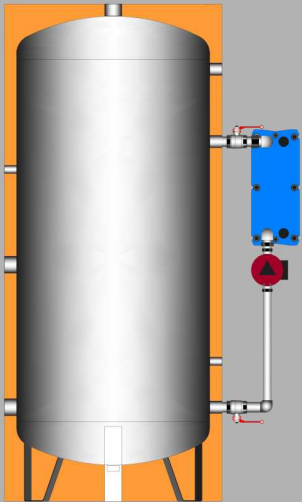
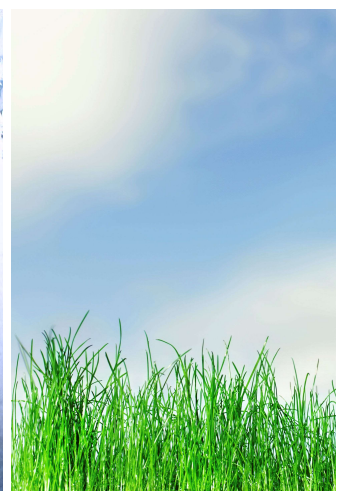


## Product Guide



### DOMESTIC HOT WATER SOLUTIONS STORPLATE SPP & SPPC DHW GENERATORS GASKETED HEAT EXCHANGER MODEL

*Inventive Engineering*



## StorPlate SPP Semi-Instantaneous Water Heaters



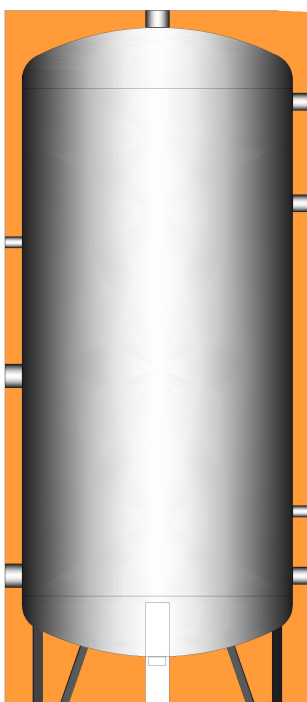
The Arbe SPP StorPlate series of semi-instantaneous water heaters are used for the production of DHW through an external gasketed plate heat exchanger & pump arrangement.

The SPP range of units have capacities from 200 litre to 5000 litre as standard. The heat outputs on this range start at 30 kW on all models with maximum outputs of 300 kW on the larger models, with other outputs available on request. The StorPlate SPP units can be supplied with factory fitted primary control systems with all controls and fixed or variable speed shunt pumps. The shell materials are stainless steel as standard with optional enamelled steel shells available. All our units are compliant with L8 & The UKCA PE(S)R 2016 Regulations.

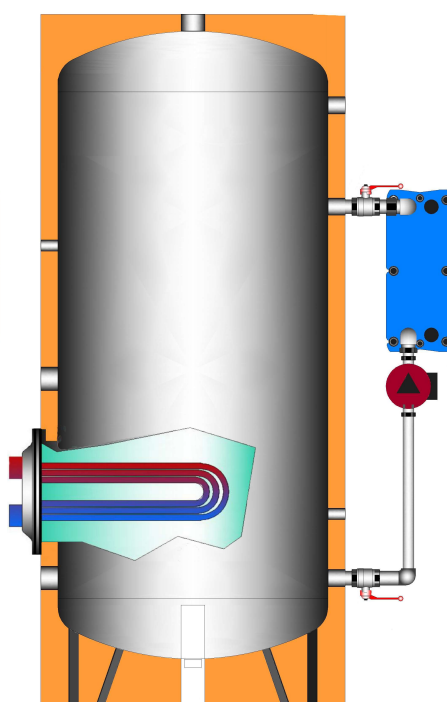
The SPP range of cylinders are also available with primary controls including various controls options, with systems designed to ensure compliance with G3:2010 Building Regulations without the need for extra controls:

1. SPP - Standard StorPlate unit with no primary controls
2. SPPC - Primary control valves and a fixed or variable speed primary pump(s) c/w digital controls comprising PLC based systems and touch screen technology

The SPPC range of generators are supplied with a primary controls package incorporating a primary shunt pump, primary control valve and a programmable PLC control system, all factory packaged. The primary pumps are available with single or twin heads with auto-changeover function.



