

IMPORTANT INFORMATION

This product is not compatible with fuel blends containing more than 5% biodiesel.

Pumps with the letter «P» in the pump code (eg. OP2 45 D 9XXX 1P XX) are supplied for 2-pipe operation (the by-pass plug is fitted in the return port). Pumps identified by an «M» in the pump code (eg. OP2 45 D 9XXX 1M XX) are supplied for 1-pipe operation (without by-pass plug and with return plugged).

Model shown in figure 1 is LH (CCW) rotation and RH nozzle port (determined by looking at the shaft when unit is oriented with shaft horizontal and decal readable).

ONE-PIPE SYSTEM – FIGURE 2

WARNING: DO NOT INSTALL BY-PASS PLUG! Connect inlet line to the pump inlet. Start burner. Arrange primary burner control for continuous operation during purging. Open easy flow bleed valve or pressure port 1 turn CCW. Bleed unit until all air bubbles disappear – HURRIED BLEEDING WILL IMPAIR EFFICIENT OPERATION OF UNIT. Tighten easy flow bleed valve or pressure port securely.

AVERTISSEMENT: NE PAS INSTALLER DE BOUCHON BYPASS! Raccorder la conduite d'entrée à l'entrée de la pompe. Démarrer le brûleur, le laisser en fonctionnement pendant la purge. Ouvrir la vis de purge en dévissant d'un tour dans le sens anti-horaire. Purger jusqu'à ce que toutes les bulles d'air disparaissent - UNE PURGE TROP RAPIDE IMPACTERA L'EFFICACITE DE LA POMPE. Resserrer fermement la vis de purge.

TWO-PIPE SYSTEM – FIGURE 3

REMOVE BY-PASS PLUG WITH A 5/32" ALLEN WRENCH FROM PLASTIC BAG ATTACHED TO UNIT. Remove 1/4 NPTF plug from return port. Insert by-pass plug (See Figure 1), tighten plug. Attach return and inlet lines. Start burner – Air bleeding is automatic. Opening Easy Flow Air Bleed Valve or pressure port will allow a faster bleed if desired. Return line must terminate 3-4" above supply line inlet. (See Figure 3). Failure to do this may introduce air into the system and could result in loss of prime.

GENERAL INFORMATION – ALL SYSTEMS

Model OP2 may be mounted in any position except upside down or shaft pointing upwards.

Check that direction of rotation for pump and motor are the same.

The pump incorporates an integral filter. However, it is recommended to use a separate filter upstream of the pump.

IMPORTANT INFORMATION: long or oversized inlet lines may require the pump to operate dry during initial bleeding period. In such cases, the priming may be assisted by injecting fuel oil into the pump gearset. Under lift conditions, oil lines and fittings must be air tight. To assure this, "Pipe Dope" may be applied to both the used and unused inlet and both return fittings. **DO NOT USE TEFLON TAPE! DO NOT USE COMPRESSION FITTINGS!**

SOLENOID WIRING INSTRUCTION

Do not activate the solenoid when it is not fitted on the pump.

WARNING:

DISCONNECT POWER SUPPLY BEFORE WIRING TO PREVENT ELECTRICAL SHOCK OR EQUIPMENT DAMAGE!

Electrical work must be done according to local and national codes! Check burner manufacturer's instructions for correct solenoid wiring!

AVERTISSEMENT:

DÉBRANCHER L'ALIMENTATION ÉLECTRIQUE AVANT DE CÂBLER AFIN D'ÉVITER LES DÉCHARGES ÉLECTRIQUES OU L'ENDOMMAGEMENT DES ÉQUIPEMENTS
Les travaux électriques doivent être effectués conformément aux codes locaux et nationaux. Vérifier les instructions du fabricant du brûleur pour le câblage correct de l'électrovanne!

PRESSURE REGULATION

The OP2 model has two pressure regulators. The pressure is increased by turning the regulator screw CW and vice versa.

All installations should be made in accordance with local and national codes.

CAUTION: Pressurized or gravity feed installations must not exceed 10 PSI on inlet line or return line at the pump. A pressure greater than 10 PSI may cause damage to the shaft seal.
NFPA limits inlet pressure to 3 psi max.
Models OP2 type have no internal nozzle line cut-off and require external shut-off valves.

ATTENTION : Pour les installations alimentées par un groupe de transfert ou en charge, la pression dans la conduite d'aspiration et la pression dans la conduite de retour de la pompe ne doivent pas dépasser 10 PSI, sous peine d'endommager le joint d'arbre.
La NFPA limite la pression d'entrée à 3 PSI max.
La pompe OP2 ne permet pas la coupure de la ligne gicleur, une électrovanne en ligne doit être installée.

