

# **MB MASTER-BILT®**

*Refrigeration Solutions*



## **JUST THE FACTS**

A Quick Guide To Our Quality  
Refrigeration Products



Master-Bilt strives to make our equipment as energy efficient as possible. We've initiated the Energy Saver program to help you quickly identify features that serve your efficiency needs.

Visit [master-bilt.com/customer-support/energy-savers](http://master-bilt.com/customer-support/energy-savers) for the latest on energy-saving features and options.



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For the most up-to-date product information, visit  
[www.master-bilt.com/products](http://www.master-bilt.com/products).

# BEM/BEL SERIES

## Endless Glass Door Merchandisers

With 16 basic modules in medium and low temp, endless merchandisers are designed to fit most any space. They can be used as stand-alone models or combined for a continuous line up.

BEM/BEL models with remote refrigeration systems reduce heat and noise on the sales floor and are ideal when roof installation of the system is not an issue.

Endless BEM/BEL-SC models offer a semi-self-contained refrigeration system for areas where space is limited and roof access isn't practical.

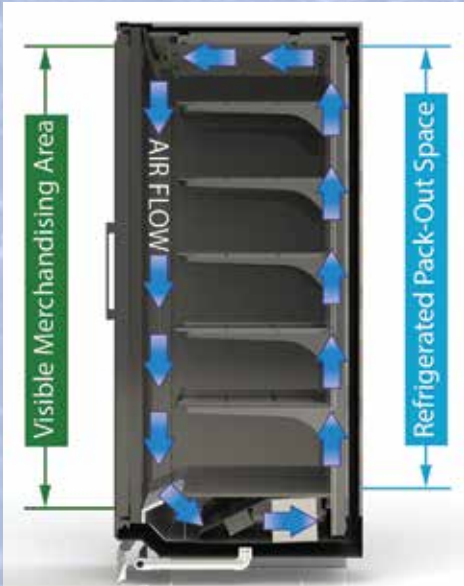
Endless BEM/BEL-CP models provide convenience when only a single module is needed. Each model comes complete with all components for quick installation.



No matter the choice, endless merchandisers offer distinct advantages:

## Increased Pack-Out

- Exclusive larger cu. ft. pack-out area
- 23" deep shelves – deepest standard shelves available
- Pack-out space and visible area are aligned for the ultimate in product merchandising

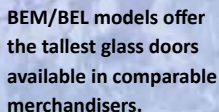


100% of pack-out space falls within the visible merchandising area in BEM/BEL endless models.

- Additional 200+ square inches of viewing area per door
- Largest glass door height and tallest interior case height means more product visible to customers

## Optimum Energy Efficiency

- Front air curtain prevents warm, moist air from entering merchandiser during door openings for the most energy efficient design
- Energy efficient LED lighting with more lumens per watt also maximizes product appearance



Highly efficient,  
longer lasting LED lighting  
enhances product  
appearance  
to its fullest.



## Refrigeration System Options

- Models are available with either semi-self-contained or remote systems
- EC fan motors are up to 65% more efficient than standard motors and introduce less heat inside the cold space
- Flexible refrigerant line-sets included on self-contained models for easier installation



Remote refrigeration systems include a condensing unit with all necessary components supplied for installation including a solenoid valve.



On semi-self-contained models, the condensing unit is covered with a sound dampening fiberglass mat.

A standard 20" tall steel shroud provided by Master-Bilt covers all components.

# DC SERIES

## Conventional Ice Cream Storage/Dipping Cabinets



DC-8D

MODEL	DIMENSIONS (in.)			VOLTS	AMPS	UNIT H.P.	CAPACITY DISPLAY/ STORAGE**
	L	D	H				
DC-2S	31 <sup>7</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>8</sub>	34 <sup>1</sup> / <sub>8</sub>	115	2.1	1/4	3/1
DC-4S	54	21 <sup>1</sup> / <sub>8</sub>	34 <sup>1</sup> / <sub>8</sub>	115	3.2	1/4	6/4
DC-4D	30 <sup>5</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>8</sub>	34 <sup>1</sup> / <sub>8</sub>	115	2.7	1/4	5/2
DC-6D	43	30 <sup>1</sup> / <sub>8</sub>	34 <sup>1</sup> / <sub>8</sub>	115	3.2	1/4	8/5
DC-8D	54	30 <sup>1</sup> / <sub>8</sub>	34 <sup>1</sup> / <sub>8</sub>	115	3.6	1/3	11/8
DC-10D	66 <sup>5</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>8</sub>	34 <sup>1</sup> / <sub>8</sub>	115	5.4	1/3	14/11
DC-12D	84 <sup>5</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>8</sub>	34 <sup>1</sup> / <sub>8</sub>	115	5.9	1/3	18/15

\*Capacity measured in 9<sup>1</sup>/<sub>2</sub>" diameter, 3 gallon cans.

