

## **CENTRAL HEATING CLEANER F3 EXPRESS**

- Quick, convenient and simple to use – doses in 30 seconds
- Added via a radiator adapter or filling loop supplied
- 100% recyclable can
- Compatible with all metals and materials including aluminium
- Removes sludge and scale and restores heating efficiency
- Removes flux residues and other debris
- pH Neutral, non-hazardous and environmentally formulation



### **Product Description**

Cleaner F3 Express is an aerosol product designed to make dosing a system quick and simple with no mess or inconvenience to the user. As with all Fernox Cleaners, Cleaner F3 Express is an effective neutral cleaner.

Cleaner F3 Express has been designed for pre-commission cleaning of new installations in accordance with BS7593, removing flux residues and other installation debris, to help extend the life of a system.

Cleaner F3 Express can be used in conjunction with Fernox Powerflow MKIII powerflushing machine and all known makes of powerflushing machines to remove all debris, sludge and scale from existing systems. In this way, it will restore heating efficiency and eliminate or reduce boiler noise in heavily contaminated systems.

Cleaner F3 Express is a neutral, non-hazardous product that is well inhibited and compatible with all metals and materials commonly used in heating systems.

For continued long term protection the system should be thoroughly cleaned and flushed in accordance with legislation BS7593:1992 and Benchmark using Fernox Cleaner F3 Express, before treating with a Fernox Protector F1. We recommend Protector levels are checked regularly (annually).

### **Physical Properties**

Colour:	Amber
Odour:	Faint
Form:	Liquid
pH (conc):	6.5
pH (0.4% soln)	6.5 – 8.0
SG:	1.2 (20°C / 68°F)

### **Application and Dosage**

Cleaner F3 Express will protect a large system (130 litres or up to 16 single radiators) and maybe added via a radiator or filling loop. Fernox Cleaner F3 Express can be dispensed directly into a radiator air vent or system filling loop using the appropriate special adapter supplied with the product. Additional/repeat applications of Cleaner F3 Express may be necessary, for larger systems or if systems are heavily sludged.

Fernox Cleaner F3 Express is also designed to be used in conjunction with a powerflushing unit. In this case, please refer to the unit manufacturer's instructions.



When using Cleaner F3 Express with a powerflushing unit, cleaning should be completed within an hour. Use dynamic flushing with plain water until the water is clear, testing with the TDS meter as above to ensure through flushing.

Refill the system adding a suitable Fernox Protector for long term protection against corrosion and limescale.

In single feed indirect cylinders, e.g. "Primatic" or similar, potable water chemicals must be used. 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 cleaning or rinsing. Discharges must be made to the foul drain and not the surface water drain.

For open vented systems add Fernox Cleaner F3 Express via the header tank. For sealed systems add via a radiator using a Fernox Injector.

When cleaning existing systems sludge and debris should be dispersed for at least one hour at normal operating temperatures. However, to remove hardened iron oxides and limescales, 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 Express may be necessary in some cases.

Drain and flush the system thoroughly to remove the cleaning chemical and debris. At least three complete changes of water are likely to be required. This is a crucial part of the cleaning process and must be carried out correctly. Use a rinse test meter such as the Fernox TDS meter to ensure that the Total Dissolved Solids have been satisfactorily removed. The system can be regarded as being thoroughly flushed when the system water value is within 10% of the mains water value. Differences over 10% mean that significant cleaner residues have been left in the system and further flushing is required. If not removed, cleaner residues will promote corrosion and negate the cleaning process.