



Versatile, energy efficient  
heating and cooling for  
domestic and small  
commercial applications



# Why choose Smith's?

If you require energy efficiency and versatility in your heating and cooling, the Smith's range is the ideal solution



**Commercial and domestic heating and cooling**



**Manufactured in the UK**



**Easy installation and ongoing maintenance**



**Network of sales representatives**



**Free advice and quotation service**



**+44 (0) 1245 324900**

Since 1991, Smith's EP UK has been manufacturing and providing an extensive range of commercial and domestic heating and cooling solutions from our head office in the UK. Part of the global family-owned US-based business, the Swan Group, Smith's works closely with architects, consultants, heating contractors and installers to deliver, via our stockist network, high quality products with industry-leading warranties on time, with an aftercare and technical support service that is second to none.

We take an active, innovative approach to new product development and creating bespoke heating products to fulfil the creative requirements of a competitive and demanding customer base that spans the UK, Northern Europe and the US. We believe it is essential to be flexible in our partnerships, while remaining uncompromising on the high quality and care that goes into every product in our range. Smith's is an outward-looking, growing business and we are forging relationships with like-minded manufacturers across Europe to ensure that we can provide additional new and essential heating and cooling solutions in areas where we do not specialise and where our partners excel.

Our catalogue showcases our principal commercial and domestic products. At the same time, we have the ability and the will to work alongside clients at any point in the construction process, and collaborate to develop specific solutions for any and every need. We take great pride and go to great lengths to leave our customers not only satisfied but coming back again and again for solutions that are perfect for your project, each and every time.

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# About Smith's

Founded in 1991 Smith's Environmental Products has grown to become the leading supplier of domestic and commercial heat emitters



Formed in 1991 Smith's Environmental Products has grown to become the leading supplier of domestic and light commercial fan-assisted hydronic heat emitters. The complete product range is manufactured in-house in its specialist facilities in the UK. The company is the UK's market leader and has significant shares of both the North American and European markets. Smith's Environmental Products is a member of The Swan Group.

In the early years we developed the Smith's Space Saver, the UK's number one plinth heater and the business quickly became established in heating and plumbing. Other fan convectors followed and the very first Caspian commercial fan convector was launched in 2007.

The business has grown from strength to strength and today we offer versatile heating and cooling solutions based on fan convector technology to all commercial specifiers from architects and consultants, to major building engineering services companies.

## Manufacturing Facilities

Operating from 40,000 square feet of factory and office space near Chelmsford in Essex we manufacture our product range from raw materials through to finished product utilising computerised design and automated production techniques.

## Quality and the environment

At Smith's we recognise that quality is about more than just the product, it's an approach that runs throughout the business and is centred on meeting and exceeding customers' expectations. Processes are constantly monitored and evaluated with a focus on continuous improvement. Manufacturing facilities are regularly appraised and meet the exacting standards of national approval boards such as UL, CSA and Kema.

In 2017 Smith's was assessed for the highly regarded ISO 9001 (2015) accreditation and passed the audit with no non-conformities and was accredited the new standard certification. It brings Smith's up to the latest standard and assuring our customers receive the best experience possible.

In 2018 Smith's was awarded the prestigious ISO 14001 accreditation. ISO 14001 is concerned with setting an environmental framework for the company to work within. This means that Smith's has management processes and systems to ensure that they manufacture products that meet the customer and regulatory requirements and are working within designated environmental parameters.

Both ISO 9001 (2015) and ISO 14001 accreditations are internationally recognised and demonstrate that Smith's is a responsible and forward-thinking organisation committed to achieving and maintaining the highest organisational standards.

## Product performance testing

To ensure that our products meet the strictest requirements of our demanding customers we work closely with recognised test houses. We work with BSRIA to verify our products to demonstrate that they perform as they are designed to do. We also work with acoustic experts SRL Technical Services to ensure that the noise performance of our products achieve our customers' requirements. This gives our customers the reassurance that customers' can specify Smith's products with confidence.



#### Achilles Building Confidence Scheme

Smith's is a member of the Achilles Building Confidence Scheme. The scheme is designed to give confidence to suppliers in the construction industry that members have achieved the required standard in terms of production quality, health and safety standards, training and development, environmental procedures and processes as well as Corporate Social Responsibility. Membership of this scheme is a requirement of many of the major Main Contractors and suppliers in Construction Industry Supply Chain.

#### Working with Renewables

Renewable technology grows apace, with ground source and air source heat pumps offering a viable alternative to boilers as the principal heat generator in both domestic and commercial applications.

Inherent in the heat pump's design is that the smaller the temperature between the heat-source pump (air or ground) and the heat sink/emitter (under-floor heating, fan convector, radiator), the higher the energy efficiency of that heat pump. This higher efficiency means lower fuel bills and greater carbon savings.

Fan convectors can work very effectively at system temperatures as low as 40°C. This allows your chosen heat pump to work close to its maximum levels of efficiency, which means it will reduce the user's energy costs and energy consumption in the way it was intended. By contrast a standard radiator is designed to be efficient at higher temperatures, 45°C and above, which automatically reduces the heat pump's efficiency by more than 10%. In addition, the size of the radiator has to be increased significantly to cope with the lower system temperatures.

**Our products are manufactured in the UK, including the heating/cooling coils, ensuring we can respond quickly to customer demands**

**ISO 9001 and 14001 accredited**





























**Products are independently tested and verified by BSRIA and SRL Technical services**

**Compatible with renewable energy sources**

**Free parts and labour guarantee**

# Product ranges

Please see below for a summary of products suitable for commercial applications

<b>Caspian Fan Convectors</b>					
					
Caspian Smart Control 8	Caspian UV 14	Caspian SL 15	Caspian FF 16	Caspian TT 17	Caspian EXT 18
<b>Caspian Fan Convectors</b>			<b>Fan Coils</b>		
					
Caspian UVC 19	Caspian LST 24	Caspian Skyline 26	Caspian Skyline E 28	Aegean 235 30	Aegean 260 32
<b>Fan Coils</b>	<b>Radiant Panels</b>	<b>Air Curtains</b>			
					
Aegean 500 34	Sargasso A 36	Ostro 38	S2 Series 43	PS Series 44	PS (W) 45
<b>Unit Heater</b>	<b>Pedestal Radiators</b>			<b>Fan Convectors</b>	
					
Solano 46	Pedestal - Kiosk 48	Pedestal - Trafalgar 48	Pedestal - Tube 48	Ecovector® High 50	Ecovector® Low 52
<b>Fan Convectors</b>			<b>Perimeter Heating</b>		
					
Ecovector® Vertical 53	Eco-Powerad® 54	Sterling 55	Sureline® 56		

Please see below for a summary of products suitable for residential/domestic applications

Plinth Heating		Fan Convectors	
	Space Saver 58		Ecovector® High 64
			Ecovector® Low 65
			Ecovector® Vertical 66
Fan Convectors		Perimeter Heating	
	Eco-Powerad® 67		Spacemaker 68
			Sureline® 70





# Caspian® Smart Control

The Smith's Smart Control has been developed to integrate several of the most commonly sought-after control features into one control unit and more.

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial



At the basic level it offers room temperature control and additionally offers a range of time controlling features too, making it perfect for buildings that serve a varied community demand.

The Smart Control can automatically control the fan speed of the Caspian fan convactor, adjusting it in relation to the air temperature in the room providing a fast heat up period when required, and the quietest possible operation during occupied periods. There is a manual override facility too.

Smart Control features a summer mode where air circulation can be achieved without heat in summer months.



Heat mode



Cool mode

The control interface unit can be:



wall mounted (remote) for convenience, for example, where the heater is at high level



flush mounted in the product fascia



internally mounted (tamper-proof)







#### Thermostat Features

- Control of 2/4 pipe fan coils
- Multiple configurations
- Large LCD
- Maintain room temperature via built in temperature sensor, or external room temperature/return air temperature sensor
- Programming options: 5+2 (5 days same +2days same); individual day every week; all 7 days same
- ECO mode
- Fan speed Hi/Mi/Lo control (automatic or manual)
- Advanced fan control functions (fan start/stop, delay, fan continuously running in manual mode, or depending on heating/cooling demand)
- Auto Frost protection
- Configurable inputs (occupancy sensor or temperature)
- Installer settings
- Span or TPI temperature control algorithm
- Local or remote control by Smart Home App
- Wireless software update by UG600
- Dirty filter notification
- User settings are saved and restored after power break
- Button lock function



#### More advanced capabilities

It is possible to have master and slave Caspian fan convectors that integrate the entire range of EC Caspian products.

The thermostats can be used as standalone localised controls, or with the integration of our hub control multiple thermostats using our ZigBee platform and controlled via app over the internet. This level of control is cost effective and is far more economical than using a full BMS system. The control system with the app is very configurable to the needs of the building users and can integrate with many other smart features, like boiler receivers, door, and window sensors. A key advantage to many community buildings is the ability to control the buildings' services remotely and the app makes this all possible.

Smith's Smart Control can become a part of a much wider control system in a building. It is possible to integrate wireless relays to control other appliances like boilers, along with proximity sensors to control lighting.

The system can be expanded in many ways and the app can interact with other apps using IFTTT.

The only limit is your creativity and willingness to embrace new technologies.

#### Technical Support

It can be difficult to assess the requirements for a buildings control strategy, so Smith's Technical Support Team will help guide you through, with proposals for your project.

Where drawings can be provided, a desktop exercise can be undertaken to specify the required components, but we are happy to attend site too.

We have taken great care to ensure we have partnered with the best possible providers and have undertaken various site tests in public buildings.

**Smith's can bring experience to your project and assist in conveying the many benefits to your customers.**

# Caspian® Smart Control

The Smith's Smart Control has been developed to integrate several of the most commonly sought-after control features into one control unit and more.

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial

### Heat output - EC (AC product also available)

Model Reference	Fan Speed	Control Voltage VDC	40°C MWT	45°C MWT	50°C MWT	55°C MWT	60°C MWT	65°C MWT	70°C MWT	75°C MWT	80°C MWT
EC 60	Low	3.4	0.85	1.20	1.45	1.80	2.16	2.35	2.73	3.08	3.40
	Mid	4.9	1.02	1.53	1.92	2.37	2.76	3.18	3.58	4.05	4.38
	High	6.4	1.18	1.85	2.38	2.93	3.36	4.00	4.43	5.02	5.36
EC 90	Low	3.2	1.68	2.23	3.01	3.49	4.05	4.45	5.12	5.49	6.03
	Mid	4.6	2.22	3.07	4.05	4.66	5.42	6.01	6.81	7.34	7.93
	High	6.1	2.75	3.90	5.08	5.82	6.78	7.56	8.49	9.19	9.83
EC 120	Low	3.1	1.62	2.34	3.32	3.98	4.71	5.62	6.32	6.99	7.61
	Mid	4.3	2.31	3.25	4.27	5.15	6.07	7.02	7.91	8.74	9.60
	High	5.5	2.99	4.15	5.21	6.31	7.42	8.41	9.50	10.48	11.59
EC 150	Low	2.8	2.95	3.72	4.49	5.27	6.045	6.79	7.54	8.29	9.04
	Mid	4.0	3.99	4.99	5.99	6.99	7.97	8.99	9.97	10.98	11.93
	High	5.1	5.02	6.26	7.49	8.71	9.90	11.19	12.39	13.67	14.82
EC 180	Low	2.8	3.64	5.20	6.78	8.24	9.39	10.33	11.24	12.15	13.01
	Mid	3.9	4.51	6.18	7.85	9.51	10.95	12.36	13.70	15.07	16.40
	High	4.9	5.38	7.16	8.91	10.77	12.50	14.39	16.16	18.0	19.78

Model Reference	Fan Speed	Air Volume (m³/h)	Air Volume (l/s)	Specific Fan Power w/l/s	Power Consumption (W)	NR in typical room*	Hydraulic Resistance (KPA)	Nominal Weight (KG)	Water Capacity (L)
EC 60	Low	201.00	55.90	0.14	8.00	34.00	1.38	23.00	0.92
	Mid	290.50	80.75	0.26	21.00	41.50	1.69		
	High	380.00	105.60	0.32	34.00	49.50	2.00		
EC 90	Low	297.00	80.75	0.20	16.00	34.00	4.70	36.00	1.50
	Mid	450.50	124.38	0.34	42.00	41.50	5.85		
	High	604.00	168.00	0.40	68.00	49.97	7.00		
EC 120	Low	419.30	116.50	0.14	16.00	34.00	17.78	45.00	2.08
	Mid	549.65	152.68	0.26	40.00	42.00	20.59		
	High	680.00	188.89	0.34	64.00	49.96	23.40		
EC 150	Low	459.80	127.72	0.17	22.00	34.70	22.23	60.00	2.58
	Mid	598.10	166.14	0.35	59.00	41.50	29.46		
	High	736.40	205.56	0.47	96.00	49.38	36.69		
EC 180	Low	542.00	150.56	0.19	29.00	34.90	47.83	78.00	3.18
	Mid	690.00	191.67	0.40	78.50	41.50	60.76		
	High	838.00	232.78	0.55	128.00	49.00	73.70		

\*a typical room is taken as a room with a volume of 173m³ and a reverberation time of 0.8 seconds at 500 Hz with one unit installed, situated against a wall or ceiling (radiating noise in a quartersphere). No allowance is made for attenuation provided by ceilings, enclosures or ductwork. Outputs based upon testing at EN442: 2014 using mean water temperature and an entering air temperature of 20°C with a 10°C temperature drop between flow and return.

### Correction factors

Mean Water Temp °C	45 - 80				
Water Temperature drop °C	5	10	15	20	
Entering Air Temperature °C	15	1.13	1.10	1.07	1.05
	18	1.08	1.05	1.02	0.99
	20	1.04	1.00	0.95	0.89
	25	0.93	0.91	0.89	0.86

### How to calculate Mass Flow Rate (L/S)

$M = H / CP \times (\text{Flow } ^\circ\text{C} - \text{Return } ^\circ\text{C})$   
 M = Mass flow rate (L/S)  
 H = Output of product (W)  
 CP = Specific heat capacity [J/(kg·°C)].  
 Varies upon system temperature, approx. 4187 if fluid is water.

### How to calculate Mean Water Temperature (ΔT)

Mean water temperature (ΔT) =  $\left[ \frac{\text{Flow temperature} + \text{Return temperature}}{2} \right] - \text{Ambient Temperature}$

Factors are approximate data based upon a standard coil.

## Ordering Guide

Description	Product Codes
SL60 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32008
SL90 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32009
SL120 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32010
SL150 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32011
SL180 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32012
FF60 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32013
FF90 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32014
FF120 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32015
FF150 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32016
FF180 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32017
UV60 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32018
UV90 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32019
UV120 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32020
UV150 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32021
UV180 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32022
SL60 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32023
SL90 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32024
SL120 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32025
SL150 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32026
SL180 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32027
FF60 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32028
FF90 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32029
FF120 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32030
FF150 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32031
FF180 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32032
EXT60 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32033
EXT90 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32034
EXT120 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32035
EXT150 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32036
EXT180 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32037
TT60 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32059
TT90 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32060
TT120 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32061
TT150 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32062
TT180 EC C/W INTERNAL TAMPROOF SMART CONTROL	HPCA32063

Description	Product Codes
UV60 EC C/W REMOTE SMART CONTROL	HPCA32038
UV90 EC C/W REMOTE SMART CONTROL	HPCA32039
UV120 EC C/W REMOTE SMART CONTROL	HPCA32040
UV150 EC C/W REMOTE SMART CONTROL	HPCA32041
UV180 EC C/W REMOTE SMART CONTROL	HPCA32042
SL60 EC C/W REMOTE SMART CONTROL	HPCA32043
SL90 EC C/W REMOTE SMART CONTROL	HPCA32044
SL120 EC C/W REMOTE SMART CONTROL	HPCA32045
SL150 EC C/W REMOTE SMART CONTROL	HPCA32046
SL180 EC C/W REMOTE SMART CONTROL	HPCA32047
FF60 EC C/W REMOTE SMART CONTROL	HPCA32048
FF90 EC C/W REMOTE SMART CONTROL	HPCA32049
FF120 EC C/W REMOTE SMART CONTROL	HPCA32050
FF150 EC C/W REMOTE SMART CONTROL	HPCA32051
FF180 EC C/W REMOTE SMART CONTROL	HPCA32052
EXT60 EC C/W REMOTE SMART CONTROL	HPCA32053
EXT90 EC C/W REMOTE SMART CONTROL	HPCA32054
EXT120 EC C/W REMOTE SMART CONTROL	HPCA32055
EXT150 EC C/W REMOTE SMART CONTROL	HPCA32056
EXT180 EC C/W REMOTE SMART CONTROL	HPCA32057
TT60 EC C/W REMOTE SMART CONTROL	HPCA32064
TT90 EC C/W REMOTE SMART CONTROL	HPCA32065
TT120 EC C/W REMOTE SMART CONTROL	HPCA32066
TT150 EC C/W REMOTE SMART CONTROL	HPCA32067
TT180 EC C/W REMOTE SMART CONTROL	HPCA32068
CT60 EC C/W REMOTE SMART CONTROL	HPCA32058
SMITHS HUB FOR CASPIAN SMART CONTROL UG600	HACA33130
SMITHS COMBINED SMART PLUG & REPEATER SP600	HACA33133
SMITHS REPEATER FOR CASPIAN SMART CONTROLS RE600	HACA33134
SMITHS SMART BUTTON FOR CASPIAN SMART CONTROLS B600	HACA33135
SMITHS SMART WINDOW DOOR SENSOR SLIM OS600	HACA33136
SMITHS SMART WINDOW DOOR SENSOR SLIM SW600	HACA33137
SMITHS BOILER RECEIVER RX10RF	HACA33138
SMITHS SMART RELAY SR600	HPCA33139

# Caspian® Commercial

Fan convectors suitable for all kinds of commercial applications, from schools and churches to office developments, with the ability to rapidly heat large areas quicker than other heat emitters

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial



Caspian fan convectors are both a practical and high quality heating solution for any commercial project

Incorporating the latest EC motor technology, which can result in running-cost savings as high as 70%, and with variable speed control as standard, the Caspian delivers heat quickly and quietly. AC motor models are available on request

Caspian are compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

The airflow can be reversed so that the warm air is discharged from the lower vent

Now available with Smart Control (see page 8)

### Motor

EC (BMS compliant) or AC.

### Finish

Casing: zinc-coated steel 1.2mm .

Polyester powder-coated: white RAL 9010.

Available to special order in any colour and with anti-microbial or anti-bacterial paint.

### Filter

Class G2, 100% polyester, non-washable.

### Installation

Suitable for two-pipe central heating systems.

Maximum installation height for high or ceiling mounting - 4m to underside.

Pipework access holes on the rear and underside.

Key operated front access panels.

Bleed valve accessible on removal of front casing.

Unit must be earthed.

### Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.

### Controls

See accessories tables: UV p14, SL p15, FF P16, TT p17 and EXT p18.

### Accessories

See matrix on page 74.



## Heat output - EC (AC product also available)

Model Reference	Fan Speed	Control Voltage VDC	40°C MWT	45°C MWT	50°C MWT	55°C MWT	60°C MWT	65°C MWT	70°C MWT	75°C MWT	80°C MWT
EC 60	Low	3.4	0.85	1.20	1.45	1.80	2.16	2.35	2.73	3.08	3.40
	Mid	4.9	1.02	1.53	1.92	2.37	2.76	3.18	3.58	4.05	4.38
	High	6.4	1.18	1.85	2.38	2.93	3.36	4.00	4.43	5.02	5.36
EC 90	Low	3.2	1.68	2.23	3.01	3.49	4.05	4.45	5.12	5.49	6.03
	Mid	4.6	2.22	3.07	4.05	4.66	5.42	6.01	6.81	7.34	7.93
	High	6.1	2.75	3.90	5.08	5.82	6.78	7.56	8.49	9.19	9.83
EC 120	Low	3.1	1.62	2.34	3.32	3.98	4.71	5.62	6.32	6.99	7.61
	Mid	4.3	2.31	3.25	4.27	5.15	6.07	7.02	7.91	8.74	9.60
	High	5.5	2.99	4.15	5.21	6.31	7.42	8.41	9.50	10.48	11.59
EC 150	Low	2.8	2.95	3.72	4.49	5.27	6.045	6.79	7.54	8.29	9.04
	Mid	4.0	3.99	4.99	5.99	6.99	7.97	8.99	9.97	10.98	11.93
	High	5.1	5.02	6.26	7.49	8.71	9.90	11.19	12.39	13.67	14.82
EC 180	Low	2.8	3.64	5.20	6.78	8.24	9.39	10.33	11.24	12.15	13.01
	Mid	3.9	4.51	6.18	7.85	9.51	10.95	12.36	13.70	15.07	16.40
	High	4.9	5.38	7.16	8.91	10.77	12.50	14.39	16.16	18.0	19.78

Model Reference	Fan Speed	Air Volume (m³/h)	Air Volume (l/s)	Specific Fan Power w/l/s	Power Consumption (W)	NR in typical room*	Hydraulic Resistance (KPA)	Nominal Weight (KG)	Water Capacity (L)
EC 60	Low	201.00	55.90	0.14	8.00	34.00	1.38	23.00	0.92
	Mid	290.50	80.75	0.26	21.00	41.50	1.69		
	High	380.00	105.60	0.32	34.00	49.50	2.00		
EC 90	Low	297.00	80.75	0.20	16.00	34.00	4.70	36.00	1.50
	Mid	450.50	124.38	0.34	42.00	41.50	5.85		
	High	604.00	168.00	0.40	68.00	49.97	7.00		
EC 120	Low	419.30	116.50	0.14	16.00	34.00	17.78	45.00	2.08
	Mid	549.65	152.68	0.26	40.00	42.00	20.59		
	High	680.00	188.89	0.34	64.00	49.96	23.40		
EC 150	Low	459.80	127.72	0.17	22.00	34.70	22.23	60.00	2.58
	Mid	598.10	166.14	0.35	59.00	41.50	29.46		
	High	736.40	205.56	0.47	96.00	49.38	36.69		
EC 180	Low	542.00	150.56	0.19	29.00	34.90	47.83	78.00	3.18
	Mid	690.00	191.67	0.40	78.50	41.50	60.76		
	High	838.00	232.78	0.55	128.00	49.00	73.70		

\*a typical room is taken as a room with a volume of 173m³ and a reverberation time of 0.8 seconds at 500 Hz with one unit installed, situated against a wall or ceiling (radiating noise in a quartersphere). No allowance is made for attenuation provided by ceilings, enclosures or ductwork. Outputs based upon testing at EN442: 2014 using mean water temperature and an entering air temperature of 20°C with a 10°C temperature drop between flow and return.

## Correction factors

Mean Water Temp °C	45 - 80				
Water Temperature drop °C	5	10	15	20	
Entering Air Temperature °C	15	1.13	1.10	1.07	1.05
	18	1.08	1.05	1.02	0.99
	20	1.04	1.00	0.95	0.89
	25	0.93	0.91	0.89	0.86

Factors are approximate data based upon a standard coil.

## How to calculate Mass Flow Rate (L/S)

$$M = H / CP \times (\text{Flow } ^\circ\text{C} - \text{Return } ^\circ\text{C})$$

M = Mass flow rate (L/S)

H = Output of product (W)

CP = Specific heat capacity [J/(kg·°C)].

Varies upon system temperature, approx. 4187 if fluid is water.

## How to calculate Mean Water Temperature (ΔT)

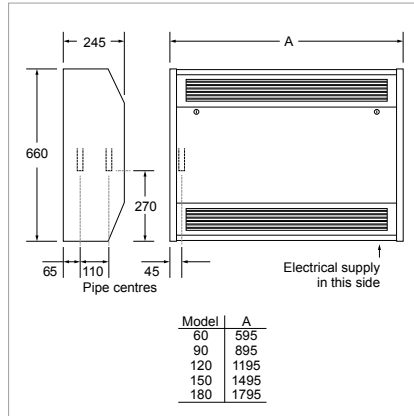
$$\text{Mean water temperature } (\Delta T) = \left[ \frac{\text{Flow temperature} + \text{Return temperature}}{2} \right] - \text{Ambient Temperature}$$

# Caspian® UV

One heating solution, suitable for high, low or ceiling mounted applications

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial



## Ordering guide

Model	Packed Wt (kg)	Product Codes
<b>AC Codes</b>		
CASPIAN UV 60 AC	23	HPCA21001
CASPIAN UV 90 AC	36	HPCA21002
CASPIAN UV 120 AC	45	HPCA21003
CASPIAN UV 150 AC	60	HPCA21004
CASPIAN UV 180 AC	78	HPCA21005
<b>EC Codes</b>		
CASPIAN UV 60 EC	23	HPCA20001
CASPIAN UV 90 EC	36	HPCA20002
CASPIAN UV 120 EC	45	HPCA20003
CASPIAN UV 150 EC	60	HPCA20004
CASPIAN UV 180 EC	78	HPCA20005

## Specification

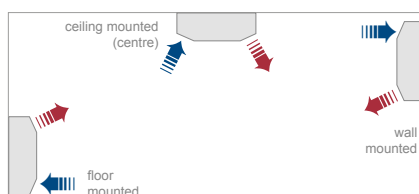
To specify state:

Fan Convactor with EC motor (or AC), in 1.2mm zinc coated steel, 660mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller. As Smith's Caspian UV 60, 90, 120, 150, 180.

