



RM/RN Series
Packaged Rooftop Units &
Outdoor Air Handlers
Engineering Catalog



Table of Contents

<u>Section/Feature/Option</u>	<u>Page</u>
Features and Options Introduction.....	4
Base Model Description.....	5
Features Description.....	7
Model Option - Unit Size.....	12
- Voltage.....	13
- Interior Protection.....	13
Model Option A1 - Cooling Style.....	14
A2 - Cooling Configuration.....	14
A3- Cooling Coating.....	15
A4- Cooling Staging.....	16
Model Option B1 - Heating Type.....	17
B2 - Heating Designation.....	18
B3 - Heating Staging.....	19
Feature 1A - Return/Outside Air Section.....	20
1B - Return/Outside Air Blower Configuration.....	24
1C - Return/Outside Air Blower.....	24
1D - Return/Outside Air Motor.....	25
2 - Outside Air Control.....	26
3 - Gas Options.....	28
4 - Maintenance Options.....	29
5A - Supply Air Blower Configuration.....	30
5B - Supply Air Blower.....	31
5C - Supply Air Motor.....	31
6A - Pre Filter Type.....	32
6B - Unit Filter Type.....	32
6C - Filter Options.....	33
7 - Refrigeration Control.....	34
8 - Refrigeration Options.....	35
9 - Refrigeration Accessories.....	38
10 - Power Options.....	39
11 - Safety Options.....	39
12 - Controls.....	40
13 - Special Controls.....	41
14A - Preheat Configuration.....	43
14B - Preheat Sizing.....	43
15 - Blank.....	44
16 - Interior Cabinet Options.....	45
17 - Exterior Cabinet Options.....	45
18 - Customer Code.....	46
19 - Code Options.....	47
20 - Crating.....	47
21 - Water-Cooled Condenser.....	48
22 - Blank.....	48
23 - Type.....	49
General Data - Unit Information.....	50
- Curb Information.....	62
- Filter Specifications.....	64
Performance Data - Unit Cooling Capacities.....	71
- Component Static Pressure Drops.....	91
- AAONAIR® Factory Installed Energy Wheel Application Capacities.....	100
Controls - Control Options.....	102
- Control Vendors.....	108
Electrical Service Sizing Data.....	110
Unit Drawings.....	112

AAON® RM/RN Series Features and Options Introduction

Energy Efficiency

- Backward Curved Blowers
- Digital Scroll™ Compressors
- Direct Drive Supply Blowers - RN
- Economizers
- Factory Installed Energy Recovery Wheels
- Double Wall Foam Insulation - RN
- Modulating Natural Gas Heaters
- Modulating/SCR Electric Heaters
- Premium Efficiency Motors
- VFD Controlled Supply/Return/Exhaust Fans
- Water-Cooled Condensers

Indoor Air Quality

- 100% Outside Air
- Constant Volume Outside Air Control
- Economizer CO₂ Override
- High Efficiency Filters
- Interior Corrosion Protection
- Insulation Skins - RM
- Pre Filters

Humidity Control

- High Capacity Cooling Coils
- Digital Scroll™ Compressors
- Factory Installed Energy Recovery Wheels
- Mixed/Return Air Bypass
- Modulating Hot Gas Reheat

Safety

- Burglar Bars
- Freeze Stats
- Gas Pressure Regulator
- Hot Gas Bypass
- Hot Water/Steam Preheat Coil
- Phase and Brown Out Protection
- Supply/Return Smoke Detectors
- Supply/Return Firestats

Easy Installation/Maintenance

- Clogged Filter Switch
- Color Coded Wiring Diagram
- Compressors in Controls Cabinet
- Compressor Isolation Valves
- Convenience Outlet
- Direct Drive Supply Blowers - RN
- Hinged Access Doors with Handles
- Magnehelic Gauge
- Marine Service Lights
- Slide Out Blower - RM
- Sight Glass

Easy System Integration

- Chilled Water Cooling Coil
- Controls by Others
- Electric/Natural Gas/LP Heating
- Hot Water/Steam Heating Coil
- Non-Compressorized DX Coil
- Water-Cooled Condensers

Environmentally Friendly

- Economizers
- Factory Installed Energy Recovery Wheels
- Mixed/Return Air Bypass
- R-410A

Extended Life

- 5 Year Compressor Warranty
- 15 Year Aluminized Steel Heat Exchanger Warranty
- 25 Year Stainless Steel Heat Exchanger Warranty
- Condenser Coil Guards - RM
- Hot Gas Bypass
- Interior Corrosion Protection
- Polymer E-Coated Coils
- Stainless Steel Coil Casing
- Stainless Steel Drain Pans

RM/RN Base Model Description

Model Number											
<u>R</u>	<u>M</u>	-	<u>0</u>	<u>0</u>	<u>5</u>	-	<u>3</u>	-	<u>0</u>	-	<u>A</u>
1	2		3	4	5		6		7		8
											9

BASE MODEL

Digit 1, 2: GENERATION

RM

RN

Digit 3, 4, 5: UNIT SIZE

002 = 2 Nominal Tons

003 = 3 Nominal Tons

004 = 4 Nominal Tons

005 = 5 Nominal Tons

006 = 6 Nominal Tons

007 = 7 Nominal Tons

008 = 8 Nominal Tons

010 = 10 Nominal Tons

013 = 13 Nominal Tons

015 = 15 Nominal Tons

016 = 16 Nominal Tons

018 = 18 Nominal Tons

020 = 20 Nominal Tons

025 = 25 Nominal Tons

030 = 30 Nominal Tons

026 = 26 Nominal Tons

031 = 31 Nominal Tons

040 = 40 Nominal Tons

050 = 50 Nominal Tons

060 = 60 Nominal Tons

070 = 70 Nominal Tons

Digit 6: VOLTAGE

1 = 230V/1Φ/60Hz

2 = 230V/3Φ/60Hz

3 = 460V/3Φ/60Hz

4 = 575V/3Φ/60Hz

8 = 208V/3Φ/60Hz

9 = 208V/1Φ/60Hz

Digit 7: INTERIOR PROTECTION

0 = Standard

A = Interior Corrosion Protection

Model Option A: COOLING

Digit 8: COOLING STYLE

0 = Air Handling Unit

A = R-22

B = R-410A

D = R-22 + Digital Scroll™ Compressor

E = R-410A + Digital Scroll™ Compressor

Digit 9: COOLING CONFIGURATION

0 = No Cooling

A = Air-Cooled Cond, Std Evap

B = Air-Cooled Cond, 6 Row Evap

J = Water-Cooled Cond, Std Evap

K = Water-Cooled Cond, 6 Row Evap

P = Air-Cooled Cond, 6 Row Evap, MA Bypass

Q = Air-Cooled Cond, 6 Row Evap, RA Bypass

R = Water-Cooled Cond, 6 Row Evap, RA Bypass

T = Water-Cooled Cond, 6 Row Evap, MA Bypass

U = Chilled Water, 4 Row

W = Chilled Water, 6 Row

2 = Non-Compressorized, Standard DX Evap

4 = Non-Compressorized, 6 Row DX Evap

RM/RN Base Model Description

Model Number					
<u>0</u>	<u>1</u>	-	<u>2</u>	<u>2</u>	<u>2</u>
10	11		12	13	14

Model Option A: COOLING

Digit 10: COOLING COATING

0 = Standard
 1 = Polymer E-Coated
 2 = SS Coil Casing
 8 = Polymer E-Coated Cond Only
 9 = Polymer E-Coated Cooling Coil Only
 A = SS Evap Casing, Polymer E-Coated Cond
 B = SS Cond Casing, Polymer E-Coated Evap
 C = SS Cond Casing Only
 D = SS Cooling Coil Casing Only

Digit 11: COOLING STAGING

0 = No Cooling
 1 = 1 Stage
 2 = 2 Stage
 4 = 4 Stage
 9 = Modulating, Digital Scroll™
 H = Single Serp, 8 FPI
 J = Half Serp, 8 FPI
 K = Single Serp, 10 FPI
 L = Half Serp, 10 FPI
 M = Single Serp, 12 FPI
 N = Half Serp, 12 FPI

Model Option B: HEATING

Digit 12: HEATING STYLE

0 = No Heat
 1 = Electric Heat
 2 = Natural Gas Aluminized
 3 = Natural Gas Stainless Steel
 4 = High Altitude Natural Gas Aluminized
 5 = High Altitude Natural Gas Stainless Steel
 6 = LP Gas Aluminized
 7 = LP Gas Stainless Steel
 8 = High Altitude LP Gas Aluminized
 9 = High Altitude LP Gas Stainless Steel
 C = Steam Distributing, Standard
 D = Steam Distributing, Polymer E-Coated
 E = Hot Water, Standard
 F = Hot Water, Polymer E-Coated

Digit 13: Heating Designation

0 = No Heat
 1 = Heat 1
 2 = Heat 2
 3 = Heat 3
 4 = Heat 4
 5 = Heat 5
 6 = Heat 6
 7 = Heat 7
 8 = Heat 8
 9 = Heat 9
 A = Heat A
 B = Heat B
 C = Heat C
 D = Heat D
 E = Heat E
 H = 1 Row Coil
 J = 2 Row Coil

Digit 14: Heating Staging

0 = No Heat
 1 = 1 Stage
 2 = 2 Stage
 3 = 3 Stage
 4 = 4 Stage
 5 = 5 Stage
 6 = 6 Stage
 7 = 7 Stage
 8 = 8 Stage
 9 = Modulating Gas/SCR Electric
 A = SCR Electric, 0-10V External Control
 H = Single Serp, 8 FPI
 J = Half Serp, 8 FPI
 K = Single Serp, 10 FPI
 L = Half Serp, 10 FPI
 M = Single Serp, 12 FPI
 N = Half Serp, 12 FPI

RM/RN Features Description

Feature Number						
:	<u>F</u> 15	<u>A</u> 16	<u>B</u> 17	<u>C</u> 18	-	<u>D</u> 19

Feature 1: RETURN/OUTSIDE AIR

Digit 15: RETURN/OUTSIDE AIR SECTION

0 = Standard, Manual Outside Air
A = Econ
B = Econ with Power Exhaust
C = Econ with Power Return
D = Econ with Power Exhaust Modulated
E = Econ with Power Exhaust Modulated DDC Control
F = Energy Recovery Wheel (Total), Low CFM
G = ERW (Total), Bypass Low CFM
H = ERW (Sens), Low CFM
J = ERW (Sens), Bypass, Low CFM
K = 100% Outside Air (No Return Air)
L = Motorized Outside Air (w/ Return Air)
M = Motorized Outside Air (No Return Air)
N = Empty ERW Option Box (No Power Exhaust)
P = Empty ERW Option Box (w/ Power Exhaust)
Q = ERW (Total), 1% Purge, Low CFM
R = ERW (Total), Bypass, 1% Purge, Low CFM
S = ERW (Sens), 1% Purge, Low CFM
T = ERW (Sens), Bypass, 1% Purge, Low CFM
U = ERW (Total), High CFM
V = ERW (Total), Bypass, High CFM
W = ERW (Sens), High CFM
Y = ERW (Sens), Bypass, High CFM
Z = ERW (Total), 1% Purge, High CFM
1 = ERW (Total), Bypass, 1% Purge, High CFM
2 = ERW (Sens), 1% Purge, High CFM
3 = ERW (Sens), Bypass, 1% Purge, High CFM
4 = ERW (Total), Single Wheel

Digit 16: RETURN/OUTSIDE AIR BLOWER CONFIGURATION

0 = None
A = 1 Blower, Standard Eff
B = 2 Blowers, Standard Eff
C = 1 Blower, Premium Eff
D = 2 Blowers, Premium Eff
E = 1 Blower, Premium Eff, 1 VFD
F = 2 Blowers, Premium Eff, 1 VFD
G = 2 Blowers, Premium Eff, 2 VFDs

Digit 17: RETURN/OUTSIDE AIR BLOWER

0 = None
A = 12" FC
B = 15" BC
C = 18.5" BC
D = 22" BC

F = 27" BC
G = 22" Axial Flow
H = 35.5" Axial Flow
J = 15" BC, Banded 50%
K = 18.5" BC, Banded 70%
L = 22" BC, Banded 70%
M = 27" BC, Banded 70%

Digit 18: RETURN/OUTSIDE AIR MOTOR

0 = None
C = 1 hp, 1760 rpm
D = 2 hp, 1760 rpm
E = 3 hp, 1760 rpm
F = 5 hp, 1760 rpm
G = 7.5 hp, 1760 rpm
H = 10 hp, 1760 rpm
L = 15 hp, 1760 rpm
M = 20 hp, 1760 rpm
N = 1 hp, 1170 rpm
P = 2 hp, 1170 rpm
Q = 3 hp, 1170 rpm
R = 5 hp, 1170 rpm
S = 7.5 hp, 1170 rpm
T = 10 hp, 1170 rpm

Feature 2: OUTSIDE AIR CONTROL

Digit 19:

0 = None
A = 3 Position Actuator, Sensible
B = 3 Position Actuator, Enthalpy
C = Full Mod Actuator, Sensible
D = Full Mod Actuator, Enthalpy
E = DDC Actuator
F = Constant Volume OA
G = Constant Volume OA, 3 Pos Act, Sensible
H = Constant Volume OA, 3 Pos Act, Enthalpy
J = Constant Volume OA, Full Mod Act, Sensible
K = Constant Volume OA, Full Mod Act, Enthalpy
L = Constant Volume OA, DDC Act
M = CO₂ Override, 3 Pos Actuator, Sensible
N = CO₂ Override, 3 Pos Actuator, Enthalpy
P = CO₂ Override, Full Mod Actuator, Sensible
Q = CO₂ Override, Full Mod Actuator, Enthalpy
R = CO₂ Override, DDC Actuator
S = Dual Min Pos, Full Mod Act, Sensible
T = Dual Min Pos, Full Mod Act, Enthalpy
U = 2 Position Actuator

RM/RN Features Description

Feature Number					
<u>0</u>	<u>B</u>	-	<u>D</u>	<u>B</u>	<u>D</u>
20	21		22	23	24

Feature 3: GAS OPTIONS

Digit 20:

0 = Standard
 A = 2 psi Regulator with Vent Limiting Device
 B = 5 psi Regulator with Vent Limiting Device
 C = 2 psi Regulator, Vented
 D = 5 psi Regulator, Vented
 E = Discharge Air Override
 F = Options A + E
 G = Options B + E
 H = Options C + E
 J = Options D + E

Feature 4: MAINTENANCE OPTIONS

Digit 21:

0 = Standard
 A = 115V Outlet, Field Wired
 B = 115V Outlet, Factory Wired
 C = Blower Aux Contact
 D = Remote Start/Stop Terminals
 E = Options A + C
 F = Options A + D
 G = Options B + C
 H = Options B + D
 J = Options A + C + D
 K = Options B + C + D
 L = Options C + D

Feature 5: SUPPLY AIR BLOWER

Digit 22: SUPPLY AIR BLOWER

CONFIGURATION

0 = 1 Blower, Standard Eff
 A = 2 Blowers, Standard Eff
 B = 1 Blower, Premium Eff
 C = 2 Blowers, Premium Eff
 D = 1 Blower, Premium Eff, 1 VFD
 F = 2 Blowers, Premium Eff, 1 VFD
 G = 2 Blowers, Premium Eff, 2 VFDs
 H = 1 Blower, Standard Eff, 2 Speed
 L = 2 Blowers, Standard Eff, 2 Speed
 M = 1 Blower, Premium Eff, 2 Speed
 N = 2 Blowers, Premium Eff, 2 Speed

Digit 23: SUPPLY AIR BLOWER

A = 10" FC
 B = 15" BC
 C = 18.5" BC
 D = 24" BC
 E = 27" BC
 F = 30" BC, 90% Aluminum, 1750 rpm max
 G = 15" BC, Banded 50%
 H = 18.5" BC, Banded 70%
 J = 24" BC, Banded 70%
 K = 27" BC, Banded 70%
 L = 30" BC, 100% Aluminum, 1600 rpm max

Digit 24: SUPPLY AIR MOTOR

A = 0.33 hp, 900rpm
 B = 0.5 hp, 1200 rpm
 C = 1 hp, 1760 rpm
 D = 2 hp, 1760 rpm
 E = 3 hp, 1760 rpm
 F = 5 hp, 1760 rpm
 G = 7.5 hp, 1760 rpm
 H = 10 hp, 1760 rpm
 L = 15 hp, 1760 rpm
 M = 20 hp, 1760 rpm
 N = 1 hp, 1170 rpm
 P = 2 hp, 1170 rpm
 Q = 3 hp, 1170 rpm
 R = 5 hp, 1170 rpm
 S = 7.5 hp, 1170 rpm
 T = 10 hp, 1170 rpm
 U = 15 hp, 1170 rpm

RM/RN Features Description

Feature Number								
-	<u>0</u> 25	<u>B</u> 26	<u>B</u> 27	-	<u>0</u> 28	<u>H</u> 29	<u>0</u> 30	<u>A</u> 31

Feature 6: FILTERS

Digit 25: PRE FILTER TYPE

0 = None

A = 2" Pleated, 30% Eff

B = Metal Mesh Outside Air Filter

C = Lint Screen Filter

Digit 26: UNIT FILTER TYPE

0 = 2" Throwaway, 25% Eff

A = 2" Pleated, 30% Eff

B = 4" Pleated, 30% Eff

C = 2" Permanent Filter with Replaceable Media

F = 4" Pleated, 65% Eff

G = 4" Pleated, 85% Eff

H = 4" Pleated, 95% Eff

Digit 27: FILTER OPTIONS

0 = Standard

A = Clogged Filter Switch

B = Magnehelic Gauge

C = Options A + B

Feature 7: REFRIGERATION CONTROL

Digit 28:

0 = Standard

A = 5 Min TDR Off

B = 20 Sec TDR

C = Fan Cycling

D = Adjustable Lockouts

E = Freeze Stats

F = Options A + B

G = Options A + C

H = Options A + D

J = Options A + E

K = Options B + C

L = Options B + D

M = Options B + E

N = Options C + D

P = Options C + E

Q = Options D + E

R = Options A + B + C

S = Options A + B + D

T = Options A + B + E

U = Options A + C + D

V = Options A + C + E

W = Options A + D + E

Y = Options B + C + D

Z = Options B + C + E

1 = Options B + D + E

2 = Options C + D + E

3 = Options A + B + C + D

4 = Options A + B + C + E

5 = Options A + B + D + E

6 = Options A + C + D + E

7 = Options B + C + D + E

8 = Options A + B + C + D + E

Feature 8: REFRIGERATION OPTIONS

Digit 29:

0 = Standard

A = Hot Gas Bypass Lead Stage

B = Hot Gas Bypass Lead and Lag Stages

C = Hot Gas Reheat Coil

D = Modulating Hot Gas Reheat Coil

E = Low Ambient Lead Stage

F = Options A + C

G = Options B + C

H = Options A + D

J = Options B + D

K = Options A + E

L = Options B + E

Feature 9: REFRIGERATION ACCESSORIES

Digit 30:

0 = Standard

A = Sight Glass

B = Compressor Isolation Valves

C = Options A + B

Feature 10: POWER OPTIONS

Digit 31:

0 = Standard

A = Power Switch (100 Amps)

B = Power Switch (150 Amps)

C = Power Switch (225 Amps)

D = Power Switch (400 Amps)

E = Power Switch (600 Amps)

F = Power Switch (60 Amps)

RM/RN Features Description

Feature Number							
<u>0</u> 32	<u>C</u> 33	<u>0</u> 34	-	<u>0</u> 35	<u>0</u> 36	-	<u>0</u> 37 <u>A</u> 38

Feature 11: SAFETY OPTIONS

Digit 32:

0 = Standard
 A = RA and SA Firestat
 B = RA Smoke Detector
 C = SA Smoke Detector
 D = Options B + C
 E = Options A + B
 F = Options A + C
 G = Options A + D
 H = Remote Smoke Detector Terminals

Feature 12: CONTROLS

Digit 33:

0 = Standard Terminal Block
 A = Low Limit Controls
 B = Phase & Brown Out Protection
 C = Energy Recovery Wheel Defrost
 D = Energy Recovery Wheel Rotation Detection
 E = PF Correction, Compressors
 F = Options A + B
 G = Options A + C
 H = Options A + D
 J = Options A + E
 K = Options B + C
 L = Options B + D
 M = Options B + E
 N = Options C + D
 P = Options C + E
 Q = Options D + E
 R = Options A + B + C
 S = Options A + B + D
 T = Options A + B + E
 U = Options A + C + D
 V = Options A + C + E
 W = Options A + D + E
 Y = Options B + C + D
 Z = Options B + C + E
 1 = Options B + D + E
 2 = Options C + D + E
 3 = Options A + B + C + D
 4 = Options A + B + C + E
 5 = Options A + B + D + E
 6 = Options A + C + D + E
 7 = Options B + C + D + E
 8 = Options A + B + C + D + E

Feature 13: SPECIAL CONTROLS

Digit 34:

0 = Standard
 D = VAV Unit Controller
 E = Constant Volume Unit Controller
 F = Make Up Air Unit Controller
 H = Field Installed DDC Control by Others
 J = Factory Installed DDC Controls Furnished by Others
 K = Factory Installed DDC Controls by Others with Isolation Relays
 L = Terminal Block with Isolation Relays
 U = Digital Precise Air Controller, D-PAC™
 V = Precise Air Controller, PAC™

Feature 14: PREHEAT

Digit 35: PREHEAT CONFIGURATION

0 = No Preheat
 A = Steam Distributing Coil, Preheat OA, 1 Row
 B = Steam Distributing Coil, Preheat OA, 2 Row
 C = Hot Water Coil, Preheat OA, 1 Row
 D = Hot Water Coil, Preheat OA, 2 Row

Digit 36: PREHEAT SIZING

0 = No Preheat
 A = Single Serp, 8 FPI
 B = Half Serp, 8 FPI
 C = Single Serp, 10 FPI
 D = Half Serp, 10 FPI
 E = Single Serp, 12 FPI
 F = Half Serp, 12 FPI

Feature 15: BLANK

Digit 37:

0 = Standard

Feature 16: INTERIOR CABINET OPTIONS

Digit 38:

0 = Standard
 A = Stainless Steel Drain Pan
 B = Marine Service Lights
 C = Insulation Liners
 D = Options A + B
 E = Options A + C
 F = Options B + C
 G = Options A + B + C

RM/RN Features Description

Feature Number						
<u>0</u> 39	<u>0</u> 40	<u>0</u> 41	<u>0</u> 42	<u>0</u> 43	<u>0</u> 44	<u>B</u> 45

Feature 17: EXTERIOR CABINET OPTIONS

Digit 39:

0 = Standard
A = Base Insulation
B = Burglar Bars
C = Condenser Coil Guards
D = Options A + B
E = Options A + C
F = Options B + C
G = Options A + B + C

Feature 18: CUSTOMER CODE

Digit 40:

0 = None

Feature 19: CODE OPTIONS

Digit 41:

0 = Standard ETL USA Listing
A = MEA, New York
B = Chicago Cool and Gas
C = Chicago Cool and Electric
D = Chicago Cool Only
E = Chicago Gas Only
F = Chicago Electric Only
G = Chicago No Cool No Heat
H = ETL USA + Canada Listing

Feature 20: CRATING

Digit 42:

0 = Standard
A = Export Crating
B = Export Crating, No Condenser Section

Feature 21: WATER COOLED CONDENSER

Digit 43:

0 = None
A = Balancing Valves
B = Water Flow Switch
C = Motorized Shut-off Valve
D = Head Pressure Control
E = Options A + B
F = Options A + C
G = Options A + D
H = Options B + C
J = Options B + D
K = Options C + D
L = Options A + B + C
M = Options A + B + D
N = Options A + C + D
P = Options B + C + D
Q = Options A + B + C + D

Feature 22: CONTROL VENDORS

Digit 44:

0 = None
A = WattMaster Orion Controls System
B = Tridium Niagara/JACE® Controls System
C = WattMaster Orion Controls System with Specials
D = Tridium Niagara/JACE® Controls System with Specials

Feature 23: TYPE

Digit 45:

B = Standard Paint
U = Special Pricing Authorization with Special Paint
X = Special Pricing Authorization with Standard Paint

Model Number

Unit Size

Example: RM-**005**-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

The first number of the model string designates nominal gross tons cooling at ARI conditions for air-cooled condenser units. Actual capacities will vary with conditions. Refer to the Performance Data section or the AAONECat32™ software for performance and cooling capacities at design conditions.

Table 1 - Unit Size Information

Model (Tons)	Cabinet	Model Series	Curb
RM-002	A	RM Series	A/B Curb
RM-003			
RM-004			
RM-005			
RM-006			
RM-007			
RM-008	B		
RM-010			
RM-013			
RM-015			
RM-016	C		C Curb
RM-018			
RM-020			
RM-025			
RM-030			
RN-026	D	RN Series	D Curb
RN-031			
RN-040			
RN-050			
RN-060			
RN-070			

Model Number

Voltage

Example: RM-005-**3**-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

All units have single point power connections with grounding lugs and 24 VAC control circuits.

Table 2 - Voltage Information

Options	Availability
1 = 230V/1Φ/60Hz	Available in 2-5, 8, and 10 ton units
2 = 230V/3Φ/60Hz	All RM/RN units
3 = 460V/3Φ/60Hz	All RM/RN units
4 = 575V/3Φ/60Hz	Not available in 2 and 3 ton units
8 = 208V/3Φ/60Hz	All RM/RN units
9 = 208V/1Φ/60Hz	Available in 2-5, 8, and 10 ton units

Model Number

Interior Protection

Example: RM-005-3-**0**-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *Standard* - Uncoated galvanized G90 sheet metal.

A = *Interior Corrosion Protection* - All exposed, non-insulated metal surfaces in the air tunnel except the coils, coil casings, and drain pans are spray coated with a two-part polyurethane, heat baked coating. Selection covers coating of the fan, economizer, filter rack, and service door interiors. Option is intended for use in coastal saltwater conditions under the stress of heat, salt, sand, and wind and is applicable to all corrosive environments where a polyurethane coating is acceptable. AAON's coating exceeds 2500 hours when tested under ASTM B 117-95 requirements. On the RM series, drain pans fabricated with galvanized sheet metal with a corrosion resistant polymer coated interior are standard, while on the RN series, drain pans fabricated with 18GA 304 stainless steel are standard. See Model Option A3 for coil and coil casing coating options and Feature 16 for RM series 18GA 304 stainless steel drain pan option.

Model Number

Model Option A1 – Cooling Style

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *Air Handling Unit* - No compressors. Also includes heating only or chilled water cooling units.

A = *R-22* - Compressorized DX cooling with R-22 refrigerant.

B = *R-410A* - Compressorized DX cooling with R-410A refrigerant.

D = *R-22 + Digital Scroll™ Compressor* - Compressorized DX cooling with R-22 refrigerant using a variable capacity (10-100%) Digital Scroll™ compressor. Used for tighter temperature control, improved humidity control, and energy savings at part load conditions. Part of the D-PAC™ control system (See Controls section for more information). Not available on 2, 3, 50, 60, and 70 ton units.

D = *R-410A + Digital Scroll™ Compressor* - Compressorized DX cooling with R-410A refrigerant using a variable capacity (10-100%) Digital Scroll™ compressor. Used for tighter temperature control, improved humidity control, and energy savings at part load conditions. Not available on 2 ton units.

Model Number

Model Option A2 – Cooling Configuration

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *No Cooling* - Heating only or air handler unit.

A = *Air-Cooled Cond w/ Std Evap Coil* - Air-cooled condenser with standard DX evaporator coil.

***B** = *Air-Cooled Cond w/ 6R Evap Coil* - Air-cooled condenser with 6 row DX evaporator coil. Option not available on 70 ton unit because 6 row coil is standard.

J = *Water-Cooled Cond w/ Std Evap Coil* - Water-cooled brazed plate condenser with standard evaporator coil.

***K** = *Water-Cooled Cond w/ 6R Evap Coil* - Water-cooled brazed plate condenser with 6 row evaporator coil. Option not available on 70 ton unit because 6 row coil is standard.

***P** = *Air-Cooled Cond w/ 6R Evap Coil w/ MA Bypass* - Air-cooled condenser with the bypass damper mounted above the evaporator coil that allows mixed air to flow around the evaporator coil. The damper includes a fully modulating actuator. Used as a single coil humidity control, usually in a make up air unit. With a “Controls by Others” option (Feature 13) a 0-10VDC control signal for the actuator is needed.

Model Option A2 – Cooling Configuration Continued

***Q = Air-Cooled Cond w/ 6R Evap Coil w/ RA Bypass** - Air-cooled condenser with a bypass damper mounted beneath the evaporator coil and separate return air damper section that allows bypass of up to 50% return air. The damper section routes all outside air across the evaporator coil and the return air either through or around the evaporator coil. Used as a single coil humidity control in units with both outside and return air. Economizer damper assembly includes outside air, return air, and return air bypass fully modulating actuators. Part of the D-PAC™ and PAC™ control systems (See Controls section for more information). With a “Controls by Others” option (Feature 13) 0-10VDC control signals for all three actuators are needed.

***R = Water-Cooled Cond w/ 6R Evap Coil w/ RA Bypass** - Same as option Q but with a water cooled brazed plate condenser. Economizer damper assembly includes outside air, return air, and return air bypass fully modulating actuators. Part of the D-PAC™ and PAC™ control systems (See Controls section for more information). With a “Controls by Others” option (Feature 13) 0-10VDC control signals for all three actuators are needed.

***T = Water-Cooled Cond w/ 6R Evap Coil w/ MA Bypass** - Same as option P but with a water cooled brazed plate condenser. The damper includes a fully modulating actuator. With a “Controls by Others” option (Feature 13) a 0-10VDC control signal for the actuator is needed.

U = Chilled Water 4R Coil - 4 row chilled water cooling coil mounted before the fan. For cooling performance, refer to the AAONEcat32™ software. No valves or controls are included with this option. 50, 60, and 70 ton units include two coils and thus need two inlet and two outlet water connections.

W = Chilled Water 6R Coil - 6 row chilled water cooling coil mounted before the fan. For cooling performance, refer to the AAONEcat32™ software. No valves or controls are included with this option. 50, 60, and 70 ton units include two coils and thus need two inlet and two outlet water connections.

2 = Non-Compressorized w/ Std DX Evap Coil - Air handler with standard evaporator coil but no compressors or condenser coils. Used with a remote condensing unit. Thermal expansion valve and hot gas bypass connection are included.

***4 = Non-Compressorized w/ 6R DX Evap Coil** - Same as option 2 but with a 6 row evaporator coil. Option not available on 70 ton unit because 6 row coil is standard. Thermal expansion valve and hot gas bypass connection are included.

* Not available in 2 or 3 ton units

Model Number

Model Option A3 – Cooling Coating

Example: RM-005-3-0-AA**0**1-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *Standard* - No coating

1 = *Polymer E-Coated (Evap and Cond Coils)* - Polymer e-coating applied to both the condenser and evaporator coils. Coating exceeds a 6000 hour salt spray test per ASTM B 117-90 requirements, yet is only 0.8-1.2 mils thick and has excellent flexibility. Option is intended for use in coastal saltwater conditions under the stress of heat, salt, sand, and wind and is applicable to all corrosive environments where a polymer e-coating is acceptable.

2 = *Stainless Steel Coil Casing (Evap and Cond Coils)* - 18GA 304 stainless steel casing on both the evaporator and condenser coils. Used for improved coil casing corrosion protection.

8 = *Polymer E-Coated Condenser Coil* - Polymer e-coating applied only to the condenser coil(s).

9 = *Polymer E-Coated Cooling Coil* - Polymer e-coating applied only to the cooling coil(s).

A = *Stainless Steel Coil Casing (Evap Coil Only) + Polymer E-Coated Cond Coil* - 18 GA 304 stainless steel casing only on the evaporator coil(s) and polymer e-coating applied only to the condenser coil(s)

B = *Stainless Steel Coil Casing (Cond Coil Only) + Polymer E-Coated Evap Coil* - 18 GA 304 stainless steel casing only on the condenser coil(s) and polymer e-coating applied only to the evaporator coil(s)

C = *Stainless Steel Condenser Coil Casing* - 18GA 304 stainless steel casing only on the condenser coil(s).

D = *Stainless Steel Cooling Coil Casing* - 18GA 304 stainless steel casing only on the cooling coil(s).

Model Number

Model Option A4 – Cooling Staging

Example: RM-005-3-0-AA**0**1-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *No Cooling* - Heating only or air handler unit.

1 = *1 stage* - Available on 2-7 ton units only.

2 = *2 stage* - Available on 8-70 ton units only.

4 = *4 stage* - Available on RN Series, 26 and 31-70 ton, units only.

9 = *Modulating* - For 3-7 ton units with one modulating Digital Scroll™ compressor, 8-25 and 30 ton units with one modulating Digital Scroll compressor and one on/off scroll compressor, and 26 and 31-70 ton units with two modulating Digital Scroll compressors and two on/off scroll compressors.

Model Option A4 – Cooling Staging Continued

- ***H** = *Single Serpentine 8 FPI (CHW)* - Chilled water coil, 8 fins per inch, single piping inlet/outlet.
- ***J** = *Half Serpentine 8 FPI (CHW)* - Chilled water coil, 8 fins per inch, single piping inlet/outlet.
- ***K** = *Single Serpentine 10 FPI (CHW)* - Chilled water coil, 10 fins per inch, single piping inlet/outlet.
- ***L** = *Half Serpentine 10 FPI (CHW)* - Chilled water coil, 10 fins per inch, single piping inlet/outlet.
- ***M** = *Single Serpentine 12 FPI (CHW)* - Chilled water coil, 12 fins per inch, single piping inlet/outlet.
- ***N** = *Half Serpentine 12 FPI (CHW)* - Chilled water coil, 12 fins per inch, single piping inlet/outlet.

*For cooling performance, refer to the AAONEcat32™ software. No valves or controls are included with these options. 50, 60, and 70 ton units include two coils and thus need two inlet and two outlet water connections.

Model Number

Model Option B1 – Heating Type

Example: RM-005-3-0-AA01-**2**22:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *No Heat*

1 = *Electric Heat* - Electric heater with multiple elements. RM series uses 10kW elements for 230/460/575V and 7.5kW elements for 208V. RN series uses 20kW elements for 230/460/575V and 15kW elements for 208V.

2 = *Natural Gas Aluminized* - Natural gas heater with aluminized steel heat exchanger with a 15 year non-prorated warranty. The maximum temperature rise across the heater exchanger is 70 degrees. The maximum outlet temperature is 180°F. RM and RN series require a single gas connection.

3 = *Natural Gas Stainless Steel* - Natural gas heater with 304 stainless steel heat exchanger with a 25 year non-prorated warranty. Stainless steel heat exchangers are required where the outside air rate is greater than or equal to 50% of the supply CFM and where the temperature rise across the heater exceeds the rating for the aluminized steel option of 70 degrees. The maximum temperature rise for stainless steel heat exchangers is 100 degrees. The maximum outlet temperature is 200°F. RM and RN series require a single gas connection.

4 = *Natural Gas Aluminized High Altitude* - Same as option 2 but with burner orifices that are chosen based on altitude at or above 2000' as selected in AAONEcat32™.

5 = *Natural Gas Stainless Steel High Altitude* - Same as option 3 but with burner orifices that are chosen based on altitude at or above 2000' as selected in AAONEcat32™.



Model Option B1 – Heating Type Continued

6 = *LP Gas Aluminized* - Liquid Propane gas heater with aluminized steel heat exchanger with a 15 year non-prorated warranty. The maximum temperature rise across the heater is 70 degrees. The maximum outlet temperature is 180°F. RM and RN series require a single gas connection.

7 = *LP Gas Stainless Steel* - Liquid Propane gas heater with 304 stainless steel heat exchanger with a 25 year non-prorated warranty. Stainless steel heat exchangers are required where the outside air rate is greater than or equal to 50% of the supply CFM and where the temperature rise across the heater exceeds the rating for the aluminized steel option of 70 degrees. The maximum temperature rise for stainless steel heat exchangers is 100 degrees. The maximum outlet temperature is 200°F. RM and RN series require a single gas connection.

8 = *LP Gas Aluminized High Altitude* - Same as option 6 but with burner orifices that are chosen based on altitude at or above 2000' as selected in AAONEcat32™.

9 = *LP Gas Stainless Steel High Altitude* - Same as option 7 but with burner orifices that are chosen based on altitude at or above 2000' as selected in AAONEcat32™.

***C** = *Steam Distributing Std* - Steam heating coil with no coating.

***D** = *Steam Distributing Polymer E-Coated* - Steam heating coil with a polymer e-coating.

***E** = *Hot Water Std* - Hot water coil with no coating.

***F** = *Hot Water Polymer E-Coated* - Hot water coil with a polymer e-coating.

*No valves or controls are included with these options.

Model Number

Model Option B2 – Heating Designation

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = No Heat

Table 3 - Electric and Gas Heating Capacities

	Gas Heat Input Capacity	Gas Heat Output Capacity	Electric Heat Capacity	
	MBH	MBH	kW 208V	kW 230, 460, or 575V
1 = Heat 1	69	55.9	7.5	10
2 = Heat 2	90	72.9	15.0	20
3 = Heat 3	180	145.8	22.5	30
4 = Heat 4	270	218.7	30.0	40
5 = Heat 5	351	284.3	37.6	50
6 = Heat 6	390	315.9	45.1	60
7 = Heat 7	480	388.8	60.1	80
8 = Heat 8	NA		75.1	100
9 = Heat 9			90.1	120
A = Heat A			120.2	160
B = Heat B			150.5	200
C = Heat C	540	432	180.3	240
D = Heat D	810	648	NA	
E = Heat E	1080	864		

***H** = 1 Row Coil - Single row hot water or steam coil.

***J** = 2 Row Coil - Two row hot water or steam coil.

*For heating performance, refer to the AAONEcat32™ software. No valves or controls are included with these options.

Note: AAONEcat32™ will calculate the heating designation for gas or electric heat and choose the correct heat code, based on the desired leaving air and entering air temperature conditions.

Model Number

Model Option B3 – Heating Staging

Example: RM-005-3-0-AA01-22**2**:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = No Heat

1 = 1 stage - Single stage heat control. Available on gas and electric heat units.

2 = 2 stage - Two stage heat control. Available on gas and electric heat units.

3 = 3 stage - Three stage heat control. Available on electric heat units only.

4 = 4 stage - Four stage heat control. Available on gas and electric heat units.

5 = 5 stage - Five stage heat control. Available on electric heat units only

6 = 6 stage - Six stage heat control. Available on electric heat units only

7 = 7 stage - Seven stage heat control. Available on electric heat units only

8 = 8 stage - Eight stage heat control. Available on electric heat units only

9 = *Modulating Gas (Temp Control) or Modulating/SCR Electric (Potentiometer Control)*

Modulating Gas (Temp Control) - Heater gas valve and the speed of the induced draft fan are modulated by a digital controller. Minimum turndown is 30% of maximum rated capacity on heating designations 1-C, 20% on heating designation D, and 15% on heating designation E (Model Option B2). Includes a factory wired supply air temperature sensor, to be field mounted in the supply ductwork. Digital controller can be used in stand-alone application or connected to a WattMaster unit controller via modular cable (Feature 22 = A or C). In stand-alone application, on a call for heating, the digital controller will modulate gas valve and speed of induced draft blower to maintain a constant supply air temperature setpoint that is set using a DIP switch on the digital controller. The supply air temperature can be reset to a supply air temperature reset setpoint using a field provided 0-10VDC reset input signal and another DIP switch on the digital controller. When the modulating gas digital controller is connected to a WattMaster unit controller (Feature 22 = A or C) supply air temperature setpoint, supply air temperature sensor offset, and supply air high temperature limit setpoint will be set with the unit controller's operator interface. The heat enable signal is provided by the unit controller. Modulating gas requires a stainless steel natural gas heat exchanger (Model Option B1 = 3 or 5).

Modulating/SCR Electric (Potentiometer Control) - Fully modulating electric heating, controlled by a SCR (Silicon Controlled Rectifier) and digital controller. Includes a factory wired supply air temperature sensor, to be field mounted in the supply ductwork, and a factory wired setpoint adjustment potentiometer (Dial providing variable resistance), to be field mounted.

A = *Modulating/SCR Electric (0-10V Control Voltage)* - Fully modulating electric heating, controlled by a SCR (Silicon Controlled Rectifier) and digital controller. A terminal strip to connect a 0-10VDC control signal by others is included. Heating element(s) line voltage is switched linearly with respect to the control signal.

***H** = *Single Serpentine 8FPI (Stm or HW)* - Hot water or steam coil, 8 fins per inch, single piping inlet/outlet.

***J** = *Half Serpentine 8 FPI (HW)* - Hot water coil, 8 fins per inch, single piping inlet/outlet.

Model Option B3 – Heating Staging Continued

***K** = *Single Serpentine 10FPI (Stm or HW)* - Hot water or steam coil, 10 fins per inch, single piping inlet/outlet

***L** = *Half Serpentine 10 FPI (HW)* - Hot water coil, 10 fins per inch, single piping inlet/outlet.

***M** = *Single Serpentine 12FPI (Stm or HW)* - Hot water or steam coil, 12 fins per inch, single piping inlet/outlet.

***N** = *Half Serpentine 12FPI (HW)* - Hot water, 12 fins per inch, single piping inlet/outlet.

*For heating performance, refer to the AAONEcat32™ software. No valves or controls are included with these options.

Feature 1A

Return/Outside Air Section

Example: RM-005-3-0-AA01-222:**F**ABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *Standard* - 0-25% manual outside air opening. The unit will have a return air opening in the base.

A = *Economizer* - Economizer damper assembly with controls. Includes a barometric relief damper on the return air section. Choose the control options in Feature 2

B = *Economizer with Power Exhaust* - Economizer damper assembly and an on/off type power exhaust to control space pressurization during economizer function. Choose the control options in Feature 2. Modulating power exhaust fan is available with the addition of a VFD in Feature 1B or with discharge dampers in option D and E.

C = *Economizer with Power Return (C+D Box Only)* - Economizer damper assembly and a power return fan for use with high return static pressure. Choose the control options in Feature 2. Modulating power return fan is available with the addition of a VFD in Feature 1B. Available on 16-70 ton units only.

D = *Economizer with Power Exhaust Modulated* - Economizer damper assembly with modulating power exhaust. Exhaust air is modulated by a floating point actuator, outlet dampers, and a null pressure switch. Switch provides signal to damper actuator to open or close. Choose the economizer control options in Feature 2. Available on 2-15 ton units only.

E = *Economizer with Power Exhaust Modulated DDC Control* - Same as option D with the addition of a terminal strip to accept an outside DDC control signal. Choose the economizer control options in Feature 2. Available on 2-15 ton units only.

***F** = *AAONAIRE® Energy Recovery Wheel, Total, Low CFM* - This selects a total energy recovery wheel, factory mounted in the outside air intake and exhaust airstreams. The wheel's styrene heat transfer material is treated with silica gel desiccant for sensible and latent energy recovery. Outside airflow is limited to the maximum airflow rating of the wheel. See Table 4.

Feature 1A - Return/Outside Air Section Continued

***G** = AAONAIRES[®] *Energy Recovery Wheel with Bypass Damper, Total, Low CFM* - Same as option F with the addition of a bypass damper for airflow around the wheel. Select when the unit airflow is greater than the maximum airflow rating of the wheel or when full airflow is wanted during economizer operation. See Table 4.

***H** = AAONAIRES[®] *Energy Recovery Wheel, Sensible, Low CFM* - Energy recovery wheel with no silica gel desiccant on substrate. See Table 4.

***J** = AAONAIRES[®] *Energy Recovery Wheel with Bypass Damper, Sensible, Low CFM* - Same as option H with the addition of a bypass damper for airflow around the wheel. Select when the unit airflow is greater than the airflow rating of the wheel or when full airflow is wanted during economizer operation. See Table 4.

K = *100% Outside Air (Non-Motorized, No Return Air)* - Outside air opening in the unit which can accommodate 100% of the unit airflow. The outside air opening is not adjustable, and the unit will not have a return air opening. Units must have a stainless steel heat exchanger if gas heat is specified. Hot gas bypass on the lead compressor is required for this option. Hot gas bypass on the lag compressor is not required but highly recommended.

L = *Motorized Outside Air (Dampers, Return Air)* - Selects extruded aluminum, low leakage, gear-driven airfoil dampers to control the outside air intake. The unit will have a return air opening in the base. Dampers will open on a call for the supply fan.

M = *Motorized Outside Air (Dampers, No Return Air)* - Selects extruded aluminum, low leakage, gear-driven airfoil dampers to control the outside air intake. The unit will not have a return air opening. Use this option for 100% outside air applications. Units must have a stainless steel heat exchanger if gas heat is specified. Hot gas bypass on the lead compressor is required for this option. Hot gas bypass on the lag compressor is not required but highly recommended. Dampers will open on a call for the supply fan.

N = *Empty Energy Recovery Wheel Option Box without Power Exhaust (C+D Box Only)* - Empty energy recovery wheel box for installation of special options. Option does not include an exhaust fan. The return air opening and the filter rack are in the standard locations. Available on 16-70 ton units only.

P = *Empty Energy Recovery Wheel Option Box with Power Exhaust (C+D Box Only)* - Same as option N with the addition of power exhaust fan. Available on 16-70 ton units only.

***Q** = AAONAIRES[®] *Energy Recovery Wheel, 1% Purge, Total, Low CFM* - Same as option F with a field adjustable damper assembly across the return air opening. The damper adjustment should be at maximum outside air flow to achieve negative (.010 w.g.) pressure in the exhaust section of the energy recovery wheel to limit cross contamination of exhaust and incoming air to no more than 1%. See Table 4.

***R** = AAONAIRES[®] *Energy Recovery Wheel with Bypass Damper, 1% Purge, Total, Low CFM* - Same as option Q with the addition of a bypass damper to allow airflow around the energy recovery wheel. Select when the unit airflow is greater than the airflow rating of the wheel or when full airflow is wanted during economizer operation. See Table 4.

***S** = AAONAIRES[®] *Energy Recovery Wheel, 1% Purge, Sensible, Low CFM* - Same as option Q but the energy recovery wheel has no silica gel desiccant on the substrate. See Table 4.

***T** = AAONAIRES[®] *Energy Recovery Wheel with Bypass Damper, 1% Purge, Sensible, Low CFM* - Same as option R but the energy recovery wheel has no silica gel desiccant on the substrate. See Table 4.

Feature 1A - Return/Outside Air Section Continued

***U** = AAONAIRES[®] *Energy Recovery Wheel, Total, High CFM* - High CFM energy recovery wheel with silica gel desiccant bonded to the substrate for sensible and latent energy recovery. See Table 4.

***V** = AAONAIRES[®] *Energy Recovery Wheel w/ Bypass Damper, Total, High CFM* - Same as option U with the addition of a bypass damper for airflow around the energy recovery wheel. Select when the unit airflow is greater than the airflow rating of the wheel or when full airflow is wanted during economizer operation. See Table 4.

***W** = AAONAIRES[®] *Energy Recovery Wheel, Sensible, High CFM* - High CFM energy recovery wheel with no silica gel desiccant on the substrate for sensible energy recovery. See Table 4.

***Y** = AAONAIRES[®] *Energy Recovery Wheel with Bypass Damper, Sensible, High CFM* - Same as option W with the addition of a bypass damper for airflow around the energy recovery wheel. Select when the unit airflow is greater than the airflow rating of the wheel or when full airflow is wanted during economizer operation. See Table 4.

***Z** = AAONAIRES[®] *Energy Recovery Wheel, 1% Purge, Total, High CFM* - Same as option Q but with a high CFM energy recovery wheel.

***1** = AAONAIRES[®] *Energy Recovery Wheel with Bypass Damper, 1% Purge, Total, High CFM* - Same as option R but with a high CFM energy recovery wheel.

***2** = AAONAIRES[®] *Energy Recovery Wheel, 1% Purge, Sensible, High CFM* - Same as option S but with a high CFM energy recovery wheel.

***3** = AAONAIRES[®] *Energy Recovery Wheel with Bypass Damper, 1% Purge, Sensible, High CFM* - Same as option T but with a high CFM energy recovery wheel.

***4** = *Single AAONAIRES[®] Energy Recovery Wheel with Large Bypass Damper, Total, Low CFM (D Box Only)* - Available on RN series only. Same as option G except with only one Low CFM total energy recovery wheel and a larger bypass.

*All energy recovery wheel options include an economizer.

Feature 1A - Return/Outside Air Section Continued

Table 4 - Energy Recovery Wheel Data

Model	Cabinet	Qty	Wheel Diameter (in.)	Wheel Width (in.)	Maximum Air Flow (CFM)	Filters	
						Qty/Size (in.)	
RM-002	A Low CFM	1	25.0	2.0	900	1/16 x 25 x 4	
RM-003							
RM-004							
RM-005							
RM-006							
RM-007							
RM-008	B Low CFM	1	37.0	1.5	2400	2/16 x 20 x 4	
RM-010							
RM-013							
RM-015							
RM-016	C	1	52.0	Low CFM 1.5	Low CFM 5000	3/20 x 25 x 4	
RM-018				High CFM 3.0	High CFM 6600		
RM-020							
RM-025							
RM-030							
RN-026	D	2	52.0	Low CFM 1.5	Low CFM 10000	4/24 x 24 x 4	
RN-031				High CFM 3.0	High CFM 13200		
RN-040							
RN-050							
RN-060							
RN-070							
RN-026	D Low CFM (Single Wheel Option)	1	52.0	1.5	10000	3/24 x 24 x 4	
RN-031							
RN-040							
RN-050							
RN-060							
RN-070							

Feature 1B

Return/Outside Air Blower Configuration

Example: RM-005-3-0-AA01-222:FA**A**BC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = Standard (None)

A = 1 Blower (Standard efficiency motor)

B = 2 Blowers (Standard efficiency motor)

C = 1 Blower (Premium efficiency motor)

D = 2 Blowers (Premium efficiency motor)

***E** = 1 Blower (Premium efficiency motor) with one VFD

***F** = 2 Blowers (Premium efficiency motor) with two motors on one VFD

***G** = 2 Blowers (Premium efficiency motor) with two motors on two VFDs

*Power exhaust with VFD requires field supplied control signal.

AAONEcat32™ will select the correct option for Feature 1B based on unit conditions and the input from the fan selection program. When building a blower configuration with AAONEcat32™ you must first select a return/exhaust blower or heat wheel in Feature 1A. When all of the other features have been selected, you will be prompted to select supply fans, return or exhaust fans, motors, and VFDs under the “Fan Selection” window. In the “Fan Selection” window you will be able to choose the number of fans, VFDs, and motor efficiency. Fan curves will also be available for viewing.

Feature 1C

Return/Outside Air Blower

Example: RM-005-3-0-AA01-222:FA**B**C-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = Std (None)

A = Blower A (12”x9” FC)

B = Blower B (15” BC)

C = Blower C (18.5” BC)

D = Blower D (22” BC)

F = Blower F (27” BC)

G = Blower G (22” Axial Flow)

H = Blower H (35.5” Axial Flow)

J = Blower J (15” BC Banded 50%)

K = Blower K (18.5” BC Banded 70%)

L = Blower L (22” BC Banded 70%)

Feature 1C - Return/Outside Air Blower Continued

M = Blower M (27" BC Banded 70%)

AAONEcat32™ will select the correct option for Feature 1C based on unit conditions and the input from the fan selection program. When building a blower configuration with AAONEcat32™ you must first select a return/exhaust blower or heat wheel in Feature 1A. When all of the other features have been selected, you will be prompted to select supply fans, return or exhaust fans, motors, and VFDs under the "Fan Selection" window. In the "Fan Selection" window you will be able to choose the number of fans, VFDs, and motor efficiency. Fan curves will also be available for viewing.

Feature 1D

Return/Outside Air Motor

Example: RM-005-3-0-AA01-222:FAB**C**-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = Std (None)

C = 1.0 hp (1760 rpm)

D = 2.0 hp (1760 rpm)

E = 3.0 hp (1760 rpm)

F = 5.0 hp (1760 rpm)

G = 7.5 hp (1760 rpm)

H = 10 hp (1760 rpm)

L = 15 hp (1760 rpm)

M = 20 hp (1760 rpm)

***N** = 1.0 hp (1170 rpm)

***P** = 2.0 hp (1170 rpm)

***Q** = 3.0 hp (1170 rpm)

***R** = 5.0 hp (1170 rpm)

***S** = 7.5 hp (1170 rpm)

***T** = 10 hp (1170 rpm)

*Available on 16-30 ton units with power return and 26-70 ton RN series units. Allows selection of motor rpm closest to application requirements, such as VFD applications and high volume, low static applications.

AAONEcat32™ will select the correct option for Feature 1D based on unit conditions and the input from the fan selection program. When building a blower configuration with AAONEcat32™ you must first select a return/exhaust blower or heat wheel in Feature 1A. When all of the other features have been selected, you will be prompted to select supply fans, return or exhaust fans, motors, and VFDs under the "Fan Selection" window. In the "Fan Selection" window you will be able to choose the number of fans, VFDs, and motor efficiency. Fan curves will also be available for viewing.

Feature 2

Outside Air Control

Example: RM-005-3-0-AA01-222:FABC-**D**0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *Standard* - No actuator

A = *3 Position Actuator with Sensible Limit* - Economizer actuator with 3 positions. Position one is the closed position. Position two is the minimum outside air position, which is activated when there is a call for fan operation. Position three is economizer mode position with dampers fully open. The minimum outside air position can be field adjusted for the desired amount of outside air. The range for the changeover control is 45°F to 95°F and responds to sensible temperature only. The actuator is spring return closed. During economizer mode supply air temperature will vary with outside air temperature.

B = *3 Position Actuator with Enthalpy Limit* - Same as option A but the changeover control responds to sensible and latent heat of the ambient air. See Figure 2, Enthalpy Changeover Dial, and Table 5, Enthalpy Changeover Adjustment.

C = *Fully Modulating Actuator with Sensible Limit* - Fully modulating economizer actuator with 2 positions. Position one is the closed position. Position two is the minimum outside air position, which is activated when there is a call for blower operation. During economizer mode actuator modulates between minimum outside air position and fully open to maintain a discharge temperature of 55°F. The range for the changeover control is 45°F to 95°F and responds to sensible temperature only. The actuator is spring return closed.

