

# Tigerloop® Auto 2

## Automatic de-aerators for Automotive Industry

The Tigerloop® Auto 2 and Tigerloop® Auto Plus 2 are designed to meet the requirements of the Automotive Industry. The Tigerloop® Auto 2 models are suitable for auxiliary heaters and small diesel motors. The Tigerloop® Auto 2 models suitable for use with diesel (EN 590) and biodiesel (EN 14214). The Tigerloop® Auto 2 models are also designed to meet new demands on energy savings, environmental and operational safety.

Environmental regulations and changes in fuel qualities continue to place high demands not only on material selection, but also on clean and air-free fuel for optimal combustion with minimal harmful emissions. Tigerloop® Auto 2 models makes it possible to use a one-pipe system in all types of heating installations, thus ensuring the most environmentally safe method for transporting fuel from the fuel tank to the heater or motor.

Tigerloop® Auto 2 models combine the advantages for the fuel pump of a two-pipe system with advantages for the fuel tank of a one-pipe system. When using a one-pipe system and a Tigerloop® Auto 2, only the amount of fuel used by the burner is drawn from the tank. As flow of fuel decreases, so does the amount of dirt particles transported from the tank. This results in cleaner combustion.

The Tigerloop® Auto 2 models also have other advantages. The pressurized return line to the tank is removed, thus eliminating the risk for leakage. A large amount of air bubbles are released when fuel is drawn from the fuel tank to the heater or motor. When using biodiesel, the viscosity will change dramatically, especially in cold weather. The flow of Biodiesel is restricted causing a higher resistance, which leads to the release of even more air bubbles in the fuel. These air bubbles causes disruptions, soot build-up and wear and tear on the pump / motor. By functioning as a self-de-aerating day tank, the Tigerloop® Auto 2 models will eliminate such problems. The Tigerloop® Auto 2 models even act as a fuel heater by using the friction of the pump to heat the fuel circulating between the Tigerloop and the fuel pump.

### Cleaning

When cleaning the Tigerloop® exterior, only mild soap and water are to be used. Do not use alcohol based cleaning agents.

**When installing Tigerloop® Auto 2 models always observe local codes and ordinances!**

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SPX Flow Technology Sweden AB  
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Tigerloop Auto 2

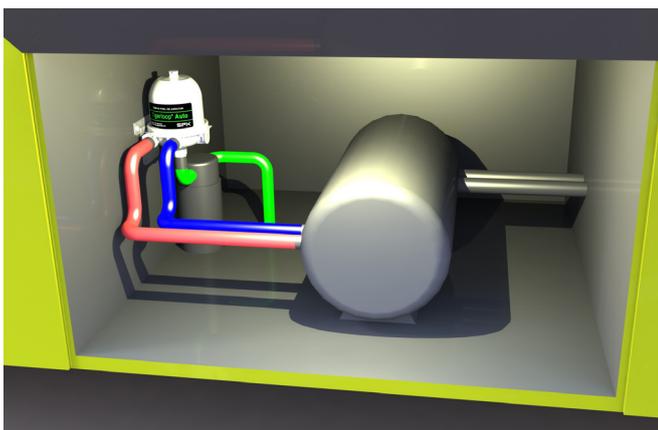


Tigerloop Auto Plus 2



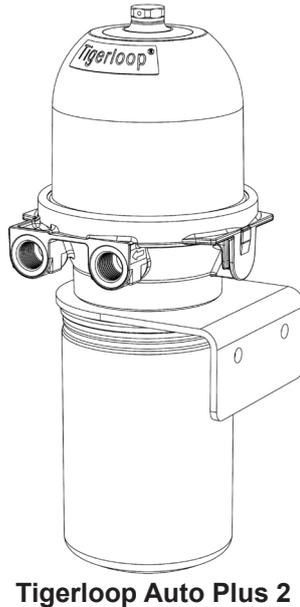
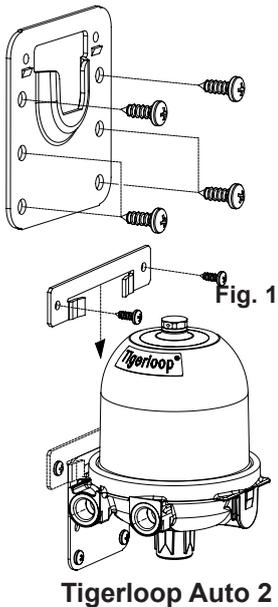
## Technical data

Suitable fuels	Diesel (EN 590) Biodiesel (EN 14214)
Max. nozzle capacity/fuel consumption	90 kg/h (110 l/h)
Max. return fuel pumped in the Tigerloop	100 kg/h (120 l/h)
Max. fuel flow (consumption + return)	190 kg/h (230 l/h)
Max. operating temperature	+85° C
Max. ambient temperature	+85° C
Min. / Max. operating pressure in feedline	-0.6 to 0 bar
Pump connections	G 1/4" female threading
Tank connection	G 1/4" female threading
Filtration (Tigerloop Auto Plus 2)	20 micron
Dimensions Tigerloop Auto 2	136 x 95 x 97 mm
Dimensions Tigerloop Auto Plus 2	250 x 106 x 96 mm



