

ROTO-JET® High Pressure Pitot Tube Pumps

Excellent
Engineering
Solutions



Product Line Overview

Handles Tough Applications!

Boiler Feed and Desuperheating
Oil Production
Semi-Conductor Manufacturing
Central Cleaning Systems
Mining
Spraying Systems
Hydraulic Systems
Petroleum-Chemical

Steel Mills
Hydro-Blast Cleaning
Pulp and Paper Mills
Transfer
Reverse Osmosis
Water Injection
Turbine Fuel Feed
NO_x Suppression



Model VSR™ Pump (Variable Speed Roto-Jet)

Capacity: to 550 gpm (125 m³/hr)
Heads: to 4000 ft. (1213 m)
Pressures: to 1730psi (120 Bar)
Temperatures: to 250° F (121° C)
Maximum Speed: 5400 RPM



Model RD-11® Pump

Capacity: to 150 gpm (34 m³/hr)
Heads: to 1500 ft. (457m)
Pressures: to 650 psi (45 Bar)
Temperatures: to 250° F (121° C)
Maximum Speed: 4858 RPM



Model 2100® Pump

Capacity: to 525 gpm (119 m³/hr)
Heads: to 3000ft. (911m)
Pressures: to 1300 psi (89 Bar)
Temperatures: to 250° F (121° C)
Maximum Speed: 4709 RPM



Model 2200® Pump

Capacity: to 535 gpm (121 m³/hr)
Heads: to 4042 ft. (1232 m)
Pressures: to 1750 psi (120 Bar)
Temperatures: to 250° F (121° C)
Maximum Speed: 5443 RPM



Model RO® Pump

Capacity: to 450 gpm (109 m³/hr)
Heads: to 5200 ft. (1585 m)
Pressures: to 2250 psi (155 Bar)
Temperatures: to 550° F (288° C)
Maximum Speed: 6321 RPM



Model RO D850® Pump

Capacity: to 750 gpm (170 m³/hr)
Heads: to 2100 ft. (900 psi)
Pressures: to 640 m (42 Bar)
Temperatures: to 250° F (121° C)
Maximum Speed: 4380 RPM



Model RG® Pump

Capacity: to 400 gpm (91 m³/hr)
Heads: to 2600 ft. (792 m)
Pressures: to 1125 psi (77 Bar)
Temperatures: to 250° F (121° C)
Maximum Speed: 4380 RPM



Model R11/APIR11® Pump

Capacity: to 150 gpm (34 m³/hr)
Heads: to 1500 ft. (457 m)
Pressures: to 650 psi (45 Bar)
Temperatures: to 275° F (135° C)
Maximum Speed: 4858 RPM

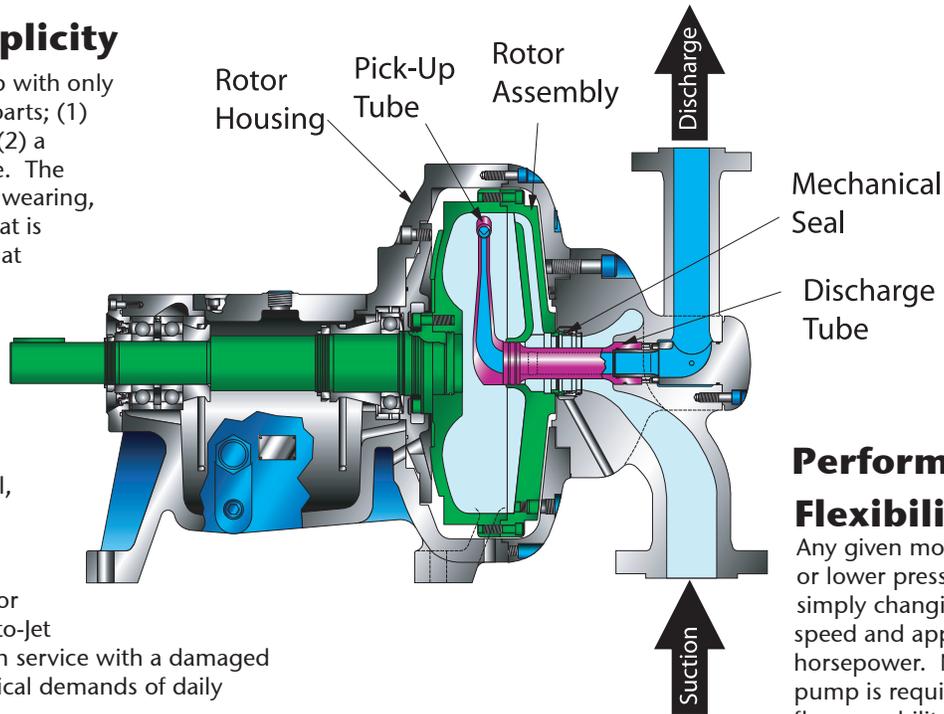
Roto-Jet® Pump Design Benefits

Operation

The Roto-Jet is totally, hydraulically stable and can operate with a minimal continuous bypass flow at shutoff indefinitely and at any flow point throughout the total head curve range with no wearing or damaging effect to the pump. The reason for this unique benefit is that all radial forces tend to be balanced within the rotor, and axial thrust is solely a function of suction pressure. Radial and axial forces applied to the Roto-Jet are independent of flow rate. Thus, the pump can operate at design point to shut-off free of shaft deflection or added thrust load applied to the bearings.

Design Simplicity

A single stage pump with only two basic working parts; (1) a rotating case and (2) a stationary pitot tube. The pump has only one wearing, rubbing part and that is a mechanical seal that sees only suction pressure. Seal leakage due to seal failure vents to atmosphere. Mechanical Seal is isolated from the bearing pedestal, minimizing the risk of seal leakage from contaminating the bearings. With minor seal leakage, the Roto-Jet pump can be kept in service with a damaged seal to meet the critical demands of daily production.



Seize-Proof

Unlike conventional centrifugal pumps, the Roto-Jet pump will not seize if run dry by a loss of suction or if operated with a minimal continuous bypass flow against a closed discharge valve. The mechanical seal is not mounted to the pump drive shaft, therefore, seal failure temperature rise is not transferred to the critical drive shaft/bearing area. The Roto-Jet design does not incorporate wear rings or any close shaft tolerances which would be subject to heat expansion and drive shaft seizure.

Performance Flexibility

Any given model is capable of higher or lower pressure performance by simply changing the external pump speed and applying the required horsepower. No modification of the pump is required. A wide range of flow capability is achieved by simply changing the pitot tube.

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