StorPlate SPP



StorPlate with Additional Coil



StorPlate SPPC

## StorPlate SPPC Semi-Instantaneous Water Heaters



The Arbe SPPC StorPlate water heaters are available with several different variations, giving certain designations in the unit description. The following chart shows the standard variations available but we can supply bespoke designs to suit any requirement

Example:

StorPlate SPPC1500-100-6B-1P1S - a 1500 litre unit with a 90 kW duty, 6 BarG design pressure, with a single fixed speed primary pump and a single secondary pump.

SPPC	1500	100	6B	1P1S
Unit Type	Capacity (Litres)	kW Rating	Design Pressure	Primary Controls Package
SPPC	200	30	6B - 6 BarG	OP1S No Primary Pump Single Fixed Speed Secondary Pump 3-Port Modulating Control Valve
	300	50	8B - 8 BarG	1P1S Single Fixed Speed Primary Pump Single Fixed Speed Secondary Pump 3-Port Modulating Control Valve
	500	75	10B - 10 BarG	2P1S Twin Fixed Speed Primary Pump Single Fixed Speed Secondary Pump 3-Port Modulating Control Valve
	800	100		1EP1S Single Variable Speed Primary Pump Single Fixed Speed Secondary Pump 2-Port Shut-Off Valve
	1000	125		2EP1S Twin Variable Speed Primary Pump Single Fixed Speed Secondary Pump 2-Port Shut-Off Valve
	1500	150		
	2000	175		
	2050	200		
	2500	225		
	3000	250		
	4000	275		
	5000	300		



SPPC300-150-6B-1P1S



SPPC300-150-6B-2P1S



SPPC300-150-6B-2EP1S

## StorPlate SPPC Semi-Instantaneous Water Heaters



The Arbe SPPC StorPlate water heaters can be designed to suit any application, should our standard offering not fit what is required in the specification. This may include multiple heat exchangers, different specifications of equipment such as pumps or controls, or vessel and pipework materials.

Our design department can design any requirements into the packages to suit each application



