

JTS  
standard  
vertical  
turbine  
pump



# 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
- Power plant service
- Petrochemical applications
- High pressure pumping and other industrial uses of all types



Water and  
wastewater



Hydrocarbon  
processing



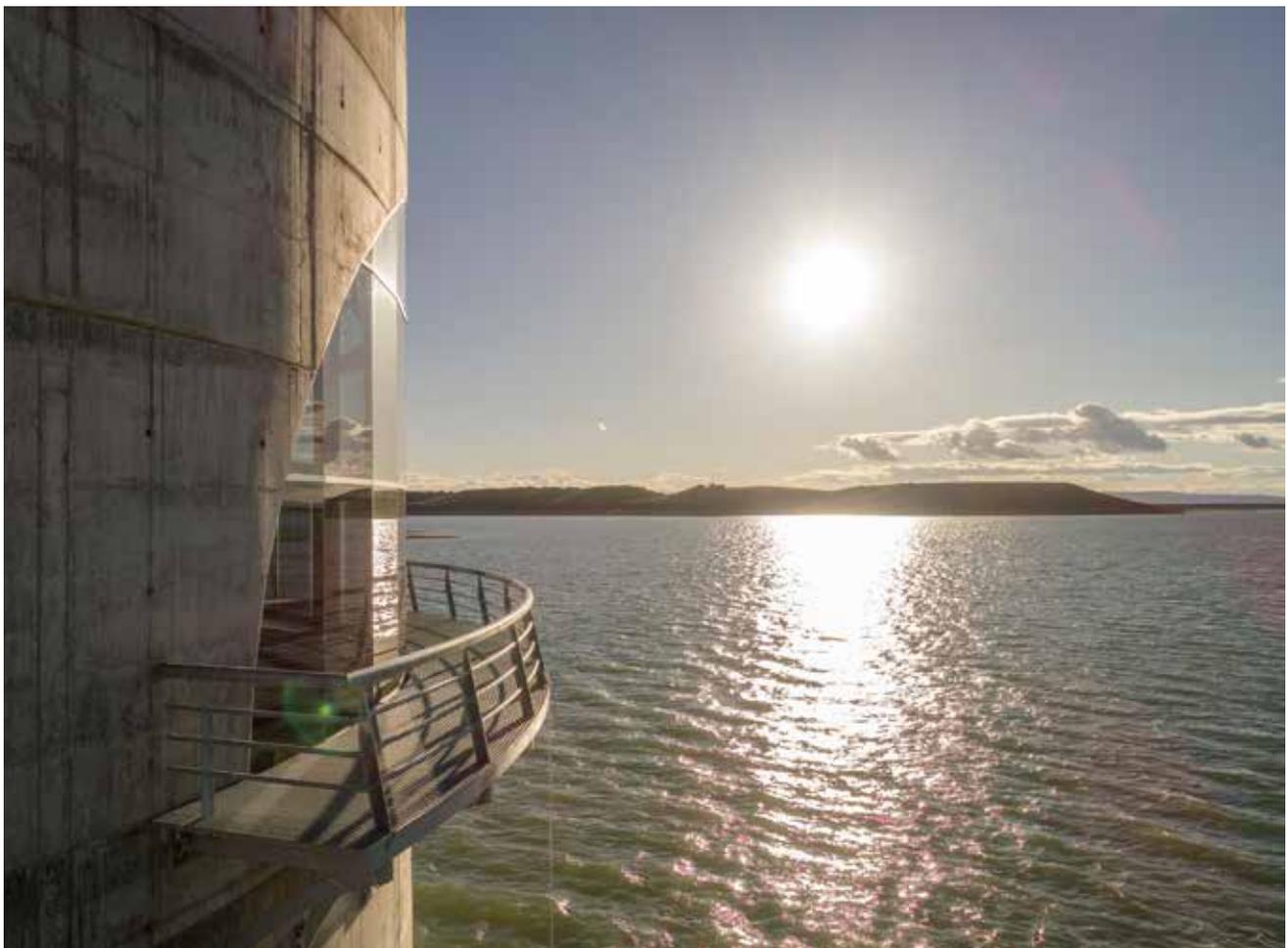
Power  
generation



General  
industry



Chemical  
process industry



# 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 (460 mm / 18" pumps) or key and split ring (510 mm / 20" pumps)

## 3 Bowls

- Cast iron bowl interiors are coated as a standard to reduce friction and increase efficiency
- Bowls are supplied with a 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 300 mm / 12".
- Columns are flanged from 355 mm and 410 mm (14" and 16")
- 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

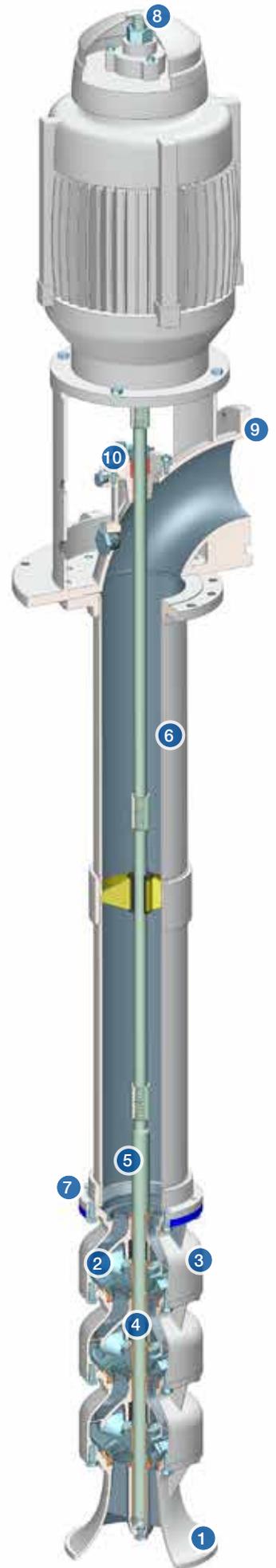
- Provided for ease of installation and adjustable pump setting with vertical hollow shaft motor

