

Instantaneous Hot Water Heating Systems

This leaflet gives brief details of our range of Packaged Plate Heat Exchangers for heating Domestic Hot Water (DHW) using Low Temperature Hot Water (LTHW) as the heating medium. Options include:

Packaged Plate Heat Exchangers	Standard Range: Outputs from 50 to 2000 kW Eco Range: Outputs from 50 to 250 kW
Packaged Plate Heat Exchanger + Buffer Vessel Skid Mounted	Outputs from 50 to 400 kW Buffer Vessels from 100 to 1000 litres
Buffer Vessels only	100 to 3000 litres

Standard Range

Operation

Each system is designed to instantaneously heat Domestic Hot Water (DHW) to a desired set point (standard 65°C) using Low Temperature Hot Water (LPHW) removing the need for stored hot water.

The system is automatically controlled by an Industrial Temperature Controller and Temperature Sensor that operates a Motorised Control Valve to maintain the output temperature of the DHW according to hot water demand.

System Features

- ◆ Plate Heat Exchanger with AISI 316 stainless steel plates
- ◆ Primary Shunt Pump (single or twin head)
- ◆ 2, 3 or 4-Port Modulating Control Valve c/w Electric Actuator
- ◆ Industrial quality Temperature Controller and Control Panel
- ◆ PT100 Temperature Sensor on DHW outlet
- ◆ LED digital display of system temperature and set point
- ◆ High Limit Safety Thermostat for pump shut down & indication with reset button
- ◆ All controls are 24v low voltage
- ◆ Integral Skid Base Mounting Plate

Additional Options

- ◆ Secondary DHW Pump to overcome the pressure drop through the heat exchanger or circulate to an adjacent Buffer Vessel
- ◆ BMS interface signals
- ◆ 7 Day Time Clock
- ◆ 4—20 mA output of DHW temperature
- ◆ Pasteurisation Function
- ◆ Energy saving features
- ◆ High-Limit Shut-Off Valve

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Standard Range—Outputs

Model No	DHW 10 to 65 °C (l/s)	Duty kW	Model No	DHW 10 to 65 °C (l/s)	Duty kW
UKE-8-50	0.22	50	UKE14-800	3.51	800
UKE8-100	0.44	100	UKE14-850	3.73	850
UKE8-150	0.66	150	UKE14-900	3.94	900
UKE8-200	0.88	200	UKE14-950	4.16	950
UKE8-250	1.10	250	UKE14-1000	4.38	1000
UKE8-300	1.32	300	UKE19-1100	4.82	1100
UKE8-350	1.53	350	UKE19-1200	5.26	1200
UKE8-400	1.75	400	UKE19-1300	5.70	1300
UKE14-450	1.97	450	UKE19-1400	6.14	1400
UKE14-500	2.19	500	UKE19-1500	6.58	1500
UKE14-550	2.41	550	UKE19-1600	7.02	1600
UKE14-600	2.63	600	UKE19-1700	7.46	1700
UKE14-650	2.85	650	UKE19-1800	7.88	1800
UKE14-700	3.07	700	UKE19-1900	8.32	1900
UKE14-750	3.29	750	UKE19-2000	8.76	2000

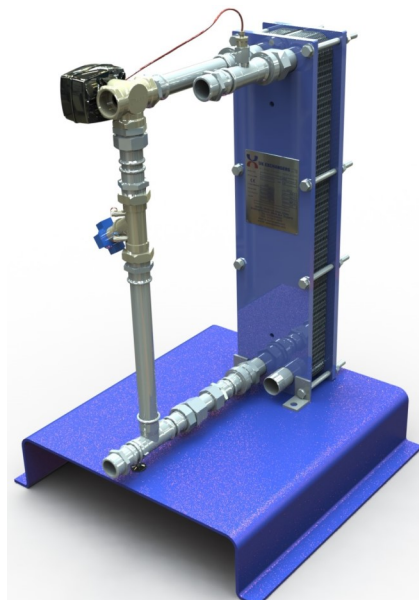
Eco Range

Ideal for smaller applications where complex BMS controls and shunt pumps are not required.

- ◆ Compact design
- ◆ High thermal efficiency
- ◆ Cleanable and serviceable
- ◆ Easy to install
- ◆ Lower price than standard range
- ◆ Fast delivery
- ◆ Easy to setup
- ◆ Simple to operate & maintain

Eco Range—Outputs

Model No	DHW 10 to 65°C (l/s)	Duty kW
UKE-8Eco-50	0.22	50
UKE8Eco-75	0.33	75
UKE8Eco-100	0.44	100
UKE8Eco-125	0.55	125
UKE8Eco-150	0.66	150
UKE8Eco-175	0.77	175
UKE8Eco-200	0.88	200
UKE8Eco-225	0.99	225
UKE8Eco-250	1.10	250



Semi-Instantaneous Hot Water Heating Systems Skid Mounted

When the available boiler power is insufficient to heat the DHW instantaneously then a Packaged Plate Heat Exchanger with a Buffer Vessel, skid mounted should be considered.

We can supply 50, 100, 150, 200, 250, 300, 350 & 400 kW units with a choice of either a 100, 200, 300, 400 or 500 litre Buffer Vessel, all piped up and mounted on a stainless steel skid.

On site installation is kept to an absolute minimum only requiring connection of LTHW and DHW flows and returns and provision of power to the control panel.

If a larger Buffer Vessel is required this can be supplied as a separate item.

An Un-Vented Safety Kit can be supplied as an option when water is supplied to the system directly from the mains.



Stainless Steel Buffer Vessels

Stainless steel Buffer Vessels can be supplied on their own

Size Range: 100 to 3000 litres

Accessories: Temperature & Pressure Relief Valve c/w Tundish Insulation

Typical Full Application Schematic With Buffer Vessel

