

1/3 & 3/4 HP SUBMERSIBLE TURBINE PUMPS

FE PETRO® 1/3 & 3/4 Hp fixed speed submersible pumps deliver consistent flow rates for low throughput fuels.

HIGHLIGHTS

OPTIONAL FEATURES

Biofuel Blend Compatibility

FE PETRO® pumps are UL listed with both UL79A (up to 85% Ethanol) and UL79B (up to 20% or 100% Biodiesel).

Variable Length

The patented telescoping pump shaft lets installers adjust the length of the pump onsite for the perfect fit.

Advanced Protection

Stop corrosion in its tracks. Special powder-coated, e-coated, and stainless steel components defend your pump in the tank and in the sump from accelerated corrosion.

STANDARD FEATURES

Active Air Eliminator

FE PETRO® STPs come standard with active air elimination, which eliminates air through the highest point in the pump head at all times when the pump is running, assuring air does not pass into discharge piping.

Safety and Ease of Maintenance

FE PETRO® STPs include a contractor electrical disconnect, which requires loosening only one bolt, allowing motor wiring to be disconnected without venting the dangerous tank vapors into the sump when servicing FE PETRO® submersible products.

Simple Servicing

If ever required, the pump can be easily removed from the tank by unthreading three bolts. There is no need to disconnect the syphon system or to remove the leak detector from the system to service the STP.



Turbine Pump Interface

Remote enhanced pump monitoring and control including pump-in-water automation, clogged intake escalation, tank leveling, and tank priority.

Intake Filter Screen

Avoid system damage, pumping slowdowns, and reduce filter changes by keeping harmful tank debris, sediment, and corrosion from entering the pumping system with this factory-installed option.

Manual Pressure Relief

As a standard FE PETRO® feature, a vent screw is provided to bleed line pressure to zero when necessary. By turning this screw, product is diverted back to the tank, dropping line pressure to zero. This reduces fuel discharged into the sump manhole or dispenser pan during servicing, further protecting service technicians and the environment.

Outlast, Outperform with Franklin Electric Inside

FE PETRO® STPs are powered by the legendary Franklin Electric motor and built for long term performance. Franklin Electric-powered submersible pumps provide maximum uptime and a proven track record in the fueling industry that spans more than four decades. They feature best-in-class flow rates and a long history of dependability.

Quality Certification

Franklin Fueling Systems is an ISO 9001 Certified Manufacturer.

SPECIFICATIONS

General

- $\frac{1}{3}$ and $\frac{3}{4}$ Hp fixed speed models are available in variable length and fixed length options.
- Check valve: 2 $\frac{3}{4}$ " diameter fluorocarbon seal constructed with cast aluminum body and steel backing washer.
- Pressure relief valve: available in four pressure relief settings, integral to check valve. Standard model relieves at 40 psi and resets above 35 psi.
- Syphon: venturi-type syphon primer supplied with every submersible. Syphon check valve and secondary syphon sold separately.
- Air eliminator: every submersible includes a tank return path with one-way check valve to provide active air elimination.
- Electrical disconnect: electrical yoke for positive contractor disconnect during service.

Pump Motor

- $\frac{1}{3}$ and $\frac{3}{4}$ Hp fixed speed, 3450 rpm, two-stage centrifugal type pump motor with integral, automatic thermal overload protection.
- $\frac{1}{3}$ Hp models have a max. pressure of 27 psi.
- $\frac{3}{4}$ Hp models have a max. pressure of 30 psi.

Approvals

- cULus listed.
- Consult factory for applicable approvals.

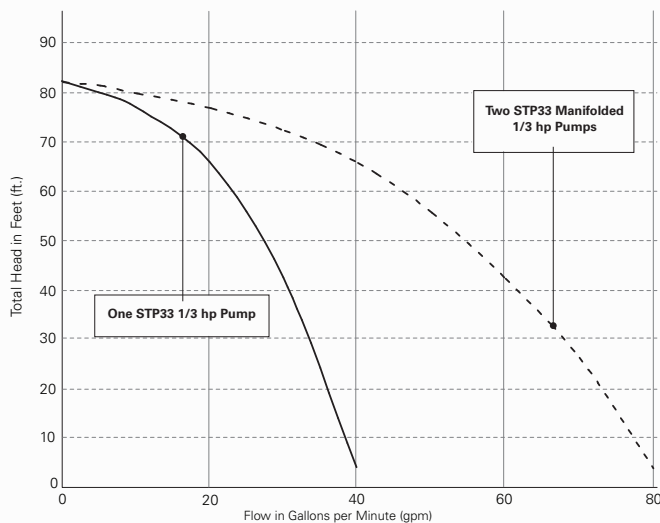
Power Requirements

- $\frac{1}{3}$ and $\frac{3}{4}$ hp fixed speed models require single-phase, 208-230 VAC, 60 Hz incoming power.
- $\frac{1}{3}$ and $\frac{3}{4}$ hp fixed speed models incorporate a starting and running capacitor, with internal bleed resistor, rated 370 Volt, 15 microfarad.
- STP-SCI single-phase Smart Controllers and STP-CBS single-phase control boxes are available for $\frac{1}{3}$ and $\frac{3}{4}$ hp pump control.
- $\frac{1}{3}$ hp max. motor draw: 4 Amps.
- $\frac{3}{4}$ hp max. motor draw: 7 Amps.

