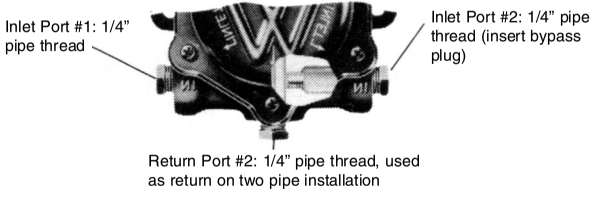
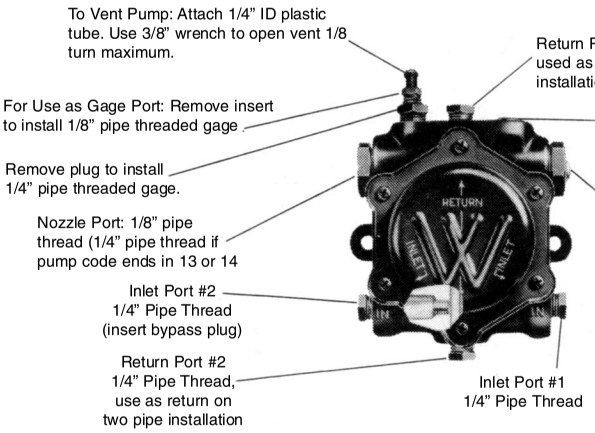
INSTALLATION DATA

R Series units may be used in one- or two-pipe installations. Two-pipe operation is recommended for all high capacity units. A yellow tag is attached to units that are factory set for two-pipe installation.

NOTE: Inlet ports #1 and #2, and return port #2 are 3/8" pipe thread on high capacity units. (2R6-8 Series.)

Unit shown at the right has a left side by-pass plug access, (-) in the sales code. (*) in the code designates right hand access as shown below.





BODY STYLE D
CLOCKWISE ROTATION

BODY STYLE C
COUNTERCLOCKWISE ROTATION (CCW)
OPPOSITE OF THAT PICTURED

One-Pipe Installation

Recommended only when bottom of tank is above fuel unit, unless pump code ends in 15.

1. Remove BYPASS PLUG if installed, through applicable INLET PORT.

2. Connect inlet line to preferred INLET PORT and NOZZLE PORT to NOZZLE SYSTEM.

3. Plug all unused ports securely.

4. Start burner and bleed all air f rom the system by opening VENT PLUG. Close VENT securely when oil flow in tube is clear, if pump is equipped with special vent plug. Secure GAUGE PORT PLUG on units not so equipped when oil appears leaking out.

Two-Pipe Installation

1. Insert BYPASS PLUG if not installed, through applicable INLET PORT.

2. Connect inlet line to preferred INLET PORT and NOZZLE PORT to NOZZLE SYSTEM

3. Connect return line to preferred RETURN PORT.

4. Plug all unused ports securely.

5. Start burner. Two-stage pumps will self-vent. If single stage and code ends in3 or 4, bleed all air from system by opening VENT PLUG. Close VENT securely when oil flow in tube is clear, if pump is equipped with special vent plug. Secure GAUGE PORT PLUG on units not so equipped when oil appears leaking out.

Mounting for One-Pipe Systems

Gravity Feed Systems (Diagram A)—Fuel-units may be mounted in any position including shaft up and shaft down. See Positions 1 through 4.

Non-Gravity Feed Systems (Diagram B) — R Series Fuel Units may *only* be mounted upright, Position 1; or rotated 90° with nozzle down, Position 2. Other mounting positions are not recommended.

