



# MECHANICAL FUEL PURIFIER FOR TANKS FB 800

## FB800 Specification & Operating Instructions

**Power Supply:** 220 volt (nominal voltage)

**Frequency:** 50 Hz (nominal frequency)

**Max. Variations:** Voltage: +/- 5% of the nominal value  
Frequency: +/- 2% of the nominal value

**Wattage:** 550 W

**Max Current:** 3.8 Amps max.

**Protection:** Power cable 3 pin plug fitted with a 2 amp fuse.

**Motor Rating:** The motor and pump are both rated for continuous operation.

**Electrical Safety:** An R.C.D., (Residual Circuit Breaker), must be used under all operating conditions.

**Out Door Use:** Can be used outdoors but is NOT suitable for use in WET conditions.

**Flow Rate:** 28 lit/min (with clean purifier)

**Tank Size:** Suitable for tank sizes of up to 1000 litres.

**Noise Level:** Under normal working conditions, the noise level does not exceed 68 dbA at a distance of 1 metre from the electric pump.

**Weight:** 25 kg

**Dimensions:** (L) 500mm (W) 430mm (H) 1100mm

**IP Rating:** IP55 (pump/control panel)

**System Pressure:** 1 bar (14.7 psi) nominal working, 4 bar (88 psi) Maximum

**Pump Inlet Pressure:** When the FB800 is operating, the pump can work with a maximum pressure at the inlet of 0.5 bar. Pump inlet pressure beyond this value will lead to cavitation, a consequent reduction in system flow rate and increase in system noise.

**Permitted Use:** Diesel fuel with a viscosity between 2 and 5.35 cSt (@ 37.8 Deg C) Minimum Flash Point (PM): 55 Deg C



**NOT PERMITTED:**

**GASOLINE**  
**INFLAMMABLE LIQUIDS WITH PM < 50 C**  
**LIQUIDS WITH VISCOSITY > 20 cSt**  
**WATER**  
**FOOD LIQUIDS**  
**CORROSIVE CHEMICAL PRODUCTS**  
  
**SOLVENTS**

**RELATED DANGERS:**

**FIRE - EXPLOSION**  
**FIRE - EXPLOSION**  
**MOTOR OVERLOAD**  
**PUMP OXIDATION**  
**CONTAMINATION OF THE SAME**  
**PUMP CORROSION**  
**INJURY TO PERSONS**  
**FIRE - EXPLOSION**  
**DAMAGE TO GASKET SEALS**

**Health, Safety & Environmental Considerations:**

The FB800 is designed for mobile use. When lifting for transportation or storage, extreme caution should be taken and the necessary Health and Safety precautions should be observed as the equipment weighs 25 kg. dry and 31 kg. wet.

**Caution.**

Inappropriate use of the FB800 can cause serious injury. Only competent and authorised persons should be permitted to operate this equipment. Children/minors should never be permitted to operate or move this equipment. 4

This product should only be used for its intended purpose. Using this product for any other than its intended purpose could result in serious injury or death.

Always use appropriate safety equipment eg. safety glasses, protective gloves, safety shoes etc. and observe local environmental health and safety requirements.

Prolonged contact with diesel fuel can damage the skin. The use of safety glasses and protective gloves is recommended.

Only use this product with **DIESEL FUELS having a viscosity between 2 & 5.35 cSt (@ 37.8 Deg C)** and a minimum Flash Point (PM) of 55 Deg C. It must **NOT be used for any other liquids.**

Never start or stop the pump by inserting or removing the plug from the power supply. Never leave the FB500 running if unattended.

Do not operate switches with wet hands.

Do not run the pump dry, this can cause serious damage to its components. Periodically check the power supply cable and plug for damage.

Special consideration should be given when this equipment is used in a marine environment. Ensure that used filters are disposed of following local environmental requirements. Ensure that any water drained from this equipment is disposed of following local environmental requirements as it may contain traces of diesel fuel.

MLS is an environmentally aware company. Always ensure that any used filters, and drained contamination are disposed of according to local environmental requirements.

