

DOOR LIMIT SWITCHES

Door limit switches automatically activate and de-activate (start and stop) the air curtain when the door(s) open and close.

Note: Control panel will be required if the air curtain selected is 3 phase or exceeds 250 volts, 20 amps, or 1 total horsepower. Please refer to the panel and/or switch submittals for additional rating details.

Mechanical

Mechanical switches are suitable for all door types and can be used without a control panel or controller if it does not exceed the switch limitations. Mechanical switches are adaptable to varying field conditions and have a large throw (activation range) to compensate for doors that may not close completely. Please refer to the switch submittals for switch limitations and control requirements.

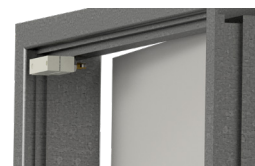


99-014

Standard Duty



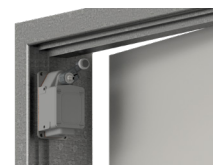
NEMA 1 - Designed for all door types in dry indoor environments. Part #: 99-014 - Mechanical Combination Roller/Plunger Type Door Limit Switch, NEMA 1 with a maximum rating of 250 volts, 20 amps or 1 horsepower, Single Pole and Single Throw (Field Installed)



99-270

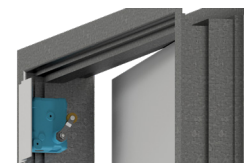
Severe Duty (typically for industrial applications)

NEMA 4X - Designed for outdoor and/or wet environments. Part # 99-270 - Mechanical Roller Type Door Limit Switch, NEMA 4X with a maximum rating of 250 volts, 15 amps or 1 horsepower, Single Pole & Single Throw (Field Installed)



99-016

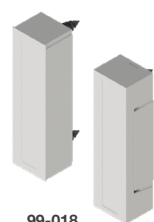
NEMA 7 (Fumes) & 9 (Dust) - Designed for indoor use in locations classified as hazardous. Part # 99-016 - Mechanical Roller Type Door Limit Switch, NEMA 7 & 9, Class I, Division I, Groups A, B, C, or D and NEMA 9, Class II, Groups E, F, or G with a maximum rating of 250 volts, 15 amps or 1 horsepower and Single Pole & Single Throw (Field Installed)



Magnetic

Magnetic switches are designed for low profile architectural NEMA 1 applications and are typically used for low voltage controls systems. Input power is limited to 1 phase and 240 volts, and a motor control panel or solid-state controller is required for all magnetic switches when used with unheated, hot water/steam, or indirect gas fired models. Magnetic switches have a narrow throw (activation range, 3/8" or less) and require the door(s) to fully close to de-activate the air curtain(s). Please refer to the switch submittals for switch limitations and control requirements.

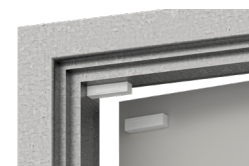
Commercial Surface Mounted



99-018

Commercial surface-mounted switches are designed for the reed switch and the magnet to be mounted on the surface of the door jamb and the door. The compact footprint minimizes its surface exposure in visible high traffic areas, making them ideal for offices, retail shops, restaurants, and concession door applications. Note: Control wires can be concealed if the door frame and/or wall can accommodate wire races or conduit.

Part # 99-018 - Commercial Plastic Surface Mounted Magnetic Door Limit Switch, NEMA1 with 24Vac Controls, requires an optional Control Panel or Solid-State Controller. (Field Installed)



Industrial Surface-Mounted

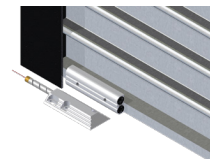
Industrial surface-mounted switches are designed for large factory and warehouse doors. The larger heavier duty aluminum reed switches and magnets allow for high voltage (120 volt), low load (1/2 amp) controls applications, and can withstand the rigors of industrial wear and tear. Conduits are required for high voltage control signals and may be used for 24V controls.



