



MODELS OL-OLE-OT2 SOLENOID SINGLE STAGE FUEL UNITS

INSTALLATION INFORMATION IIOLOT Ed.1 - Nov 2024

IMPORTANT INFORMATION:

All models are compatible with Fuel oil #2 and lighter. Product with a «V» in the name (eg. OLV 35C 91xx6P06) are compatible with B6-B100 (blends from 6% up to 100% biodiesel, as defined in ASTM D396). 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.

CAUTION: Different aspects of the oil fired heating system can be affected by the use of a fuel/biodiesel blend (storage, piping system between the tank and the burner, burner components).

These units are designed to handle B6-B100 as defined in ASTM D396 and ASTM D6751. Ensure that all components of the heating system, supply line and burner components are B100 compatible. Before first start-up, ensure that the oil storage tank has been thoroughly cleaned prior to the biodiesel blend delivery.

Biodiesel blends are likely to have reduced long-term storage stability performance. Aging and oxidation can lead to high acid numbers, high viscosity, and the formation of gums and sediments that may cause filter clogging and pump seizing.

ATTENTION: Différents aspects du système de chauffage peuvent être affectés par l'utilisation de mélanges composés de biodiesel (stockage, système d'alimentation entre le réservoir et le brûleur, composants du brûleur).

Ces éléments doivent être conçus de manière à être compatibles avec des mélanges B6 à B100 (mazout de chauffage selon l'ASTM D396 et ASTM D6751 avec 6% à 100% de biodiesel). Il est nécessaire de s'assurer que tous les composants du système de chauffage, de la ligne d'alimentation aux composants du brûleur, soient compatibles au B100. Avant le premier démarrage, vérifier que le réservoir ait été complètement nettoyé avant la livraison du mélange mazout/biodiesel.

Les biodiesels auront probablement une durée de stockage réduite sur le long terme. Vieillessement et oxydation peuvent conduire à des indices d'acide élevés, une importante viscosité, et à la formation de gommages et de sédiments pouvant causer le colmatage du filtre et le grippage de la pompe.

⚠ 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 OSV, having accumulator effect and pressure relief to tank is acceptable in the inlet line.

⚠ AVERTISSEMENT : Clapets anti-retour avec équipement de chauffage au fioul

Pour une pompe de gavage ou de brûleur (utilisée avec ou sans pompe de gavage), ne pas utiliser de clapet anti-retour dans la ligne d'aspiration d'un système monotube, ou la ligne retour dans un système bitube. La restriction de débit faite par le clapet anti-retour dans la ligne retour peut augmenter la pression et endommager les joints de la pompe. Une dilatation thermique dangereuse de fioul piégée dans la ligne d'entrée par un clapet anti-retour peut conduire à des pressions extrêmes et endommager joints, raccords, filtres, jauges et autres composants de la pompe. Il est possible d'installer dans la ligne d'aspiration une soupape de sécurité sous vide, telle que la OSV de SUNTEC ayant un effet accumulateur et limiteur de pression dans le réservoir.

GENERAL INFORMATION:

Pumps with the letter "P" in the pump code (eg. OL 35C 91xx6P06) are supplied for 2-pipe operation (the by-pass plug is fitted in the return port). For 1-pipe operation this plug must be removed with 5/32" Allen wrench and the return port sealed by steel plug.

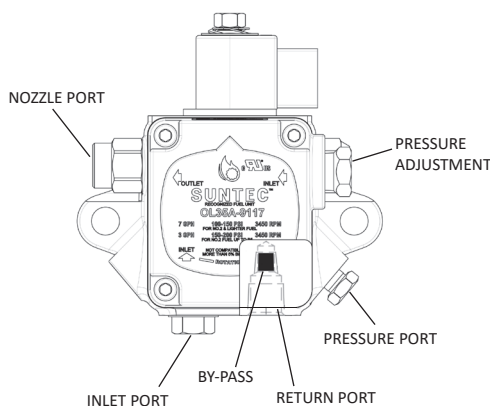
Pumps identified by an "M" in the pump code (eg. OL35C 91xx6M06) are supplied for 1-pipe operation (without by-pass plug and with return plugged).

1. Fuel units may be mounted in any position (except shaft upwards), but the shaft should not be submitted to any axial or radial force.
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.

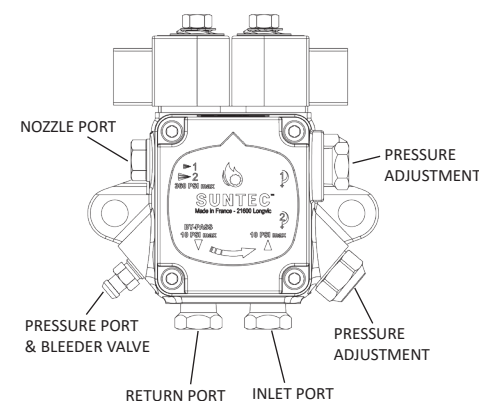
⚠ WARNING: Pressurized or gravity feed installations must not exceed 10 PSI on inlet line or return line at the pump. A pressure greater than 10 PSI may cause damage to the shaft seal. NFPA 31 further limits them to 3 PSI max.

⚠ AVERTISSEMENT: Les installations sous pression ou en charge ne doivent pas dépasser 10 PSI dans la ligne d'aspiration ou dans la ligne retour de la pompe. Une pression supérieure à 10 PSI peut endommager l'étanchéité du joint d'arbre. La NFPA limite la pression d'entrée à 3 PSI max.