## FB 800 Unit Operation

### Basic description:

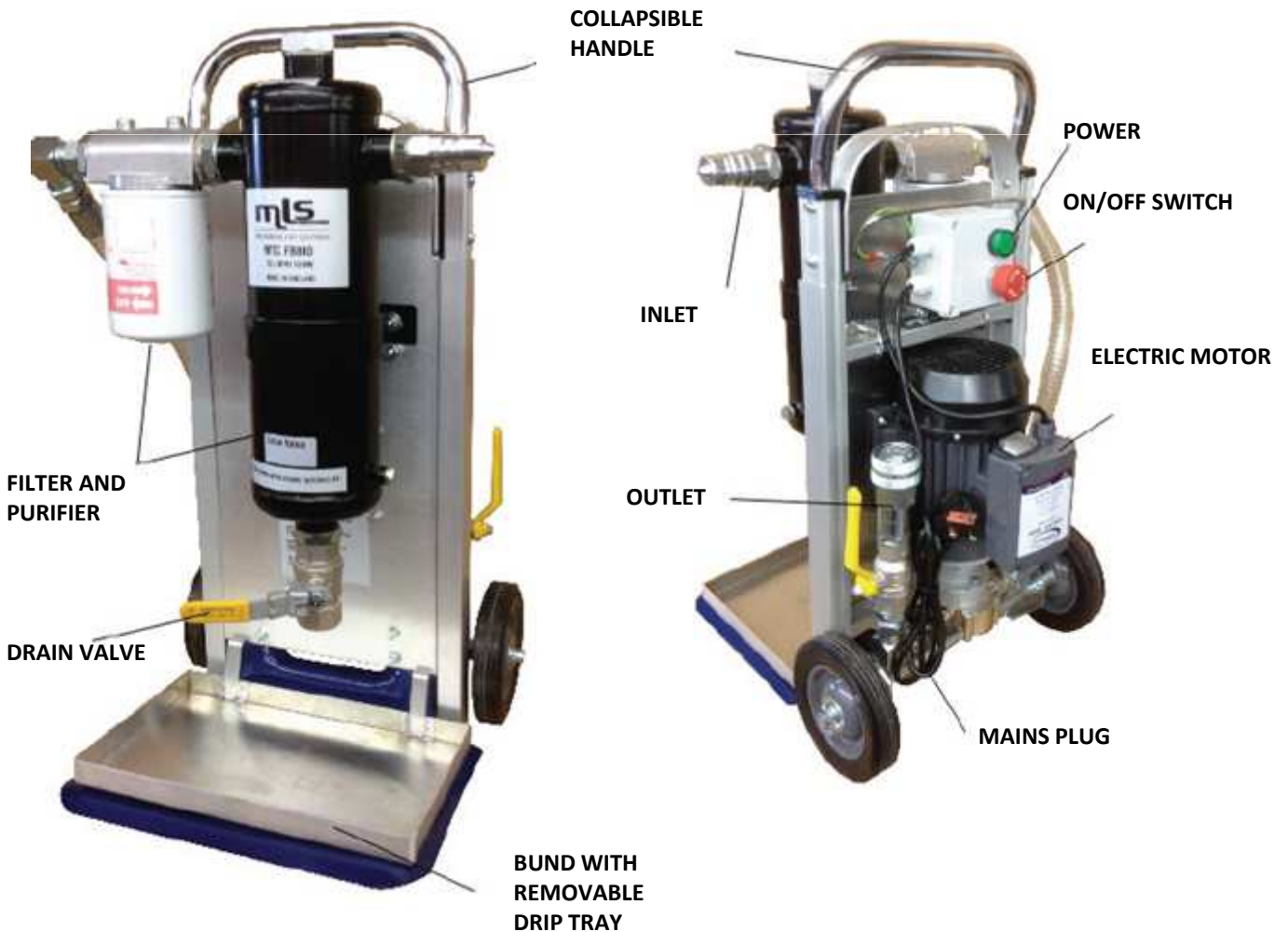
Diesel fuel is known to be inherently unstable. Solids begin to form, condensation introduces water and the accumulating tank sludge will eventually clog engine filters and potentially damage fuel injection equipment leading to unplanned maintenance and potential engine failure.

The FB800 Fuel Polishing Buggy conditions and stabilizes the fuel, removes water and tank sludge and helps to eliminate microbial contamination from fuel tanks.

The FB800 Fuel Polishing Buggy is designed to be used as a system for the “purifining” of diesel fuels having a viscosity between 2 & 5.35 cSt (@ 37.8 Deg C) and a minimum Flash Point (PM) of 55 Deg C. It must **not be used for any other liquids.**

The FB800 Buggy can be used during the filling of equipment fuel tanks, the transferring of fuels from one fuel tank to another, the filtration of fuel within the same fuel tank or within a storage site.

