CHWS

PROSTOR XM/F

DHW BUFFER STORAGE VESSEL

Operation & Maintenance Manual

User Instructions

Your system will run automatically in normal use it will however require regular servicing, it is essential that servicing is undertaken by competent installer. It is advisable that servicing of the vessel is timed to coincide with the servicing of your heat source.

Water flowing through the tundish indicates that there is a fault, if the water is hot turn the heat source off and allow water to cool (flow may stop) call out a competent plumber.

Installation Instructions

What follows is essential for warranty validity.

It is the responsibility of the user and/or installer to ensure that the unit is installed and operated safely, and in accordance with the instructions supplied below.

- The installation should also be in accordance with the British Standard Codes of Practice, current Building Regulations, i.e. Health & Safety Document No. 635 (The Electricity At Work Regulations 1989), and the Water Supply (Water fittings) Regulations, BS 5449:1990 Forced circulation hot water systems , BS 6700:2006 Design, installation, testing and maintenance of services supplying water. The relevant regulations are: England and Wales – Building Regulation G3; Scotland – Technical Standard P3; North Ireland – Building Regulation P5
- Installation must be in accordance with the relevant requirements of the Building regulations, IEE Regulations and the Water Supply (Water Fittings) Regulations. It should also be in accordance with any relevant requirements of the Local Authority
- Must be undertaken by a qualified installer
- Must be supplied, with a Temperature/ Pressure safety valve (see Appendix A). Where a heat exchanger is fitted an unvented kit located on the cold water supply must be fitted (see Appendix B).
- Lifting - on larger vessels lifting eyes are available, do not use straps or chains which may result in damage to the vessel
- Do not lift a vessel using the insulation where fitted straps may crush or damage the insulation casing
- Siting, - ensure that the surface the vessel is located on is firm and level to prevent settling, pipe strain or distortion of the vessel. Adequate space to enable installation and servicing and access to the inspection hatch and all connections must be allowed for
- Pipework/connections - ensure threaded/ flanged connections from the pipework is square on to the connections on the vessel. Flanged connections, ensure that the bolts are not tightened consecutively around the flange but diametrically opposite. Pipework connections must be adequately supported to prevent any stress to the vessel

- Before start up/testing and after installation, check and if necessary tighten the hydraulic connections where a heat exchanger is fitted
- tightening of the bolts should be in a criss cross sequence, any leaks must be rectified before start up
- Where a heat exchanger is fitted and the system is unvented. All unvented systems must be fitted with devices to accommodate the expansion of water during the heating cycle it is essential that an unvented kit is located on the cold water supply during installation
- Direct electrically heated (immersions) must be fitted together with a dual thermostat incorporating an independent high limit cut out thermostat & a control thermostat
- All electrical work must be undertaken by a qualified electrician
- Gradually fill the system ensure adequate venting for air removal during filling and that the drain valve is closed, slowly open other system connections where appropriate
- When the vessel is operating at working temperature and pressure visually check all connections and gaskets, if necessary tighten bolts on the system.
- The working temperature of the buffer vessel should not exceed 99°C and the working pressure should not exceed 8 bar

