

INVISIDOR STYLE₂

Designer Air Curtains

Biddle



CONTEMPORARY STYLE

Architects, M&E designers and building owners are constantly looking for ways of enhancing the appearance of the entrance environment without compromising on performance. The Invisidor STYLE₂ range combines Biddle's patented technology along with contemporary design.

Available in a variety of finishes, the Invisidor STYLE₂ range has an eye-catching cylindrical profile and a distinctive perforated grille. With the design being modular, any door width can be covered, and buildings requiring vertical rather than horizontal air curtains can still use this range to create a 'top end' designer look to the entrance

COMFORT AND STYLE COMBINED

Biddle's Invisidor STYLE₂ air curtain is meticulously crafted to offer both exceptional performance and energy efficiency. Due to the sleek design, the product is perfect for entrance areas where space is at a premium, yet where aesthetics and comfort cannot be compromised.

HOW IT WORKS

The Invisidor STYLE₂ range 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 control panel combined with the Invisidor STYLE₂ air curtain optimises energy savings. Operated either manually or the new control panel will ensure the air curtain's performance is optimised whilst minimising energy usage by adjusting the air volume and temperature. Timer clocks, door contact switches or room thermostats can still be linked to the air curtain for added flexibility.

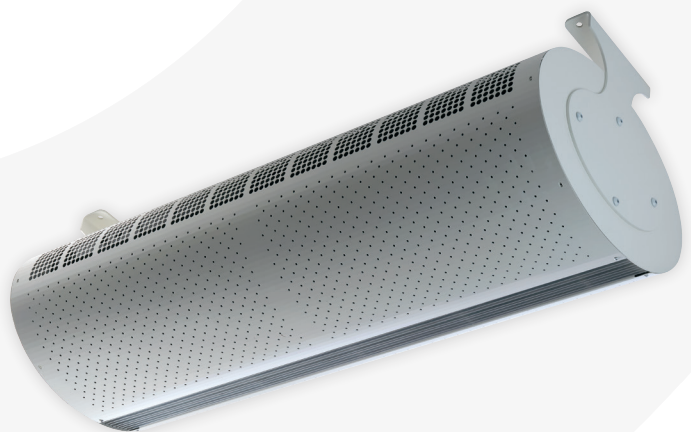
FEATURES AND BENEFITS:

- ◉ Stylish design
- ◉ Performance enhancing patented discharge rectifier
- ◉ Energy saving control panel
- ◉ Choice of RAL paint colours, bright or brushed stainless steel
- ◉ Water or electric heating
- ◉ Condensing boiler variants
- ◉ Choice of 2 variants: STYLE₂ and STYLE₂ Compact - for restricted space applications
- ◉ Up to 24kW output
- ◉ Vertical or horizontal configurations
- ◉ Modular in nature (sizes from 1120mm to 2345mm) to suit any door width
- ◉ Filter free

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.



MOUNTING HEIGHTS

INVISIDOR STYLE₂ COMPACT; WITH A MOUNTING HEIGHT OF UP TO 2.6M

- Air curtain with patented rectifier
- 3-port diverting valve (fitted inside water heated units only)
- Return air sensor
- Energy saving control panel
- 3 metre length of control cable, with RJ4/4 plug fitted to either end
- Elliptical shape 362mm x 242mm

INVISIDOR STYLE₂; WITH A MOUNTING HEIGHT OF UP TO 3.2M

- Air curtain with patented rectifier
- 3-port diverting valve (fitted inside water heated units only)
- Return air sensor
- Energy saving control panel
- 3 metre length of control cable, with RJ4/4 plug fitted to either end
- Mounting brackets
- Elliptical shape 500mm x 350mm

CONTROLS

WALL CONTROLLER

The new control panel will ensure air curtain performance is optimised whilst minimizing energy usage.

Connecting the control panel to STYLE₂ couldn't be easier-just plug one end of the cable into the air curtain and the other end into the controller.

In 'Auto' mode control panel will automatically adjust the air curtain's heat output to optimize air curtain performance, control the space at these

selected set point temperature (range=18-25°C) and minimise energy usage. In 'Manual' mode control panel 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



EXTERNAL CONTROL CONNECTIONS

BMS CONTROL BY VOLT FREE CONTACTS

A volt free BMS enable contact (INHIBIT) is included on each unit as standard. If the terminal is linked the unit will run. If it is open circuit across the terminal the unit will switch off.

An alternative set of terminals is included to facilitate fan only operation (i.e. no heating).

BMS CONNECTIVITY

Options for both Modbus RTU and Bacnet MS/TP connectivity to allow the unit to be integrated into a building's HVAC solution.

FAULT OUTPUT (ELECTRICAL HEATED AIR CURTAINS ONLY)

A volt free set of contacts are provided for when the electric elements overheat and the safety cut - out has operated.

ELECTRIC UNITS

Electric units are delivered as standard with room temperature control.

WATER UNITS

The water units of the STYLE₂ model are fitted as standard with built-in room temperature control with a three-way valve.