Part # 99-125 - Industrial Metallic Surface Mounted Magnetic Door Limit Switch, NEMA1 with 24Vac Controls, requires an optional Control Panel or Solid-State Controller. (Field Installed)



Part # 99-124 - Industrial Metallic Floor Mounted Magnetic Door Limit Switch, NEMA1 with 24Vac Controls, requires an optional Control Panel or Solid-State Controller. (Field Installed)



CONTROLLERS

Motor Control Panels

Mars Motor Control Panels (“Motor Starters”) integrate with Mars air curtain(s) to automatically and/or manually activate and de-activate (start and stop) the air curtain, via H-O-A (Hands-Off-Automatic), when the door(s) open and close. A panel is required when the air curtain uses 3 phase power or exceeds the door limit switch electrical limitations. Available in all voltages, horsepower, and phases with 115-volt control standard (24V available as an option) for unheated, hot water/steam, and indirect gas fired units. All panels are NEMA 1, designed for indoor use to provide protection to personnel against access to hazardous parts, and to provide a degree of protection to the equipment against ingress of solid foreign objects.



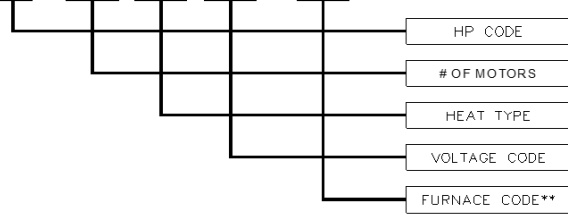
Motor Control Panel (MCP)

For severe duty applications including indoor/outdoor, hose-directed water, and corrosion resistance, Mars offers a NEMA 4X panel with a fiberglass enclosure (optional 304 stainless steel or 316 stainless steel enclosures are also available). In addition, spark-resistant hazardous applications are available with cast aluminum mill-faced enclosures. NEMA 7 (gases) enclosures are intended for indoor use in locations classified as Class I, Division I, Groups A, B, C, or D, while NEMA 9 (dust) enclosures are for indoor use in locations classified as Class II, Groups E, F, or G. These options are only available for unheated and hot water/steam units. Please refer to the panel submittals for additional details.

Mars Motor Control Panels can also be customized by adding multiple control options and accessories to suit a variety of customer needs and applications.

Please note the following represent the most commonly selected accessory in each respective category

MCPA - 2 U H - 1 F




HP CODE		# OF MOTORS	HEAT TYPE		VOLTAGE CODE				FURNACE CODE**	
HP	CODE		HEAT MODE	CODE	VOLTS	PHASE	HZ	CODE	FURNACE QTY	CODE
1/2	A	1	Unheated	U	115	1	60	A	1	1F
1	B	2	Electric	E	208/230	1	60	D	2	2F
2	C	3	Hot Water or Steam	V	208/230	3	60	G	3	3F
3	D	4	Indirect Fired Gas	I	277	1	60	L		
5	E	5			460	3	60	H		
7	F	6			575	3	60	I		
7 1/2	G				220	1	50	U		
10	H				220	3	50	V		
15	I				380/415	3	50	W		
20	J									
25	K									
30	L									
Special*	S									

*Usually for 1/6 HP motors or for a combination of different motors with different HP
 **Must Specify for Indirect Fired Gas Control Panel Only

 Part # MCP-TD - Accessory, Panel Mounted, Adjustable Time Delay, 1sec-17min, 24V-120V Controls, (Control Panel Required)

Part # MCP-VR - Accessory, Panel Mounted, VFD Ready, Unheated/Hot Water/Steam Heated (Control Panel & External Stand Alone VFD Required)

Part # MCP-HD - Accessory, Panel Mounted, Heat on Demand, Hot Water/Steam Heated (Thermostat Included)

 Part # MCP-24V - Accessory, Panel Mounted, Transformer, Unheated/Hot Water/Steam Heated, 24V Controls (Control Panel Required)

Part # MCP-2S - Accessory, Panel Mounted, 2 Speed, 1 Phase Only, Unheated/Hot Water/Steam Heated, STD2/HV2/PH10/PH12/QP10, 3 Motor Max (Control Panel Required)

Solid-State Panels


A solid-state control is an electronic switching device, designed to activate and de-activate a device when a small external voltage is applied across its control terminals. Solid-state controls consist of a sensor which reacts to digital and/or analog input and can be designed to switch either AC or DC control systems.

