

Uniclass L71134	EPIC L22 G312
Cl/SfB (53.5)	X



**2007/2008 Product Directory**  
Heating and Hot Water Solutions





## Applied Energy

Redring, as part of the Applied Energy family, continues to invest in the bright future of Electric heating and hot water solutions. The 2006 Energy Review reinforced the need for long-term thinking in energy production. As central electricity generation moves increasingly to UK based, cleaner, renewable alternative sources, the future for electric heating and hot water is bright indeed. Redring is at the forefront of this renaissance with the latest technology, advanced, energy-saving controls and modern styling to suit the homes of the 21st Century.

### Part L and SAP (Standard Assessment Procedure)

The April 2006 revision to Part L1 of the building regulation requires that all new buildings do not exceed a target carbon emission rate (TER), as measured by the SAP methodology. This is often achieved by improving levels of insulation, air tightness and the construction method of any given building. Every day, Redring designs electric heating and hot water systems that improve SAP scores and achieve full compliance with Part L of the building regulations. For more information on Part L or SAP visit [www.applied-energy.com](http://www.applied-energy.com). If you already have a new building design and require specific guidance on complying with these regulations you can contact our design service (See details on page 3)

## The Decent Homes Standard

By 2010, the Government has committed to bring all social housing in to a decent condition, with most improvement taking place in deprived areas and for vulnerable households.

A "Decent Home" should meet the statutory minimum standard for housing, be in a reasonable state of repair, have reasonably modern facilities and services, and, provide a reasonable degree of thermal comfort (or heating). Arguably, the most important part of the Decent Homes Standard is concerned with ensuring dwellings provide a minimum level of warmth. By creating a warm environment, tenants are more likely to enjoy a better quality of life.

Redring hot water and electric heating products meet and exceed Decent Homes guidelines. Our website provides detailed on-line help, tutorials and CPD courses for those wishing to learn more about the Decent Home Standard and ensure that their organisations are compliant.

## Redring on-line

Find out more about Redring, the revised Part L of the building regulations, SAP 2005, the Decent Homes Standard and much more by visiting Redring on-line at [www.applied-energy.com](http://www.applied-energy.com), which is full of product information, downloads, brochure builders and specifications.



## Design and Compliance made easy

Applied Energy Products has over 40 years experience in designing electrical heating and hot water solutions. As such we are able to offer an unparalleled application design service for all of our products. We are here to help new and existing customers alike in specifying Redring, and other products within the Applied Energy portfolio into real buildings and live projects, whether off-plan, already commenced new-build or planned refurbishment.

We offer a range of design services, from simple product selection through to full-service compliance consultancy. In recent times environmental legislation and revisions to building regulations, all designed to reduce carbon impact and improve energy efficiency, have made the design process increasingly complex. We are here to help.

**Level 1:** Our standard design service is free of charge and will provide a clear indication of the products required and the associated costs. This service can be provided from simple drawings.

**Level 2:** Our enhanced design service incurs a small charge to cover third-party costs. In return we provide our standard design service complete with schematic diagrams and confirmation of regulatory compliance including Part L of the building regulations. Full architectural drawings are required to complete our enhanced service.

**Level 3:** Our consultancy service supports you through the entire design and compliance process. A very competitive charge will apply, which is dependant upon property size and complexity. In return we offer the enhanced design service complete with personal contact with one of our senior designers and provision of all necessary certification and drawings up to the completion of the project. All documentation, drawings and certificates are in your name and become your property on receipt of payment.

For further information visit, write or send drawings to:  
[AEDESIGN@applied-energy.com](mailto:AEDESIGN@applied-energy.com)  
or post to

**Design Service, Applied Energy Products Limited, Morley Way, Peterborough, PE2 9JJ**  
marked for the attention of **Design Service.**

### Technical Services

Our technical services call centre is staffed by a team trained in diagnosing and rectifying solutions over the phone. If for any reason they are unable to solve the problem, they will brief an engineer, prior to the visit, to ensure that, wherever possible, the problem is fixed first time. The team also provide advice on application, installation and operation.

### For further information

**Tel: 08709 000430**  
**Fax: 08709 000530**

## Customer Training Centre

The Applied Energy Customer Centre at our head office in Peterborough showcases many of the products from our leading brands. The centre is available for product introduction and training for distributors, installers and specifiers by arrangement.

Training can be combined with live product demonstration and a guided factory tour of our manufacturing and assembly facilities.



## The Building Centre

Building specifiers within reach of central London can see a permanent exhibition of selected products from Applied Energy at the Building Centre in Store Street, WC1E 7BT. The Applied Energy Products stand features solutions for space heating, water heating and ventilation, as well as information for whole house and renewable technology products. The centre also offers a full library support and literature distribution service.





# Range Contents

## Solar



Redring Sunstore

<b>Page Number</b>	<b>6-11</b>
<b>Type</b>	Solar Thermal heating solutions

## Showers

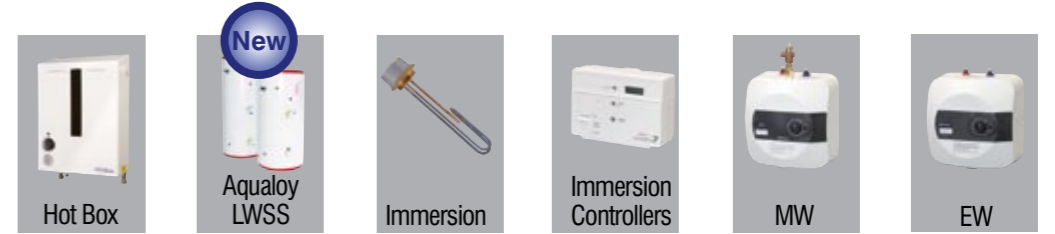


<b>Page Number</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>
<b>Type</b>	Thermostatic instant shower	Thermostatic instant shower	Instant electric shower	Instant electric shower	Instant electric shower	Instant electric shower



<b>Page Number</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24-25</b>	<b>26-27</b>
<b>Type</b>	Pumped electric shower	Power shower	Instant electric shower / ultra slim	Instant electric shower / ultra slim	Thermostatic mixers	Shower accessories

## Water Heating Systems



<b>Page Number</b>	<b>30-31</b>	<b>32-33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>
<b>Type</b>	Independent electric boiler	Stainless steel cylinders	Immersion heaters	Controllers	Unvented water storage heaters	Unvented water storage heaters



<b>Page Number</b>	<b>38</b>	<b>39</b>	<b>40</b>	<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>
<b>Type</b>	Multi-outlet water heating	Instantaneous water heaters	Vented water storage heaters	Vented water storage heaters	Beverage water boiler	Beverage water boiler	Wall kettle

## Washroom Solutions



<b>Page Number</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>48</b>	<b>49</b>
<b>Type</b>	Hand wash units	Touch free hand wash units	Water management	Hand dryers	Hand and face dryers

## Space Heating Solutions



<b>Page Number</b>	<b>50</b>	<b>51</b>	<b>52</b>	<b>53</b>	<b>54</b>	<b>55</b>	<b>56-57</b>
<b>Type</b>	Air curtains	Wall mounted fan heater	Plinth fan heater	Tubular heater	Radiant heater	Radiant heater	Infra-red heaters





## Solar Thermal Heating Solutions

**The demand for energy is growing, placing ever greater demands on scarce fossil fuels and environmental sustainability. As gas and oil begin to run out, the challenge for us all is to develop cleaner, renewable sources of energy. Long before then prices will continue to rise, carbon dioxide emissions will drive the devastating impact of climate change and our dependence on imported energy will grow.**

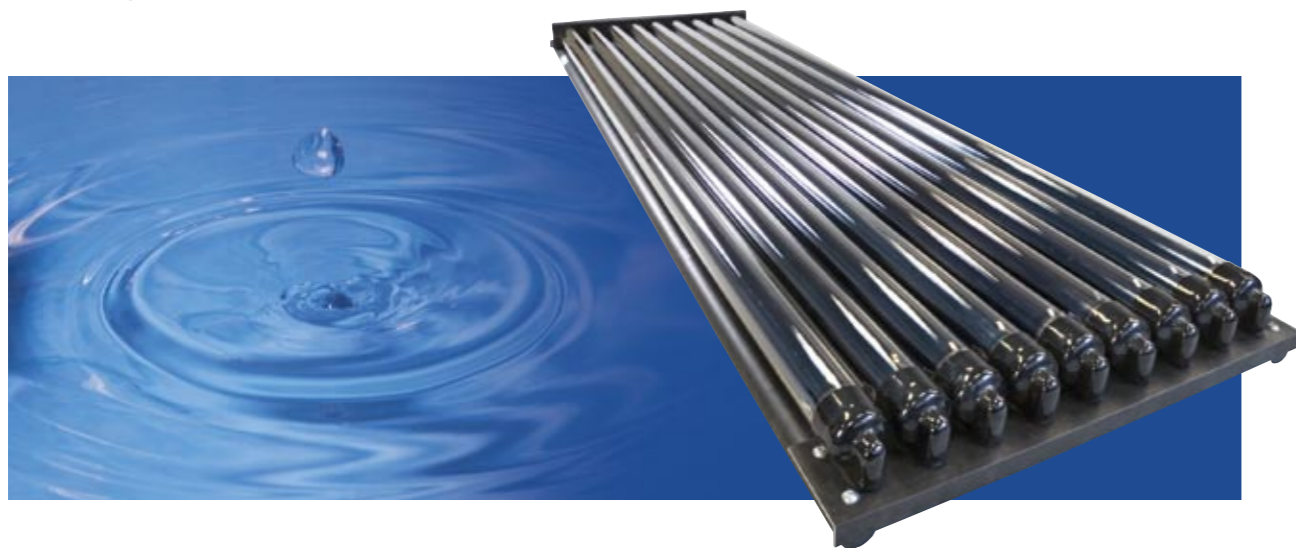
Heating and hot water are the largest users of energy in our homes. Solar Thermal Collectors harness the power of the sun to generate free hot water. The Redring Sunstore solar thermal collector has been demonstrated to produce 60% of a family's hot water needs across the year. The Sunstore is the latest generation of super-efficient vacuum-tube solar technology, designed in the UK specifically for UK weather conditions. We recommend you compare its performance with the small-print of other solar systems.

***"How else can you buy 25 years of energy in one go?"***

Generating your own energy is the best way you can reduce the impact of climate change, help protect the environment, reduce our dependence on imported energy and save money. The Redring Sunstore is the preferred choice of the experts and has been selected for some of the largest solar installations in the UK as well as hundreds of private households.



Sunstore Vacuum Tube



**The Range**

Solar Thermal collectors produce hot water directly from the sun. Even in the UK the Redring Sunstore Solar Collector is proven to provide around 60% of an average family's annual domestic hot water requirements for free. The Sunstore is designed in the UK specifically for UK weather conditions. The benefit to the householder in terms of reduced fuel bills is clear - especially with the continuing rise in gas prices. The benefit to the environment is also enormous; reductions in greenhouse gasses help to reduce the devastating impact of climate change.

**“Proven to provide around 60% of an average family's annual hot water requirements for free”**

The Redring Sunstore Solar thermal collectors utilize state of the art thermal vacuum technology to convert solar energy into hot water. The selective coating enables the use of the whole energy spectrum to generate heat and although it produces much greater energy in bright sunshine, hot water collection temperatures are still achieved in overcast conditions.

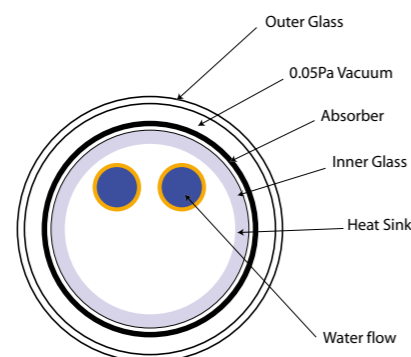
In order to lock the energy in, the Redring Sunstore collectors use vacuum insulation technology to prevent the heat escaping from the tubes much like a vacuum flask.

We have experience of installation in a variety of applications, from a traditional pitched roof, vertical wall mounted or even on top of a high-rise building.

The Redring Sunstore Solar thermal collectors can be sized to provide larger quantities of hot water depending upon your requirements. Redring Sunstore can also provide a cost effective solution for DHW (Domestic Hot Water) in Social Housing applications.

**“Redring Sunstore reduces CO2 emissions and helps ensure compliance with building regulations”**

The April 2006 revision to Part L of the building regulations requires that all buildings do not exceed a target carbon emission rate. This can be achieved by improving insulation, air-tightness or the construction method of any given building. However, in most situations simply installing a Redring Sunstore Solar thermal collector will provide sufficient carbon saving to achieve Part L compliance without any building design change.



Cross section of a Sunstore vacuum tube



Roof mounting kit



Wall mounting kit



Sunstore kit



**State of the art technology made in the UK**

The Sunstore Solar system will:

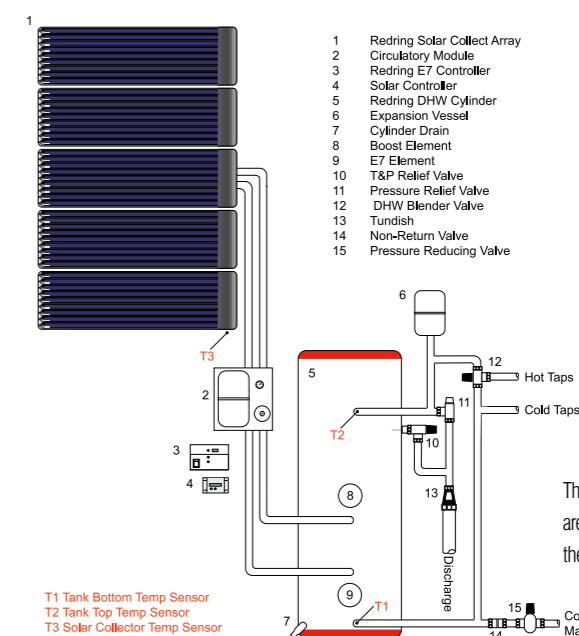
- Provide 60-70% of your typical domestic hot water requirements
- Radically reduce your domestic hot water heating bills
- Integrate with all types of heating systems including combi boilers
- Require no scheduled maintenance
- Reduce CO<sup>2</sup> emissions by at least 500kg/year
- Provides free hot water for at least 25 years

The Sunstore Solar system is designed for easy installation, usually taking just a day to fit and planning permission is not usually required. Installers should refer their local authority to Planning Policy Statement 22 (PPS22) which encourages the use of solar thermal collectors. The low profile panels clip into a unique roof mounting which avoids roof leaks and keeps all pipe-work hidden from view. The Sunstore Solar System has been designed and manufactured in Britain to the highest of European standards (EN12975-1).

Having installed the collector we convert the heat energy into hot water in your taps by circulating fluid through the collector, which absorbs the heat and transfers it to your storage cylinder. The circulation pump is operated by a control system to ensure it only pumps whilst the collectors are absorbing energy. The sealed system includes an expansion vessel to allow for volume change as the water is heated. The control system uses digital temperature sensors to measure the heat of the Sunstore collector and compares it to the heat/temperature in

the storage cylinder. The pump is run when the collector temperature is higher than the cylinder and stopped when the collector temperature falls overnight. As modern houses have several types of domestic hot water systems there are slightly different ways of integrating the solar energy. The UK climate is challenging and because of the shorter winter days it is not possible to be completely independent of conventional water heating. However, Redring systems can supply more than half your domestic hot water energy consumption as well as back up immersion heating.

**The Redring Sunstore contains everything needed for installation**

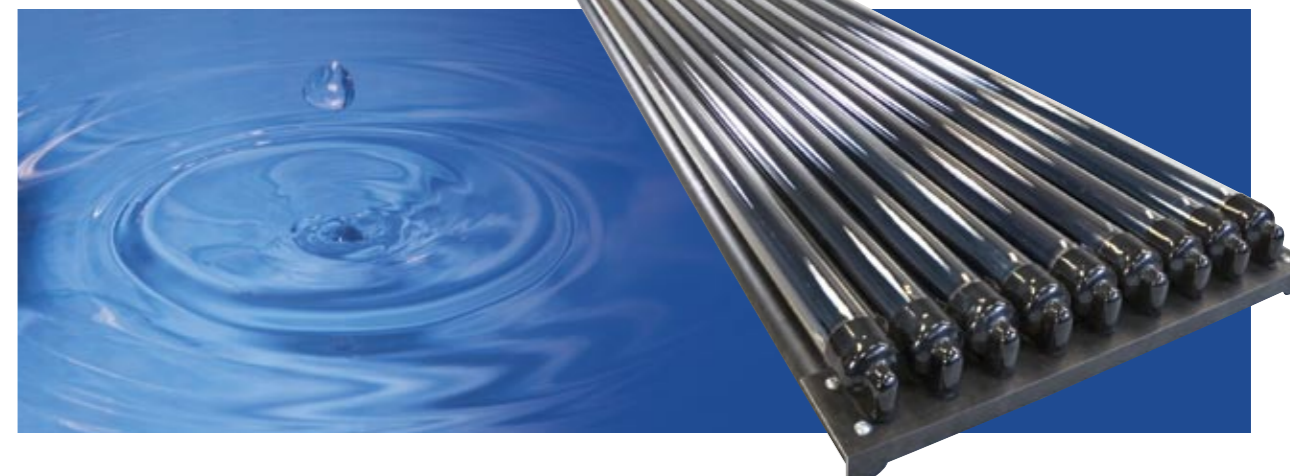


T1 Tank Bottom Temp Sensor  
T2 Tank Top Temp Sensor  
T3 Solar Collector Temp Sensor

Notes:  
Circulatory Module comprises pump, pressure gauge & expansion vessel.  
Pressure Relief Valve for Solar circuit is located behind the array.

This is one example of an installation. There are many options available, please refer to the Sunstore installation guide.





**3 Simple steps for selecting a Typical Installation**

Our solar collector system is flexible enough to suit almost any application, large or small, traditional or Combi heating systems, Gas or Electric, vented or un-vented.

**1.** Firstly determine where the solar collector can be located. South facing is always preferred, with South-East or South-West perfectly acceptable. To facilitate any of these locations; sloping roof, flat-roof and vertical walls can all be used by choosing one from our range of unique mountings.

- a. Pitched - For normal sloping roofs with panels mounted one above the other
- b. Flat roof / Vertical - Brackets to allow installation on either flat roofs or vertical walls
- c. Butterfly - Panels mounted side by side to suit different shaped roofs

If no south, south-east or south-west locations are available, a larger system should be selected for east / west facing locations.

**2.** Next determine the size of system that is required. Size can be calculated from the number of bedrooms, or the number of people, or the existing cylinder size (which should have already been sized for the application).

There is no minimum size as any Redring Sunstore will provide free hot water. However, the chart on the right illustrates our recommended sizing. For maximum effectiveness always select the largest system for any given application. i.e. for a house with two people but four bedrooms select the Sunstore-210 or Sunstore-250. For an existing cylinder of 110lit for a house with 5 people select the Sunstore-210.

**Size Selector**

Existing Cylinder			
110L	150L	180L	210L
OR Bedrooms			
2 - 3	3 - 4	4 - 5	5 - 6
OR Occupants			
2 - 4	4 - 6	6 - 8	8 - 10
For South Facing Choose:			
SS-180	SS-210	SS-250	SS-300
For East / West Choose:			
SS-210	SS-250	SS-300	2x SS-250

Where there is no existing cylinder or the existing cylinder will not be used, always match the cylinder size to the solar system as per the tables on page 11. When using an east / west facing location on a sloping roof, with an angle of less than 35 degrees, you should use the product selection for south facing locations. Angles greater than 35 degrees should use the east / west product selections.

**3.** Decide if you can use the existing cylinder in the property or would prefer to purchase a solar-prepared system cylinder.

If the current cylinder is in good condition and is currently providing good service and sufficient hot water, it can be converted to use an external heat-exchanger that requires no additional pumps. By using two patented flanges that fit the cylinder wall, the heat exchanger can be fitted quickly and easily to almost all existing cylinder brands; removing the need for a pre-feed cylinder or replacement of the existing cylinder. See page 11 for existing cylinder converters, Combi boiler conversion kits and optional extras.

