

PROPAK THERMAL

Packaged Plate Heat Exchanger

WRAS APPROVED PRODUCT

CHWS

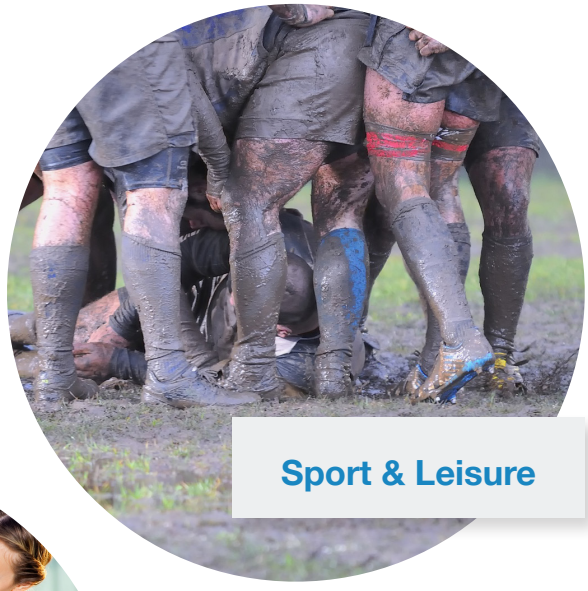
Applications

- Care Homes
- Student Accommodation
- Sports & Leisure
- Hotels
- Restaurants
- Accommodation





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 Stainless Steel 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

Propak Thermal Packaged Plate Heat Exchanger

Introducing the Propak Thermal range, a series of compact, packaged plate heat exchangers comprising a stainless steel gasketed plate heat exchanger, primary and secondary pumps, Siemens 3-port control valve, and control panel with full MODBUS BMS connectivity.

The ProPak Thermal range can be installed with one of our ProStor BV DHW Buffer Vessels and can be easily skid mounted for further ease of installation. The Propak Thermal Range is fully WRAS approved. WRAS Approval Number 1711338.

The Propak Thermal standard range of units have heat energy outputs of between 75kw and 800kW.

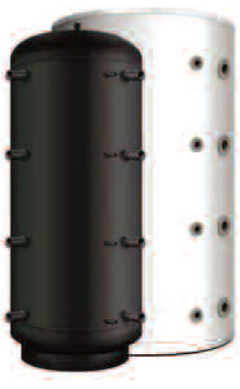
Larger units are available on request.

- Fully BMS Compatible
- Small Physical Footprint
- Cost Effective
- Easy to Install

CHWS are proud to be CIBSE Patrons.