SimpleLink®

SimpleLink® is a multi-function programmable solid-state controller that enables automatic air curtain operation via an advanced control system with "Smart Mode," which optimizes the air curtain sequence based on the current conditions, and regulates the heaters and/or fan speed as required by current local conditions. Includes an intuitive remote mounted HMI module. Please refer to the SimpleLink® submittals for the list of compatible units and limitations.



Standard Package

 The Mars SimpleLink® Controller Standard Package includes standard and programable control modes that automatically adjust the fan speed, heat, and time delay based on the specified set points via internally mounted sensors. Fully programmable 24/7/365 timer, maintenance schedule alert, and password-protected screen is standard.

Plus Package

The Mars SimpleLink® Controller Plus Package includes all the features in the Standard Package, but also includes BACnet capability and Full Adaptive Controls (“Smart Mode”). Smart Mode regulates and adjusts the set points of the fan speed, heat, and time delay based on the current trending operational conditions.

Basic Controller

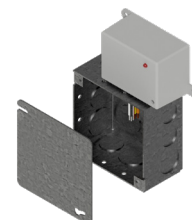
The basic controller is a simple, compact solid-state controller that offers an affordable method of automatically activating and de-activating (start and stop) the air curtain when the door(s) open and close. However, input power is limited to 115 or 208/240 volts, 1 phase, and ½ or 1 total unit horsepower and may not be considered as a “motor starter”. Please refer to the Basic Controller submittals for additional rating details and limitations.

Non-Time Delayed

Non-time delayed basic controller kits are the most popular type and turn the air curtain off immediately when the door closes. This option is typically selected when low voltage controls are required.

Part # J0705 - Solid State Controller kit with 24Vac Non-time Delayed controls, NEMA1, 115V, 1Ø, 1 HP max with part # 99-125, Commercial Plastic Surface Mounted Magnetic Door Limit Switch (Field Installed)

Part # J0706 - Solid State Controller kit with 24Vac Non-time Delayed controls, NEMA1, 208-277V, 1Ø, 1 HP max with part # 99-125, Commercial Plastic Surface Mounted Magnetic Door Limit Switch (Field Installed)



Non Time Delayed Basic Controller

Time Delayed

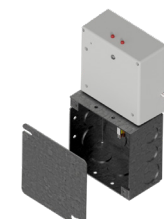
Time delayed basic controller kits reduce cycling of air curtain motors for high traffic applications (10 or more cycles per hour). The controller delays the unit from turning off when the door closes, with a minimum delay of 6 seconds and maximum of 20 minutes. Please refer to the Basic Controller submittals for additional kits available.

Part # J0021 - Solid State Controller kit with 24Vac Adjustable (6s -20m) Time Delayed controls, NEMA1, 115V, 1Ø, 1/2 HP max with part # 99-018, Commercial Plastic Surface Mounted Magnetic Door Limit Switch (Field Installed)

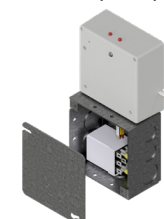
Part # J0022 - Solid State Controller kit with 24Vac Adjustable (6s -20m) Time Delayed controls, NEMA1, 208-277V, 1Ø, 1/2 HP max with part # 99-018, Commercial Plastic Surface Mounted Magnetic Door Limit Switch (Field Installed)

Part # J0703 - Solid State Controller kit with 24Vac Adjustable (6s -20m) Time Delayed controls, NEMA1, 115V, 1Ø, 1 HP max with part # 99-018, Commercial Plastic Surface Mounted Magnetic Door Limit Switch (Field Installed)

Part # J0704 - Solid State Controller kit with 24Vac Adjustable (6s -20m) Time Delayed controls, NEMA1, 208-277V, 1Ø, 1 HP max with part # 99-018, Commercial Plastic Surface Mounted Magnetic Door Limit Switch (Field Installed)



