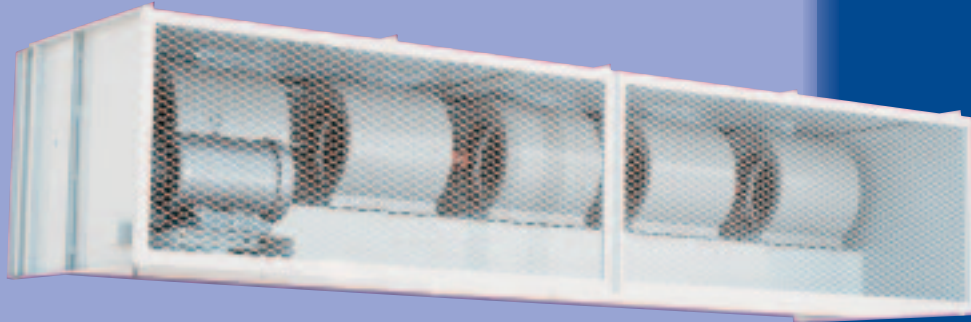




A I R D O O R S B R A N D A I R C U R T A I N



## *HEAVY DUTY INDUSTRIAL AIR CURTAIN*



800-421-1266  
[www.marsair.com](http://www.marsair.com)

## HEAVY DUTY Industrial Air Curtain

Mars® Air Doors, recognized worldwide as the leader in air curtain technology and development since 1962, specializes in the design and manufacture of air curtains for a broad range of applications. Mars Air Curtains are engineered to prevent the flow of air through an open entrance by generating a barrier of air across the door opening creating an “invisible door”, keeping out flying insects, dust and fumes. As an added benefit, they also help to control building operational costs and reduce energy related expenses.

Mars WindGuard™ Heavy Duty Industrial Air Curtains provide effective energy savings of up to 80% in cases where doors are left open for more than 10% of the time during business hours. They improve industrial energy conservation while maximizing employee comfort and productivity.

Custom engineered for industrial applications, Mars Air Curtains are used for all types of oversize doorways which includes:

- *Manufacturing plants*
- *Warehouses*
- *Food, beverage & meat processing plants*
- *Transportation terminals*
- *Loading Docks*

All Mars products are proudly manufactured in the U.S.A. under the strictest industry standards.

### 18-Month Guarantee

Mars WindGuard™ air curtains are guaranteed to be free from electrical or mechanical defects for a period of eighteen months from date of sale. This guarantee is void in cases of abuse, misuse, mishandling or unauthorized repair. Mars reserves the right to make improvements and changes to specifications without notice.

- **Save on energy usage and reduce cost on heating or cooling systems**
- **Designed to repel gusts of wind up to 30 MPH**
- **Custom engineered to match field conditions**
- **Unique field-adjustable damper control for proper velocity of air**
- **Easy hand-adjustable discharge nozzle directs air flow to compensate for varying wind loads**
- **Internal steel tubing frame for maximum structural strength**

#### Overhead Mounting

- Four mounting holes provided to accept threaded rod for overhead mount



### Installations for a wide range of door types:



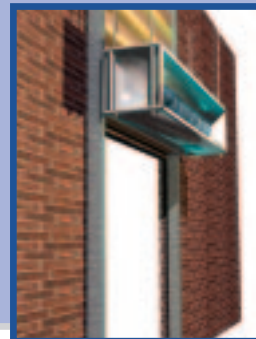
**Curved-Back Track Door**  
Door is recessed back to allow discharge nozzle to be exposed between the wall and the end of door.



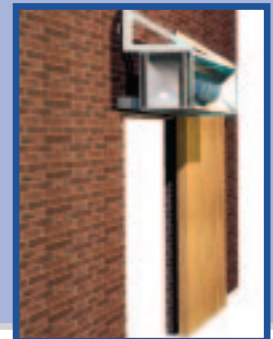
**Curved-Back Track Door**  
Threaded rod hangers are installed on the outside of the door track with the air curtain underneath the roll-up door.



