



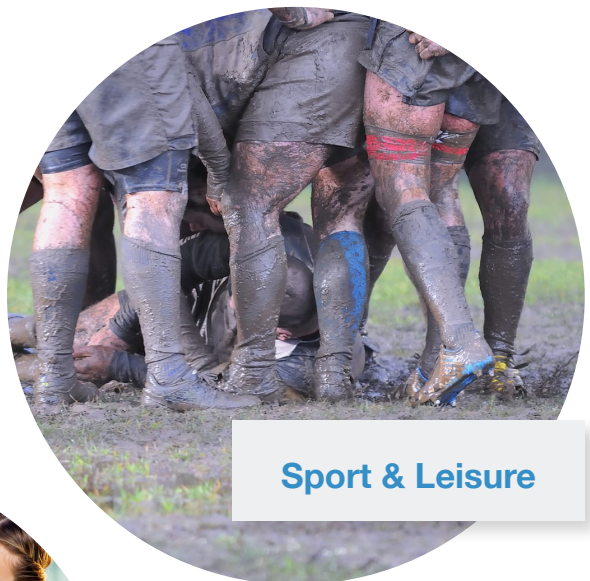
CHWS PROSTOR DHW CYLINDER RANGE

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

Introducing the ProStor Range of DHW cylinders with WRAS approved Vitrecoat® coating.

The ProStor® SC 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.

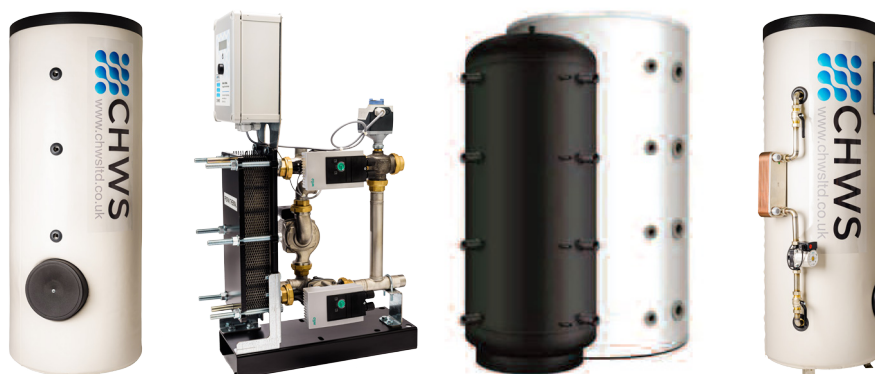
The ProStor® BV range of commercial domestic hot water buffer vessels are suitable for a wide range of water heating applications. ProStor® BV vessels can be used in conjunction with a ProPak Thermal Packaged Plate Heat Exchanger, Electrical Immersion Heaters, or Removable Heat Exchangers.

The complete ProStor Range of vessels are lined with WRAS approved Vitrecoat® coating to prevent corrosion and come with a 5 year warranty.

ProStor® SC / BV cylinders are also available in AISI 316 stainless steel.



CHWS are proud to be CIBSE Patrons.



ProStor® SC DHW Cylinder Range

Indirect Domestic Hot Water Cylinders with WRAS Approved Vitrecoat® lining

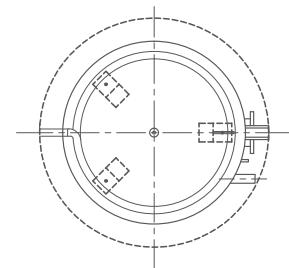
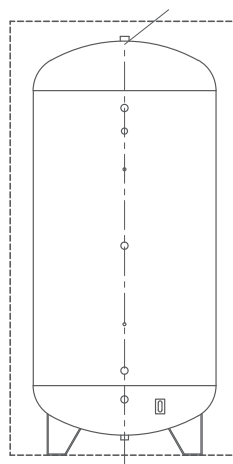
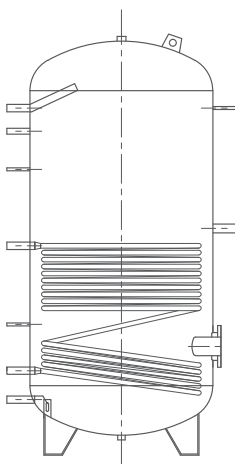
The ProStor® range of commercial domestic hot water cylinders are suitable for a wide range of water heating applications. Each vessel is fitted with a high output fixed coil to give market leading domestic hot water production and the vessel is lined with WRAS approved Vitrecoat® coating to prevent corrosion.

