



MULTI-COMPRESSOR Refrigeration Systems

*Increase operating efficiency by combining
multiple refrigeration systems into one.*

WHY CHOOSE A MULTI-COMPRESSOR SYSTEM?

Modular MRS Series multi-compressor systems allow business operators to remotely locate all individual refrigeration systems to a single system for increased efficiency.

Energy Efficiency

Each piece of refrigeration equipment such as reach-ins, walk-ins and ice machines, has its own refrigeration system. Each one of these systems releases heat into the surrounding kitchen or store. In turn, this heat increases the load on the air conditioning system, resulting in higher energy usage.

By combining all these individual refrigeration systems into one remotely located system, business owners can remove the heat and reduce their air conditioning load. Remote systems, typically roof-mounted, also reduce inside noise level and extend the life of equipment.

Design Efficiency

Multi-compressor systems are composed of several individual modules to handle the refrigeration load from individual pieces of equipment. Within each module is a compressor and other components which are pre-piped to a condenser. The condenser is then divided into sections to protect against total system failure. This way, should a section be damaged, it can be replaced without replacing an entire condenser coil.

Installation Efficiency

With conventional remote refrigeration systems, each roof-mounted condensing unit requires a hole through the roof so that refrigerant piping can be run to the equipment. The more remote systems you have, the more holes you have in your roof. With a multi-compressor system, you have one hole only. This single roof penetration point reduces installation costs and chances of roof leakage.

Electrical hook-up is also greatly simplified as each multi-compressor system features a pre-wired electrical panel with a single point connection.



Multi-compressor systems feature individual refrigeration modules connected to a condenser coil.

