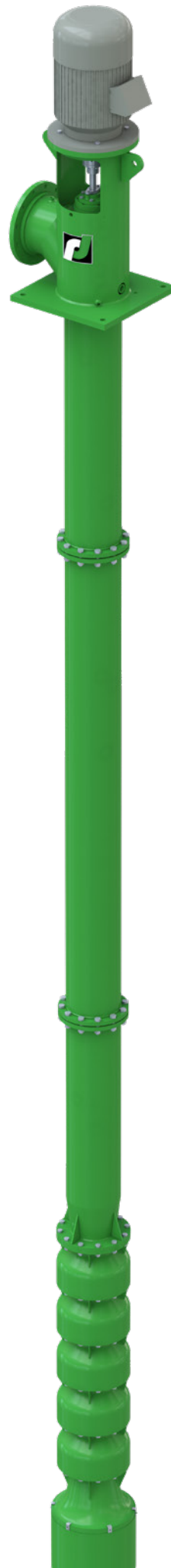


SULZER

Johnston Pump
type JTS vertical
turbine pump



A Sulzer Brand

Main industries and applications

The JTS standard vertical turbine pump integrates the tradition of providing our highly engineered, reliable pumps with the standardization of materials and configurations. Fully updated hydraulics and mechanical designs make the JTS highly efficient, cost-effective, and low-maintenance. It is mainly used in the following applications:

- Agricultural pumping
- Municipal and plant water supply
- Drainage
- Flood control
- Pipeline pumping



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 pumps

- 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 Suction bell

- All suction bell sizes include anti-vortex ribs and a tail bearing bushing
- The suction bells are supplied with replaceable wear rings
- These combined features make the pump flush more efficient

2 Impellers

- Closed design, made of stainless steel for versatility
- Supplied with replaceable wear ring as standard
- Collet construction (18" / 460 mm pumps) or key and split ring (20" / 510 mm pumps)

3 Bowls

- Cast iron bowl interiors are coated as a standard to reduce friction and increase efficiency
- Bowls are supplied with are replaceable wear ring

4 Bowl bearings

- Bowls are fitted with a single bronze bearing or dual bronze and rubber bearings

5 Pump shaft

- Modular design or "size driven" by the number of stages
- Sized individually for each installation
- The pump shaft is precision machined and sized for application thrust and torque
- Provided with a turndown to match line shaft diameter as necessary

6 Column assembly

- Column pipes are threaded up to 12" (300 mm)
- Columns are flanged from 14" and 16" (355 mm and 410 mm)
- Line shafts are connected by threaded couplings
- Replaceable bearing retainers and line shaft bearings

7 Column adapter

- Provides true connectivity of the column pipe to the bowls to suit various threaded column sizes

8 Upper head shaft

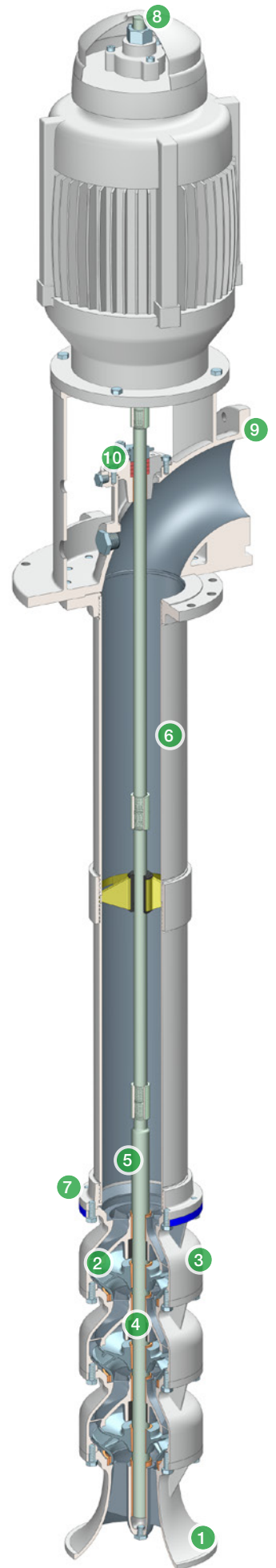
- Provided for ease of installation and adjustable pump setting with vertical hollow shaft motor

9 Discharge head

- Provides an above ground connection to existing pipe work
- The integral driver stand allows easy access to removable packing/seal box and coupling

