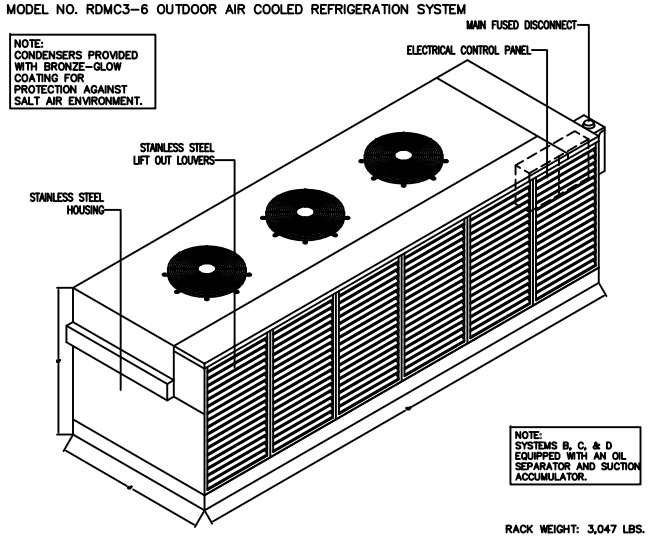
MODEL NO. RDMC3-6 OUTDOOR AIR COOLED REFRIGERATION SYSTEM

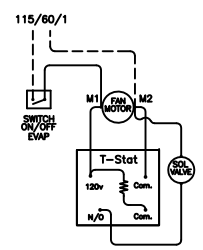
NOTE:
CONDENSERS PROVIDED WITH BRONZE-GLOW COATING FOR PROTECTION AGAINST SALT AIR ENVIRONMENT.



NOTE:
SYSTEMS B, C, & D EQUIPPED WITH AN OIL SEPARATOR AND SUCTION ACCUMULATOR.

RACK WEIGHT: 3,047 LBS.

WIRING DIAGRAM – OFF CYCLE DEFROST SINGLE COIL SYSTEM



FACTORY WIRING ———
FIELD WIRING - - - - - -

ENGINEERING SUMMARY

POWER SUPPLY: 208–230/60/3 MAX FUSE SIZE: 150 AMPS
CONNECTED LOAD: 126.0 AMPS MINIMUM CIRCUIT AMPACITY: 132.9

SYSTEM	ITEM #	FIXTURES DESCRIPTION	TEMP FIXT.	TEMP SUCT.	REFRIG. R–	COMPRESSORS MODEL NO.	H.P.	RATING @ 60 Hz RLA	V	PH	BTU CAP. @ 105°F	TYPE	EVAPORATOR COILS MODEL NO.	QTY.	FAN MOTORS @ 60 Hz RLA	V	PH	HEATERS @ 60 Hz RLA	V	PH	DEFROST TYPE	TOTAL SYSTEM LOAD L1	L2	L3	DEFROST CLOCK	REFRIGERANT LINE SIZES (100' MAX LINE RUN) SUCT.	LIQ.	ACCESSORIES THERMOSTAT	VALVE	TXV
A	31	WALK IN COOLER	35	25	404A	ZS26KAE	3.5	15.5	208	3	33000	Z	ADT–156	2	2.7 EA	115	1	–	–	–	O.C.	15.5	15.5	15.5		1–1/8	1/2	F	L	F
B	33	BLAST CHILLER	35	14	404A	ZS26KAE (EM)	3.5	15.5	208	3	25160	Z	BY OTHERS									15.5	15.5	15.5		1–1/8	1/2	F	F	F
C	33	BLAST CHILLER	35	14	404A	ZS26KAE (EM)	3.5	15.5	208	3	25160	Z	BY OTHERS									15.5	15.5	15.5		1–1/8	1/2	F	F	F
D	34	BLAST CHILLER/SHOCK FREEZER	35	14	404A	4C11485L	5.0	25.4	208	3	60741	S	BY OTHERS									25.4	25.4	25.4		1–5/8	5/8	F	F	F
E	35	WALK IN COOLER	35	25	404A	ZS15KAE	2.0	10.6	208	3	19700	Z	ADT–180	1	2.7	115	1	–	–	–	O.C.	10.6	10.6	10.6		7/8	1/2	F	F	F
F	–	COLD PACKING ROOM	50	40	404A	ZB45KCE	6.0	22.5	208	3	74500	Z	WK–155	4	1.8 EA	115	1	–	–	–	O.C.	22.5	22.5	22.5		1–3/8	5/8	F	F	F
		CONDENSING FAN MOTOR			404A	BNH5033A026		21.0	208	3												21.0	21.0	21.0						
																						126.0	126.0	126.0						

LISTED FINAL ASSEMBLY

NOTE:
REFRIGERATION SYSTEM IS SIZED FOR 100' MAXIMUM LINE RUNS. IT IS THE INSTALLING CONTRACTORS RESPONSIBILITY TO FOLLOW ALL APPLICABLE CODES AND CURRENT REFRIGERATION INDUSTRY STANDARDS AND PRACTICES WHEN DETERMINING LINE SIZES, AND INSTALLING AND STARTING UP RDT EQUIPMENT.

