

# C Range

The compact C range offers an affordable solution where space is at a premium



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The Thermoscreens C range of air curtains are compact and are the ideal solution where space is at a premium. The air curtain can be mounted up to 3m high (2.75m for recessed).

The C range is available as surface mounted or recessed versions and either ambient, water or electrically heated units. Electrical units use wire wound elements which provide instant heat.

Constructed out of galvanised sheet steel and finished in RAL 9010 (white) the C series comes complete with an Ecopower controller (water and electric) and mounting brackets. In addition water heated versions are supplied with a motorised three port valve. Units are available in widths 1, 1.5 and 2m. Surface mounted units can be joined to cover wider spans.

## Key Features



- 2 year warranty
- Ecopower controller supplied as standard (heated versions)
- RAL 9010 finish as standard
- Colour match service available on request
- Optional filters on surface mounted (water and ambient units only)
- LPHW version supplied with a motorised three port valve
- Wall brackets supplied for surface units
- Fixings provided for ceiling hanging (droprods not supplied)
- Recessed units supplied with hinged core grilles for easy installation and maintenance
- High efficiency electric elements for instant heat
- Joining kits available for connecting multiple surface mounted units
- Electrical units can be downrated from three phase to single phase operation with reduced heat outputs (available on request)

## Water flow rate and pressure drop

C Range	2 row coil (based on 82/71°C)		
	Water Flow Rate (l/min)	Water Pressure Drop (coil) ΔP (kPa)	Water Pressure Drop (valve) ΔP (kPa)
C1000W / C1000WR	7.8	3.2	2.0
C1500W / C1500WR	11.7	7.8	3.0
C2000W / C2000WR	15.6	15.2	4.0

A control valve is supplied loose with C series air curtains which can be fitted into the pipework during installation if required by the customer.

## Water flow rate and pressure drop calculations for different water temperatures

To calculate water flow rate and pressure drops for coil and valve at different water temperatures than 82/71°C :-

For the new water temperatures use the Thermoscreens coil calculation programme to get the new water flow rate and the new water pressure drop (coil). Then calculate the *new* water pressure drop (valve) using the following formula:

$$\text{New Water Pressure Drop (valve)} = 82/71 \text{ Water Pressure Drop (valve)} \times \left( \frac{\text{New Water Flow Rate}}{82/71 \text{ Water Flow Rate}} \right)^2$$

Example: C1500W at 85/65°C, EAT = 20°C

82/71 Water flow rate = 11.7 l/min (from water flow rate and pressure drop table above)

New water flow rate = 5.8 l/min (from Thermoscreens coil calculation programme)

New water pressure drop (coil) = 2.2 kPa (from Thermoscreens coil calculation programme)

Therefore:

$$\text{New water pressure drop (valve)} = 3.0 \times \left( \frac{5.8}{11.7} \right)^2 = 0.7 \text{ kPa}$$

### Conversion factors:

1 kPa = 0.102m Water column

10 l per minute = 0.6 m³/h

## Accessories

Description	Part Number
Master and slave lead: 3m	T5951001
Ecopower extension lead: 10m	T5951050
Ecopower extension lead: 15m	T5951060
Ecopower extension lead: 30m	T5951020
Extension lead coupler	T5951030
Joining kit	T7308220



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## Surface Mounted

Model	Dimensions (L x D x H) (mm)	Supply (50Hz)	Loading (A) per phase	Heat output (kW)	Max velocity (m/s)	Max air volume (m³/h)	Weight (kg)	Noise output dB(A) @3m		
								H	M	L
<b>Electric</b>										
C1000E	1137 x 275 x 198	400V~3P&N	13.7	4.5/9	9.0	1250	16	55	53	50
C1500E	1669 x 275 x 198		18.3	6/12		1800	23	55	53	49
C2000E	2200 x 275 x 198		27.2	9/18		2500	33	56	54	50
<b>Water 2 row 82/71</b>										
C1000W	1137 x 275 x 198	230V~1P&N	0.7	6	8.5	1180	18	55	53	50
C1500W	1669 x 275 x 198		0.9	9		1700	26	55	53	49
C2000W	2200 x 275 x 198		1.1	12		2360	37	56	54	50
<b>Ambient</b>										
C1000A	1137 x 275 x 198	230V~1P&N	0.7	-	9.0	1250	15	55	53	50
C1500A	1669 x 275 x 198		0.9	-		1800	21	55	53	49
C2000A	2200 x 275 x 198		1.1	-		2500	31	56	54	50