**Stainless steel exterior option available.**



# DD/DD-L/DD-LCG SERIES

Ice Cream Dipping/Display  
Merchandisers



DD-46



DD-46L



DD-46LCG

MODEL*	DIMENSIONS (in.)			VOLTS	AMPS	UNIT H.P.	CAPACITY DISPLAY/ STORAGE**
	L	D	H				
DD-26	27 <sup>1</sup> / <sub>4</sub>	27 <sup>1</sup> / <sub>2</sub>	50	115	5.9	3/5	4/0
DD-46	48 <sup>1</sup> / <sub>4</sub>	27 <sup>1</sup> / <sub>2</sub>	50	115	5.9	3/5	8/4
DD-66	69 <sup>1</sup> / <sub>4</sub>	27 <sup>1</sup> / <sub>2</sub>	50	115	7.2	5/6	12/8
DD-88	90 <sup>1</sup> / <sub>4</sub>	27 <sup>1</sup> / <sub>2</sub>	50	115	7.2	5/6	16/12

\* Models available in standard lid, low glass lid (suffix "L")  
and low curved glass lid (suffix "LCG")

\*\*Capacity measured in 9<sup>1</sup>/<sub>2</sub>" diameter, 3 gal. cans.

# FLR SERIES

## Ice Cream Topping Centers



FLR-80

**Note:** Standard FLR model cabinets do not include optional pumps and jars.

MODEL	DIMENSIONS (in.)			VOLTS	AMPS	UNIT H.P.	CAPACITY DISPLAY/ STORAGE*
	L	D	H				
FLR-60	43	30 <sup>1</sup> / <sub>8</sub>	38 <sup>1</sup> / <sub>4</sub>	115	3.2	1/4	5/7
FLR-80	54	30 <sup>1</sup> / <sub>8</sub>	38 <sup>1</sup> / <sub>4</sub>	115	3.6	1/3	6/11

\*Capacity measured in 9<sup>1</sup>/<sub>2</sub>" diameter, 3 gallon cans.

**Stainless steel exterior option available.**

# COLDIN-3™ SERIES

## Display Freezers

### CABINETS & MERCHANDISERS



**MSF-43AN**



**MSC-49AA**

MODEL	DIMENSIONS (in.)			VOLTS	AMPS	UNIT H.P.
	L	D	H			
FLAT LID						
MSF-31AN	31	27	33	115	1.3	1/3
MSF-43AN	43	27	33	115	1.4	1/3
MSF-52AN	52	27	33	115	2.0	1/3
MSF-71AN	71	27	33	115	4.1	2/3
CURVED LID						
MSC-31AA	31 <sup>1</sup> / <sub>2</sub>	27 <sup>3</sup> / <sub>8</sub>	33 <sup>1</sup> / <sub>2</sub>	115	1.3	1/3
MSC-41AA	39 <sup>3</sup> / <sub>8</sub>	27 <sup>3</sup> / <sub>8</sub>	33 <sup>1</sup> / <sub>2</sub>	115	1.4	3/8
MSC-49AA	48 <sup>7</sup> / <sub>8</sub>	27 <sup>3</sup> / <sub>8</sub>	33 <sup>1</sup> / <sub>2</sub>	115	2.0	3/8
MSC-66AA	66 <sup>1</sup> / <sub>4</sub>	27 <sup>3</sup> / <sub>8</sub>	33 <sup>1</sup> / <sub>2</sub>	115	2.2	3/4



## Flexibility In Application

Bilt2Spec™ walk-ins are custom designed to meet customer needs across a wide variety of applications including:

- Convenience stores
- Restaurants
- Institutional and corporate cafeterias
- Hotels
- Ghost kitchens and many more

## Flexibility In Size

From a minimum 36 sq. ft. size to more elaborate refrigerated warehouses, Bilt2Spec walk-ins can be customized to provide the right amount of temperature-controlled space. Basic modular panel sizes, as well as many options, offer the right flexibility to fulfill any design requirement.

