



SUB TANK 240-I O&M

The ESPA Sub Tank 240-I is a fully automatic inverter driven break tank and pressure set to restore system pressure when the mains supply is insufficient. For commercial and domestic applications and complies with the Water Authority Byelaws.

Location

The unit should be sited in a dry, easily accessible environment not subject to extremes of temperature and mounted on a flat, stable base capable of bearing the weight of the unit when full of water.

Installation

Ensure that an isolation valve is fitted before the mains water connection to the ball valve. Connect the mains cold water supply to the ball valve inlet ½" male BSP situated on the side of the byelaws 30 chamber. Connect the discharge outlet via 1 1/4" ball valve on header. A Byelaws 30 overflow kit is supplied with the unit. This kit must be fitted by the installation engineer just above the max-fill water line on the main 240-litre tank on the most convenient side. The max-fill line is designated by two moulded lines near the top of the tank situated on two opposite sides. The byelaws 30 chamber is designed to accommodate a maximum incoming flow rate from the mains of 18 litres per minute. The installation engineer must ensure that the overflow pipe work can accommodate this flow. A flow restrictor should be fitted to the inlet if necessary.

Electrical Data

A qualified electrician in accordance with DIN VDE 0100 part 702 or the latest I.E.E regulations should carry out all electrical work.

The unit will run from a standard 240-volt supply. Motors are designed to operate +/- 6% of the spot voltage shown on the rating plate. The electrical installation must have multi-pole isolator with minimum 3mm contact openings protected by a 30ma residual current detector. (Earth leakage trip).

Operating Adjustments

The Sub Tank is a completely automated unit. **Please refer to the inverter manual for instructions on changing inverter parameters.**

Operation

1. Turn on mains water and allow tank to fill and ensure that the vent is open above pump to prevent the pump from air locking. Once the tank is full, close venting valve.
2. Switch electrical mains power on and the pump will run to the preset pressure, set on a closed valve condition.
3. Bleed discharge pipe work of air by operating all taps on the system. Once all of the taps have been closed the system will run up to pressure and the pump will stop. The system is now ready to operate.

Warranty

A manufacturers warranty of 12 months from purchase date is valid on this Sub Tank 240 I.



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Maintenance

Whilst the Sub Tank set requires minimal maintenance it should be inspected on a regular basis, as a failure of the unit could potentially cause personal injury and considerable damage. It is recommended that the following checks be carried out at intervals of not more than six months.

- Check that there are no leaks.
- Check that the pump operates quietly and smoothly.
- Check and adjust the pre-charge of the pressure vessel. Maintain pre-charge to 0.5 bar below duty pressure.

If the mains water supply is restricted or excessive use of water from the system occurs the inverter on the unit may stop the unit causing a fault, because of low water in the tank. The unit will not operate again until both the:

1. Tank has filled with water.
2. Follow the inverter instructions for inverter reset.

Fault Finding Chart

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| Unit does not operate | <ul style="list-style-type: none"> Check incoming mains supply Check settings on inverter No water in tank Faulty inverter Pump seized Vent pump |
| Pump runs but does not pressurise | <ul style="list-style-type: none"> Pump has not been vented correctly Check settings on inverter Leak in system Check pre-charge in vessel Vent pump |
| Pump starts and stops too frequently | <ul style="list-style-type: none"> Leak in system Check settings on inverter Check pre-charge in vessel Vent pump |
| System pressure too low | <ul style="list-style-type: none"> Check settings on inverter Check pre-charge in vessel Check for leaks |