Accessories	Product Codes
CASPIAN UV/LST 60 PLINTH WHITE (150MM)	HACA33006
CASPIAN UV/LST 90 PLINTH WHITE (150MM)	HACA33007
CASPIAN UV/LST 120 PLINTH WHITE (150MM)	HACA33008
CASPIAN UV/LST 150 PLINTH WHITE (150MM)	HACA33009
CASPIAN UV/LST 180 PLINTH WHITE (150MM)	HACA33010
CASPIAN UV/LST 60 PLINTH BLACK (150MM)	HACA33097
CASPIAN UV/LST 90 PLINTH BLACK (150MM)	HACA33098
CASPIAN UV/LST 120 PLINTH BLACK (150MM)	HACA33099
CASPIAN UV/LST 150 PLINTH BLACK (150MM)	HACA33100
CASPIAN UV/LST 180 PLINTH BLACK (150MM)	HACA33101
CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC)	HACA33001
CASPIAN THERMOSTAT (T1) (EC LOW LEVEL)	HACA33002
CASPIAN THERMOSTAT (T2) (AC LOW LEVEL)	HACA33036
CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL)	HACA33003
CASPIAN EXTERNAL CONTROL HARNESS (EC)	HACA33004
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC)	HACA33005
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC)	HACA33037
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC)	HACA33117
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC)	HACA33118
ROOM THERMOSTAT HARD WIRED	HAGA95001
ROOM THERMOSTAT HARD WIRED SIEMENS	HACA33104
ROOM THERMOSTAT RF SIEMENS	HACA33074
ROOM THERMOSTAT TAMPER PROOF SIEMENS	HACA95004
FLEXIBLE HOSES 22MM PAIR	HAGA95003

100mm plinth also available, please contact us for further information

## Mounting options



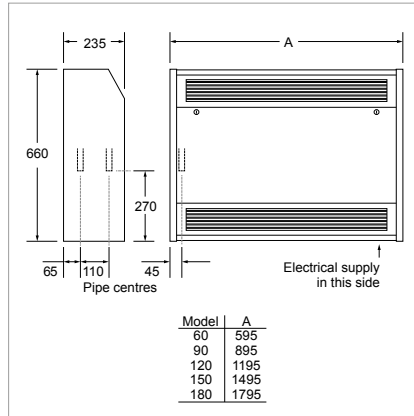
# Caspian® SL

Warm air is discharged at an upward 45° angle to avoid causing discomfort to people sitting adjacent to appliance and with chamfered profile to avoid sharp corners

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial

COMMERCIAL



## Ordering guide

Model	Packed Wt (kg)	Product Codes
<b>AC Codes</b>		
CASPIAN SL 60	23	HPCA31601
CASPIAN SL 90	36	HPCA31602
CASPIAN SL 120	45	HPCA31603
CASPIAN SL 150	60	HPCA31604
CASPIAN SL 180	78	HPCA31605
<b>EC Codes</b>		
CASPIAN SL 60	23	HPCA31501
CASPIAN SL 90	36	HPCA31502
CASPIAN SL 120	45	HPCA31503
CASPIAN SL 150	60	HPCA31504
CASPIAN SL 180	78	HPCA31505

## Specification

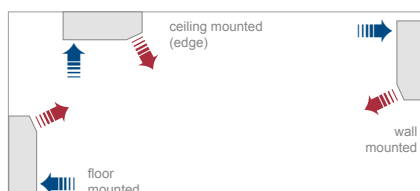
To specify state:

Fan Convactor with EC motor (or AC), in 1.2mm zinc coated steel, 660mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller. As Smith's Caspian SL 60, 90, 120, 150, 180.

Accessories	Product Codes
CASPIAN FF/EXT/SL/TT 60 PLINTH WHITE (150MM)	HACA33092
CASPIAN FF/EXT/SL/TT 90 PLINTH WHITE (150MM)	HACA33093
CASPIAN FF/EXT/SL/TT 120 PLINTH WHITE (150MM)	HACA33094
CASPIAN FF/EXT/SL/TT 150 PLINTH WHITE (150MM)	HACA33095
CASPIAN FF/EXT/SL/TT 180 PLINTH WHITE (150MM)	HACA33096
CASPIAN FF/EXT/SL/TT 60 PLINTH BLACK (150MM)	HACA33082
CASPIAN FF/EXT/SL/TT 90 PLINTH BLACK (150MM)	HACA33083
CASPIAN FF/EXT/SL/TT 120 PLINTH BLACK (150MM)	HACA33084
CASPIAN FF/EXT/SL/TT 150 PLINTH BLACK (150MM)	HACA33085
CASPIAN FF/EXT/SL/TT 180 PLINTH BLACK (150MM)	HACA33086
CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC)	HACA33001
CASPIAN THERMOSTAT (T1) (EC LOW LEVEL)	HACA33002
CASPIAN THERMOSTAT (T2) (AC LOW LEVEL)	HACA33036
CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL)	HACA33003
CASPIAN EXTERNAL CONTROL HARNESS (EC)	HACA33004
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC)	HACA33005
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC)	HACA33037
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC)	HACA33117
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC)	HACA33118
ROOM THERMOSTAT HARD WIRED	HAGA95001
ROOM THERMOSTAT HARD WIRED SIEMENS	HACA33104
ROOM THERMOSTAT RF SIEMENS	HACA33074
ROOM THERMOSTAT TAMPER PROOF SIEMENS	HACA95004
FLEXIBLE HOSES 22MM PAIR	HAGA95003

100mm plinth also available, please contact us for further information

## Mounting options

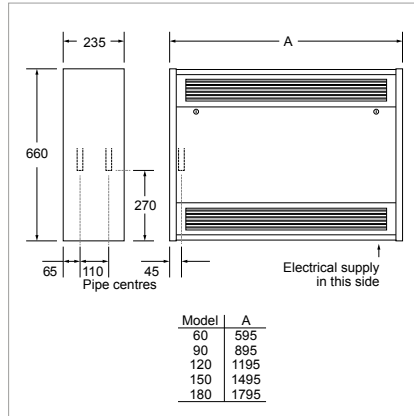


# Caspian® FF

Can be installed in an adjacent room, or storage cupboard, with the warm air outlets positioned at the rear of the appliance and ducted into the adjacent room such as a sports hall or even a narrow corridor, permitting an obstruction free wall space

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial



## Ordering guide

Model	Packed Wt (kg)	AC Codes	EC Codes
CASPIAN FF 60	24	HPCA23001	HPCA22001
CASPIAN FF 90	39	HPCA23002	HPCA22002
CASPIAN FF 120	46	HPCA23003	HPCA22003
CASPIAN FF 150	61	HPCA23004	HPCA22004
CASPIAN FF 180	76	HPCA23005	HPCA22005
Rear Outlet			
CASPIAN FF 60	24	HPCA23006	HPCA22006
CASPIAN FF 90	39	HPCA23007	HPCA22007
CASPIAN FF 120	46	HPCA23008	HPCA22008
CASPIAN FF 150	61	HPCA23009	HPCA22009
CASPIAN FF 180	76	HPCA23010	HPCA22010

## Specification

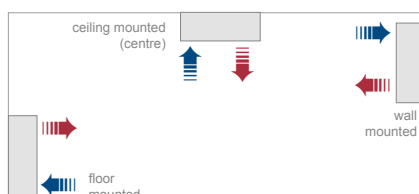
To specify state:

Fan Convactor with EC motor (or AC), in 1.2mm zinc coated steel, 660mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller. As Smith's Caspian FF 60, 90, 120, 150, 180.

Accessories	Product Codes
CASPIAN FF/EXT/SL/TT 60 PLINTH WHITE (150MM)	HACA33092
CASPIAN FF/EXT/SL/TT 90 PLINTH WHITE (150MM)	HACA33093
CASPIAN FF/EXT/SL/TT 120 PLINTH WHITE (150MM)	HACA33094
CASPIAN FF/EXT/SL/TT 150 PLINTH WHITE (150MM)	HACA33095
CASPIAN FF/EXT/SL/TT 180 PLINTH WHITE (150MM)	HACA33096
CASPIAN FF/EXT/SL/TT 60 PLINTH BLACK (150MM)	HACA33082
CASPIAN FF/EXT/SL/TT 90 PLINTH BLACK (150MM)	HACA33083
CASPIAN FF/EXT/SL/TT 120 PLINTH BLACK (150MM)	HACA33084
CASPIAN FF/EXT/SL/TT 150 PLINTH BLACK (150MM)	HACA33085
CASPIAN FF/EXT/SL/TT 180 PLINTH BLACK (150MM)	HACA33086
CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC)	HACA33001
CASPIAN THERMOSTAT (T1) (EC LOW LEVEL)	HACA33002
CASPIAN THERMOSTAT (T2) (AC LOW LEVEL)	HACA33036
CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL)	HACA33003
CASPIAN EXTERNAL CONTROL HARNESS (EC)	HACA33004
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC)	HACA33005
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC)	HACA33037
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC)	HACA33117
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC)	HACA33118
ROOM THERMOSTAT HARD WIRED	HAGA95001
ROOM THERMOSTAT HARD WIRED SIEMENS	HACA33104
ROOM THERMOSTAT RF SIEMENS	HACA33074
ROOM THERMOSTAT TAMPER PROOF SIEMENS	HACA95004
FLEXIBLE HOSES 22MM PAIR	HAGA95003

100mm plinth also available, please contact us for further information

## Mounting options



## Rear outlet





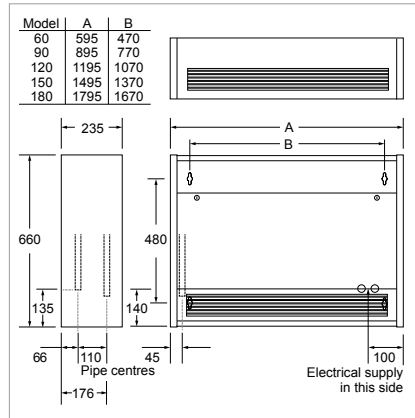
# Caspian® TT

Warm air is discharged from the upper surface to avoid causing discomfort to people sitting adjacent to the appliance

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial

COMMERCIAL



## Ordering guide

Model	Packed Wt (kg)	Product Codes
<b>AC Codes</b>		
CASPIAN TT 60 AC	24	HPCA16000
CASPIAN TT 90 AC	39	HPCA16001
CASPIAN TT 120 AC	46	HPCA16002
CASPIAN TT 150 AC	61	HPCA16003
CASPIAN TT 180 AC	76	HPCA16004
<b>EC Codes</b>		
CASPIAN TT 60 EC	24	HPCA15000
CASPIAN TT 90 EC	39	HPCA15001
CASPIAN TT 120 EC	46	HPCA15002
CASPIAN TT 150 EC	61	HPCA15003
CASPIAN TT 180 EC	76	HPCA15004

## Specification

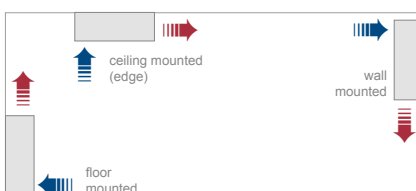
To specify state:

Fan Convecter with EC motor (or AC), in 1.2mm zinc coated steel, 660mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller. As Smith's Caspian TT 60, 90, 120, 150, 180.

Accessories	Product Codes
CASPIAN FF/EXT/SL/TT 60 PLINTH WHITE (150MM)	HACA33092
CASPIAN FF/EXT/SL/TT 90 PLINTH WHITE (150MM)	HACA33093
CASPIAN FF/EXT/SL/TT 120 PLINTH WHITE (150MM)	HACA33094
CASPIAN FF/EXT/SL/TT 150 PLINTH WHITE (150MM)	HACA33095
CASPIAN FF/EXT/SL/TT 180 PLINTH WHITE (150MM)	HACA33096
CASPIAN FF/EXT/SL/TT 60 PLINTH BLACK (150MM)	HACA33082
CASPIAN FF/EXT/SL/TT 90 PLINTH BLACK (150MM)	HACA33083
CASPIAN FF/EXT/SL/TT 120 PLINTH BLACK (150MM)	HACA33084
CASPIAN FF/EXT/SL/TT 150 PLINTH BLACK (150MM)	HACA33085
CASPIAN FF/EXT/SL/TT 180 PLINTH BLACK (150MM)	HACA33086
CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC)	HACA33001
CASPIAN THERMOSTAT (T1) (EC LOW LEVEL)	HACA33002
CASPIAN THERMOSTAT (T2) (AC LOW LEVEL)	HACA33036
CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL)	HACA33003
CASPIAN EXTERNAL CONTROL HARNESS (EC)	HACA33004
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC)	HACA33005
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC)	HACA33037
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC)	HACA33117
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC)	HACA33118
ROOM THERMOSTAT HARD WIRED	HAGA95001
ROOM THERMOSTAT HARD WIRED SIEMENS	HACA33104
ROOM THERMOSTAT RF SIEMENS	HACA33074
ROOM THERMOSTAT TAMPER PROOF SIEMENS	HACA95004
FLEXIBLE HOSES 22MM PAIR	HAGA95003

100mm plinth also available, please contact us for further information

## Mounting options

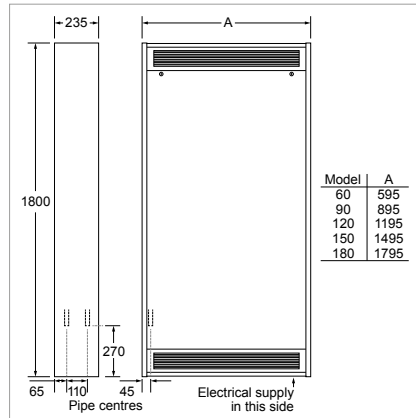


# Caspian® EXT

Warm air is delivered at 1.7m from the base/floor level and the heater can be installed as a freestanding appliance

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial



## Ordering guide

Model	Packed Wt (kg)	Product Codes
<b>AC Codes</b>		
CASPIAN EXT 60 AC	30	HPCA25001
CASPIAN EXT 90 AC	49	HPCA25002
CASPIAN EXT 120 AC	58	HPCA25003
CASPIAN EXT 150 AC	76	HPCA25004
CASPIAN EXT 180 AC	95	HPCA25005
<b>EC Codes</b>		
CASPIAN EXT 60 EC	30	HPCA24001
CASPIAN EXT 90 EC	49	HPCA24002
CASPIAN EXT 120 EC	58	HPCA24003
CASPIAN EXT 150 EC	76	HPCA24004
CASPIAN EXT 180 EC	95	HPCA24005

## Specification

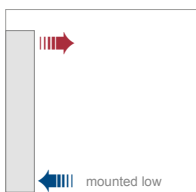
To specify state:

Fan Convecter with EC motor (or AC), in 1.2mm zinc coated steel, 1800mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller. As Smith's Caspian EXT 60, 90, 120, 150, 180.

Accessories	Product Codes
CASPIAN FF/EXT/SL/TT 60 PLINTH WHITE (150MM)	HACA33092
CASPIAN FF/EXT/SL/TT 90 PLINTH WHITE (150MM)	HACA33093
CASPIAN FF/EXT/SL/TT 120 PLINTH WHITE (150MM)	HACA33094
CASPIAN FF/EXT/SL/TT 150 PLINTH WHITE (150MM)	HACA33095
CASPIAN FF/EXT/SL/TT 180 PLINTH WHITE (150MM)	HACA33096
CASPIAN FF/EXT/SL/TT 60 PLINTH BLACK (150MM)	HACA33082
CASPIAN FF/EXT/SL/TT 90 PLINTH BLACK (150MM)	HACA33083
CASPIAN FF/EXT/SL/TT 120 PLINTH BLACK (150MM)	HACA33084
CASPIAN FF/EXT/SL/TT 150 PLINTH BLACK (150MM)	HACA33085
CASPIAN FF/EXT/SL/TT 180 PLINTH BLACK (150MM)	HACA33086
CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC)	HACA33001
CASPIAN THERMOSTAT (T1) (EC LOW LEVEL)	HACA33002
CASPIAN THERMOSTAT (T2) (AC LOW LEVEL)	HACA33036
CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL)	HACA33003
CASPIAN EXTERNAL CONTROL HARNESS (EC)	HACA33004
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC)	HACA33005
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC)	HACA33037
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC)	HACA33117
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC)	HACA33118
ROOM THERMOSTAT HARD WIRED	HAGA95001
ROOM THERMOSTAT HARD WIRED SIEMENS	HACA33104
ROOM THERMOSTAT RF SIEMENS	HACA33074
ROOM THERMOSTAT TAMPER PROOF SIEMENS	HACA95004
FLEXIBLE HOSES 22MM PAIR	HAGA95003

100mm plinth also available, please contact us for further information

## Mounting option



## Rear outlet



# Caspian® UVC

The Caspian UVC fan convector was developed for recessed or concealed heating projects and is suitable for high, low or ceiling concealed installations, can even be turned upside down

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial

COMMERCIAL



Compatible with all types of wet central heating systems and any commercial or domestic air source heat pump project, the Caspian UVC has four different main accessories. They function together in any combination to create the recessed or concealed heating solution required, depending on the project specification

AC motor models are available on request

Caspian UVC is compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Now available with Smart Control (see page 8)

### Motor

EC (BMS compliant) or AC.

### Finish

Casing: galvanised steel 1.2mm.

### Filter

Class G2, 100% polyester, non-washable.

### Installation

Suitable for two-pipe central heating systems.  
Unit must be earthed.  
Maximum installation height 4m to underside.

### Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.

### Controls

See accessories table p23.

### Accessories

White powder-coated steel inlet/outlet grille.  
Anodised aluminium air inlet/outlet grille.  
90°C cranked air inlet/outlet duct.  
1m adjustable straight air inlet/outlet extension duct.  
Circular spigot air inlet/outlet duct.  
See matrix on page 66 for other accessories.

### Specification

To specify state:  
A concealed fan convector for universal mounting with variable heat output controller.  
As Smith's Caspian UVC 60, 90, 120, 150, 180.

# Caspian® UVC

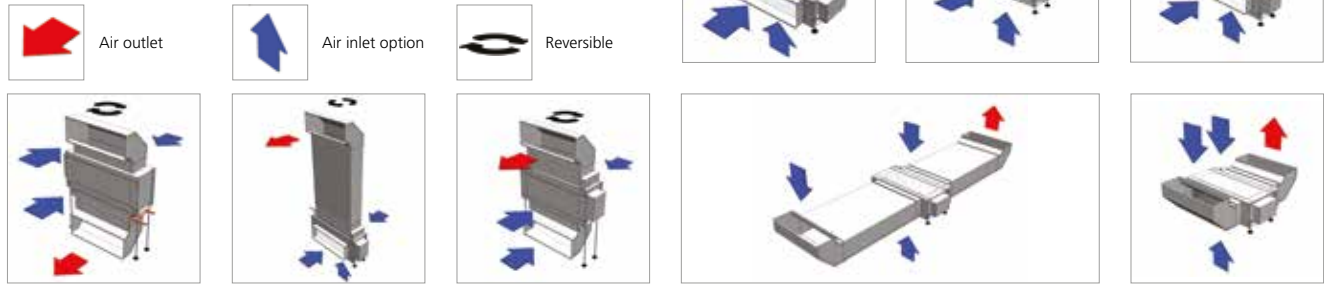
The Caspian UVC fan convector was developed for recessed or concealed heating projects and is suitable for high, low or ceiling concealed installations, can even be turned upside down

## Applications

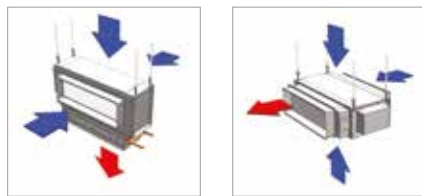
- Education
- Healthcare
- Places of worship
- Leisure and sport
- Office
- Hospitality
- Retail
- Showroom
- Industrial

### Floor mounted application

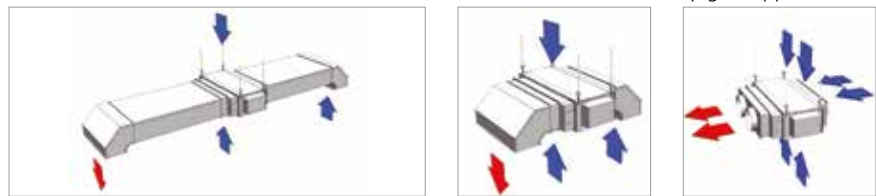
The Caspian UVC can be installed either on or behind walls at high and low level, in ceiling voids and on or under floors. Detailed below are a number of application options than can be achieved with the Caspian UVC and Accessories. If in doubt please contact us.



### Suspended with ducts application



### Suspended with spigots application



### Heat output - EC (AC product also available)

Model Reference	Fan Speed	Control Voltage VDC	40°C MWT	45°C MWT	50°C MWT	55°C MWT	60°C MWT	65°C MWT	70°C MWT	75°C MWT	80°C MWT
EC 60	Low	3.4	0.85	1.20	1.45	1.80	2.16	2.35	2.73	3.08	3.40
	Mid	4.9	1.02	1.53	1.92	2.37	2.76	3.18	3.58	4.05	4.38
	High	6.4	1.18	1.85	2.38	2.93	3.36	4.00	4.43	5.02	5.36
EC 90	Low	3.2	1.68	2.23	3.01	3.49	4.05	4.45	5.12	5.49	6.03
	Mid	4.6	2.22	3.07	4.05	4.66	5.42	6.01	6.81	7.34	7.93
	High	6.1	2.75	3.90	5.08	5.82	6.78	7.56	8.49	9.19	9.83
EC 120	Low	3.1	1.62	2.34	3.32	3.98	4.71	5.62	6.32	6.99	7.61
	Mid	4.3	2.31	3.25	4.27	5.15	6.07	7.02	7.91	8.74	9.60
	High	5.5	2.99	4.15	5.21	6.31	7.42	8.41	9.50	10.48	11.59
EC 150	Low	2.8	2.95	3.72	4.49	5.27	6.045	6.79	7.54	8.29	9.04
	Mid	4.0	3.99	4.99	5.99	6.99	7.97	8.99	9.97	10.98	11.93
	High	5.1	5.02	6.26	7.49	8.71	9.90	11.19	12.39	13.67	14.82
EC 180	Low	2.8	3.64	5.20	6.78	8.24	9.39	10.33	11.24	12.15	13.01
	Mid	3.9	4.51	6.18	7.85	9.51	10.95	12.36	13.70	15.07	16.40
	High	4.9	5.38	7.16	8.91	10.77	12.50	14.39	16.16	18.0	19.78



Model Reference	Fan Speed	Air Volume (m <sup>3</sup> /h)	Air Volume (l/s)	Specific Fan Power w/l/s	Power Consumption (W)	NR in typical room*	Hydraulic Resistance (KPA)	Nominal Weight (KG)	Water Capacity (L)
EC 60	Low	201.00	55.90	0.14	8.00	34.00	1.38	23.00	0.92
	Mid	290.50	80.75	0.26	21.00	41.50	1.69		
	High	380.00	105.60	0.32	34.00	49.50	2.00		
EC 90	Low	297.00	80.75	0.20	16.00	34.00	4.70	36.00	1.50
	Mid	450.50	124.38	0.34	42.00	41.50	5.85		
	High	604.00	168.00	0.40	68.00	49.97	7.00		
EC 120	Low	419.30	116.50	0.14	16.00	34.00	17.78	45.00	2.08
	Mid	549.65	152.68	0.26	40.00	42.00	20.59		
	High	680.00	188.89	0.34	64.00	49.96	23.40		
EC 150	Low	459.80	127.72	0.17	22.00	34.70	22.23	60.00	2.58
	Mid	598.10	166.14	0.35	59.00	41.50	29.46		
	High	736.40	205.56	0.47	96.00	49.38	36.69		
EC 180	Low	542.00	150.56	0.19	29.00	34.90	47.83	78.00	3.18
	Mid	690.00	191.67	0.40	78.50	41.50	60.76		
	High	838.00	232.78	0.55	128.00	49.00	73.70		

\*a typical room is taken as a room with a volume of 173m<sup>3</sup> and a reverberation time of 0.8 seconds at 500 Hz with one unit installed, situated against a wall or ceiling (radiating noise in a quartersphere). No allowance is made for attenuation provided by ceilings, enclosures or ductwork. Outputs based upon testing at EN442: 2014 using mean water temperature and an entering air temperature of 20°C with a 10°C temperature drop between flow and return.