ProStor® SC Range: Features

- WRAS approved Vitrecoat coating
- High Output Fixed Coil Heat Exchangers
- Capacities: 300 – 2000 litres
- Heat Output: 79 – 196kw
- Electrical Immersion Tapping
- De-stratification Tappings
- Flanged Inspection Hatch
- 100mm Insulation
- Low Standing Losses
- 5 Year Warranty

ProStor® SC Range: Options

- Single & Three Phase electrical immersions
- De-stratification Pump
- Rockwool / Stucco Aluminum Insulation
- Twin Coil Cylinders



ProStor® SC DHW Cylinder Range

	Prostor SC						
	300	400	500	800	1000	1500	2000
Technical Specification							
Capacity (litres)	273	400	475	738	930	1300	1900
Construction Materials	High Quality Steel with WRAS Approved Vitrecoat ® Lining						
Heat Input - Fixed Pipe Coil size	2.5sqm	3sqm	4sqm	6sqm	6sqm	8sqm	8sqm
Orientation	Vertical						
Insulation Material & Thickness	100mm Hard Polyurethane			100mm Soft Polyurethane			
Total Diameter with Insulation (mm)	600	750	750	990	990	1200	1300
Total Height with Insulation (mm)	1615	1475	1705	1810	2205	2085	2470
Weight Empty (kg)	115	140	155	215	245	290	515
Maximum working pressure - Coil (bar)	10					8	
Maximum working pressure - Vessel (bar)	10					8	
Maximum working temperature	95°C						
Vitrecoat ® WRAS Approval Number	1704572						

Performance @ 80/60 Primary Flow & Return

Heat Input (kW)	79	94	126	160	160	196	196
1st Hour Hot Water @ 50 Deg C Delta T - litres	1624	2007	2630	3474	3666	4652	5252
DHW Flow Rate @ 50 Deg C Delta T - litres	1351	1607	2155	2736	2736	3352	3352
Vessel Recovery Time	13 mins	15 mins	14 mins	17 mins	22 mins	26 mins	36 mins
Primary Flow Rate	0.95 l/sec	1.12 l/sec	1.50 l/sec	1.93 l/sec	1.93 l/sec	2.36 l/sec	2.36 l/sec
Primary Pressure Drop	28kpa	40kpa	73kpa	45kpa	45kpa	65kpa	65kpa
Standing Energy Losses	85w	115w	130w	174w	193w	250w	305w

Connections

Cold Water Inlet	1 1/2"	2"	2"	2"	2"	2 1/2"	2 1/2"
Primary Connections	1"	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"	1/2"
De-Stratification Tappings	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"
Dhw Recirculation	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"
Hot Water Outlet	1 1/2"	2"	2"	2"	2"	2 1/2"	2 1/2"
T&P Valve	1/2"	3/4"	3/4"	3/4"	3/4"	1"	1"
Vent	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Electrical Immersion	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Flanged Inspection Hatch	180/120 mm	180/120 mm	180/120 mm	180/120 mm	180/120 mm	290/220 mm	290/220 mm



ProStor® BV DHW Buffer Vessel Range

DHW Buffer Vessel with WRAS approved Vitrecoat® coating

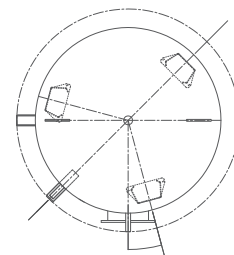
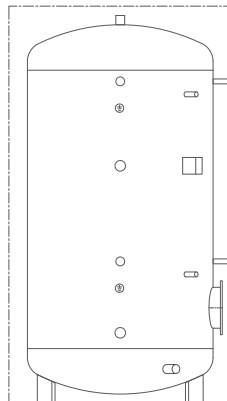
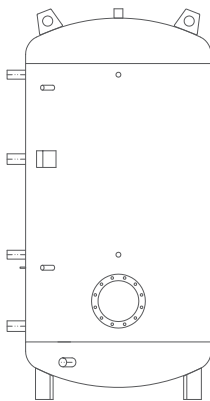
The ProStor BV range of commercial domestic hot water buffer vessels are suitable for a wide range of water heating applications. Each vessel can be used in conjunction with a ProPak Thermal Packaged Plate Heat Exchanger, Electrical Immersion Heaters, or Removable Heat Exchangers and the vessel is lined with WRAS approved Vitrecoat® coating to prevent corrosion.

