

**biddle**

CLIMATE SOLUTIONS

***invisidör***  
DESIGNER AIR CURTAINS *Style*

*Style*  
COMPACT

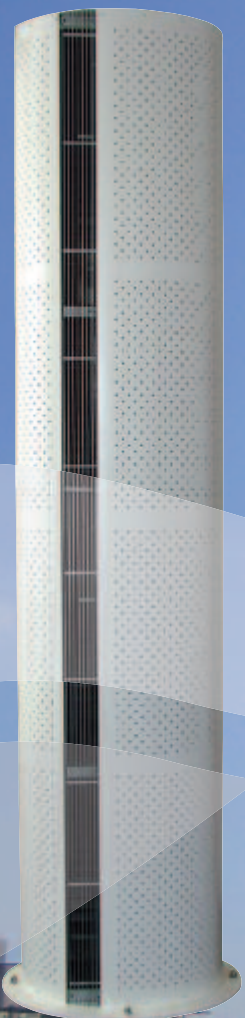
*Style*

## ***Bringing STYLE to the High Street***

The latest development in a long line of market leading air curtains, *Invisidor STYLE* has been developed to bring not just performance benefits and energy savings but also high quality designer looks.

Now available in a smaller size, the *STYLE Compact* is suited to entrance environments where space is limited but looks and comfort are still important.

- ***Stylish design***
- ***Performance enhancing patented discharge rectifier***
- ***Energy saving ECONTROL***
- ***Choice of RAL paint colours, bright or brushed stainless steel***
- ***Water or electric heating***
- ***Condensing boiler variants***
- ***Compact variants, for restricted space applications***
- ***Up to 24kW output***
- ***Mounting height up to 3.2m (STYLE) & 2.6m (STYLE Compact)***
- ***Vertical or horizontal configurations***
- ***Modular in nature (sizes from 1120mm to 2345mm) to suit any door width***
- ***Elliptical shape – 500mm x 350mm or 362mm x 242mm***



## **Designer Looks at High Street Prices**

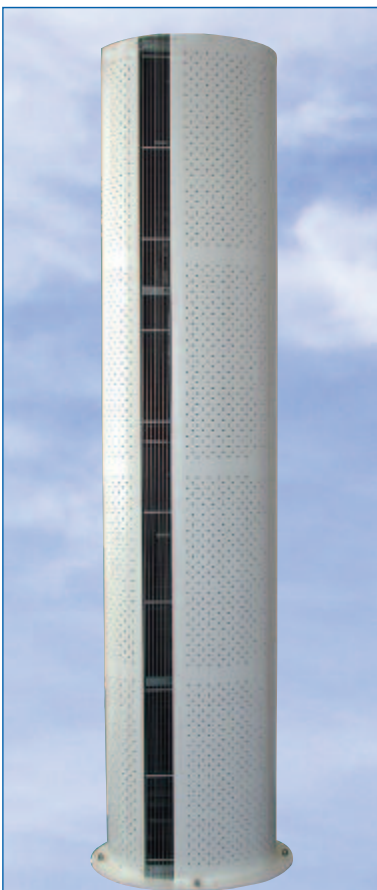


Architects, M&E designers and building owners are constantly looking for ways of enhancing the appearance of the entrance environment without compromising on performance. Responding to this demand the *Invisidor STYLE & STYLE Compact* combines the acknowledged technological expertise of Biddle with contemporary designer looks.

Available in brushed or bright stainless steel, or a painted finish, *Invisidor STYLE & STYLE Compact* have an eye-catching cylindrical profile and a distinctive perforated grille. Because it is modular in nature any door width can be covered, and buildings requiring vertical rather than horizontal air curtains can still use *Invisidor STYLE & STYLE Compact* to create a 'top end' designer look to the entrance environment.