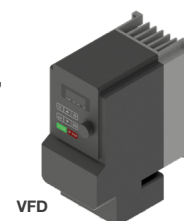
Time Delayed Basic Controller (1/2 HP)



Time Delayed Basic Controller (1 HP)

VFD (Variable Frequency Drive)

A Variable Frequency Drive (VFD), also known as an adjustable speed drive, adjustable frequency drive, AC drive, microdrive, or inverter, controls the motor speed by varying the frequency and voltage supplied to the electric motor. In addition to reducing the motor’s energy consumption, reduced motor speed may be required for certain applications. VFDs may only be used for inverter-rated motors, and always require 3 phase output power. VFDs can be factory-installed or mounted remotely as a standalone controller.



VFD

Single Phase Input Power

New applications with 1 phase input power can utilize a custom VFD. The VFD will need to be properly sized to ensure it meets the input power requirements for voltage, amperage, and horsepower. Existing 1 phase units cannot use VFDs without first changing the motor voltage to 3 phase. Please contact the factory for additional details.

Three Phase Input Power

All Mars 3 phase units are inverter-rated and compatible with VFDs. Please refer to the VFD submittals for limitations.

BMS Control Options

Mars offers enhanced control features for “Smart Buildings” to increase their operational and energy efficiency. The Mars BMS (Building Management System) options offer an easy and seamless integration with industry standard BMS or BAS (Building Automation System) to assist in monitoring and controlling all its mechanical and electrical equipment. This is achieved through a computer-based control system that utilizes various Internet protocols and open standards. Mars offers both basic on/off control using low-voltage signals and more sophisticated BACnet MSTP and IP communication options.

Part # BMS-301 - BMS for monitoring only for all unheated models (Motor control panel required with MCP-24V option)


Part # BMS-302 - BMS for controlling only for all unheated models (Motor control panel required with MCP-24V option)

 Part # BMS-303 - BMS for monitoring and controlling for all unheated models (Motor control panel required with MCP-24V option)

Part # BMS-304 - BMS for monitoring only for all hot water, steam, indirect gas and BD & WM electric heated models (Motor control panel required with MCP-24V option)

Part # BMS-305 - BMS for controlling only for all hot water, steam, indirect gas and BD & WM electric heated models (Motor control panel required with MCP-24V option)

 Part # BMS-306 - BMS for monitoring and controlling for all hot water, steam, indirect gas and BD & WM electric heated models (Motor control panel required with MCP-24V option)

 Part # BMS-300 - BMS for monitoring and controlling for all electric heated LP2/STD2/N2/HV2/NH2/EP2/PH models

THERMOSTATS

The Mars thermostat controls the optional heat output of air curtains by regulating the output temperature and providing supplemental heat to the local area. Thermostats are typically remote mounted to sense the average space or local area temperature (open spaces) and adjusts the air curtain heat to maintain the setpoint temperature.

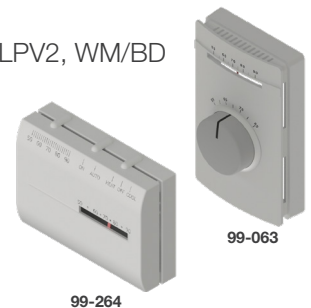
Mars provides an analog thermostat as standard for most models with optional programmable digital thermostats available.

Part # 99-063 - Thermostat, 801, Line Voltage, Up to 250V, Analog, Single Stage, Single Pole (Optional for LPV2, WM/BD Electric & All Hot Water/Steam)

Part # 99-064 - Thermostat, 802, Line Voltage, Up to 250V, Analog, Two Stage, Double Pole (Optional for All Hot Water/Steam)

Part # 99-264 - Thermostat, 9200H, 24 Volt, Analog, Single Pole (Standard for Elec LPV2, STD2, HV2, EP2, PH & All Gas Fired)

Part # 99-263 - Thermostat, RS4110, 24 Volt, Digital, Single Pole, Battery Power (Optional for Elec LPV2, STD2, HV2, EP2, PH, WM/BD & All Gas Fired)



DISCONNECTS

Mars disconnects are intended to manually open a circuit to disconnect power from a unit for servicing and/or during an overcurrent or short-circuit event. This is a line of protection for the air curtain and any other equipment that is integrated with it. In addition, it also serves as a mechanism for providing safe access to the unit for periodic maintenance and service, with most having the ability to “lock-out and tag” the input power.

