



Tigerloop® TWIN™



FIG 1

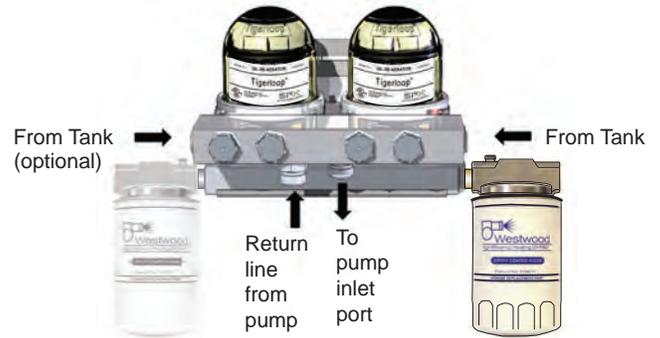


FIG 2

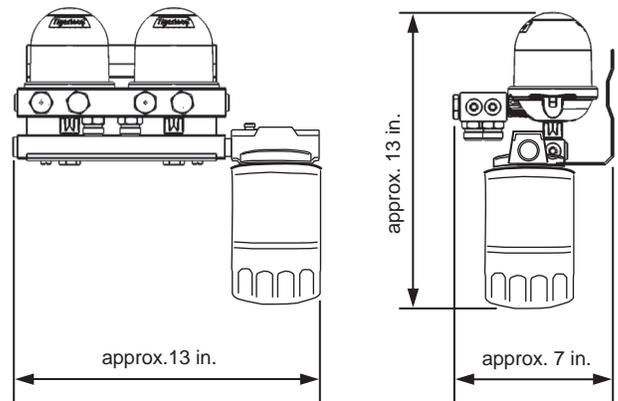


FIG 3

Technical Data	
Maximum nozzle capacity	52.8 GPH
Maximum return oil flow	52.8 GPH
Temperature range	20° - 105°F
Maximum inlet pressure	8 PSI
Filter Media	30 micron
Pump connections	1/4" - NPT(M)
Tank (filter) connection	3/8" - NPT(F)
Fuel	No. 1 & No. 2 Heating Oil, BioHeat® to B5
<i>Not for use with E-diesel or any fuel containing Ethanol (alcohol)</i>	

Tigerloop® TWIN™ Automatic oil de-aerator

The Tigerloop® TWIN™ is designed to meet increasing demands on energy savings, environmental and operational safety. The Tigerloop® TWIN™ is specially designed to distribute and de-aerate oil evenly between the two Tigerloop® units for best possible results. Environmental regulations and changes in oil quality continue to place high demands not only on material selection, but also on clean and air-free oil for optimal combustion with minimal discharge of harmful particles.

The Tigerloop® TWIN™ makes it possible to use a one-pipe system in all types of heating installations, thus ensuring the most environmentally safe method for transporting oil from the oil tank to the burner.

The Tigerloop® TWIN™ combines the advantages of a two-pipe system for the oil pump with the advantages of a one-pipe system for the oil tank. By using a one-pipe system and the Tigerloop® TWIN™, only the amount of oil used by the nozzle is drawn from the oil tank. As the oil flow decreases, so does the amount of dirt particles transported from the tank. This results in cleaner combustion.

The pressurized return line to the oil tank is removed eliminating the risk for return line leakage and environmental damage. A large amount of air bubbles are released when oil is drawn from the oil tank. These bubbles can cause breakdowns, increased soot, combustion head coking, after drip, and cavitation noise in the oil pump. By functioning as an automatic de-aerator, the Tigerloop® TWIN™ eliminates all such problems.

FIG 1:

The Tigerloop® TWIN™ consists of two standard Tigerloops® conveniently connected in parallel and combined with a separate oil filter. The oil filter can be installed on either side of the unit. Install the two washers, nipple and filter. Seal both ends of the nipple with a suitable non-hardening pipe compound. Be sure the filter is positioned correctly according to the oil flow arrow on the filter. Install the blind plug on the opposite tank connection end.

FIG 2:

Tigerloop® TWIN™ dimensions

FIG 3:
Tigerloop® TWIN™ technical data

IMPORTANT:

The Tigerloop® TWIN™ is only to be used on systems firing No. 1 or No. 2 heating oil, or BioHeat® blends up to B5.

BE CAREFUL TO FOLLOW LOCAL CODES AND REQUIREMENTS DURING INSTALLATION.