ProStor® BV Range: Features

- WRAS approved Vitrecoat coating
- Capacities: 300 – 2000 litres
- Electrical Immersion Tapping
- De-stratification Tappings
- Flanged Inspection Hatch
- 100mm Insulation
- Low Standing Losses
- 5 Year Warranty
- Suitable for use with removable heat exchangers, electrical immersions or ProPak Thermal packaged plate heat exchangers

ProStor® BV Range: Options

- Suitable for use with removable heat exchangers, electrical immersions or ProPak Thermal packaged plate heat exchangers
- De-stratification Pump • Rockwool / Stucco Insulation



ProStor® BV DHW Buffer Vessel Range

	Prostor BV						
	300	400	500	800	1000	1500	2000
Technical Specification							
Capacity (litres)	285	400	490	749	955	1430	1990
Construction Materials	High Quality Steel with WRAS Approved Vitrecoat Lining						
Heat Input	via Removable Heat Exchanger, Electrical Immerison Heater or Packaged Plate Heat Exchanger						
Orientation	Vertical						
Insulation Material & Thickness	100mm Hard Polyurethane			100mm Soft Polyurethane			
Total Diameter with Insulation (mm)	600	750	750	990	990	1200	1300
Total Height with Insulation (mm)	1615	1475	1705	1810	2205	2085	2470
Weight Empty (kg)	105	130	145	195	205	285	350
Maximum working pressure - Vessel (bar)	10					8	
Maximum working temperature	95°C						
Vitrecoat WRAS Approval Number	1704572						

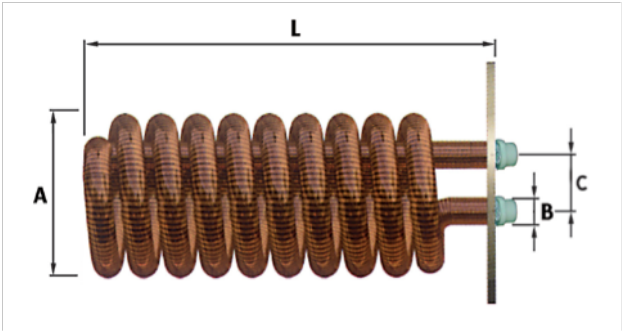
Connections

Cold Water Inlet	1 1/2"	2"	2"	2"	2"	2 1/2"	2 1/2"
Sensor Tappings	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
De-Stratification Tappings	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"
Dhw Recirculation	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"
Hot Water Outlet	1 1/2"	2"	2"	2"	2"	2 1/2"	2 1/2"
T&P Valve	1/2"	3/4"	3/4"	1"	1"	1"	1 1/4"
Vent / Alternative DHW Outlet	1,5	2"	2"	2"	2"	2 1/2"	2 1/2"
Electrical Immersion	1 1/2"	2"	2"	2"	2"	2 1/2"	2 1/2"
Flanged Inspection Hatch	DN290	DN290	DN290	DN290	DN290	DN290	DN290



Ancillary Items

CHWS provide a range of high quality removable heat exchangers for use with the ProStor BV 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.



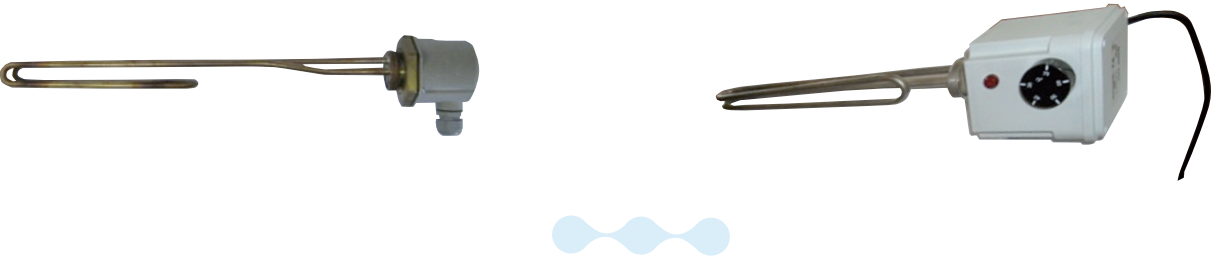
Serpentino Removable Heat Exchangers

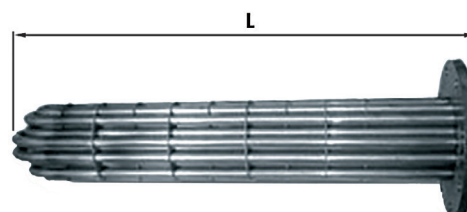
	SR1A	SR2	SR3	SR4	SR5	SR6
Construction Material	Copper					
Heat Exchange Surface Area (m²)	1.21	1.80	2.63	3.20	4.54	6.34
Absorbed Power (kW)	38	57	83	100	143	199
Primary Flow Rate (l/s)	0.45	0.67	0.98	1.20	1.70	2.37
DHW Output (l/hr)*	654	980	1428	1720	2460	3423
Primary Pressure Loss (mbar)	387	245	748	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

Other Products

Twin Coil cylinders

Twin coil cylinders are also available for solar thermal projects.

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; 100mm soft polyurathene jackets as standard. We can also supply, 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



COMMERCIAL HOT WATER SOLUTIONS LTD

The Hive, Weston-super-Mare
BS24 8EE, United Kingdom
t. 01934 411 252
e. info@chwsLtd.co.uk
www.chwsLtd.co.uk



BOSCH



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