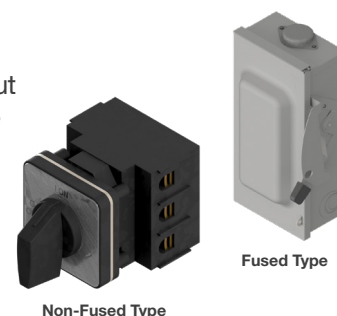
Disconnects are typically shipped remote mounted for field installation and wiring. This is mainly due to the physical size of the disconnect and thickness of the conduit required to integrate with the air curtain. Smaller amperage systems can be panel or unit mounted, but remote mounting as a standalone option is the most practical for higher amperage systems and fused type disconnects.

Fused Type

A fused disconnect switch is a combination of a manual switch to disconnect the circuit and fuses to shut the circuit off in the event of a problem. The disconnect and fuses are sized according to the unit voltage and amperage. Please refer to the disconnect submittals for additional details and selection guide.

Non-fused Type

A non-fused disconnect switch is designed to shut the circuit off in the event of a problem. The disconnects are sized according to the unit voltage and amperage. Please refer to the disconnect submittals for additional details and selection guide.



BRACKETS


Mars brackets are individually designed to integrate with certain Mars units, but each bracket component is designed to be interchangeable and may be used with each bracket type to meet field clearance requirements. Brackets are not compatible with WM and BD series and gas heated units. Please refer to the bracket submittals for additional details and bracket compatibility.


Offset Mounting

Offset mounting brackets are intended to clear obstructions directly above the opening and are compatible with both swinging and sliding door types. The obstruction must not extend beyond the outer edges of the opening, and a minimum of 6” clearance is required on either side for proper mounting. Examples of obstructions include exit signs, power conduits, outlets, sectional door tracks, protruding headers, etc.



B0004

 Part # B0004 – Adjustable Mounting Bracket set with a maximum of clearance of 3-1/2”, Obsidian Black. One set required per air curtain. (Field Installed)

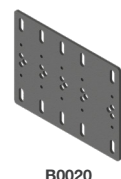
 Part # B0005 - Adjustable Mounting Bracket set with variable clearances of 7”, 9”, 11” or 13”, Obsidian Black. One set required per air curtain. (Field Installed)



B0005

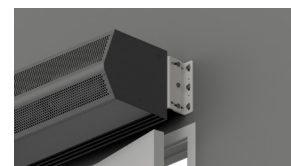
Side Extension

Side extension brackets are intended to extend the air curtain mounting holes sideways to clear obstructions on the outer edges and/or above the opening. Typically used in conjunction with offset mounting brackets to clear obstructions such as sectional door tracks, pipes and conduit, signs, etc.



B0020

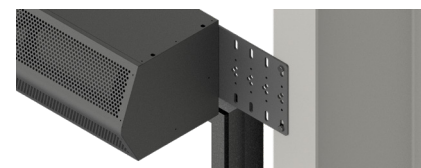
Part # B0020 – Side Extension Plate set with variable clearances of 4”, 6”, 8” or 10”, Obsidian Black. One set required per air curtain. (Field Installed)



Adjustable Mounting Bracket B0004



Adjustable Mounting Bracket B0005



Side Extension Plate

Extended Wall Mounting

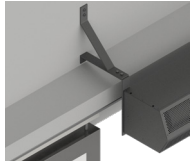
Extended wall mounting brackets are intended to clear larger obstructions above the opening that extend beyond the door header but do not extend more than 24" above the door header. Specifically designed to clear drum roll-up type doors and larger diameter objects such as main water and gas pipes and allow the unit to be mounted directly in front of the obstruction. Side baffles are recommended for larger clearances to minimize bypass and losses from gaps.