### Correction factors

Mean Water Temp °C	45 - 80			
Water Temperature drop °C	5	10	15	20
Entering Air Temperature °C				
15	1.13	1.10	1.07	1.05
18	1.08	1.05	1.02	0.99
20	1.04	1.00	0.95	0.89
25	0.93	0.91	0.89	0.86

#### How to calculate Mass Flow Rate (L/S)

$$M = H / CP \times (\text{Flow } ^\circ\text{C} - \text{Return } ^\circ\text{C})$$

M = Mass flow rate (L/S)

H = Output of product (W)

CP = Specific heat capacity [J/(kg·°C)].

Varies upon system temperature, approx. 4187 if fluid is water.

#### How to calculate Mean Water Temperature (ΔT)

$$\text{Mean water temperature } (\Delta T) = \left[ \frac{\text{Flow temperature} + \text{Return temperature}}{2} \right] - \text{Ambient Temperature}$$

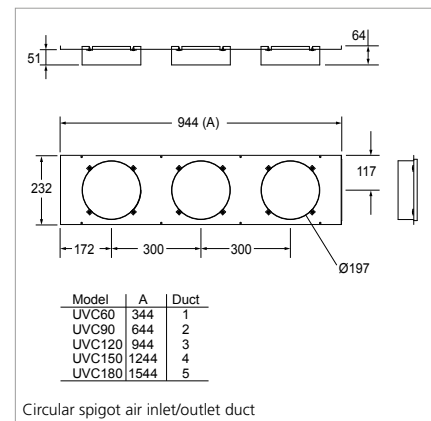
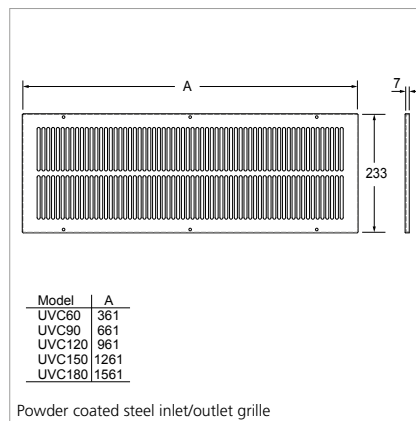
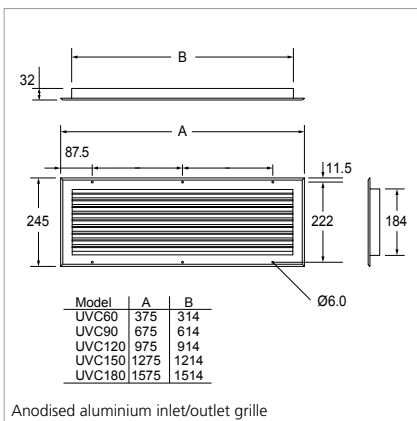
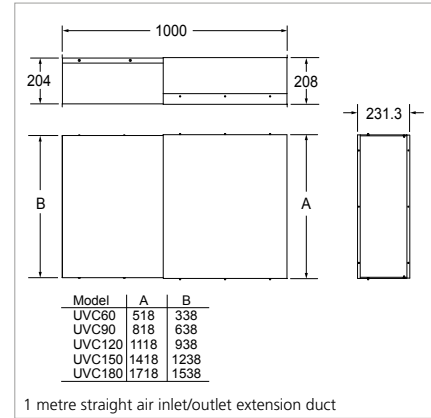
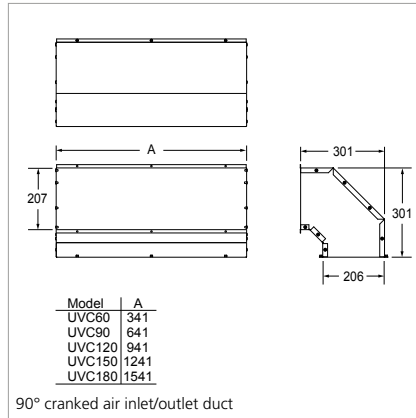
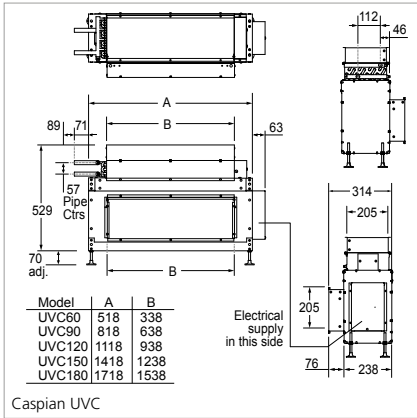
Factors are approximate data based upon a standard coil.

# Caspian® UVC

The Caspian UVC fan convector was developed for recessed or concealed heating projects and is suitable for high, low or ceiling concealed installations, can even be turned upside down

## Applications

- Education
- Healthcare
- Places of worship
- Leisure and sport
- Office
- Hospitality
- Retail
- Showroom
- Industrial



## Accessories



90° cranked air inlet/outlet



1m adjustable straight air inlet/outlet extension duct



Anodised aluminium inlet/outlet grille



Powder-coated steel inlet/outlet grille



Circular spigot inlet/outlet grille

## Ordering guide

Model	Packed Wt (kg)	Product Codes
<b>AC Codes</b>		
CASPIAN UVC 60 AC	23	HPCA27001
CASPIAN UVC 90 AC	36	HPCA27002
CASPIAN UVC 120 AC	45	HPCA27003
CASPIAN UVC 150 AC	60	HPCA27004
CASPIAN UVC 180 AC	78	HPCA27005
<b>EC Codes</b>		
CASPIAN UVC 60 EC	23	HPCA26001
CASPIAN UVC 90 EC	36	HPCA26002
CASPIAN UVC 120 EC	45	HPCA26003
CASPIAN UVC 150 EC	60	HPCA26004
CASPIAN UVC 180 EC	78	HPCA26005

Accessories	Product Codes
CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC)	HACA33001
CASPIAN THERMOSTAT (T1 (EC LOW LEVEL)	HACA33002
CASPIAN THERMOSTAT (T2) (AC LOW LEVEL)	HACA33036
CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL)	HACA33003
CASPIAN EXTERNAL CONTROL HARNESS (EC)	HACA33004
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC)	HACA33005
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC)	HACA33037
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC)	HACA33117
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC)	HACA33118
ROOM THERMOSTAT HARD WIRED	HAGA95001
ROOM THERMOSTAT HARD WIRED SIEMENS	HACA33104
ROOM THERMOSTAT RF SIEMENS	HACA33074
ROOM THERMOSTAT TAMPER PROOF SIEMENS	HACA95004
FLEXIBLE HOSES 22MM PAIR	HAGA95003
CASPIAN UVC 60 90° CRANKED AIR INLET/OUTLET DUCT	HACA33011
CASPIAN UVC 90 90° CRANKED AIR INLET/OUTLET DUCT	HACA33012
CASPIAN UVC 120 90° CRANKED AIR INLET/OUTLET DUCT	HACA33013
CASPIAN UVC 150 90° CRANKED AIR INLET/OUTLET DUCT	HACA33014
CASPIAN UVC 180 90° CRANKED AIR INLET/OUTLET DUCT	HACA33015
CASPIAN UVC 60 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT	HACA33016
CASPIAN UVC 90 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT	HACA33017
CASPIAN UVC 120 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT	HACA33018
CASPIAN UVC 150 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT	HACA33019
CASPIAN UVC 180 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT	HACA33020
CASPIAN UVC 60 CIRCULAR SPIGOT (200MM X 2) AIR INLET/OUTLET DUCT	HACA33021
CASPIAN UVC 90 CIRCULAR SPIGOT (200MM X 2) AIR INLET/OUTLET DUCT	HACA33022
CASPIAN UVC 120 CIRCULAR SPIGOT (200MM X 3) AIR INLET/OUTLET DUCT	HACA33023
CASPIAN UVC 150 CIRCULAR SPIGOT (200MM X 4) AIR INLET/OUTLET DUCT	HACA33024
CASPIAN UVC 180 CIRCULAR SPIGOT (200MM X 5) AIR INLET/OUTLET DUCT	HACA33025
CASPIAN UVC 60 INLET/OUTLET GRILLE POWDER-COATED WHITE	HACA33026
CASPIAN UVC 90 INLET/OUTLET GRILLE POWDER-COATED WHITE	HACA33027
CASPIAN UVC 120 INLET/OUTLET GRILLE POWDER-COATED WHITE	HACA33028
CASPIAN UVC 150 INLET/OUTLET GRILLE POWDER-COATED WHITE	HACA33029
CASPIAN UVC 180 INLET/OUTLET GRILLE POWDER-COATED WHITE	HACA33030
CASPIAN UVC 60 INLET/OUTLET GRILLE ANODISED ALUMINIUM	HACA33031
CASPIAN UVC 90 INLET/OUTLET GRILLE ANODISED ALUMINIUM	HACA33032
CASPIAN UVC 120 INLET/OUTLET GRILLE ANODISED ALUMINIUM	HACA33033
CASPIAN UVC 150 INLET/OUTLET GRILLE ANODISED ALUMINIUM	HACA33034
CASPIAN UVC 180 INLET/OUTLET GRILLE ANODISED ALUMINIUM	HACA33035

# Caspian® LST

Caspian LST (low surface temperature) is ideal for applications where the surface temperature of is important such as schools and certain healthcare applications

## Applications

Education  
Healthcare  
Office  
Hospitality



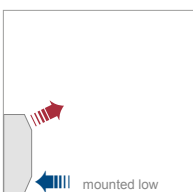
Caspian LST (low surface temperature) fully complies with the NHS Estates Health Guidance Notes, "Safe hot water and surface temperatures" (formally known as DN4) and has been independently verified by BSRIA

Using EC technology and meeting the DN4 legislation 100% of the time, this hydronic fan convactor provides complete peace of mind for specifiers choosing the Caspian

Any building registered under the Registered Homes Act 1984, including hospitals, clinics, surgeries and other health care premises, requires heat emitters whose maximum surface temperature must not exceed 43°C. This also extends to social services personal care properties, and may also apply to any property where occupants may be at risk of burns to their skin if they came into prolonged (10 seconds or more) contact with a standard heat emitter

As well as healthcare applications Caspian LST is the ideal choice for schools and nurseries where the risk of children coming into contact with higher surface temperature heat emitters can be avoided

## Mounting option



## Motor

EC (BMS compliant).

## Finish

Casing: zinc-coated steel 1.2mm.

Polyester powder-coated: white RAL 9010.

Available to special order in any colour and with anti-microbial or anti-bacterial paint.

## Filter

Class G2, 100% polyester, non-washable.

## Installation

Suitable for two-pipe central heating systems.

Pipework access holes on the rear and underside.

Key operated front access panels.

Bleed valve accessible on removal of front casing.

Unit must be earthed.

## Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.

Regulate the flow to achieve maximum performance.

## Controls

Variable heat output controller (mounted within the products).

## Accessories

See matrix on page 74.

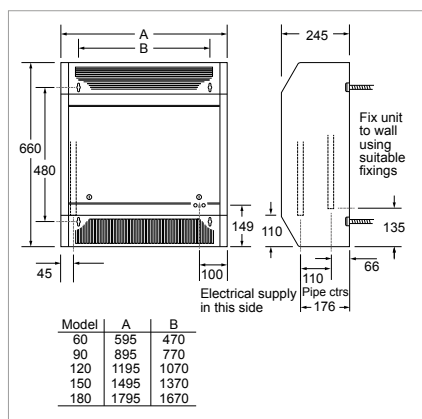
## Specification

To specify state:

Low Surface Temperature Fan Convactor with EC motor, in 1.2mm zinc coated steel, polyester powder coated in white RAL 9010.

Dimensions at 660mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller.

As Smith's Caspian LST 60, 90, 120, 150, 180.



**Heat output** For other heat output data please download the data sheet from our website

Model	Heat Output at 75°			Heat Output at 50°			Pressure Drop		
	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	High (kPa)	Medium (kPa)	Low (kPa)
CASPIAN LST 60	0.9	1.4	1.9	0.6	0.7	0.8	1.5	1.1	0.9
CASPIAN LST 90	2.8	3.2	3.7	1.6	2.0	2.3	3.9	2.3	1.6
CASPIAN LST 120	4.7	5.1	5.5	2.8	3.2	3.7	7.3	5.5	5.3
CASPIAN LST 150	6.0	6.5	7.0	4.2	4.7	5.2	8.6	6.8	6.2
CASPIAN LST 180	7.5	8.0	8.5	5.7	6.2	6.7	11.3	8.6	7.9

Model	Flow & return connections	Fused spur	Total Power Consumption				Sound Levels			Casting colour	Fan only
			Low (Watts)	Medium (Watts)	High (Watts)	Water Capacity (Litres)	High (dBA)	Medium (dBA)	Low (dBA)		
CASPIAN LST 60	22mm	3A	26	41	55	0.92	50	43	35	white	•
CASPIAN LST 90	22mm	3A	33	59	85	1.50	53	45	37	white	•
CASPIAN LST 120	22mm	3A	33	79	125	2.08	57	48	38	white	•
CASPIAN LST 150	22mm	3A	50	119	188	2.58	59	47	36	white	•
CASPIAN LST 180	22mm	3A	66	158	250	3.18	59	47	36	white	•

Heat output testing based on BS EN442 using mean water temperature, 18°C entering air temperature, 10° temperature drop. Sound levels measured at 3m in front of the floor mounted model.

### Ordering guide

Model	Packed Wt (kg)	Product Codes
CASPIAN LST 60 EC	24	HPCA28001
CASPIAN LST 90 EC	37	HPCA28002
CASPIAN LST 120 EC	46	HPCA28003
CASPIAN LST 150 EC	60	HPCA28004
CASPIAN LST 180 EC	78	HPCA28005

Accessories	Product Codes
CASPIAN UV/LST 60 PLINTH WHITE (150MM)	HACA33006
CASPIAN UV/LST 90 PLINTH WHITE (150MM)	HACA33007
CASPIAN UV/LST 120 PLINTH WHITE (150MM)	HACA33008
CASPIAN UV/LST 150 PLINTH WHITE (150MM)	HACA33009
CASPIAN UV/LST 180 PLINTH WHITE (150MM)	HACA33010
CASPIAN UV/LST 60 PLINTH BLACK (150MM)	HACA33097
CASPIAN UV/LST 90 PLINTH BLACK (150MM)	HACA33098
CASPIAN UV/LST 120 PLINTH BLACK (150MM)	HACA33099
CASPIAN UV/LST 150 PLINTH BLACK (150MM)	HACA33100
CASPIAN UV/LST 180 PLINTH BLACK (150MM)	HACA33101
FLEXIBLE HOSES 22MM PAIR	HAGA95003

100mm plinth also available, please contact us for further information



# Caspian® Skyline

Caspian Skyline CT60 fits into a 600mm x 600mm ceiling tile, providing easy access for both installation and maintenance. It's suitable for projects in schools, retail or food units or where the heating needs to complement the rest of the premise

## Applications

Education  
Healthcare  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom



The Caspian Skyline has been developed to provide a more easily installed ceiling tile fan convector to complement the Smith's range of Caspian commercial fan convectors and may be used alone or in tandem with other Smith's products

Plumbing easily into any wet central heating system, the Caspian Skyline will also work effectively and efficiently with renewable heat sources, such as air or ground source heat pumps

Now available with Smart Control (see page 8)

### Motor

EC (BMS compliant) or AC.

### Finish

Casing: galvanised steel 1.2mm.

Grille: Eggcrate core, white RAL 9010 complete with touch catches.

### Filter

Class G2, 100% polyester, non-washable.

### Installation

Suitable for two-pipe central heating systems.

Maximum installation height – 4m to underside.

Unit must be earthed.

### Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.

### Controls

See accessories table on page 27.

### Accessories

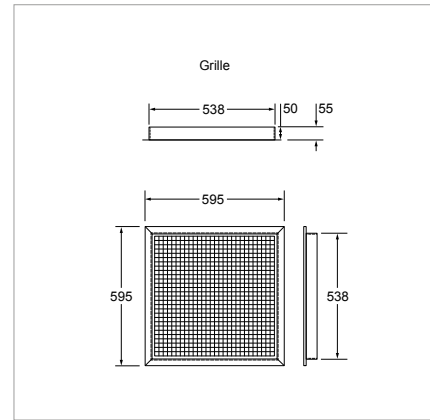
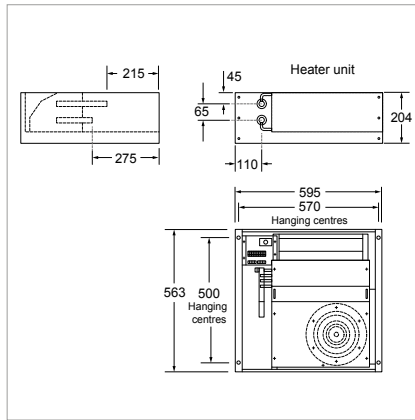
See matrix on page 74.

### Specification

To specify state:

Ceiling mounted Fan Convector with EC (or AC) motor, in 1.2mm galvanised steel, egg crate core grille in white RAL 9010. To fit a standard 600mm x 600mm ceiling grid. With variable heat output controller.

As Smith's Caspian Skyline CT60.



**Heat output** For other heat output data please download the data sheet from our website

Model	Heat Output at 75°			Heat Output at 45°		
	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)
CASPIAN SKYLINE CT60	2.7	3.7	4.6	0.5	0.9	1.3

Model	Flow & return connections	Fused spur	Total Power Consumption			Water Capacity (Litres)	Sound Levels			Grille colour
			Low (Watts)	Medium (Watts)	High (Watts)		High (dBA)	Medium (dBA)	Low (dBA)	
CASPIAN SKYLINE CT60	22mm	3A	8	24	40	0.75	48	40	34	white

Heat output testing based on BS EN442 using mean water temperature, 18°C entering air temperature, 10° temperature drop. Sound levels measured at 3m.

**Correction factors**

EAT°C	Mean water temperature °C
	80 to 40
15	1.10
21	0.93

Factor	Temperature drop °C			
	20	15	10	5
Factor	0.89	0.95	1.00	1.04

**Ordering guide**

Model	Packed Wt (kg)	Product Codes
<b>AC Codes</b>		
CASPIAN SKYLINE CT60 AC	20	HPCA30001
<b>EC Codes</b>		
CASPIAN SKYLINE CT60 EC	20	HPCA29001

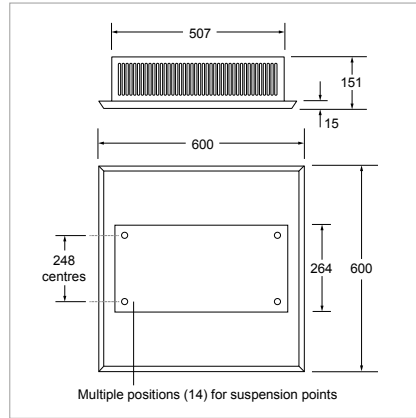
Accessories	Product Codes
CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC)	HACA33001
CASPIAN EXTERNAL CONTROL HARNESS (EC)	HACA33004
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC)	HACA33037
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC)	HACA33118
ROOM THERMOSTAT HARD WIRED	HAGA95001
ROOM THERMOSTAT HARD WIRED SIEMENS	HACA33104
ROOM THERMOSTAT RF SIEMENS	HACA33074
ROOM THERMOSTAT TAMPER PROOF SIEMENS	HACA95004
FLEXIBLE HOSES 22MM PAIR	HAGA95003

# Caspian® Skyline E

The electric Skyline fits neatly into existing ceiling space - replacing a 600mm x 600mm ceiling tile and because it is ceiling mounted, it saves valuable wall space - particularly important in retail units

## Applications

Education  
Healthcare  
Leisure and sport  
Office  
Hospitality  
Retail  
Industrial



It is unobtrusive and effective

This high output fan convector effectively heats large areas

Supplied as standard in white but can be supplied in any colour

### Motor

AC only .

### Finish

Outer casing 0.9mm zinc-coated steel.  
Polyester powder-coated.  
Polyester powder-coated RAL 9010.

### Installation

Maximum installation height 3.2m (10'6") to underside.  
Minimum 150mm void space required for recessed installation.  
Not suitable for bathrooms and other high humidity areas.  
Two air inlet options: room only, room and void.  
Maximum flexibility in installation: only 600mm - side clearance required.  
Facility for connection to 6mm threaded rod or chains (rods and chains - not supplied).  
20 amp fused spur required.  
Unit must be earthed.  
Supplied with remote operating switch.

### Control

Battery powered wireless controller with temperature control, setback temperature and run back timer.  
Overheat protection: thermal cut-out.  
Manual reset procedure: switch power off at mains, wait 5 minutes, switch power on.

### Accessories

Surface mounting kit - 135mm.  
Provides a complete foursided trim when fitted to a solid ceiling.  
Ceiling tile spacer (85mm).

### Specification

To specify state:  
Ceiling mounted heat emitter at 4kW in white 600x600mm.  
As Smith's Skyline.

## Heat output

Model	Heat Output (kW)
SKYLINE E 4KW	4.0

## Ordering guide

Model	Packed Wt (kg)	Product Codes
SKYLINE E 4KW	9	HPSK40003
Accessories		
SKYLINE SURFACE MOUNTING KIT (135MM)		HASK40102
SKYLINE CEILING TILE SPACER (85MM)		HASK40103

Model	Mains cable	Fused spur	Total Power Consumption (kW)	Sound Levels (dBA)	Casting colour	Fan-only
SKYLINE E 4KW	1.5m	20A	4.1	40	white	n/a



# Aegean SFC 235H

A range of fan coil units suitable for all kinds of commercial applications, from restaurants and hotels to office developments, with the ability to rapidly heat and cool large areas with much greater efficiency than other similar heating and cooling systems

## Applications

Education  
Healthcare  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial



EC motor (BMS compatible for easy integration)

Low sound levels

Fully attenuated discharge plenum

Positive fall drain tray

Designed and made in the UK

## Finish

Chassis manufactured from 1.2mm hot dipped galvanised steel. All flanges formed inward facing to prevent exposure to bare metal edges.

## Installation

Flow and return connections 15mm.  
Designed for system pressures up to 10 bar.  
Fan coils are 4-pipe coils (heating and cooling circuit).

## Customised requirements

All leading manufacturers controls factory fitted.  
Acoustically lined inlet plenum.  
Concealed/hidden applications (underfloor, behind false walls and ceilings).  
Bespoke options.

## Specification

To specify state:  
Horizontal Fan Coil Unit 235mm high with EC motor.  
As Smith's Aegean SFC23510 (or SFC23520, SFC23525, SFC23530, SFC23540, SFC23550, SFC23555, SFC23560).

## Ordering information

Aegean is a highly configurable bespoke product. Please contact us to discuss your requirements.



**Performance data**

SIZE	Nominal fan speed (%)	ESP Pa	Airflow l/s	SFP W/l/s	Total cooling		Sensible cooling		LPHW heating	LPHW heating
					5.5/11°C	5.5/11°C	6/12°C	6/12°C	82/71°C	60/50°C
10	50	30	55	0.30	1.22	0.90	1.42	1.15	0.86	0.80
20	50	30	88	0.28	1.93	1.43	2.05	1.72	1.32	1.19
25	50	30	121	0.26	2.77	2.02	2.73	2.53	1.90	1.60
30	50	30	154	0.24	3.04	2.33	3.41	2.54	2.06	2.01
40	50	30	187	0.22	3.95	2.96	4.20	3.50	2.73	2.51
50	50	30	199	0.24	4.61	3.36	4.55	4.20	3.16	2.66
55	50	30	224	0.26	5.64	4.01	5.42	5.23	3.80	3.19
60	50	30	236	0.28	6.03	4.27	5.73	5.60	4.06	3.38

Summer Condition: 23°C EAT, 50% RH (5.5/11°C, 6/12°C)  
 Winter Condition: 21°C EAT (82/71°C, 60/50°C)

**Performance data verification**

Heating and cooling performance has been tested and independently verified by BSRIA to BS EN 1397: 2015. Full set up and details available on request.