COMPRESSOR TYPE
S SEMI–HERMETIC
H HERMETIC
Z SCROLL

DEFROST TYPE
O.C. OFF CYCLE
ELEC ELECTRIC

EVAPORATOR ACCESSORIES
F FACTORY EQUIPPED
L LOOSE (FIELD INSTALLATION)
O PROVIDED BY OTHERS

APPROVAL STATUS

THIS DRAWING REPRESENTS OUR UNDERSTANDING OF THE SPECIFICATIONS. PLEASE REVIEW IT CAREFULLY FOR ACCURACY, CLEARLY AND IN DETAIL NOTE CHANGES REQUIRED.

MARK APPROPRIATE BOX, SIGN AND DATE BELOW.

☐ APPROVED FOR FABRICATION NO CHANGES
☐ APPROVED FOR FABRICATION WITH CHANGES NOTED
☐ REVISE AND RE–SUBMIT DRAWING

BY: _____

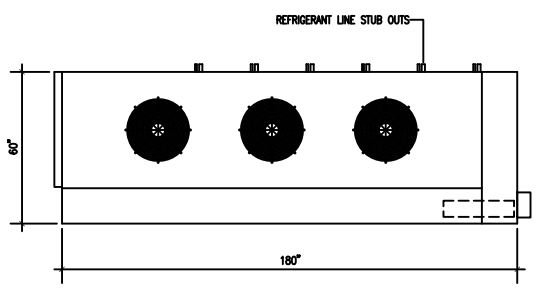
DATE: _____

NOTICE

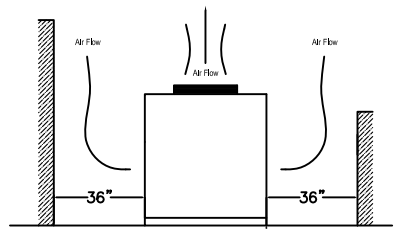
THIS DRAWING BEING AN INSTRUMENT OF SERVICE IS AND WILL REMAIN PROPERTY OF REFRIGERATION DESIGN TECHNOLOGIES AND CANNOT BE USED WITHOUT WRITTEN AUTHORIZATION.

No.	Revision/Issue	Date
0	ORIGINAL ISSUE	11–19–12
0	REVISED TO ADD COLD ROOM	1–22–13

PLAN VIEW

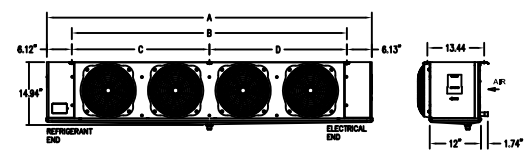


CLEARANCE REQUIRMENTS



MINIMUM CLEARANCE REQUIRED FOR PROPER OPERATION

EVAPORATOR DETAILS – MODEL ADT



ADT Size	DIMENSIONS A Inches	B Inches	C Inches	D Inches	CONNECTIONS (Inches) Coil Inlet	Suction	Drain	Approx. Net Wt. Lbs.	ELECTRICAL DATA Qty. Motors	EC Motor Fan Amps 115V	208V
156	61–1/2	49–1/4	–	–	1/2 OD	7/8 OD	3/4 MPT	67	3	2.7	1.5
180	61–1/2	49–1/4	–	–	1/2 OD	7/8 OD	3/4 MPT	69	3	2.7	1.5

RDMC SERIES ENGINEERING SPECIFICATIONS

Multi circuited, multi compressor, air cooled refrigeration package shall be a pre–engineered and factory assembled unit, trade name "RDMC", as manufactured by Refrigeration Design Technologies, 1808 FM Road 66, P.O. Box 622, Waxahachie, Texas 75168. phone: (972) 937–3215; fax: (972) 937–9070.

1. Refrigeration Rack
Refrigeration system shall be housed in a weather protected stainless steel enclosure, the frame and enclosure supports shall be fabricated of tubular steel, entire frame shall be pre–assembled welded, cleaned and painted with two coats of polyurethane. The condenser shall be multi circuited with aluminum fin copper tube and shall be designed for 10 degrees to 20 degrees td. Condenser fan motors shall be mounted within the enclosure, suction line for low temperature units must be insulated with armaflex.

Each unit shall be equipped with a ball–bearing fan motor, adjustable head pressure control crankcase heater, suction filter, sight glass drier, liquid line inlet and outlet valve, defrost cycle and stainless steel superhose connections.

Compressors shall be scroll or semi–hermetic type and factory assembled to operate with the refrigerant R–404a.