If you require or would prefer to install a solar-prepared cylinder you should first select the size

using points 1 and 2 above and then determine whether you require a vented or un-vented model based on the plumbing configuration of the house or building. All our cylinders, both vented and un-vented are designed specifically for use with solar hot-water systems and include a high efficiency solar coil for improved heat-transfer. They are supplied with CFC-free high insulation foam, an immersion heater and thermostat as well as the necessary compression fittings. We can also supply an automatic blender valve for all systems. The blender will conserve the hot water supply and regulate the temperature of water reaching the taps. Please note that blender valves can reduce flow-rates.

**Ordering**

To place an order, discuss individual requirements or for help with making your selection please call: **Sales - 08709 000420**  
**Technical - 08709 000430**

Also available is a simple domestic survey form, to complete and return; allowing us to specify the system for you.

**Design Service**

Redring is available to help with designing your solar system, whether a small domestic installation or the largest industrial application. See details of our accredited design service at the front of this directory.

Redring Sunstore Solar Collectors:

- ClearSkies accredited (ST1003)
- Highest efficiency vacuum tube technology
- Guaranteed for 25 for the vacuum tube
- Grants available from [www.lowcarbonbuilding.org.uk](http://www.lowcarbonbuilding.org.uk)
- Digital 'smart-logic' controller with remote display

**The Range**

**Redring Sunstore Solar Systems (see size selector)**

Model	Description	Code
Sunstore-180	Redring Sunstore 2 panel solar system (Pitch roof)	47786501
Sunstore-180B	Redring Sunstore 2 panel solar system (Pitch roof, Butterfly)	47786502
Sunstore-210	Redring Sunstore 3 panel solar system (Pitched roof)	47786503
Sunstore-210W	Redring Sunstore 3 panel solar system (Flat roof/wall)	47786504
Sunstore-250	Redring Sunstore 4 panel solar system (Pitched roof)	47786505
Sunstore-250B	Redring Sunstore 4 panel solar system (Pitched roof, Butterfly)	47786506
Sunstore-250W	Redring Sunstore 4 panel solar system (Flat roof/wall)	47786507
Sunstore-250WB	Redring Sunstore 4 panel solar system (Flat roof/wall, Butterfly)	47786508
Sunstore-300	Redring Sunstore 5 panel solar system (Pitched roof)	47786509
Sunstore-300W	Redring Sunstore 5 panel solar system (Flat roof/wall)	47786510

**Redring Sunstore Solar Accumulators (to match with Solar System size)**

Model	Description	Code
Sunstore-HX	Redring Solar Heat Exchanger & Hi Flow Blender (for existing cylinders)	47786601
Sunstore-180SC	180L Redring Vented Solar Accumulator & Hi Flow Blender (Single coil, twin IH)	47786602
Sunstore-180TC	180L Redring Vented Solar Accumulator & Hi Flow Blender (Twin coil)	47786603
Sunstore-180TI	180L Redring Stainless Unvented Solar Accumulator & Hi Flow Blender (Single coil, twin IH)	47786604
Sunstore-180TT	180L Redring Stainless Unvented Solar Accumulator & Hi Flow Blender (Twin coil)	47786605
Sunstore-210SC	210L Redring Vented Solar Accumulator & Hi Flow Blender (Single coil, twin IH)	47786606
Sunstore-210TC	210L Redring Vented Solar Accumulator & Hi Flow Blender (Twin coil)	47786607
Sunstore-210TI	210L Redring Stainless Unvented Solar Accumulator & Hi Flow Blender (Single coil, twin IH)	47786608
Sunstore-210TT	210L Redring Stainless Unvented Solar Accumulator & Hi Flow Blender (Twin coil)	47786609
Sunstore-250SC	250L Redring Vented Solar Accumulator & Hi Flow Blender (Single coil, twin IH)	47786610
Sunstore-250TC	250L Redring Vented Solar Accumulator & Hi Flow Blender (Twin coil)	47786611
Sunstore-250TI	250L Redring Stainless Unvented Solar Accumulator & Hi Flow Blender (Single coil, twin IH)	47786612
Sunstore-250TT	250L Redring Stainless Unvented Solar Accumulator & Hi Flow Blender (Twin coil)	47786613
Sunstore-300SC	300L Redring Vented Solar Accumulator & Hi Flow Blender (Single coil, twin IH)	47786614
Sunstore-300TC	300L Redring Vented Solar Accumulator & Hi Flow Blender (Twin coil)	47786615
Sunstore-300TI	300L Redring Stainless Unvented Solar Accumulator & Hi Flow Blender (Single coil, twin IH)	47786616
Sunstore-300TT	300L Redring Stainless Unvented Solar Accumulator & Hi Flow Blender (Twin coil)	47786617
Sunstore-PoolHX11	Redring Pool Solar Heat Exchanger (11KW)	47786618
Sunstore-PoolHX22	Redring Pool Solar Heat Exchanger (22KW)	47786619

**Redring Solar Tracker option pack (includes full system as above)**

Model	Description	Code
ST2-SS4	Redring Sunstore Tracker 4 panel solar system pack	47786701
ST2-SS6	Redring Sunstore Tracker 6 panel solar system pack	47786702
ST2-SS8	Redring Sunstore Tracker 8 panel solar system pack	47786703
ST2-SS10	Redring Sunstore Tracker 10 panel solar system pack	47786704

**Popular Optional Extras**

Model	Description	Code
ST2-VK1	High Flow blender Valve kit	47786705
ST2-BC1	Combi Boiler Conversion Kit	47786706

**Technical Specification**

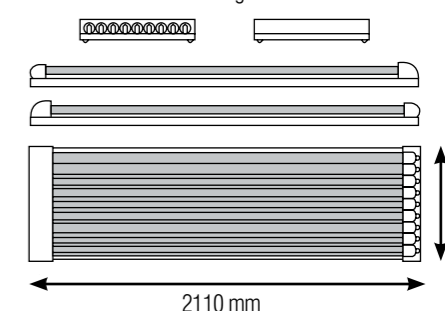
Collector Type	Sunstore Direct water
Aperature Area	0.93m <sup>2</sup> (1m <sup>2</sup> )
Gross Area	1.35m <sup>2</sup>
Total Length	2110 mm
Total Width	615 mm
Total Weight	38kg
Operating Pressure	< 4 bar
Design Life	> 25 years
Vacuum Tube	High-borosilicate Glass
Tube Diameter	58 mm
Tube Length	1960 mm
Vacuum	0.05Pa
Tube Strength	Tested to withstand a 25mm hailstone
Absorber	Wavelength Selective Coating AL-N/AL
Efficiency	> 93% (optimum)
EN/BS standard	EN12975

Tube Warranty 

Comes complete with all items required for total installation.

- The panel (Collector array)
- Intelligent controls
- Pump and circulation module
- All connections, fittings and insulation
- Solar ready hot water cylinder (Solar accumulator)

Not all advertised systems contain everything required for installation - the Redring Sunstore does!

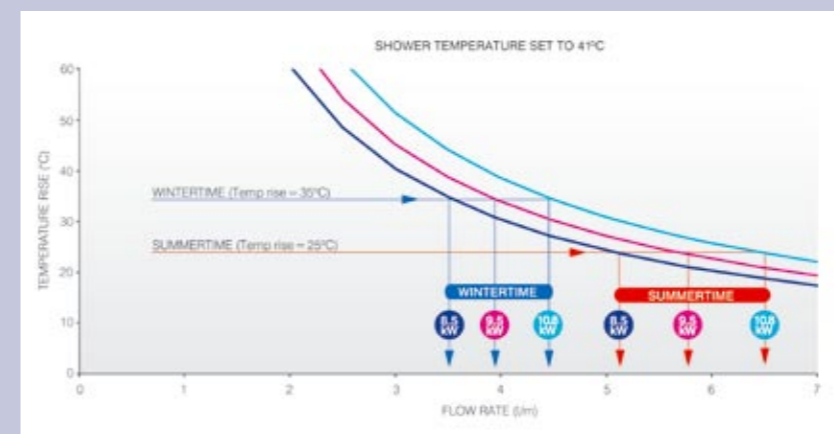
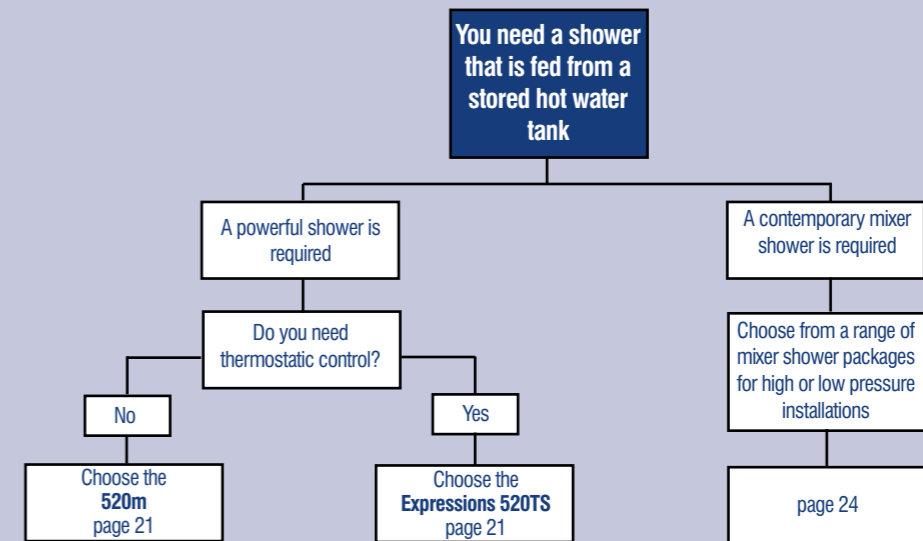
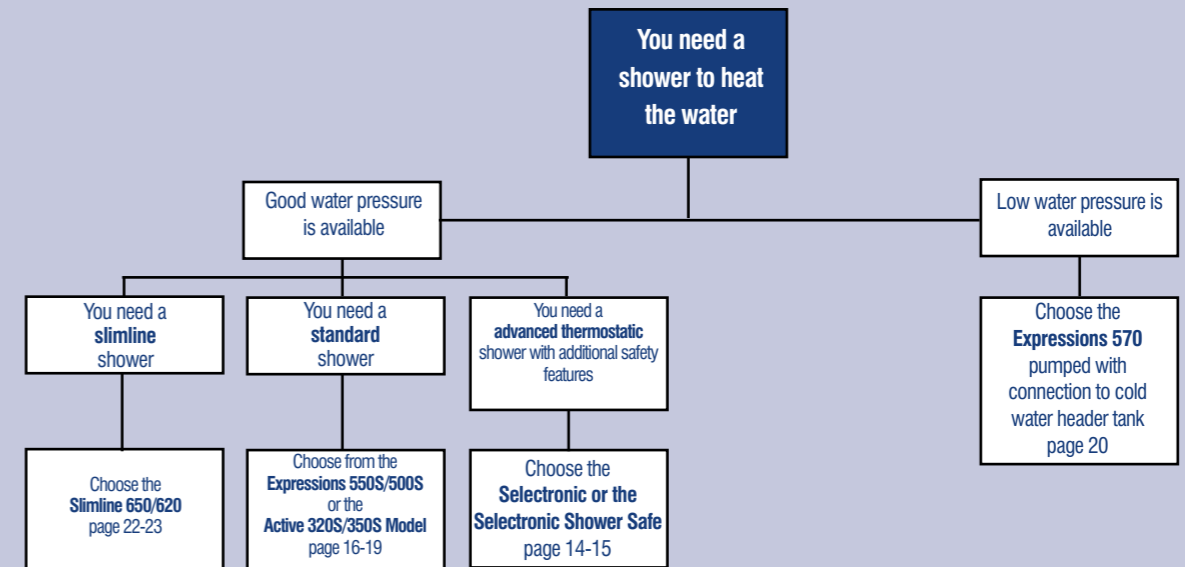






## Shower Selector

Choosing the right shower is vitally important. At Redring, customer support begins before you even buy! This selector should enable you to make a decision but, if you're spoilt for choice, please ring our customer techline on 08709 000430 for further information.



### Water flow and temperature graph:

This graph shows the relationship between hot water flow and temperature rise obtainable from an instant electric shower. The different power loadings (available in the range) expressed in kilowatts are shown as curves on the graph. The incoming mains water temperature into your property can vary from 5°C in winter to a maximum of 20°C in Summer. The graph shows what can be expected in winter at 5°C and in summer at 15°C. In Winter the 8.5kW shower will give a flow rate of about 3.5 Litres/minute while in Summer it will give approx. 5.1 Litres/minute.

Please refer to Pages 58/59

# Selectronic and Selectronic Plus Thermostatic Shower

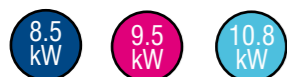


## The Range

Selectronic and Selectronic Plus are the most technologically advanced instantaneous showers available today. They combine thermostatic water temperature control with simple to use push button operation. Selectronic is pre-programmed to provide hot water at a comfortable and safe temperature. In lock mode, the temperature is capped at 40°C with cooler adjustment; no accidental increase is possible.

The Selectronic was the first shower to achieve the new and additional safety standards required for care establishments and less able users – providing guaranteed protection against scalding. These are the only showers in the world endorsed by the RNIB, making it the preferred choice of the blind, young children, elderly and less able.

## Power Output



## Approvals



## Guarantee



## Product Selector

Product Reference	Short Code	Catalogue Number	Max Heat Setting (kW)	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Selectronic 8.5	SEL85S	53557001	8.5	7.8 - 8.5	6 - 10mm <sup>2</sup>	35 amps
Selectronic 9.5	SEL95S	53558001	9.5	8.7 - 9.5	6 - 10mm <sup>2</sup>	40 amps
Selectronic 10.8	SEL108S	53559001	10.8	9.9 -10.8	10 - 16mm <sup>2</sup>	45 amps
Selectronic Plus 8.5	SEL85P	53557005	8.5	7.8 - 8.5	6 - 10mm <sup>2</sup>	35 amps
Selectronic Plus 9.5	SEL95P	53558005	9.5	8.7 - 9.5	6 - 10mm <sup>2</sup>	40 amps
Selectronic Plus 10.8	SEL108P	53559005	10.8	9.9 -10.8	10 - 16mm <sup>2</sup>	45 amps

• The only thermostatic shower to operate with water pressure at 0.7Bar minimum • Operating water pressure 0.7-10 bar (10-145 psi) • Cable entries-top, bottom and rear (up to 16mm<sup>2</sup>) • Pipe entries-top, bottom and rear (on right hand side) • Water connection-15mm plain shank (compression elbow/push in fitting not supplied) • Fixing pack supplied • Fully temperature stabilised • Fixing pack and instruction book supplied

\* The final year of the guarantee is only available for products registered with Redring after purchase

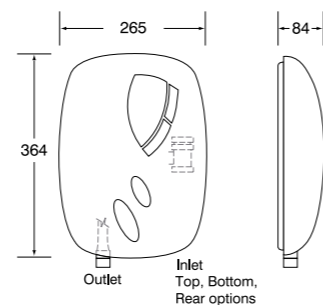
## Key Features

- BEAB CARE Mark
- Inclusively designed - RNIB product endorsement
- Disabled Discrimination Act Compliance
- Safety temperature lock with override function
- Operates as low as 0.7bar
- Scale-Guard® reduces aggressive element scaling
- Tactile button coding
- Audible feedback response to commands
- Large, easy to press button operation
- Very large LED digital readout & clear print
- Matt antiglare label backing
- Colour coded shower head and clamp for visibility
- Thermostatic operation
- Easy one-touch operation
- Phased shutdown to ensure cool start for next user
- Automatic shutdown after 30 minutes of inactivity, saving water and energy
- Top, bottom or rear entry access for cable and cold water supply
- Energy efficient - Automatically adjusts the power of the heating elements and flow of water to achieve selected temperature
- Premium white accessories kit with multi-mode shower handset

## Technical

Selectronic comes complete with curved multi-mode, rub clean handset, 0.45m riser rail with fully adjustable handset holder, soap dish and 1.25m convoluted shower hose.

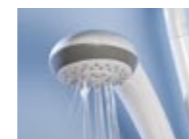
Selectronic Plus comes complete with curved multi-mode, rub clean handset, 1m riser rail with fully adjustable handset holder, soap dish, 2m easy clean smooth shower hose.



## Shower head operation



**Surf**  
(Outer spray only)



**Sport**  
(Inner spray only)

# Selectronic Shower Safe Thermostatic Shower



## The Range

The new Selectronic Shower Safe range combines unique microprocessor thermostatic controls with contemporary styling to give the ideal shower for all the family.

Its simple to use push button controls with premium chrome accessories make it both 'safe' and 'stylish'.

The perfect addition to the modern family home with hot water safety built in as standard.

## Power Output



## Approvals



## Guarantee



## Product Selector

Product Reference	Short Code	Catalogue Number	Max Heat Setting (kW)	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Selectronic Safe 8.5	SEL85T	53557020	8.5	7.8 - 8.5	6 - 10mm <sup>2</sup>	35 amps
Selectronic Safe 9.5	SEL95T	53558020	9.5	8.7 - 9.5	6 - 10mm <sup>2</sup>	40 amps
Selectronic Safe 10.8	SEL108T	53559020	10.8	9.9 -10.8	10 - 16mm <sup>2</sup>	45 amps

• The only thermostatic shower to operate with water pressure at 0.7Bar minimum • Operating water pressure 1-10 bar (14.5-145 psi) • Cable entries-top, bottom and rear (up to 16mm<sup>2</sup>) • Pipe entries-top, bottom and rear (on right hand side) • Water connection-15mm plain shank (compression elbow/push in fitting not supplied) • Fixing pack supplied • Fully temperature stabilised • Fixing pack and instruction book supplied

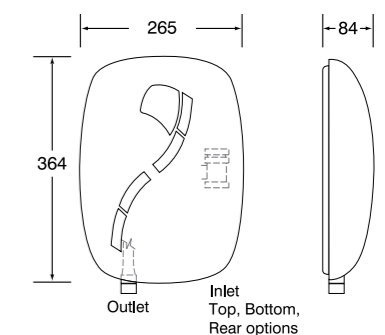
\* The final year of the guarantee is only available for products registered with Redring after purchase

## Key Features

- Thermostatic instantaneous electric shower
- Microprocessor thermostatic control for safety and comfort
- Operates as low as 0.7bar
- Scale-Guard® reduces aggressive element scaling
- Easy one touch operation
- An LED read out
- Phased shutdown to ensure cool start for next user
- Independent adjustment for both temperature and water flow rate
- Pre-programmed at 43°C
- Audible feedback response to commands
- Automatic shutdown after 30minutes of inactivity
- Premium chrome accessories kit with 6 mode shower handset

## Technical

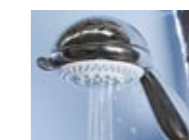
### Dimensions Selectronic Shower Safe



## Shower head operation



**Surf**  
(Outer spray only)



**Sport**  
(Inner spray only)

For full range of accessories see page 26/27



# Expressions 550S Shower



## The Range

The Expressions 550S has been developed to provide the convenience of a push button start / stop facility and push button power selection. Phased shutdown is a key feature provided through electronic control and this shower also has a temperature ready LED indicator.

## Power Output



## Approvals



## Guarantee



Digital display

## Product Selector

Product Reference	Short Code	Catalogue Number	Heat Setting (kW)	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Expressions 550S 8.5 White & Chrome	EX5508S	53674001	4.8 or 8.5	7.8 - 8.5	6 / 10mm <sup>2</sup>	40 amps
Expressions 550S 9.5 White & Chrome	EX5509S	53674501	5.0 or 9.5	8.7 - 9.5	6 / 10mm <sup>2</sup>	45 amps
Extended Control Lever (see page 27)	LEV2	83595324	-	-	-	-

• Operating water pressure 0.7-7bar (10-100 psi) • Water pressure operated power switch • Standard 15mm inlet connection • Top, bottom or rear cable entry options  
 • Fixing pack and instructions supplied • Removable corner section for ease of installation

\* The second and final year of the guarantee is only available for products registered with Redring after purchase

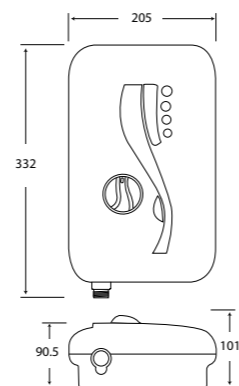
## Key Features

### Contemporary 'S-line' styling with Smart technology

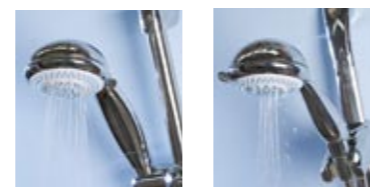
- Fully temperature stabilised with 'Smart Time'® phased electronic timed shut down
- Rotary flow/temperature control with 'Smart Temp'® illuminated digital real temperature indicator
- Unique 'Smart Flow'® 3 level flow LED indicators
- Unique 'Smart Start'® electronic temperature ready LED indicator
- Available in 8.5kW or 9.5kW models
- Separate push button power controls: 'High On', 'Medium On', 'Cold On' and 'Stop' LED indicators
- Overheat LED indicator
- Finished in polar white with chrome accent and high quality chrome accessories
- Deluxe 6 mode rub clean hand set and oval curved style accessory kit including soap dish, hose with retaining ring, riser rail and adjustable clamp
- Top, bottom or rear entry access for cable and cold water supply

## Technical

### Dimensions



Footprint of backplate = 177mm x 302mm



Deluxe multi-mode handset

For full range of accessories see page 26/27

# Expressions 500S Shower



## The Range

Developed with a convenient start/stop button, the Expressions 500S allows the power and flow rate setting to remain set ready for your next shower.

