

No External Power

The exclusive “swing vane” positive displacement fluid motor captures just enough energy from the flowing fuel to power and control the injectors. Since the system is fluid powered, it is passive in operation, starting and stopping when flow is present. The TPI-3T-3A is completely proportionate to flow.

Operates Automatically

Once installed in a delivery line, the system will operate automatically without having to be turned “ON” or “OFF”.

ON/OFF Operation

The TPI-3T-3A is passive in that it operates when product passes through the fluid motor. When flow stops, injection stops. The system maintains the proper ratio throughout the entire operating range. If additive is not desired, a simple on/off valve is standard at each additive inlet. Additive can be turned off or on selectively at any time during operation and the unit can run indefinitely with additives in the OFF position.

No Meters

Because our fluid powered motor acts as a meter, it requires no directions, pulses or controls from outside product meters. The fluid motor responds smoothly to changes in flow rate and system pressure, maintaining accurate injection ratios over the full range of the system’s operating parameters.

STANDARD EQUIPMENT

- Hammonds positive displacement driver
- 3" Cam lock type inlet/outlet with covers
- Three stainless steel fluid ends
- All stainless steel manifolding
- Adjustable-while-running stroke adjustment
- Teflon® and AFLAS® elastomers (injectors)
- Suction calibration gauges for each additive
- Suction strainer included in each sight flow indicator
- Additive purge/prime system for all additives
- Heavy-duty mounting frame
- Instruction manual with calibration charts
- Graduated calibration bottle
- Factory loop tested at customer’s conditions
- Additive lines (3), stainless steel braided lines with fittings
- Suction siphon assembly with hose for 5 gallon pails of FSII
- 5 gallon CI and SDA plastic pails
- MIL specification epoxy coating

OPTIONAL EQUIPMENT

- Custom product connections
 - NTT flanges
 - 150# RF ANSI flanges
 - Victaulic connections
 - Threaded companion flanges
- Additional additive injector for ratios to 1,500 PPM (680.4 kg per minute)
- Custom frames
- Custom cover for storage
- Solid skid panel for operation in sandy conditions



HAMMONDS TECHNICAL SERVICES

6807 West Little York Road • Houston, Texas 77040

Phone (281) 999-2900 • Fax (281) 847-1857

www.hammondscos.com

Ratio Stability at Low Flows

Even if startup and shut down flow rates are below stated minimums, the system can be calibrated to maintain overall ratios. Ratios for total product throughput are maintained.

Better Blending

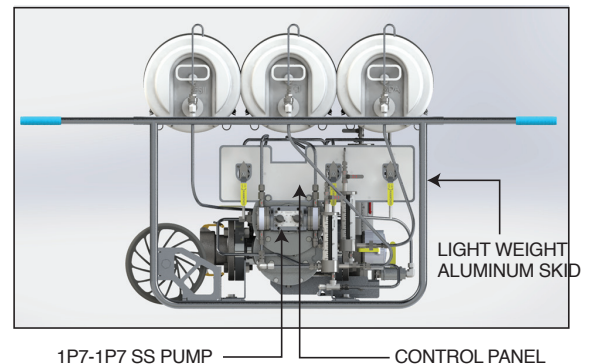
Unlike some concepts that inject large slugs of additive at metered intervals, the TPI-3T-3A dispenses a precise amount of additive continuously, eliminating gaps in the blending process. Additive is injected upstream of the fluid motor which completes the mixing process.

Additive Supply

A flooded suction is preferred for low ratio (0-50 PPM, 0-22.7 kg per minute) additives. This flooded condition is provided by elevating additive supply tanks. Higher ratio additives may be drawn from a 55-gallon (208.1 l) drum through a siphon tube. Distances from drums should be kept as short as possible.

Back Pressure

Pressure and flow rates are not significantly affected if operated within the normal operation range of the system. Factory can furnish specifications.



TPI-3T-3A

