



SN SERIES

WALK-IN COOLERS & FREEZERS

KOOL STAR ADVANTAGES

Many Applications

Kool Star walk-ins are engineered with flexibility to meet your needs across a wide variety of applications including:

- Convenience stores
- Restaurants
- Institutional and corporate cafeterias
- Processing facilities
- Data storage facilities
- Scientific testing chambers
- Telecommunications housing and many others

Many Sizes

From a minimum 6 x 6 foot size to the more elaborate 10,000 square foot warehouses, Kool Star walk-ins can be customized to provide the right amount of temperature-controlled space. Basic modular panel sizes and heights, as well as many options, offer the right flexibility to fulfill any design requirement.

From retail to institutional settings, Kool Star walk-ins can be configured to fit practically any application.

Many Options

Using our wide range of options, you can make your walk-in an extension of your business personality. Numerous interior and exterior finish options adapt to 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.

Strength Tested

You can be assured of strength and durability with Kool Star because of rigorous testing by UL, Factory Mutual and other agencies.

Kool Star doors are both UL and C-UL listed. Our steel panels are Factory Mutual approved and our aluminum panels are Factory Mutual specification tested.





KWICK SOLUTIONS

When rapid delivery or installation is the highest priority, try Kool Star Kwick Ship options.

Kwick Ship Walk-ins

These stock walk-ins ship within five working days after an order is received.

Three basic options are available: the standard four wall cooler or freezer, walk-ins with openings for glass doors and two-compartment combos. Over 1500 configurations are possible.

A matching M-series refrigeration system is standard with each Quick Ship walk-in.

PRS-2 Series Walk-ins

With PRS-2 models you get the reliability of our panels with the convenience of a packaged refrigeration system.

The condensing unit and evaporator coil are both in one housing which is ready to mount on the top or side of your walk-in.

Models with top mount systems ship in five business days. Side mount models have a slightly longer lead time.



Kool Star Warranty

Service shouldn't end after the sale. That's why Kool Star's standard warranty covers workmanship and protects against insulation failure. Should there be a need for service, we can easily locate an agent in our network of service centers across the U.S. and abroad.

Refrigerated Warehouses: A Complete Solution

Coordinating all the construction details for refrigerated warehouses can be challenging. Kool Star makes the job much easier with one source service for panels, refrigeration and installation, if required.

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, Kool Star ensures your specifications are met. Plus, we are always ready to assist with future modifications or expansions.



Kool Star walk-ins range in size from a minimum six square foot size to 10,000 square foot refrigerated warehouses.

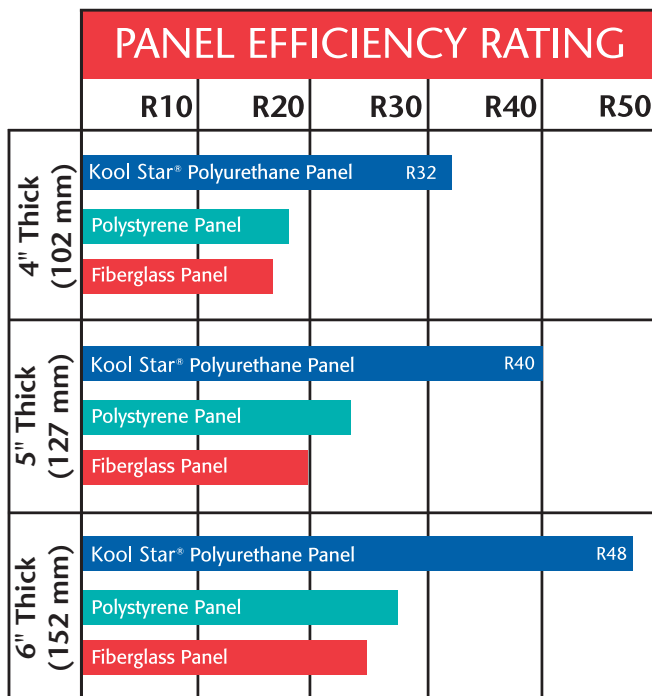
SUPERIOR PANELS

Panel Basics

Standard Kool Star walk-in panels are four inches thick with optional five-inch and six-inch thicknesses available. Panels above 10 ft. in height have scored ribs spaced 5³/₄" apart for added rigidity. Standard panels below 10 ft. in height are provided without ribs but have them available as an option. The standard panel finish is 26 gauge stucco galvalume. However, there are numerous options in interior and exterior finishes to match your design scheme or durability requirements.

Cam-Lock System

The Kool Star cam-locking system, together with tongue and groove construction and a dual gasket system, provides an accurate, tight fit between panels. Locks require only a factory-supplied ⁵/₁₆-inch hex wrench to operate. Should the walk-in need relocation or expansion, panels can be taken apart as easily as they are assembled.



