

High Capacity Submersible Turbine Pumps

Available with either 3 or 5 hp, the FE Petro high capacity pump delivers efficient, reliable and quiet performance when high volumes or high speed deliveries of gasoline or diesel fuel are required.



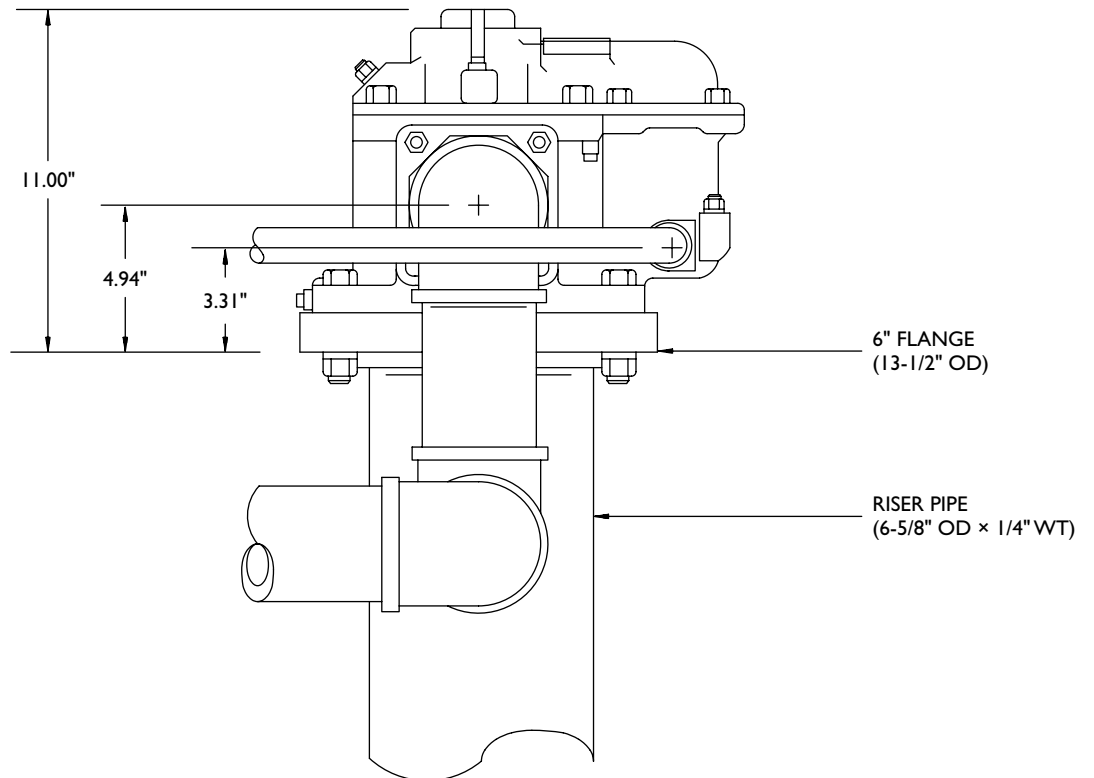
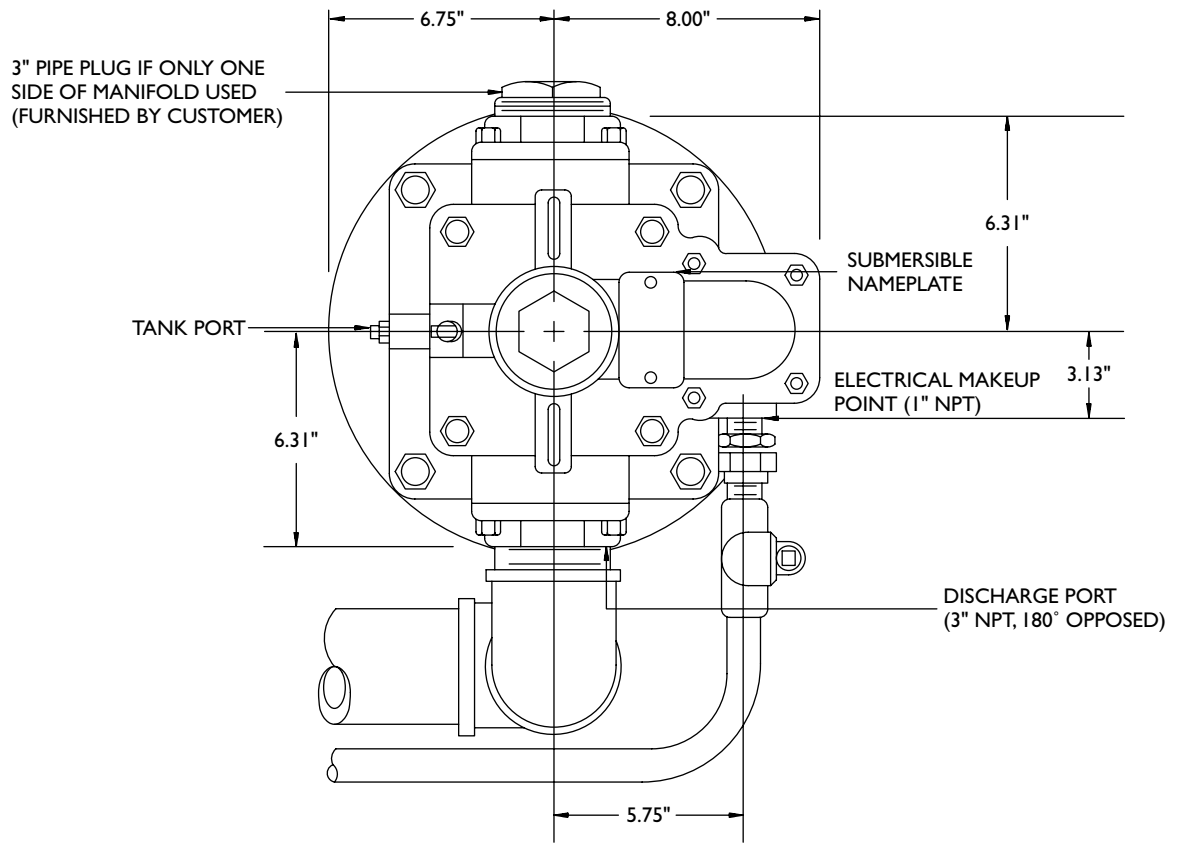
Advantages

