62772 - TF1 Sigma Mini Installer Pack

The Fernox TF1 Sigma Mini Installer Pack is the complete solution to cleaning, protecting and guarding a central heating system in line with BS 7593:2019 and the Benchmark Commissioning Checklist. It includes the industry leading TF1 Sigma Mini Filter, Fernox Cleaner F3, Fernox Protector F1 265ml and Fernox Express Inhibitor Test Foil Pack (x2 test strips).

- Complete pack for cleaning and protecting a central heating system.
- The TF1 Sigma Mini is a compact high-performance system filter that utilises a powerful neodymium magnet to protect your system against the damaging effects of corrosion. The TF1 Sigma Mini has the smallest footprint of any filter in the marketplace, which means it can be easily installed directly below a boiler or in restricted spaces on horizontal or vertical pipework.
- Protector F1 & Cleaner F3 265ml treat an average sized UK home of up to 100L, 12 radiators and 190 sqm of underfloor heating. Smaller volume product – less packaging waste and lower environmental impact.
- The Fernox Protector F1 265ml provides long-term protection against internal corrosion and limescale formation in central heating systems.
- The Fernox Cleaner F3 265ml is a universal, fast acting and effective pH neutral cleaner for central heating systems, designed to remove debris, sludge and scale from existing systems.
- Supplied with a Fernox Express Inhibitor Test Foil Pack (x2 test strips).

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Application

The TF1 Sigma Mini offers an ultra-compact design which does not compromise on performance. The reduced filter and pipework footprint means the filter can be installed directly under a boiler, and with as little as 105mm clearance. The TF1 Sigma Mini is a magnetic system filter, specifically designed for use in tight spaces. The filter can be easily fitted onto horizontal, vertical, or any 360º pipework orientation.
The TF1 Sigma Mini should not be installed outside, and ideally on the return flow to the boiler.

The recommended ‘in use’ concentration of Protector F1 is 0.265%. One 265ml bottle will treat an average domestic system (100 litres). For open vented systems add via the feed and expansion tank. For sealed systems add via a suitable dosing point (e.g. a towel rail or an in-line TF1 system filter). Alternatively, use a suitable dosing vessel to inject the product into the system. In single feed indirect cylinders, e.g."Primatic" or similar, potable water chemicals must be used. Fernox recommends untreated or sludged systems are thoroughly cleaned and flushed in accordance with BS 7593:2019 and Benchmark using any product from the Fernox Cleaner range, before treating with Fernox Protector F1, as existing debris can damage the installation and may reduce the lifespan of the boiler and system.

One 265ml bottle of Cleaner F3 is sufficient to clean an average domestic central heating system (100 litres). Additional/repeat applications of Cleaner F3 may be used for larger, dirty systems. First, drain and refill the entire system with plain water. For optimum results, the entire system, including drop feed radiators where fitted, should be completely drainable. Preferably, full bore gate valves with hose connectors should be provided temporarily for this purpose. Motorised and thermostatically controlled valves must be set so that no part of the system is closed off during cleansing or rinsing. Discharges must be made to the foul drain and not to surface water drain.
For open vented systems add Cleaner F3 via the header tank. For sealed systems add via a suitable dosing point or TF1 Filter. Fernox Cleaner F3 can also be used in conjunction with a powerflushing unit. In this case, please refer to the unit manufacturer's instructions.
When pre-commission cleaning new systems, Fernox Cleaner F3 should be circulated for a minimum of one hour at normal operating temperature.
For cleaning existing systems, sludge and debris should be dispersed also within one hour at normal operating temperatures. However, to remove hardened iron oxides and limescale, the cleaning time can be extended to up to one week under the normal heating cycle. If a radiator still has a cold spot after one hour, increase the flow through the radiator by closing the valves on the other radiators. An additional or repeat dose of Cleaner F3 may be necessary in some cases.
Drain and flush thoroughly, at least twice, until the water runs clear.
When using Cleaner F3 with a powerflushing machine, cleaning should be completed within an hour. Use dynamic flushing with plain water until the water is clear. Refill system adding Fernox Protector F1 for long-term protection against corrosion and limescale .In single feed indirect cylinders, e.g."Primatic" or similar, potable water chemicals must be used.

Packaging, Handling & Safety

As with all magnetic products, if you have an implanted cardiac device extra caution should always be taken when handling any magnetic filter.

Individually packaged with instructions included. No special storage requirements.

Fernox Protector F1 and Cleaner F3 are supplied in 265ml bottles and classified as non-hazardous for human health, but as with all chemicals, keep out of reach of children. In case of contact with eyes or skin, rinse immediately with plenty of water.

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Specification

• Filter Body – Glass Reinforced Nylon
• Manifold – Nickel Plated Brass
• Circlip – Stainless Steel
• Drain Valve Cap – Nickel Plated Brass
• Magnet – High Powered Neodymium
• Seals & Washers – EPDM

Protector F1 is a blend of inorganic and organic corrosion and scale inhibitors.
Form: Liquid
Odour: Aromatic (slight)
Colour: Yellow
pH(conc.): 8.1
pH(soln.): 7.0 to 8.0
SG: 1.18 at 20°C

Cleaner F3
Colour: Amber
Odour: Faintly Aromatic
Form: Liquid
pH (conc): 6.7
pH (in-use) 6.5 - 7.7
SG: 1.195 @ 20°C

Performance

Suitable fluids
• Water
• Inhibited Glycol Solutions
• Fernox Chemical Range / System Additives

Max percentage of glycol: 50%
Max working pressure: 5bar (72psi)
Max flow rate: 30 L/M
Normal working temperature range: Filter suitable for working temperatures between 0ºC – 100ºC
Capture rate: Up to 100% of system contaminates

Operating principle
1- Contaminated system water enters the TF1 Sigma Mini via the manifold, then moves into the main body of the filter, carrying debris and particulate held in suspension by the water.
2- As dirty water enters the filter body, it passes over the high-powered neodymium magnet assembly, with sludge and magnetite captured and retained with the filter.
3- The combination of engineered flow paths through the filter, as well as the unique manifold design ensure debris is removed effectively without adversely impacting flow through this system. This promotes high capture rates for a filter of this size, while maintaining low pressure loss.
4- All dirt captured within the filter can be easily discharged via the drain point. This procedure is described in the cleaning guide and does not require disassembling the filter

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Volumetrics & Barcodes

Barcode EAN	5014551627727	OCU Barcode	
Single Unit Weight (kg)	1.528	Outer Carton Weight (kg)	
Single Unit Height (mm)	115	Outer Carton Height (mm)	
Single Unit Width (mm)	265	Outer Carton Width (mm)	
Single Unit Depth (mm)	180	Outer Carton Depth (mm)	

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