## Flexibility In Options

Using our wide range of options, you can, in effect, make your walk-in an extension of your business personality. Numerous interior and exterior finish options adapt to your decor or durability requirements. Choose from many refrigeration system options to reliably and efficiently cool your stored products. Many door accessories and other add-on features are also available to increase convenience and ease of use.

## Stand-Out Standard Features

Like all Master-Bilt walk-ins, Bilt2Spec features:

- Four-inch thick foamed-in-place polyurethane panels with cam-locking mechanisms
- Standard interior and exterior panel finish of 26 gauge acrylic-coated stucco galvanized steel
- When specified, a smooth aluminum floor





**Master-Bilt's standard duty doors are equipped with field adjustable cam-lift hinges, digital thermometers, LED lighting and a deadbolt-locking handle.**



**Heavy-duty doors offer superior design features such as adjustable heavy-duty strap hinges and a welded, structural anodized aluminum rigid frame.**

Per DOE requirements, panels and doors are designed and certified for use in walk-in cooler and freezer applications.





## QS Series & Quick Ship Walk-Ins

Master-Bilt QS Series models with self-contained Capsule Pak™ or Capsule Pak ECO™ refrigeration systems are designed for fast, easy installation. These single compartment coolers and freezers are available in sizes up to 14' in length and in heights of 6'7" & 7'7" with floor and 7'4" floorless.

Quick Ship models feature Capsule Pak\* Capsule Pak ECO\*, or remote Split-Pak™ refrigeration systems. Quick ships are offered as single compartment coolers and freezers as well as combination models. Additionally, they are available in unlimited lengths in 1' increments and in standard widths of 6', 7' & 8' (9', 10', 11' & 12' widths optional). Choose from heights of 7'7" or 8'7" with floor or 7'4" or 8'4" floorless.

\*Systems available on single compartment Quick Ship walk-ins up to 14' in length.

## Quick Ship Refrigeration Systems

Quick Ship refrigeration systems consist of self-contained Capsule Pak™ or Capsule Pak ECO™ systems or remote Split-Pak™ systems.

Capsule Pak and Capsule Pak ECO models consist of a condensing unit and evaporator coil contained in a single housing ready to mount on top of your walk-in. The evaporator section mounts flush in a standard 4" thick panel for maximum storage space. These systems offer easy installation and servicing with cord and plug electrical and no plumbing required. For more on Capsule Pak and Capsule Pak ECO, see pages 24-25.

Split-Pak remote systems consist of a condensing unit with matching evaporator coil. Pre-wired condensing unit components are factory assembled on a galvanized steel base. Evaporator coils are ready to mount and are available in off-cycle defrost for coolers and electric defrost for freezers.



**Remote refrigeration systems include Split-Pak condensing units with matching evaporator coils.**

Capsule Pak™ and Capsule Pak ECO™ systems feature a condensing unit and evaporator coil in a single housing ready to mount on top of your Master-Bilt walk-in.



## QS Series Options

- Heights: 8'7" with floor, 8'4" without floor
- U-shaped shelving system
- Floor tread plate kit
- Exterior ramp
- Condensing unit air deflector kit
- Door hood (outdoor models)
- Heater kit for outdoor use where ambient conditions may go below 32°F
- Leak detector/alarm (may be a requirement in some areas)
- Five year compressor warranty

## **Quick Ship Series Options**

- 9', 10', 11' & 12' width\*
- Aluminum diamond tread or stainless steel interior and exterior kickplates
- With floor/less floor combination\*
- Exterior ramp (with floor models)
- Interior ramp\*
- Non-skid strips (shipped loose)
- Extra vapor-proof lights (shipped loose)
- LED Lighting
- Outdoor membrane roof systems
- Viewports
- Strip curtains (shipped loose)
- Door rain hoods
- Indoor remote refrigeration system
- Specially designed shelving kits

\*Consult factory for lead time on this option



## **Ready-Bilt™ Factory Pre-Assembled Walk-ins**

Ready-Bilt walk-ins are completely pre-assembled at the factory and ready to set in place at the job site.

Structures typically arrive on a gooseneck truck and, depending on size and customer preference, lifted into place by crane, boom-lift or forklift. No field assembly is necessary.