Extended Wall Mounting Bracket

Part # B0008 - Extended Wall Mounting Bracket set with a maximum of clearance of 10", Obsidian Black. One set required per air curtain and includes part # B0004, Offset Mounting Bracket. (Field Installed)

Part # B0009 - Extended Wall Mounting Bracket set with a maximum of clearance of 16", Obsidian Black. One set required per air curtain and includes part # B0004, Offset Mounting Bracket. (Field Installed)



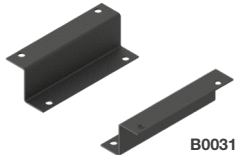
Sliding Door Application

Part # B0010 - Extended Wall Mounting Bracket set with a maximum of clearance of 19", Obsidian Black. One set required per air curtain and includes part # B0004, Offset Mounting Bracket. (Field Installed)

Part # B0011 - Extended Wall Mounting Bracket set with a maximum of clearance of 23", Obsidian Black. One set required per air curtain and includes part # B0004, Offset Mounting Bracket. (Field Installed)

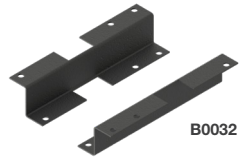
Top Mounting

Top mounting brackets are intended for overhead installations, using threaded rods (not included) to clear obstructions directly above all door types where wall mounting is not as an option. Wall or ceiling mounted stabilizing brackets or rods (not included) are recommended to minimize unit movement when cycling.



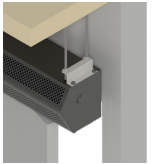
B0031

Part # B0031 - Top Mounting Bracket set for the unheated LP2 series, Obsidian Black. One set required per air curtain. Model 84"-144" long require an additional set for center support. (Field Installed)

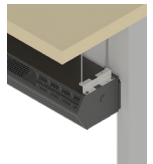


B0032

Part # B0032 - Top Mounting Bracket set for the electric, hot water and steam heated LPV2 series, Obsidian Black. One set required per air curtain. Model 84"-144" long require an additional set for center support. (Field Installed)



Overhead Mounted Unheated LP2



Overhead Mounted Unheated LPV2

Transom Mounting

Transom mounting brackets are designed to be mounted flush to the vertical frame of the transom (aluminum framed glass window) above the opening.



B0041

Part # B0041 - Transom Mounting Bracket set for the unheated and electric heated STD2/N2 series, Obsidian Black. One set required per air curtain. Models 84"-144" long require an additional set for center support. (Field Installed)



B0042

Part # B0042 - Transom Mounting Bracket set for the unheated, electric, hot water and steam-heated LP2 series, Obsidian Black. One set required per air curtain. Models 84"-144" long require an additional set for center support. (Field Installed)



Transom Mounted STD2



Transom Mounted LP2

Vertical Mounting



Vertical Mounting Base

Vertical mounting brackets are designed to secure the Mars air curtain to the floor and wall and are ETL certified for vertical mounting to the floor. Additional brackets (not included) may be required to suit field conditions.

Part # 09-500 – Vertical Mounting Bracket set for the unheated, electric, hot water and steam heated LP2 series 25" to 72", Obsidian Black. For 25"-72" models only. Maximum of 2 units for hot water and steam heated models (Field Installed)

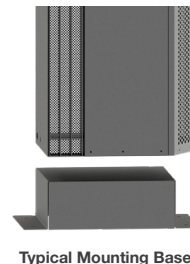
Part # 09-510 - Vertical Mounting Bracket set for the unheated, electric, hot water and steam heated STD2 series, Obsidian Black. Excludes electric heated with 16kW per motor/fan assembly. Maximum of 2 units for hot water and steam heated models (Field Installed)

Part # 09-520 - Vertical Mounting Bracket set for the unheated, electric, hot water and steam heated HV2/EP2 series, Titanium Silver. Maximum of 2 units for hot water and steam heated models (Field Installed)