(Above) The R-value rating is a standard method of judging insulation efficiency. Compared with other types of panel construction, Kool Star's foamed-in-place polyurethane consistently scores higher.

MAXIMUM PANEL HEIGHTS & WIDTHS

PANEL THICKNESS	WALL PANEL MAX. HEIGHT ACTUAL	CEILING PANEL MAX. WIDTH ACTUAL
4 in. (standard)	27 ft. ¹	27 ft. ²
5 in.	24 ft. ¹	24 ft. ³
6 in.	24 ft. ¹	24 ft. ⁴

¹Additional support needed when exceeding 18'0"

²Additional support needed when exceeding 15'5"

³Additional support needed when exceeding 19'3"

⁴Additional support needed when exceeding 23'1"

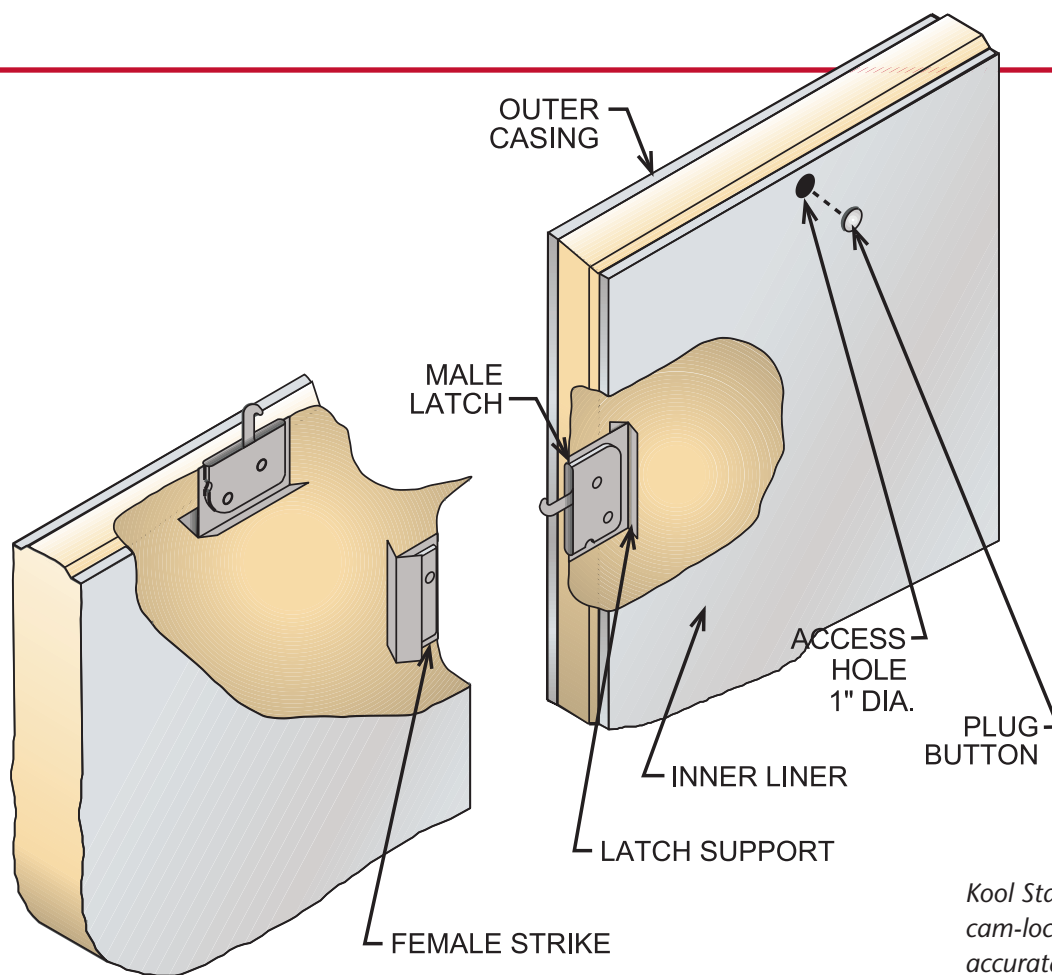
Note:

Dimensions shown are for indoor applications only and predicated upon 10 lbs. per square foot roof loading. Dimensions are subject to change depending on specific application and local building authority official's approval.