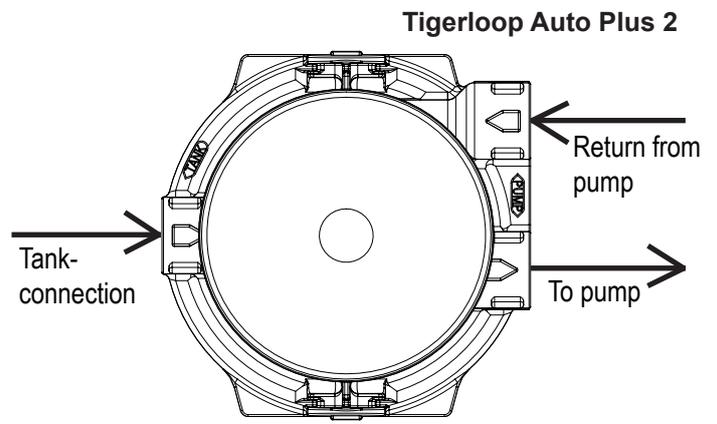
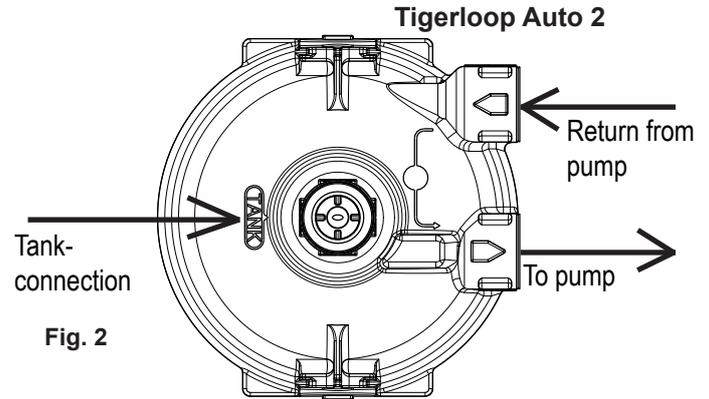
## Installation

Mount the supplied bracket for Tigerloop Auto 2 in a suitable place near the heater / diesel motor, but not where the temperature can exceed 85°C. The bracket must not be placed on the diesel motor as this may result in shortened life expectancy of the Tigerloop Auto 2 due to vibrations (install where exposed to the least amount of vibration). Be sure the Tigerloop is mounted straight and that it is positioned correctly in the bracket. Mount the locking shackle centered over the bracket (see fig. 1). This ensures that the Tigerloop will not come loose from the bracket. The screw hole size in the bracket and locking shackle is 5 mm. Use fuel resistant hoses/ pipes for connecting between the Tigerloop Auto 2 models and the fuel pump.



## Installing the fuel line

Fuel resistant hoses/pipes must be used. Install the fuel line connections between the fuel pump and the Tigerloop AUTO 2 models according to the arrows (inlet and return). Install the suction line from the tank according to the arrows (also marked Tank). See fig. 2.



Tigerloop Auto Plus 2 is installed in the same manner as written above. But it comes with an integrated bracket that is screwed in place with suitable screws (screws not included) before the filter is mounted.

### IMPORTANT NOTE:

**Only the Tigerholm original spin-on filter is to be used on the Tigerloop Auto Plus 2 model to guarantee the o-ring seal between the filter and de-aerator.**

## Trouble Shooting

### Heater/diesel motor shuts off

Possible causes:

1. Suction leakage. Check all connections and lines.
2. The feed line can be empty. Start the heater/diesel motor and let it run. The fuel pump should not run without fuel for more than 5 minutes.
3. The tank is almost empty.
4. Incorrectly dimensioned suction line.

### Noise from the fuel pump

Possible causes:

1. Suction leakage. Check all connections and lines.
2. Too high suction head.

**When dimensioning the suction line it is important that the total resistance does not exceed the burner fuel pump capacity.**

Check that the hoses/pipes and connections are tight by pressure test with max 1,0 bar. Tigerloop Auto 2 models must not be connected when pressure testing over 1,0 bar. When starting a new system with empty hoses/pipes, the Tigerloop Auto 2 models automatically purges the system. The fuel pump should not however run longer than 5 minutes without fuel. Due to the high requirements placed on materials and environment, Tigerloop Auto 2 models should be replaced after 2 years.

## Recommendation

To avoid potential problems, each heater / diesel motor shall have its own suction line. We recommend one Tigerloop for each heater / diesel motor. Use the burner nozzle capacity or the diesel motors max fuel consumption to dimension the size for the suction line. Too large of a suction line should be avoided as air bubbles can form leading to loss of siphon effect.

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