Systems Sales Brochure

OUTDOOR RACK SYSTEMS & PRODUCTS

REFRIGERATION SYSTEM



Epta
GOOD NEVER STOPS

KW KYSOR WARREN



OUTDOOR RACK SYSTEMS & PRODUCTS

REFRIGERATION SYSTEM

Kysor Warren Outdoor Rack Systems are designed to be a complete refrigeration system - significantly simplifying the installation process and providing improved total cost of ownership.

Kysor Warren Outdoor Rack Systems provide significant benefits to food retail customers:

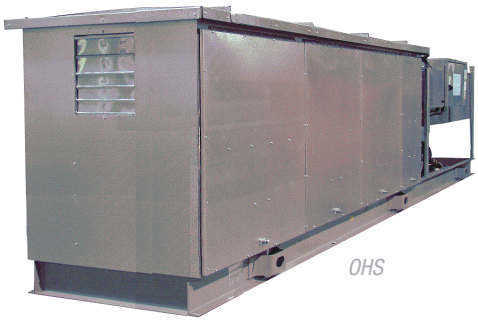
- Ease of installation
- May eliminate need for separate mechanical room or mezzanine
- Maximization of merchandising space
- Ease of serviceability and maintenance

Our outdoor product portfolio contains three market leading platforms:

- OHD/OHS
- OHN/OHW



OHD



OHS

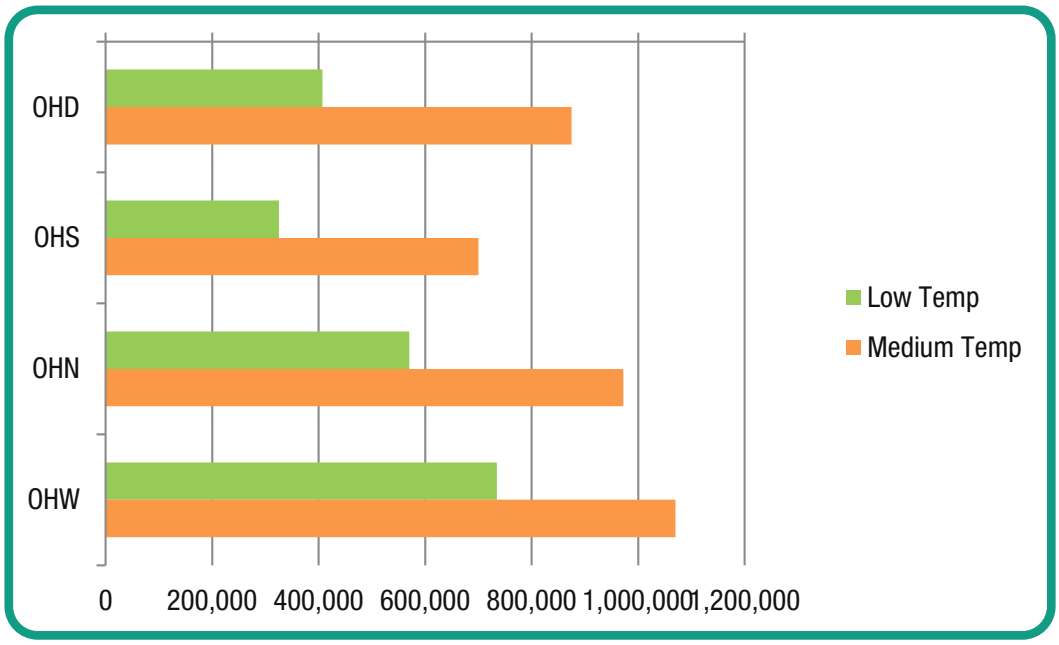


OHN



OHW

OUTDOOR RACK SYSTEMS
CAPACITY RANGES



	OHD		OHS		OHN		OHW	
	LOW END OF CAPACITY	TOP END OF CAPACITY	LOW END OF CAPACITY	TOP END OF CAPACITY	LOW END OF CAPACITY	TOP END OF CAPACITY	LOW END OF CAPACITY	TOP END OF CAPACITY
LOW TEMPERATURE	80,100 BTUH	407,000 BTUH	80,100 BTUH	325,600 BTUH	80,100 BTUH	570,000 BTUH	80,100 BTUH	734,800 BTUH
MEDIUM TEMPERATURE	237,900 BTUH	875,000 BTUH	237,900 BTUH	700,000 BTUH	237,900 BTUH	972,000 BTUH	237,900 BTUH	1,070,000 BTUH

