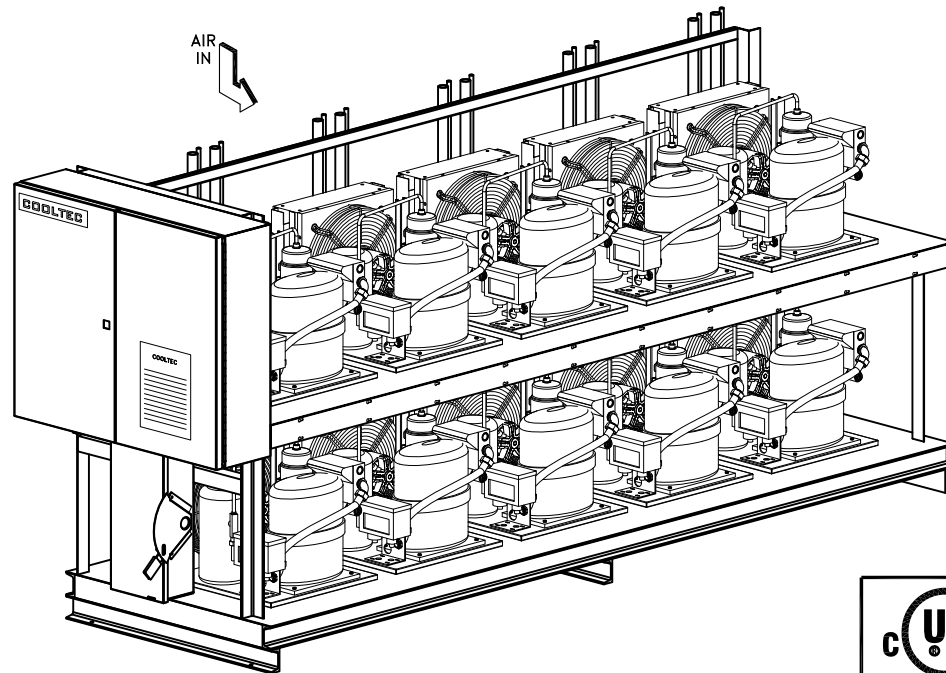


# COOLTEC

ITEM: \_\_\_\_\_

QTY: \_\_\_\_\_

## "AIR COOLED INDOOR-PAK" MULTI-COMPRESSOR RACK WITH AIR COOLED CONDENSING UNITS



### TYPICAL APPLICATIONS:

Auditoriums, Bars, Bakeries, Schools, Supermarkets, Warehouses, Liquor Stores, Restaurants, Cafeterias, Reach-In Units, Display Cases, Grab-N-Go Cases, Under-Counter Refrigerators and Freezers, Walk-In Coolers and Freezers, Cold Pans, and various types of related equipment for food service operations.

### CAPACITY RANGE:

Cooltec has the design and manufacturing capability for any type of refrigeration system large or small. Custom design refrigeration system available in 4' to 14' lengths, available in single, double and triple tier arrangements.

### FEATURES:

**Wide Range of Types & Sizes-** By using standard components, Cooltec refrigeration engineers can specify units which will provide the most efficient operation to meet the requirements of any refrigerated equipment.

**Centralized Controls-** The pre-engineered control panel with main-fused disconnect is mounted on the unit with all controls pre-wired, This reduces the installation and maintenance cost.

**Accessibility-** Installation and maintenance are quicker and easier because condensing units, shut-off valves and controls are readily accessible.

**Rigid Construction-** The all welded frame is constructed of heavy duty structural steel, powder coated epoxy enamel and baked.

**Lower Installation-** The unit is shipped to the job site with all components mounted and ready for final hook-up. This reduces field installation time and eliminates lost time due to missing parts.

# COOLTEC REFRIGERATION CORP.

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



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## AIR COOLED REFRIGERATION SYSTEM FOR FOOD SERVICE INDUSTRY

Cooltec's Air Cooled Refrigeration System and electrical control panels have been the best in the market for over 40 years.