## Power Output



## Approvals



## Guarantee



## Product Selector

Product Reference	Short Code	Catalogue Number	Heat Setting (kW)	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Expressions 500S 7.2 White & Chrome	EX5007S	53672501	4.5 or 7.2	6.6 - 7.2	4 / 6mm <sup>2</sup>	30 amps
Expressions 500S 8.5 White & Chrome	EX5008S	53673001	4.8 or 8.5	7.8 - 8.5	6 / 10mm <sup>2</sup>	40 amps
Expressions 500S 9.5 White & Chrome	EX5009S	53673501	5.0 or 9.5	8.7 - 9.5	6 / 10mm <sup>2</sup>	45 amps
Extended Control Lever (see page 27)	LEV2	83595324	-	-	-	-

• Operating water pressure 0.7-7bar (10-100 psi) • Water pressure operated power switch • Standard 15mm compression inlet connection • Top, bottom or rear cable entry  
 • Top, bottom or rear water entry • Fixing pack and instructions supplied • Removable corner section for ease of installation

\* The second and final year of the guarantee is only available for products registered with Redring after purchase

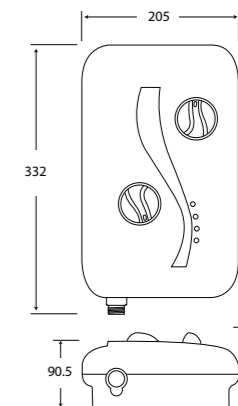
## Key Features

### Contemporary 'S-line' styling with Smart technology

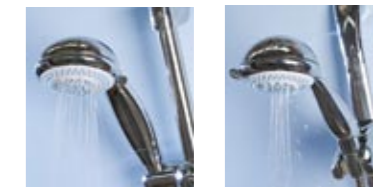
- Fully temperature stabilised with 'Smart Time'® phased electronic timed shut down
- Rotary flow/temperature control with 'Smart Temp'® numerical indicator window
- Available in 7.2kW, 8.5kW or 9.5kW models
- Push-button stop/start, for 'set and forget' convenience
- 3 power settings with 'Power on', 'Power Medium' and 'Power High' LED indicators
- Overheat LED indicator
- Separate rotary control for power selection
- Finished in polar white with chrome accent and high quality chrome accessories
- 6 mode rub clean hand set and full accessory kit including soap dish, hose with retaining ring, riser rail and adjustable clamp
- Top, bottom or rear entry access for cable and cold water supply

## Technical

### Dimensions



Footprint of backplate = 177mm x 302mm



Premium multi-mode handset

For full range of accessories see page 26/27

## Active 350S Shower



### The Range

The Active 350S allows accurate temperature selection. The integral water control valve provides on/off selection via the outer control lever, therefore the flow rate/temperature position can remain positioned at your favourite setting from your last shower.

### Power Output



### Approvals



### Guarantee



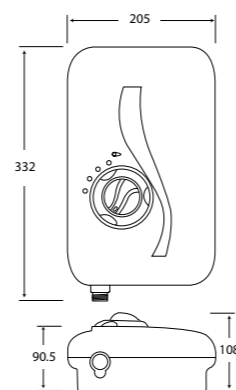
### Key Features

#### Contemporary 'S-line' styling with Smart technology

- Fully temperature stabilised with 'Smart Time'® phased electronic timed shut down
- Instant electric shower
- Overheat protection
- Full set of accessories including rub clean multi-mode handset
- Rotary lever control for on/off and power selection
- Electric solenoid operation on/off
- 3 power settings with LED power on indicator
- Finished in polar white with chrome accent and high quality chrome accessories
- Temperature and flow control with single turn valve
- Separate controls for temperature adjustment and power selection
- Neon power indicator

### Technical

#### Dimensions



Footprint of backplate = 177mm x 302mm

For full range of accessories see page 26/27

### Product Selector

Product Reference	Short Code	Catalogue Number	Heat Setting (kW)	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Active 350S 7.2	A3507S	53671501	4.5 / 7.2	6.6 - 7.2	4 / 6mm <sup>2</sup>	30 amps
Active 350S 8.5	A3508S	53672001	4.8 / 8.5	7.8 - 8.5	6 / 10mm <sup>2</sup>	40 amps
Extended Control Lever (see page 27)	LEV3	83595325	-	-	-	-

• Operating water pressure 0.7-7bar (10-100 psi) • Water pressure operated power switch • Standard 15mm inlet connection • Top, bottom or rear cable entry • Top, bottom or rear water entry • Fixing pack supplied • Shallow backplate designed for ease of installation

\* The second and final year of the guarantee is only available for products registered with Redring after purchase

## Active 320S Shower



### The Range

The Active 320S has a unique dual control combining power select and on/off rotary flow/temperature control. Comes complete with single mode handset, riser rail kit all in chrome.

### Power Output



### Approvals



### Guarantee



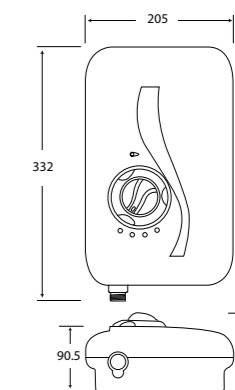
### Key Features

#### Contemporary 'S-line' styling with Smart technology

- Fully Temperature stabilised with 'Smart Stop'® hot water purge
- Available in 7.2kW or 8.5kW models
- 3 power settings with LED power on indicator
- Dual concentric rotary controls for on/off and power selection
- Finished in polar white with chrome accent and high quality chrome accessories
- Single mode rub clean hand set and full accessory kit including soap dish, hose retaining ring, riser rail and adjustable clamp
- Top, bottom or rear entry access for cable and cold water supply
- Rotary controls for power and temperature selection
- Height adjustable riser rail and soap dish
- Electric solenoid operation on/off
- Overheat protection

### Technical

#### Dimensions



Footprint of backplate = 177mm x 302mm

For full range of accessories see page 26/27

### Product Selector

Product Reference	Short Code	Catalogue Number	Heat Setting (kW)	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Active 320S 7.2	A3207S	53670501	4.5 / 7.2	6.6 - 7.2	4 / 6mm <sup>2</sup>	30 amps
Active 320S 8.5	A3208S	53671001	4.8 / 8.5	7.8 - 8.5	6 / 10mm <sup>2</sup>	40 amps
Extended Control Lever (see page 27)	LEV3	83595325	-	-	-	-

• Operating water pressure 0.7-7bar (10-100 psi) • Water pressure operated power switch • Standard 15mm inlet connection • Top, bottom or rear cable entry • Top, bottom or rear water entry • Fixing pack supplied • Shallow backplate designed for ease of installation

\* The second and final year of the guarantee is only available for products registered with Redring after purchase



## Expressions 570 Pumped Electric Showers



### The Range

The Expressions 570 provides the convenience of electric showering in areas where no mains water or low water pressure prevents the use of normal electric instant showers. By combining a standard electric shower and booster pump, this shower can simply be connected to a cold water header tank.

### Power Output



### Approvals



### Guarantee

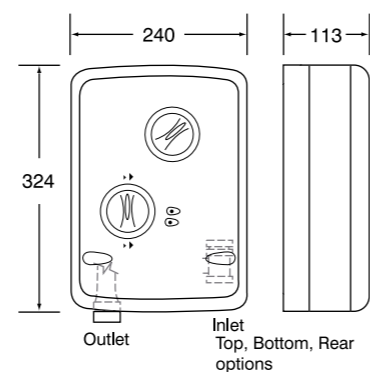


### Key Features

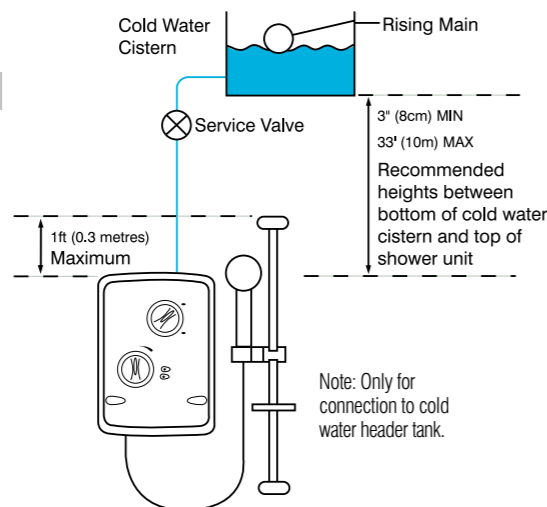
- Instant electric shower with integral pump to ensure constant water flow
- Overheat protection
- Full set of accessories including premium wide spray multi-mode handset
- High and low power selection
- Polar white finish
- Rotary control for temperature/flow selection
- Power on and overheat neon indicators
- Ideal for installations where water pressure is insufficient for an instant shower
- Cold water cistern fed (not mains)

### Technical

#### Dimensions



### Installation Expressions 570 Range



For full range of accessories see page 26/27

### Product Selector

Product Reference	Short Code	Catalogue Number	Heat Setting (kW)	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Expressions 570 8.5	EXP5708	2455515	4.8 or 8.5	7.8 - 8.5	6 / 10mm <sup>2</sup>	40-45 amps
Expressions 570 9.5	EXP5709	24556015	5.0 or 9.5	8.7 - 9.5	6 / 10mm <sup>2</sup>	45 amps

• Cold water cistern fed • Operating water pressure: 3" minimum head to 33" maximum head (0.08m to 10m) • Top, bottom and rear water and cable entry options • Fixing pack and instructions supplied • 15mm push-fit fitting for cold water inlet connection • The unit incorporates a 240V AC motor to boost flow • Maximum flow rate: 7.0 litres/min.

## Expressions 520 Power Shower



### The Range

The Expressions 520 Range delivers luxury showering performance from an integrated booster pump and mixer valve in a simple to plumb installation. Taking both hot and cold water from the cylinder and header tank respectively, the integral pump delivers up to a maximum of 14 litres per minute. The Expressions 520TS unit provides thermostatic temperature control.

### Approvals



### Guarantee

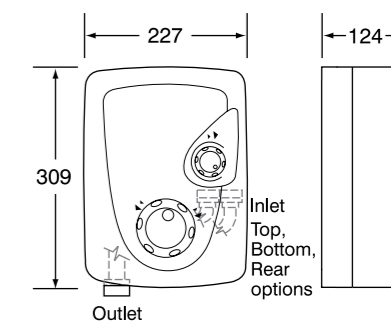


### Key Features

- Full set of accessories including premium wide spray multi-mode handset
  - Polar white finish
  - Adjustable temperature limiter with override feature
- TS model only:
- Thermostatic power shower
  - Thermostatic control and operation
  - Thermostatic model offers added precision and safety

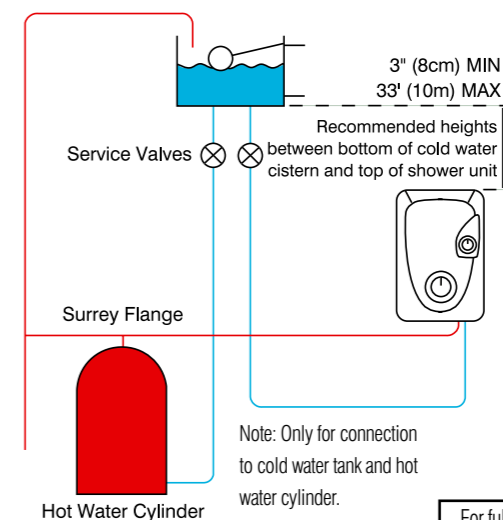
### Technical

#### Dimensions



### Installation Expressions 520 Range

The diagram shows the ideal installation with a separate cold feed. In some installations it may be sufficient to take the cold supply from existing pipework.



For full range of accessories see page 26/27

### Product Selector

Product Reference	Short Code	Catalogue Number	Flow Rate On Full	Mixing Chamber	Minimum Head	Maximum Head
Expressions 520M	EXM520WC	46598415	14 litres / min	Manual Cartridge	3" or 0.08m	33" or 10m
Expressions 520TS	EXTS520WC	46599415	12 litres / min	Thermostatic Cartridge	3" or 0.08m	33" or 10m

• Motor Rating - 140 watts @ 240V • Mains Supply - 220-240V supply • Top, bottom or rear cable entry • Top, bottom or rear water entry

## Slimline 650 Shower



### The Range

The Slimline 650 has an ultra slimline profile, generating more space in a shower cubicle. It is fully temperature stabilised and has the added convenience of a push button power selection facility. The phased shutdown feature ensures that temperatures are managed to deliver a cool and safe start up for the next user. For the ultimate in contemporary finishes, the 650 is also available in chrome – the Slimline 650C as featured above.

### Power Output



### Approvals



### Guarantee

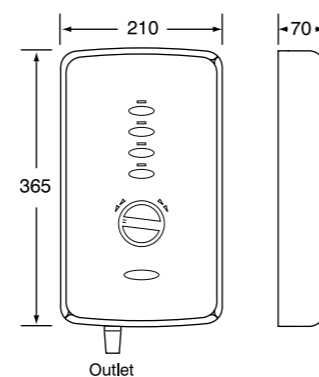


### Key Features

- Instant electric shower
- Ultra slimline profile
- Fully temperature stabilised
- Overheat protection
- 650 model comes with full set of polar white and chrome accessories including multi-mode handset with 3 position variable spray head
- 650C model comes with all chrome accessories
- Push button power selection and on/off
- 3 power settings
- Rotary flow/temperature control for set and forget operation
- Timed phased shutdown with flashing LED to ensure cool start up for next user
- LED power indication
- Multi-service points for ease of installation
- Unit available in polar white (650) and chrome (650C)

### Technical

#### Dimensions



## Slimline 620 Shower



### The Range

Packed full of features the 620 with its ultra slimline profile, timed phased shutdown, overheat protection and multi-mode handset it is an ideal choice for upgrading or replacing existing shower installations.

### Power Output



### Approvals



### Guarantee

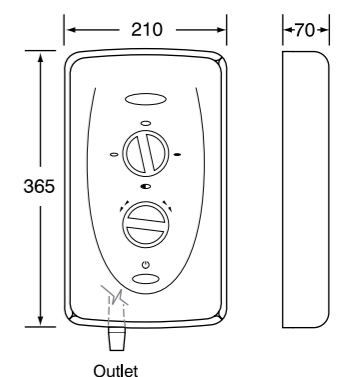


### Key Features

- Instant electric shower
- Ultra slimline profile
- Fully temperature stabilised
- Overheat protection
- Full set of accessories including multi-mode handset with 3 position variable spray head
- Polar white finish
- Push button for on/off
- Rotary power select
- Rotary flow/temperature control
- 4 power settings
- Timed phased shutdown to ensure cool start up for next user
- Multi-service points for ease of installation
- Format ideal for upgrading or replacing of existing shower

### Technical

#### Dimensions



### Product Selector

For full range of accessories see page 26/27

Product Reference	Short Code	Catalogue Number	Heat Setting (kW)	Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Slimline 650 8.5	R6508	53557201	4.8 - 8.5	7.8 - 8.5	6 / 10mm <sup>2</sup>	40 amps
Slimline 650 9.5	R6509	53558201	5.0 - 9.5	8.7 - 9.5	6 / 10mm <sup>2</sup>	45 amps
Slimline 650 Chrome 9.5	R6509C	53558202	5.0 - 9.5	8.7 - 9.5	6 / 10mm <sup>2</sup>	45 amps
Slimline 650 10.5	R65010	53559201	5.25 - 10.5	9.6 - 10.5	10 / 16mm <sup>2</sup>	45 amps

• Operating water pressure 1-10bar (14.5-145 psi) • Water pressure operated power switch • 15mm plain shank for inlet compression connection • Top, bottom or rear cable entry • Top, bottom or rear water entry • Comprehensive instruction booklet and template for ease of installation • Fully temperature stabilised

\* The second and final year of the guarantee is only available for products registered with Redring after purchase

### Product Selector

For full range of accessories see page 26/27

Product Reference	Short Code	Catalogue Number	Heat Setting (kW)	Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Slimline 620 8.5	R6208	53555201	3.7, 4.8 or 8.5	7.8 - 8.5	6 / 10mm <sup>2</sup>	40 amps
Slimline 620 9.5	R6209	53556201	4.5, 5.0 or 9.5	8.7 - 9.5	6 / 10mm <sup>2</sup>	45 amps

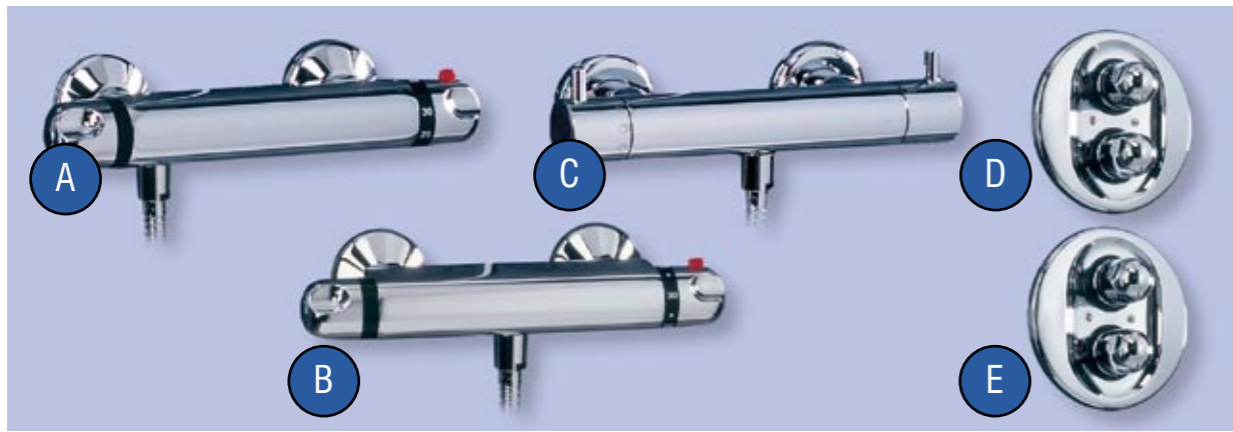
• Operating water pressure 1-10bar (14.5-145 psi) • Water pressure operated power switch • 15mm plain shank for inlet compression connection • Top, bottom or rear cable entry • Top, bottom or rear water entry • Comprehensive instruction booklet and template for ease of installation • Fully temperature stabilised

\* The second and final year of the guarantee is only available for products registered with Redring after purchase



## Thermostatic Mixers

## Thermostatic Mixer Accessories



### The Range

Consistent, all year round shower performance in a range of models to satisfy individual bathroom style requirements.