Foamed-In-Place Insulation

Kool Star uses foamed-in-place polyurethane insulation to deliver the highest quality panels. Advantages of this construction method include:

- A much higher R-value (resistance to heat flow) than other insulation materials (see chart on p. 5)
- The standard 4-inch panel with R-32 rating meets federal Energy Independence and Security Act requirements for freezers and surpasses R-25 requirement for coolers. Optional 5- and 6-inch thicknesses surpass both requirements.
- Polyurethane foam permanently adheres to metal panels adding strength and reliability
- Superior moisture resistance due to polyurethane's 97% closed cell content
- Maximum walk-in storage space because polyurethane foam allows for thinner walls
- Energy efficiency due to polyurethane's greater temperature-retaining properties
- An environmentally-friendly 245fa blowing agent with zero ozone depletion potential
- For added insurance against foam voids, Kool Star utilizes horizontal presses so panels lie flat during the foaming process and the injected foam doesn't have to rise as far



Kool Star panels feature a cam-locking system for an accurate, tight fit.

A SAFER, STRONGER FLOOR

Durability and safety are two of the major concerns with walk-in floors. We've gone the extra mile to make sure your floor is both safe enough and strong enough for your everyday usage.

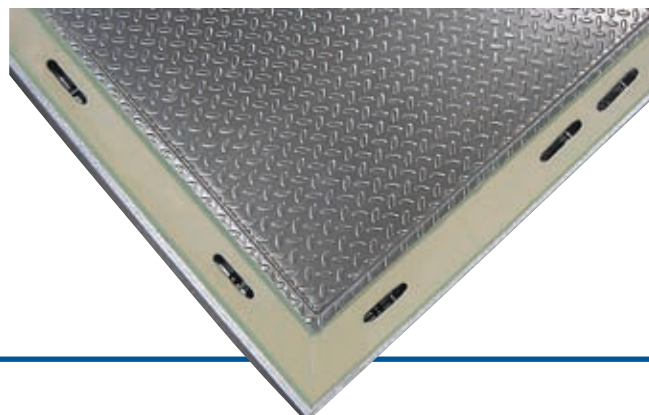
To begin with, all floors are standard with a .080 textured aluminum surface. The added traction provided by the raised surface pattern reduces the potential of slip-and-fall accidents, even in wet conditions.

Because the surface pattern is designed to be easily cleaned, it fully meets NSF guidelines. Corners in floor panels are also covered to avoid trapping contaminants.

Standard floors support 700 pounds per square

foot (evenly distributed stationary load). Reinforced floors can be provided in case of frequent traffic from heavy handcarts, dollies or forklifts.

Customize your floor with our large range of options. Interior and exterior ramps (provided with non-skid safety strips), floor mats and a range of finishes are just a few of many possibilities.



DEPENDABLE DOORS

Holding In The Cold

No other part of a walk-in plays a bigger role in its overall success than the door. As a barricade between your perishable items inside and warmer temperatures outside, the door must withstand the numerous openings and closings of a typical business day without losing structural integrity. Kool Star's standard 36" x 78" V-series entry door construction and original features ensure dependable service for many years.

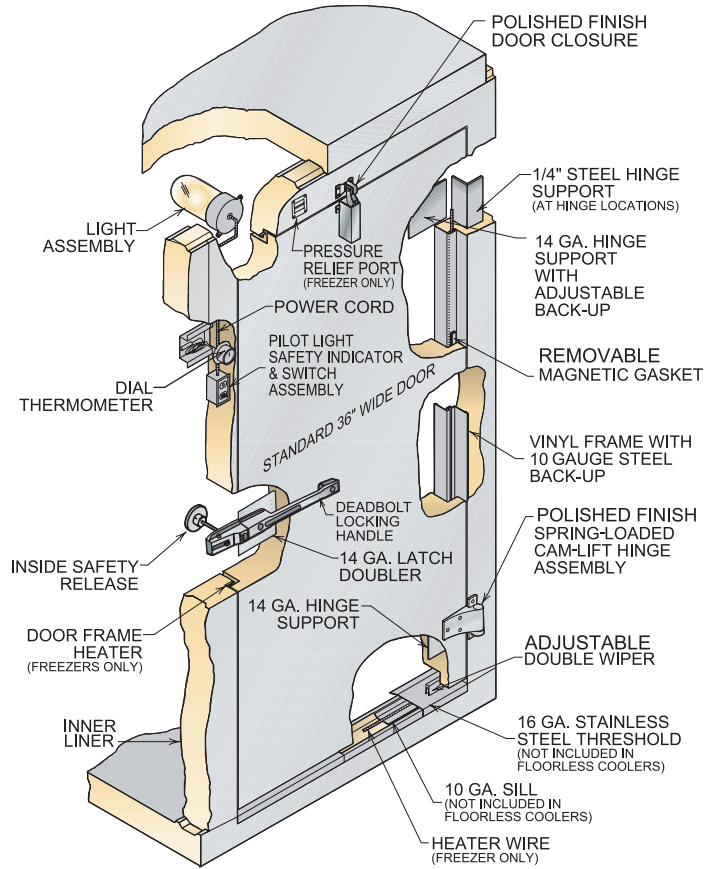
Strong Design And Construction

At the core of the V-series is a frame of durable vinyl with a heavy 10 gauge steel back-up. A quarter-inch thick steel plate is welded to the frame at hinge locations to prevent sagging during hinge mounting. Cam-lock connectors attached to the frame sides provide a sure, tight fit to the surrounding panels.

