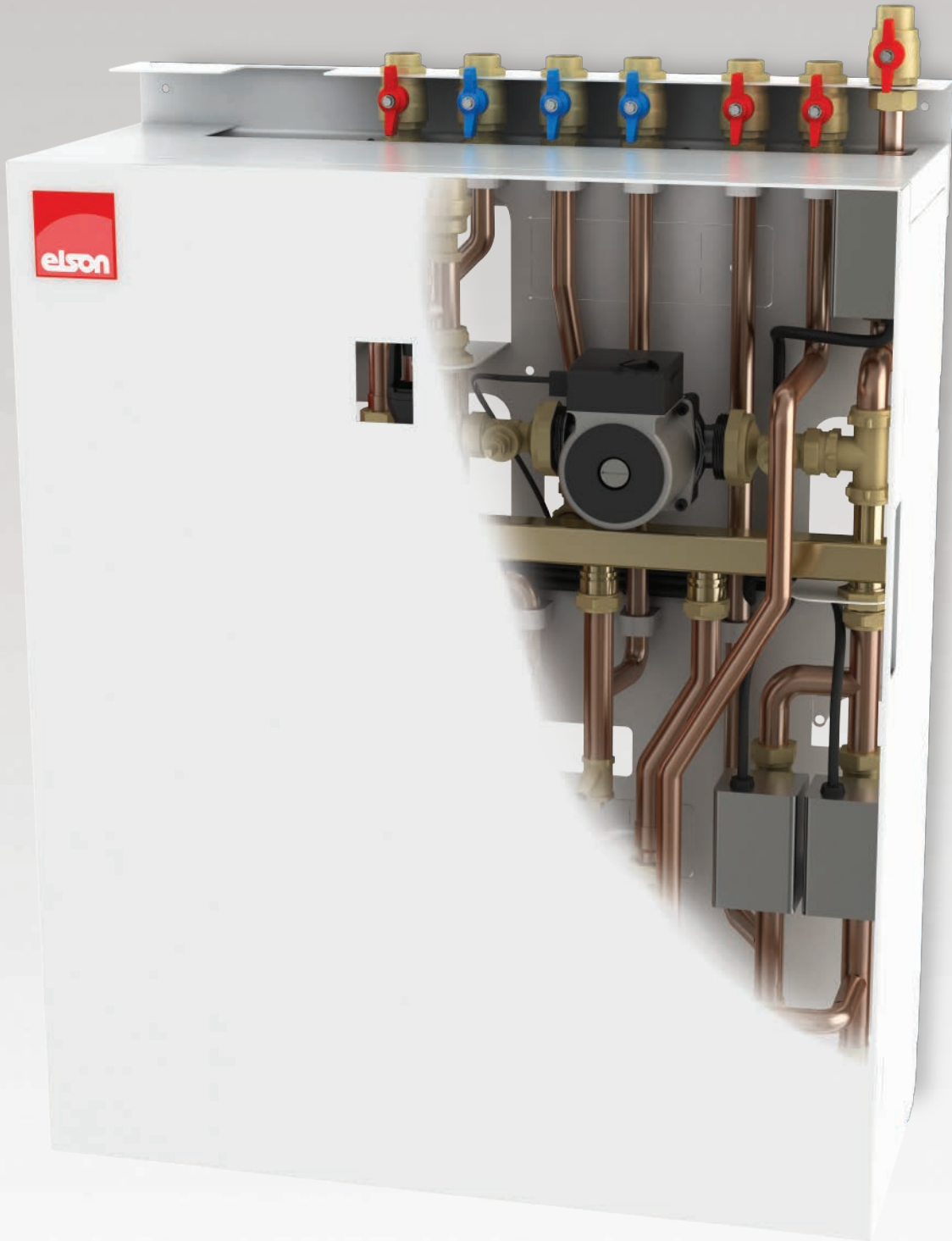




Stored Water District Heating Interface Units

# Heat Interface Units





# Why choose Elson...

Elson are a Heatrae Sadia company, the UK's leading manufacturer of hot water solutions utilising thermal store technology and vented and unvented cylinders.

Being part of one of Europe's leading heating groups, Elson offers you first class customer service; reliable specification advice on product selection and system type, installation support and guidance on how to get the optimum performance from your system.

Today's construction industry demands fast and efficient solutions, coupled with minimum time, labour and waste on site. Our packages increase on-site efficiency and substantially reduce waste, benefiting from off-site fabrication techniques.

