

FIRE FIGHTING PUMPS

ROTAMAC

FIRE FIGHTING PUMPS AND PACKAGE SOLUTIONS

Fire pumps play a vital role as the first response to a fire situation, saving countless lives and property from destruction. They are usually found in manufacturing and industrial facilities, housing complexes, power plants, schools, hospitals, airports, commercial buildings and offshore oil platforms.

A fire pump is the component responsible for supplying the adequate water pressure to fire sprinklers and hose standpipes in order to control or contain a fire.

ROTAMAC's centrifugal pumps combine the latest in hydraulic design with decades of application experience to meet today's fire security requirements.

Per NFPA-20, we are able to supply ranges from 20 GPM up to 10000 GPM with net pressures of 50 to 700 PSI or more. Our fire pumps are available as single pumping units or complete pre-packaged fire systems (with or without full enclosure).

CONSTRUCTION MATERIALS

Our fire pump components such as casing, impeller, shaft and bowls, are available in standard and special metallurgies to address specific applications.

Standard materials include:

- Cast iron
- Ductile cast iron
- Carbon steel

Metallurgies available for sea/brackish water applications and harsh environments:

- Stainless steel
- Duplex stainless steel
- Super duplex
- Nickel-Aluminum-Bronze





SPLIT CASING FIRE PUMP

Horizontal, single or two stage, split case centrifugal pumps

CHARACTERISTICS

- Flows from 250 to 4000 GPM
- Pressures from 50 to 700 PSI
- Electric or Diesel driven
- NFPA-20 design
- Factory tested

DESIGN FEATURES

- The axially split design allows easy removal of the top casing and access to the pump components without disturbing the driven or pipework.
- The split casing pump can be designed in horizontal or vertical installation.
- The seal chamber design readily accommodates the mechanical seals and graphite non-asbestos packing with a lantern ring.

BENEFITS

- Large capacity
- Medium to high pressure
- High efficiency



END SUCTION FIRE PUMP

Horizontal, single stage, end suction centrifugal pumps

CHARACTERISTICS

- Flows from 50 to 750 GPM
- Pressures from 84 to 230 PSI
- Electric or Diesel driven
- NFPA-20 design
- Factory tested

DESIGN FEATURES

- The back pull out constructional concept, connection to the driven with a flexible coupling or spacer coupling available on request.
- Available in both the mechanical type or packing seal type and easily replaceable.
- High efficiency closed type impeller with balanced axial thrust.

BENEFITS

- Small to medium capacity
- Medium pressure
- High efficiency



IN-LINE FIRE PUMP

Vertical in-line, single stage, centrifugal pumps

CHARACTERISTICS

- Flows from 20 to 220 GPM
- Pressures from 40 to 210 PSI
- Electric driven
- NFPA-20 design
- Factory tested

DESIGN FEATURES

- The pump construction is optimized and maximize the lifetime of the pump.
- Monoblock construction means compact, rigid and reliable design eliminating the need for a bearing unit. This minimizes the wearing parts and need for maintenance.
- Optimized shaft seal chamber and balancing holes guarantee improved conditions for the shaft seal maximizing its life time.

BENEFITS

- Small capacity
- Medium pressure
- Space-saving design



TWO STAGE FIRE PUMP WITH EXTERNAL CROSS-OVER

Horizontal, two stage, split case, centrifugal pumps

CHARACTERISTICS

- Flows from 500 to 2500 GPM
- Pressures from 50 to 500 PSI
- Electric or Diesel driven
- NFPA-20 design
- Factory tested

DESIGN FEATURES

- Single / double volute pumps depending on pressure ratings.
- Two stage pumps with either two single entry or two double entry impellers for 15ft suction lift capability.
- The seal chamber design readily accommodates the mechanical seals and graphite non-asbestos packing with a lantern ring.

