

ROTAMAC

Vacuum Pumps and Compressors
Liquid Ring , Dry Screw and Engineered System



LEADING PROVIDER OF VACUUM AND COMPRESSURE SOLUTIONS

ROTAMAC is a leading provider of vacuum solutions, serving the chemical, petroleum, power, paper, mining, environmental, food, and wastewater treatment industries. We have been trusted by customers for delivering quality, reliability, value, and performance.

Through our family is able to provide a comprehensive range of single and two stage liquid ring vacuum pumps and compressors, dry screw vacuum pumps and engineered systems for industrial applications.

Our products are already the best, and thanks to ongoing investments in R&D we're constantly making them better. We are committed to offering innovative products and upgrades that continue to improve the reliability & efficiency of your process. This commitment ensures that you are always receiving the latest upgrades to equipment technology and energy savings for optimum performance & efficiency.

With a network of aftermarket sales, service and support, we can deliver immediate solutions to even the most complex challenges. Our field service team is available to supplement your in-house maintenance operations and keep your liquid ring vacuum and compressed gas systems running efficiently and reliably.

Field Services Includes:

- Complete system analysis, troubleshooting, and audits
- Running testing
- Vibration analysis
- System start-up and operator training

We continually optimize our management systems to supply our customers with high quality products, service, and solutions tailored to their individual needs.



Vacuum Pumps and Compressors

Liquid Ring in Monoblock Design

Small capacity, reliable and reduce operating costs



CHARACTERISTICS AND DESIGN FEATURES

- Compact, light integral pump and motor design.
- Rugged design for reliable operation and long service life .
- Easy installation and save space.
- No need for additional baseplates, couplings or guards, which add to cost, complexity and overall size of the installation.
- Low noise and vibration.
- Energy saving.
- The motor includes wide voltage range capability, an IP55 enclosure and is suitable for 50/60 Hz service.
- Available in both cast iron and stainless steel construction.

OPERATING LIMITS

Capacity : up to 500 m³/h
Vacuum : down to 33 mbar abs
Pressure : up to 0.16 MPaG

APPLICATIONS

- Degassing
- Vacuum tankers
- Centrifugal pump priming
- Steam sterilization (autoclaves)

Medium to Large Capacity Liquid Ring Vacuum Pumps

Covers a broad range of suction volume, vacuum, and pressure



CHARACTERISTICS AND DESIGN FEATURES

- Covers a wide range of capacity sizes and is available in cast iron, stainless steel, and a combination of both materials.
- Robust and low maintenance based on proven flat sided design.
- High liquid carryover tolerance.
- Large inspection ports allow for easy internal inspections.
- Some applications require vacuum and compression in one process. Instead of handling the gas with two separate machines, our liquid ring vacuum pump and compressor models can do the job with only one pump.

OPERATING LIMITS

Capacity : up to 62,400 m³/h
Vacuum : down to 33 mbar abs
Pressure : up to 0.24 MPaG

APPLICATIONS

- Condenser air removal
- Pulp and paper
- Dewatering
- Filtration and extrusion

Conical Port Structure Liquid Ring Vacuum Pumps

Reliable and Efficient with conical porting and rotor configuration



CHARACTERISTICS AND DESIGN FEATURES

- Medium to large capacity, single stage vacuum pumps that are ideally matched to demanding industrial applications and harsh environments.
- Heavy-duty pump design is able to service a wide range of applications, which can typically include dewatering in the paper industry and vacuum filtering in mineral ore processing.
- Allows the force of compression to counter the weight of the rotor and shaft to help minimize load on bearings during operation.
- Some applications require vacuum and compression in one process. Instead of handling the gas with two separate machines, our liquid ring vacuum pump and compressor models can do the job with only one pump.

OPERATING LIMITS

Capacity : up to 8,160 m³/h
Vacuum : down to 81 mbar abs
Pressure : up to 0.11 MPaG

APPLICATIONS

- Paper machine dewatering
- Autoclaves
- Condenser air removal
- Extruder venting

Two Stage Liquid Ring Vacuum Pumps

Higher pressure levels with high performance and reliable



CHARACTERISTICS AND DESIGN FEATURES

- Designed to handle large amounts of liquid carryover without difficulty.
- Rugged and long-lasting machines ideal for harsh and demanding industrial environments.
- The discharge from the first stage does not discharge to atmosphere. Instead, the first stage discharges through the manifold leading to the second stage. The process repeats itself in the second stage, allowing deeper vacuum.
- Stable in a higher vacuum range, or maintain a higher vacuum in a large range of pumping rate.
- In higher vacuum working condition, the efficiency is increased by 35% to 40% compared with single stage water ring pump.

OPERATING LIMITS

Capacity : up to 1,717 m³/h
Vacuum : down to 33 mbar abs

APPLICATIONS

- Vacuum evaporation / distillation
- Roots unit with roots vacuum pump
- Condenser vacuum extraction device of power plant steam turbine

Vacuum Pumps and Compressors

Dry Screw Vacuum Pumps

No process contamination, no pollution and requires no lubrication in the pumping chamber



CHARACTERISTICS AND DESIGN FEATURES

- The dry and contact free operation of the ROTAMAC screw vacuum pumps requires no lubrication in the pumping chamber. This translates into major advantages: no process contamination and no pollution caused by the pump operation.
- Can operate at any pressure between end vacuum and atmospheric pressure
- In the pump housing, two parallel screw rotors, both timing gear synchronized, turn in opposite directions. Gas is compressed in the direction of the discharge port.
- Easy to service and have a long service life – the low rotational speed ensures low noise and low vibration operation.

OPERATING LIMITS

Capacity : up to 2,250 m³/h
Vacuum : down to 0.02 mbar abs

APPLICATIONS

- Clean, oil free vacuum
- Vacuum booster
- Vacuum furnaces
- Packaging, drying and coating

Process Vacuum Systems

Reliable vacuum performance in a standardized system package



CHARACTERISTICS AND DESIGN FEATURES

- Simplify your installation with a packaged system
- Pre-engineered and delivered with all of the necessary components assembled and piped.
- Mounted pumps, once-through, and fully re-circulated systems are available in various sizes, and in iron or all stainless steel construction.
- Can be designed to stand up to the harsh environments found in the chemical process and oil & gas industries.
- Certified reports of the factory tests are made available to customers

OPERATING LIMITS

Capacity : up to 5,000 m³/h
Vacuum : down to 33 mbar abs

APPLICATIONS

- Space-saving mounted
- Safe work environment
- Chemical process
- Oil & gas industries.

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
- Vertical Multi-Stage / Immersible Pumps
- Vertical Sump Pumps
- Vertical Turbine Pumps
- Mixed / Axial Flow Pumps
- Liquid Ring Vacuum Pumps
- Chemical Process Plastic Pumps
- Fire Fighting Pump Packages (NFPA20)
- Booster Pump Packages
- Trailer Mounted Pumps

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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



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