

HUSSMANN®

Refrigeration Systems

High performance,
superior customer services,
advanced technology.

Unmatched value for every customer.



REFRIGERATION SYSTEMS.

Why choose Hussmann?

At Hussmann Corporation, we're dedicated to the passionate pursuit of enabling excellence in food retailing. This dedication is exemplified by our high-performance products, outstanding customer services and advanced technologies. You'll also see it in our continuous development of new solutions to meet the challenges and changing needs of our customers. But our dedication is truly demonstrated in the unmatched value we provide for each and every customer.

Focused on our customers' business.

Since 1906, our customers' business has been our business. Hussmann continually works to fuel our customers' success by developing smarter, more innovative and more efficient products and services. These products and services are backed by a team of experts, offering responsive customer support every step of the way. The company serves several key markets in the food industry, including supermarkets, mass merchants, convenience and specialty stores, drug and dollar stores, and foodservice.

Engineering expertise and innovation.

Recognizing the need for his customers to display poultry and precut meats "in view" for shoppers to see, in 1917, Harry Hussmann patented the first glass-front refrigerated display case, cooled by using salt and ice. Ice blocks soon gave way to condensing units as the preferred method of refrigeration, but Hussmann innovation and engineering expertise continued on.

Examples of this refrigeration engineering expertise can be found throughout Hussmann's 100+ years of business. From the introduction of refrigeration systems specifically designed for food stores in 1933... to the development of the distributed Protocol refrigeration system, the industry's most widely-used alternative refrigeration system... to new secondary system technologies, the Hussmann engineering team identified a need and developed solutions to answer that need. And Hussmann continues to explore system solutions to address the challenges of today and those emerging needs of the future.

Hussmann value.

At Hussmann, it's more than just pulling a product out of a box. Whether you are looking to reduce refrigeration charge and leak potential, lower energy consumption or simply trying to find a more cost effective refrigeration solution, Hussmann application engineering teams across North America are ready to help. They'll listen to your concerns, learn about your challenges, discuss your options and explain the pros and cons of each potential solution, before tailoring a system that meets your specific criteria.



Hussmann's new solutions meet the challenges and changing needs of our customers.

Enabling excellence in food retailing
with Hussmann Refrigeration System solutions.

HUSSMANN®

REFRIGERATION SYSTEMS.

A full line of refrigeration solutions.

A leader in designing refrigeration systems specifically for food stores, Hussmann offers a full line of flexible refrigeration solutions for any application. Our portfolio includes parallel compressor systems, Protocol™ distributed low charge systems, Protochill™ distributed secondary systems, TerraChill™ CO₂ systems, medium temperature central secondary systems, mechanical centers, electrical distribution centers, and condensing units.



PARALLEL RACK

Parallel Racks.

Hussmann pioneered the development of integrated refrigeration systems and now offers a complete selection of advanced parallel racks.

- **Flexible:** Custom designed, engineered, and manufactured for specific needs and applications.
- **Reliable Performance:** High-quality components and manufacturing techniques, and rigorous testing ensure reliable performance.
- **Maximum Energy Efficiency:** Compressor options, sub-cooling techniques, system configuration, proprietary technologies, each selected to provide the maximum energy efficiency.

PROTOCOL ENVIRONMENTAL BENEFITS VS. TRADITIONAL PARALLEL SYSTEMS

- Reduces refrigerant charge by 60-80%.
- Uses 50-75% less refrigerant piping.
 - Reduces refrigerant leaks.
- Eliminates need for machine room.
 - Simple maintenance.



PROTOCOL DISTRIBUTED REFRIGERATION SYSTEMS



Distributed Systems.

The Protocol family of refrigeration systems uses compact multiple compressor refrigeration units that are designed to be distributed around a store. Putting the units closer to the refrigerated loads reduces the refrigerant charge and energy consumption of the systems.

Protochill: A medium temp secondary glycol version of Protocol with an integral pump and chiller for new store and remodel applications.

Proto-Aire: A compact footprint outdoor unit with an integral condenser that can be installed outside next to the store or on the roof, reducing space requirements for equipment inside the store.

Protocol OLP: A larger footprint outdoor unit that can integrate Krack condensers.

PROTO-AIRE



REFRIGERATION SYSTEMS.

A full line of refrigeration solutions.

Central Secondary Refrigeration Systems.

M-Series: Medium temperature glycol secondary systems that can help reduce global warming potential. The systems mate to a parallel rack that uses a traditional refrigerant to cool the glycol.

- Inline pump installation requires fewer components and connections to increase reliability and minimize service costs.
- Standard electronic expansion valve control.
- Evaporator is charged optimally, even with great variations of load and suction pressure.

TerraChill and TerraChill DX2: A natural refrigerant solution, TerraChill uses pumped liquid CO₂ for both low and medium temperature applications. TerraChill DX2 utilizes sub critical direct expansion CO₂ for a low temperature solution.

TERRACHILL ENVIRONMENTAL BENEFITS VS. TRADITIONAL RACK SYSTEMS

- Lower cost natural refrigerant.
- Reduces HFC charge by 60-70%.
- Reduces carbon footprint by 30-50%.
- Lower HFC refrigerant leak rate.



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