### Approvals



### Guarantee



### Key Features

- Independent adjustment for both temperature and water flow rate
- Fine thermostatic control for comfort and safety
- Stylish bar mixer or traditional recessed options
- Choice of through the wall or surface mounted accessories
- Range of spray head options available
- All mixers have a safety override button set to 38°C
- 2 year guarantee (UK)
- WRAS approved

### Technical

- Minimum flow pressure (0.5bar for Mixer A): 0.1bar
- Maximum flow pressure: 5.0bar
- Maximum pressure loss ratio: 5:1 (use pressure reducing valve if ratio is greater)
- Maximum hot water temperature at inlet: 85°C
- Recommended stored temperature: 60°C
- Minimum hot/blend temperature difference: 10°C
- Factory setting @ 2bar equal pressures: 38°C
- Hot water connection: Left
- Cold water connection: Right
- Inlet connections: 1/2" BSP (3/4" BSP on recessed model)
- Flow delivery at minimum inlet pressure: 8 litres per minute (note that some accessories will reduce the flow rate)

### Product Selector

Please refer to Pages 58/59

Mixer	Short Code	Cat No.	Description
A	TBM1	36594201	Exposed thermostatic bar mixer (0.5bar min)
B	TBM2	36594202	Exposed thermostatic bar mixer (0.1bar min)
C	TBM3	36594203	Exposed thermostatic bar mixer (0.1bar min)
D	RTM	36594204	Recessed thermostatic mixer (0.1bar min)
E	RTM2	36594214	Recessed thermostatic mixer (0.1bar min)

Mixer	F	G	H	I
A				●
B	●	●		●
C	●	●	●	●
D	●	●	●	●
E	●	●	●	●

**Note:** accessory J is only required when mixer B or C is used with accessory F or G



### Product Selector

Accessory	Short Code	Cat. No.	Description
F - Shower head kit	TTW2	36594207	Contemporary shower head and arm, high pressure, chrome finish, through the wall kit
G - Traditional shower head kit	TTW3	36594208	Traditional shower head and arm chrome finish, through the wall kit (1bar required)
H - Outlet elbow	ELB	36594211	Wall outlet elbow, chrome finish
I - Accessory kit	ACCKPK4	83595304	Mixer shower chrome accessory kit
J - Outlet adapter	N/A	N/A	Supplied with F & G accessories and required when using mixers B or C

## Accessories



### The Range

Consistent, all year round shower performance in a range of models to satisfy individual bathroom style requirements.

### Accessory Packs

Designed to fit any electric shower, the Accessory Pack contains a shower head, riser rail, brackets, handset holder, soap dish and hose.

#### Mixer Accessory Pack

- Multi-mode shower head, riser rail, soap dish and high flow convoluted hose
- Finished in chrome

#### Replacement Shower Hoses

- 1.25m or 2m hoses
- Available in white or chrome - contact our spares department on 08709 000420

#### Shower Heads

- Multi-mode shower head packs to fit any electric shower
- Available in white and chrome - contact our spares department on 08709 000420

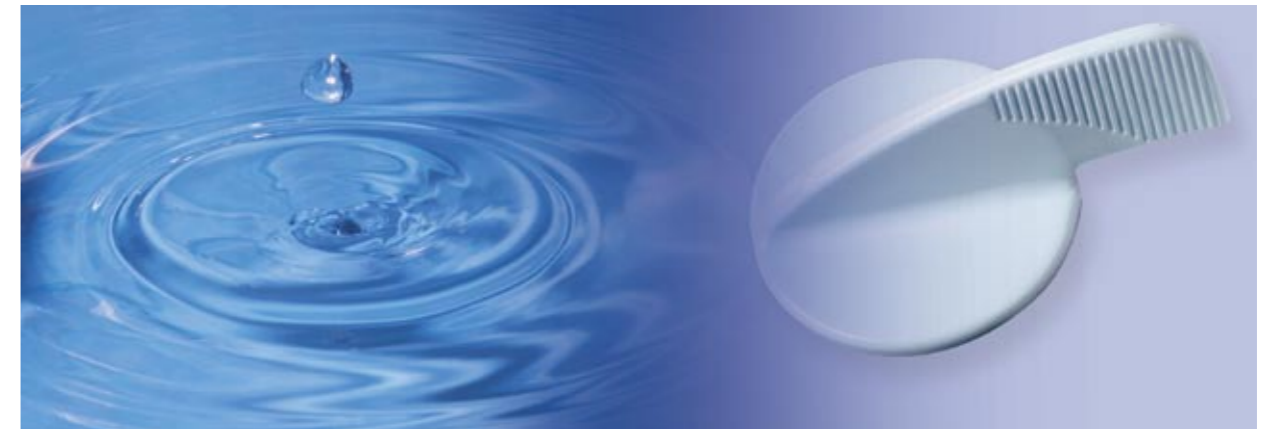
#### Standard Accessory Pack

- Multi-mode shower head, riser rail, brackets, handset holder, soap dish and hose
- Available in white

### Approvals



## Accessories



### Accessories

#### Extended Riser

The 1 metre extended length riser rails bring the shower head and soap dish within easy reach of children, the elderly or less-able people and are available in white or chrome in 18 or 22mm diameter.

#### Complete Care Pack

For all instant showers to assist less able users. Includes brackets, multi-mode handset, handset clamp, soap dish and hose retainer with 2m hose and 1m riser rail.

#### Curtain Rail Pack

The versatile curtain rail pack is designed to fit virtually any shape of bathroom. Contains a white curtain, curtain rail, corner fittings, curtain clips & full fixing kit. Available with or without a non-slip bath mat.

#### Extended Shower Control Lever

Ideal for children or the less-able, this extended shower control lever is interchangeable with Expressions 550S & 500S(LEV2) and Active 350S & 320S (LEV3).



Complete care pack



LEV3 Extended control lever

**For use on Expressions or Active**

### Product Selector

Product Reference	Suitable for	Colour	Cat. No.	Short Code
Full white accessory kit with straight riser and 3 mode handset	all installations	white	83595321	ACCPKA
Chrome accessory kit with straight riser and single mode handset	all installations	chrome	83595317	ACCPKB
Chrome accessory kit with straight riser and 3 mode handset	all installations	chrome	83595318	ACCPKC
Chrome accessory kit with straight riser and 6 mode handset	all installations	chrome	83595319	ACCPKD
Chrome accessory kit with curved riser and 6 mode handset	all installations	chrome	83593820	ACCPKE
Complete care pack	all installations	white	83595322	CCP1
Extended control lever	Expressions	white	83595324	LEV2
Extended control lever	Active	white	83595325	LEV3
Grab rail (plastic)	all shower installations	white	83595315	PGR
Curtain & rail pack with fixings	all shower installations	white	83792812	CU1
Curtain & rail pack with fixings & non-slip bathmat	all shower installations	white	83792811	CU2
Extended 1m riser rail	all shower installations	chrome	83595323	RAILC2

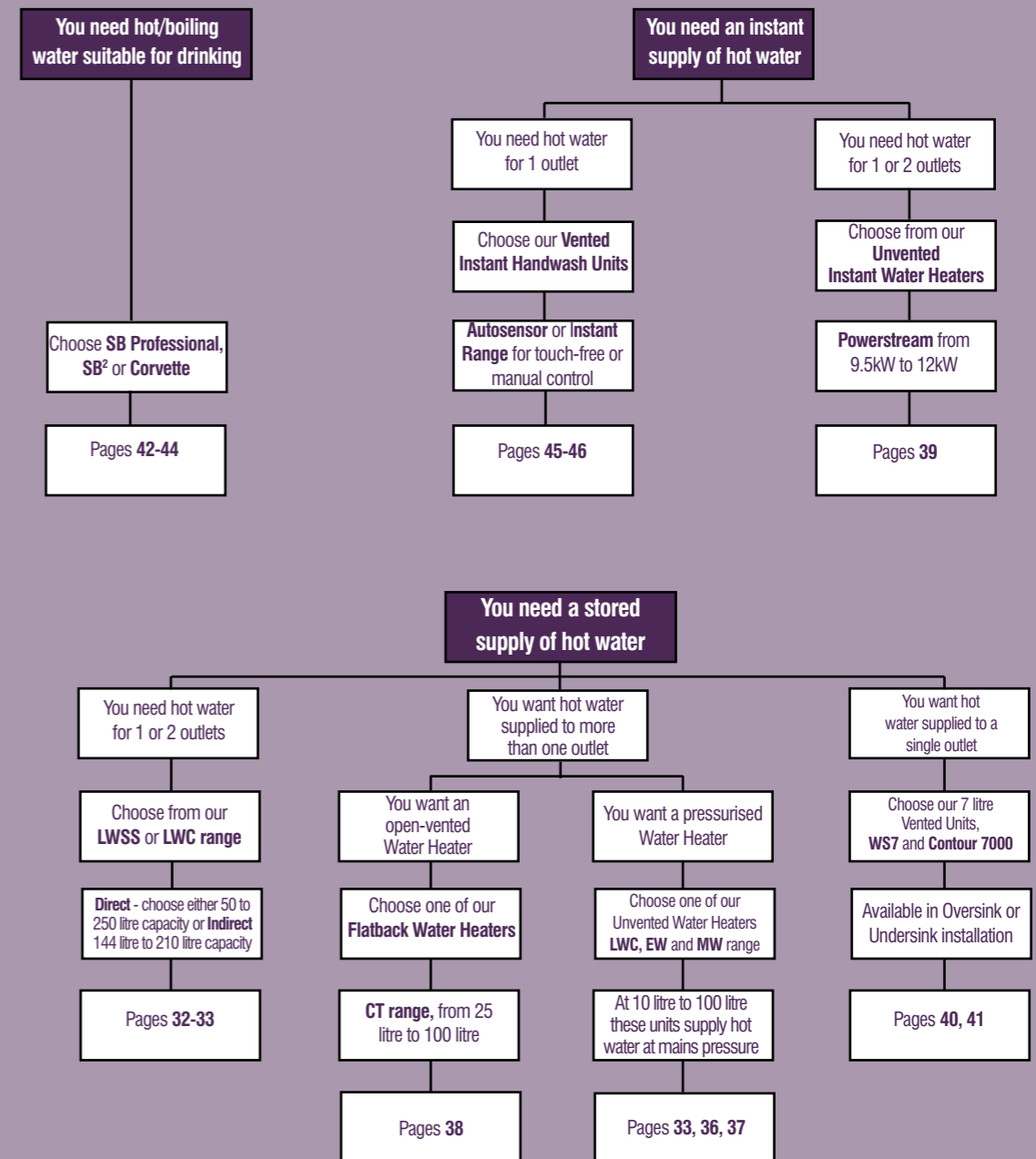






## Water Heating Selector

When specifying a hot water heater you need to consider the use that the hot water is going to be put to. At Redring we have a comprehensive range of water heating products to suit all applications. Designed using the latest technology and built to Redring's exacting standards, the range covers both storage and point-of-use. This selector should enable you to make a decision, but if you need further clarification, please ring our customer techline on 08709 000430.



Litres heated through 50°C.

	5	7	10	15	30	60	80	100	150	200
1	18	25	35	55	105	210	280	-	-	-
2	9	13	18	27	55	105	140	175	265	-
3	6	9	12	18	35	70	95	120	175	235
4	5	7	9	14	27	55	70	90	135	175
6	3	5	6	9	18	35	50	60	90	120
8	3	4	5	7	14	27	35	45	70	90
9	2	3	4	6	12	24	35	40	60	80
12	2	2	3	5	9	18	24	30	45	60

Approximate time in minutes to heat to heat water

To assist in the effective selection of water heating products, this chart shows how long it will take units of different kilowatt loadings to heat water. e.g. It will take 9 minutes for a 3kW unit to heat 7 litres of water through 50°C.

Please refer to Pages 58/59



# Hot Box Independent Electric Boiler



## The Range

The Hotbox from Redring uses the latest Halogen technology to economically drive a sealed wet radiator system. This fully independent electric boiler combines low installation and running costs with fit anywhere convenience. The Hotbox wall mounted boiler is suitable for installation onto small sealed heating systems. Using patented Halogen technology, its compact design provides the versatility to be easily installed into a wide range of situations.

## Halogen Technology

A series of Halogen Infrared elements heat the water efficiently and cleanly. Located within specially designed copper housings, each element fits directly onto the copper heat exchanger, which links 6 or 10 Halogen elements depending on the size of the boiler. As water circulates through the system the high efficiency elements instantly reach operating temperature and induce heat transfer. Wet radiators rated up to a combined output of 12,000 BTU's can be supplied by the LP330; 8,000 BTU's for the L318 although heat output is limited to the output of the boiler.

## Installation

The small size of Hotbox ensures that even in locations where space is at a premium, it can provide a steady flow of hot water for wet radiators. The Hotbox doesn't require any hot soldering and by using push fit pipes and a standard plug, installation is simple. The Hotbox is designed specifically for use in small, pressurised, sealed system installations. The Hotbox incorporates all the components required for sealed systems: pressure gauge, pressure relief valve, expansion vessel, circulating pump, manual reset overheat thermostat and manual air vent. There are two controls on the appliance, one adjusts the water

flow temperature, and the other is an on/off switch. A 2m electrical flex with integral plug, which requires a standard 240V~50Hz supply via a standard 13A ring main socket is supplied. The L318 is fused at 10A and the LP330 at 13A. Upon installation, there must be adequate space for servicing, operation of the boiler and air circulation. A front entry panel allows safe installation and servicing from within a suitable cupboard.

## Efficiency

Due to its simplicity, installation and commissioning costs are minimal. The Hotbox can be installed directly into the room which requires heating and as there are no odours or fumes there is no requirement for a flue. The maximum power requirement of the Hotbox is 7.7 amps which is less than an average electric kettle. The Halogen elements used in the unit last up to 2000 hours, with the fitted programmer allowing 24/7 control. Therefore energy consumption is directly relative to demand. Replacement Halogen lamps are available as spares part no: 97392070

## Typical Applications

- Flats and bedsits
- Student Accommodation
- Care Homes
- Offices
- Extensions – Supplementing existing heating
- Caravans and boats (with transformers)
- Underfloor heating

**Can be used on a Y plan system - domestic hot water and wet fill radiator system. Contact us for further information**

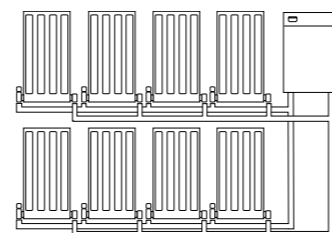
## Key Features

- Meets building regulations for conventional wet systems
- No heat loss through the flue so all energy used is converted into heat
- No legal obligation for annual maintenance checks
- PAT testing not required if connected directly to mains
- Sealed system with no aggressive water prolonging bulb life
- Quiet operation
- Can be connected to any type or make of wet radiator
- No noxious gases are emitted
- Gives 60-70 degree heat to radiators at 0 degrees outside temperature
- Easily exchangeable Halogen elements keep maintenance cost low
- Comes complete with 24hr plug-in programmer

The Hotbox is designed to fit almost any home at only 420mm high, 165mm deep and 375mm wide.

A typical unit will give 60°C+ to eight 620mm x 300mm radiators at 0°C outside temperature.

Will supply radiators rated to a total output of 8,000 BTU's for the L318 and 12,000 BTU's for the LP330. Although heat output is limited to the output of the boiler.



# Hot Box Independent Electric Boiler



## Approvals

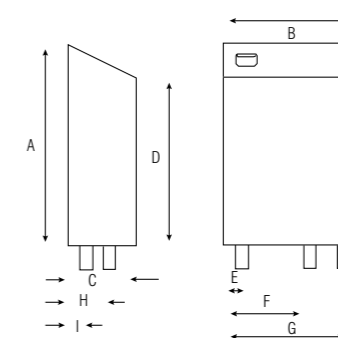


## Guarantee



Excluding lamps (300w linear halogen lamp)

## Technical



Model	Catalogue Number	Height A	Width B	Depth C	Front Height D
L318	29394601	700mm	375mm	165mm	575mm
LP330	29394602	900mm	375mm	165mm	775mm

## Connection Points

Model No.	Catalogue Number	E	F	G	H	I
L318	29394601	45mm	70mm	285mm	85mm	40mm
LP330	29394602	45mm	70mm	285mm	85mm	40mm

## Performance Data

Model No.	Catalogue Number	Electrical Output	Heat output to Water	Heat output convection	Max Radiator output (BTU)
L318	29394601	6 x 0.3kW	1.71kW / 240v	0.09kW	8000
LP330	29394602	10 x 0.3kW	2.85kW / 240v	0.15kW	12000

The Hotbox Independent Electric Boiler is a wall-mounted appliance, suitable for installation onto small sealed heating systems. It incorporates all the components for sealed system requirements, these include, pressure gauge, pressure relief valve, expansion vessel, circulating pump and manual reset overheat thermostat. A manual air vent is also located on the appliance. There are two controls on the appliance, one adjusts the water flow temperature, and the other is an on/off switch. A 2m long electrical flex with integral plug enables the appliance to be connected into a standard 13A ring main socket. The L318 is fused at 10A and the LP330 at 13A.

## Typical Specification

British Standard  
BS EN 55014-2, BS EN 50081-1  
BS EN 60335-2

## Controls

Power on/off switch. Thermostatic water flow temperature control. Supplied with a 24 hour plug in timer. Neon indicator

## Safety

Automatic thermal cut-out device. Manual shut down and restart. Fused at 10A - L318 Fused at 13A - LP330

## Supply

230/240V AC single phase. Flueing not required

## Spare Elements

Catalogue number: 97392070 for Hotbox L318 / LP330

## Product Selector

Please refer to Pages 58/59

Model	Catalogue Number	Halogen bulb Heat Source	Electrical Supply	External Fuse	Water Flow and Return	Expansion Vessel Charge	Min flow temp	Max flow temp
L318	29394601	6x300W	220 ~ 240v - 50Hz	10A	15mm Copper	0.5Bar	20 deg. C	70 deg. C
LP330	29394602	10x300W	220 ~ 240v - 50Hz	13A	15mm Copper	0.5Bar	20 deg. C	70 deg. C
HAL300	97392070	Halogen Bulb Replacement						





**The Range**

The Aqualoy 2304 Duplex Stainless Steel water heating cylinders provide effective, fast and safe mains fed hot water around any property. A high quality vessel employing the best in tig welding technology, the Aqualoy LWSS range features high flow rates and energy efficient insulation. The cylinder outer casing is mild steel with a wipe clean, white plastic coated finish and corrosion resistant base and lid.

**Key Features**

- Energy efficient rigid polyurethane foam insulation (CFC/HCFC free)
- Long life incoloy low noise immersion heaters
- No sacrificial anode
- High flow rate, up to 55 litres per minute – ideal to supply power showers without the need for a separate pump
- All ancillary components are supplied, allowing for easy, quick and hassle-free installation
- Expansion vessel helps eliminate discharge between services.
- Pressure tested to 15 bar
- 3 bar working pressure
- Relief valve operates at 7 bar/ 90 - 95°C
- 10 year cylinder guarantee and 2 year parts.

