# Tigerloop® Plus


**en-CA**

## Technical data

| | |
|---|---|
| Max. nozzle capacity | 20 gph |
| Max. return oil pumped into the Tigerloop® | 30 gph |
| Max. oil flow | 50 gph |
| Max. operating temperature | 105° F (40° C) |
| Max. ambient temperature | 105° F (40° C) |
| Max. operating pressure in feed line | 8 PSI |
| Pump connection | ¼" female thread |
| Tank connection | ¼" female thread |

**Before installing, check technical requirements and warnings carefully!**

**When installing Tigerloop® always observe all local codes and ordinances!**

**Remember to install the pump's bypass plug!**

## Tigerloop® – Automatic oil de-aerator

The Tigerloop® is a product designed to meet increasing demands on energy savings, environmental and operational safety. Environmental regulations and changes in oil qualities 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. Tigerloop® 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.

Tigerloop® combines the advantages for the oil pump of a two-pipe system with advantages from the oil tank of a one-pipe system. When using a one-pipe system and Tigerloop®, only the amount of oil used by the oil burner 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, thus eliminating the risk for hazardous leakage. A large amount of air bubbles are released when oil is drawn from the oil tank to the oil burner. These air bubbles cause breakdowns, increased soot and excessive wear on the oil pump. By functioning as an automatic de-aerator, Tigerloop® eliminates all such problems.

## General Installation Information

The Tigerloop® should be installed close to the burner. However, it should be noted that the Tigerloop® should not be exposed to temperatures in excess of 105°F (40°C). It should not, therefore, be installed on an uninsulated furnace or above the cover of a firebox or flue pipe. It must be mounted firmly in a straight upright position. Oil resistant lines must be used for connection between the oil pump and the Tigerloop®. Use the arrows under the feed and return ports of the Tigerloop® as a reference to avoid incorrect piping. The feed line should be pressure tested to ensure that it is completely tight. However, **the Tigerloop® must not be connected during pressure testing.**

The appropriate dimension of the feed line depends on pipe resistance and suction head. The decisive elements for determining the pipe resistance are the length and size of the pipe and the capacity of the oil burner nozzle. In a one-pipe system, the flow of the feed line is identical to the nozzle capacity.

Note that choosing too large a feed line diameter for the nozzle size should be avoided as too much air (and gas) is formed, with the result that there is no siphon effect and oil runs only in a thin stream along one side in the descending parts of the pipe. In such cases, it is not the height from the oil tank to the oil burner, which should be considered, but rather all ascending parts of the pipe (incl. Any suction line in the tank, see fig. 1).

**When sizing the feed line from the tank to the burner, it is important that the total resistance does not exceed the capacity of the pump.**

The built-in check valve permits connection of several oil burners to the same feed line. However, only one Tigerloop® may be installed for each burner. In this case, the total oil consumption must be used when calculating the pipe resistance. For larger capacities, we recommend using the Tigerloop® Twin.

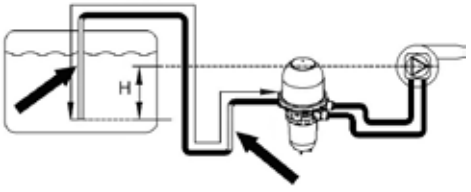


**Fig. 1**

To learn more about this product, visit www.tigerholm.com

## Installation instructions

**1**

Mount the bracket to a suitable surface near the burner using the screws provided.


**2**

Attach the Tigerloop® to the mounting bracket using the screws provided. Attach in the appropriate direction.


**3**

Mount the spin-on filter. Lubricate the surface of the spin-on element gasket with clean heating oil. Thread the spin-on element onto the threaded post and turn clockwise an additional 1/4 to 1/2 turn after the gasket makes contact with the Tigerloop® Plus.


**4**

Replace the filter element at the beginning of each heating season. Use a spin-on filter wrench to remove the filter. Also, support the Tigerloop® also by using an appropriate wrench.

### Attention

1. Install the oil de-aerator in an upright position and securely so it cannot come loose.
2. Installation must be performed by a qualified technician familiar with local codes and ordinances and licensed by proper authority where applicable.
3. **The UL-Listed unit must always be installed with a UL-Listed shut-off valve, which is threaded into the center port with the arrow facing towards the center. The shut-off valve should be equipped with a fusible-type handle, which melts at 165°F.**
4. Maximum inlet pressure is 8 psi. If the maximum pressure exceeds 8 psi, an Oil Safety Valve (OSV), or equivalent, must be installed.
5. Never install a shut-off valve or other device, which can impede flow in the lines between the oil de-aerator and the oil pump.
6. The completed installation must be tested for correct functioning and safety before leaving.
7. Never use Tigerloop® for other oils than No. 1 and No. 2.
8. Only 1 (one) burner unit per Tigerloop® connection.

## Trouble shooting

**Excessive foaming in the oil de-aerator**
Possible causes:
1. Suction leakage. Check all connections and lines.
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.
4. Incorrectly dimensioned suction line.
5. Too large burner capacity. Install two or more Tigerloop® in parallel.

**Noise from the oil pump**
Possible causes:
1. Suction leakage. Check all connections and lines.
2. Too high suction head.

**Oil is not sucked up from the tank**
Possible causes:
1. Large suction leakage. Check all connections and lines.
2. Too high suction head.
3. The bypass plug is not installed in the oil pump. Fit the 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. **On the other hand, if the upper chamber of the Tigerloop® contains oil, it is damaged and should be replaced.**

**Cleaning**
When cleaning the Tigerloop® exterior, only mild soap and water are to be used. No alcohol based cleaning agents are to be used.

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**Manufactured by**
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**www.tigerholm.com**