As an addition to the pre-plumbed system package, Elson can organise a trained engineer to visit site at the appropriate time to perform any necessary adjustments, tests and inspection to ensure that the equipment is in full working order and operating to the specified design requirements.

## heateam

Elson products are supported by heateam. With us on your side, you can be sure that your customers are in the very best hands. Totally committed to quality and safety, heateam is open 7 days a week, for 363 days a year.

Opening Times: Monday-Friday 8am-6pm, weekends and Bank Holidays\* 8.30am-2pm.

Simply call **0844 871 1535** or visit our website at [www.heateam.co.uk](http://www.heateam.co.uk)

\*Excluding Christmas Day and New Year's Day.

Technical design team

Engineer site visits

All system components included

All Elson products are hydraulically and electrically tested in the factory

Consistently achieved quality, integrity and system performance

One supplier – better logistics and a reduction in site deliveries

Shorter installation times on-site

Predictable completion dates

Cost certainty

Reduced risk of theft or damage

Compact and aesthetically pleasing design solutions

Reduces health and safety risks on-site

Less packaging, less waste

Less on-site storage space required



ISO 9001:2008  
FM 01862

ISO 14001:2004  
EMS 556355

BS OHSAS 18001:2007  
OHS 515891

To download product files, drawings and technical information please visit [www.elsonhotwater.co.uk](http://www.elsonhotwater.co.uk)

# Heat Interface Units

Individual hot water and heating comfort from a community heating system could not be more simple.

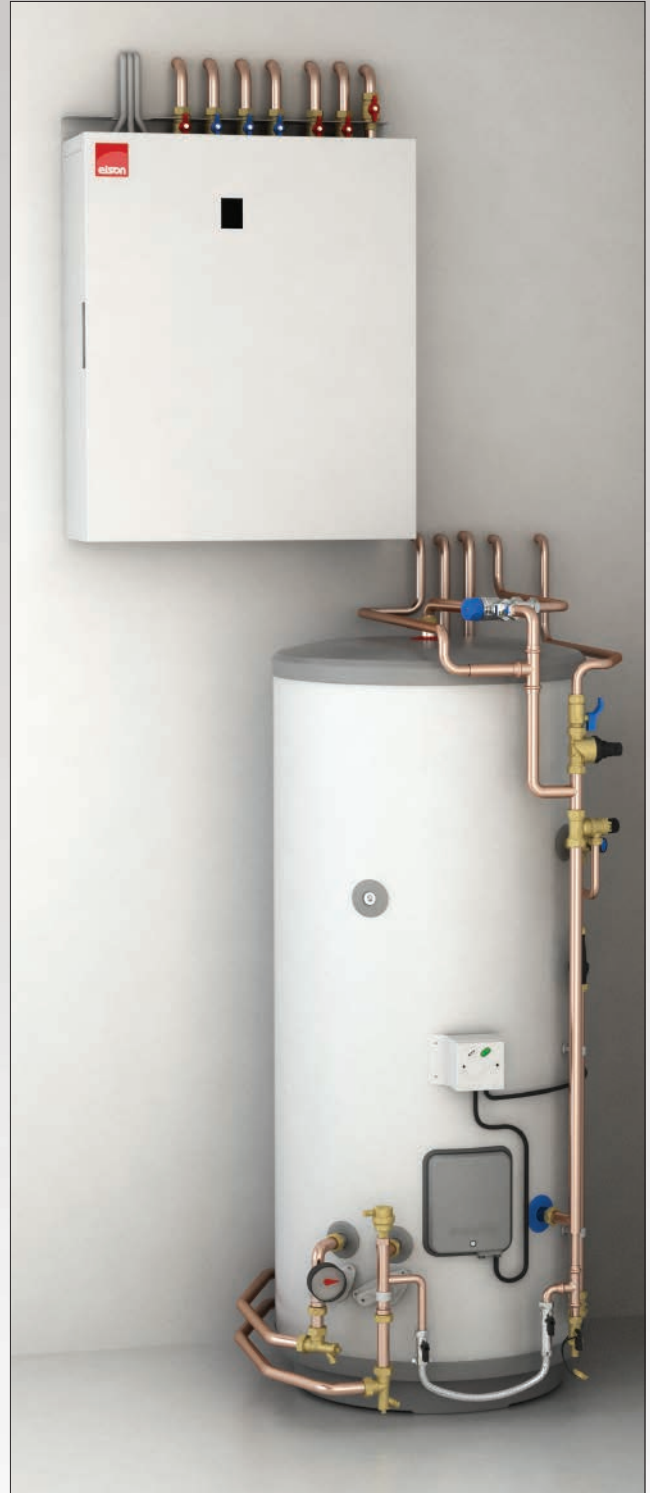
Due to pressure on specifiers and consultants to deliver more sustainable heating schemes, individual gas boilers installed within flats, maisonettes and apartments are now often replaced with a single central boiler or district heating system. Apart from the benefit to the environment, the benefits of using the single boiler house are wide ranging. Flue and condensate siting, gas safety issues and annual servicing become a thing of the past (as far as the individual properties are concerned).