OTHER CONTROL OPTIONS

With a built in Wifi connectivity, the STYLE₂ can be controlled, monitored, adjusted or locked using the Biddle app remotely.

TECHNICAL DETAILS

INVISIDOR STYLE₂ COMPACT

Size		Horizontal	Vertical
STYLE ₂ Compact-100	Comprising total width/height	1 x STYLE ₂ Compact-100 1130mm	na na
STYLE ₂ Compact-150	Comprising total width/height	1 x STYLE ₂ Compact-150 1650mm	na 1645mm
STYLE ₂ Compact-200	Comprising total width/height	1 x STYLE ₂ Compact-200 2130mm	1 x STYLE ₂ Compact-200 2130mm
STYLE ₂ Compact-250	Comprising total width/height	1 x STYLE ₂ Compact-150 (left unit) & 1 x STYLE ₂ Compact-100 (right unit) 2775mm	1 x STYLE ₂ Compact-150 (bottom unit) & 1 x STYLE ₂ Compact-100 (top unit) 2775mm

- 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

INVISIDOR STYLE₂

Size		Horizontal	Vertical
STYLE ₂ -100	Comprising total width/height	1 x STYLE ₂ -100 1260mm	na na
STYLE ₂ -150	Comprising total width/height	1 x STYLE ₂ -150 1722mm	na na
STYLE ₂ -200	Comprising total width/height	1 x STYLE ₂ -200 2355mm	1 x STYLE ₂ -200 2355mm
STYLE ₂ -250	Comprising total width/height	1 x STYLE ₂ -150 (left unit) & 1 x STYLE ₂ -100 (right unit) 2977mm	1 x STYLE ₂ -150 (bottom unit) & 1 x Style-100 (top unit) 2977mm
STYLE ₂ -300	Comprising total width/height	1 x STYLE ₂ -150 (left unit) & 1 x STYLE ₂ -150 (right unit) 3439mm	1 x STYLE ₂ -200 (bottom unit) & 1 x Style-100 (top unit) 3610mm
STYLE ₂ -350	Comprising total width/height	1 x STYLE ₂ -200 (left unit) & 1 x STYLE ₂ -150 (right unit) 4072mm	na na
STYLE ₂ -400	Comprising total width/height	1 x STYLE ₂ -200 (left unit) & 1 x STYLE ₂ -200 (right unit) 4705mm	na na

- 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

MODEL REFERENCE

The model reference consists of a code giving unit size, coil and casing arrangement.

STYLE ₂ Compact - 150 - W - VR			
STYLE ₂ Compact	150	W	VR
○ Product	○ Nominal unit length 100/150/200/250cm	○ Heating coil W = Hot water heating E = Electric heating	○ Casing style H = Horizontal VR = Vertical right handed VL = Vertical left handed

PERFORMANCE DATA

	Speed	STYLE ₂ COMPACT-100		STYLE ₂ COMPACT-150		STYLE ₂ 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	5.3	9.0	7.9	12.0	10.0	18.0
	Medium	5.5		8.2		10.4	
	High	5.6		8.4		10.7	
Air volume (m ³ /s)	Low	0.259		0.374		0.519	
	Medium	0.276		0.400		0.555	
	High	0.294		0.425		0.590	
Noise level (dBA) measured 3m from discharge	Low	50		49		50	
	Medium	53		53		54	
	High	55		55		56	

	Speed	STYLE ₂ -100			STYLE ₂ -150			STYLE ₂ -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	7.7	7.1	12.0	10.6	9.1	18.0	16.2	15.0	24.0
	Medium	9.2	8.2		14.9	12.8		17.8	16.8	
	High	10.5	9.1		17.7	14.9		20.6	18.9	
Air volume (m ³ /s)	Low	0.258			0.338			0.540		
	Medium	0.333			0.516			0.628		
	High	0.404			0.658			0.786		
Noise level (dBA) measured 3m from discharge	Low	42			43			45		
	Medium	51			51			54		
	High	56			58			60		

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

ELECTRICAL DATA

	STYLE ₂ COMPACT-100		STYLE ₂ COMPACT-150		STYLE ₂ 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	230/1/50	400/3/50
Rated Power input (kW)	0.15	9.15	0.20	12.20	0.25	18.25
Current per phase (A)	0.7	13.7	0.9	18.3	1.1	27.2

	STYLE ₂ -100			STYLE ₂ -150			STYLE ₂ -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

DIMENSIONAL & WEIGHT DATA

	STYLE ₂ COMPACT-100		STYLE ₂ COMPACT-150		STYLE ₂ 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	

	STYLE ₂ -100			STYLE ₂ -150			STYLE ₂ -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		

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

WATER DATA

	STYLE ₂ COMPACT-100		STYLE ₂ COMPACT-150		STYLE ₂ 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

	STYLE ₂ -100			STYLE ₂ -150			STYLE ₂ -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

*Combined pressure drop of coil and valve

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Every effort has been made to ensure descriptions are correct at the time of print.
Errors and omissions excepted. INVISIDORSTYLE|V3|11|2023