## 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



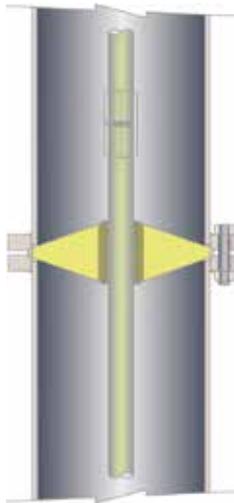
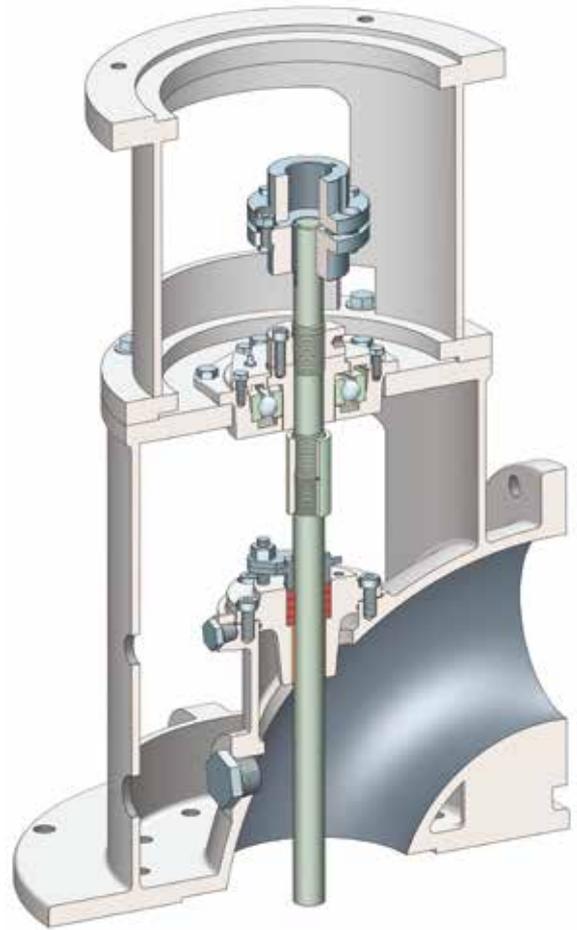
# Options

## Thrust bearing and flexible coupling

The thrust bearing assemblies are available on pumps for motors with limited thrust carrying capabilities. As a minimum they are designed for an L10 bearing life of 16,000 hours.

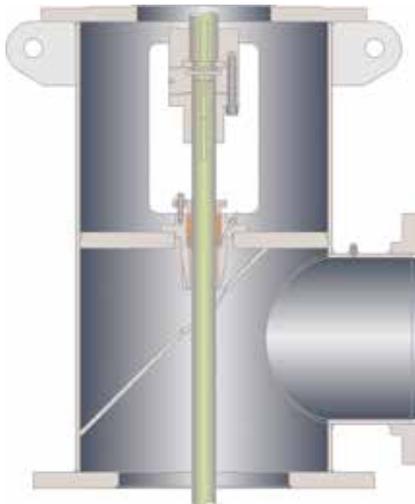
## Driver stand

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.

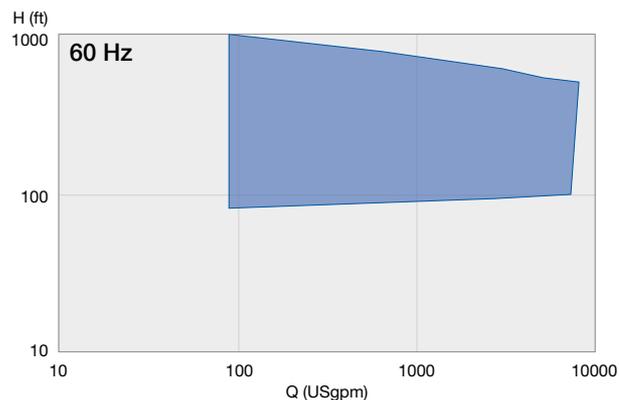
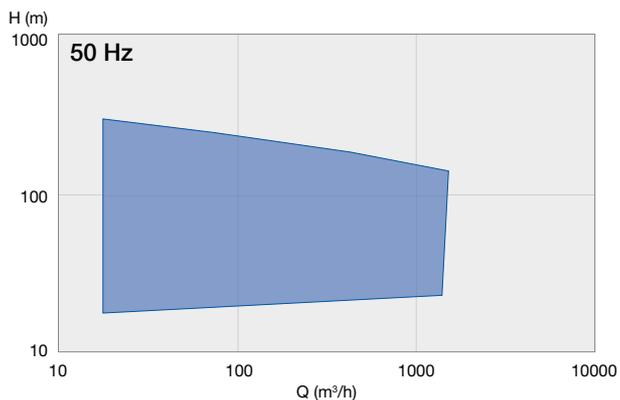
# Materials

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 bushings	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

	50 Hz	60 Hz
Bowl sizes	180 to 510 mm	7 to 20 in.
Capacities	20 to 1'500 m <sup>3</sup> /h	100 to 8'000 USgpm
Heads	up to 300 m	up to 1'000 ft.
Pressures	up to 36 bar	up to 524 psi
Temperatures	-15°C to 85°C	5°F to 185°F

# Performance ranges





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