Acoustic data has been measured and independently verified by SRL Technical Services to BS EN 16583:2015. Please ask us for our acoustic information pack for more details, including laboratory measured sound power data.

**Dimensions**

Model	Size	A	B	Wt (kg)
235	10	570	800	32
235	20	870	1100	43
235	25	870	1100	46
235	30	1170	1400	54
235	40	1470	1700	69
235	50	1770	2000	86
235	55	1770	2000	89
235	60	2070	2300	92

# Aegean SFC 260H

A range of fan coil units suitable for all kinds of commercial applications, from restaurants and hotels to office developments, with the ability to rapidly heat and cool large areas with much greater efficiency than other similar heating and cooling systems

## Applications

Education  
Healthcare  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial



EC motor (BMS compatible for easy integration)

Low sound levels

Fully attenuated discharge plenum

Positive fall drain tray

Designed and made in the UK

### Finish

Chassis manufactured from 1.2mm hot dipped galvanised steel. All flanges formed inward facing to prevent exposure to bare metal edges.

### Installation

Flow and return connections 15mm.  
Designed for system pressures up to 10 bar.  
Fan coils are 4-pipe coils (heating and cooling circuit).

### Customised requirements

All leading manufacturers controls factory fitted.  
Acoustically lined inlet plenum.  
Concealed/hidden applications (underfloor, behind false walls and ceilings).  
Bespoke options.

### Specification

To specify state:  
Horizontal Fan Coil Unit 260mm high with EC motor.  
As Smith's Aegean SFC26010 (or SFC26020, SFC26025, SFC26030, SFC26040, SFC26050, SFC26055, SFC26060).

### Ordering information

Aegean is a highly configurable bespoke product. Please contact us to discuss your requirements.

**Performance data**

SIZE	Nominal fan speed (%)	ESP Pa	Airflow l/s	SFP W/l/s	Total cooling		Sensible cooling		LPHW heating	LPHW heating
					5.5/11°C	5.5/11°C	6/12°C	6/12°C	82/71°C	60/50°C
10	50	30	87	0.22	1.64	1.27	1.47	1.19	1.75	1.00
20	50	30	128	0.22	2.66	2.00	2.44	1.89	2.41	1.40
25	50	30	168	0.22	3.66	2.71	3.39	2.59	3.07	1.78
30	50	30	209	0.22	4.12	3.15	3.62	2.90	3.73	2.19
40	50	30	250	0.22	5.16	3.89	4.65	3.64	4.56	2.70
50	50	30	273	0.22	5.47	4.16	4.86	3.86	5.08	2.95
55	50	30	318	0.23	6.54	4.94	5.91	4.62	6.52	3.82
60	50	30	341	0.23	7.19	5.38	6.54	5.07	7.18	4.23

Summer Condition: 23°C EAT, 50% RH (5.5/11°C, 6/12°C)  
 Winter Condition: 21°C EAT (82/71°C, 60/50°C)

**Performance data verification**

Heating and cooling performance has been tested and independently verified by BSRIA to BS EN 1397: 2015. Full set up and details available on request.

Acoustic data has been measured and independently verified by SRL Technical Services to BS EN 16583:2015. Please ask us for our acoustic information pack for more details, including laboratory measured sound power data.

**Dimensions**

The technical drawing shows a top view and a side view of the unit. The top view includes dimensions for overall width (845mm), internal width (790mm), and depth (21mm). It also shows a 52mm offset on the left and right sides. Arrows indicate airflow direction: upwards from the top and downwards from the bottom. The side view shows a height of 260mm, a depth of 118mm, and a width of 198mm. It details the internal components: Heating, Cooling, Return Flow, and a Drip Tray with a 15mm Condensate drain. Vertical dimensions for the side view are 125mm, 155mm, and 185mm. Horizontal dimensions are 10mm, 66mm, and 100mm.

Model	Size	A	B	Wt (kg)
260	10	570	800	35
260	20	870	1100	44
260	25	870	1100	47
260	30	1170	1400	58
260	40	1470	1700	70
260	50	1770	2000	93
260	55	1770	2000	96
260	60	2070	2300	98

# Aegean SVFC 500

A range of fan coil units suitable for all kinds of commercial applications, from restaurants and hotels to office developments, with the ability to rapidly heat and cool large areas with much greater efficiency than other similar heating and cooling systems

## Applications

Education  
Healthcare  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial



EC motor (BMS compatible for easy integration)

Low sound levels

Fully attenuated discharge plenum

Positive fall drain tray

Designed and made in the UK

### Finish

Chassis manufactured from 1.2mm hot dipped galvanised steel. All flanges formed inward facing to prevent exposure to bare metal edges.

### Installation

Flow and return connections 15mm.  
Designed for system pressures up to 10 bar.  
Fan coils are 4-pipe coils (heating and cooling circuit).

### Customised requirements

All leading manufacturers controls factory fitted.  
Acoustically lined inlet plenum.  
Concealed/hidden applications (underfloor, behind false walls and ceilings).  
Bespoke options.

### Specification

To specify state:  
Vertical Fan Coil Unit 500mm high with EC motor.  
As Smith's Aegean SVFC50010 (or SVFC50020, SVFC50025, SVFC50030, SVFC50040, SVFC50050, SVFC50055, SVFC50060).

### Ordering information

Aegean is a highly configurable bespoke product. Please contact us to discuss your requirements.

**Performance data**

SIZE	Nominal fan speed	ESP	Airflow	SFP	Total cooling	Sensible cooling	Total cooling	Sensible cooling	LPHW heating	LPHW heating
	(%)	Pa	l/s	W/l/s)	5.5/11°C	5.5/11°C	6/12°C	6/12°C	82/71°C	60/50°C
10	50	30	105.18	0.17	1.17	1.0	0.97	0.9	1.2	0.6
20	50	30	122.33	0.17	1.78	1.5	1.59	1.4	2.6	1.5
25	50	30	139.49	0.20	2.19	1.8	1.98	1.7	4.1	2.4
30	50	30	156.65	0.25	1.92	1.7	1.78	1.6	4.0	2.4
40	50	30	173.80	0.29	2.24	1.9	2.07	1.8	4.0	2.4
50	50	30	197.26	0.28	2.66	2.3	2.46	2.2	10.5	6.5
55	50	30	244.16	0.26	3.99	3.2	3.12	2.7	9.6	5.8
60	50	30	267.61	0.25	4.76	3.8	4.05	3.4	7.4	4.4

Summer Condition: 23°C EAT, 50% RH (5.5/11°C, 6/12°C)

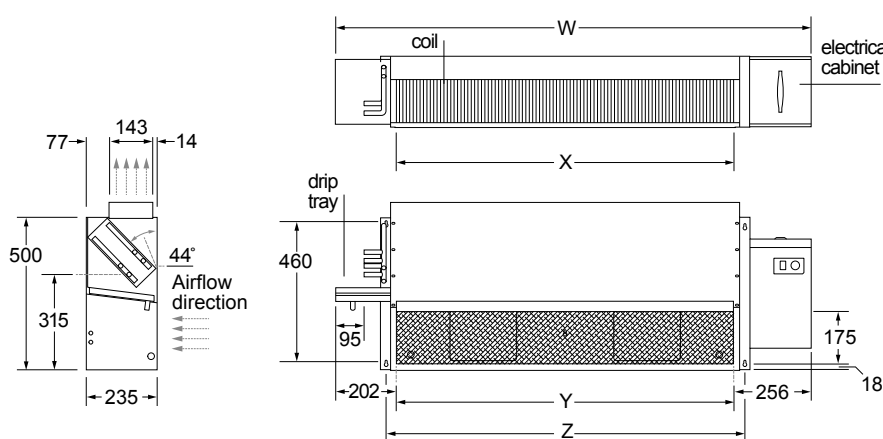
Winter Condition: 21°C EAT (82/71°C, 60/50°C)

**Performance data verification**

Heating and cooling performance has been tested and independently verified by BSRIA to BS EN 1397: 2015. Full set up and details available on request.

Acoustic data has been measured and independently verified by SRL Technical Services to BS EN 16583:2015. Please ask us for our acoustic information pack for more details, including laboratory measured sound power data.

**Dimensions**



Unit size	W	X	Y	Z	Wt(kg)
50010	970	510	512	583	30
50020	1270	810	812	883	36
50025	1270	810	812	883	40
50030	1570	1110	1112	1183	47
50040	1870	1410	1412	1483	58
50050	2170	1710	1712	1783	66
50055	2170	1710	1712	1783	77
50060	2470	2010	2012	2083	80



# Sargasso A

An economical alternative to traditional wall mounted radiators, convection heaters and electrical infrared heaters

## Applications

Education  
Healthcare  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial



Suitable for use in both Standard T-Grid and Micro T system ceilings

Each panel individually packaged for protection

Loop panel width 595mm; available in lengths 595mm, 1195mm, 1795mm, 2395mm and 2995mm.

Panel performance supported by independent test certification to EN 14037

For bespoke specifications, including cooling capability please contact us to discuss your requirements

## Benefits

- Create a more comfortable environment for occupants by creating an even temperature distribution across the room
- Save energy and money by achieving a higher perceived temperature than the actual room temperature
- Works well with lower temperature heating systems
- Provide an efficient solution offering a short heating and cooling time
- Installed within a ceiling or high on a wall they maximise wall and floor space
- Silent operation
- No dust/bacteria dispersal offering a hygienic solution
- Maintenance free
- Easy to clean so lower cleaning costs
- Can be integrated in plasterboard

## Finish

Material: 2mm high-grade aluminium extrusion, lightweight, robust, optimum response time.

Finish: RAL 9016 white powder coat.

Insulation: Rigid non-fibrous, foil-faced insulation to EN13165 fire rating A2.

## Installation

Suitable for use in Micro T system and standard T-Grid system ceilings. Please note that Sargasso is compatible with regular ceiling profiles, but not compatible with Tegular or Microlook ceilings.

Suspension:

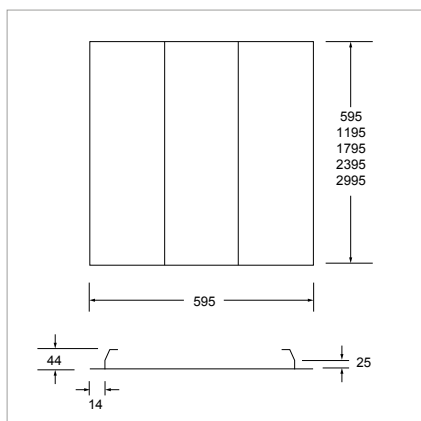
Suitable for installation from drop rods (not supplied). Panels less than 1200mm will require 4 fixing locations, longer than 1200mm will require 6 fixing locations.

## Specification

To specify state:

Radiant Panel in white (RAL 9016) at 600mm wide x 600mm (or 1200mm, 1800mm, 2400mm, 3000mm) long.

As Smith's Sargasso A



### Heat output (Watts)

Model	Output at $\Delta T$ °C								Hangers required
	30	35	40	45	50	55	60	65	
600 x 600	105	126	148	170	194	217	242	266	4
600 x 1200	210	252	296	340	388	434	484	532	4
600 x 1800	315	378	444	510	582	651	726	798	6
600 x 2400	420	504	592	680	776	868	968	1064	6
600 x 3000	525	530	740	850	970	1086	1210	1330	6

Heat output testing based on EN14037

### Ordering guide

Description	Width (mm)	Length (mm)	Operating weight including water (kg)	Kg/m <sup>2</sup>	Product Codes
<b>Sargasso A</b>					
SARGASSO A 600MM LOOP PANEL	595	595	4.6	12.7	HPAE350000
SARGASSO A 1200MM LOOP PANEL	595	1195	9.1	12.7	HPAE350001
SARGASSO A 1800MM LOOP PANEL	595	1795	13.7	12.7	HPAE350002
SARGASSO A 2400MM LOOP PANEL	595	2395	18.3	12.7	HPAE350003
SARGASSO A 3000MM LOOP PANEL	595	2995	22.9	12.7	HPAE350004

# Ostro

A range of commercial air curtains designed for use in the entrances of shops, offices, leisure facilities, hotels, schools, hospitals and most other public buildings

## Applications

Office  
Hospitality  
Retail  
Showroom



Ostro is available in 3 versions – W hydronic, E Electric and C Ambient

Ostro air curtains are designed for use in regions with moderate or cold climates in spaces where the temperature range is -10°C to +40°C, in conditions that are free from external contaminants such as pollen and hydrometeor (horizontal precipitation)

In winter Ostro air curtains protect against heat loss in rooms by directing a warm air stream across doorways preventing cold air from entering the heated space. In summer, the air curtains can be used as cooling devices to prevent the entry of hot air and pollutants from the outside

Available in hydronic versions (Ostro W) and electric versions (Ostro E), and ambient versions (Ostro C) without a heater for applications with entrances where no additional comfort heat is required

There are 3 sizes, 1084mm, 1554mm and 2024mm available in all 3 versions

### Ostro W (hydronic)

- Heat outputs from 10 - 40kW (inlet temperature of 0°C and inlet/outlet temperature of 90/70°C)
- 3 fan speeds the hydronic version is fully controllable
- Air throughput from 1200 – 4800m<sup>3</sup>/h
- Low noise levels – 61dB at maximum fan speed
- Maximum mounting height 4m

### Ostro E (electric)

- Heat output up to 14kW
- Air throughput from 1200 – 4800m<sup>3</sup>/h
- Low noise levels – 61dB at maximum fan speed
- Featuring a new type of PTC electric coil which minimises the voltage on the surface of the coil.
- Large heat exchanger surface area
- Fully automatic heat control dependent on airflow
- Auto shut-off if the airflow is compromised preventing overheating
- Low energy consumption
- Maximum mounting height 4m

### Ostro C (ambient)

- Air throughput from 1250 – 5000m<sup>3</sup>/h
- Low noise levels – 61dB at maximum fan speed
- Low energy consumption
- Maximum mounting height 4m

## Controls



### Panel COMFORT

Control of up to two Ostro Air Curtains Curtain is managed using the COMFORT control panel, which allows adjustment of the airflow and air temperature.

### Magnetic door switch

A magnetic door switch is available to manage Ostro Air Curtain in conjunction of the operation of the doorway.

### BMS communication module

Ostro Air Curtains are compatible with BMS via a communication module, available as an accessory.

### Finish

Materials: EPP and steel.

End caps: grey finish. Steel main body: white finish.

### Installation

Ostro can be mounted vertically or horizontally and side by side in tandem for larger doorways. To enable the correct method of installing Ostro Air Curtain mounting brackets are available as accessories. These are available as horizontal mounting kits and vertical mounting kits.

### Specification

To specify state:

Universally mounted hydronic air curtain with 3 fan speeds and temperature control with heat output of 16kW, or 29kW or 40kW. As Smith's Ostro 100W, or Smith's Ostro 150W, or Smith's Ostro 200W

Universally mounted electric air curtain with 3 fan speeds and temperature control with heat output of 7kW, or 11kW or 14kW.

As Smith's Ostro 100E, or Smith's Ostro 150E, or Smith's Ostro 200E

Universally mounted ambient air curtain with 3 fan speeds.

As Smith's Ostro 100C, or Smith's Ostro 150C, or Smith's Ostro 200C

### Technical data

		Ostro W with water heater			Ostro E with electric heater		
		100W	150W	200W	100E	150E	200E
Length of unit	m	1	1.5	2	1	1.5	2
Max. installation height	m	4	4	4	4	4	4
Max air output	m <sup>3</sup> /h	1200/1550/2000	2200/3000/3600	2900/4000/4800	1200/1550/2000	2200/3000/3600	2900/4000/4800
Heat output	kW	10-16	20-29	25-40	4-7	6.5-11	8.5-14
Max working pressure	MPa	1.6	1.6	1.6	-	-	-
Diameter of connection nozzles	inches	1/2"	1/2"	1/2"	-	-	-
Motor power supply, consumption	V/Hz A	230/50 1.95A	230/50 2.6A	230/50 2.6A	230/50 1.95A	230/50 2.6A	230/50 2.6A
Motor power	kW	51/106/220	75/162/320	75/162/320	51/106/220	75/162/320	75/162/320
Electric heating power supply, consumption	V/Hz A	-	-	-	400/50 11.0A	400/50 16.6A	400/50 22.4A
Weight filled with water/without water	kg	18.0/16.5	22.6/20.5	31.0/28.0	17	21.5	29
Volume level I/II/III*	dB (A)	44/49/59	45/49/61	46/49/61	44/49/59	45/49/61	46/49/61
Protection class IP	-	IP21	IP21	IP21	IP21	IP21	IP21

		Ostro C without heater		
		100C	150C	200C
Length of unit	m	1	1.5	2
Max. installation height	m	4	4	4
Max air output	m <sup>3</sup> /h	1250/1600/2100	2250/3100/3700	3000/4200/5000
Heat output	kW	-	-	-
Max working pressure	MPa	-	-	-
Diameter of connection nozzles	inches	-	-	-
Motor power supply, consumption	V/Hz A	230/50 1.95A	230/50 2.6A	230/50 2.6A
Motor power	kW	51/106/220	75/162/320	75/162/320
Electric heating power supply, consumption	V/Hz A	-	-	-
Weight filled with water/without water	kg	15	18.5	25
Volume level I/II/III*	dB (A)	45/50/60	46/50/61	47/50/61
Protection class IP	-	IP21	IP21	IP21

\* Noise level measured in distance of 3m in an open space

# Ostro

## Applications

Office  
Hospitality  
Retail  
Showroom

A range of commercial air curtains designed for use in the entrances of shops, offices, leisure facilities, hotels, schools, hospitals and most other public buildings

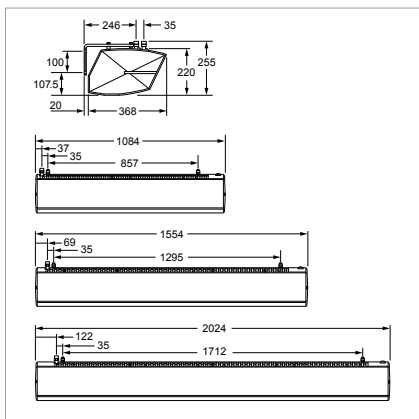
**Technical data** For other heat output data please download the data sheet from our website

inlet/outlet water temperature	water 70/50 °C					water 80/60 °C					water 70/50 °C					water 80/60 °C				
	inlet air temperature (°C)					inlet air temperature (°C)					inlet air temperature (°C)					inlet air temperature (°C)				
	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
<b>OSTRO 100W</b>											<b>OSTRO 150W</b>									
III max air flow - 2000 m³/h											III max air flow - 3600 m³/h									
heat output (kW)	11.3	10.3	9.2	8.1	7.1	13.7	12.6	11.5	10.5	9.4	21.3	19.5	17.7	15.9	14.1	25.1	23.3	21.6	19.7	18.0
outlet air temperature (°C)	18.4	21.8	25.2	28.7	32.1	21.9	25.3	28.7	32.1	35.5	18.3	21.8	25.3	28.9	32.4	21.5	25.0	28.6	32.0	35.6
water flow (m³/h)	0.5	0.4	0.4	0.3	0.3	0.6	0.5	0.5	0.4	0.4	0.8	0.7	0.7	0.6	0.5	1.0	0.9	0.8	0.7	0.7
pressure drop (kPa)	4.0	3.0	2.0	2.0	1.0	5.0	5.0	4.0	3.0	2.0	12.0	10.0	8.0	6.0	5.0	17.0	14.0	12.0	10.0	8.0
III max air flow - 1550 m³/h											III max air flow - 3000 m³/h									
heat output (kW)	10.0	9.1	8.2	7.2	6.3	12.0	11.1	10.2	9.2	8.3	19.6	17.9	16.3	14.7	13.1	23.1	21.4	19.8	18.2	16.6
outlet air temperature (°C)	20.3	23.5	26.8	30.0	33.3	24.2	27.4	30.6	33.9	37.1	19.7	23.1	26.5	29.9	33.2	23.2	26.5	29.9	33.3	36.7
water flow (m³/h)	0.4	0.4	0.3	0.3	0.2	0.5	0.4	0.4	0.4	0.3	0.7	0.7	0.6	0.5	0.5	0.9	0.8	0.8	0.7	0.6
pressure drop (kPa)	3.0	2.0	2.0	1.0	1.0	4.0	3.0	3.0	2.0	2.0	10.0	8.0	6.0	5.0	4.0	14.0	12.0	10.0	8.0	7.0
III max air flow - 1200 m³/h											III max air flow - 2200 m³/h									
heat output (kW)	8.8	8.0	7.2	6.4	5.6	10.5	9.7	8.9	8.1	7.3	16.9	15.5	14.2	12.9	11.5	19.8	18.4	17.1	15.7	14.4
outlet air temperature (°C)	22.3	25.3	28.4	31.5	34.5	26.6	29.6	32.7	35.7	38.8	22.1	25.3	28.5	31.6	34.8	26.1	29.2	32.4	35.6	38.7
water flow (m³/h)	0.3	0.3	0.3	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.6	0.6	0.5	0.4	0.4	0.8	0.7	0.6	0.6	0.5
pressure drop (kPa)	2.0	2.0	1.0	1.0	1.0	3.0	3.0	2.0	2.0	1.0	7.0	6.0	5.0	4.0	3.0	10.0	8.0	7.0	6.0	5.0

inlet/outlet water temperature	water 70/50 °C					water 80/60 °C				
	inlet air temperature (°C)					inlet air temperature (°C)				
	0	5	10	15	20	0	5	10	15	20
<b>OSTRO 200W</b>										
III max air flow - 4800 m³/h										
heat output (kW)	29.8	27.4	25.0	22.6	20.2	34.9	32.5	30.1	27.7	25.3
outlet air temperature (°C)	18.9	22.4	25.9	29.4	32.9	22.1	25.6	29.1	32.6	36.1
water flow (m³/h)	1.1	1.0	0.9	0.8	0.7	1.4	1.2	1.1	1.0	0.9
pressure drop (kPa)	22.0	19.0	15.0	12.0	9.0	32.0	27.0	23.0	19.0	15.0
III max air flow - 4000 m³/h										
heat output (kW)	27.5	25.3	23.1	20.9	18.8	32.1	29.9	27.7	25.5	23.4
outlet air temperature (°C)	20.3	23.7	27.0	30.4	33.8	23.7	27.1	30.5	33.8	37.2
water flow (m³/h)	1.0	0.9	0.8	0.7	0.6	1.2	1.1	1.0	0.9	0.8
pressure drop (kPa)	19.0	16.0	13.0	10.0	8.0	26.0	22.0	19.0	16.0	13.0
III max air flow - 2900 m³/h										
heat output (kW)	23.6	21.8	20.0	18.2	16.4	27.4	25.6	23.8	22.0	20.2
outlet air temperature (°C)	22.9	26.0	29.2	32.3	35.5	26.8	29.9	33.1	36.2	39.4
water flow (m³/h)	0.8	0.8	0.7	0.6	0.5	1.0	0.9	0.9	0.7	0.7
pressure drop (kPa)	13.0	11.0	9.0	7.0	5.0	18.0	16.0	13.0	11.0	9.0

inlet air temperature	100E					150E					200E				
	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
<b>OSTRO 100, 150 and 200 Electric</b>															
heat output (kW)	7.0	7.0	7.0	7.0	7.0	11.0	11.0	11.0	11.0	11.0	14.0	14.0	14.0	14.0	14.0
outlet air temperature (°C)	12	17	22	27	32	13	18	23	28	33	14	19	24	29	34