D = *Fully Mod Actuator with Enthalpy Limit* - Same as option C but the changeover control responds to sensible and latent heat of the ambient air. See Figure 2, Enthalpy Changeover Dial, and Table 5, Enthalpy Changeover Adjustment.

E = *DDC Actuator* - Economizer actuator with terminal strip (EC1 and EC2) in the controls compartment for a field supplied outside air control signal. Actuator is factory configured for a 4-20mA control signal, but can be configured for a 0-10VDC control signal by removing the resistor between the terminals, EC1 and EC2. Use this option where customer supplied controls are employed for unit and economizer functions. All economizer functions will be by others. AAON supplies the damper assembly and actuator only. Part of the D-PAC™ control system (See Controls section for more information).

F = *Constant Volume Outside Air* - Maintains a minimum amount of outside air in VAV units. Velocity pressure of the air entering the unit is measured and the dampers are adjusted to maintain constant pressure, and thus a constant volume, of fresh air regardless of the supply air volume. Minimum supply air setting on the VFD control should be greater than or equal to outside air requirement. If economizer mode is desired, select from options G, H, J, K, L.

G = *Constant Volume Outside Air + 3 Position Actuator with Sensible Limit* - Options F + A

H = *Constant Volume Outside Air + 3 Position Actuator with Enthalpy Limit* - Options F + B

Feature 2 - Outside Air Control Continued

J = Constant Volume Outside Air + Fully Mod Actuator with Sensible Limit - Options F + C

K = Constant Volume Outside Air + Fully Mod Actuator with Enthalpy Limit - Options F + D

L = Constant Volume Outside Air + DDC Actuator - Options F + E

M = CO₂ Override (R/A Sensor) + 3 Position Actuator with Sensible Limit - Option A + CO₂ ventilation controller that senses the return air stream through a pitot tube. Used for demand controlled ventilation applications where outside air ventilation is based on actual not assumed demand, for energy savings. The sensor is self-calibrating with a 14-day log that will automatically correct for sensor drift and has onboard push buttons with LCD display for specifying CO₂ setpoint. This option works best with air velocities in the 600 to 1200 fpm range.

N = CO₂ Override (R/A Sensor) + 3 Position Actuator with Enthalpy Limit - Option B + CO₂ sensor.

P = CO₂ Override (R/A Sensor) + Fully Mod Actuator with Sensible Limit - Option C + CO₂ sensor.

Q = CO₂ Override (R/A Sensor) + Fully Mod Actuator with Enthalpy Limit - Option D + CO₂ sensor.

R = CO₂ Override (R/A Sensor) + DDC Actuator - Option E + CO₂ sensor.

S = Dual Min Pos Pots with Fully Mod Actuator with Sensible Limit - Fully modulating economizer with sensible limit actuator with two minimum position potentiometers. Remote contact closure will allow the outside air to open the second minimum setting.

T = Dual Min Pos Pots with Fully Mod Actuator with Enthalpy Limit - Fully modulating economizer with enthalpy limit actuator with two minimum position potentiometers. Remote contact closure will allow the outside air to open the second minimum setting.

U = 2 Position Actuator - Used with motorized outside air options in Feature 1.

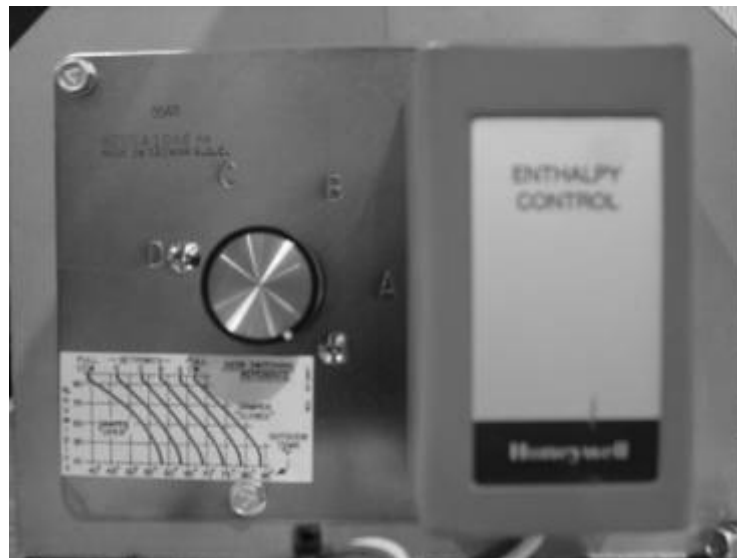


Figure 1 - Enthalpy Changeover Dial

Feature 2 - Outside Air Control Continued

Table 5 - Enthalpy Changeover Adjustment

Dial Setting	20% RH		50% RH		80% RH	
	°F	°C	°F	°C	°F	°C
A (Max)	78	26	73	23	68	20
B	73	23	68	20	63	17
C	68	20	63	17	59	15
D (Min)	62	17	58	14	53	12

Feature 3

Gas Options

Example: RM-005-3-0-AA01-222:FABC-D**0**B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *Standard*

A = *Regulator (2psi) with Vent Limiting Device* - Gas pressure regulator to accept a maximum inlet pressure of 2 psi. The vent limiting device will vent inside the heater access compartment. In the event of a diaphragm rupture the gas escapement will be limited to within ANSI standards.

B = *Regulator (5psi) with Vent Limiting Device* - Same as option A, but accepts a maximum inlet pressure of 5 psi and includes an overpressure protection device (OPD). The vent limiting device will vent inside the heater access compartment. In the event of a diaphragm rupture the gas escapement will be limited to within ANSI standards.

C = *Regulator (2psi) Vented* - Gas pressure regulator to accept a maximum inlet pressure of 2 psi. The regulator is fitted with a vent tube that will exhaust to the exterior of the unit in the event of a diaphragm rupture.

D = *Regulator (5psi) Vented* - Same as option C, but accepts a maximum inlet pressure of 5 psi. The regulator is fitted with a vent tube that will exhaust to the exterior of the unit in the event of a diaphragm rupture.

E = *Discharge Air Override* - This option is used to prevent temperature swings common with space thermostats on make up air applications where large amounts of untreated air are permitted to enter prior to space thermostat reaction. A supply air temperature sensor and thermostat are wired to the heat terminals. If the supply air temperature falls below the determined setpoint, heat is energized to prevent cold outside air introduction to the space. A timer is provided to be field adjusted to the amount of time the heater will operate before the space thermostat initiates a call for heat.

F = *Regulator (2psi) with Vent Limiting Device + Discharge Air Override* - Options A + E

G = *Regulator (5psi) with Vent Limiting Device + Discharge Air Override* - Options B + E

Feature 3 - Gas Options Continued

H = Regulator (2psi) Vented + Discharge Air Override - Options C + E

J = Regulator (5psi) Vented + Discharge Air Override - Options D + E

Feature 4

Maintenance Options

Example: RM-005-3-0-AA01-222:FABC-D0**B**-DBD-0BB-0H0A0C0-00-0A000000B

0 = Standard

A = 115V Convenience Outlet, Field Wired - Field wired 2x4 electrical box with ground fault interrupter receptacle, located inside the unit controls cabinet. Receptacle is rated for 20 amps. The outlet must be field wired to an 115VAC power supply.

B = 115V Convenience Outlet, Factory Wired - Factory wired 2x4 electrical box with ground fault interrupter receptacle, located inside the unit controls cabinet. The circuit is rated at 13 amps and is factory wired to a step-down transformer, fuse block, and outlet disconnect. The circuit is wired to the line side of the unit power block, permitting use of the outlet while power to the unit is shut off. **Caution: When the power to the unit is disconnected at the factory installed unit power switch, the convenience outlet will remain live.**

C = Blower Auxiliary Contact (wired to low voltage terminal block) - Contacts that close when the fan is energized. This option is used to interface with other devices or to indicate unit operation.

D = Remote Start/Stop Terminals - Remote start/stop contacts and terminals labeled ST1 and ST2. This option is normally used with a remote time clock or space type thermostat with occupied/unoccupied capability. Field supplied contact closure is needed for unit operation. When contacts are open, the low voltage circuit is broken and the unit will not operate.

E = 115V Convenience Outlet, Field Wired + Blower Aux Contact - Options A + C

F = 115V Convenience Outlet, Field Wired + Remote Start/Stop Terminals - Options A + D

G = 115V Convenience Outlet, Factory Wired + Blower Aux Contact - Options B + C

H = 115V Convenience Outlet, Factory Wired + Remote Start/Stop Terminals - Options B + D

J = 115V Convenience Outlet, Field Wired + Blower Aux Contact + Remote Start/Stop Terminals - Options A + C + D

K = 115V Convenience Outlet, Factory Wired + Blower Aux Contact + Remote Start/Stop Terminals - Options B + C + D

L = Blower Aux Contact + Remote Start/Stop Terminals - Options C + D

Feature 4 - Maintenance Options Continued

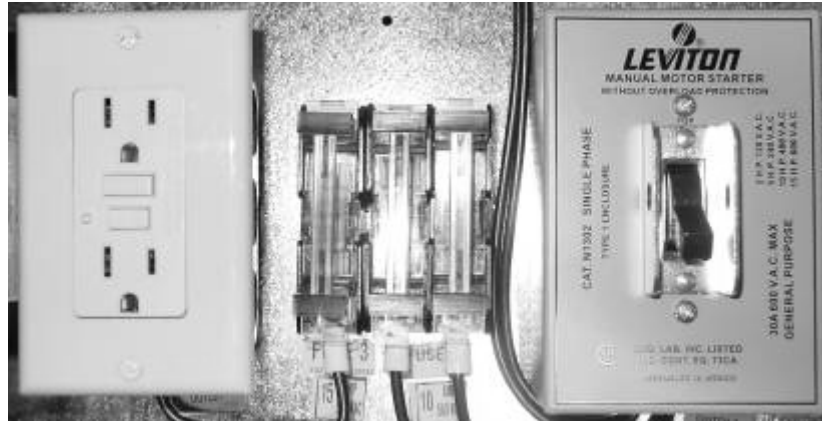


Figure 2 - Factory Wired Convenience Outlet

Feature 5A

Supply Air Blower Configuration

Example: RM-005-3-0-AA01-222:FABC-D0B-**D**BD-0BB-0H0A0C0-00-0A000000B

- 0** = 1 Blower (Standard efficiency motor)
- *A** = 2 Blowers (Standard efficiency motor)
- B** = 1 Blower (Premium efficiency motor)
- *C** = 2 Blowers (Premium efficiency motor)
- D** = 1 Blower (Premium efficiency motor) w/ one VFD
- *F** = 2 Blowers (Premium efficiency motor) w/ two motors on one VFD
- *G** = 2 Blowers (Premium efficiency motor) w/ two motors on two VFD's

*Available on 26-70 ton RN series units only

AAONEcat32™ will select the correct option for Feature 5A based on unit conditions and the input from the fan selection program. When all of the other features have been selected, you will be prompted to select supply fans, return or exhaust fans, motors and VFDs under the “Fan Selection” window. In the “Fan Selection” window you will be able to choose the number of fans, VFDs, and motor efficiency. Fan curves will also be available for viewing.

Feature 5B

Supply Air Blower

Example: RM-005-3-0-AA01-222:FABC-D0B-D**B**D-0BB-0H0A0C0-00-0A000000B

A = Blower A (10"x10" FC)
B = Blower B (15"x5.16" BC)
C = Blower C (18.5" BC)
D = Blower D (24" BC)
E = Blower E (27" BC)
F = Blower F (30" BC, 90% aluminum, 1750 rpm max)
G = Blower G (15" BC Banded 50%)
H = Blower H (18.5" BC Banded 70%)
J = Blower J (24" BC Banded 70%)
K = Blower K (27" BC Banded 70%)
L = Blower L (30" BC, 100% aluminum, 1600 rpm max)

AAONEcat32™ will select the correct option for Feature 5B based on unit conditions and the input from the fan selection program. When all of the other features have been selected, you will be prompted to select supply fans, return or exhaust fans, motors and VFDs under the "Fan Selection" window. In the "Fan Selection" window you will be able to choose the number of fans, VFDs, and motor efficiency. Fan curves will also be available for viewing.

Feature 5C

Supply Air Motor

Example: RM-005-3-0-AA01-222:FABC-D0B-DB**D**-0BB-0H0A0C0-00-0A000000B

A = 0.33 hp (900 rpm, 1 phase) (10"x10" FC only)	M = 20 hp (1760 rpm)
B = 0.5 hp (1200 rpm, 1 phase) (10"x10" FC only)	*N = 1.0 hp (1170 rpm)
C = 1.0 hp (1760 rpm)	*P = 2.0 hp (1170 rpm)
D = 2.0 hp (1760 rpm)	*Q = 3.0 hp (1170 rpm)
E = 3.0 hp (1760 rpm)	*R = 5.0 hp (1170 rpm)
F = 5.0 hp (1760 rpm)	*S = 7.5 hp (1170 rpm)
G = 7.5 hp (1760 rpm)	*T = 10 hp (1170 rpm)
H = 10 hp (1760 rpm)	*U = 15 hp (1170 rpm)
L = 15 hp (1760 rpm)	

*Available on RN Series. Allows selection of motor rpm closest to application requirements, such as VFD applications and high volume, low static applications.

Feature 5C - Supply Air Motor Continued

AAONEcat32™ will select the correct option for Feature 5C based on unit conditions and the input from the fan selection program. When all of the other features have been selected, you will be prompted to select supply fans, return or exhaust fans, motors and VFDs under the “Fan Selection” window. In the “Fan Selection” window you will be able to choose the number of fans, VFDs, and motor efficiency. Fan curves will also be available for viewing.

Feature 6A

Pre Filter Type

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-**0**BB-0H0A0C0-00-0A000000B

0 = *Standard* - No pre filter

A = *2” Pleated Unit Pre Filter* - 2” 30% efficient, MERV 8 pleated pre filter mounted adjacent and upstream of 4” filter rack for use with high efficiency filter features. 16-70 ton units only.

B = *Metal Mesh Outside Air Filter* - Washable expanded aluminum mesh filter mounted over the outside air intake. Initial resistance will be 0.088 in. w.g. at 520 fpm. Filters initially coated for adhesion. Used to filter large particles in the outside air and to prevent moisture carryover in humid environments. Meets requirements of UL Class 2.

C = *Lint Screen Unit Pre Filter* - 5/16” galvanized steel filter frame with 16 wires per inch aluminum mesh filter media. Used to reduce surface loading on the pleated filters in environments where lint is prevalent.

Feature 6B

Unit Filter Type

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0**B**B-0H0A0C0-00-0A000000B

0 = *Standard* - 2” 25% efficient, MERV 4 throwaway filters on 2-5, 8, and 10 ton units. All other units have 2” pleated, 30% efficient, MERV 8 filters. Filters are mounted next to and upstream of the evaporator coil and downstream of the return air opening.

A = *2” Pleated* - 2” pleated, 30% efficient, MERV 8 filters mounted next to and upstream of the evaporator coil and downstream of the return air opening. Option only available on 2-5, 8 and 10 ton units.

B = *4” Pleated 30% Eff* - 4” pleated 30% efficient, MERV 8 filters.

Feature 6B - Unit Filter Type Continued

C = 2" *Permanent Filter Frame with Replaceable Media* - 2" metal frame replaceable media filters. Media is a filterpad, 2" thick, with non woven polyester bonded fiber, rated to 500 fpm.

***F** = 4" 65% - 4" inch pleated 65% efficient, MERV 11 filters.

***G** = 4" 85% - 4" inch pleated 85% efficient, MERV 13 filters.

***H** = 4" 95% - 4" inch pleated 95% efficient, MERV 14 filters.

*Available on 16-70 ton units only. Not available on 50, 60, and 70 ton units with return air bypass.

Feature 6C

Filter Options

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0B**B**-0H0A0C0-00-0A000000B

0 = *Standard* - No CFS or Magnehelic gauge.

***A** = *Clogged Filter Switch (CFS)* - Adjustable differential pressure switch sensing pressure drop across the filter bank and cooling coil. The range of adjustment is 0.17" to 5.0" W.C. with contact closure on rise. The switch is mounted in the blower compartment with terminal connections in the low voltage control section. Normally open dry contacts (C1 and C2) are provided for clogged filter indication.

***B** = *Magnehelic Gauge* - Magnehelic gauge reading pressure drop across the filter bank. The gauge reads from 0 to 3" W.C. in 0.10" graduations, and is mounted in the control cabinet.

***C** = *CFS + Magnehelic Gauge* - Options A + B

*A Special Pricing Authorization (SPA) is required if the CFS and/or Magnehelic gauge is to be used to respond to the pressure drop across the energy recovery wheel or only the cooling coil.



Figure 3 - Magnehelic Gauge

Feature 7

Refrigeration Control

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *Standard* - 55°F fixed compressor lockout.

A = *5 MTDR Off* - 5 minute time delay relay for minimum 5 minute compressor “off time”. The delay timers are located in the low voltage section of the controls cabinet. There are no user adjustments. The timers prevents short cycling of the compressors, preventing undue stress and wear. Recommended where electromechanical thermostats are used. Use with some programmable thermostats or DDC controllers may cause excessive time delay. Not available on 26, 31, 40, and 50 ton units because these units include a Comfort Alert™ module for each compressor which monitors compressor diagnostics and includes anti-short cycle timer.

B = *20 STDR Delay* - The 20 second time delay relay is a delay timer that prevents multiple cooling stages from starting simultaneously. The delay timers are located in the low voltage section of the controls cabinet. The range of adjustment is 6 to 300 seconds. The timers limit current draw during cooling cycle start up. Available on multi-compressor units only (8 ton or larger).

C = *Fan Cycling* - Device to cycle the condenser fans to maintain refrigerant circuit head pressures at acceptable levels during compressor operation to 35°F outdoor conditions. This option is required when ordering any “Zero Degree Low Ambient” option from Feature 8. Also, an adjustable compressor lockout for the first refrigeration circuit is included with this selection.

D = *Adjustable Lockouts (ea. ckt.)* - Compressor lockouts (-10 to 70°F), adjustable for each refrigeration circuit, located behind the filter access door or near the outside air opening. Hot Gas Bypass on the lead compressor is required for this selection. Hot Gas Bypass on the lag compressor is strongly recommended. When option C is selected an adjustable compressor lockout is included on the first refrigeration circuit. Recommended if cooling is required at less than 55°F ambient.

E = *Freeze Stats (ea. ckt.)* - Adjustable temperature sensor (-10 to 70°F) mounted on the tubing of the first cooling circuit and wired to de-energize all cooling circuits if tubing temperature falls below the setpoint. Used to prevent freezing of evaporator coil.

F = *5 MTDR + 20 STDR* - Options A + B

G = *5 MTDR + Fan Cycling* - Options A + C

H = *5 MTDR + Adjustable Lockouts (ea. ckt.)* - Options A + D

J = *5 MTDR + Freeze Stats (ea. ckt.)* - Options A + E

K = *20 STDR + Fan Cycling* - Options B + C

L = *20 STDR + Adjustable Lockouts (ea. ckt.)* - Options B + D

M = *20 STDR + Freeze Stats (ea. ckt.)* - Options B + E

N = *Fan Cycling + Adjustable Lockout (ea. ckt.)s* - Options C + D

P = *Fan Cycling + Freeze Stats (ea. ckt.)* - Options C + E

Q = *Adjustable Lockouts (ea. ckt.) + Freeze Stats (ea. ckt.)* - Options D + E

R = *5 MTDR + 20 STDR + Fan Cycling* - Options A + B + C

Feature 7 - Refrigeration Control Continued

S = 5 MTDR + 20 STDR + Adjustable Lockouts (ea. ckt.) - Options A + B + D
T = 5 MTDR + 20 STDR + Freeze Stats (ea. ckt.) - Options A + B + E
U = 5 MTDR + Fan Cycling + Adjustable Lockout (ea. ckt.)s - Options A + C + D
V = 5 MTDR + Fan Cycling + Freeze Stats (ea. ckt.) - Options A + C + E
W = 5 MTDR + Adjustable Lockouts (ea. ckt.) + Freeze Stats (ea. ckt.) - Options A + D + E
Y = 20 STDR + Fan cycling + Adjustable Lockouts (ea. ckt.) - Options B + C + D
Z = 20 STDR + Fan cycling + Freeze Stats (ea. ckt.) - Options B + C + E
1 = 20 STDR + Adjustable Lockouts (ea. ckt.) + Freeze Stats (ea. ckt.) - Options B + D + E
2 = Fan cycling + Adjustable Lockouts (ea. ckt.) + Freeze Stats (ea. ckt.) - Options C + D + E
3 = 5 MTDR + 20 STDR + Fan Cycling + Adjustable Lockouts (ea. ckt.) - Options A + B + C + D
4 = 5 MTDR + 20 STDR + Fan Cycling + Freeze Stats (ea. ckt.) - Options A + B + C + E
5 = 5 MTDR + 20 STDR + Adjustable Lockouts (ea. ckt.) + Freeze Stats (ea. ckt.) - Options A + B + D + E
6 = 5 MTDR + Fan Cycling + Adjustable Lockouts (ea. ckt.) + Freeze Stats (ea. ckt.) - Options A + C + D + E
7 = 20 STDR + Fan Cycling + Adjustable Lockouts (ea. ckt.) + Freeze Stats (ea. ckt.) - Options B + C + D + E
8 = 5 MTDR + 20 STDR + Fan Cycling + Adjustable Lockouts (ea. ckt.) + Freeze Stats (ea. ckt.) - Options A + B + C + D + E

Feature 8

Refrigeration Options

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0**H**0A0C0-00-0A000000B

0 = *Standard* - Manual reset high pressure cutouts, automatic reset low pressure cutouts, internal overload protection on compressors, and thermal expansion valves.

A = *Hot Gas Bypass Lead Stage (HGB)* - Field adjustable pressure activated bypass valve on the lead cooling circuit(s) factory setup to divert hot compressor discharge gas to the evaporator coil if pressure on the evaporator side of the valve drops below 60 psi for R-22 or 105 psi for R-410A (34°F at sea level). The bypass valve is at full capacity after six degrees of differential (28°F at sea level). This option prevents coil freeze-up during periods of low airflow or cold entering coil conditions. Required on all VAV and Make Up Air units. This option is used for refrigerant system protection only and cannot be used for cooling capacity modulation. Not available on lead circuits with digital scroll compressor. HGB lead stage on RM series includes bypass valve on the first compressor. HGB lead stage on RN series includes bypass valves on first and second compressor.

Feature 8 - Refrigeration Options Continued

B = HGB Lead + HGB Lag - Field adjustable pressure activated bypass valves on the lead and lag cooling circuit(s) factory setup to divert hot compressor discharge gas to the evaporator coil if the pressure on the evaporator side of the valve drops below 60 psi for R-22 or 105 psi for R-410A (34°F at sea level). The bypass valve is at full capacity after six degrees of differential (28°F at sea level). This option prevents coil freeze-up during periods of low airflow or cold entering coil conditions. Recommended on all VAV and Make Up Air units. This option is used for refrigerant system protection only and cannot be used for cooling capacity modulation. HGB lag on RM series includes bypass valve on the second compressor. HGB lag on RN series includes bypass valves on third and fourth compressor.

C = Hot Gas Reheat Coil (HGRC) - Reheat coil mounted downstream of the evaporator and piped to the lead cooling circuit(s) for dehumidification. A terminal strip (RH1) is included for connecting a humidistat. Upon a dry contact closure signal from the humidistat and no call for cooling from the thermostat, the lead compressor(s) are activated. After 3 minutes, the reheat coil is energized along with the lag compressor(s). A call for cooling or heating will deactivate the reheat coil, returning all refrigerant to the condenser coil(s). A wall mount humidistat is available as an accessory. Receiver tank(s) are standard with this option. This option is used where dehumidification is needed when the zone cooling load has been satisfied.

D = Modulating Hot Gas Reheat Coil (MHGR) - Same as option C except with modulating condenser control valve, modulating reheat control valve, supply air temperature sensor, and digital controller to maintain supply air temperature and space humidity. A terminal contact (RH1) is included for connecting a humidistat. A wall mount humidistat is available as an accessory. Receiver tank(s) are standard with this option. Use this option when tighter humidity control is needed or when constant supply air temperature is needed, such as in VAV applications. Part of the D-PAC™ and PAC™ control systems (See Controls section for more information).

E = Low Ambient 0°F Lead Stage (LA) - Selects a factory installed, flooded condenser, head pressure control option for operation of the DX cooling circuit down to 0°F ambient temperatures. When outdoor ambient temperature falls, the condensing pressure falls. A 3-way pressure valve operates to allow discharge gas to bypass the condenser when the outdoor ambient falls. Mixing of the discharge gas with liquid creates a high pressure at the condenser outlet, reducing the flow and causing liquid to back up into the condenser. Flooding the condenser reduces the area available for condensing, resulting in a rise in condensing pressure. Additional option components include a receiver tank, sight glass and access port. Fan cycling is required with this option (Feature 7). It is highly recommended that Hot Gas Bypass be selected with this option. Hot Gas Reheat Coil and Modulating Hot Gas Reheat Coil are not available with this option. Used for low ambient applications such as computer and/or equipment rooms.

F = HGB Lead + HGRC - Options A + C

G = HGB Lead + HGB Lag + HGRC - Options B + C

H = HGB Lead + MHGR - Options A + D

J = HGB Lead + HGB Lag + MHGR - Options B + D

K = HGB Lead + LA - Options A + E

L = HGB Lead + HGB Lag + LA - Options B + E

Feature 8 - Refrigeration Options Continued

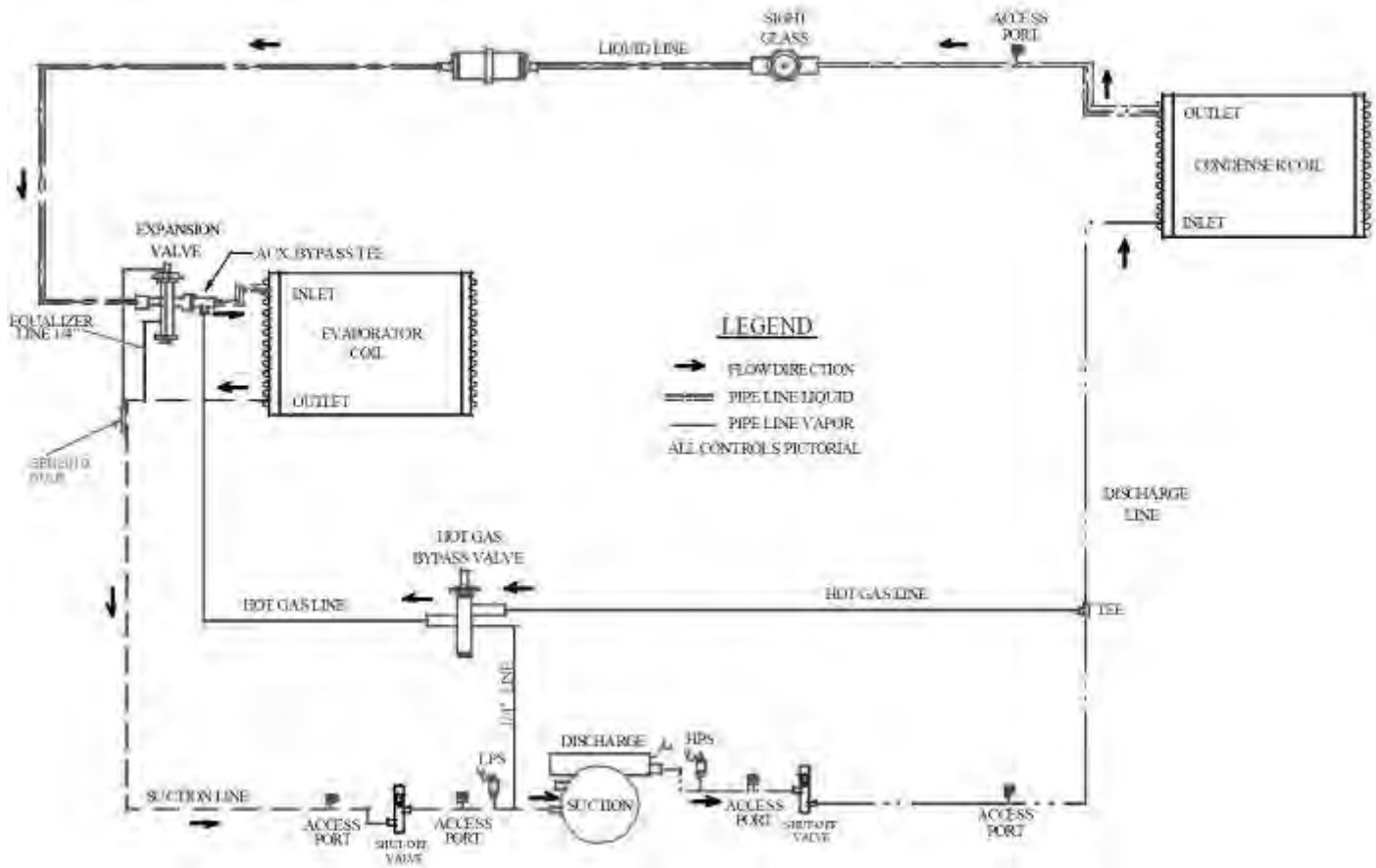


Figure 4 - Hot Gas Bypass Piping Schematic

Feature 9

Refrigeration Accessories

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *Standard*

A = *Sight Glass* - Moisture indication sight glass attached to the cooling circuit liquid line(s). A green color refrigerant indicates a dry condition, a chartreuse (green with a yellow tint or bright green) color indicates caution and a yellow color indicates a wet condition. The sight glass is not a charge indicator.

Table 6 - Moisture Content in the Refrigerant

Refrigerant Indicator Color	75° F Liquid Line Temperature	
	R-22	R-410A
Green DRY	Below 30ppm	Below 75ppm
Chartreuse CAUTION	30 - 90ppm	75-150ppm
Yellow WET	Above 90ppm	Above 150ppm

B = *Compressor Isolation Valves* - Ball type service valves mounted on the cooling circuit discharge and suction lines permitting isolation of the compressor for service or replacement. The valves are located close to the compressor(s). The valve works through a quarter turn from open to closed. Teflon seals and gaskets are used with a nylon cap gasket to prevent accidental loss. This option reduces the amount of refrigerant that must be recovered during compressor service or replacement since closing these valves isolates the compressor.

C = *Sight Glass + Compressor Isolation Valves* - Options A + B



Feature 10

Power Options

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A**A**0C0-00-0A000000B

0 = *Standard Power Block*

A = *Power Switch (100 Amps)*

B = *Power Switch (150 Amps)*

C = *Power Switch (225 Amps)*

D = *Power Switch (400 Amps)*

E = *Power Switch (600 Amps)*

F = *Power Switch (60 Amps)*

Individual components within the control cabinet are fused. Switch options include molded case, non-fused, disconnect switch inside the unit control cabinet. The switch is accessible from the exterior of the unit and protected by a cast metal, lockable cover. The switch disconnects high voltage service to the unit. To add a switch, choose any switch and after all options have been selected and the fan program is completed AAONEcat32™ will automatically calculate the minimum allowable ampacity and choose the correct size switch.

Feature 11

Safety Options

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A**0**C0-00-0A000000B

0 = *Standard* - No firestats or smoke detectors.

A = *R/A & S/A Firestat (FS)* - Bimetallic snap-action safety switches sensing temperature only, mounted in both the supply and return airstreams. The supply air switch is rated to 200°F, the return air switch is rated to 125°F. Both switches manually reset and are wired to shut down the 24V control circuit. Firestats are non-addressable.

B = *R/A Smoke Detector (RASD)* - Photoelectric type smoke detector is factory mounted in the return air section of the unit. It is wired to shut down the 24V control circuit upon detector activation, thereby shutting off the unit. Relay contacts are provided for interfacing the detector with alarm panels. A test magnet is supplied in the unit control cabinet. Smoke detectors are non-addressable.

C = *S/A Smoke Detector (SASD)* - Same as option B but mounted in the filter/economizer section with sensor mounted to the blower/heating compartment, sensing the supply air downstream of the filters and blower. Smoke detectors are non-addressable.

D = *R/A & S/A Smoke Detector* - Options B + C

E = *FS + RASD* - Options A + B

F = *FS + SASD* - Options A + C

Feature 11 - Safety Options Continued

G = FS + RASD + SASD - Options A + D

H = *Remote Smoke Detector Terminals* - Adds low voltage terminals labeled BI1 and BI2 for wiring to a field installed smoke detector. When contacts are open the unit 24V control circuit is broken and the unit will not operate. Remove the factory supplied jumper before installing smoke detectors.

Feature 12

Controls

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0**C**0-00-0A000000B

0 = *Standard* - Terminal block for wiring standard controls.

A = *Low Limit Controls* - Temperature limit switch factory mounted in the unit supply air to shut off the unit when discharge temperature reaches setpoint. The switch is adjustable from -30°F to 100°F, and is manually reset by disconnecting power to the unit.

B = *Phase & Brown Out Protection* - This selects a three phase power monitor that shuts down the unit if the supplied power phases are out of balance, or over/under voltage, or in case of a phase loss. Option is used to protect motors and compressors from electrical phase loss or low voltage brownout. Reset is automatic.

C = *Energy Recovery Wheel Defrost* - Adjustable temperature sensor and timer wired to periodically stop the rotation and allow warm exhaust air to defrost the wheel.

D = *Energy Recovery Wheel Rotation Detection* - Wheel rotation sensor and speed switch output module mounted in the heat wheel section. The module contains a normally open and a normally closed set of contacts wired to the low voltage terminal block for field indication of wheel rotation.

E = *PF Correction (Compressors)* - Power factor correction capacitors are applied to the compressors only. Maximum correction factor is 0.9. Option not available on Digital Scroll™ compressors.

F = *Low Limit Controls + Phase & Brown Out Protection* - Options A + B

G = *Low Limit Controls + ERW Defrost* - Options A + C

H = *Low Limit Controls + ERW Rotation Detection* - Options A + D

J = *Low Limit Controls + PF Correction* - Options A + E

K = *Phase & Brown Out Protection + ERW Defrost* - Options B + C

L = *Phase & Brown Out Protection + ERW Rotation Detection* - Options B + D

M = *Phase & Brown Out Protection + PF Correction* - Options B + E

N = *ERW Defrost + ERW Rotation Detection* - Options C + D

P = *ERW Defrost + PF Correction* - Options C + E

Q = *ERW Rotation Detection + PF Correction* - Options D + E

R = *Low Limit Controls + Phase & Brown Out Protection + ERW Defrost* - Options A + B + C

Feature 12 - Controls Continued

S = *Low Limit Controls + Phase & Brown Out Protection + ERW Rotation Detection - Options A + B + D*
T = *Low Limit Controls + Phase & Brown Out Protection + PF Correction - Options A + B + E*
U = *Low Limit Controls + ERW Defrost + ERW Rotation Detection - Options A + C + D*
V = *Low Limit Controls + ERW Defrost + PF Correction - Options A + C + E*
W = *Low Limit Controls + ERW Rotation Detection + PF Correction - Options A + D + E*
Y = *Phase & Brown Out Protection + ERW Defrost + ERW Rotation Detection - Options B + C + D*
Z = *Phase & Brown Out Protection + ERW Defrost + PF Correction - Options B + C + E*
1 = *Phase & Brown Out Protection + ERW Rotation Detection + PF Correction - Options B + D + E*
2 = *ERW Defrost + ERW Rotation Detection + PF Correction - Options C + D + E*
3 = *Low Limit Controls + Phase & Brown Out Protection + ERW Defrost + ERW Rotation Detection - Options A + B + C + D*
4 = *Low Limit Controls + Phase & Brown Out Protection + ERW Defrost + PF Correction - Options A + B + C + E*
5 = *Low Limit Controls + Phase & Brown Out Protection + ERW Rotation Detection + PF Correction - Options A + B + D + E*
6 = *Low Limit Controls + ERW Defrost + ERW Rotation Detection + PF Correction - Options A + C + D + E*
7 = *Phase & Brown Out Protection + ERW Defrost + ERW Rotation Detection + PF Correction - Options B + C + D + E*
8 = *Low Limit Controls + Phase & Brown Out Protection + ERW Defrost + ERW Rotation Detection + PF Correction - Options A + B + C + D + E*

Feature 13

Special Controls

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C**0**-00-0A000000B

***0** = *Standard* - Terminal strip for wiring standard controls
***D** = *VAV Unit Controller* - Variable Air Volume unit controller. Return and outside air temperature sensors are factory mounted and wired. Supply air static pressure probe and space temperature sensor are supplied for field installation. Supply air duct temperature sensor is factory wired in the unit control cabinet for field installation. A building static pressure sensor is also supplied if power exhaust with a VFD is selected.

Feature 13 - Special Controls Continued

***E = Constant Volume Unit Controller** - Outside air temperature sensor is factory mounted and wired. Supply duct temperature sensor is factory wired in the unit control cabinet for field installation. Space temperature sensor is supplied for field installation. A building static pressure sensor is also supplied if power exhaust with VFD is provided by the factory.

***F = Make Up Air Unit Controller** - Outside air temperature sensor is factory mounted and wired. Supply duct temperature sensor is factory wired in the unit control cabinet for field installation.

***H = Field Installed DDC Control by Others** - Provides a terminal strip to interface with controls by others.

J = Factory Installed DDC Controls Furnished by Others (SPA) - Factory installed controls by others. Requires a Special Pricing Authorization (SPA) issued by the Applications Department. The AAON rep must provide a controls parts list, cut sheets and wiring diagrams before the SPA will be issued. Also requires a Special Parts Request Form. Once the order is entered a completed Special Parts Request Form is sent to the

AAON rep with control numbers assigned. The AAON rep must then forward the form to the controls supplier who must then transfer these numbers to all parts and boxes that are sent to AAON. Proper routing of customer supplied parts to units in production will be delayed if this procedure is not followed. AAON will not deal directly with the controls provider; the rep must be the information conduit! See the "Policy Manual for Sales Representatives" for more detailed information on the proper procedure.

K = Factory Installed DDC Controls by Others with Isolation Relays (SPA) - Same as option J with the addition of isolation relays.

***L = Terminal Block with Isolation Relays** - Standard terminal strip for use with electromechanical thermostats with factory installed isolation relays to prevent voltage drop in the controls circuit. This option is highly recommended on applications where there is a question about the length of thermostat wiring.

***U = D-PAC™ Digital Precise Air Controller** - Factory mounted programmable controller to be used to provide temperature and humidity control under extended loading conditions that are not at the design point. Option requires Digital Modulating Compressor (Model Option A1), Return Air Bypass (Model Option A2), Modulating Hot Gas Reheat (Feature 8), and DDC Actuator (Feature 2). Available on 4, 5, 6, 7, 8, 10, 13, 15, 16, 18, 20, 25, 30, 26, 31, and 40 ton units only.

***V = PAC™ Precise Air Controller (No Digital Scroll™ Compressor)** - Factory mounted programmable controller to provide temperature and humidity control under extended loading conditions that are not at the design point. Option requires Return Air Bypass (Model Option A2), Modulating Hot Gas Reheat (Feature 8), and DDC Actuator (Feature 2). Same as option U without the Digital Scroll™ compressor.

*See Controls section for more information about control options

Feature 14A

Preheat Configuration

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-**00**-0A000000B

0 = *Standard* - No Preheat

***A** = *Steam Distributing Coil Preheat O/A 1 Row* - One row steam coil mounted in the outside air hood with proportional dampers to route air through the coil and/or bypass air around the coil.

***B** = *Steam Distributing Coil Preheat O/A 2 Row* - Same as option A except with a two row coil.

***C** = *Hot Water Coil Preheat O/A 1 Row* - One row hot water coil mounted in the outside air hood with proportional dampers to route air through the coil and/or bypass air around the coil.

***D** = *Hot Water Coil Preheat O/A 2 Row* - Same as option C except with a two row coil.

* Entering temperatures must be above 32°F. Refer to AAONEcat32™ for performance data. Preheat is available on RN Series units with DX cooling and the power exhaust, power return, or empty energy recovery wheel options and with chilled water cooling and the empty energy recovery wheel options. No valves or controls are included with these options.

Feature 14B

Preheat Sizing

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-**00**-0A000000B

0 = *Standard* - No Preheat

***A** = *Single Serpentine 8FPI* - Steam or hot water coil, 8 fins per inch, single piping inlet/outlet.

***B** = *Half Serpentine 8FPI* - Hot water coil, 8 fins per inch, single piping inlet/outlet.

***C** = *Single Serpentine 10FPI* - Steam or hot water coil, 10 fins per inch, single piping inlet/outlet.

***D** = *Half Serpentine 10FPI* - Hot water coil, 10 fins per inch, single piping inlet/outlet.

***E** = *Single Serpentine 12FPI* - Steam or hot water coil, 12 fins per inch, single piping inlet/outlet.

***F** = *Half Serpentine 12FPI* - Hot water coil, 12 fins per inch, single piping inlet/outlet.

*Refer to AAONEcat32™ for performance data. Preheat is available on RN Series units with DX cooling and the power exhaust, power return, or empty energy recovery wheel options and with chilled water cooling and the empty energy recovery wheel options. No valves or controls are included with these options.

Feature 14B - Preheat Sizing Continued

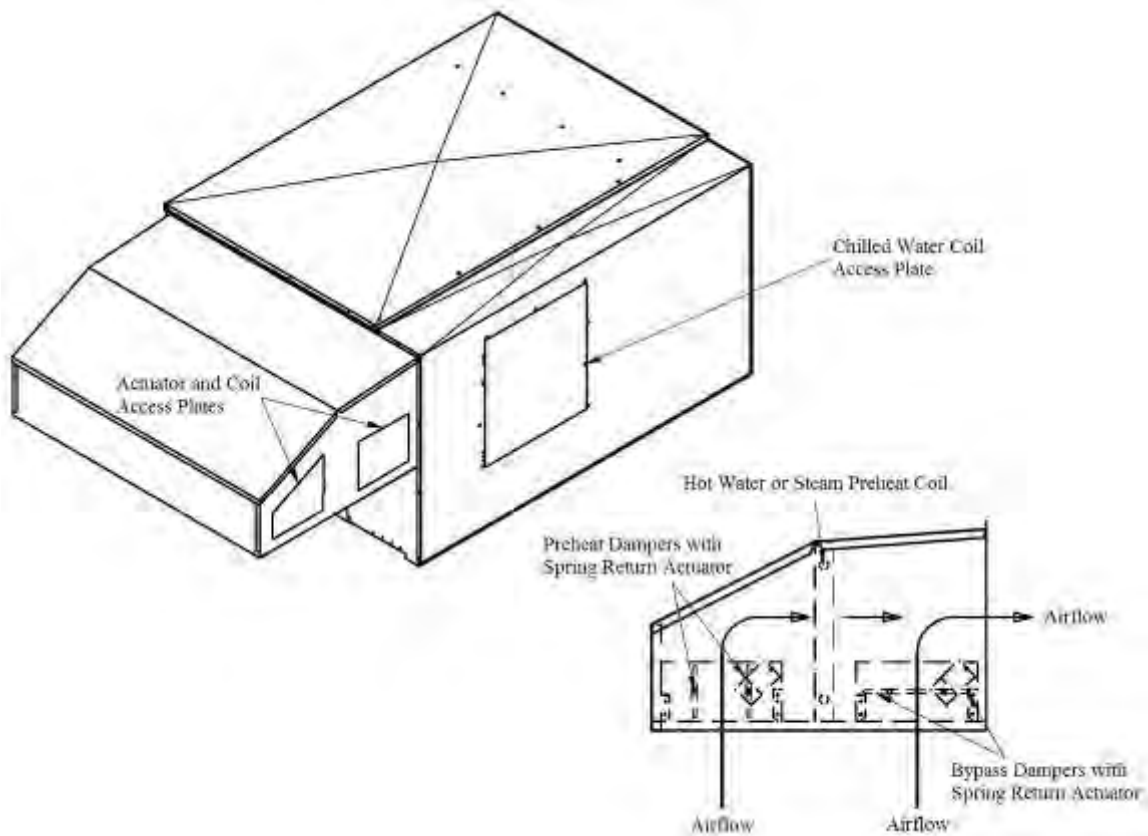


Figure 5 - RM Series Preheat Hood with Chilled Water Cooling Coil

Feature 15

Blank

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = Standard

Feature 16

Interior Cabinet Options

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *Standard* - The RM series has interior lined with 1" 1.5 lb/ft³ flexible, resilient, blanket-type insulation which does not support microbial growth. The fibers of the insulation are incombustible and non-hygroscopic. The RN series has 2" thick rigid, closed cell polyurethane foam double wall construction with a thermal break. On the RM series, drain pans fabricated with galvanized sheet metal with a corrosion resistant polymer coated interior are standard, while on the RN series, drain pans fabricated with 18GA 304 stainless steel are standard. All drain pans are bottom insulated and double sloped to meet IAQ guidelines.

A = *Stainless Steel Drain Pan* - Evaporator coil drain pan is fabricated of 18GA 304 stainless steel. All drain pans are bottom insulated and double sloped to meet IAQ guidelines. Option is available on RM series only. RN series have 18GA 304 stainless steel drain pans standard.

B = *Marine Service Lights* - Marine type protected service lights located in the control and blower compartments. The circuit is wired to the line side of the unit power block, permitting use of the lights while the power to the unit is shut off.

C = *Insulation Liners* - Galvanized steel interior to cover the insulation. Option is available on RM series only. RN series have 2" foam double wall construction standard.

D = *Stainless Steel Drain Pan + Marine Service Lights* - Options A + B

E = *Stainless Steel Drain Pan + Insulation Liners* - Options A + C

F = *Marine Service Lights + Insulation Liners* - Options B + C

G = *Stainless Steel Drain Pan + Marine Service Lights + Insulation Liners* - Options A + B + C

Feature 17

Exterior Cabinet Options

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000B

0 = *Standard* - Units fabricated from G90 galvanized sheet metal.

A = *Base Insulation* - 1" 1.5 lb/ft³ flexible, resilient, blanket-type insulation which does not support microbial growth is added to the bottom of the unit base pan. The fibers of the insulation are incombustible and non-hygroscopic. Available on RM series only. RM series has a galvanized sheet metal unit base pan standard and RN series has 1" foam double wall constructed unit base pan standard. Select this option if the unit is to be supported on rails or similar structure or if the unit base is exposed to the outside air and subject to sweating.

Feature 17 - Exterior Cabinet Options Continued

B = *Burglar Bars* - 1/2 inch diameter welded steel bars crosshatched 8 inches apart across the unit base pan supply and return air openings.

C = *Condenser Coil Guards* - Condenser coil guards fabricated from galvanized sheet metal, painted and factory mounted across the condenser coil face. Available on RM series only.

D = *Base Insulation + Burglar Bars* - Options A + B

E = *Base Insulation + Condenser Coil Guards* - Options A + C

F = *Burglar Bars + Condenser Coil Guards* - Options B + C

G = *Base Insulation + Burglar Bars + Condenser Coil Guards* - Options A + B + C

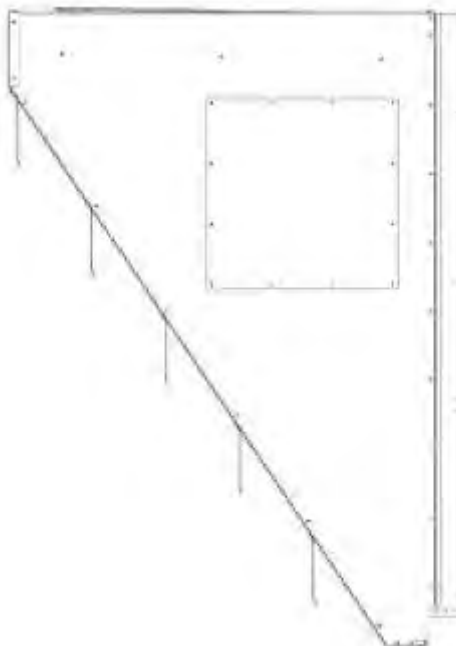


Figure 6 - Side View of Condenser Coil Guard

Feature 18

Customer Code

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A0**0**0000B

0 = *Standard*

Used for groups of special features and options for national account customers only.



Feature 19

Code Options

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A00**0**000B

0 = *Standard ETL USA Listing* - AAON units are ETL listed and tested in accordance with the latest revision of UL 1995. If a Special Pricing Authorization (SPA) is applied there may be additional costs incurred to secure the ETL label.

A = *MEA (New York)* - Approval tag attached to the unit exterior, designating AAON units comply with the Material & Equipment Acceptance requirements for the City of New York.

B = *Chicago Cool & Gas* - Chicago code for a unit with cooling and gas heat. Chicago code states that unit wiring to the condenser fan motors must be in flexible conduit and refrigerant pressure relief valves must be supplied.

C = *Chicago Cool & Electric* - Chicago code for a unit with cooling and electric heat.

D = *Chicago Cool Only* - Chicago code for a cooling only unit.

E = *Chicago Gas Only* - Chicago code for a gas heat only unit.

F = *Chicago Electric Only* - Chicago code for an electric heat only unit.

G = *Chicago No Cool No Heat* - Chicago code for a unit with no cooling and no heat.

H = *ETL USA + Canada Listing* - Canadian and USA listings for export. The nameplate, safety labels, drain, and blower warnings will be in English and French.

Feature 20

Crating

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A00**0**00B

0 = *Standard* - Standard crating

A = *Export Crating* - Crating for overseas shipping fabricated from blocked, braced and banded dimensional lumber and 3/8 inch plywood. Option is only available on units with condensers.

B = *Export Crating, No Condenser Section* - Same as option A, but for a unit without a condensing section.

Feature 21

Water-Cooled Condenser

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A0000**0**0B

0 = *Standard* - No water-cooled condenser.

A = *Balancing Valves* - Ball type valve in the condenser plumbing with pressure taps on either side of the valve.

B = *Water Flow Switch* - Flow switch that shuts unit down if the water flow to the condenser is interrupted.

C = *Motorized Shut-off Valve* - Motorized valve to shut off water flow to the condenser when the unit is shut down.

D = *Head Pressure Control* - Modulating condenser valve for operation below 65°F condenser water temperature.

E = *Balancing Valves + Water Flow Switch* - Options A + B

F = *Balancing Valves + Motorized Shut-off Valve* - Options A + C

G = *Balancing Valves + Head Pressure Control* - Options A + D

H = *Water Flow Switch + Motorized Shut-off Valve* - Options B + C

J = *Water Flow Switch + Head Pressure Control* - Options B + D

L = *Balancing Valves + Water Flow Switch + Motorized Shut-off Valve* - Options A + B + C

M = *Balancing Valves + Water Flow Switch + Head Pressure Control* - Options A + B + D

Feature 22

Control Vendors

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A0000**0**0B

***0** = *Standard* - No controls or controls by others

***A** = *WattMaster Orion Controls System* - AAON supplied and factory installed WattMaster VCM controller (Feature 12). Option requires the selection of an operator interface in AAONEcat32™ to set up controller.

***B** = *Tridium Niagara/JACE Controls System* - AAON supplied controller (Feature 12) manufacturer standard controller.

***C** = *WattMaster Orion Controls System with Specials* - AAON supplied and factory installed WattMaster VCM controller (Feature 12) with additional features for controller. Use AAONEcat32 to select these features. Option requires the selection of an operator interface in AAONEcat32 to set up controller.

Feature 22 - Control Vendors Continued

***D** = *Tridium Niagara/JACE Controls System with Specials* - AAON supplied controller (Feature 12) manufacturer standard controller with additional features for controller. Use AAONEcat32 to select these features.

*See Controls section for more information

Feature 23

Type

Example: RM-005-3-0-AA01-222:FABC-D0B-DBD-0BB-0H0A0C0-00-0A000000**B**

B = *Standard (Gray Paint)* - Cabinet exterior is primer washed then spray coated with a two-part polyurethane, heat-baked coating. Polyurethane coating exceeds 2500 hours when tested under ASTM B 117-95 requirements.

U = *Special Price Authorization & Special Paint* - When a special paint color is specified, a set-up charge and price add per unit is required. Also use this designation if other special paint options are necessary. A Special Pricing Authorization (SPA) worksheet with comprehensive explanation of requirements must accompany the order documents.

X = *Special Price Authorization & Gray Paint* - The Applications Department must issue a Special Pricing Authorization (SPA) to include a non-standard option.

