICATIONS

Flow to: 1200 m<sup>3</sup>/h  
Head to: 150 m  
Pressure to: 16 bar  
Temperature to: 120°C

---

## Fire Fighting Packages



The fire fighting solutions for mainland applications include entire pump systems, complete with jockey pumps and main pumps that are either diesel or electrical driven, complying with NFPA 20. Available in both horizontal and vertically mounted configurations

### MATERIALS

Wetted parts: Cast iron, ductile iron  
Shaft Seal: Single mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 2500 US.GPM  
Head to: 500 m  
Pressure to: 51 bar  
Temperature to: 80°C

---

## Pressure Booster Packages



The booster pumps are available in a wide range of materials and configurations to fit your application needs, meet changing capacity requirements with optimal efficiency. Fully integrated, all-in-one packaged systems are designed to handle even the most difficult applications with ease and accuracy.

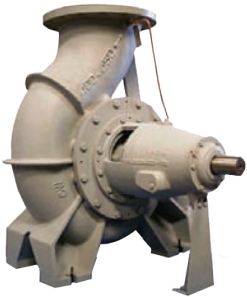
### MATERIALS

Wetted parts: Cast iron, ductile iron, 304/316  
stainless steel  
Shaft Seal: Single mechanical seal

### SPECIFICATIONS

Flow to: 1200 m<sup>3</sup>/h  
Head to: 300 m  
Pressure to: 33 bar  
Temperature to: 120°C

## Large End Suction Pumps



These models are able to handle high capacity water pumping applications. A range of material and coating options is available catering for non-corrosive and corrosive applications including seawater.

### MATERIALS

Wetted parts: Cast iron, ductile iron, cast steel,  
316/duplex stainless steel,  
Shaft Seal: Single mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 3600 m<sup>3</sup>/h  
Head to: 170 m  
Pressure to: 20 bar  
Temperature to: 80°C

## Large Double Suction Pumps



Large capacity axially split volute double suction pumps are custom-design to suite with the required specification for higher efficiency and enhanced suction performance.

### MATERIALS

Wetted parts: Cast iron, ductile iron, cast steel,  
304/316/duplex stainless steel  
Shaft Seal: Single mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 23000 m<sup>3</sup>/h  
Head to: 230 m  
Pressure to: 25 bar  
Temperature to: 80°C

## Mixed Flow Pumps



The pumps are large-capacity, mixed-flow, solids-handling designed specifically for reliability, low cost and long life in demanding raw water services or where suspended solids are of particular concern. Variety of nozzle position options and available in both horizontal and vertically mounted configurations.

### MATERIALS

Wetted parts: Cast iron, ductile iron, cast steel,  
304/316/duplex stainless steel  
Shaft Seal: Single mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 6000 m<sup>3</sup>/h  
Head to: 20 m  
Pressure to: 4 bar  
Temperature to: 80°C

## Vertical Mixed / Axial Flow



The pumps are large-capacity, vertical, mixed-flow pump suitable for a wide range of application, such as seawater intake pumps for desalination, cooling water pumps for power stations, and drainage pumps, etc.

### MATERIALS

Wetted parts: Cast iron, ductile iron, cast steel,  
304/316/duplex stainless steel  
Shaft Seal: Single mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 46800 m<sup>3</sup>/h  
Head to: 16 m  
Pressure to: 4 bar  
Temperature to: 80°C

# LARGE CAPACITY / HIGH PRESSURE

## Medium Pressure Multi-Stage Pumps



These pumps are also known as ring section pumps, radially split multistage. Designed in a modular way based on different ranges of pressures for use in a wide range of applications such as boiler feed systems, condensate transport, spray water, washing, water transport in buildings or reverse osmosis.

### MATERIALS

Wetted parts: Cast iron, ductile iron, cast steel, 304/316/duplex stainless steel  
Shaft Seal: Single mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 300 m<sup>3</sup>/h  
Head to: 1000 m  
Pressure to: 105 bar  
Temperature to: 160°C

---

## High Pressure Multi-Stage Pumps



These are horizontal multistage ring section pump specifically designed for high pressure services such as power stations, incineration plants and HRSG. The optimum pump design ensures total reliability and highly cost-effective solutions.