Two standard self-closing, spring-loaded, cam-lift hinges are provided for an easier, more positive door closure. These hinges are available for either a left- or right-hand opening door.

In addition, the V-series door contains unique field-adjustable hinge backing plates to ensure a proper fit of the door to its opening and make future door leveling, if necessary, a simple process.

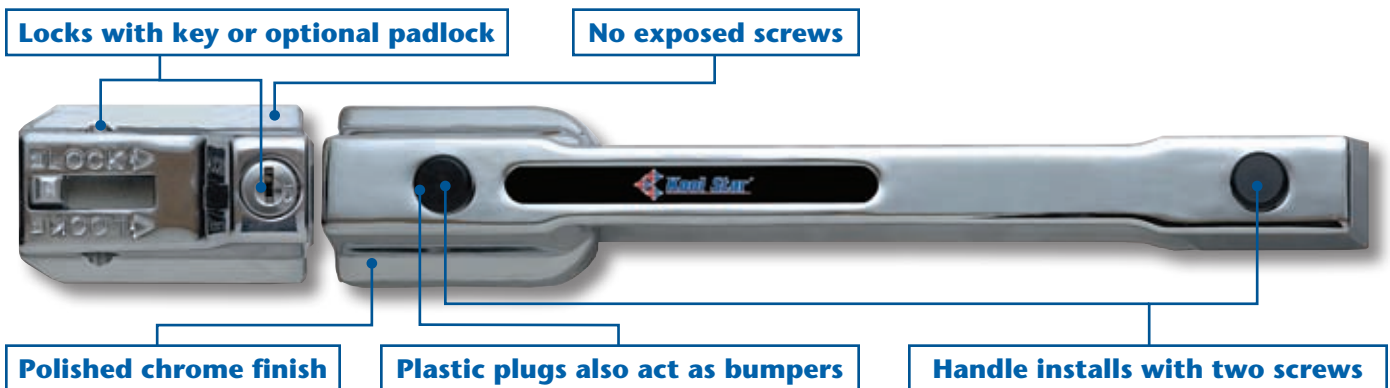
Other standard features include a deadbolt locking handle, a heavy-duty hydraulic door closure and an interior safety release to prevent accidental entrapment.



V-series doors installed on walk-in freezers also contain heated door openings to avoid door freeze-ups and pressure relief ports.

All electrical components (light switch, light fixture, freezer door heaters and frame heaters) are UL listed, factory installed and pre-wired.

Kool Star's standard deadbolt-locking handle on all walk-ins offers extra security without extra cost.





DOOR LEVELING MADE SIMPLE

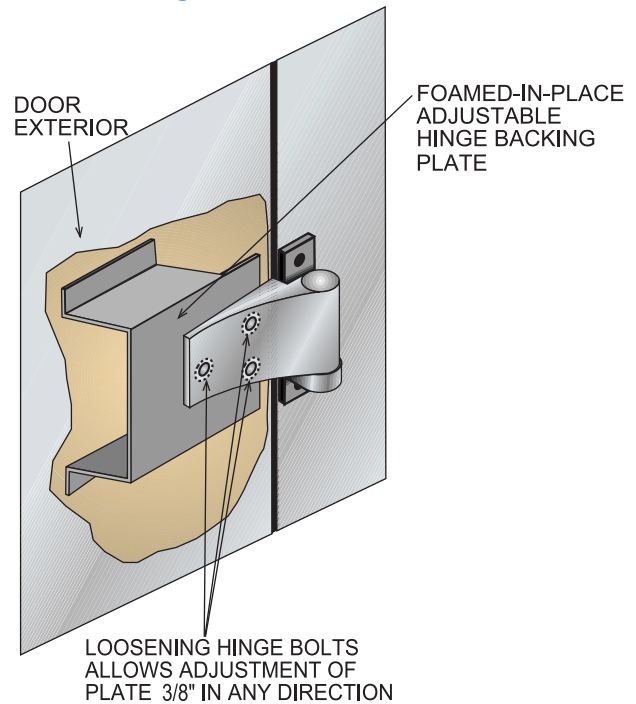
Kool Star's adjustable hinge backing plates guarantee level door placement during installation and make future adjustments a simple process.