**Roll Up Door**  
Extended brackets installed to clear door drum. Shown with field installed side baffles.



**Vertical Lift Track Door**  
Unit is mounted with rods in front of the door track.



**Sliding Door**  
Unit is bracket-mounted flush to the wall

### Electric Motors

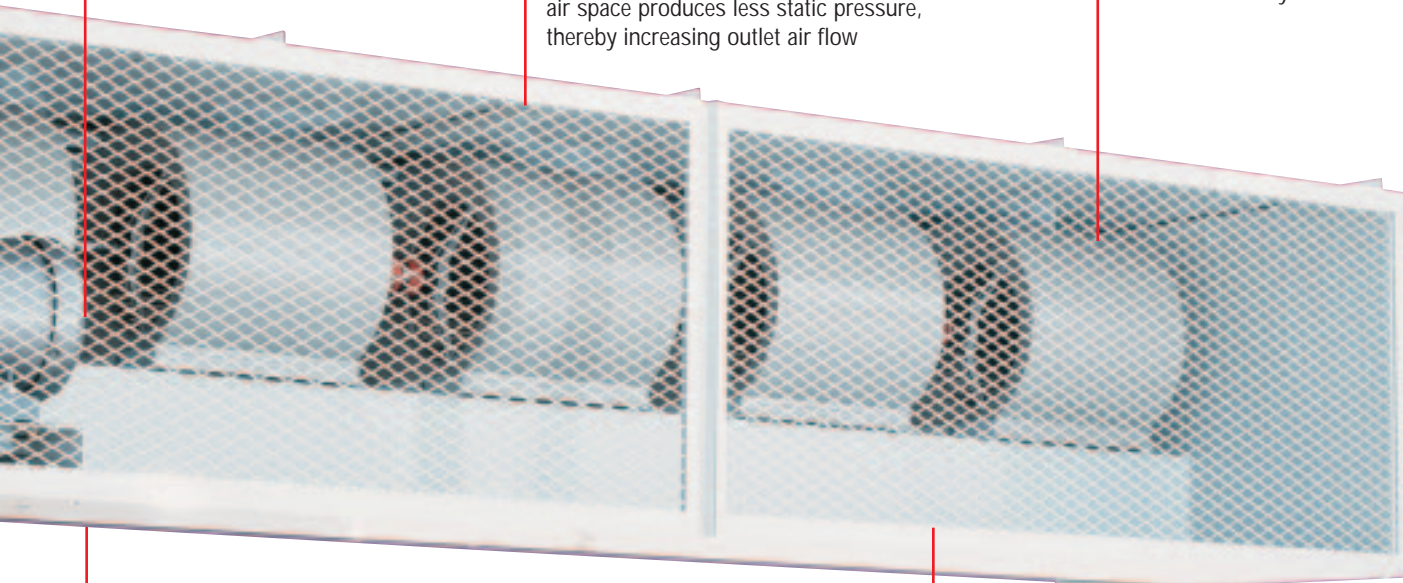
- Are fan cooled and suitable for continuous operation

### Inlet Screen

- Easily removable to allow full access to fans, motor and drive assembly
- Hole pattern designed for maximum open air space produces less static pressure, thereby increasing outlet air flow

### Blower Wheels

- Dynamically balanced to produce maximum velocity of air



### Air Outlet Nozzle

- Easy access, one hand adjustable control directs air stream with a  $\pm 20^\circ$  swing from vertical to compensate for varying wind loads dependent upon field conditions
- Superb velocity uniformity across the air outlet nozzle
- 5" wide nozzle provides sufficient air barrier for maximum temperature control and environmental separation
- Internal damper for velocity control reduces outlet air flow by up to 50%

### Housing of Welded Metal Construction

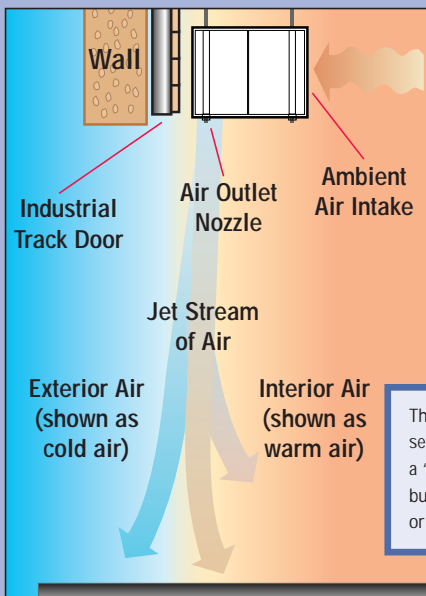
- Self-contained one-piece housing
- Fire retardant, corrosion proof paintlock metal, double protected with baked-on rust inhibiting polyurethane powder coating

### Quality Assurance Design and Construction

Architects and engineers are concerned about the products they specify. The products must be reliable, economical, durable and efficient. That is why professionals choose Mars Air Doors.

## The Efficient Environmental Separation System Innovations from Mars Air Door®

### WindGuard™ Air Curtain Application



### The Exclusive Mars Pow-R-Drive™ Drive System



The WindGuard™ receives intake air through the inlet screen. A series of blower wheels forces air through the outlet nozzle creating a "curtain" of air, which separates outside air from conditioned building interior air. Units can be supplied with gas, steam, hot water or electric heat if additional warmth is needed.