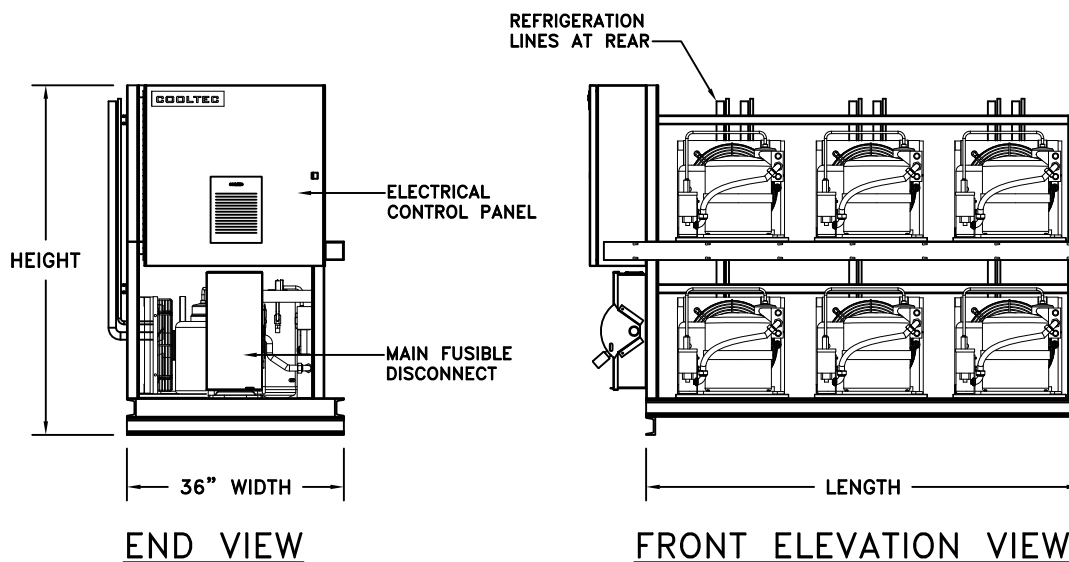
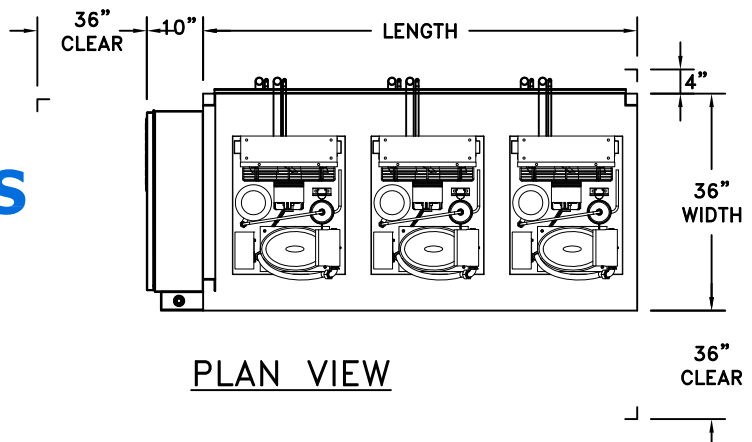
We are committed to provide our customers with the highest quality and best value in the refrigeration industry. We also have an outstanding commitment to customer service.

Our systems are legendary for their ease of installation and their convenient service access. We provide excellent value in a reliable, energy-efficient package:

- **Assisting You Toward Sustainable Resource Management**
- **Lower Cost of Ownership & Higher Return on Investment**
- **Engineered Custom Systems for Your Unique Needs**
- **Greater Application Flexibility**
- **Ease of Installation & Maintenance**
- **Reliability & Long Life**
- **Superior Accesibility**



## GENERAL SPECIFICATIONS



## STANDARD FEATURES

- Air-cooled condenser, designed to meet jobsite ambient conditions.
- U.L. listed refrigeration package with main fused disconnect.
- Heavy duty structural steel frame construction with powder coat finish.
- Suction and discharge valves on all compressors.
- Condensing unit with pre-assembled liquid line drier and sight glass, suction line vibration eliminator for semi-hermetic units, crankcase heater, pressure control, contactors, breakers, 24 hour timer for medium temp units (for cooler defrost application) defrost timer for freezer's electric defrost applications. Fusible disconnect and electrical control panel for single point connection. All are pre-piped and pre-wired, electrically tested and started.

## OPTIONS

- Additional four (4) year compressor warranty.
- Prison packages.
- Factory start-up trips.
- 480V/3PH operation.
- 50 cycle for export projects.





## "AIR COOLED INDOOR-PAK" MULTI-COMPRESSOR RACK WITH AIR COOLED CONDENSING UNITS

MEDIUM TEMPERATURE		HERMETIC/SCROLL COMPRESSORS							R-404A			WALK-IN COOLER						
CONDENSING UNIT CAPACITY									COIL CAPACITY				TOTAL SYSTEM					
HP	COMPRESSOR MODEL NO. (Copeland)	CAPACITY MBH @ 95°F AMB		ELECTRIC DATA (AMPS) VOLTS/PHASE/60Hz		CONDENSING UNIT DIMENSIONS (INCHES)			COIL QTY	COIL MODEL NO.	RATING @ 1-PH, 60 HZ		LINE SIZE (100' MAX.)		TOTAL SYSTEM AMPS VOLTS/PHASE/60Hz		WT LBS. CONDENSING UNIT	
		+20°F	+25°F	208-230/1	208-230/3	L	D	H			FAN MOTOR RLA	DEFROST HTR.RLA 208V/1PH	SUCTION OD	LIQUID OD	208V 1PH	208V 3PH		
0.5	RHM05-2S	5.77	6.32	7.65	----	16.3	24.0	13.1	1	ADT-052	0.9	115	----	5/8	3/8	7.65	----	87
0.75	RHM08-2S	7.41	8.1	9.0	----	18.3	24.0	16.1	1	ADT-070	1.8	115	----	7/8	3/8	9.0	----	99
1.0	RHM10-2S	9.10	9.97	9.3	----	18.3	24.0	16.5	1	ADT-090	1.8	115	----	7/8	3/8	9.3	----	107
1.5	RZM15-2T	9.78	10.75	----	8.0	18.3	24.0	16.5	1	ADT-104	1.8	115	----	7/8	3/8	----	8.0	133
1.75	RZM17-2T	11.2	12.25	----	10.4	18.3	24.0	16.5	1	ADT-120	1.8	115	----	7/8	3/8	----	10.4	144
2.0	RZM20-2T	13.1	14.35	----	10.9	34.1	25.2	19.0	1	ADT-130	1.8	115	----	7/8	3/8	----	10.9	250
2.25	RZM22-2T	16.2	17.75	----	10.6	34.1	25.2	19.0	1	ADT-156	2.7	115	----	7/8	1/2	----	10.6	220
3.0	RZM30-2T	18.4	20.2	----	13.7	34.1	25.2	19.0	1	ADT-208	3.6	115	----	7/8	1/2	----	13.7	220
3.25	RZM32-2T	25.0	27.3	----	15.2	34.1	25.2	19.0	1	ADT-260	4.5	115	----	1-1/8	1/2	----	15.2	220
4.0	RZM40-2T	30.6	33.7	----	18.5	44.1	28.2	26.8	1	ADT-312	5.4	115	----	1-1/8	1/2	----	18.5	400
4.25	RZM42-2T	35.1	38.55	----	25.3	44.1	28.2	26.8	1	ADT-370	5.4	115	----	1-1/8	1/2	----	25.3	400
5.0	RZM50-2T	38.0	41.3	----	24.4	44.1	28.2	26.8	2	ADT-180	5.4	115	----	1-3/8	1/2	----	24.4	362

