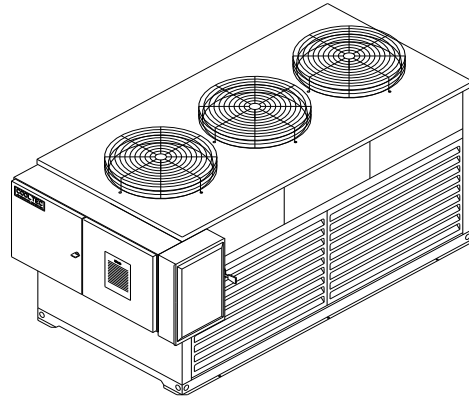


“PARALLEL-PAK” PARALLEL REFRIGERATION SYSTEM



R-448A REFRIGERANT

PARALLEL-PAK is a refrigeration system that employs two compressors connected in parallel, one digital scroll compressor and one scroll compressor as back-up. By eliminating the use of multiple compressors, and using a digital compressor that modulates at 10%-100% capacity, the energy usage is precisely matched to the refrigeration load requirement, that result is a lower energy consumption. By using two compressors, the refrigerant volume required in the system is much lower compared to a traditional multi-compressor system, thus the environmental impact becomes much lower. The system employs one compressor as a back-up for 100% redundancy with auto-changeover in the event of primary compressor failure, the back-up compressor is engaged automatically, therefore, no system downtime or product loss. The built-in refrigeration control allows for complete monitoring of system performance, data logging, alarm notification, and optional remote access.

FEATURES:

Capacity Modulation – New digital scroll compressors have the ability to modulate at 10%-100% capacity, allowing for complete control of system operating temperatures and energy usage.

100% Redundancy – Back-up capacity equal to that of the primary compressor.

Auto-Changeover – In the event of primary compressor failure, back-up compressor is engaged automatically. No system down-time or product loss.

Alarm – Refrigeration controller tells service technician when there is an issue, making diagnosis quick and easy and saving time and money in service.

Energy Efficient – Energy usage precisely match to the refrigeration load requirement results in savings of over 30% in many applications.

Refrigeration Control – Cooltec's built-in refrigeration controller allows for complete monitoring of system performance, data logging, alarm notification, and optional remote access and monitoring through a wireless network .

Electrical Control Panel – The pre-engineered control panel with main-fused disconnect, compressor, breakers, contactors, fuses, interlock relays, and defrost time-clocks. Wiring is precisely installed and clearly identified for fast installation. The only field connections required are “Power” and “Defrost Control”.

LEED – Parallel-Pak system utilizing digital scroll compressors and R-448A refrigerant is an ideal candidate to earn points towards LEED certification.



COOLTEC

Digital Scroll Compressor

- Digital scroll technology combines the need for energy efficiency and precise Temperature control with a compact design and proven reliability
- Varying refrigerant loads are matched through the use of a mechanical unloading system, therefore greatly reducing unneeded power consumption
- Ability to modulate at 10%-100% capacity, allowing for complete control system operating temperatures and energy usage
- Reduced power consumption—up to 30% more efficient
- Longer cycle times to reduce wear



The Refrigeration Controller

- Microprocessor-based control completely controls system through the use of various temperatures and pressure sensors.
- The CPC allows the user and service technician to monitor system operation conditions both on site and remotely, assisting in evaluating system performance and energy usage, as well as for diagnostics
- Remote access and monitoring through a wireless network

Refrigerant Leak Detention System (optional)

- Continuously monitors refrigerant gas levels in up to 16 areas.
- Alarm and fault conditions are indicated on the front panel and on an optional external alarm panel
- Early indication of a system leak can prevent costly repair



LEED

LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN

LEED Certification

Cooltec's **PARALLEL-PAK** systems utilizing digital scroll compressors and R-448A refrigerant are an ideal candidate for project managers and owners wishing to earn points towards **LEED** certification

COOLTEC REFRIGERATION CORP.