### MATERIALS

Wetted parts: Carbon steel, 12% Cr  
Shaft Seal: Single mechanical seal

### SPECIFICATIONS

Flow to: 1200 m<sup>3</sup>/h  
Head to: 3200 m  
Pressure to: 350 bar  
Temperature to: 220°C

---

## Vertical Turbine Pumps



The pumps are single or multistage turbine pump with a discharge head, top mounted or right angle gear drive that are either diesel or electrical driven. Which is suitable for multiple applications in various markets include fire fighting pumps complying with NFPA 20.

### MATERIALS

Wetted parts: Cast iron, ductile iron, cast steel, 304/316/duplex stainless steel  
Shaft Seal: Single mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 5500 m<sup>3</sup>/h  
Head to: 400 m  
Pressure to: 62 bar  
Temperature to: 80°C

---

## Submersible Mixed / Axial Flow Pumps



These are submersible mixed or axial flow pumps designed to be installed in a discharge column. The pump offers an efficient and a high volume pumping at a low head application. It features, easy to install and to remove, taking less space for the installation, requiring no priming water, etc.

### MATERIALS

Wetted parts: Cast iron  
Shaft Seal: Double mechanical seal

### SPECIFICATIONS

Flow to: 39600 m<sup>3</sup>/h  
Head to: 22 m  
Pressure to: 3 bar  
Temperature to: 40°C

## Self-Priming Pumps



The large volute design allows solid handling, automatic repriming without the need for suction or discharge check valves. The impeller, seal, wear plate and flap valve can all be accessed through the coverplate opening for inspection or service. Easy to maintain, all in just a few minutes' time.

### MATERIALS

Wetted parts: Cast iron, ductile iron, 304/316/  
duplex stainless steel, hastelloy C276  
Shaft Seal: Single mechanical seal

### SPECIFICATIONS

Flow to: 1250 m<sup>3</sup>/h  
Head to: 62 m  
Pressure to: 8 bar  
Temperature to: 70°C

## Submersible Pumps



Powerful submersible pumps for handling sewage water, suitable for handling solids in both municipal & industrial wastewater applications. Easy to install as it requires few accessories, low noise operation, reduced energy consumption and low maintenance cost.

### MATERIALS

Wetted parts: Cast iron  
Shaft Seal: Double mechanical seal

### SPECIFICATIONS

Flow to: 1800 m<sup>3</sup>/h  
Head to: 60 m  
Pressure to: 8 bar  
Temperature to: 40°C

## Vertical Sump Pumps



These pumps are intended for use in the industrial pumping applications to pump clean or lightly contaminated liquids, fibrous slurries and liquids containing solids from the deep sumps. The pumping head is suspended into the pumped liquids and the drive motor is dry installed on the top.

### MATERIALS

Wetted parts: Cast iron, ductile iron, cast steel,  
304/316/duplex stainless steel  
Shaft Seal: Packing seal, lip seal

### SPECIFICATIONS

Flow to: 300 m<sup>3</sup>/h  
Head to: 100 m  
Pressure to: 12 bar  
Temperature to: 120°C

## Sewage Pumps



These series pumps are used for pumping liquids, rain, raw and mixed water with suspended solids, muddy water, sewage water, other solid – liquid mixtures. The pumps are available either as horizontal or vertical dry well units. Vertical pumps are offered with direct motor mounted or cardan shaft options.

### MATERIALS

Wetted parts: Cast iron, ductile iron, cast steel,  
316 stainless steel  
Shaft Seal: Packing seal

### SPECIFICATIONS

Flow to: 4000 m<sup>3</sup>/h  
Head to: 100 m  
Pressure to: 16 bar  
Temperature to: 95°C

# WASTEWATER / SOLIDS HANDLING

## Semi-Open Impeller Wear Resistance Pumps



These are end suction heavy-duty pumps, semi-open extra thick impeller with front wear plate, built to stand up to the toughest services, while providing maximum reliability and extreme ease of maintenance.