- Access panels remove easily to allow maintenance of motor and pulley assembly
- Adjustable motor mounting plate provides quick replacement of V-belts
- Unique double belt drive prolongs V-belt life
- Up front, easy access to motor for service and maintenance
- Internally mounted motor eliminates the need for a belt guard and enables the motor to be cooled by the blower wheels
- Aesthetically pleasing to the eye — no unsightly belts or external mechanisms

# High Velocity Air Curtain For Industrial Applications

## Production Made WindGuard™ Heated Air Curtains

### Steam Coil or Hot Water Coil Heated (SH or HW)

- All joints brazed with high temperature silver brazing alloy
- Coil consists of sturdy .035" tube wall by 5/8" OD seamless copper tubing and manifolds with die formed aluminum fins
- 16 gauge galvanized steel casing
- Coils rated for operating pressures of up to 125 PSI

### Electric Coil Heated (EH)

- U.L. listed control panel
- Heater casing and terminal box constructed of corrosion resistant steel
- Automatic reset thermal cutout for over temperature protection
- Manual reset thermal cutouts for secondary protection
- Wall mounted 24 volt thermostat with "heat/on/off/fan only" control

### Indirect Gas Fired Heat (IG)

- AGA/CGA designed -certified duct heaters
- Intermittent spark pilot with electronic flame supervision
- Natural or liquid propane gas
- Optional power venters

### Additional Optional Accessories



- **U.L. Listed Electric Control Panels**
  - NEMA 1 or NEMA 12 enclosure
  - Starter with overload relay for each motor
  - Built-in three position hand-off-auto manual selector switch permits operation of air curtain with doors closed

- **Explosion-Proof Motors**

- **Moisture-Proof Motors**

- **Micro Switch**

- Roller type micro switch (field installed) activates air curtain when door opens, shuts off when door closes
- Fixed delay/off/relay (30 seconds) allows operation of air curtain for 30 seconds after door is closed
- Variable delay micro switch (for gas or electric heat) allows air curtain and heater to stay on after door closes