Figures are for "A" rotation and nozzle outlet



2-PIPE HOOK-UP
(do not block return port!)



1-PIPE HOOK-UP
(do not install bypass plug!)

Fig. 1

ONE-PIPE SYSTEM - INLET LINE ONLY (NO RETURN LINE) - FIGURE 2:

⚠ WARNING: BY-PASS PLUG NOT INSTALLED!
See 1-P sketch on p. 2 (figure 2).

⚠ AVERTISSEMENT: BY-PASS PLUG NON INSTALLÉ!
Voir le schéma en monotube ci-dessous.

This SUNTEC model may be installed one-pipe with gravity feed or lift. To convert a 2-pipe pump to 1-pipe, use kit 991562 (bleeder valve + steel plug). Remove by-pass plug with a 5/32 Allen wrench and the return port sealed by steel plug. For pump with conical thread, install bleeder valve in pressure port to ease bleeding.

Connect inlet line to the pump inlet. Inlet line joints must be perfectly tight to maintain prime! Max. recommended 1-P lift is 8' from tank bottom to pump. Start burner.

Arrange primary burner control for continuous operation during purging. Prime by opening the easy flow bleed valve one turn CCW or loosening one of the pressure port. Bleed the unit thoroughly until all air bubbles disappear (hurried bleeding may impair operation), wait for 15 seconds after last air is seen from easy flow to be certain lines are air free, then securely retighten the bleed valve.

TWO-PIPE SYSTEM - INLET AND RETURN LINE - FIGURE 3:

To convert a 1-pipe pump to 2-pipe, remove the plug from the return port and discard. Then insert the 1/16" bypass plug securely into the recessed port inside the return port, with a 5/32" Allen wrench (See figure 1). Finally, insert the return line fitting into the return port and attach the return line.

⚠ **WARNING:** DO NOT BLOCK OR RESTRICT THE 1/4 NPTF RETURN PORT OR THE RETURN LINE!

⚠ **AVERTISSEMENT :** NE PAS BLOQUER OU RESTREINDRE LE RETOUR 1/4 NPTF OU LA LIGNE RETOUR !

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 loosening pressure port. See 2-P sketches below (figure 3), and see the chart for recommended line sizes and lengths.

OPERATING INFORMATION:

Max. Firing Rate: Use the decal nozzle rating, which may be less than the UL strainer rating

Vacuum Check: A vacuum gage may be installed in either 1/4 NPTF INLET PORT. Model A units should be used where the running vacuum does not exceed 6" Hg single pipe or 12" Hg two-pipe.

Pressure Check: 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.

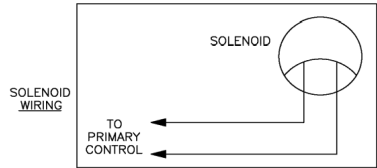
Cut-off Pressure: Units having cut-off can be checked by installing a pressure gage directly into the NOZZLE PORT. Run the unit briefly, shut it off and watch for the pressure to drop and then hold above zero.

⚠ **WARNING: Solenoid Wiring Instructions**
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!



ONE-PIPE SYSTEM

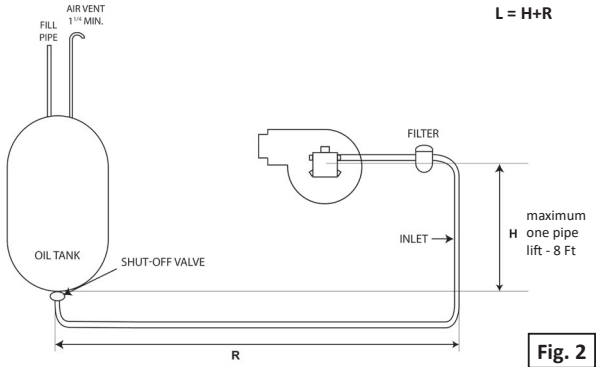


Fig. 2

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

	Tank below pump	Tank above pump
3/8" line	$L = \frac{6 - .75H}{.0086Q}$	$L = \frac{6 + .75H}{.0086Q}$
1/2" line	$L = \frac{6 - .75H}{.00218Q}$	$L = \frac{6 + .75H}{.00218Q}$

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

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

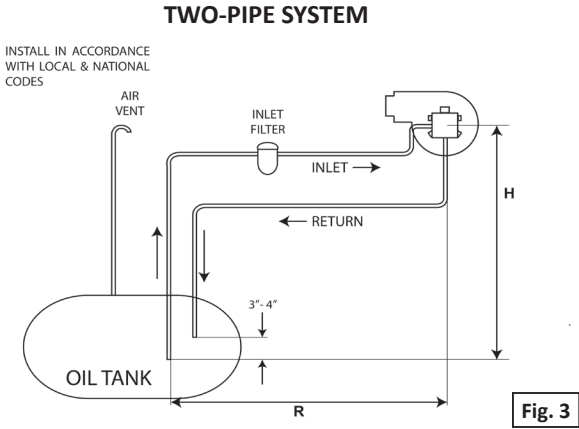


Fig. 3

Inlet Tubing Size	Lift H (Ft.)	1725 RPM		3450 RPM	
		3 GPH	7 GPH	3 GPH	7 GPH
3/8" O.D. Copper 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. Copper 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	-	-	-	-

(max. total line length L=H+R ; calculated for fuel viscosity 57 SSU)

Always terminate return line as shown in Figure 3. Line lengths include both vertical and horizontal lengths.