Refrigeration systems are already installed and the entire walk-in is fully tested before shipping. All you have to do is provide electricity for the single source hook-up (one per refrigeration system). Each Ready-Bilt walk-in is UL-listed as an entire package, not just for individual components, facilitating electrical inspections.

## **The Durable Construction You Expect**

Ready-Bilt models have the same standard features of all Master-Bilt walk-ins plus:

- A heavy-duty door with a welded structural anodized aluminum frame, heavy-duty hinges and heavy-duty door closer
- Bands of aluminum treadplate as finishing trim around top and bottom of the walk-in
- A weather-proof membrane roof to keep rain from collecting against the adjacent building
- Pre-installed refrigeration system(s) using either a remote Split-Pak™ system or a Capsule Pak™ system depending on application
- A heavy-duty door closure
- A door drip guard

Options include door kickplates, ramps and many interior and exterior finish options.



## Refrigerated Warehouses

Coordinating all the construction details for cold storage warehouses can be challenging. Master-Bilt makes the job much easier with one source service for panels, refrigeration systems and installation.

Master-Bilt warehouses share much of the same panel, door and floor construction with smaller walk in coolers and freezers but with a number of options to customize a structure as needed. Roof covering options, for example, include galvalume, flat membrane and sloped membrane with several methods of indoor and outdoor roof suspension.

Other options include metal facades, sliding and lift doors, vinyl strip curtains and dock weather seals.



Each warehouse project may be paired with a custom remote refrigeration system. Experienced sales and design personnel will work with you to determine your needs at each stage of construction. From the first steel beam to the last insulated panel, Master-Bilt ensures your specifications are met. Plus, we are always ready to assist with future modifications or expansions.



**Refrigerated warehouse options include sliding or lift doors.**



**R-449A**  
ECO-FRIENDLY  
REFRIGERANT

## Split-Pak™ Condensing Units

Designed to withstand the harshest conditions, Split-Pak condensing units contain the most efficient combination of condenser coil, fan and fan motor available.

These units offer the widest variety of component options and factory pre-assembly. Package options on the basic standard remote unit include a factory pre-charged system with quick-connect liquid and suction line sets up to 50 ft. Condensing units vary from  $\frac{1}{4}$  to 15 HP with a wide selection of temperature ranges.

Units can be configured with hermetic or Scroll™ compressors, with or without matching evaporator coils.

## Standard Split-Pak™ Features



Head pressure control valve ensures proper operation in low ambient conditions.



Standard weather hood for protection against the elements.



Compliant, energy efficient Scroll compressors featured exclusively in low temp units for added reliability.



## **Split-Pak™ Evaporator Coils**

Evaporator coils are ready to mount in position and are available with air (off cycle) defrost, electric defrost or optional reverse cycle defrost when equipped with the Master Controller Reverse Cycle Defrost electronic controller. Each is also furnished standard with a properly sized expansion valve and room thermostat. Energy efficient EC motors are standard on single phase coils.

Electric defrost models feature defrost termination/fan delay controls and drain line heaters.

A pre-mounted solenoid at the evaporator is available as an option.

## Capsule Pak™ Self-Contained Systems

Self-contained, one-piece Capsule Pak refrigeration systems consist of a condensing unit and evaporator coil contained in a single housing and ready to mount on top of your Master-Bilt walk-in.

Designed to maximize storage space, the evaporator section mounts flush in a standard 4" thick walk-in ceiling or wall panel.

Servicing is easier with many evaporator components accessible from inside the walk-in vs. on top.

Standard features include a cord and plug for simple electrical connection and an electronic controller system for increased reliability, connectivity and food safety.



**R-449A**  
ECO-FRIENDLY  
REFRIGERANT



**Indoor model**



**Outdoor model**



## Capsule Pak™ Remote Systems

Capsule Pak remote refrigeration systems consist of a separate evaporator coil and condensing unit which are quick-connected using pre-charged refrigerant line sets. The evaporator coil is mounted on top of the walk-in with the condensing unit located externally, often on a rooftop.

Capsule Pak remote systems include many of the same benefits of self-contained Capsule Pak systems but eliminate the extra heat discharged by the condensing unit into the kitchen. With the extra heat moved to the outside of the building, air conditioners don't have to work so hard, which saves electricity.

A remote system also removes noise from the work area for a more comfortable working environment.