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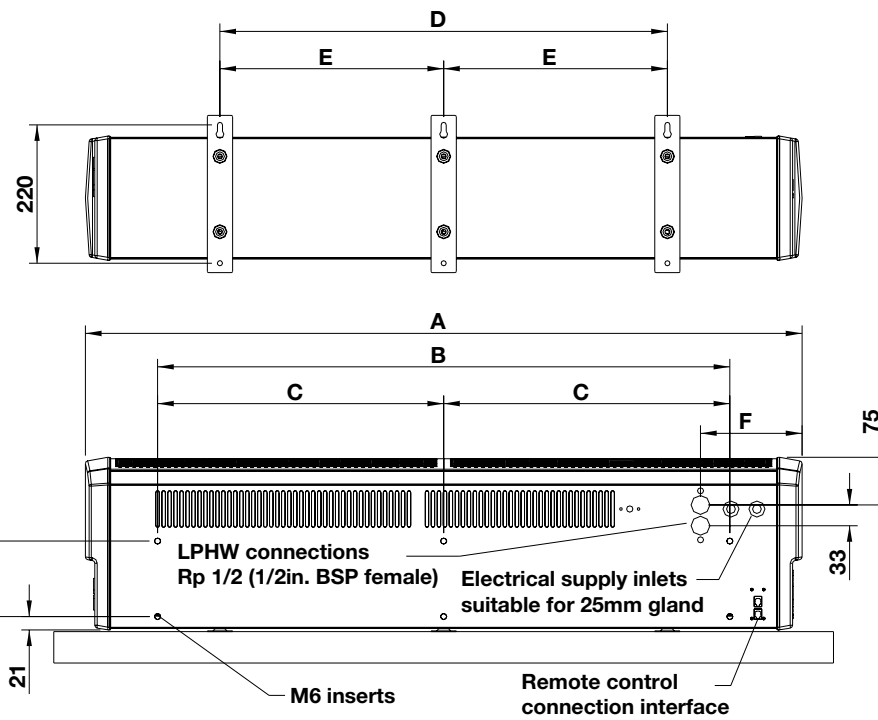
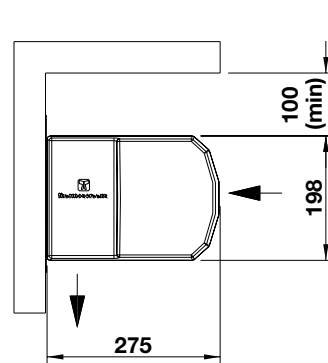


## Recessed

Model	Overall dimensions (L x D x H) (mm)	Standard grille size (mm)	Supply (50Hz)	Loading (A) per phase	Heat output (kW)	Max velocity (m/s)	Max air volume (m³/h)	Weight (kg)	Noise output dB(A) @3m		
									H	M	L
<b>Electric</b>											
C1000ER	1200 x 301 x 206	1209 x 353	400V~3P&N	13.7	4.5/9	9.0	1190	20	55	53	50
C1500ER	1600 x 301 x 206	1609 x 353		18.3	6/12		1730	27	55	53	49
C2000ER	2100 x 301 x 206	2120 x 353		27.2	9/18		2380	37	56	54	50
<b>Water 2 row 82/71</b>											
C1000WR	1200 x 301 x 206	1209 x 353	230V~1P&N	0.7	6	8.5	1120	22	55	53	50
C1500WR	1600 x 301 x 206	1609 x 353		0.9	9		1630	30	55	53	49
C2000WR	2100 x 301 x 206	2120 x 353		1.1	12		2240	41	56	54	50
<b>Ambient</b>											
C1000AR	1200 x 301 x 206	1209 x 353	230V~1P&N	0.7	-	9.0	1190	19	55	53	50
C1500AR	1600 x 301 x 206	1609 x 353		0.9	-		1730	25	55	53	49
C2000AR	2100 x 301 x 206	2120 x 353		1.1	-		2380	35	56	54	50

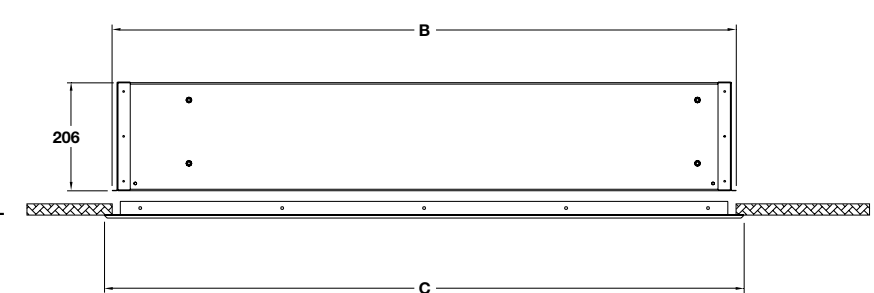
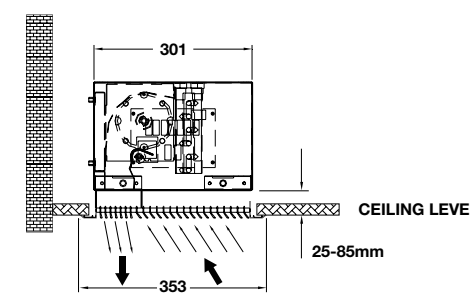
For recessed units, aperture sizes are shown in the table below.

## Surface Mounted



	C1000	C1500	C2000
A (mm)	1137	1669	2200
B (mm)	908	1408	1928
C (mm)	-	704	964
D (mm)	710	1208	1748
E (mm)	-	604	874
F (mm)	161	170	161

## Recessed



		C1000R	C1500R	C2000R
Aperture	Length (mm)	1179	1579	2090
	Width (mm)	301	301	301