## StorPlate SPP Semi-Instantaneous Water Heaters

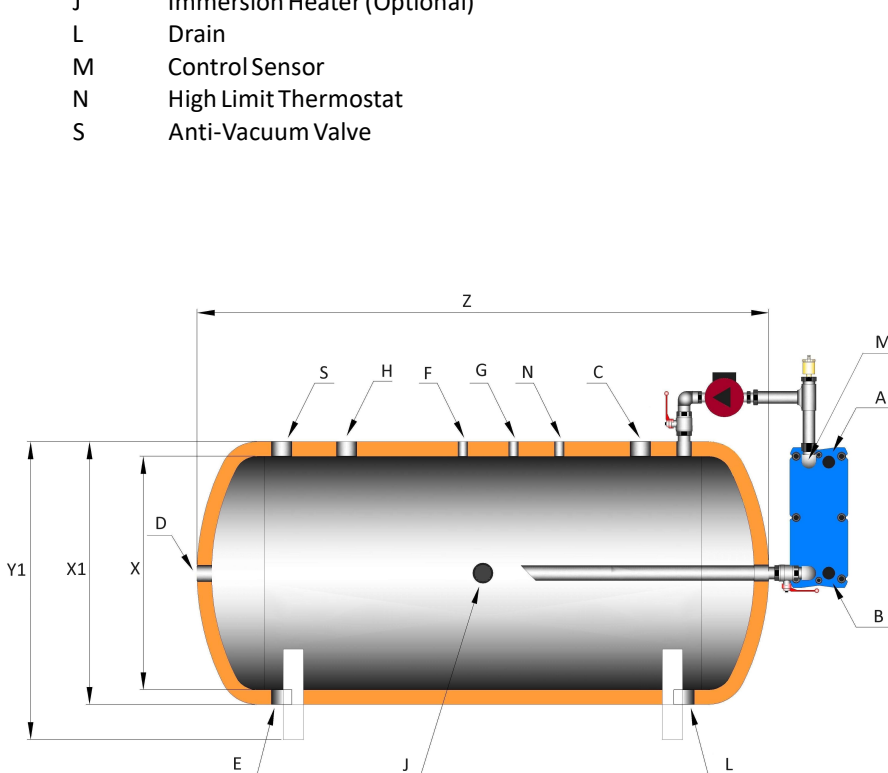


Dimensions		SPP Capacity (Litres)											
		200	300	500	800	1000	1500	2000	2050	2500	3000	4000	5000
X1	mm	550	650	750	1000	1000	1200	1400	1300	1300	1350	1500	1700
X	mm	450	550	650	800	800	1000	1200	1200	1200	1250	1400	1600
Y	mm	1510	1550	1840	1960	2210	2250	2170	2270	2600	2800	2880	2970
Y1	mm	660	760	860	1100	1100	1360	1550	1460	1510	1550	1700	1890
Z	mm	1400	1450	1730	1930	2180	2170	2110	2200	2500	2700	2800	2850
A	BSP	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"
B	BSP	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"
C	BSP	1½"	1½"	1½"	2"	2"	2½"	2½"	2½"	3"	3"	3"	3"
D	BSP	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"
E	BSP	1½"	1½"	1½"	2"	2"	2½"	2½"	2½"	3"	3"	3"	3"
F	BSP	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"
G	BSP	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"
H	BSP	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"
J	BSP	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
L	BSP	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"
M	BSP	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"
N	BSP	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"	½"
S	BSP	¾"	¾"	¾"	1"	1"	1"	1"	1"	1"	1"	1"	1"
Energy Efficiency Class ErP Compliant	Rating	<b>B</b>	<b>B</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	-	-	-	-	-
	W	<b>55</b>	<b>68</b>	<b>93</b>	<b>115</b>	<b>128</b>	<b>153</b>	<b>176</b>	-	-	-	-	-

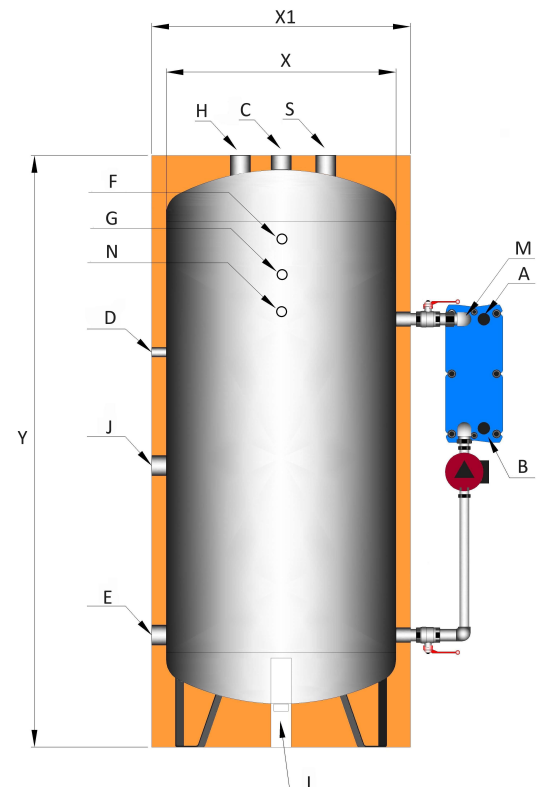
### Connections

- A Primary Flow
- B Primary Return
- C Secondary Flow
- D Secondary Return
- E Cold Feed
- F Thermometer
- G Pressure Gauge
- H Safety Valve
- J Immersion Heater (Optional)
- L Drain
- M Control Sensor
- N High Limit Thermostat
- S Anti-Vacuum Valve

Model	Maximum Temperature	Maximum Pressure
SPPC		
Secondary Side	99°C	10 BarG
Primary Side	110°C	16 BarG