1250 E. FRANKLIN AVE. UNIT B, POMONA, CA 91766

sales@cooltecrefrigeration.com

✱ T: 909-865-2229

✱ www.cooltecrefrigeration.com

✱ F: 909-868-0777



“PARALLEL-PAK”
R-448A REFRIGERATION SYSTEM
WITH DIGITAL SCROLL COMPRESSOR
GREEN TECHNOLOGY

MEDIUM TEMPERATURE SYSTEM

DIGITAL SCROLL COMPRESSORS									R-448A		WALK-IN COOLER			
COMPRESSOR CAPACITY									TOTAL SYTEM					
HP	COMPRESSOR MODEL NO. (Copeland)		CAPACITY MBH @ 95°F AMB		ELECTRIC DATA (AMPS) VOLTS/PHASE/60HZ	DIMENSIONS (INCHES)			TOTAL CAPAC-ITY MBH @ 95° F AMB		LINE SIZE (100'MAX)		TOTAL SYSTEM AMPS VOLTS/PHASE/60HZ	WT LBS.
											SUCTION OD	LIQUID OD		
	DIGITAL	SCROLL BACK-UP	+20°F	+25°F	208V/3PH/60HZ	L	W	H	+20°F	+25°F			208V/3PH/60HZ	
6.0	ZBD21KCE-TF5		27.3	30.1	11.3	9.6	9.6	17.8	55.1	60.9	1 1/8	1/2	22.2	600
		ZB21KCE-TF5	27.8	30.8	10.9	9.6	9.6	17.8						
8.0	ZBD30KCE-TF5		38.0	41.8	14.1	9.5	9.7	19.7	75.3	83.0	1 3/8	5/8	28.2	600
		ZB30KCE-TF5	37.3	41.2	14.1	9.5	9.7	19.7						
10.0	ZBD38KCE-TF5		46.4	51.2	21.3	9.7	9.7	19.7	93.0	102.8	1 3/8	5/8	41.2	800
		ZB38KCE-TF5	46.6	51.6	19.9	9.7	9.7	19.7						
12.0	ZBD45KCE-TF5		55.1	60.8	20.2	9.5	9.7	19.7	110.3	122.0	1 3/8	5/8	40.4	800
		ZB45KCE-TF5	55.2	61.2	20.2	9.5	9.7	19.7						
15.0	ZBD58KCE-TF5		70.1	77.4	27.6	11.5	11.2	19.5	142.0	157.1	1 5/8	5/8	55.2	1000
		ZB58KCE-TF5	71.9	79.7	27.6	11.5	11.2	19.5						
20.0	ZBD76KCE-TF5		96.2	106.0	37.2	11.5	11.2	21.3	192.4	212.6	2 1/8	7/8	74.4	1000
		ZB76KCE-TF5	96.2	106.6	37.2	11.5	11.2	21.3						

NOTES: A. Condensing unit capabilities are 95°F ambient. Cooler temp is at 35° with 25° suction gas temp.
 B. Unit Cooler and condensing units will have separate power supplies for walk-in cooler applications.
 C. 1MBH=1000 BTU/HR

LOW TEMPERATURE SYSTEM

DIGITAL SCROLL COMPRESSORS										R-448A		WALK-IN FREEZER			
COMPRESSOR CAPACITY									TOTAL SYTEM						
HP	COMPRESSOR MODEL NO. (Copeland)		CAPACITY MBH @ 95°F AMB		ELECTRIC DATA (AMPS) VOLTS/PHASE/60HZ	DIMENSIONS (INCHES)			TOTAL CAPACITY MBH @ 95°F AMB		LINE SIZE (100' MAX)		TOTAL SYSTEM AMPS VOLTS/PHASE/60Hz	WT LBS.	
											SUCTION OD	LIQUID OD			
	DIGITAL	SCROLL BACK-UP	-10°F	-20°F	208V/3PH/60HZ	L	W	H	-10°F	-20°F			208V/3PH/60HZ		
8.0	ZFD13KVE-TF5		27.4	22.6	15.4	11.8	11.8	19.7	47.6	38.4	1 3/8	1/2	27.3	600	
		ZF13K4E-TF5	20.2	15.8	11.9	11.8	11.8	19.7							
12.0	ZFD18KVE-TF5		40.4	33.3	21.8	11.8	11.8	19.7	70.1	62.4	1 5/8	1/2	41.4	800	
		ZF18K4E-TF5	29.7	29.1	19.6	11.8	11.8	19.7							
15.0	ZFD25KVE-TF5		50.1	40.9	24.5	11.8	11.8	19.7	87.3	81.8	1 5/8	5/8	48.5	1000	
		ZFD25K4E-TF5	37.2	40.9	24.0	11.8	11.8	19.7							