EACH OIL BURNER MUST HAVE ITS OWN Tigerloop® TWIN™.

THE PUMP MUST ALWAYS BE SET FOR TWO-PIPE (BY-PASS PLUG INSTALLED).

SUCTION HEIGHT MUST NOT EXCEED 13 FEET.

Installation

Install the bracket provided in a horizontal position using the 4 sheet metal screws in a suitable place near the oil burner with a temperature range between 20° and 105° F. It should not, therefore, be installed on a non-insulated surface or above a flue pipe. Install all fittings in the Tigerloop® TWIN™ before mounting it to the bracket and securing it at the bottom with the two M6 screws provided. Connect the oil lines as indicated in FIG 1.

Installing the oil line

Check that the oil line is tight by a pressure test. The Tigerloop® TWIN™ must not be connected while pressure testing. The oil line and connections must be completely tight. A leak in the suction line can lead to air being sucked in, which gives unstable combustion. When starting an empty system, bleed the pump thoroughly until air free oil flows from the bleeder for more than one minute.

Oil filter

The Westwood Products F100-1 commercial spin-on filter provides 30 micron protection that insures the Tigerloop® TWIN™ will perform on high firing rate installations.

Trouble shooting

Excessive foaming in the oil de-aerators
Possible causes:

1. Leak in suction line. Check that all connections and lines are tight.
2. The feed line can be empty. Start the burner by pushing the reset button and let it run. If the burner trips out, wait and reset. Repeat a couple of times. The burner should not run without oil for more than 5 minutes.
3. The tank is almost empty.

Noise from the oil pump

Possible causes:

1. Leak in suction line. Check that all connections and lines are tight.
2. Suction height is too high. Suction height must not exceed 13 feet.
3. The oil filter is clogged. Change the filter element.

Oil is not drawn up from the tank

Possible causes:

1. Large leak in suction line. Check that all connections and lines are tight.
2. Suction height is too high. Suction height must not exceed 13 feet.
3. The by-pass plug for the oil pump has not been installed. Install the by-pass plug.

Oil level in the Oil De-Aerator

The level of oil in the lower chamber of the oil de-aerator may vary depending on

the installation conditions. For example, with an air-tight suction line and air-free oil where the oil tank is placed higher than the burner, the air pocket in the lower chamber of the de-aerator may slowly disappear until the lower chamber is completely filled with oil. **IMPORTANT!** This is not a problem. The oil de-aerator is functioning correctly. As conditions change and air enters the system, an air pocket will again form in the lower chamber of the de-aerator. If, however, the upper chamber of one or both of the Tigerloop® TWIN™ contains oil, it is damaged and should be replaced.

Service

The Tigerloop® TWIN™ has no serviceable parts inside. The two Tigerloops® are sealed at the factory and cannot be opened without destroying them. Clean the outside with a dry cloth only. *Do not use cleaning chemicals or any liquids containing alcohol!* Since the Tigerloop® TWIN™ is exposed to modern fuels and fuel blends that may contain additives and contaminants, a reliable service life of 8 years is considered maximum. Use of the Tigerloop® TWIN™ beyond that time exposes the system to risk of component failure leading to fuel leakage, fire hazard, and environmental damage.

<p>Tigerloop® TWIN™ Installation Check List (complete after installation)</p> <p><input type="checkbox"/> Heating oil is No. 1, No. 2, or BioHeat® to B5.</p> <p><input type="checkbox"/> One Tigerloop® for each burner.</p> <p><input type="checkbox"/> Installed in an upright position in an area between 20° to 105° F.</p> <p><input type="checkbox"/> Inlet pressure not above 8 PSI.</p> <p><input type="checkbox"/> Oil filter in the oil supply line before the Tigerloop® TWIN™.</p> <p><input type="checkbox"/> Fusible valve installed in the supply line at the Tigerloop® TWIN™.</p> <p><input type="checkbox"/> No valves, filters, etc., installed in piping between the Tigerloop® TWIN™ and the oil burner pump. (fusible valve permitted if required by code)</p> <p><input type="checkbox"/> Pump set for two-pipe operation. (by-pass plug installed if needed)</p>



Manufactured by
SPX Flow Europe Ltd – Sweden
<http://www.spxflow.com/en/tigerholm/pc-heating>



Distributed in the United States by
Westwood Products Inc, South River, NJ 08882 • 800-442-1630
www.westwoodproducts.com