



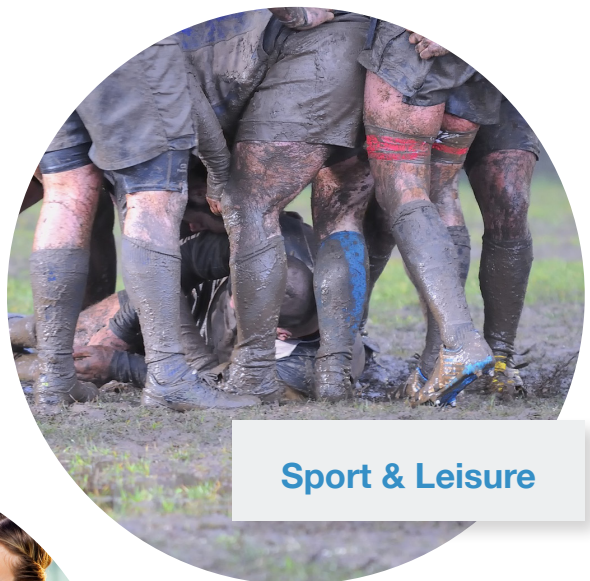
CHWS PROSTOR® XS XM/F DHW CYLINDER RANGE

Commercial & Industrial





Accommodation



Sport & Leisure



Care Homes



About CHWS

CHWS Ltd, was established as a Bosch recognised supplier of high quality commercial and industrial hot water generators and storage vessels for use with the Bosch Commercial & Industrial range of boilers and water heaters.

Nationwide

From our headquarters near Bristol, our products are available through all major merchants across the UK.

Products

CHWS is now pleased to be able to provide a range of Hot Water Generators, Packaged Plate Heat Exchangers, Buffer Vessels and Calorifiers direct to the UK HEVAC market.

Our products are of the highest technical standards and offer cost effective solutions to all commercial hot water projects.

- Packaged Plate Heat Exchangers
- Calorifiers
- Semi Instantaneous Hot Water Generators
- Plate Heat Exchangers
- Buffer Vessels
- Worcester Bosch Gas Fired Water Heaters

ProStor® DHW Cylinder Range

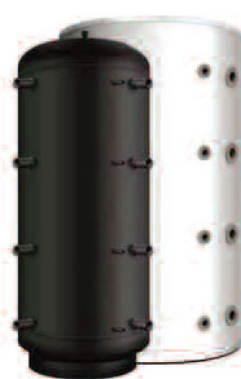
The ProStor® XS range of commercial domestic hot water indirect cylinders are suitable for a wide range of water heating applications. Each vessel is fitted with a high output fixed coil to give market leading domestic hot water production.

The ProStor® XM/F range of commercial domestic hot water buffer vessels are suitable for a wide range of water heating applications. ProStor® XM/F vessels can be used in conjunction with a ProPak Thermal Packaged Plate Heat Exchanger, Electrical Immersion Heaters, or Removable Heat Exchangers.

The ProStor XS XM/F Range of vessels come with a 5 year warranty.



CHWS are proud to be CIBSE Patrons.



ProStor® XS DHW Cylinder Range

Stainless Steel Indirect Domestic Hot Water Cylinders

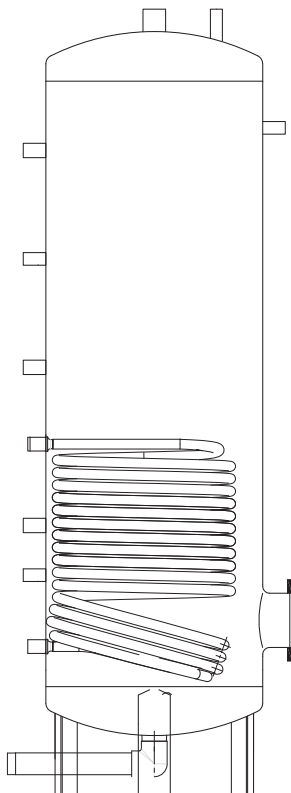
The ProStor® XS range of commercial domestic hot water cylinders are suitable for a wide range of water heating applications. Each vessel is fitted with a high output fixed coil to give market leading domestic hot water production.