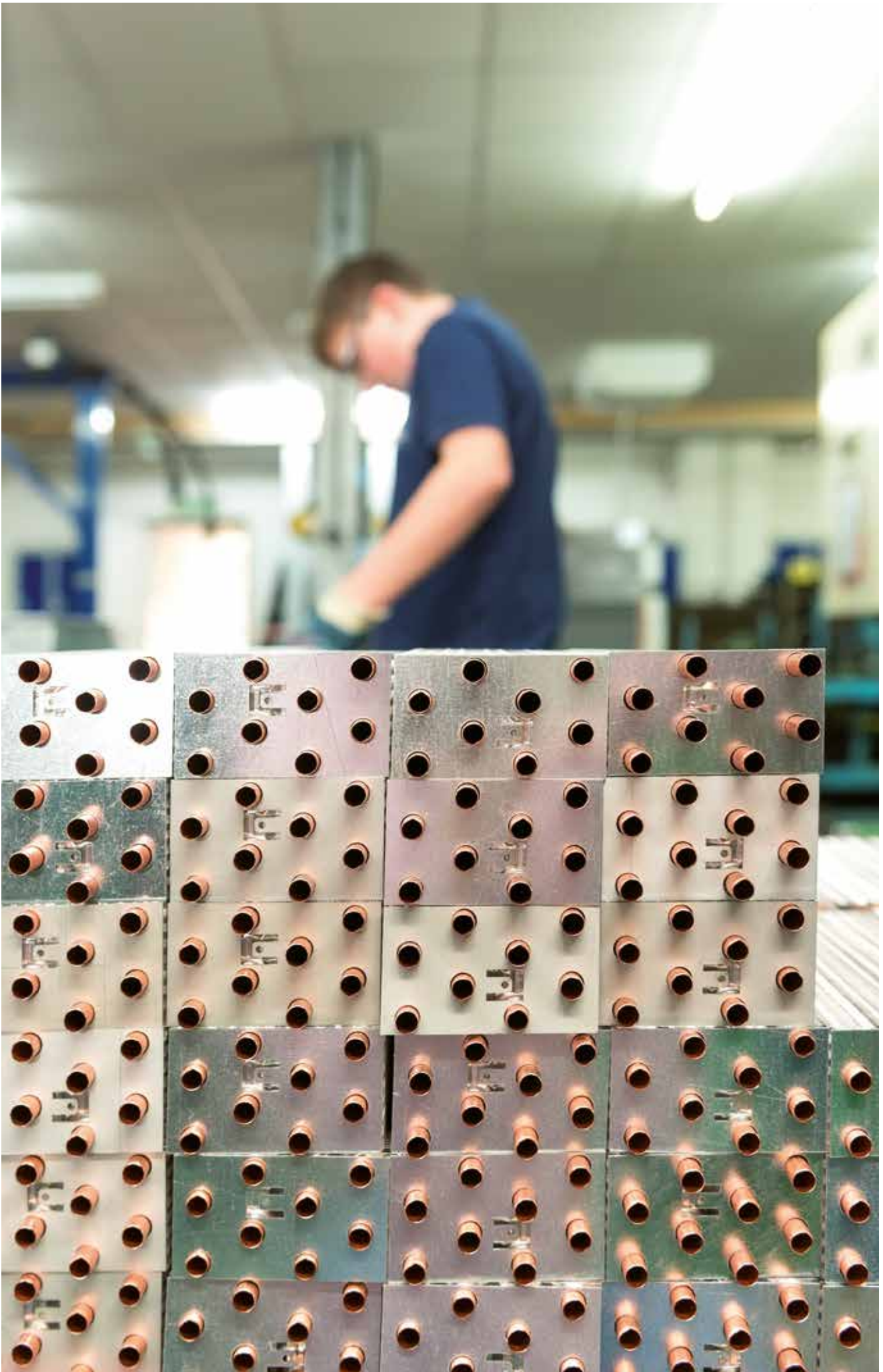




### Ordering guide

Model	Wt (kg)	Product Codes
<b>Ostro W Hydronic</b>		
OSTRO 100W WATER EXCHANGER	18.0 / 16.5	HPAC310014
OSTRO 150W WATER EXCHANGER	22.6 / 20.5	HPAC310015
OSTRO 200W WATER EXCHANGER	31.0 / 28.0	HPAC310016
<b>Ostro E Electric</b>		
OSTRO 100E ELECTRIC EXCHANGER	17.0	HPAC310017
OSTRO 150E ELECTRIC EXCHANGER	21.5	HPAC310018
OSTRO 200E ELECTRIC EXCHANGER	29.0	HPAC310019
<b>Ostro C Ambient</b>		
OSTRO 100C WITHOUT EXCHANGER	15.0	HPAC310020
OSTRO 150C WITHOUT EXCHANGER	18.5	HPAC310021
OSTRO 200C WITHOUT EXCHANGER	25.0	HPAC310022

Accessories	Product Codes
OSTRO HORIZONTAL HOLDER SET	HPAC310023
OSTRO VERTICAL HOLDER SET	HPAC310024
1/2" STRAIGHT VALVE	HPUH310026
ACTUATOR TS LITE M30X1,5	HPUH310027
<b>Controls</b>	
TR-110L PANEL COMFORT - speed regulation & thermostat	HPUH310009
OSTRO DOOR SWITCH	HPAC310025
OSTRO AIR CURTAIN BMS MODULE	HPUH310028



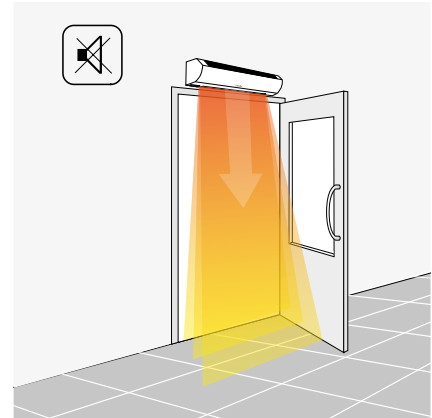
# Air Curtains - S2 Series

Smith's S2 series of electric air curtains are ideal for smaller commercial spaces such as pavilions, small retail outlets, mini markets and pick-up windows

## Applications

Office  
Hospitality  
Retail  
Showroom

COMMERCIAL



These stylish units deliver energy efficient and quiet protection against cold air from outside

Innovative noise reduction system

Shock-absorbing dampers to minimise noise

Stitch-elements ensure fast heating and high temperature difference

Operation mode without heating for protection against outside heat, dust and insects in summer

Convenient and aesthetic connection to the terminals inside the housing (3kW model includes a power cord with plug)

Built-in thermostat protects against overheating

### Finish

White finish.

### Installation

Installed horizontally above doorway.  
Installation height of 2.5m.

### Controls

Controls on the body of the air curtain.  
Remote control with thermostat (E10 only).

### Specification

To specify state:

Horizontally mounted electric Air Curtain at 3kW, 5.5kW or 9.8kW output in white finish. As Smith's Air Curtain S2 3.3kW, 5.5kW or 9.8kW.

Heating power, kW	S2 E3 Electric 3.3 / 1.6 / 0	S2 E5 Electric 5.5 / 2.7 / 0	S2 E10 Electric 9.8 / 4.9 / 0
Capacity, m <sup>3</sup> /h	350	450	1 050
Maximum installation height, m	2.5	2.5	2.5
Supply voltage, V	230	230	415 (3 phase)
Air temperature increase, °C	26 °C	34 °C	26 °C
Device dimensions (WxHxD), mm	585x150x155	800x150x155	1570x150x155
Package dimensions (WxHxD), mm	630x165x185	860x165x185	1655x165x185
Product colour	White	White	White

### Ordering guide

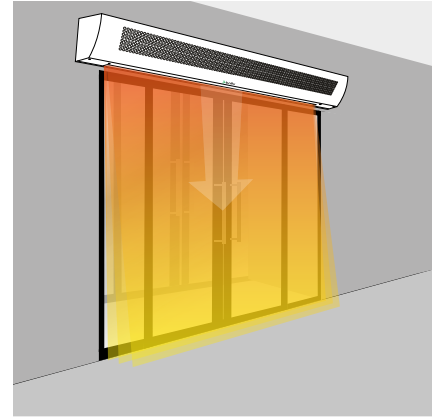
Description	Net Wt (Kg)	Product Codes
<b>Electric</b>		
AIR CURTAIN S2 E3	4.5	HPAC64105
AIR CURTAIN S2 E5	6.8	HPAC64106
AIR CURTAIN S2 E10	12.6	HPAC64108

# Air Curtains - PS Series

The PS series are high performance, high efficiency air curtains for larger commercial spaces such as production premises, workshops, warehouses, logistics centres and sports facilities

## Applications

Education  
Healthcare  
Leisure and sport  
Office  
Hospitality  
Retail  
Industrial



These air curtains can be mounted horizontally and vertically and feature two performance modes, 70% or 100% in order to best adapt their performance mode to the weather conditions

Solid nozzle has no blind zones and provides reliable protection

High-efficiency fans

Precise balancing almost excludes vibration and ambient noise during operation of curtains

Work chamber of special design generates stabilized laminar air flow

Minimisation of turbulent flows in curtains ensures formation of solid closing flow, effectively protecting opening, at nozzle outlet

Capillary protection thermostat ensures timely shutdown of curtain in case of overheating, and manual restart function excludes repeated overheating

Anti-corrosive treatment and strong polymer coating of casing

Operation mode without heating for protection from outdoor heat, dust and insects in summer

## Finish

Anti-corrosive treatment and strong polymer coating of casing.  
White finish.

## Installation

Installed universally (horizontally to vertically).  
Installation height up to 4.5m.

## Controls

Remote control with thermostat.

## Specification

To specify state:

Universally mounted electric Air Curtain constructed in anti-corrosive material with remote control and thermostat at 13.1kW, 19.7kW or 26.2kW.

As Smith's Air Curtain PS Series 13.1kW, 19.7kW or 26.2kW

Heating power, kW	PS E13 Electric 13.1 / 6.6 / 0	PS E20 Electric 19.7 / 9.8 / 0	PS E26 Electric 26.2 / 13.1 / 0
Capacity, m <sup>3</sup> /h	2500 / 1800	4000 / 2700	5000 / 3500
Maximum installation height, m	4.5	4.5	4.5
Supply voltage, V	415 (3 phase)	415 (3 phase)	415 (3 phase)
Air temperature increase, °C	15 / 20 °C	15 / 20 °C	15 / 21 °C
Device dimensions (WxHxD), mm	1120x285x295	1530x285x295	2020x285x295
Package dimensions (WxHxD), mm	1140x325x385	1540x325x385	2060x325x385

## Ordering guide

Description	Net Wt (Kg)	Product Codes
<b>Electric</b>		
AIR CURTAIN PS E13	22.6	HPAC64101
AIR CURTAIN PS E20	27.9	HPAC64102
AIR CURTAIN PS E26	40.2	HPAC64103



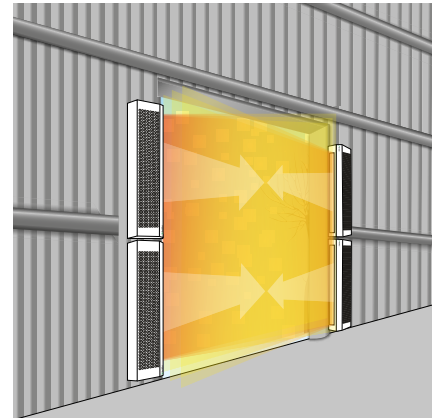
# Air Curtains - PS (W) Series

The PS(W) series are high performance, high efficiency air curtains for larger commercial spaces such as production premises, workshops, warehouses, logistics centres and sports facilities

## Applications

Education  
Healthcare  
Leisure and sport  
Office  
Hospitality  
Retail  
Industrial

COMMERCIAL



These air curtains can be mounted horizontally and vertically and feature two performance modes, 70% or 100% in order to best adapt their performance mode to the weather conditions

In the summer, these air curtains can be operated without heating to protect against outside heat, dust and insects

Reliable copper-aluminium heat exchanger with working pressure up to 16 bar at 150 °C

Corrugated finning increases the heat exchange area and enhances the heating efficiency

High-performance aluminium fans

Precise balancing practically eliminates vibration and extraneous noise during operation of the air curtains

Working chamber of special structure developed jointly with the Punker company (Germany) creates a stabilized laminar air flow

Minimisation of turbulent flows in the air curtains ensures the formation of a dense shearing flow at the nozzle exit which protects the opening

Universal connection to the heating system - pipes are output on the left or right side of the housing

## Finish

Anti-corrosive treatment and strong polymer coating of casing.  
White finish.

## Installation

Installed universally (horizontally to vertically).  
Installation height up to 4.5m.

## Controls

Remote control with thermostat.

## Specification

To specify state:

Universally mounted hydronic Air Curtain with a copper heat exchanger with remote control and thermostat at 18.1kW, 18.4kW, 27.7kW, 29.2kw or 36.6kW.  
As Smith's Air Curtain PS (W) Series 18.1kW, 18.4kW, 27.7kW, 29.2kw or 36.6kW.

	PS (W) W28 - 3.5 Water	PS (W) W18 - 4.5 Water	PS (W) W29 - 4.5 Water	PS (W) W37 - 4.5 Water
Heating power, kW	27.7 / 25.2 / 22.4	18.1 / 16.5 / 14.7	29.2 / 26.6 / 23.7	36.6 / 33.3 / 29.6
Capacity, m <sup>3</sup> /h	3200 / 2700 / 2300	2500 / 2100 / 1700	4000 / 3200 / 2600	5000 / 4200 / 2400
Maximum installation height, m	3.5	4.5	4.5	4.5
Supply voltage, V	230	230	230	230
Air temperature increase, °C	27 / 29.2 / 31.9 °C	23.2 / 25.2 / 27.8 °C	23.5 / 25.4 / 28 °C	23.4 / 25.4 / 28 °C
Device dimensions (WxHxD), mm	1900x260x240	1100x300x290	1510x300x290	1960x300x290
Package dimensions (WxHxD), mm	1940x330x280	1140x385x325	1540x385x325	2060x385x325

## Ordering guide

Description	Net Wt (Kg)	Product Codes
<b>Water</b>		
AIR CURTAIN PS (W) W28 - 3.5	30	HPAC64203
AIR CURTAIN PS (W) W18 - 4.5	23.7	HPAC64204
AIR CURTAIN PS (W) W29 - 4.5	31	HPAC64205
AIR CURTAIN PS (W) W37 - 4.5	43	HPAC64206

# Solano

A modern and lightweight hydronic fan-assisted unit heater to heat open areas such as production and warehouses, car showrooms, service stations, sports halls and agricultural facilities

## Applications

Industrial  
Workshops  
Retail  
Showrooms  
Leisure and sport



Lightweight for easy installation <15kg

High performance heat output up to 70kW\*

Air volumes up to 4100 m<sup>3</sup>/h

3 speed fan

Attractive design

### Finish

Expanded Polypropylene (EPP) - Silver grey.

### Installation

Suitable for wall or ceiling mounting.  
Bracket design aids installation at also 30° and 60°.

### Specification

To specify state:  
Lightweight hydronic fan-assisted unit heater at 10-30kW, 30-50kW, 50-70kW.  
As Smith's Solano.

### Technical data

		HEATER R1	HEATER R2	HEATER R3	HEATER MIX
heat output range	kW	10-30	30-50	50-70	-
max air output	m <sup>3</sup> /h	4 100	3 500	3 400	5 600
no of unit rows	-	1	2	3	-
air temperature increase*	°C	14	29	29	-
max working pressure	Mpa	1.6	1.6	1.6	-
max airflow range	m	27	25	24	15 **
diameter of connection nozzles	inches	3/4"	3/4"	3/4"	-
power supply	V/Hz A	230/50	1.15 A	230/50	1.16 A
motor power	kW	0.25	0.25	0.36	0.36
motor speed	rpm	1350	1350	1400	1400
protection class IP	-	IP54	IP54	IP54	IP54
sound level	dB (A)***	59.4	59.4	60.5	60.5
weight without water/ with water	kg	10.8 / 11.9	12.7 / 14.8	14.5 / 16.9	9.2

\* for temperatures of 90/70 and inlet temperature of 0°C

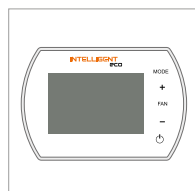
\*\* maximum height of assembly for vertical airflow, max working range of up to 380m<sup>2</sup>.  
Horizontal range of isothermal stream at velocity of 0.5 m/s

\*\*\* measured in distance of 5m

### Controls



- Panel COMFORT
- Manual temperature regulation
  - Fan speed change
  - Ventilation in summer season
  - Control up to 3 pcs of HEATER

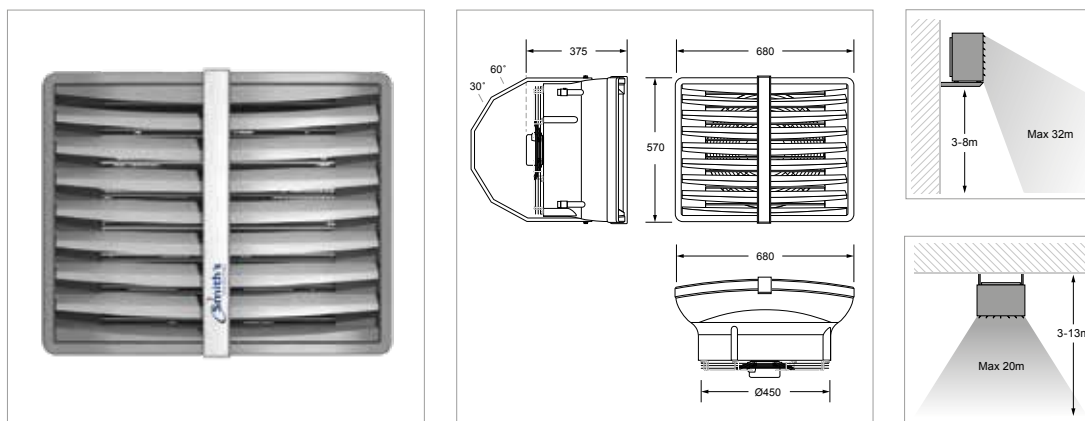


- Panel INTELLIGENT
- Weekly thermostat
  - Automatic change of fan speed depending on room temperature
  - BMS communication
  - Control up to 2 pcs of HEATER



- Splitter MULTI 6
- Control up to 6 pcs of HEATER





**Heat output** For other heat output data please download the data sheet from our website

inlet/outlet water temperature		water 70/50 °C					water 80/60 °C					water 90/70 °C				
inlet air temperature	°C	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
<b>Heater R1</b>		Air flow 4100 m³/h (speed 3)														
heat output	kW	14.66	13.20	11.74	10.28	8.82	17.74	16.27	14.80	13.35	11.89	20.77	19.30	17.83	16.37	14.91
outlet air temperature	°C	9.90	14.10	18.20	22.30	26.30	12.00	16.20	20.30	24.50	28.60	14.00	18.20	22.40	26.60	30.70
water flow	m³/h	0.64	0.58	0.51	0.45	0.39	0.78	0.71	0.65	0.59	0.52	0.92	0.85	0.79	0.72	0.66
pressure drop	kPa	10.35	8.56	6.92	5.45	4.13	14.26	12.18	10.27	8.52	6.92	18.57	16.25	14.08	12.06	10.18
<b>Heater R2</b>		Air flow 3500 m³/h (speed 3)														
heat output	kW	26.20	23.65	21.11	18.59	16.08	31.39	28.82	26.28	23.76	21.24	36.53	33.94	31.38	28.84	26.32
outlet air temperature	°C	20.70	24.00	27.30	30.40	33.60	24.80	28.20	31.50	34.70	37.90	28.90	32.30	35.70	39.00	42.20
water flow	m³/h	1.15	1.03	0.92	0.81	0.70	1.38	1.27	1.15	1.04	0.93	1.61	1.50	1.39	1.27	1.16
pressure drop	kPa	10.53	8.76	7.15	5.69	4.39	14.19	12.18	10.32	8.61	7.04	18.22	15.96	13.86	11.91	10.10
<b>Heater R3</b>		Air flow 3400 m³/h (speed 3)														
heat output	kW	37.8	34.5	31.1	27.7	24.3	45.1	41.8	38.4	35.1	31.7	52.3	49.0	45.7	42.4	39.1
outlet air temperature	°C	29.0	31.5	34.0	36.4	38.8	34.5	37.1	39.6	42.1	44.5	40.0	42.6	45.2	47.7	50.1
water flow	m³/h	1.7	1.5	1.4	1.2	1.1	2.0	1.8	1.7	1.5	1.4	2.3	2.2	2.2	1.9	1.7
pressure drop	kPa	13.6	11.5	9.6	7.8	6.2	18.3	15.9	13.7	11.6	9.7	23.4	20.8	18.3	16.0	13.8

**Ordering guide**

Model	Wt (kg)	Product Codes	Accessories	Product Codes
HEATER R1 (10-30 kW)	10.8 / 11.9	HPUH310011	SOLANO PANEL INTELLIGENT	HPUH310008
HEATER R2 (30-50 kW)	12.7 / 14.8	HPUH310012	SOLANO PANEL COMFORT	HPUH310009
HEATER R3 (50-70 kW)	14.5 / 16.9	HPUH310013	SOLANO SPLITTER MULTI 6	HPUH310010
HEATER MIX	9.2	HPUH310004		

# Pedestal

A new range of freestanding natural convector pedestal heaters, Kiosk, Trafalgar and Tube in a variety of shapes, lengths and finishes

## Applications

Education  
Healthcare  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom



Perfect for beneath large windows, Smith's freestanding pedestal heaters help to minimise the problem of downward cold airflow with commonly associated with glazed façades

Fitting into the smallest of spaces Smith's range of freestanding pedestal heaters provide a stylish solution without the need for wall hung heaters

Lengths from 0.5m to 2m

Perfect for where sub-floor trench heating is not possible

Heat source: boiler or heat pump

## Finish

Outer casing: 1.2mm zintec. Polyester powder coated.  
Paint specification: textured white BS 4800 00A01 18% gloss.

## Installation

Flow and return connections 22mm copper.  
Designed for system pressures up to 10 bar.  
Suitable for two pipe central heating systems only.

## Customised requirements

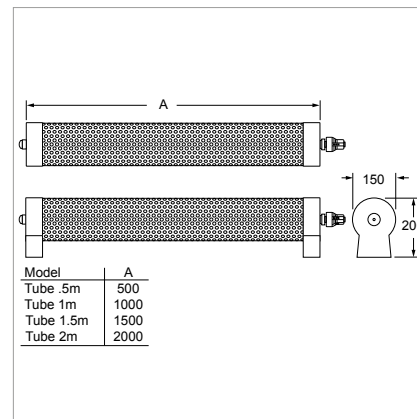
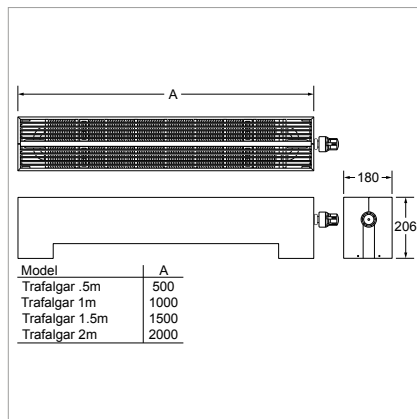
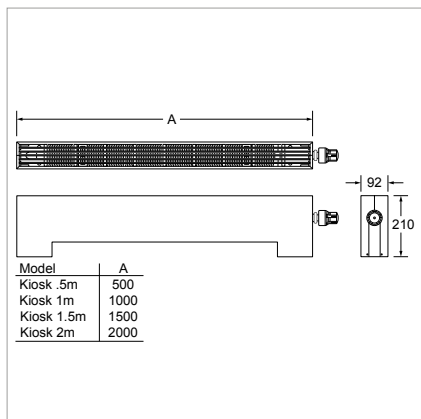
Any colour finishes are available on request.  
Price and availability will be confirmed at the time of order.

## Controls

Supplied with TRV and lockshield valve.

## Specification

To specify state:  
Low height freestanding pedestal heater in linear form with rectangular profile, large rectangular profile or circular profile.  
As Smith's Kiosk, Trafalgar or Tube.



### Heat output

Product length	ΔT °C					
	20 ΔT	30 ΔT	40 ΔT	50 ΔT	60 ΔT	70 ΔT
<b>Kiosk</b>						
0.5m	22	39	60	83	109	136
1.0m	73	133	202	281	367	459
1.5m	125	226	345	479	626	783
2.0m	176	320	487	677	884	1106
<b>Trafalgar</b>						
0.5m	39	72	110	154	201	253
1.0m	133	243	373	519	681	856
1.5m	226	414	635	885	1160	1459
2.0m	320	585	898	1250	1640	2062
<b>Tube</b>						
0.5m	36	64	96	132	170	212
1.0m	88	157	237	325	421	524
1.5m	141	251	378	519	671	836
2.0m	193	344	519	712	922	1148

Entering ambient air temperature of 20°C  
Outputs in Watts. In accordance with EN442 - BSRIA verified

### How to calculate Mass Flow Rate (L/S)

$$M = H / CP \times (\text{Flow } ^\circ\text{C} - \text{Return } ^\circ\text{C})$$

M = Mass flow rate (L/S)  
H = Output of product (W)  
CP = Specific heat capacity [J/(kg·°C)]. Varies upon system temperature, Approx. 4187 if fluid is water.