- NOTES: 1. Condensing unit capabilities are 95°F ambient. Cooler temp is at 35°F with 25°F suction gas temp.  
 2. Unit cooler and condensing units will have separate power supplies for walk-in cooler applications.  
 3. 1MBH=1000TUs/Hour  
 4. Weight in lbs. for condensing unit only.

LOW TEMPERATURE		HERMETIC/SCROLL COMPRESSORS							R-404A			WALK-IN FREEZER						
CONDENSING UNIT CAPACITY									COIL CAPACITY				TOTAL SYSTEM					
HP	COMPRESSOR MODEL NO. (Copeland)	CAPACITY MBH @ 95°F AMB		ELECTRIC DATA (AMPS) VOLTS/PHASE/60Hz		CONDENSING UNIT DIMENSIONS (INCHES)			COIL QTY	COIL MODEL NO.	RATING @ 1-PH, 60 HZ		LINE SIZE (100' MAX.)		TOTAL SYSTEM AMPS VOLTS/PHASE/60Hz		WT LBS.*	
		-10°F	-20°F	208-230/1	208-230/3	L	D	H			FAN MOTOR RLA	DEFROST HTR.RLA 208V/1PH	SUCTION OD	LIQUID OD	208V 1PH	208V 3PH		
0.5	RHL05-2S	2.89	2.09	7.65	----	16.3	24.0	13.1	1	TL-21	0.5	208	4.8	5/8	3/8	8.15	----	87
0.75	RHL08-2S	3.87	2.98	9.0	----	18.3	24.0	16.1	1	TL-21	0.5	208	4.8	5/8	3/8	9.5	----	99
1.0	RHL10-2S	4.73	3.57	9.3	----	18.3	24.0	16.5	1	LET-035	0.5	208	3.9	7/8	3/8	9.8	----	107
1.5	RZL15-2T	5.38	4.31	----	8.0	18.3	24.0	16.5	1	LET-040	0.5	208	3.9	7/8	3/8	----	8.5	133
1.75	RZL17-2T	6.24	5.01	----	10.4	18.3	24.0	16.5	1	LET-047	0.5	208	3.9	7/8	3/8	----	10.9	144
2.0	RZL20-2T	7.27	5.84	----	10.9	34.1	25.2	19.0	1	LET-047	0.5	208	3.9	7/8	3/8	----	11.4	250
2.25	RZL22-2T	8.91	7.14	----	10.6	34.1	25.2	19.0	1	LET-065	1.0	208	7.8	7/8	3/8	----	11.6	220
3.0	RZL30-2T	10.03	8.04	----	13.7	34.1	25.2	19.0	1	LET-075	1.0	208	7.8	7/8	3/8	----	14.7	220
3.25	RZL32-2T	13.1	10.5	----	15.2	34.1	25.2	19.0	1	LET-090	1.0	208	7.8	7/8	3/8	----	16.2	220
4.0	RZL40-2T	16.4	13.05	----	18.5	44.1	28.2	26.8	1	LET-120	1.5	208	11.7	1-1/8	3/8	----	20.0	400
4.25	RZL42-2T	19.1	15.25	----	25.3	44.1	28.2	26.8	1	LET-140	1.5	208	11.7	1-1/8	3/8	----	26.8	400
5.0	RZL50-2T	21.8	17.65	----	24.4	44.1	28.2	26.8	1	LET-160	2.0	208	15.7	1-1/8	1/2	----	26.4	362

- NOTES: 1. Condensing unit capabilities are 95°F ambient. Freezer is at -10°F with -20°F suction gas temp.  
 2. Unit cooler and condensing units will have SAME power supplies for walk-in freezer (low temp.) applications.  
 3. 1MBH=1000BTUs/Hour  
 4. Weight in lbs. for condensing unit only.