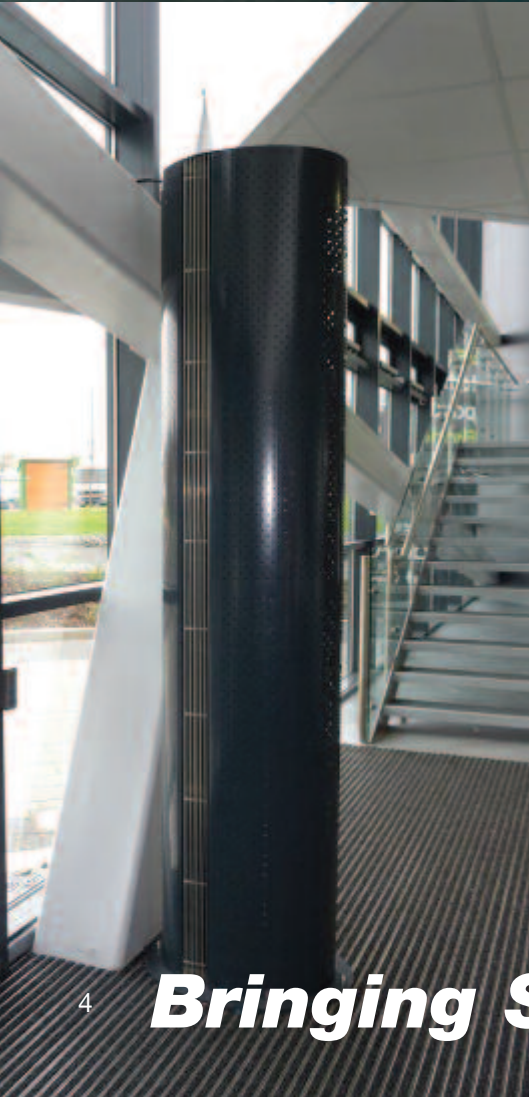
*Invisidor STYLE & STYLE Compact* uses Biddle's proven, patented rectifier to supply conditioned air at low speed with minimum turbulence, ensuring the air stream reaches the floor and doesn't escape to the outside. Comfort within the entrance area is therefore enhanced without any energy wastage.