### MATERIALS

Wetted parts: Cast iron, ductile iron, 304/304L/  
316/316L/904L/duplex stainless steel  
Shaft Seal: Single or double mechanical seal

### SPECIFICATIONS

Flow to: 1350 m<sup>3</sup>/h  
Head to: 105 m  
Pressure to: 16 bar  
Temperature to: 150°C

---

## Torque Flow Pumps



The torque flow pump is also referred to as vortex flow pump. Typical liquids to be pumped by torque flow pumps are waste water, cooling agents contaminated with metal chips, abrasive oils and lyes, lime milk and also products that have to be transported with care.

### MATERIALS

Wetted parts: Cast iron, 304/316 stainless steel,  
ASTM A532 Class III  
Shaft Seal: Mechanical seal, packing, dynamic

### SPECIFICATIONS

Flow to: 1500 m<sup>3</sup>/h  
Head to: 100 m  
Pressure to: 16 bar  
Temperature to: 90°C

---

## Slurry Pumps



The heavy duty slurry pump range is designed to perform continuous pumping of highly abrasive/dense slurries in minerals processing plants as well as other industrial applications such as sugar processing, wet scrubber processing, sludge recirculation, etc.

### MATERIALS

Wetted parts: ASTM A532, CR29, rubber,  
synthetic rubber, polyurethane  
Shaft Seal: Mechanical seal, packing, dynamic

### SPECIFICATIONS

Flow to: 5400 m<sup>3</sup>/h  
Head to: 125 m  
Pressure to: 16 bar  
Temperature to: 100°C

---

## Vertical Slurry Pumps



The heavy duty cantilever sump pumps are designed for applications requiring greater reliability and durability than conventional vertical process pumps can offer. Fully elastomer lined or hard metal fitted.

### MATERIALS

Wetted parts: ASTM A532, CR29, rubber,  
synthetic rubber,  
Shaft Seal: None

### SPECIFICATIONS

Flow to: 1440 m<sup>3</sup>/h  
Head to: 34 m  
Pressure to: 4 bar  
Temperature to: 100°C

## Chemical Process Pumps [ ISO5199 / ISO2858 ]



These are standardized pumps, metallic centrifugal, single stage. They comply with DIN EN 22858, ISO 2858 and ISO 5199. Handling of aggressive liquids in the chemical and petrochemical industries as well as in refinery and fire-fighting systems, handling of brine.

### MATERIALS

Wetted parts: Carbon steel, 304/316/316L/  
duplex stainless steel, alloy 20, hastelloy C  
Shaft Seal: Mechanical seal, packing

### SPECIFICATIONS

Flow to: 900 m<sup>3</sup>/h  
Head to: 175 m  
Pressure to: 25 bar  
Temperature to: 260°C

---

## Chemical Process Pumps [ ASME B73.1 ]



This versatile pump line is offered in a wide range of constructive materials that allow the pump to work with many different kinds of fluids, from corrosive and non-corrosive liquids ranging from water to hydrocarbons or slurries. These pumps are required to meet the ANSI / ASME B73.1

### MATERIALS

Wetted parts: Carbon steel, stainless steel,  
alloy 20, hastelloy C, monel, nickel, titanium  
Shaft Seal: Mechanical seal, packing, dynamic

### SPECIFICATIONS

Flow to: 3600 m<sup>3</sup>/h  
Head to: 170 m  
Pressure to: 20 bar  
Temperature to: 80°C

---

## Thermic Fluid Pumps



These hot water or thermal oil pumps are particularly suitable for use in heat transfer systems or for hot water circulation. Especially to be emphasised is the application in plants of the chemical industry, the rubber and plastic industry, the food industry and the paper industry and laundries .

### MATERIALS

Wetted parts: Ductile iron, carbon steel,  
316 stainless steel  
Shaft Seal: Single mechanical seal

### SPECIFICATIONS

Flow to: 300 m<sup>3</sup>/h  
Head to: 175 m  
Pressure to: 25 bar  
Temperature to: 350°C

---

## Liquid Ring Vacuum Pumps



These vacuum pumps are able to service a wide range of applications, which can typically include dewatering in the paper industry and vacuum filtering in mineral ore processing. The range consists of 2 series, available in monoblock design small capacity and medium to large capacity for extremely tough conditions.

