

## Congratulations with your purchase of our super insulated, solar adaptable corrosion free hot water cylinder (HWC).

Please follow the installation instructions carefully, AND check the final installation according to the instructions. The Xstream MAINSTREAM range can only be installed in a HORIZONTAL position.

When connecting solar panels to the MAINSTREAM range, we recommend the thermostat to be set at 40°C - 45°C. This will prevent the system from overheating whilst still ensuring hot water, should there be no solar radiation from the sun due to rain or heavy clouds.

In selecting the absorption area (panel size), it is important to use 65 – 80 litre of storage water per square meter of panel, e.g. 200 litre HWC will use a 3m<sup>2</sup> panel (67 litre / m<sup>2</sup>), or when vacuum tubes are considered, about 8-9 litre per tube. Please ensure proper insulation is installed on all exposed pipework.

We supply our tanks with pre-fitted copper-to-copper compression fittings for ease of installation. No soldering is allowed. **Do not remove the supplied fittings from the storage tank.**

### SOLAR OPTION:

These units are standard electric but also solar adaptable (direct system). This means solar absorbent panels can be installed at ANY TIME. Remember that the cylinder **MUST** be installed at a higher point than the highest point of the solar panel, so that the heated water from the panel can siphon through the HWC. You are advised, when the solar option is considered in areas with freezing conditions in winter, rather to use our Solarstream HWC (indirect system, fitted with heat exchanger), or tubes fitted with heat pipe connected to the Mainstream. Should you wish to install the storage tank at a position lower than the absorption panel; a circulation pump of some sort will be required. Please contact our factory for options.

### Proceed as follows: (Interior Installation)

- ❑ Position the drip tray, sloping towards the outlet in a secured position.
- ❑ Place the Xstream HWC inside the drip tray, ensuring that the fittings are inside the drip tray. Allow 800mm free space for the element to be replaced if needed in future.
- ❑ If a solar panel is not connected, block the solar in- and outlet to be opened at any future time when a panel is to be connected.
- ❑ Connect the incoming cold line to the inlet (at bottom of HWC). Use a male inlet coupler (MIC).
- ❑ Ensure that a suitable (up to 400kPa) pressure reducing valve (PRV) is connected to the incoming line AND that the cold supply is taken from a point AFTER the PRV. This will ensure balanced pressure (Hot and cold water supply at a mixing tap having the same pressure).
- ❑ Install a vacuum breaker at least 300mm above the HWC on the incoming cold line.
- ❑ Connect the hot water supply line from the outlet, also installing a vacuum breaker, as per cold inlet procedure.



- ❑ Please ensure copper tube is used on the hot water supply line.
- ❑ Connect copper tube to the temperature and pressure safety valve (T&P) and take it at a downward slope to the outside. Try to minimize sharp bends.
- ❑ The T&P valve can be adjusted to the required angle. Loosen the securing nut, adjust the angle and fasten the nut at the desired angle.
- ❑ Fill the HWC with water. Leave a hot water tap open to get any extra air out of the system.
- ❑ Once filled, close the tap.
- ❑ Proceed by connecting the electrical supply. Ensure a suitable qualified artisan performs this function. Open the electrical box and connect the electricity line. Always ensure the electricity line is dead when working with electricity.
- ❑ Install a suitable isolator switch within easy reach of the HWC.
- ❑ **ALWAYS ensure that the HWC is filled with water BEFORE the electrical supply is commissioned.** Failing this the HWC and submersible element might be damaged, and warranty will be null and void.
- ❑ Check all fittings for leaks, and ensure all supply lines are properly fastened and secured to fastening points; thereby minimizing strain on the fittings attached to the HWC.
- ❑ Never remove the supplied copper fittings from the HWC.

Proceed as follows: (Exterior Installation)

- ❑ All procedures as per interior installation, however, instead of using the drip tray use the stainless steel straps, available on request.
- ❑ Use a spirit level and mark the points where the straps are to be positioned – allow 300mm from both ends of the HWC, for tank sizes up to 150 litre. Our 200 litre tank requires 3 straps, with the third strap positioned in the centre. Please also refer to the markings on the tank.
- ❑ Use at least 10 x 100mm suitable anchoring bolts for wall installations, or other suitable securing bolts for roof installations. Properly secure the straps. Push the HWC through the loops and proceed with connecting procedures as described.



If connected to solar absorption panel (SP), proceed as follows:

- ❑ Position the SP onto the roof, facing north. Follow the instructions from the SP manufacturer to ensure a secured installation. Ensure that the SP is level by using a spirit level.
- ❑ Position the Mainstream HWC above the SP with the fittings (on the HWC), when the SP is facing from the front, to the left of the SP. Ensure that the HWC is level.
- ❑ Connect the SP to the HWC as follows:
  - ❑ \*From the top of the SP to the top of the HWC, marked "From top of panel". Make sure there are no negative (downward) bends.
  - ❑ \*From the bottom of the HWC (marked "to the bottom of panel") to the bottom of panel.
- ❑ It is advisable to connect it the opposite bottom position on the SP, or if vacuum tubes with a manifold is used to the opposite end. Ensure that a negative flow is created by forming a "gooseneck" taking the solar return to a point below the manifold and then up again.



- ❑ Connect the incoming cold line to the inlet (at bottom of HWC). Use a male inlet coupler (MIC).
- ❑ Ensure a suitable (up to 400kPa) pressure reducing valve (PRV) is connected to the incoming line AND that the cold supply is taken from a point AFTER the PRV. This will ensure balanced pressure (Hot and cold water supply at a mixing tap having the same pressure).
- ❑ Install a vacuum breaker at least 300mm above the HWC.
- ❑ Connect the hot water supply line from the outlet (on top of the HWC), also installing a vacuum breaker as per cold inlet.
- ❑ Connect copper tube to the temperature and pressure safety valve (T&P) and take it at a slope to a safe position. Try to minimize sharp bends.
- ❑ Use two spanners when connecting the conex (supplied) fittings. Hold the rear nut whilst tightening the connecting nut.
- ❑ The T&P valve can be adjusted to the required angle. Loosen the securing nut, adjust the angle and fasten the nut at the desired angle.
- ❑ Fill the HWC with water. Leave a hot water tap open to get any extra air out of the system.
- ❑ Once filled, close the tap.
- ❑ Proceed by connecting the electrical supply. Open the electrical box and connect the electricity line. Always ensure the electricity line is dead when working with electricity. Ensure a suitable qualified artisan performs this function. Recommended thermostat setting 60 °C.
- ❑ Install a suitable isolator switch within easy reach of the HWC.
- ❑ **ALWAYS ensure that the HWC is filled with water BEFORE the electrical supply is commissioned.** Failing this the HWC and submersible element might be damaged.
- ❑ Check all fittings for leaks, and ensure all supply lines are properly fastened and secured to fastening points; thereby minimizing strain on the fitting attached to the HWC.
- ❑ Never remove the supplied copper fitting from the HWC.



### Split system Installations

- ❑ If forced circulation is required (where the HWC is positioned at a point lower than the SP) follow the instructions of the pump supplier.
- ❑ Always ensure that the water is circulated FROM the tank (HWC) TO the panel (SP). This will ensure that the cooler water is circulated through the pump.

Please contact our Service Desk on +27 21 872 0900 if any further assistance is required.

**ENJOY THE HOT WATER SUPPLIED BY YOUR NEW XSTREAM MAINSTREAM, SOLAR ADAPTABLE, MAINTENANCE FREE, CORROSION FREE HOT WATER CYLINDER!**





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