NOTES: A. Condensing unit capabilities are 95°F ambient. Freezer is -10° with -20°F suction gas temp.
 B. Unit Cooler and condensing units will have the SAME power supplies for walk-in freezer (low-temp) applications.
 C. 1MBH=1000 BTU/HR

Parallel-Pak System is designed to manage both compressors and fan motors in refrigeration system. The main compressor is digital, back-up is scroll. The system controls by means of neutral zone or proportional band and is based on the pressure or temperature sensor in the low pressure system compressor and high pressure condenser circuits. A special algorithm balances the compressor to distribute the work load uniformly. The controller can convert both Low Pressure and High Pressure and displays the temperature. The front panel of the controller offers complete information on the systems status by displaying the suction and condenser pressure/temperature, the status of the loads, possible alarms, and maintenance conditions.

COOLTEC REFRIGERATION CORP.

1250 E. FRANKLIN AVE. UNIT B, POMONA, CA 91766 ❄ T: 909-865-2229 ❄ F: 909-868-0777
 sales@cooltecrefrigeration.com ❄ www.cooltecrefrigeration.com

MEDIUM TEMPERATURE

COMPRESSOR PERFORMANCE OF DIGITAL SCROLL											
HP	MODEL	CONDENSING TEMPERATURE	EVAPORATING TEMPERATURE (FAHRENHEIT DEGREES) CAPACITY: BTU/HR								
			0	5	10	15	20	25	30	35	40
3	ZBD21KCE-TF5 MED. TEMP.	120F	14400	16250	18100	20200	22300	24600	27100	29700	32500
		110F	15800	17800	22000	22000	24400	26900	29600	32500	35700
		100F	17100	19200	23700	23700	26300	29000	32000	35200	38750
		95F	17900	20037	24625	24625	27300	30125	33225	36575	39262
4	ZBD30KCE-TF5 MED. TEMP.	120F	20200	22550	24900	27600	30500	33700	37000	40600	44550
		110F	22200	24850	27500	30400	33700	37100	40800	44800	49150
		100F	24100	27000	29900	33200	36700	40400	44400	48600	53050
		95F	25050	28037	31025	34400	38000	41800	45925	50200	54787
5	ZBD38KCE-TF5 MED. TEMP.	120F	24800	27100	30600	33900	37400	41200	45300	49700	54600
		110F	27200	30400	33600	37200	41100	45300	49900	55000	60250
		100F	29400	32900	36400	40400	44700	49300	54000	59500	65500
		95F	30550	34175	37800	41950	464600	51225	56125	61875	68062
6	ZBD45KCE-TF5 MED. TEMP.	120F	29400	32850	36300	40200	44300	48800	53500	58500	64500
		110F	32400	36200	40000	44300	48900	54000	59000	65000	71250
		100F	35300	39400	43500	48200	53000	58500	64500	71000	78000
		95F	36650	40887	45125	50275	55125	60875	67125	73875	81187
7.5	ZBD58KCE-TF5 MED. TEMP.	120F	35000	40050	45100	50500	56100	62100	68500	75500	83250
		110F	38900	44650	50400	56100	62100	68600	75500	83100	91550
		100F	44100	49600	55100	61000	67600	74600	82100	90400	99700
		95F	45850	51500	57150	63275	70100	77375	85225	93925	103650
10	ZBD76KCE-TF5 MED. TEMP.	120F	51400	57350	63300	70000	77200	85100	93700	103300	113250
		110F	56200	62850	69500	76900	85000	93800	103500	113500	125000
		100F	60900	62800	75500	83700	92600	102000	112500	124000	136500
		95F	63200	70787	78375	86925	96200	106000	117000	128875	141875

