FPS

STS SERIES

SUBMERSIBLE TURBINE PUMPS



The complete STS Series product family includes 5-inch, 6-inch, 8-inch, and 9-inch models ideal for irrigation, agricultural, industrial, commercial, or municipal water pumping applications. Each pump features premium materials of construction, including ductile iron motor brackets, ductile iron discharges, cast 304 stainless steel impellers, robust spiral cutlass rubber intermediate bowl bearings, and copper bismuth bronze discharge and motor bracket bearings.



STS SERIES

FEATURES

- Premium castings for longer life and higher pressures*
- Spiral cutlass rubber intermediate bearings designed for harsh environments
- 416 stainless steel pump shaft ground and polished for maximum durability
- Investment cast stainless steel impellers for superior performance
- Custom bearing and shaft configurations available
- Abrasive-resistant hydraulic design keeps debris away from critical operating areas
- Dual discharge allows for flexibility between 6" and 8" drop pipe**
- Premium glass-lined bowls for increased efficiency and abrasive resistance**

** 5", 6", and 8" applications*
*** 9" applications*



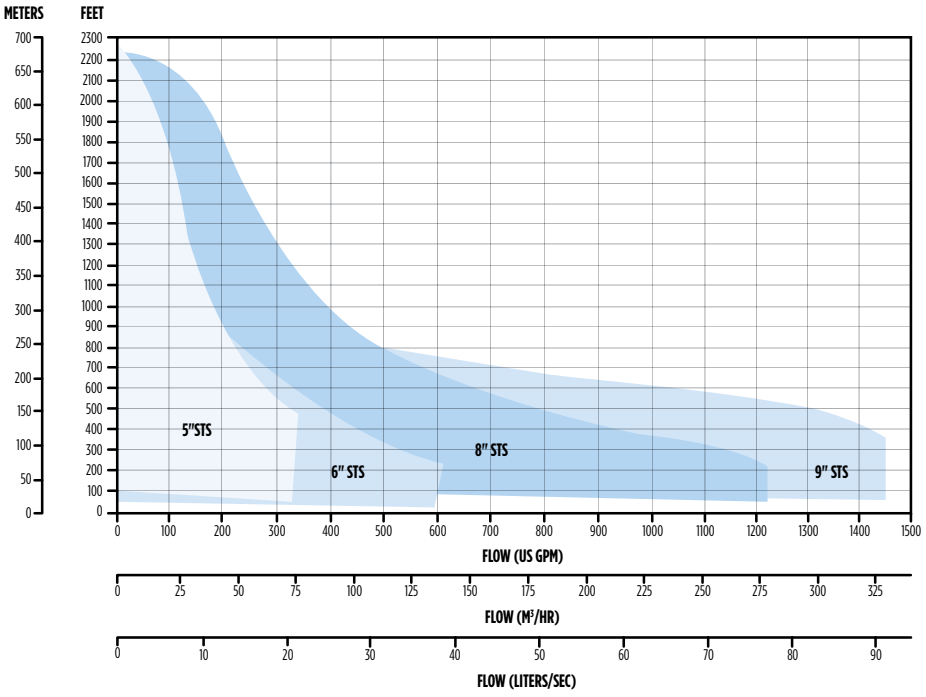
SPECIFICATIONS

- Discharge Size: 3", 4", 6" FNPT, 8" MNPT
- Capacity: 90 to 1450 gpm (19 to 273 m^3/hr) @ BEP
- Total Dynamic Head: Up to 2300 ft (975 m)
- Power: 5 hp to 200 hp (3.7 kW to 150 kW)

APPLICATIONS

- Irrigation
- Agricultural
- Industrial
- Municipal
- Commercial

PERFORMANCE



STS SERIES PUMP ENERGY INDEX

5" Basic Model	PEI_{CL} Number
90STS5	0.90
120STS5	0.89
150STS5	0.92
180STS5	0.90
220STS5	0.90
270STS5	0.93

6" Basic Model	PEI_{CL} Number
100STS6	0.94
150STS6	0.90
175STS6	0.90
200STS6	0.95
225STS6	0.93
275STS6	0.93
325STS6	0.92
375STS6	0.91
500STS6	0.87