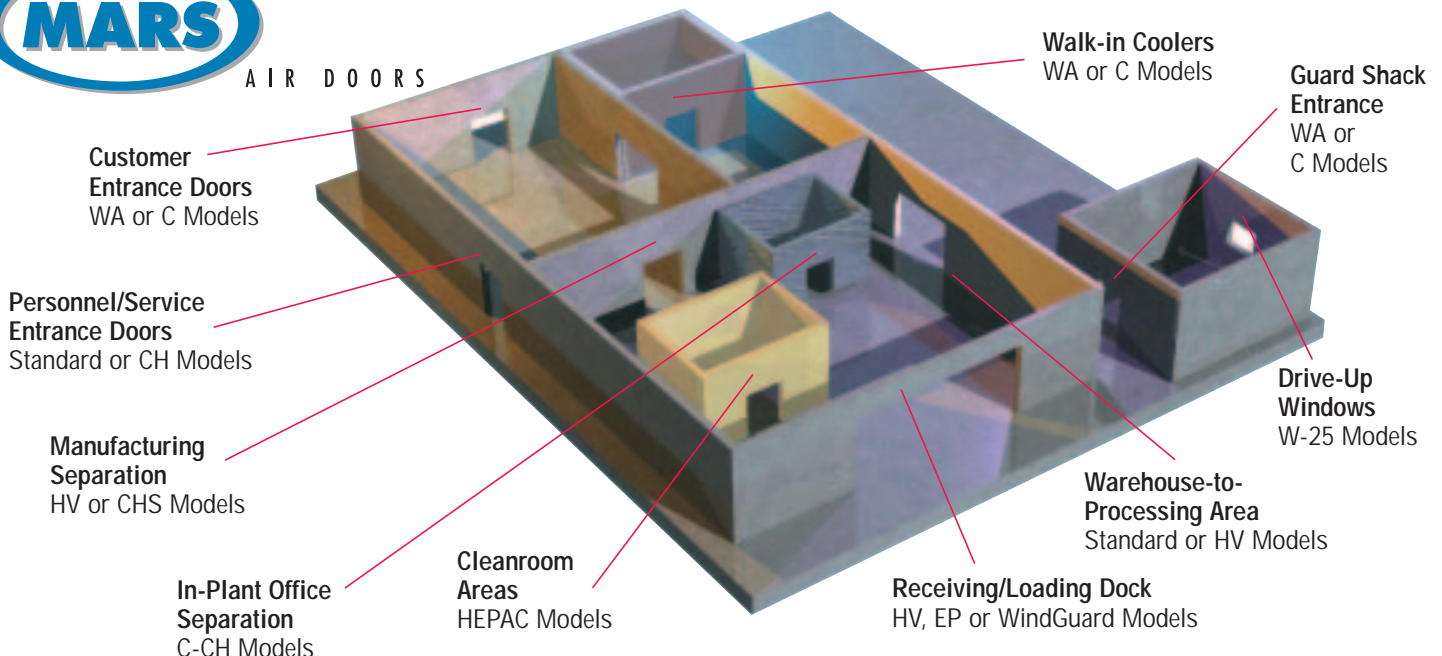
- **Inlet Air Filter Banks**

- **Extended Wall Mounting Brackets**

- For drum type roll-up doors



## Energy Saving Air Curtains FOR ALL APPLICATIONS



800-421-1266 • 310-532-1555 • Fax: 310-324-3030

Internet: [www.marsair.com](http://www.marsair.com) • Email: [info@marsair.com](mailto:info@marsair.com)

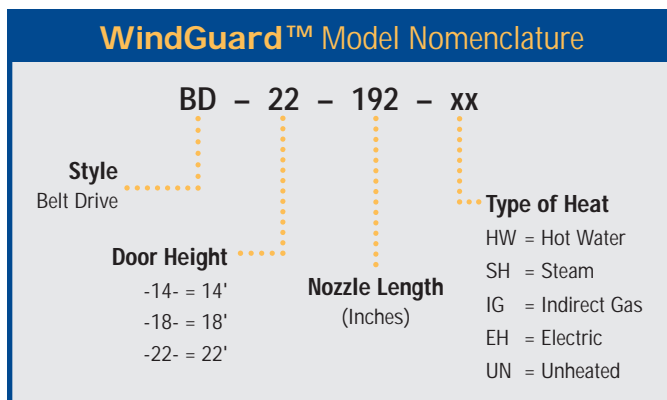
Performance Specifications						Heating Capacity				
Model Number	Effective Door Height Opening (Feet)	CFM At Nozzle	Average FPM At Nozzle	Maximum FPM At Nozzle	Moter H.P.	Net Weight (Unheated) Lbs.	HW (Hot Water) MBH ①	SH (Steam) MBH ②	IG (Indirect Gas) MBH ③	EH (Electric) KW
BD-14-096-xx	10' to 14'	11,700	3400	4500	1 @ 5	600	555	570	2 @ 300	110
BD-14-120-xx	"	14,650	3400	4500	1 @ 5	700	700	710	2 @ 350	140
BD-14-144-xx	"	17,600	3400	4500	1 @ 7.5	800	840	875	2 @ 400	170
BD-14-168-xx	"	20,500	3400	4500	1 @ 7.5	925	930	950	3 @ 350	195
BD-14-192-xx	"	23,450	3400	4500	1 @ 10	1000	1075	1075	3 @ 400	225
BD-18-096-xx	14' to 18'	13,800	4000	5100	1 @ 7.5	620	605	600	2 @ 350	130
BD-18-120-xx	"	17,255	4000	5100	1 @ 7.5	725	750	755	2 @ 400	165
BD-18-144-xx	"	20,700	4000	5100	1 @ 10	850	880	905	3 @ 350	195
BD-18-168-xx	"	24,100	4000	5100	1 @ 10	975	1035	1005	3 @ 400	230
BD-18-192-xx	"	27,600	4000	5100	1 @ 15	1100	1170	1160	4 @ 350	260
BD-22-096-xx	18' to 22'	16,250	4700	6000	1 @ 10	650	690	650	2 @ 400	155
BD-22-120-xx	"	20,300	4700	6000	1 @ 15	775	845	810	2 @ 400	195
BD-22-144-xx	"	24,350	4700	6000	1 @ 15	900	990	975	3 @ 400	230
BD-22-168-xx	"	28,400	4700	6000	1 @ 20	1050	1155	1030	3 @ 400	270
BD-22-192-xx	"	32,500	4700	6000	1 @ 20	1180	1305	1250	4 @ 400	310

GENERAL NOTE: For door heights greater than 22' or for CFMs greater or less than shown, consult factory.

① MBH based on an inlet hot water temperature of 200° F.

② MBH based on an inlet steam pressure of 15 PSI.