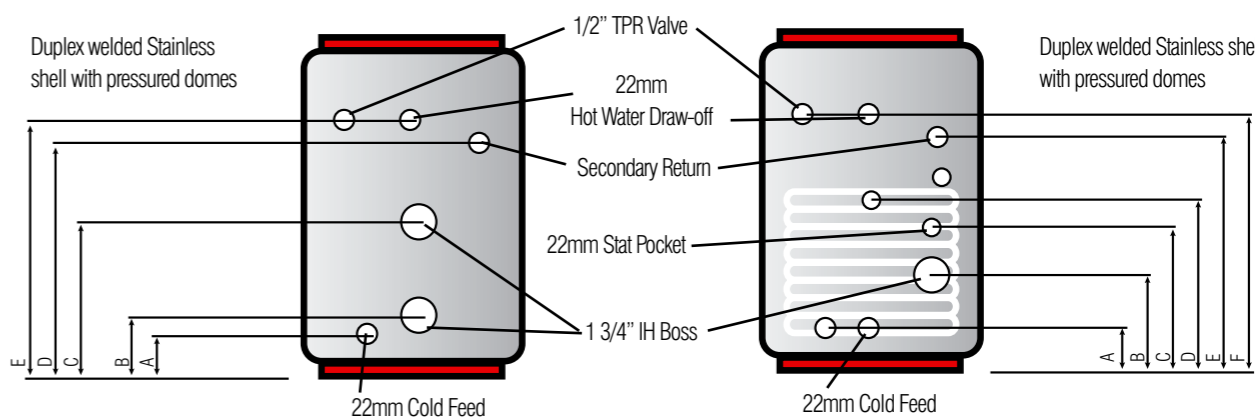
**Installation**

- For installation of the LWSS range, mains water supply is essential. The unit requires a minimum 1.5bar and a flow rate of 25litres per minute
- Electrical connections are located on the front of the unit
- Cold water inlet and hot water draw-off - 22mm
- Coil flow and return - 22mm
- Temperature and pressure relief - 1/2"
- Inlet group - 22mm
- Tundish inlet - 15mm, Outlet - 22mm (both compression)
- Cylinders of 200litre capacities and above are supplied with a secondary return connection

**Technical**

**Aqualoy LWSS Direct**

**Aqualoy LWSS Indirect**



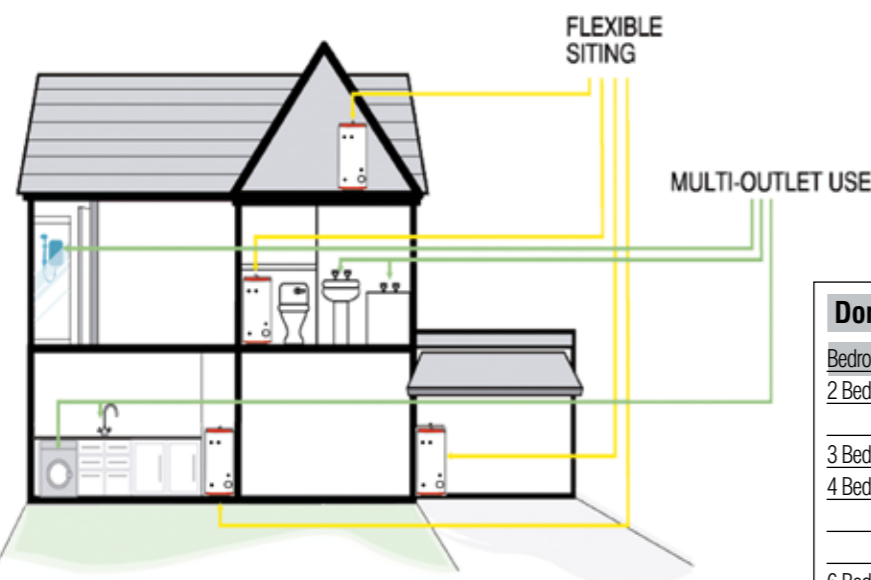
**Re-heat Performance**

Requirement	Direct						Indirect		
	90	125	150	170	200	250	300	150	200
Time to Re-Heat after 70% Draw-off	27	37	45	51	63	75	136	26	24
Time to Re-Heat from Cold to 65°C	52	72	86	98	108	144	202	37	33
Weight when full in Kilograms (kgs)	125	165	195	220	250	310	360	195	250

**Approvals**



**Guarantee**



Siting options  
NB: The structure supporting the heater must be capable of holding the weight of a cylinder when full with water.

**Domestic Selection Guide**

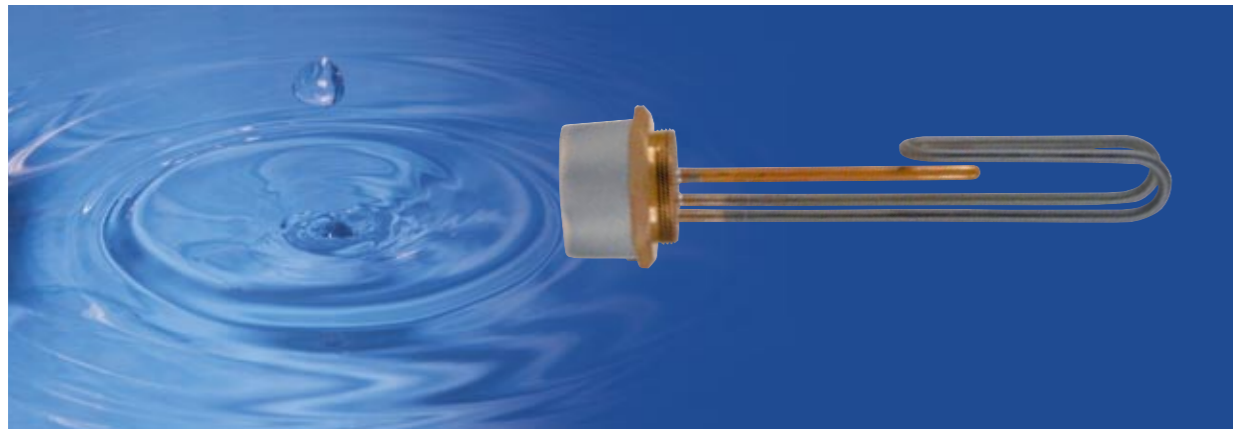
Bedrooms	Hot Water Demand	Direct	InDirect
2 Beds	1 Shower	125	
	1 Bath, 1 Shower	150	
3 Beds	1 Bath, 1 Shower	170	150i
4 Beds	1 Bath, 1 Shower	200	
	2 Baths, 1 Shower	250	200i
	2 Baths, 1 Shower	300	
6 Beds	2 Baths, 2 Showers	300	
	3 Baths	300	

**Product Selector**

Product Reference	Catalogue Number	Capacity in Litres	kW loading at 240v	Height (mm)	Diameter (mm)	Expansion Vessel Capacity (l)	Exp. Vessel size (h)x(d)(mm)	A	B	C	D	E	F
(all dimensions in mm)													
LWSS90D	47788101	90	2X3	750	510	8	300x200	150	180	400	-	555	-
LWSS125D	47788201	125	2X3	935	510	12	255x265	150	180	400	-	760	-
LWSS150D	47788301	150	2x3	1060	510	12	255x265	150	180	400	-	885	-
LWSS170D	47788401	170	2x3	1200	510	18	380x265	150	180	400	-	1030	-
LWSS200D	47788501	200	2x3	1120	545	18	380x265	150	180	400	820	995	-
LWSS250D	47788601	250	2x3	1330	545	24	430x285	150	180	400	980	1155	-
LWSS300D	47788701	300	2x3	1470	545	24	430x285	150	180	400	1100	1305	-
LWSS150i	47788801	150	1x3	1060	510	12	255x265	150	180	380	480	-	885
LWSS200i	47788901	200	1x3	1120	545	18	380x265	150	180	330	580	820	995

• D - Direct • i - InDirect • Operating pressure 3 bar • Expansion relief valve set at 5 bar • Temperature and relief valve set at 7bar at 90°C  
• Recommended cable size for all cylinders: 1.5mm<sup>2</sup>

# Immersion Heaters



## The Range

Redring have introduced a new range of Dual cut-out immersion heaters to comply with the European safety standard, EN 60335-2-73 for fixed immersion heaters.

All Redring dual cut-out immersion heaters are supplied complete with rod thermostat, and are manufactured with a separate, 'secondary manual reset safety cut-out' fitted directly to the immersion heater head.

This ensures that all Redring immersion heaters are compliant, and do not rely on the fitting of a combined rod thermostat with cut-out to meet the safety requirement. Dual cut-out immersion heaters are available in standard copper or Aqualoy variants for use in more aggressive water areas.

## Approvals



## Guarantee



## Technical



### Dual cut-out Twimser:

The economy of two individually operating copper sheathed heating elements. For light to normal use the shorter element heats the top part of the tank. 1 year guarantee (UK).



### Aqualoy:

For use in aggressive water areas. 3 year guarantee (UK).



### Copper (Popular):

The standard heater for use in soft and normal water areas. 1 year guarantee (UK).



### Industrial Water Immersion Heaters:

- Incoloy 825 sheathed elements 2 1/4" BSP threaded brass heads
- Control thermostat in Incoloy 825 pocket
- Corrosion resistant polypropylene terminal enclosure which can be angularly rotated to any position

### Redring Dual Thermostats:

For use with non-dual cut out immersion heaters

7inch DC rod stat 13amp	92301573
11 inch DC rod stat Horizontal 13amp	92301574
18 inch DC rod stat 13-16amp	92301575
11 inch DC rod stat vertical 16amp	92301580

# Immersion Heaters and Controller



## Specification for Domestic Dual cut-out Immersion Heaters

2 1/4" BSP Copper with fitted STAT & CUT-OUT - (1 year guarantee)		
Catalogue No.	Short Code	Length Inches
33324501	P11DC	11
33324502	P14DC	14
33324503	P27DC	27
33324504	P30DC	30
33324505	P36DC	36
2 1/4" BSP Aqualoy with fitted STAT & CUT-OUT - (3 year guarantee)		
33324601	A11DC	11
33324602	A27DC	27
2 1/4" BSP Twimser Copper with fitted STAT & CUT-OUT - (1 year guarantee)		
30302801	TS27DC	10/27
1 3/4" BSP Unvented Aqualoy with fitted STAT & CUT-OUT - (3 year guarantee)		
33324701	GU11DC	11

## Specification for Industrial Immersion Heaters

2 1/4" BSP Incoloy 825 with fitted stat					
Catalogue No.	Short Code	Loading kW	Phases	Immersed Length	Thermostat
60391301	RY211	2	1 only	11	Yes
60391302	RY311	3	1 or 3	11	Yes
60391303	RY330	3	1 or 3	30	Yes
60391304	RY411	4	1 or 3	11	Yes
60391305	RY416	4	1 or 3	16	Yes
60391306	RY616	6	1 or 3	16	Yes
60391307	RY630	6	1 or 3	30	Yes
60391309	RY724	7.5	1 or 3	24	Yes
60391310	RY914*	9	1 or 3	14	Yes
60391311	RY927	9	1 or 3	27	Yes
60391312	RY936	9	1 or 3	36	Yes
60391313	RY1224	12	1 or 3	24	Yes
60391314	RY1236	12	1 or 3	36	Yes
60391315	RY1836	18	1 or 3	36	Yes

\*Not recommended for aggressive water

## Economy 7 Time Controller

The Redring Electronic 7 immersion heater controller allows up to three secure off-peak heating periods every 24 hours to make the maximum use of cheap rate structures – including split tariffs.

Height 115mm Width 170mm Depth 60mm



## Key Features

- One minute accuracy means no accidental running over into full rate tariff periods
- Suitable for use with single, dual or two element immersion heaters
- Precise and flexible programming
- Pre-programmable automatic boost and one hour manual boost
- Illuminated display for easy reading even in a dark cupboard
- One touch winter/summer change button alters setting and display
- Two year battery reserve protection against power interruption
- Easy installation
- BEAB, WRAS and CE approved

Product Reference	Short Code	Catalogue Number	Supply	Power Consumption	Live Parts	Dirt Protection	Moisture Protection	Shock Protection	Max. Op Temp °C	Min. Op Temp °C
Electronic 7	EC7	82700206	240V AC, 50Hz	10VA max	Enclosed	Normal situations	Ordinary	Class 1	+35	0

- 230V - 240V, 13A. Suitable for immersion heaters up to 3kW. • Microgap on control. Full disconnection to immersion heater(s) on double pole isolator switch.
- 2 years reserve battery, total power disconnection. • Display: 6.35mm character height, backlit liquid crystal display, am/pm indication, Summer/Winter indication.
- Programme Settings: Off peak - up to 3 on/off periods. Boost - pre-programmable automatic boost and 1 hour manual boost.
- Mounting box materials: Thermoplastic, flame retardant.



## MW Small Unvented Water Storage Heaters



### The Range

The MW range has been designed to provide stored hot water from a mains pressurised water supply. The MW range comes complete with a factory fitted temperature and pressure relief device.

### Accessories

Thermostatic Blending Valves – increasingly used to ensure a safe maximum dispensing temperature for hot water providing protection for end users. Quickly and easily fitted to the outlet from the hot water system and the cold water feed.



#### Optional cold water pack

A = Expansion Vessel (Dia 120mm x h 235mm)  
B = Pressure reducing valve  
C = Check valve

D = Tundish (supplied as standard with MW)  
E = Thermostatic Blending Valve

### Key Features

- Will deliver hot water to up to four outlets
- Balanced supply of hot and cold water
- Heat loss minimisation and energy savings from short pipe runs and superior insulation
- Water outlet via existing tap or mixer
- Adjustable thermostat to 70°C
- Over temperature safety cut-out
- Temperature pressure relief valve factory fitted to all MW models
- Neon light indicates when heater is working
- Compact shape for undersink mounting
- Remote siting possible

### Options

Cold water control pack - Cat. No. 87-783101  
Use with water supply pressures above 6 bar or where cold water supply pipe is not long enough to accommodate expansion of hot water i.e.  
MW15 - less than 4.5m of 15mm pipe  
MW10 - less than 3m of 15mm pipe

### Installation

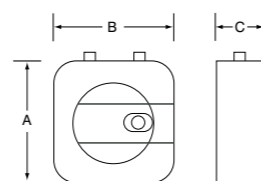
- Inlet/outlet connections 15mm (1/2" BSP)
- Fixing pack with wall mounting bracket supplied
- MW unit needs to discharge to a drain

### Technical

#### Dimensions

**MW10 / MW10H**  
A Height 360mm B Width 360mm C Depth 254mm

**MW15 / MW15H**  
A Height 360mm B Width 360mm C Depth 300mm



### Approvals



### Guarantee



## EW Small Unvented Water Storage Heaters



### The Range

The EW range has been designed to provide stored hot water from a mains pressurised water supply. The EW range has been designed without the need for the temperature and pressure relief device making installation even simpler.

### Accessories

Thermostatic Blending Valves – increasingly used to ensure a safe maximum dispensing temperature for hot water providing protection for end users. Quickly and easily fitted to the outlet from the hot water system and the cold water feed.



#### Optional cold water pack

A = Expansion Vessel (Dia 120mm x h 235mm)  
B = Pressure reducing valve  
C = Check valve

D = Tundish  
E = Thermostatic Blending Valve

### Key Features

- Will deliver hot water to up to four outlets
- Balanced supply of hot and cold water
- Heat loss minimisation and energy savings from short pipe runs and superior insulation
- Water outlet via existing tap or mixer
- Adjustable thermostat to 70°C
- Over temperature safety cut-out
- Neon light indicates when heater is working
- Compact shape for undersink mounting
- Remote siting possible

### Options

Cold water control pack -  
Cat. No. 87-783101

Use with water supply pressures above 6 bar or where cold water supply pipe is not long enough to accommodate expansion of hot water i.e.  
EW15 - less than 4.5m of 15mm pipe  
EW10 - less than 3m of 15mm pipe

### Installation

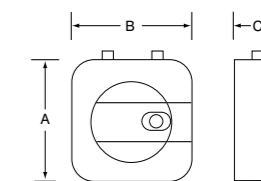
- Inlet/outlet connections 15mm (1/2" BSP)
- Fixing pack with wall mounting bracket supplied
- EW unit needs to discharge to a drain

### Technical

#### Dimensions

**EW10**  
A Height 360mm B Width 360mm C Depth 254mm

**EW15**  
A Height 360mm B Width 360mm C Depth 300mm



### Approvals



### Guarantee



### Product Selector

Product Reference	Short Code	Catalogue Number	Capacity In Litres	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
MW10 Undersink	MW10	47782001	10	2.7 - 3	1.5mm <sup>2</sup>	13 amps
MW15 Undersink	MW15	47782101	15	2.7 - 3	1.5mm <sup>2</sup>	13 amps
MW10H Oversink	MW10H	47781001	10	2.7 - 3	1.5mm <sup>2</sup>	13 amps
MW15H Oversink	MW15H	47781101	15	2.7 - 3	1.5mm <sup>2</sup>	13 amps

• Operating water pressure 1 - 12bar (above 6bar use cold water controls pack) • Vitreous enamelled steel water container, white thermoplastic cover and foamed polyurethane insulation • Replaceable magnesium sacrificial anode • Anode available as spare part

### Product Selector

Product Reference	Short Code	Catalogue Number	Capacity In Litres	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
EW10 Undersink	EW10	47784501	10	2.7 - 3	1.5mm <sup>2</sup>	13 amps
EW15 Undersink	EW15	47784502	15	2.7 - 3	1.5mm <sup>2</sup>	13 amps
Optional cold water controls (For EW and MW)		87783101	-	-	-	-
Tundish (For EW only)		97783236	-	-	-	-
Temperature & pressure relief valve		97783258	-	-	-	-
Blending valve fail safe (For EW and MW)		87783103	-	-	-	-

• Operating water pressure 1 - 12bar (above 6bar use cold water controls pack) • Vitreous enamelled steel water container, white thermoplastic cover and foamed polyurethane insulation • Replaceable magnesium sacrificial anode • Anode available as spare part

## Flatback Cistern Large Vented Water Storage Heaters



### The Range

These Flatback Cisterns are designed for wall mounted installation. A compact unit which provides a multi-outlet water heating solution.

### Approvals



### Guarantee

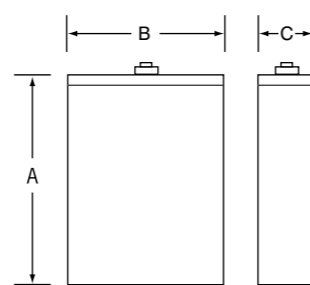


### Key Features

- Choice of 25, 50, 75 or 100 litre capacities
- Two adjustable thermostats for precise control
- Overheat protection
- Ideal for replacement (overflow and cold feed can be connected on the left or right hand side)
- 50 to 80°C thermostatic control range
- Drain connection supplied and fitted
- Cold water cistern incorporated within the unit
- 2 year guarantee (UK)
- WRAS and CE approved

### Technical

#### Dimensions



<b>CT25</b>	A Height 705mm	B Width 470mm	C Depth 210mm
<b>CT50</b>	A Height 750mm	B Width 600mm	C Depth 320mm
<b>CT75</b>	A Height 925mm	B Width 600mm	C Depth 320mm
<b>CT100</b>	A Height 1080mm	B Width 600mm	C Depth 320mm

### Product Selector

Product Reference	Short Code	Catalogue Number	Capacity Litres (Hot)	Capacity Litres (Cold)	Weight Empty (Kg)	Weight Full (Kg)
Cistern Type 25	CT25	26786401	25	8	20	53
Cistern Type 50	CT50	26786801	50	24	32	106
Cistern Type 75	CT75	26786901	75	24	37	136
Cistern Type 100	CT100	26787001	100	24	40	164

- Copper sheet water vessel with brazed seams • Corrosion proofed steel, with enamel finish outer casing
- 3kW Incoloy sheathed element • 1/2" BSP cold water and 22mm compression fitting hot water connections.

## Powerstream Unvented Instantaneous Water Heater



### The Range

Powerstream delivers instant hot water at point of use. This compact and unique design eliminates the need for centrally stored hot water cylinders saving on electricity usage and important space.

- 12kW unit is the highest rated single phase heater on the UK market

### Approvals



### Guarantee



#### Flow Rate/Performance - Winter/Summer

Model	4lts/min	5lts/min	6lts/min
<b>9.5kW</b>	39 / 54°C	32 / 47°C	28 / 42°C
<b>10.8kW</b>	44 / 58°C	36 / 51°C	31 / 46°C
<b>12kW</b>	48 / 63°C	39 / 54°C	34 / 49°C

The table above shows the approximate end water temperature which can be expected from Powerstream for different flow rates. The temperature of the mains supply can vary from 5°C in winter up to about 20°C in summer, with a mean average of about 12°C.

### Product Selector

Product Reference	Short Code	Catalogue Number	Operating Pressure	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Powerstream 9.5	RP1	45793201	15 - 150 psi	8.7 - 9.5	10mm <sup>2</sup>	40 amps
Powerstream 10.8	RP10.8	45793204	20 - 150 psi	9.9 - 10.8	16mm <sup>2</sup>	45 amps
Powerstream 12	RP12	45793202	25 - 150 psi	11 - 12	16mm <sup>2</sup>	50 amps
Shower mixer kit		85793605	-	-	-	-
1/4 turn lever control spray tap		85793616	-	-	-	-

- Flow stabiliser/service valve • Thermal cut-out protection • Unique Redring water flow operated power switch • Impact resistant moulded cover
- Corrosion resistant steel backplate • Half power selection available on installation.

### Key Features

- Water supplied to one or two outlets (either one shower and one hand basin or two hand basins)
- Water outlet via existing tap or mixer (especially suitable via spray tap)
- Direct mains supply
- Small compact shape
- Remote fitting option
- No standing heat losses
- Fast response
- Choice of two power settings on installation

### Accessories

In shower applications, we only recommend the use of a Redring approved shower mixer kit: Chrome and white mixer with white accessory kit and variable spray shower head.