2. Pre–Piping
All refrigerant lines shall be extended to one side of the package in a neat and orderly manner.

All tubing shall be securely supported and anchored with non–corrosive coated clamps.

All joints must be brazed not soldered.

All piping and controls shall be factory pressure–tested with nitrogen at 175 psi.

3. Control Panel
The package shall have a factory–mounted and pre–wired control panel complete with main fused disconnect, circuit breakers, contactors and time clocks (where required) wired for single power connection.

General Information
Contractors shall verify all dimensions and coordinate with other trades.

General contractor shall prepare the platform, curbed openings and weatherproofing of the unit after installation.

Refrigeration Contractor
All copper tubing to be refrigerant grade A.C.R. or type "L".

Brazing should be used for all refrigerant piping. silver solder or soft solder is not acceptable.

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 charged tested and adjusted to assure operation.

Refrigeration contractor should provide and install the drain–line heater in freezer. Heater shall be connected by electrical contractor.

Electrical Contractor
Electrical Contractor to provide power for refrigeration package and connect control and defrost system as called for in the wiring diagram.

Electrical contractor to provide 6–wire color–coded service from the time clock at the refrigeration package to blower coil in fixture when electric defrost is used. either cooler or freezer.

Electrical contractor to connect drain–line heater in the freezer.

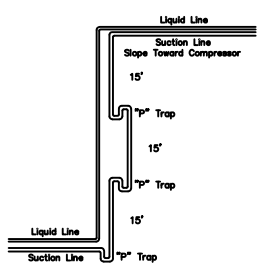
All electoral wiring and installation shall be in accordance with the wiring diagram and local codes.

Plumbing Contractor
Plumbing Contractor to provide A.C.R. or "L" copper drain lines for walk–in refrigerator and freezer, pitched 1/4" per foot of run. Trap drain line outside of refrigerated space to avoid entrance of warm, moist air.

Plumbing contractor to provide individual drain line to each evaporator unless other arrangements made.

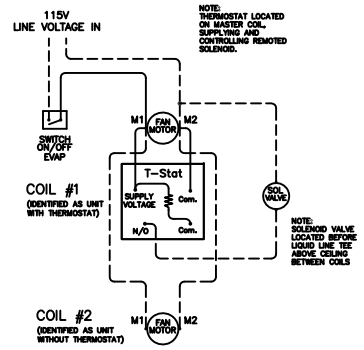
All plumbing installation shall be in accordance with local codes.

VERTICAL RISE DETAIL



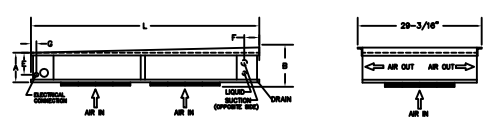
- Insulate suction lines with 3/4" wall Armaflex insulation.
- All joints brazed with minimum 15% silver content brazing rod.
- Install "P" trap on suction line every 15' vertical rise.
- Not to exceed 45' vertically over all.

WIRING DIAGRAM – OFF CYCLE DEFROST TWO COIL SYSTEM



FACTORY WIRING ———
FIELD WIRING - - - - - -

EVAPORATOR DETAILS – MODEL WK



WK Size	DIMENSIONS A Inches	B Inches	E Inches	F Inches	G Inches	L Inches	Inlet (F.N.) In.	Suction OD In.	Approx. Net Wt. Lbs.	ELECTRICAL DATA Qty. Motors	Fan Motor Amps 115/60/1	Fan Motor Amps 208–230/60/1
155	13–1/8	15–1/8	8–1/2	2–11/16	1–1/8	75–1/2	1–1/8	1–1/8	149	2	1.8	1.0

Portland Public School Central Kitchen

Portland, ME

rdt
Refrigeration Design Technologies
Waxahachie, Texas
(800) 736-9518
www.rdtonline.com

Consultant:
TJM Consulting Inc.
Yarmouth, ME

Dealer Name:
-

Project: 15483 (Opt2)
Date: 11-19-12
Drawn by: T. Rieper
Sheet: 1.1
of sheets

TJM Consulting, Inc.
Foodservice Consultant
273 Main Street, Suite 5
Yarmouth, Maine 04096

NOTICE:
THIS DRAWING AND ALL INFORMATION HEREIN ARE THE PROPERTY OF TJM CONSULTING, INC. AND MAY NOT BE USED OR COPIED, EITHER IN WHOLE OR IN PART, WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE DESIGNER

REV NO: REVISIONS: REV NO: REVISIONS:

Portland Public Schools
Central Kitchen
92 Waldron Way
Portland, Maine

PROJECT: Portland Public Schools Central Kitchen
DATE: 2–1–2013
DRAWN BY: T. McArdle
CHECKED BY: T. McArdle
SCALE: None

SHEET TITLE: Foodservice Equipment Refrigeration Rack Details
SHEET NO: FS–16