### MATERIALS

Wetted parts: Cast iron, stainless steel  
Shaft Seal: Mechanical seal

### SPECIFICATIONS

Flow to: 9450m<sup>3</sup>/h  
Ultimate vacuum to: 33 mbar  
Temperature to: 55°C



# GENERAL PROCESS / PULP AND PAPER

## Low Consistency Pumps



There are used as process pumps in many different areas of pulp and paper mills. The wide range of impeller selection enable to pump suspensions at consistencies of up to 8%, offer high efficiencies of up to 90%, with their advantages of low maintenance cost and common parts design.

### MATERIALS

Wetted parts: Cast iron, carbon steel,  
chrome iron, 304/316/duplex stainless steel  
Shaft Seal: Mechanical seal, packing, dynamic

### SPECIFICATIONS

Flow to: 700 m<sup>3</sup>/h  
Head to: 160 m  
Pressure to: 25 bar  
Temperature to: 180°C

---

## Medium Consistency Pumps



There are used for demanding medium-consistency fibrous slurry applications up to 16% consistency to ensure process reliability, high efficiency, low operating costs, safe operation, easy maintenance and service.

### MATERIALS

Wetted parts: Cast iron, carbon steel,  
chrome iron, 304/316/duplex stainless steel  
Shaft Seal: Mechanical seal, packing, dynamic

### SPECIFICATIONS

Flow to: 500 m<sup>3</sup>/h  
Head to: 140 m  
Pressure to: 22 bar  
Temperature to: 150°C

---

## Degassing Self-Priming Pumps



The pump is designed to meet those special pumping situations, to enable the pump to be started with an empty inlet pipe and to allow it to pump liquids with high gas content.

### MATERIALS

Wetted parts: Cast iron, carbon steel,  
chrome iron, 304/316/duplex stainless steel  
Shaft Seal: Mechanical seal

### SPECIFICATIONS

Flow to: 700 m<sup>3</sup>/h  
Head to: 160 m  
Pressure to: 25 bar  
Temperature to: 180°C

---

## Double Suction Fan Pumps [ Low Pulsation ]



There are used for demanding high-capacity industrial applications to ensure process reliability, high efficiency, and low operating costs. Low pulsation impellers are available, designed to meet the stringent performance requirements of paper machine head box applications.

### MATERIALS

Wetted parts:  
Shaft Seal:

### SPECIFICATIONS

Flow to: 10000 m<sup>3</sup>/h  
Head to: 180 m  
Pressure to: 22 bar  
Temperature to: 160°C

## Non-Metallic Horizontal Centrifugal Pumps [ ISO5199 / ISO2858 ]



They comply with DIN EN 22858, ISO 2858 and ISO 5199. Handling of aggressive liquids in the chemical and petrochemical industries. Additionally the armoured pump casing absorbs the external forces acting on the pump.

### MATERIALS

Wetted parts: PP, GFRPP, PVDF  
Shaft Seal: Mechanical seal

### SPECIFICATIONS

Flow to: 500 m<sup>3</sup>/h  
Head to: 120 m  
Pressure to: 12 bar  
Temperature to: 120°C

---

## Non-Metallic Vertical Sump Pumps



They can be classified as vertically suspended, single-casing, volute, line-shaft driven sump pumps. All parts in contact with the liquid are made of strong solid plastic, the heavily constructed shaft has been given a nonporous plastic coating. Handling of aggressive liquids, contaminated liquids such as acids and alkalis.

### MATERIALS

Wetted parts: PP, PVDF  
Shaft Seal: Lip seal, labyrinth seal

### SPECIFICATIONS

Flow to: 1000 m<sup>3</sup>/h  
Head to: 70 m  
Pressure to: 10 bar  
Temperature to: 120°C

---

## Plastic Lined Pumps



Suitable for virtually universally use in the chemical and pharmaceutical industry, petrochemicals and general processing technology. Available in different design such as long coupled, close coupled, self-priming, vertical inline and magnetic coupled.