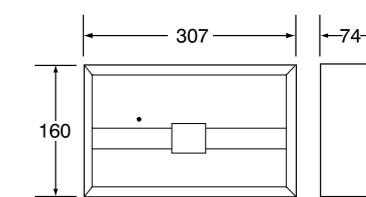


#### Note

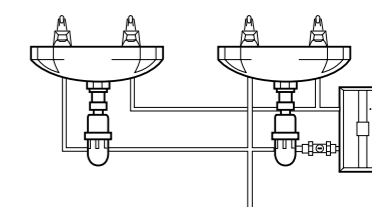
For hand-wash applications, we only recommend the use of Redring approved 1/4 turn lever control ceramic disc operated spray tap which will enhance the delivery performance on dual-outlet installations.

### Technical

#### Dimensions



#### Installation



- RP10.8 and RP12 Heater Unit feeding two handwash basins
- Multi-directional mounting
- Fixing pack supplied



**Note:**  
We only recommend the use of the Redring 1/4 Turn Spray Tap

Please refer to Pages 58/59



## WS7 Small Vented Water Storage Heaters



### The Range

The WS7 offers an economical solution to provide stored hot water at point of use and can be mounted undersink using the special monoblock chrome-mixer accessory. These units also benefit from minimal standing heat loss because they are installed at point of use.

### Approvals



### Guarantee

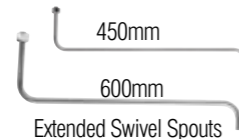


### Key Features

- 7 litre capacity, point of use
- Adjustable thermostat 15°C - 75°C with frost protection setting
- Choice of 1kW and 3kW models
- 300mm swivel spout included
- Extended outlets available
- Wall bracket and full fixing pack supplied
- Integral safety over temperature thermal fuse
- 3 year guarantee (UK)
- BEAB, WRAS and CE approved
- Optional tamper proof cover available

### Accessories

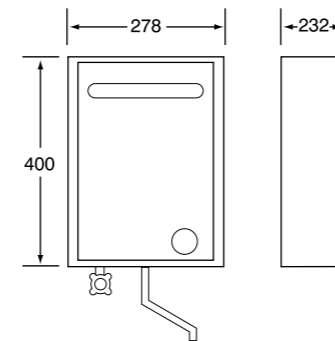
- Extended length swivel spout (450mm)
- Extended length swivel spout (600mm)
- Monoblock vented chrome mixer (for undersink installation) designed to facilitate expansion



Extended Swivel Spouts

### Technical

#### Dimensions



Monoblock Vented Chrome Mixer

**Note:**  
We only recommend the use of the Redring Vented Monoblock Mixer

### Product Selector

Product Reference	Short Code	Catalogue Number	Inlet Connection	kW Loading @ 240V	Recommended Cable Size	Recommended Fuse Rating
WS7	WS73	44780001	15mm (1/2")	3kW	2.5mm <sup>2</sup>	13 amps
WS7	WS71	44780002	15mm (1/2")	1kW	1.0mm <sup>2</sup>	5 amps
Extended swivel (450mm)		84780404	-	-	-	spout
Extended swivel (600mm)		84780405	-	-	-	spout
Monoblock chrome mixer		84780408	-	-	-	-

- Corrosion resistant polypropylene water container with polystyrene insulation
- High quality impact resistant ABS cover
- Capillary type, externally adjustable thermostat

## Contour 7000 Small Vented Water Storage Heaters



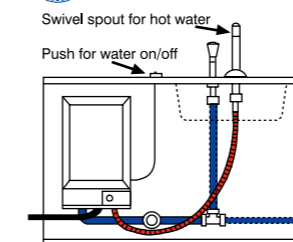
### The Range

The Contour 7000 has a 7 litre capacity of hot water storage for oversink washing needs. Using the monoblock chrome accessory it can be fitted undersink. Alternatively the Contour 7000 Remote is a complete installation pack for undersink fitting, featuring an air operated sink mounted switch that when pressed delivers hot water through a remote swivel spout at your pre-set temperature. These units also benefit from minimal standing heat loss because they are installed at point of use.

### Approvals



### Guarantee



Contour 7000 Remote

### Product Selector

Product Reference	Short Code	Catalogue Number	kW Loading @ 240V	Recommended Cable Size	Recommended Fuse Rating
Contour 7000 3kW	C73	44784001	3kW	2.5mm <sup>2</sup>	13 amps
Contour 7000 1kW	C71	44784002	1kW	1.0mm <sup>2</sup>	5 amps
Contour 7000 Remote	C7U3	44784020	3kW	-	13 amps
Extended swivel spout - 450mm		84780404	-	-	-
Extended swivel spout - 600mm		84780405	-	-	-
Monoblock chrome mixer		84780408	-	-	-
Extended flexible hose (2 metres)		83762502	-	-	-

- Corrosion resistant polypropylene water container with polystyrene insulation
- High gloss, high strength impact resistant ABS cover
- Capillary type, externally adjustable thermostat
- Restrictors supplied to optimise flow rate
- Integral safety over temperature thermal fuse

### Key Features

- 7 litre capacity, point of use
- Adjustable thermostat 15°C - 75°C
- Integral on/off and flow control
- Frost protection setting
- Choice of heat settings
- Ideal handwash and dishwash temperature settings indicated on the unit
- Tamperproof thermostat cover
- Complete with 300mm swivel spout
- Proven long life copper element
- Negligible standing heat loss

### Features exclusive to the Contour 7000 Remote

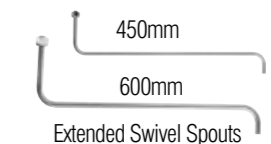
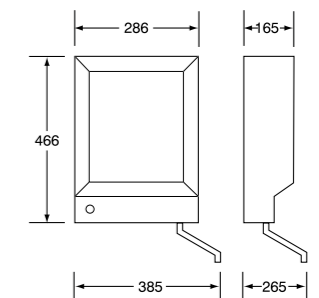
- On/off control via touch air switch
- Hot water delivered through a remote swivel spout
- Remote air switch swivel spout and flexible hose supplied
- Neat and out of sight installation

### Accessories

- Extended swivel spout (450mm)
- Extended swivel spout (600mm)
- Monoblock chrome mixer (for undersink installation)

### Technical

#### Dimensions



Extended Swivel Spouts



Monoblock Vented Chrome Mixer

**Note:**  
We only recommend the use of the Redring Vented Monoblock Mixer

# Professional SB Beverage Water Boiler

# SB<sup>2</sup> Beverage Water Boiler



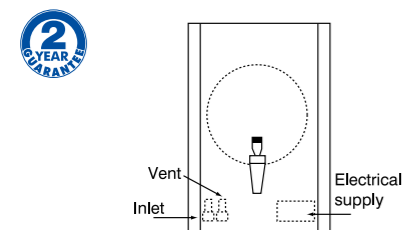
## The Range

A wall-mounted, self-calibrating and self-filling boiling water heater for Industrial and Commercial applications. It can be used for making cups of tea or coffee and even soups and hot snacks. Available in 7 capacity sizes, the 2.5 litre model is ideal for small offices, ranging to the 25 litre model suitable for a busy canteen, community hall or hospital, dispensing up to 150 cups of boiling water on demand and a delivery of 250 cups per hour.

## Approvals



## Guarantee



\* To help you select the right size water boiler, select the number of cups you will require in the first hour of use from the specification chart below, this will give you the appropriate capacity.

## Product Selector

Product Reference	Catalogue Number	*Storage Capacity (Litres)	*First Hour Delivery (Cups)	Initial Draw Off (170ml)	Initial Draw Off (Litres)	Recovery Rate (Cups/hr)	Electrical Heating Element (kW)	Approximate Weight Kg	Approximate Laden Weight Kg
SB Professional 2.5L	22713801	*2.5	*125	15	2.5	125	2.4	6	8.5
SB Professional 5L	22715801	*5.0	*135	30	5.0	125	2.4	7	12
SB Professional 7.5L	22716801	*7.5	*150	45	7.5	125	2.4	8	15.5
SB Professional 10L	22717801	*10.0	*175	60	10.0	125	2.4	9	19
SB Professional 15L	22718801	*15.0	*200	100	15.0	125	2.4	10	25
SB Professional 20L	22719301	*20.0	*225	120	20.0	125	2.4	12	32
SB Professional 25L	22719701	*25.0	*250	150	25.0	125	2.4	13	38

Please refer to Pages 58/59

## Key Features

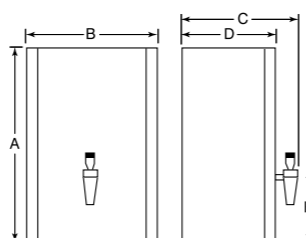
- Stainless steel water tank with fully insulated jacket to minimise heat loss
- Robust corrosion resistant construction
- Brushed stainless steel cover wipes clean
- Neon 'power on' light
- Water temperature is automatically maintained
- Unit is fitted with manual reset safety device to avoid boiling dry
- Manual reset thermostat for detecting excessive steam in the event of water solenoid valve failure
- Condensation chamber for steam-free operation
- Open vent and overflow
- Provides for concealed plumbing and electrical connection
- Operating pressure range between 2bar (29psi) and 10bar (140psi)
- Connects to 13 Amp (220-240V) double-pole fused isolating switch

## Installation

- Electrical connection via 1 metre cable supplied to fused spur
- Water entry bottom/rear via standard 15mm compression fitting
- Open vent and overflow
- Install over sink, draining board, or drip tray

## Technical

### Dimensions



**SB Professional 2.5L**  
 • A Height 430mm • B Width 315mm • C Depth 210mm  
 • D Depth 125mm • E Tap Height 185mm

**SB Professional 5L, 7.5L**  
 • A Height 510mm • B Width 370mm • C Depth 250mm  
 • D Depth 170mm • E Tap Height 185mm

**SB Professional 10L, 15L**  
 • A Height 565mm • B Width 425mm • C Depth 320mm  
 • D Depth 240mm • E Tap Height 185mm

**SB Professional 20L, 25L**  
 • A Height 630mm • B Width 490mm • C Depth 350mm  
 • D Depth 270mm • E Tap Height 185mm

## The Range

The SB<sup>2</sup> has been developed to deliver up to 154 cups of hot water every hour. This unique design provides hot water for drinks and beverages instantly eliminating the need for kettles and minimising waiting times. Integral sensors and controls provide automatic fill/top up and temperature management.

## Approvals



## Guarantee

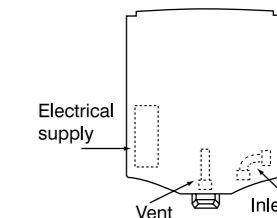
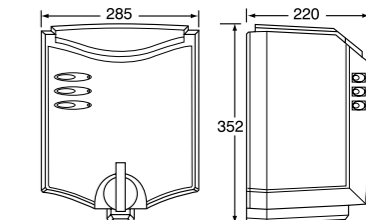


## Key Features

- Available in 2.5 & 4 litre capacities
- Automatic fill and heat
- A single soft touch push-button for on/standby, and a quarter turn rotary tap to dispense boiling water from 97°C to 100°C. Three LED's indicate power on, unit full and temperature ready
- Microprocessor controlled for water level and accurate temperature control
- High quality stainless steel sheathed heating elements for long life in aggressive water areas
- CFC-free insulation to maintain water temperature and ensure minimum energy loss
- Thermostatically controlled to automatically set to boiling point when the unit is first switched on
- On/standby function for energy saving
- Integral scale trap to enhance the quality of the beverage
- High impact, durable thermoplastic with WBS approved water tank material
- 2 year guarantee (UK) with an option to extend to 5 years

## Technical

### Dimensions



## Installation

- Wall-mounted with rear or bottom plumbing connection via a standard 15mm compression fitting to the cold water mains
- Incorporates an overflow/vent connection that discharges to a suitable drain
- Supplied with a hook-on wall bracket together with a 3-point screw fixing

## Product Selector

Please refer to Pages 58/59

Product Reference	Catalogue Number	Short Code	kW loading @ 230/240V	Capacity (Litres)	Initial draw off (cups)	Recovery rate (cups/hr)	First hour delivery (cups)	Heating time (mins)
SB2 2.5L	22714401	RSB 2.5	2.0-2.2kW	2.5L	15	130	145	8
SB2 4L	22714601	RSB 4	2.0-2.2kW	4L	24	130	154	13

• Minimum supply pressure 0.5bar (7psi) • Maximum supply pressure 10bar (145psi) • Electrical connection from suitable ring circuit via a switched/fused outlet.



## Corvette Wall Kettle



### The Range

The Corvette unit delivers boiling water for drinks, beverages and washing up needs from a permanently wired installation. The water supply can be permanently plumbed to the unit providing a totally integrated boiling water supply.

### Approvals



### Guarantee



### Key Features

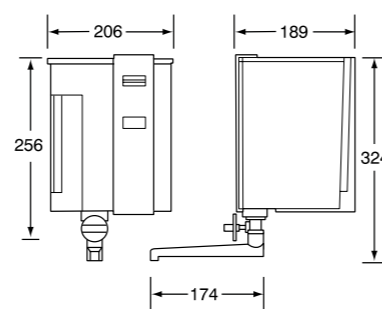
- Quick and easy installation
- Can boil from 1 litre to a maximum of 3.8 litres
- Easy to read water level indicator
- Detachable hose supplied, plumbing in kit required for permanent supply
- Automatic switch off at boiling point with rapid reset
- Neon indicator clearly glows when water is being heated
- Extended spout for extra safe pouring
- Economical to use
- Safety auto steam switch
- 2-stage boil dry element protection
- 3 year guarantee (UK)
- High quality stainless steel sheathed element

### Accessories

- Plumbing in kit to connect the Corvette directly to the cold water mains (as pictured)
- Extended length filler hose 1.7m
- Extended length outlet spout 330mm
- Tap adaptor kit to connect the filler hose to non-standard taps

### Technical

#### Dimensions



#### Installation

- Electrical connection via a fused spur
- Water entry via filler hose supplied, optional plumbing kit, or manually
- The unit can be positioned over a sink or suitable outlet
- Supplied 1m cable, cable tidy, wall mounting plate, wall fixing kit, 1m filler hose and full installation and user instructions



Plumbing Kit

Please refer to Pages 58/59

### Product Selector

Product Reference	Short Code	Catalogue Number	Heat Setting	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Corvette	CV1	28717201	min 1 - max 3.8	1.8 - 2.2	1mm <sup>2</sup>	13 amps
<b>Accessories</b>						
Plumbing in kit		89716201	-	-	-	-
Extended length outlet spout		89716203	-	-	-	-

• Stainless steel base plate.

## Instant 3 & 7 Hand Wash Unit



### The Range

Economical and instant, these hand wash units are compact and simple to operate with a single on/off and temperature control lever. They are also fitted with our unique Vortex spray outlet which eliminates the need for costly maintenance due to the build-up of scale in hard water areas.

### Power Output



### Approvals



### Guarantee



### Key Features

- Compact ergonomic design
- Single control lever for on/off and temperature selection
- Vortex spray outlet is non scaling and maintenance free
- 'Heat on' neon indicator
- Swivel 200mm stainless steel spray arm
- Easy clean polar white finish
- Overheat protection
- Fully temperature stabilised
- No standing heat losses
- 3 year guarantee (UK)
- BEAB, WRAS and CE approved

### Accessories

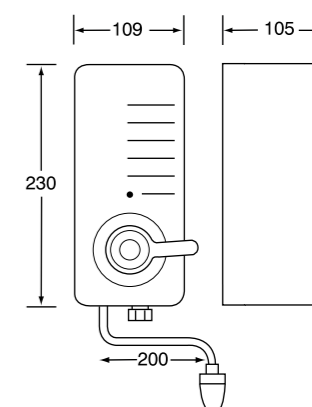
- Extended length spray arm, 380mm
- Short length spray arm, 160mm



Unique, maintenance free, non-scaling vortex spray head

### Technical

#### Dimensions



#### Installation

- Direct connections to water mains
- Standard 15mm pipework
- Top, bottom or rear cable entry
- Standard BSP 1/2" connections
- Full fixing pack supplied

### Product Selector

Product Reference	Short Code	Catalogue Number	Heat Setting (kW)	kW Loading @ 230-240V	Recommended Cable Size	Recommended Fuse Rating
Instant 3	I3V	43769715	3	2.7 - 3	1.5mm <sup>2</sup>	13 amps
Instant 7	I7V	43769915	7.2	6.6 - 7.2	4 / 6mm <sup>2</sup>	30 amps
Extended length spray arm		85768322	-	-	-	-
Short length spray arm		85768330	-	-	-	-

• Operating water pressure 0.7 - 7bar (10 - 100psi) • Water pressure operated power switch

# Autosensor Touch-free Hand Wash Unit



## The Range

The Autosensor is a unique hand wash unit operated by a no-touch sensor. Ideal for environments where cross-contamination must be avoided, such as hospitals and food preparation areas. The unit is fitted with a unique non-scaling vortex spray outlet and an automatic shut-off to eliminate waste water.

## Power Output

3 kW

## Approvals



## Guarantee

3 YEAR WARRANTY



Automatic no-touch sensor

## Key Features

- Touch free hygienic operation preventing cross contamination
- Infra-red sensor activates water output for extra economy
- Power on LED indicator
- Timed shut-off set at approximately 20 seconds
- Vortex spray head is non scaling and maintenance free
- Swivel 200mm stainless steel spray arm
- Overheat protection
- Fully temperature stabilised
- No standing heat loss
- Compact ergonomic design
- 3 year guarantee (UK)
- BEAB, WRAS and CE approved

## Accessories

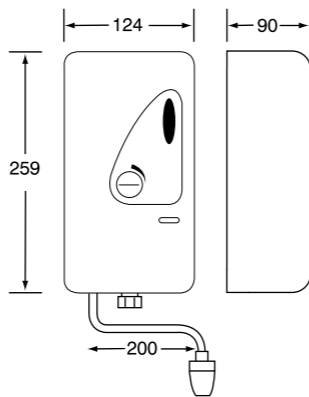
- Extended length spray arm, 380mm
- Short length spray arm, 160mm



Unique, maintenance free, non-scaling vortex spray head

## Technical

### Dimensions



### Installation

- Direct connections to water mains
- Standard 15mm pipework
- Top, bottom or rear cable entry
- Standard BSP 1/2" connections
- Full fixing pack supplied

## Product Selector

Product Reference	Short Code	Catalogue Number	Touch Free Time Cycle Cut-off	kW Loading @ 240V	Recommended Cable Size	Recommended Fuse Rating
Autosensor	AV3	43591015	20 - 25 seconds	3	1.5mm <sup>2</sup>	13 amps
Extended length spray arm, 380mm		85768322	-	-	-	-
Short length spray arm, 100mm		85768330	-	-	-	-

• Operating water pressure 0.7 - 7bar (10 - 100psi) • Water pressure operated power switch

# Autoflush Water Management



## The Range

The Autoflush is a compact, unobtrusive automatic urinal flush controller which maintains hygiene whilst eliminating water wastage as required by Water Bylaw 83. Autoflush requires no electrical mains connection and is supplied with a dedicated long-life lithium battery.

## Approvals



## Guarantee



Spare battery

## Key Features

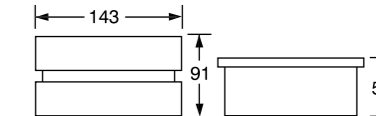
- A powerful PIR sensor detects when someone approaches the urinals and switches a solenoid valve to open, allowing water to flush to the cistern
- Typical water savings of over 70% per annum. Capital costs may be recouped in less than two years
- Built-in cleansing flush (every 12 or 24 hours) for maximum hygiene during unoccupied periods
- Choice of 10, 20 or 30 minute timed flow after detection (factory set to 30 minutes)
- No mains electrical connection required, long life lithium battery supplied. Red L.E.D indicates when battery is low
- Typical applications: Offices, Public Conveniences, Hotels, Restaurants, Leisure Facilities, Factories

## Accessories

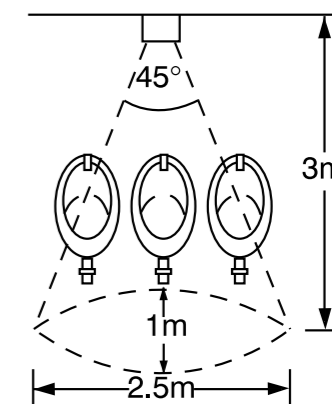
- Vandal proof cover
- Spare Battery
- Note: Water Bylaw 83 states that where urinals are installed there must be a method of controlling the flushing, preventing inflow during times when they are not being used.

