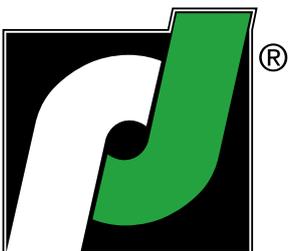
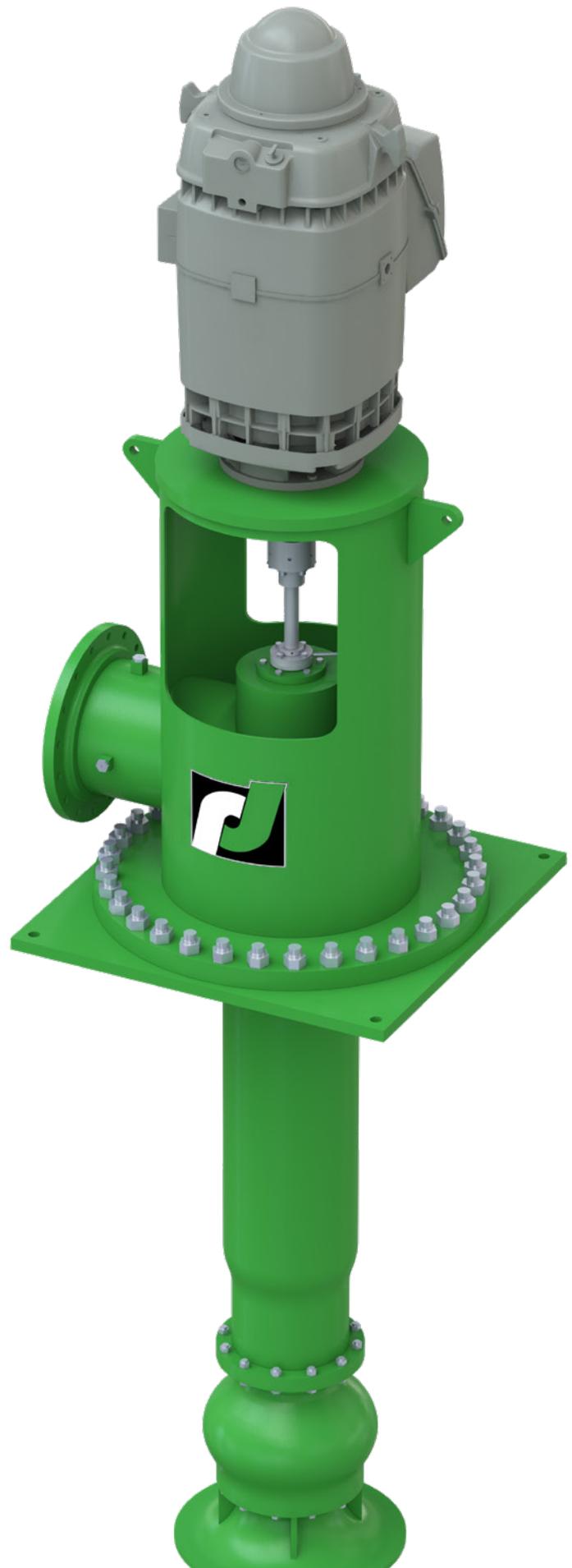


Johnston Pump
type JT vertical
turbine pump



A Sulzer Brand

Main industries and applications

The vertical type JT turbine pump design is best for high head applications. Capacities available to 210'000 GPM and 380 feet per stage, in sizes 6 through 64 inches in bowl diameter. Fully updated hydraulics and mechanical designs make the JT highly efficient, cost-effective, and low maintenance. It is mainly used in the following applications:

- Drainage
- Flood control
- High pressure pumping
- Pipeline pumping
- Water intake
- Water transport and desalination
- Water supply and irrigation