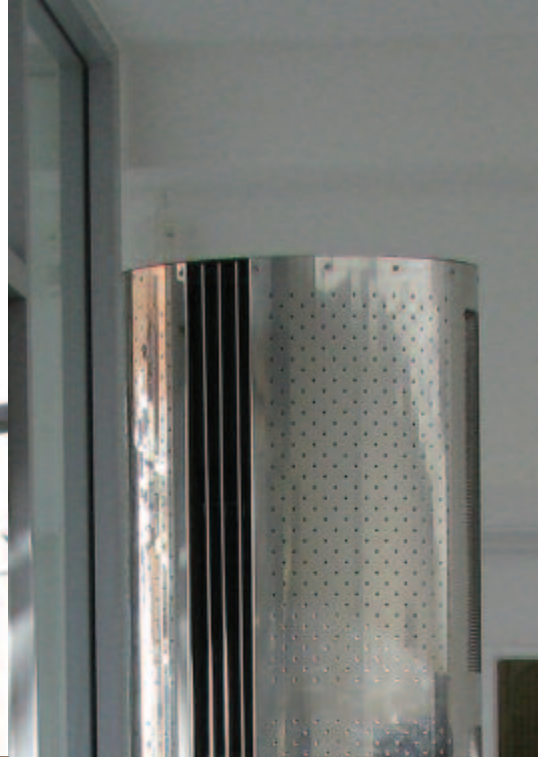
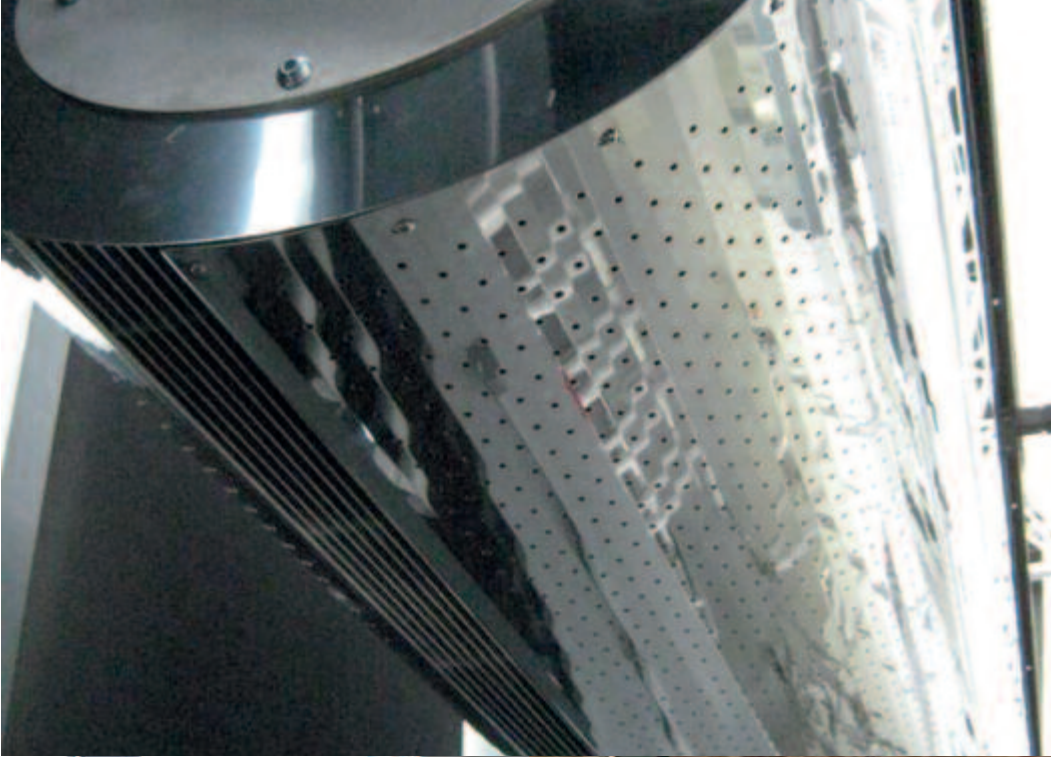
Whether using water or electric heating, an advanced energy saving controller - the ECONTROL – when combined with the *Invisidor STYLE & STYLE Compact* air curtain optimises energy savings. Operated either manually or automatically the ECONTROL will not just control air curtain performance but will also control comfort conditions in the entrance environment through energy saving adjustment of air volume and temperature. Timer clocks, door contact switches or room thermostats can still be linked to the air curtain for added flexibility.



## **Patented Rectifier**

So as to minimise turbulence in the discharge airstream, and ensure the air reaches the floor, Biddle have invested heavily in the development of the patented rectifier. This rectifier comprises an optimised number of blades, with a precise relationship between their length and spacing, to create a laminar airstream which reduces turbulence and energy consumption and increases throw for a given air volume.