BENEFITS

- Large capacity
- High pressure
- High efficiency



VERTICAL TURBINE FIRE PUMP

Vertical, single or multi-stage, turbine pumps

CHARACTERISTICS

- Flows from 250 to 5500 GPM
- Pressures from 50 to 300 PSI
- Electric or Diesel driven
- NFPA-20 design
- Factory tested

DESIGN FEATURES

- Enclosed-type bronze impellers are standard construction, but other materials are available.
- They cover a wide range of flow / head conditions and are balanced for smooth operation.
- The standard cast iron discharge head can handle high pressures and is standardized to accommodate the maximum number of driven sizes. Options include underground discharge.

BENEFITS

- Large capacity
- High pressure
- High efficiency



FIRE PUMP FOR FPSO & FSO

For Floating Production, Storage and Offloading (FPSO)

CHARACTERISTICS

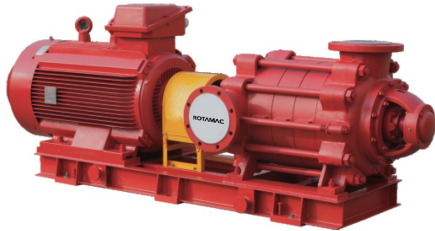
- Flows from 1320 to 10000 GPM
- Pressures from 120 to 227 PSI
- Electric or Diesel driven
- NFPA-20 design
- Factory tested

DESIGN FEATURES

- The ability to run reliably under extreme conditions for extended periods of time.
- Optimal firefighting performance coupled with features to ensure minimum maintenance is required during long periods on standby.

BENEFITS

- Extreme reliability
- Minimum maintenance



MULTI-STAGE FIRE PUMP

Horizontal, multi stage, ring section centrifugal pumps

CHARACTERISTICS

- Flows from 160 to 4400 GPM
- Pressures from 700 to 1530 PSI
- Electric or Diesel driven
- NFPA-20 design
- Factory tested

DESIGN FEATURES

- Radially split, multistage, between-bearing pumps with thrust balancing are designed to be the most reliable pump for the most demanding high-pressure.
- Its robust, yet compact, design, together with high efficiency hydraulics, provides superior performance and exceptional reliability combined with ease of maintenance and minimal operating costs.

BENEFITS

- Small to medium capacity
- High pressure
- High efficiency



JOCKEY PUMP

Vertical in-line, multi stage, centrifugal pumps

CHARACTERISTICS

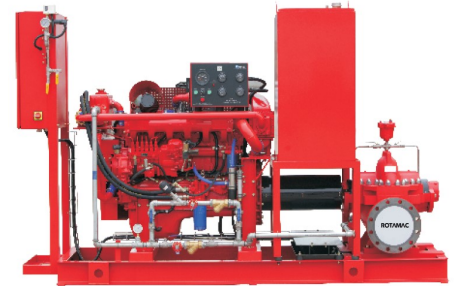
- Jockey pumps are normally sized for 1% flow and a 10 to 20 PSI higher pressure of the fire pump.
- Factory tested

DESIGN FEATURES

- Designed to maintain system pressure to prevent the main fire pump from starting when small leaks occur.
- The standard shaft seal is an uncooled, single mechanical, cartridge type, maintenance-free, SiC/Carbon/FPM material. Other materials are available on request.

BENEFITS

- Versatility in performance and design
- Low operating cost



COMPLETE PACKAGE FIRE PUMP

Vertical in-line, single stage, centrifugal pumps

CHARACTERISTICS

- Flows from 50 to 10000 GPM
- Pressures from 50 to 1530 PSI
- Electric or Diesel driven
- NFPA-20 design
- Factory tested

DESIGN FEATURES

- ROTAMAC's pre-packaged fire systems are tailored and built to the requirements of the customer ensuring that they meet international and local safety regulations.
- The fire pump, with drivers, control systems and pipework on a common base for a plug-and-play installation.

BENEFITS

- Completely pre-assembled
- Plug-and-play installation

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