Part # 09-530 - Vertical Mounting Bracket set for the unheated, hot water and steam heated WM series, Titanium Silver. Maximum of 2 units (Field Installed)

Part # 09-546 - Vertical Mounting Bracket set for the unheated, hot water and steam heated BD series, Titanium Silver. Maximum of 2 units (Field Installed)

Part # 09-550 - Vertical Mounting Bracket set for the unheated BD series, Titanium Silver. Maximum of 2 units (Field Installed)



Typical Mounting Base

SIDE BAFFLES

Mars side baffles are designed to minimize leakage (bypass) from the space created at the sides of the door when the air curtain is not mounted flush to the wall. The side baffles also improve the air curtain performance by framing the air curtain stream and redirecting it towards the floor. Available in 12" and 24" depth to cover a wide array of applications and may be customized in the field to contour the shapes of the obstructions. Note: The space between the back of the air curtain and the wall must also be blanked off, but that is typically field supplied and installed.



Part # B0101 - Side Vinyl Baffle Kit, 14' Height, 12" Width (Set of two)

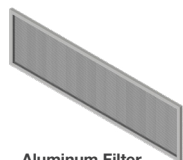
Part # B0103 - Side Vinyl Baffle Kit, 14' Height, 24" Width (Set of two)

FILTERS

Aluminum and Pleated

Aluminum (washable) filters are designed to meet UL Class 2 requirements, with superior dust and debris holding capacity. The multi-layer bonded expanded aluminum construction allows uniform loading and low airflow resistance for long life and improved protection. They are durable, rust-proof, and are easy to clean or replace in the field.

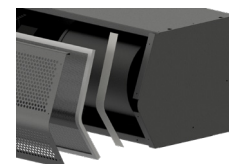
Pleated (disposable) filters are designed to meet MERV (Minimum Efficiency Rating Value) 8 and feature an extended area filtering medium that is extremely efficient and ecologically friendly. Made primarily from recycled materials, this medium achieves MERV 8 (particle sizes 3-10 pm) efficiency with low resistance to airflow. Higher MERV rated air filters are also available.



Aluminum Filter

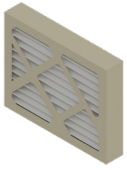
Flat-bank (1/4" - 2")

1/4" aluminum pressed flat-bank filters are contoured to fit the Mars air curtain intake and do not require any additional parts beyond the included spring-loaded straps.



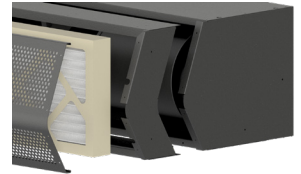
1/4" Pressed Filter

Please note the following represent the most commonly selected accessory in each respective category



1/2" to 2" Flat-bank filters require additional depth in front of the unit for the filter enclosure (included). Industrial air curtain models with higher airflows are limited to the 2" aluminum type due to higher face area velocities. Please refer to the filter submittals for additional details and filter compatibility.

Pleated Filter



2" Filter Section

V-bank

Please contact the factory for additional details.

SOUND DAMPENING

Noise Reduction

Mars offers a noise reduction package for sound abatement in noise-sensitive and tightly enclosed areas. Specialized coatings, custom internal configurations, and dampeners provide noise profiles to suit quiet restaurants, high-end retail shops, work areas near doors, galleries, etc.

Part # INS-NR – Noise Reduction Package for all LPV2, STD2, PH, HV2 series, one is required for each motor/wheel assembly. Excludes gas heated models.

Vibration Isolation

Mars offers vibration isolation sets for sound and vibration abatement by dampening vibration transfer from the unit to the mounting surface (suspended mounting only). Please refer to the vibration isolation submittals for additional details and compatibility.