Most walk-in doors require occasional adjustment. Eventual settling of the slab or foundation on which the walk-in is installed, for example, may cause the door to sag and not close correctly.

In most cases, the only way to handle the situation (short of buying a new door) is to remove the door and its frame, re-drill holes for the hinges and reinstall – a very time consuming and costly process.

However, Kool Star's adjustable hinge backing plates, situated inside the door directly behind the hinges, allow you to easily correct the problem.

All you need to do is loosen the hinge bolts, shim the door on the side and bottom to make it level and tighten the bolts back.



Customize Your Door

Many options and accessories are available to extend functionality in your Kool Star door. Choices include:

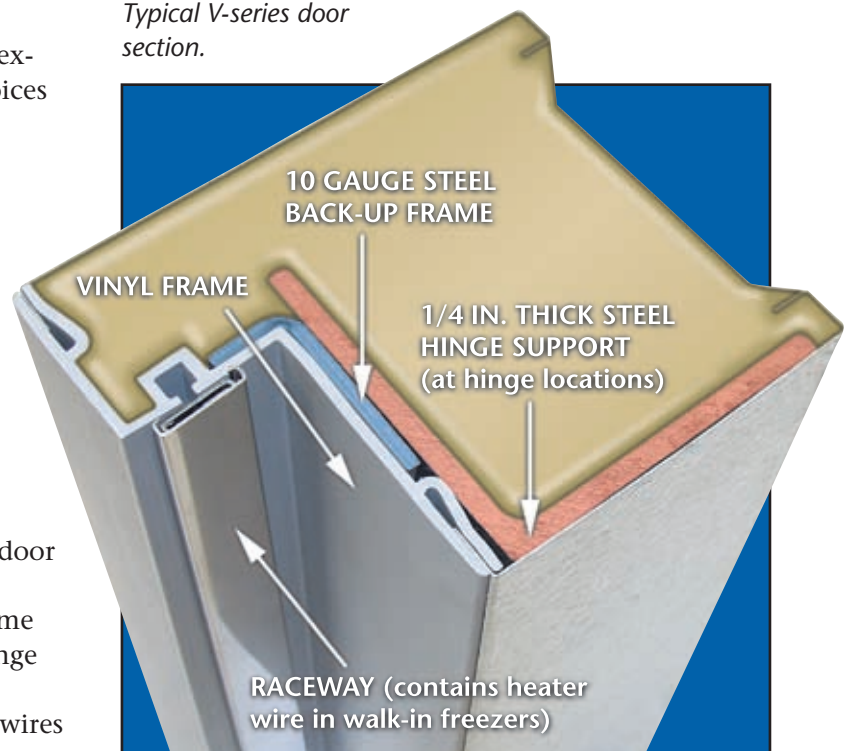
- Third hinges
- View windows
- Temperature alarms
- Kick plates
- Strip curtains or vinyl doors
- Light management systems
- Interior and exterior floor ramps
- Digital or dial thermometers
- Foot treadles

Heavy-Duty Door Option

If desired, Kool Star can provide a heavy-duty door with the following additional features:

- A heavy-gauge, Z-shaped structural inner frame with a full length quarter-inch thick steel hinge backing plate
- Inner heater wires lining the perimeter (two wires provided for freezer doors)

Typical V-series door section.



OPTIONS AND ACCESSORIES

Customize With Options

Add to the efficiency and convenience of your walk-in or warehouse with our many options.

Panel options include foamed-in-place three-inch wide metal straps inside the panel. These straps span the width of a panel and are welded on each end to cam-locks. Straps increase the overall integrity of the walk-in by resisting twisting and bending in the panels.

You may also accessorize your panels with wall protectors, view windows and swinging or sliding glass merchandising doors.

If desired, you can provide your own insulated concrete flooring and use Kool Star floor screeds or flat bottom walls to provide a positive seal between the concrete and panels. Heavy-duty reinforced floors or structural floors capable of supporting 5000 lbs. evenly distributed are also available.

Electrical options and accessories include digital thermometers for monitoring temperatures as well as independent light and fan switches. There are also LED, incandescent and fluorescent lighting choices to illuminate your walk-in.

Kool Star's MBWA-1 option provides an all-in-one answer for digital thermometer, alarm and light management. In addition to a digital alarm feature,

The MBWA-1 warns if doors are left open or if temperatures get out of range. Its optional light management system automatically shuts off lights at a pre-set time.

For maximum efficiency in walk-in refrigeration systems, add the Master Controller Reverse Cycle Defrost system. This electronic system is custom-designed to decrease energy while simplifying installation. For more information see "Efficient Control" on page 11.

Finish Options

Kool Star's standard panel finish is stucco galvalume. It provides the most durable surface available for prolonging the life, performance and appearance of your walk-in.

