



Since 1928

TRI-FLUID INJECTOR (TFI) INSTALLATION INSTRUCTIONS

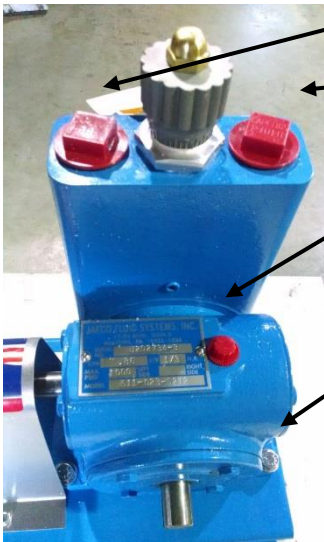
DO NOT LOCATE THE TFI NEAR FIRE, INTENSE LAMPS, OR EXCESSIVE HEAT!!

THE TFI MUST BE ANCHORED TO THE FLOOR OR A PLATFORM! IT IS TOP HEAVY AND MAY BE SUSCEPTIBLE TO TIPPING.

REFER TO THE INCLUDED PUMP MOTOR INFORMATION FOR INSTRUCTIONS ON WIRING THE MOTOR.

The TFI should be in a location where it can be easily filled and serviced. There needs to be a power supply. The motor for the pump can be wired either 110v or 220v. The TFI should be near the main compressed air system supply line, as this is where the injection quill will be installed. At this site, the Tanner System fluids will be injected into your air stream, mixing with the moisture in your air, changing its freeze point, and preventing expensive and frustrating freeze-ups.

This pump has been tested prior to being shipped. Proper fluid levels have been checked. However, some fluid may be lost from the diaphragm reservoir in transit, so please make sure to check the fluid level once the motor has power. While the caps are off, with the motor running, the fluid level should rise to the bottom of the screen and then fall away. Do not over fill! We have included a small amount of EP 50 oil to be used in this reservoir if needed. Note: Only one red cap will have a screen under it.



Replace these three red caps before this pump is started. They are for transport only. The pump has three vented caps included in the instruction packet and need to be installed for the pump to operate properly.

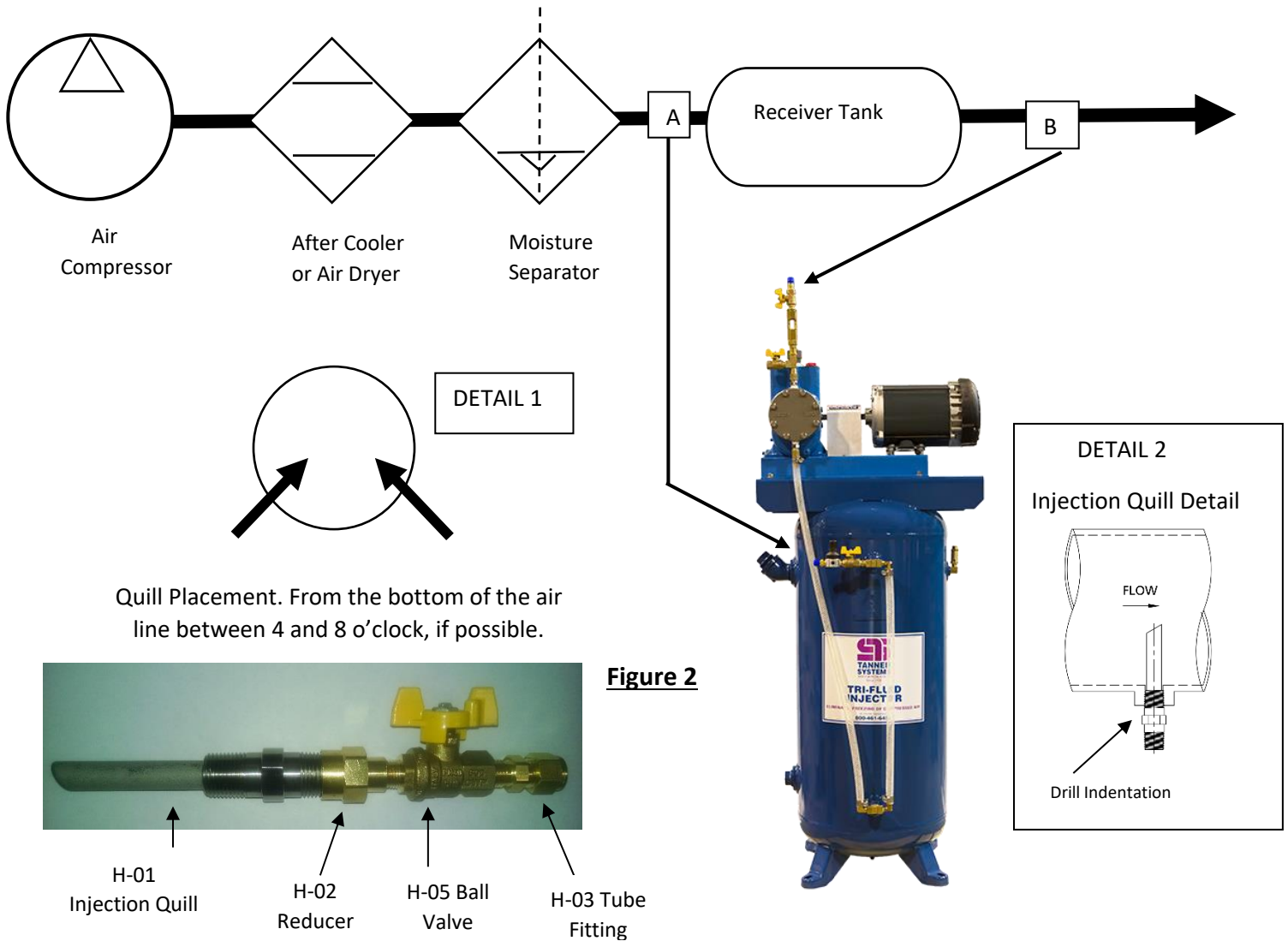
DO NOT USE THE EP 50 PUMP OIL IN THIS GEAR BOX!! The pump manufacturer recommends an ISO grade 150, or SAE 90 gear oil for the gear box.