General Data

Unit Information

A Cabinet Cooling

	Unit Size (Tons)					
	2	3	4	5	6	7
Compressor(s)						
Number/Nominal Tons	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
	1/2	1/3	1/4	1/5	1/6	1/7
	Digital	Digital	Digital	Digital	Digital	Digital
	NA	1/3 Dig	1/3.5 Dig	1/4.5 Dig	1/5 Dig	1/7 Dig
	R-22	R-22	R-22	R-22	R-22	R-22
	1/2	1/3	1/4	1/5	1/6	1/8
	Digital	Digital	Digital	Digital	Digital	Digital
	NA	NA	1/4 Dig	1/5 Dig	1/6 Dig	1/8 Dig
Unit Capacity Steps (%)	100 or 10-100(with Digital Scroll)					
Number of Circuits	1					
DX Evaporator Coil - Standard						
Number/Size	1/20” x 32”		1/20” x 34”		1/32” x 34”	
Rows/FPI	3/14					
DX Evaporator Coil - 6 Row						
Standard						
Number/Size	Not Available		1/32” x 28”			
Rows/FPI			6/12			
MA Bypass						
Number/Size	Not Available		1/22” x 28”			
Rows/FPI			6/10		6/12	
RA Bypass						
Number/Size	Not Available		1/20” x 34”			
Rows/FPI			6/12			
Chilled Water Coil						
Number/Size	1/30” x 30.5”					
Rows/FPI	4 or 6/8, 10, or 12 (Single or Half Serpentine)					
Water-Cooled Condenser						
Minimum GPM	2.70	4.05	5.40	6.75	8.10	9.45
Maximum GPM	10.8	16.20	21.6	27.00	32.40	37.80



A Cabinet Heating

	Unit Size (Tons)								
	2	3	4	5	6	7			
Electric Heat									
kW Capacity 230/460/575V	10, 20		10, 20, 30, 40	20, 30, 40					
208V	7.5, 15		7.5, 15, 22.5, 30	15, 22.5, 30					
Stages	10kW (7.5kW-208V) - 1 stage, or fully modulating 20kW(15kW-208V) - 1 or 2 stages, or fully modulating 30kW(22.5kW-208V) - 2 or 3 stages, or fully modulating 40kW(30kW-208V) - 2, 3, or 4 stages, or fully modulating								
Gas Heat									
Natural Gas Heat									
Heat Input (MBH)	69		90	90	180	90	180	90	180
Stages	1, 2		1, 2	1, 2	1, 2, 4	1, 2	1, 2, 4	1, 2	1, 2, 4
Modulating Natural Gas Heat Input Range	30-100% of rated capacity								
LP Gas Heat									
Heat Input (MBH)	69		90	90	180	90	180	90	180
Stages	1		1	1	1, 2	1	1, 2	1	1, 2
Hot Water Coil									
Size	21” x 22.4”								
Rows/FPI	1 or 2/8, 10, or 12 (Single or Half Serpentine)								
Steam Coil									
Size	21” x 22.4”								
Rows/FPI	1 or 2/8, 10, or 12 (Single Serpentine)								
Hot Water Preheat Coil									
Size	11.25” x 33.0”								
Rows/FPI	1 or 2/8, 10, or 12 (Single or Half Serpentine)								
Steam Preheat Coil									
Size	10.5” x 33.0”								
Rows/ FPI	1 or 2/8, 10, or 12 (Single Serpentine)								

A Cabinet Fans

	Unit Size (Tons)					
	2	3	4	5	6	7
Supply Fans						
Number/Type	1/Forward Curved (FC) or 1/ Backward Curved (BC)			1/BC		
*CFM Range	600-2000	600-3500	800-3400	900-3400	1100-3500	1500-2500
Condenser Fans						
Number/Size/Type	1/22”/Propeller Fan (Prop)				2/22”/Prop	
hp (each fan)	0.16		.33			
Exhaust Fans						
Number/Size/Type	1/12” x 9”/FC or 1/15”/BC with Energy Recovery Wheel					
hp Range	1.0, 2.0, or 3.0					
CFM Range	FC					
	600-3900					
	BC					
	300-3400		400-3700			
Return Fans						
Number/Size/Type	Not Available					
hp Range						
CFM Range						

*CFM values may be attainable outside this range, check AAONEcat32™ for availability



B Cabinet Cooling

	Unit Size (Tons)			
	8	10	13	15
Compressor(s)				
Number/Nominal Tons	R-410A	R-410A	R-410A	R-410A
	2/3.5	2/4.5	2/6	2/7
	Digital	Digital	Digital	Digital
	1/3.5, 1/3.5 Dig	1/4.5, 1/4.5 Dig	1/6, 1/5 Dig	1/7, 1/7 Dig
	R-22	R-22	R-22	R-22
	2/4	2/5	2/6	2/7
	Digital	Digital	Digital	Digital
	1/4, 1/4 Dig	1/5, 1/5 Dig	1/6, 1/6 Dig	1/7, 1/7 Dig
Unit Capacity Steps (%)	100/50 or 10-100(with Digital Scroll)			
Number of Circuits	2			
DX Evaporator Coil - Standard				
Number/Size	1/40” x 42”			
Rows/FPI	2/14	3/14	4/14	
DX Evaporator Coil - 6 Row				
Standard				
Number/Size	1/40” x 42”			
Rows/FPI	6/12			
MA Bypass				
Number/Size	1/32” x 42”			
Rows/FPI	6/12			
RA Bypass				
Number/Size	1/30” x 42”			
Rows/FPI	6/12			
Chilled Water Coil				
Number/Size	1/40” x 39”			
Rows/FPI	4 or 6/8, 10, or 12 (Single or Half Serpentine)			
Water-Cooled Condenser				
Minimum GPM	2.70	4.05	5.40	6.75
Maximum GPM	10.80	16.20	21.60	27.00

B Cabinet Heating

	Unit Size (Tons)			
	8	10	13	15
Electric Heat				
kW Capacity 230/460/575V	20, 30, 40, 50, 60			
208V	15, 22.5, 30, 37.6, 45.1			
Stages	20kW(15kW-208V) - 1 or 2 stages, or fully modulating 30kW(22.5kW-208V) - 2 or 3 stages, or fully modulating 40kW(30kW-208V) - 2, 3, or 4 stages, or fully modulating 50kW(37.6kW-208V) - 2, 3, 4, or 5 stages, or fully modulating 60kW(45.1kW-208V) - 2, 3, 4, 5, or 6 stages, or fully modulating			
Gas Heat				
<i>Natural Gas Heat</i>				
Heat Input (MBH)	180, 270, or 351		180, 270, or 390	
Stages	2 or 4			
<i>Modulating Natural Gas Heat Input Range</i>	30-100% of rated capacity			
<i>LP Gas Heat</i>				
Heat Input (MBH)	180, 270, or 351		180, 270, or 390	
Stages	2			
Hot Water Coil				
Size	40’’ x 22.5’’			
Rows/FPI	1 or 2/8, 10, or 12 (Single or Half Serpentine)			
Steam Coil				
Size	40’’ x 22.5’’			
Rows/FPI	1 or 2/8, 10, or 12 (Single Serpentine)			
Hot Water Preheat Coil				
Size	17.5’’ x 36.0’’			
Rows/FPI	1 or 2/8, 10, or 12 (Single or Half Serpentine)			
Steam Preheat Coil				
Size	18.0’’ x 36.0’’			
Rows/ FPI	1 or 2/8, 10, or 12 (Single Serpentine)			



B Cabinet Fans

	Unit Size (Tons)			
	8	10	13	15
Supply Fans				
Number/Type	1/Backward Curved (BC)			
*CFM Range	1700-6300	1700-7100	2100-7000	2400-7000
Condenser Fans				
Number/Size/Type	1/30"/Propeller Fan (Prop)		2/30"/Prop	
hp (each fan)	0.75			
Exhaust Fans				
Number/Size/Type	1/12" x 9"/Forward Curved (FC) or 1/18.5"/BC with Energy Recovery Wheel			
hp Range	1.0, 2.0, or 3.0			
CFM Range	FC			
	1200-6400			
	BC			
	400-5300	800-5300	800-5500	
Return Fans				
Number/Size/Type	Not Available			
hp Range				
CFM Range				

*CFM values may be attainable outside this range, check AAONEcat32™ for availability

C Cabinet Cooling

	Unit Size (Tons)				
	16	18	20	25	30
Compressor(s)					
Number/Nominal Tons	R-410A	R-410A	R-410A	R-410A	R-410A
	2/7	2/7.5	2/9	2/11	2/13
	Digital	Digital	Digital	Digital	Digital
	1/7, 1/7 Dig	1/7.5, 1/7.5 Dig	1/7.5, 1/10 Dig	1/11, 1/11 Dig.	1/13, 1/13 Dig.
	R-22	R-22	R-22	R-22	R-22
	2/7	2/8	2/9	2/12	2/13
	Digital	Digital	Digital	Digital	Digital
	1/7, 1/7 Dig	1/8, 1/8 Dig	1/8 1/10 Dig	1/12 1/8 Dig	1/6, 1/12, 1/6 Dig
Unit Capacity Steps (%)	100/50 or 10-100(with Digital Scroll)				
Number of Circuits	2				
DX Evaporator Coil - Standard					
Number/Size	1/51” x 55”	1/51” x 55”			
Rows/FPI	3/14	4/14			
DX Evaporator Coil - 6 Row					
Standard					
Number/Size	1/51” x 55”				
Rows/FPI	6/12				
MA Bypass					
Number/Size	1/43” x 55”				
Rows/FPI	6/12				
RA Bypass					
Number/Size	1/42” x 55”				
Rows/FPI	6/12				
Chilled Water Coil					
Number/Size	1/51” x 54”				
Rows/FPI	4 or 6/8, 10, or 12 (Single or Half Serpentine)				
Water-Cooled Condenser					
Minimum GPM	21.60	24.30	27.00	33.75	40.50
Maximum GPM	86.40	97.20	108.00	135.00	162.00

C Cabinet Heating

	Unit Size (Tons)				
	16	18	20	25	30
Electric Heat					
kW Capacity 230/460/575V	20, 40, 60, 80, 100				
208V	15, 30, 45.1, 60.1, 75.1				
Stages	20kW(15kW-208V) - 1 or 2 stages, or fully modulating 40kW(30kW-208V) - 2, 3, or 4 stages, or fully modulating 60kW(45.1kW-208V) - 2, 3, 4, 5, or 6 stages, or fully modulating 80kW(60.1kW-208V) - 2, 3, 4, 5, 6, or 7 stages, or fully modulating 100kW(75.1kW-208V) - 2, 4, 6, 7, or 8 stages, or fully modulating				
Gas Heat					
<i>Natural Gas Heat</i>					
Heat Input (MBH)	270, 390, 480				
Stages	2, 4				
<i>Modulating Natural Gas Heat Input Range</i>	30-100% of rated capacity				
<i>LP Gas Heat</i>					
Heat Input (MBH)	270, 390, 480				
Stages	2				
Hot Water Coil					
Size	45" x 23.3"				
Rows/FPI	1 or 2/8, 10, or 12 (Single or Half Serpentine)				
Steam Coil					
Size	42" x 21.5"				
Rows/FPI	1 or 2/8, 10, or 12 (Single Serpentine)				
Hot Water Preheat Coil					
Size	22.5" x 45.0"				
Rows/FPI	1 or 2/8, 10, or 12 (Single or Half Serpentine)				
Steam Preheat Coil					
Size	22.5" x 45.0"				
Rows/ FPI	1 or 2/8, 10, or 12 (Single Serpentine)				

C Cabinet Fans

	Unit Size (Tons)				
	16	18	20	25	30
Supply Fans					
Number/Type	1/Backward Curved (BC)				
*CFM Range	2400-12600	2600-12600	3000-12600	4100-12600	5100-12600
Condenser Fans					
Number/Size/Type	2/30"/Propeller Fan (Prop)			3/30"/Prop	
hp (each fan)	0.75				
Exhaust Fans					
Number/Size/Type	1 or 2/22" x 4.93"/BC				
hp Range	1.0, 2.0, 3.0, 5.0, 7.5, 10, 15, 20				
CFM Range	500-4600	500-5100			600-8100
Return Fans					
Number/Size/Type	1 or 2/22"/Axial Flow				
hp Range	1.0, 2.0, 3.0, 5.0, 7.5, 10, 15, 20				
CFM Range	500-13400				

*CFM values may be attainable outside this range, check AAONEcat32™ for availability



D Cabinet Cooling

	Unit Size (Tons)					
	26	31	40	50	60	70
Compressor(s)						
Number/Nominal Tons	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
	4/6	4/7	4/9	4/11	4/13	4/15
	Digital	Digital	Digital	Digital	Digital	Digital
	2/6, 2/5 Dig	2/7, 2/7 Dig	2/7.5, 2/10 Dig	NA	NA	NA
	R-22	R-22	R-22	R-22	R-22	R-22
	4/6	4/7	4/9	4/12	4/13	4/16
	Digital	Digital	Digital	Digital	Digital	Digital
	3/6, 1/6 Dig	3/7, 1/6 Dig	2/11, 1/9, 1/6 Dig	NA	NA	NA
Unit Capacity Steps	100/75/50/25 or 100/50 or 10-100(with Digital Scroll)					
Number of Circuits	4					
DX Evaporator Coil - Standard						
Number/Size	1/51” x 91”			2/35” x 90”		1/35”x90” and 1/30”x90”
Rows/FPI	3/14	4/14				6/12
DX Evaporator Coil - 6 Row						
Standard						
Number/Size	1/51” x 91”			2/35” x 90”		N/A
Rows/FPI	6/12			6/12		
MA Bypass						
Number/Size	1/43” x 90”			2/27” x 90”		
Rows/FPI	6/12			6/12		
RA Bypass						
Number/Size	1/48” x 90”			2/30” x 90”		
Rows/FPI	6/12			6/12		
Chilled Water Coil						
Number/Coil Face Area	1/31.9 ft²			2/41.8 ft² (Total)		
Rows/FPI	4 or 6/8, 10, or 12 (Single or Half Serpentine)					
Water-Cooled Condenser						
Minimum GPM	35.10	41.85	54.00	67.50	81.00	94.50
Maximum GPM	140.40	167.40	216.00	270.00	324.00	378.00

D Cabinet Heating

	Unit Size (Tons)					
	26	31	40	50	60	70
Electric Heat						
kW Capacity 230/460/575V	40, 80, 120, 160	40, 80, 120, 160, 200, 240				
208V	30, 60.1, 90.1, 120.2	30, 60.1, 90.1 120.2, 150.5, 180.3				
Stages	40kW(30kW-208V) - 2 stages, or fully modulating 80kW(60.1kW-208V) - 2 or 4 stages, or fully modulating 120kW(90.1kW-208V) - 2 or 4 stages, or fully modulating 160kW(120.2kW-208V) - 2, 4, or 8 stages, or fully modulating 200kW(150.5kW-208V) - 2, 4, or 8 stages, or fully modulating 240kW(180.3kW-208V) - 2, 4, or 8 stages, or fully modulating					
Gas Heat						
<i>Natural Gas Heat</i>						
Heat Input (MBH)	540		810		1080	
Stages	2 or 4					
<i>Modulating Natural Gas Heat Input Range</i>	540MBH - 30-100% of rated capacity 810MBH - 20-100% of rated capacity 1080MBH - 15-100% of rated capacity					
<i>LP Gas Heat</i>						
Heat Input (MBH)	540		810		1080	
Stages	2					
Hot Water Coil						
Size	45” x 60”					
Rows/FPI	1 or 2/8, 10, or 12 (Single or Half Serpentine)					
Steam Coil						
Size	45” x 60”					
Rows/FPI	1 or 2/8, 10, or 12 (Single Serpentine)					
Hot Water Preheat Coil						
Size	26” x 75”					
Rows/FPI	1 or 2/8, 10, or 12 (Single or Half Serpentine)					
Steam Preheat Coil						
Size	26” x 60”					
Rows/ FPI	1 or 2/8, 10, or 12 (Single Serpentine)					



D Cabinet Fans

	Unit Size (Tons)					
	26	31	40	50	60	70
Supply Fans						
Number/Type	1 or 2/Backward Curved (BC)					
*CFM Range	4300-20700	4500-20700	6100-20700	8000-28400	9400-28400	9900-28400
Condenser Fans						
Number/Size/Type	4/30”/Propeller Fan (Prop)			6/30”/Prop		
hp (each fan)	.75					
Exhaust Fans						
Number/Size/Type	1 or 2/35.5”/Axial Flow or 1 or 2/27”/BC with Energy Recovery Wheel					
hp Range	1.0, 2.0, 3.0, 5.0, 7.5, 10, 15, 20					
CFM Range	AF					
	600-54300					
	BC					
	1200-32200	1500-33800		1500-36000	1500-41300	1500-42700
Return Fans						
Number/Size/Type	1 or 2/35.5”/Axial Flow					
hp Range	1.0, 2.0, 3.0, 5.0, 7.5, 10, 15, 20					
CFM Range	600-55300					

*CFM values may be attainable outside this range, check AAONEcat32™ for availability

Curb Information

Acoustical Solid Bottom Curb

Acoustical solid bottom curbs are lined with mat-faced insulation for sound attenuation. Curbs are available 14" or 24" tall sizes. The supply and return air connection openings should be made in the bottom of the curb for the duct connections. The minimum areas for the connections are shown in the drawings in the *Units Drawings* section at the back of the engineering catalog.

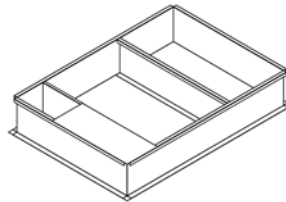


Figure 7 - Example Solid Bottom Curb

Optional Adjustable Pitch Solid Bottom Curb

Adjustable pitch acoustical solid bottom curbs are available on the RM series only. Curbs are available 14" or 24" tall sizes. The supply and return air connection openings should be made in the bottom of the curb for the duct connections. The minimum areas for the connections are shown in the drawings in the *Units Drawings* section at the back of the engineering catalog. The maximum pitch adjustment is 0.75" per foot in either direction.

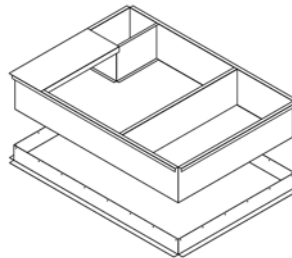


Figure 8 - Example Adjustable Pitch Solid Bottom Curb

Knock Down Curb with Duct Support Rails

Knock down curbs are shipped disassembled for field construction. Curbs are available 14" or 24" tall sizes. Duct support rail kits are purchased separately from knock down curbs. Dimensions are shown in the drawings in the *Unit Drawings* section at the back of the engineering catalog.

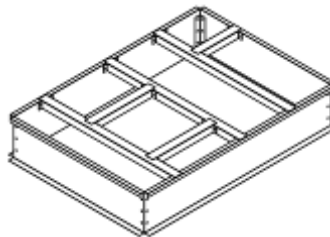


Figure 9 - Example Knock Down Curb (Shown with Duct Support Rail Kit)

Horizontal Discharge Acoustical Solid Bottom Curb Applications

RM and RN series acoustical solid bottom curb can be used in applications requiring horizontal return and supply openings. Supply air horizontal connection opening should be made in the curb as with a crossover opening, while return air horizontal opening should be made below the outside air opening in the return air section of the unit. Unit should be ordered without a return air opening. Contact the Applications Department for more information.

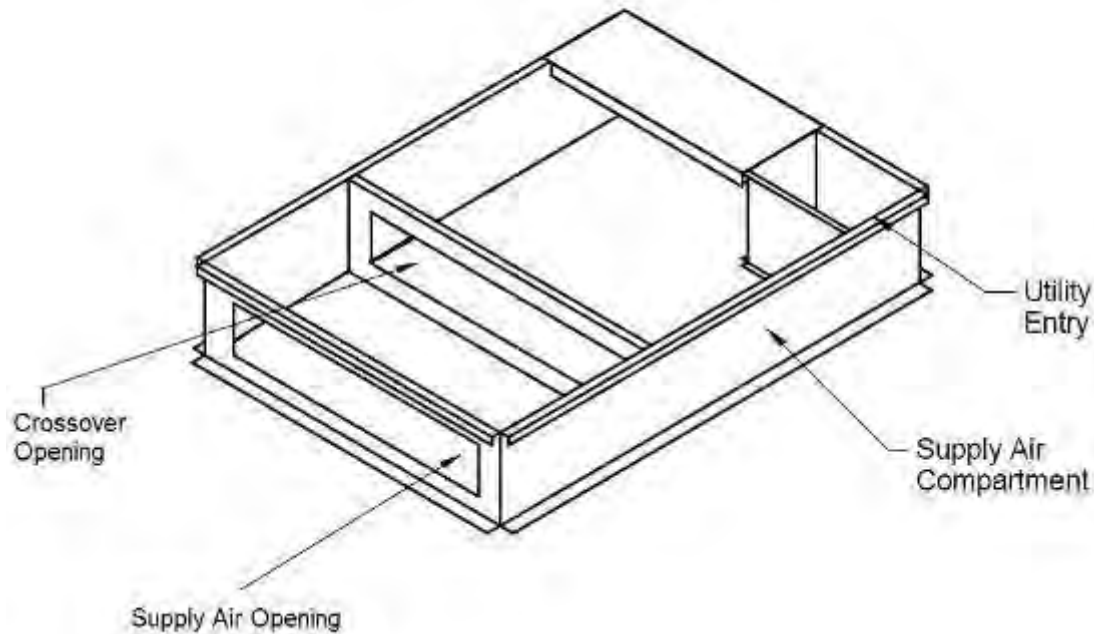


Figure 10 - Acoustical Solid Bottom Curb with Horizontal Discharge Openings

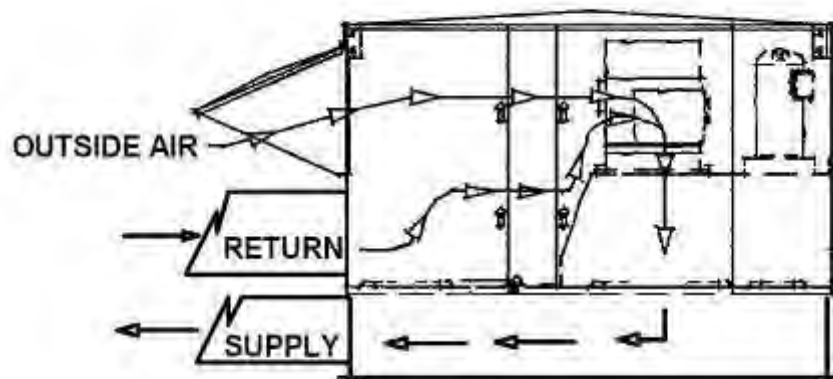


Figure 11 - Example RM Series Unit and Curb with Horizontal Return and Supply Openings

Filter Specifications

A Cabinet Pre Filters - Feature 6A

Option	Model (Tons)	Quantity	Size	Type
0 (Std)	RM-002, RM-003, RM-004, RM-005, RM-006, & RM-007	No Pre Filter		
B		2	10'' x 20'' x 1''	Metal Mesh Outside Air Filter
C		2	40'' x 16'' x 5/16''	Lint Screen Unit Pre Filter

A Cabinet Evaporator Air Filters - Feature 6B

Option	Model (Tons)	Quantity	Size	Type
0 (Std)	RM-002, RM-003, RM-004, & RM-005	4	16'' x 20'' x 2''	Throwaway 25% eff
	RM-006 & RM-007			Pleated 30% eff
A	RM-002, RM-003, RM-004, & RM-005		16'' x 20'' x 2''	Pleated 30% eff
B	RM-002, RM-003, RM-004, RM-005, RM-006, & RM-007		16'' x 20'' x 4''	Pleated 30% eff
C	RM-002, RM-003, RM-004, RM-005, RM-006, & RM-007		16'' x 20'' x 2''	Permanent Filter Frame w/ Replaceable Media

A Cabinet Optional RA Bypass Filters - Model Option A2

Option	Model (Tons)	Quantity	Size	Type
Q & R	RM-004, RM-005, RM-006, & RM-007	2 (Evap)	16'' x 20'' x Depth''	Depth and Type Depend on Option 6B
		1 (Bypass)	12'' x 24'' x Depth''	



A Cabinet Heat Wheel Outside Air Filters - Feature 1A

Option	Model (Tons)	Quantity	Size	Type
F, G, H, J, Q, R, S, T, W, Y, Z, 1, 2, & 3	RM-002, RM-003, RM-004, RM-005, RM-006, & RM-007	1	16'' x 25'' x 4''	Pleated 30 % eff

A Cabinet Preheat Filters - Feature 14A & 14B

Option	Model (Tons)	Quantity	Size	Type
A	RM-002, RM-003, RM-004, RM-005, RM-006, & RM-007	2	10'' x 20'' x 1''	Metal Mesh Outside Air Filter
A, B, C, & D				

B Cabinet Pre Filters - Feature 6A

Option	Model (Tons)	Quantity	Size	Type
0 (Std)	RM-008, RM-010, RM-013, & RM-015	No Pre Filter		
B		3 (2 w/ Power Exhaust)	16'' x 20'' x 1''	Metal Mesh Outside Air Filter
C		2	47'' x 20'' x 5/16''	Lint Screen Unit Pre Filter
		1 & 1 (w/ RA Bypass)	47'' x 24'' x 5/16'' 47'' x 12'' x 5/16''	

B Cabinet Evaporator Air Filters - Feature 6B

Option	Model (Tons)	Quantity	Size	Type
0 (Std)	RM-008 & RM-010	6	16'' x 20'' x 2''	Throwaway 25% eff
	RM-013 & RM-015			Pleated 30% eff
A	RM-008 & RM-010		16'' x 20'' x 2''	Pleated 30% eff
B	RM-008, RM-010, RM-013, & RM-015		16'' x 20'' x 4''	Pleated 30% eff
C	RM-008, RM-010, RM-013, & RM-015		16'' x 20'' x 2''	Permanent Filter Frame w/ Replaceable Media

B Cabinet Optional RA Bypass Filters - Model Option A2

Option	Model (Tons)	Quantity	Size	Type
Q & R	RM-008, RM-010, RM-013, & RM-015	2 (Evap)	24'' x 24'' x Depth''	Depth and Type Depend on Option 6B
		2 (Bypass)	12'' x 24'' x Depth ''	

B Cabinet Heat Wheel Outside Air Filters - Feature 1A

Option	Model (Tons)	Quantity	Size	Type
F, G, H, J, Q, R, S, T, W, Y, Z, 1, 2, & 3	RM-008, RM-010, RM-013, & RM-015	2	16'' x 20'' x 4''	Pleated 30% eff

B Cabinet Preheat Filters - Feature 14A & 14B

Option		Model (Tons)	Quantity	Size	Type
A	B	RM-008, RM-010, RM-013, & RM-015	2	16'' x 20'' 1''	Metal Mesh Outside Air Filter
A, B, C, & D	A, B, C, D, E, & F				

C Cabinet Pre Filters - Feature 6A

Option	Model (Tons)	Quantity	Size	Type
0 (Std)	RM-016, RM-018, RM-020, RM-025 & RM-030	No Pre Filter		
A		6	20'' x 25'' x 2''	Pleated 30% eff
		6 (w/ RA Bypass)	16'' x 20'' x 2''	
B		2 (3 w/ Economizer Only)	20'' x 25'' x 1''	Metal Mesh Outside Air Filter
C		2	55'' x 25'' x 5/16''	Lint Screen Unit Pre Filter
		3 (w RA Bypass)	55'' x 16'' x 5/16''	

C Cabinet Evaporator Air Filters - Feature 6B

Option	Model (Tons)	Quantity	Size	Type
0 (Std)	RM-016, RM-018, RM-020, RM-025 & RM-030	6	20'' x 25'' x 2''	Pleated 30% eff
B			20'' x 25'' x 4''	Pleated 30% eff
C			20'' x 25'' x 2''	Permanent Filter Frame w/ Replaceable Media
F			20'' x 25'' x 4''	Pleated 65% eff
G				Pleated 85% eff
H				Pleated 95% eff

C Cabinet Optional RA Bypass Filters - Model Option A2

Option	Model (Tons)	Quantity	Size	Type
Q & R	RM-016, RM-018, RM-020, RM-025 & RM-030	6 (Evap)	16'' x 20'' x Depth''	Depth and Type Depend on Option 6B
		3 (Bypass)	16'' x 20'' x Depth''	

C Cabinet Heat Wheel Outside Air Filters - Feature 1A

Option	Model (Tons)	Quantity	Size	Type
F, G, H, J, Q, R, S, T, W, Y, Z, 1, 2, & 3	RM-016, RM-018, RM-020, RM-025 & RM-030	3	20'' x 25'' x 4''	Pleated 30% eff

C Cabinet Preheat Filters - Feature 14A & 14B

Option		Model (Tons)	Quantity	Size	Type
A	B	RM-016, RM-018, RM-020, RM-025 & RM-030	2	16'' x 25'' 1''	Metal Mesh Outside Air Filter
A, B, C, & D	A, B, C, D, E, & F				

D Cabinet Pre Filters - Feature 6A

Option	Model (Tons)	Quantity	Size	Type
0 (Std)	RN-026, RN-031, RN-040, RN-050, RN-060, & RN-070	No Pre Filter		
A	RN-026, RN-031, & RN-040	8	24'' x 24'' x 2''	Pleated 30% eff
		16 (w/ RA Bypass)	12'' x 24'' x 2''	
	RN-050, RN-060, & RN-070	24		
B	RN-026, RN-031, RN-040, RN-050, RN-060, & RN-070	6	16'' x 25'' x 1''	Metal Mesh Outside Air Filter
		4 (w/ PE or PR)		
C	RN-026, RN-031, & RN-040	8	24'' x 24'' 5/16''	Lint Screen Unit Pre Filter
	RN-050, RN-060, & RN-070	12	47'' x 12'' x 5/16''	

D Cabinet Evaporator Air Filters - Feature 6B

Option	Model (Tons)	Quantity	Size	Type
0 (Std)	RN-026, RN-031, & RN-040	8	24'' x 24'' x 2''	Pleated 30% eff
	RN-050, RN-060, & RN-070	24	12'' x 24'' x 2''	
B	RN-026, RN-031, & RN-040	8	24'' x 24'' x 4''	Pleated 30% eff
	RN-050, RN-060, & RN-070	24	12'' x 24'' x 4''	
C	RN-026, RN-031, & RN-040	8	24'' x 24'' x 2''	Permanent Filter Frame w/ Replaceable Media
	RN-050, RN-060, & RN-070	24	12'' x 24'' x 2''	
F	RN-026, RN-031, & RN-040	8	24'' x 24'' x 4''	Pleated 65% eff
	RN-050, RN-060, & RN-070	24	12'' x 24'' x 4''	
G	RN-026, RN-031, & RN-040	8	24'' x 24'' x 4''	Pleated 85% eff
	RN-050, RN-060, & RN-070	24	12'' x 24'' x 4''	
H	RN-026, RN-031, & RN-040	8	24'' x 24'' x 4''	Pleated 95% eff
	RN-050, RN-060, & RN-070	24	12'' x 24'' x 4''	

D Cabinet Optional RA Bypass Filters - Model Option A2

Option	Model (Tons)	Quantity	Size	Type
Q & R	RN-026, RN-031, RN-040	16 (Evap & Bypass)	12'' x 24'' x Depth''	Depth and Type Depend on Option 6B
Q & R	RN-050, RN-060, & RN-070	24 (Evap & Bypass)	12'' x 24'' x Depth''	Depth and Type Depend on Option 6B

D Cabinet Heat Wheel Outside Air Filters - Feature 1A

Option	Model (Tons)	Quantity	Size	Type
F, G, H, J, Q, R, S, T, W, Y, Z, 1, 2, & 3	RN-026, RN-031, RN-040, RN-050, RN-060, & RN-070	4	24'' x 24'' x 4''	Pleated 30% eff
4	RN-026, RN-031, RN-040, RN-050, RN-060, & RN-070	3	24'' x 24'' x 4''	Pleated 30% eff

D Cabinet Preheat Filters - Feature 14A & 14B

Option		Model (Tons)	Quantity	Size	Type
A	B	RN-026, RN-031, RN-040, RN-050, RN-060, & RN-070	6 (4 w/ Power Exhaust and Power Return)	16'' x 25'' x 1''	Metal Mesh Outside Air Filter
A, B, C, & D	A, B, C, D, E, & F				

Performance Data

2 and 3 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

2 Ton		Refrig. R-22		Standard Evaporator Coil (2 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				
			95		120		
			Total MBH	Sensible MBH	Total MBH	Sensible MBH	
75	62	600	24.56	18.26	22.10	17.11	
		1300	28.05	28.05	24.58	24.58	
		2000	31.47	31.47	24.99	24.99	
	67	600	26.88	14.97	24.23	13.83	
		1300	30.64	21.43	27.34	20.25	
		2000	31.98	26.96	28.47	25.80	
	72	600	29.43	11.62	26.44	10.50	
		1300	33.37	14.34	29.62	13.12	
		2000	34.39	16.44	30.98	15.37	
80	62	600	24.55	21.37	22.05	20.20	
		1300	27.10	27.10	24.58	24.58	
		2000	29.03	29.03	26.23	26.23	
	67	600	26.82	18.06	24.18	16.97	
		1300	30.60	28.17	27.29	27.01	
		2000	36.10	36.10	31.86	31.86	
	72	600	29.21	14.71	26.38	13.65	
		1300	33.32	21.15	29.59	19.94	
		2000	34.35	26.50	30.94	25.47	
90	62	600	24.14	24.14	22.21	22.21	
		1300	29.80	29.80	27.21	27.21	
		2000	32.28	32.28	29.41	29.41	
	67	600	26.70	24.15	24.07	23.08	
		1300	29.83	29.83	27.23	27.23	
		2000	32.31	32.31	29.44	29.44	
	72	600	29.08	20.86	26.38	19.84	
		1300	33.23	33.23	29.22	29.22	
		2000	37.37	37.37	29.25	29.25	

2 Ton		Refrig. R-410A		Standard Evaporator Coil (2 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				
			95		120		
			Total MBH	Sensible MBH	Total MBH	Sensible MBH	
75	62	600	24.70	18.32	21.34	16.77	
		1300	28.74	28.74	23.81	23.81	
		2000	32.35	32.35	24.26	24.26	
	67	600	27.28	15.13	23.53	13.55	
		1300	31.45	21.75	26.31	19.91	
		2000	32.55	27.32	27.31	25.58	
	72	600	29.99	11.83	25.90	10.30	
		1300	34.36	14.67	29.12	12.97	
		2000	35.87	16.96	30.21	15.19	
80	62	600	24.62	21.40	21.29	19.87	
		1300	27.48	27.48	23.91	23.91	
		2000	29.72	29.72	25.69	25.69	
	67	600	27.21	18.23	23.47	16.68	
		1300	31.40	28.49	26.30	26.30	
		2000	36.22	36.22	31.01	31.01	
	72	600	29.92	14.98	25.84	13.45	
		1300	34.31	21.50	29.08	19.80	
		2000	35.83	27.12	30.17	25.40	
90	62	600	24.28	24.28	21.62	21.62	
		1300	30.36	30.36	26.59	26.59	
		2000	32.87	32.87	28.66	28.66	
	67	600	27.07	24.34	23.43	22.80	
		1300	30.38	30.38	26.61	26.61	
		2000	32.91	32.91	28.69	28.69	
	72	600	29.77	21.12	25.73	19.57	
		1300	31.40	34.20	28.48	28.48	
		2000	36.22	38.75	28.49	28.49	

3 Ton		Refrig. R-22		Standard Evaporator Coil (2 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				
			95		120		
			Total MBH	Sensible MBH	Total MBH	Sensible MBH	
75	62	600	29.16	20.45	26.48	19.16	
		2050	36.00	36.00	31.66	31.66	
		3500	35.38	35.38	31.86	31.86	
	67	600	31.81	17.11	28.88	15.82	
		2050	39.12	30.07	34.86	28.45	
		3500	40.93	39.14	36.16	36.16	
	72	600	34.83	13.78	31.67	12.48	
		2050	42.97	19.33	38.13	17.80	
		3500	44.34	22.65	39.38	21.16	
80	62	600	29.11	23.57	26.50	22.28	
		2050	34.78	34.78	31.53	31.53	
		3500	37.25	37.25	33.76	33.76	
	67	600	31.73	20.23	28.81	18.94	
		2050	39.07	39.07	34.83	34.83	
		3500	46.77	46.77	41.28	41.28	
	72	600	34.74	16.92	31.59	15.63	
		2050	42.91	29.80	38.08	28.17	
		3500	44.30	38.75	39.35	37.15	
90	62	600	29.00	29.00	25.50	25.50	
		2050	38.24	38.24	34.87	34.87	
		3500	41.31	41.31	37.59	37.59	
	67	600	31.56	26.29	28.67	25.02	
		2050	38.28	38.28	34.91	34.91	
		3500	41.35	41.35	37.63	37.63	
	72	600	34.55	23.02	31.44	21.77	
		2050	44.09	44.09	41.66	41.66	
		3500	41.26	41.26	37.36	37.36	

3 Ton		Refrig. R-410A		Standard Evaporator Coil (2 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				
			95		120		
			Total MBH	Sensible MBH	Total MBH	Sensible MBH	
75	62	600	29.01	20.37	25.02	18.47	
		2050	36.75	36.75	33.58	33.58	
		3500	35.96	35.96	31.02	31.02	
	67	600	31.84	17.12	27.73	15.32	
		2050	40.32	30.63	34.35	28.43	
		3500	42.21	40.16	35.77	35.77	
	72	600	35.13	13.90	30.73	12.12	
		2050	44.18	19.77	37.79	17.74	
		3500	45.84	23.49	38.93	21.25	
80	62	600	28.81	23.42	24.95	21.55	
		2050	35.10	35.10	30.57	30.57	
		3500	37.97	37.97	32.93	32.93	
	67	600	31.75	20.24	27.65	18.41	
		2050	40.26	40.26	34.34	34.34	
		3500	48.10	48.10	32.95	32.95	
	72	600	35.03	17.04	30.65	15.26	
		2050	44.12	30.32	37.33	28.07	
		3500	45.79	39.79	38.89	37.66	
90	62	600	28.77	28.77	24.42	24.42	
		2050	38.80	38.80	34.15	34.15	
		3500	41.98	41.98	37.03	37.03	
	67	600	31.57	26.30	27.50	24.52	
		2050	38.84	38.84	34.18	34.18	
		3500	42.04	42.04	37.08	37.08	
	72	600	34.83	23.13	30.48	21.40	
		2050	44.03	44.03	40.99	40.99	
		3500	42.10	42.10	36.72	36.72	

4 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22			Standard Evaporator Coil (2 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	800	40.81	28.21	36.99	26.35
		2100	49.67	47.13	43.98	43.98
		3400	51.36	51.36	43.28	43.28
	67	800	44.41	23.71	40.20	21.83
		2100	53.91	35.85	48.08	33.73
		3400	56.78	44.76	50.03	42.26
	72	800	48.48	19.21	43.92	17.36
		2100	58.90	24.69	52.51	22.58
		3400	61.42	28.16	54.45	25.95
80	62	800	40.57	32.30	36.96	30.53
		2100	49.01	49.01	42.25	42.25
		3400	50.46	50.46	45.70	45.70
	67	800	44.32	27.88	40.10	26.00
		2100	53.84	46.59	48.01	44.38
		3400	64.09	63.19	57.31	57.31
	72	800	48.32	23.38	43.81	21.50
		2100	58.81	35.45	52.43	33.34
		3400	61.35	44.09	54.39	41.78
90	62	800	40.05	40.05	35.23	35.23
		2100	50.68	50.68	46.35	46.35
		3400	55.68	55.68	50.60	50.60
	67	800	44.30	36.11	40.25	34.24
		2100	50.73	50.73	46.21	46.21
		3400	55.74	55.74	50.65	50.65
	72	800	48.06	31.55	43.58	29.69
		2100	58.63	56.47	52.28	52.28
		3400	67.49	67.49	50.12	50.12

Refrig. R-410A			Standard Evaporator Coil (2 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	800	38.25	26.96	33.10	24.51
		2100	45.92	45.84	38.60	38.60
		3400	47.82	47.82	39.04	39.04
	67	800	41.63	22.46	36.30	20.15
		2100	50.36	34.64	42.71	31.90
		3400	52.77	43.56	44.77	40.89
	72	800	45.63	18.04	39.88	15.74
		2100	54.50	23.26	47.14	20.86
		3400	57.13	26.93	48.36	24.18
80	62	800	38.22	31.13	32.89	28.56
		2100	43.71	43.71	38.18	38.18
		3400	47.53	47.53	41.27	41.27
	67	800	41.52	26.62	36.21	24.27
		2100	50.30	45.32	42.67	42.67
		3400	60.13	60.13	50.81	50.81
	72	800	45.51	22.23	39.79	19.94
		2100	54.42	34.08	47.07	31.69
		3400	57.07	42.97	48.31	40.30
90	62	800	36.80	36.80	39.79	32.31
		2100	47.99	47.99	42.20	42.20
		3400	52.39	52.39	45.87	45.87
	67	800	41.52	34.81	36.09	32.45
		2100	48.03	48.03	42.24	42.24
		3400	52.45	52.45	45.92	45.92
	72	800	45.27	30.36	39.59	28.13
		2100	54.26	54.26	45.94	45.94
		3400	62.78	62.78	45.57	45.57

Refrig. R-22			6 Row Evaporator Coil			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	800	42.88	29.30	38.73	27.19
		2100	53.13	48.63	50.17	47.31
		3400	53.99	53.99	48.63	48.63
	67	800	46.63	24.73	42.19	22.71
		2100	58.20	37.55	51.14	34.84
		3400	61.19	46.31	53.96	43.77
	72	800	50.96	20.25	46.26	18.30
		2100	62.72	25.96	55.36	23.51
		3400	66.26	29.70	57.70	26.97
80	62	800	42.60	33.32	38.50	31.27
		2100	51.76	51.76	46.92	46.92
		3400	57.58	57.58	51.63	51.63
	67	800	46.48	28.88	42.11	26.89
		2100	58.02	48.14	51.10	45.58
		3400	67.73	64.52	58.50	58.50
	72	800	50.79	24.42	45.95	22.41
		2100	62.62	36.73	55.29	34.28
		3400	66.17	45.63	57.67	42.78
90	62	800	42.03	41.21	37.44	37.44
		2100	57.54	57.54	52.25	52.25
		3400	63.58	63.58	57.54	57.54
	67	800	46.18	36.99	41.68	34.88
		2100	57.58	57.58	52.28	52.28
		3400	63.62	63.62	57.58	57.58
	72	800	50.45	32.56	45.67	30.53
		2100	62.43	57.71	54.74	54.74
		3400	63.58	63.58	57.41	57.41

Refrig. R-410A			6 Row Evaporator Coil			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	800	40.03	27.83	34.58	25.20
		2100	49.42	47.19	43.69	43.69
		3400	50.59	50.59	43.54	43.54
	67	800	43.75	23.41	38.03	20.89
		2100	53.84	35.91	45.15	32.77
		3400	55.92	44.82	44.82	40.91
	72	800	48.14	19.07	41.69	16.43
		2100	58.12	24.45	49.26	21.55
		3400	60.86	28.10	51.86	25.27
80	62	800	40.03	32.03	34.48	29.30
		2100	48.57	48.57	42.30	42.30
		3400	53.73	53.73	46.45	46.45
	67	800	43.61	27.56	37.92	25.00
		2100	53.78	46.71	45.59	43.70
		3400	62.31	62.31	46.08	46.08
	72	800	47.99	23.25	41.56	20.62
		2100	58.05	35.28	49.21	32.38
		3400	60.78	44.11	51.74	41.34
90	62	800	39.55	39.55	34.39	34.39
		2100	54.32	54.32	47.56	47.56
		3400	59.89	59.89	51.98	51.98
	67	800	43.34	35.62	37.70	33.14
		2100	54.36	54.36	47.53	47.53
		3400	59.93	59.93	52.01	52.01
	72	800	47.63	31.33	41.54	28.88
		2100	57.90	56.32	48.66	48.66
		3400	59.78	59.78	51.91	51.91

5 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22		Standard Evaporator Coil (2 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	900	46.92	32.24	42.70	30.17
		2150	57.74	51.86	51.23	49.14
		3400	60.83	60.83	53.04	53.04
	67	900	51.43	27.34	46.70	25.21
		2150	62.37	39.91	55.94	37.40
		3400	66.47	50.38	59.17	47.81
	72	900	56.38	22.38	51.36	20.31
		2150	68.58	28.18	61.45	25.78
		3400	72.66	32.50	64.45	29.88
80	62	900	46.86	36.94	42.63	34.85
		2150	55.49	55.49	49.47	49.47
		3400	57.58	57.58	51.76	51.76
	67	900	51.30	32.03	46.61	29.91
		2150	62.28	51.03	55.86	48.66
		3400	66.39	66.39	59.10	59.10
	72	900	56.22	27.09	51.23	25.02
		2150	68.47	39.47	61.35	37.08
		3400	72.57	49.83	64.37	47.04
90	62	900	46.35	45.87	42.10	42.10
		2150	57.42	57.42	52.38	52.38
		3400	62.87	62.87	57.30	57.30
	67	900	51.25	41.28	46.58	39.10
		2150	60.13	60.13	52.43	52.43
		3400	62.93	62.93	57.38	57.38
	72	900	55.91	36.28	50.96	34.17
		2150	68.24	61.40	61.15	59.09
		3400	74.54	74.54	70.81	70.81

Refrig. R-410A		Standard Evaporator Coil (2 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	900	46.48	32.02	40.64	29.17
		2150	56.57	51.39	48.01	47.89
		3400	57.95	57.95	49.96	49.96
	67	900	50.76	27.04	44.39	24.19
		2150	61.17	39.46	52.33	36.09
		3400	64.63	49.77	55.53	46.41
	72	900	55.45	21.99	48.77	19.22
		2150	66.83	27.59	57.49	24.48
		3400	70.63	31.86	60.70	28.71
80	62	900	46.37	36.70	40.59	33.81
		2150	54.19	54.19	45.34	45.34
		3400	56.47	56.47	49.31	49.31
	67	900	50.46	31.65	44.28	28.88
		2150	61.23	50.65	52.69	47.38
		3400	64.55	64.55	62.13	62.13
	72	900	55.30	26.70	48.65	23.94
		2150	66.72	38.88	57.40	35.77
		3400	70.54	49.21	60.63	45.93
90	62	900	45.78	45.59	48.65	38.68
		2150	56.66	56.66	49.88	49.88
		3400	61.58	61.58	54.25	54.25
	67	900	50.74	41.04	44.21	38.06
		2150	62.66	62.66	49.92	49.92
		3400	61.64	61.64	54.32	54.32
	72	900	55.00	35.89	48.41	33.15
		2150	66.50	60.84	57.23	57.23
		3400	77.88	77.88	66.23	66.23

Refrig. R-22		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	900	49.94	33.84	45.15	31.36
		2150	62.32	53.74	55.23	50.83
		3400	65.32	65.32	55.77	55.77
	67	900	54.55	28.80	49.49	26.46
		2150	67.76	41.96	60.24	38.97
		3400	71.94	52.32	63.73	49.41
	72	900	60.23	24.02	54.48	21.59
		2150	74.92	30.49	66.14	27.35
		3400	78.30	34.31	69.20	31.39
80	62	900	49.77	38.43	45.06	36.04
		2150	60.65	60.65	53.49	53.49
		3400	65.57	65.57	59.46	59.46
	67	900	54.39	33.48	49.33	31.13
		2150	67.60	53.03	60.06	50.21
		3400	71.88	69.56	71.72	69.51
	72	900	60.02	28.71	54.29	26.28
		2150	74.78	41.62	66.03	38.64
		3400	78.20	51.64	69.12	48.72
90	62	900	48.99	47.26	43.80	43.80
		2150	65.08	65.08	59.71	59.71
		3400	73.07	73.07	66.25	66.25
	67	900	54.07	42.61	49.01	40.19
		2150	65.14	65.14	59.75	59.75
		3400	73.13	73.13	66.30	66.30
	72	900	59.60	37.86	53.93	35.44
		2150	74.49	63.66	65.81	60.60
		3400	77.30	77.30	65.62	65.62

Refrig. R-410A		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	900	49.49	33.61	42.70	30.17
		2150	60.84	53.13	51.89	49.40
		3400	63.66	63.66	52.88	52.88
	67	900	53.75	28.42	46.99	25.34
		2150	66.37	41.43	56.73	37.69
		3400	70.75	51.93	59.15	47.84
	72	900	59.06	23.52	51.60	20.41
		2150	72.75	29.73	61.53	25.81
		3400	75.82	33.52	65.20	30.13
80	62	900	49.18	38.12	42.67	34.87
		2150	62.02	62.02	50.95	50.95
		3400	64.09	64.09	56.04	56.04
	67	900	53.57	33.09	46.85	30.01
		2150	66.24	52.53	56.65	48.96
		3400	70.52	69.03	66.40	66.40
	72	900	58.86	28.21	51.43	25.11
		2150	72.61	40.89	61.44	37.11
		3400	75.73	50.88	65.10	47.30
90	62	900	48.59	47.00	41.57	41.57
		2150	63.82	63.82	56.75	56.75
		3400	71.45	71.45	62.58	62.58
	67	900	53.23	42.21	46.56	39.09
		2150	63.88	63.88	56.79	56.79
		3400	71.50	71.50	62.63	62.63
	72	900	58.46	37.37	51.10	34.23
		2150	72.35	62.93	61.26	59.13
		3400	75.14	75.14	62.63	62.63

6 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22			Standard Evaporator Coil (3 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1100	60.85	41.27	55.61	38.54
		2300	73.34	60.53	65.64	57.13
		3500	77.43	76.91	69.23	69.23
	67	1100	66.23	34.98	60.44	32.32
		2300	79.17	47.52	71.33	44.49
		3500	83.95	57.84	75.39	54.77
	72	1100	72.41	28.84	66.27	26.25
		2300	86.28	34.78	77.84	31.82
		3500	91.69	39.08	82.73	36.15
80	62	1100	60.73	46.91	55.30	44.17
		2300	72.82	72.21	65.65	65.65
		3500	73.46	73.46	66.82	66.82
	67	1100	66.08	40.73	60.27	38.04
		2300	79.04	59.52	71.20	56.38
		3500	83.83	75.71	75.29	72.76
	72	1100	72.20	34.59	66.08	32.01
		2300	86.11	46.84	77.70	43.78
		3500	91.55	57.18	82.62	54.26
90	62	1100	59.86	57.76	54.72	54.72
		2300	72.93	72.93	66.74	66.74
		3500	80.40	80.40	73.29	73.29
	67	1100	65.79	51.94	59.94	49.14
		2300	79.03	79.03	72.78	72.78
		3500	80.46	80.46	73.39	73.39
	72	1100	71.78	45.81	65.71	43.23
		2300	85.79	70.32	77.41	67.40
		3500	91.29	91.29	82.23	82.23

Refrig. R-410A			Standard Evaporator Coil (3 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1100	59.68	40.66	52.50	37.02
		2300	71.79	59.91	61.65	55.54
		3500	75.84	75.84	64.52	64.52
	67	1100	65.01	34.41	57.48	30.99
		2300	77.67	46.96	67.51	43.06
		3500	83.14	57.78	71.34	53.56
	72	1100	71.17	28.31	63.23	25.01
		2300	85.03	34.35	74.28	30.47
		3500	90.55	38.78	79.02	35.03
80	62	1100	59.55	46.31	52.53	42.81
		2300	71.45	71.45	63.55	63.55
		3500	72.14	72.14	63.63	63.63
	67	1100	64.82	40.14	57.33	36.71
		2300	77.53	58.98	67.93	55.19
		3500	83.03	75.82	71.26	71.26
	72	1100	71.24	34.18	63.05	30.76
		2300	84.69	46.37	74.15	42.60
		3500	90.42	57.03	78.90	53.29
90	62	1100	58.66	57.09	63.05	51.97
		2300	71.77	71.77	64.10	64.10
		3500	79.11	79.11	70.37	70.37
	67	1100	64.45	51.30	57.02	47.83
		2300	78.17	78.17	64.14	64.14
		3500	79.18	79.18	70.43	70.43
	72	1100	70.82	45.40	62.70	41.93
		2300	84.84	70.03	73.89	66.12
		3500	90.16	90.16	77.04	77.04

Refrig. R-22			6 Row Evaporator Coil			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1100	63.30	42.54	57.43	39.45
		2300	76.86	62.05	68.72	58.41
		3500	81.59	78.53	78.22	77.14
	67	1100	68.81	36.29	62.76	33.38
		2300	83.90	49.38	74.78	45.81
		3500	88.69	59.57	79.42	56.21
	72	1100	75.44	30.15	68.95	27.37
		2300	91.52	36.65	81.88	33.23
		3500	97.68	41.06	87.21	37.61
80	62	1100	63.15	48.25	57.32	45.18
		2300	76.26	73.64	67.14	67.14
		3500	79.92	79.92	72.64	72.64
	67	1100	68.59	41.92	62.56	39.09
		2300	83.73	61.38	74.63	57.68
		3500	88.44	77.58	79.14	74.08
	72	1100	75.18	35.89	68.73	33.11
		2300	91.32	48.71	81.72	45.16
		3500	97.52	59.16	87.07	55.71
90	62	1100	62.05	58.88	56.47	55.99
		2300	78.84	78.84	72.50	72.50
		3500	88.67	88.67	81.35	81.35
	67	1100	68.14	53.06	62.14	50.22
		2300	82.96	82.96	72.54	72.54
		3500	88.74	88.74	81.41	81.41
	72	1100	74.66	47.07	68.27	44.31
		2300	90.93	72.14	81.41	68.78
		3500	97.21	94.49	85.32	85.32

Refrig. R-410A			6 Row Evaporator Coil			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1100	61.89	41.80	54.35	37.92
		2300	75.12	61.34	64.80	56.84
		3500	79.98	78.12	73.49	73.49
	67	1100	67.58	35.62	59.70	31.98
		2300	82.14	48.71	71.54	44.59
		3500	87.37	59.32	75.00	54.86
	72	1100	74.19	29.61	65.79	26.05
		2300	90.22	36.19	78.63	32.10
		3500	95.56	40.43	82.29	36.09
80	62	1100	61.71	47.42	54.02	43.53
		2300	74.97	73.20	66.01	66.01
		3500	78.93	78.93	69.53	69.53
	67	1100	67.35	41.33	59.50	37.69
		2300	81.97	60.72	71.40	56.49
		3500	87.26	77.52	74.97	72.85
	72	1100	73.93	35.34	65.57	31.80
		2300	90.04	48.27	78.46	44.07
		3500	95.43	58.68	82.19	54.35
90	62	1100	61.04	58.36	53.06	53.06
		2300	77.65	77.65	69.45	69.45
		3500	87.55	87.55	77.80	77.80
	67	1100	66.89	52.46	59.12	48.77
		2300	79.86	79.86	69.49	69.49
		3500	87.62	87.62	77.86	77.86
	72	1100	73.42	46.52	65.14	42.93
		2300	89.67	71.74	78.12	67.70
		3500	95.17	94.27	81.26	81.26

7 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22			Standard Evaporator Coil (3 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1500	77.33	53.30	69.55	49.49
		2500	88.09	69.39	78.43	65.19
		3500	93.39	83.43	82.38	78.83
	67	1500	84.35	44.94	75.72	41.08
		2500	95.29	55.28	84.58	51.05
		3500	100.73	64.24	89.24	59.77
	72	1500	92.02	36.49	82.80	32.72
		2500	103.63	41.34	93.21	37.60
		3500	110.48	45.35	97.66	41.05
80	62	1500	77.17	61.10	69.45	57.31
		2500	87.83	82.24	77.83	77.83
		3500	89.81	89.81	84.39	84.39
	67	1500	84.15	52.77	75.57	48.91
		2500	95.13	68.31	84.43	64.07
		3500	100.58	82.07	89.13	77.83
	72	1500	91.78	44.34	82.59	40.49
		2500	103.39	54.41	93.03	50.69
		3500	110.30	63.45	97.52	59.16
90	62	1500	76.08	75.83	68.66	68.66
		2500	85.33	85.33	77.65	77.65
		3500	92.78	92.78	83.82	83.82
	67	1500	84.01	68.15	75.66	64.29
		2500	95.58	93.99	84.76	84.76
		3500	96.92	96.92	83.89	83.89
	72	1500	91.23	59.63	82.17	55.84
		2500	102.92	79.81	92.67	76.16
		3500	109.94	98.64	97.95	94.73