Maintenance

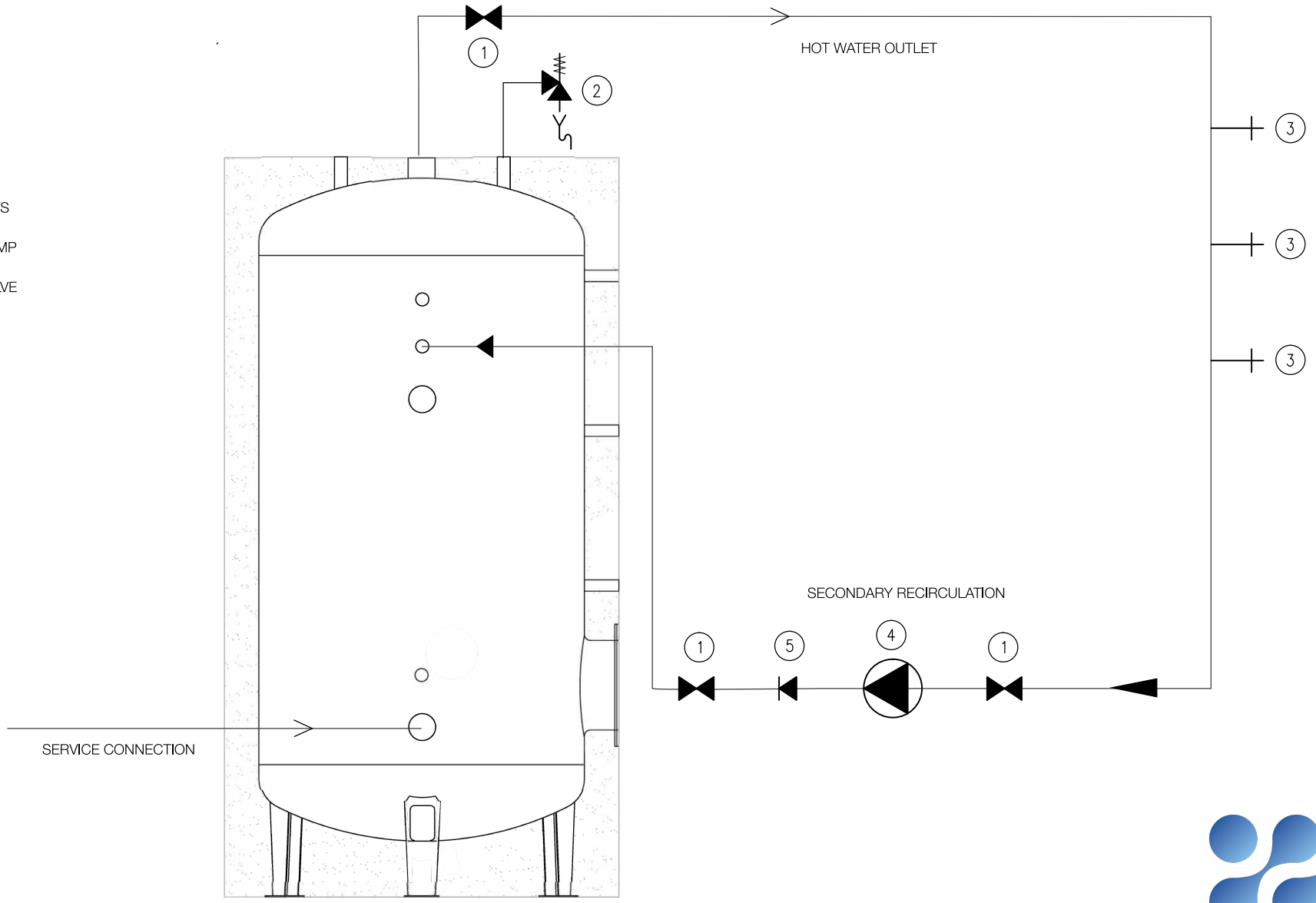
Maintenance will consists of testing and checking if all components are working properly, before attempting any internal inspection/maintenance drain contents of vessel, if fitted with an electrical immersion ensure the immersion is switched off

- Annual internal cleaning of the vessel should be carried out to avoid corrosion
- Undo Bolts from inspection hatch (as previously described) check for wear of gasket, replace if necessary
- If fitted with a heat exchanger, the heat exchanger should be inspected in situ annually, however, where the water is particularly aggressive, it is advisable that inspections should be carried out every 6 month or so. Lime scale build up on the heat exchanger will reduce performance regular cleaning using a suitable descaling agent will avoid performance drop off
- Ensure all hydraulic connections are secured and leak tested before and during vessel refill
- Check that the Pressure/temperature relief valve is operating any hot water from the PT valve must be discharged in a safe way reflecting the requirements of current legislation
- Ensure Immersion(s) are heating the water to the correct temperature
- Electrical checks/tests on the immersion and dual control thermostats must be carried out by a qualified electrician