Horizontal Orientation



Vertical Orientation



## mim-IQ Controls

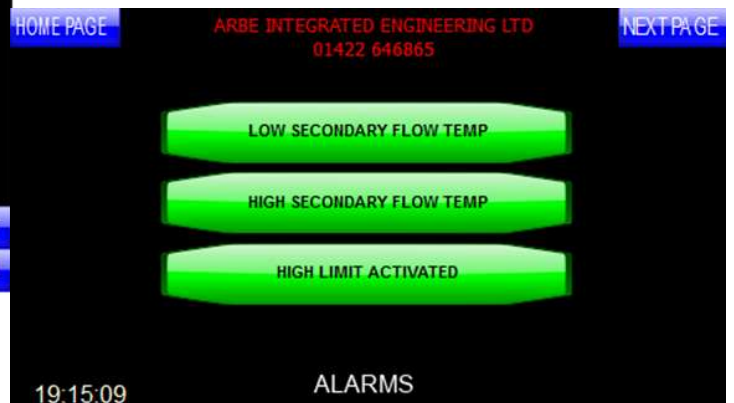
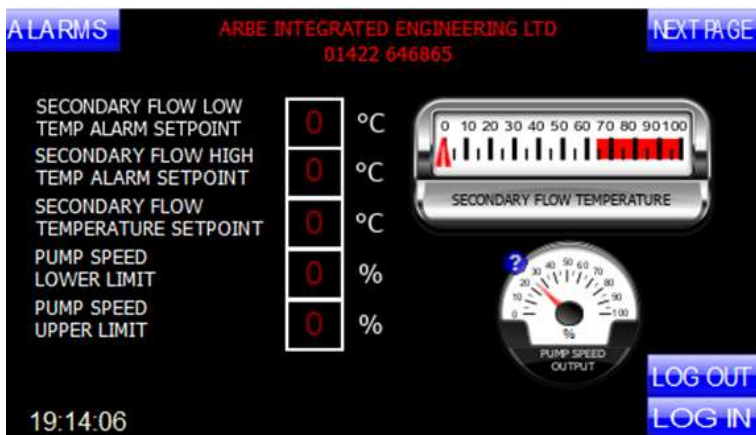
Our StorPlate SPPC DHW packages are supplied as standard with mim-IQ PLC based control systems. The control panel controls the power supplies to the package. This is performed in a number of ways in order to control the fully automatic operation of the package. All of the possible functions for this control system are operated via this touch screen panel. Once the power supply to the package is live and the Main Isolator switched on, after a short time, our 'Home' screen will be displayed.



## Features

- Can control valve position on standard units or pump speed on the E variable speed models
- Volt-free contact available for common alarm
- Remote BMS enable facility available
- Programmable pasteurisation program as an option

In addition to the above, our mim-IQ panel can offer a remote view and package control. If this option is supplied as part of the package, the package(s) are able to be viewed through an online portal. This may be Google for example. All we need to do is set up the parameters within the package HMI on commissioning. To enable this to work and function correctly, each package would need a Cat 5 or Cat 6 data cable installed directly into the Ethernet port on the HMI itself. Each package would also need a unique pre-determined IP address. We can assist with this, should this option be required.



## StorPlate SPP Installation in Unvented Systems



The layout below is the standard recommended cold feed kit available with our StorPlate units for unvented systems, complying with Building Regulations. The size of each cold feed and kit expansion vessel is project specific so please contact us with any queries on sizing or the kit that is required. The unit can be supplied factory packaged with the unvented kit on a fabricated skid base, reducing site installation time, which also removes the need for a concrete plinth to be made on site



### Key

1. Isolating Valve
2. Strainer
3. Pressure Reducing Valve
4. Check Valve
5. Expansion Relief Valve
6. Expansion Isolating Valve
7. Expansion Drain Valve
8. Expansion Vessel
9. Vessel P/T Safety Valve