***STYLE Design & Finishes***

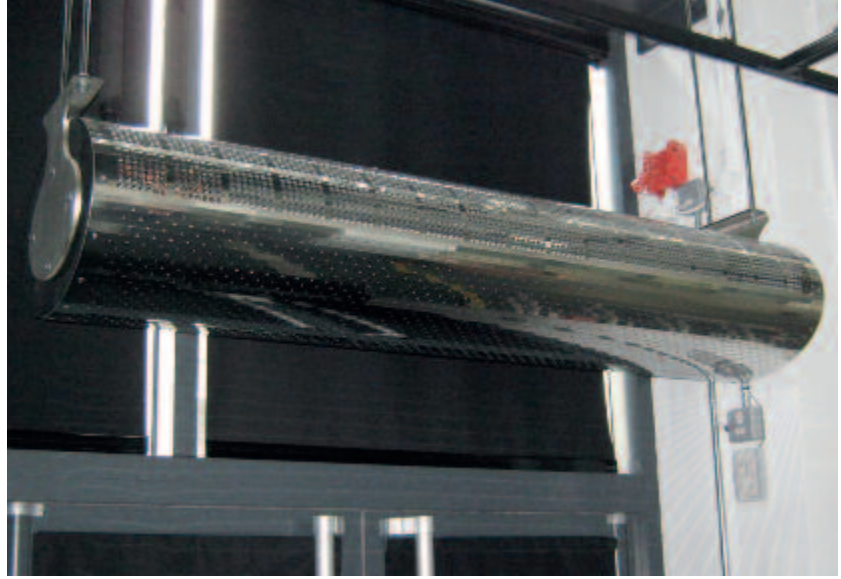




**Biddle bringing**

*Style*

**STYLE to the high street**



## Energy Saving **ECONTROL**

The new ECONTROL will ensure air curtain performance is optimised whilst minimising energy usage.

Connecting the ECONTROL to the *Invisidor STYLE & STYLE Compact* couldn't be easier – just plug one end of the cable in to the air curtain and the other end into the controller.

In 'Auto' mode ECONTROL will automatically adjust the air curtain's heat output to optimise air curtain performance, control the space at the selected set point temperature (range = 18-25°C) and minimise energy usage.

In 'Manual' mode ECONTROL simply provides the air curtain with either half heat or full heat.

Regardless of whether the air curtain is in 'Auto' or 'Manual' mode the user can:

- select fan speed
- turn the heating off and operate the air curtain as an ambient unit



*Style*  
COMPACT

AIR CURTAINS

DESIGNER

## Selecting an Invisidor STYLE

1 Select the most appropriate model by reference to the codes and table below:

STYLE-150-W-VR

H = Horizontal,  
VR = Vertical Right Handed,  
VL = Vertical Left Handed

W = Hot water heating, E = Electric heating

Size = 100/150/200/250/300/350/400

Size		Horizontal	Vertical
Style-100	Comprising Total Width/Height	1 x Style-100 1260mm	na na
Style-150	Comprising Total Width/Height	1 x Style-150 1722mm	na na
Style-200	Comprising Total Width/Height	1 x Style-200 2355mm	1 x Style-200 2355mm
Style-250	Comprising Total Width/Height	1 x Style-150 (left unit) & 1 x Style-100 (right unit) 2977mm	1 x Style-150 (bottom unit) & 1 x Style-100 (top unit) 2977mm
Style-300	Comprising Total Width/Height	1 x Style-150 (left unit) & 1 x Style-150 (right unit) 3439mm	1 x Style-200 (bottom unit) & 1 x Style-100 (top unit) 3610mm
Style-350	Comprising Total Width/Height	1 x Style-200 (left unit) & 1 x Style-150 (right unit) 4072mm	na na
Style-400	Comprising Total Width/Height	1 x Style-200 (left unit) & 1 x Style-200 (right unit) 4705mm	na na

2 Specify the type of hanging arrangement eg. wall or ceiling, drop rod covers.

3 State the desired finish, ie. bright stainless steel, brushed stainless steel or a specific RAL paint colour.

## What's included with an Invisidor STYLE

- Air curtain with patented rectifier
- 3-port diverting valve (fitted inside water heated units only)
- Return air sensor
- ECONTROL energy saving controller
- 3 metre length of control cable, with RJ4/4 plug fitted to either end
- Mounting brackets

If units are joined together (either horizontally or vertically) then they are 'master/slaved' and the master unit and slave unit(s) are daisy chained together using the 3 metre length(s) of control cable supplied. Each unit requires its own electrical supply and water supply.

