



# AIRBLOC

## ABX Air Curtain

Industrial Air Curtain



**AMBIRAD**  
HEATING AND VENTILATION SOLUTIONS



# ABX Series

## Industrial Air Curtain

The Airbloc ABX Series industrial air curtain provides a barrier of high velocity air that helps block incoming winds and stops warm air escaping. 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.

### Model Range

- > Eight models, for door widths from two metres to six metres
- > Suitable for doorways up to nine metres high
- > Choice of outputs up to 360kW
- > Choice of ambient, low pressure hot water (LPHW) or steam heated
- > Units can be mounted either horizontally or vertically

### Applications

- > Distribution centres
- > Hangars
- > Industrial buildings
- > Exhibition Centres

## Features & Benefits

- > Ideal for exceptionally high doors
- > Lower energy bills; air curtains can reduce
- > All models are supplied with remote controlled panels
- > Complement and improve efficiency of conventional heating systems
- > Inverter speed control is available on all models
- > Effective barrier to prevent the loss of warm air
- > Units can be operated as door opens or left continually running
- > Allow doors to be left open for fork lift access without heat loss
- > Heated units can operate even when the door is closed to provide additional heat
- > Unheated units can be used in cold store facilities to prevent loss of cold air, reducing refrigeration costs and ice buildup
- > Models are supplied to site in modular format for ease of handling

## 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.

Conversely, in air-conditioned buildings or cold stores, the colder, more dense internal air spills out at low level and is replaced by warm, moist air.



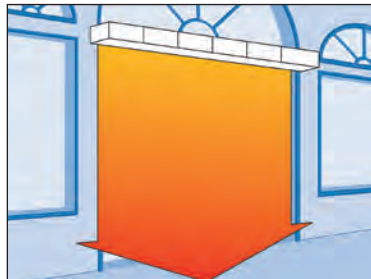
Without air curtain

## The solution

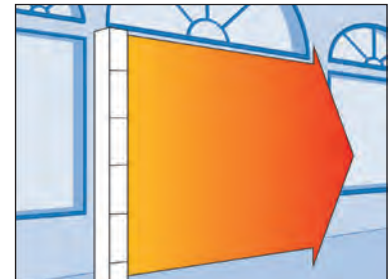
The installation of an Airbloc energy saving air curtain provides a barrier of air that defeats the natural convection airflow keeping conditioned air inside the building.

The Airbloc design provides air at a critical velocity, volume flow and temperature for optimum performance.

Airbloc air curtains may be mounted horizontally or vertically to suit space or structure



Horizontal mounting



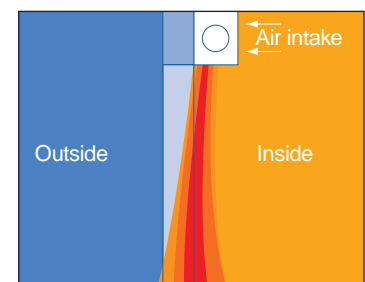
Vertical mounting

## 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

Technical Data									
Model		AB225H	AB350H	AB400H	AB450H	AB525H	AB575H	AB625H	AB675H
Maximum door width	mm	2250	3500	4000	4500	5250	5750	6250	6750
Maximum mounting height	mm	9000	9000	9000	9000	9000	9000	9000	9000
Overall unit length	mm	2250	3500	4000	5250	5250	5750	6250	6750
Maximum air volume <sup>(1)</sup>	m <sup>3</sup> /h	17360	26040	30380	34720	39060	43400	47740	52080
<b>Maximum heating capacity <sup>(2)</sup></b>									
LPHW	kW	120	200	220	240	300	320	340	360
Steam	kW	120	200	220	240	300	320	340	360
<b>Approximate weight</b>									
Ambient	kg	205	360	385	410	540	565	585	615
LPHW	kg	270	445	490	535	670	715	760	810
Steam	kg	270	445	490	535	670	715	760	810
<b>Electrical data</b>									
Motor power	kW	3	4.5	5.25	6	6.75	7.5	8.25	9
Total electric load	amps	12.4	18.6	21.7	24.8	27.9	31	34.1	37.2
Electrical supply	400 - 500 volt 3 phase 50Hz 4 wire								

1. Air volumes may be varied to suit individual applications.
2. Heating capacity may be reduced according to airflow.

Document reference number: GB/AIR0750314

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**AMBRAD AIRBLOC NORDAIRNICHE BENSON**

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