Evaporator section  
located on top of walk-in



Condensing unit  
section located  
remotely



**R-449A**  
**ECO-FRIENDLY**  
**REFRIGERANT**

## Capsule Pak ECO™ Systems

Capsule Pak ECO systems are highly sustainable and created for indoor walk-in coolers and freezers. Their patent-pending design combines efficient components with natural refrigerant for the most eco-friendly systems. Additionally, all systems are DOE, CARB and SNAP compliant.

Just like other Capsule Pak systems, the condensing unit and evaporator coil are in a single housing which is easily set in place on top of your cooler or freezer. Electrical installation is also a breeze with cord and plug connection and no field wiring necessary. There is no need for plumbing, either, as floor drains are not required. Designed with a smaller footprint, up to 28% shorter and 20% narrower, Capsule Pak ECO models allow more working space and easier handling.



**PATENT  
PENDING  
DESIGN**



**R290**  
**ECO-FRIENDLY**  
**NATURAL REFRIGERANT**

**Highly  
sustainable  
Capsule Pak ECO  
models are made for  
indoor walk-ins.**

## MRS Series Modular Multi-Compressor Refrigeration Systems

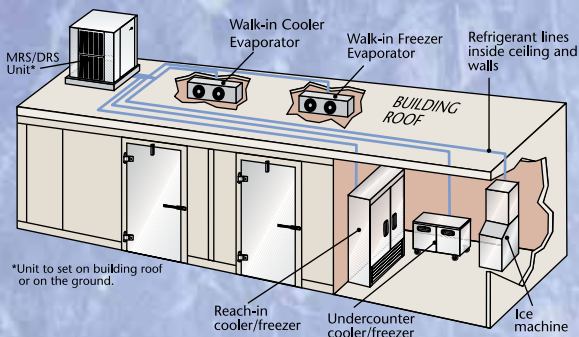
Remoting all refrigerated equipment in an establishment, including reach-ins, walk-ins and ice machines, to a single MRS system removes the heat produced by multiple refrigeration units from kitchens or stores and reduces air conditioning loads and energy bills.

The MRS system, typically roof-mounted, also reduces noise level, service calls and extends the life of equipment.

Modular design sets the MRS series apart. Each system is composed of individual modules



An MRS unit shown in optional stainless steel finish.



## **MRS system layout example.**

containing a condenser, compressor, generously-sized receiver and other appropriate components all enclosed within a single galvanized steel housing. This modularity maximizes configuration flexibility, simplifies service and provides for future expandability.

Factory pre-wired to an electrical panel for one-point connection, MRS systems are designed to be easily installed.

The modular condensers are rated at 110°F to withstand high temperatures. Each module also contains head pressure controls and crankcase heaters for low ambient protection.

Other benefits include pre-piping to an internal pitch pocket to decrease roof water leakage from the roof.

## DRS Series Dual Compressor Systems

When your requirements call for two-compressor unit, the DRS series is the answer. An economical complement to the MRS series, DRS models share many of the same quality construction features as well as the same range of applications.

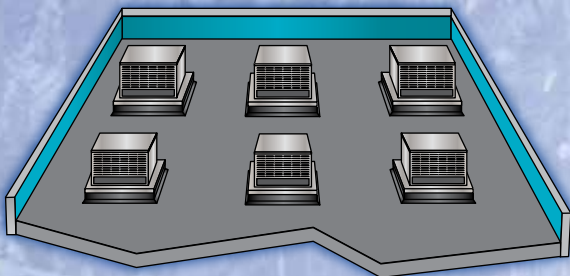
DRS systems feature:

- A multi-circuited condenser coil designed for 110°F ambient
- Scroll™ compressors for freezer applications up to 5 HP, cooler applications up to 3 HP
- Hermetic compressors for cooler applications up to 1<sup>1</sup>/<sub>4</sub> HP
- Common base and frame assembly
- Standard galvanized finish with optional stainless steel finish



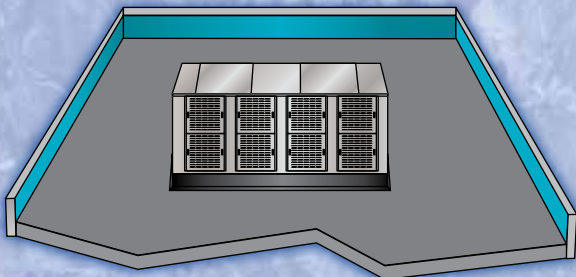
**Shown with optional stainless steel finish.**

## Rack System Efficiency



### Individual Single-Compressor System Installations

- **MULTIPLE** roof curbs
- **MULTIPLE** roof penetrations
- **MULTIPLE** electrical connections
- **MULTIPLE** piping connections



### One Remote Rack System Installation

- **SINGLE** roof curb
- **SINGLE** roof penetration
- **SINGLE** electrical connection
- **SINGLE** piping connection



## LogiTemp®

LogiTemp is an electronic controller designed to increase food safety while reducing energy and installation costs. It is standard on all self-contained Capsule Pak™ systems. On remote Split-Pak™ systems, it is standard on freezer systems 6 H.P. and above and optional on other systems.