### How to calculate Mean Water Temperature (ΔT)

$$\text{Mean water temperature } (\Delta T) \left[ \frac{\text{Flow temperature} + \text{Return temperature}}{2} \right] - \text{Ambient Temperature}$$

**Ordering guide** Listed below are the Pedestal in white complete with TRV.

Description	Wt (kg)	Product Codes
<b>Kiosk</b>		
PEDESTAL KIOSK 500	5	HPKI100025
PEDESTAL KIOSK 1000	10	HPKI100028
PEDESTAL KIOSK 1500	15	HPKI100031
PEDESTAL KIOSK 2000	20	HPKI100034
<b>Trafalgar</b>		
PEDESTAL TRAFALGAR 500	8	HPTR110025
PEDESTAL TRAFALGAR 1000	16	HPTR110028
PEDESTAL TRAFALGAR 1500	24	HPTR110031
PEDESTAL TRAFALGAR 2000	32	HPTR110034
<b>Tube</b>		
PEDESTAL TUBE 500 WHT	5	HPTU110001
PEDESTAL TUBE 1000 WHT	10	HPTU110004
PEDESTAL TUBE 1500 WHT	15	HPTU110007
PEDESTAL TUBE 2000 WHT	20	HPTU110010

# Ecovector® High

The Ecovector Hydronic fan convectors provide effective and dependable heating for both small and large commercial areas, fitted unobtrusively above head height

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial  
Residential



They work particularly well in shops and libraries, where lower wall space is limited

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Supplied as standard in white but casing can be supplied in any colour

### Motor

AC only.

### Finish

Front casing: zinc-coated steel.  
Polyester powder-coated RAL 9010.  
Side panels: polymer eggshell white.

### Installation

Maximum installation height 2.1m (6'11") to underside.  
No top or side clearance required.  
Unit must be earthed (except model 1000-12V).  
Suitable for two-pipe central heating systems.  
Patress box not supplied for transformer (model 1000-12V).

### Commissioning

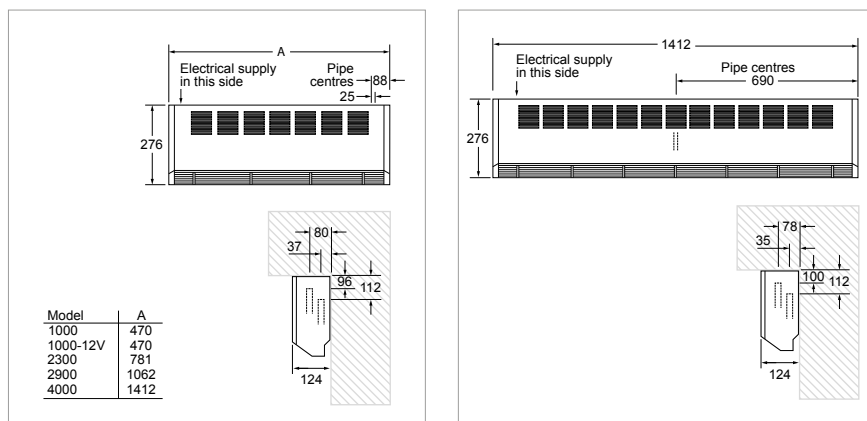
Check water is hot enough to activate the low temperature cut-out thermostat. The inclusion of an automatic air vent at the highest point is recommended to avoid possible air locks.

### Controls

Two rocker switches - normal/off/boost, heating/fan-only.  
Low temperature cut out thermostat, set to energise fan at approximately 35°C.

### Specification

To specify state:  
High level hydronic fan convector in white.  
As Smith's Ecovector High 1000, 2300, 2900, 4000, 1000-12V.



**Heat Output** For other heat output data please visit our website

Model	Heat Output at 75°		Heat Output at 45°	
	Normal (kW)	Boost (kW)	Normal (kW)	Boost (kW)
ECOVECTOR 1000	1.0	1.2	0.5	0.6
ECOVECTOR 2300	2.1	2.8	1.1	1.4
ECOVECTOR 2900	2.7	4.0	1.4	2.0
ECOVECTOR 4000	3.7	4.8	1.8	2.5
ECOVECTOR 1000-12V	1.0	1.2	0.5	0.5

**Ordering guide**

Model	Packed Wt (kg)	Product Codes
ECOVECTOR HL 1000 AC	7	HPEV50011
ECOVECTOR HL 2300 AC	11	HPEV50012
ECOVECTOR HL 2900 AC	15	HPEV50013
ECOVECTOR HL 4000 AC	18	HPEV50014
ECOVECTOR HL 1000-12V AC	8	HPEV50015
Accessories		
ROOM THERMOSTAT HARD WIRED		HAGA95001
ROOM THERMOSTAT HARD WIRED SIEMENS		HACA33104
ROOM THERMOSTAT RF SIEMENS		HACA33074
ROOM THERMOSTAT TAMPER PROOF SIEMENS		HACA95004

Model	Flow & return connections	Mains cable	Transformer	Fused spur	Total Power Consumption		Water Capacity (Litres)	Sound Levels		Casting colour	Fan-only
					Normal (Watts)	Boost (Watts)		Normal (dBA)	Boost (dBA)		
ECOVECTOR 1000	15mm	1.5m	n/a	3A	20	25	0.28	32	40	white	•
ECOVECTOR 2300	15mm	1.5m	n/a	3A	20	32	0.32	34	50	white	•
ECOVECTOR 2900	15mm	1.5m	n/a	3A	33	50	0.52	37	51	white	•
ECOVECTOR 4000	22mm	1.5m	n/a	3A	40	60	1.04	39	52	white	•
ECOVECTOR 1000-12V	15mm	0.45m	•	3A	20	25	0.28	32	39	white	•

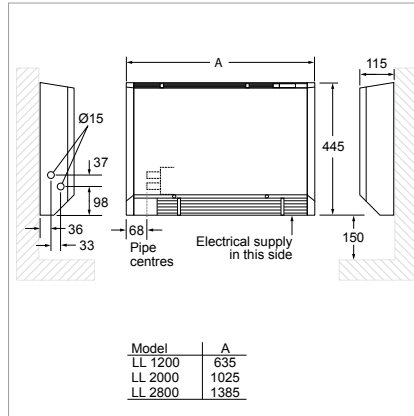
Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate. Sound levels measured at 1.5m.

# Ecovector® Low

Ecovector Low Level fan convectors provide warmth from the floor upwards and are more energy efficient and effective than radiators

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial  
Residential



The Ecovector can heat up a room more quickly than radiators, thereby reducing the amount of time your boiler or heat pump is running - making it extremely efficient and cost effective

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Ideal for new and existing developments, due to ease of installation, the Ecovector is available in a range of models to suit varying room sizes and heat output requirements

Supplied as standard in white but casing can be supplied in any colour

### Motor

AC only.

### Finish

Front casing: zinc-coated steel.  
Polyester powder-coated RAL 9010.  
Side panels: polymer eggshell white.

### Installation

Mounting bracket supplied.  
Unit must be earthed.  
Suitable for two-pipe central heating systems.  
Minimum height above floor level 150mm.  
Maximum height above floor level 500mm.

### Commissioning

Check water is hot enough to activate the selectable low temperature cut-out thermostat.

### Control

Rocker switch - normal/off/boost.  
Built-in room thermostat.  
Low temperature cut-out thermostat set to energise fan at approximately 35°C.

### Specification

To specify state:  
Low level hydronic fan convector in white.  
As Smith's Ecovector Low LL1200, LL2000, LL2800.

**Heat Output** For other heat output data please visit our website

Model	Heat Output at 75°		Heat Output at 45°	
	Normal (kW)	Boost (kW)	Normal (kW)	Boost (kW)
ECOVECTOR LL 1200	1.1	1.4	0.5	0.6
ECOVECTOR LL 2000	1.9	2.4	0.9	1.1
ECOVECTOR LL 2800	2.6	3.2	1.2	1.5

### Ordering guide

Model	Packed Wt (kg)	Product Codes
ECOVECTOR LL 1200 AC	12	HPEV50001
ECOVECTOR LL 2000 AC	17	HPEV50002
ECOVECTOR LL 2800 AC	24	HPEV50003

Model	Flow & return connections	Mains cable	Trans-former	Fused spur	Total Power Consumption		Water Capacity (Litres)	Sound Levels		Casting colour	Fan-only
					Normal (Watts)	Boost (Watts)		Normal (dBA)	Boost (dBA)		
ECOVECTOR LL 1200	15mm	1.5m	n/a	3A	17	21	0.29	32	38	white	n/a
ECOVECTOR LL 2000	15mm	1.5m	n/a	3A	26	55	0.58	35	40	white	n/a
ECOVECTOR LL 2800	15mm	1.5m	n/a	3A	43	76	0.83	37	42	white	n/a

Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate. Sound levels measured at 1.5m.

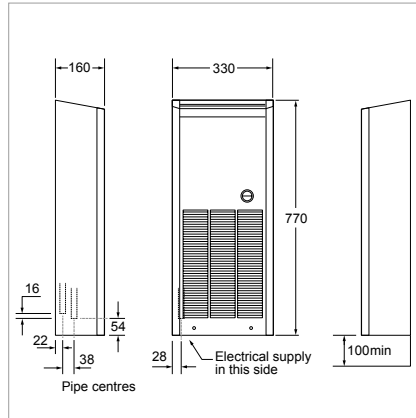


# Ecovector® Vertical

Ideal for hallways, corridors, alcoves and other places where space is limited. Ecovector can heat up a room more quickly than radiators, thereby reducing the amount of time your boiler or heat pump is running - making it extremely efficient and cost effective

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial  
Residential



Ideal for new and existing building developments

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Supplied as standard in white but casing can be supplied in any colour

### Motor

AC only.

### Finish

Front casing and side panels: zinc-coated steel.  
Polyester powder-coated RAL 9010.

### Installation

Mounting bracket supplied.  
Unit must be earthed.  
Suitable for two-pipe central heating systems.  
Minimum height above floor level 150mm.  
Maximum height above floor level 500mm.

### Commissioning

Check water is hot enough to activate the selectable low temperature cut-out thermostat.

### Controls

Rocker switch - normal/off/boost.  
Low temperature cut-out thermostat set to energise fan at approximately 35°C.  
Wireless wall mounted thermostat included with this product.

### Specification

To specify state:  
Vertical floor mounted hydronic fan convector in white.  
As Smith's Ecovector Vertical.

**Heat Output** For other heat output data please visit our website

Model	Heat Output at 75°		Heat Output at 45°	
	Normal (kW)	Boost (kW)	Normal (kW)	Boost (kW)
Ecovector VE 2500	2.3	2.4	1.1	1.1

**Ordering guide**

Model	Packed Wt (kg)	Product Codes
ECOVECTOR VE 2500 AC	15	HPEV50021

Model	Flow & return connections	Mains cable	Trans-former	Fused spur	Total Power Consumption		Water Capacity (Litres)	Sound Levels		Casting colour	Fan-only
					Normal (Watts)	Boost (Watts)		Normal (dBA)	Boost (dBA)		
Ecovector VE 2500	15mm	1.5m	n/a	3A	28	36	0.75	36	39	white	n/a

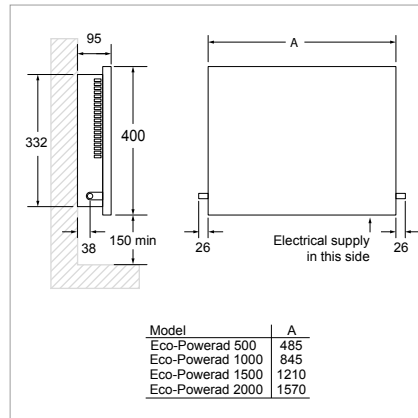
Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate. Sound levels measured at 1.5m.

# Eco-Powerad®

The Eco-Powerad is the fan convector of the future - energy efficient, responsive and suitable for installation within most wet central heating systems, driven by either boilers or low temperature renewable technology

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Residential



Compact, with smooth lines to achieve visual simplicity, the Eco-Powerad also features low surface temperature casing for complete safety and possesses a very low operating sound - between 28 and 32 decibels

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Supplied as standard in white but casing can be supplied in any colour

### Motor

AC only.

### Finish

Front casing: zinc coated steel.  
Polyester powder-coated RAL 9010.

### Installation

Mounting bracket supplied.  
Unit must be earthed.  
Suitable for two-pipe central heating systems.  
Minimum height above floor level 150mm.  
Maximum height above floor level 500mm.

### Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.  
Ensure system is balanced for even heat distribution.

### Control

Low temperature cut-out thermostat, set to energise fan at approximately 35°C.  
Suitable for thermostatic radiator valves (TRV) - not supplied.  
Rocker switch - normal/low.

### Specification

To specify state:  
Wall mounted hydronic heat emitter with fan and low temperature cut-out.  
As Smith's Eco-Powerad 500, 1000, 1500, 2000.

**Heat Output** For other heat output data please visit our website

Model	Heat Output at 75° (kW)	Heat Output at 45° (kW)
ECO-POWERAD 500	0.8	0.4
ECO-POWERAD 1000	2.1	0.8
ECO-POWERAD 1500	2.4	1.2
ECO-POWERAD 2000	3.5	1.7

**Ordering guide**

Model	Packed Wt (kg)	Product Codes
ECO-POWERAD LL 500 AC	6	HPEP52001
ECO-POWERAD LL 1000 AC	10	HPEP52002
ECO-POWERAD LL 1500 AC	14	HPEP52003
ECO-POWERAD LL 2000 AC	18	HPEP52004

Model	Flow & return connections	Mains cable	Transformer	Fused spur	Total Power Consumption (Watts)	Water Capacity (Litres)	Sound Levels (dBA)	Casting colour
ECO-POWERAD 500	15mm	2m	n/a	3A	15	0.17	28	white
ECO-POWERAD 1000	15mm	2m	n/a	3A	18	0.28	30	white
ECO-POWERAD 1500	15mm	2m	n/a	3A	33	0.44	31	white
ECO-POWERAD 2000	15mm	2m	n/a	3A	36	0.55	32	white

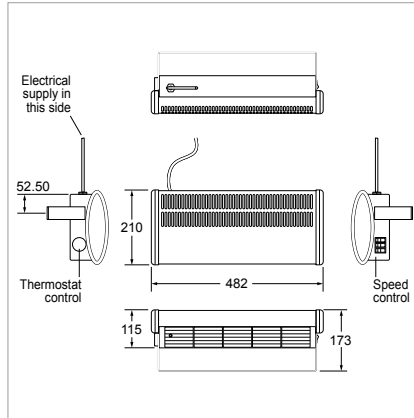
Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate. Sound levels measured at 1.5m.

# Sterling

The Sterling fan-assisted electric heater is a great low cost solution providing effective and dependable heating for both small and large commercial areas, fitted unobtrusively above head height

## Applications

Education  
Healthcare  
Places of worship  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Industrial  
Residential



It has been designed for rooms with limited lower wall space, such as shops and libraries

### Motor

AC only.

### Finish

Outer casing 0.9mm zinc-coated steel.  
Polyester powder-coated white.  
Side panels: Polymer - white.

### Installation

Recommended installation height 2.3m (7ft 6") to underside.  
Not suitable for bathrooms and other high humidity areas.  
Angled mounting (optional).  
13 amp fused spur required.  
Unit must be earthed.

### Controls

Rocker switches for fan and element - fan only 1kW/2kW/3kW.  
Built-in room thermostat.  
Overheat protection: thermal cut-out.  
Manual reset procedure: switch power off at mains, wait 20 minutes, switch power on.

### Specification

To specify state:  
3-speed electric fan-assisted heater in white polyester coated 0.9mm zinc-coated steel body with built in room thermostat.  
As Smith's Sterling.

## Heat output

Model	Heat Output (kW)
STERLING E 3KW AC	1kW/2kW/3kW

## Ordering guide

Model	Packed Wt (kg)	Product Codes
STERLING E 3KW AC	4	HPST51011

Model	Fused spur	Total Power Consumption (kW)	Sound Levels (dBA)	Casting colour	Fan-only
STERLING E 3KW AC	13A	1kW/2kW/3kW	39	white	•

Sound levels measured at 1.5m with the product installed at 2.2m high

# Sureline®

Provides gentle, discreet and efficient low-level warmth and is the ideal heating solution for areas where wall space is limited - rooms such as loft conversions and new-builds

## Applications

Education  
Healthcare  
Leisure and sport  
Office  
Hospitality  
Retail  
Showroom  
Residential



Simple to install along the skirting in any room, Sureline is an efficient natural convector that provides discreet heating

Supplied as standard in white but casing can be supplied in any colour

### Finish

Outer casing 0.7mm zinc coated steel.

Polyester powder-coated RAL 9010.

Each length includes casing, element, backplate and joining strip.

Casing only includes casing, backplate and joining strip.

### Installation

Minimum clearance above floor 50mm.

Flow and return connections 22mm copper.

Designed for system pressures up to 10 bar.

Suitable for two-pipe central heating systems only.

### Attachments

Casing only (1000mm)

LH valve box/end cap kit

RH valve box/end cap kit

Centre valve cover

90° internal cover

90° external cover

135° internal cover

135° external cover

Finger guard 500 (500mm)

Finger guard 1000 (1000mm)

Element (1000mm)

### Customised requirements

We are able to offer casings painted in any colour.

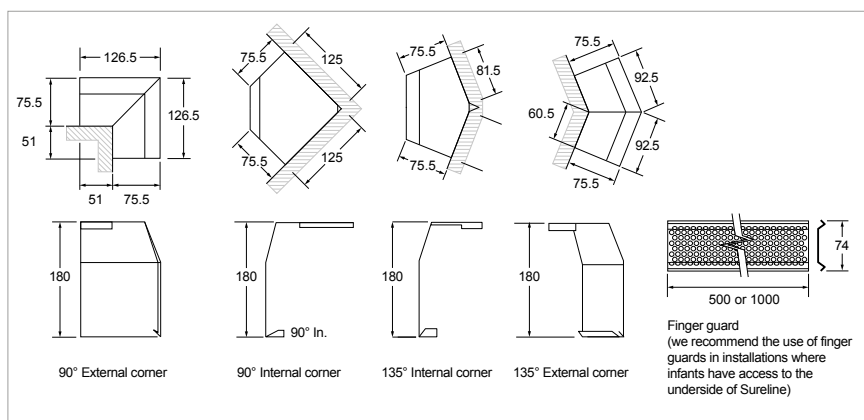
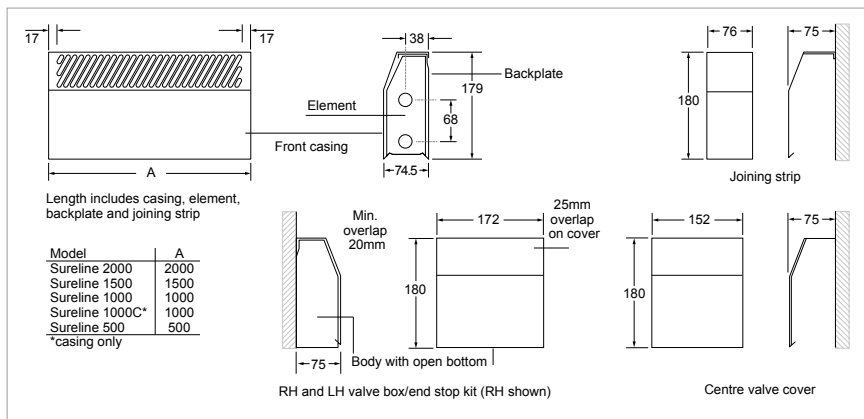
Price and availability will be confirmed at the time of order.

### Specification

To specify state:

Skirting level perimeter hydronic heat emitter in white.

As Smith's Sureline 500, 1000, 1500, 2000.



**Heat Output** For other heat output data please download the data sheet from our website

	Flow Rate L/h (G/h)	Btu/h/m @ average water temperature						W/m @ average water temperature					
		50°C	55°C	60°C	65°C	70°C	75°C	50°C	55°C	60°C	65°C	70°C	75°C
Two supplies - Parallel	920 (200)	1310	1570	1820	2070	2300	2560	380	460	530	610	670	750
Bottom supply - Top return	920 (200)	1030	1250	1460	1710	1920	2140	300	370	430	500	560	630

**Ordering guide**

Model	Packed Wt (kg)	Product Codes
SURELINE 500	5	HPSL30001
SURELINE 1000	7	HPSL30002
SURELINE 1500	10	HPSL30003
SURELINE 2000	14	HPSL30004

Attachments	Product Codes
SURELINE CASING 1000MM	HASL30101
SURELINE LEFT HAND VALVE COVER/END CAP	HASL30102
SURELINE RIGHT HAND VALVE COVER/END CAP	HASL30103
SURELINE CENTRE VALVE COVER	HASL30104
SURELINE 90° INTERNAL CORNER	HASL30105
SURELINE 90° EXTERNAL CORNER	HASL30106
SURELINE 135° INTERNAL CORNER	HASL30107
SURELINE 135° EXTERNAL CORNER	HASL30108
SURELINE FINGER GUARD 500MM	HASL30109
SURELINE FINGER GUARD 1000MM	HASL30110
SURELINE ELEMENT 1000MM	HASL30111

# Space Saver

A highly energy efficient fan convector that fits neatly into the plinth of a kitchen unit and eliminates the need for conventional radiators

## Applications

Kitchen  
Utility  
Bathroom



Makes room for extra kitchen storage, work space, or additional appliances

More affordable than underfloor heating

Get the flooring you want

Discreet heating

Easy to use

Suitable for plinth heights from 80mm upwards

Contemporary design with a wide choice of grille colours to suit interior decoration

Two heat outputs and fan only option for instant heat and cool air circulation

Low voltage bathroom model available for high humidity areas

Free five years parts and labour warranty

### Easy to use

Smith's Space Saver comes on and off with your central heating, just like the rest of your radiators do. It uses the same water that your radiator uses, just a lot less and it has a tiny energy efficient electric fan that pushes out the heat into the room.

### How many do I need?

As a rule of thumb, for every radiator you remove, install one Space Saver. If you need further help, go to our website to read our installation guides, email us or give us call.

### Is it quiet?

The sound is very similar to that of your fridge and we think you won't notice it as you go about your daily life in your kitchen, boiling kettles, running taps, chatting with friends.

### Is it expensive to run?

Not at all. Because the heat comes from your boiler (hydronic version) the only extra is the running cost of the fan - it costs 1p a day to use a Space Saver in your kitchen.

### Can I find out more?

Just visit our website for more information and a list of stockists. Any questions, please contact us directly.



### How a Smith's Space Saver works

#### Hydronic:

Hot water from your central heating system passes through a heat exchanger transferring its heat to the aluminium fins. Cooler air is drawn in by the fan and heated as it passes through the heat exchanger before being expelled gently back into the room. This not only gives a more even temperature spread, but will heat up a room quicker than a traditional panel radiator.

#### Hydronic Low Voltage:

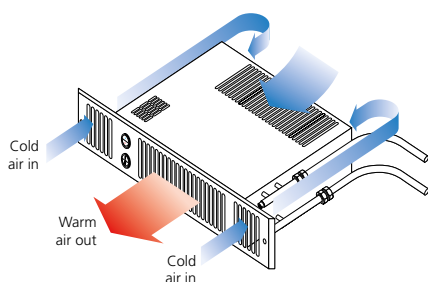
Functions in exactly the same way as a hydronic models but uses a transformer to ensure the product is safe to operate with wet hands.

#### Hydronic/Electric:

Like a hydronic model but also includes an electric element so you can still use the product when the central heating system is switched off.

#### Electric:

Plugs into a standard electrical socket when there isn't access to the central heating system. Electric heaters cost 15p per kWh to run.



### Alternative grille finishes

Most Space Saver models are supplied with a detachable Stainless Steel fascia grille. Alternative colours are shown below.



