



# **PROSTOR SC**

**SINGLE COIL INDIRECT VESSEL**

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**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 usually located at the top of the vessel. An unvented kit to be located on the cold water supply (refer to installation diagram).
  - A circulation pump (optional) maybe installed on the secondary return to reduce water wastage (refer to installation diagram). 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

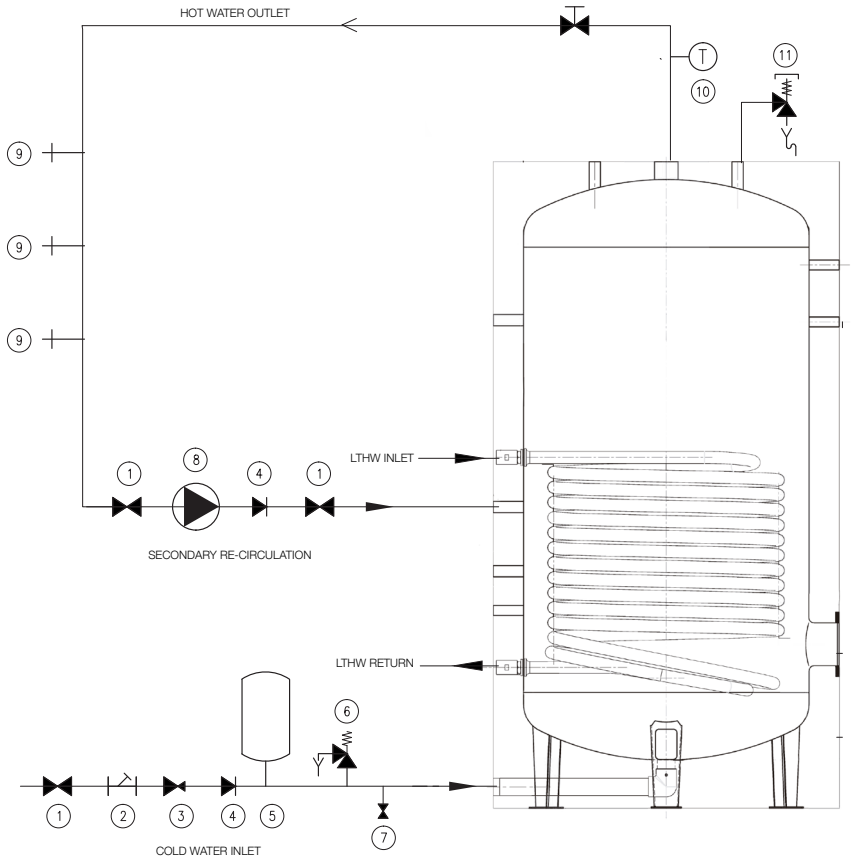
- Before start up/testing and after installation, check and if necessary tighten the hydraulic connections where a heat exchanger is fitted
- Tightening of the bolts should be in a criss cross sequence, any leaks must be rectified before start up
- All unvented systems must be fitted with devices to 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 95°C and the working pressure should not exceed 8/10 bar dependent on vessel capacity

## Maintenance

Maintenance will consist 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 months 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

## INSTALLATION DIAGRAM



### Key

- |                           |                                |
|---------------------------|--------------------------------|
| ① Isolating Valve         | ⑦ Drain                        |
| ② Strainer                | ⑧ Circulation Pump (Optional)  |
| ③ Pressure Reducing Valve | ⑨ Draw-off Points              |
| ④ Non Return Valve        | ⑩ Temperature Gauge (Optional) |
| ⑤ Expansion Vessel        | ⑪ T&P Valve                    |
| ⑥ Safety Relief Valve     |                                |

CONNECTOR TYPE		MODEL							
		300	400	500	600	800	1000	1500	2000
1	Domestic Cold Water Inlet	1 1/2"	2"	2"	2"	2"	2"	2 1/2"	2 1/2"
2	Coil Heat Exchanger Outlet	1"	1"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
3	BMS Sensor Tappings x 2	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
4	Destratification Outlet	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1"
5	Domestic Hot Water Return	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"
6	Coil Heat Exchanger Inlet	1"	1"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
7	Destratification Inlet	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"
8	Domestic Hot Water Outlet	1 1/2"	2"	2"	2"	2"	2"	2 1/2"	2 1/2"
9	T&P Relief Valve	1/2"	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"
10	Vent	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
11	Hi-Limit Temperature stat	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
12	Optional Immersion Heater	1 1/2"		1 1/2"		1 1/2"	1 1/2"	1 1/2"	1 1/2"
13	Flanged Inspection Hatch	180/120	180/120	180/120	180/120	180/120	180/120	290/220	290/220
14	Sacrificial Anode	1 1/4"		1 1/4"		1 1/2"	1 1/2"	1 1/2"	1 1/2"

**MAXIMUM WORKING PRESSURE 8/10 bar, MAXIMUM WORKING TEMPERATURE 95 C**

## GENERAL SPECIFICATIONS

	Unit	SC 300	SC 400	SC 500	SC 600	SC 800	SC 1000	SC 1500	SC 2000
Contents	litres	273	400	475	560	738	930	1300	1900
Empty weight	kg	115	140	155	190	215	245	290	515
Heat Loss	W	85	115	130	147	174	193	250	305
Max. operating pressure	bar	10	10	10	10	10	10	8	8
Max. water temperature	°C	95	95	95	95	95	95	95	95

## DIMENSIONS

	Unit	SC 300	SC 400	SC 500	SC 600	SC 800	SC 1000	SC 1500	SC 2000
Total height	mm	1615	1475	1705	1975	1875	2205	2085	2470
Diameter (without insulation)	mm	500	650	650	650	790	790	1000	1100
Diameter (with insulation)	mm	600	750	750	750	990	990	1200	1300
Height to Centre of Inspection Hatch	mm	320	380	380	380	460	460	550	550
Coil Heat Exchanger Inlet	mm	1100	790	910	990	1165	1165	1625	1475
Height to Sensor Tapping	mm	375	430	430	430	515	515	615	580
Height to Sensor Tapping	mm	1185	960	1140	1340	1285	1535	1390	1815
Height to Destratification Inlet	mm	1270	1045	1235	1435	1370	1660	1505	2015
Height to Domestic Hot Water Outlet	mm	1370	1160	1390	1665	1485	1815	1750	2145
Height to Secondary Return	mm	1010	880	1050	1250	1035	1410	1285	1630
Height to Optional Immersion	mm	1225	915	1000	1065	1325	1250	1210	1570
Height to Destratification Outlet	mm	485	590	590	650	670	670	745	830
Coil Heat Exchanger Outlet	mm	225	270	270	270	345	345	425	380

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