LOW TEMPERATURE

PERFORMANCE											
HP	MODEL	CONDENSING TEMPERATURE	EVAPORATING TEMPERATURE (FAHRENHEIT DEGREES) CAPACITY: BTU/HR								
			-40	-35	-30	-25	-20	-15	-10	-5	0
4	ZFD13KVE-TF5 LOW TEMP.	120F			17100	19000	20900	23100	26400	28000	30700
		110F	14300	16000	17700	19700	21700	23900	26400	29000	31800
		100F	14700	16400	18200	20200	22300	24600	27100	29800	32700
		95F	14800	16500	18400	20450	22600	24950	27450	30200	33150
6	ZFD18KVE-TF5 LOW TEMP.	120F			25000	27800	30800	33900	37300	40900	44800
		110F	20400	23100	25900	28800	31900	35200	38700	42500	46500
		100F	21000	23800	26700	29700	32900	36300	39900	43800	48000
		95F	21300	24100	27000	30050	33300	36750	40450	44400	48650
7.5	ZFD25KVE-TF5 LOW TEMP.	120F			31200	34600	38300	42200	46400	50900	55700
		110F	25700	28700	32100	36700	39500	43700	48100	52800	57800
		100F	26100	29300	32800	36500	40500	44900	49500	54400	59600
		95F	26300	29550	33100	36900	40950	45400	50100	55100	60400

MEDIUM TEMPERATURE

COMPRESSOR PERFORMANCE OF SCROLL											
HP	MODEL	CONDENSING TEMPERATURE	EVAPORATING TEMPERATURE (FAHRENHEIT DEGREES) CAPACITY: BTU/HR								
			0	5	10	15	20	25	30	35	40
3	ZS26KAE-TF5 MED. TEMP.	120F	17125	19000	21100	23400	26100	28800	3200	35750	39500
		110F	18623	20725	23050	25600	28575	31550	35050	39125	43200
		100F	20122	22450	25000	27800	31050	34300	38100	42500	46900
		95F	21025	23400	26000	28900	32300	35700	39600	44200	4880
4	ZS33KAE-TF5 MED. TEMP.	120F	21475	23800	26500	29400	32800	36200	40200	44900	49600
		110F	23418	26000	28950	32150	35887	39625	44000	49125	54250
		100F	25362	28200	31400	34900	38975	43050	47800	53350	58900
		95F	26350	29300	32600	36300	40550	44800	49700	55450	61200
5	ZB38KCE-TF5 MED. TEMP.	120F	24100	27100	30100	33550	37000	41000	45000	49500	54000
		110F	26800	30050	33300	37100	40900	45325	49700	54750	60000
		100F	29400	32950	36500	40650	44800	49650	54500	60000	65500
		95F	30575	34275	37975	42287	46600	51612	56625	62375	68125
6	ZB45KCE-TF5 MED. TEMP.	120F	28600	32150	35700	39800	43900	48700	53500	59000	64500
		110F	31800	35700	39600	44100	48600	53800	59000	65000	71000
		100F	34900	39100	43300	48150	53000	58750	64500	71000	77500
		95F	36300	40700	45100	50175	55250	61187	67125	73875	80625
7.5	ZB58KCE-TF5 MED. TEMP.	120F	35900	41150	46400	52050	57700	64050	70400	77800	85200
		110F	41000	46400	51800	57800	63800	70700	78000	85700	93800
		100F	45300	50950	56600	63000	69400	76900	84400	93200	102000
		95F	47100	52900	58700	65337	71975	79787	87600	96350	106000
10	ZB76KCE-TF5 MED. TEMP.	120F	51400	57350	63300	70250	77200	85450	93700	103350	113000
		110F	56200	62850	69500	77250	85000	94250	103500	114000	124500
		100F	60900	62800	75500	84050	92600	102550	112500	124250	136000
		95F	63200	70775	78375	87287	96200	106600	117000	129187	141375