Refrig. R-410A			Standard Evaporator Coil (3 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1500	74.45	51.88	65.83	47.72
		2500	83.32	67.37	72.96	62.79
		3500	87.79	81.54	75.61	75.61
	67	1500	80.34	43.13	71.11	39.08
		2500	89.73	53.10	78.46	48.72
		3500	94.85	62.05	82.59	57.59
	72	1500	87.47	34.61	77.63	30.60
		2500	97.67	39.20	85.33	34.84
		3500	102.80	42.83	89.29	38.37
80	62	1500	74.04	59.55	65.48	55.32
		2500	83.32	80.25	71.97	71.97
		3500	84.6*	84.60	72.00	72.00
	67	1500	80.16	50.96	70.95	46.80
		2500	89.58	66.16	78.33	61.65
		3500	94.72	80.26	82.48	75.63
	72	1500	87.26	42.47	77.45	38.48
		2500	97.49	52.32	85.18	47.84
		3500	102.65	61.09	89.16	56.62
90	62	1500	73.41	73.41	77.45	62.90
		2500	81.77	81.77	73.24	73.24
		3500	88.30	88.30	78.80	78.80
	67	1500	80.40	66.41	70.78	62.17
		2500	89.77	89.77	80.44	80.44
		3500	88.37	88.37	78.86	78.86
	72	1500	86.84	57.73	77.10	53.84
		2500	97.14	77.83	85.47	73.74
		3500	102.33	96.65	88.91	88.91

Refrig. R-22			6 Row Evaporator Coil			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1500	81.50	55.51	72.96	51.14
		2500	93.17	71.64	82.08	66.76
		3500	98.36	85.47	87.30	80.95
	67	1500	88.85	47.02	79.74	42.86
		2500	102.02	58.00	89.88	53.12
		3500	108.13	67.06	95.29	61.99
	72	1500	96.91	38.54	87.19	34.50
		2500	111.76	44.32	98.67	39.54
		3500	117.51	47.97	103.46	42.98
80	62	1500	81.34	63.21	72.84	58.96
		2500	93.11	84.53	82.27	79.73
		3500	96.12	96.12	84.01	84.01
	67	1500	88.62	54.84	79.51	50.66
		2500	101.18	70.76	89.69	66.14
		3500	107.93	84.83	95.06	80.02
	72	1500	96.59	46.37	86.90	42.33
		2500	111.49	57.39	98.48	52.63
		3500	117.32	65.85	103.30	61.09
90	62	1500	79.97	77.84	70.35	70.35
		2500	92.89	92.89	84.63	84.63
		3500	102.32	102.32	93.22	93.22
	67	1500	88.16	70.09	79.05	65.80
		2500	101.27	96.33	87.07	87.07
		3500	102.40	102.40	93.28	93.28
	72	1500	95.97	61.65	86.34	57.52
		2500	110.95	82.89	98.09	78.08
		3500	116.93	101.23	102.99	96.37

Refrig. R-410A			6 Row Evaporator Coil			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1500	78.03	53.65	68.14	48.82
		2500	87.62	69.25	76.06	64.24
		3500	92.67	83.52	79.64	78.02
	67	1500	84.33	44.94	74.46	40.53
		2500	95.46	55.39	83.20	50.55
		3500	100.34	64.32	86.87	59.14
	72	1500	92.12	36.53	81.18	31.98
		2500	104.01	41.48	90.34	36.59
		3500	109.39	45.05	94.40	40.04
80	62	1500	77.95	61.50	68.12	56.57
		2500	87.96	82.39	76.41	76.41
		3500	90.64	90.64	78.60	78.60
	67	1500	84.15	52.77	74.26	48.34
		2500	95.27	68.43	83.05	63.44
		3500	100.18	82.29	86.77	77.34
	72	1500	91.85	44.37	80.95	39.84
		2500	103.78	54.59	90.16	49.71
		3500	109.21	63.30	94.28	58.30
90	62	1500	76.83	76.27	66.77	66.77
		2500	88.90	88.90	79.43	79.43
		3500	97.25	97.25	86.94	86.94
	67	1500	83.67	67.99	73.86	63.51
		2500	95.20	93.96	83.08	83.08
		3500	97.33	97.33	87.00	87.00
	72	1500	91.32	59.67	80.49	55.18
		2500	103.32	80.04	89.80	75.25
		3500	108.85	98.78	94.03	93.93

8 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22			Standard Evaporator Coil (2 Row)				Refrig. R-410A			Standard Evaporator Coil (2 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120					95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH				Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1700	79.82	56.59	72.69	53.19	75	62	1700	74.77	54.17	65.16	49.68
		4000	95.04	90.92	85.10	84.50			4000	88.48	86.96	75.65	75.65
		6300	99.12	99.12	87.55	87.55			6300	92.11	92.11	76.11	76.11
	67	1700	86.73	46.97	79.01	43.56	67	1700	81.47	44.68	71.39	40.32	
		4000	102.94	68.92	92.57	65.16		4000	96.26	66.56	83.05	61.82	
		6300	108.41	86.59	96.96	82.53		6300	100.93	84.41	86.73	79.52	
	72	1700	94.60	37.35	86.42	34.09	72	1700	89.18	35.21	78.37	31.04	
		4000	111.99	47.13	100.69	43.41		4000	104.87	44.80	90.52	40.13	
		6300	117.98	54.43	105.95	50.64		6300	110.52	52.21	94.51	47.20	
80	62	1700	79.69	65.38	72.63	61.98	80	62	1700	74.53	62.92	64.95	58.42
		4000	93.22	93.22	80.88	80.88			4000	87.70	87.70	71.65	71.65
		6300	94.24	94.24	85.61	85.61			6300	88.45	88.45	77.30	77.30
	67	1700	86.57	55.85	78.89	52.46	67	1700	81.30	53.50	71.24	49.21	
		4000	102.80	89.72	92.45	85.79		4000	96.14	87.33	82.94	81.27	
		6300	108.29	108.29	103.52	103.52		6300	101.16	101.16	92.93	92.93	
	72	1700	94.39	46.28	86.23	43.02	72	1700	88.99	44.09	78.20	39.97	
		4000	111.83	67.99	100.54	64.26		4000	104.72	65.70	90.40	61.04	
		6300	117.84	85.53	105.83	81.66		6300	110.40	83.44	94.40	78.56	
90	62	1700	77.85	77.85	69.67	69.67	90	62	1700	72.43	72.43	78.20	62.95
		4000	94.56	94.56	86.66	86.66			4000	89.31	89.31	79.00	79.00
		6300	102.59	102.59	93.62	93.62			6300	96.92	96.92	85.26	85.26
	67	1700	86.67	73.29	78.99	69.90	67	1700	81.35	70.97	71.09	66.51	
		4000	96.95	96.95	87.92	87.92		4000	91.32	91.32	79.07	79.07	
		6300	102.68	102.68	93.72	93.72		6300	97.02	97.02	85.33	85.33	
	72	1700	93.96	63.64	85.86	60.45	72	1700	88.59	61.51	77.87	57.40	
		4000	111.51	108.26	100.26	100.26		4000	104.44	103.49	90.31	90.31	
		6300	123.89	123.89	110.11	110.11		6300	122.00	122.00	95.11	95.11	

Refrig. R-22			6 Row Evaporator Coil				Refrig. R-410A			6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				
			95		120					95		120		
			Total MBH	Sensible MBH	Total MBH	Sensible MBH				Total MBH	Sensible MBH	Total MBH	Sensible MBH	
75	62	1700	88.33	60.75	79.67	56.50	75	62	1700	82.28	57.77	71.49	52.62	
		4000	107.03	95.94	96.03	91.29			4000	100.22	93.29	88.77	88.63	
		6300	110.02	110.02	99.49	99.49			6300	103.22	103.22	89.28	89.28	
	67	1700	96.24	51.23	87.48	47.29	67	1700	90.45	48.61	78.68	43.47		
		4000	117.37	74.54	103.61	69.18		4000	109.40	71.38	92.97	65.39		
		6300	124.40	92.49	108.66	86.92		6300	114.77	89.49	96.85	82.98		
	72	1700	105.32	41.78	95.91	37.92	72	1700	99.49	39.37	86.17	33.99		
		4000	128.49	52.66	114.30	47.89		4000	118.24	49.23	100.52	43.38		
		6300	133.17	59.31	119.97	55.09		6300	124.86	56.78	106.92	51.11		
	80	62	1700	88.16	69.60	79.61	65.38	80	62	1700	82.21	66.65	71.29	61.34
			4000	104.80	104.80	95.32	95.32			4000	98.98	98.98	86.54	86.54
			6300	117.11	117.11	105.51	105.51			6300	109.37	109.37	94.74	94.74
67		1700	95.95	60.07	87.21	56.12	67	1700	90.16	57.44	78.45	52.21		
		4000	116.99	95.00	103.51	90.01		4000	109.29	92.26	92.73	86.05		
		6300	123.68	123.39	118.73	118.73		6300	126.01	124.86	94.49	94.49		
72		1700	104.97	50.65	95.41	46.72	72	1700	99.17	48.25	86.19	42.99		
		4000	128.24	73.51	114.09	68.75		4000	118.08	70.15	100.41	64.31		
		6300	133.04	90.61	117.96	85.46		6300	123.81	88.04	106.61	82.38		
90		62	1700	86.83	86.23	77.89	77.89	90	62	1700	79.88	79.88	71.74	71.74
			4000	116.71	116.71	106.53	106.53			4000	110.29	110.29	96.87	96.87
			6300	129.93	129.93	118.00	118.00			6300	122.51	122.51	x	x
	67	1700	95.46	77.35	86.66	73.27	67	1700	89.58	74.57	77.98	69.51		
		4000	115.76	115.76	106.61	106.61		4000	109.86	109.86	97.07	97.07		
		6300	130.01	130.01	118.07	118.07		6300	122.59	122.59	x	x		
	72	1700	104.26	67.95	94.76	63.95	72	1700	98.49	65.45	85.69	60.37		
		4000	127.74	114.24	113.67	109.42		4000	117.76	110.91	99.20	99.20		
		6300	128.66	128.66	116.98	116.98		6300	121.53	121.53	x	x		

10 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22 Standard Evaporator Coil (3 Row)						
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1700	93.43	63.46	85.07	59.13
		4400	117.89	105.24	104.19	99.51
		7100	122.57	122.57	108.83	108.83
	67	1700	102.47	54.12	93.22	49.86
		4400	128.52	81.57	113.60	75.75
		7100	135.78	101.35	120.24	95.86
	72	1700	112.42	44.79	102.08	40.43
		4400	141.26	57.84	126.03	52.72
		7100	149.17	66.10	131.26	60.37
80	62	1700	93.18	72.15	84.91	67.98
		4400	113.38	113.38	98.49	98.49
		7100	119.98	119.98	107.81	107.81
	67	1700	102.18	62.97	93.01	58.72
		4400	128.37	104.05	113.41	98.50
		7100	135.55	135.55	134.78	134.78
	72	1700	112.08	53.68	101.78	49.32
		4400	141.02	80.66	125.83	75.53
		7100	148.97	100.53	131.10	94.43
90	62	1700	92.14	89.07	83.61	83.61
		4400	119.58	119.58	108.89	108.89
		7100	132.74	132.74	120.26	120.26
	67	1700	101.61	80.24	92.58	75.92
		4400	126.78	126.78	108.98	108.98
		7100	132.92	132.92	120.37	120.37
	72	1700	111.39	71.00	101.18	66.55
		4400	140.53	125.24	125.41	120.04
		7100	145.20	145.20	143.78	143.78

Refrig. R-410A Standard Evaporator Coil (3 Row)						
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1700	92.79	63.13	81.18	57.23
		4400	116.18	104.73	99.03	97.60
		7100	120.42	120.42	100.21	100.21
	67	1700	101.30	53.58	88.78	47.87
		4400	125.49	80.53	107.76	73.73
		7100	133.58	101.12	114.29	93.97
	72	1700	110.90	44.14	97.67	38.63
		4400	137.82	56.71	117.84	50.04
		7100	145.12	64.99	122.81	57.90
80	62	1700	92.55	71.83	81.07	66.09
		4400	111.72	111.72	94.21	94.21
		7100	117.97	117.97	102.58	102.58
	67	1700	101.07	62.45	88.54	56.71
		4400	125.29	103.08	107.59	96.55
		7100	133.42	133.42	129.23	129.23
	72	1700	110.58	53.03	97.39	47.52
		4400	137.58	79.59	117.66	72.93
		7100	144.94	99.77	122.68	92.40
90	62	1700	91.64	88.71	97.39	80.25
		4400	117.71	117.71	103.70	103.70
		7100	129.99	129.99	114.41	114.41
	67	1700	100.40	79.66	88.05	73.89
		4400	122.33	122.33	103.79	103.79
		7100	130.15	130.15	114.52	114.52
	72	1700	109.92	70.36	96.85	64.79
		4400	137.12	124.10	117.30	117.30
		7100	159.13	159.13	129.99	129.99

Refrig. R-22 6 Row Evaporator Coil						
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1700	97.94	65.81	88.78	60.98
		4400	126.13	108.63	111.32	102.57
		7100	142.28	142.28	114.75	114.75
	67	1700	107.31	56.54	96.89	51.53
		4400	138.44	85.36	121.51	78.66
		7100	146.07	105.02	129.76	99.21
	72	1700	118.17	47.29	107.23	42.58
		4400	150.01	61.12	133.17	55.11
		7100	159.69	69.51	139.56	63.01
80	62	1700	97.61	74.57	88.61	69.83
		4400	123.07	123.0	109.24	109.24
		7100	136.44	136.44	122.32	122.32
	67	1700	106.97	65.25	96.58	60.36
		4400	138.07	107.70	121.36	101.44
		7100	146.00	139.27	142.70	138.14
	72	1700	117.73	56.14	106.85	51.44
		4400	149.75	83.64	132.96	77.93
		7100	159.45	103.93	139.42	97.45
90	62	1700	95.92	91.01	87.01	86.41
		4400	134.73	134.73	122.19	122.19
		7100	151.03	151.03	136.78	136.78
	67	1700	106.30	82.49	95.98	77.59
		4400	134.82	134.82	122.26	122.26
		7100	151.13	151.13	136.87	136.87
	72	1700	116.85	73.39	105.96	68.66
		4400	149.23	128.23	132.53	122.35
		7100	156.12	156.12	135.78	135.78

Refrig. R-410A 6 Row Evaporator Coil						
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	1700	97.05	65.34	84.32	58.77
		4400	123.48	107.73	105.19	100.08
		7100	138.72	138.72	108.54	108.54
	67	1700	105.82	55.83	92.69	49.62
		4400	134.20	83.84	114.47	76.18
		7100	142.23	104.20	121.40	96.82
	72	1700	116.33	46.48	102.08	40.43
		4400	147.48	60.27	125.68	52.64
		7100	154.22	67.92	131.34	60.59
80	62	1700	96.81	74.15	84.28	67.67
		4400	123.99	123.99	103.99	103.99
		7100	133.43	133.43	116.08	116.08
	67	1700	105.45	64.53	92.38	58.44
		4400	133.82	106.28	114.05	98.92
		7100	142.19	138.56	132.00	132.00
	72	1700	115.90	55.34	101.73	49.30
		4400	147.21	82.87	124.76	75.29
		7100	154.05	102.71	130.18	94.70
90	62	1700	95.47	90.78	82.56	82.56
		4400	132.26	132.26	116.40	116.40
		7100	148.15	148.15	129.59	129.59
	67	1700	104.73	81.73	91.76	75.54
		4400	132.36	132.36	116.47	116.47
		7100	148.25	148.25	129.67	129.67
	72	1700	115.06	72.60	101.03	66.49
		4400	146.67	127.58	124.36	119.94
		7100	152.43	152.43	129.25	129.25

13 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22			Standard Evaporator Coil (4 Row)				Refrig. R-410A			Standard Evaporator Coil (4 Row)			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120					95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH				Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2100	121.90	81.77	111.00	76.00	75	62	2100	118.87	80.18	104.58	72.80
		4550	147.40	120.79	132.17	114.03			4550	144.53	119.60	124.61	110.97
		7000	156.75	154.77	141.41	141.41			7000	154.13	154.11	130.44	130.44
	67	2100	132.07	69.61	120.68	64.11	67	2100	129.48	68.30	114.49	61.29	
		4550	160.44	95.53	144.93	89.50		4550	157.02	94.22	136.21	86.20	
		7000	170.33	116.77	152.85	110.47		7000	168.16	116.27	144.35	107.74	
	72	2100	144.56	57.80	132.38	52.57	72	2100	142.10	56.72	125.98	49.90	
		4550	174.87	70.31	157.53	64.19		4550	172.11	69.33	149.97	61.32	
		7000	185.58	78.94	167.82	73.14		7000	183.25	78.27	157.94	70.04	
80	62	2100	121.12	92.40	110.36	86.72	80	62	2100	118.59	90.93	104.65	83.86
		4550	147.26	144.34	132.40	132.40			4550	143.54	142.72	127.97	127.97
		7000	149.98	149.98	136.38	136.38			7000	147.01	147.01	129.51	129.51
	67	2100	131.75	80.42	120.32	75.03	67	2100	129.08	79.14	114.15	72.21	
		4550	160.15	119.29	144.68	113.02		4550	156.73	117.99	135.97	109.78	
		7000	170.09	152.59	152.66	146.57		7000	167.93	152.31	144.20	144.11	
	72	2100	144.10	68.77	131.98	63.54	72	2100	141.92	67.81	125.60	60.88	
		4550	174.53	94.18	157.24	87.84		4550	171.79	93.23	149.70	85.29	
		7000	185.31	115.28	167.58	109.47		7000	182.98	114.78	157.72	106.56	
90	62	2100	119.48	112.94	109.16	107.48	90	62	2100	116.69	111.50	125.60	104.08
		4550	148.57	148.57	135.94	135.94			4550	145.90	145.90	129.74	129.74
		7000	163.62	163.62	149.88	149.88			7000	161.41	161.41	143.09	143.09
	67	2100	131.12	101.80	119.60	96.33	67	2100	128.28	100.43	113.49	93.38	
		4550	160.97	160.97	147.08	147.08		4550	156.21	156.21	129.82	129.82	
		7000	163.77	163.77	150.03	150.03		7000	161.54	161.54	143.40	143.40	
	72	2100	143.19	90.15	131.18	84.95	72	2100	141.02	89.20	124.84	82.15	
		4550	173.84	140.62	156.65	134.61		4550	171.16	139.72	149.14	132.08	
		7000	184.77	184.77	163.90	163.90		7000	182.44	182.44	155.65	155.65	

Refrig. R-22			6 Row Evaporator Coil			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2100	124.39	83.09	113.06	77.18
		4550	152.93	123.19	136.77	115.94
		7000	163.37	157.49	156.32	154.64
	67	2100	135.15	71.11	123.35	65.35
		4550	166.79	98.04	150.08	91.49
		7000	177.99	119.56	159.41	112.83
	72	2100	148.07	59.35	135.54	53.90
		4550	181.95	72.84	163.00	66.11
		7000	194.45	81.87	171.79	74.43
80	62	2100	124.05	93.96	112.86	87.98
		4550	152.07	146.24	133.49	133.49
		7000	158.69	158.69	144.34	144.34
	67	2100	134.71	81.99	122.94	76.25
		4550	166.45	121.79	149.80	114.97
		7000	177.77	155.81	158.94	148.73
	72	2100	147.55	70.29	135.08	64.86
		4550	181.56	96.70	162.69	89.72
		7000	194.14	118.20	171.58	110.78
90	62	2100	121.84	114.16	110.97	108.49
		4550	156.22	156.22	143.71	143.71
		7000	176.51	176.51	161.27	161.27
	67	2100	133.82	103.12	122.12	97.51
		4550	166.25	166.25	143.80	143.80
		7000	176.66	176.66	161.39	161.39
	72	2100	146.50	91.63	134.17	86.22
		4550	180.78	143.08	162.05	136.48
		7000	193.52	188.79	170.14	170.14

Refrig. R-410A			6 Row Evaporator Coil			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2100	121.35	81.48	106.31	73.65
		4550	149.02	121.54	128.91	112.74
		7000	160.49	156.90	146.33	146.33
	67	2100	132.41	69.77	117.05	62.45
		4550	162.95	96.55	141.86	88.36
		7000	173.68	118.27	149.21	109.47
	72	2100	145.31	58.13	128.98	51.14
		4550	178.36	71.56	155.81	63.60
		7000	189.88	80.45	163.56	71.85
80	62	2100	121.00	92.34	106.28	84.67
		4550	148.73	144.99	126.23	126.23
		7000	156.38	156.38	137.70	137.70
	67	2100	131.94	80.51	116.66	73.35
		4550	162.62	120.31	141.59	111.90
		7000	173.46	154.69	149.14	145.52
	72	2100	144.79	69.07	128.55	62.10
		4550	177.99	95.45	155.48	87.27
		7000	190.56	117.28	163.35	108.38
90	62	2100	119.54	112.97	105.69	105.69
		4550	153.53	153.53	137.21	137.21
		7000	173.05	173.05	153.86	153.86
	67	2100	131.03	101.76	115.89	94.61
		4550	158.24	158.24	137.29	137.29
		7000	173.20	173.20	153.98	153.98
	72	2100	143.76	90.41	127.69	83.47
		4550	177.25	141.88	154.82	134.03
		7000	190.91	188.73	161.38	161.38

15 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2400	135.69	91.55	123.82	85.33
		4700	160.67	128.40	143.84	121.13
		7000	170.91	160.33	151.73	151.73
	67	2400	147.92	77.95	134.45	71.68
		4700	174.56	102.16	156.78	95.17
		7000	184.52	121.95	165.05	114.86
	72	2400	160.99	64.22	147.09	58.32
		4700	189.68	75.86	170.77	69.12
		7000	201.81	84.32	179.63	76.99
80	62	2400	135.39	103.84	123.60	97.83
		4700	160.69	152.87	143.35	143.35
		7000	172.19	172.19	145.84	145.84
	67	2400	147.02	90.21	134.09	84.17
		4700	173.18	126.27	156.51	119.71
		7000	184.25	158.19	164.83	150.76
	72	2400	160.51	76.77	146.68	70.88
		4700	189.30	100.51	170.45	93.78
		7000	201.50	120.65	179.37	113.33
90	62	2400	133.53	127.51	121.98	121.54
		4700	159.32	159.32	145.64	145.64
		7000	175.25	175.25	159.42	159.42
	67	2400	146.23	114.60	133.37	108.55
		4700	173.84	173.84	151.18	151.18
		7000	175.39	175.39	159.57	159.57
	72	2400	159.56	101.24	145.85	95.36
		4700	189.47	148.74	169.80	141.79
		7000	200.88	191.51	178.86	178.86

Refrig. R-410A		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2400	140.74	94.21	125.16	86.00
		4700	166.67	131.09	144.96	121.66
		7000	177.94	164.07	152.83	152.83
	67	2400	152.06	80.10	135.22	72.03
		4700	180.04	104.38	157.09	95.33
		7000	191.32	124.72	165.73	115.39
	72	2400	166.28	66.52	147.72	58.58
		4700	195.77	78.07	171.09	69.25
		7000	208.36	86.59	180.28	77.29
80	62	2400	140.46	106.68	124.49	98.28
		4700	166.77	155.56	144.50	144.50
		7000	171.59	171.59	146.53	146.53
	67	2400	151.72	92.46	134.84	84.52
		4700	179.73	128.95	156.81	119.88
		7000	191.75	161.41	165.50	151.47
	72	2400	165.78	79.07	147.31	71.14
		4700	195.15	102.67	170.76	93.93
		7000	208.03	123.11	180.02	113.81
90	62	2400	138.62	130.14	147.31	122.03
		4700	163.95	163.95	146.80	146.80
		7000	180.18	180.18	160.73	160.73
	67	2400	151.06	116.93	134.10	108.89
		4700	179.79	177.03	152.11	152.11
		7000	180.33	180.33	160.86	160.86
	72	2400	164.80	103.55	146.48	95.63
		4700	194.84	150.74	170.11	141.96
		7000	207.38	194.22	179.50	179.50

Refrig. R-22		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2400	139.51	93.55	126.99	86.92
		4700	166.00	130.74	148.57	123.15
		7000	177.51	163.42	158.20	155.19
	67	2400	151.56	79.85	137.95	73.28
		4700	180.82	104.66	161.47	97.00
		7000	191.49	124.51	170.94	116.99
	72	2400	165.53	66.19	151.21	60.04
		4700	198.11	78.92	177.41	71.47
		7000	210.05	87.08	186.01	79.09
80	62	2400	138.61	105.70	126.83	99.46
		4700	165.78	155.06	148.29	147.44
		7000	170.77	170.77	154.32	154.32
	67	2400	150.52	91.88	137.52	85.75
		4700	180.45	129.18	161.15	121.51
		7000	192.93	161.39	170.46	153.13
	72	2400	164.97	78.71	150.59	72.52
		4700	197.66	103.55	177.04	96.12
		7000	209.71	123.41	185.76	115.43
90	62	2400	136.65	129.12	124.95	123.08
		4700	167.70	167.70	153.90	153.90
		7000	188.00	188.00	171.36	171.36
	67	2400	149.71	116.28	136.67	110.08
		4700	180.16	177.08	157.61	157.61
		7000	187.41	187.41	171.49	171.49
	72	2400	163.87	103.13	149.65	96.97
		4700	196.78	151.37	176.32	144.07
		7000	209.05	194.17	185.26	185.26

Refrig. R-410A		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2400	143.95	95.92	127.72	87.29
		4700	172.02	133.46	149.37	123.55
		7000	184.03	166.54	159.38	156.10
	67	2400	156.03	82.03	138.63	73.60
		4700	187.15	107.24	163.48	97.82
		7000	199.32	128.13	172.60	117.87
	72	2400	170.98	68.60	151.74	60.27
		4700	204.14	81.13	177.88	71.65
		7000	217.47	89.66	187.41	79.64
80	62	2400	143.53	108.32	127.55	99.82
		4700	171.86	157.76	149.11	147.78
		7000	178.18	178.18	155.72	155.72
	67	2400	155.54	94.49	138.21	86.07
		4700	186.77	131.79	163.16	122.36
		7000	199.00	164.10	172.38	154.29
	72	2400	170.41	81.13	151.26	72.80
		4700	203.67	105.79	177.51	96.32
		7000	217.11	126.16	187.17	116.16
90	62	2400	141.81	131.99	126.00	123.59
		4700	172.97	172.97	154.49	154.49
		7000	192.21	192.21	172.24	172.24
	67	2400	154.57	118.66	137.31	110.38
		4700	186.95	179.87	158.59	158.59
		7000	192.23	192.23	172.38	172.38
	72	2400	169.23	105.53	150.30	97.24
		4700	202.74	153.60	176.78	144.31
		7000	216.40	197.16	186.69	186.69

16 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22			Standard Evaporator Coil (3 Row)				Refrig. R-410A			Standard Evaporator Coil (3 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				
			95		120					95		120		
			Total MBH	Sensible MBH	Total MBH	Sensible MBH				Total MBH	Sensible MBH	Total MBH	Sensible MBH	
75	62	2400	137.28	92.40	125.46	86.25	75	62	2400	142.60	95.21	126.67	86.86	
		7500	175.49	168.51	157.03	157.03			7500	182.96	172.60	159.51	159.00	
		12600	178.82	178.82	157.06	157.06			12600	200.31	200.31	159.06	159.06	
	67	2400	149.05	78.59	136.33	72.56	67	67	2400	154.12	81.12	137.75	73.21	
		7500	190.93	128.06	170.06	120.49			7500	198.60	131.31	172.70	121.90	
		12600	201.58	164.40	178.70	156.39			12600	208.94	169.52	180.72	159.70	
	72	2400	163.09	65.15	149.13	59.19	72	72	2400	168.62	67.58	150.70	59.85	
		7500	207.42	87.38	186.74	80.58			7500	214.83	89.99	189.21	81.54	
		12600	218.51	102.13	194.21	94.49			12600	227.30	105.80	197.18	96.34	
	80	62	2400	136.94	104.76	125.27	98.69	80	62	2400	142.03	107.54	126.49	99.31
			7500	174.47	174.47	152.07	152.07			7500	175.86	175.86	153.45	153.45
			12600	182.23	182.23	165.21	165.21			12600	189.43	189.43	166.91	166.91
67		2400	148.67	91.10	135.91	85.03	67	67	2400	153.68	93.52	137.36	85.70	
		7500	190.66	166.80	169.85	158.98			7500	198.32	170.34	172.48	160.65	
		12600	227.80	227.80	203.20	203.20			12600	223.99	223.99	206.39	206.39	
72		2400	162.59	77.69	148.70	71.74	72	72	2400	168.10	80.12	150.26	72.40	
		7500	207.10	126.23	186.48	119.43			7500	214.50	129.12	188.93	120.67	
		12600	218.28	161.90	194.01	154.46			12600	227.05	167.45	196.97	157.92	
90	62	2400	134.82	128.19	123.40	121.70	90	62	2400	140.28	131.13	150.26	122.65	
		7500	182.60	182.60	167.10	167.10			7500	188.65	188.65	168.70	168.70	
		12600	201.77	201.77	183.26	183.26			12600	207.35	207.35	185.22	185.22	
	67	2400	147.66	115.31	135.14	109.31	67	67	2400	152.70	117.76	136.58	109.98	
		7500	182.75	182.75	167.25	167.25			7500	188.79	188.79	168.82	168.82	
		12600	201.97	201.97	183.42	183.42			12600	207.56	207.56	185.40	185.40	
	72	2400	161.60	102.15	147.84	96.14	72	72	2400	167.07	104.58	149.39	96.88	
		7500	206.48	201.44	188.21	188.21			7500	213.84	205.32	190.63	190.63	
		12600	220.41	220.41	182.18	182.18			12600	248.65	248.65	184.38	184.38	

Refrig. R-22			6 Row Evaporator Coil				Refrig. R-410A			6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				
			95		120					95		120		
			Total MBH	Sensible MBH	Total MBH	Sensible MBH				Total MBH	Sensible MBH	Total MBH	Sensible MBH	
75	62	2400	142.10	94.93	129.53	88.29	75	62	2400	147.54	97.85	131.04	89.15	
		7500	186.30	173.10	176.06	168.93			7500	194.02	177.25	178.81	170.79	
		12600	192.97	192.97	173.78	173.78			12600	200.44	200.44	175.91	175.91	
	67	2400	154.55	81.31	141.09	74.74	67	67	2400	159.73	83.86	142.36	75.33	
		7500	202.53	132.33	181.67	124.70			7500	211.89	136.48	182.92	125.62	
		12600	214.31	169.25	188.02	159.58			12600	223.55	175.11	192.32	163.70	
	72	2400	169.24	67.83	154.77	61.55	72	72	2400	175.24	70.52	156.11	62.12	
		7500	219.95	91.56	196.64	83.83			7500	230.24	95.15	199.77	85.01	
		12600	232.58	106.61	204.04	97.60			12600	244.09	111.17	207.25	99.53	
	80	62	2400	141.46	107.22	129.28	100.71	80	62	2400	147.09	110.25	130.75	101.45
			7500	183.74	183.74	167.00	167.00			7500	190.63	190.63	169.21	169.21
			12600	205.44	205.44	184.79	184.79			12600	212.29	212.29	187.34	187.34
67		2400	153.99	93.73	140.61	87.19	67		67	2400	159.15	96.28	141.87	87.78
		7500	203.09	171.41	181.25	163.20				7500	211.33	175.21	183.38	164.72
		12600	234.96	234.56	183.91	183.91				12600	247.15	244.67	186.74	186.74
72		2400	168.61	80.33	154.23	74.07	72		72	2400	174.59	83.01	155.56	74.63
		7500	219.64	130.43	196.34	122.69				7500	229.86	134.30	199.46	124.16
		12600	233.96	167.49	205.47	158.04				12600	243.58	173.09	208.69	161.63
90	62	2400	139.72	130.81	127.27	124.21	90	62	2400	144.82	133.62	128.81	125.04	
		7500	204.83	204.83	186.30	186.30			7500	210.71	210.71	188.96	188.96	
		12600	228.30	228.30	206.53	206.53			12600	236.06	236.06	209.25	209.25	
	67	2400	152.80	117.79	139.67	111.49		67	67	2400	158.00	120.35	140.87	112.05
		7500	204.95	204.95	186.40	186.40				7500	210.83	210.83	188.58	188.58
		12600	228.44	228.44	206.66	206.66				12600	236.21	236.21	209.37	209.37
	72	2400	167.36	104.69	153.17	98.47		72	72	2400	173.30	107.37	154.47	99.03
		7500	219.02	206.19	192.90	192.90				7500	229.11	210.47	195.87	195.87
		12600	227.81	227.81	206.16	206.16				12600	235.48	235.48	208.92	208.92

18 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2600	155.80	103.83	141.36	96.27
		7600	202.96	181.31	179.42	171.46
		12600	212.58	212.58	181.37	181.37
	67	2600	170.07	89.38	153.90	81.46
		7600	221.47	140.58	196.09	130.68
		12600	235.15	176.62	206.75	166.60
	72	2600	186.27	74.79	169.25	67.35
		7600	242.28	99.30	214.14	89.85
		12600	253.58	113.33	223.10	103.60
80	62	2600	155.38	117.29	140.82	109.49
		7600	201.02	201.02	174.44	174.44
		12600	213.09	213.09	191.52	191.52
	67	2600	169.56	102.88	153.40	94.96
		7600	220.90	179.22	195.80	169.92
		12600	249.96	241.71	232.81	232.81
	72	2600	185.61	88.34	168.68	80.92
		7600	241.86	138.62	213.80	129.18
		12600	253.29	173.68	222.86	163.39
90	62	2600	153.36	142.76	138.92	135.07
		7600	211.74	211.74	193.42	193.42
		12600	236.64	236.64	213.25	213.25
	67	2600	168.22	128.92	152.33	121.26
		7600	212.00	212.00	193.59	193.59
		12600	236.84	236.84	213.42	213.42
	72	2600	184.31	114.76	167.56	107.38
		7600	241.03	215.29	213.13	205.95
		12600	275.83	275.83	213.08	213.08

Refrig. R-410A		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2600	155.57	103.71	139.08	95.02
		7600	201.52	181.54	174.86	170.41
		12600	211.24	211.24	176.33	176.33
	67	2600	169.32	89.02	151.23	80.22
		7600	218.71	140.00	189.47	128.75
		12600	233.34	178.56	199.13	165.98
	72	2600	186.02	74.68	165.76	65.87
		7600	239.17	98.38	206.69	87.53
		12600	252.67	113.91	217.27	102.68
80	62	2600	155.52	117.37	138.88	108.50
		7600	199.84	199.84	170.38	170.38
		12600	211.71	211.71	186.85	186.85
	67	2600	168.78	102.50	150.74	93.72
		7600	218.34	179.04	189.23	168.30
		12600	252.21	246.82	225.08	225.08
	72	2600	185.38	88.23	165.23	79.45
		7600	238.76	138.02	206.42	127.19
		12600	252.37	175.90	217.04	164.19
90	62	2600	153.10	142.62	165.23	134.10
		7600	210.62	210.62	188.26	188.26
		12600	235.42	235.42	207.75	207.75
	67	2600	167.79	128.71	149.80	120.07
		7600	210.77	210.77	188.42	188.42
		12600	235.63	235.63	207.91	207.91
	72	2600	184.07	114.65	164.17	105.92
		7600	237.95	215.08	206.81	204.43
		12600	274.00	274.00	207.94	207.94

Refrig. R-22		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2600	158.22	105.13	143.06	97.14
		7600	209.26	183.90	183.53	173.25
		12600	217.19	217.19	191.28	191.28
	67	2600	172.34	90.50	156.21	82.54
		7600	228.19	143.14	202.11	132.88
		12600	241.85	179.00	212.18	168.50
	72	2600	189.27	76.13	171.91	68.50
		7600	249.12	101.86	218.61	91.33
		12600	263.02	116.37	231.05	106.13
80	62	2600	157.39	118.38	142.80	110.50
		7600	206.33	206.33	182.15	182.15
		12600	227.51	227.51	204.01	204.01
	67	2600	171.80	104.00	155.65	96.02
		7600	227.53	181.71	201.40	171.98
		12600	256.56	244.10	233.07	233.07
	72	2600	188.54	89.65	171.29	82.04
		7600	248.69	140.95	218.29	130.68
		12600	262.68	176.71	230.78	166.17
90	62	2600	155.23	143.86	140.72	136.05
		7600	224.47	224.47	203.29	203.29
		12600	252.18	228.30	227.30	227.30
	67	2600	170.75	130.17	154.54	122.31
		7600	224.62	224.62	203.40	203.40
		12600	252.35	252.35	227.44	227.44
	72	2600	187.10	116.02	170.05	108.45
		7600	247.82	217.82	217.65	207.41
		12600	250.9*	250.9*	226.75	226.75

Refrig. R-410A		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	2600	157.93	104.97	140.88	96.02
		7600	207.57	184.02	180.15	172.60
		12600	212.59	212.59	186.15	186.15
	67	2600	171.77	90.22	153.32	81.19
		7600	226.38	142.91	195.97	131.12
		12600	240.40	181.06	205.44	168.45
	72	2600	188.99	76.01	168.28	66.94
		7600	247.41	101.40	214.03	89.96
		12600	261.22	116.65	221.92	104.14
80	62	2600	157.43	118.40	140.44	109.29
		7600	201.32	201.32	178.60	178.60
		12600	224.89	224.89	198.07	198.07
	67	2600	171.15	103.67	152.77	94.66
		7600	225.43	181.69	195.51	170.60
		12600	268.94	252.87	210.88	210.88
	72	2600	188.28	89.54	167.69	80.50
		7600	246.96	140.80	213.64	129.59
		12600	260.89	178.65	225.08	166.66
90	62	2600	155.32	143.91	138.50	134.86
		7600	222.81	222.81	199.02	199.02
		12600	250.64	250.64	221.05	221.05
	67	2600	169.82	129.72	151.75	120.99
		7600	222.97	222.97	199.15	199.15
		12600	250.80	250.80	221.19	221.19
	72	2600	186.84	115.90	166.52	106.93
		7600	246.05	218.22	212.87	206.75
		12600	252.94	252.94	220.67	220.67

20 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22

Standard Evaporator Coil (4 Row)

EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	3000	178.10	118.92	162.34	110.58
		7800	225.31	194.21	200.84	184.18
		12600	235.41	235.41	209.13	209.13
	67	3000	194.08	102.08	176.33	93.41
		7800	243.91	151.26	217.76	141.10
		12600	260.55	189.77	228.96	178.57
	72	3000	212.07	85.02	193.47	76.94
		7800	266.66	108.75	238.58	98.70
		12600	281.95	123.85	248.58	113.13
80	62	3000	177.61	134.44	162.01	126.09
		7800	218.45	218.45	196.93	196.93
		12600	232.58	232.58	210.30	210.30
	67	3000	193.49	117.65	175.86	109.04
		7800	244.01	191.52	217.30	181.51
		12600	259.99	252.04	246.30	242.89
	72	3000	211.36	100.67	193.29	92.79
		7800	266.23	149.04	238.21	139.51
		12600	281.58	186.81	248.31	176.10
90	62	3000	175.28	163.84	159.64	155.53
		7800	230.72	230.72	210.89	210.89
		12600	257.02	257.02	232.85	232.85
	67	3000	192.33	147.89	174.94	139.53
		7800	241.42	241.42	211.22	211.22
		12600	257.24	257.24	233.04	233.04
	72	3000	209.96	131.20	192.00	123.32
		7800	266.33	229.08	238.43	219.22
		12600	276.67	276.67	269.88	269.88

Refrig. R-410A

Standard Evaporator Coil (4 Row)

EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	3000	178.03	118.88	157.80	108.18
		7800	223.88	193.89	193.71	181.35
		12600	235.21	235.21	207.17	207.17
	67	3000	193.75	101.91	171.62	91.23
		7800	243.36	151.20	210.61	138.38
		12600	259.66	190.49	222.88	177.48
	72	3000	212.39	85.16	188.13	74.68
		7800	267.15	108.96	230.42	96.01
		12600	281.92	124.18	242.58	111.59
80	62	3000	177.64	134.46	157.60	123.85
		7800	221.04	221.04	186.20	186.20
		12600	231.98	231.98	203.68	203.68
	67	3000	193.20	117.51	171.09	106.82
		7800	243.59	191.62	210.27	179.17
		12600	259.37	253.67	252.16	250.47
	72	3000	211.69	100.82	187.55	90.36
		7800	266.66	149.34	230.05	136.92
		12600	281.55	187.81	242.27	174.87
90	62	3000	175.52	163.97	187.55	153.24
		7800	230.43	230.43	204.91	204.91
		12600	256.64	256.64	226.71	226.71
	67	3000	191.82	147.64	170.05	137.24
		7800	247.44	247.44	204.64	204.64
		12600	256.89	256.89	226.90	226.90
	72	3000	210.31	131.35	186.39	120.93
		7800	265.69	229.19	229.29	216.58
		12600	276.73	276.73	243.10	243.10

Refrig. R-22

6 Row Evaporator Coil

EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	3000	181.41	120.68	165.18	112.15
		7800	232.52	197.46	206.87	186.64
		12600	243.87	243.87	210.90	210.90
	67	3000	197.86	103.93	179.93	95.09
		7800	253.67	155.03	225.53	144.26
		12600	268.50	192.61	237.30	181.51
	72	3000	216.23	86.88	196.78	78.36
		7800	275.44	111.81	245.94	101.18
		12600	289.49	126.29	257.55	115.99
80	62	3000	180.48	135.98	164.46	127.35
		7800	226.45	226.45	200.89	200.89
		12600	248.14	248.14	224.23	224.23
	67	3000	196.91	119.34	179.33	110.66
		7800	253.05	194.96	225.05	184.40
		12600	268.31	255.17	251.42	247.17
	72	3000	215.43	102.50	196.50	94.17
		7800	274.96	152.28	245.53	141.98
		12600	289.15	189.27	257.22	178.96
90	62	3000	177.73	165.25	162.14	156.87
		7800	243.85	243.85	223.47	223.47
		12600	273.95	273.95	248.39	248.39
	67	3000	195.67	149.53	178.24	141.09
		7800	245.96	245.96	223.61	223.61
		12600	274.13	274.13	248.55	248.55
	72	3000	213.86	132.95	195.14	124.67
		7800	274.00	231.74	244.72	221.28
		12600	286.25	286.25	245.60	245.60

Refrig. R-410A

6 Row Evaporator Coil

EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	3000	181.29	120.62	160.40	109.59
		7800	231.81	197.42	198.81	183.63
		12600	243.67	243.67	204.46	204.46
	67	3000	197.04	103.53	174.61	92.61
		7800	252.47	154.71	217.14	141.03
		12600	267.87	193.42	230.61	180.20
	72	3000	215.73	86.65	191.67	76.18
		7800	276.41	112.19	235.58	97.74
		12600	290.96	127.11	246.83	112.94
80	62	3000	180.41	135.95	159.84	124.98
		7800	226.22	226.22	195.49	195.49
		12600	246.45	246.45	216.60	216.60
	67	3000	196.36	119.07	174.03	108.18
		7800	251.71	194.70	216.83	181.60
		12600	267.12	256.49	255.00	252.06
	72	3000	215.33	102.45	191.02	91.83
		7800	275.88	152.74	235.25	138.66
		12600	290.58	190.73	246.61	176.58
90	62	3000	178.22	165.51	158.06	154.76
		7800	242.61	242.61	216.83	216.83
		12600	273.70	273.70	241.16	241.16
	67	3000	195.14	149.27	172.87	138.56
		7800	242.80	242.80	216.97	216.97
		12600	273.89	273.89	241.32	241.32
	72	3000	213.77	132.91	189.73	122.35
		7800	274.83	232.35	234.57	218.30
		12600	286.48	286.48	239.40	239.40

25 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4100	235.87	158.53	211.56	145.79
		8350	283.28	226.98	251.27	212.92
		12600	302.08	284.88	264.11	264.11
	67	4100	256.94	135.48	231.03	123.07
		8350	305.99	179.75	272.18	166.51
		12600	323.63	215.47	287.92	202.51
	72	4100	280.39	112.04	253.37	100.50
		8350	332.80	133.25	298.03	120.90
		12600	349.91	147.06	313.46	135.05
80	62	4100	235.30	179.65	211.21	167.16
		8350	283.68	270.56	249.40	249.40
		12600	291.22	291.22	253.47	253.47
	67	4100	256.23	156.53	230.38	144.41
		8350	305.57	223.32	271.71	209.54
		12600	323.22	280.15	287.53	266.66
	72	4100	279.55	133.48	252.64	121.95
		8350	332.18	176.98	297.47	164.40
		12600	349.49	211.90	313.03	199.87
90	62	4100	232.42	220.06	209.21	208.13
		8350	279.96	279.96	252.87	252.87
		12600	306.99	306.99	277.69	277.69
	67	4100	254.81	198.19	229.25	186.10
		8350	306.21	306.21	262.44	262.44
		12600	307.25	307.25	278.14	278.14
	72	4100	277.88	175.27	251.05	163.71
		8350	331.70	262.27	296.37	249.82
		12600	349.91	338.68	312.16	312.16

Refrig. R-410A		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4100	231.72	156.36	203.82	141.95
		8350	277.18	224.34	237.40	206.92
		12600	293.32	281.66	248.99	248.99
	67	4100	251.97	132.95	221.33	118.67
		8350	299.34	177.13	259.03	161.45
		12600	316.72	213.00	272.42	197.00
	72	4100	275.82	110.06	242.52	96.01
		8350	326.52	131.00	281.43	115.11
		12600	346.24	145.86	296.68	129.61
80	62	4100	231.15	177.47	203.09	163.12
		8350	275.71	267.00	230.03	230.03
		12600	276.35	276.35	241.99	241.99
	67	4100	251.34	154.20	220.72	140.01
		8350	298.83	220.66	258.10	204.40
		12600	316.26	277.68	272.08	261.42
	72	4100	275.01	131.50	241.84	117.46
		8350	325.73	174.67	280.92	158.46
		12600	345.72	210.70	296.27	194.46
90	62	4100	228.62	218.09	241.84	199.08
		8350	274.54	274.54	243.67	243.67
		12600	301.52	301.52	264.94	264.94
	67	4100	249.21	195.49	219.50	181.39
		8350	298.62	298.62	255.57	255.57
		12600	301.77	301.77	265.26	265.26
	72	4100	273.40	173.30	240.50	159.07
		8350	324.18	259.61	279.90	244.14
		12600	344.69	337.22	297.99	297.99

Refrig. R-22		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4100	242.43	162.00	217.48	148.90
		8350	293.15	231.31	258.60	216.31
		12600	311.84	289.49	272.13	271.04
	67	4100	263.96	138.88	236.98	125.80
		8350	316.92	184.11	281.34	170.06
		12600	339.01	221.12	300.02	206.87
	72	4100	288.51	115.61	260.19	103.37
		8350	344.72	137.56	307.54	124.24
		12600	362.66	151.30	322.79	138.11
80	62	4100	241.25	182.95	216.57	169.86
		8350	292.84	274.49	258.73	257.97
		12600	299.68	299.68	269.37	269.37
	67	4100	263.22	160.20	236.22	147.10
		8350	316.37	227.64	281.95	214.01
		12600	338.28	285.70	299.19	270.70
	72	4100	287.54	137.00	259.34	124.77
		8350	344.12	181.31	306.75	167.91
		12600	362.22	216.15	322.36	202.93
90	62	4100	238.07	223.14	213.83	210.35
		8350	295.19	295.19	267.91	267.91
		12600	329.79	329.79	298.39	298.39
	67	4100	261.77	201.58	234.72	188.64
		8350	317.22	313.13	276.82	276.82
		12600	330.11	330.11	298.61	298.61
	72	4100	285.61	178.71	258.24	166.76
		8350	343.97	266.67	305.42	252.98
		12600	361.33	342.66	319.72	319.72

Refrig. R-410A		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4100	238.33	159.83	208.36	144.20
		8350	285.91	228.15	245.37	210.20
		12600	305.70	286.75	256.50	256.50
	67	4100	258.39	136.17	227.14	121.30
		8350	311.78	182.06	266.67	164.39
		12600	331.47	218.40	283.14	200.84
	72	4100	282.72	113.06	249.26	98.79
		8350	340.58	136.06	292.01	118.79
		12600	360.48	150.60	307.04	132.97
80	62	4100	236.78	180.57	207.90	165.51
		8350	285.65	271.42	245.15	245.15
		12600	294.70	294.70	256.57	256.57
	67	4100	257.57	157.31	226.41	142.59
		8350	311.17	225.57	266.15	207.44
		12600	330.99	283.10	282.88	265.15
	72	4100	281.77	134.45	248.49	120.21
		8350	339.84	179.76	291.46	162.08
		12600	359.93	215.43	306.63	197.83
90	62	4100	234.12	220.94	205.90	205.57
		8350	290.13	290.13	257.34	257.34
		12600	323.92	323.92	286.15	286.15
	67	4100	255.96	198.75	225.02	184.02
		8350	311.27	309.52	257.49	257.49
		12600	324.25	324.25	286.37	286.37
	72	4100	280.42	176.40	246.95	161.86
		8350	338.36	264.67	290.35	247.74
		12600	358.83	341.96	302.45	302.45

30 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22			Standard Evaporator Coil (4 Row)				Refrig. R-410A			Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				
			95		120					95		120		
			Total MBH	Sensible MBH	Total MBH	Sensible MBH				Total MBH	Sensible MBH	Total MBH	Sensible MBH	
75	62	5100	260.60	180.07	237.08	168.57	75	62	5100	268.63	184.44	235.43	167.91	
		8850	296.44	238.75	264.78	224.56			8850	306.71	243.39	264.22	224.86	
		12600	313.12	290.01	275.84	274.50			12600	324.34	294.64	280.42	271.00	
	67	5100	283.57	151.34	255.80	138.94	67	67	5100	291.36	155.06	255.68	139.02	
		8850	320.91	189.07	286.53	175.63			8850	331.03	193.23	286.70	175.80	
		12600	338.91	221.09	299.41	206.66			12600	348.77	225.42	300.93	207.40	
	72	5100	309.47	122.64	278.85	110.20	72	72	5100	317.67	126.21	279.33	110.40	
		8850	351.41	140.73	311.31	126.50			8850	360.00	143.95	313.43	127.11	
		12600	372.24	154.51	325.42	138.97			12600	381.54	158.15	328.52	140.09	
	80	62	5100	260.12	206.62	236.79	195.16	80	62	5100	268.31	210.87	235.29	194.45
			8850	295.59	284.35	263.07	263.07			8850	305.62	288.95	260.65	257.03
			12600	301.78	301.78	261.78	261.78			12600	315.71	315.71	272.30	272.30
67		5100	282.90	177.94	255.29	165.57	67	67	5100	290.65	181.65	255.08	165.45	
		8850	320.37	235.15	286.18	221.24			8850	330.50	239.34	286.22	221.71	
		12600	338.40	285.76	298.96	270.63			12600	348.27	289.70	300.50	271.99	
72		5100	308.66	149.35	278.17	136.64	72	72	5100	316.83	152.92	279.33	137.41	
		8850	350.72	187.00	310.80	172.34			8850	360.32	190.62	312.84	173.48	
		12600	371.64	219.31	324.98	203.80			12600	380.93	222.64	328.06	205.00	
90		62	5100	256.79	256.79	228.84	228.84	90	62	5100	261.43	255.07	279.33	231.53
			8850	292.07	292.07	265.30	265.30			8850	300.16	300.16	266.75	266.75
			12600	317.18	317.18	285.89	285.89			12600	326.89	326.89	287.76	287.76
	67	5100	282.51	230.25	255.86	218.00	67	67	5100	290.69	234.06	255.14	217.82	
		8850	321.32	321.32	275.37	275.37			8850	330.49	321.05	279.77	279.77	
		12600	316.19	316.19	286.17	286.17			12600	334.59	334.59	288.03	288.03	
	72	5100	307.06	201.43	276.82	188.85	72	72	5100	315.16	204.87	277.96	189.42	
		8850	351.38	277.71	309.80	263.06			8850	358.81	280.81	311.68	263.61	
		12600	370.46	345.64	324.11	324.11			12600	379.72	349.16	324.30	316.69	

Refrig. R-22			6 Row Evaporator Coil				Refrig. R-410A			6 Row Evaporator Coil			
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)				EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120					95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH				Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	5100	269.76	184.82	244.26	172.04	75	62	5100	276.87	188.64	242.23	171.21
		8850	308.15	243.87	272.47	228.40			8850	318.63	248.66	273.30	228.69
		12600	326.07	295.28	286.77	278.74			12600	338.38	300.60	286.29	274.13
	67	5100	293.74	156.01	263.23	142.22		67	5100	300.60	159.53	263.78	142.59
		8850	336.73	195.37	297.80	180.00			8850	343.99	198.45	297.37	179.96
		12600	357.78	228.89	310.91	210.83			12600	365.46	231.71	313.96	212.15
	72	5100	320.03	127.05	287.74	113.76		72	5100	327.56	130.40	287.95	113.84
		8850	368.73	147.00	324.16	131.02			8850	377.79	150.45	324.98	131.42
		12600	388.16	159.87	340.21	143.84			12600	398.14	163.82	341.38	144.35
80	62	5100	269.23	211.20	244.03	198.68	80	62	5100	276.33	215.15	241.33	197.37
		8850	307.86	289.61	273.06	272.23			8850	316.96	293.91	270.42	264.17
		12600	318.20	318.20	279.42	279.42			12600	326.02	326.02	280.39	280.39
	67	5100	293.02	182.59	262.57	168.78		67	5100	299.74	185.87	262.88	168.89
		8850	336.10	241.43	297.19	225.74			8850	344.04	244.79	296.79	225.81
		12600	357.09	292.69	310.55	275.50			12600	364.88	295.91	313.55	276.69
	72	5100	319.04	153.70	286.75	140.22		72	5100	326.55	157.05	287.08	140.53
		8850	367.94	193.25	323.58	177.33			8850	376.95	196.70	324.38	177.53
		12600	387.55	224.67	339.72	208.66			12600	397.52	228.28	340.87	209.24
90	62	5100	264.92	261.16	237.61	237.61	90	62	5100	273.73	265.09	238.56	238.09
		8850	310.09	310.09	281.70	281.70			8850	317.79	317.79	282.11	282.11
		12600	341.85	341.85	309.66	309.66			12600	350.17	350.17	310.81	310.81
	67	5100	290.93	234.15	261.27	220.39		67	5100	298.04	237.50	261.54	220.80
		8850	334.98	330.95	286.06	286.06			8850	340.00	326.30	293.02	293.02
		12600	341.47	341.47	309.89	309.89			12600	359.16	359.16	311.07	311.07
	72	5100	317.08	205.66	285.60	192.36		72	5100	325.28	209.17	285.79	192.75
		8850	366.39	283.09	322.42	267.46			8850	375.26	286.82	323.18	267.89
		12600	385.90	350.67	338.75	334.80			12600	396.27	355.03	337.47	324.73