## StorPlate SPP Semi-Instantaneous Water Heaters

Model	Capacity & Output		SPP StorPlate Technical Details			
	Capacity (Litres)	Output (kW)	Primary Flowrate (L/Sec)	Continuous DHW Flowrate (L/Hour)	Peak DHW Flowrate (L/Sec For 10 Minutes)	Vessel Recharge Time (Minutes)
SPP200-30	200	30	0.32	516	0.48	24
SPP200-50	200	50	0.52	860	0.58	14
SPP200-75	200	75	0.78	1290	0.7	10
SPP200-100	200	100	1.04	1720	0.82	7
SPP200-125	200	125	1.3	2150	0.94	6
SPP200-150	200	150	1.56	2580	1.05	5
SPP200-175	200	175	1.82	3010	1.17	4
SPP200-200	200	200	2.08	3440	1.29	4
SPP300-30	300	30	0.32	516	0.65	35
SPP300-50	300	50	0.52	860	0.74	21
SPP300-75	300	75	0.78	1290	0.86	14
SPP300-100	300	100	1.04	1720	0.98	11
SPP300-125	300	125	1.3	2150	1.1	9
SPP300-150	300	150	1.56	2580	1.22	7
SPP300-175	300	175	1.82	3010	1.34	6
SPP300-200	300	200	2.08	3440	1.46	6
SPP500-30	500	30	0.32	516	0.98	59
SPP500-50	500	50	0.52	860	1.08	35
SPP500-75	500	75	0.78	1290	1.2	24
SPP500-100	500	100	1.04	1720	1.32	18
SPP500-125	500	125	1.3	2150	1.44	14
SPP500-150	500	150	1.56	2580	1.55	12
SPP500-175	500	175	1.82	3010	1.67	10
SPP500-200	500	200	2.08	3440	1.79	9
SPP500-225	500	225	2.34	3870	1.91	8
SPP500-250	500	250	2.6	4300	2.03	7
SPP500-275	500	275	2.85	4729	2.15	7
SPP800-30	800	30	0.32	516	1.48	94
SPP800-50	800	50	0.52	860	1.58	56
SPP800-75	800	75	0.78	1290	1.7	38
SPP800-100	800	100	1.04	1720	1.82	28
SPP800-125	800	125	1.3	2150	1.94	23
SPP800-150	800	150	1.56	2580	2.05	19
SPP800-175	800	175	1.82	3010	2.17	16
SPP800-200	800	200	2.08	3440	2.29	14
SPP800-225	800	225	2.34	3870	2.41	13
SPP800-250	800	250	2.6	4300	2.53	12
SPP800-275	800	275	2.85	4729	2.65	11
SPP800-300	800	300	3.11	5159	2.77	10
SPP1000-30	1000	30	0.32	516	1.81	117
SPP1000-50	1000	50	0.52	860	1.91	70
SPP1000-75	1000	75	0.78	1290	2.03	47
SPP1000-100	1000	100	1.04	1720	2.15	35
SPP1000-125	1000	125	1.3	2150	2.27	28
SPP1000-150	1000	150	1.56	2580	2.39	24
SPP1000-175	1000	175	1.82	3010	2.51	20
SPP1000-200	1000	200	2.08	3440	2.63	18
SPP1000-225	1000	225	2.34	3870	2.75	16
SPP1000-250	1000	250	2.6	4300	2.87	14
SPP1000-275	1000	275	2.85	4729	2.99	13
SPP1000-300	1000	300	3.11	5159	3.1	12
SPP1500-30	1500	30	0.32	516	2.65	175
SPP1500-50	1500	50	0.52	860	2.74	105
SPP1500-75	1500	75	0.78	1290	2.86	70
SPP1500-100	1500	100	1.04	1720	2.98	53
SPP1500-125	1500	125	1.3	2150	3.1	42
SPP1500-150	1500	150	1.56	2580	3.22	35
SPP1500-175	1500	175	1.82	3010	3.34	30
SPP1500-200	1500	200	2.08	3440	3.46	27
SPP1500-225	1500	225	2.34	3870	3.58	24
SPP1500-250	1500	250	2.6	4300	3.7	21
SPP1500-275	1500	275	2.85	4729	3.82	20
SPP1500-300	1500	300	3.11	5159	3.94	18

