

IMPORTANT INFORMATION:

INSTALLATION: This product must be installed, adjusted and started only by a qualified and licensed technician and done so in accordance with all appropriate local and national codes and ordinances, such as National Fire Protection Standard for Liquid Fuel Equipment, NFPA 31, CSA B139-M91, etc.

WARNING: Inlet and Return Line Pressures

THESE PRESSURES MUST NOT EXCEED 10 PSI, or seal damage can result! NFPA 31 further limits them to 3 PSI MAX.

WARNING: Check Valves with Fuel Oil Heating Equipment

Do not use a check valve in the inlet line of a 1-pipe system (with or w/o a boost pump), or in the return line of a 2-pipe system. Check valve flow restriction in a return line can elevate pressures and damage fuel unit seals. Dangerous thermal expansion of oil trapped by an inlet line check valve can create extreme pressures that damage fuel unit seals, fittings, filters, gages and other components. A properly installed vacuum safety valve, such as Suntec PRV-38, having accumulator effect and pressure relief to tank is acceptable in the inlet line.

GENERAL INFORMATION:

1. Most Model J units have a pressure regulating valve with cutoff function and may be mounted in any position. Models without cutoff require an external shutoff valve (noted on decal).
2. See the 1-PIPE or 2-PIPE section for line sizing. Lines must be airtight for proper operation. Pipe sealant may be used. DO NOT USE TEFLON TAPE OR COMPRESSION FITTINGS.
3. The unit may be primed with lube oil during start-up.
4. Vacuum check may be made at either 1/4" NPT inlet port.
5. Pressure check may be made at the nozzle or bleed port.

ONE-PIPE SYSTEM - INLET LINE ONLY (NO RETURN LINE):

(See Form 2062 for USED OIL!!)

DO NOT INSTALL THE BYPASS PLUG! See 1-P sketch below. Units are shipped without the bypass plug installed; verify it has not been installed! Line length formulas are:

3/8" line: $L = (6 \cdot 75H) / .0086Q$ and

1/2" line: $L = (6 \cdot 75H) / .00218Q$ where

L = line length (ft.) H = head (ft.) Q = firing rate (gph)

NOTE: If tank is above pump, change the "-" to a "+".

NOTE: Elbows, valves & filters will further reduce line length.

NOTE: It is recommended to avoid 3/8" lines where feasible.

Inlet line joints must be perfectly tight to maintain prime! Max. recommended 1-P lift is 8' from tank bottom to pump. Prime by opening the bleed valve one turn CCW. Bleed the unit until all air bubbles disappear! Securely retighten the bleed valve.

TWO-PIPE SYSTEM - INLET AND RETURN LINE:

(See Form 2062 for USED OIL!!)

REMOVE THE 1/4" NPT PLUG FROM THE RETURN PORT AND DISCARD. Remove the 1/8" NPT bypass plug from the plastic bag attached to the unit and, with a 3/16" Allen wrench, insert it securely into the recessed port inside the return port. Insert the return line fitting into the 1/4" NPT return port and attach the return line. DO NOT BLOCK OR RESTRICT THE 1/4" NPT RETURN PORT OR THE RETURN LINE! The return line must terminate in the supply tank 3-4" above the supply inlet, or air can be introduced and cause loss of prime. Priming is automatic, but may be accelerated by opening the bleed valve. See 2-P sketches below and on p. 2, and see the p. 2 chart for recommended line sizes and lengths.