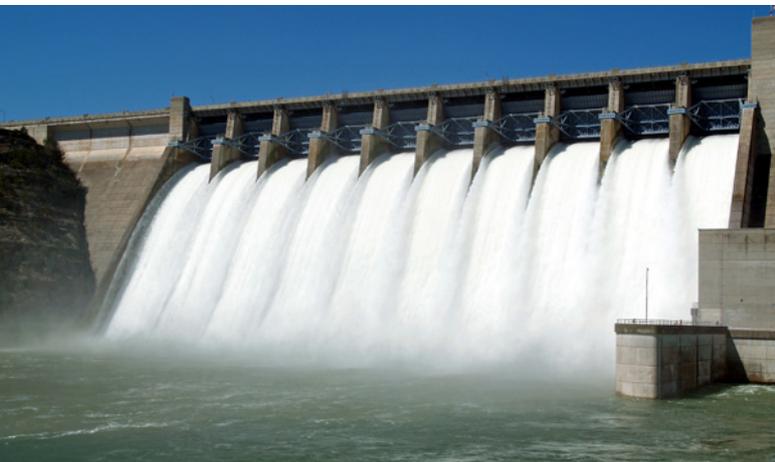


Key customer benefits

The Johnston brand has a range of vertical turbine models designed to suit capacity, head conditions and horsepower applications not offered by any other vertical turbine manufacturer. Our vertical turbine pumps are available with complete NSF certification for potable water service.

- Minimal floor space required
- The NPSH available can be the lowest level to satisfy the NPSH requirements of the pump
- No priming required, the pump bowl assembly is submerged in the fluid being pumped

- Highly versatile and adaptable in terms of both location and pump length
- Pressure requirements are easily met by staging
- Low operating speeds
- Easily modified for changing hydraulic conditions
- Adaptable to various codes
- No messy, complex hydraulic conditions
- Numerous types of coating for corrosive and abrasive systems
- Trouble free operation, requires minimum maintenance and service



Features and benefits

1 Driver

- Various types include electric motors (hollow or solid shaft), fixed variable speed drives, right angle gear drives or steam turbine driven

2 Headshaft

- A one piece headshaft is provided for a hollow shaft drive equipped with an adjusting nut for axial adjustment
- A solid shaft motor requires a separate motor stand and flanged coupling for a cast head to allow easy mobility for removal or repair of a seal while providing easy impeller adjustment

3 Seal

- Various arrangements are provided for a positive seal and simple maintenance

4 Pump shaft

- The shaft is tailor-made to the service needs and sized individually for each installation; sized for maximum torque

5 Discharge case

- Connects the column pipe to the bowls keeping column and head friction losses to a minimal

6 Impeller

- Closed or semi-open designs and cast from various materials for versatility
- Balanced to assure vibration-free operations and polished to optimize performance
- Secured to shaft by a key and split thrust ring or taper lock collets

7 Discharge head

- Each standardized discharge head comes with a segmented bend/ motor stool and is designed for easy access to packing or mechanical seal
- Fabricated head are available for higher flows and pressures

8 Column assembly

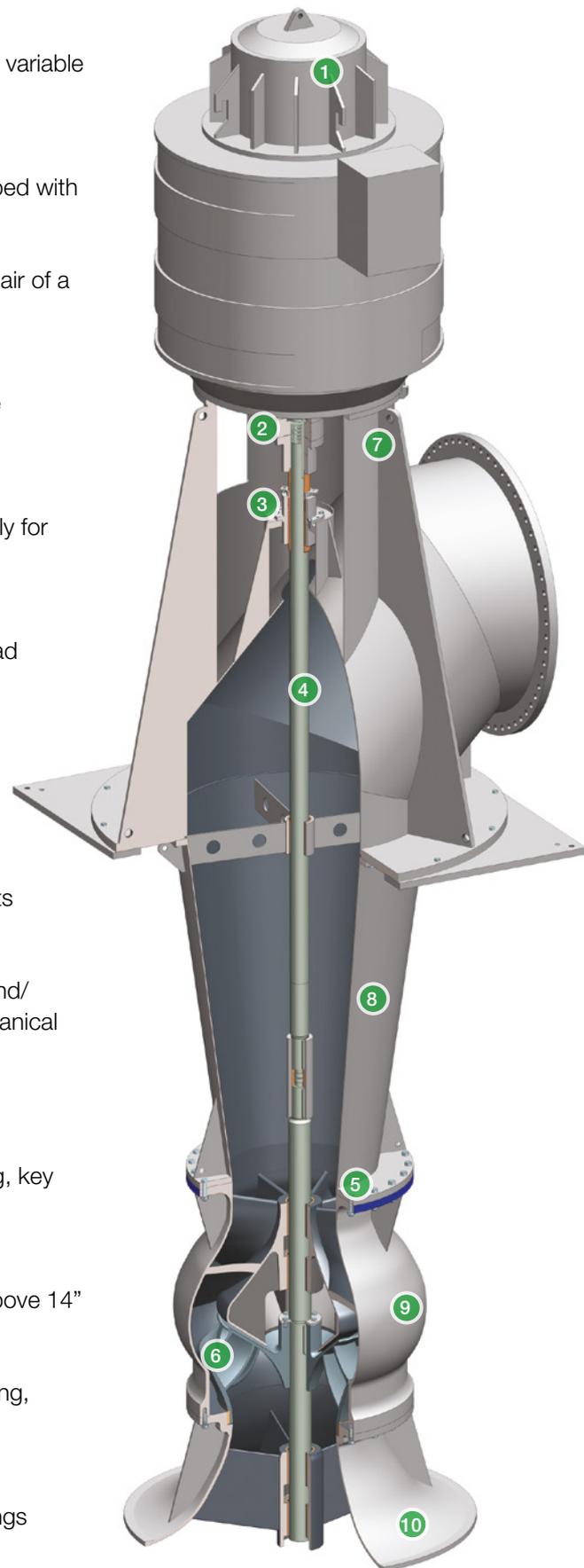
- Column pipes are flanged. Line shafts are connected by split ring, key and sleeve couplings
- Line shaft bearings are replaceable
- Threaded column with threaded couplings
- Column assemblies have integral spiders for column diameter above 14"