26 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22		Standard Evaporator Coil (3 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4300	243.53	164.29	221.83	152.98
		12500	309.13	288.02	276.35	272.44
		20700	329.91	329.91	295.98	295.98
	67	4300	264.81	139.75	241.84	128.90
		12500	335.58	220.17	302.05	207.56
		20700	353.88	279.27	317.36	265.58
	72	4300	289.80	115.69	265.23	105.23
		12500	364.59	151.94	329.45	140.28
		20700	386.16	176.65	345.30	163.72
80	62	4300	242.97	186.45	221.15	175.17
		12500	302.34	302.34	264.65	264.65
		20700	318.05	318.05	288.99	288.99
	67	4300	263.91	162.04	241.15	151.26
		12500	335.09	284.40	301.63	271.85
		20700	377.75	377.72	361.24	361.24
	72	4300	288.93	138.17	264.46	127.72
		12500	364.02	216.68	328.96	205.02
		20700	385.71	275.90	344.92	262.47
90	62	4300	239.43	228.54	217.07	214.96
		12500	317.46	317.46	290.90	290.90
		20700	349.11	349.11	320.13	320.13
	67	4300	262.34	205.54	239.70	194.81
		12500	317.70	317.70	291.14	291.14
		20700	349.52	349.52	320.47	320.47
	72	4300	287.19	182.00	262.92	171.51
		12500	362.88	342.79	327.98	325.22
		20700	422.20	422.20	349.32	349.32

Refrig. R-410A		Standard Evaporator Coil (3 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4300	237.06	160.86	208.65	146.41
		12500	299.72	284.17	258.19	258.19
		20700	309.69	309.69	258.40	258.40
	67	4300	258.05	136.54	228.17	122.71
		12500	326.70	216.54	283.55	200.88
		20700	345.38	275.98	297.72	259.03
	72	4300	283.16	112.83	250.98	99.34
		12500	357.21	149.47	310.72	134.14
		20700	376.78	173.67	325.18	157.40
80	62	4300	236.33	183.01	208.18	168.66
		12500	288.15	288.15	249.85	249.85
		20700	310.19	310.19	272.46	272.46
	67	4300	257.23	158.74	227.51	145.08
		12500	326.22	281.12	283.16	264.87
		20700	368.04	368.04	338.43	338.43
	72	4300	282.31	135.30	250.25	121.77
		12500	356.67	214.22	310.24	198.88
		20700	377.36	273.01	324.79	256.31
90	62	4300	233.05	225.20	250.25	204.59
		12500	310.53	310.53	276.03	276.03
		20700	341.90	341.90	303.55	303.55
	67	4300	255.76	202.39	226.21	188.48
		12500	310.77	310.77	276.24	276.24
		20700	341.87	341.87	303.88	303.88
	72	4300	280.88	179.25	248.82	165.59
		12500	355.40	340.37	308.21	308.21
		20700	400.98	400.98	302.64	302.64

Refrig. R-22		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4300	253.15	169.33	230.57	157.43
		12500	329.21	296.55	299.23	283.79
		20700	337.72	337.72	305.32	305.32
	67	4300	275.60	145.06	251.62	133.38
		12500	358.64	229.02	320.87	214.46
		20700	376.54	287.43	337.61	273.47
	72	4300	302.09	121.05	276.65	110.02
		12500	391.43	160.97	349.99	147.08
		20700	412.75	185.20	368.91	171.23
80	62	4300	252.42	191.56	229.71	179.46
		12500	320.64	320.64	292.29	292.29
		20700	357.15	357.15	324.58	324.58
	67	4300	274.61	167.18	250.74	155.68
		12500	357.89	292.96	319.87	278.88
		20700	421.80	402.50	348.02	348.02
	72	4300	300.97	143.43	275.68	132.44
		12500	391.74	226.06	349.43	211.85
		20700	413.64	285.26	366.94	269.67
90	62	4300	248.03	233.18	226.71	221.81
		12500	355.13	355.13	325.85	325.85
		20700	397.45	397.45	362.29	362.29
	67	4300	272.60	210.48	249.01	199.18
		12500	355.36	355.36	326.04	326.04
		20700	397.71	397.71	362.53	362.53
	72	4300	299.04	187.22	273.75	176.15
		12500	390.30	352.34	345.04	337.16
		20700	395.94	395.94	362.55	362.55

Refrig. R-410A		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4300	246.52	165.83	215.74	149.87
		12500	319.30	292.51	291.42	280.53
		20700	329.07	329.07	286.98	286.98
	67	4300	268.81	141.63	237.37	126.84
		12500	348.17	224.90	301.01	207.23
		20700	369.62	284.98	314.69*	264.87
	72	4300	295.21	118.02	261.71	103.74
		12500	381.88	157.75	331.28	140.89
		20700	401.44	181.58	346.12	164.04
80	62	4300	245.36	187.68	214.89	172.03
		12500	313.53	313.53	276.42	276.42
		20700	348.26	348.26	305.50	305.50
	67	4300	267.82	163.89	236.55	149.14
		12500	347.69	289.15	300.69	271.58
		20700	410.73	398.74	305.42	305.42
	72	4300	294.40	140.54	260.81	126.17
		12500	381.23	222.51	329.61	205.29
		20700	400.98	281.19	345.48	262.81
90	62	4300	242.51	230.15	211.55	210.97
		12500	347.79	347.79	310.07	310.07
		20700	389.85	389.85	344.01	344.01
	67	4300	265.87	207.21	234.93	192.53
		12500	348.03	348.03	310.27	310.27
		20700	390.11	390.11	344.23	344.23
	72	4300	292.24	184.20	259.01	169.78
		12500	379.94	348.58	322.92	322.83
		20700	388.89	388.89	344.13	344.13

31 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22

Standard Evaporator Coil (4 Row)

EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4500	270.57	180.22	247.81	168.25
		12600	346.99	305.03	309.87	289.58
		20700	363.12	363.12	331.50	331.50
	67	4500	294.38	154.73	269.04	142.25
		12600	375.77	236.41	336.05	220.74
		20700	398.19	295.12	354.79	279.76
	72	4500	322.17	129.36	294.59	117.30
		12600	411.28	168.30	366.48	152.80
		20700	433.85	191.99	385.16	176.39
80	62	4500	269.88	203.54	246.82	191.09
		12600	346.13	346.13	298.65	298.65
		20700	361.19	361.19	326.72	326.72
	67	4500	293.38	178.04	268.20	165.63
		12600	375.87	300.87	335.55	285.84
		20700	397.33	392.40	402.01	395.41
	72	4500	321.07	152.83	293.65	140.80
		12600	410.57	233.16	365.90	218.05
		20700	433.33	291.61	384.72	275.48
90	62	4500	265.86	247.35	243.80	235.63
		12600	358.49	358.49	328.37	328.37
		20700	399.88	399.88	362.78	362.78
	67	4500	291.22	223.18	266.54	211.25
		12600	369.76	369.76	328.67	328.67
		20700	400.25	400.25	363.08	363.08
	72	4500	318.91	198.60	291.77	186.62
		12600	409.15	360.32	364.75	345.29
		20700	448.68	448.68	383.17	383.17

Refrig. R-410A

Standard Evaporator Coil (4 Row)

EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4500	279.17	184.85	248.02	168.36
		12600	357.03	309.17	309.25	289.34
		20700	374.32	374.32	316.68	316.68
	67	4500	302.26	158.63	269.07	142.33
		12600	387.23	240.79	335.69	220.60
		20700	409.69	299.22	353.75	279.39
	72	4500	330.54	133.27	294.68	117.34
		12600	423.32	172.84	366.31	152.74
		20700	446.43	196.05	384.70	176.24
80	62	4500	278.51	208.21	247.65	191.52
		12600	352.69	352.69	298.02	298.02
		20700	370.93	370.93	326.19	326.19
	67	4500	301.15	181.90	268.23	165.64
		12600	386.78	304.98	335.18	285.70
		20700	410.04	398.41	401.86	395.48
	72	4500	329.42	156.73	293.74	140.84
		12600	422.56	237.27	365.74	218.00
		20700	445.87	295.67	384.25	275.34
90	62	4500	274.29	252.04	293.74	235.67
		12600	367.05	367.05	327.57	327.57
		20700	409.39	409.39	362.26	362.26
	67	4500	299.18	227.28	266.29	211.13
		12600	382.05	382.05	327.84	327.84
		20700	409.79	409.79	362.64	362.64
	72	4500	327.21	202.37	291.85	186.65
		12600	421.07	364.79	365.47	345.53
		20700	461.90	461.90	376.41	376.41

Refrig. R-22

6 Row Evaporator Coil

EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4500	275.00	182.59	251.16	169.98
		12600	357.71	309.45	317.70	292.86
		20700	382.09	382.09	327.81	327.81
	67	4500	298.89	156.95	273.30	144.40
		12600	389.21	241.55	346.84	225.10
		20700	413.27	300.50	367.28	284.15
	72	4500	327.60	131.94	299.65	119.47
		12600	423.95	173.06	377.11	156.36
		20700	447.79	196.50	394.25	179.28
80	62	4500	273.72	205.61	250.64	193.21
		12600	347.62	347.62	312.95	312.95
		20700	384.40	384.40	347.86	347.86
	67	4500	297.95	180.31	272.42	167.62
		12600	388.19	305.51	345.85	289.66
		20700	412.29	399.08	405.37	396.75
	72	4500	326.67	155.35	298.60	142.93
		12600	423.19	237.48	377.46	221.94
		20700	447.24	296.12	393.91	278.93
90	62	4500	270.07	249.75	246.96	237.22
		12600	378.92	378.92	347.57	347.57
		20700	425.91	425.91	386.42	386.42
	67	4500	295.82	225.46	270.57	213.17
		12600	379.30	379.30	347.79	347.79
		20700	426.20	426.20	386.67	386.67
	72	4500	324.22	201.01	296.51	188.67
		12600	421.69	365.00	376.25	349.04
		20700	431.07	431.07	384.14	384.14

Refrig. R-410A

6 Row Evaporator Coil

EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	4500	283.66	187.29	251.72	170.27
		12600	368.50	314.33	317.98	292.98
		20700	387.04	387.04	326.94	326.94
	67	4500	307.01	161.01	273.28	144.40
		12600	399.33	245.45	346.53	224.99
		20700	424.58	304.55	365.55	283.54
	72	4500	336.02	135.77	299.41	119.37
		12600	437.27	177.70	375.60	155.85
		20700	460.75	200.70	395.14	179.56
80	62	4500	282.30	210.29	250.80	193.30
		12600	367.37	367.37	312.41	312.41
		20700	393.47	393.47	347.07	347.07
	67	4500	306.16	184.42	272.36	167.59
		12600	399.35	309.75	345.89	289.67
		20700	425.05	403.58	405.25	396.85
	72	4500	335.05	159.31	298.36	142.83
		12600	436.46	242.41	375.05	221.13
		20700	460.15	300.31	394.66	279.17
90	62	4500	278.45	254.32	247.51	237.49
		12600	387.08	387.08	346.95	346.95
		20700	435.91	435.91	386.10	386.10
	67	4500	303.58	229.50	270.50	213.14
		12600	387.35	387.35	347.17	347.17
		20700	436.20	436.20	386.36	386.36
	72	4500	332.58	204.84	296.30	188.58
		12600	434.85	369.56	373.97	348.30
		20700	453.12	453.12	384.24	384.24

40 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	6100	351.31	236.07	319.49	219.47
		13400	428.45	349.46	381.23	328.52
		20700	451.92	432.68	398.25	398.25
	67	6100	382.48	201.47	347.44	184.81
		13400	461.92	275.05	414.23	256.49
		20700	492.37	329.12	438.13	309.42
	72	6100	416.88	166.59	380.00	150.82
		13400	505.91	203.32	451.13	184.00
		20700	532.45	224.27	474.60	205.21
80	62	6100	350.49	267.49	318.52	250.85
		13400	425.89	416.35	371.41	371.41
		20700	429.52	429.52	388.69	388.69
	67	6100	381.43	233.21	346.54	216.58
		13400	461.13	343.53	413.55	324.31
		20700	491.67	428.55	437.43	408.13
	72	6100	415.60	198.46	378.89	182.71
		13400	504.97	272.13	450.41	252.18
		20700	531.78	323.89	473.99	304.83
90	62	6100	345.32	327.13	314.80	311.24
		13400	425.75	425.75	389.26	389.26
		20700	470.40	470.40	429.73	429.73
	67	6100	379.35	294.98	344.38	278.29
		13400	453.57	453.57	395.55	395.55
		20700	470.39	470.39	430.14	430.14
	72	6100	412.95	260.56	376.68	244.90
		13400	503.95	406.45	448.96	387.21
		20700	530.25	518.81	476.45	476.45

Refrig. R-410A		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	6100	348.10	234.39	306.31	212.71
		13400	422.67	346.96	361.06	320.21
		20700	445.07	429.83	374.30	374.30
	67	6100	377.87	199.26	331.97	177.77
		13400	454.98	272.32	391.43	247.78
		20700	484.62	326.29	411.94	300.02
	72	6100	412.05	164.49	362.94	143.73
		13400	498.07	200.53	427.18	175.35
		20700	524.41	221.60	447.81	196.50
80	62	6100	347.34	265.84	305.27	244.22
		13400	419.61	413.38	356.76	356.76
		20700	423.88	423.88	370.43	370.43
	67	6100	376.84	230.90	331.09	209.52
		13400	454.19	340.79	390.77	315.73
		20700	483.91	425.71	410.94	398.71
	72	6100	410.81	196.37	361.89	175.63
		13400	497.17	269.34	426.52	244.01
		20700	523.74	321.22	447.26	296.12
90	62	6100	342.33	325.59	361.89	299.67
		13400	421.69	421.69	372.79	372.79
		20700	464.10	464.10	410.03	410.03
	67	6100	374.80	292.79	329.09	271.19
		13400	447.80	447.80	372.71	372.71
		20700	464.62	464.62	410.47	410.47
	72	6100	408.70	258.69	360.01	237.75
		13400	495.20	403.36	425.20	378.70
		20700	522.81	515.62	440.13	440.13

Refrig. R-22		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	6100	359.79	240.55	326.87	223.21
		13400	441.34	355.06	392.79	333.76
		20700	469.92	440.20	410.41	410.31
	67	6100	391.55	206.07	355.41	188.50
		13400	481.71	282.87	429.97	262.57
		20700	511.71	336.22	453.46	314.96
	72	6100	428.08	171.52	389.12	154.66
		13400	523.95	209.79	467.04	189.56
		20700	554.71	231.68	489.35	210.04
80	62	6100	358.16	271.77	325.91	254.59
		13400	440.86	422.90	385.91	385.91
		20700	457.28	457.28	415.41	415.41
	67	6100	389.92	237.32	354.41	220.23
		13400	480.78	351.32	429.06	330.62
		20700	510.39	435.46	453.04	413.53
	72	6100	426.60	203.31	387.81	186.48
		13400	522.98	278.59	466.22	258.03
		20700	555.23	331.72	488.73	309.66
90	62	6100	353.83	331.79	321.06	314.37
		13400	450.49	450.49	412.91	412.91
		20700	505.99	505.99	458.48	458.48
	67	6100	387.46	298.93	352.44	282.16
		13400	472.01	470.94	415.57	415.57
		20700	506.38	506.38	458.79	458.79
	72	6100	423.67	265.32	385.50	248.65
		13400	521.04	412.53	464.60	392.63
		20700	554.92	527.14	482.56	482.56

Refrig. R-410A		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	6100	356.43	238.77	312.29	215.68
		13400	434.08	351.90	372.89	325.07
		20700	464.61	438.11	387.44	387.44
	67	6100	387.01	203.86	339.80	181.32
		13400	474.32	279.94	406.95	253.70
		20700	503.03	333.03	427.52	305.61
	72	6100	423.13	169.34	371.74	147.37
		13400	515.87	206.89	441.49	180.26
		20700	545.61	228.64	462.43	201.24
80	62	6100	355.57	270.39	311.84	247.50
		13400	434.36	420.23	361.35	361.35
		20700	452.00	452.00	396.32	396.32
	67	6100	385.45	235.15	338.85	213.06
		13400	473.39	348.38	406.06	321.48
		20700	502.40	432.51	426.79	404.46
	72	6100	421.70	201.14	370.42	179.17
		13400	514.93	275.69	440.74	248.87
		20700	544.86	328.25	461.83	300.86
90	62	6100	350.43	329.99	307.81	305.88
		13400	445.44	445.44	396.04	396.04
		20700	499.10	499.10	437.70	437.70
	67	6100	383.12	296.81	336.80	274.70
		13400	462.21	462.21	396.33	396.33
		20700	499.47	499.47	438.00	438.00
	72	6100	418.85	263.17	368.32	241.20
		13400	513.04	409.68	439.25	383.85
		20700	541.21	522.29	454.87	454.87

50 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	8000	478.50	319.03	430.59	293.72
		18200	593.53	484.40	523.67	453.59
		28400	620.75	612.27	547.78	547.78
	67	8000	521.69	274.26	469.45	248.75
		18200	641.47	381.77	568.93	353.60
		28400	676.26	465.77	601.23	438.79
	72	8000	570.54	228.98	515.46	205.00
		18200	697.52	280.48	622.72	254.15
		28400	732.66	312.80	648.61	285.41
80	62	8000	477.10	360.39	428.53	334.48
		18200	591.60	577.93	522.75	522.75
		28400	606.58	606.58	543.37	543.37
	67	8000	519.28	315.39	467.98	290.32
		18200	640.38	476.65	567.88	447.54
		28400	674.95	610.32	600.08	583.40
	72	8000	568.66	270.74	513.82	246.78
		18200	696.22	375.82	621.60	348.60
		28400	731.70	458.57	647.84	431.20
90	62	8000	470.43	438.56	423.60	413.75
		18200	598.04	598.04	542.15	542.15
		28400	662.35	662.35	602.48	602.48
	67	8000	516.29	396.06	465.05	371.40
		18200	628.50	628.50	559.89	559.89
		28400	661.79	661.79	603.09	603.09
	72	8000	564.94	352.16	510.56	328.25
		18200	693.63	561.30	619.38	535.36
		28400	724.79	724.52	675.02	675.02

Refrig. R-410A		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	8000	468.20	313.55	410.42	283.30
		18200	575.68	476.70	492.54	440.80
		28400	606.58	603.26	514.16	514.16
	67	8000	508.83	267.98	446.89	238.37
		18200	623.56	374.75	534.76	340.57
		28400	663.68	461.22	567.35	426.74
	72	8000	556.51	222.77	490.02	194.30
		18200	681.65	274.83	583.34	240.05
		28400	718.42	308.13	612.69	273.84
80	62	8000	466.22	354.58	409.25	324.75
		18200	574.79	568.81	476.37	476.37
		28400	590.44	590.44	515.47	515.47
	67	8000	507.28	309.26	445.47	279.93
		18200	623.85	470.15	533.81	434.73
		28400	662.80	605.23	602.34	584.16
	72	8000	554.70	264.53	488.53	236.11
		18200	680.31	370.16	582.34	335.20
		28400	717.43	453.88	611.97	419.64
90	62	8000	461.00	433.57	488.53	401.98
		18200	584.80	584.80	516.11	516.11
		28400	647.93	647.93	571.38	571.38
	67	8000	503.54	389.82	442.78	360.79
		18200	619.42	619.42	516.54	516.54
		28400	648.73	648.73	571.92	571.92
	72	8000	550.96	345.91	485.56	317.40
		18200	677.66	555.67	580.34	521.56
		28400	723.38	719.98	665.58	665.58

Refrig. R-22		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	8000	486.20	323.13	437.81	297.67
		18200	607.76	490.58	539.64	460.20
		28400	648.49	629.03	610.56	610.56
	67	8000	530.68	278.66	478.00	252.72
		18200	657.20	387.96	588.72	361.21
		28400	699.19	474.14	618.98	445.18
	72	8000	580.35	233.34	525.39	209.22
		18200	714.06	286.37	641.14	260.55
		28400	749.19	318.24	674.19	293.71
80	62	8000	484.46	364.33	437.05	338.80
		18200	608.77	585.71	549.11	549.11
		28400	641.37	641.37	575.74	575.74
	67	8000	529.37	320.35	476.33	294.20
		18200	660.86	484.75	586.23	454.50
		28400	698.55	619.65	618.70	590.11
	72	8000	578.25	275.00	523.56	250.93
		18200	712.91	381.79	639.96	354.92
		28400	748.27	464.07	673.25	439.49
90	62	8000	478.97	443.36	430.70	417.18
		18200	627.57	627.57	572.22	572.22
		28400	703.48	703.48	638.55	638.55
	67	8000	523.89	399.79	473.01	375.14
		18200	642.44	642.44	570.44	570.44
		28400	703.93	703.93	638.97	638.97
	72	8000	574.08	356.25	519.93	332.26
		18200	710.61	567.33	637.61	541.68
		28400	740.45	740.4	659.84	659.84

Refrig. R-410A		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	8000	476.49	317.93	416.57	286.35
		18200	591.73	483.62	505.46	446.10
		28400	680.96	641.29	566.16	566.16
	67	8000	516.83	271.85	454.53	241.84
		18200	642.90	382.32	551.54	346.94
		28400	689.88	470.75	579.54	431.12
	72	8000	566.06	226.96	499.20	198.11
		18200	706.01	283.49	599.93	245.16
		28400	740.72	315.45	636.72	281.58
80	62	8000	473.41	358.39	416.69	328.46
		18200	590.64	577.33	491.61	491.61
		28400	624.71	624.71	544.12	544.12
	67	8000	515.07	313.29	453.05	283.38
		18200	641.55	477.11	550.58	441.02
		28400	687.73	615.70	585.84	578.17
	72	8000	564.02	268.63	497.53	239.86
		18200	704.52	378.78	599.01	340.87
		28400	739.78	461.27	635.70	427.33
90	62	8000	467.89	436.87	411.34	407.46
		18200	613.92	613.92	544.13	544.13
		28400	691.35	691.35	607.04	607.04
	67	8000	511.60	393.73	450.12	364.41
		18200	626.95	626.95	544.53	544.53
		28400	691.83	691.83	607.45	607.45
	72	8000	559.97	349.89	494.23	321.27
		18200	701.56	564.11	602.41	529.53
		28400	731.78	731.78	639.60	639.60

60 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	9400	523.50	354.47	477.56	330.55
		18900	623.62	505.97	552.97	475.20
		28400	657.86	632.47	572.91	572.91
	67	9400	569.88	301.15	515.51	275.74
		18900	676.56	400.44	599.81	370.52
		28400	714.61	479.72	631.69	449.70
	72	9400	621.83	247.79	562.29	222.72
		18900	741.83	297.49	657.71	267.72
		28400	786.23	330.49	686.32	297.64
80	62	9400	521.21	402.37	475.75	379.03
		18900	620.04	602.54	535.81	535.81
		28400	627.97	627.97	565.57	565.57
	67	9400	567.19	349.25	514.43	324.81
		18900	675.64	498.99	597.93	467.64
		28400	713.40	625.02	630.50	594.07
	72	9400	619.92	296.91	560.70	271.90
		18900	740.30	396.36	656.47	365.66
		28400	785.01	476.21	685.38	443.40
90	62	9400	514.02	494.57	465.95	464.14
		18900	624.35	624.35	567.18	567.18
		28400	688.13	688.13	624.84	624.84
	67	9400	564.05	444.74	511.74	420.04
		18900	662.47	662.47	582.06	582.06
		28400	688.96	688.96	625.48	625.48
	72	9400	616.13	383.99	557.52	367.54
		18900	737.26	588.63	654.00	559.41
		28400	782.61	760.53	674.41	674.41

Refrig. R-410A		Standard Evaporator Coil (4 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	9400	534.05	360.12	468.33	326.45
		18900	636.63	511.56	547.14	473.12
		28400	672.82	634.80	584.24	572.65
	67	9400	579.59	306.17	509.89	273.47
		18900	687.37	404.96	592.35	367.56
		28400	729.88	485.93	626.88	448.09
	72	9400	632.62	252.79	556.48	220.46
		18900	751.47	301.20	646.19	263.44
		28400	792.51	332.76	677.38	294.87
80	62	9400	532.56	408.67	467.35	374.99
		18900	630.95	601.28	535.42	532.31
		28400	646.89	646.89	561.01	561.01
	67	9400	577.95	355.06	507.98	322.16
		18900	686.02	503.07	591.27	465.95
		28400	728.85	630.19	643.87	599.10
	72	9400	630.38	301.78	554.87	269.65
		18900	749.81	399.76	646.45	363.01
		28400	791.40	478.52	676.53	440.65
90	62	9400	525.45	501.08	554.87	451.96
		18900	635.15	635.15	562.79	562.79
		28400	700.13	700.13	619.50	619.50
	67	9400	574.38	450.02	505.35	417.49
		18900	683.39	669.70	573.66	573.66
		28400	700.87	700.87	620.13	620.13
	72	9400	626.55	397.58	552.37	365.76
		18900	746.94	592.61	642.90	555.37
		28400	792.60	753.31	709.95	708.15

Refrig. R-22		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	9400	534.31	360.07	486.07	334.76
		18900	641.73	513.85	567.98	480.83
		28400	686.24	643.28	643.29	627.08
	67	9400	581.09	306.75	525.56	280.27
		18900	698.29	409.04	616.45	376.94
		28400	750.63	492.96	655.14	458.18
	72	9400	634.23	253.12	573.98	227.53
		18900	765.90	306.13	673.46	273.23
		28400	814.22	339.82	705.62	303.94
80	62	9400	533.21	408.24	485.55	383.90
		18900	643.51	612.79	554.52	554.52
		28400	668.48	668.48	599.68	599.68
	67	9400	579.45	355.04	523.99	329.14
		18900	696.80	507.39	614.83	474.07
		28400	748.62	638.07	647.40	599.99
	72	9400	634.64	303.26	572.12	276.61
		18900	764.34	405.02	672.26	371.11
		28400	812.97	485.57	704.74	449.76
90	62	9400	523.87	499.86	477.24	475.27
		18900	655.75	655.75	597.95	597.95
		28400	740.53	740.53	664.91	664.91
	67	9400	576.25	450.55	520.88	424.48
		18900	701.55	701.55	598.50	598.50
		28400	741.10	741.10	665.38	665.38
	72	9400	630.31	398.86	568.45	372.33
		18900	761.23	597.19	669.87	564.93
		28400	810.49	770.02	698.41	698.41

Refrig. R-410A		6 Row Evaporator Coil				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	9400	544.80	365.90	476.46	330.64
		18900	654.54	519.72	560.52	478.73
		28400	723.56	659.40	611.27	599.08
	67	9400	591.05	311.63	519.55	277.82
		18900	710.91	414.34	612.47	375.62
		28400	760.49	497.79	645.97	455.04
	72	9400	647.48	259.25	567.86	225.29
		18900	778.98	311.15	666.47	270.48
		28400	822.46	342.79	705.80	304.16
80	62	9400	543.70	414.49	475.60	379.23
		18900	653.80	617.79	554.62	547.83
		28400	679.39	679.39	594.07	594.07
	67	9400	589.15	360.42	518.04	326.71
		18900	709.41	512.70	611.31	473.66
		28400	758.72	641.98	648.65	601.29
	72	9400	645.28	308.29	566.21	274.16
		18900	776.71	409.78	665.34	369.62
		28400	821.28	488.58	704.71	449.91
90	62	9400	534.89	506.08	468.02	459.51
		18900	667.53	667.53	593.74	593.74
		28400	749.11	749.11	658.80	658.80
	67	9400	585.41	455.31	515.08	421.91
		18900	714.64	693.4	601.02	601.02
		28400	749.15	749.15	659.25	659.25
	72	9400	640.64	403.78	563.83	370.52
		18900	773.53	602.49	663.09	562.29
		28400	815.85	766.36	705.53*	697.95

70 Ton Unit Cooling Capacities at Minimum, Median, and Maximum CFM

Refrig. R-22		Standard Evaporator Coil (6 Row)				
EDB (°F)	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	9900	607.98	403.27	552.40	373.85
		19150	735.76	558.49	656.96	523.51
		28400	789.73	687.20	698.70	649.99
	67	9900	661.55	347.24	598.82	316.16
		19150	799.37	451.50	711.18	415.86
		28400	856.72	534.61	756.12	494.98
	72	9900	722.16	290.54	656.92	261.80
		19150	873.82	346.09	777.94	310.87
		28400	933.22	381.78	818.59	341.28
80	62	9900	606.10	454.41	551.30	424.64
		19150	735.51	658.54	650.96	620.33
		28400	769.11	769.11	676.93	676.93
	67	9900	659.43	398.59	596.95	367.61
		19150	797.64	551.14	709.67	515.48
		28400	855.27	677.87	755.00	640.42
	72	9900	719.57	342.12	654.74	313.47
		19150	871.98	446.21	776.41	411.04
		28400	931.72	525.77	817.43	487.06
90	62	9900	596.67	550.78	542.36	521.64
		19150	734.91	734.91	666.80	666.80
		28400	824.62	824.62	750.16	750.16
	67	9900	655.25	498.18	593.27	467.99
		19150	798.23	746.74	710.55	710.55
		28400	825.33	825.33	750.75	750.75
	72	9900	717.06	443.88	650.41	414.20
		19150	873.36	643.54	773.34	605.72
		28400	925.63	809.79	815.11	771.52

Refrig. R-410A		Standard Evaporator Coil (6 Row)				
	EWB (°F)	Air Flow (CFM)	Ambient Air Temperature (°F)			
			95		120	
			Total MBH	Sensible MBH	Total MBH	Sensible MBH
75	62	9900	595.52	396.57	527.52	360.39
		19150	714.83	549.11	617.02	506.15
		28400	766.17	677.51	656.39	632.00
	67	9900	646.33	339.72	569.73	302.61
		19150	776.41	442.12	671.67	400.23
		28400	831.10	524.83	712.41	478.96
	72	9900	706.34	283.46	623.52	247.58
		19150	849.93	337.21	732.07	294.40
		28400	904.19	370.13	774.88	326.73
80	62	9900	594.10	447.93	524.37	410.87
		19150	714.31	648.99	613.14	603.74
		28400	734.07	734.07	644.02	644.02
	67	9900	644.28	391.08	568.14	354.14
		19150	774.72	541.74	670.25	499.85
		28400	829.71	668.25	711.47	624.40
	72	9900	703.87	335.06	621.39	299.23
		19150	848.15	437.34	730.70	394.61
		28400	902.77	515.88	773.73	472.50
90	62	9900	584.96	544.47	621.39	508.69
		19150	719.22	719.22	637.41	637.41
		28400	806.88	806.88	710.55	710.55
	67	9900	640.25	490.75	565.02	454.67
		19150	775.75	737.63	651.89	651.89
		28400	806.48	806.48	711.05	711.05
	72	9900	698.97	435.69	617.19	399.94
		19150	843.34	632.31	727.96	589.57
		28400	899.93	800.95	771.45	756.29

Component Static Pressure Drops

At Minimum, Median, and Maximum CFM

A Cabinet Cooling Static Pressure Drops

*95°F Ambient, 80°F EDB, 67°F EWB

Tonnage	CFM	Standard Coil (in. w.g.)	6 Row Coil (in. w.g.)
2	600	0.05	NA
	1300	0.14	
	2000	0.25	
3	600	0.05	
	2050	0.30	
	3500	0.81	
4	800	0.09	0.15
	2100	0.36	0.52
	3400	0.70	0.95
5	900	0.12	0.18
	2150	0.40	0.59
	3400	0.78	1.07
6	1100	0.08	0.16
	2300	0.21	0.44
	3500	0.37	0.75
7	1500	0.13	0.27
	2500	0.26	0.54
	3500	0.41	0.85

*Default outside air and entering air conditions, refer to the AAONEcat32™ software for static pressure drops across the evaporator coil at specific unit conditions.

A Cabinet Heating Static Pressure Drops

Tonnage	CFM	Reheat Coil (in. w.g.)	Gas Heat [MBH] (in. w.g.)			Electric Heat [kW] (in. w.g.)					
			69	90	180	10	20	30	40		
						7.5 (208V)	15 (208V)	22.5 (208V)	30 (208V)		
2	600	0.01	0.03	NA		0.02	0.03	NA			
	1300	0.04	0.06			0.05	0.07				
	2000	0.10	0.09			0.08	0.11				
3	600	0.01	0.03			0.02	0.03				
	2050	0.10	0.09			0.08	0.11				
	3500	0.30	0.15			0.14	0.19				
4	800	0.01	NA	0.04	NA	0.03	0.04	0.05	0.07		
	2100	0.09		0.09		0.09	0.12	0.14	0.18		
	3400	0.24		0.15		0.14	0.19	0.23	0.28		
5	900	0.02		0.04	NA	NA	0.05	0.06	0.08		
	2150	0.10		0.10			0.14	0.12	0.15	0.18	
	3400	0.24		0.15			0.22	0.19	0.23	0.28	
6	1100	0.01		0.05			0.07	NA	0.06	0.08	0.09
	2300	0.04		0.10			0.15		0.13	0.16	0.19
	3500	0.10		0.15			0.23		0.19	0.24	0.29
7	1500	0.02		0.07			0.10		0.08	0.10	0.13
	2500	0.05		0.11			0.16		0.14	0.17	0.21
	3500	0.10		0.15			0.23		0.19	0.24	0.29

A Cabinet Filter Static Pressure Drops

Tonnage	CFM	2" Throwaway (in. w.g.)	2" Pleated (in. w.g.)	4" Pleated (in. w.g.)	2" Permanent (in. w.g.)
2	600	0.02	0.04	0.03	0.01
	1300	0.05	0.09	0.05	0.03
	2000	0.08	0.12	0.07	0.07
3	600	0.02	0.04	0.03	0.01
	2050	0.08	0.12	0.07	0.07
	3500	0.15	0.20	0.15	0.17
4	800	0.03	0.06	0.04	0.01
	2100	0.08	0.12	0.07	0.07
	3400	0.14	0.19	0.15	0.16
5	900	0.03	0.06	0.05	0.02
	2150	0.09	0.13	0.07	0.07
	3400	0.14	0.19	0.15	0.16
6	1100	NA	0.08	0.05	0.02
	2300		0.13	0.08	0.08
	3500		0.20	0.15	0.17
7	1500		0.11	0.05	0.04
	2500		0.14	0.09	0.10
	3500		0.20	0.15	0.17

B Cabinet Cooling Static Pressure Drops

*95°F Ambient, 80°F EDB, 67°F EWB

Tonnage	CFM	Standard Coil (in. w.g.)	6 Row Coil (in. w.g.)
8	1700	0.05	0.11
	4000	0.15	0.33
	6300	0.30	0.57
10	1700	0.08	0.12
	4400	0.28	0.42
	7100	0.55	0.75
13	2100	0.14	0.17
	4550	0.41	0.48
	7000	0.74	0.86
15	2400	0.18	0.21
	4700	0.45	0.53
	7000	0.78	0.90

*Default outside air and entering air conditions, refer to the AAONEcat32™ software for static pressure drops across the evaporator coil at specific unit conditions.

B Cabinet Heating Static Pressure Drops

Tonnage	CFM	Reheat Coil (in. w.g.)	Gas Heat [MBH] (in. w.g.)				Electric Heat [kW] (in. w.g.)				
			180	270	351	390	20	30	40	50	60
							15 (208V)	22.5 (208V)	30 (208V)	37.6 (208V)	45.1 (208V)
8	1700	0.01	0.02	NA	NA	NA	0.01	0.01	0.02	0.02	0.02
	4000	0.06	0.17	0.17	0.21		0.09	0.11	0.14	0.15	0.15
	6300	0.14	0.32	0.32	0.39		0.17	0.20	0.26	0.27	0.29
10	1700	0.01	0.02	NA	NA	NA	0.01	0.01	0.02	0.02	0.02
	4400	0.07	0.20	0.20	0.24		0.11	0.12	0.16	0.17	0.18
	7100	0.17	NA	NA	NA		0.20	0.24	0.30	0.32	0.34
13	2100	0.02	0.05	0.05	NA	NA	0.03	0.03	0.04	0.04	0.04
	4550	0.07	0.21	0.21		0.25	0.11	0.13	0.17	0.18	0.19
	7000	0.17	NA	NA		NA	0.20	0.23	NA	NA	NA
15	2400	0.02	0.07	0.07	NA	NA	0.04	0.04	0.05	0.06	0.06
	4700	0.08	0.22	0.22		0.26	0.12	0.14	0.18	0.18	0.20
	7000	0.17	NA	NA		NA	0.20	0.23	NA	NA	NA

B Cabinet Filter Static Pressure Drops

Tonnage	CFM	2" Throwaway (in. w.g.)	2" Pleated (in. w.g.)	4" Pleated (in. w.g.)	2" Permanent (in. w.g.)
8	1700	0.04	0.08	0.05	0.02
	4000	0.11	0.14	0.10	0.11
	6300	0.18	0.26	0.22	0.23
10	1700	0.04	0.08	0.05	0.02
	4400	0.12	0.16	0.11	0.13
	7100	0.20	0.33	0.28	0.28
13	2100	NA	0.12	0.05	0.04
	4550		0.16	0.12	0.13
	7000		0.32	0.27	0.27
15	2400	NA	0.12	0.06	0.04
	4700		0.17	0.14	0.14
	7000		0.32	0.27	0.27

C Cabinet Cooling Static Pressure Drops *95°F Ambient, 80°F EDB, 67°F EWB

Tonnage	CFM	Standard Coil (in. w.g.)	6 Row Coil (in. w.g.)
16	2400	0.05	0.09
	7500	0.24	0.40
	12600	0.50	0.82
18	2600	0.09	0.11
	7600	0.38	0.44
	12600	0.74	0.83
20	3000	0.11	0.14
	7800	0.42	0.49
	12600	0.79	0.91
25	4100	0.19	0.23
	8350	0.52	0.61
	12600	0.92	1.05
30	5100	0.27	0.31
	8850	0.58	0.67
	12600	0.95	1.09

*Default outside air and entering air conditions, refer to the AAONEcat32™ software for static pressure drops across the evaporator coil at specific unit conditions.

C Cabinet Heating Static Pressure Drops

Tonnage	CFM	Reheat Coil (in. w.g.)	Gas Heat [MBH] (in. w.g.)			Electric Heat [kW] (in. w.g.)				
			270	390	480	20	40	60	80	100
						15 (208V)	30 (208V)	45.1 (208V)	60.1 (208V)	75.1 (208V)
16	2400	0.01	0.00	NA	NA	0.00	0.00	0.00	0.00	0.00
	7500	0.07	0.16	0.16	0.21	0.12	0.17	0.21	0.21	0.23
	12600	0.20	0.33	0.33	0.42	0.25	0.34	0.41	0.42	0.45
18	2600	0.01	0.01	NA	NA	0.01	0.01	0.01	0.01	0.01
	7600	0.07	0.17	0.17	0.21	0.13	0.17	0.21	0.22	0.23
	12600	0.20	0.33	0.33	0.42	0.25	0.34	0.41	0.42	0.45
20	3000	0.01	0.02	0.02	NA	0.02	0.02	0.03	0.03	0.03
	7800	0.08	0.17	0.17	0.22	0.13	0.18	0.22	0.23	0.24
	12600	0.20	0.33	0.33	0.42	0.25	0.34	0.41	0.42	0.45
25	4100	0.02	0.06	0.06	0.07	0.04	0.06	0.07	0.07	0.08
	8350	0.09	0.19	0.19	0.24	0.15	0.20	0.24	0.25	0.27
	12600	0.20	0.33	0.33	0.42	0.25	0.34	0.41	0.42	0.45
30	5100	0.03	0.09	0.09	0.11	0.07	0.09	0.11	0.11	0.12
	8850	0.10	0.21	0.21	0.27	0.16	0.21	0.26	0.27	0.29
	12600	0.20	0.33	0.33	0.42	0.25	0.34	0.41	0.42	0.45

C Cabinet Filter Static Pressure Drops

Tonnage	CFM	2" Pleated (in. w.g.)	4" Pleated (in. w.g.)	2" Permanent (in. w.g.)	4" 65% Pleated (in. w.g.)	4" 85% Pleated (in. w.g.)	4" 95% Pleated (in. w.g.)	2" Pleated Pre Filter (in. w.g.)
16	2400	0.07	0.05	0.02	0.06	0.06	0.10	0.07
	7500	0.17	0.13	0.15	0.22	0.28	0.39	0.17
	12600	0.42	0.37	0.33	0.46	0.60	0.78	0.42
18	2600	0.08	0.05	0.02	0.06	0.07	0.11	0.08
	7600	0.18	0.13	0.15	0.23	0.28	0.40	0.18
	12600	0.42	0.37	0.33	0.46	0.60	0.78	0.42
20	3000	0.09	0.05	0.03	0.07	0.08	0.13	0.09
	7800	0.18	0.14	0.16	0.24	0.30	0.41	0.18
	12600	0.42	0.37	0.33	0.46	0.60	0.78	0.42
25	4100	0.12	0.06	0.05	0.10	0.12	0.19	0.12
	8350	0.20	0.16	0.18	0.26	0.33	0.45	0.20
	12600	0.42	0.37	0.33	0.46	0.60	0.78	0.42
30	5100	0.13	0.07	0.08	0.14	0.17	0.24	0.13
	8850	0.22	0.18	0.19	0.28	0.35	0.48	0.22
	12600	0.42	0.37	0.33	0.46	0.60	0.78	0.42

D Cabinet Cooling Static Pressure Drops
***95°F Ambient, 80°F EDB, 67°F EWB**

Tonnage	CFM	Standard Coil (in. w.g.)	6 Row Coil (in. w.g.)
26	4300	0.06	0.10
	12500	0.28	0.40
	20700	0.56	0.94
31	4500	0.09	0.11
	12600	0.37	0.43
	20700	0.71	0.81
40	6100	0.15	0.18
	13400	0.45	0.53
	20700	0.82	0.94
50	8000	0.14	0.14
	18200	0.46	0.47
	28400	0.89	0.87
60	9400	0.18	0.18
	18900	0.50	0.51
	28400	0.92	0.92
70	9900	0.21	NA
	19150	0.56	
	28400	0.99	

*Default outside air and entering air conditions, refer to the AAONEcat32™ software for static pressure drops across the evaporator coil at specific unit conditions.

D Cabinet Heating Static Pressure Drops

Tonnage	CFM	Reheat Coil (in. w.g.)	Gas Heat [MBH] (in. w.g.)			Electric Heat [kW] (in. w.g.)					
			540	810	1080	40	80	120	160	200	240
						180.3 (208V)	180.3 (208V)	180.3 (208V)	180.3 (208V)	180.3 (208V)	180.3 (208V)
26	4300	0.01	0.04	0.05	NA	0.01	0.01	0.01	0.01	NA	
	12500	0.07	0.06	0.13	0.16	0.10	0.10	0.10	0.07		
	20700	0.20	0.23	0.37	0.44	NA	0.26	0.26	0.19		
31	4500	0.01	0.04	0.06	NA	0.01	0.01	0.01	0.01	0.01	0.01
	12600	0.07	0.06	0.14	0.16	NA	0.10	0.10	0.07	0.07	0.07
	20700	0.20	0.23	0.37	0.44	NA	0.26	0.26	0.19	0.19	0.19
40	6100	0.02	0.05	0.06	NA	0.02	0.02	0.02	0.02	0.02	0.02
	13400	0.08	0.08	0.15	0.19	0.11	0.11	0.11	0.08	0.08	0.08
	20700	0.20	0.23	0.37	0.44	NA	0.26	0.26	0.19	0.19	0.19
50	8000	0.02	0.06	0.07	0.03	0.04	0.04	0.04	0.03	0.03	0.03
	18200	0.08	0.17	0.28	0.35	0.20	0.20	0.20	0.15	0.15	0.15
	28400	0.20	0.45	0.74	0.77	NA	0.40	0.40	0.36	0.36	0.36
60	9400	0.02	0.07	0.08	0.07	0.05	0.05	0.05	0.04	0.04	0.04
	18900	0.09	0.18	0.31	0.37	NA	0.22	0.22	0.16	0.16	0.16
	28400	0.20	0.45	0.74	0.77	NA	0.40	0.40	0.36	0.36	0.36
70	9900	0.02	0.07	0.09	0.08	0.06	0.06	0.06	0.04	0.04	0.04
	19150	0.09	0.19	0.31	0.38	NA	0.23	0.23	0.16	0.16	0.16
	28400	0.20	0.45	0.75	0.77	NA	0.40	0.40	0.36	0.36	0.36



D Cabinet Filter Static Pressure Drops

Tonnage	CFM	2" Pleated (in. w.g.)	4" Pleated (in. w.g.)	2" Permanent (in. w.g.)	4" 65% Pleated (in. w.g.)	4" 85% Pleated (in. w.g.)	4" 95% Pleated (in. w.g.)	2" Pleated Pre Filter (in. w.g.)
26	4300	0.09	0.05	0.03	0.07	0.08	0.12	0.09
	12500	0.19	0.15	0.17	0.31	0.31	0.43	0.19
	20700	0.48	0.42	0.37	0.66	0.67	0.85	0.48
31	4500	0.09	0.05	0.03	0.08	0.08	0.13	0.09
	12600	0.20	0.15	0.17	0.31	0.32	0.44	0.20
	20700	0.48	0.42	0.37	0.66	0.67	0.85	0.48
40	6100	0.12	0.06	0.05	0.11	0.12	0.18	0.12
	13400	0.22	0.17	0.19	0.34	0.35	0.48	0.22
	20700	0.48	0.42	0.37	0.66	0.67	0.85	0.48
50	8000	0.11	0.05	0.04	0.10	0.10	0.16	0.11
	18200	0.19	0.14	0.16	0.29	0.30	0.42	0.19
	28400	0.40	0.35	0.32	0.58	0.58	0.75	0.40
60	9400	0.12	0.06	0.05	0.12	0.12	0.19	0.12
	18900	0.20	0.15	0.17	0.31	0.32	0.44	0.20
	28400	0.40	0.35	0.32	0.58	0.58	0.75	0.40
70	9900	0.12	0.06	0.06	0.13	0.13	0.20	0.12
	19150	0.20	0.16	0.17	0.32	0.32	0.45	0.20
	28400	0.40	0.35	0.32	0.58	0.58	0.75	0.40

AAONAIRES[®] Factory Installed Energy Recovery Wheel Application Capacities

AAON provides its RM and RN rooftop units with optional energy recovery wheels that are certified under ARI Standard 1060 for Energy Recovery Ventilation Equipment and ARI Standards 210 and 360. In the examples below, the outside air quantity passing through the wheel is 50% of the supply air quantity as specified. In heating mode, the outside air is assumed to be 20°F DB and 14°F WB. The return air from the conditioned space is assumed at 70°F DB and 56°F WB. In cooling mode, the outside air is assumed to be 95°F DB and 78°F WB. The return air from the conditioned space is assumed at 75°F DB and 62°F WB. The altitude is assumed to be 0 ft and the return air and outside air sections of the energy wheel unit are assumed to have pressures of -0.1 in. w.g.. The combined performance of the energy recovery wheel and the rooftop unit are calculated in accordance with ARI Guideline V.

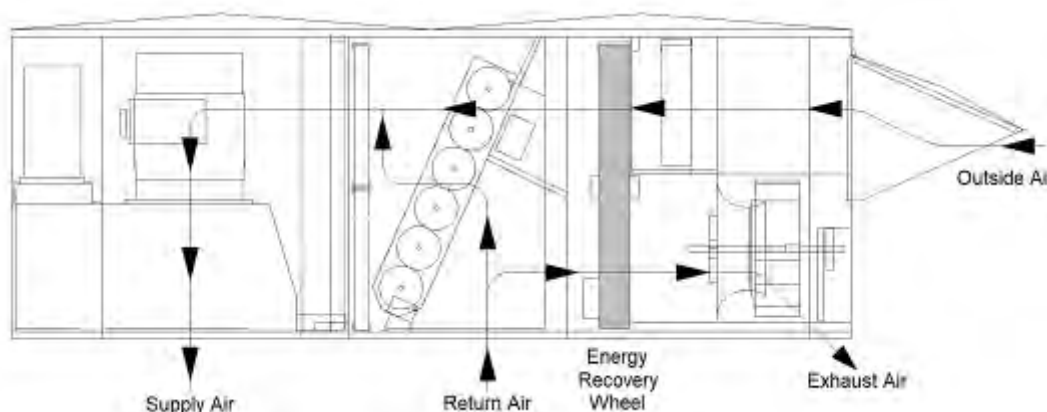


Figure 12 - Example Unit with AAONAIRES[®] Energy Recovery Wheel

Model (Tons)	Quantity /Diameter (in.) /Width (in.)	Supply CFM	System EER without Wheel	Energy Recovery Wheel and Unit				
				Heating		Cooling		
				Free Sensible Heat MBH	Moisture Recovery lbs. of water/hr.	Tons	System EER	Tons % Increase Due to Wheel
A Cabinet, Single Wheel								
RM-002	1/25/2	800	12.7	16.53	8.77	3.47	19.49	28.00
RM-003	1/25/2	1200	12.7	23.35	12.35	4.51	20.07	29.08
RM-004	1/25/2	1600	11.9	29.23	15.43	6.27	17.97	28.10
RM-005	1/25/2	1700	12.1	30.54	16.13	7.10	17.64	26.47
RM-006	1/25/2	1800	11.5	31.78	16.78	8.27	16.15	24.81
RM-007	1/25/2	2000	10.9	34.12	18.01	10.21	14.62	22.48
B Cabinet, Single Wheel								
RM-008	1/37/1.5	2800	11.6	52.50	26.80	11.61	17.50	27.01
RM-010	1/37/1.5	3400	11.0	61.00	30.98	13.62	16.43	27.01
RM-013	1/37/1.5	3600	11.6	63.59	32.24	17.39	16.05	23.66
RM-015	1/37/1.5	3600	10.7	63.59	32.24	17.59	14.82	23.66

AAONAIRE® Factory Installed Energy Recovery Wheel Application Capacities Continued

Model (Tons)	Quantity /Diameter (in.) /Width (in.)	Supply CFM	System EER without Wheel	Energy Recovery Wheel and Unit				
				Heating		Cooling		
				Free Sensible Heat MBH	Moisture Recovery lbs. of water/hr.	Tons	System EER	Tons % Increase Due to Wheel
C Cabinet, High CFM, Single Wheel								
RM-016	1/52/3.0	4400	12.3	89.26	47.91	20.79	18.70	26.47
RM-018	1/52/3.0	5700	11.5	104.14	45.90	23.85	18.02	28.07
RM-020	1/52/3.0	6000	11.2	116.12	61.48	26.08	17.17	27.01
RM-025	1/52/3.0	7000	10.7	131.42	68.99	32.41	15.77	25.93
RM-030	1/52/3.0	8000	10.6	145.56	75.71	36.22	15.46	25.37
D Cabinet, High CFM, Two Wheels								
RN-026	2/52/3.0	10000	12.1	199.33	106.37	39.68	19.62	29.08
RN-031	2/52/3.0	11000	11.5	215.94	114.89	48.16	18.76	29.08
RN-040	2/52/3.0	13000	10.4	247.67	130.64	51.65	16.43	28.06
RN-050	2/52/3.0	16000	11.1	291.11	151.43	69.06	16.46	26.48
RN-060	2/52/3.0	23000	10.0	371.52	186.36	76.31	15.29	28.06
RN-070	2/52/3.0	25000	9.6	389.34	193.00	89.85	13.98	26.47

Controls

Control Options

Terminal Block

Low voltage terminal block for field wiring controls

Required Features

Feature 13 - Standard, or

Feature 13 - Field Installed DDC Controls by Others, or

Feature 13 - Terminal Block with Isolation Relays

Standard Terminals Labels

[R] - 24VAC control voltage

[E] - Common

[G] - Fan enable

[Y1], [Y2], [Y3], [Y4] - Cooling stages' control signals

[W1], [W2], ... , [W8] - Heating stages' control signals

[A1], [A2] - Economizer override contacts, factory wired together, used to control occupied/unoccupied operation.

[EC1], [EC2] - Economizer DDC actuator control signal, 4-20mA. Remove resistor for 0-10VDC operation.

[ST1], [ST2] - Remote start/stop contacts, must be closed for unit to operate.

[RH1] - Humidistat control signal, used with reheat coil.

[BI1], [BI2] - Field installed smoke detector contacts, must be closed for unit to operate.

[NO], [C], [NC] - Set of normally open and normally closed low voltage energy recovery wheel rotation detection contacts.

[C1], [C2] - Clogged filter switch contacts, normally open.

[C6], [C7] - Supply air temperature sensor control signal, 0-10VDC.

[+], [-] - Modulating gas reset control signal, 0-10VDC

[1], [2] - SCR supply air temperature control signal, 0-10VDC

[PH1], [PH2] - Preheat actuator control signal.

[PH3], [PH4] - Preheat bypass actuator control signal.

[B1], [B2], [B3], [B4] - Exhaust fan VFD control contacts, 0-10VDC.

[S1], [S2], ... , [S6] - Supply fan VFD control contacts, 0-10VDC or 4-20mA.



Figure 13 - Example Low Voltage Terminal Block

VAV Variable Air Volume Unit

Operation

AAON® VAV units provide constant temperature supply air to the system while varying the amount of air supplied. Factory mounted and tested supply fan VFDs are used to vary the speed of the supply fans, thus varying the amount of supply air. Because of the reduced speed, VAV units are more efficient at part load conditions. VAV units generally are used when serving spaces with diverse or changing heating and cooling requirements. Thus, only a single unit may be required for multiple zones. Space temperature sensor is used for supply air temperature setpoint reset and unoccupied override.