LOW TEMPERATURE

COMPRESSOR PERFORMANCE OF SCROLL											
HP	MODEL	CONDENSING TEMPERATURE	EVAPORATING TEMPERATURE (FAHRENHEIT DEGREES) CAPACITY: BTU/HR								
			-40	-35	-30	-25	-20	-15	-10	-5	0
4	Z13K4E-TF5 LOW TEMP.	120F	7780	8770	10095	11150	12550	14400	16000	17900	19900
		110F	-	-	-	-	13775	15800	17700	19800	22100
		100F	8910	10200	11750	13300	15000	17200	19400	21700	24100
		95F	9325	10700	12350	14000	15800	18000	20200	22550	25050
6	ZF18K4E-TF5 LOW TEMP.	120F	11850	13500	15600	17100	19150	21800	24000	26700	28600
		110F	-	-	-	-	20825	23675	26400	29300	32600
		100F	13700	15600	17800	20000	22500	25550	28600	31900	35400
		95F	14250	16300	18600	20900	23500	26600	29700	33100	36800
7.5	ZF25K4E-TF5 LOW TEMP.	120F	15125	16900	19350	21200	23750	27200	30100	33500	37100
		110F	-	-	-	-	25775	31850	33100	36800	40800
		100F	16900	19200	21900	24600	27800	31850	35900	40000	44400
		95F	17600	20050	22925	25800	29150	33200	37250	41550	46150

COOLTEC

SMART DEFROST

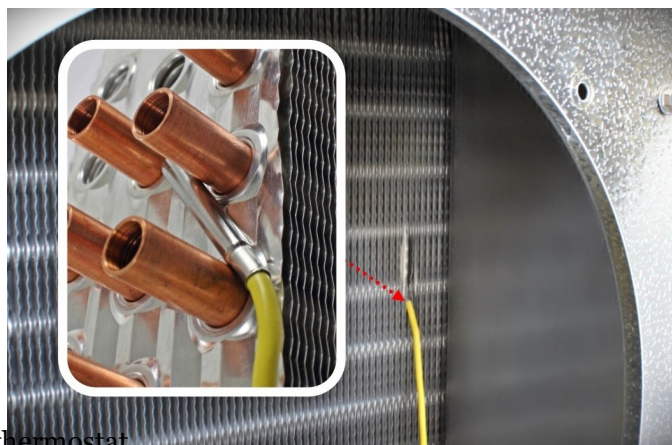
BY COOLTEC



The Smart Defrost Controller is an energy efficient refrigeration controller for medium and low temp applications. The Smart Defrost Controller combines the function of a thermostat and defrost time clock, eliminates complexity, simplifies programming and eliminates wiring from the evaporator to the refrigeration rack. The Smart Defrost Controller provides remote monitoring and system control with an alarm notification that can be sent thru email or text (when used with KE2 LDA). With two temp sensor inputs and two configurable inputs The Smart Defrost Controller executes a defrost cycle only when needed (demand defrost) and completely eliminates ice build up on the evaporator and walk-in box.

FEATURES

- Energy efficient
- Smart Defrost (only when needed)
- Digital thermostat
- Removes temperature fluctuation
- Reduce food spoilage
- Reduces defrost cycles (savings)
- Keeps moisture in food, prevents freezer burn
- Simplifies field wiring
- Reduces installation time and cost
- Two Temperature sensor inputs
- Combines the function of a defrost time clock and thermostat
- Eliminates ice build up on evaporator and walk-in box
- Remove icing risk on floors
- Remote monitoring, alarms, and diagnosis
- E-mail/Text alarm alerts



The Smart Defrost Controller simplifies wiring, reduces installation time and cost, is energy efficient, easy to install, program, and read. It replaces the mechanical components of a thermostat and defrost time clock, it relies on temperature sensors and fan controls that prevent frost formation and eliminate unnecessary service calls. The digital control offers a better precision than mechanical refrigeration controls, it provides steady temperature and reduces defrost cycles by more than 30%.

COOLTEC REFRIGERATION CORP.

1250 E. FRANKLIN AVE. UNIT B, POMONA, CA 91766

sales@cooltecrefrigeration.com



T: 909-865-2229



F: 909-868-0777



www.cooltecrefrigeration.com



“PARALLEL-PAK”

PARALLEL REFRIGERATION SYSTEM

ITEM NO. _____ REMOTE REFRIGERATION PACKAGE

The refrigeration package shall be pre-engineered and factory assembled unit, trade name “PARALLEL-PAK”, as manufactured by COOLTEC REFRIGERATION CORP., 1250 E. Franklin Avenue, Pomona, California 91766.

Telephone: (909) 865-2229, Fax (909) 868-0777. E-mail address: sales@cooltecrefrigeration.com

Contractors shall furnish and install, where shown on plans, (1) COOLTEC U.L. approved “PARALLEL-PAK” air cooled remote refrigeration package, model _____, with control panels, _____, Volts, _____, Phase, _____, Hertz.

