



## **MOUNTING AND INSTALLATION**

### **SHOULD THE AIR CURTAIN BE MOUNTED INSIDE OR OUTSIDE THE DOORWAY?**

Generally, air curtains will operate with equal efficiency, regardless of which side of the doorway it is mounted on. However, there are certain exceptions, as follows:

Either side of the door opening is acceptable when used for insect control or over refrigerated coolers. Outside installation is required when used over freezer doors because when mounted inside, the fans tend to gather moisture and freeze, eventually forming a snowball around the fan, causing it to lose operational efficiency.

Inside installation is mandatory when used as a thermal barrier in factories, stores, etc., for preventing loss of heat and keeping out the cold air. Heated units for customer entrances and service windows must always be mounted inside.

### **DO MARS AIR CURTAINS REQUIRE A COVER WHEN MOUNTED OUTSIDE?**

No, they are not necessary since their design protects them from inclement weather. However, the air intake on the EHV and EHH models is on the top. Weatherproof covers are necessary and therefore supplied as standard equipment. All units have been U.L. Listed for outdoor use.

### **IS THERE ANY DIFFERENCE IN THE SOUND LEVEL IF A MARS AIR CURTAIN IS INSTALLED OUTSIDE OR INSIDE?**

Yes. If the level of sound is a problem, mount the air curtain outside and the sound will be reduced.

### **HOW FAR ABOVE THE DOORWAY HEADER SHOULD THE AIR CURTAIN BE MOUNTED?**

One half to two inches above the door opening whenever possible. The closer to the top of the door opening, the more effective the air curtain will be. Extended mounting brackets are available in various lengths so the air curtain can be mounted to clear an obstruction.

### **IF THERE IS AN OBSTRUCTION OVER THE DOORWAY, HOW FAR AWAY FROM THE WALL CAN THE AIR CURTAIN BE INSTALLED AND STILL FUNCTION EFFECTIVELY?**

Not more than eight inches for refrigeration and fourteen inches for insects. To seal off the ends, twelve to eighteen inch panels made of sheet metal, plastic strips or plywood can be installed on each side of door opening to improve the efficiency of the air curtain. Sometimes the Mars air curtain air outlet nozzle may be installed between the obstruction and the wall. Precaution is necessary to prevent the obstruction from deflecting the flow of air.

## **WHAT ARE THE NORMAL HEIGHTS THAT AN ELECTRIC HEATED MARS AIR CURTAIN CAN BE MOUNTED?**

Electric heated air curtains with ½ HP motors are normally used over customer entrance doorways in restaurants, supermarkets, department stores, personnel entrances, etc. and installed no more than 8 feet high above the floor. The colder the climate the higher the KW heater should be selected.

If specifying electric heated models for use over warehouse doorways, use either HV or EP models. Higher KWs should be used in this case. All electric heated models are supplied with motor control panels and wall-mounted thermostats for On/Off/Fan Only control.

## **WHEN MORE THAN ONE AIR CURTAIN IS INSTALLED OVER A DOORWAY, HOW CLOSE TOGETHER SHOULD THEY BE MOUNTED?**

They should be mounted next to each other, however, if the door opening is wider than the units, a spacing of up to six inches between units is acceptable. W-25 models can be spaced up to three inches apart. For longer pass-thru openings, use a series of C or Whispurr Air models.

## **WHAT HAPPENS IF THE AIR CURTAIN IS MUCH SMALLER THAN THE DOOR-WIDTH OPENING?**

Whenever possible, avoid using an air curtain that is shorter than the entire width of the door opening. An undersized air curtain will create unprotected areas on each side, thereby reducing its efficiency level. An air curtain should cover the doorway completely. If necessary, it's always better to use an air curtain that is slightly wider than shorter in covering the opening.

Some manufacturers will provide their units with extreme side deflectors to help spread the air outward. Avoid using this type of design. The output air flow pattern becomes very irregular. Much of the air flow moves across the opening, causing considerable air velocity loss by the time it hits the floor.

## **WHEN WOULD A VERTICAL MOUNT BE FEASIBLE?**

When installation is not possible over the top of the doorway, the Mars air curtain may be side-mounted along the door opening. Air curtains must be mounted on both ends of the door, blowing into the center of the door opening. This type of installation must be specified at time of order. The pan of the motor/fan assembly will be bolted to the air curtain housing instead of the standard wing- nut mount hardware. All motors used in Mars air curtains contain thrust bearings and operate efficiently in any position.

## **WHERE ARE THE JUNCTION BOXES?**

Each motor within the air curtain housing will have one watertight junction box mounted on the bottom center of its motor/fan assembly. If specified at time of order, the junction box can be located elsewhere.

## **HOW DOES THE AIR CURTAIN MOUNT OVER A LARGE WAREHOUSE ROLL-UP DOOR?**

Each unit is sent with installation instruction explaining how to fabricate brackets for a roll-up door. As an accommodation, the factory can supply special brackets for a nominal charge.

## **WHEN THERE IS A FOYER, WHERE SHOULD THE AIR CURTAIN BE MOUNTED?**

To be most effective, the air curtain should be mounted inside the foyer over the building entrance door. Depending upon climatic conditions, either a heated or unheated model may be used.

## **WHEN AN AIR CURTAIN IS MOUNTED OVER A COOLER DOORWAY, CAN THE DOOR ITSELF BE REMOVED AND THE AIR CURTAIN ALLOWED TO OPERATE CONTINUOUSLY?**

No. Inasmuch as air curtains provide up to an 80% thermal efficiency level, the continual loss of refrigerated air and build-up of humidity within the cooler, will cause the compressor to burnout. They are meant to be used as an energy saving device when the cooler door needs to be opened for loading and unloading purposes.

## **HOW DO YOU CLEAR EXISTING UTILITY LINES AND TRACKS OVER A DOORWAY?**

Mars provides a variety of optional mounting hardware accessories. Side extension plates are available to further extend the outboard mounting holes. These plates are available in various sizes up to a nine-inch extension for both ends of the air curtain. Adjustable mounting brackets and extended wall mount brackets for drum type roll-up doors are also available. These types of brackets are used when the air curtain needs to be mounted some distances away from the wall. The brackets are available in various sizes to provide 2 ½ to 23 inches of clearance. Please consult factory for details. On all EHV and EHH models, adjustable mounting brackets are furnished as standard equipment.

## **HOW DO YOU MOUNT A MARS AIR CURTAIN OVER A MEAT TRACK THAT COMES OUT THROUGH THE CENTER OF THE DOOR OPENING?**

Sometimes one unit can be installed over the door opening on top of the track, but very often there are obstructions and the unit would have to be installed much too high. Therefore, one unit on each side of the track would be more efficient because installation is then closer to the top of the door opening. The air curtain should be mounted three to four inches away from each side of the track to prevent interference with products being sent through.

## **WHY ARE ONLY THE EHV AND EHH MODELS SUPPLIED WITH ADJUSTABLE MOUNTING BRACKETS?**

Because these units are designed differently than other Mars models and the brackets facilitate and shorten installation time.

## **HOW LONG DOES IT TAKE TO INSTALL A MARS AIR CURTAIN?**

The average time required to install a unit is two hours. After the second or third installation, the time can usually be cut to one hour.