## Technical

### Dimensions



### Installation



## Product Selector

Product Reference	Short Code	Catalogue Number	Sensor	Sensor Range	Battery Pack Supplied	Solenoid Valve
Autoflush	AF1	27900001	Passive infra-red	Up to 4m	10.5V, 3.6Ah lithium long life	9V DC latching (0-12bar)
Spare Battery		96900102	-	-	-	-

• Non-corrosive Polar White ABS plastic box • Water connections: 15mm compression • Recommended Cable: 2 core, CSA 0.5mm<sup>2</sup> (Outer diameter 5.4mm) • Approvals: Restrictors - WRAS, Valve WRAS, Battery UL • Note - Designed to be used with a cistern. Unsuitable for pressurised systems.



# Automatic Hand Dryers



# Automatic Hand & Face Dryers



## The Range

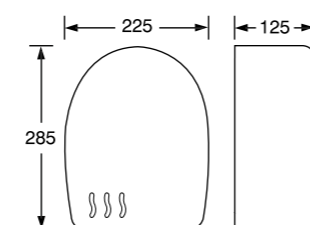
Hygiene is an area where warm air dryers score significantly over paper or linen towels. Germ-free warm air is an extremely hygienic drying medium - with no risk of cross-infection between users. Hand dryers are approved by the Health and Safety Executive as well as the Ministry of Defence for use in commercial and office environments. Also accepted by the National Health Service resulting in increasingly widespread use in British hospitals.

## Key Features

- AD1 Light to medium installations**
- Hand drying only
  - Ideal for food preparation areas
  - Class 2 insulation, so no need to earth
  - Infra-red no 'touch' on/off sensor to prevent cross contamination
  - 2 year guarantee (UK)
  - IP24 rating
  - BEAB and CE approved
  - **Available in white or chrome**

## Technical

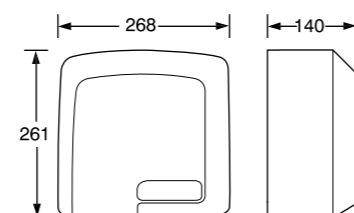
### Dimensions



Dimensions AD1

### AD10 Light to medium installations

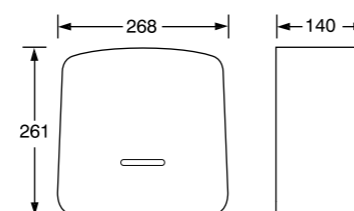
- Hand drying only
- Ideal for surgeries, clinics and veterinary practices
- Fully automatic
- UK manufactured
- 3 year guarantee (UK)
- IP21 rating
- BEAB and CE approved
- **Available in white or chrome**



Dimensions AD10

### AD10S Light to medium installations

- Hand drying only
- Stainless steel cover
- Easy to clean
- Fully automatic
- UK manufactured
- 3 year guarantee (UK)
- IP21 rating
- BEAB and CE approved



Dimensions AD10S

## Approvals



## Guarantee



Available in white, stainless steel or chrome (as pictured above)

## Product Selector

Product Reference	Short Code	Catalogue Number	Weight (Kg's)	Total Loading @ 240V	Motor Watts	Fan Motor Speed (RPM)	Air Volume M3/Hr	Air Velocity M/Sec	Peak Air Temp Rise °C	Noise Level at 1 mtr cb (A)
Autodry1	AD1	56751501	1.9	1.5 kW	60	2500	120	15	60	63
Autodry1Ch	AD1Ch	56751570	1.9	1.5 kW	60	2500	120	15	60	63
Autodry10	AD10	56750540	2.5	1.7 kW	100	2400	180	18	40	67
Autodry10Ch	AD10Ch	56750570	2.5	1.7 kW	100	2400	180	18	40	67
Autodry10S	AD10S	56750541	2.5	1.7 kW	100	2400	180	18	40	67

• Heating element closed coil nickel chromium wire • Sensor range 150mm • Impact resistant plastic

## The Range

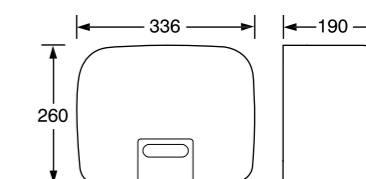
The reliable range of Redring automatic dryers provides efficient and hygienic hand and face drying. With fully automatic operation the AD20 is ideal for installation where noise needs to be kept at a minimum whilst the AD30 provides increased airflow for faster hand and face drying. For installation at the busiest washrooms the AD50 is highly durable making it ideal for installations in airports, factories and motorway service stations.

## Key Features

- AD20 Medium use installations**
- Hand and face drying
  - Quiet operation – ideal for hospital wards or libraries
  - Fully automatic
  - Cover cast aluminium alloy with epoxy paint
  - UK Manufactured
  - 3 year guarantee (UK)
  - IP23 rating

## Technical

### Dimensions



Dimensions AD20

## Approvals



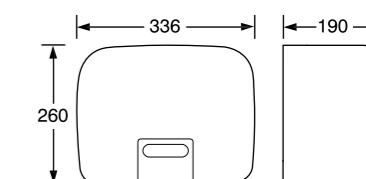
## Guarantee



Available in White and Chrome (as pictured at top of page)

### AD30 Medium use installations

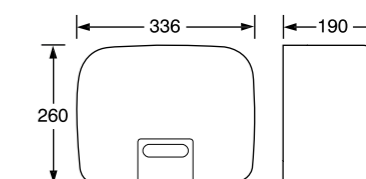
- Hand and face drying
- Fast drying time – ideal for restaurants and hotels
- Fully automatic
- Cover cast aluminium alloy with epoxy paint
- UK Manufactured
- 3 year guarantee (UK)
- IP23 rating
- **Available in white or chrome**



Dimensions AD30

### AD50C High use installations

- Hand and face drying
- High volume air-flow for faster drying
- Ideal for motorway services, factories, schools & sports centres
- Fully automatic
- Cover cast iron vitreous enamelled
- UK Manufactured
- 3 year guarantee (UK)
- IP23 rating



Dimensions AD50C

## Product Selector

Product Reference	Short Code	Catalogue Number	Weight Kg	Total Loading @ 240V	Motor Watts	Fan Motor Speed RPM	Air Volume M3/Hr	Air Velocity M/Sec	Peak Air temp Rise °C	Noise Level at 1 mtr cb (A)
Autodry20	AD20	56751303	6.5	2 kW	60	2800	150	12	50	64
Autodry30	AD30	56751404	6.5	2.4 kW	200	6000	220	22	50	78
Autodry30Ch	AD30Ch	56751470	6.5	2.4 kW	200	6000	220	22	50	78
Autodry50C	AD50	56751118	15	2.5 kW	300	7000	250	25	50	78

• Sensor range 150mm

## Sunspot & Sunscreen Air Curtains



### The Range

The Sunspot and Sunscreen range of fan assisted hot air curtains, designed for installation above external doors, effectively combats incoming cool air. The Sunscreen can also run cold, forming a barrier against dust and giving a cool refreshing breeze in Summer.

### Power Output



### Approvals



### Guarantee



Sunspot

### Product Selector

Product Reference	Short Code	Catalogue Number	Colour	kW Loading @ 240V	Switching	Recommended Cable Size	Recommended Fuse Rating
Sunspot	RS2	50813907	Grey	2.25kW	1.1 - 2.2kW	1.5mm <sup>2</sup>	13 amps
3kW Sunscreen	RS1	50813905	Grey	3kW	Cold, 1.5kW, 3kW	2.5mm <sup>2</sup>	13 amps
4.5kW Sunscreen	RS3	50813906	Grey	4.5kW	Cold, 2.25kW, 4.5kW	4.0mm <sup>2</sup>	13 amps

**Sunspot** • Element - Open coil supported by ceramic insulators • Zinc coated steel, powder coated body • Shaded pole motor • Grey colour • Single end connection conduit or cable  
**Sunscreen** • Element - Open coil supported by ceramic insulators • Zinc coated steel, powder coated body • Shaded pole motor

### Key Features

- High volume throughput Sunscreen 3 or 4.5kW 150 cu.ft. per minute
- Integral switching simplifying installation
- Smooth running motors and balanced tangential fan units for quiet and efficient operation
- Key hole slots are provided for ease of installation and no back insulation is necessary when mounting direct to wall
- Brackets are provided where adjustment for the air flow is required, i.e. when mounted at high level to serve as a multi-directional fan heater
- Built-in thermal cut-out for added safety
- Supplied with fully adjustable wall mounted brackets which offer flexible adjustment
- 1 year guarantee (UK)
- CE approved

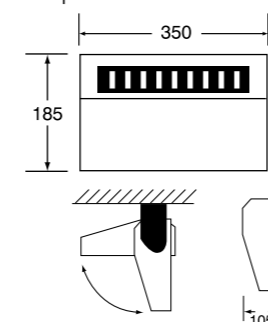
### Sunspot

- High volume throughput, 130 cu. ft. per minute
- Integral switching 1.1kW, 2.25kW and cold settings simplifying installation
- Smooth running motor with balanced tangential fan unit for quiet and efficient operation
- Built-in thermal cut-out for added safety
- Wall mounting fittings included
- 1 year guarantee (UK)
- CE approved

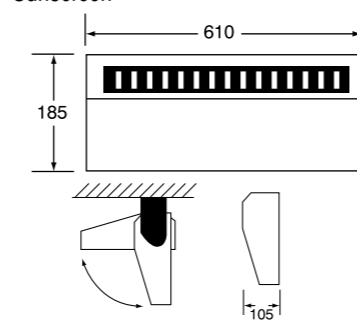
### Technical

#### Dimensions

##### Sunspot



##### Sunscreen



Versatile brackets offer flexible adjustment

#### Installation

- Ideally heaters should be mounted directly above the door but in any case not more than 2.25 metres high and not less than 1.8 metres high.
- Single end connection conduit or cable

## Sunfan Wall Mounted Fan Heater



### The Range

The Sunfan is a robust 3kW high volume air throughput commercial/industrial wall mounted fan heater designed to provide highly efficient heating in winter, or cool air circulation in Summer.

### Power Output



### Approvals



### Guarantee



### Key Features

- High air volume throughput of 300m<sup>3</sup>/hour
- Quiet running, totally enclosed motor
- Wall mounted with 2 part self supporting bracket
- Multi-directional adjustment of 45° vertically and 150° horizontally with single screw locking
- Remote control switch available as an option to provide a cool air circulation facility
- 1 year guarantee (UK)
- BEAB and CE approved

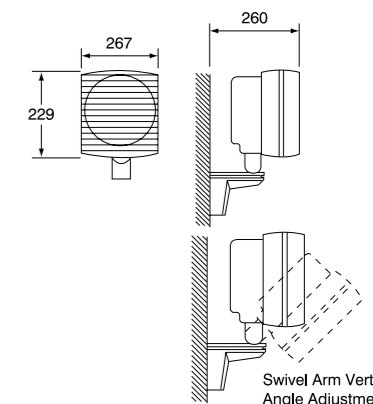
### Accessories

The dual control switch can be used to control the Sunfan remotely, switching it both on and off and to fan only, for cool air circulation in the summer.



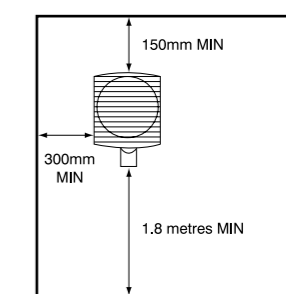
### Technical

#### Dimensions



#### Installation

- Fan heating is not recommended for rooms greater than 5 metres (15ft) high.



### Product Selector

Product Reference	Short Code	Catalogue Number	kW Loading @ 230V	kW Loading @ 240V	Fan only @ 1m	@3m	Heater & fan @ 1m	@3m	Element Type
Sunfan	SF3	50816401	3kW	3kW	49.5dBA	41.4dBA	47.9dBA	40.5dBA	Open wound spiral
Dual Control Switch		82815906	-	-	-	-	-	-	-

Sunfan • Flame retardant polycarbonate / glass filled nylon body • Single phase, 4 pole motor • Two tone grey (neutral colours)  
 • Safety features - Two thermal cut-outs, double insulated.



## Sunbase Plinth Fan Heater



### The Range

The Sunbase is an integrally controlled space saving fan heater which provides warmth in winter or cool air in summer. Specially designed to occupy the space beneath cupboards, counters, display units or plinth mounted in fitted kitchens.

### Power Output

2 kW

### Approvals



### Guarantee



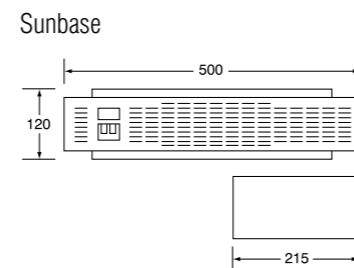
### Key Features

#### Sunbase

- Saves valuable wall and floor space
- Low level mounting gives good heat circulation
- SB1 integral switching simplifies fitting in existing units
- Built-in variable capillary thermostat for convenience and energy efficiency
- 2 heat settings 1kW - 2kW plus fan only operation
- Built-in neon indicator
- Over temperature cut-out for safety
- Central support flange for easy installation
- Fit as initial equipment or retrofit in existing units
- CE approved

### Technical

#### Dimensions

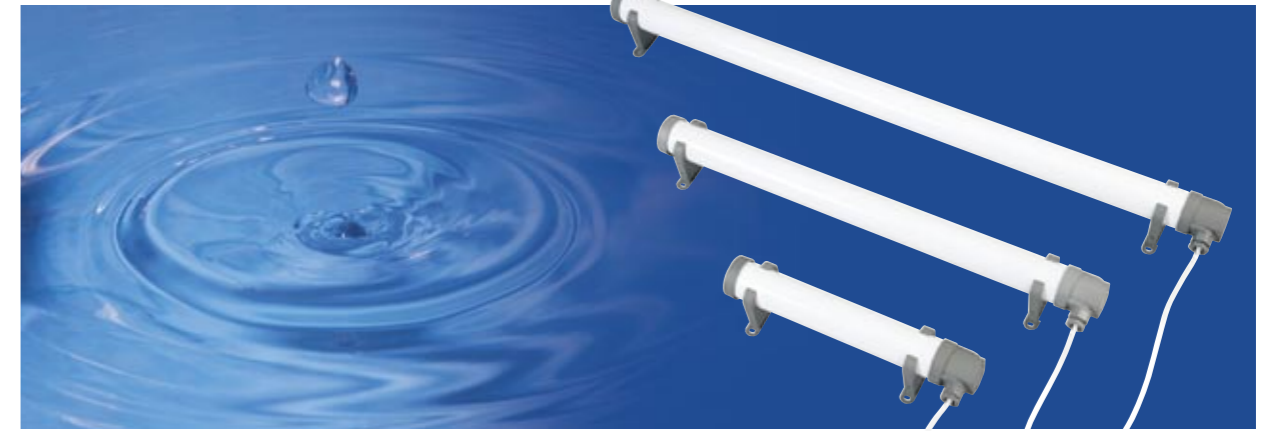


### Product Selector

Product Reference	Short Code	Catalogue Number	Colour	kW Loading @ 240V	Heat Setting	Recommended Cable Size	Recommended Fuse Rating
Sunbase	SB1	50815404	Grey	2.0kW	1.0 - 2.0kW	1.5mm <sup>2</sup>	13 amps

**Sunbase** • Element - Open coil supported by ceramic insulators • Zinc coated steel, powder coated body • Grey colour • Rear cable connection

## Suntube Tubular Heater



### The Range

Suntubes are the perfect answer where a steady energy efficient source of heat is needed, providing gentle background warmth and frost protection for both domestic and commercial applications. They are highly effective as window demisters and for horticultural use, providing invaluable, effective heating and frost protection in greenhouses and conservatories.

### Approvals



### Guarantee

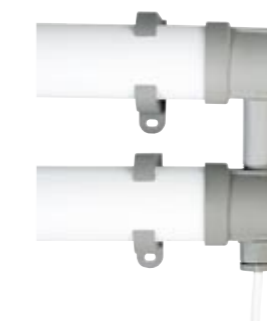


### Key Features

- 60-360W outputs @ 240V
- A range of 6 lengths and loadings
- Complete with universal mounting brackets for floor or wall fixing and 1m of white cable
- Optional interlinking kit available for multiple installations (100mm mounting centres)
- Can be stacked using purpose designed inter-linking kit for greater degree of heating
- 1 year guarantee (UK)
- CE approved

### Accessories

Interlinking Kit



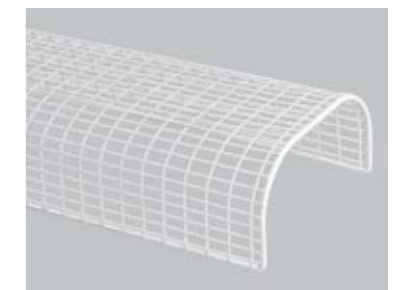
### Technical

#### Dimensions

See Product Selector table below

#### Note

We recommend the use of guards for additional safety in sensitive areas such as schools, hospitals and old peoples homes. These can be obtained from C.Aino Ltd. Tel: 0207 987 1184 quoting the short guard code

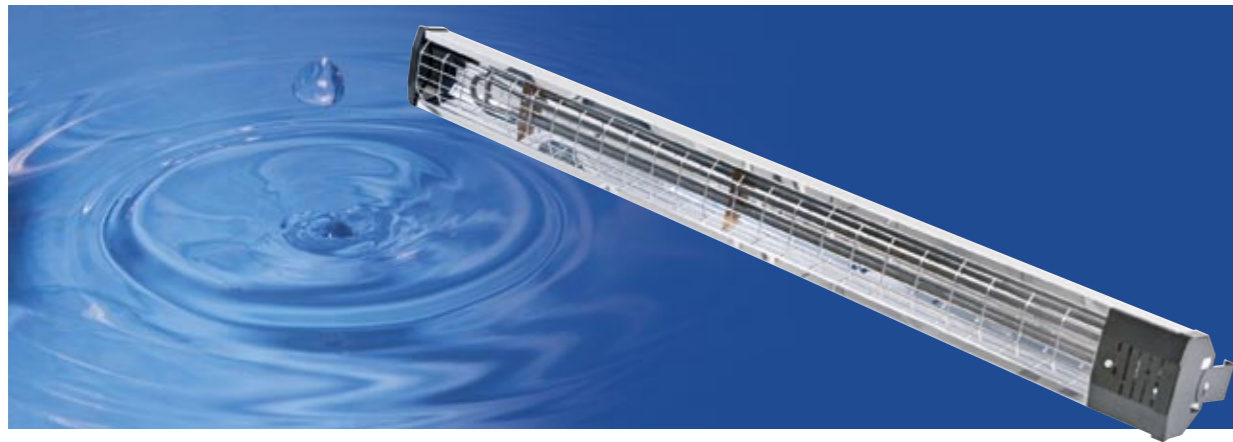


### Product Selector

Product Reference	Catalogue Number	Suntube Short Code	Guard Short Code	Rating 230-240V	Length (mm)	Diameter (mm)	Depth (mm)
Suntube 410	51731110	ST1	STG1	60 Watts	410	52	75
Suntube 670	51731101	ST2	STG2	120 Watts	670	52	75
Suntube 980	51731102	ST3	STG3	180 Watts	980	52	75
Suntube 1280	51731103	ST4	STG4	240 Watts	1280	52	75
Suntube 1590	51731105	ST5	STG5	300 Watts	1590	52	75
Suntube 1890	51731104	ST6	STG6	360 Watts	1890	52	75
Interlinking Kit	85731506	-	-	-	-	-	-

**Suntube** • Elements - Metal sheathed throughout • Polyester epoxy powder coated aluminium body for corrosion resistance • Two Tone Grey colour • High temperature glass filled nylon end caps/fixing brackets • Single end connection, conduit or cable

# Sunslim Radiant Heater



## The Range

The Sunslim is a low cost, robust and easy to install radiant heater. Its tilt mounting allows heat to be localised, or directed at a general area. The Sunslim can be wall-mounted or ceiling hung.

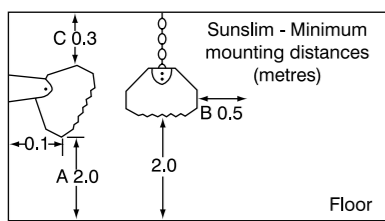
## Power Output



## Approvals



## Guarantee



## Key Features

- Instant, directional radiant heat
- Available in 2 and 3kW versions
- Completely silent in operation
- Lightweight, robust and good looking
- Corrosion resistant
- Suitable for bracket or chain mounting
- Easy to install
- Overhead mounting means no loss of floor space
- Ideal for localised heating in large covered areas
- 1 year guarantee (UK)
- CE approved

## Installation

When planning a Radiant Heating installation, refer to Table 1 to select the application and type of environment you wish to heat.