### MATERIALS

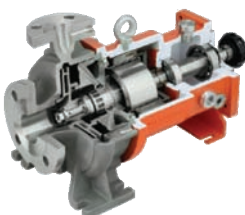
Wetted parts: PFA, FEP, PTFE  
Shaft Seal: Mechanical seal, sealless

### SPECIFICATIONS

Flow to: 400 m<sup>3</sup>/h  
Head to: 80 m  
Pressure to: 10 bar  
Temperature to: 120°C

---

## Magnetic Drive Pumps



Stainless steel magnetic drive pumps are ideal to meet the stringent requirements of chemical processing and a multitude of other industries. These highly advanced and extremely energy efficient pumps are built to handle a huge variety of fluids reliably and absolutely safety.

### MATERIALS

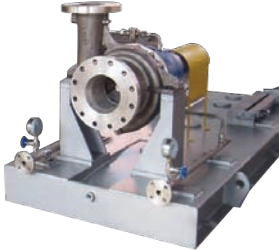
Wetted parts: 304/304L/316/316L/duplex stainless steel, nickel-base alloys (e.g. hastelloy)  
Shaft Seal: Sealless

### SPECIFICATIONS

Flow to: 100 m<sup>3</sup>/h  
Head to: 100 m  
Pressure to: 16 bar  
Temperature to: 250°C

# CHEMICAL PROCESS / HEAVY INDUSTRY

## Horizontal Overhung Centerline Mounted Pumps [ OH2 , API610 ]



API 610 (ISO 13709) Type OH2 overhung, horizontal, centerline mounted, single stage, radially split process pump. It has the broadest performance range in the industry and is used in heavy-duty refinery, petrochemical, gas processing and offshore oil production services.

### MATERIALS

Wetted parts: Carbon steel, 12%Cr, AUS, 316AUS, duplex, super duplex, special materials  
Shaft Seal: Mechanical seal

### SPECIFICATIONS

Flow to: 2600 m<sup>3</sup>/h  
Head to: 300 m  
Pressure to: 100 bar  
Temperature to: 450°C

---

## Vertical Inline Separate Bearing Bracket Pumps [ OH3 , API610 ]



API 610 (ISO 13709) Type OH3 overhung, horizontal, centerline mounted, single stage, radially split process pump. Structure designs has thought-out and mature consideration on support, connection, bearing cooling and etc. Sort of available auxiliary and monitoring instruments make high safety and reliability.

### MATERIALS

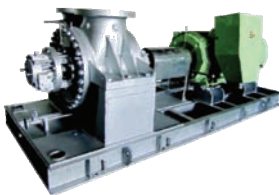
Wetted parts: Carbon steel, 12%Cr, AUS, 316AUS, duplex, super duplex, special materials  
Shaft Seal: Mechanical seal

### SPECIFICATIONS

Flow to: 2600 m<sup>3</sup>/h  
Head to: 300 m  
Pressure to: 50 bar  
Temperature to: 450°C

---

## Radially Split Between Bearing Pumps [ BB2 , API610 ]



API 610 (ISO 13709) Type BB2, single or two stage, radially split pumps. They offer the widest range of hydraulic performance in the industry. Pump is designed for heavy-duty unit with simple and reliable structure, stable operation, convenient maintenance and long service life.

### MATERIALS

Wetted parts: Carbon steel, 12%Cr, AUS, 316AUS, duplex, super duplex, special materials  
Shaft Seal: Mechanical seal

### SPECIFICATIONS

Flow to: 5000 m<sup>3</sup>/h  
Head to: 350 m  
Pressure to: 110 bar  
Temperature to: 450°C

---

## Vertically Suspended Line Shaft Driven Sump Pumps [ VS4 , API610 ]



API 610 (ISO 13709) Type VS4, vertical volute, long shaft, submersible pumps. The flexible shaft is multi-point supported. The units have been designed to suit customer requirements with lengths available up to 7 m sump depth.

### MATERIALS

Wetted parts: Carbon steel, 12%Cr, AUS, 316AUS, duplex, super duplex, special materials  
Shaft Seal: Mechanical seal

### SPECIFICATIONS

Flow to: 1100 m<sup>3</sup>/h  
Head to: 135 m  
Pressure to: 20 bar  
Temperature to: 125°C

## Diaphragm Metering Pumps



The pump is a positive displacement chemical dosing device with the ability to vary capacity as process conditions require. It features a high level of repetitive accuracy and is capable of pumping a wide range of chemicals including acids, bases, corrosives or viscous liquids.