Model	Capacity & Output		SPP StorPlate Technical Details			
	Capacity (Litres)	Output (kW)	Primary Flowrate (L/Sec)	Continuous DHW Flowrate (L/Hour)	Peak DHW Flowrate (L/Sec For 10 Minutes)	Vessel Recharge Time (Minutes)
SPP2000-30	2000	30	0.32	516	3.48	233
SPP2000-50	2000	50	0.52	860	3.58	140
SPP2000-75	2000	75	0.78	1290	3.7	94
SPP2000-100	2000	100	1.04	1720	3.82	70
SPP2000-125	2000	125	1.3	2150	3.94	56
SPP2000-150	2000	150	1.56	2580	4.05	47
SPP2000-175	2000	175	1.82	3010	4.17	40
SPP2000-200	2000	200	2.08	3440	4.29	35
SPP2000-225	2000	225	2.34	3870	4.41	32
SPP2000-250	2000	250	2.6	4300	4.53	28
SPP2000-275	2000	275	2.85	4729	4.65	26
SPP2000-300	2000	300	3.11	5159	4.77	24
SPP2500-30	2500	30	0.32	516	4.31	291
SPP2500-50	2500	50	0.52	860	4.41	175
SPP2500-75	2500	75	0.78	1290	4.53	117
SPP2500-100	2500	100	1.04	1720	4.65	88
SPP2500-125	2500	125	1.3	2150	4.77	70
SPP2500-150	2500	150	1.56	2580	4.89	59
SPP2500-175	2500	175	1.82	3010	5.01	50
SPP2500-200	2500	200	2.08	3440	5.13	44
SPP2500-225	2500	225	2.34	3870	5.25	39
SPP2500-250	2500	250	2.6	4300	5.37	35
SPP2500-275	2500	275	2.85	4729	5.49	32
SPP2500-300	2500	300	3.11	5159	5.6	30
SPP3000-30	3000	30	0.32	516	5.15	349
SPP3000-50	3000	50	0.52	860	5.24	210
SPP3000-75	3000	75	0.78	1290	5.36	140
SPP3000-100	3000	100	1.04	1720	5.48	105
SPP3000-125	3000	125	1.3	2150	5.6	84
SPP3000-150	3000	150	1.56	2580	5.72	70
SPP3000-175	3000	175	1.82	3010	5.84	60
SPP3000-200	3000	200	2.08	3440	5.96	53
SPP3000-225	3000	225	2.34	3870	6.08	47
SPP3000-250	3000	250	2.6	4300	6.2	42
SPP3000-275	3000	275	2.85	4729	6.32	39
SPP3000-300	3000	300	3.11	5159	6.44	35
SPP4000-30	4000	30	0.32	516	6.81	466
SPP4000-50	4000	50	0.52	860	6.91	280
SPP4000-75	4000	75	0.78	1290	7.03	187
SPP4000-100	4000	100	1.04	1720	7.15	140
SPP4000-125	4000	125	1.3	2150	7.27	112
SPP4000-150	4000	150	1.56	2580	7.39	94
SPP4000-175	4000	175	1.82	3010	7.51	80
SPP4000-200	4000	200	2.08	3440	7.63	70
SPP4000-225	4000	225	2.34	3870	7.75	63
SPP4000-250	4000	250	2.6	4300	7.87	56
SPP4000-275	4000	275	2.85	4729	7.99	51
SPP4000-300	4000	300	3.11	5159	8.1	47
SPP5000-30	5000	30	0.32	516	8.48	582
SPP5000-50	5000	50	0.52	860	8.58	349
SPP5000-75	5000	75	0.78	1290	8.7	233
SPP5000-100	5000	100	1.04	1720	8.82	175
SPP5000-125	5000	125	1.3	2150	8.94	140
SPP5000-150	5000	150	1.56	2580	9.05	117
SPP5000-175	5000	175	1.82	3010	9.17	100
SPP5000-200	5000	200	2.08	3440	9.29	88
SPP5000-225	5000	225	2.34	3870	9.41	78
SPP5000-250	5000	250	2.6	4300	9.53	70
SPP5000-275	5000	275	2.85	4729	9.65	64
SPP5000-300	5000	300	3.11	5159	9.77	59



# Welcome to Arbe Integrated Engineering

Arbe Integrated Engineering offer a range of products and services for the HVAC building services industry, ranging from bare heat exchangers and storage cylinders to fully packaged plantrooms and associated equipment. With over 20 years of design experience, our design and technical team can offer a complete solution for a wide range of project requirements.

## Seamless Integration:

With our next generation range of equipment, our products offer complete integration with renewable and future energies, ensuring all available energy is utilised, reducing fossil fuel usage. In addition, our HevaSys products offers a unique next generation range of equipment with integral BMS style controls that can be adapted to any installation and can provide a standalone management system for buildings where the heating and hot water generation is relatively small, such as a leisure centre or a school.

## Inventive Engineering:

In addition to our standard equipment, including heat exchangers, storage calorifiers and packaged solutions, we also design and manufacture bespoke equipment to end user or consultant specifications and we carry out extensive research and development to invent new products and enhance current designs.

## Application Solutions:

With our complete range of products, we have solutions to cover most applications. With our ability to carry out complete bespoke design, we have a solution for each and every project requirement. Our end users include:

- Hotels
- Schools
- Universities
- Leisure Centres & Gyms
- Hospitals



## Products Include:

Calorifiers  
Indirect Cylinders  
Direct Cylinders  
Thermal Stores  
Pressure Vessels  
Plate Heat Exchangers  
Braze Heat Exchangers  
Shell & Tube Exchangers  
Heat Exchanger Packages

TwinHeat DHW/LTHW Systems  
Gas Fired Calorifiers  
Boilers & Associated Equipment  
Packaged Boiler Houses  
Packaged Plant Rooms  
Solar Energy Packages  
Heat Pumps  
Booster Sets & Pressurisation  
Bespoke Engineering Packages

Suitable for Heating Systems  
Suitable for Potable Systems  
Suitable for Chilled Systems  
Suitable for Steam Systems  
Suitable for Renewable Systems  
Suitable for Boosted Water Systems

Key to product Suitability



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