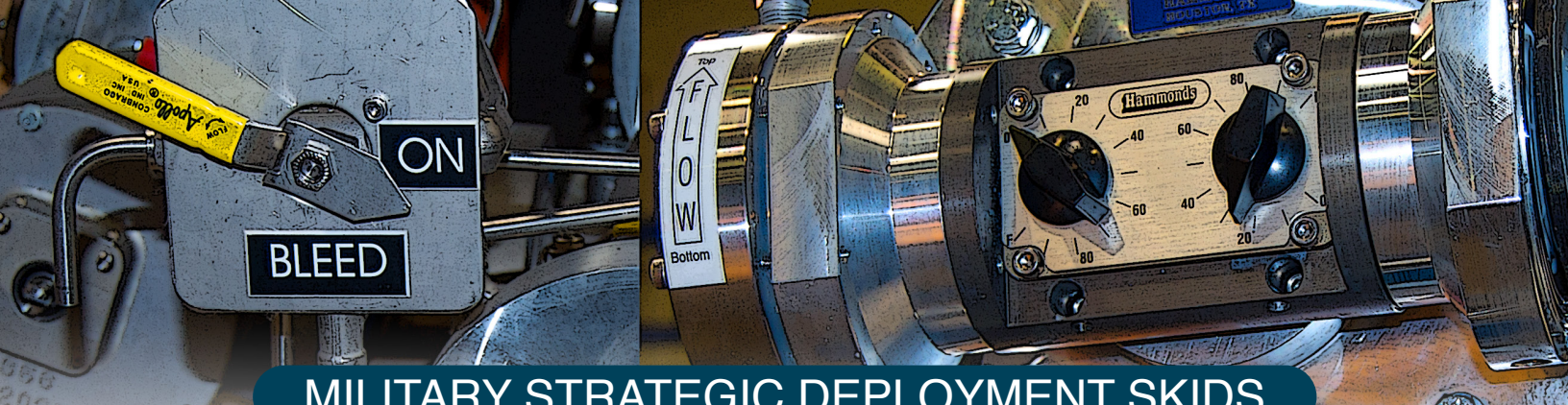
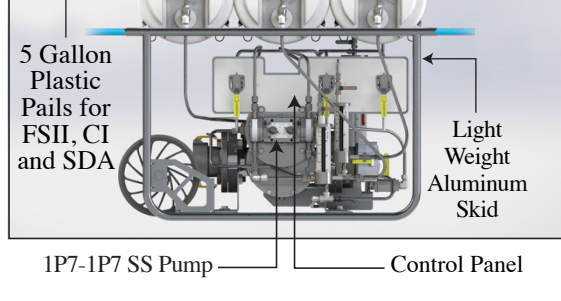




MILITARY STRATEGIC DEPLOYMENT SKIDS



The answer to the Militaries' call for a light-weight unit-
186 pounds dry weight



186 POUNDS DRY WEIGHT

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 bottles
- Factory loop tested to customer's conditions
- Additive lines (3), with stainless steel fittings
- Suction siphon assembly with hose for 5 gallon pails of FSII
- 5 gallon CI and SDA plastic pails
- MIL specification epoxy coating

Fluidpower

MODEL 100-600 gpm

4T-4A

Additive Injection Skid

The **4T-4A** utilizes Hammonds proven additive injection systems to **produce military specification JP-8 jet fuel** by injecting FSII, CI/LI and SDA additives into commercially available Jet A fuel. Each additive is delivered **continuously** and is **blended evenly** at ratios from 1-2500 ppm.

- Model 800-2L-1P7-1P7 Additive Injection System
- Lightweight 1" round tube frame for easy portability
- 4" Cam-Lock product connections
- Proportionately blends FSII, CI and SDA to make JP-8 from commercially available Jet-A fuel (MIL-T-83133)
- 6 gallon stainless steel additive tank for CI
- 6 gallon stainless steel additive tank for SDA
- Syphon assembly and hose for remote connections of 55 gallon drum for FSII
- Combination Suction Calibration Gauges/Sight Flow Indicators for easy field calibration and adjustments
- Two man carry
- Dry weight: 342 lbs.
- Mobile cart base available as an option
- 75-700 GPM

Ask a Hammonds Rep about the commercial capabilities of the 4T-4A and the TPI-4T-4A-1 units.