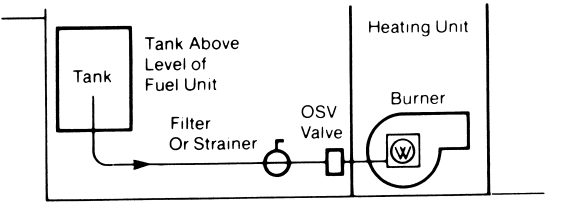


DIAGRAM A - ONE PIPE, GRAVITY FEED SYSTEM

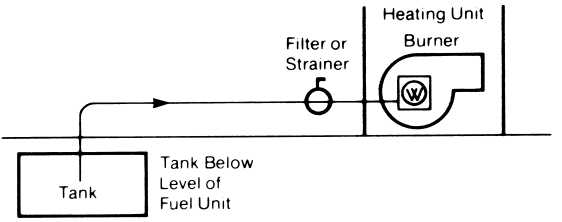


DIAGRAM B - ONE PIPE, NON-GRAVITY FEED SYSTEM

Mounting for Two-Pipe Systems

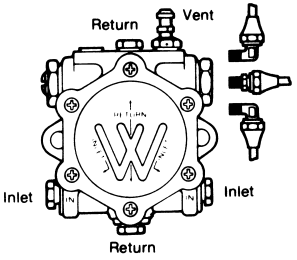
Fuel units may be mounted in any position including shaft up and shaft down. See Positions 1 through 4.

Illustrations show port locations for C Style units (counter-clockwise rotation); D Style units (clockwise rotation) are the opposite of that pictured.

Installation diagrams shown for reference only. Compliance to applicable codes is the responsibility of installer.

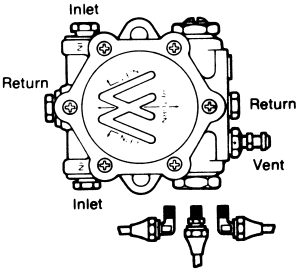
POSITION 1
Upright,
Nozzle Right:

All One pipe or
Two Pipe Systems



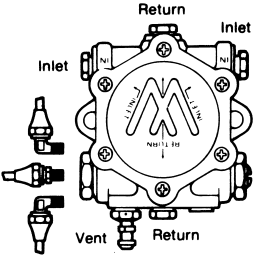
POSITION 2
Rotated 90°
Nozzle Down:

All One Pipe or
Two Pipe Systems



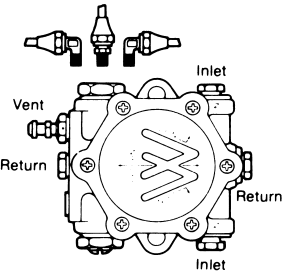
POSITION 3
Rotated 180°
Nozzle Left:

All Two Pipe Systems,
or One Pipe Gravity
Feed Systems Only



POSITION 4
Rotated 270°
Nozzle Up:

All Two Pipe Systems, or One Pipe Gravity Feed Systems Only



Replacing A Style and B Style Units

Discontinued A Style and B Style R Series fuel units can be replaced with minimal changes in most installations. Fuel unit model code numbers and rotation arrows are stamped on the top of the body casting.

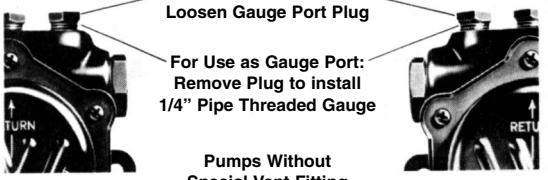
In *two-pipe systems* and in *one-pipe, gravity feed systems,* current C Style and D Style units can be mounted in any position to facilitate easiest piping.

In *one-pipe,non-gravity feed systems* (where the mounting positions are limited), an extra length of pipe or tubing must be connected to the nozzle line to reach the fuel unit nozzle port. See previous page for permitted mounting positions.

Preferred installation calls for use of flare tube fittings on al l connections. Be certain all plugs and connections are secure and leak-tight.