ProStor® XS Range: Features

- High Output Fixed Coil Heat Exchangers
- Capacities: 300 – 2000 litres
- Heat Output: 51 – 196kw
- Electrical Immersion Tapping
- De-stratification Tappings
- Flanged Inspection Hatch
- 50 mm Insulation
- Low Standing Losses
- 5 Year Warranty

ProStor® XS Range: Options

- Single & Three Phase electrical immersions
- De-stratification Pump
- Rigid Polyurethane



ProStor® XS DHW Cylinder Range

	Prostor XS					
	300	500	800	1000	1500	2000
Technical Specification						
Capacity (litres)	296	507	793	919	1519	2042
Construction Materials	Duplex Stainless Steel					
Heat Input - Fixed Pipe Coil size (m ²)	1.63	2.36	2.71	4.5	6	6
Orientation	Vertical					
Insulation Material & Thickness	50 mm Hard Polyurethane		85 mm Soft Polyurethane			
Total Diameter with Insulation (mm)	580	730	970	970	1120	1270
Total Height with Insulation (mm)	1742	1890	1815	2140	2385	2455
Weight Empty (kg)	85	125	140	150	200	230
Maximum working pressure - Coil (bar)	8					
Maximum working pressure - Vessel (bar)	8					
Maximum working temperature	99°C					

Performance @ 80/60 Primary Flow & Return

Heat Input (kW)	51	74	86	141	188	188
1st Hour Hot Water @ 50 Deg C Delta T - litres	1177	1773	2279	3425	4733	5233
DHW Flow Rate @ 50 Deg C Delta T - litres	877	1273	1479	2425	3233	3233
Vessel Recovery Time (mins)	2.1	24	33	25	28	37
Primary Flow Rate (l/sec)	0.6	0.88	1.03	1.68	2.24	2.24
Primary Pressure Drop (kpa)	22	9	11	35	60	60
Standing Energy Losses (watts)	53	77	59	68	92	112

Connections

Cold Water Inlet	1 1/2"	2"	2"	2"	2 1/2"	2 1/2"
Primary Connections	1"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
Sensor Tappings	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
De-Stratification Tappings	3/4"	3/4"	3/4"	3/4"	1"	1"
Domestic Recirculation	3/4"	3/4"	3/4"	3/4"	1"	1"
Hot Water Outlet	1 1/2"	2"	2"	2"	2 1/2"	2 1/2"
T&P Valve	1/2"	3/4"	3/4"	3/4"	1"	1"
Electrical Immersion	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Flanged Inspection Hatch (mm)	180/120	180/120	300/220	300/220	300/220	300/220



ProStor® XM/F DHW Buffer Vessel

Stainless Steel DHW Buffer Vessel

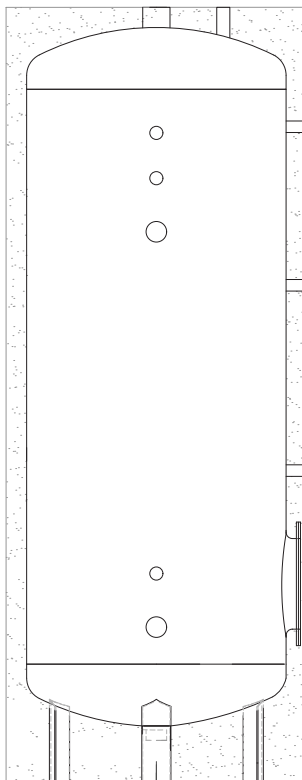
The ProStor XM/F range of commercial domestic hot water buffer vessels are suitable for a wide range of water heating applications. Each vessel can be used in conjunction with a ProPak Thermal Packaged Plate Heat Exchanger, Electrical Immersion Heaters, or Removable Heat Exchangers.