High Performance - FE Petro's two-stage centrifugal pump is coupled with a dependable Franklin Electric motor to provide higher heads, faster fuel delivery and lower cost operation. Motors are all three-phase for smooth operation and are available in various voltages. Units come standard with a 6" diameter riser pipe to mount the pump to the tank.

Ease of Maintenance - If service is required, FE Petro products are designed to put the operator back in business fast. Maintenance on the pump motor assembly can be performed without having an electrician on site. Large diameter pins and sockets provide automatic open circuits and disconnecting of the wiring when the extractable portion of the pump is removed. Properly spaced lifting eyes facilitate the removal of the unit without disturbing the discharge piping. The pump motor assembly is easily removed from the discharge head by removing four bolts and using standard pusher bolts. Replacement pump motor assemblies are available for comparably sized competitive pumps.

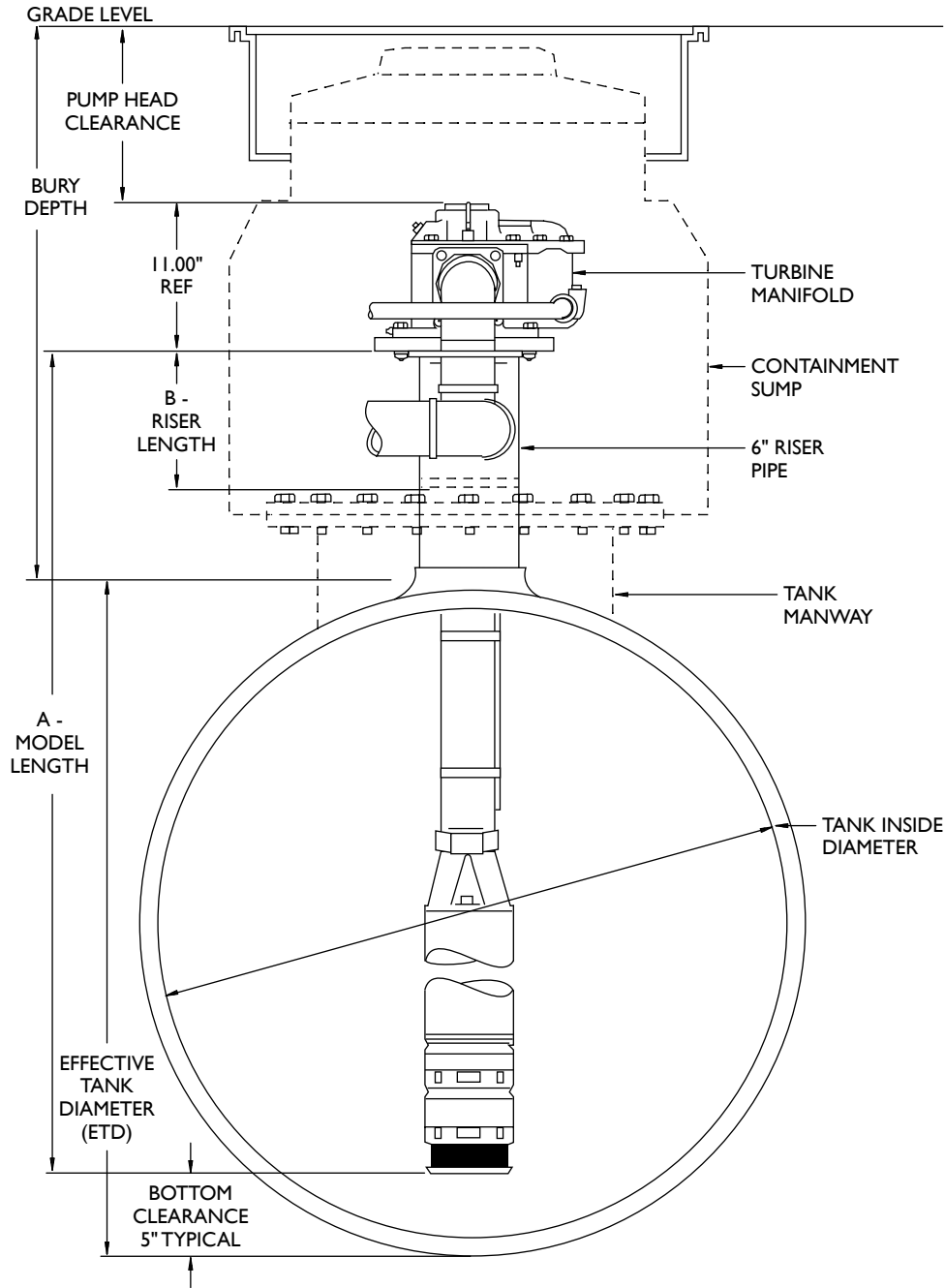
Reliability - Quality engineering and simplicity of design work to ensure years of reliable performance from every high capacity unit. The continuous duty, three-phase Franklin Electric motor with carbon bearings and stainless steel journals is FE Petro's standard. The impellers, made of molded Delrin, and diffusers of hard coated aluminum, with a stainless steel pump shaft, assure trouble-free operation in motor fuels. Dual (180° opposed) 3" horizontal discharge ports provide easy installation, and two built-in line check valves reduce installation costs. Two line pressure relief valves protect the dispensers, meters and piping from abnormal pressures due to thermal expansion. The mesh screen on the pump inlet prevents large particles from entering the unit and the unit is compatible with existing high capacity leak detector technology. New units are easily connected to field wiring without disassembly.

Satisfaction - Each and every high capacity pump is built to your tank and bury specifications and the complete assembly is performance tested to ensure that your needs are met. All high capacity pumps are UL listed and meet the requirements of UL 79.



High Capacity Pump Ordering Guide

Submersible Pumping Systems



- Note: 1. Effective tank diameter (ETD) = Inside tank diameter (to top of 4" bung), including tank manway and/or sump adapter.
 2. Model length (A) = ETD plus riser length minus bottom clearance minus 1" thread engagement.
 3. Riser length (B) = Bury depth (to top of tank) minus pump head clearance minus tank manway and/or minus sump adapter.