See Control Venders section following for WattMaster and Tridium Niagara/JACE specifics.

Required Features

Feature 1A - Motorized Outside Air Damper or Economizer

Feature 8 - Hot Gas Bypass Lead Stage (Units without Digital Scroll compressor options)

Feature 13 - VAV Unit Controller

Standard Supplied Sensors

Outside Air Temperature

Supply Air Temperature

Supply Air Static Pressure

Return Air Temperature

Space Temperature with Temperature Setpoint Reset and Unoccupied Override

Recommended Features

Model Option A1 - Digital Scroll™ Compressor

Model Option B3 - Modulating Gas/SCR Electric

Feature 1 - Economizer

Feature 1 - AAONAIRE® Energy Recovery Wheel

Feature 2 - Fully Modulating Actuator

Feature 2 - Constant Volume Outside Air - To maintain a minimum volume of outside air for ventilation.

Feature 5 - Supply Blower(s) with VFD(s)

Feature 8 - Hot Gas Bypass Lag Stage

Feature 8 - Modulating Hot Gas Reheat Coil

CAV Constant Air Volume Unit

Operation

AAON® CAV units provide a constant amount of tempered air to the system to maintain a temperature setpoint. CAV units work best when serving spaces with uniform heating and cooling requirements. Thus, multiple units may be required for multiple zones allowing for redundancy. Space or supply air temperature sensor can be used as the controlling sensor. If supply air temperature is not used as the controlling sensor it is used as a temperature lockout. If supply air temperature sensor is used as the controlling sensor, space temperature sensor is used for supply air temperature setpoint reset and unoccupied override.

See Control Venders section following for WattMaster and Tridium Niagara/JACE specifics.

Required Features

Feature 1A - Motorized Outside Air Damper or Economizer

Feature 13 - Constant Volume Unit Controller

Standard Supplied Sensors

Outside Air Temperature

Supply Air Temperature

Space Temperature with Temperature Setpoint Reset and Unoccupied Override

Recommended Features

Model Option A1 - Digital Scroll™ Compressor

Model Option A3 - Return Air Bypass

Model Option B3 - Modulating Gas/SCR Electric

Feature 1 - Economizer

Feature 1 - AAONNAIRE® Energy Recovery Wheel

Feature 2 - Fully Modulating Actuator

Feature 3 - Discharge Air Override (Only with Gas Heat)

Feature 8 - Modulating Hot Gas Reheat Coil

MUA Make Up Air Unit

Operation

AAON® MUA units are designed to provide 100% outside air to the system for ventilation purposes. MUA units improve indoor air quality (IAQ) and add positive pressure to the space.

See Control Venders section following for WattMaster and Tridium Niagara/JACE specifics.

Required Features

Model Option B - Stainless Steel Heat Exchanger (Only with Gas Heat)

Feature 1A - Motorized or Non-Motorized 100% Outside Air

Feature 2 - Two Position Actuator (Only with Motorized 100% Outside Air)

Feature 8 - Hot Gas Bypass Lead Stage

Feature 13 - Make Up Air Unit Controller

Standard Supplied Sensors

Outside Air Temperature

Supply Air Temperature

Recommended Features

Model Option A1 - Digital Scroll™ Compressor

Model Option B3 - Modulating Gas/SCR Electric

Feature 1 - AAONAIRES® Energy Recovery Wheel

Feature 8 - Hot Gas Bypass Lag Stage

Feature 8 - Modulating Hot Gas Reheat Coil

D-PAC Digital Precise Air Control

Operation

AAON® D-PAC units are constant volume units with a Digital Scroll™ compressor and space temperature and humidity control. The patented D-PAC system provides tight temperature control and superior moisture removal capabilities under all space and outside conditions while still being energy efficient.

See Control Venders section following for WattMaster and Tridium Niagara/JACE specifics.

Required Features

Model Option A1 - Digital Scroll™ Compressor
Model Option A2 - Return Air Bypass
Feature 2 - DDC Actuator
Feature 8 - Modulating Hot Gas Reheat Coil
Feature 13 - D-PAC Digital Precise Air Controller

Standard Supplied Sensors

Outside Air Temperature
Supply Temperature
Space Temperature with Temperature Setpoint Reset and Unoccupied Override
Space Humidity
Suction Pressure Transducer

Recommended Features

Model Option B3 - Modulating Gas/SCR Electric
Feature 1 - AAONAIRES® Energy Recovery Wheel

PAC Precise Air Control

Operation

AAON[®] PAC units are constant volume units with space temperature and humidity control. The PAC system provides temperature control and superior moisture removal capabilities under all space and outside conditions while still being energy efficient. The PAC units are the same as the D-PAC without the Digital Scroll[™] compressor.

See Control Venders section following for WattMaster and Tridium Niagara/JACE specifics.

Required Features

Model Option A2 - Return Air Bypass

Feature 3 - DDC Actuator

Feature 8 - Modulating Hot Gas Reheat Coil

Feature 13 - PAC Precise Air Controller (No Digital Scroll Compressor)

Standard Supplied Sensors

Outside Air Temperature

Supply Temperature

Space Temperature with Temperature Setpoint Reset and Unoccupied Override

Space Humidity

Suction Pressure Transducer

Recommended Features

Model Option B3 - Modulating Gas/SCR Electric

Feature 1 - AAONAIRES[®] Energy Recovery Wheel

Control Vendors

WattMaster - Orion™ Control System



Figure 14 - WattMaster VCM Controller

Programmable WattMaster VCM unit controller that is wired and mounted in the unit controls cabinet. WattMaster provides advanced control features without complexity in an easy to install and setup package. The VCM controller provides a 7 day, 2 event per day scheduler, and a 14-day holiday scheduler. It can be configured to control VAV, CAV, MUA, PAC™, and D-PAC™ units. Additional features and options can be managed by the controller with the addition of modular expansion I/O boards for the controller.

The VCM controller can be operated as a Stand Alone System, connected to multiple VCM controllers in an Interconnected System, or connected to multiple VCM controllers, VAV/Zone controllers, and Add-On controllers in a Networked System.

Protocol Adaptability™ is also available from WattMaster for interfacing to LON™, BACnet™, or Johnson N2™ controls with the addition of specific gateways.

Required Options

In order to configure and program the VCM controller you must use an operator interface. The four different operator interfaces that are available are the Modular Service Tool, Modular System Manager, Tactio SI Touch Screen Interface connected via a Commlink II, or a PC equipped with free Microsoft Windows® based Orion Prism II software connected via a Commlink II. With optional accessories, remote connectivity to the controller via Prism II software can be accomplished.

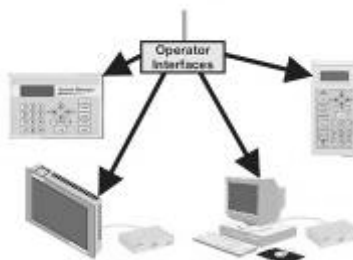


Figure 15 - VCM Controller Operator Interfaces

Tridium Niagara/JACE® Controls System



Figure 16 - Tridium Niagara/JACE Controller.

The Tridium Niagara/JACE controller, powered by Niagara^{AX} Framework™, is an Internet-based stand alone controller developed for network applications which can be factory provided and factory installed in AAON RN Series units. It can be configured to control VAV, CAV, MUA, PAC and D-PAC units, as well as other custom controls solutions. The controller is IP addressable, can reside on a TCP/IP network and can have all unit and system functions controlled with an Internet browser in real-time; including setpoint adjustment, scheduling, alarming, trending, logging, and diagnostics.

Interoperability

The Tridium Niagara/JACE controller can be directly integrated into LonWorks®, BACnet®, Modbus® and other widely-used building automation systems. Connections included on controller include two RJ-45 Ethernet ports, one RS-232 port and one RS-485 port. No external devices are needed for integration.

Scalability

The Tridium Niagara/JACE controller is scalable with up to one 34 I/O point and two 16 I/O point expansion modules available to manage additional features and options. Individual sensor options and unit control options are also scalable with extra sensors available to be added to any controls package.

Security

The Tridium Niagara/JACE controller uses XML security functions that cover platform, administration and user access. Thus, operational control of the unit controller will be allowed only to those who need it.

Contact the Applications Department for more information.

Required Options

In order to configure the Tridium Niagara/JACE controller, a PC connected directly to the controller or connected to the TCP/IP network that the controller resides on is needed. From the PC, direct Internet browser control is then available.

Electrical Service Sizing Data

Use the following equations to correctly size the electrical service wiring and disconnect switch for the unit.

To correctly calculate the Minimum Circuit Ampacity (MCA) and Maximum Overcurrent Protection (MOP), the number of motors and other current drawing devices must be known for each mode of operation. For example, in heating mode the compressor(s) and condenser fan(s) do not operate, while the supply fan(s) do operate. In cooling mode, however, the compressor(s), condenser fan(s), and supply fan(s) all operate. Once it is determined what current drawing devices are operating during each mode of operation use the following equations to calculate the MCA and MOP.

To calculate the correct MCA and MOP values for units **without electric heating** use the *Cooling Mode* and *Heating Mode without Electric Heat* equations. To calculate the correct MCA and MOP values for units **with electric heating** calculate the MCA and MOP with the *Cooling Mode* equations and with the *Heating Mode with Electric Heat* equations. The larger of MCA and MOP values calculated are the correct values.

Load 1 = Current of the largest motor/compressor

Load 2 = Sum of the currents of the remaining motors/compressors

Load 3 = Current of electric heaters

Use Rated Load Amps (RLA) for compressors and Full Load Amps (FLA) for all other motors and electric heaters. Exhaust fan motor current should be added only when unit is 7 tons and smaller, includes a 2 position actuator (Feature 2 = U), or has no compressors.

The electrical data for a given unit configuration can be found with the AAONEcat32™ software. For further assistance in determining the electrical ratings, contact the Applications Department, or consult U.L. 1995

Electric Heat FLA Calculation

Single Phase

Three Phase

$$FLA = \frac{(Heating\ Element\ kW) \times 1000}{Rated\ Voltage}$$

$$FLA = \frac{(Heating\ Element\ kW) \times 1000}{(Rated\ Voltage) \times \sqrt{3}}$$

Cooling Mode / Heating Mode without Electric Heat

$$MCA = 1.25(\text{Load 1}) + \text{Load 2}$$

$$MOP = 2.25(\text{Load 1}) + \text{Load 2}$$

Electrical Service Sizing Data Continued

Heating Mode with Electric Heat

For electric heat capacity **less than** 50kW

$$\text{MCA} = 1.25(\text{Load 1} + \text{Load 2} + \text{Load 3})$$

For electric heat capacity **greater than or equal to** 50kW

$$\text{MCA} = 1.25(\text{Load 1} + \text{Load 2}) + \text{Load 3}$$

$$\text{MOP} = 2.25(\text{Load 1}) + \text{Load 2} + \text{Load 3}$$

Select a fuse rating equal to the MOP value. If the MOP does not equal a standard fuse rating select the next lower standard fuse rating. If the MOP is less than the MCA then select the fuse rating equal to or greater than the MCA.

Standard Ampere Ratings for Fuses (From NEC Handbook, 240-6)

The standard ratings for fuses shall be considered 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800 and 1000 amperes.

Disconnect (Power) Switch Size

$$\text{DSS} = \text{MOP}$$

Select the standard switch size equal to the calculated Disconnect Switch Size value. If this value is not a standard size, select the next LARGER size.

Select the disconnect switch size equal to the calculated MOP value. If this value is not the standard size, select the next larger size

Unit Drawings

<u>Drawings</u>	<u>Page</u>
A Cabinet	
Air-Cooled Condenser Packaged DX Unit.....	114
Air-Cooled Condenser Packaged DX Unit Economizer and Power Exhaust.....	115
Air-Cooled Condenser Packaged DX Unit Energy Recovery Wheel.....	116
Water-Cooled Condenser Packaged DX Unit	
Air Handler.....	117
Water-Cooled Condenser Packaged DX Unit Economizer and Power Exhaust	
Air Handler Economizer and Power Exhaust.....	118
Water-Cooled Condenser Packaged DX Unit Energy Recovery Wheel	
Air Handler Energy Recovery Wheel.....	119
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Power Exhaust.....	120
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel.....	121
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Power Exhaust.....	122
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel.....	123
Chilled Water Cooling Coil Piping.....	124
Hot Water Heating Coil Piping.....	125
Steam Heating Coil Piping.....	126
Water-Cooled Condenser Piping.....	127
B Cabinet	
Air-Cooled Condenser Packaged DX Unit.....	128
Air-Cooled Condenser Packaged DX Unit Economizer and Power Exhaust.....	129
Air-Cooled Condenser Packaged DX Unit Energy Recovery Wheel.....	130
Water-Cooled Condenser Packaged DX Unit	
Air Handler.....	131
Water-Cooled Condenser Packaged DX Unit Economizer and Power Exhaust	
Air Handler Economizer and Power Exhaust.....	132
Water-Cooled Condenser Packaged DX Unit Energy Recovery Wheel	
Air Handler Energy Recovery Wheel.....	133
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Power Exhaust.....	134
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel.....	135
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Power Exhaust.....	136
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel.....	137
Chilled Water Cooling Coil Piping.....	138
Hot Water Heating Coil Piping.....	139
Steam Heating Coil Piping.....	140
Water-Cooled Condenser Piping.....	141
C Cabinet	
Air-Cooled Condenser Packaged DX Unit.....	142
Air-Cooled Condenser Packaged DX Unit Economizer and Power Exhaust.....	143
Air-Cooled Condenser Packaged DX Unit Energy Recovery Wheel.....	144
Air-Cooled Condenser Packaged DX Unit Power Return.....	145
Air-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel.....	146
Air-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel with Power Exhaust.....	147
Water-Cooled Condenser Packaged DX Unit	
Air Handler.....	148
Water-Cooled Condenser Packaged DX Unit Economizer and Power Exhaust	
Air Handler Economizer and Power Exhaust.....	149
Water-Cooled Condenser Packaged DX Unit Energy Recovery Wheel	
Air Handler Energy Recovery Wheel.....	150
Water-Cooled Condenser Packaged DX Unit Power Return	
Air Handler Power Return.....	151
Water-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel	
Air Handler Empty Energy Recovery Wheel.....	152
Water-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel with Power Exhaust	
Air Handler Empty Energy Recovery Wheel with Power Exhaust.....	153
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Power Exhaust.....	154
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel.....	155
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Power Return.....	156



Water-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Power Exhaust.....	157
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel.....	158
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Power Return.....	158
Chilled Water Cooling Coil Piping.....	160
Hot Water Heating Coil Piping.....	161
Steam Heating Coil Piping.....	162
Water-Cooled Condenser Piping.....	163

D Cabinet

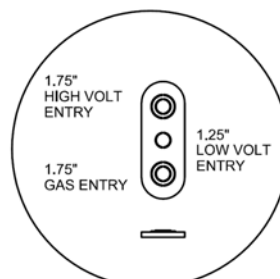
Air-Cooled Condenser Packaged DX Unit.....	164
Air-Cooled Condenser Packaged DX Unit Economizer.....	165
Air-Cooled Condenser Packaged DX Unit Power Exhaust.....	166
Air-Cooled Condenser Packaged DX Unit Energy Recovery Wheel.....	167
Air-Cooled Condenser Packaged DX Unit Power Return.....	168
Air-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel.....	169
Air-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel with Power Exhaust.....	170
Water-Cooled Condenser Packaged DX Unit.....	171
Water-Cooled Condenser Packaged DX Unit Economizer.....	172
Water-Cooled Condenser Packaged DX Unit Power Exhaust.....	173
Water-Cooled Condenser Packaged DX Unit Energy Recovery Wheel.....	174
Water-Cooled Condenser Packaged DX Unit Power Return.....	175
Water-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel.....	176
Water-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel with Power Exhaust.....	177
Air Handler.....	178
Air Handler Economizer.....	179
Air Handler Power Exhaust.....	180
Air Handler Energy Recovery Wheel.....	181
Air Handler Power Return	182
Air Handler Empty Energy Recovery Wheel.....	183
Air Handler Empty Energy Recovery Wheel with Power Exhaust.....	184
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer.....	185
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Power Exhaust.....	186
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel.....	187
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Power Return.....	188
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Empty Energy Recovery Wheel.....	189
Air-Cooled Condenser Packaged DX Unit Return Air Bypass Empty Energy Recovery Wheel with Power Exhaust.....	190
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer.....	191
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Power Exhaust.....	192
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel.....	193
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Power Return.....	194
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Empty Energy Recovery Wheel.....	195
Water-Cooled Condenser Packaged DX Unit Return Air Bypass Empty Energy Recovery Wheel with Power Exhaust.....	196
Chilled Water Coil Piping.....	197
Hot Water Coil Piping.....	198

Curbs

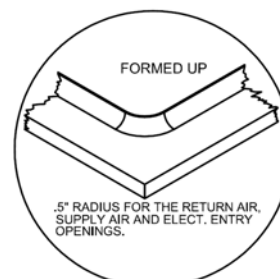
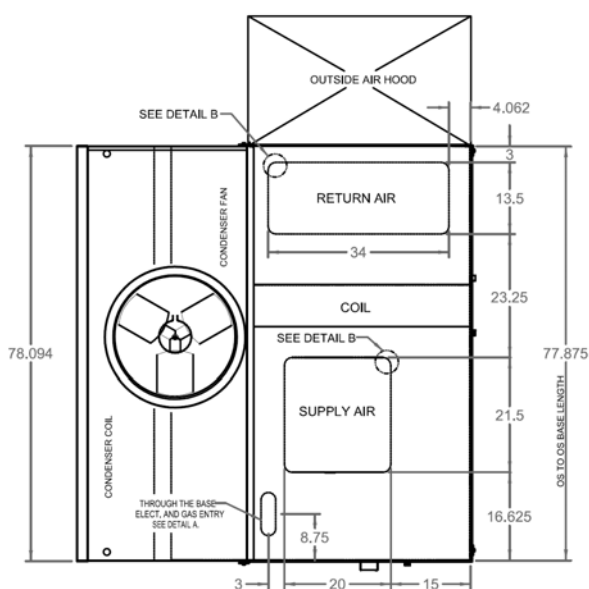
A and B Cabinet Solid Bottom Standard and Power Exhaust Curb.....	199
A and B Cabinet Solid Bottom Energy Recovery Wheel Curb.....	200
A and B Cabinet Solid Bottom Adjustable Pitch Standard and Power Exhaust Curb.....	201
A and B Cabinet Solid Bottom Adjustable Pitch Energy Recovery Wheel Curb.....	202
A and B Cabinet Knock Down Standard and Power Exhaust Curb.....	203
A and B Cabinet Knock Down Energy Recovery Wheel Curb.....	204
C Cabinet Solid Bottom Standard and Power Exhaust Curb.....	205
C Cabinet Solid Bottom Energy Recovery Wheel and Power Return Curb.....	206
C Cabinet Solid Bottom Adjustable Pitch Standard and Power Exhaust Curb.....	207
C Cabinet Solid Bottom Adjustable Pitch Energy Recovery Wheel and Power Return Curb.....	208
C Cabinet Knock Down Standard and Power Exhaust Curb.....	209
C Cabinet Knock Down Energy Recovery Wheel and Power Return Curb.....	210
D Cabinet Solid Bottom Standard Curb.....	211
D Cabinet Solid Bottom Power Exhaust, Power Return, and Energy Recovery Wheel Curb.....	212
D Cabinet Knock Down Standard Curb.....	213
D Cabinet Knock Down Power Exhaust, Power Return, and Energy Recovery Wheel Curb.....	214

A Cabinet (2-7 Tons) Air-Cooled Condenser Packaged DX Unit

CLEARANCES	
LOCATION	• UNIT SIZE • 2•3•4•5•6•7
RETURN AIR (BACK)	36
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	48
TOP	UNOBSTRUCTED

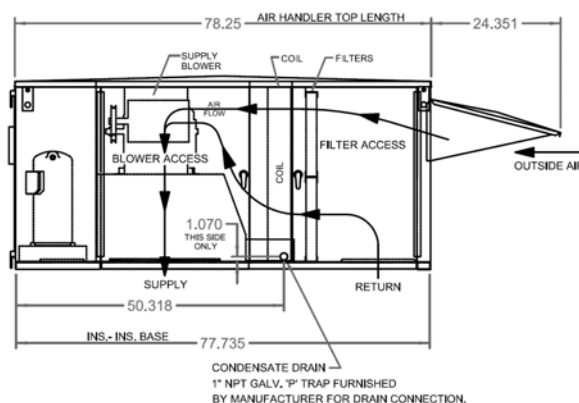
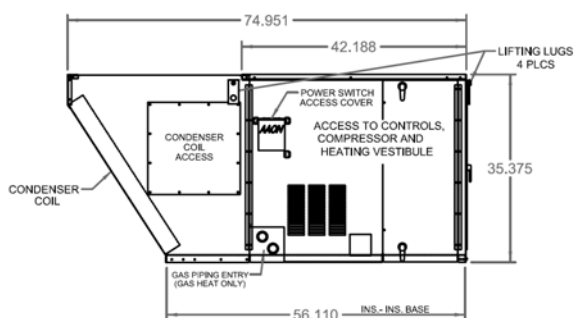


DETAIL A



DETAIL B

NUMBER OF CONDENSER FANS
2-5 TON - 1 FAN
6-7 TON - 2 FANS

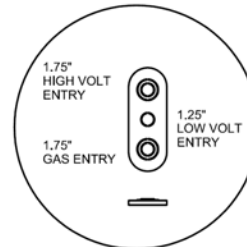


NOTES:

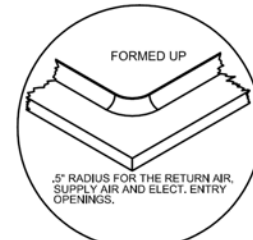
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.
ALLOW .625\"

A Cabinet (2-7 Tons) Air-Cooled Condenser Packaged DX Unit Economizer and Power Exhaust Options

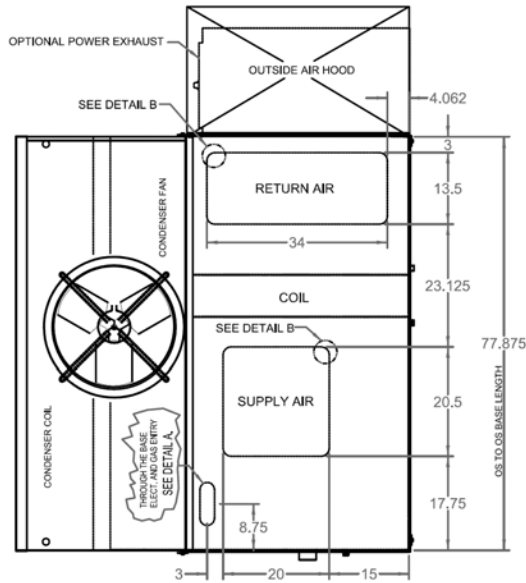
CLEARANCES	
LOCATION	• UNIT SIZE •
	•2•3•4•5•6•7
RETURN AIR (BACK)	36
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	48
TOP	UNOBSTRUCTED



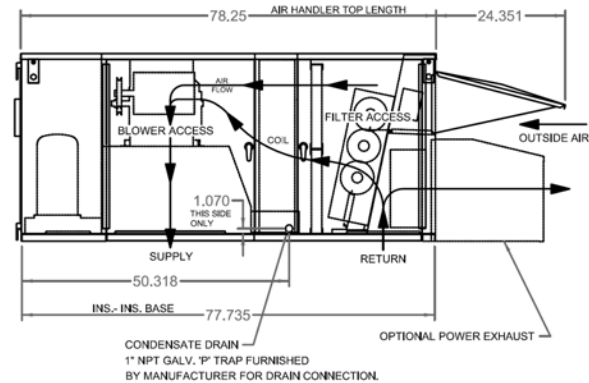
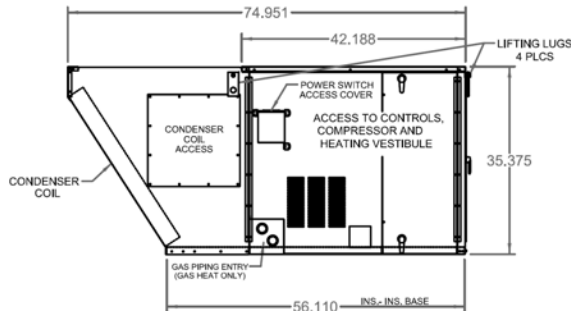
DETAIL A



DETAIL B



NUMBER OF CONDENSER FANS
2-5 TON - 1 FAN
6-7 TON - 2 FANS

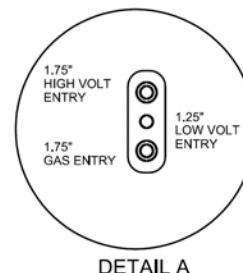


NOTES:

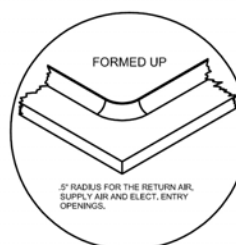
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.
ALLOW .625\"/>

A Cabinet (2-7 Tons) Air-Cooled Condenser Packaged DX Unit Energy Recovery Wheel Option

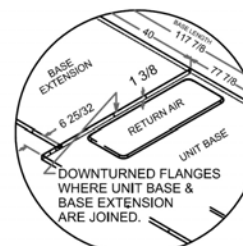
CLEARANCES	
LOCATION	• UNIT SIZE • 2•3•4•5•6•7
RETURN AIR (BACK)	36
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	48
TOP	UNOBSTRUCTED



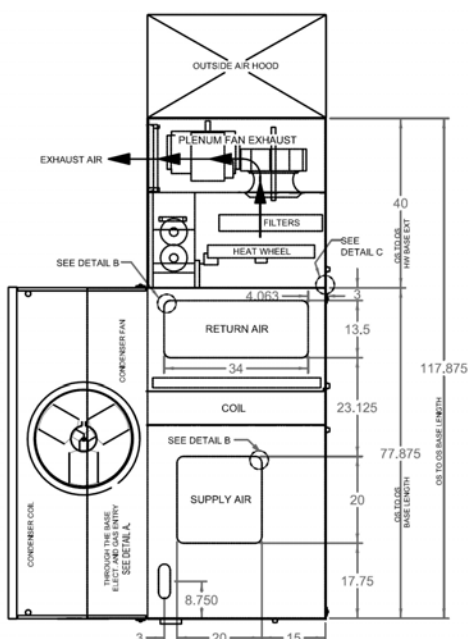
DETAIL A



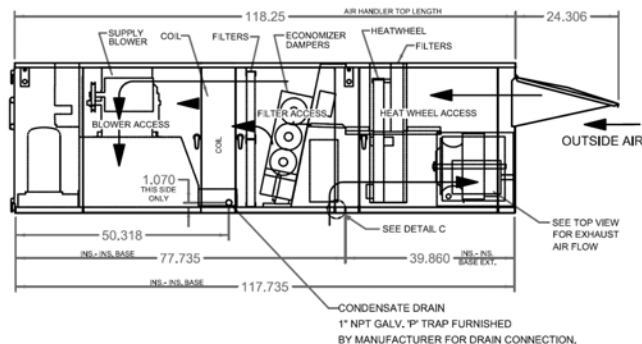
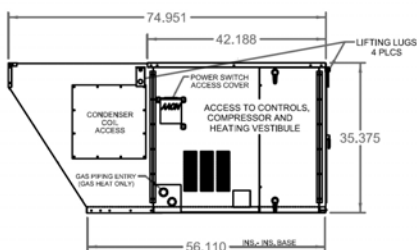
DETAIL B



DETAIL C



NUMBER OF CONDENSER FANS
2-5 TON - 1 FAN
6-7 TON - 2 FANS



NOTES:

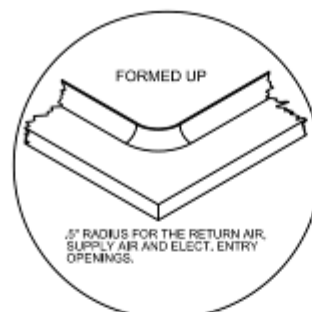
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.

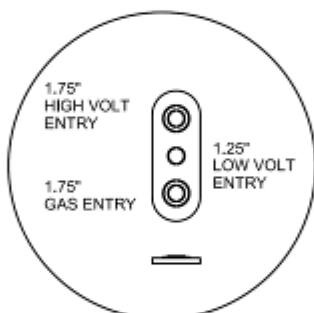
A Cabinet (2-7 Tons) Water-Cooled Condenser Packaged DX Unit A Cabinet (2-7 Tons) Air Handler

CLEARANCES	
LOCATION	• UNIT SIZE •
	2•3•4•5•6•7
RETURN AIR (BACK)	36
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	48
TOP	UNOBSTRUCTED

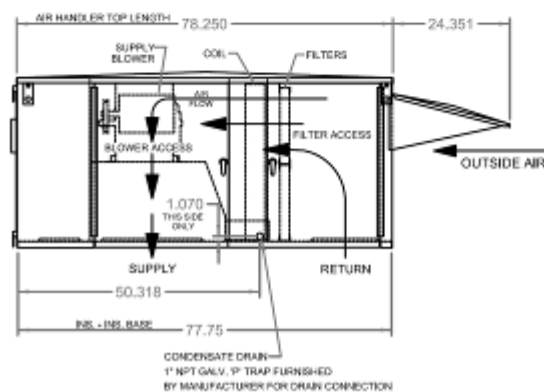
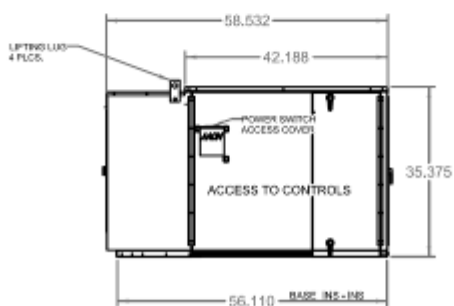
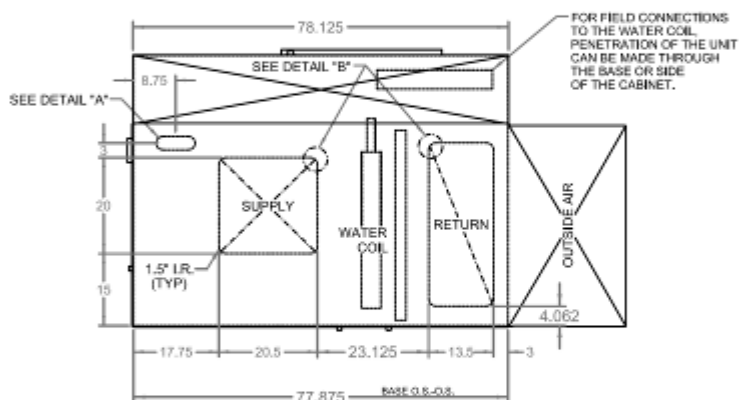
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



DETAIL B



DETAIL A



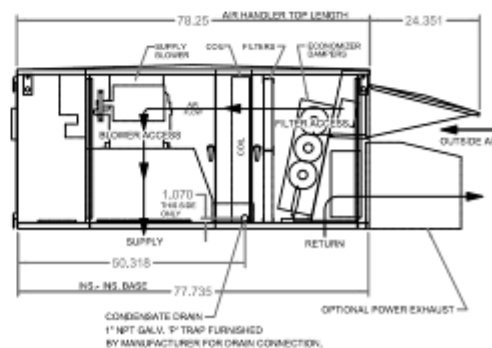
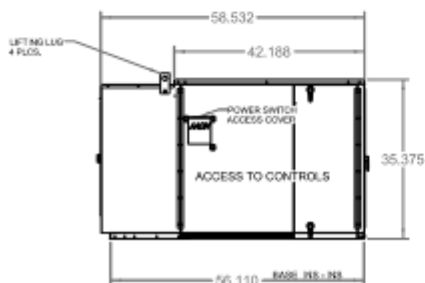
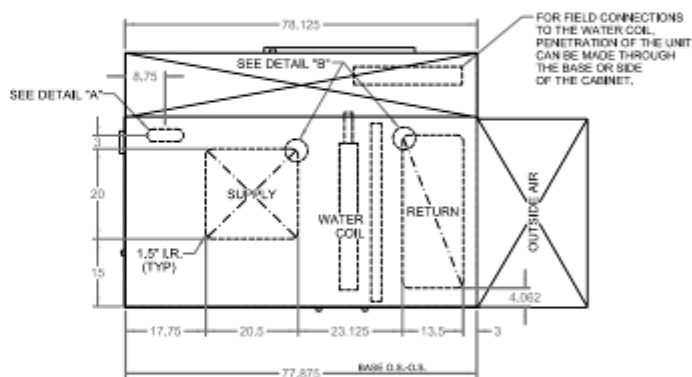
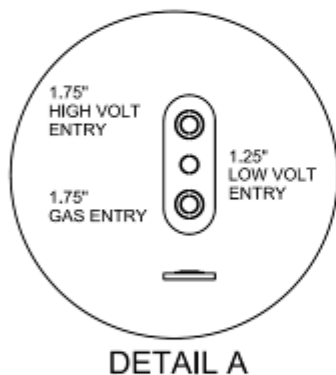
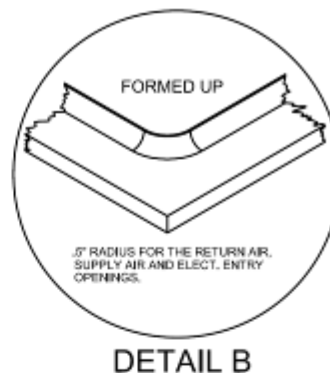
NOTES:

ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.
ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.

A Cabinet (2-7 Tons) Water-Cooled Condenser Packaged DX Unit A Cabinet (2-7 Tons) Air Handler Economizer and Power Exhaust Options

CLEARANCES	
LOCATION	• UNIT SIZE •
	2•3•4•5•6•7
RETURN AIR (BACK)	36
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	48
TOP	UNOBSTRUCTED

* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



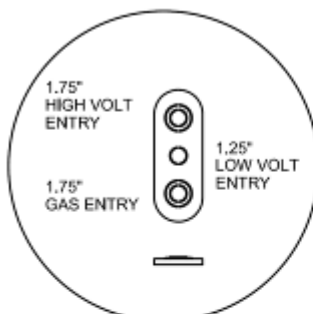
NOTES:

ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.
ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.

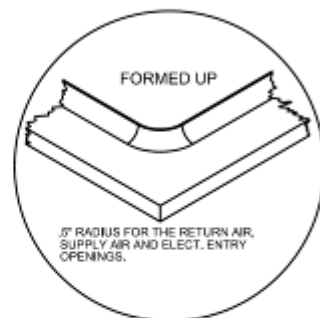
A Cabinet (2-7 Tons) Water-Cooled Condenser Packaged DX Unit A Cabinet (2-7 Tons) Air Handler Energy Recovery Wheel Option

CLEARANCES	
LOCATION	* UNIT SIZE *
	2•3•4•5•6•7
RETURN AIR (BACK)	36
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	48
TOP	UNOBSTRUCTED

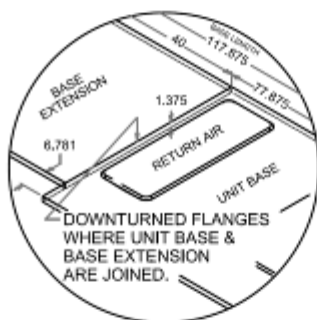
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



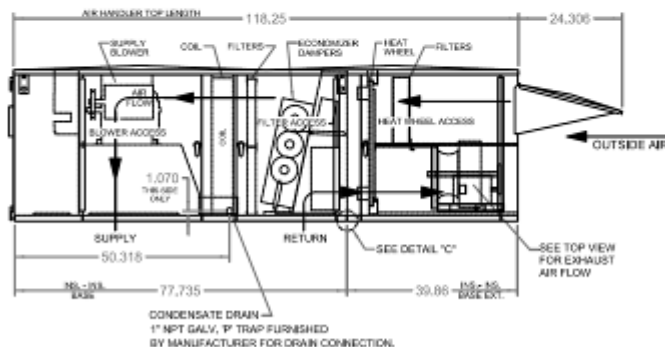
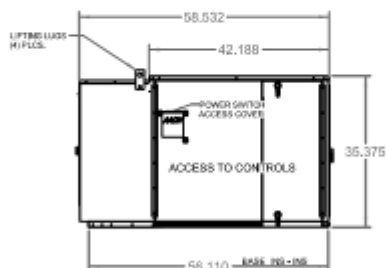
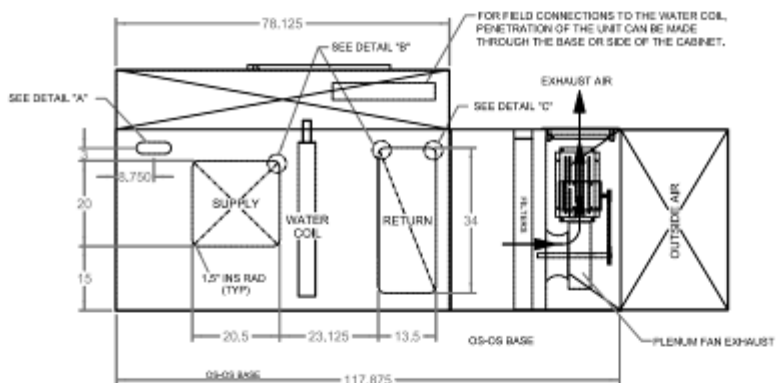
DETAIL A



DETAIL B



DETAIL C

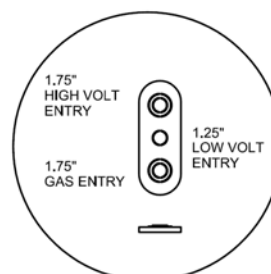


NOTES:

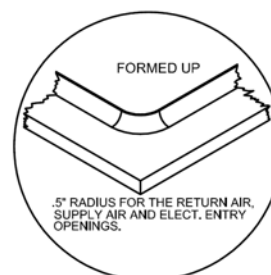
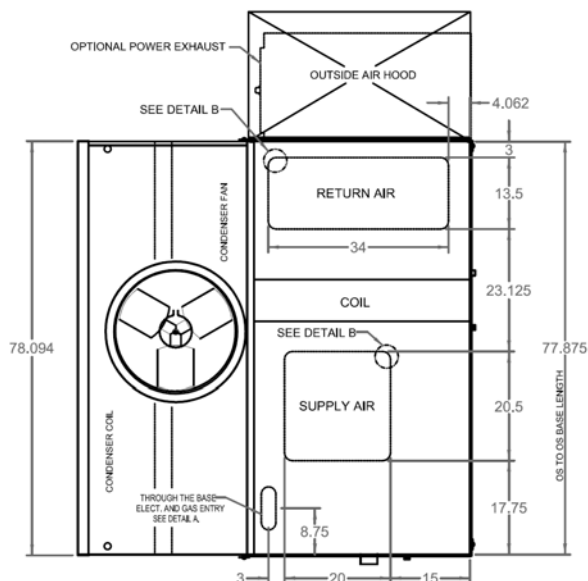
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.
ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.

A Cabinet (2-7 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Return Air Bypass Power Exhaust Options

CLEARANCES	
LOCATION	• UNIT SIZE •
	2 3 4 5 6 7
RETURN AIR (BACK)	36
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	48
TOP	UNOBSTRUCTED

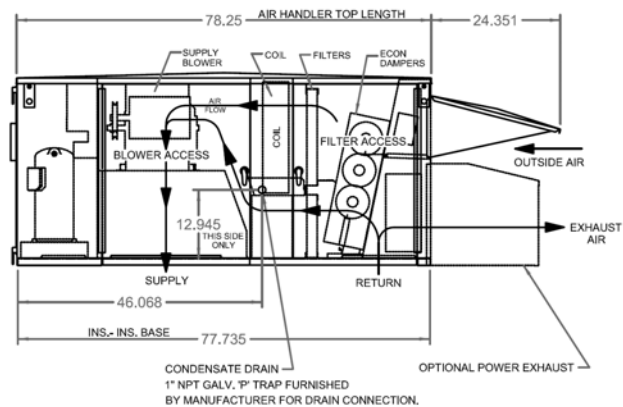
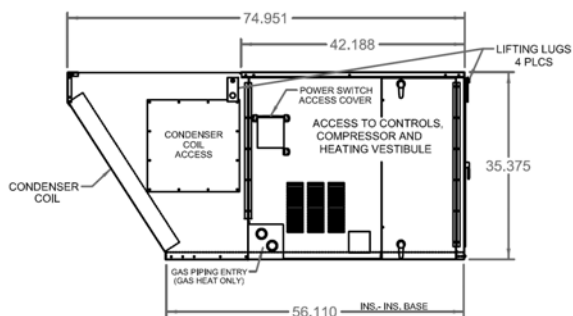


DETAIL A



DETAIL B

NUMBER OF CONDENSER FANS
2-5 TON - 1 FAN
6-7 TON - 2 FANS



NOTES:

ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

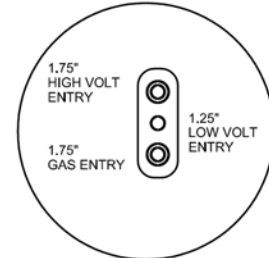
ALLOW .625\"/>



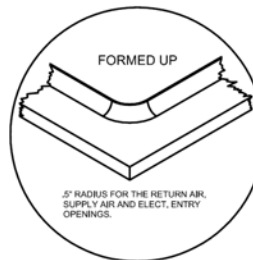
www.aaon.com

A Cabinet (2-7 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel Option

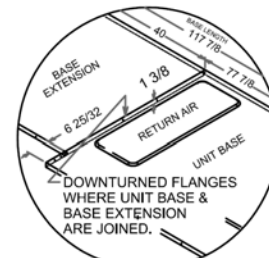
CLEARANCES	
LOCATION	• UNIT SIZE •
	2•3•4•5•6•7
RETURN AIR (BACK)	36
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	48
TOP	UNOBSTRUCTED



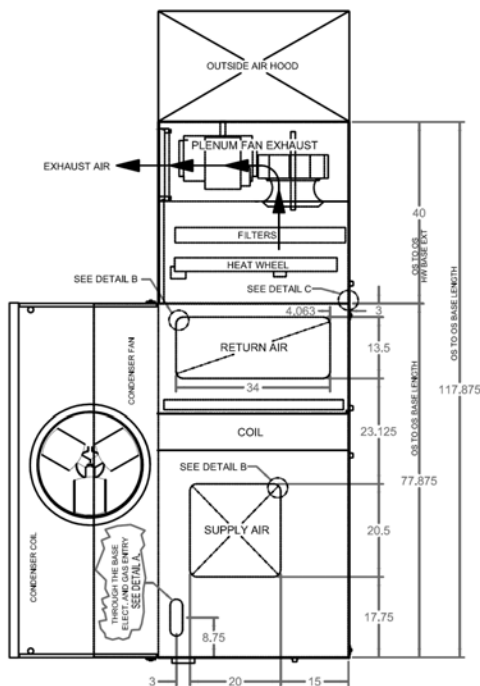
DETAIL A



DETAIL B



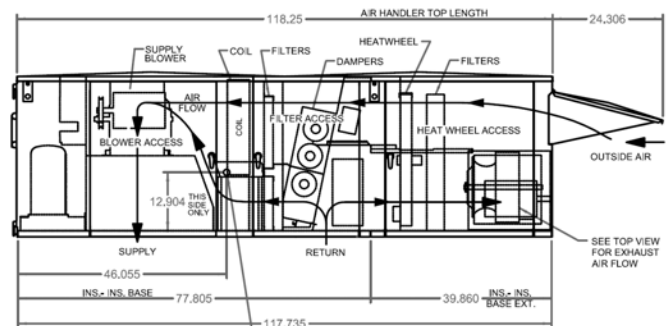
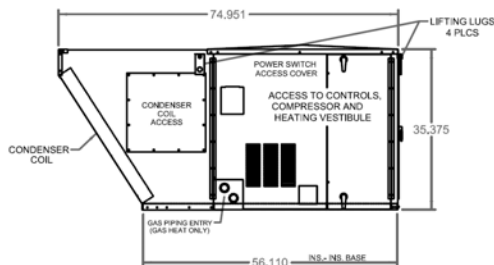
DETAIL C



NUMBER OF CONDENSER FANS

2-5 TON - 1 FAN

6-7 TON - 2 FANS



NOTES:

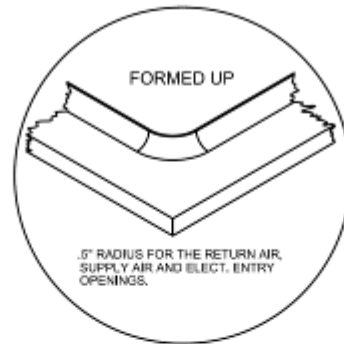
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.

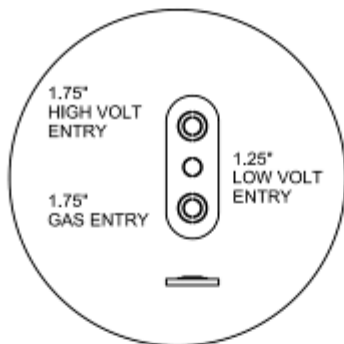
A Cabinet (2-7 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Return Air Bypass Power Exhaust Options

CLEARANCES	
LOCATION	* UNIT SIZE *
	2*3*4*5*6*7
RETURN AIR (BACK)	36
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	48
TOP	UNOBSTRUCTED

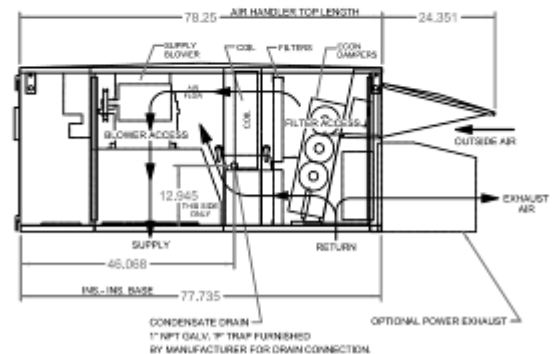
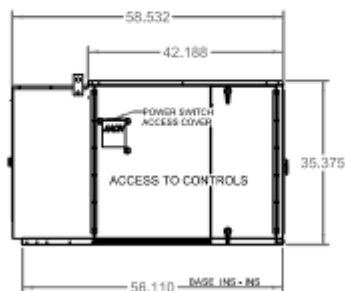
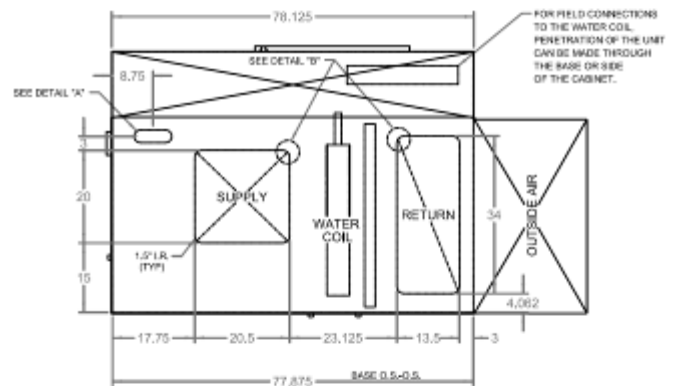
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



DETAIL B



DETAIL A



NOTES:

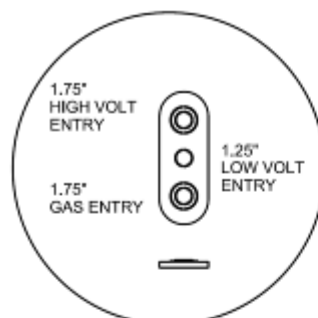
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.

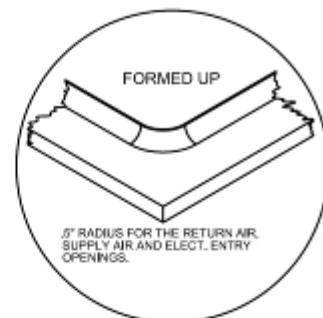
A Cabinet (2-7 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel Option

CLEARANCES	
LOCATION	• UNIT SIZE •
	2•3•4•5•6•7
RETURN AIR (BACK)	36
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	48
TOP	UNOBSTRUCTED

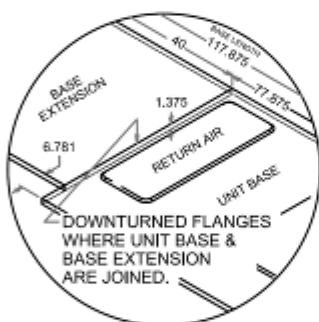
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



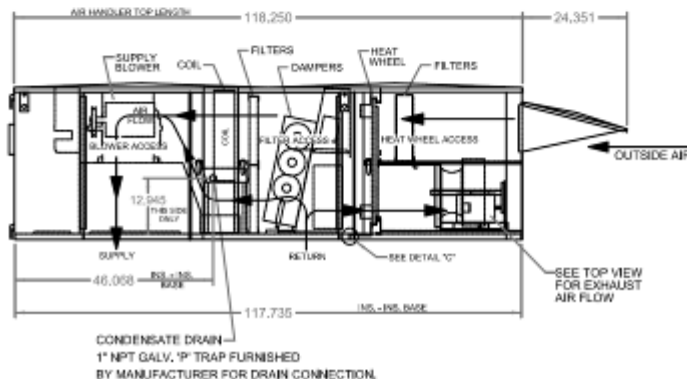
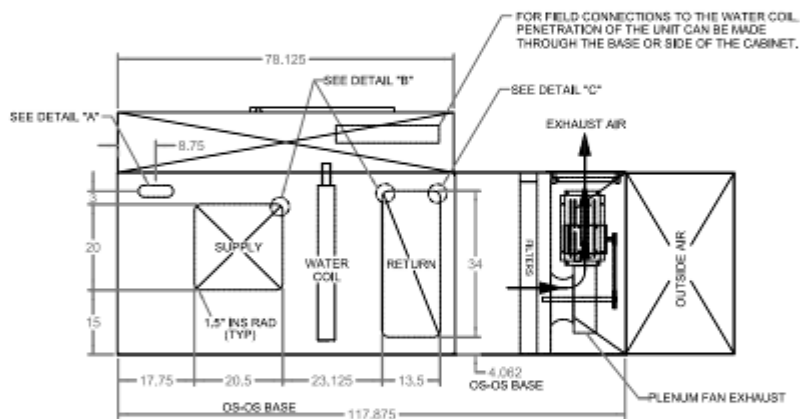
DETAIL A



DETAIL B



DETAIL C

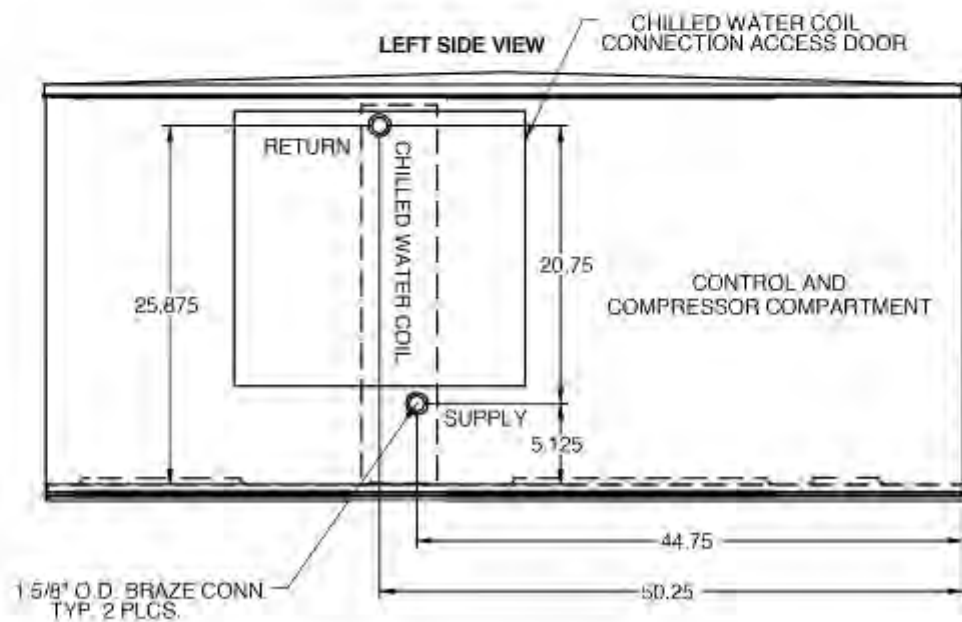
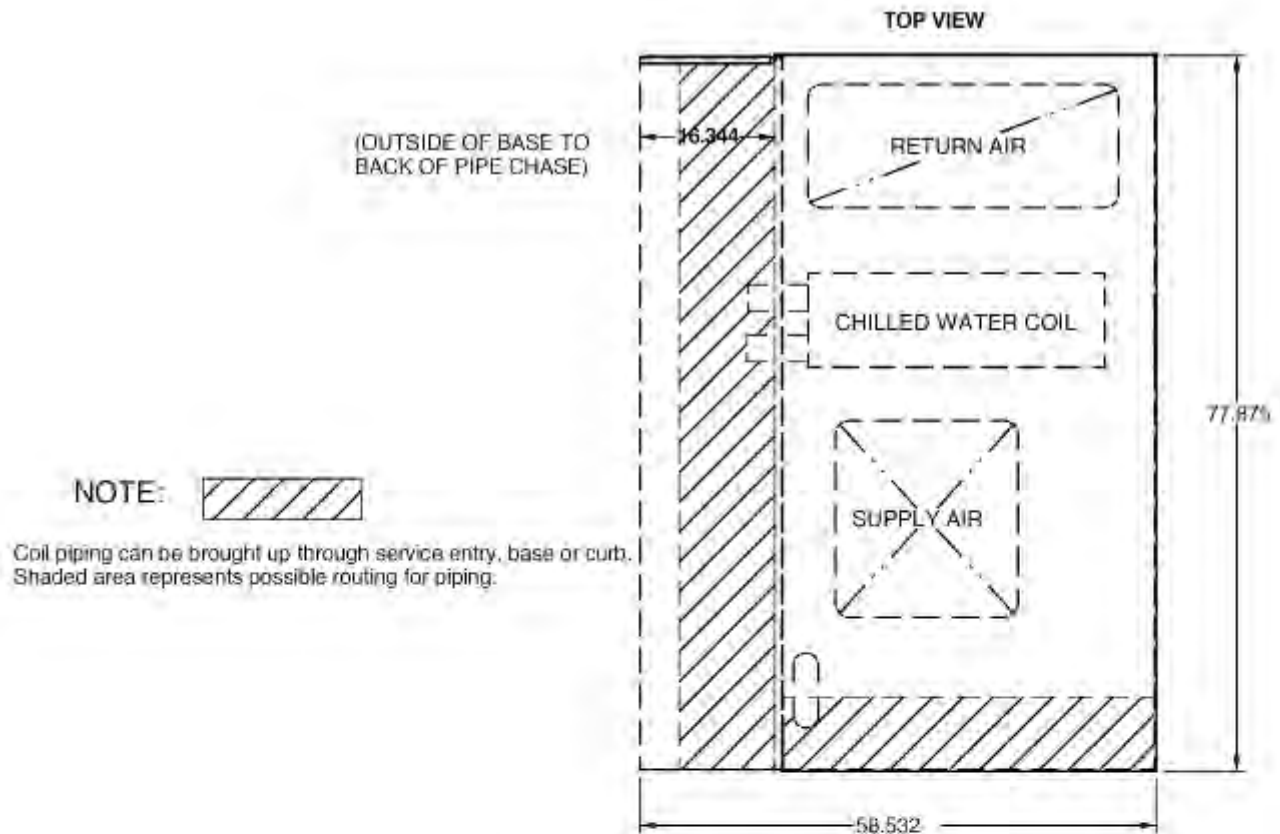


NOTES:

ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

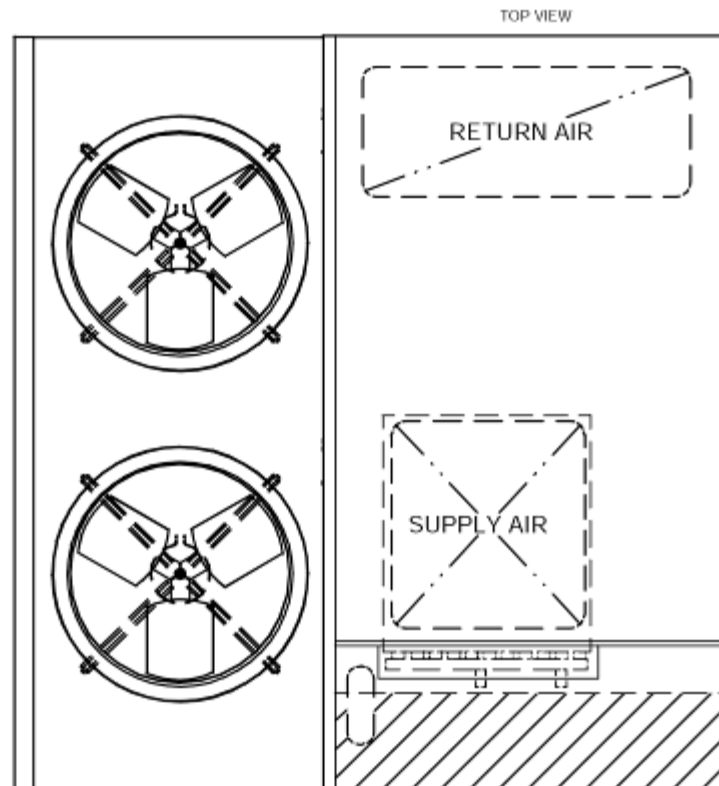
ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.