However, we also offer numerous other interior and exterior finishes to choose from such as:

- Stucco aluminum
- Stainless steel
- Stucco stainless or galvanized steel
- 24 gauge galvanized steel
- Natural aluminum
- White aluminum or galvanized steel
- White stucco aluminum or galvanized steel
- 24 gauge black textured Seville



Kool Star structural flooring is designed to withstand a pallet jack (or equivalent transporter) with an evenly distributed load of 5000 lbs. over all four wheels.



Kick plates protect doors and other panels from dents and scratches.



The MBWA-1 is an all-in-one alarm, thermometer and light management system.



Interior and exterior ramps make it easy to enter the walk-in.

STANDARD EXTERIOR DIMENSIONS



LENGTHS & WIDTHS

NOMINAL	ACTUAL	NOMINAL	ACTUAL	NOMINAL	ACTUAL	NOMINAL	ACTUAL	NOMINAL	ACTUAL	NOMINAL	ACTUAL
6'	5'10"	56'	53'9"	106'	101'8"	156'	149'7"	206'	197'6"	256'	245'5"
7'	6'9 1/2"	57'	54'8 1/2"	107'	102'7 1/2"	157'	150'6 1/2"	207'	198'5 1/2"	257'	246'4 1/2"
8'	7'9"	58'	55'8"	108'	103'7"	158'	151'6"	208'	199'5"	258'	247'4"
9'	8'8 1/2"	59'	56'7 1/2"	109'	104'6 1/2"	159'	152'5 1/2"	209'	200'4 1/2"	259'	248'3 1/2"
10'	9'8"	60'	57'7"	110'	105'6"	160'	153'5"	210'	201'4"	260'	249'3"
11'	10'7 1/2"	61'	58'6 1/2"	111'	106'5 1/2"	161'	154'4 1/2"	211'	202'3 1/2"	261'	250'2 1/2"
12'	11'7"	62'	59'6"	112'	107'5"	162'	155'4"	212'	203'3"	262'	251'2"
13'	12'6 1/2"	63'	60'5 1/2"	113'	108'4 1/2"	163'	156'3 1/2"	213'	204'2 1/2"	263'	252'1 1/2"
14'	13'6"	64'	61'5"	114'	109'4"	164'	157'3"	214'	205'2"	264'	253'1"
15'	14'5 1/2"	65'	62'4 1/2"	115'	110'3 1/2"	165'	158'2 1/2"	215'	206'1 1/2"	265'	254'1 1/2"
16'	15'5"	66'	63'4"	116'	111'3"	166'	159'2"	216'	207'1"	266'	255'0"
17'	16'4 1/2"	67'	64'3 1/2"	117'	112'2 1/2"	167'	160'1 1/2"	217'	208'1/2"	267'	255'11 1/2"
18'	17'4"	68'	65'3"	118'	113'2"	168'	161'1"	218'	209'0"	268'	256'11"
19'	18'3 1/2"	69'	66'2 1/2"	119'	114'1 1/2"	169'	162'1/2"	219'	209'11 1/2"	269'	257'10 1/2"
20'	19'3"	70'	67'2"	120'	115'1"	170'	163'0"	220'	210'11"	270'	258'10"
21'	20'2 1/2"	71'	68'1 1/2"	121'	116'1/2"	171'	163'11 1/2"	221'	211'10 1/2"	271'	259'9 1/2"
22'	21'2"	72'	69'1"	122'	117'0"	172'	164'11"	222'	212'10"	272'	260'9"
23'	22'1 1/2"	73'	70'1/2"	123'	117'11 1/2"	173'	165'10 1/2"	223'	213'9 1/2"	273'	261'8 1/2"
24'	23'1"	74'	71'0"	124'	118'11"	174'	166'10"	224'	214'9"	274'	262'8"
25'	24'1/2"	75'	71'11 1/2"	125'	119'10 1/2"	175'	167'9 1/2"	225'	215'8 1/2"	275'	263'7 1/2"