## Selecting an Invisidor **STYLE Compact**

1 Select the most appropriate model by reference to the codes and table below:



STYLE Compact -150-W-VR

H = Horizontal,  
VR = Vertical Right Handed,  
VL = Vertical Left Handed

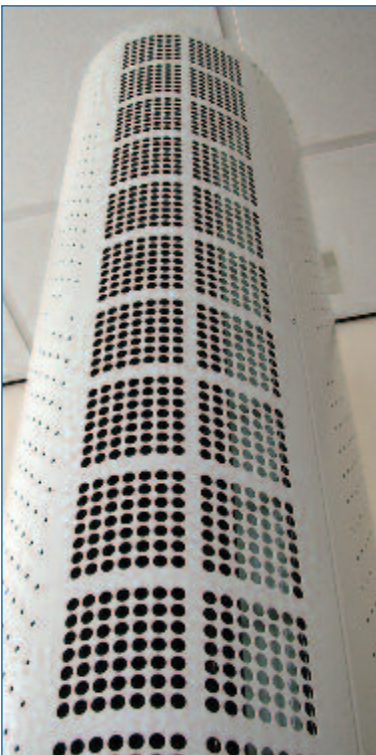
W = Hot water heating, E = Electric heating

Size = 100/150/200/250

Size		Horizontal	Vertical
Style Compact-100	Comprising Total Width/Height	1 x Style Compact-100 1130mm	na na
Style Compact-150	Comprising Total Width/Height	1 x Style Compact-150 1650mm	na 1645mm
Style Compact-200	Comprising Total Width/Height	1 x Style Compact-200 2130mm	1 x Style Compact-200 2130mm
Style Compact-250	Comprising Total Width/Height	1 x Style Compact-150 (left unit) & 1 x Style Compact-100 (right unit) 2775mm	1 x Style Compact-150 (bottom unit) & 1 x Style Compact-100 (top unit) 2775mm

2 Specify the type of hanging arrangement eg. wall or ceiling, drop rod covers.

3 State the desired finish, ie. bright stainless steel, brushed stainless steel or a specific RAL paint colour.



## What's included with an Invisidor **STYLE Compact**

- Air curtain with patented rectifier
- 3-port diverting valve (fitted inside water heated units only)
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- ECONTROL energy saving controller
- 3 metre length of control cable, with RJ4/4 plug fitted to either end
- Mounting brackets

If units are joined together (either horizontally or vertically) then they are 'master/slaved' and the master unit and slave unit(s) are daisy chained together using the 3 metre length(s) of control cable supplied. Each unit requires its own electrical supply and water supply.

## Performance Data

		STYLE-100			STYLE-150			STYLE-200		
		2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating	2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating	2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating
Heat Output* (kW)	Low speed	7.7	7.1	12.0	10.6	9.1	18.0	16.2	15.0	24.0
	Medium speed	9.2	8.2		14.9	12.8		17.8	16.8	
	High speed	10.5	9.1		17.7	14.9		20.6	18.9	
Air Volume (m <sup>3</sup> /s)	Low speed	0.258			0.338			0.540		
	Medium speed	0.333			0.516			0.628		
	High speed	0.404			0.658			0.786		
Noise Level (dBA) measured 3m from discharge	Low speed	42			43			45		
	Medium speed	51			51			54		
	High speed	56			58			60		

		STYLE Compact-100		STYLE Compact-150		STYLE Compact-200	
		LPHW at 82/71°C	Electrical Heating	LPHW at 82/71°C	Electrical Heating	LPHW at 82/71°C	Electrical Heating
Heat Output* (kW)	Low speed	5.3	9.0	7.9	12.0	10.0	18.0
	Medium speed	5.5		8.2		10.4	
	High speed	5.6		8.4		10.7	
Air Volume (m <sup>3</sup> /s)	Low speed	0.259		0.374		0.519	
	Medium speed	0.276		0.400		0.555	
	High speed	0.294		0.425		0.590	
Noise Level (dBA) measured 3m from discharge	Low speed	50		49		50	
	Medium speed	53		53		54	
	High speed	55		55		56	

\* Heat outputs stated are with an entering air temperature of 20°C

## Dimensional & Weight Data

		STYLE-100			STYLE-150			STYLE-200		
		2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating	2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating	2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating
Unit Width/Height** (mm)		1250			1712			2345		
Unit Depth (mm)		500			500			500		
Unit Height (mm)		350			350			350		
Horizontal Unit Weight (kg)		70			85			115		
Vertical Unit Weight (kg)		70			95			125		