10 Shaft seal

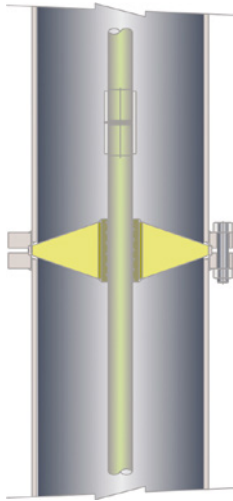
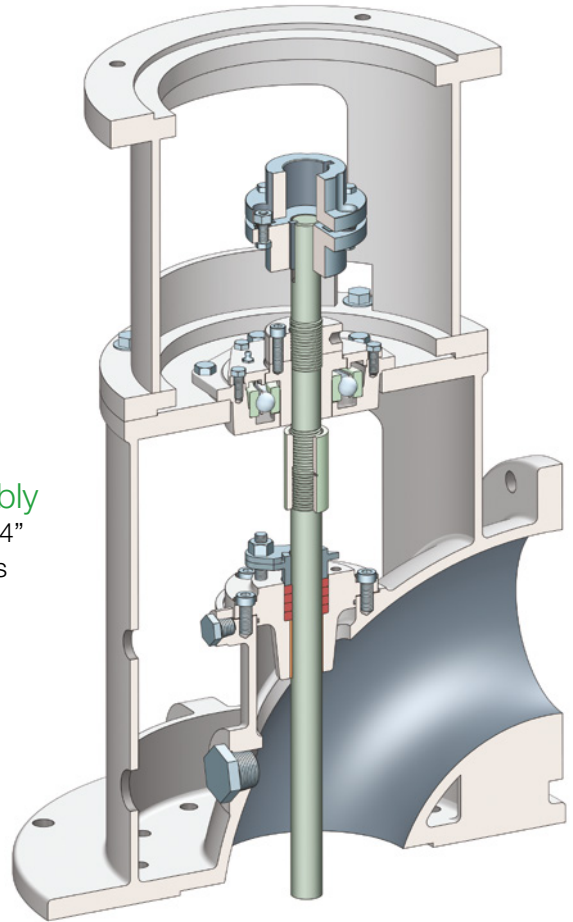
- A packed stuffing box is provided for reliable sealing and simple maintenance
- Optional cartridge type mechanical seal available



Options

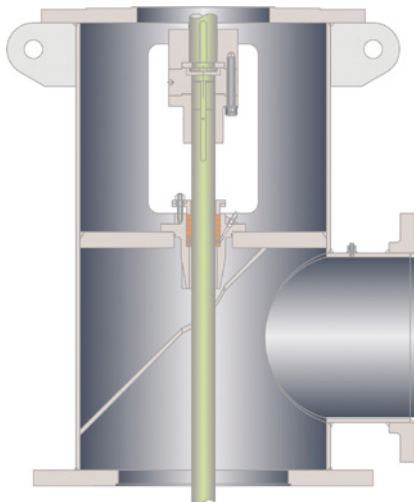
Driver stand

Optional feature required with the thrust bearing and some vertical solid shaft/drive coupling combinations.



Flanged column assembly

Standard for sizes 355 mm / 14" and 410 mm / 16", available as an option for all other sizes.

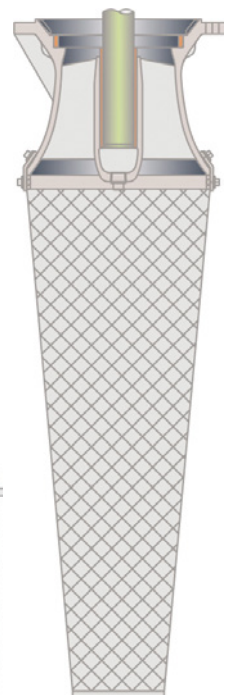


Fabricated discharge head

Fabricated discharge heads are available for all sizes with flange ratings of 150# or 300#.

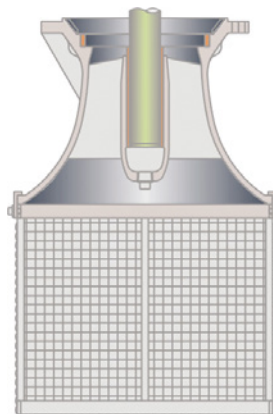
Sole plate

Cast iron sole plates are available in pre-determined sizes to fit each discharge head.



Strainers

Basket and cone strainers are available in galvanized steel.



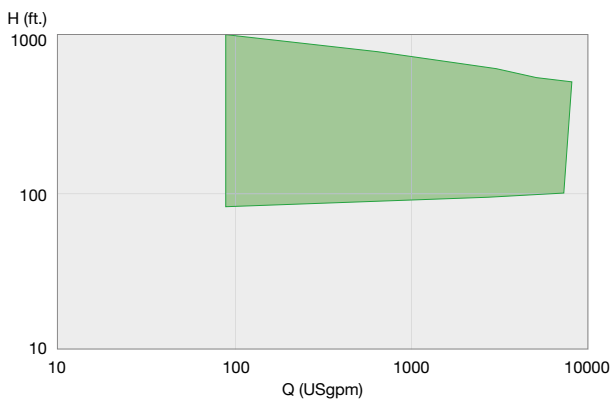
Materials

Pump part	Material
Bowls	Cast iron, ASTM A48 CL. 30
Impellers	Chrome steel, ASTM A743 CA-6NM; stainless steel A734 CF-8M
Impeller wear rings	Aluminum bronze, ASTM B148 alloy C95400
Stationary wear rings	Nickel aluminum bronze, ASTM B148 alloy C95500
Suction bell	Cast iron, ASTM A48 CL. 30
Bearing bushing	Bronze, ASTM B584 alloy C87300; rubber, C425-65 (oil resistant)
Discharge head	Cast iron, ASTM A48 CL.40, carbon steel, ASTM A36 and A53 Gr. B
Shafts	Stainless steel, ASTM A582 Type 416 Cond. A
Sole plates	Cast iron, ASTM A48 CL.40

Operating data

	60 Hz
Bowl sizes	6 to 36 in.
Capacities	up to 25'000 USgpm
Heads	up to 1'000 ft.
Pressures	up to 524 psi
Temperatures	5°F to 185°F

Performance range





www.johnstonpump.com
www.sulzer.com

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