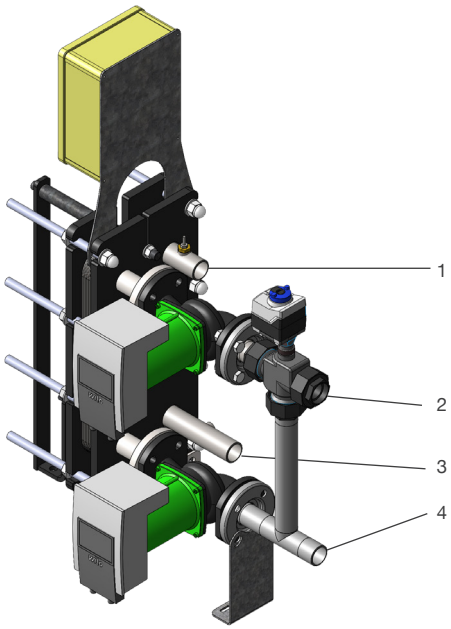




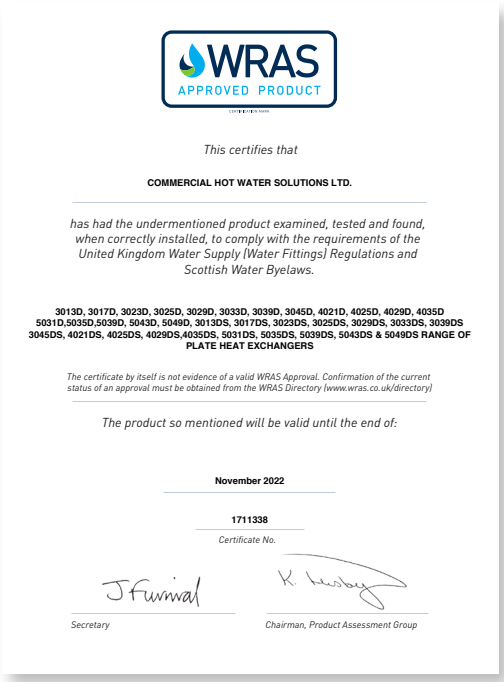
Principal

CHWS Propak is a compact and highly efficient DHW production system incorporating a gasketed plate heat exchanger, electrically actuated 3-port control valve, ErP A-rated variable speed primary pumps with a secondary pump supplied on the Propak DS units.

The unit is complete with a full PID controller and PT100 temperature sensor. The motorized 3-port valve allows high speed adjustment of the primary heat input to match changes in secondary hot water demand. The design maintains the outlet temperature at the set point (default 60°C) and consequently reduces the risk of legionnaires disease within the system.



ProPak Thermal WRAS Certificate Number 1711338



WRAS APPROVED PRODUCT

This certifies that

COMMERCIAL HOT WATER SOLUTIONS LTD.

has had the undermentioned product examined, tested and found, when correctly installed, to comply with the requirements of the United Kingdom Water Supply (Water Fittings) Regulations and Scottish Water Byelaws.

3013D, 3017D, 3023D, 3025D, 3029D, 3033D, 3039D, 3045D, 4021D, 4025D, 4029D, 4035D 5031D,5035D,5039D, 5043D, 5049D, 3013DS, 3017DS, 3023DS, 3025DS, 3029DS, 3033DS, 3039DS 3045DS, 4021DS, 4025DS, 4029DS,4035DS, 5031DS, 5035DS, 5039DS, 5043DS & 5049DS RANGE OF PLATE HEAT EXCHANGERS

The certificate by itself is not evidence of a valid WRAS Approval. Confirmation of the current status of an approval must be obtained from the WRAS Directory (www.wras.co.uk/directory)

The product so mentioned will be valid until the end of:

November 2022

1711338

Certificate No.

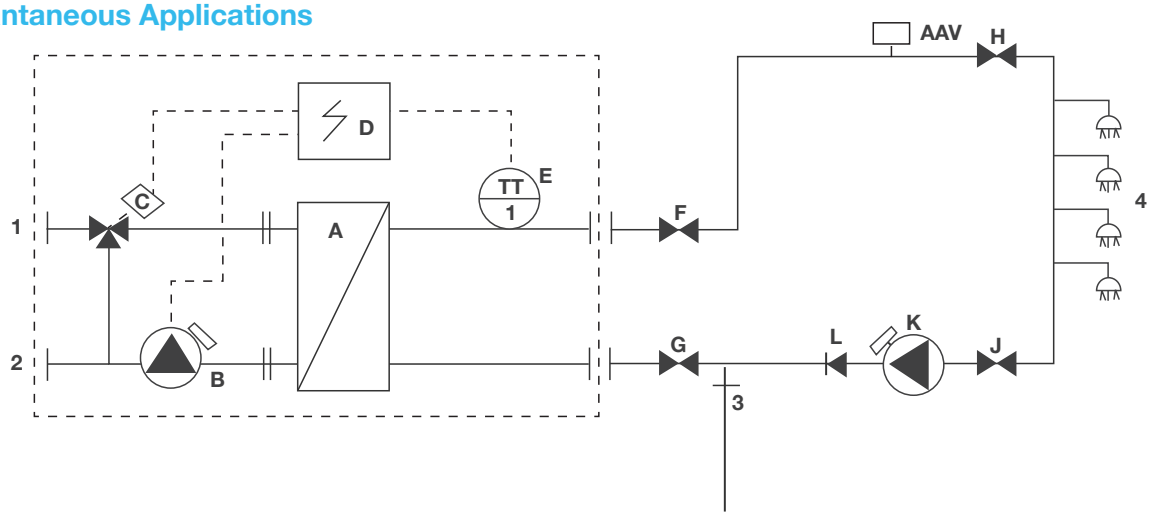
Secretary *Chairman, Product Assessment Group*