ProStor® XM/F Range: Features

- Capacities: 300 – 2000 litres
- Electrical Immersion Tapping
- De-stratification Tappings
- Flanged Inspection Hatch
- 50 mm Insulation
- Low Standing Losses
- 5 Year Warranty
- Suitable for use with removable heat exchangers, electrical immersions or ProPak Thermal packaged plate heat exchangers

ProStor® XM/F Range: Options

- Suitable for use with removable heat exchangers, electrical immersions or ProPak Thermal packaged plate heat exchangers
- Rigid Polyurethane



ProStor® XM/F DHW Buffer Vessel Range

	Prostor XM/F					
	300	500	800	1000	1500	2000
Technical Specification						
Capacity (litres)	300	500	800	1000	1500	2000
Construction Materials	Duplex Stainless Steel					
Heat Input	via Removable Heat Exchanger, Electrical Immerison Heater or Packaged Plate Heat Exchanger					
Orientation	Vertical					
Insulation Material & Thickness	50 mm Hard Polyurethane					
Total Diameter with Insulation (mm)	580	730	970	970	1120	1270
Total Height with Insulation (mm)	1742	1890	1815	2140	2385	2500
Weight Empty (kg)	68	88	120	160	205	260
Maximum working pressure - Vessel (bar)	8					
Maximum working temperature	99°C					

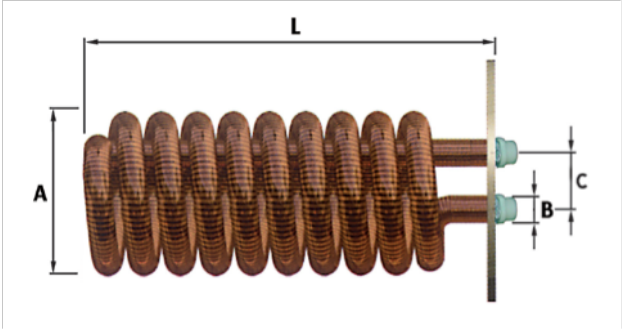
Connections

Drain	1"	1"	1"	1"	1 1/4"	1 1/4"
Service Connection	1 1/2"	2"	2"	2"	2 1/2"	2 1/2"
De-Stratification Tappings	3/4"	3/4"	3/4"	3/4"	1"	1"
Domestic Hot Water Recirculation	3/4"	3/4"	3/4"	3/4"	1"	1"
Optional Electric Immersion	1 1/2"	2"	2"	2"	2 1/2"	2 1/2"
Domestic Hot Water Outlet	1 1/2"	2"	2"	2"	2 1/2"	2 1/2"
T&P Valve	1/2"	3/4"	3/4"	3/4"	1"	1"
Sensor Tappings	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Flanged Inspection Hatch	180/120	300/220	300/220	300/220	380/300	380/300



Ancillary Items

CHWS provide a range of high quality removable heat exchangers for use with the ProStor XM/F range of buffer vessels. These heat exchangers can be factory fitted or easily installed on site and offer a cost effective and flexible solution. Electrical immersion heaters are also available for all cylinders in the range.