		STYLE Compact-100		STYLE Compact-150		STYLE Compact-200	
		LPHW at 82/71°C	Electrical Heating	LPHW at 82/71°C	Electrical Heating	LPHW at 82/71°C	Electrical Heating
Unit Width/Height** (mm)		1120		1640		2120	
Unit Depth (mm)		362		362		362	
Unit Height (mm)		242		242		242	
Horizontal Unit Weight (kg)		31		44		60	
Vertical Unit Weight (kg)		31		54		70	

\*\* Ceiling/wall brackets and joining plates measure 5mm each

## Water Data

	STYLE-100			STYLE-150			STYLE-200		
	2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating	2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating	2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating
Max. Water Flow Rate (l/s)	0.24	0.11	na	0.40	0.18	na	0.46	0.23	na
Max. Pressure Drop* (kPa)	4.2	3.5	na	12.1	5.0	na	16.6	9.9	na

	STYLE Compact-100		STYLE Compact-150		STYLE Compact-200	
	LPHW at 82/71°C	Electrical Heating	LPHW at 82/71°C	Electrical Heating	LPHW at 82/71°C	Electrical Heating
Max. Water Flow Rate (l/s)	0.14	na	0.21	na	0.29	na
Max. Pressure Drop* (kPa)	2.77	na	6.74	na	13.40	na

\* Combined pressure drop of coil and valve

## Electrical Data

	STYLE-100			STYLE-150			STYLE-200		
	2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating	2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating	2-row coil at 82/71°C	3-row coil at 60/40°C	Electrical Heating
Electrical Supply (V/ph/Hz)	230/1/50		400/3/50	230/1/50		400/1/50	230/1/50		400/3/50
Rated Power Input (kW)	0.3		12.3	0.4		18.4	0.6		24.6
Current per Phase (A)	1.3		18.7	1.8		27.9	2.7		37.5

	STYLE Compact-100		STYLE Compact-150		STYLE Compact-200	
	LPHW at 82/71°C	Electrical Heating	LPHW at 82/71°C	Electrical Heating	LPHW at 82/71°C	Electrical Heating
Electrical Supply (V/ph/Hz)	230/1/50		400/3/50	230/1/50		400/3/50
Rated Power Input (kW)	0.15		9.15	0.20		12.20
Current per Phase (A)	0.7		13.7	0.9		18.3

Further details and dimensional drawings are available from the sales office.

## New Features coming in 2014

- Weather compensation in conjunction with an outdoor temperature sensor
- Step-less/proportional heating control
- MODBUS and BACNET BMS control
- EC fan motor control
- Integral relay for connection of external controls

# **biddle**

CLIMATE SOLUTIONS

**Biddle Air Systems Limited**  
St. Mary's Road, Nuneaton  
Warwickshire CV11 5AU

Tel: +44 (0)24 7638 4233  
Fax: +44 (0) 24 7637 3621  
Email: [sales@biddle-air.co.uk](mailto:sales@biddle-air.co.uk)  
<http://www.biddle-air.co.uk>

**Biddle B.V.**  
P.O.Box 15  
NL-9288 ZG Kootstertille  
The Netherlands

Tel: +31 (0)512 335555  
Fax: +31 (0)512 331424

**Biddle GmbH**  
Emil-Hoffmann-Straße 55-59  
50996 Köln  
Germany

Tel: +49 (0)2236 96900  
Fax: +49 (0)2236 969010

**Biddle**  
21 Allée de Vendanges  
77183 Croissy Beaubourg  
France

Tel: +33 (0) 1 64 11 15 55  
Fax: +33 (0) 1 64 11 15 66

**Biddle NV**  
Business Park E19  
Battelsesteenweg 455E  
2800 Mechelen  
Belgium

Tel: +32 (0) 15 287676  
Fax: +32 (0) 15 28 7677

DESIGNER AIR CURTAINS

The information given in this brochure is, to the best of our knowledge, correct at the time of going to print. However, Biddle Air Systems are constantly looking at ways of improving their products and services and therefore reserve the right to change without prior notice any of the data contained in this publication.  
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