9 Bowls

- Combines the energy conversion and diffusion in one single casing, allowing for a direct connection to the column pipe

10 Suction

- Each suction bell includes anti-vortex ribs and tail bearing bushings
- The suction bells are available with replaceable wear rings



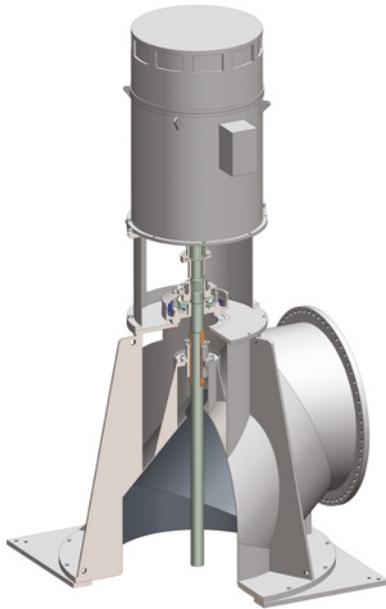
Options

Multistage construction

A multistage design of the JT is available for increased head requirements up to 600 psi.

Mechanical seal

Mechanical seals can be provided.

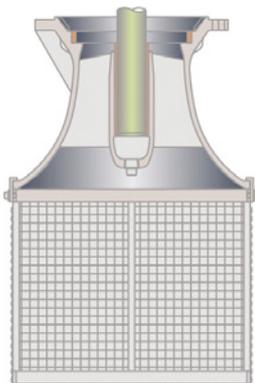
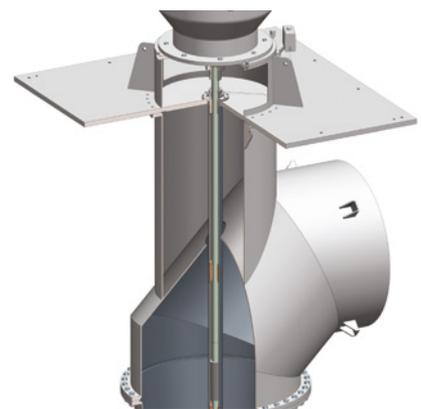


Thrust bearing assembly

Thrust bearing assemblies are available when required by application. They are built to handle all of the down thrust produced by the pump and as much momentary up thrust that may occur. A one-piece fabricated motor stand housing is bolted down over the discharge to protect the bearing and support the motor. The flexible coupling with spacer allows servicing the thrust bearing and mechanical seal as needed.

Discharge head

Below ground discharge head is available. Each comes with segmented elbow designed to optimize pump efficiency. The discharge nozzle can be either plain-end or flanged. The motor stand is mounted above ground and is designed to support the weight and provide the maximum clearance for multiple stuffing box options.



Strainers

Basket strainers are available in galvanized steel.