Suggestion: To aid in draining the tank, install a valve and pipe fittings (not included) at the bottom of the tank before mounting the TFI to the floor. It is recommended the tank be emptied at least annually to flush out any particulates, oils, water, etc.

Install the pump fittings. These have been removed for transit to avoid damage and / or loss. The reducer coupling will attach to the check valve on the top of the pump first, and when that assembly is tight, attach the ball valve to the "tee". By opening this valve while the tank is under pressure, the fluid will quickly and freely flow to this point, making the diaphragm pump fully primed and ready to pump fluids.



The injection quill should be installed AFTER any air cooler, air dryer, moisture separator and receiver tanks. Position the TFI accordingly and cut the 50' of tubing as needed.



INJECTION QUILL INSTALLATION – 4" Air Line or Larger

Injection quills are installed to insure a controlled dispersal of Tanner System fluids. All quills have a built-in check valve to prevent backflow.

- A.** At location "A", install a 1/4" FNPT fitting to receive the included ball valve (H-05) and connector (H-03). This is where the "pad air" is connected to the TFI tank using the first length of 3/8" tubing.
- B.** At Location "B", install a 1/2" NPT coupling in your airline as displayed in (Detail 1). This will allow gravity to assist the check valve in seating. A "telltale" drill indentation on the quill allows installer to recognize which direction the quill faces. Quill indentation must face upstream (see Detail 2). The quill should be installed using the appropriate thread seal compound or Teflon tape.

For air lines smaller than 4" diameter, one of two adjustments will need to be made. Add a pipe nipple and coupling of the necessary length between the coupling and the quill to insure the tip of the quill is in the center of air stream. Or trim the quill length so the Tanner Systems Anti-freeze Fluid is released near the center of the air line.

FILLING AND PRIMING INSTRUCTIONS

READ THROUGH THESE STEPS COMPLETELY BEFORE YOU CONNECT THE AIR TO THE TANK

Wire Motor per the included Manufacturer's Instructions

Install ¼" NPT Male Fitting in Air Line; this will supply "Pad Air" to Tank.

Attach H-05 Ball Valve and H-03 tube adapter to this fitting. This is valve "E".

Install Injection Quill

Connect Pad Air to tank at fitting near valve "C" with a section of 3/8" tubing

Connect Pump to quill at Valve "A" with the other section of 3/8" tubing

Close ALL Ball Valves (A, B, C, & E)

Fill Tank With Fluid. You will only observe fluid in the Sight Tube. It will require 6 gallons to reach the lower brass tee. **Do Not Fill Above the top Brass Tee on Tank!**

Open the valve on the Pad Air Supply fittings. "E"

Open Valve "C". Doing so will allow pad air to fill the tank, which will help supply fluid to the pump.

SLOWLY...., Very, Very Slowly, Open valve "B". Because there is 5 psi of pad air in the tank, Fluid will rapidly travel through the Supply Tubing, through the pump, and out this valve. Be prepared to quickly close it once fluid reaches this point.

Your system is now primed and ready to operate. Open valves "A" and "D" and Start the pump. You should notice fluid moving through the Sight Glass located between valves "A" and "B". This is a low flow pump, so depending on the distance between the pump and the injection quill, it may take a few minutes before fluid is injected into the system. The pump is rated at approximately .86 Gallons per hour at 100% capacity. It performs best at levels between 25% and 100%. You should turn the adjusting knob all the way up and then all the way down a few times while the pump is running to receive the best performance from the pump. Set the pump rate at the level best suited for the amount of air produced by your compressor(s). The sight tubing will show a decrease of about 1-3/16" per gallon of fluid. We suggest a starting point of one gallon of fluid treating approximately 400,000 – 500,000 cubic feet of air. For example, if your system consumes 1200 cfm, that is 72,000 cfm per hour. You would want to pump about one gallon of fluid every 6 – 7 hours. Adjust the flow as needed insure your air is properly treated and no longer causing freeze-ups.

E



A

B

C



TANNER SYSTEMS, INC.

P.O. BOX 488

ST. JOSEPH, MN. 56374

PHONE: 320-363-1800

TOLL FREE: 800-461-6454

FAX: 320-363-1812

WEBSITE: www.tannersystems.com

E-MAIL: info@tannersystems.com