Multi-Compressor Systems Are Used In Many Places



QSRs And Casual Restaurants



Hotels



Commercial & School Kitchens



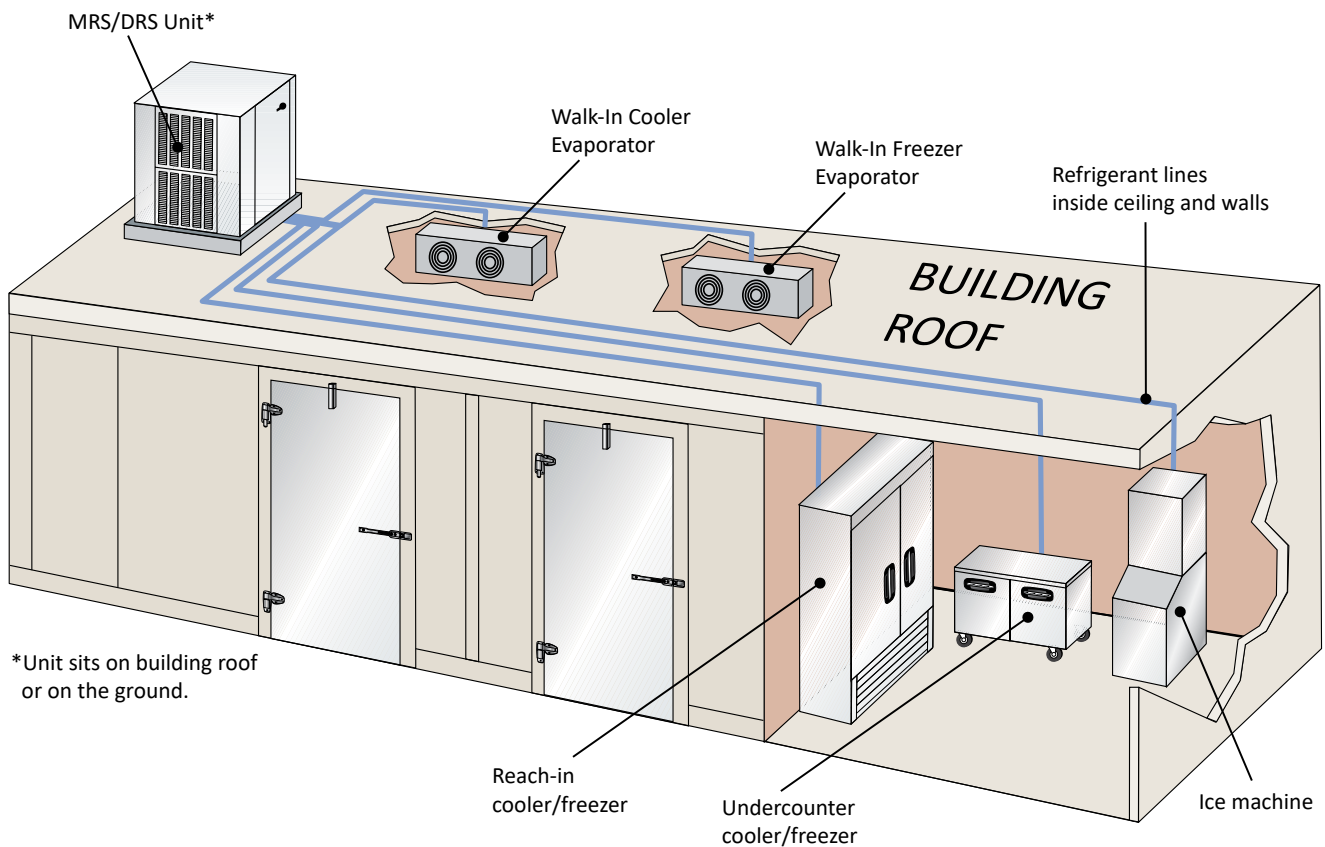
Convenience Stores

Dual Compressor Systems

If your self-contained systems are minimal, you may be able to remote their function to a dual-compressor system as opposed to a multi-compressor one. In these cases, the DRS series is the answer. A complement to the MRS series multi-compressor system, DRS models share the same quality construction and many features as well as fitting the same range of applications in schools, hotels, c-stores, QSRs and cafeterias.



MRS/DRS System Layout Example



MRS SERIES MULTI-COMPRESSOR SYSTEM FEATURES



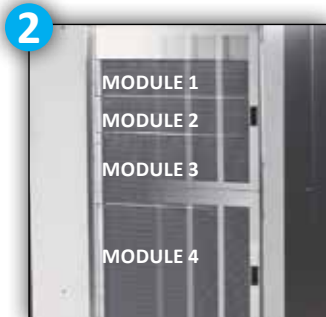
Shown in optional stainless steel finish (galvanized housing is standard).



REFRIGERATION MODULES

Modular design sets the MRS series apart. Each system is composed of individual modules containing compressors and other components piped to a condenser. This modularity maximizes configuration flexibility, simplifies service and provides for future expandability.

Modules can be configured individually as medium or low temp. Compressors are available as hermetic or scroll.



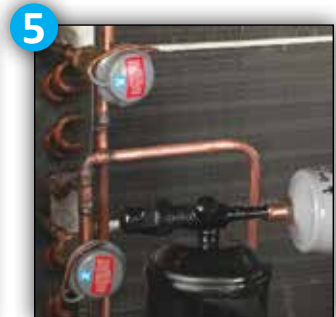
MODULAR CONDENSER COILS
are designed so that each refrigeration module utilizes an individual coil section. If necessary, a section can be replaced without shutting down the entire system.



PRE-WIRED ELECTRICAL PANEL
with one-point connection allows simple, cost-effective installation and service.



PITCH POCKET
inside each MRS unit seals the single roof penetration point and decreases leaks.



HEAD PRESSURE CONTROLS,
standard on all MRS systems, provide protection in low ambient conditions. Modules also come with crankcase heaters for further protection.

DRS SERIES DUAL COMPRESSOR SYSTEM FEATURES



Shown in optional stainless steel finish (galvanized housing is standard).



MULTI-CIRCUITED CONDENSER COIL
designed for 110°F ambient.



PRE-WIRED ELECTRICAL PANEL
with one-point connection and a disconnect switch included.

LOGITEMP® ELECTRONIC CONTROLLER SYSTEM

LogiTemp is an electronic controller system designed to increase food safety while reducing energy and installation costs. On MRS and DRS Series system modules, it is standard on freezer systems 6 H.P. and above and optional on other systems.

Food Safety

- 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 data provided online

Installation Savings

- No wiring is required between evaporator coils and condensing units (2 pairs of low voltage wires, typically thermostat cables, are required to operate the Reverse Cycle Defrost valve and the compressor relay at the condensing unit).
- A LogiTemp-equipped system uses less refrigerant with no winter charge necessary

Energy Savings

- Patented design saves up to 27% more energy than an all-mechanical system
- Demand Defrost technology initiates defrosts only as needed for further energy savings
- Defrost time, when initiated, is also greatly shortened
- LogiTemp Plus with Reverse Cycle Defrost option provides additional savings (see sidebar at right)
- Save 2-4% more energy with the fan cycle option which saves electricity 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
- No need for a service tech to climb onto a roof or enter the walk-in to monitor or adjust the refrigeration system
- Constant data access allows users to improve refrigeration performance and avoid service issues

LogiTemp® With Reverse Cycle Defrost Option

As an option on 6 H.P. systems and up, the LogiTemp Plus controller adds a reverse cycle defrost valve which offers several advantages:

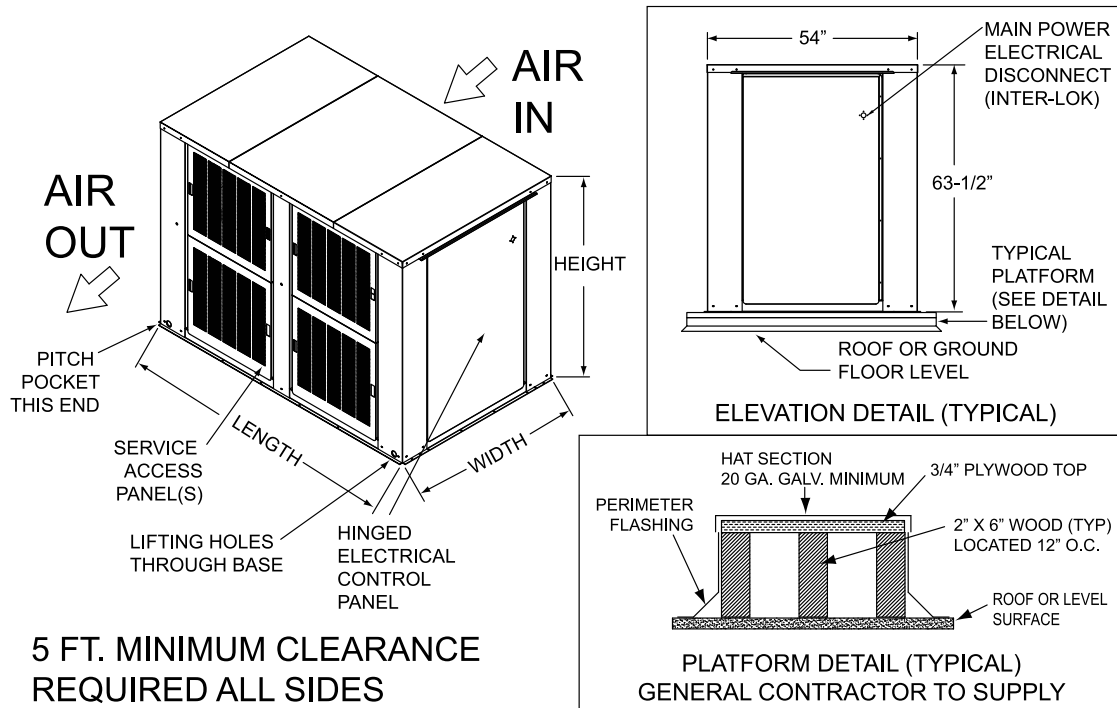
- Helps prevent food spoilage by completely and rapidly removing ice build-up in evaporator coils.
- Reduces defrost energy usage by up to 80% over traditional electric heaters.
- The average defrost time for a freezer with electric heaters is 20 to 30 minutes. Reverse cycle can perform a defrost in as little as 3 to 5 minutes in a freezer or 1-1/2 to 2 minutes in a cooler. Shorter defrost times help protect food integrity.
- Adds refrigerant savings due to reduced charge.



Software gives users constant access to refrigeration system performance data and can be accessed from any device with an internet connection, including PC, Mac, smartphone or tablet.

ENGINEERING DETAILS

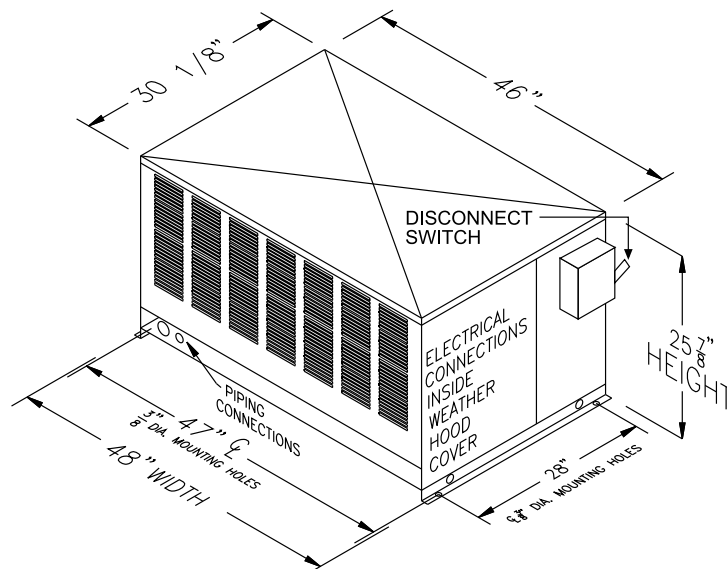
MRS Series



NOTES:

- General contractor to provide leveled platform to local code height
- Provide sheet metal cap as shown (hat section) with water tight soldered joints where applicable
- Provide pitch pocket in the platform with 1" high collar to prevent water ingress through roof
- Back fill opening with hot pitch or tar after completion of electrical and refrigeration piping

DRS Series





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