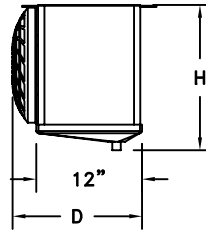
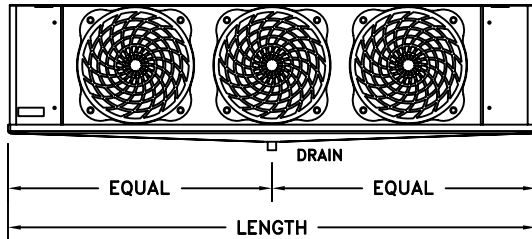
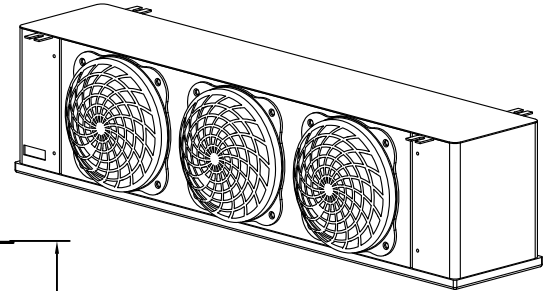
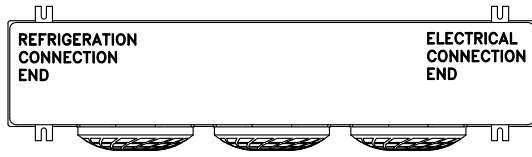


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# COOLTEC

## UNIT COOLER DETAIL



MEDIUM TEMP COIL	UNIT MODEL No.	CAPACITY BTU 10°F TD +25 SST	DIMENSIONS (INCHES)			FANS				ELEC DEFROST 208-1-60	CONNECTIONS (In.)			APPROX. SHIP WT. (Lbs.)
			LENGTH	D	H	QTY.	CFM	EC MOTOR 115/1/60	EC MOTOR 208/1/60		COIL INLET OD	SUCTION ID	DRAIN MPT	
	ADT040AEK	4000	29-1/2"	15"	15"	1	730	0.9	--	--	1/2"	5/8"	3/4"	28
ADT052AEK	5200	29-1/2"	15"	15"	1	700	0.9	--	--	1/2"	5/8"	3/4"	31	
ADT065AEK	6500	29-1/2"	15"	15"	1	650	0.9	--	--	1/2"	5/8"	3/4"	34	
ADT070AEK	7000	45-1/2"	15"	15"	2	1460	1.8	--	--	1/2"	7/8"	3/4"	45	
ADT090AEK	9000	45-1/2"	15"	15"	2	1400	1.8	--	--	1/2"	7/8"	3/4"	48	
ADT104AEK	10400	45-1/2"	15"	15"	2	1400	1.8	--	--	1/2"	7/8"	3/4"	49	
ADT120AEK	12000	45-1/2"	15"	15"	2	1300	1.8	--	--	1/2"	7/8"	3/4"	51	
ADT130AEK	13000	45-1/2"	15"	15"	2	1300	1.8	--	--	1/2"	7/8"	3/4"	53	
ADT140AEK	14000	61-1/2"	15"	15"	3	2100	2.7	--	--	1/2"	7/8"	3/4"	63	
ADT156AEK	15600	61-1/2"	15"	15"	3	2100	2.7	--	--	1/2"	7/8"	3/4"	67	
ADT180AEK	18000	61-1/2"	15"	15"	3	1950	2.7	--	--	1/2"	7/8"	3/4"	69	
ADT208AEK	20800	77-1/2"	15"	15"	4	2800	3.6	--	--	1/2"	1-1/8"	3/4"	82	
ADT260AEK	26000	93-1/2"	15"	15"	5	3250	4.5	--	--	1/2"	1-1/8"	3/4"	103	
ADT312AEK	31200	109-1/2"	15"	15"	6	3900	5.4	--	--	1/2"	1-1/8"	3/4"	124	
ADT370AEK	37000	109-1/2"	15"	15"	6	3900	5.4	--	--	1/2"	1-3/8"	3/4"	127	

LOW TEMP COIL	UNIT MODEL No.	CAPACITY BTU 10°F TD +25 SST	DIMENSIONS (INCHES)			FANS				ELEC DEFROST 208-1-60	CONNECTIONS (In.)			APPROX. SHIP WT. (Lbs.)
			LENGTH	D	H	QTY.	CFM	EC MOTOR 115/1/60	EC MOTOR 208/1/60		COIL INLET OD	SUCTION ID	DRAIN MPT	
	LET035BEK	3500	29-1/2"	15"	15"	1	700	--	0.5	3.9	1/2"	5/8"	3/4"	24
LET040BEK	4000	29-1/2"	15"	15"	1	700	--	0.5	3.9	1/2"	5/8"	3/4"	26	
LET047BEK	4700	29-1/2"	15"	15"	1	650	--	0.5	3.9	1/2"	5/8"	3/4"	29	
LET065BEK	6500	45-1/2"	15"	15"	2	1400	--	1.0	7.8	1/2"	5/8"	3/4"	43	
LET075BEK	7500	45-1/2"	15"	15"	2	1300	--	1.0	7.8	1/2"	5/8"	3/4"	45	
LET090BEK	9000	45-1/2"	15"	15"	2	1300	--	1.0	7.8	1/2"	5/8"	3/4"	48	
LET120BEK	12000	61-1/2"	15"	15"	3	2100	--	1.5	11.7	1/2"	7/8"	3/4"	60	
LET140BEK	14000	61-1/2"	15"	15"	3	1950	--	1.5	11.7	1/2"	7/8"	3/4"	62	
LET160BEK	16000	77-1/2"	15"	15"	4	2600	--	2.0	15.7	1/2"	1-1/8"	3/4"	81	
LET180BEK	18000	77-1/2"	15"	15"	4	2600	--	2.0	15.7	1/2"	1-1/8"	3/4"	84	
LET200BEK	20000	93-1/2"	15"	15"	5	2600	--	2.5	19.6	1/2"	1-1/8"	3/4"	101	
LET240BEK	24000	109-1/2"	15"	15"	6	3900	--	3.0	23.5	1/2"	1-1/8"	3/4"	121	
LET280BEK	28000	109-1/2"	15"	15"	6	3900	--	3.0	23.5	1/2"	1-3/8"	3/4"	124	