Liquid Compatibility

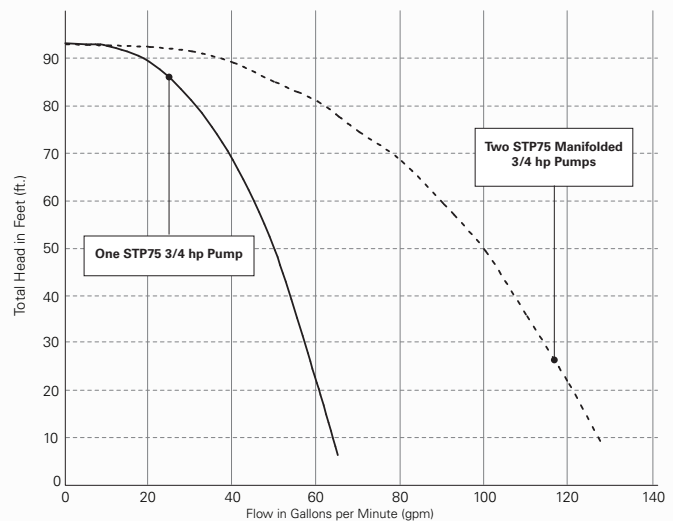
- Max. liquid viscosity: 70 SSU at 60 °F (15 °C).
- Standard STP models are UL and cUL listed for fuel mixtures containing up to 10% ethanol with gasoline, and 20% MTBE, 20% ETBE or 17% TAME with gasoline.
- STPAG/STPAP (AG compatible) models are UL listed for fuel mixtures containing diesel fuel with up to 20% Biodiesel, 100% Biodiesel, up to 85% ethanol with gasoline, and 20% MTBE, 20% ETBE or 17% TAME with gasoline.
- $\frac{1}{3}$ and $\frac{3}{4}$ hp fixed speed 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 compound.

$\frac{1}{3}$ Hp Fixed Speed Pump Performance Chart



Note: Performance based on pumping gasoline (0.78 specific gravity). Pressure is taken at the manifold discharge outlet. STP33 models are powered by a single-phase, 60 Hz, 208/230 Volt power supply.

$\frac{3}{4}$ Hp Fixed Speed Pump Performance Chart



Note: Performance based on pumping gasoline (0.78 specific gravity). Pressure is taken at the manifold discharge outlet. STP75 models are powered by a single-phase, 60 Hz, 208/230 Volt power supply.

ORDERING INFORMATION

1/3 & 3/4 Hp Fixed Speed Submersible Pump Ordering Guide

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 (Model designations may include one or more of the following characters in alphabetical order.)

AP = Advanced Protection with powder-coated, e-coated, and stainless steel components, alcohol-gasoline compatible (up to E85, up to B20, and B100) (Note standard models up to 10% ethanol capable)

AG = Alcohol-gasoline compatible (up to E85, up to B20, and B100) (Note standard models up to 10% ethanol capable)

F = Floating suction adapter (1½" NPT female adapter)

K = Intake filter screen (IFS, factory installed to PMA)

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

*W = Model W check valve (16 psi relief / 13 psi reset for PPM4000)

Y = Pump Motor Horsepower Rating

33 = 1/3 Hp fixed speed

75 = 3/4 Hp fixed speed

A = Model Length (see table)

VL1 = Variable length range #1.

VL2 = Variable length range #2.

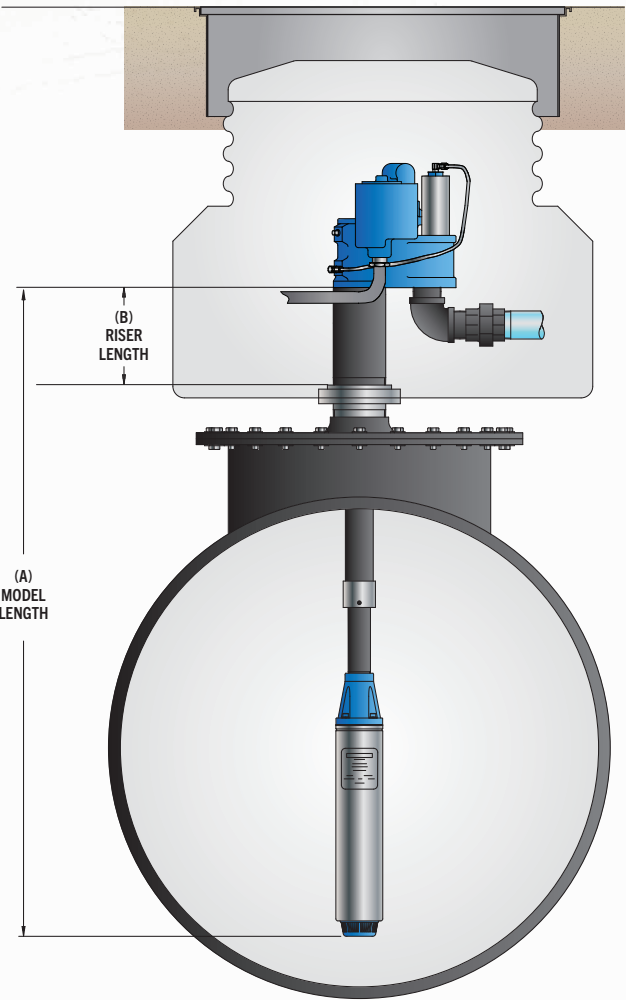
VL3 = Variable length range #3.

(Note VL2 models fit 94% of all known installations)

B = Riser Pipe Length (see diagram)

Riser pipe length is expressed as two numeric characters that indicate the total length of the riser in inches. Riser pipes are available from 7" to 60" in 1" increments (additional charge for risers 31" or longer).

*Notes: *If not otherwise specified, all STP models are supplied with standard model check valve (40 psi relief / 35 psi reset for MLD, TS-LS300, and TS-LS500).*



Model Length (A)

STP Horsepower	Model Length Range	Model Length Designation
1/3 Hp	55" – 83"	VL1
	86" – 147"	VL2
	118" – 209"	VL3
3/4 Hp	57" – 86"	VL1
	88" – 149"	VL2
	120" – 212"	VL3