Brown



Black



Chrome



White

Grilles shown are for colour reference only and switch configuration varies by product

**Outputs** For other heat output data please download the data sheet from our website

Model	Heat Output		Sound levels		Fascia grille finish	Fan-only	Minimum plinth height (mm)
	Normal (kW)	Boost (kW)	Normal (dBA)	Boost (dBA)			
<b>Hydronic</b>							
SS80	0.8	1.1	32	40	Stainless Steel	•	80
SS3	1.1	1.4	26	39	Stainless Steel	•	100
SS5	1.3	1.7	27	43	Stainless Steel	•	100
SS7	1.6	1.9	30	44	Stainless Steel	•	100
SS9	2.2	2.4	41	46	Stainless Steel	•	120
<b>Hydronic Low Voltage</b>							
SS5 12V	1.3	1.7	31	39	Stainless Steel	•	100
<b>Hydronic/Electric (Dual)</b>							
SS5 Dual (in hydronic mode)	1.3	1.7	27	43	Stainless Steel	•	100
SS5 Dual (in electric mode)	1.0	-	27	43			100
<b>Electric</b>							
SS3E	1kW/2kW/3kW		42		Brushed Steel	•	100
SS2E	1kW/2kW		42		Brushed Steel	•	100
SS80E	0.6kW/1.2kW		42		Stainless Steel	•	80

Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate.

Fan-only option operational only when central heating system is switched off.

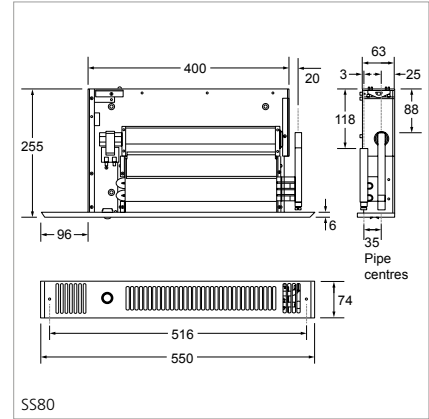
Dual models include an electric element which in electric heating mode will emit 1kW of heat. Sound levels measured at 1.5m.

# Space Saver - Hydronic

A highly energy efficient fan convector that fits neatly into the plinth of a kitchen unit and eliminates the need for conventional radiators

## Applications

Kitchen  
Utility  
Bathroom



Makes room for extra kitchen storage, work space, or additional appliances

More affordable than underfloor heating

Get the flooring you want

Discreet heating

Easy to use

Suitable for plinth heights from 80mm upwards

Contemporary design with a wide choice of grille colours to suit interior decoration

Two heat outputs and fan only option for instant heat and cool air circulation

Low voltage bathroom model available for high humidity areas

Free five years parts and labour warranty

### Motor

AC.

### Finish

Fascia grille: Stainless Steel.  
See under attachments for other fascia grille colours.

### Installation

Correct fascia grille opening must be cut to allow sufficient air intake.

20mm clearance above unit required.

Model secured to plinth by two screws through fascia grille.

Unit must be earthed (not 12 volt SELV).  
Suitable for two-pipe central heating systems only.

SS80 supplied with detachable cable.

SS80 models have easy fit thermostat facility.

### Commissioning

Check water temperature is hot enough to activate low temperature cut-out thermostat. (LTC). Vent screw accessible through fascia grille.

### Controls

Single rocker switch - low/off/normal.

SS80: Low temperature cut-out thermostat set to energise fan at approximately 35°C.

SS5/Dual: Wireless temperature control

featuring comfort, setback and run back timer (battery operated) supplied, three

rocker switches, heating/off/fan-only, hydronic/electric, normal/boost.

Low temperature cut-out thermostat set to

energise fan at approximately 35°C.

All other models: two rocker switches

-normal/off/boost, heating/fan-only.

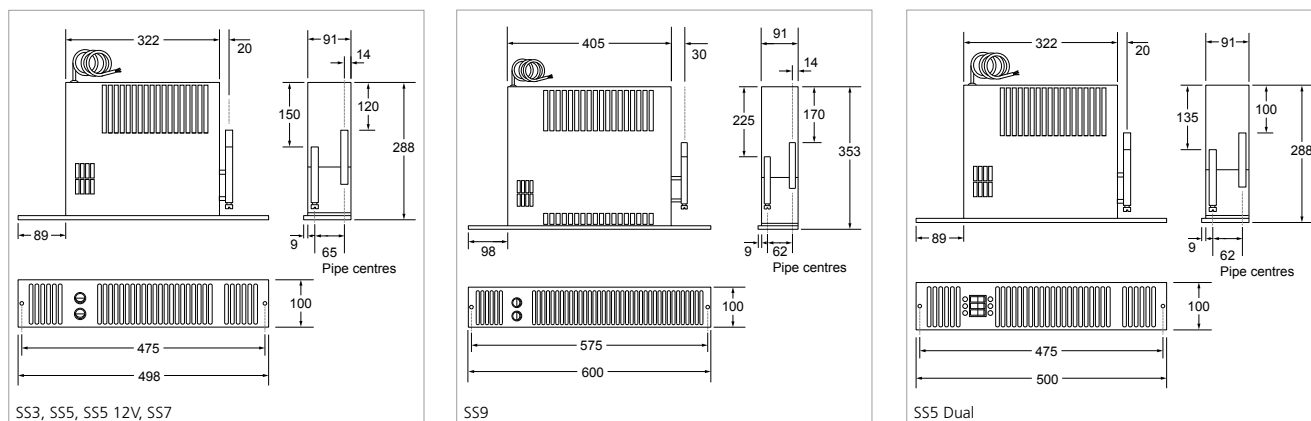
Low temperature cut-out thermostat set to energise fan at approximately 35°C.

### Accessories

Wall-mounted room thermostat.

Wall mounted control switch (white) to suit SS3, SS5, SS5/12V, SS7, SS9.

Grilles: brown (RAL 8016), black (RAL 9005), white (RAL 9010) and chrome.



**Outputs** For other outputs, please see page 59

Model	Flow & return connections	Mains cable	Transformer	Flexible hoses	Fused spur	Output		Water Capacity (Litres)
						Normal (W)	Boost (W)	
SS3	15mm	2m	n/a	n/a	3A	18	25	0.36
SS5	15mm	2m	n/a	•	3A	18	25	0.36
SS7	15mm	2m	n/a	•	3A	21	30	0.38
SS9	15mm	2m	n/a	•	3A	24	35	0.53
SS80	15mm	2m	n/a	•	3A	5	10	0.35
SS5 12V	15mm	0.45m	•	•	3A	21	30	0.36
SS5 Dual	15mm	2m	n/a	•	3A	18 (electric mode)	25 (electric mode)	0.36

### Ordering guide

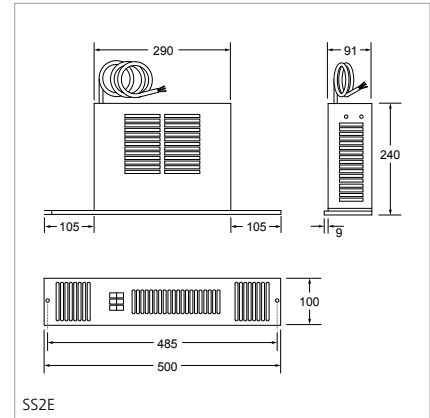
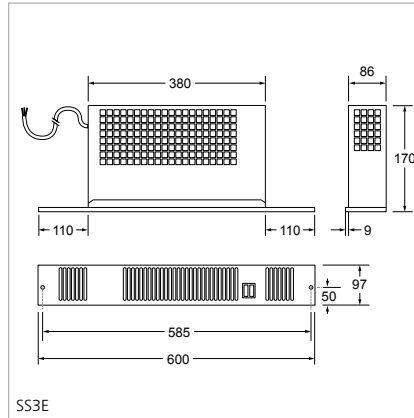
Model	Packed Wt (kg)	Product Codes
<b>Hydronic - with stainless steel grilles</b>		
SPACE SAVER SS3	5	HPSS10001
SPACE SAVER SS5	6	HPSS10002
SPACE SAVER SS7	6	HPSS10003
SPACE SAVER SS9	7	HPSS10004
SPACE SAVER SS80	5	HPSS10009
SPACE SAVER SS5/12V	6	HPSS10005
<b>Hydronic/Electric - with stainless steel grilles</b>		
SPACE SAVER SS5/Dual	6	HPSS10076

Accessories	Colour	Product Codes
SPACE SAVER SS3 / SS5 / SS5 12V / SS7 GRILLE	BROWN	HASS10101
SPACE SAVER SS3 / SS5 / SS5 12V / SS7 GRILLE	BLACK	HASS10102
SPACE SAVER SS3 / SS5 / SS5 12V / SS7 GRILLE	WHITE	HASS10103
SPACE SAVER SS3 / SS5 / SS5 12V / SS7 GRILLE	CHROME	HASS10104
SPACE SAVER SS9 GRILLE	BROWN	HASS10111
SPACE SAVER SS9 GRILLE	BLACK	HASS10112
SPACE SAVER SS9 GRILLE	WHITE	HASS10113
SPACE SAVER SS9 GRILLE	CHROME	HASS10114
SPACE SAVER SS5 DUAL GRILLE	BROWN	HASS10121
SPACE SAVER SS5 DUAL GRILLE	BLACK	HASS10122
SPACE SAVER SS5 DUAL GRILLE	WHITE	HASS10123
SPACE SAVER SS5 DUAL GRILLE	CHROME	HASS10124
SPACE SAVER SS80 GRILLE	BROWN	HASS10141
SPACE SAVER SS80 GRILLE	BLACK	HASS10142
SPACE SAVER SS80 GRILLE	WHITE	HASS10143
SPACE SAVER SS80 GRILLE	CHROME	HASS10165
ROOM THERMOSTAT HARD WIRED		HAGA95001
SPACE SAVER WALL MOUNTED CONTROL SWITCH SS3, SS5, SS7, SS9		HASS10162
FLEXIBLE HOSES 15MM PAIR		HAGA95002

# Space Saver - Electric

**Applications**  
Kitchen  
Utility

A highly energy efficient fan convector that fits neatly into the plinth of a kitchen unit and eliminates the need for conventional radiators



Makes room for extra kitchen storage, work space, or additional appliances

More affordable than underfloor heating

Get the flooring you want

Discreet heating

Easy to use

Suitable for plinth heights from 80mm upwards

Contemporary design with a wide choice of grille colours to suit interior decoration

Two heat outputs and fan only option for instant heat and cool air circulation

Free five years parts and labour warranty

**Motor**  
AC.

#### Finish

Fascia grille: Stainless Steel or White RAL 9010 (SS2E, SS3E).

See under attachments for other fascia grille colours.

#### Installation

Correct fascia grille opening must be cut to allow sufficient air intake.

SS2E and SS3E - 20mm clearance above unit required.

SS80E - 10mm clearance above unit required.

Model secured to plinth by two screws through fascia grille.

Unit must be earthed.

#### Controls

Wireless temperature control featuring comfort, set back and run back timer (battery operated) supplied.

Overheat protection: thermal cut-out.

Manual reset procedure: switch power off at unit or mains, wait 5 minutes, switch power on.

SS2E: three rocker switches On/off, 1kW, 2kW.

SS3E: two rockers switches 1kW, 2kW, 3kW.

SS80E: three rocker switches On/off, 0.6kW, 1.2kW.

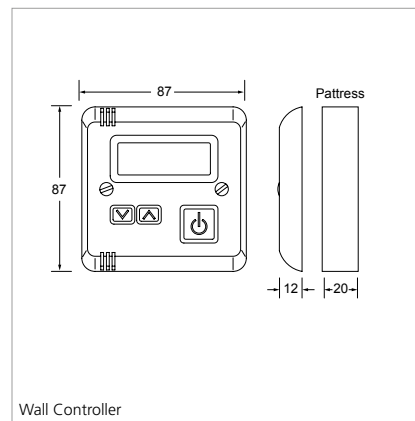
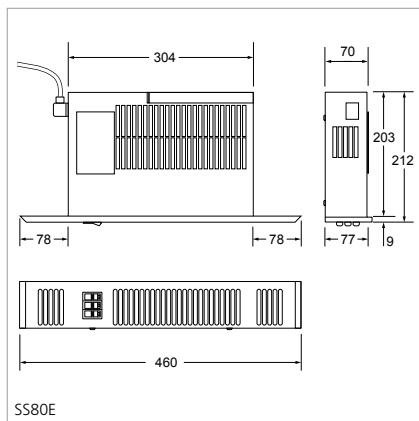
#### Accessories

Wall-mounted control switch (white) to suit SS2E.

Grilles SS2E: brown (RAL 8016), black (RAL 9005) white (RAL 9010), chrome.

Alternative grilles for SS2E fit over the supplied grille.

Grilles SS80E: brown (RAL 8016), black (RAL 9005), white (RAL 9010).



**Outputs** For other outputs, please see page 59

Model	Mains cable	Fused spur	Output (kW)
SS2E	2m	10A	1kW/2kW
SS3E	2m	13A	1kW/2kW/3kW
SS80E	2m	10A	0.6kW/1.2kW

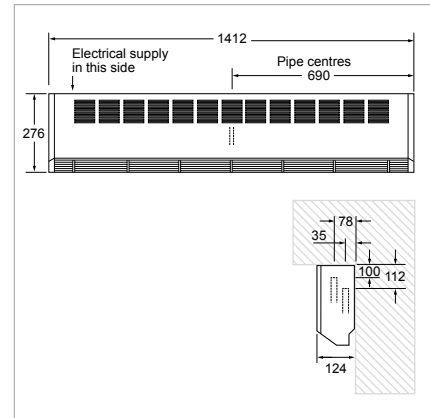
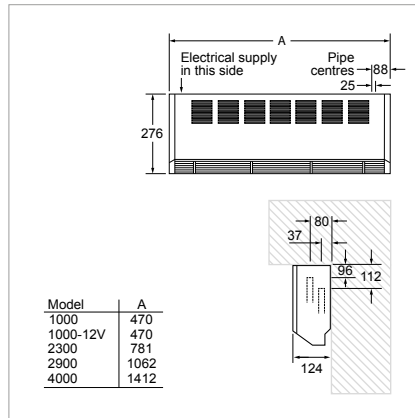
### Ordering guide

Model	Packed Wt (kg)	Product Codes
<b>Electric</b>		
SPACE SAVER SS2E (STAINLESS STEEL GRILLE)	4	HPSS10070
SPACE SAVER SS2E (WHITE GRILLE)	4	HPSS10079
SPACE SAVER SS3E (STAINLESS STEEL GRILLE)	5	HPSS10075
SPACE SAVER SS3E (WHITE GRILLE)	5	HPSS10084
SPACE SAVER SS80E (STAINLESS STEEL GRILLE)	4	HPSS10073
<b>Attachments</b>		<b>Colour</b>
SPACE SAVER SS2E GRILLE	BROWN	HASS10131
SPACE SAVER SS2E GRILLE	BLACK	HASS10132
SPACE SAVER SS2E GRILLE	WHITE	HASS10133
SPACE SAVER SS2E GRILLE	CHROME	HASS10134
SPACE SAVER SS80E GRILLE	BROWN	HASS10151
SPACE SAVER SS80E GRILLE	BLACK	HASS10152
SPACE SAVER SS80E GRILLE	WHITE	HASS10153
SPACE SAVER SS80E GRILLE	CHROME	HASS10164
<b>Accessories</b>		
SPACE SAVER WALL MOUNTED CONTROL SWITCH SS2E		HASS10161
FLEXIBLE HOSES 15MM PAIR		HAGA95002

# Ecovector® High

Applications  
Bathroom  
Conservatory

The Ecovector Hydronic Low Voltage fan convectors provide effective and dependable heating for both small and large commercial areas, fitted unobtrusively above head height



They work particularly well in shops and libraries, where lower wall space is limited

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Supplied as standard in white but casing can be supplied in any colour

### Motor

AC only.

### Finish

Front casing: zinc-coated steel.  
Polyester powder-coated RAL 9010.  
Side panels: polymer eggshell white.

### Installation

Maximum installation height 2.1m (6'11") to underside.

No top or side clearance required.  
Unit must be earthed (except model 1000-12V).

Suitable for two-pipe central heating systems.  
Patress box not supplied for transformer (model 1000-12V).

### Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.  
The inclusion of an automatic air vent at the highest point is recommended to avoid possible air locks.

### Controls

Two rocker switches - normal/off/boost, heating/fan-only.  
Low temperature cut out thermostat, set to energise fan at approximately 35°C.

### Accessories

See matrix on page 74.

**Heat Output** For other heat output data please visit our website

Model	Heat Output at 75°		Heat Output at 45°	
	Normal (kW)	Boost (kW)	Normal (kW)	Boost (kW)
ECOVECTOR 1000	1.0	1.2	0.5	0.6
ECOVECTOR 2300	2.1	2.8	1.1	1.4
ECOVECTOR 2900	2.7	4.0	1.4	2.0
ECOVECTOR 4000	3.7	4.8	1.8	2.5
ECOVECTOR 1000-12V	1.0	1.2	0.5	0.5

### Ordering guide

Model	Packed Wt (kg)	Product Codes
ECOVECTOR HL 1000 AC	7	HPEV50011
ECOVECTOR HL 2300 AC	11	HPEV50012
ECOVECTOR HL 2900 AC	15	HPEV50013
ECOVECTOR HL 4000 AC	18	HPEV50014
ECOVECTOR HL 1000-12V AC	8	HPEV50015
Accessories		
ROOM THERMOSTAT HARD WIRED		HAGA95001
ROOM THERMOSTAT HARD WIRED SIEMENS		HACA33104
ROOM THERMOSTAT RF SIEMENS		HACA33074
ROOM THERMOSTAT TAMPER PROOF SIEMENS		HACA95004

Model	Flow & return connections	Mains cable	Trans-former	Fused spur	Total Power Consumption		Water Capacity (Litres)	Sound Levels		Casting colour	Fan-only
					Normal (Watts)	Boost (Watts)		Normal (dBA)	Boost (dBA)		
ECOVECTOR 1000	15mm	1.5m	n/a	3A	20	25	0.28	32	40	white	•
ECOVECTOR 2300	15mm	1.5m	n/a	3A	20	32	0.32	34	50	white	•
ECOVECTOR 2900	15mm	1.5m	n/a	3A	33	50	0.52	37	51	white	•
ECOVECTOR 4000	22mm	1.5m	n/a	3A	40	60	1.04	39	52	white	•
ECOVECTOR 1000-12V	15mm	0.45m	•	3A	20	25	0.28	32	39	white	•

Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate.  
Fan-only option operational only when central heating system is switched off.  
Sound levels measured at 1.5m.

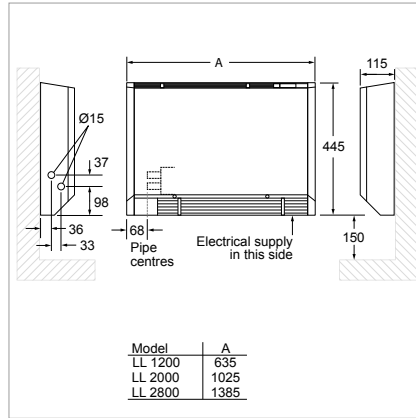


# Ecovector® Low

Ecovector Low Level fan convectors provide warmth from the floor upwards and are more energy efficient and effective than radiators

## Applications

Bathroom  
Bedroom  
Kitchen  
Utility  
Conservatory



The Ecovector can heat up a room more quickly than radiators, thereby reducing the amount of time your boiler or heat pump is running - making it extremely efficient and cost effective

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Ideal for new and existing developments, due to ease of installation, the Ecovector is available in a range of models to suit varying room sizes and heat output requirements

Supplied as standard in white but casing can be supplied in any colour

### Motor

AC only.

### Finish

Front casing: zinc-coated steel.  
Polyester powder-coated RAL 9010.  
Side panels: polymer eggshell white.

### Installation

Mounting bracket supplied.  
Unit must be earthed.  
Suitable for two-pipe central heating systems.  
Minimum height above floor level 150mm.  
Maximum height above floor level 500mm.

### Commissioning

Check water is hot enough to activate the selectable low temperature cut-out thermostat.

### Control

Rocker switch - normal/off/boost.  
Built-in room thermostat.  
Low temperature cut-out thermostat set to energise fan at approximately 35°C.

**Heat Output** For other heat output data please visit our website

Model	Heat Output at 75°		Heat Output at 45°	
	Normal (kW)	Boost (kW)	Normal (kW)	Boost (kW)
ECOVECTOR LL 1200	1.1	1.4	0.5	0.6
ECOVECTOR LL 2000	1.9	2.4	0.9	1.1
ECOVECTOR LL 2800	2.6	3.2	1.2	1.5

**Ordering guide**

Model	Packed Wt (kg)	Product Codes
ECOVECTOR LL 1200 AC	12	HPEV50001
ECOVECTOR LL 2000 AC	17	HPEV50002
ECOVECTOR LL 2800 AC	24	HPEV50003

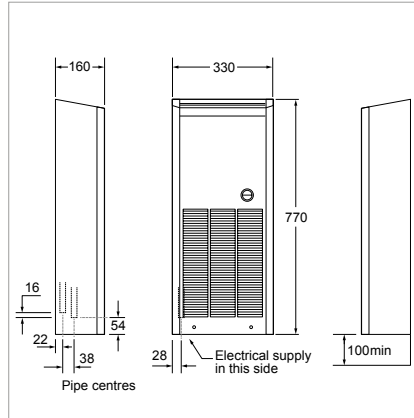
Model	Flow & return connections	Mains cable	Trans-former	Fused spur	Total Power Consumption		Water Capacity (Litres)	Sound Levels		Casting colour	Fan-only
					Normal (Watts)	Boost (Watts)		Normal (dBA)	Boost (dBA)		
ECOVECTOR LL 1200	15mm	1.5m	n/a	3A	17	21	0.29	32	38	white	n/a
ECOVECTOR LL 2000	15mm	1.5m	n/a	3A	26	55	0.58	35	40	white	n/a
ECOVECTOR LL 2800	15mm	1.5m	n/a	3A	43	76	0.83	37	42	white	n/a

Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate.  
Sound levels measured at 1.5m.

# Ecovector® Vertical

Applications  
Hall/Landing  
Study

Ideal for hallways, corridors, alcoves and other places where space is limited. Ecovector can heat up a room more quickly than radiators, thereby reducing the amount of time your boiler or heat pump is running - making it extremely efficient and cost effective



Ideal for new and existing building developments

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Supplied as standard in white but casing can be supplied in any colour

#### Motor

AC only.

#### Finish

Front casing and side panels: zinc-coated steel.

Polyester powder-coated RAL 9010.

#### Installation

Mounting bracket supplied.

Unit must be earthed.

Suitable for two-pipe central heating systems.

Minimum height above floor level 150mm.

Maximum height above floor level 500mm.

#### Commissioning

Check water is hot enough to activate the selectable low temperature cut-out thermostat.

#### Controls

Rocker switch - normal/off/boost.

Low temperature cut-out thermostat set to energise fan at approximately 35°C.

Wireless wall mounted thermostat included with this product.

**Heat Output** For other heat output data please visit our website

Model	Heat Output at 75°		Heat Output at 45°	
	Normal (kW)	Boost (kW)	Normal (kW)	Boost (kW)
Ecovector VE 2500	2.3	2.4	1.1	1.1

**Ordering guide**

Model	Packed Wt (kg)	Product Codes
ECOVECTOR VE 2500 AC	15	HPEV50021

Model	Flow & return connections	Mains cable	Transformer	Fused spur	Total Power Consumption		Water Capacity (Litres)	Sound Levels		Casting colour	Fan-only
					Normal (Watts)	Boost (Watts)		Normal (dBA)	Boost (dBA)		
Ecovector VE 2500	15mm	1.5m	n/a	3A	28	36	0.75	36	39	white	n/a

Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate.

Fan-only option operational only when central heating system is switched off.

Sound levels measured at 1.5m.

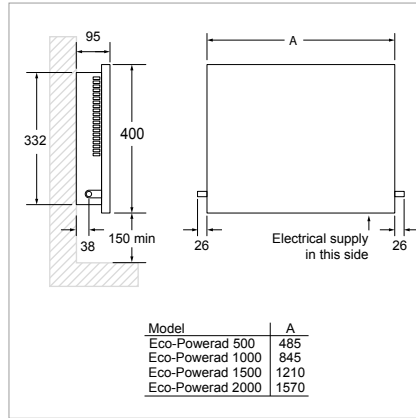
# Eco-Powerad®

The Eco-Powerad is the fan convector of the future - energy efficient, responsive and suitable for installation within most wet central heating systems, driven by either boilers or low temperature renewable technology

## Applications

Bathroom  
Bedroom  
Study  
Living/dining room  
Kitchen  
Utility  
Conservatory

RESIDENTIAL/DOMESTIC



Compact, with smooth lines to achieve visual simplicity, the Eco-Powerad also features low surface temperature casing for complete safety and possesses a very low operating sound - between 28 and 32 decibels

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Supplied as standard in white but casing can be supplied in any colour

### Motor

AC only.