Spring Isolator



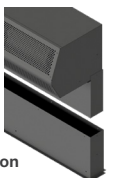
Typical overhead mounting for Spring Isolator

NOZZLE EXTENSIONS

Mars offers nozzle extensions to lower the air curtain discharge just above the door header. Adjustable from 10" to 16" below the installation height for recessed mounting and high ceiling applications. Constructed with heavy gauge steel and powder coated for improved sound absorption with minimal performance loss. Painted to match unit color and includes trim pieces for field installation. Please refer to the Nozzle Extension submittals for additional details and features.

CUSTOM MATERIALS, FINISHES & CONSTRUCTION

Mars offers a variety of material and finish options to complement the space's architectural/design requirements. From custom materials such as stainless steel and aluminum, to custom-blended colors and coatings, Mars can provide a personalized solution for any application.



Nozzle Extension

Materials

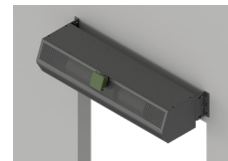
For severe duty applications, 304SS (stainless steel) is available and is best suited for outdoor and/or wet applications. However, for extremely corrosive applications such as marine or caustic environments, 316SS provides superior corrosion resistance, especially from chlorides and chlorinated solutions, but it comes at a premium. Brushed 6061 aluminum is also available for weight reduction and to meet the project specifications, as required, but is not intended for corrosive environments.

Finishes

Upon request, any of the three standard colors may be used on any series. Special RAL colors are also available but are limited to selected stock RAL numbers from the manufacturer. Non-RAL colors may be ordered but will require custom blending and color samples. As an alternative to stainless steel, Heresite and epoxy coatings are available for severe duty applications that requires corrosion resistance. All the above color options are at an additional costs and lead time. Please contact the factory for additional details.

Construction

In addition to severe duty air curtain enclosures, switches, and panels, Mars also offers complete washdown/corrosion (NEMA 4X) and spark-resistant (NEMA 7 & 9) air curtain units, but are limited to Class I, Division I, Group D ratings, due to the motor limitations. Please consult with the project engineer to determine which rating is best suited for the application.



Tamper Resistant

Mars offers a tamper-resistant option for applications in highly secure areas such as government, mental health, and correctional facilities. Lockable doors and access panels, specialized screws heads (tool included), and wire mesh screens prevent removal of components and/or access to internal parts and controls. Please contact the factory for additional information.



FURNACE OPTIONS

Mars furnace options allows the designers, specifiers and engineers to customize the furnace sequencing, operation and materials to meet the application design requirements. Enhanced furnace heat output control systems are available to assist in minimizing furnace short-cycling, reduce BTU consumption and maintain a de-stratified and more comfortable local area or space. Stainless steel heat exchangers are available for caustic environments to maintain the standard furnace operational lifecycle.

Part # IDF-2STG – Two stage controls for Hi-Lo heat operation (per furnace)

Part # IDF-SS - 409 Stainless Steel Heat Exchangers and Burners (per furnace)

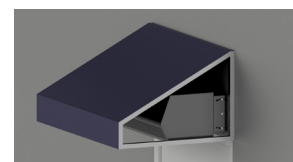
Part # IDF-MOD-DS – Modulating controls for duct sensing, 0-10Vdc/4-20mA control signal required by others. One required for each furnace.

Part # IDF-MOD-RS - Modulating controls for room sensing, 0-10Vdc/4-20mA controls included and factory supplied. Only one controller supplied per air curtain.

Part # IDF-SC - Single stage controls with separated combustion furnace for 100% outside air intake. One required for each furnace.

HARSH WEATHER COVER

Mars offers harsh weather covers to protect the air curtains from the inclement conditions when the air curtain is exposed to outside environment. Made from industrial grade steel tubing and thick durable outdoor rated fade and UV resistant canvas material, the harsh weather cover minimizes the accumulation of snow, ice, and other debris in and on the top of the units. It also reduces the affects of the direct sunlight and retards the premature aging of the air curtain finish and its internal components.



Specifically designed for all Mars unheated models and available with easily replaceable canvas cover, the harsh weather cover offers another layer of protection to maintain the air curtain's standard operational lifecycle. Please refer to the Harsh Weather Covers submittals for additional details and compatibility.