SPECIFICATIONS

- Number of additives: 3
- Injection Ratios:
 - One (1) additive: 0-1500 PPM, standard
 - Two (2) additives: (#1) 0-35 PPM, (#2) 0-35 PPM
 - Three (3) additives: (#1) 0-1500 PPM, (#2) 0-35 PPM (#3) 0-35 PPM
- Minimum Injection Ratio: 10 PPM standard
- Normal Operating Range: 100-600 GPM
- Minimum Product Flow Rates: 75 GPM (minimums vary with line pressure)
- Product Temperature: -40°F to +120°F
- Maximum Product Line Pressure: 125 PSI (PSI max varies with injection ratios, higher pressure pumps are available as options)
- Maximum Hydrostatic Pressure: 450 PSI
- Product Viscosities: to 10,000 SSU
- Products Handled: Oils, fuels, chemicals, air slurries
- Duty Cycle: Continuous
- Fluid Connections- Product: 4" Cam Lock, Additives: 1/4" NPT or 3/4" NPT
- Approximately 342 pounds (Dry Weight)

CONSTRUCTION MATERIALS

- Fluid Motor: All hard anodized aluminum with stainless steel shaft
- Injectors: All wetted parts 300 series stainless steel with Teflon trim
- Mechanical Seal: Carbon on Ceramic

Fluidpower

MODEL 75-700 gpm

TPI-4T-4A-1

Additive Injection Skid

The **TPI-4T-4A-1** picks up where the 4T-4A leaves off. This system, while providing the same product flow and additive delivery characteristics, goes one step further in terms of rugged dependability. The frame is heavier and **stronger** to survive **deployment from an aircraft**. The complete injection system is **shock mounted** with extra accessories provided to **enable delivery of additized fuel** in the most remote locations.

- Model 800-2L-1P7-1P7 Additive Injection System
- Heavy-duty 2" square tube frame
- 4" Cam-Lock product connections
- Proportionately blends FSII, CI and SDA to make JP-8 from commercially available Jet-A fuel (MIL-T-83133)
- Shock-mounted system for extreme deployment conditions
- 6 gallon stainless steel additive tank for CI
- 6 gallon stainless steel additive tank for SDA
- Syphon assembly and hose for remote connections of 55 gallon drum for FSII
- Separate Suction Calibration Gauges and Sight Flow Indicators for each additive for easy field calibration and adjustments
- Separate Sample Probe assembly
- 75-700 GPM
- Spare parts for 2 years of service
- Complete tool set for field service

SPECIFICATIONS

- Number of additives: 3 standard, 4 optional
- Injection ratios:
 - Three additives: (1) 0-1,500 PPM (2) 0-35 PPM
- Minimum injection ratio: 10 PPM standard
- Normal operating range: 100-600 GPM
- Minimum product flow rates: 75 GPM (minimums vary with line pressure)
- Product temperature: -40°F to 120°F (-40°C to +50°C)
- Maximum product line pressure: 125 PSI (8.8 kg/cm)
- (PSI max varies with injection ratios, higher pressure pumps are available as options)
- Maximum hydrostatic pressure: 450 PSI (24.6 kg/cm)
- Product viscosities: to 10,000 SSU
- Products handled: Oils, fuels chemicals
- Duty cycle: continuous
- Fluid connections - product: 4" cam lock, additives: 1/4" NPT or 3/4" NPT

CONSTRUCTION MATERIALS

- Fluid Motor: All hard anodized aluminum with stainless steel shaft
- Injectors: All wetted parts 300 series stainless steel with Teflon trim
- Mechanical Seal: Carbon on Ceramic

NOTE: Additional information on back

Fluidpower

MODEL 75-700 gpm

TPI-6T-6A-1

Additive Injection Skid

The **Model 6T-6A-1** is a high volume version of the famous 4T-4A JP-8 tactical injector. Designed to meet the performance requirements of the **U.S. Air Force's FORCE systems**, the **6T-6A-1** delivers JP-8 additive specifications to fuel flow rates in 6" lines at continuous flows of 1,000 GPM in forward military environments. Just like the 4T-4A, this larger system comes complete with a on-board CI and SDA tanks, custom tool kit, emergency spares, sampling segment and field refractometer for verifying FSII levels.

- Ratio adjustments for each additive
- Prime and purge valve provides a clean system after shut down.
- Calibration gauges allow adjustment without contact with fuel or additive
- 6-gallon tanks for any chemical additive
- Custom product connections
- Accurate additive dosage and thorough and accurate blending
- Easily transportable
- Sturdy, solid construction
- 100-1,000 GPM