# COOLTEC REFRIGERATION CORP.

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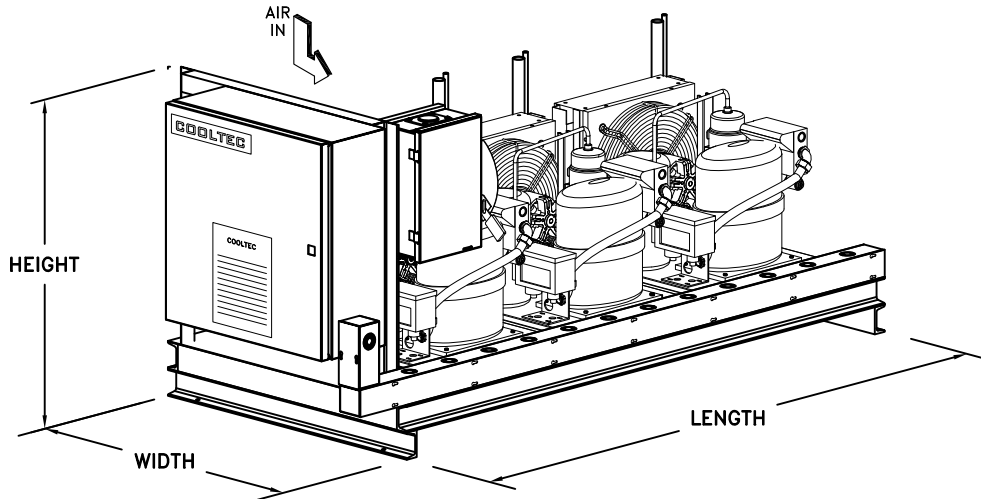
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## "AIR COOLED INDOOR-PAK" MULTI-COMPRESSOR RACK WITH AIR COOLED CONDENSING UNITS



GENERAL SPECIFICATIONS							
	MODEL NO.	MAXIMUM NUMBER OF COMP.(SPACE)	DIMENSIONS			NUMBER OF TIERS	ELECTRICAL
			LENGTH	WIDTH	HEIGHT		
SINGLE TIER	AIPS-4	2	48"	36"	36"	1	208V/3PH/60HZ
	AIPS-6	3	72"	36"	36"	1	208V/3PH/60HZ
	AIPS-8	4	96"	36"	36"	1	208V/3PH/60HZ
	AIPS-10	5	120"	36"	36"	1	208V/3PH/60HZ
	AIPS-12	6	144"	36"	36"	1	208V/3PH/60HZ
	AIPS-14	7	168"	36"	36"	1	208V/3PH/60HZ

NOTES: \*Electrical power also available in 480V/3PH/60HZ consult factory. \*2HP - 5HP will take 2 spaces.

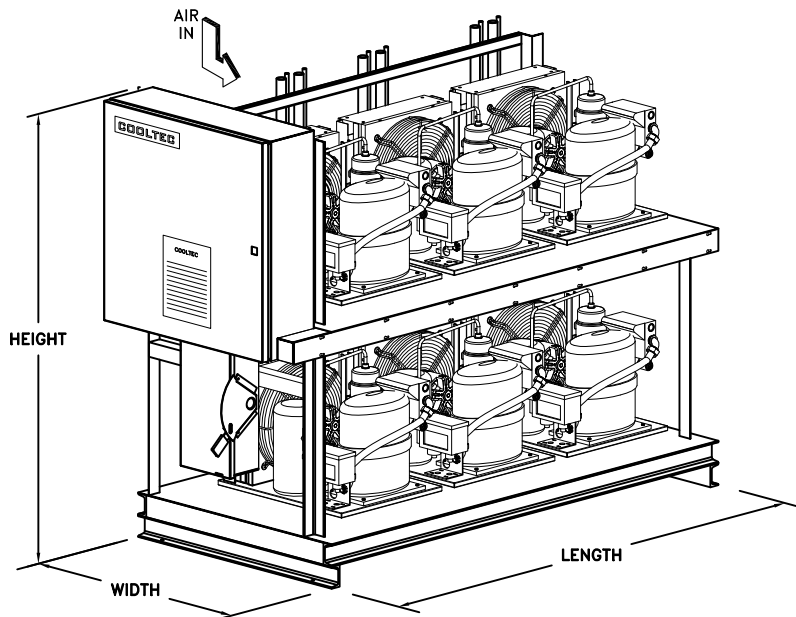
\*Installation clearance 3 feet. \*Refrigeration lines at rear.

### STANDARD FEATURES

- Air-cooled condenser, designed to meet jobsite ambient conditions.
- U.L. listed refrigeration package with main fused disconnect.
- Heavy duty structural steel frame construction with powder coat finish.
- Suction and discharge valves on all compressors.
- Condensing unit with pre-assembled liquid line drier and sight glass, suction line vibration eliminator for semi-hermetic units, crankcase heater, pressure control, contactors, breakers, 24 hour timer for medium temp units (for cooler defrost application) defrost timer for freezer's electric defrost applications. Fusible disconnect and electrical control panel for single point connection. All are pre-piped and pre-wired, electrically tested and started.