The choice for the specifier and designer is whether the hot water is stored or instantaneous. It is fair to say that both systems have their benefits, however, the stored solution reduces the need for higher boiler power and significantly reduces the size of the distribution network and pumps. All of these associated costs can be saved without compromising hot water performance.

Whatever the choice, designing and installing a system to meet the requirements is often time consuming and complex. Once designed, the finished system has to be installed into many properties. This can become difficult to manage from a quality and consistency point of view. To assist in this process Elson has developed a heat interface unit which brings together all of the required components, this makes choice of location flexible and installation simple. As every unit is identical, consistency and quality is guaranteed. Time on site is reduced significantly and with that, the associated costs.

This highly compact unit is wall mounted, can be sited almost anywhere and can be supplied with or without the optional case. As everything is contained in the unit and fully tested before dispatch, there will be a significant reduction of "skills needed" on site.

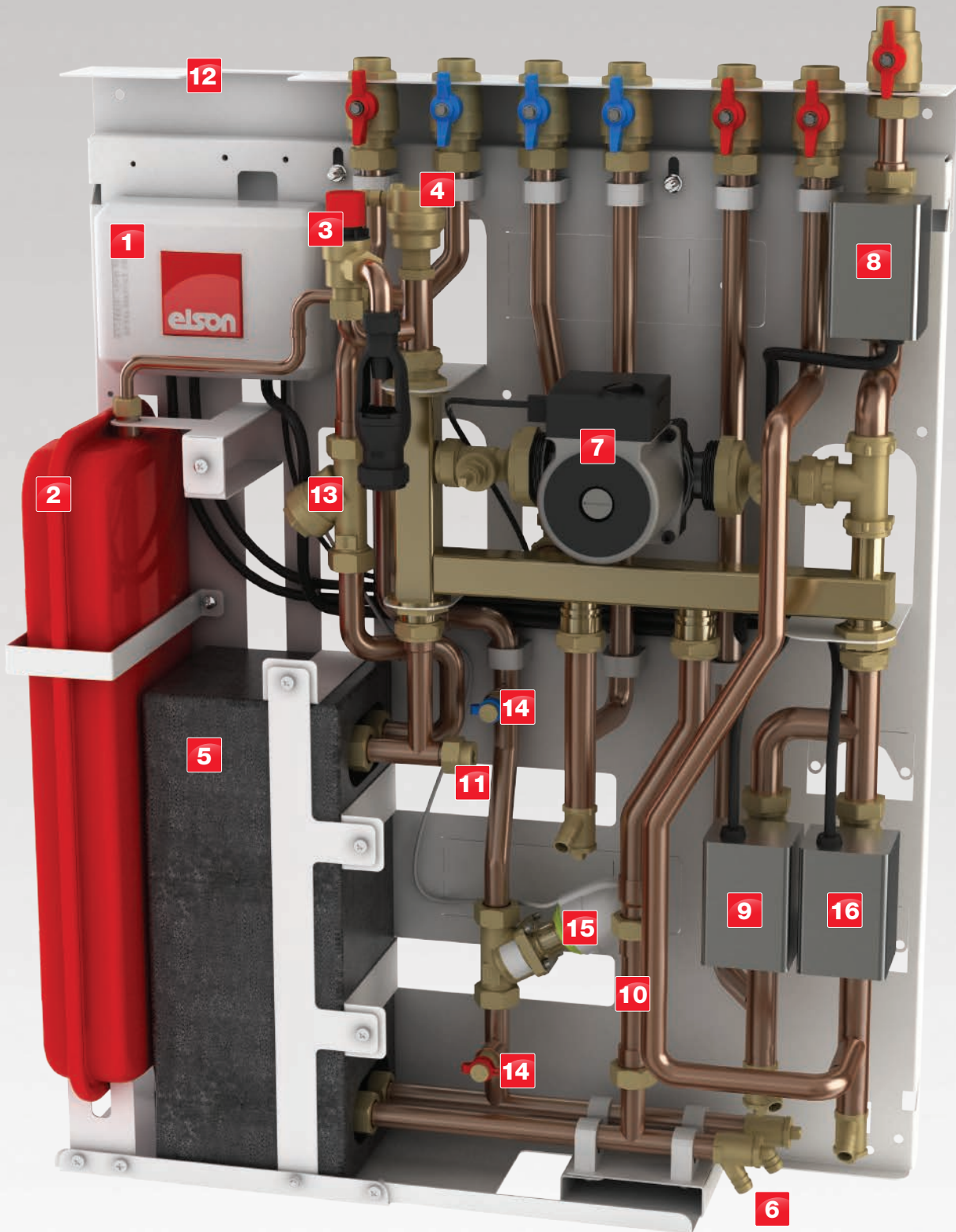
The Elson CB Heat Interface Unit can be installed with almost any hot water cylinder or thermal store. This provides the user with controllable heat and hot water comfort.