Fluidpower

MODEL 20-250 gpm

3T-3A

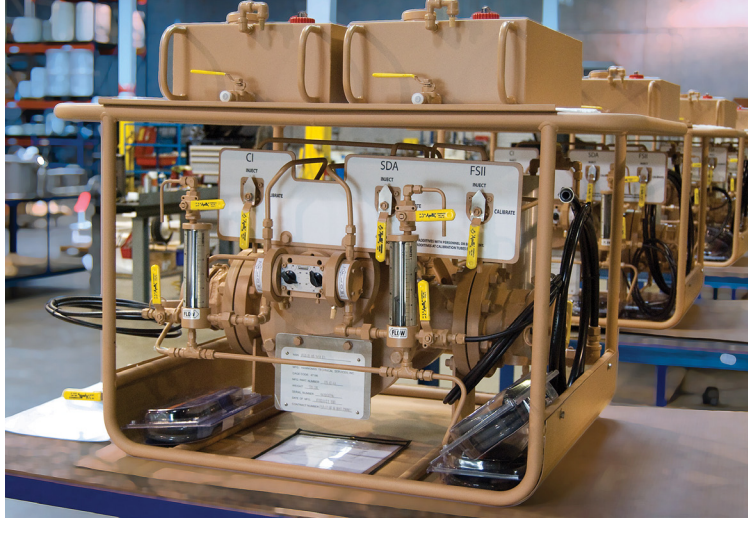
Additive Injection Skid

Although suitable for other applications, the **TPI-3T-3A** is designed specifically to **produce** military specification **JP-8 jet fuel** by injecting FSII, CI and SDA additives. Each additive is delivered continuously and is blended evenly at ratios up to 1,500 PPM by volume. Like all Hammonds fluid powered injectors, the **TPI-3T-3A** requires no outside power, product meters, or control of any kind. The **TPI-3T-3A** is a smaller, lighter system that is able to be carried into service when required. Like the larger TPI-4T-4A and TPI-4T-4A-1 tactical skid systems, the **TPI-3T-3A** uses an industry standard **Model 600** fluid motor, used in the commercial market to treat commercial jet fuel for the past 30 years. **Lightweight, rugged and dependable**, the **TPI-3T-3A** allows fueling flexibility in the smallest package possible.

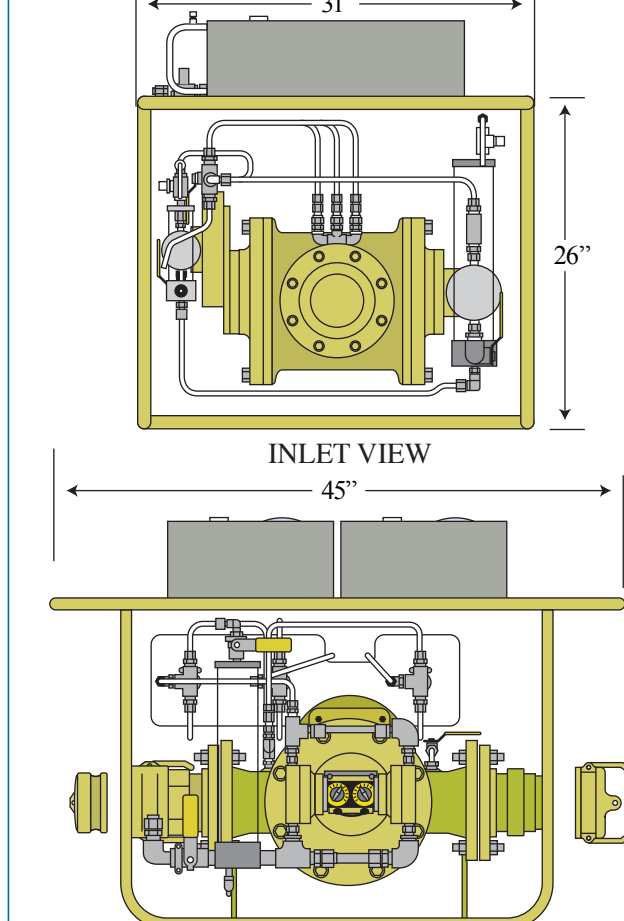
- Model 600 fluid motor
- Can inject up to 4 additives simultaneously
- Products handled: oils, fuels, chemicals, air slurries
- 20-250 GPM
- Product viscosities to 10,000 SSU
- Selective injection for each additive
- Modular design allows for a 4th additive pump if required
- Suction Calibration Gauges with integrated suction strainers for each additive
- Storage for up to three 5 gallon pails providing flooded suction to each additive pump
- The Model 600 - COTS for parts availability and service worldwide

