

**INDUSTRIAL PROCESS PUMPS** 



### **ROTΛΜΛC**

### A WIDE VARIETY OF PROCESSES

Industrial pumps must deliver outstanding quality and performance. They have to withstand even the toughest challenges – and ensure smooth operation at all times, even at extreme temperatures, high pressures and with aggressive, corrosive or solids-laden liquids.

ROTAMAC pumps for industry find use in a wide range of industrial applications from chemicals production to the food and beverage sector, metal production and mechanical engineering – and these examples offer only a glimpse of the products' extensive versatility.

With the flexible end-suction pump family, the many variants of the solid handling pumps, and the high-temperature pump range: Industrial pumps from ROTAMAC cover almost all the requirements of industrial processes – and can make a significant contribution to the efficiency of your system.

A wealth of application knowledge and decades of experience also ensure that ROTAMAC is the perfect partner for you when it comes to optimising your industrial plants. You can rely on ROTAMAC's comprehensive and well thought-out range of services.



#### 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	SPECIFICATIONS
Wetted parts: Cast iron, ductile iron, 304/316 stainless steel Shaft Seal: Single mechanical seal, packing seal	Flow to: 1425 m3/h Head to: 156 m Pressure to: 16 bar Temperature to: 105°C

Chemical Process Pumps [ASME B73.1], Open Impeller

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: 1260 m3/h Head to: 200 m Pressure to: Class 300 Temperature to: 260°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 m3/h Head to: 175 m Pressure to: 25 bar Temperature to: 260°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 m3/h Head to: 175 m Pressure to: 25 bar Temperature to: 350°C





## ROTAMAC



#### 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

**SPECIFICATIONS** 

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

#### Flow to: 1350 m3/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	SPECIFICATIONS
Wetted parts: Cast iron, 304/316 stainless steel, ASTM A532 Class III Shaft Seal: Mechanical seal, packing, dynamic	Flow to: 1500 m3/h Head to: 100 m Pressure to: 16 bar Temperature to: 90°C



#### **Slurry Pumps**

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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	SPECIFICATIONS
Wetted parts: ASTM A532, CR29, rubber, synthetic rubber, polyurethane Shaft Seal: Mechanical seal, packing, dynamic	Flow to: 5400 m3/h Head to: 125 m Pressure to: 16 bar Temperature to: 100°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: 9450m3/h Ultimate vacuum to: 33 mbar Temperature to: 55°C

#### ISO 5199 Process Pumps, Open / Non-Clog / Vortex Impeller

There are used as process pumps in many different areas of process applications. The wide range of impeller selection enable to pump suspensions at solids 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

### Flow to: 700 m3/h

**SPECIFICATIONS** 

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 m3/h Head to: 140 m Pressure to: 22 bar Temperature to: 150°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 m3/h Head to: 120 m Pressure to: 12 bar Temperature to: 120°C

industry and is used in heavy-duty refinery, petrochemical, gas processing and offshore oil production services. MATERIALS

API 610 (ISO 13709) Type OH2 overhung, horizontal, centerline mounted, single stage, radially split process pump. It has the broadest performance range in the

Horizontal Overhung Centerline Mounted Pumps [OH2, API610]

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

#### **SPECIFICATIONS**

Flow to: 2600 m3/h Head to: 300 m Pressure to: 100 bar Temperature to: 450°C







# **ROTAMAC**

- Standardized End Suction Pumps • EN733/DIN24255, ISO2858/ISO5199 ASME B73.1, API610
- Split Casing Double Suction Pumps
- Solid Handling Pumps • Slurry/Vortex/Semi-open/Open/Non clog
- High Pressure Multi-Stage Pumps
- Self-Priming Pumps •
- Submersible Pumps
- **Close Coupled Pumps** 0
- Vertical Multi-Stage / Immersible Pumps
- Vertical Sump Pumps
- Vertical Turbine Pumps
- Mixed / Axial Flow Pumps
- Liquid Ring Vacuum Pumps Ö
- Chemical Process Plastic Pumps
- Fire Fighting Pump Packages (NFPA20) •
- Booster Pump Packages
- Trailer Mounted Pumps

ROTAMAC can help relieve the stresses and reduce the life cycle costs associated with the most important aspects of plant operation.

Dedicated to delivering the highest quality support, ROTAMAC services and solutions integrates hydraulic, mechanical and materials engineering knowledge with creative solutions to improve equipment reliability and system performance, reduce energy consumption and improve the safety and environmental impact of operations.

#### Pump Services and Repair



Inspection

Testina

#### **Capabilities** Overview

Design

- Equipment Selection and Optimization
- Material Selection
- System Design
- System Optimization

#### Start-up

- Equipment Installation
- Laser Alignment
- Commissioning and Running test
- Operator Training
- On-site Project Supervision
- On-site Troubleshooting

#### Operation and Maintenance

- Equipment Inspection •
- Repair & Overhaul
- Advanced Diagnostics
- Service Maintenance Contracts

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