### Finish

Front casing: zinc coated steel.  
Polyester powder-coated RAL 9010.

### Installation

Mounting bracket supplied.  
Unit must be earthed.  
Suitable for two-pipe central heating systems.  
Minimum height above floor level 150mm.  
Maximum height above floor level 500mm.

### Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.  
Ensure system is balanced for even heat distribution.

### Control

Low temperature cut-out thermostat, set to energise fan at approximately 35°C.  
Suitable for thermostatic radiator valves (TRV) - not supplied.  
Rocker switch - normal/low.

**Heat Output** For other heat output data please visit our website

Model	Heat Output at 75° (kW)	Heat Output at 45° (kW)
ECO-POWERAD 500	0.8	0.4
ECO-POWERAD 1000	2.1	0.8
ECO-POWERAD 1500	2.4	1.2
ECO-POWERAD 2000	3.5	1.7

**Ordering guide**

Model	Packed Wt (kg)	Product Codes
ECO-POWERAD LL 500 AC	6	HPEP52001
ECO-POWERAD LL 1000 AC	10	HPEP52002
ECO-POWERAD LL 1500 AC	14	HPEP52003
ECO-POWERAD LL 2000 AC	18	HPEP52004

Model	Flow & return connections	Mains cable	Transformer	Fused spur	Total Power Consumption (Watts)	Water Capacity (Litres)	Sound Levels (dBA)	Casting colour
ECO-POWERAD 500	15mm	2m	n/a	3A	15	0.17	28	white
ECO-POWERAD 1000	15mm	2m	n/a	3A	18	0.28	30	white
ECO-POWERAD 1500	15mm	2m	n/a	3A	33	0.44	31	white
ECO-POWERAD 2000	15mm	2m	n/a	3A	36	0.55	32	white

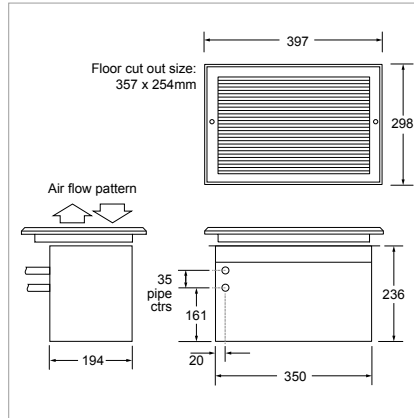
Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate.  
At inlet water temperatures of 75°C and below, all Eco-Powerad models are classified as LST (low surface temperature) appliances.  
Sound levels measured at 1.5m.

# Spacemaker

A fan convector that installs flush with the floor, providing efficient and effective heat at low level

## Applications

Hall  
Kitchen  
Utility  
Conservatory



Perfect for places in the home where space is particularly limited

Ideal for spaces such as entrance halls, lobbies, circulation areas and applications where wall space is limited

### Motor

AC only.

### Finish

Anodised aluminium grille with removable centre section.

### Installation

Installs between floor joists or purpose made trenches in concrete floors.

Air intake and discharge through grille.

Unit must be earthed.

Suitable for two-pipe central heating systems only.

### Commissioning

Check water temperature is hot enough to activate low temperature cut-out (LTC). Vent screw accessible through grille.

### Controls

Rocker switch - normal/off/boost, below grille

Low temperature cut-out thermostat set to energise fan at approx. 35°C.

**Heat Output** For other heat output data please visit our website

Model	Heat Output at 75°		Heat Output at 45°	
	Normal (kW)	Boost (kW)	Normal (kW)	Boost (kW)
SPACEMAKER SST8	1.5	2.1	0.7	1.0

### Ordering guide

Model	Packed Wt (kg)	Product Codes
SPACEMAKER SST8 AC	7	HPSM12001

Model	Flow & return connections	Mains cable	Trans-former	Fused spur	Total Power Consumption		Water Capacity (Litres)	Sound Levels		Casting colour	Fan-only
					Normal (Watts)	Boost (Watts)		Normal (dBA)	Boost (dBA)		
SPACEMAKER SST8	15mm	1.5m	n/a	3A	20	30	0.27	32	39	Anodised aluminium	n/a

Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate. Sound levels measured at 1.5m.





# Sureline®

Applications  
Study  
Conservatory

Provides gentle, discreet and efficient low-level warmth and is the ideal heating solution for areas where wall space is limited - rooms such as loft conversions and new-builds



Simple to install along the skirting in any room, Sureline is an efficient natural convector that provides discreet heating

Supplied as standard in white but casing can be supplied in any colour

#### Finish

Outer casing 0.7mm zinc coated steel.

Polyester powder-coated RAL 9010.

Each length includes casing, element, backplate and joining strip.

Casing only includes casing, backplate and joining strip.

#### Installation

Minimum clearance above floor 50mm.

Flow and return connections 22mm copper.

Designed for system pressures up to 10 bar.

Suitable for two-pipe central heating systems only.

#### Attachments

Casing only (1000mm)

LH valve box/end cap kit

RH valve box/end cap kit

Centre valve cover

90° internal cover

90° external cover

135° internal cover

135° external cover

Finger guard 500 (500mm)

Finger guard 1000 (1000mm)

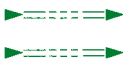

Element (1000mm)

#### Customised requirements

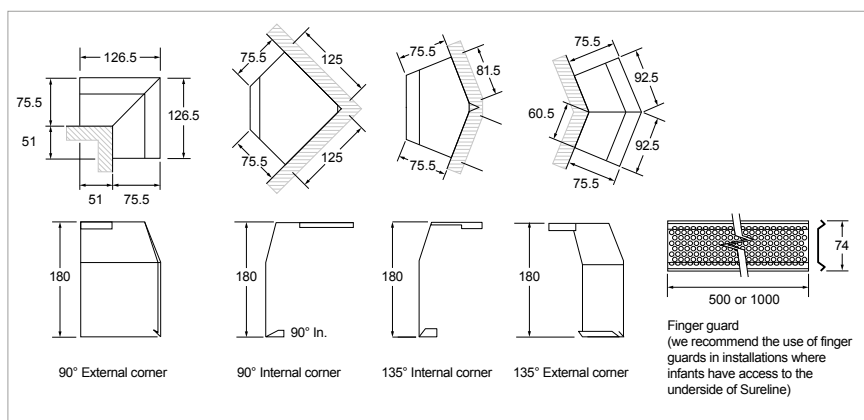
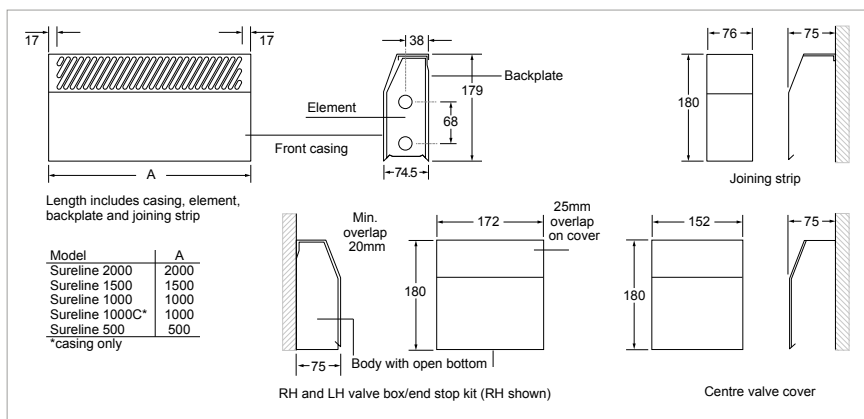
We are able to offer casings painted in any colour.

Price and availability will be confirmed at the time of order.

**Heat Output** For other heat output data please download the data sheet from our website

	Flow Rate L/h (G/h)	Btu/h/m @ average water temperature						W/m @ average water temperature					
		50°C	55°C	60°C	65°C	70°C	75°C	50°C	55°C	60°C	65°C	70°C	75°C
 Two supplies - Parallel	920 (200)	1310	1570	1820	2070	2300	2560	380	460	530	610	670	750
 Bottom supply - Top return	920 (200)	1030	1250	1460	1710	1920	2140	300	370	430	500	560	630

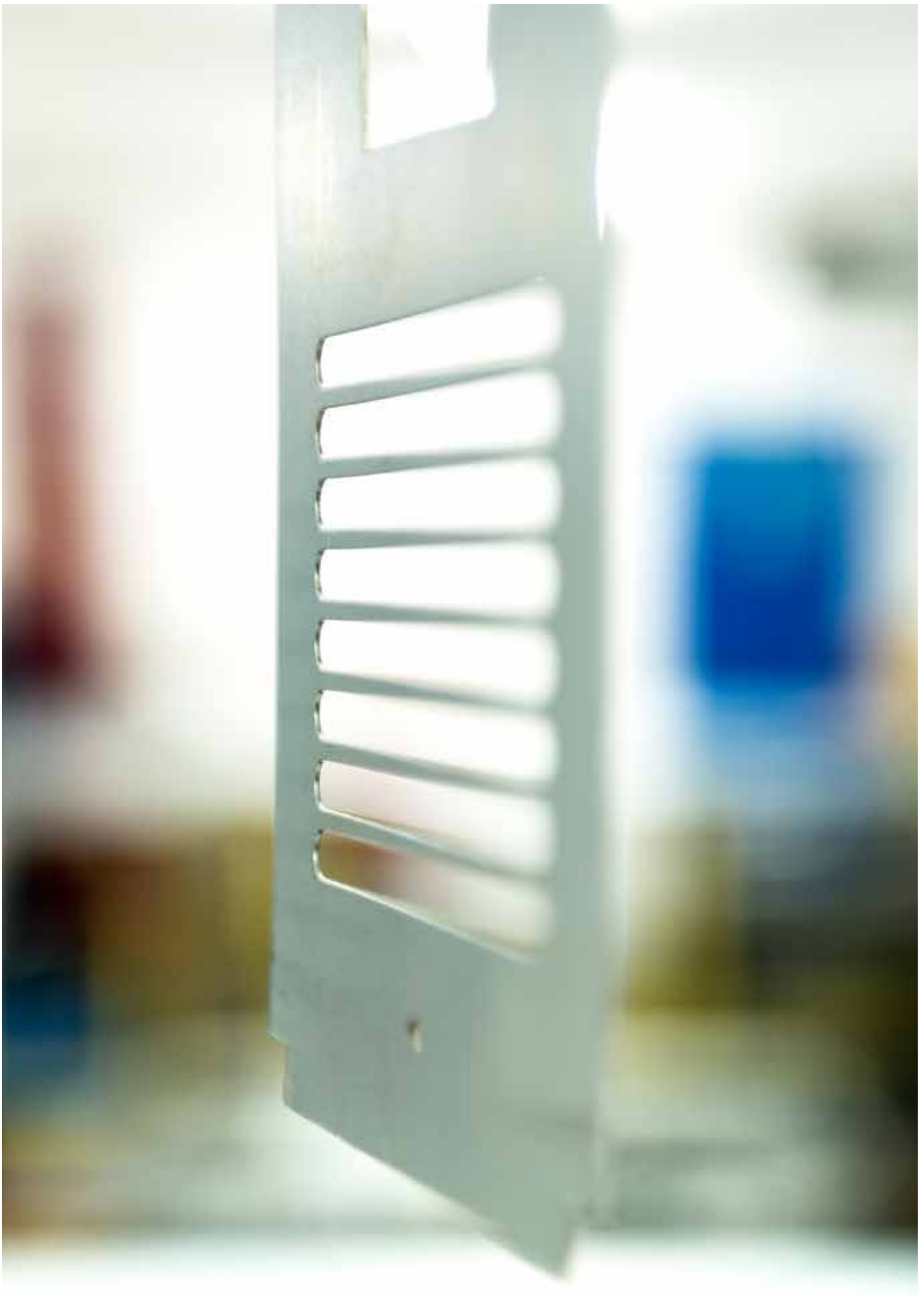




### Ordering guide

Model	Packed Wt (kg)	Product Codes
SURELINE 500	5	HPSL30001
SURELINE 1000	7	HPSL30002
SURELINE 1500	10	HPSL30003
SURELINE 2000	14	HPSL30004

Attachments	Product Codes
SURELINE CASING 1000MM	HASL30101
SURELINE LEFT HAND VALVE COVER/END CAP	HASL30102
SURELINE RIGHT HAND VALVE COVER/END CAP	HASL30103
SURELINE CENTRE VALVE COVER	HASL30104
SURELINE 90° INTERNAL CORNER	HASL30105
SURELINE 90° EXTERNAL CORNER	HASL30106
SURELINE 135° INTERNAL CORNER	HASL30107
SURELINE 135° EXTERNAL CORNER	HASL30108
SURELINE FINGER GUARD 500MM	HASL30109
SURELINE FINGER GUARD 1000MM	HASL30110
SURELINE ELEMENT 1000MM	HASL30111



# Accessories

## Glossary

### **Remote (Wired) Room Thermostat**

This accessory measures room temperature and switches off the heater when the set temperature is reached. This thermostat is hard wired and connects directly into either the heater's terminal block or power supply.

### **Remote (Wired) Room Thermostat Siemens**

This accessory measures room temperature and switches off the heater when the set temperature is reached. This thermostat is hard wired and connects directly into either the heater's terminal block or power supply.

### **Remote (Wireless) Room Thermostat Siemens RF**

This thermostat has two parts, a base station and a wall mounted user control. The base station is usually factory fitted into a unit, with the user control packaged separately, but within the products transportation box. The controller is operated by battery and should be positioned appropriately by the installer.

### **Remote (Wired) Room Thermostat Siemens Tamper Proof**

This accessory measures room temperature and switches off the heater when the set temperature is reached. This thermostat is hard wired and connects directly into either the heater's terminal block or power supply. The thermostat has a secure cover that deters unwanted adjustment of the room temperature set point.

### **Remote (Wired) Room Thermostat Siemens Speed and Temperature Control (EC only)**

This accessory measures room temperature and switches off the heater when the set temperature is reached. Additionally, it has the ability to control the fan speed on our EC products. This thermostat is hard wired and connects directly into either the heater's terminal block. Normally, the thermostat would be ordered as part of a package that includes an EC Caspian heater and is prepared for use in our factory.

### **Wall mounted control switch**

Allows the product to be controlled from a switch mounted on the wall rather than the product. Linking to the heater is made by replacing the existing switch connections with the connections on the control switch.

### **Flexible hoses**

Flexible connections are a convenient way of connecting a heater into your system. They will provide an easy to achieve connection from your first-fix pipe work. In addition they will provide for a level of expansion and contraction in rigid pipe work and mitigating possible sound and vibration transmission.

### **Adjustable low temperature cut-out (LTC)**

This cut out device allows the user to set the water temperature (between 30°C and 90°C) at which the product will start to emit heat. It is more accurate than the standard fitted LTC (set at 35°C) and enables more flexible use with both low system temperature heat pumps and higher system temperature boilers including biomass that can produce 80°C flow temperatures.

### **Plinth**

The optional plinth creates an attractive floor standing unit and also conceals the pipe work from view. This can also be invaluable where it is necessary to prevent contact with heating pipes by vulnerable groups. A plinth can also add an additional level of protection from the ingress of dust on hard flooring surfaces.

### **Caspian EC linking kit (EC only)**

The linking kit allows for the creation of master and slave units (up to four units), by allowing a 0-10 V signal to be transmitted through its cabling. This allows one fan speed controller, or room thermostat to control multiple units. It can also be used to control multiple units by means of a BMS.

### **External control harness (EC only)**

This accessory is generally used to permit a remote manual speed adjustment on an EC variant Caspian. It is possible to provide speed control to a master unit and to then utilise the EC linking kit to link to any slave units.

### **Proportional Heat Output Controller (PHOC)**

This accessory controls the fan speed and hence the heat output of the unit. These controls are available in integral (low level units) and in a remote format (high level units). PHOC's are available in two standard temperature settings, either 15 - 25°C, or 11 - 21°C. When the room temperature is at or below the lowest set point (11°C or 15°C) the fan speed will run at its maximum speed to give fastest heat up time. As the room temperature increases towards the upper set point (21°C or 25°C), the fan speed modulates downwards towards a minimum level.

### **Thermostat T1**

This is a factory fitted air thermostat suited to both AC and EC products installed at low level. This control provides a tamperproof room temperature control and is ideal for use in public buildings.

### **Thermostat T2 (AC only)**

A T2 thermostat is used to control the fan speed on low level AC products only. The objective in using this control is to facilitate a faster heat up period in a room. An installer or commissioning engineer can determine the temperature set point at which the fan speed is changed from high to low. A typical set point would be 16°C, where temperatures below this level would trigger a higher fan speed.

### **Thermostat and Auto-Speed control (T1/T2)**

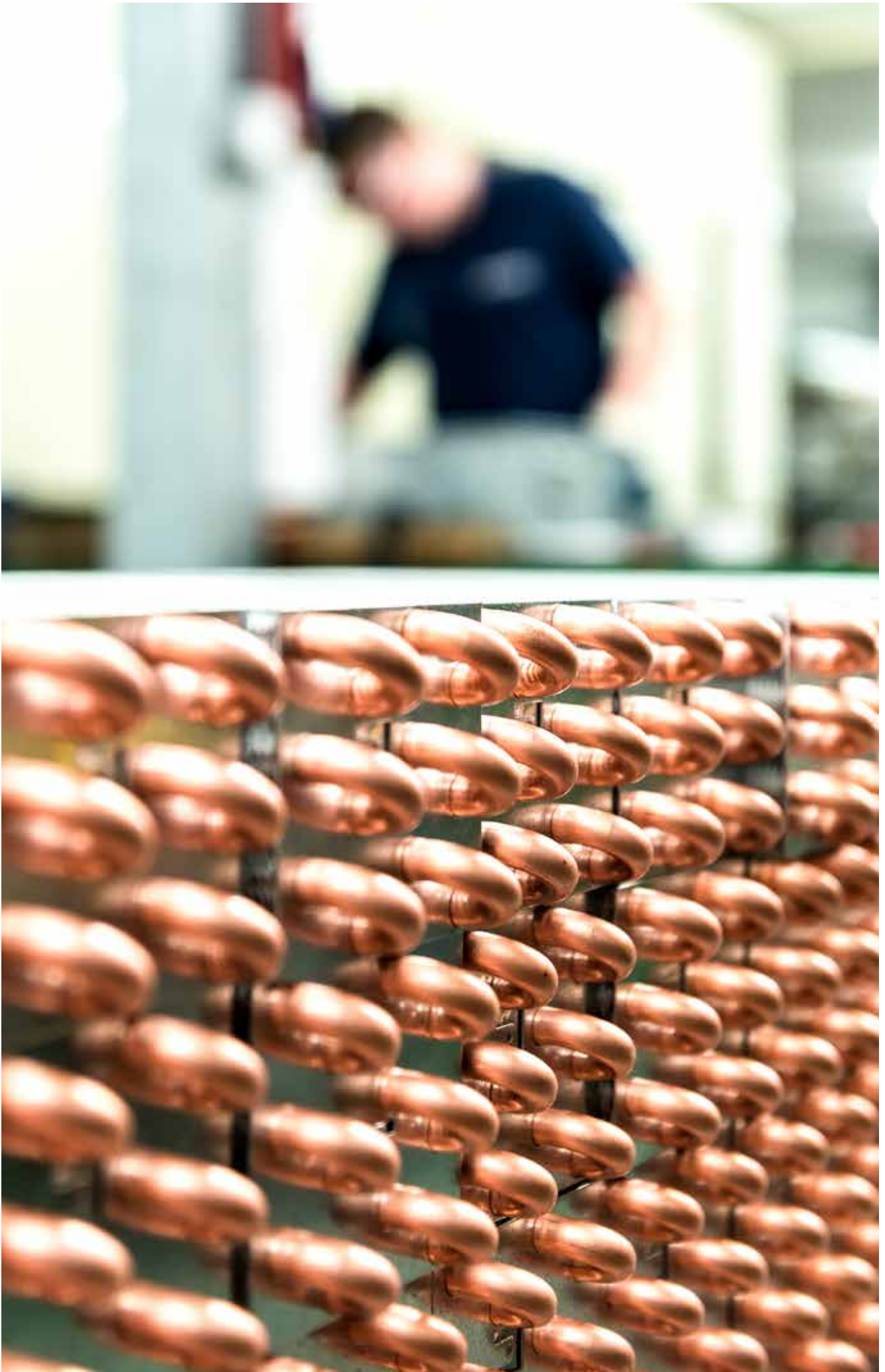
This accessory serves two purposes. Firstly, it becomes an integral room thermostat for the unit providing localised control and secondly, the heat output will be changed according to the temperature in the room. For example, the fan may work on full power up to 18°C and above this temperature move to a lower fan speed. Normally the fan speeds used will be medium and low.

# Accessories Matrix

Easy guide to accessories

Control	Model Ref	Product Codes	Products									
			Caspian SL/FF/UV/TT		Caspian EXT		Caspian UVC		Caspian LST	Caspian Skyline		Ecovector
			EC	AC	EC	AC	EC	AC	EC	EC	AC	High
CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC)	ALTC3	HACA33001	✓	✓	✓	✓	✓	✓		✓	✓	
CASPIAN THERMOSTAT (T1) (EC LOW LEVEL)	TCAS T1	HACA33002	✓	✓	✓	✓	✓	✓				
CASPIAN THERMOSTAT (T2) (AC LOW LEVEL)	TCAS T2	HACA33036		✓		✓		✓				
CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL)	TCAS T1-T2	HACA33003		✓		✓		✓				
CASPIAN EXTERNAL CONTROL HARNESS (EC)	EXTCH	HHCA33004	✓		✓		✓			✓		
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC)	PHOC 15-25	HACA33005	✓		✓		✓					
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC)	PHOC 15-25 RS	HACA33037	✓		✓		✓			✓		
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC)	PHOC 11-21	HACA33117	✓		✓		✓					
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC)	PHOC 11-21 RS	HACA33118	✓		✓		✓			✓		
ROOM THERMOSTAT HARD WIRED	08-0826	HAGA95001	✓	✓	✓	✓	✓	✓		✓	✓	✓
ROOM THERMOSTAT HARD WIRED SIEMENS		HACA33104	✓	✓	✓	✓	✓	✓		✓	✓	✓
ROOM THERMOSTAT RF SIEMENS	RDD 100.1 RFS	HACA33074	✓	✓	✓	✓	✓	✓		✓	✓	✓
ROOM THERMOSTAT TAMPER PROOF SIEMENS	RAA11	HACA95004	✓	✓	✓	✓	✓	✓		✓	✓	✓
FLEXIBLE HOSES 22MM PAIR	CAS22FH	HAGA95003	✓	✓	✓	✓	✓	✓	✓	✓	✓	
INTEGRAL, SURFACE MOUNTED AND REMOTE SWITCHING OPTIONS		*	✓	✓	✓	✓	✓	✓		✓	✓	
FACTORY FITTED CONTROLS AS STANDARD		*	✓	✓	✓	✓	✓	✓	✓	✓	✓	
BESPOKE RAL PAINT FINISHES		*	✓	✓	✓	✓	✓	✓	✓			
ANTIBACTERIAL AND ANTIMICROBIAL PAINT FINISHES		*	✓	✓	✓	✓	✓	✓	✓			

Note: \* Please contact Smith's for further information





### Happy to help

Smith's Environmental Products Ltd is one of the leading manufacturers of heating and cooling products in the UK. We are committed to achieving the highest standards and our faith is supported by a free parts and labour guarantee with every product (see website for more information). Our customer service is second to none and we are happy to offer any help and guidance that you might need.

### Stockists

All products are available nationally from Builders' Merchants, Plumbers' Merchants, Heating Equipment Distributors and Kitchen Equipment Distributors. In the event of difficulty, please contact us or visit our website [SmithsEP.co.uk](http://SmithsEP.co.uk) for details of your nearest stockist.

### Information and advice

Full technical specifications and list prices is available to download from our website or in hard copy from our office. Also available on our website are price lists, individual product data sheets, installation & user guides, where to buy, who to contact and a media centre.

Alternatively contact our office 9.00am to 5.00pm Monday to Friday.

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To view the full product information  
download the datasheet at:  
[www.SmithsEP.co.uk](http://www.SmithsEP.co.uk)

For product information, customer services or sales support call us on **+44 (0) 1245 324900**

For the Republic of Ireland, contact  
MT Agencies on **01 864 3363**

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