26'	25'0"	76'	72'11"	126'	120'10"	176'	168'9"	226'	216'8"	276'	264'7"
27'	25'11 1/2"	77'	73'10 1/2"	127'	121'9 1/2"	177'	169'8 1/2"	227'	217'7 1/2"	277'	265'6 1/2"
28'	26'11"	78'	74'10"	128'	122'9"	178'	170'8"	228'	218'7"	278'	266'6"
29'	27'10 1/2"	79'	75'9 1/2"	129'	123'8 1/2"	179'	171'7 1/2"	229'	219'6 1/2"	279'	267'5 1/2"
30'	28'10"	80'	76'9"	130'	124'8"	180'	172'7"	230'	220'6"	280'	268'5"
31'	29'9 1/2"	81'	77'8 1/2"	131'	125'7 1/2"	181'	173'6 1/2"	231'	221'5 1/2"	281'	269'4 1/2"
32'	30'9"	82'	78'8"	132'	126'7"	182'	174'6"	232'	222'5"	282'	270'4"
33'	31'8 1/2"	83'	79'7 1/2"	133'	127'6 1/2"	183'	175'5 1/2"	233'	223'4 1/2"	283'	271'3 1/2"
34'	32'8"	84'	80'7"	134'	128'6"	184'	176'5"	234'	224'4"	284'	272'3"
35'	33'7 1/2"	85'	81'6 1/2"	135'	129'5 1/2"	185'	177'4 1/2"	235'	225'3 1/2"	285'	273'2 1/2"
36'	34'7"	86'	82'6"	136'	130'5"	186'	178'4"	236'	226'3"	286'	274'2"
37'	35'6 1/2"	87'	83'5 1/2"	137'	131'4 1/2"	187'	179'3 1/2"	237'	227'2 1/2"	287'	275'1 1/2"
38'	36'6"	88'	84'5"	138'	132'4"	188'	180'3"	238'	228'2"	288'	276'1"
39'	37'5 1/2"	89'	85'4 1/2"	139'	133'3 1/2"	189'	181'2 1/2"	239'	229'1 1/2"	289'	277'1/2"
40'	38'5"	90'	86'4"	140'	134'3"	190'	182'2"	240'	230'1"	290'	278'0"
41'	39'4 1/2"	91'	87'3 1/2"	141'	135'2 1/2"	191'	183'1 1/2"	241'	231'1/2"	291'	278'11 1/2"
42'	40'4"	92'	88'3"	142'	136'2"	192'	184'1"	242'	232'0"	292'	279'11"
43'	41'3 1/2"	93'	89'2 1/2"	143'	137'1 1/2"	193'	185'1/2"	243'	232'11 1/2"	293'	280'10 1/2"
44'	42'3"	94'	90'2"	144'	138'1"	194'	186'0"	244'	233'11"	294'	281'10"
45'	43'2 1/2"	95'	91'1 1/2"	145'	139'1/2"	195'	186'11 1/2"	245'	234'10 1/2"	295'	282'9 1/2"
46'	44'2"	96'	92'1"	146'	140'0"	196'	187'11"	246'	235'10"	296'	283'9"
47'	45'1 1/2"	97'	93'1/2"	147'	140'11 1/2"	197'	188'10 1/2"	247'	236'9 1/2"	297'	284'8 1/2"
48'	46'1"	98'	94'0"	148'	141'11"	198'	189'10"	248'	237'9"	298'	285'8"
49'	47'1/2"	99'	94'11 1/2"	149'	142'10 1/2"	199'	190'9 1/2"	249'	238'8 1/2"	299'	286'7 1/2"
50'	48'0"	100'	95'11"	150'	143'10"	200'	191'9"	250'	239'8"	300'	287'7"
51'	48'11 1/2"	101'	96'10 1/2"	151'	144'9 1/2"	201'	192'8 1/2"	251'	240'7 1/2"		
52'	49'11"	102'	97'10"	152'	145'9"	202'	193'8"	252'	241'7"		
53'	50'10 1/2"	103'	98'9 1/2"	153'	146'8 1/2"	203'	194'7 1/2"	253'	242'6 1/2"		
54'	51'10"	104'	99'9"	154'	147'8"	204'	195'7"	254'	243'6"		
55'	52'9 1/2"	105'	100'8 1/2"	155'	148'7 1/2"	205'	196'6 1/2"	255'	244'5 1/2"		