## "AIR COOLED INDOOR-PAK" MULTI-COMPRESSOR RACK WITH AIR COOLED CONDENSING UNITS



GENERAL SPECIFICATIONS							
	MODEL NO.	MAXIMUM NUMBER OF COMP.(SPACE)	DIMENSIONS			NUMBER OF TIERS	ELECTRICAL
			LENGTH	WIDTH	HEIGHT		
DOUBLE TIER	AIPD-4	4	48"	36"	68"	2	208V/3PH/60HZ
	AIPD-6	6	72"	36"	68"	2	208V/3PH/60HZ
	AIPD-8	8	96"	36"	68"	2	208V/3PH/60HZ
	AIPD-10	10	120"	36"	68"	2	208V/3PH/60HZ
	AIPD-12	12	144"	36"	68"	2	208V/3PH/60HZ
	AIPD-14	14	168"	36"	68"	2	208V/3PH/60HZ

NOTES: \*Electrical power also available in 480V/3PH/60HZ consult factory. \*2HP - 5HP will take 2 spaces.

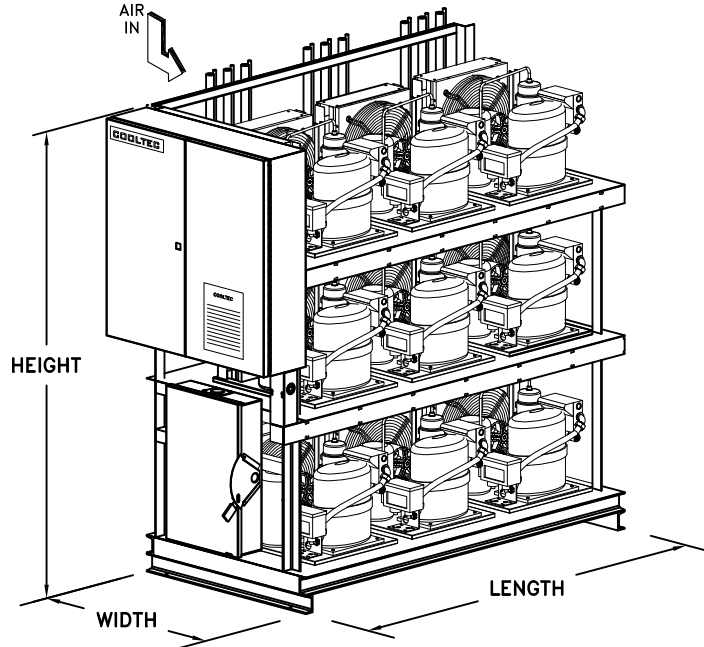
\*Installation clearance 3 feet. \*Refrigeration lines at rear.

### STANDARD FEATURES

- Air-cooled condenser, designed to meet jobsite ambient conditions.
- U.L. listed refrigeration package with main fused disconnect.
- Heavy duty structural steel frame construction with powder coat finish.
- Suction and discharge valves on all compressors.
- Condensing unit with pre-assembled liquid line drier and sight glass, suction line vibration eliminator for semi-hermetic units, crankcase heater, pressure control, contactors, breakers, 24 hour timer for medium temp units (for cooler defrost application) defrost timer for freezer's electric defrost applications. Fusible disconnect and electrical control panel for single point connection. All are pre-piped and pre-wired, electrically tested and started.



## "AIR COOLED INDOOR-PAK" MULTI-COMPRESSOR RACK WITH AIR COOLED CONDENSING UNITS



GENERAL SPECIFICATIONS							
	MODEL NO.	MAXIMUM NUMBER OF COMP.(SPACE)	DIMENSIONS			NUMBER OF TIERS	ELECTRICAL
			LENGTH	WIDTH	HEIGHT		
TRIPLE TIER	AIPT-4	6	48"	36"	77"	3	208V/3PH/60HZ
	AIPT-6	9	72"	36"	77"	3	208V/3PH/60HZ
	AIPT-8	12	96"	36"	77"	3	208V/3PH/60HZ
	AIPT-10	15	120"	36"	77"	3	208V/3PH/60HZ
	AIPT-12	18	144"	36"	77"	3	208V/3PH/60HZ

NOTES: \*Electrical power also available in 480V/3PH/60HZ consult factory. \*2HP - 5HP will take 2 spaces.