TWO-PIPE SYSTEM

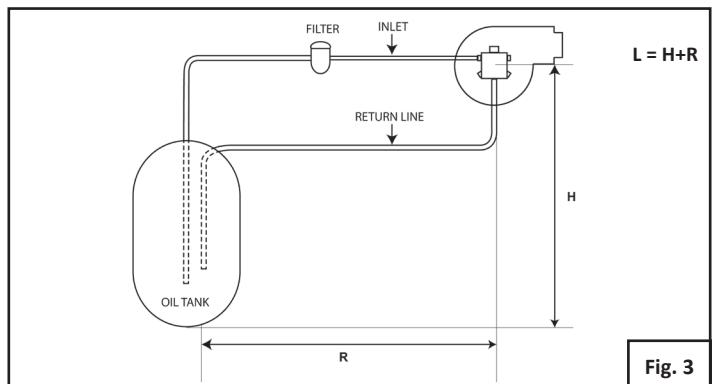


Fig. 3

Always terminate return line as shown in Figure 4. Line lengths include both vertical and horizontal lengths.

ONE-PIPE SYSTEM

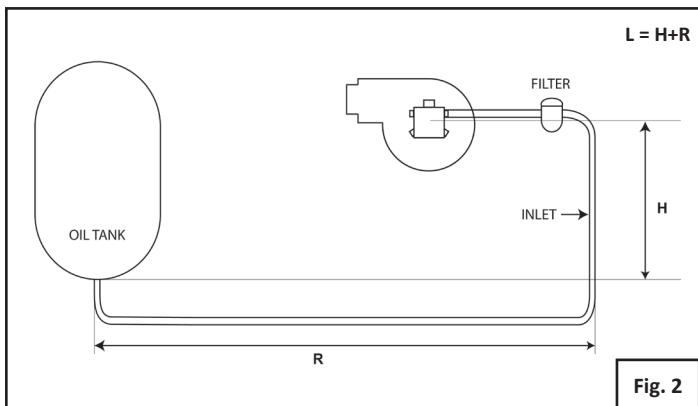


Fig. 2

This SUNTEC Model may be installed one-pipe with gravity feed or lift.

The maximum allowable lift is 8 ft. – See Figure 3.

IMPORTANT: One-pipe installations must be absolutely air tight or leaks or loss of prime may result. Bleed line and fuel unit completely.

Bleed for 15 seconds after last air is seen from easy flow to be certain lines are air free.

L = Line length in feet H = Head in feet Q = Firing Rate in GPH

	Tank below pump	tank above pump
3/8" line	L = 6 - .75H .0086Q	L = 6 + .75H .0086Q
1/2" line	L = 6 - .75H .00218Q	L = 6 + .75H .00218Q

Fittings, valves, and filters will reduce total length allowed.

Inlet Tubing Size	Lift H (FT.)	Model A Single Stage			
		1725 RPM		3450 RPM	
		3 GPH	7 GPH	3 GPH	7 GPH
3/8" O.D. Cooper Tubing	0	86	70	84	71
	2	75	60	73	62
	4	64	50	63	53
	6	54	41	52	44
	8	43	32	42	35
	10	32	22	31	27
	12	21	13	21	18
	14	-	-	-	-
	16	-	-	-	-
	18	-	-	-	-
1/2" O.D. Cooper Tubing	0	100	100	100	100
	2	100	100	100	100
	4	100	100	100	100
	6	100	100	100	100
	8	100	100	100	100
	10	100	90	100	100
	12	85	60	83	70
	14	42	30	41	35
	16	-	-	-	-
	18	-	-	-	-

SYSTEMATIC MAINTENANCE

1. Check stop valve and line filter.

2. Check pump filter.

Dismantle pump cover (unscrew the 4 screws).

The filter should be cleaned with a soft brush and clean fuel oil.

Each time the cover gasket should be changed.

3. Check tightness of all couplings and unused plugs.

4. Check shaft coupling.

5. Check pump pressure.

Fit a pressure gauge in the fitting provided and run the pump in the normal manner. If the pressure required cannot be obtained, check that the pump is completely purged. If air bubbles are found in the fuel, check all connections for tightness.

6. Check pump vacuum

A vacuum gage may be installed in either of the 1/4 NPTF inlet ports or in the 1/NPTF return port (on single pipe installations), whichever is most convenient. The OP2 model should be used where vacuum does not exceed 6" hg max in single pipe or 12" hg max in two pipe. If it is the case, check condition of all components (non-return valve, stop valves, filters...) and pump filter.

If the pump does not suck correctly, check for air leaks in the line by retightening all fittings, and change cover gasket if necessary.