STS SERIES

MATERIALS

Upthrust Bolt

- Protects pump during momentary upthrust at start-up (factory set)

Discharge

- Heavy-duty casting with threaded connection, supports grease-packed extra long top bowl bearing

Bolting, Fasteners, Cable Guard

- Stainless steel for strength and corrosion resistance

Intermediate Bowl

- Heavy-duty casting, flanged, supports intermediate bowl bearing for reliable long life

NOTE: Standard bowl depicted in diagram; XP bowls available for high stage count applications

Impeller

- Enclosed design to optimize efficiency, precision machined collet is designed to ensure locking of impeller to shaft; impeller is single-plane dynamic balanced as standard

Pump Shaft

- Minimum 100,000 psi tensile for maximum strength and corrosion resistance, ground and polished for a smooth bearing surface

Motor Bracket

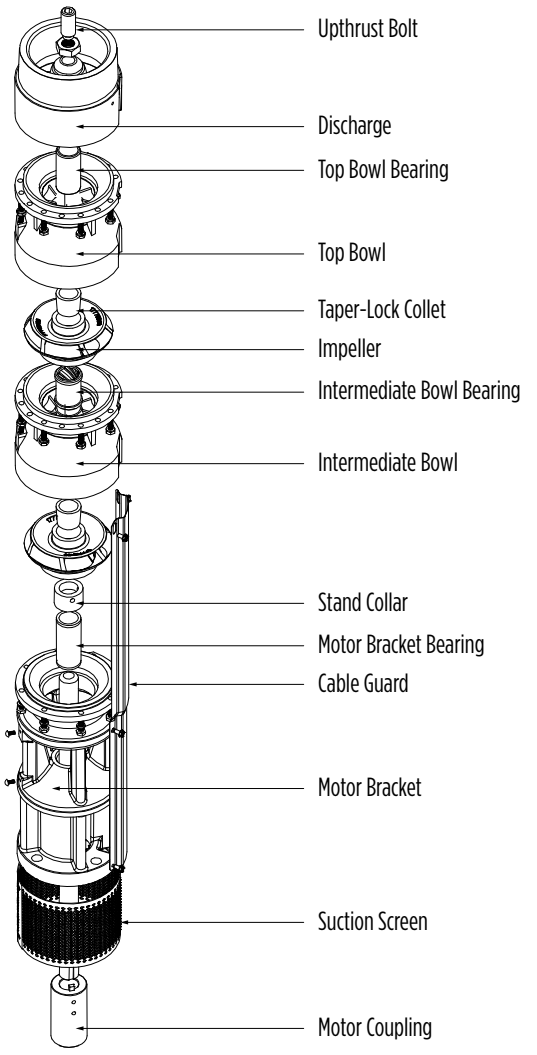
- Heavy-duty casting precision machined to ensure positive motor alignment, contoured for smooth flow entrance, supports standard stainless steel sand collar

Suction Screen

- Stainless steel design is non-collapsible and corrosion-resistant

Motor Coupling

- Stainless steel motor coupling with O-ring to prevent sediment entry



Part Name	Common Material Name	Material Specification No.
Discharge Bracket	Ductile Iron	ASTM A536 65-45-12
Top Bowl	Ductile Iron	ASTM A536 65-45-12
Intermediate Bowl	Ductile Iron/Cast Iron*	ASTM A49 Cl 30B
Bearings, Disch. and Suction	Bronze	ASTM 8584 C89835
Impeller	304 Stainless Steel	ASTM A743/A743M CF8
Pump Shaft	416 Stainless Steel	ASTM A582 S41600
Suction Bracket	Ductile Iron	ASTM A536 65-45-12
Bowl Bearing	Rubber	Rubber
Sand Collar	300 Stainless Steel	ASTM A666
Suction Screen	302 Stainless Steel	ASTM A240 S30200
Cable Guard	300 Stainless Steel	ASTM A666
Shaft Coupling	416 Stainless Steel	ASTM A582 S41600
Upthrust Bolt	300 Stainless Steel	ASTM A666
Taper Lock	416 Stainless Steel	ASTM A582 S41600
Bolting	300 Stainless Steel	ASTM A666

NOTE: Bowl bearing and shaft options available; refer to catalog for available options
** 9" models*


Franklin Electric