## FB 800





**Before Starting the unit:**

Ensure that the FB800 is standing on a firm, even surface and that it is in a vertical position. Never operate the FB800 in any position other than vertical.

Always double-check the buggy's general condition before use, paying special attention to electrical cables, tap connections and hoses. If there are any signs of damage or excessive wear, DO NOT USE IT.

**Priming Instructions:**

The pump must be stopped and the plug removed from the power supply before carrying out the priming procedure.

The FB800 unit is capable of lifting fuel from a depth of 1.5 M below the level of the pump. The unit must however be primed to ensure correct performance.

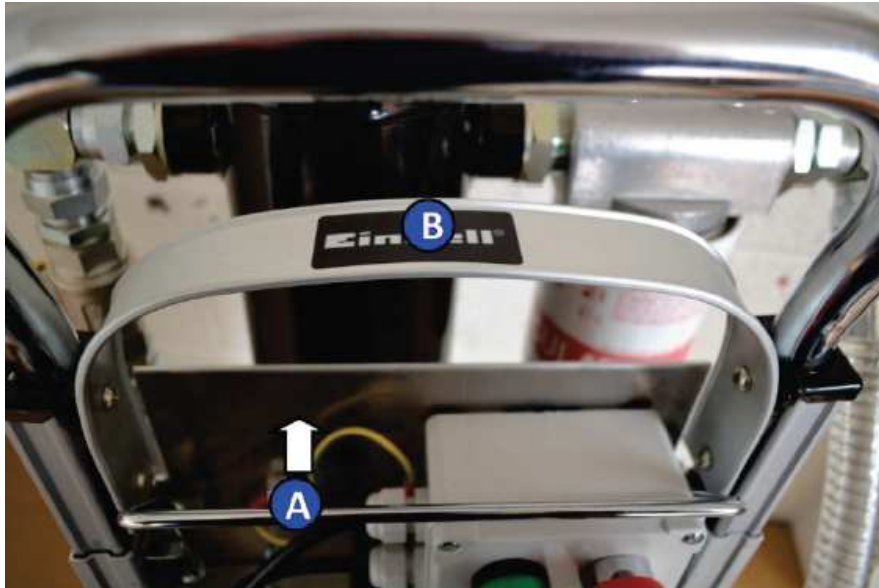
Firstly ensure that both the inlet and outlet valves are fully CLOSED.

Remove the vent plug from the top of the unit and fill with diesel.

In addition, if starting the unit after completely draining the system, the pump may need to be primed. To do so, remove the outlet hose by disconnecting at the quick release coupling. Open the outlet valve and pour clean diesel fuel into the coupling to fill the pump chamber and re-fit the outlet hose.

**Collapsible Handles:**

The FB800 has a collapsible handle which is designed to allow the unit to be more easily transported in service vehicles. The unit can be operated with the handles in either the raised or lowered positions. When moving the FB800 around site however, it is recommended that the unit only be moved with the handles in the extended position.



Push **A** to release handle, then pull **B** to extend handle to full height



To raise or lower the handle, push the horizontal bar (A) the pull (B) to extend handle. Always ensure that the handles are in the locked position, (a loud click will be heard as the lugs lock), whether the handles are in the extended or collapsed position, before attempting to move or carry the buggy.

