

TF1 OMEGA +

This secure and durable, high performance filter, is simple to clean and service, and utilises unique Hydronic Particle Separation and magnetic filtration to remove system debris from light-commercial heating systems.

- Pressure tested, sealed unit designed for light-commercial heating systems
- High efficiency capture across a range of flow rates and system sizes
- Easy to install – fits on horizontal and vertical pipework orientation. The filter can operate at a 45° angle
- Fast and easy to clean, without the need to disassemble the unit
- Unique action, specifically designed for larger system sizes, enabling the capture of a range of magnetic and non-magnetic types of debris
- Will not block or restrict flow
- Durable and robust construction, made from a high quality, non-porous brass
- Powerful neodymium magnet assembly
- Available in 1 ¼" and 1 ½" female pipework connections
- As with all magnetic products, if you have an implanted cardiac device extra caution should be taken at all times when handling any magnetic filter

Application

Designed to be installed on light-commercial systems, on the relevant pipework size. The filter can be easily fitted onto either horizontal or vertical pipework in both flow directions.

Technical Specification

Materials – Detailed description of materials, for all components

- Filter Body – Forged brass (EN 12165-CW617N-DW), Nickel plated
- Manifold – Cast brass (EN 1982-CC754S), Nickel plated
- Magnet – Neodymium, Stainless Steel sheath
- Hydronic Particle Separator – Stainless Steel
- Circlip – Stainless Steel
- Drain Valve – Nickel plated brass
- Seals & Washers – EPDM



TF1 Omega +

- TF1 Omega + 1 ¼" NPT – 62373
- TF1 Omega + 1 ½" NPT – 62374
- TF1 Omega + 1 ¼" BSP – 62375
- TF1 Omega + 1 ½" BSP – 62376



Performance

Suitable fluids

- Water
- Inhibited Glycol Solutions
- Fernox Chemical Range / System Additives

Max percentage of glycol 50%

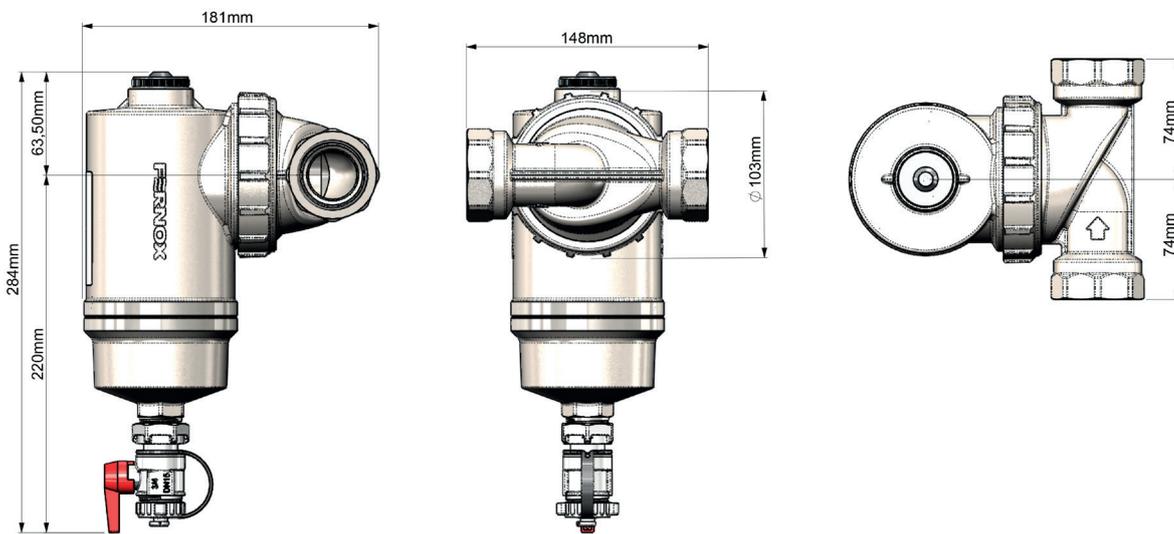
Max working pressure 10bar (145psi)