Stored Water District Heating Interface Units

# Product features



	CB-1Z	CB-1Z-DC	CB-2Z	CB-2Z-DC
<b>FEATURES</b>	The CB-1Z is designed for small apartments, where one space heating zone is required. The unit is ideal for installations where the 230V on/off district valve is located outside the apartment (i.e. in the corridor) or it is already fitted in the dwelling, such as for a retrofit.	The CB-1Z-DC is designed for small apartments, where one heating zone is required. The unit comes complete with an integral 230V on/off pressure independent balancing and control valve and strainer. This negates the need for the installer to fit separate district heating zone valves, flow regulation and auto-balancing valve.	The CB-2Z is designed for larger apartments, where a two space heating zones are required. The unit is ideal for installations where the 230V on/off district valve is located outside the apartment (i.e. in the corridor) or it is already fitted in the dwelling, such as for a retrofit.	The CB-2Z-DC is designed for larger apartments, where a two space heating zones are required. The unit comes complete with an integral 230V on/off pressure independent balancing and control valve and strainer. This negates the need for the installer to fit separate district heating zone, flow regulation, and auto-balancing valves to each apartment.
<b>1</b>	Wiring Centre – Pre-wired and Earth Tested	✓	✓	✓
<b>2</b>	Pre-charged 8 litre expansion vessel – Easy access from the front	✓	✓	✓
<b>3</b>	15mm central heating safety valve with tundish	✓	✓	✓
<b>4</b>	¾" Automatic air vent complete with shut off valve and anti-suction valve	✓	✓	✓
<b>5</b>	Brazed stainless steel heat exchanger with EPP moulded insulation cover for reduced thermal losses	✓	✓	✓
<b>6</b>	Unit drain valves (primary and secondary circuits)	✓	✓	✓
<b>7</b>	Central heating pump and isolation valves	✓	✓	✓
<b>8</b>	Hot water system primary 2 port zone valve	✓	✓	✓
<b>9</b>	Heating zone 1 – apartment heating 2 port control valve	✓	✓	✓
<b>10</b>	Heat meter stool piece (¾" x 110mm)	✓	✓	✓
<b>11</b>	½" BSP heat meter sensing point	✓	✓	✓
	Flat-face district heating connections	✓	✓	✓
<b>12</b>	First fix rail to suit single and double heating zone valve variants – complete with ¾" isolation valves	✓	✓	✓
<b>13</b>	¾" BSP male Y strainer		✓	✓
<b>14</b>	Test points to measure pressure drop across district control valve if fitted – for flow verification		✓	✓
<b>15</b>	DN15 compact pressure independent balancing and control valve complete with 230V on/off actuator		✓	✓
<b>16</b>	Heating zone 2 – apartment heating 2 port control valve		✓	✓
<b>ACCESSORIES</b>				
	First fix rail assembly – one heating zone	✓	✓	
	First fix rail assembly – two heating zones			✓
	Programmable room thermostat with DHW time control	✓	✓	✓
	Programmable room thermostat for second heating zone 2			✓
	Outer casing	✓	✓	✓