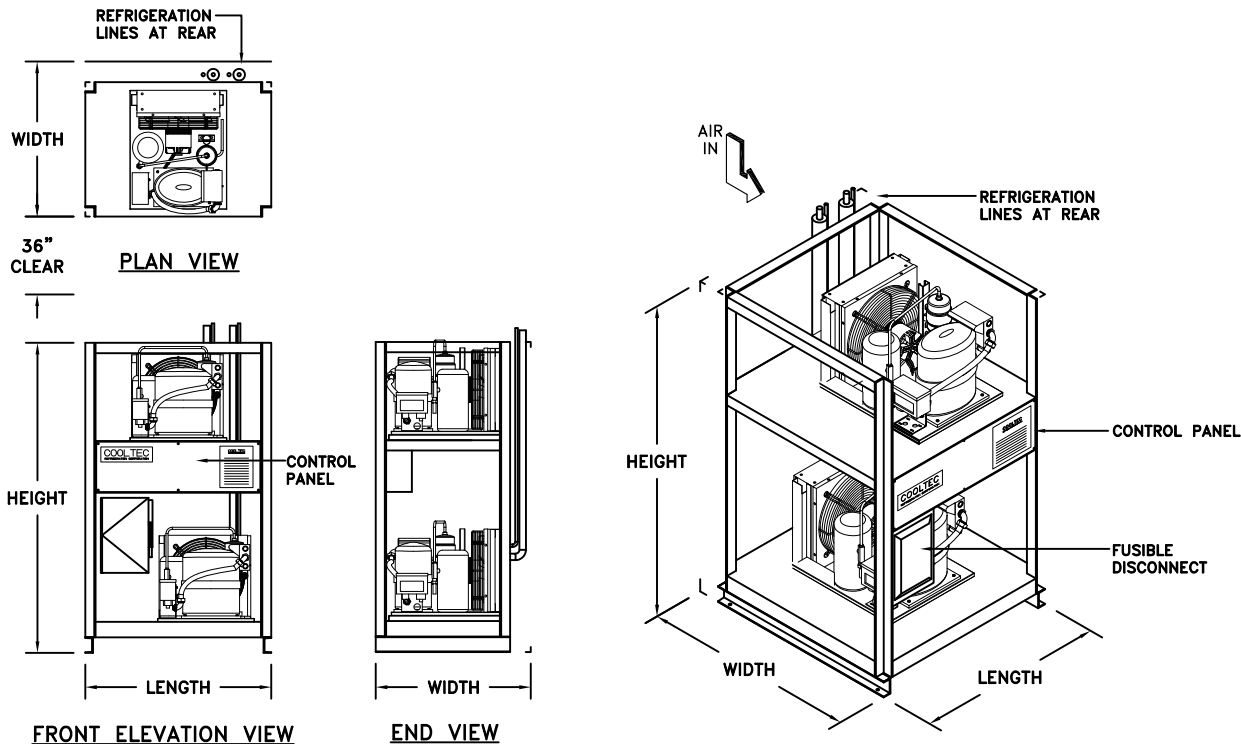
\*Installation clearance 3 feet. \*Refrigeration lines at rear.

### STANDARD FEATURES

- Air-cooled condenser, designed to meet jobsite ambient conditions.
- U.L. listed refrigeration package with main fused disconnect.
- Heavy duty structural steel frame construction with powder coat finish.
- Suction and discharge valves on all compressors.
- Condensing unit with pre-assembled liquid line drier and sight glass, suction line vibration eliminator for semi-hermetic units, crankcase heater, pressure control, contactors, breakers, 24 hour timer for medium temp units (for cooler defrost application) defrost timer for freezer's electric defrost applications. Fusible disconnect and electrical control panel for single point connection. All are pre-piped and pre-wired, electrically tested and started.



## "AIR COOLED INDOOR-PAK" MULTI-COMPRESSOR RACK WITH AIR COOLED CONDENSING UNITS



GENERAL SPECIFICATIONS							
COMPACT TWO TIER	MODEL NO.	MAXIMUM NUMBER OF COMP.(SPACE)	DIMENSIONS			NUMBER OF TIERS	ELECTRICAL
			LENGTH	WIDTH	HEIGHT		
	AIPC-1	2	34"	30"	60"	2	208V/3PH/60HZ
AIPC-2	4	48"	30"	60"	2	208V/3PH/60HZ	

NOTES: \*Compact design for up to 3.25HP medium and low temp condensing units only.  
\*Installation clearance 3 feet at front. \*Refrigeration lines at rear.

### STANDARD FEATURES

- Air-cooled condenser, designed to meet jobsite ambient conditions.
- U.L. listed refrigeration package with main fused disconnect.
- Heavy duty structural steel frame construction with powder coat finish.
- Suction and discharge valves on all compressors.
- Condensing unit with pre-assembled liquid line drier and sight glass, suction line vibration eliminator for semi-hermetic units, crankcase heater, pressure control, contactors, breakers, 24 hour timer for medium temp units (for cooler defrost application) defrost timer for freezer's electric defrost applications. Fusible disconnect and electrical control panel for single point connection. All are pre-piped and pre-wired, electrically tested and started.



## "AIR COOLED INDOOR-PAK" CUSTOM DESIGNED REFRIGERATION SYSTEMS

### ITEM NO. \_\_\_\_\_ INDOOR AIR COOLED REFRIGERATION PACKAGE

the refrigeration package shall be pre-engineered and factory assembled unit, trade name

"AIR COOLED INDOOR-PAK" as manufactured by **COOLTEC REFRIGERATION CORP.**,

1250 E. Franklin Ave., Pomona, ca 91766. phone: (909) 865-2229, fax: (909) 868-0777.

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Contractor shall furnish and install, where shown on plans, (1) **COOLTEC U.L. approved "AIR COOLED INDOOR-PAK"** remote refrigeration package, model \_\_\_\_\_, with control panel, \_\_\_\_\_ Volts, \_\_\_\_\_ Phase, \_\_\_\_\_ Hertz.

### 1. CONSTRUCTION

The frame, enclosure, and panels shall be fabricated of galvanized steel and heavy duty structural steel. The entire unit shall be pre-assembled, welded, cleaned, and primed and powder coated epoxy enamel and baked. The entire structure shall be protected against rust and corrosion. The air cooled condensers shall be designed for 15°F TD.