ASSUMPTIONS:
-LOW TEMPERATURE: 100°F AMBIENT/110 SCT/-20 SST/50°F SUBCOOLING (LT LOW END IS NON-SUBCOOLED)
-MEDIUM TEMPERATURE: 100°F AMBIENT/115 SCT/20 SST/ NON-SUBCOOLED

Typical Applications

SYSTEM TYPE		
	OHD/OHS	OHN/OHW
Common Applications	▪ Outdoors, roof mounted	▪ Outdoors, roof mounted ▪ Outdoors, ground mounted

OHD/OHS
REFRIGERATION SYSTEM

Ease of Installation. Accessibility. Maximized Merchandising Space.



The OHD and OHS Outdoor Rack Systems product offering can be configured to very effectively for a variety of applications. This platform is designed to be applied with a Bohn Air-Cooled Condenser mounted beside the compressorized compartment. The unit is most often mounted on the store roof. This may eliminate the need for a separate machine room. These systems can be located close to refrigeration loads to significantly reduce refrigerant charge.

Reduced Refrigerant Charge and Leak Potential

- Up to a 40% reduction in refrigerant charge as compared to a traditional centralized rack system when applied in a distributed system arrangement

Ease of Installation and Operation

- Maximizes merchandising space by eliminating need for a machine room
- Reduction of field braze joints means easier installation (less brazing and pipe work) and reduced leak potential
- Additional units can be added to existing facilities

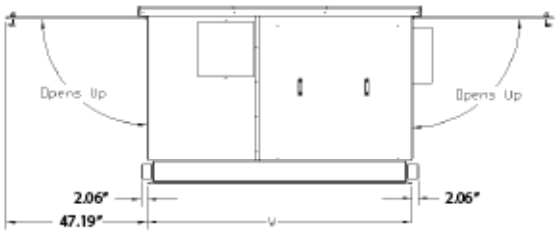
Ease of Accessibility

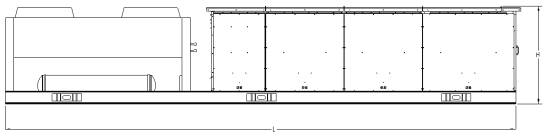
- Easily combined with a Bohn™ Air-Cooled Condenser to provide a complete high-side refrigeration system solution

STANDARD	
Design and Construction	▪ Available in 208V, 460V, or 575V power input (dependent upon compressor availability) ▪ Available in single wide (OHS) or double-wide (OHD) configuration ▪ Features lift up access panels that provide protection from rain during installation and service
Compressors and Piping	▪ Available with single or split suction groups ▪ Off-cycle defrost ▪ Piping terminations out bottom of unit (OHD/OHS) OHS: up to 6 scroll or 4 semi-hermetic compressors OHD: up to 7 scroll or 5 semi-hermetic compressors

OPTIONS (CONTACT FACTORY)	
Compressors and Piping	▪ Optional integrated hot water heat exchanger ▪ Available with Loop or individual circuit piping ▪ Heated receiver (OHD/OHS) ▪ Sound abating insulation (OHD/OHS)
Components	▪ Novar, Emerson or Danfoss rack controllers

OHD/OHS Dimensional Drawings





Dimension (inches)	OHS	OHD
Width (W)	50"	88"
Height (H)	59.06"	59.06"
Length (L) - *add 24 for hot water heat exchanger*	288" (2 Fans)	288" (4 Fans)
	345" (3 Fans)	345" (6 Fans)
	400" (4 Fans)	400" (8 Fans)

OHN/OHW
REFRIGERATION SYSTEM

Ease of Installation. Accessibility. Maximized Merchandising Space.