A Cabinet (2-7 Tons) Chilled Water Cooling Coil Piping



ALL DIMENSIONS SHOWN ARE IN INCHES
DIMENSIONS ARE FOR REFERENCE ONLY

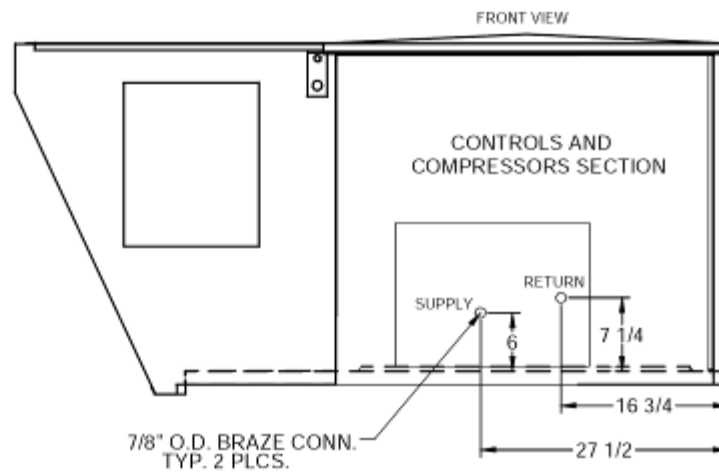
A Cabinet (2-7 Tons) Hot Water Heating Coil Piping



NOTE: COIL IS SLOPED TO THE HEADER SIDE.

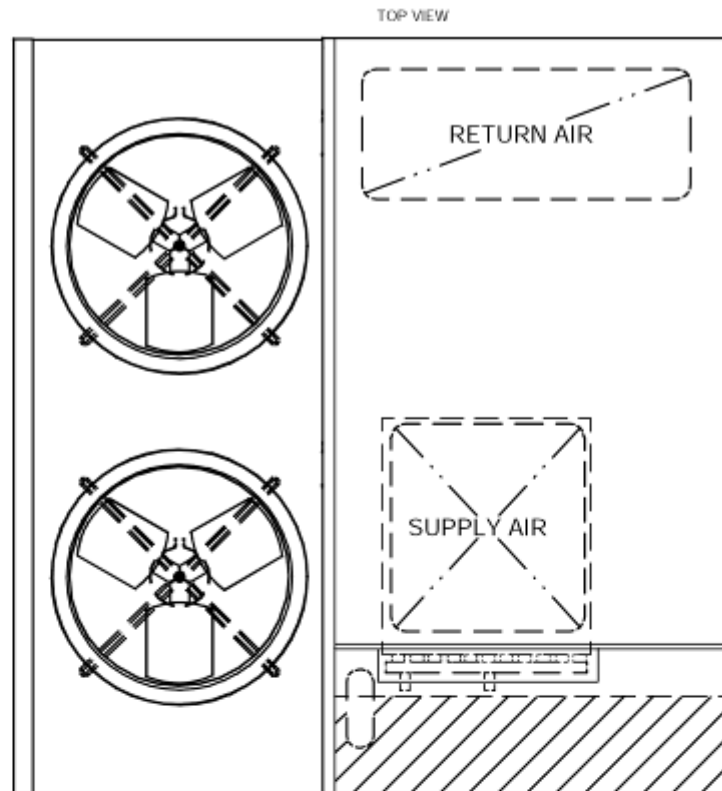
NOTE:

Coil piping can be brought up through service entry.
Shaded area represents possible routing for piping.



ALL DIMENSIONS SHOWN ARE IN INCHES
DIMENSIONS ARE FOR REFERENCE ONLY

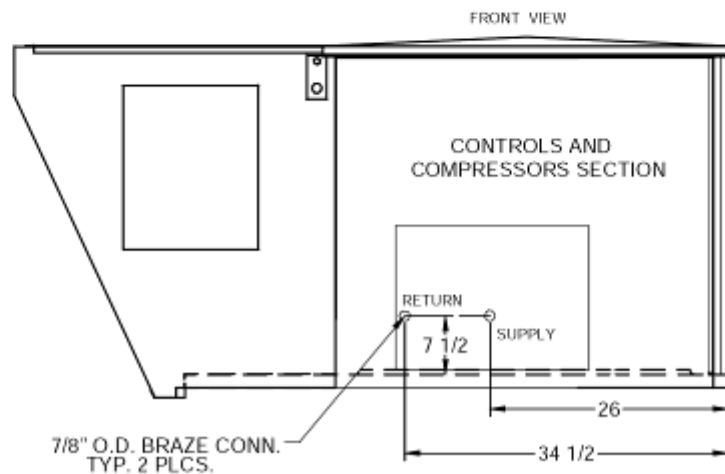
A Cabinet (2-7 Tons) Steam Heating Coil Piping



NOTE: COIL IS SLOPED TO THE HEADER SIDE.

NOTE: 

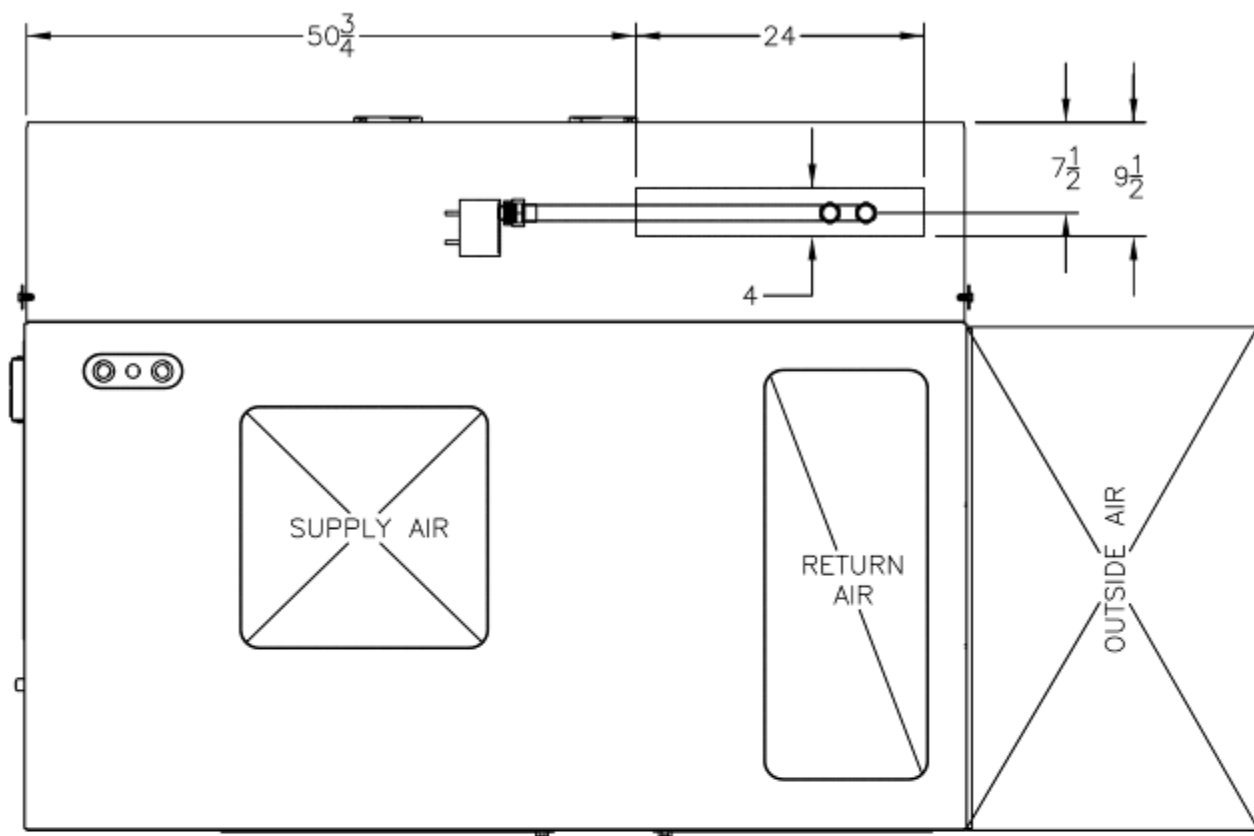
Coil piping can be brought up through service entry.
Shaded area represents possible routing for piping.



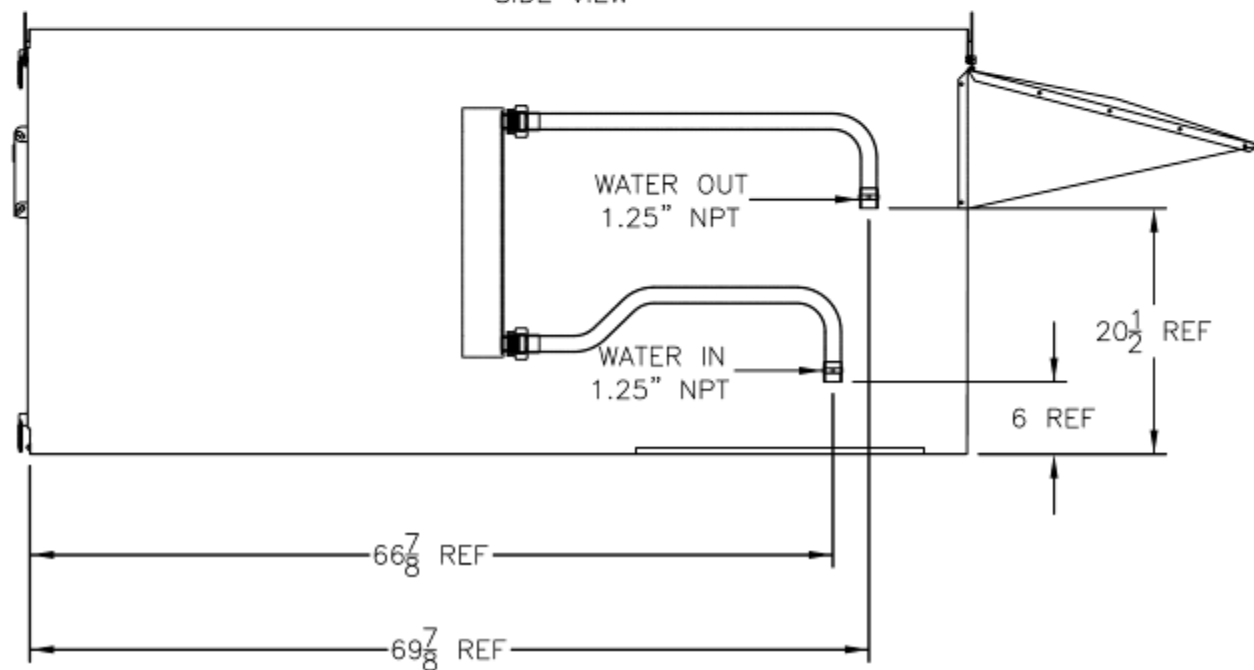
ALL DIMENSIONS SHOWN ARE IN INCHES
DIMENSIONS ARE FOR REFERENCE ONLY

A Cabinet (2-7 Tons) Water-Cooled Condenser Piping

TOP VIEW

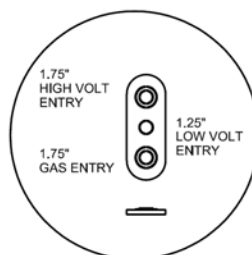


SIDE VIEW

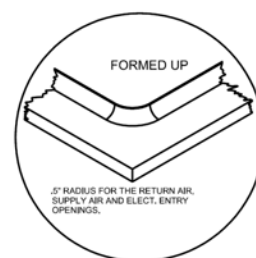
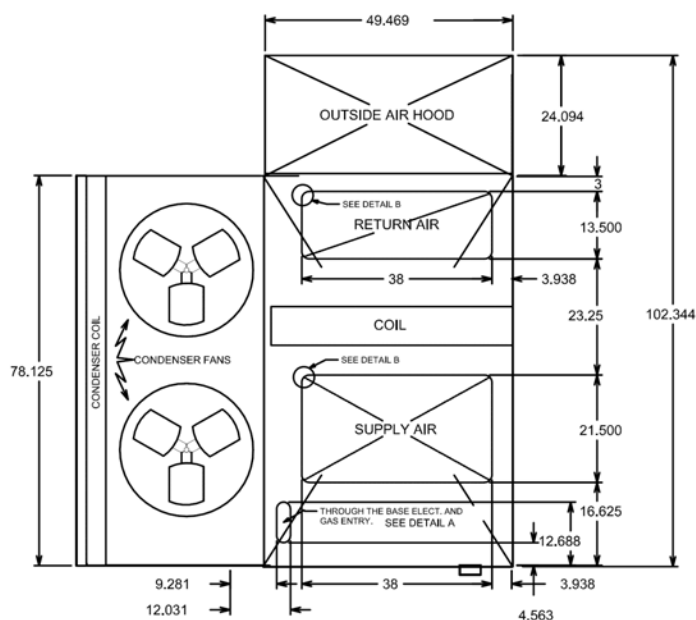


B Cabinet (8-15 Tons) Air-Cooled Condenser Packaged DX Unit

CLEARANCES	
LOCATION	• UNIT SIZE •
	8 • 10 • 13 • 15
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED

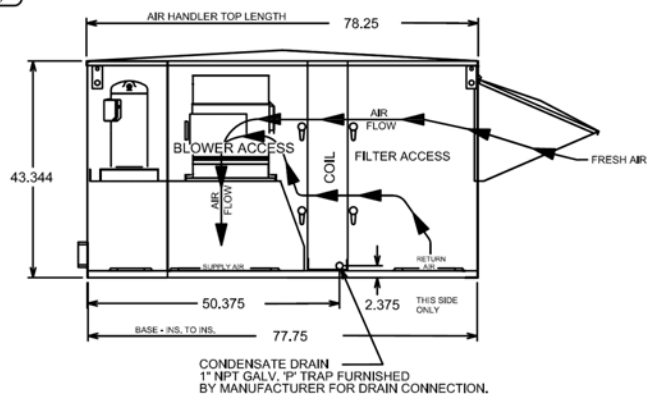
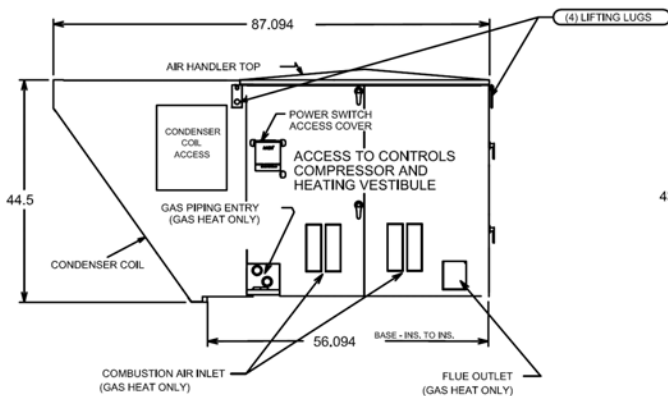


DETAIL A



DETAIL B

NUMBER OF CONDENSER FANS
8-10 TON - 1 FAN
13-15 TON - 2 FANS



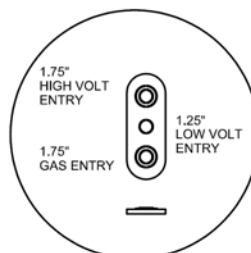
NOTES:

ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

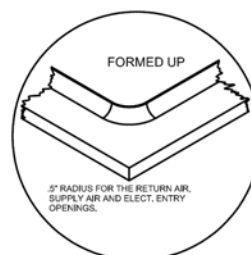
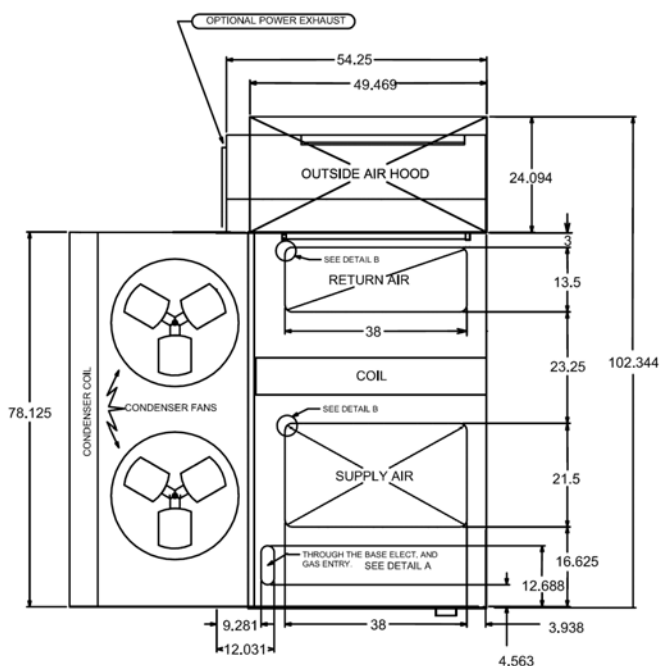
ALLOW .625\"/>

B Cabinet (8-15 Tons) Air-Cooled Condenser Packaged DX Unit Economizer and Power Exhaust Options

CLEARANCES	
LOCATION	• UNIT SIZE • 8 • 10 • 13 • 15
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED

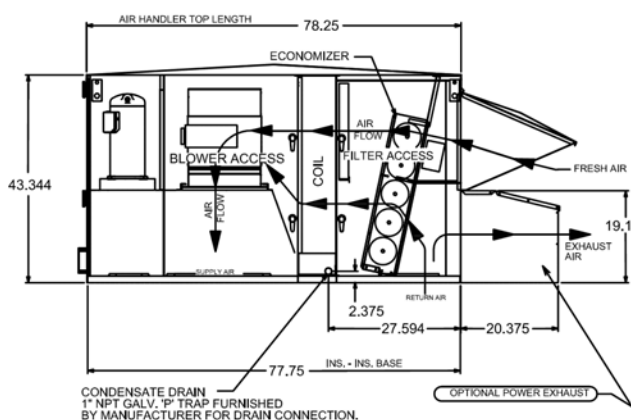
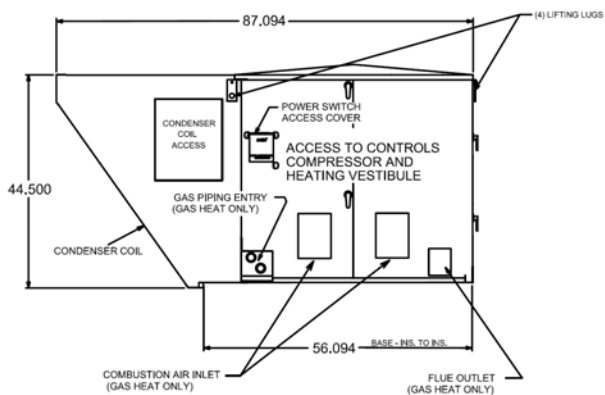


DETAIL A



DETAIL B

NUMBER OF CONDENSER FANS
8-10 TON - 1 FAN
13-15 TON - 2 FANS

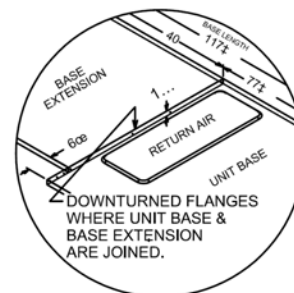


NOTES:

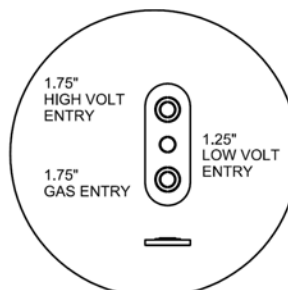
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.
ALLOW .625\"/>

B Cabinet (8-15 Tons) Air-Cooled Condenser Packaged DX Unit Energy Recovery Wheel Option

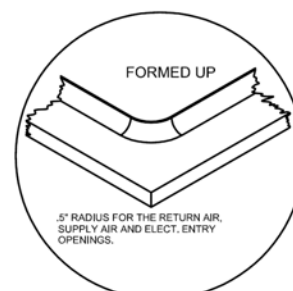
CLEARANCES	
LOCATION	• UNIT SIZE •
	8 • 10 • 13 • 15
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



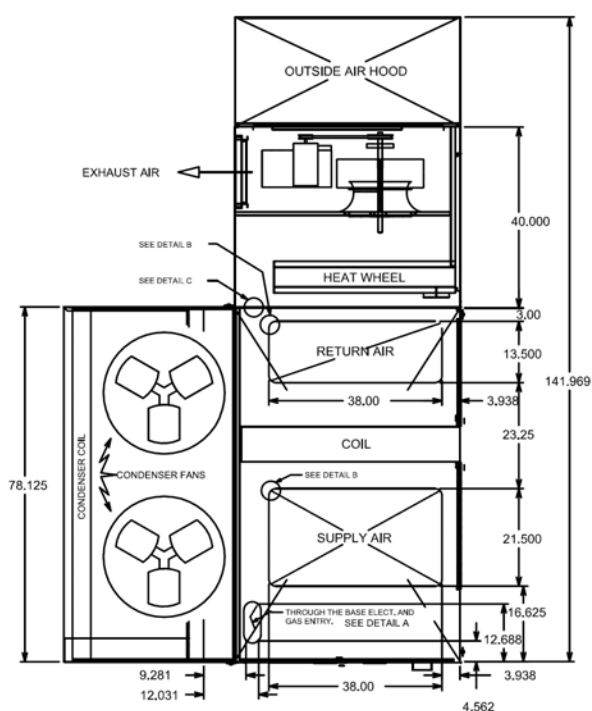
DETAIL C



DETAIL A



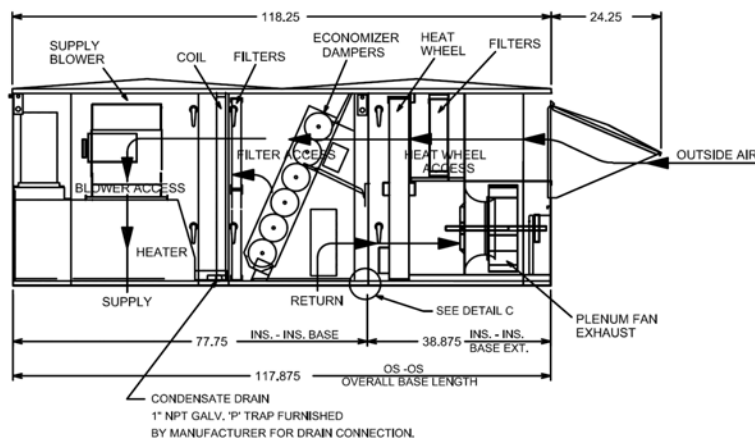
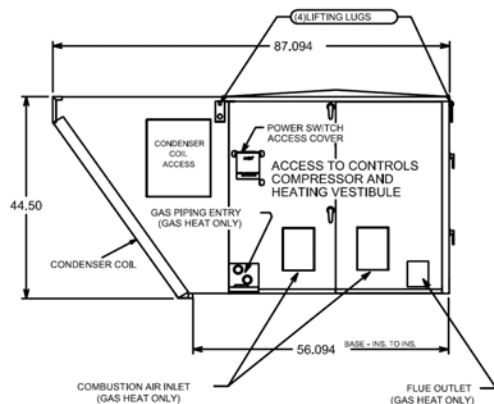
DETAIL B



NUMBER OF CONDENSER FANS
 8-10 TON - 1 FAN
 13-15 TON - 2 FANS

NOTES:

ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.
 ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.



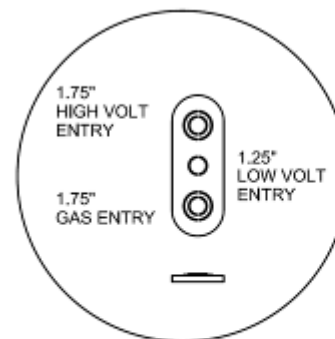


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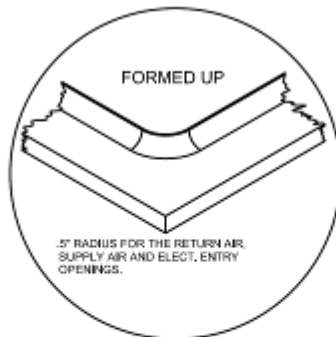
B Cabinet (8-15 Tons) Water-Cooled Condenser Packaged DX Unit B Cabinet (8-15 Tons) Air Handler

CLEARANCES	
LOCATION	• UNIT SIZE • 8•10•13•15
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

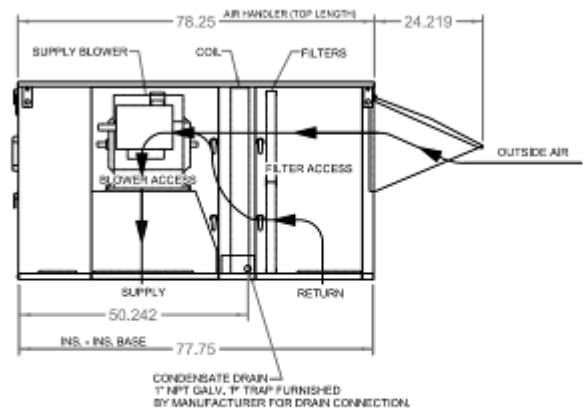
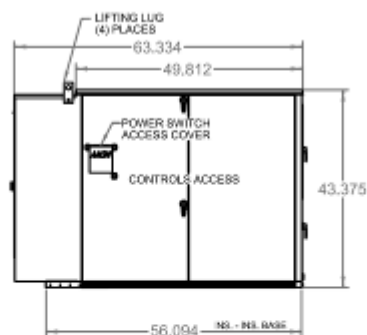
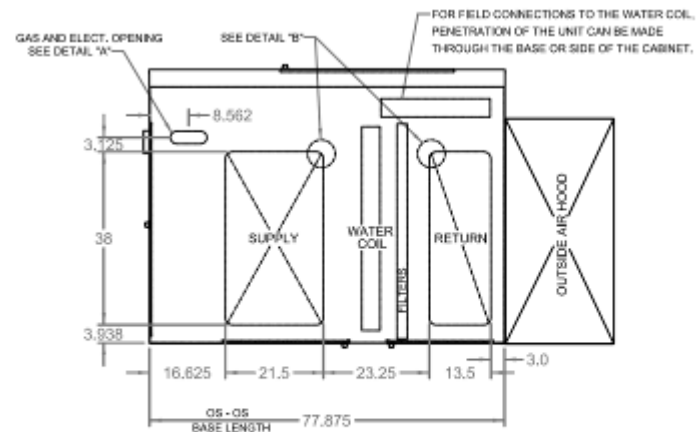
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



DETAIL A



DETAIL B



NOTES:

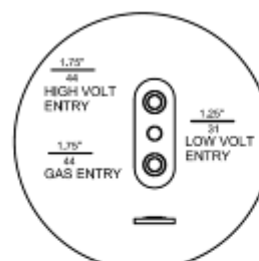
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.

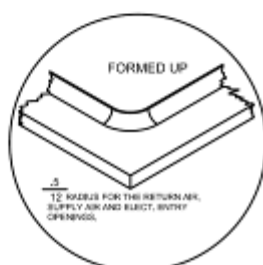
B Cabinet (8-15 Tons) Water-Cooled Condenser Packaged DX Unit B Cabinet (8-15 Tons) Air Handler Economizer and Power Exhaust Options

CLEARANCES	
LOCATION	• UNIT SIZE •
	8•10•13•15
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

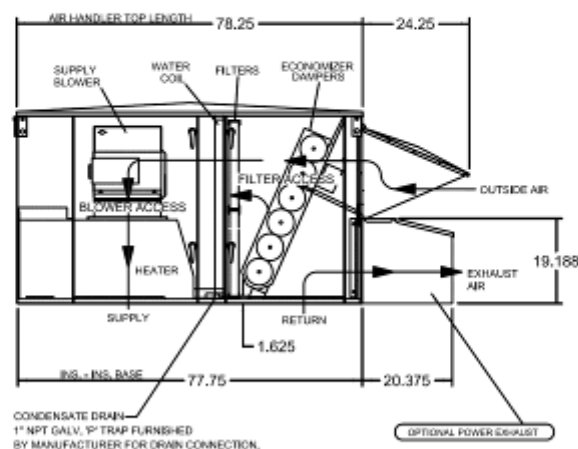
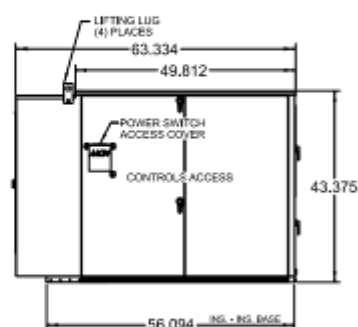
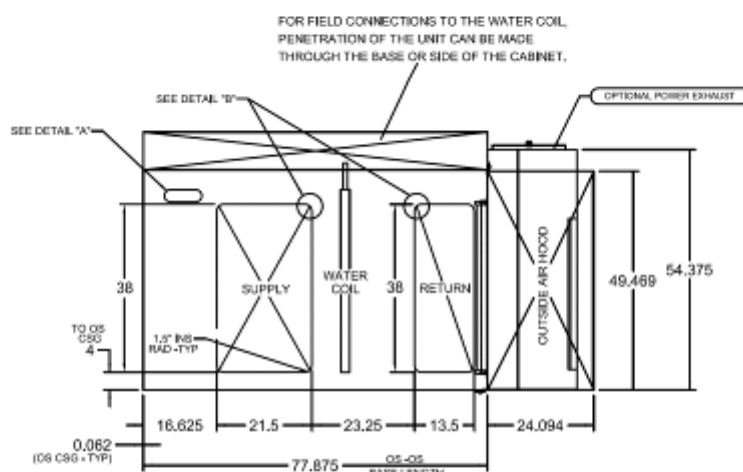
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



DETAIL A



DETAIL B



NOTES:

ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.

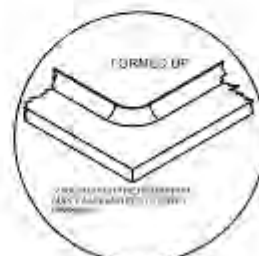
B Cabinet (8-15 Tons) Water-Cooled Condenser Packaged DX Unit
B Cabinet (8-15 Tons) Air Handler
Energy Recovery Wheel Option

CLEARANCES	
LOCATION	• UNIT SIZE • 8*10*15*15
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

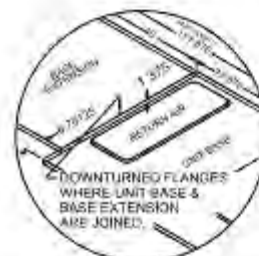
* IF MINIMUM CHILL WATER OR WATERS COOLED CONDENSER CLEARANCE IS 18"



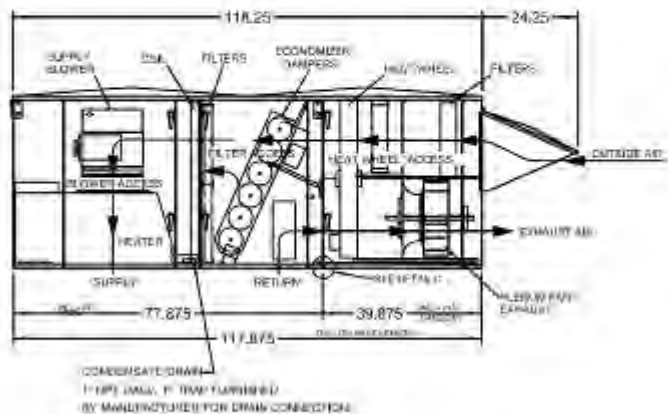
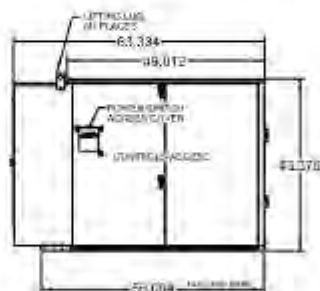
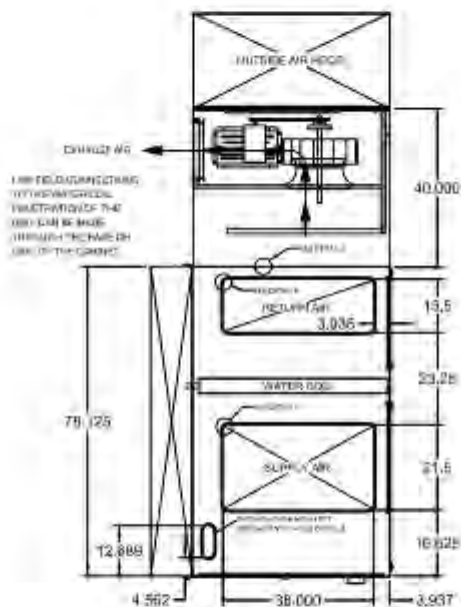
DETAIL A



DETAIL B



DETAIL C

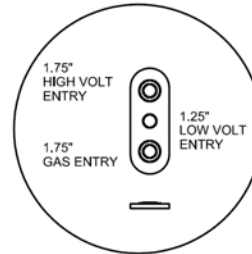


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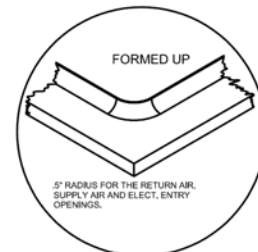
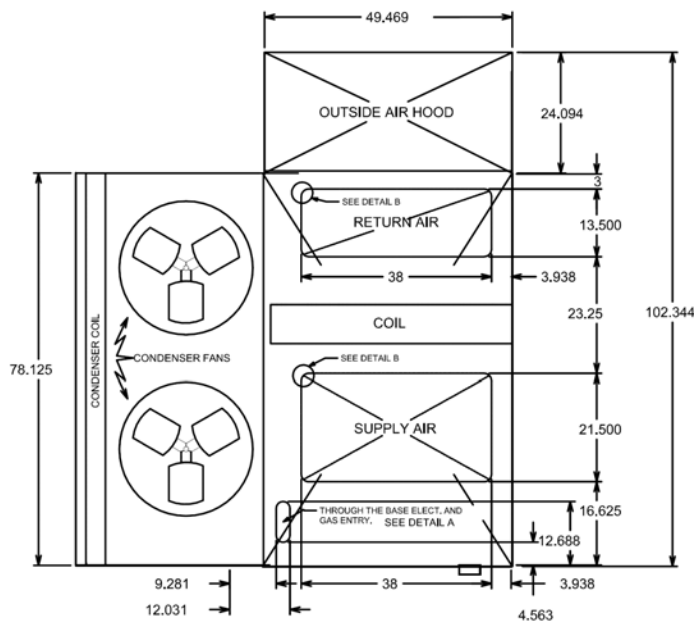
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.
ALLOW .625\"/>

B Cabinet (8-15 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Return Air Bypass Power Exhaust Options

CLEARANCES	
LOCATION	• UNIT SIZE •
	8 • 10 • 13 • 15
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED

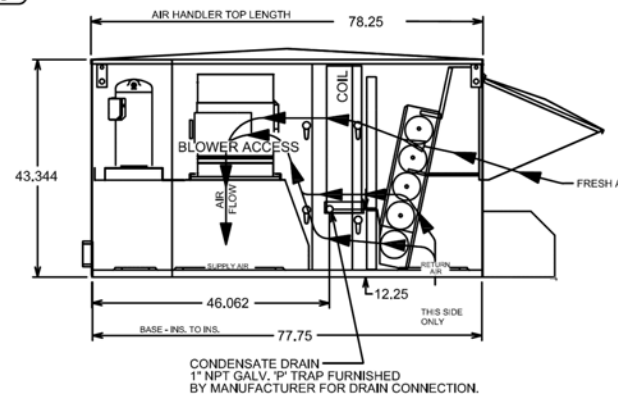
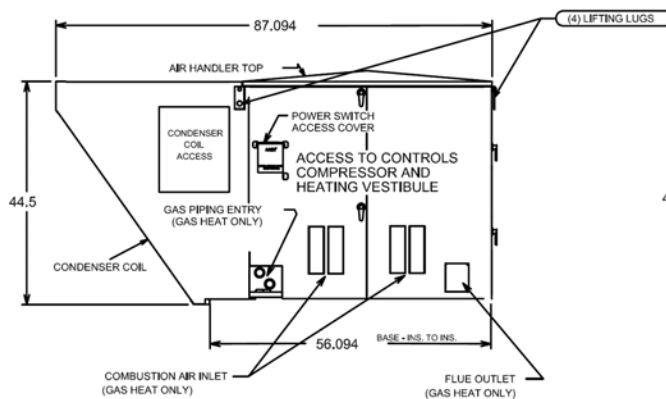


DETAIL A



DETAIL B

NUMBER OF CONDENSER FANS
8-10 TON - 1 FAN
13-15 TON - 2 FANS

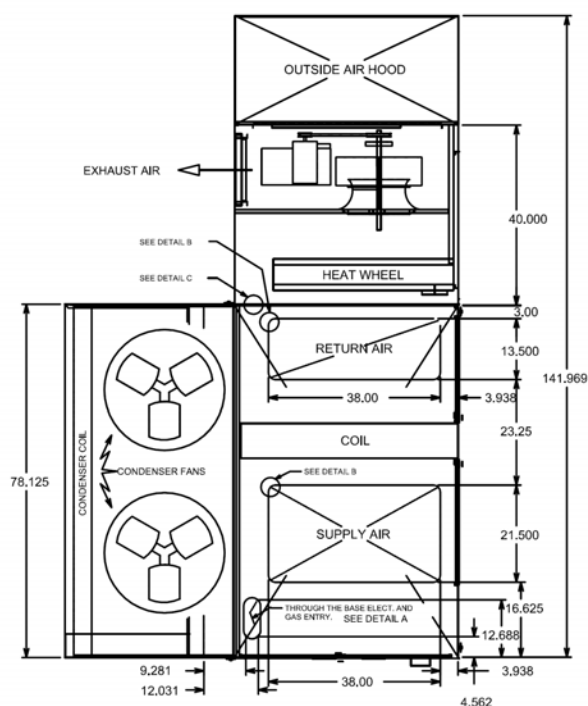


NOTES:

ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

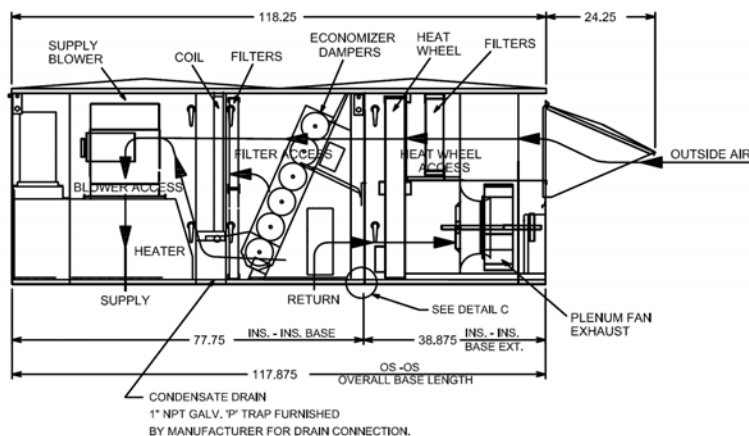
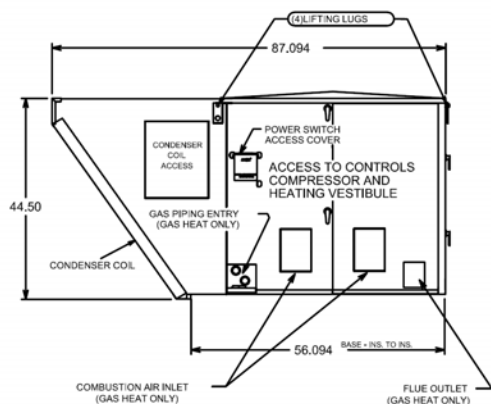
ALLOW .625\"/>

CLEARANCES	
LOCATION	• UNIT SIZE •
	8 • 10 • 13 • 15
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



8-10 TON - 1 FAN
13-15 TON - 2 FANS

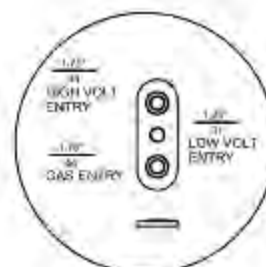
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.
ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.



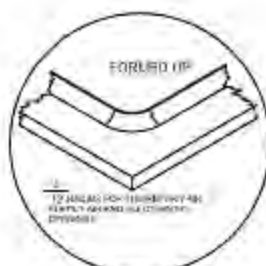
B Cabinet (8-15 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Return Air Bypass Power Exhaust Options

CLEARANCES	
LOCATION	• UNIT SIZE •
	8•10•13•15
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

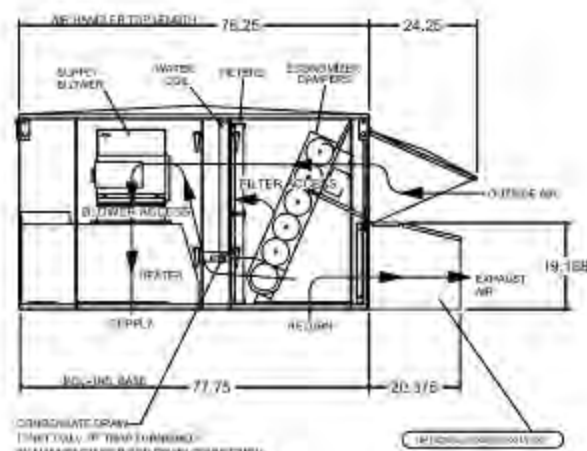
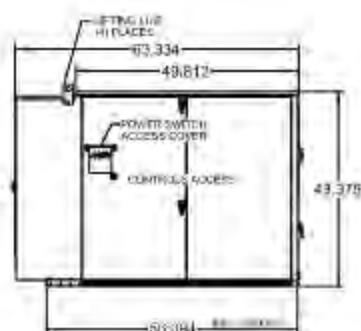
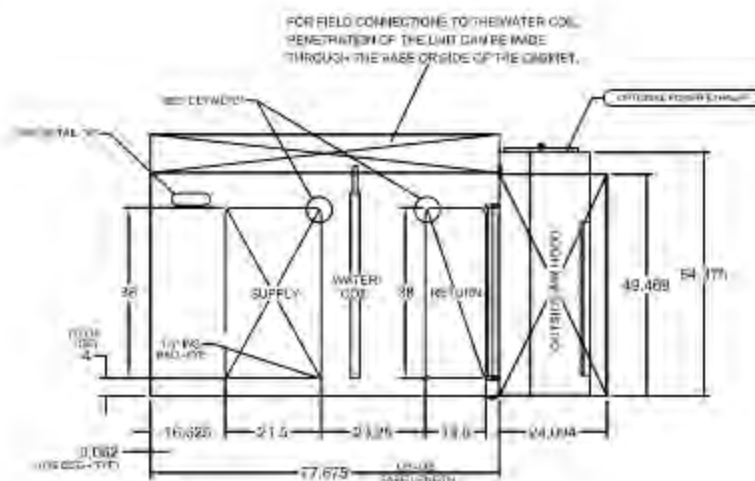
*FOR NON-CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



DETAIL A



DETAIL B



NOTES:

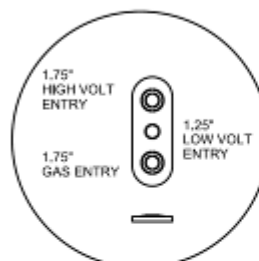
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

ALLOW .625\"

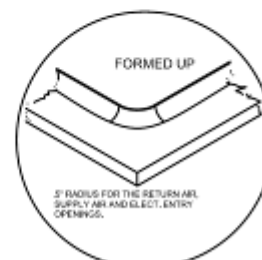
B Cabinet (8-15 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel Option

CLEARANCES	
LOCATION	• UNIT SIZE • 8•10•13•15
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



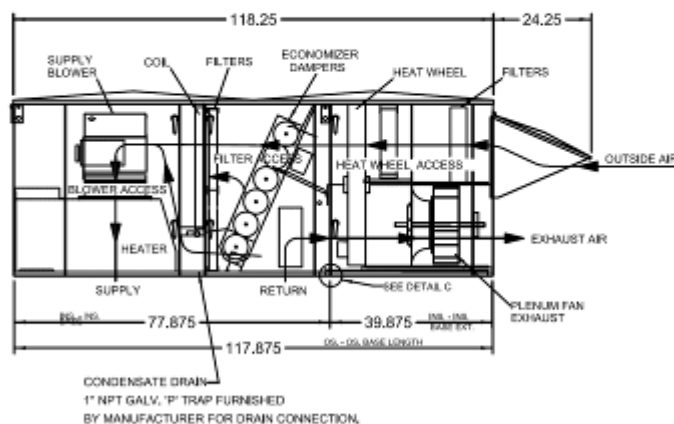
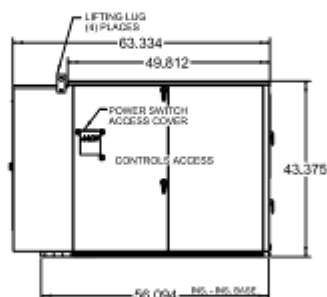
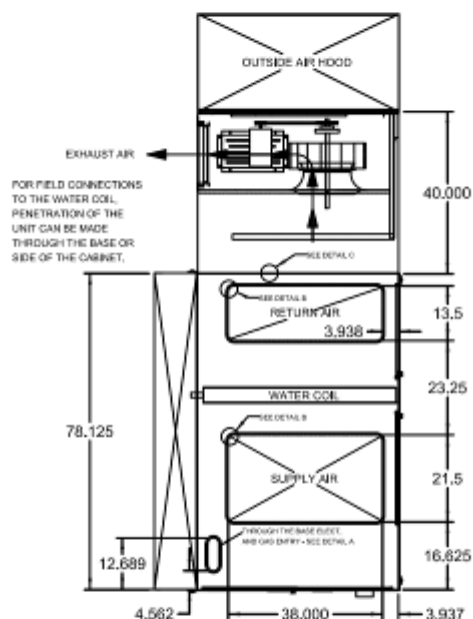
DETAIL A



DETAIL B



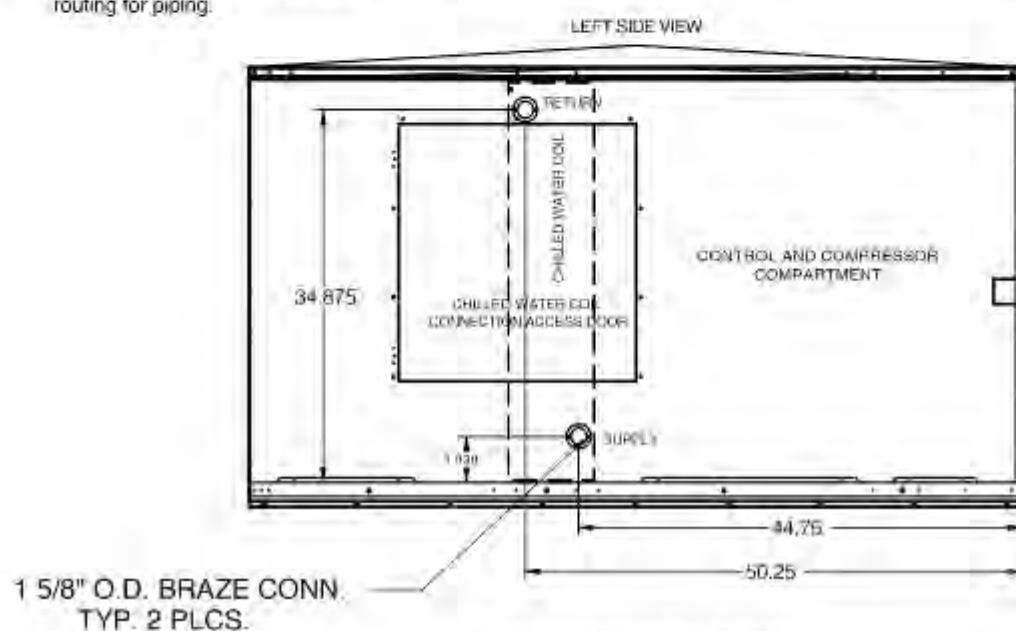
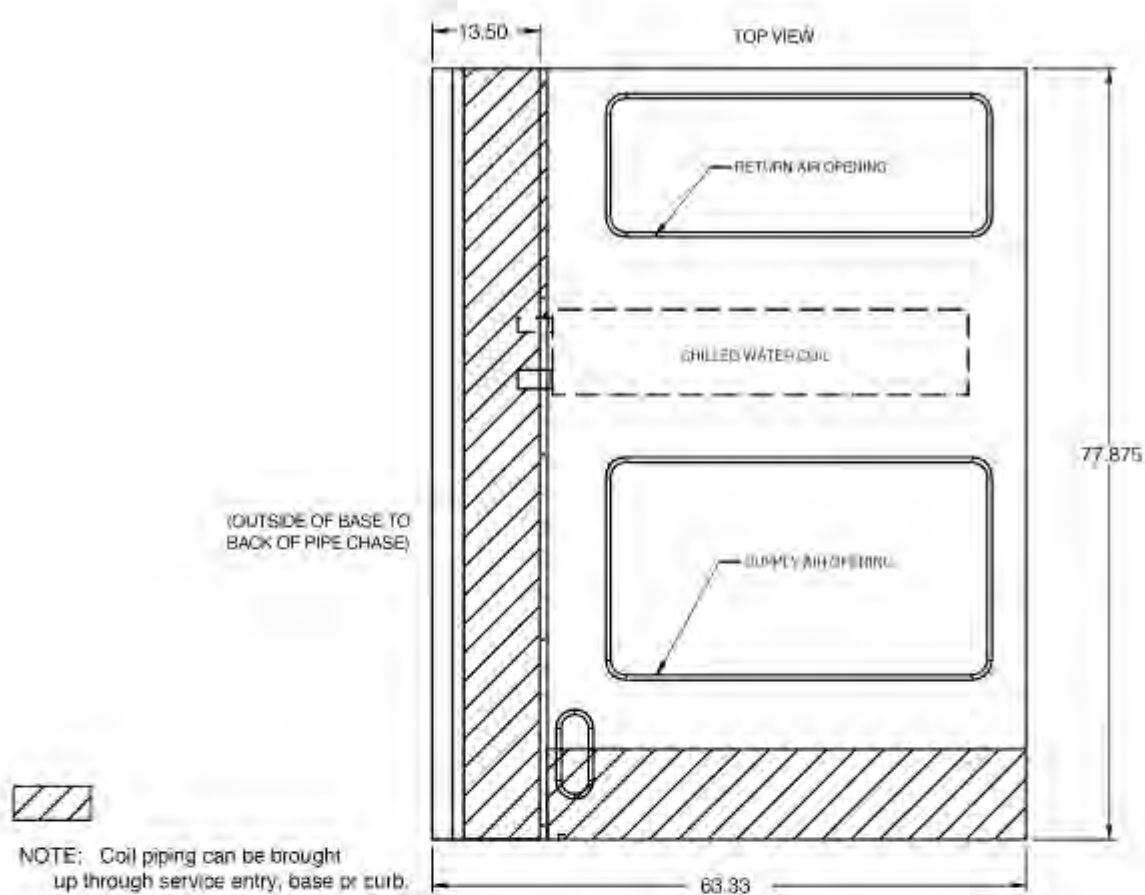
DETAIL C



NOTES:

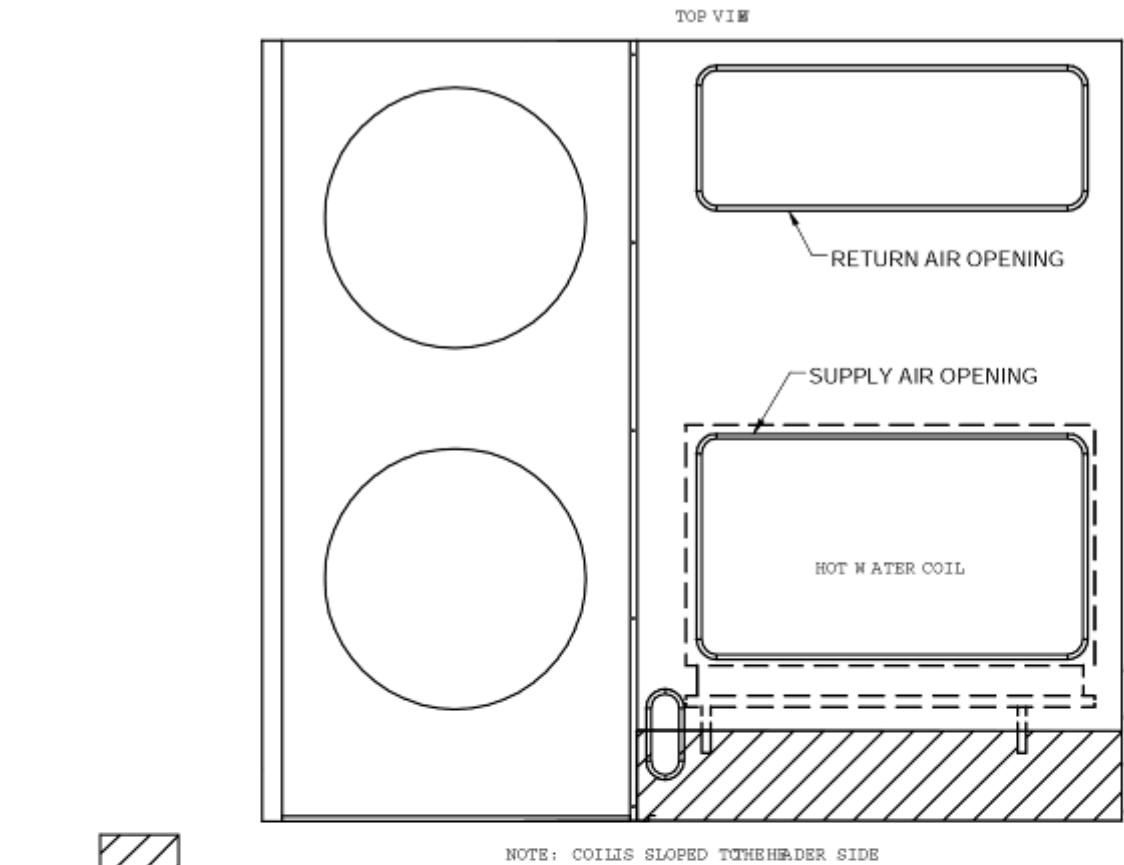
ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.
ALLOW .625" SCREW CLEARANCE AROUND UNDERSIDE OF BASE.