Refrigeration system shall be housed in weather protected enclosure. The frame, enclosure, and panels shall be fabricated of galvanized steel. The entire frame shall be pre-assembled, welded, cleaned, and primed and powder coated epoxy enamel, and baked. The condensers shall be removable, with refted tube slotted finned, and shall be designed for 20° FTD. Condenser fan motors shall be mounted on the top of the enclosure for rapid heat exhaust and cooling.

1. PARALLEL-PAK REMOTE AIR COOLED REFRIGERATION SYSTEM

- A. Parallel compressor unit shall employ two parallel piped scroll compressors (Copeland), a control panel, oversized condensers and receiver, all mounted in one common structural steel frame. Compressors motors shall be factory wired. The compressor shall act as one condensing unit with 100 percent extra capacity for redundancy. Control is obtained by cycling individual compressors using refrigeration controllers based on system load requirements.
- B. Each unit shall be equipped with a replaceable core liquid line filter-drier, moisture indicator, and hand valve mounted between the receiver outlet valve and liquid manifold. There shall be replaceable core suction line filter-drier mounted between compressors and the main suction header.
- C. Fixture thermostat and liquid line solenoid valve combinations shall be employed for the accurate temperature and humidity control.
- D. All Condensing units shall be new and factory assemble to operate with the refrigerant specified in the refrigeration engineering summary sheet. R-404A refrigerant shall be used on all commercial and low temperature units.

2. OIL EQUALIZATION SYSTEM

- A. Each unit shall be equipped with an oil separator in conjunction system to assure a proper amount of oil to each compressor whether running or cycled off for continuous proper lubrication.
- B. Each oil equalization system shall be equipped with oil separator, oil reservoir, oil return filter-drier, automatic oil level regulators for each compressor and interconnecting tubing per schematic diagram. The oil level control system shall incorporate isolation valves to facilitate serviceability and minimize system contamination.

3. CONTROL PANEL

- A. The package shall have a factory mounted and pre-wired control panel, complete with interlocked main fused disconnect. Compressor circuit breakers, fuses, contactors, duplexors, and time-clocks wired for single point power connection.
- B. Electrical contractor shall provide and install main power lines to panel and provide wire harness wiring for control and defrost heater between and the defrost clock and the refrigeration fixtures, all in accordance with the wiring diagram and per local codes.

4. SAFETY CAUTION

- A. Each system and evaporator is shipped under nitrogen pressure. Use caution and exercise safety at all times when preparing for final hook-up.

5. EVAPORATOR COIL

- A. Evaporative coils shall be direct expansion type, fabricated of cooper tubes with aluminum fins. All evaporator coils shall be provided with solenoid valve, thermostatic expansion valve, and temperature control, piped and wired to the junction box for positive pump down.
- B. Evaporative coils shall be equipped with energy saving “EC” motors.

CONSTRUCTION NOTES FOR TRADES

1. GENERAL CONTRACTOR

- A. Contractors shall verify and coordinate with other trades.
- B. General contractor to verify and coordinate location of refrigeration rack with refrigeration contractor to satisfy local code requirements and maintenance of the rack.
- C. General contractor to verify refrigeration line runs through to the roof or multi-story building prior to construction with refrigeration contractor for accessibility. General contractor to allow 3'-0" of clear space around refrigeration rack for maintenance.
- D. General contractor to verify access of crane or mechanical lift with refrigeration contractors prior to construction (if required).
- E. All core drilling required for remote refrigeration piping work by the refrigeration contractor, is in the general contractor's scoop of work. Coordinate exact location and number of penetrations with the refrigeration contractor and comply with all landlord requirements for x-ray of slab prior to work.

COOLTEC REFRIGERATION CORP.