### Food Safety

LogiTemp provides more precise and reliable controls than an all-mechanical system for increased food safety. Should there be an issue with the refrigeration system, operators will know instantly through error codes and online data.



LogiTemp equipped systems save up to 27% more energy than traditional mechanical systems.

## Installation Savings

As an integrated component of Capsule Pak™ and Capsule Pak ECO™ systems, no installation is required.

On Split-Pak™ systems, no wiring is required between evaporator coils and condensing units (2 pairs of low voltage wires, typically thermostat cables, are required to operate the optional Reverse Cycle Defrost valve and the compressor relay at the condensing unit).

Also on Split-Pak systems, a LogiTemp®-equipped system uses less refrigerant with no winter charge necessary

## Energy Savings

Demand Defrost technology initiates defrosts only as needed, allowing further energy savings.

Defrost time, when initiated, is also greatly shortened. LogiTemp® Plus with Reverse Cycle Defrost provides additional savings (see p. 32).

On Split-Pak systems, the fan cycle option saves 2-4% more energy by cycling the evaporator fans during the compressor's off cycle.

## Connectivity

Software loaded on each controller allows remote monitoring and programming using any device with a wireless internet or cabled (cat 5) connection.

With this software, there's no need for a service tech to climb onto a roof or enter the walk-in to monitor or adjust the refrigeration system.

Additionally, constant data access allows users to improve refrigeration performance and avoid service issues.



Software provides complete data access to LogiTemp®-equipped systems from practically anywhere.

## **LogiTemp® Plus With Reverse Cycle Defrost (An Option Offered For Split-Pak™ Systems)**

When evaporator coils are blocked due to ice build-up, they lose ability to transfer heat properly. Temperatures in a refrigerated space then rise, resulting in food spoilage. To protect your perisables, LogiTemp Plus adds a reverse cycle defrost valve to the system to completely remove frost build-up in coils.

As an option on remote Split-Pak systems, LogiTemp Plus offers several advantages:

- Helps prevent food spoilage by completely and rapidly removing ice build-up in evaporator coils.
- Reduces defrost energy usage by up to 80% over traditional electric heaters.
- Performs a defrost in as little as 3-5 minutes in a freezer or 1½-2 minutes in a cooler. Shorter defrost times help protect food integrity. The average defrost time for a freezer with electric heaters is 20-30 minutes.
- Adds refrigerant savings due to reduced charge.

## A "Thermo-Alarm-Light-Door-Panic" Solution For Your Walk-In Cooler Or Freezer

Now you can monitor your walk-in with electronic precision and ease using the optional factory-installed MBWA-1 walk-in alarm/light management system. Replace less accurate mechanical thermometers, separate alarms and light switches with this one convenient unit. The MBWA-1 is designed to save energy with its door open alarm and gives you the choice of one of two other options: A light management system or a panic alarm.

Other features include:

- LED temperature display
- High/Low temperature alarms with delays
- Optional battery back-up (battery connector cable and 9V battery not included)



## CONTACT DIRECTORY

### SALES & CUSTOMER SERVICE

800-647-1284 • [mbsales@refsg.com](mailto:mbsales@refsg.com)

### TECHNICAL AND WARRANTY SERVICE & INSTALLATION

800-684-8988 • [rsgservice@refsg.com](mailto:rsgservice@refsg.com)

### NON-WARRANTY PARTS SALES

Visit our online parts store at

[www.partstown.com/master-bilt/parts](http://www.partstown.com/master-bilt/parts) or call 866-280-2814

As we are continuously improving our products to benefit our customers, we reserve the right to change specifications without notice.





**MB MASTER-BILT®**  
Refrigeration Solutions

800-647-1284 • [www.master-bilt.com](http://www.master-bilt.com)

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**RSG**  
Refrigerated Solutions Group®