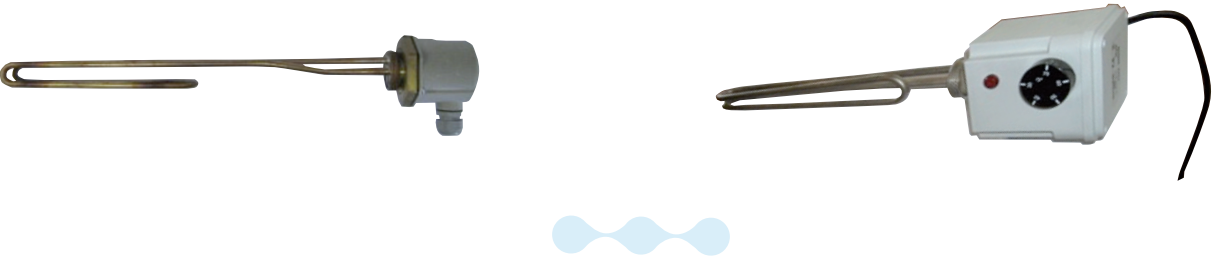
Serpentino Removable Heat Exchangers

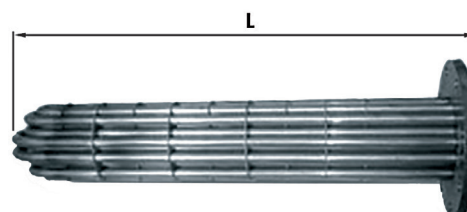
	SR1A	SR2	SR3	SR4	SR5	SR6
Construction Material	Copper					
Heat Exchange Surface Area (m²)	1.21	1.80	2.63	3.20	4.54	6.34
Absorbed Power (kW)	38	57	83	100	143	199
Primary Flow Rate (l/s)	0.45	0.67	0.98	1.20	1.70	2.37
DHW Output (l/hr)*	654	980	1428	1720	2460	3423
Primary Pressure Loss (mbar)	387	245	748	1303	745	1930
Maximun Operating Pressure	10 bar					
L - Length (mm)	550	470	580	660	750	980
A - (mm)	DN100	DN200				
B - Primary Connection Sizes	3/4"				1"	1"
C - (mm)	60	80				
Weight (kg)	9.6	11.7	14.9	17.0	21.1	29.0
Water Capacity (l)	0.7	1.4	2.0	2.5	3.5	5.0

* Based on a DHW 50 Deg C temperature rise and 80/60 primary flow and return

Immersion Heaters

	REM1	REM2	REM3	RET3	RET4	RET6	RET7	RET9	RET12	RET15
kW Rating	1.5	2	3	3	4.5	6	7.5	9	12	15
Single or Three Phase	1PH			3PH						
IP Rating	IP65									
Weight (kg)	1.5	1.5	1.5	2	2.5	3	3.5	3.5	4	5
Length (mm)	320	320	320	300	450	600	700	700	850	850
Connection Size	1 1/2"									





Stainless Steel “U” Bundle Heat Exchanger

	VS1 0.5	VS1 0.75	VS1 1	VS1 1.5	VS1 2	VS1 2	VS1 3	VS1 4	VS1 5	VS1 6	VS1 8	VS1 10
Construction Material	Stainless Steel											
Heat Exchanger Surface Area (m2)	0.5	0.75	1	1.5	2	2	3	4	5	6	8	10
Absorbed Power (kW)	16	24	31	47	63	63	95	125	157	188	250	300
DHW Output per Hour (litres)*	275	413	533	808	1084	1084	1634	2150	2700	3234	4300	5160
Maximum Operating Pressure (Bar)	16											
L – Length	440	440	475	680	800	595	720	745	785	700	920	1150
Flange (mm)	290	290	290	290	290	480	480	480	480	480	480	480
Weight (kg)	10	12	14	17	19	38	45	53	61	69	84	100
Flange Bores (No)	12						26					
Connections	1”						2”					
Primary Pressure Drop (mbar)	110	60	42	121	80	80	60	159	124	169	214	252
Primary Flow Rate (l/sec)	0.22	0.33	0.44	0.63	0.88	0.88	1.25	1.67	2.08	2.5	3.34	4.17

*based on an 80/60 primary flow rate and a 50 Deg C DHW temperature rise

Insulation options

CHWS can offer the following types of Insulation for hot water cylinders:

- Soft Polyurethane Jacket
- Hard Polyurethane Jacket
- Armaflex & Outdoor Skay
- Rockwool & Stucco Aluminium

Bespoke options

Cylinders shown are standard models, we are happy to provide a quotation for bespoke cylinders including horizontal arrangement. Please contact CHWS for details.



Large & Bespoke Vessels

At CHWS we are able to customise our range to provide a bespoke option for your project

Size & Orientation

Vessels can be made shorter to fit low ceiling heights, or more narrow to fit confined spaces. Our standard range of cylinders are priced in vertical orientation but we can offer horizontal options for most models.

Insulation Options

We offer a variety of insulation options; Hard Polyurethane Shell, Rockwool, Stucco Aluminium and Armaflex. Vessels can be insulated for outdoor installation.

Other Bespoke Features

Vessels can be supplied with a range of tailored options including higher working temperatures and pressures, increased number of tappings, inspection hatches and ports and insulation thicknesses.



- Extra Large Vessels – up to 80,000 litre capacity
- Horizontal or Vertical Installation
- Working Pressure up to 10bar
- Working Temperature up to 110 Deg C
- Choice of Insulation Options



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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”