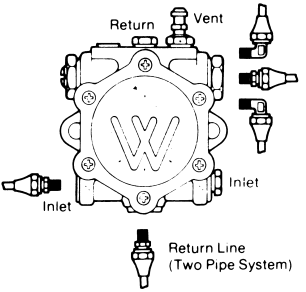
Body Styles A (CW) & C (CCW) (LH Nozzle, Viewed From Shaft End)

Body Styles B (CCW) & D (CW) (RH Nozzle, Viewed From Shaft End)

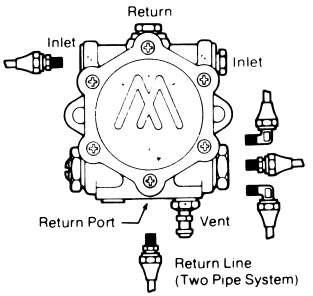


Typical Replacement Installations

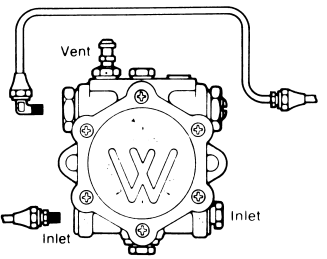
Replace A Style units (clockwise rotation, nozzle port on left, as viewed from shaft end) with D Style units (clockwise rotation, nozzle port on right, as viewed from shaft end).



Standard A Style Installation: One or Two Pipe System

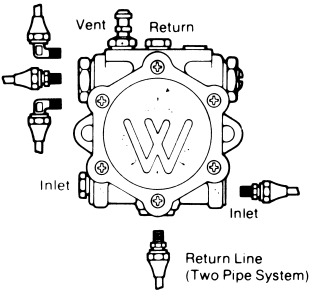


Replacement with D style, Rotated 180°: One Pipe, Gravity Feed System: or Two Pipe System

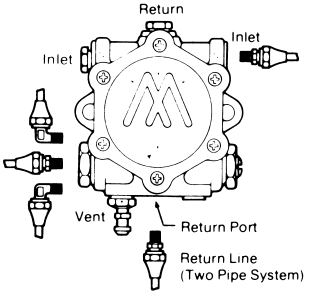


Replacement with D style, Nozzle Line Extended: One Pipe, Non-Gravity Feed System

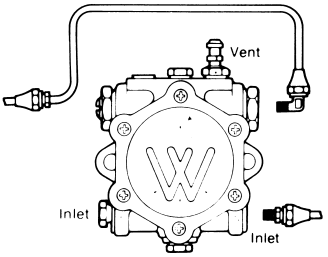
Replace B Style units (counterclockwise rotation, nozzle port on right, as viewed from shaft end) with C Style units (counterclockwise rotation, nozzle port on left, as viewed from shaft end).



Standard B Style Installation:
One or Two Pipe System

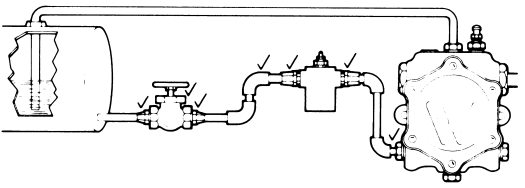


Replacement with C style,
Rotated 180°: One Pipe, Gravity
Feed System: or Two Pipe System



Replacement with C style,
Nozzle Line Extended: One Pipe,
Non-Gravity Feed System

IMPORTANT: Do not loosen or try to tighten any pump plugs not to be used in the installation. NON-HARDENING OIL PIPE DOPE IS RECOMMENDED for use on the threads of all fittings. Paste must be used with care to prevent deposits on critical internal areas of the pump damage. Do not use teflon tape. EVIDENCE OF TEFLON TAPE USE WILL BE CAUSE TO VOID WARRANTY.



Installation Notes:

If the pump doesn't work, check for air leaks.

If you're experiencing the following problems; poor cutoff, noisy operation, erratic fire, check for air leaks.

- ❑ Return line must be submerged
- ❑ Check all fittings
- ❑ Check all joints
- ❑ Check optional inlet plugs
- ❑ DO NOT use compression fittings

90% of start-up problems are due to air leaks in the suction line . . . so check ✔ and double check ✔ ✔ for air leaks.

"Fuel unit inlet pressures should not exceed 3 psig in order to comply with National Fire Protection Association's Bulletin 31."

Nozzle port pressure at cutoff is not less than 80% of set pressure unless unit has blank nozzle or pump code ends in 13 or 14 (no cutoff).

To assure maximum performance, INLET VACUUM, measured at unused INLET PORT, should not exceed 10" Hg on single-stage pumps or 15" Hg on two-stage pumps.