

Steelpumps Commissioning Checklist

Design constraints – All installation types

Ensure the pump will not freeze during cold weather.	
Ensure the system layout does not re-circulate pumped water back to the tank.	
Ensure the pump is not pumping water from the discharge of a milk cooler or refrigeration system, the max water temperature for this pump is 36°C .	
Ensure any float valves/ballcocks/troughs supplied with water from this pump are or a high-flow diaphragm type with instant closing. Older type brass ballcocks operate below the minimum flow rate of this pump.	
Ensure any collection tank or sump used as a water source receives only mains water or substantially clean recycled water (rainwater or similar).	
This pump is water cooled and not suited for very low flow rate applications (less than 6lpm) for periods exceeding 3 minutes. Seek advice if installing on spray or drip irrigation systems.	
Avoid bending the lifting bracket, use a chain fitting that fits.	
Use a lifting chain or rope if the pump is to be lowered into a tank or well, don't lift with the power cable, and lower it down don't just drop it from the top.	
Seek manufacturer's advice if installing in agricultural or large commercial systems.	

Pump Visual Inspection – All installation types

Check drain/priming plugs are present and not loose.	
Ensure rear electrical cover is undamaged by impact/rough handling (P and B models).	
Check electrical supply cable is undamaged.	
Check for any other obvious physical damage.	

Rainwater Use from a Harvesting Tank Additional Checklist

Ensure that the incoming rainwater is filtered prior to or within the tank.	
Ensure a calmed inlet is fitted to the incoming rainwater pipe.	
Ensure a floating intake is fitted to the pump inlet.	

Steelpumps Commissioning Checklist

Submerged Installation – Automatic Models (X-AJE/X-AJV/X-AMO/X-AMV)

Before Applying Power.	
Ensure pump is immersed to a depth not exceeding 5m.	
Ensure the tank/well is clean of cement, cardboard, plastic bags and other building waste.	
Ensure NRV is fitted directly to pump inlet and thread sealed.	
Ensure a strainer or floating intake is fitted, maximum 2mm mesh size.	
Full pump with water.	
Ensure outlet connection and hoses are attached and sealed.	
Ensure pump is submerged.	
Ensure any floating intake or strainer is below water and will not hang up on tank ribs.	
Ensure any low-level protection (float switch, top-up system etc) is functioning correctly.	
Ensure the pressure vessel (if fitted – strongly recommended) is pre-charged to 1.5bar pressure.	
Check supply circuit can supply sufficient voltage under load.	
Check appropriate rating and type of overcurrent circuit protection.	
Check/test residual current protection of supply circuit.	
Check that any electrical connections below ground or outdoors have sufficient ingress protection (IP68 for any below ground connection).	
Ensure the earth conductor is connected.	
Energise Pump.	
Check outlets for reasonable pressure and flow, purge any airlocks.	
Close outlets.	
Visually check for leaks particularly on tank turret hoses etc. Check toilet valves etc where possible.	
Ensure the pump shuts off and remains off when no outlet is open.	
Open an outlet and check that the pump restarts and shuts off again when closed.	
Check the pump remains cool during use.	

Steelpumps Commissioning Checklist

Surface Mount – Automatic Models (X-AJE/X-AJV/X-AMO/X-AMV)

Before Applying Power.	
Ensure the pump is not likely to become frozen during cold weather.	
Ensure suction line is fitted in rigid pipe (MDPE, pressure pipe, etc) with correct fittings.	
Ensure NRV is fitted to the submerged end of the suction pipe.	
Ensure a strainer is fitted, maximum 2mm mesh size.	
Full pump with water.	
Ensure outlet connection and hoses are attached and sealed.	
Ensure pump is shaded from direct sunlight.	
Ensure the pressure vessel (if fitted – strongly recommended) is pre-charged to 1.5bar pressure.	
Ensure any low-level protection (float switch, top-up system etc) is functioning correctly.	
Check supply circuit can supply sufficient voltage under load.	
Check appropriate rating and type of overcurrent circuit protection.	
Check/test residual current protection of supply circuit.	
Check that any electrical connections below ground or outdoors have sufficient ingress protection (IP68 for any below ground connection).	
Ensure the earth conductor is connected.	
Energise Pump.	
Check outlets for reasonable pressure and flow, purge any airlocks.	
Close outlets.	
Visually check for leaks particularly on tank turret hoses etc. Check toilet valves etc where possible.	
Ensure the pump shuts off and remains off when no outlet is open.	
Open an outlet and check that the pump restarts and shuts off again when closed.	
Check the pump remains cool during use.	

Steelpumps Commissioning Checklist

Submerged Installation – Manual Models (X-JE/X-JV/X-MO/X-MV) with separate pressure controller

Before Applying Power.	
Ensure pump is immersed to a depth not exceeding 5m	
Ensure the tank/well is clean of cement, cardboard, plastic bags and other building waste.	
Ensure the pump is not likely to become frozen during cold weather.	
Ensure the pressure controller is fitted to the discharge line after the pump.	
Ensure NRV is fitted to the discharge line after the pump and before the pressure controller.	
Ensure a strainer or floating intake is fitted, maximum 2mm mesh size.	
Full pump with water.	
Ensure outlet connection and hoses are attached and sealed.	
Ensure pump is submerged.	
Ensure any floating intake or strainer is below water and will not hang up on tank ribs.	
Ensure any low-level protection (float switch, top-up system etc) is functioning correctly.	
Check supply circuit can supply sufficient voltage under load.	
Ensure the pressure controller is suitable for the current rating of the pump.	
Check appropriate rating and type of overcurrent circuit protection.	
Check/test residual current protection of supply circuit.	
Check that any electrical connections below ground or outdoors have sufficient ingress protection (IP68 for any below ground connection).	
Ensure the earth conductor is connected.	
Energise Pump + Controller.	
Ensure the maximum set pressure is within the capability of the pump (recommended approx 1 bar below max pump pressure).	
Ensure the set restart pressure is at least 1 bar below the max set pressure.	
Ensure the set dry-run alert pressure (if available, depends on controller type) is set to at least 1 bar.	
Ensure the set dry-run alert pressure (if available, depends on controller type) is set greater than the static pressure of the discharge pipe system, i.e. make sure the weight of residual water in the pipework with the pump off isn't higher than the dry-run alert pressure.	
Check outlets for reasonable pressure and flow, purge any airlocks.	
Close outlets.	
Visually check for leaks particularly on tank turret hoses etc. Check toilet valves etc where possible.	
Ensure the pump shuts off and remains off when no outlet is open.	
Open an outlet and check that the pump restarts and shuts off again when closed.	
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Ensure NRV is fitted to the discharge line after the pump and before the pressure controller.	
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Full pump with water.	
Ensure outlet connection and hoses are attached and sealed.	
Ensure pump is shaded from direct sunlight.	
Ensure any low-level protection (float switch, top-up system etc) is functioning correctly.	
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