1250 E. FRANKLIN AVE. UNIT B, POMONA, CA 91766

sales@cooltecrefrigeration.com

✻ T: 909-865-2229

✻ www.cooltecrefrigeration.com

✻ F: 909-868-0777

COOLTEC

2. REFRIGERATION CONTRACTOR

- A. Refrigeration contractor shall run all refrigeration lines which extend down through wall (s) before wall (s) are closed up when conduit is not provided.
- B. Refrigeration contractor to seal both ends of conduit with fomofil after all lines have been run. If pull box (es) are specified, they must be a minimum 12"x 12".
- C. Refrigeration contractor shall insulate all refrigeration suction lines.
- D. Refrigeration contractor shall verify location of blower coil (s) and compressor (s) for all refrigerated area.
- E. Refrigeration contractor shall verify location of pitch pocket (s) for refrigeration lines penetration through roof with general contractor. General contractor to install all pitch pockets.
- F. Contractor shall use only clean dehydrated, sealed refrigeration grade A.C.R. copper tubing or type "1". Use only long radius elbows to reduce flow resistance and line breakage.
- G. Silver solder and/or sil-fos shall be used on all refrigerant piping. Soft solder is not acceptable. Use minimum 35% silver solder for dissimilar metals.
- H. All piping must be supported with hangers that can withstand weight of tubing, insulation, valves, and fluid in the tubing.
- I. Use nitrogen in the copper tubing during brazing to prevent formation of copper oxides. Liquid and suction lines must be free to expand independently of each other. Do not exceed 100 feet, without a change in direction of an offset. Plan proper pitching, expansion allowance, and p-traps at the base of all suction risers and at every 15 feet of every vertical rise. Install service vales at several locations for ease of maintenance. Theses vales must be approved for 450 psi working pressure.
- J. All piping must be pressure tested with nitrogen at 300 psi with all valves open and held for 12 hours. Electronic leak detectors shall be used to locate all leaks.
- K. Complete system shall be evacuated to 500 microns with vacuum pump before charging the system.
- L. Once system is charged and running, adjust all controls, _____ including pressure controls, expansion valves, thermostats, and time-clocks. Return after 24 hours to verify proper operation of systems.
- M. Refrigeration contractor to provide and install drain lines heater with insulation in freezer to be connected by electrical contractor.
- N. Refrigerant suction lines outside of refrigerated compartments, not run in conduit, shall be insulated back to compressor with Armstrong arma-flex ap-25/50 foamed plastic insulation or equal in accord with direction of the manufacture. Minimum thickness shall be 3/4 inch for commercial temperature and 1.0 inch for low temperature.
- O. Fill roof refrigeration and electrical pitch pockets with foam and sealant.
- P. Refrigeration contractor to seal all refrigeration lines penetrations made though walk-in coolers/freezers, and refrigerated base sections of counters.
- Q. Receiver's liquid line equipped with pressure relief valve and to be piped outside of the building by refrigeration contractor.

3. ELECTRICAL CONTRACTOR

- A. Electrical contractor to provide to provide main power for the refrigeration package and connect control and defrost system.
- B. Electrical contractor to provide 5-wire color-coded service from the time-clock at the refrigeration system.
- C. Electrical contractor to connect drain-line heater in the freezer.
- D. All electrical wiring and installation shall be accordance with the wiring diagram and per local codes.
- E. If contracted, electrical contractor to install conduits for refrigeration lines in walls, prior to walls are closed up. All pull boxes must be minimum of 12"x 12".

4. PLUMBING CONTRACTOR

- A. Plumbing contractor must provide type "M" cooper drain lines for walk-in refrigeration and freezer, pitched 1/2 inch per foot of run. In freezer, heated drain line must be insulated to prevent freezing. Trap drain lines outside of refrigerated space to avoid entrance of warm and moist air.
- B. Contractor must provide individual drain lines for each evaporator unless otherwise called for in the plans.
- C. All plumbing installation shall be in accordance with local codes.
- D. Plumbing contractor to supply and mount a union fitting below each evaporative blower coil's drain lines for disconnecting and servicing purpose.

REPRESENTED BY:

Since product improvement is a continuing effort with engineers at COOLTEC Refrigeration Corp., we reserve the right to make changes in specification without notice.
© 2019 COOLTEC Refrigeration Corp.

COOLTEC REFRIGERATION CORP.

1250 E. FRANKLIN AVE. UNIT B, POMONA, CA 91766

✧ T: 909-865-2229

✧ F: 909-868-0777

sales@cooltecrefrigeration.com



www.cooltecrefrigeration.com