2 YEAR WARRANTY 2 YEAR WARRANTY

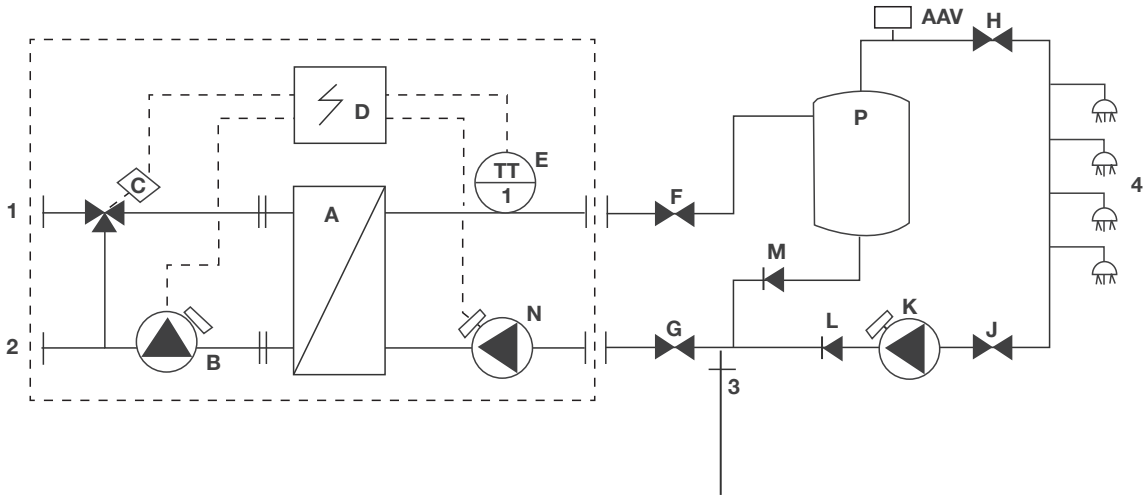
Connections

1. Domestic Hot Water Outlet
2. Cold Water Inlet
3. Primary Inlet
4. Primary Outlet

Instantaneous Applications



Semi-Instantaneous Applications



Key	
A	Plate Heat Exchanger
B	Primary Pump(s)
C	Control Valve - 3 Port
D	Control Panel
E	Control Sensor
1.	Primary Inlet
2.	Primary Return
3.	Cold Water Inlet
4.	System Outlets

F	Insolating valve
G	Inlet Insolating Valve
H	System Insolating Valve
J	Secondary Circulating Insolating Valve
K	Secondary Circulating Pump
L	Secondary Circulating Check Valve
M	Non - Return Value
N	Secondary Shunt Pump
P	DHW Buffer Vessel

Performance

Primary Fluid & Temperature: Water 80 / 45 Degrees C Flow & Return		3013	3017	3023	3025
Heat Load Required / Max. Duty	kW	75	100	150	175
Secondary Flow Rate	l/s	0,36	0,48	0,71	0,83
	m3/h	1,28	1,71	2,57	2,99
Primary Flow Rate	l/s	0,53	0,70	1,05	1,23
	m3/h	1,91	2,53	3,78	4,43
Secondary Pressure Drop at Peak Output	kPa	6,60	6,70	8,14	9,37
Primary Pressure Drop at Peak Output	kPa	13,4	13,6	16,5	19,0