The OHN/OHW Outdoor Rack Systems product offering can be configured to very effectively for a variety of applications. The OHN/OHW parallel rack is designed to be applied with a Bohn Air-Cooled condenser mounted on top (OHW) of the compressorized compartment. The unit is move often mounted on the ground beside the building.

Reduced Refrigerant Charge and Leak Potential

- Up to a 40% reduction in refrigerant charge as compared to a traditional centralized rack system when applied in a distributed system arrangement

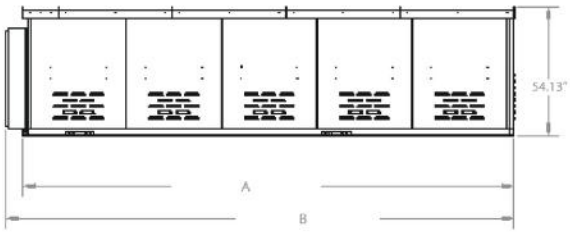
Ease of Installation and Operation

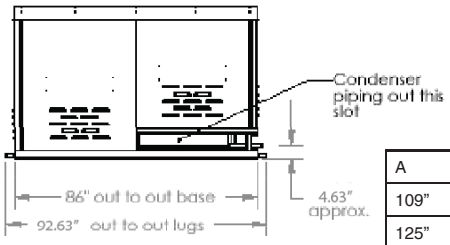
- Maximizes merchandising space by eliminating need for a machine room
- Reduction of field braze joints means easier installation (less brazing and pipe work) and reduced leak potential
- Additional units can be added to existing facilities

STANDARD	
Design and Construction	▪ Available in 208V, 460V, or 575V power input (dependent upon compressor availability) ▪ Remove access panels
Compressors and Piping	▪ Available with single or split suction groups ▪ Factory installed horizontal receiver ▪ Off-cycle defrost ▪ Piping terminations outside of unit ▪ Up to 14 scroll or 12 Semi-hermetic compressors

OPTIONS (CONTACT FACTORY)	
Compressors and Piping	▪ Electric defrost or connections for hot gas defrost ▪ Optional integrated hot water heat exchanger ▪ Available with Loop or individual circuit piping ▪ Available with factory mounted, piped and wired air-cooled condenser ▪ Split Condenser
Components	▪ Novar, Emerson or Danfoss rack controllers

OHN/OHW Dimensional Drawings





A	B
109"	116"
125"	132"
155"	162"
182"	189"
207"	214"
240"	247"

OTHER OUTDOOR PRODUCTS
REFRIGERATION SYSTEM

AIR-COOLED CONDENSER ASSEMBLY

The newly redesigned Air-Cooled Condenser Assembly from our Kysor Warren brand makes an excellent companion to our Distributed Systems products, offering ease of installation and reduced leak potential. The Air-Cooled Condenser Assembly offering can be configured as needed to fit customer needs.



Ease of Installation

- Condenser comes pre-piped to the receiver and other key components (valves, piping, etc.) on a common frame, which greatly simplifies installation
- Up to 20% weight reduction as compared to the previous condenser assembly frame design

Reduced Leak Potential

- Up to a 33% reduction in brazed joints and elbows, dramatically reducing opportunities for leaks

MECHANICAL WEATHER ENCLOSURE

WEMs can be fully customized and built to suit the needs of the site that they are to be installed; below are some of the more commonly used options:

Standard Features

- Lengths from 10 to 58 feet (not including bolt together options); widths from 7 to 11 feet
- Piping exists in wall, floor, ceiling or a combination
- Electrical gear from GE, SQ D or Siemens
- Bottom or top lift construction
- Emergency lighting



Optional Features

- Optional roof mounted condenser and catwalk
- Water, reclaim and electric tanks available
- Generator and transfer switch
- Multi-staged ventilation, heating and cooling systems
- Fire extinguishers
- Fire rated doors
- Available with optional building, lighting and defrost controls
- Exterior main disconnect switch
- Exterior emergency ventilation break glass switch