High Capacity Submersible Turbine Pump Model Designation System

A typical turbine model designation has up to five components to define the pump being supplied as follows:

STP XXXXX Y - A - B

STP = Basic Model Designation

XXXXX = Factory Installed Options

HCP model designations may include one or more of the following characters in alphabetical order:

AG = Alcohol-gasoline compatible (100% ethanol or methanol capable)
 Note: Standard models 0% to 15% ethanol or methanol capable

F = Floating suction adapter (3" NPT male adapter)

*R = Model R check valve (24 psi relief/22 psi reset for PLLD)

*Note: If not otherwise specified, all HCP models supplied with standard model check valve (40 psi relief/35 psi reset for MLD and TS-LS300).

Y = Pump Motor Horsepower/ Electrical Rating

3 = 3 hp fixed speed, 208-230 VAC

5 = 5 hp fixed speed, 208-230 VAC

5H = 5 hp fixed speed, 460 VAC

5G = 5 hp fixed speed, 575 VAC

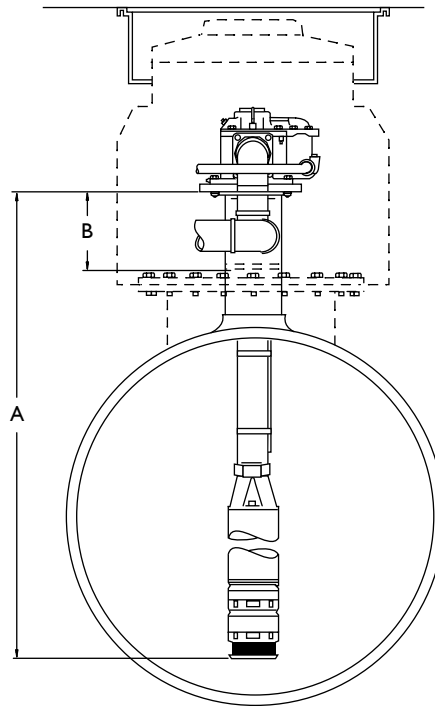
A = Model Length

Model length is expressed as three numeric characters that indicate the length of the HCP from the turbine manifold bottom to the pump motor inlet in inches, available from 60" to 200" (additional charge for models 132" and longer).

B = Riser Pipe Length

Riser pipe length is expressed as two numeric characters that indicate the total length of the riser in inches. Riser pipes are available from 6" to 60" in three inch increments (additional charge and lead time for risers 33" or longer).

High Capacity Submersible Turbine Pump Specifications



For full diagram see page 38.

Power Requirements

- High capacity pump models require three-phase, 60 Hz incoming power.
- High capacity pump models are available as 208-230 VAC, 460 VAC or 575 VAC versions.
- High capacity pump models are available in 3 hp and 5 hp versions.
- STP-SCIII three-phase smart controllers and STP-CB3/5 three-phase control boxes are available for high capacity pump control.

Pump Motor

- Fixed speed, 3450 rpm, multi-stage centrifugal type pump motor with built-in, automatic, thermal overload protection.
- High capacity pump 60 Hz models are available as two-stage versions only.

Liquid Compatibility

- Max. liquid viscosity: 70 SSU at 60 °F (15 °C).
- Standard models are UL and cUL listed for fuel mixtures containing up to 15% ethanol or methanol, and 20% MTBE, 20% ETBE or 17% TAME with gasoline.
- STPAG models are compatible with fuel mixtures containing up to 100% ethanol or methanol, and 20% MTBE, 20% ETBE or 17% TAME with gasoline.
- HCP models can also be used with diesel fuels, fuel oils, kerosene, Avgas and jet fuels in a non-gelled pourable state.
- All wetted elastomers are made of a high grade, fluorocarbon Viton® compound.

Standard Features

- Pressure relief valve: cartridge design available in two pressure relief settings, external to check valve. Standard model relieves at 40 psi and resets above 35 psi.
- Syphon: external venturi-type syphon primer supplied as submersible accessory.
- Air eliminator: every submersible includes tank return path to provide active air elimination.