Table 2 shows the area that can be heated by a single Sunslim Radiant Heater in 3kW and 2kW variants.

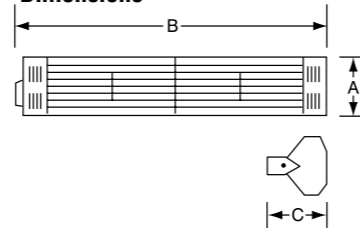
Note: Heating areas can be overlapped to achieve the necessary heating index.

## Installation Notes

- High temperature cable must be used. We recommend the use of a residual current device (RCD)

## Technical

### Dimensions



- Minimum mounting height 2 metres
- 300mm minimum clearance above the heater
- 500mm minimum clearance on either side

Table 1 - Sunslim Heating Index

Applications	Heating Index
Offices, Canteens, Waiting Rooms,	
Entrance Halls, Dressing Rooms	10-14
Shops, Meeting Halls, Recreation Rooms, Clubs	12-16
Workshops, Garages, Public Buildings	14-18
Warehouses, Loading Bays, Hangars	16-20
Churches	18-20

Table 2 - Sunslim Heated Area

Heating index	3kW			2kW		
	H	L	W	H	L	W
10	4.0	5.24	5.49	3.3	4.11	4.53
12	3.6	4.88	4.94	3.0	3.84	4.12
14	3.2	4.51	4.39	2.7	3.57	3.70
16	3.5	4.33	4.12	2.5	3.38	3.43
18	2.8	4.14	3.84	-	-	-

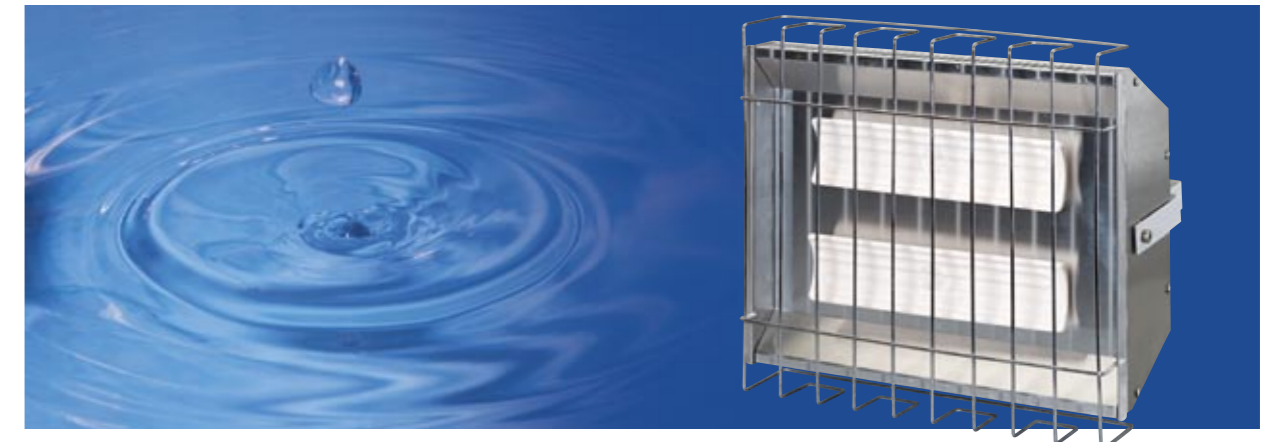
H = mounting height (determined by on-site requirements), L = length of the heated area, W = width of the heated area

## Product Selector

Product Reference	Short Code	Catalogue Number	Rating 230-240V	A Height	B Width	C Depth
2kW Sunslim	SL2	51804902	2kW	108mm	1215mm	71mm
3kW Sunslim	SL3	51804903	3kW	108mm	1671mm	71mm

Sunslim • Element - Metal sheathed throughout • Zinc coated steel body • Chrome plated steel guards • Matt black with bright zinc body • Single end connection • Anodised aluminium reflector • Installation notes: High temperature cable must be used. We recommend the use of a residual current device (RCD)

# Ceramic Radiant Heater



## The Range

Long wave infra-red heaters offer highly efficient, silent, glare free localised heat. These heaters incorporate dual ceramic emitters to rapidly convert electrical energy into heat energy without producing light. With no moving parts these heaters are virtually maintenance-free.

## Power Output



## Approvals



## Guarantee

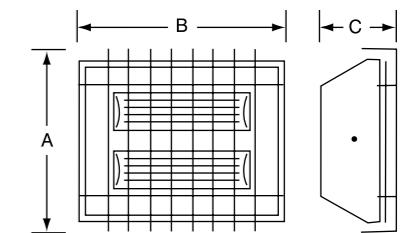


## Key Features

- Durable ceramic emitters which rapidly convert electrical energy into heat energy
- Available in 2, 3 and 4.5kW versions
- No fans or moving components so no dust contamination to the environment
- Low maintenance
- Good vibration resistance
- Fitted with guards for personal protection
- Robust fitting brackets
- 1 year guarantee (UK)
- Silent
- CE approved

## Technical

### Dimensions



Dimensions Ceramic Model 2/3kW

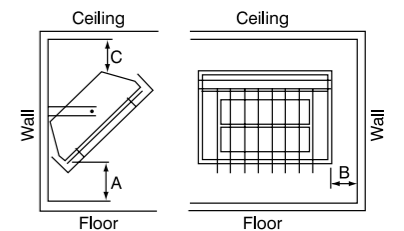
A Height 340mm B Width 376mm C Depth 140mm

Dimensions Ceramic Model 4.5kW

A Height 440mm B Width 376mm C Depth 140mm

## Installation

For mounting dimensions please refer to the specification table below.



## Area of Coverage at Minimum Mounting Height

Heating index	Applications	2kW	3kW	4.5kW
130-150W/m <sup>2</sup>	Shops, Meeting Halls	7.2m <sup>2</sup>	12.0m <sup>2</sup>	18.8m <sup>2</sup>
150-170W/m <sup>2</sup>	Offices, Canteens	6.8m <sup>2</sup>	11.3m <sup>2</sup>	17.7m <sup>2</sup>
170-200W/m <sup>2</sup>	Workshops, Garages	6.0m <sup>2</sup>	10.0m <sup>2</sup>	15.7m <sup>2</sup>
220-240W/m <sup>2</sup>	Churches	4.7m <sup>2</sup>	7.8m <sup>2</sup>	12.3m <sup>2</sup>

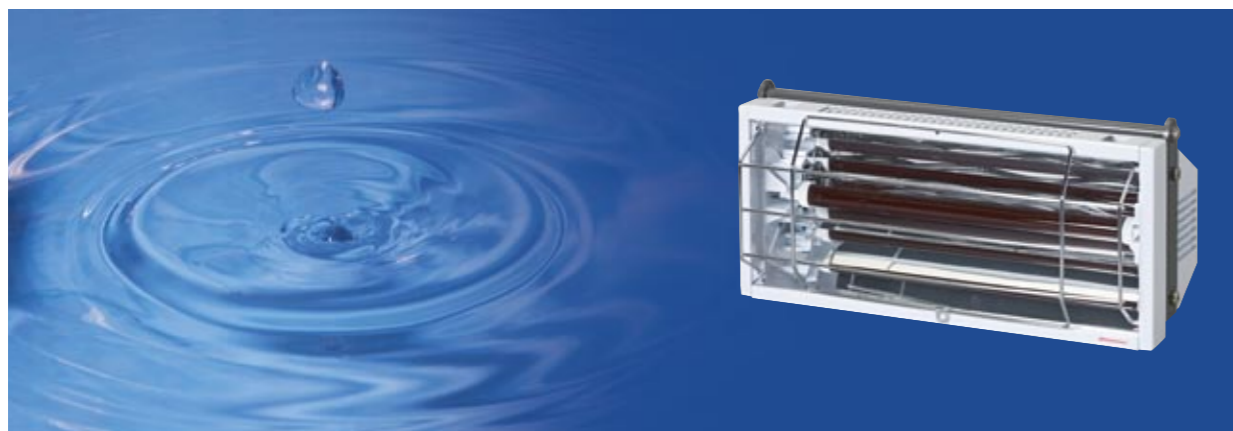
## Product Selector

Product Reference	Short Code	Catalogue Number	Rating
2 kW Ceramic	CR2	71821541	2kW
3 kW Ceramic	CR3	71821542	3kW
4.5 kW Ceramic	CR45	71821543	4.5kW

## Mounting Dimensions

Rating	A	B	C
2kW	1800	300	200
3kW	2500	300	300
4.5kW	3000	500	500





**The Range**

The sensation and welcome of instant heat right where it's needed. Sunquartz short wave infra-red heaters warm people, not the air. Their uses are endless, from warehouses to churches. These efficient sun-like heaters can penetrate damp air with little waste to the atmosphere. A cost efficient way to heat large open spaces.

**Approvals**



**Guarantee**



Table 1

**Sunquartz - Heating Index (K) Recommended Applications**

130 - 170	Shops, Meeting halls, Recreation rooms, Clubs
150 - 170	Offices, Canteens, Waiting rooms, Entrance halls
150 - 200	Workshops, Garages, Public buildings
180 - 220	Warehouses, Loading bays, Hangars
220 - 240	Churches

**Key Features**

- Up to 90% efficient at converting electricity into energy
- Instant visible heat at switch on
- Penetrates damp air with minimum atmospheric heat loss
- Absolutely silent in operation
- Long range heat projection
- Modular design blends with all environments
- Lightweight and silent
- Fitted with wire guard for safety
- 1 year guarantee (UK)
- CE approved

**Installations**

- High temperature cable must be used
- Miniature circuit breakers (type 3) must be used
- The heaters must never be rotated to face a wall, ceiling or floor
- Units may be installed from the ceiling but MUST be mounted at an angle
- Maximum benefit is gained from receiving heat from both sides
- Prior to installation check that no hazardous vapours will be present in the immediate atmosphere
- High temperature cable must be used
- Miniature circuit breakers (type 3) must be used

Use the following procedure when planning a SunQuartz heating installation for buildings having a floor area of up to 500m<sup>2</sup>

- 1 Make a scaled plan of the area to be heated, noting possible mounting heights and positions
- 2 Determine the overall heating requirements

$$\frac{W \times Y \times K}{1000} = \text{Total kW loading}$$

**Key:**

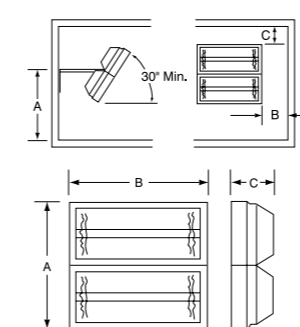
**W** = Length to be heated in metres

**Y** = Width to be heated in metres

**K** = Intensity watts per m<sup>2</sup>, determined from Heating Index Table 1

- 3 Determine the number of SunQuartz heaters by dividing the kW rating of the selected units into the total kW loading from stage 2

**Dimensions**



**Lamp Options**

Sunquartz heaters are supplied with Tungsten halogen lamps fitted with ruby red outer sleeves as standard.

New low glare gold lamps are available on request - contact our sales department on 08709 000420.

**Automatic Controller**

This automatic controller, which senses movement by passive infra-red techniques, will automatically switch on the Sunquartz whenever movement is detected within its range. The heater will remain switched on for a preset time after the last movement is detected and then will switch off automatically. The unit is suitable for 220V/240V single phase operation and will switch 500W-6000W of heaters.

Soft start circuitry is incorporated to reduce the inrush current allowing cables and fusegear to be rated as for resistive loads and extending lamp life. The unit is wall mounted and its passive infra-red sensor must face the same directional plane as the heater. The P I R range is adjustable and a temperature hold off facility will inhibit operation when ambient temperatures exceed a value selected between 10° and 20°C.



**Technical**

- **Heaters**  
Tungsten halogen lamps, 240/230 volt rating, with ruby red quartz outer sleeve, 7000 hours rated average life
- **Reflectors**  
Bright rolled, specular 99.8% aluminium, electro-chemically brightened
- **Case**  
Electro zinc coated steel
- **End Castings**  
High pressure die cast aluminium
- **Finish**  
Epoxy polyester powder paint
- **Colour**  
Case: BS4800 00A13 White side bars and brackets: BS4800 0013 Grey
- **Connection**  
Rear connection to terminal block via cable clamp
- **Voltage**  
The 1 and 2 lamp units are suitable for a 230-240V single phase supply only. The 3 lamp units are supplied wired for 230-240V single phase supply, but can be connected to a 380-415 volt three-phase supply

**Product Dimensions**

Model	Dimensions mm			Min Mounting Distances		
	A Height	B Width	C Depth	A mm	B mm	C mm
Sunquartz 1.5kW	185	390	115	1800	300	300
Sunquartz 2.0kW	185	390	115	2500	300	300
Sunquartz 3.0kW	340	390	115	3000	500	500
Sunquartz 3.0kW 3 lamp	510	390	115	3000	500	500
Sunquartz 4.0kW	340	390	115	3000	500	500
Sunquartz 4.5kW	510	390	115	3000	500	500
Sunquartz 6.0kW	510	390	115	4000	500	500

Temperature Conversion Table

°C	°F
1	33.8
5	41.0
10	50.0
15	59.0
20	68.0
25	77.0
30	86.0
35	95.0
40	104.0
45	113.0
50	122.0
55	131.0
60	140.0
65	149.0
70	158.0
75	167.0
80	176.0
85	185.0
90	194.0
95	203.0
100	212.0

Pressure Conversion Table

Head Feet	Pressure lb/in <sup>2</sup>	Head Feet	Pressure lb/in <sup>2</sup>	Head Feet	Pressure lb/in <sup>2</sup>	Head Feet	Pressure lb/in <sup>2</sup>
1	0.4	26	11.3	51	22.1	76	32.9
2	0.9	27	11.7	52	22.5	77	33.4
3	1.3	28	12.1	53	23.0	78	33.8
4	1.7	29	12.6	54	23.4	79	34.2
5	2.2	30	13.0	55	23.8	80	34.7
6	2.6	31	13.4	56	24.3	81	35.1
7	3.0	32	13.9	57	24.7	82	35.5
8	3.5	33	14.3	58	25.1	83	36.0
9	3.9	34	14.7	59	25.6	84	36.4
10	4.3	35	15.2	60	26.0	85	36.8
11	4.8	36	15.6	61	26.4	86	37.3
12	5.2	37	16.0	62	26.9	87	37.7
13	5.6	38	16.5	63	27.3	88	38.1
14	6.1	39	16.9	64	27.7	89	38.6
15	6.5	40	17.3	65	28.2	90	39.0
16	6.9	41	17.8	66	28.6	91	39.4
17	7.4	42	18.2	67	29.0	92	39.9
18	7.8	43	18.6	68	29.5	93	40.3
19	8.2	44	19.1	69	29.9	94	40.7
20	8.7	45	19.5	70	30.3	95	41.2
21	9.1	46	19.9	71	30.8	96	41.6
22	9.5	47	20.4	72	31.2	97	42.0
23	10.0	48	20.8	73	31.6	98	42.5
24	10.4	49	21.2	74	32.1	99	42.9
25	10.8	50	21.7	75	32.5	100	43.4

Hot Water Recovery Chart

Loading Kilowatts	Litres Of Water															
	5	7	10	15	30	60	80	100	150	200	250	300	400	600	800	1000
1.0	18	25	35	55	105	210	280									
2.0	9	13	18	27	55	105	140	175	265							
3.0	6	9	12	18	35	70	95	120	175	235	295					
4.0	5	7	9	14	27	55	70	90	135	175	220	265				
6.0	3	5	6	9	18	35	50	60	90	120	150	175	235	350	470	585
8.0	3	4	5	7	14	27	35	45	70	90	110	135	185	265	350	440
9.0	2	3	4	6	12	24	31	49	60	80	100	120	160	235	315	390
12.0	2	2	3	5	9	18	24	30	45	60	75	90	120	175	235	295
15.0	2	2	3	4	7	14	19	24	35	50	60	70	95	140	190	235

Rec. Hot Water Requirements

- **HANDWASHING** 1 to 2.5 litres per person (40°C)
- **KITCHEN SINK** 2 to 7 litres per person (60°C)
- **CLEANING** 10 litres per day (60°C)
- **BATH** 60 litres per bath (60°C)
- **HAIRDRESSING** 10 litres per shampoo (40°C)
- **DISHWASHER** 2 litres per meal (60°C)

Standard Formulae

LOADING CALCULATIONS (excluding Heat Losses)

$$\text{Time in Minutes to heat water} = \frac{\text{Litres} \times \text{Temp Rise } ^\circ\text{C}}{\text{kW loading} \times 14.3}$$

$$= \frac{\text{Gallons} \times \text{Temp Rise } ^\circ\text{F}}{\text{kW loading} \times 5.7}$$

$$\text{kW loading required} = \frac{\text{Litres} \times \text{Temp Rise } ^\circ\text{C}}{\text{Time in minutes} \times 14.3}$$

$$= \frac{\text{Gallons} \times \text{Temp Rise } ^\circ\text{F}}{\text{Time in minutes} \times 5.7}$$

Physical Constants

**Length** 1m = 3.28ft  
1ft = 30.8 cm

**Volume** 1gal = 4.54 litres  
= 277 cu. ins.  
= 10 lbs (water)

1litre = 0.22 gals  
= 1000 cm<sup>3</sup>  
= 1 kg (water)

1000 litre = 1 m<sup>3</sup>

**Weight** 1lb = 0.45kg  
1kg = 2.21 lbs

**Pressure** 1 bar = 14.5 psi = 100kN/m<sup>2</sup>  
1 ft head of water = 0.434 psi  
1 m head of water = 9.8kN/m<sup>2</sup>

1 kilocalorie (kcal) = the heat required to raise 1kg of water through 1°C  
= 4187 Joules  
= 3.97 Btu

1 British Thermal Unit (Btu) = the heat required to raise 1lb of water through 1°F  
= 17.6 watt minutes  
= 0.252 kcal

1 kW Hour = 3412 Btu  
= 860 kcal

1 joule = 1 watt second (Ws)

Performance Calculations

$$\text{Litres per minute flow} = \frac{\text{kW Loading} \times 14.3}{\text{Temp rise } ^\circ\text{C}}$$

$$\text{Temp rise } ^\circ\text{C} = \frac{\text{kW Loading} \times 14.3}{\text{Litres per minute flow}}$$

$$\text{Temp rise } ^\circ\text{F} = \frac{\text{kW Loading} \times 5.7}{\text{Gallons per minute flow}}$$

$$\text{kW loading required} = \frac{\text{Litres} \times \text{Temp Rise } ^\circ\text{C}}{\text{Time in minutes} \times 14.3}$$



## UK Sales

Sales Hotline: 08709 000420

Sales Fax: 08709 000520

## Technical Services

Techline: 08709 000430

Techfax: 08709 000530

## Brochure Hotline

Telephone: 08709 000540

## International Sales

Redring is a great British brand in every sense of the word but for many years it has been a world leader in electric heating and hot water with sales in over twenty countries world-wide. Redring has achieved this by taking into consideration global market requirements and ensuring products are developed to meet these needs, as well as developing products for specific countries and regions, taking into consideration approvals, electrical supply and climate. For further details call:

Sales Hotline: +44 (0) 1733 456737

Sales Fax: +44 (0) 1733 456727

applied energy 

Applied Energy Products Ltd,  
Morley Way  
Peterborough  
PE2 9JJ

t +44 (0) 1733 456789

f +44 (0) 1733 310606

[www.applied-energy.com](http://www.applied-energy.com)

[www.redring.co.uk](http://www.redring.co.uk)

[aeinfo@applied-energy.com](mailto:aeinfo@applied-energy.com)

R032 Sept 2006

## Endorsements

Applied Energy Products is a member of a number of organisations whose various objectives are to demonstrate excellence in product design, reliability and safety.

In addition to which we are independently recognised by endorsing bodies for process and product conformity.



INVESTORS IN PEOPLE



Redring is a registered trademark of Applied Energy Products Ltd  
AEP reserve the right to alter product specification or appearance without prior notice. All finishes in the brochure are as accurate as printing process allow.

09/2006 Applied Energy Products. All rights reserved