



AB Series

INDUSTRIAL AIR CURTAIN



 **AIRBLOC**
ENERGY SAVING AIR CURTAINS

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Introduction

Airbloc AB industrial air curtains provide a barrier of high velocity air that helps block incoming winds and stops warm air escaping. They achieve this by delivering a powerful barrier of heated air across the entire width of the doorway. Units can be easily fitted within existing or new buildings and are ideal for open doorways.

The open door not only causes discomfort but greatly increases energy loss and the running costs of the building. Airbloc units offer a cost-effective, energy efficient solution to these problems.

Units are best mounted horizontally above the door to enable high-level warm air to be re-circulated to working level. Where over-door mounting is not possible, alternative units are available which may be mounted vertically at one or both sides of the door.

Features & Benefits

- Lower energy bills; air curtains provide an effective barrier to prevent the loss of warm air through open doors
- Complement and improve efficiency of conventional heating systems
- Allow doors to be left open for fork lift access
- Heated units can operate when the door is closed to provide supplementary heating
- Models are supplied to site in modular format for ease of handling
- All models are supplied with remote control panels
- Optional fan speed control is available on all models

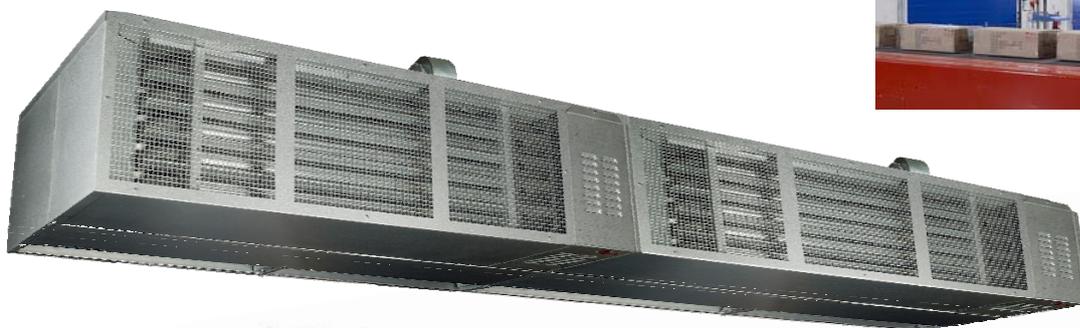


Model Range

- Nine models, for door widths from 2 metres to 6.7 metres
- Suitable for doorways up to six metres high
- Heat outputs from 40kW to 210kW
- Choice of ambient, gas, electric, LPHW or steam units
- Units may be specified for either use on natural gas (G20) or propane (G31)
- Standard units are suitable for horizontal mounting over the top of a door. For applications requiring vertical air curtains special 'tailor made' units are available

AB Series Applications

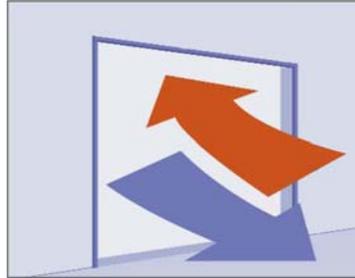
- Distribution centres
- Hangars
- Industrial buildings
- Retail unit stockrooms
- Warehouses
- Cold stores



The problem

When doors are opened in heated buildings, outside, colder, more dense air flows in through the bottom half of the door opening, whilst warm internal air flows out through the upper part of the doorway.

This results in considerable energy loss from the building and a layer of cold air forming at low level reducing comfort levels.

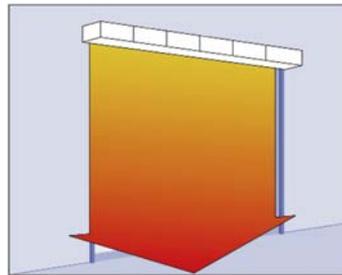


Heated building without air curtain

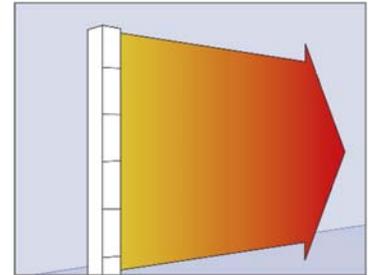
The solution

The installation of an Airbloc energy saving air curtain provides a barrier of air to separate the indoor and outdoor climates and deflect the natural convection airflow to retain heat inside the building.

The units operate when door opens and can also operate after the door has closed to supply supplementary heat.



Horizontal mounting



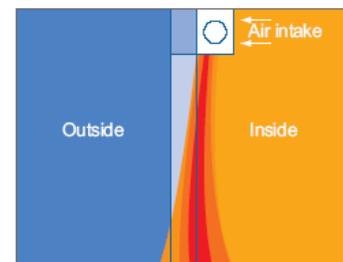
Vertical mounting

The technology

The Airbloc design provides air at a critical velocity, volume flow and temperature for optimum performance. The evenly distributed airflow across the full width of the door ensures effective tempering of incoming air.