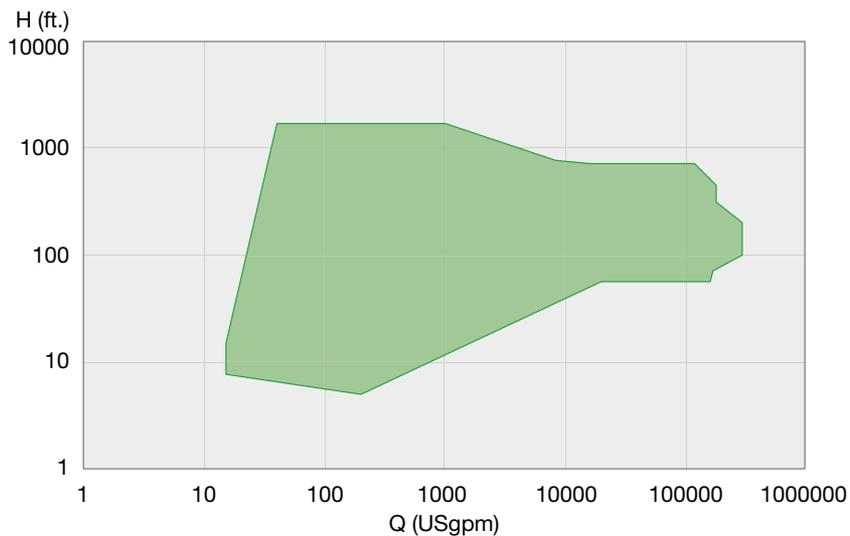
Materials

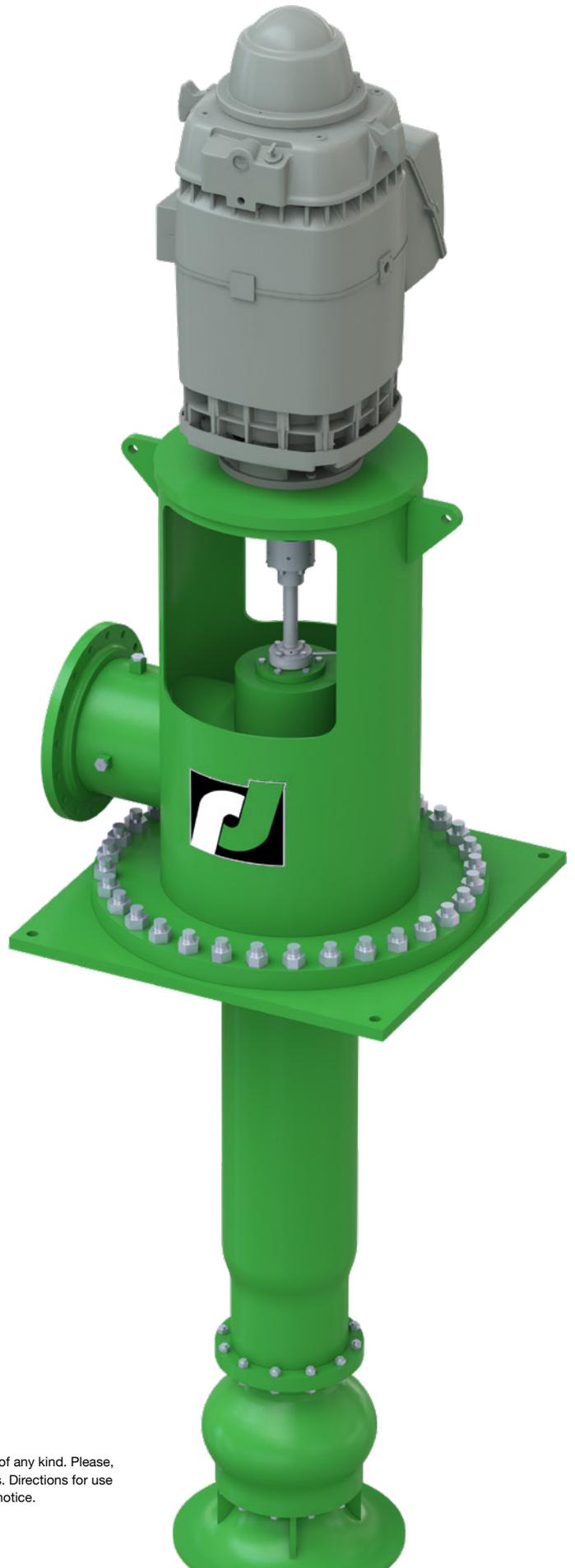
Pump part	Material
Cast parts	Cast iron, carbon steel, 316 stainless steel, duplex, super duplex and bronze
Shafts	12% chrome, 316 stainless steel duplex, super duplex and monel
Fabrications	Carbon steel, 316l, duplex and super duplex
Bearings	Bronze, duplex or super duplex backed rubber

Operating data

	60 Hz
Bowl sizes	6 to 120 in.
Capacities	up to 270'000 USgpm
Heads	up to 350 ft.
Pressures	up to 930 psi
Temperatures	up to 122°F

Performance range





www.johnstonpump.com
www.sulzer.com

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