

# **Important For Pump Installation !**

*This addendum is supplemental to, and must be read in conjunction with the SteelPumps Manual.*

All instructions in the SteelPumps Manual MUST be followed, noting, for the avoidance of doubt, the following additional requirements:

Ensure that the anticipated flow rate of the system is suited to the performance of the pump.

**Steelpumps must not be allowed to freeze** - Freezing water will expand and damage the pump.

**Steelpumps are water cooled** and therefore must not be used in systems that re-circulate the pumped water, or to pump water discharged from a heat pump or milk cooler unless a suitable heat exchanger/cooling system and thermal monitoring system is installed.

**Steelpumps must be drained for long term storage** – This pump is intended to be used periodically to ensure free movement of shaft seals and avoid blockage by contaminants. Automatic versions achieve this by running an anti-blocking routine periodically if left powered and with no demand for water. Avoid installation in dormant properties.

**Steelpumps are suitable for pumping CLEAN water only:** Debris may cause blockages. Water contaminated by cement, abrasives, metals and oxides, and excessive amount of silt may cause premature failure and should be avoided. Ensure that the supply tank and all pipework are clean and free of debris prior to installation and use. Use an inlet strainer where necessary. Installing the pump in a rainwater system that was not properly commissioned may invalidate your warranty.

**Do not exceed stated temperature limits for this pump** (see pump label).

**Pump failure due to overheating will invalidate your warranty**

**Power Cable Wiring:** If connecting other than with the attached BS1363 plug, please consult a qualified electrician. If you're using the pump with a controller, please also consult the controller's documentation. For all High Flow pumps see note on next page for wiring instructions, DO NOT use plug.

This is a Class 1 appliance, the earth protective conductor (wire) must be connected to the supply earth. Generators and temporary power systems, off-grid, camping sites and special installations (communications, military, etc) may have non-standard earthing systems and the performance of circuit protective devices may be affected.

## **Automatic Versions (X-AJE / X-AMO / X-AMV)**

**All pipe and pump connections MUST be COMPLETELY sealed with PTFE tape or a good quality thread sealant, and the system FULLY checked for water-tightness when pressurized and the pump left powered on. This is part of Commissioning.**

To check for leaks in the system allow all cisterns and pipework to fill. Then close all other outlets. The system will become pressurised and the pump should then automatically shut off. Any leak in the system will cause the pump to either run continuously, and so overheat, OR to re-start repeatedly. These

situations will eventually damage the pump. Do not allow this to occur. Consult a professional if in any doubt. Experienced practitioners are available to advise you. Your warranty will not apply if you connect your pump into a leaking system.

**Installation in a non-commissioned rainwater system may invalidate your warranty. If in doubt consult a professional.**

**A Pressure Vessel (Expansion Vessel/Shock Arrestor) is highly recommended with all automatic pumps** (install on the outlet/delivery side, within the building in a dry and frost free location). This will reduce false starts, improve energy efficiency, and greatly improve pump life.

***The supplied non-return valve (NRV) MUST be used, screwed directly into the pump's inlet*** - even if there are NRVs elsewhere in the system. Operating the pump without the NRV compromises the pump's automatic shut-off, and will cause the pump to overheat. Use thread sealant such as PTFE Tape. If in doubt, ASK.

**Failure to use the NRV, or to follow the instructions in full, or to commission satisfactorily in a rainwater harvesting system will invalidate your warranty.**

## **X-MV/AMV/X-MO/X-AMO 150, 1204, 15050, 2006 & All HF (High Flow) Models**

The above models of pump produce high flow rates and must be installed in conjunction with at least 32mm discharge pipe and a pressure vessel or shock arrester fitted as near to the pump as is practical. This is necessary to reduce water velocity and reduce the possibility of damage to the pump or system due to water hammer.

These high flow powerful pumps require installation on a single spur MCB protected. You are strongly advised to consult or have the pump installed by a professional electrician. For the avoidance of doubt a 13A plug is not sufficient. You MUST consult the Manual and if in any doubt consult a professional trained Electrician.

### **Irrigation systems/Solenoid Valve Controls**

Where supplying irrigation and other flow controlled systems where water supply is enabled and shut off by the use of solenoid valves, it is vital to take steps to reduce water hammer, caused by the shock wave returning from the closing solenoid valve, as this can destroy the pump. Water velocity should be maintained well below 5 m/s by the use of appropriately sized pipework (32mm or above should be used for several metres leaving the pump outlet), and a pressure vessel must be fitted.

In low flow drip and very small irrigation systems the flow rate of the pump may be too high. This will result in insufficient cooling and reduced product lifespan and may produce erratic behaviour in automatic models. The flow rate of the pump should be suited to the intended application, if this is not the case you may need a different type of pump. If in doubt consult a competent professional.

**THIS IS A CLEAN WATER PUMP ONLY**