APPENDIX A

KEY

1. ISOLATING VALVE
2. T & P VALVE
3. DRAW-OFF POINTS
4. CIRCULATION PUMP
5. NON RETURN VALVE



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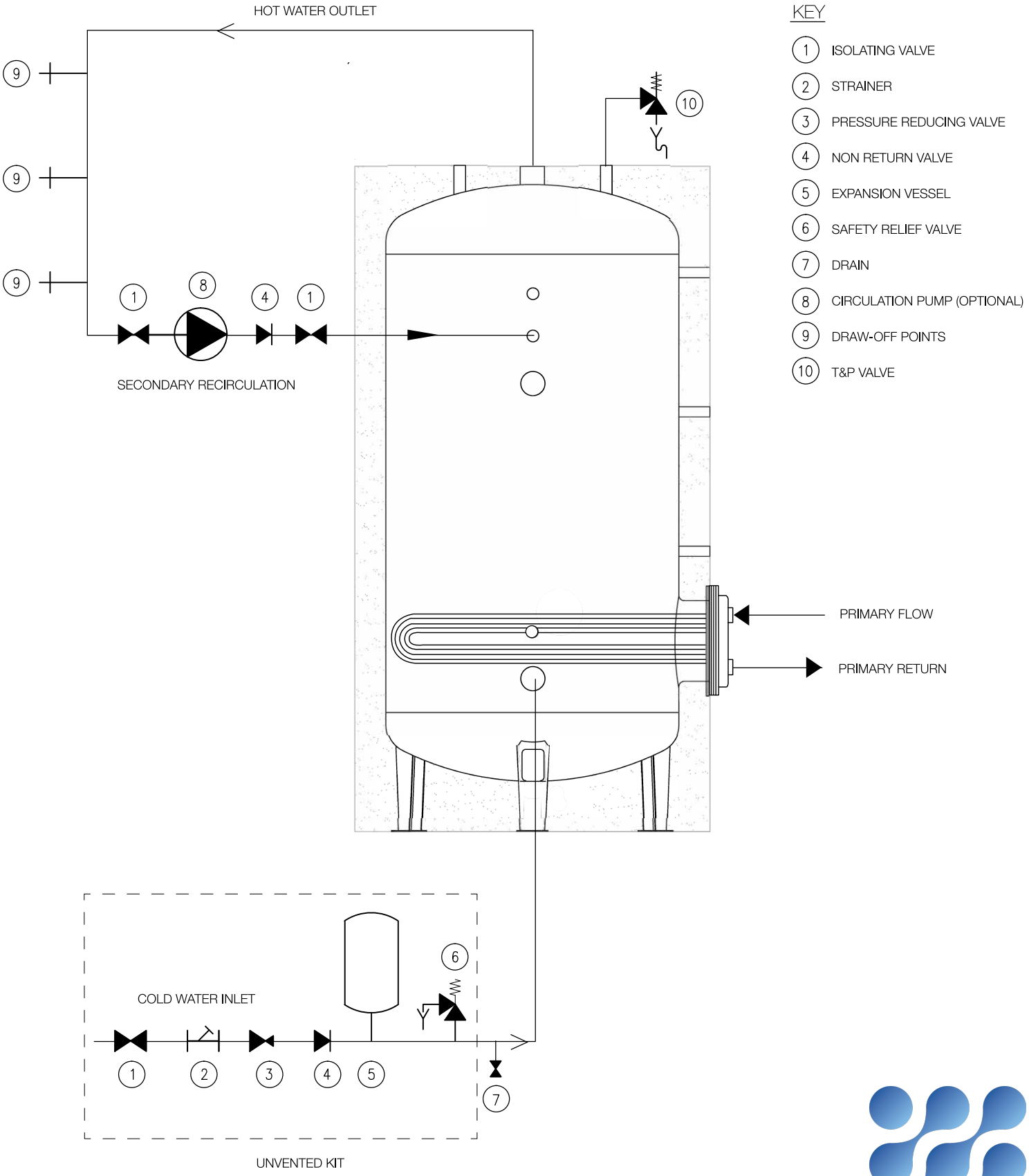
APPENDIX B