**FB800 with Handles Lowered for Transport**

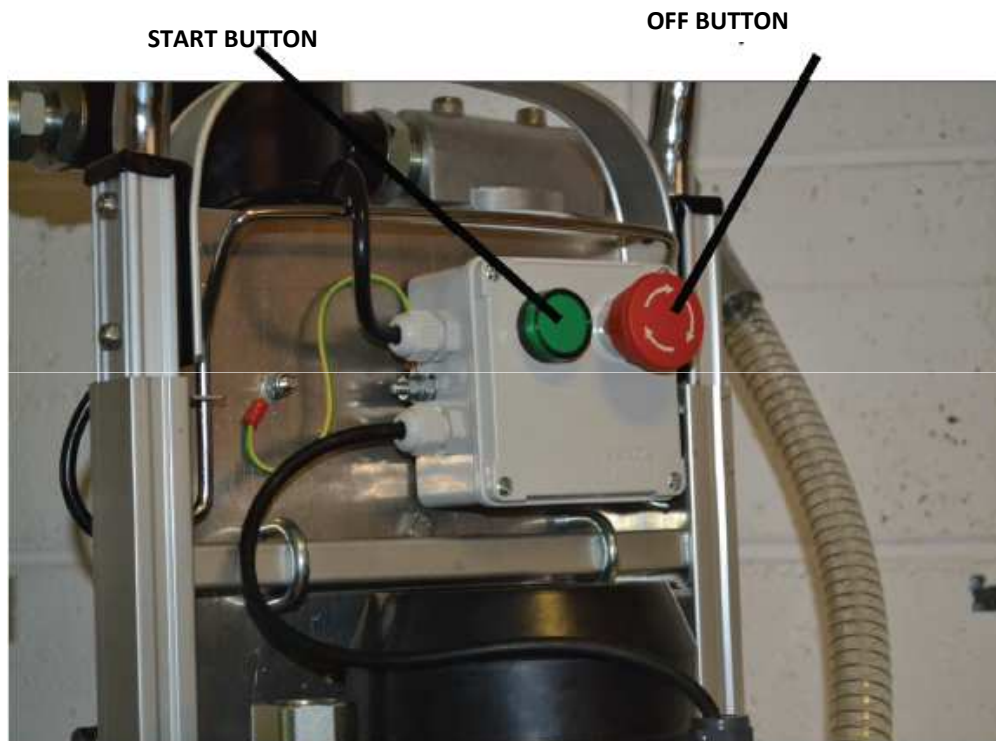


**Starting and Stopping the unit:**

Do NOT operate the unit with wet hands.

To start the FB800, first make sure that the unit is plugged into a suitable 240 volt fused supply with an RCD, and that suitable inlet and outlet hoses have been attached to the unit. Before starting the pump, ensure that the hoses are inserted into the fuel supply to be cleaned and also into a suitable return vessel, if that is not the original tank, and that the unit has been primed in accordance with the priming instructions.

Open the inlet and outlet valves and turn the Off/On switch on the front of the control panel clockwise to the On position. The pump will run, and the unit will start to pump diesel fuel from the tank into which the inlet hose has been placed.



Do NOT insert or remove the 3 pin power plug to start or stop the unit.

When operation is complete and the motor has been stopped, or when draining water from the filter canister, or cleaning or replacing filter elements, always stop the motor and remove the plug from the power supply.

Never run the motor without fuel in the suction tube.

**Spillages.**

A removable drip tray is provided to catch any spilled diesel and/or contaminated water. This can be easily removed to dispose of these spillages safely.

**Trouble Shooting (only to be carried out by a competent, authorized person);****The unit has stopped or will not start:**

Check that the unit is plugged in and switched on. Check the 2 amp fuse in the plug.

There is an isolator switch located on the rear of the motor/pump assembly. Check that this switch is in the ON position.

**Pump will not prime:**

The priming procedure has not been carried out - Follow the priming instructions.

Pump is more than 1.5 M above fluid level – Reduce the height between the pump and the fluid being pumped.

Air leak in the suction tube/filter assembly – Check the suction hose for splits/loose connections and all connections are air tight.

Blocked Filters – Check and replace the filter element.

Obstructions in the suction and/or delivery hose(s) – Check hoses for obstructions and clean if required.

Suction and/or delivery hose is too small in diameter – Replace with correct, new hoses from MLS (see replacement parts list).

**If the problem persists, contact MLS for further assistance.**

**Replacement Parts List:**

<b>Part Number</b>	<b>Description</b>
1640611C	Diesel Pump
CT70010	Spin On Fuel Filter
FOS-BO512	Inlet Hose Assembly x 3 Metres Long
FOS-BO513	Outlet Hose Assembly x 3 Metres Long
	Bund Tray

**Warranty:**

Goods are supplied subject to, and with the benefit of, the manufacturer's warranty as to quality and fitness for purpose, which, unless specified otherwise in any written quotation, is for 12 months from date of delivery to the original purchaser.

Any remedial work carried out by persons other than MLS's own engineers may only be claimed under warranty cover if (a) we have previously approved the work to be done by others and (b) at our standard approved rates for the time and material cost of the task completed.

Other than as set out in these Terms and Conditions, no warranty, guarantee or other term relating to quality or fitness for purpose whether implied by statute or common law is given in respect of goods supplied by us.

Except in respect of death or personal injury caused by our negligence we shall not be liable to you for any loss of profit or any indirect or consequential loss, damage, costs or expenses which arise out of or in connection with the provision of the goods by us to you.