### MATERIALS

Pump head: PVC, PTFE, 304/316 stainless steel  
Diaphragm: PTFE

### SPECIFICATIONS

Flow to: 10000 lph  
Pressure to: 400 bar  
Temperature to: 70°C

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## Plunger Metering Pumps



There are plunger/piston type positive displacement, reciprocating metering pumps with high performance and accuracy dosing features. The plunger makes harmonic push and pull motion by the crankshaft. It is widely used in industries such as oil and gas, chemical or petrochemical, foaming, electricity, boiler, etc.

### MATERIALS

Pump head: 304/316 stainless steel  
Plunger: Ceramic, 316 stainless steel coated with ceramic

### SPECIFICATIONS

Flow to: 14000 lph  
Pressure to: 500 bar  
Temperature to: 70°C  
[available in high temp. version]

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## Gear Pumps



A gear pump uses the meshing of gears to pump fluid by displacement. They are one of the most common types of pumps for hydraulic fluid power applications.

### MATERIALS

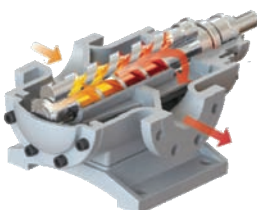
Wetted parts: Cast iron, ductile iron, cast steel, 304/316 stainless steel,  
Shaft Seal: Mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 200 m3/h  
Pressure to: 34 bar  
Temperature to: 200°C

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## Screw Pumps



A screw pump is a positive-displacement (PD) pump that use one or several screws to move fluids or solids along the screw(s) axis. The range consists of 3 series, available in single, twin and three screw.

### MATERIALS

Wetted parts: Ductile iron, carbon steel, 304/316 stainless steel,  
Shaft Seal: Mechanical seal

### SPECIFICATIONS

Flow to: 660 m3/h  
Pressure to: 160 bar  
Temperature to: 350°C

# POSITIVE DISPLACEMENT

## Rotary Lobe Pumps



Rotary lobe pump is a type of positive displacement pump. It is similar to a gear pump except the lobes are designed to almost meet, rather than touch and turn each other. This makes that this type of pump is often used in industries including pulp and paper, chemical, food, beverage and biotechnology.

### MATERIALS

Wetted parts: 316/316L stainless steel, rubber  
Shaft Seal: Mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 1150 m<sup>3</sup>/h  
Pressure to: 15 bar  
Temperature to: 140°C

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## Progressive Cavity Pumps



It is a type of positive displacement pump and is also known as an eccentric screw pump or cavity pump. It transfers fluid by means of the progress, through the pump, of a sequence of small, fixed shape, discrete cavities, as its rotor is turned. This leads to the volumetric flow rate being proportional to the rotation rate.

### MATERIALS

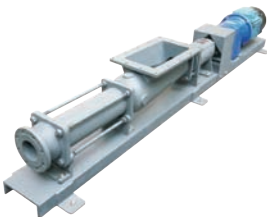
Wetted parts: Rubber, cast iron, Cr-Ni, highly acid-resistant materials  
Shaft Seal: Mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 250 m<sup>3</sup>/h  
Pressure to: 48 bar  
Temperature to: 120°C

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## Hopper Pumps



They are fitted with a feeder hopper and a conveyor screw. The open-throat design allows the fluid to flow in without restriction while the screw feeds the materials into the rotor/stator. The pumps are ideal for viscous and heterogeneous fluids pumping.

### MATERIALS

Wetted parts: Rubber, cast iron, Cr-Ni, highly acid-resistant materials  
Shaft Seal: Mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 175 m<sup>3</sup>/h  
Pressure to: 48 bar  
Temperature to: 120°C

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## Rota Pumps [ Masseur Pump ]



They are rotary positive displacement pumps designed to handle high viscosity abrasive sugar products with higher brix that contain sugar crystals such as A massecuite, B massecuite, C massecuite, magma and dry seed for sugar industries.

### MATERIALS

Wetted parts: Cast iron, cast steel  
Shaft Seal: Mechanical seal, packing seal

### SPECIFICATIONS

Flow to: 120 m<sup>3</sup>/h  
Pressure to: 7 bar  
Temperature to: 90°C



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