Primary Fluid & Temperature: Water 80 / 60 Degrees C Flow & Return					
Heat Load Required / Max. Duty	kW	65	85	115	125
Secondary Flow Rate	l/s	0,31	0,40	0,55	0,59
	m3/h	1,11	1,45	1,97	2,14
Primary Flow Rate	l/s	0,80	1,04	1,41	1,54
	m3/h	2,88	3,74	5,08	5,54
Secondary Pressure Drop at Peak Output	kPa	4,95	4,84	4,83	4,85
Primary Pressure Drop at Peak Output	kPa				

Primary Fluid & Temperature: Water 70 / 50 Degrees C Flow & Return					
Heat Load Required / Max. Duty	kW	65	85	115	125
Secondary Flow Rate	l/s	0,31	0,40	0,55	0,59
	m3/h	1,11	1,45	1,97	2,14
Primary Flow Rate	l/s	0,80	1,04	1,41	1,53
	m3/h	2,86	3,74	5,08	5,51
Secondary Pressure Drop at Peak Output	kPa	5,02	4,91	4,90	4,92
Primary Pressure Drop at Peak Output	kPa				

Primary Operating Pressure	bar	
Secondary Operating Pressure	bar	

Connections

Primary Inlet Connection	DN32
Primary Outlet Connection	DN32
Secondary Inlet / Outlet Connection	DN32

Pumps & Valves

Primary Circulating Pumps	Wilo Stratos Para 1-8	
Primary Circuit Motorised 3 Port Control Valve	Siemens VXG 48.32 / SAS 61.03 Actuator	
Secondary Circuit Shunt Pump*	Grundfos UPS 32-80N	

Dimensions

Height	mm	957			
Length	mm	634			
Width	mm	340 / 349**			
Weight	kg	80	90	90	90

* secondary circuit shunt pump on DS models only

** larger width refers to DS model

3029	3033	3039	3045	4021	4025	4029	4035	5031	5035	5039	5043	5049
200	225	275	325	350	400	430	480	500	575	625	700	800
0,95	1,07	1,31	1,54	1,68	1,90	2,04	2,31	2,38	2,73	2,97	3,33	3,80
3,42	3,85	4,70	5,56	6,05	6,84	7,35	8,32	8,55	9,83	10,69	11,97	13,68
1,41	1,58	1,93	2,28	2,43	2,81	3,02	3,40	3,51	4,04	4,39	4,92	5,62
5,08	5,69	6,95	8,21	8,75	10,12	10,87	12,24	12,64	14,54	15,80	17,71	20,23
9,24	9,24	10,30	11,30	14,60	14,30	12,40	12,70	14,50	15,10	14,50	15,10	15,40
18,8	18,8	20,9	22,9	28,6	27,9	24,1	24,8	28,3	29,5	28,4	29,5	30,0

145	160	190	215	230	230	295	295	300	335	375	410	460
0,69	0,76	0,90	1,02	1,10	1,10	1,42	1,42	1,43	1,59	1,78	1,95	2,19
2,48	2,74	3,25	3,68	3,96	3,96	5,11	5,11	5,13	5,73	6,41	7,01	7,87
1,78	1,97	2,34	2,64	2,80	2,80	3,58	3,58	3,69	4,12	4,61	5,04	5,65
6,41	7,09	8,42	9,50	10,08	10,08	12,89	12,89	13,28	14,83	16,60	18,14	20,34
4,92	4,74	4,97	5,02	5,06	5,06	5,13	5,13	5,52	5,43	5,52	5,48	5,42
30kpa												

145	160	190	215	230	230	295	295	300	335	375	410	460
0,69	0,76	0,90	1,02	1,10	1,10	1,42	1,42	1,43	1,59	1,78	1,95	2,19
2,48	2,74	3,25	3,68	3,96	3,96	5,11	5,11	5,13	5,73	6,41	7,01	7,87
1,77	1,96	2,33	2,63	2,80	2,80	3,58	3,58	3,67	4,10	4,59	5,02	5,63
6,37	7,06	8,39	9,47	10,08	10,08	12,89	12,89	13,21	14,76	16,52	18,07	20,27
4,99	4,80	5,04	5,09	5,13	5,13	5,20	5,20	5,61	5,52	5,60	5,56	5,50
30kpa												