Approvals

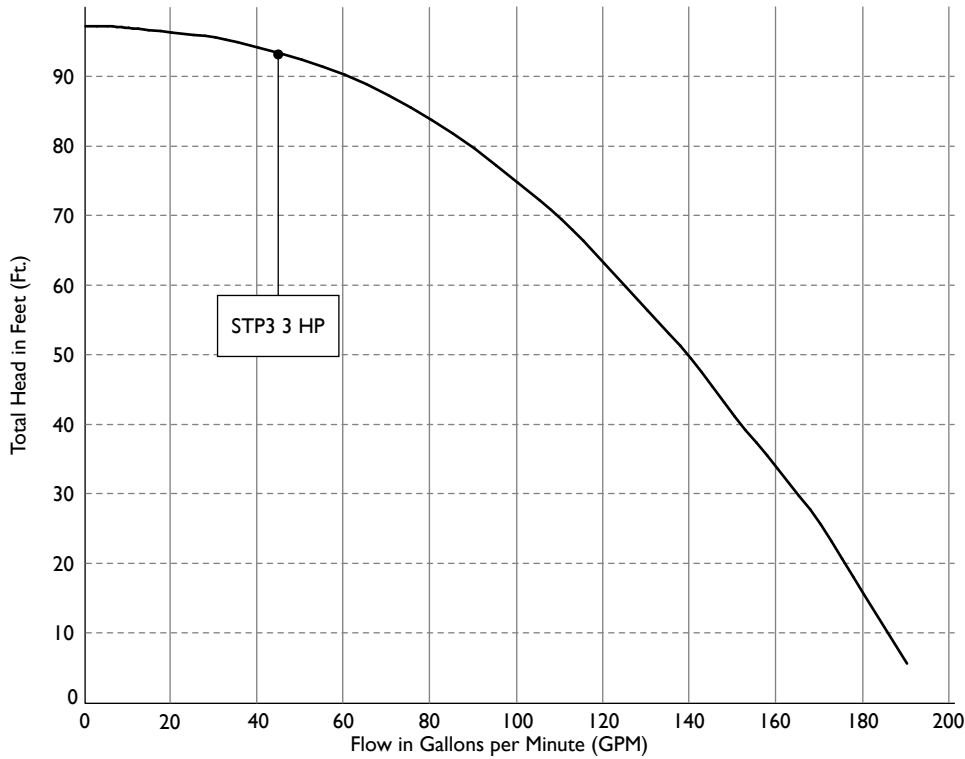
- Consult factory for applicable approvals.

Quality Certification

- Franklin Fueling Systems is an ISO 9001 Certified Manufacturer.
- *Viton® is a registered trademark of DuPont Dow Elastomers.