# Specification

## Maximum operating conditions

Maximum primary operating temperature	90°C
Maximum ambient temperature	50°C
Maximum primary operating pressure*	10 bar g
Maximum secondary operating pressure (apartment central heating safety valve set pressure)	3 bar g
Maximum chloride content in water	150 mg/l
Primary and Secondary	
*Higher pressures available on request	

## Design conditions

Primary (district) flow temperature	85°C
Primary (district) return temperature	65°C
Secondary (apartment) flow temperature	80°C
Secondary (apartment) return temperature	60°C
Primary flow rate	575 litres / hour
Primary pressure drop	30 kPa
Heat exchanger rating	13.40 kW

## Electrical

230V / 50Hz / 1ph  
3 amp fused supply

## Guarantee

On-site service support including parts and labour for 24 months from date of purchase. Terms and conditions apply.

## Flushing bypass arrangement

It is recommended that a flushing bypass arrangement is installed to allow the CB Heat Interface Unit to be isolated from the district heating system during flushing and filling of the distribution network.

## District heating piping arrangement

Where the CB unit is fitted with a two port on/off district heating control valve all index branches within the distribution pipework should be fitted with a reduced flow bypass valve to ensure water flows through these pipes at all times. It is recommended that this valve is sized and set to pass 5% of the design flow rate for each branch.

## Two channel programmer with built-in room thermostat

The CB Heat Interface Unit can be supplied with a Danfoss TP9000 2 channel controller. The controller has an in built room thermostat to control one heating zone, but also comes with a separate room thermostat should you wish to install the controller in a cupboard or the kitchen for example. On systems where there are two heating zones, an additional programmable room thermostat, such as the TP5000 is required.

## Treatment of water in the central heating system

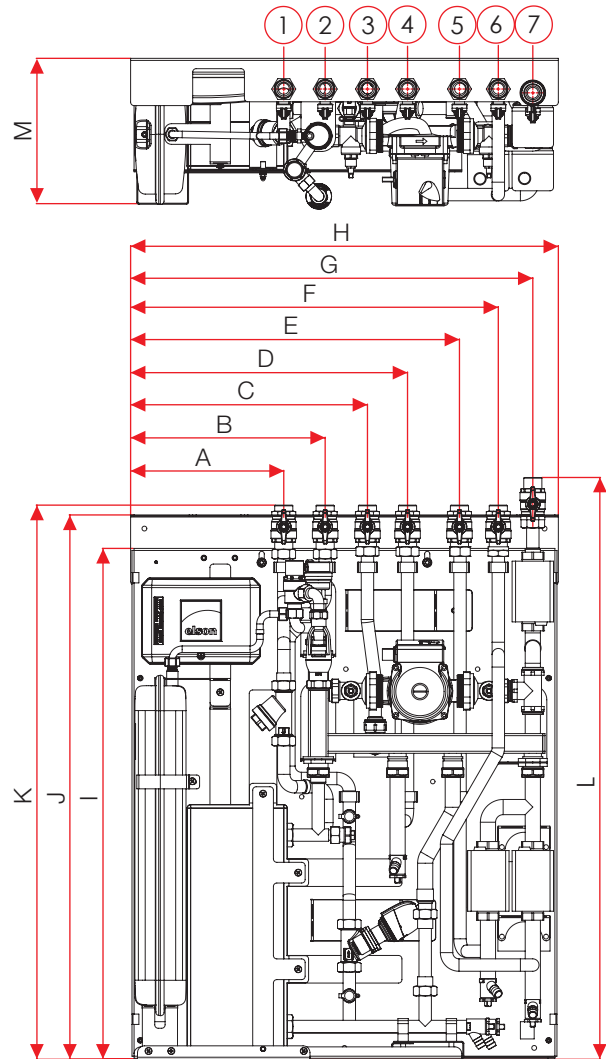
All re-circulatory water systems will be subject to corrosion unless they are flushed and an appropriate water treatment is applied. To prevent this, follow the guidelines given in BS 7593 'Treatment of Water in Domestic Hot Water Central Heating Systems' and the treatment manufacturer's instructions.

Treatment must involve the use of a proprietary cleanser and an inhibitor.

Failure to flush and add inhibitor to the system will invalidate the appliance warranty. It is important to check the inhibitor concentration after installation, system modification and at every service in accordance with the inhibitor manufacturer's instructions. (Test kits are available from inhibitor stockists.)