HEIGHTS

4" THICK PANELS			
WITH FLOOR OR SCREED	LESS FLOOR		
	7'6"	7'2"	20'0"
8'6"	7'6"	21'0"	33'8"
10'0"	8'2"	22'0"	34'8"
12'0"	8'6"	23'0"	35'8"
14'0"	9'8"	24'0"	36'8"
	11'8"	25'0"	37'8"
	13'8"	26'0"	38'8"
	15'0"	27'0"	39'8"
	16'0"	28'0"	40'8"
	17'0"	29'4"	41'8"
	18'0"	30'4"	
	19'0"	31'8"	

5" THICK PANELS			
WITH FLOOR OR SCREED	LESS FLOOR		
	7'8"	7'3"	20'1"
8'8"	7'7"	21'1"	33'9"
10'2"	8'3"	22'1"	34'9"
12'2"	8'7"	23'1"	35'9"
14'2"	9'9"	24'1"	36'9"
	11'9"	25'1"	37'9"
	13'9"	26'1"	38'9"
	15'1"	27'1"	39'9"
	16'1"	28'1"	40'9"
	17'1"	29'5"	41'9"
	18'1"	30'5"	
	19'1"	31'9"	

6" THICK PANELS			
WITH FLOOR OR SCREED	LESS FLOOR		
	7'10"	7'4"	20'2"
8'10"	7'8"	21'2"	33'10"
10'4"	8'4"	22'2"	34'10"
12'4"	8'8"	23'2"	35'10"
14'4"	9'10"	24'2"	36'10"
	11'10"	25'2"	37'10"
	13'10"	26'2"	38'10"
	15'2"	27'2"	39'10"
	16'2"	28'2"	40'10"
	17'2"	29'6"	41'10"
	18'2"	30'6"	
	19'2"	31'10"	

REFRIGERATION SYSTEMS

System Choices

Choose from a wide selection of refrigeration systems for the most efficient cooling or freezing. Systems are designed to achieve the desired room temperature and consist of either a remote condensing unit with matching evaporator coil or a packaged system containing both condensing unit and evaporator coil in one housing.

Basic Remote, Multi-Compressor and Parallel Rack Systems

Kool Star condensing unit choices range from B- or M-series basic remote units to MRS or DRS series multi-compressor to PS series parallel rack systems.

The B-series remote condensing units feature factory pre-wired and mounted operating components for easy installation. They are available from 3 to 40 H.P.

The M-series remote units offer a wide variety of options in package components and factory pre-assembly. M-series units vary from 1/2 to 6 H.P.

Both B-series and M-series models are available in a wide selection of temperature ranges.

MRS series modular multi-compressor systems allow users to remote all refrigeration units in an establishment, including reach-ins, walk-ins and prep units, to a single outside system. This reduces inside heat and air conditioning load as well as noise level.

Each MRS system is composed of individual modules containing a condenser, compressor, generously-sized receiver and other appropriate components all enclosed within a single galvanized steel housing (optional stainless steel finish available). Factory pre-wired to an electrical panel for one-point connection, MRS systems are designed to be easily installed.

When a two-compressor system is required, the DRS series offers an economical advantage. While smaller in scale, DRS models share many construction features with MRS models and fit similar applications.

With PS series parallel rack systems, a wide range of compressors is available, including digital scrolls, to better match capacity and budget needs while providing the most energy efficient and environmentally friendly system. Parallel units match refrigeration capacity to actual load amounting to a 20%+ savings over a single compressor unit.



Kool Star's range of refrigeration system choices includes (top, left to right) M-series remote condensing units, B-series remote condensing units, MRS series multi-compressor units and PRS-2 series packaged systems. (Bottom) PS series parallel rack systems and E-series evaporator coils.



Components and Options

Condensing units can be configured with hermetic, semi-hermetic or scroll compressors and in a number of horsepower ranges. Generously-sized condensers and receivers assure quick temperature recovery in high ambient conditions and ample pump-down capacity for longer refrigeration line runs. Other options include water-cooled units and special voltage requirements. Condensing units can also be matched with an evaporator coil for a complete remote system.

PRS-2 Series Packaged Systems

The PRS-2 series combines a condensing unit and evaporator coil into one unit with everything ready to mount on the top or side of your Kool Star walk-in. Standard features include a condensate evaporator pan on indoor models as well as a crankcase heater, drainline heater, head master and weather hood on outdoor models.



PRS-2 packaged refrigeration systems may be mounted on a walk-in ceiling or wall.

EFFICIENT CONTROL

The Master Controller Reverse Cycle Defrost electronic control system, optional on walk-in coolers and freezers, brings a new level of efficiency and reliability to your refrigeration system by replacing certain mechanical parts with solid state electronic components.

Lab tests show a **Master Controller Reverse Cycle Defrost-equipped system can save up to 27% more energy** over a conventional system depending on the application.

Installation time and labor costs are significantly reduced because all electrical components are factory pre-wired.

The Master Controller Reverse Cycle Defrost control board mounted to an evaporator coil is part of a refrigeration system also containing an electric expansion valve, a sin-

gle or multi-compressor condensing unit, one or more evaporators, temperature sensors, pressure transducer, an optional remote display and an optional remote data logging/control system.

The Master Controller's demand defrost feature continuously checks the amount of ice buildup to determine if defrosting is required.

Integrated reverse cycle defrost is a patented innovation (U.S. patent no. 7,073,344) involving a reverse cycle valve that switches the direction of refrigerant flow during defrost. Reverse cycle completely eliminates frost buildup **while reducing defrost energy usage by up to 80%**.



The Master Controller Reverse Cycle control panel with housing removed.



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Due to continuous product enhancements, we reserve the right to change specifications without notice.

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