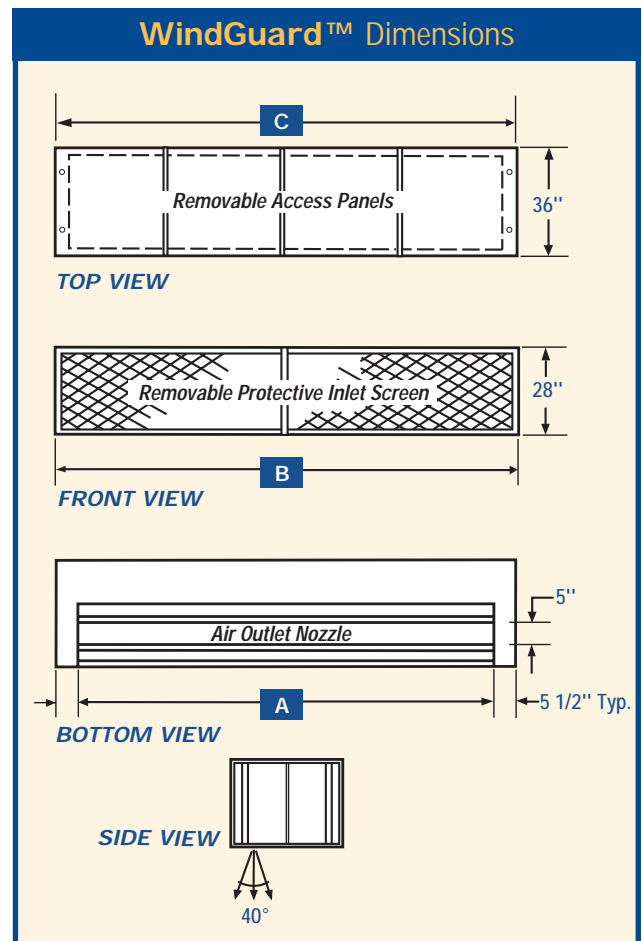
③ Number signifies the number of duct heaters (example: 2 @ 400 MBH indicates [2] duct heaters rated at 400 MBH each).



### WindGuard™ Dimensions By Part Number

Model Number	Nozzle Width <b>A</b>	Overall Width <b>B</b>	Mounting Width <b>C</b>
BD-18-096-xx	96"	107"	105 1/2"
BD-18-120-xx	120"	131"	129 1/2"
BD-18-144-xx	144"	155"	153 1/2"
BD-18-168-xx	168"	179"	177 1/2"
BD-18-192-xx	192"	203"	201 1/2"

NOTE: All measurements are in inches.





AIR DOORS

# Energy Saving Air Curtains

...An Air Curtain For Any Type Door, Window Or Opening

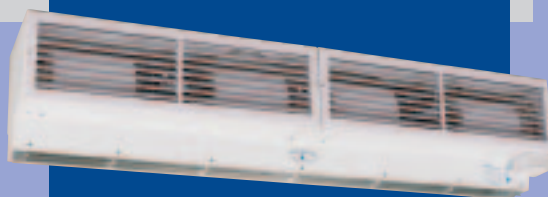
## Mars Industrial Type Air Curtains

- Industrial models effective on door heights of 7'-16'
- Also available in gas, electric, steam and hot water heat
- Heavy gauge, paint lock metal housing
- Ideally suited for personnel, receiving and loading dock doors



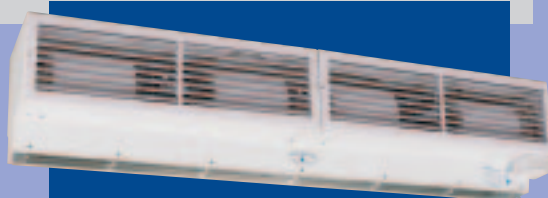
## Mars Commercial Type Air Curtains

- Commercial models effective on door heights of 7'-12'
- Also available in electric heat
- High impact, chemical resistant PolyMars® housing
- Ideally suited for customer entrance and receiving doors



## Mars Combi® Type Air Curtains

- Commercial models effective on door heights of 7'-12'
- Features three speed motor and switch to accommodate different type of installations
- High impact, chemical resistant PolyMars® housing



## Mars Whispurr Air® Type Air Curtains

- Commercial models effective on door heights of 3'-7'
- Features variable speed motor and switch to accommodate a wide range of installations
- Very low sound levels
- High impact, chemical resistant PolyMars® housing
- Low profile, 7 1/2" overall height



## Mars HEPAC® Type Air Curtain

HEPAC® (High Efficiency Particulate Air Curtain)

- Commercial model effective on door heights up to 8'
- Incorporates a HEPA (High Efficiency Particulate Air) filter
- High impact, chemical resistant PolyMars housing
- Ideally suited for cleanrooms, hospitals, pharmaceutical and electronic plants



Call Toll-Free: 1-800-421-1266



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*Distributor*