OPTIONAL EQUIPMENT

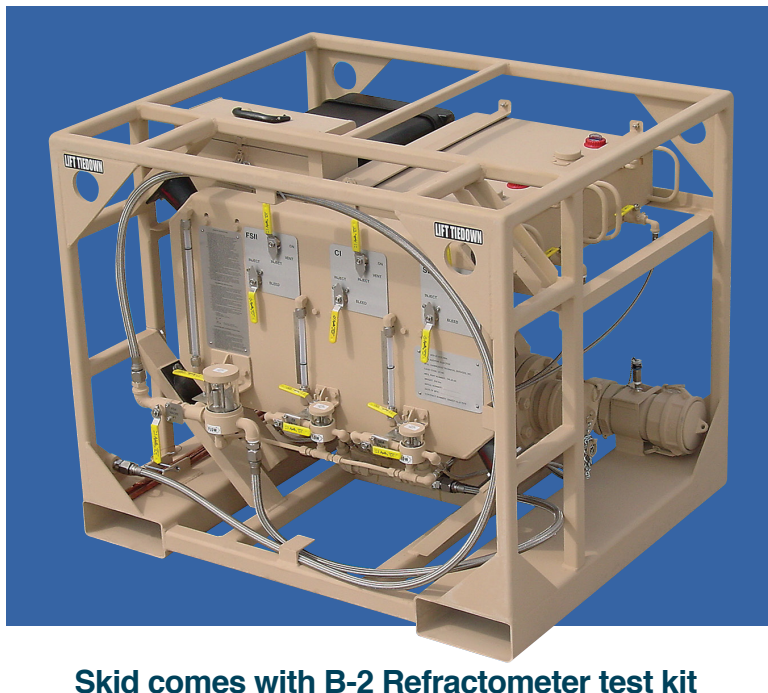
- Custom product connections
 - NTT flanges
 - 150# RF ANSI flanges
 - Vitacluc connections
 - Threaded companion flanges
- Additional additive injector for ratios to 1,500 PPM (680.4 kg per minute)
- Custom frames
- Custom cover for storage
- Solid skid panel for operation in sandy conditions



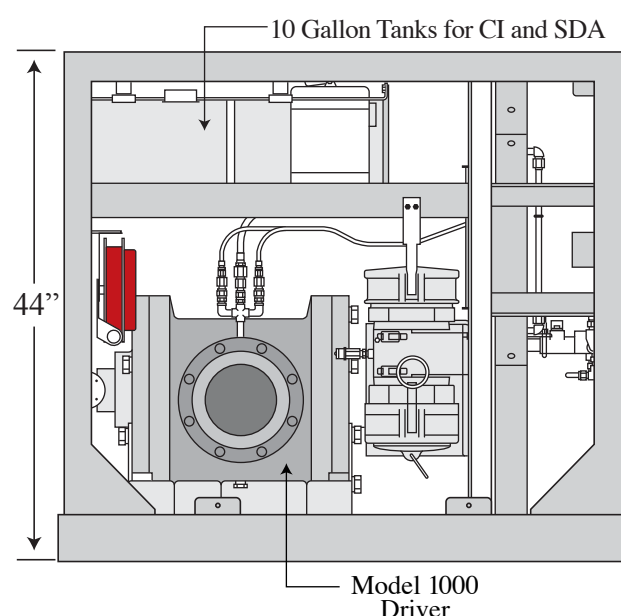
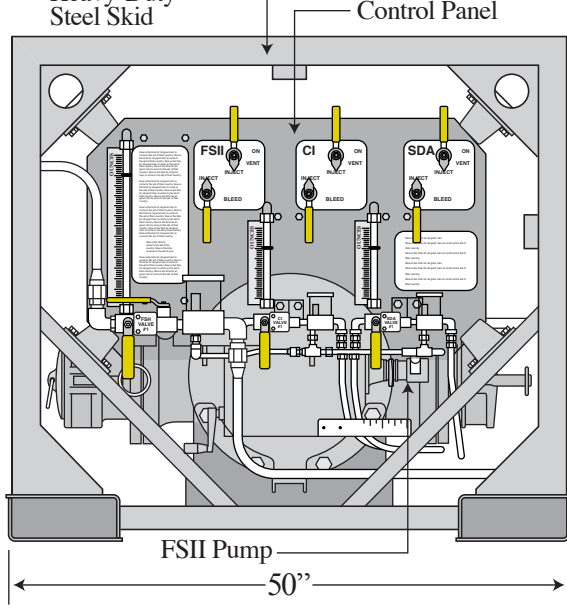
TALK ABOUT TOUGH! The Hammonds **4T-4A** and **TPI-4T-4A-1** Additive Injection Systems are designed to be deployed via military aircraft into remote and often dangerous, rough conditions. The units are built to withstand the punishment of these conditions and to provide our aircraft with safe, quick and dependable additive injection under extremely difficult conditions.



342 POUNDS DRY WEIGHT



Skid comes with B-2 Refractometer test kit for FSII concentration



STANDARD EQUIPMENT

- Hammonds positive displacement driver
- 6" Cam lock type inlet/outlet with covers
- Four 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
- Operating instructions on main panel
- 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 55 gallon drums of FSII
- 10 gallon stainless steel tanks for any chemical additive
- Tool kit
- Spare parts kits
- B2 refractometer test kit

OPTIONAL EQUIPMENT

- Custom product connections
 - NTT flanges
 - 150# RF ANSI flanges
 - Vitacluc connections
 - Threaded companion flanges
- Additional additive injector for ratios to 1,500 PPM
- Custom frames
- Custom cover for storage
- MIL specification coating can be provided