Max flow rate TF1 Omega + 1 ¼" – 80 L/M
TF1 Omega + 1 ½" – 100 L/M

Normal working temperature range 0°C – 100°C

Capture rate Up to 100% of system contaminants

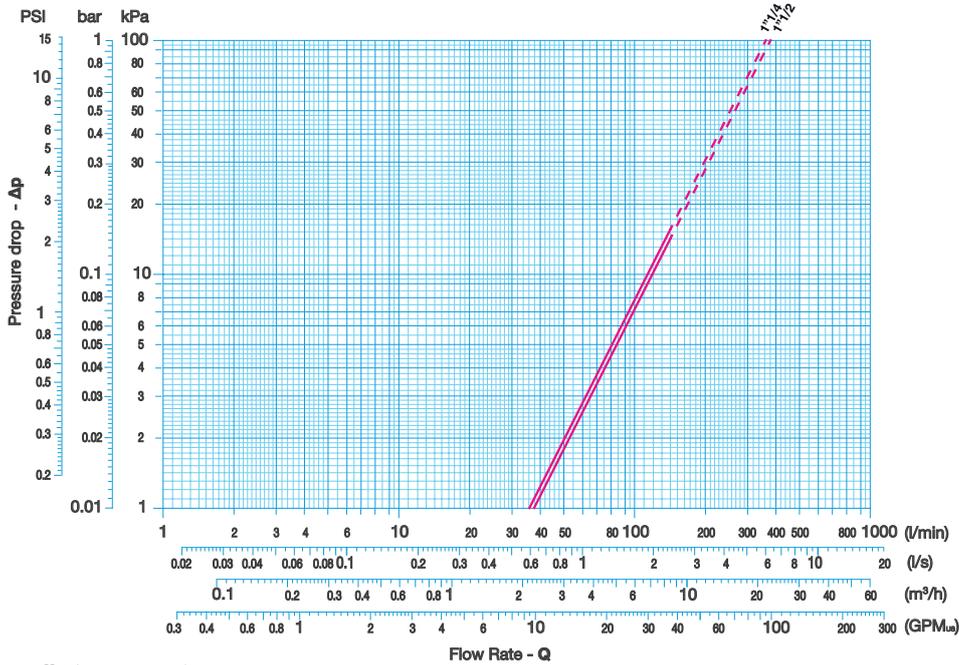
Dimensions and weight 1 ¼" – 4960 grams (complete box)
1 ½" – 4810 grams (complete box)



Operating principle

1. Contaminated water enters the filter via the manifold, carrying a variety of system debris and particulate matter held in suspension. This debris, including ferrous impurities such as Magnetite, move through the manifold and into the main body of the filter.
2. Water is forced down towards the bottom of the filter due to the engineered flow characteristics created within the filter by the Hydronic Particle Separator (HPS). The HPS helps to disrupt any dirt particles held in suspension by the water, as well as direct these particles towards an engineered area of low flow at the base of the filter.
3. The dynamic flow of the water within the filter also allows ferrous impurities to be captured by the high powered magnet assembly.
4. To exit the filter, water has to pass over the magnet sheath and around the HPS, then out of the manifold. In this way, system debris has difficulty escaping the unit, and is either trapped in the area of low flow, or captured by the powerful magnet, meaning clean water exits the filter.
5. Any dirt collected within the filter can then be discharged by removing the magnet from the sheath, and opening the drain valve. This procedure is shown in the cleaning guide, and does not require system shutdown or for the filter to be disassembled.

Hydraulic Characteristics



Installation Instructions

The TF1 Omega + can be installed on vertical or horizontal pipework, in accordance with the flow direction indicated by the arrow on the manifold. The filter should ideally be fitted on the return to the boiler, and can be installed at up to 45° from the vertical position.

Cleaning Guide

1. Switch off the boiler
2. Remove the magnet
3. Remove the drain valve cap
4. Open the drain valve, flush out the filter until water runs clear
5. Close the drain valve
6. Replace the drain valve cap. Re-insert the magnet
7. Restart the boiler

Construction Details

Engineered Brass Construction

The TF1 Omega + is constructed from a high strength engineering grade brass, suitable for heating and cooling system applications. The cast brass manifold has been vacuum treated to ensure it is non-porous, and each complete filter is pressure tested on the line to ensure there are no leaks. The brass components are nickel plated to increase durability. The filter is compatible with a range of glycols and additives used in a heating system.

Low pressure loss

The TF1 Omega + has been designed to ensure there is a minimal pressure head loss, whilst also maintaining a high collection efficiency. The internal HPS, magnet assembly and area of low flow have all been engineered to allow the filter to capture a range of system contaminants, whilst ensuring this does not impact the rest of the heating system.

High quality components

The TF1 Omega + utilises a range of high quality component parts that ensure the filter offers the best possible performance. The magnet is made using a premium grade of neodymium, which enables a high efficiency capture rate. The magnet combines with the stainless steel hydronic particle separator to create continued and consistent filtration of a range of system contaminants.

Installation The TF1 Omega + should not be installed outside

Storage No special storage requirements

Warranty 5 year