Industrial doors require high air volumes for effective climate separation, the width of the air jet is critical to the unit performance and to maintain optimum air velocity this requires high primary air volumes. Units with a low air volume and narrow jet width do not provide sufficient resistance to the cold outside air. The Airbloc units have a 155mm outlet which combined with the high primary air volume provides a far more effective air barrier against external cold air, thereby reducing cold air ingress and improving energy savings.

To transform the turbulent airflow created at the fan outlet whilst at the same time optimising velocity the discharge section of the Airbloc units incorporate robust 70mm deep aluminium aerofoil profile blades which act as air straightening vanes to produce a laminar airflow discharge whilst minimising airflow resistance. To allow the air discharge to be adjusted to suit prevailing conditions, the complete assembly adjusts as a single section to maintain the airflow profile, once adjusted the complete assembly can then be locked into position. A three speed fan allows the airflow and velocity to be adjusted to suit varying door heights or exposure levels.

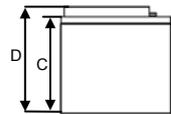
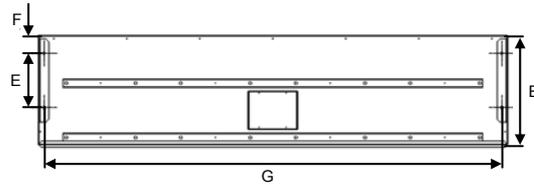
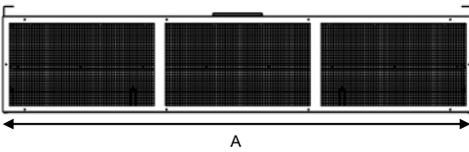


Pattern of airflow

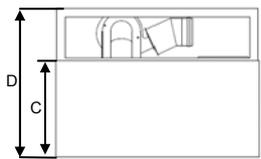
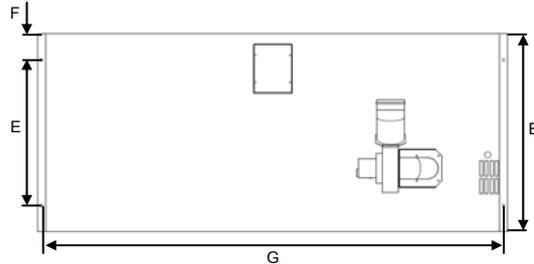
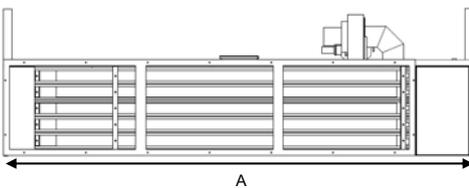
SPECIFICATION

Model	AB175	AB225	AB350	AB400	AB450	AB525	AB575	AB625	AB675	
Maximum door width	mm	1750	2250	3500	4000	4500	5250	5750	6250	6750
Maximum mounting height	mm	6000	6000	6000	6000	6000	6000	6000	6000	6000
Number of modules		1	1	2	2	2	3	3	3	3
Number of fans		3	4	6	7	8	9	10	11	12
Maximum air volume ⁽¹⁾	m ³ /h	7068	9425	14136	16493	18850	21204	23561	25918	28275
Maximum heating capacity⁽¹⁾										
Gas	kW	40	54	80	94	108	120	134	148	162
Electric	kW	18	27	36	45	54	n/a	n/a	n/a	n/a
LPHW	kW	60	70	120	130	140	180	190	200	210
Steam	kW	60	70	120	130	140	180	190	200	210
Total electrical load										
Ambient / LPHW / Steam	kW	1.65	2.20	3.30	3.85	4.40	4.95	5.50	6.05	6.60
Gas	kW	1.75	2.30	3.50	4.05	4.60	5.25	5.80	6.35	6.90
Electric	kW	19.65	26.20	39.30	45.85	52.40	58.95	65.50	72.05	78.60
Electrical supply	230V 1PH 50Hz									
Current rating (per fan)	amps	4.5A (FLC)								

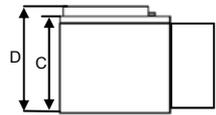
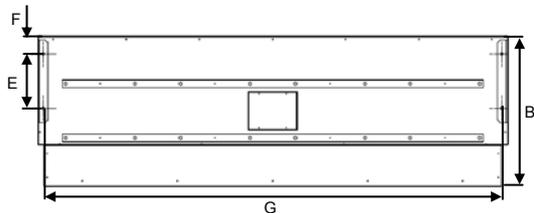
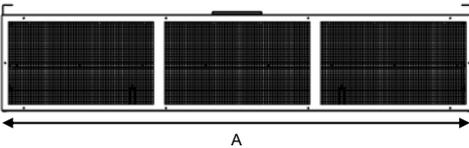
Ambient Unit



Gas Unit



Electric Unit



Dimensions

Model		Ambient		Gas		Electric	
		AB175	AB225	AB175	AB225	AB175	AB225
A	mm	1750	2250	1750	2250	1750	2250
B	mm	523	523	950	950	722	722
C	mm	457	457	457	457	457	457
D	mm	507	507	700	700	507	507
E	mm	260	260	700	700	260	260
F	mm	86	86	125	125	86	86
G	mm	1695	2195	1710	2210	1695	2195
Weight	Kg	90	115	185	230	133	145

GB/AIR/025/0210



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