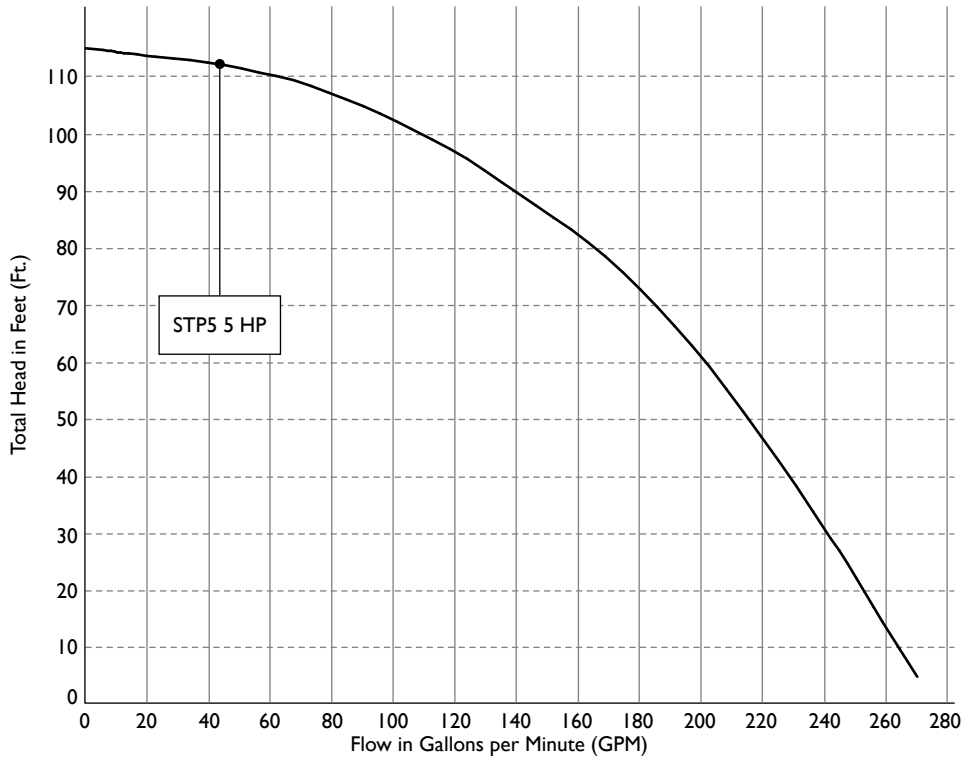


3 HP Fixed Speed High Capacity Performance Chart



Note: Performance based on pumping solvent (0.78 specific gravity). Pressure is taken at the manifold discharge outlet. STP3 models are powered by a three-phase, 60 Hz, 208/230 Volt power supply.

5 HP Fixed Speed High Capacity Performance Chart



Note: Performance based on pumping solvent (0.78 specific gravity). Pressure is taken at the manifold discharge outlet. STP5 models are powered by a three-phase, 60 Hz, 208/230 Volt power supply.

High Capacity Turbine Pumps

Model	Description
STP3	3 hp 6" STP, three-phase 208-230 VAC
STP5	5 hp 6" STP, three-phase 208-230 VAC
STP5H*	5 hp 6" STP, three-phase 460 VAC
STP5G*	5 hp 6" STP, three-phase 575 VAC

Note: For riser pipe lengths 33" to 60", adder charge applies.

*Please call customer service for lead time on this item.

Alcohol-Gasoline Units

Model	Description
STPAG3	3 hp AG 6" STP, 208-230 VAC
STPAG5	5 hp AG 6" STP, 208-230 VAC
STPAG5H*	5 hp AG 6" STP, 460 VAC
STPAG5G*	5 hp AG 6" STP, 575 VAC

Note: For riser pipe lengths 33" to 60", adder charge applies.

*Please call customer service for lead time on this item.

Length Adder

Part Number	Description
401190911	Additional charge for pump lengths (A) from 132" to 170"
401190914	Additional charge for pump lengths (A) from 171" to 200"

Note: Model length (A) is defined on page 38. Model length (A) can be a minimum of 60" to a maximum of 200".

Factory Installed Options

Designation	Description
401165905	Syphon system (when purchased with STP)
401227001	Floating suction adapter, 3" male NPT (must be ordered with STP)
R	Model R relief valve factory installed, for Veeder-Root PLLD

Field Installed Options

Model	Description
STP-CB3	3 hp, 208-230 VAC, 60 Hz, three-phase motor starter, 120VAC coil
STP-CB5	5 hp, 208-230 VAC, 60 Hz, three-phase motor starter, 120VAC coil
STP-CB5G	5 hp, 460 VAC, 60 Hz, three-phase motor starter, 120VAC coil
STP-CBB5H	5 hp, 575 VAC, 60 Hz, three-phase motor starter, 220VAC coil
STP-SCIII	Three-phase smart controller, 120VAC coil (when ordered with a 6" high capacity STP)*
STP-SCIII	Three-phase smart controller, 120VAC coil (when ordered without a 6" high capacity STP)

Note: Three-phase smart controller is compatible with FE Petro 208/230 Volt 3 and 5 hp high capacity STPs and like competitive makes. Not available for 460 or 575 Volt models.

*When purchasing STP-SCIII in equal quantities of fixed speed 6" STPs, the STP-SCIII will be invoiced at special discount pricing.

6" STP Extractable (less manifold, riser and PMA)

Model	Description
HCPEXT-XXX-XX	6" fixed length extractable
HCPAGEXT-XXX-XX	AG compatible 6" fixed length extractable