10
10

	DN40	DN50
	DN40	DN50
	DN40	DN50

Wilo Stratos Para 1-12	Yonos Maxo - D40 / 0.5-12	Yonos Para Hi-Flow 50/12
	Siemens VXG 48.40 / SAS 61.03 Actuator	Siemens VXF 32.50 - 40/SAX 61.03 Actuator
	Grundfos TP 40-60	Grundfos TP 50-60

	1310	1310
	924	977
	560 / 775**	563 / 793**

90	90	100	100	200	200	200	200	285	285	320	320	320

ProPak Thermal: Skid Systems

CHWS WRAS approved Propak Thermal Packaged Plate Heat Exchanges can now be skid mounted, in conjunction with one of our ProStor DHW Buffer Vessels for ease of installation.

Constructed on a study metal frame ProPak Thermal Skid Systems are available using products from our standard ranges - other sizes are available upon request.

ProPak Thermal Skid Systems include the following components:

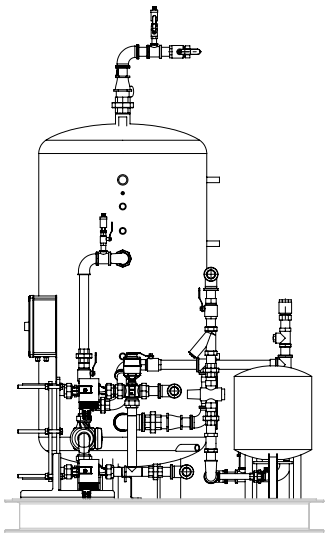
- ProPak Thermal DS WRAS Approved Packaged Plate Heat Exchanges
  - Plate Heat exchanger
  - Control Panel with BMS interface
  - Three-Port Valve
  - Primary Pumps
  - Secondary circuit shunt pump
- ProStor DHW Buffer Vessel
- Potable Water Expansion Vessel
- Unvented Kit including:
  - Strainer
  - Insolating Valve
  - Pressure Reducing Valve
  - Non Return Valve
  - Safety Relief Valve
- All interconnecting pipework
- T&P Valve
- Pressure Tested and Delivered to Site