### 2. REFRIGERATION UNITS

- A. Air cooled condensing units shall be hermetic/glacier scroll type (copeland). Each unit shall be equipped with high-low pressure control, liquid line drier, sight glass, head pressure control, time clocks.
- B. All compressor units shall be new factory assembled to operate with the refrigerant specified in the engineering summary sheet. Refrigerant r-404a shall be used on all commercial temperature units and low temperature units.
- C. All units shall be new factory assembled, to operate with the refrigerant specified.
- D. Compressors shall be Copeland. The speed shall not exceed 1750 RPM. Compressors shall be equipped with suction and discharge service valves.
- E. All units shall be equipped with high-low pressure control switches having adjustable range and differential. The high pressure cut out shall be of automatic reset type.

### 3. PRE-PIPING

- A. All refrigerant lines shall be extended to one side of the package in a neat and orderly manner. Suction lines must be insulated with armaflex (1" thick for low temp, 3/4" thick for medium temp).
- B. All tubing shall be securely supported and anchored with clamps.
- C. Silver solder and/or sil-fos shall be used for all refrigerant piping. Soft solder is not acceptable.
- D. All piping to be pressure tested with nitrogen at 300 PSI. After the condensing unit and coil have been connected the balance of the system shall be leaked tested with all valves opened.

### 4. CONTROL PANEL

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

### 5. SAFETY CAUTION

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

### 6. EVAPORATIVE COIL

- A. Evaporative coils shall be direct expansion type, fabricated of copper tubes with aluminum fins. All evaporative coils shall be provided with solenoid valve, thermostatic expansion valve, and electronic thermostat, 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 all dimensions and coordinate with other trades.
- B. General contractor to verify and co-ordinate 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 thru to roof or multi-story building prior to construction with refrigeration contractor for accessibility.
- D. General contractor to verify access of crane or mechanical lift with refrigeration contractor prior to construction (if required).



- E. General contractor is responsible to hang and support refrigeration rack over walk-in box.
- F. General contractor to submit for approval and pull all permits for hanging this rack.
- G. General contractor to allow 3'-0" (36") of clear space around refrigeration rack for maintenance.
- H. 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.
- I. Any attachment to building structure for load bearing weight to be provided and co-ordinated by general contractor.

## **2. REFRIGERATION CONTRACTOR**

- A. a. refrigeration contractor shall run all refrigeration lines which extend down thru wall(s) before wall(s) are closed up when conduit is not provided. 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". Refrigeration contractor shall insulate all refrigeration suction lines. Refrigeration contractor shall verify location of blower coil(s) and compressor(s) for all refrigerated areas.
- B. Refrigeration contractor shall verify location of pitch pocket(s) for refrigeration line penetration thru roof with general contractor. General contractor to install all pitch pockets. Contractor shall use only clean dehydrated, sealed refrigeration grade a.c.r. copper tubing or type "I". Use only long radius elbows to reduce flow resistance and line breakage.
- C. 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.
- D. All piping must be supported with hangers that can withstand the combined weight of tubing, insulation, valves, and fluid in the tubing.
- E. 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 or 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 valves at several locations for ease of maintenance. These valves must be approved for 450 PSI working pressure.
- F. All piping to 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.
- G. Complete system shall be evacuated to 500 microns with vacuum pump before charging the system.
- H. 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.
- I. Refrigeration contractor to provide and install drain line heater with insulation in freezer to be connected by electrical contractor.
- J. 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 manufacturer. Minimum thickness shall be 3/4 inch for commercial temperature and 1.0 inch for low temperature.
- K. Fill roof refrigeration and electrical pitch pockets with foam and sealant.
- L. Refrigeration contractor to seal all refrigeration line penetrations made thru walk-in coolers/freezers, and refrigerated base sections of counters.

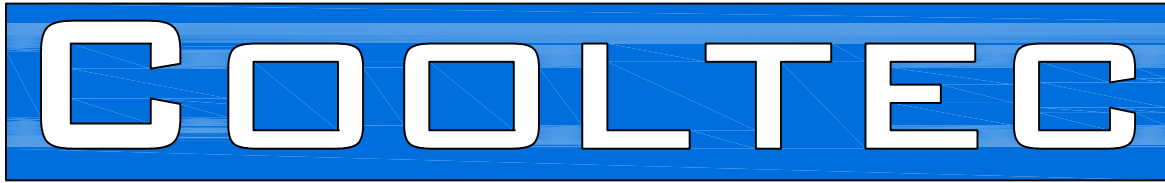
## **3. ELECTRICAL CONTRACTOR**

- A. Electrical contractor to provide main power for the refrigeration package and connect control and defrost systems.
- 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 all conduits for refrigeration lines in walls, prior to walls are closed up. all pull boxes must be a minimum of 12"x 12".

## **3. PLUMBING CONTRACTOR**

- A. Plumbing contractor to provide type "m" copper drain lines for walk-in refrigerator 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. Contractor to provide individual drain line for each evaporator unless otherwise called for in the plans.
- B. All plumbing installation shall be in accordance with local codes.
- C. Plumbing contractor to supply and mount a union fitting below each evaporative blower coil's drain line for disconnecting and servicing purposes.

Since product improvement is a continuing effort with the engineers at COOLTEC Refrigeration Corp. we reserve the right to make changes in specifications without notice.  
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**INDOOR AIR COOLED  
REFRIGERATION SYSTEM**

REPRESENTED BY:

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