## Earth bonding

Ensure the installation is earth bonded in accordance with BS EN 7671:2008.



1. Community (district) heating flow – ¾" BSP male
2. Community (district) heating return – ¾" BSP male
3. HWS primary return connection – ¾" BSP male
4. Common central heating return connection – ¾" BSP male
5. Central heating flow (zone 1) connection – ¾" BSP male
6. Central heating flow (zone 2) connection – ¾" BSP male
7. HWS primary flow connection – ¾" BSP male

	CB-1Z / CB-1Z-DC	CB-2Z / CB-2Z-DC
A	222	222
B	282	282
C	343	343
D	401	401
E	477	477
F		533
G	583	583
H	620	620
I	745	745
J	795	795
K	805	805
L	845	845
M	220	220
Min. clearance (top)	150mm	150mm
Min. clearance (sides)	25mm	25mm
First fix rail	2.5kg	2.8kg
Dry weight	25kg / 26kg	26kg / 27kg

To download product files, drawings and technical information please visit  
[www.elsonhotwater.co.uk](http://www.elsonhotwater.co.uk)

# Package options

Elson can also provide a truly complete solution, where together with the CB Heat Interface Unit we can offer MEGAFLO **Eco** unvented or Coral Aquanox thermal store indirect options. Both of these options, can incorporate a choice of system interface components required to meet virtually any requirement.

The Elson website is populated with in-depth technical detail, manuals and drawings to make selection and specification easy. However, nothing can replace the personal help and assistance from one of our highly experienced team. With a click or call, we are here to help. Visit [www.elsonhotwater.co.uk](http://www.elsonhotwater.co.uk) to learn more.



CB package with MEGAFLO Eco indirect unvented cylinder



CB package with Coral Aquanox indirect hot water thermal store

Options	Hot Water Thermal Store				Unvented Cylinder Type						
	ti120	ti150	ti175	ti210	70i	125i	145i	170i	210i	250i	300i
Horstmann E30 run back timer, factory fitted and pre-wired	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Horstmann E30 run back timer, supplied loose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-plumbed cold water control pack 1 with drain valve					✓	✓	✓	✓	✓	✓	✓
Pre-plumbed cold water control pack 2 with balanced cold supply and drain valve					✓	✓	✓	✓	✓	✓	✓
Pre-plumbed cold water control pack 3 with balanced cold supply and drain valve					✓	✓	✓	✓	✓	✓	✓
Primary pipework pack with pre-plumbed pressure gauge, auto air vent with isolation valve, anti suction valve and filling loop. Linking pipework from pack to HIU to be provided by installer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Auto fill feed and expansion tank with ball valve arrangement	✓	✓	✓	✓							
Manual fill feed and expansion tank with water level indicator, flexible fill pipe with isolation valve	✓	✓	✓	✓							

For over 90 years Elson have been manufacturing water heating products and providing hot water solutions for the UK market. This wealth of experience and industry expertise ensures that Elson will have the right product and solution for any application.

Whether for a new-build development, a refurbishment project or simply replacing an existing unit, Elson has the answers.



## Zircon

Elson's Zircon unvented cylinder range is constructed from strong and lightweight Duplex stainless steel to allow ease of handling on-site, whilst offering exceptional corrosion resistance particularly in aggressive water areas, compared with some forms of stainless steel and glass-lined steel.

Providing your customers' hot water needs, the Zircon cylinder range ensures the best possible performance – powerful mains pressure showering and fast filling baths, whilst delivering reliability and efficiency.



## Coral Aquanox thermal store

The Coral Aquanox range of thermal stores is available with either direct electric or indirect formats.

The Coral Aquanox thermal store is ideal for providing mains pressure hot water in dwellings where the safety discharge from an unvented cylinder is difficult to accommodate, for example, in flats and apartments. With the addition of a manual fill kit, it becomes a standalone unit.



## Complete heating and hot water packages

Elson specialises in offering tailor-made heating packages. Each package is modular designed to ensure that it matches your exact requirements. Following an initial consultation the package is designed and then manufactured. Using any Heatrae Sadia product, including electric boilers, thermal store units, unvented cylinders and Baxi or Remeha gas boilers. Elson manufactures pre-plumbed packages, built on a frame, incorporating all the system interface components required for your application, e.g. programmer, zone controls and pump. All packages are site-ready, for quick and easy installation.



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