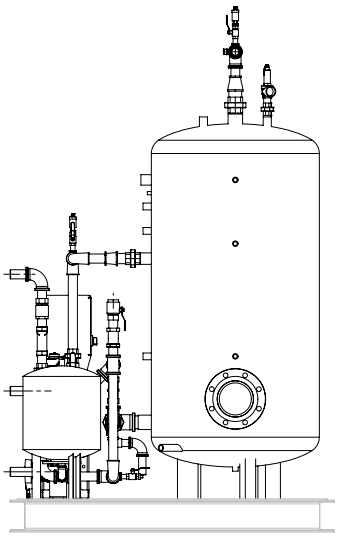
VITRECOAT®

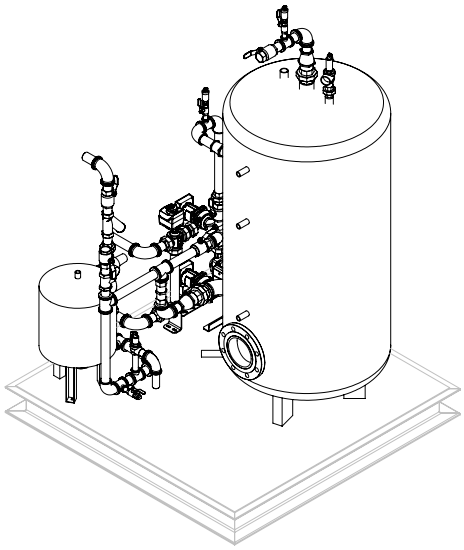
2 YEAR WARRANTY

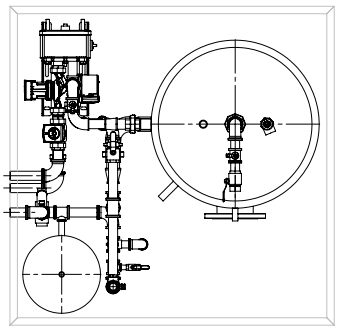
ProPak Thermal Skid Options

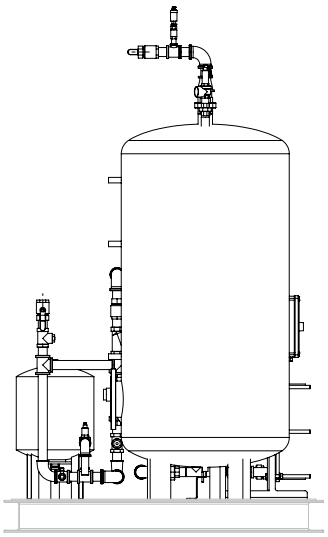
DHW Buffer Vessel Capacity (Litres)		
300	Skid Option A	Max Height 2805mm Width - 1500mm Length - 1500mm
500		
800	Skid Option B	Max Height 3205mm Width - 2000mm Length - 2000mm
1000		
1500	Skid Option C	Max Height 3470mm Width - 2500mm Length - 2500mm
2000		

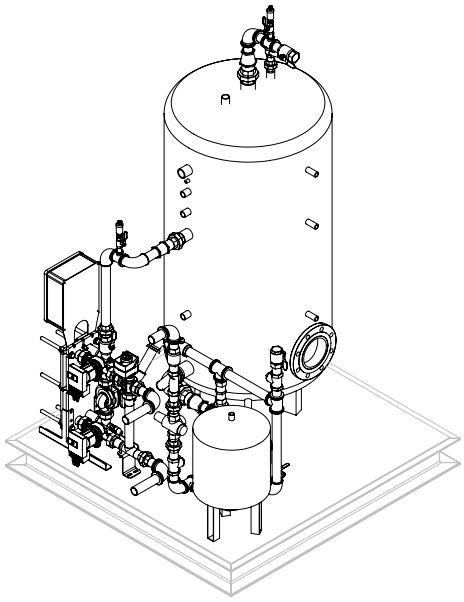












ProPlate: Plate Heat Exchangers

CHWS ProPlate Plate Heat Exchangers are suitable for a range of applications where the functionality of a fully packaged module is not required.

ProPlate Plate Heat Exchangers are available as gasketed plate and frame heat exchangers, constructed with stainless steel plates, EPDM gaskets and rigid steel end plates or as brazed plate heat exchangers.

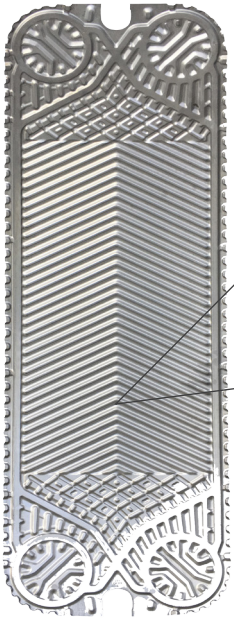
CHWS offer a design service and produce a complete technical data sheet complete with physical dimensions and connection sizes for all heat exchangers.

ProPlate Features:

- Stainless Steel Construction
- Gasketed or Brazed Options
- Range of Connection Sizes Available
- High Pressure Units Available

ProPlate Applications:

- Heating Circuit Separation
- Processes
- Cooling & Chilled Water Systems
- Domestic Hot Water Generation





CHWS supply a range of Stainless Steel Heat Exchangers

2 YEAR WARRANTY



Packaged Plate Heat Exchangers



Gasketed Plate Heat Exchangers



Brazed Plate Heat Exchangers

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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"