KEY

1. ISOLATING VALVE
2. STRAINER
3. PRESSURE REDUCING VALVE
4. NON RETURN VALVE
5. EXPANSION VESSEL
6. SAFETY RELIEF VALVE
7. DRAIN
8. CIRCULATION PUMP (OPTIONAL)
9. DRAW-OFF POINTS
10. T&P VALVE

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CONNECTOR TYPE		MODEL					
		300	500	800	1000	1500	2000
1	Drain	1”	1”	1”	1”	1 1/4”	1 1/4”
2	Service Connection	1 1/2”	2”	2”	1/2”	2 1/2”	2 1/2”
3	Destratification Outlet	3/4”	3/4”	3/4”	3/4”	1”	1”
4	Secondary Return Outlet	3/4”	3/4”	3/4”	3/4”	1”	1”
5	Service Connection Optional Immersion	1 1/2”	2”	2”	2”	2 1/2”	2 1/2”
6	Destratification Inlet	3/4”	3/4”	3/4”	3/4”	1”	1”
7	Domestic Hot Water Outlet	1 1/2”	2”	2”	2”	2 1/2”	2 1/2”
8	Temp Pressure Relief Valve	1/2”	3/4”	3/4”	3/4”	1”	1”
9	Sensor Tapping`S X 3	1/2”	1/2”	1/2”	1/2”	1/2”	1/2”
10	Flanged Inspection Access & Exchanger Inlet	180/120 mm	300/220 mm	300/220 mm	300/220 mm	380/300 mm	380/300 mm

MAXIMUM WORKING PRESSURE 8 bar, MAXIMUM WORKING TEMPERATURE 99 C

GENERAL SPECIFICATIONS

	Unit	XM/F 300	XM/F 500	XM/F 800	XM/F 1000	XM/F 1500	XM/F 2000
Contents	litres	300	500	800	1000	1500	2000
Empty weight	kg	68	88	120	160	205	260
Heat Loss	W	43	62	61	71	94	114
Max. operating pressure	bar	8	8	8	8	8	8
Max. water temperature	°C	99	99	99	99	99	99

DIMENSIONS

	Unit	XM/F 300	XM/F 500	XM/F 800	XM/F 1000	XM/F 1500	XM/F 2000
Total height	mm	1742	1890	1815	2140	2385	2500
Diameter (without insulation)	mm	480	630	800	800	950	1100
Diameter (with insulation)	mm	580	730	970	970	1120	1270
Height to Drain	mm	135	135	135	135	135	180
Height to Centre of Inspection Hatch	mm	390	490	520	565	600	680
Height to Sensor Tapping	mm	580	765	765	865	945	1010
Height to Sensor Tapping	mm	1030	1215	1145	1340	1490	1540
Height to Sensor Tapping	mm	1480	1600	1525	1815	2025	2140
Height to Destratification Inlet	mm	1430	1585	1465	1795	2005	2085
Height to Secondary Return	mm	1320	1475	1350	1680	1890	1970
Height to service connection/immersion	mm	1190	1345	1220	1550	1760	1840
Height to Destratification Outlet	mm	460	515	545	545	605	685
Height to Service Connection	mm	330	385	415	415	475	555

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"Commercial Hot Water Solutions Ltd (CHWS Ltd) are a Bosch recognised supplier of high quality commercial and industrial hot water generators and storage vessels for use with the Bosch Commercial and Industrial range of boilers and water heaters"