B Cabinet (8-15 Tons) Chilled Water Cooling Coil Piping

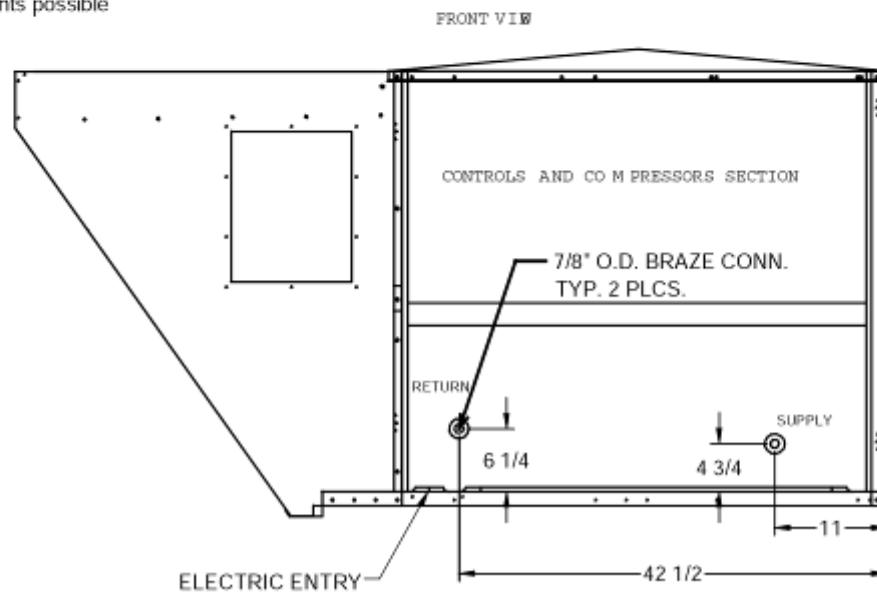


ALL DIMENSIONS SHOWN ARE IN INCHES
DIMENSIONS ARE FOR REFERENCE ONLY

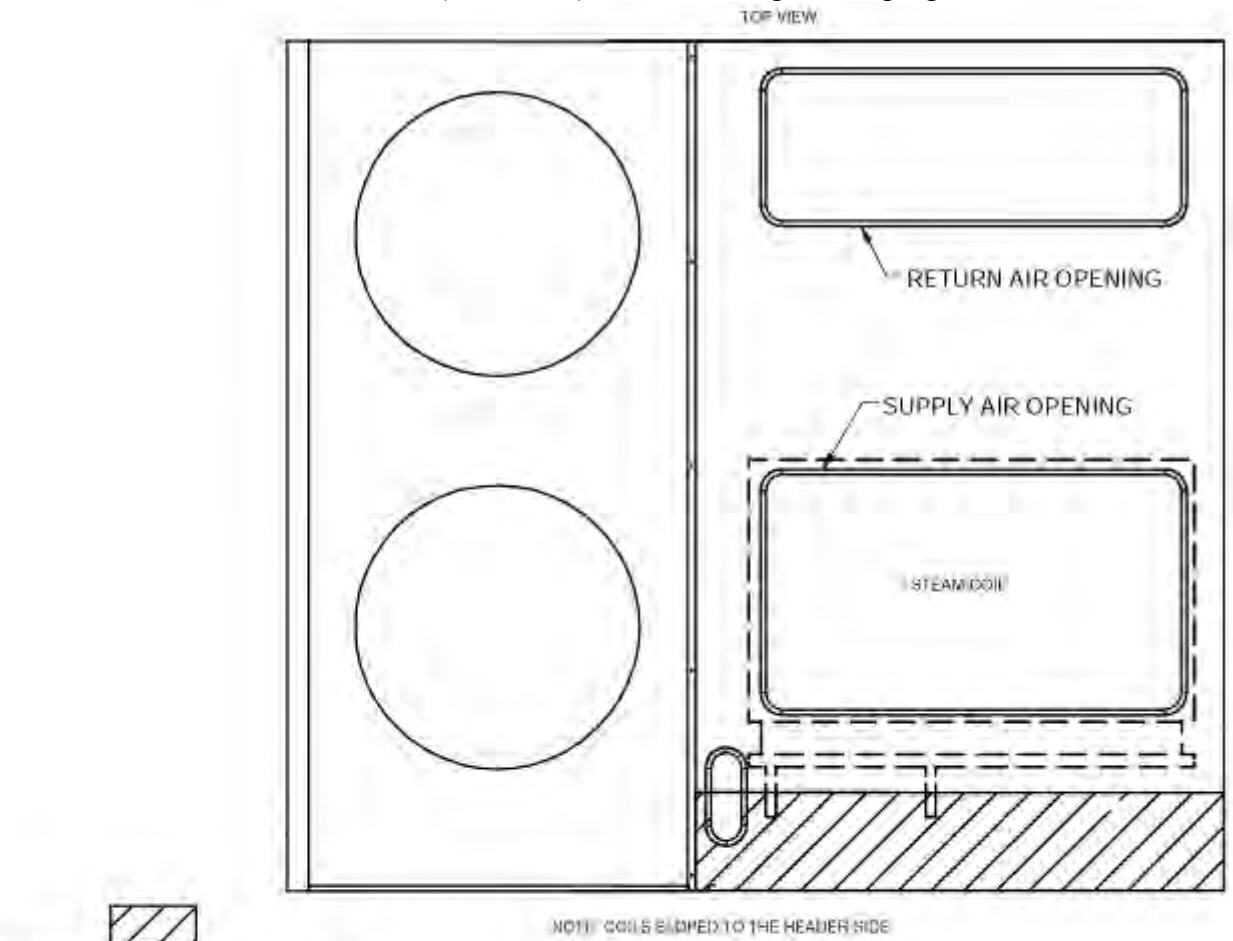
B Cabinet (8-15 Tons) Hot Water Heating Coil Piping



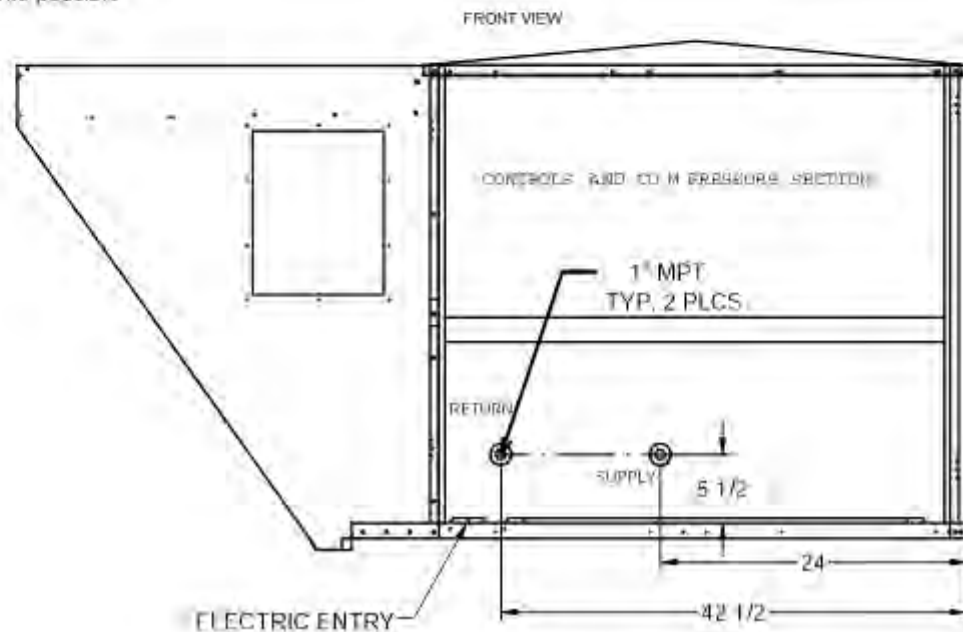
NOTE: Coil piping can be brought up through the service entry. Shaded area represents possible routing for piping.



B Cabinet (8-15 Tons) Steam Heating Coil Piping

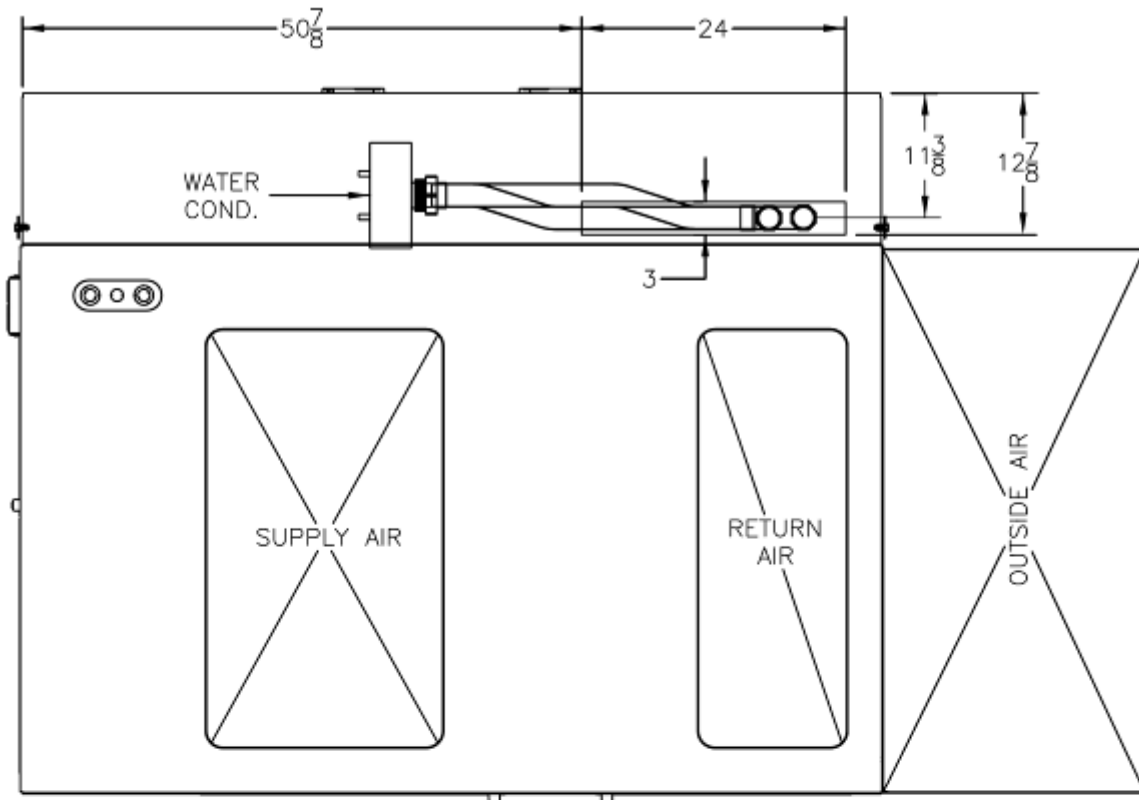


 NOTE: Coil piping can be brought up through the service entry. Shaded area represents possible routing for piping.

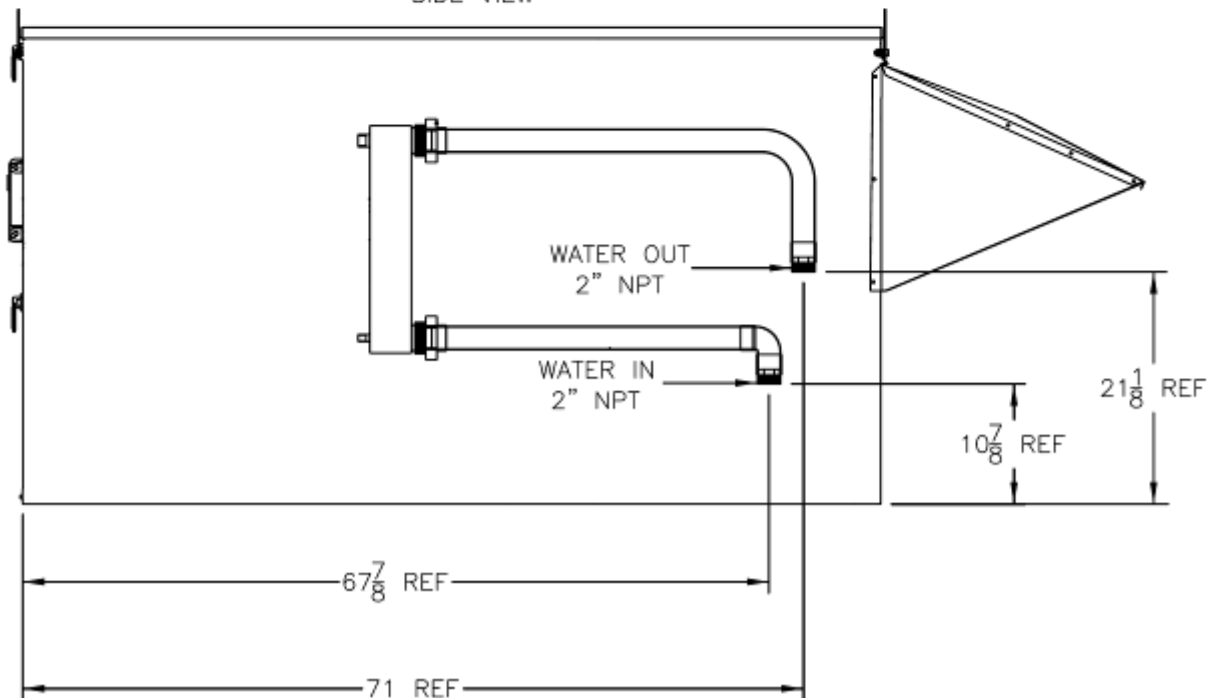


B Cabinet (8-15 Tons) Water-Cooled Condenser Piping

TOP VIEW

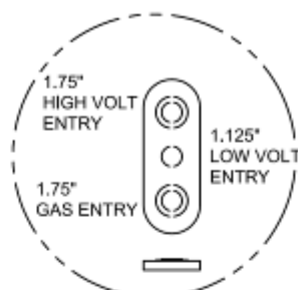


SIDE VIEW

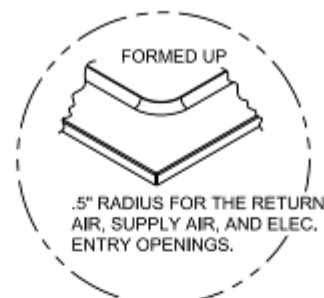


C Cabinet (16-30 Tons) Air-Cooled Condenser Packaged DX Unit

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



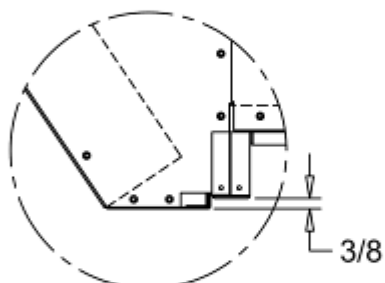
DETAIL A



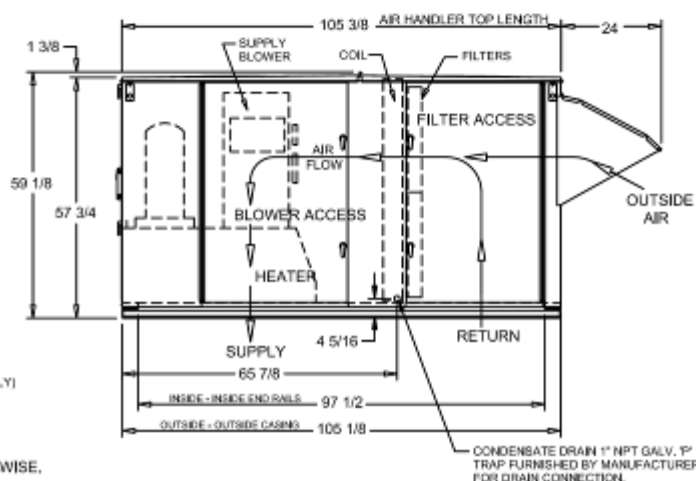
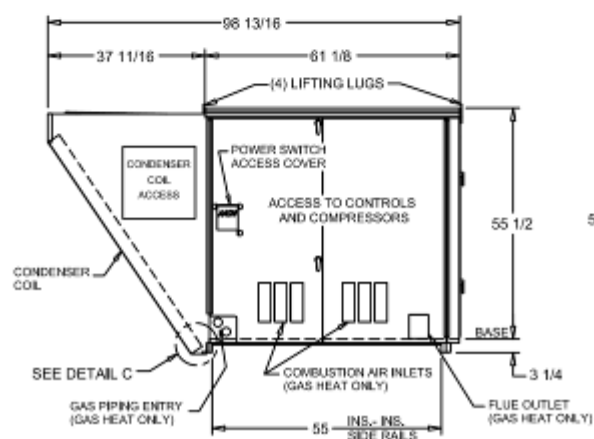
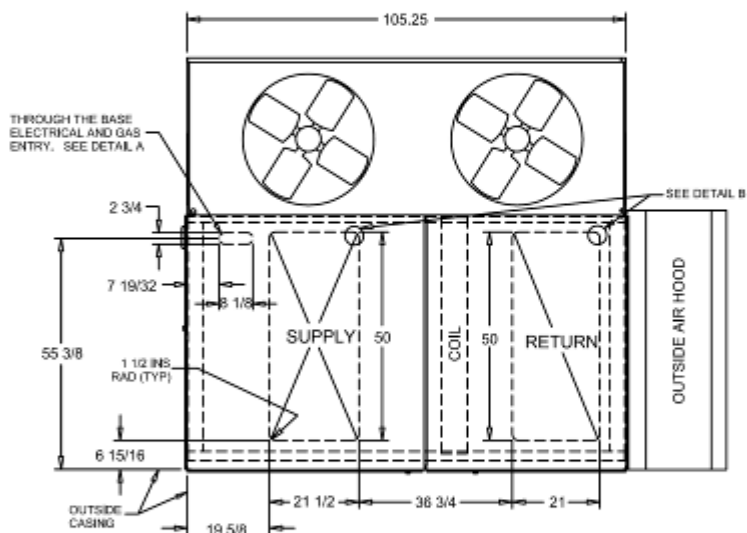
DETAIL B

NUMBER OF CONDENSER FANS

16,18-20 TON	- 2 FANS
25-30 TON	- 3 FANS



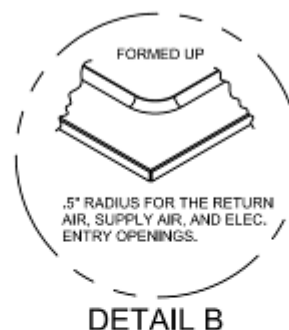
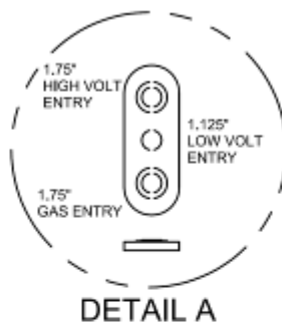
DETAIL C



NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

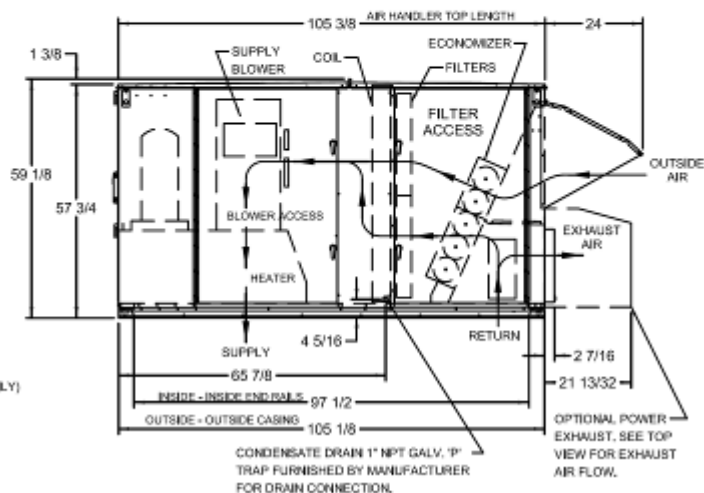
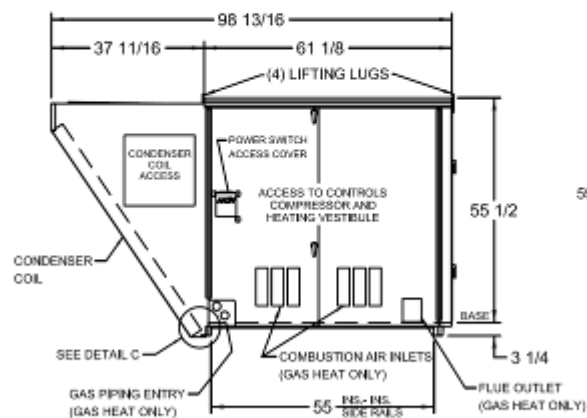
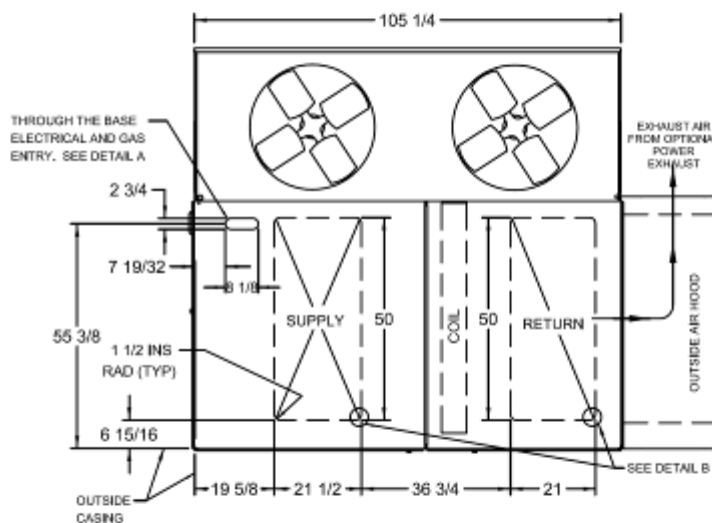
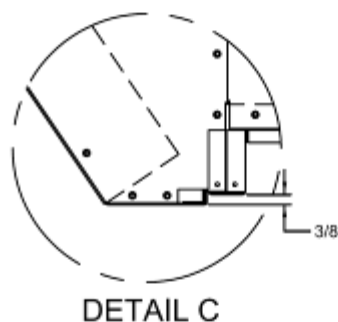
C Cabinet (16-30 Tons) Air-Cooled Condenser Packaged DX Unit Economizer and Power Exhaust Options

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



NUMBER OF CONDENSER FANS

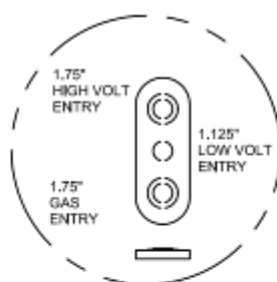
16,18-20 TON	-	2 FANS
25-30 TON	-	3 FANS



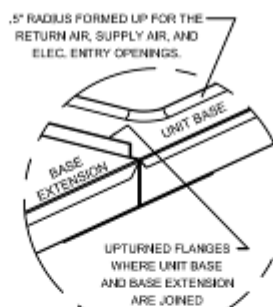
NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

C Cabinet (16-30 Tons) Air-Cooled Condenser Packaged DX Unit Energy Recovery Wheel Option

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



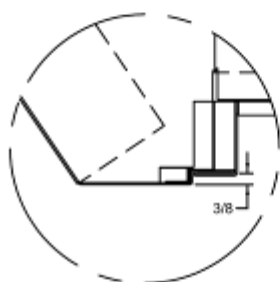
DETAIL A



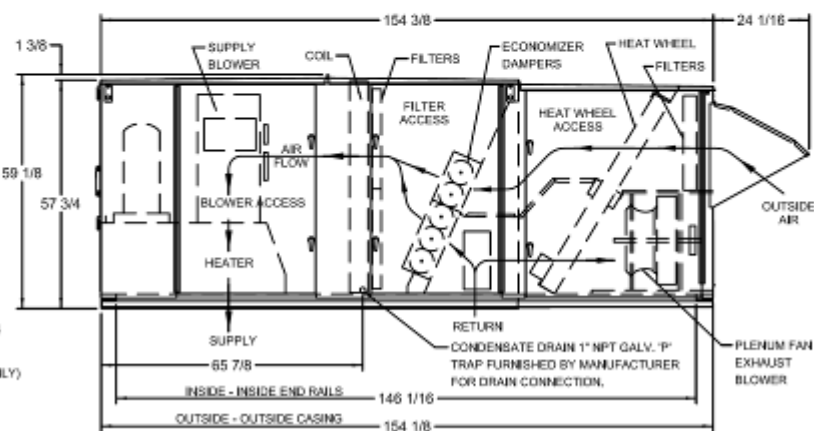
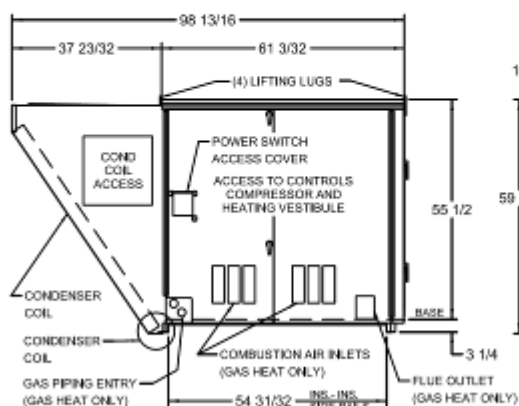
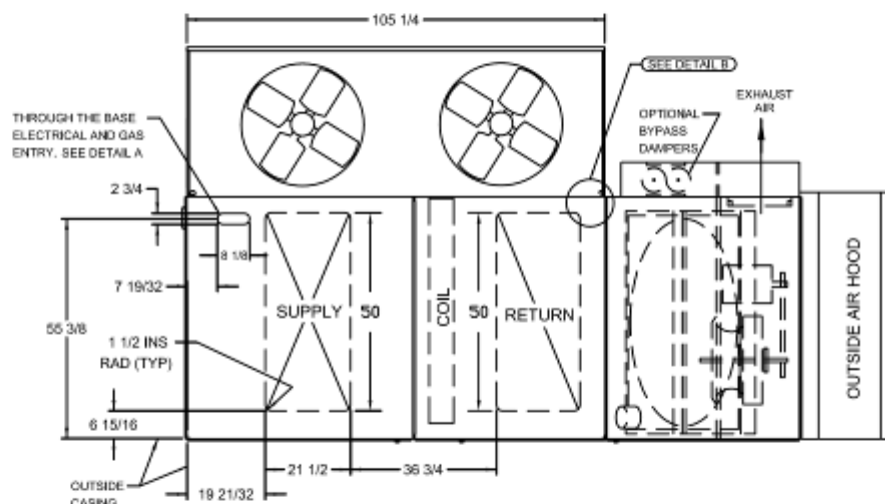
DETAIL B

NUMBER OF CONDENSER FANS

16,18-20 TON	- 2 FANS
25-30 TON	- 3 FANS



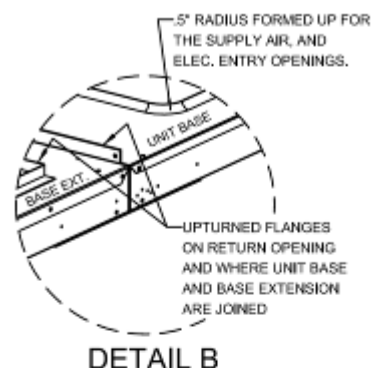
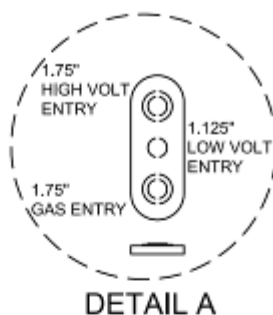
DETAIL C



NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

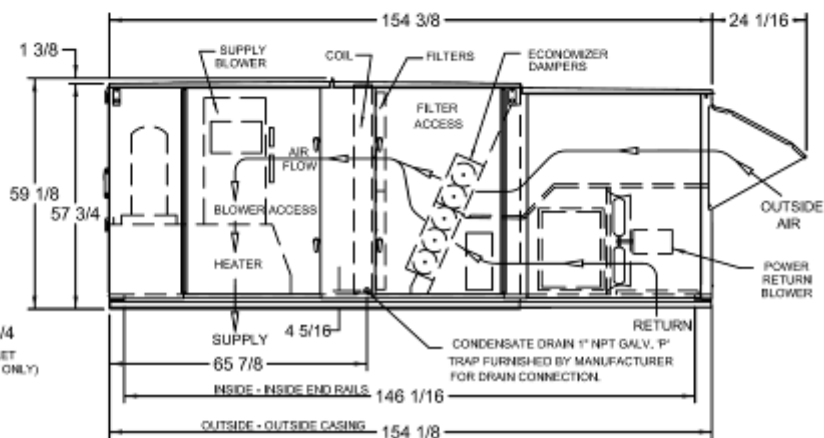
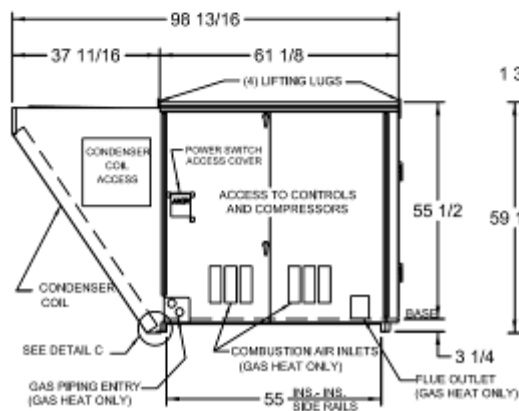
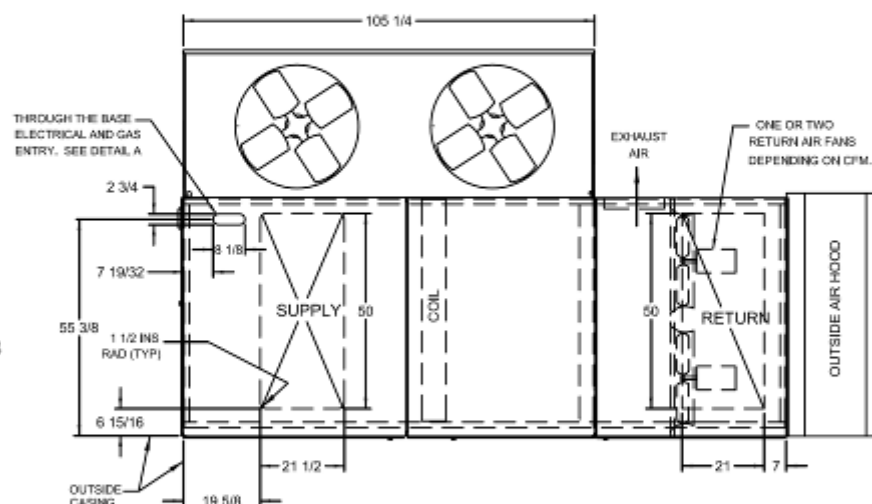
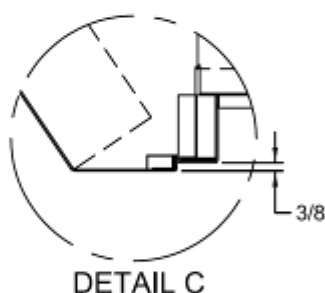
C Cabinet (16-30 Tons) Air-Cooled Condenser Packaged DX Unit Power Return Option

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



NUMBER OF CONDENSER FANS

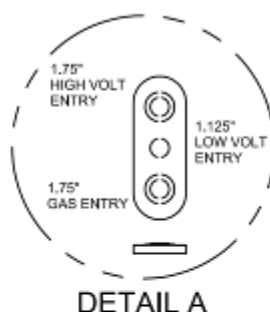
16,18-20 TON	- 2 FANS
25-30 TON	- 3 FANS



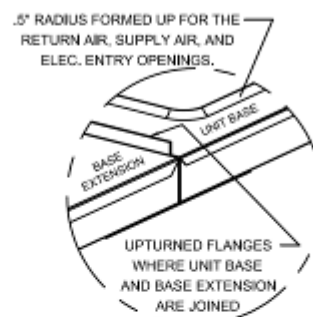
NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

C Cabinet (16-30 Tons) Air-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel Option Box

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



DETAIL A



DETAIL B

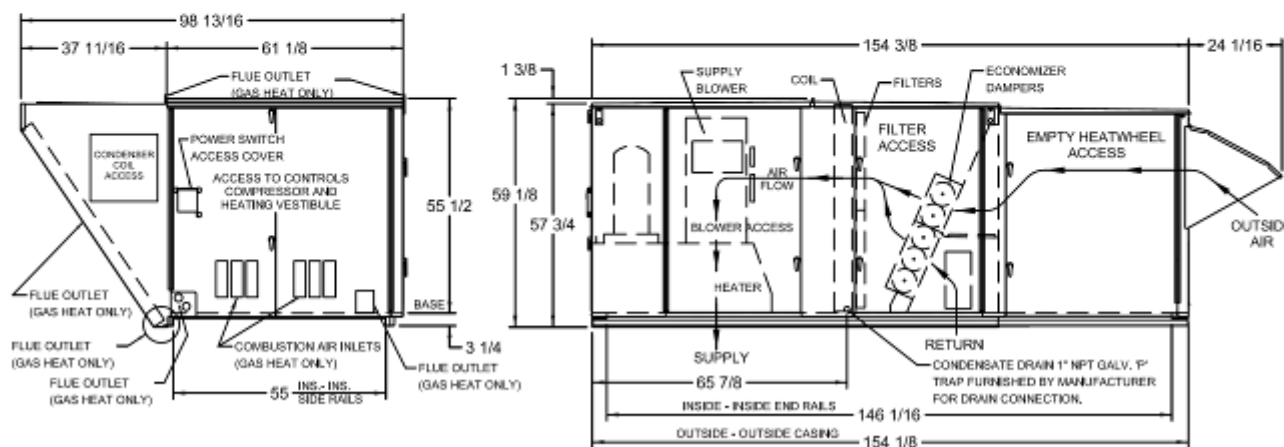
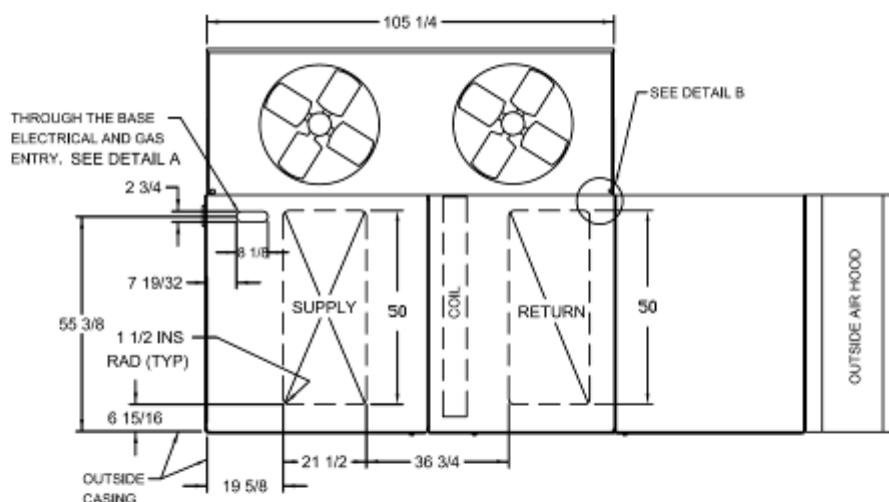
NUMBER OF CONDENSER FANS

16,18-20 TON - 2 FANS

25-30 TON - 3 FANS



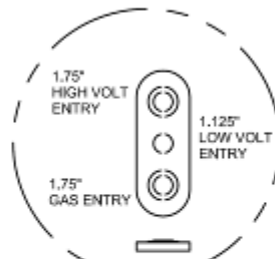
DETAIL C



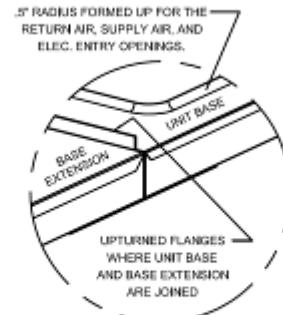
NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

C Cabinet (16-30 Tons) Air-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel Option Box with Power Exhaust

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



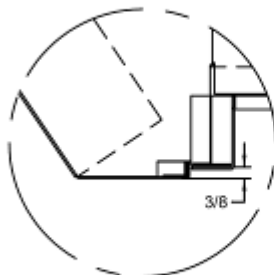
DETAIL A



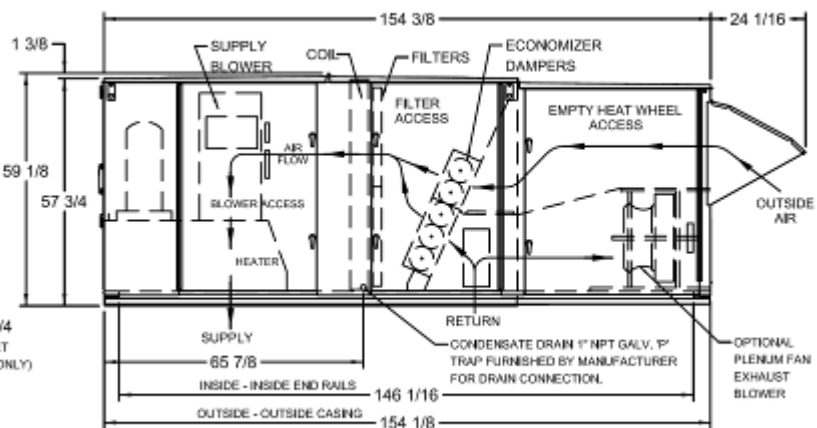
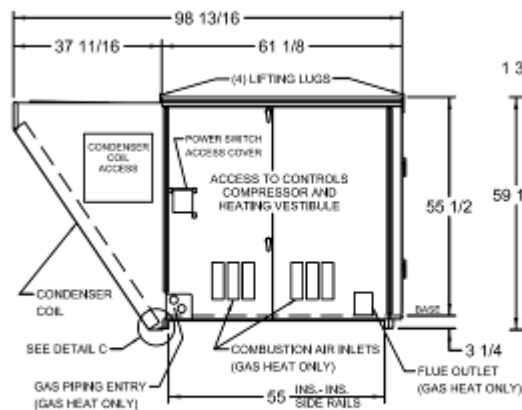
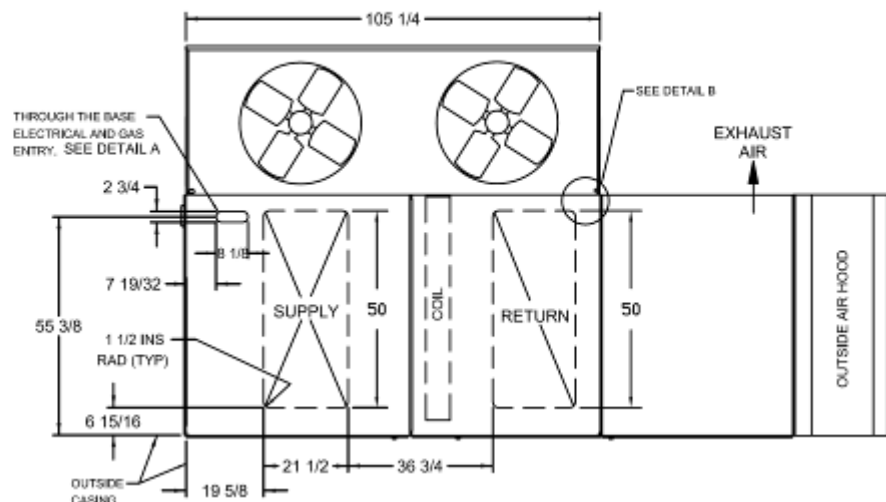
DETAIL B

NUMBER OF CONDENSER FANS

16,18-20 TON	- 2 FANS
25-30 TON	- 3 FANS



DETAIL C

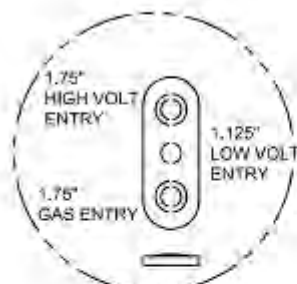


NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

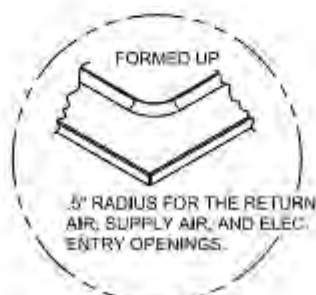
C Cabinet (16-30 Tons) Water-Cooled Condenser Packaged DX Unit C Cabinet (16-30 Tons) Air Handler

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

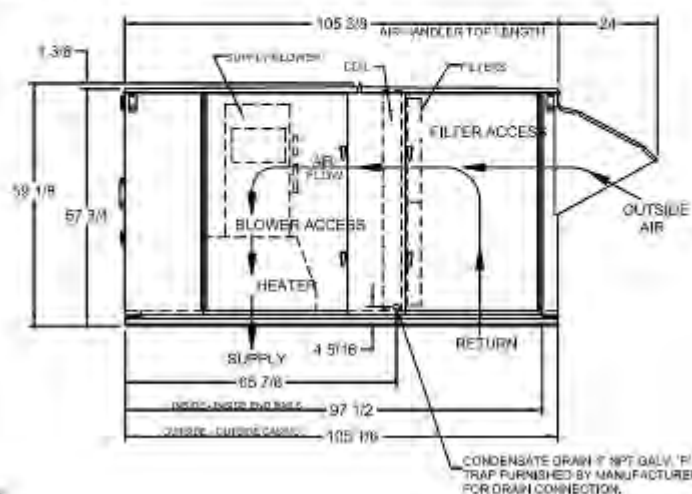
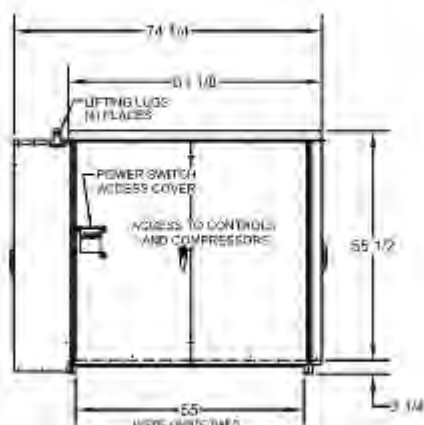
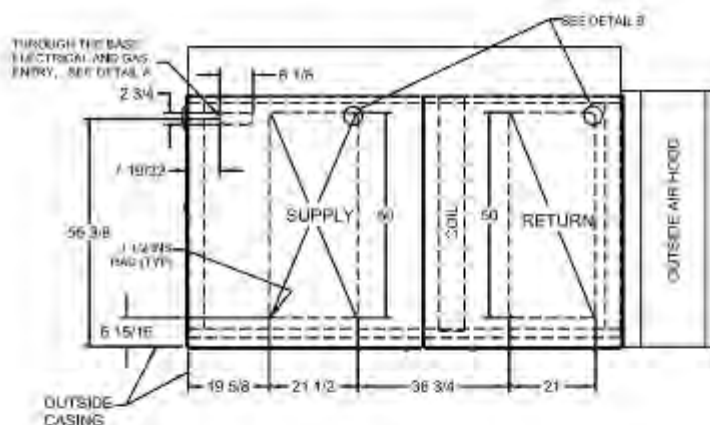
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



DETAIL A



DETAIL B

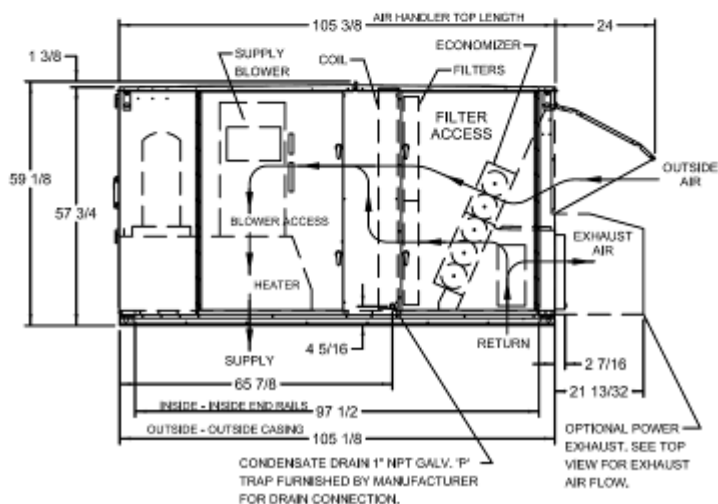
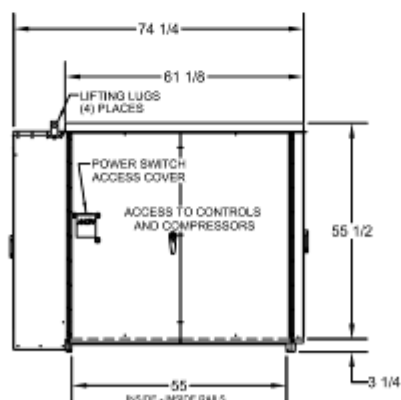
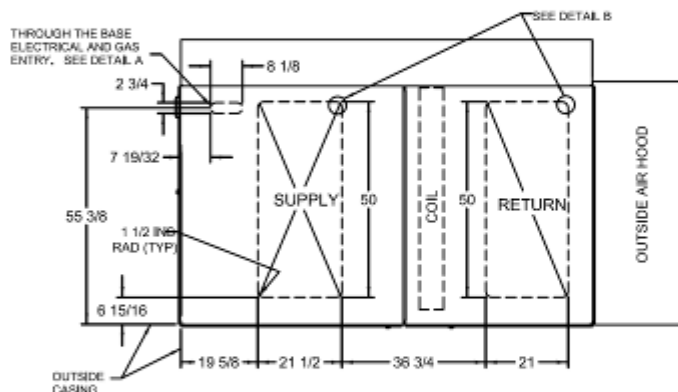
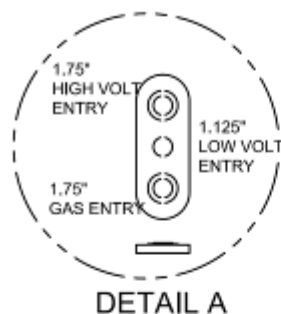


NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

C Cabinet (16-30 Tons) Water-Cooled Condenser Packaged DX Unit
C Cabinet (16-30 Tons) Air Handler
Economizer and Power Exhaust Options

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"

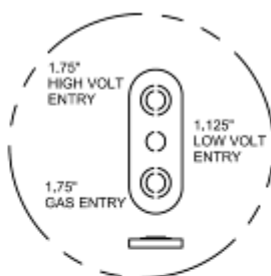


NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

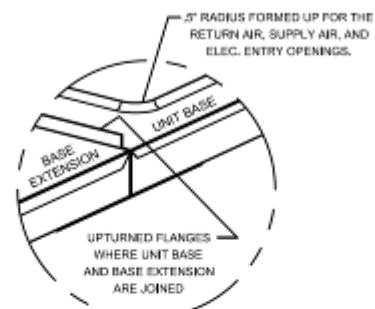
C Cabinet (16-30 Tons) Water-Cooled Condenser Packaged DX Unit
C Cabinet (16-30 Tons) Air Handler
Energy Recovery Wheel Option

CLEARANCES	
LOCATION	* UNIT SIZE *
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

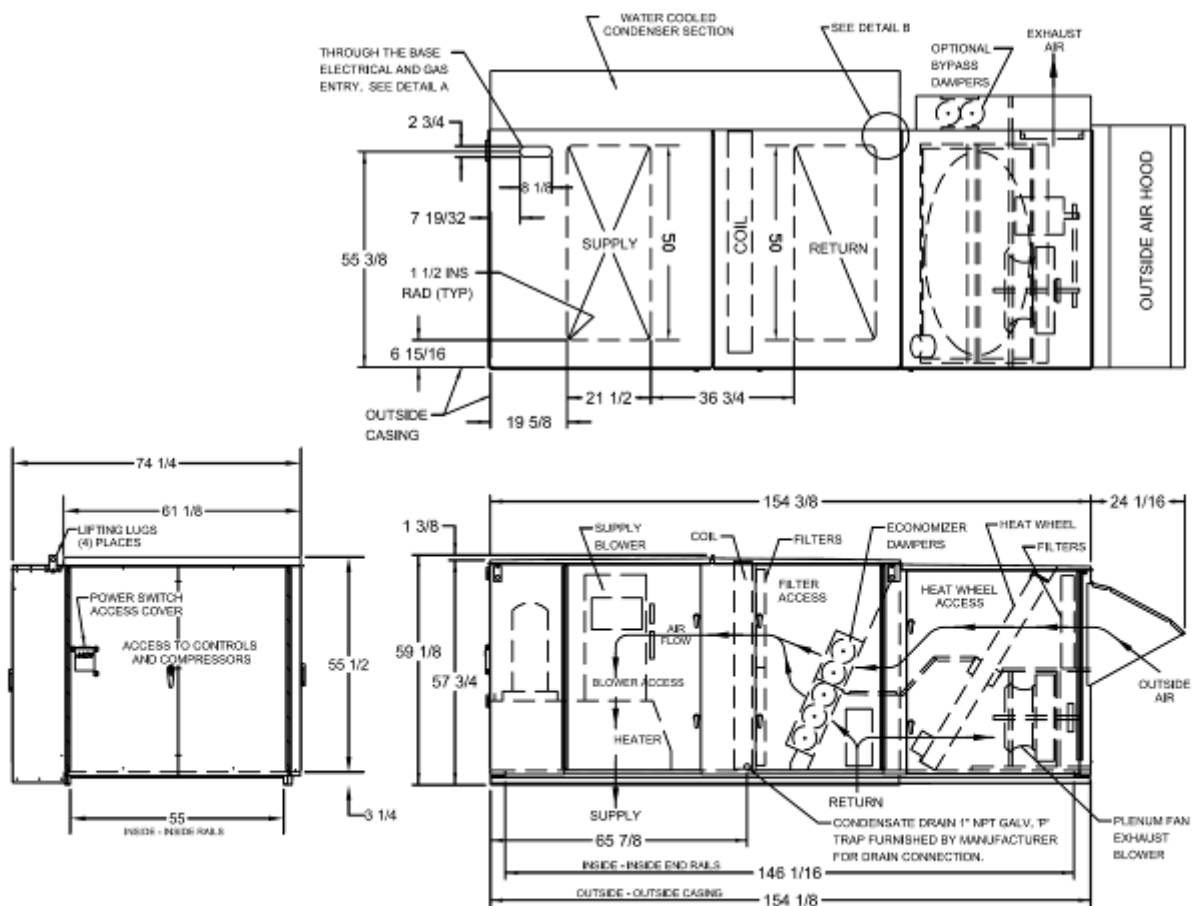
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 5"



DETAIL A



DETAIL B

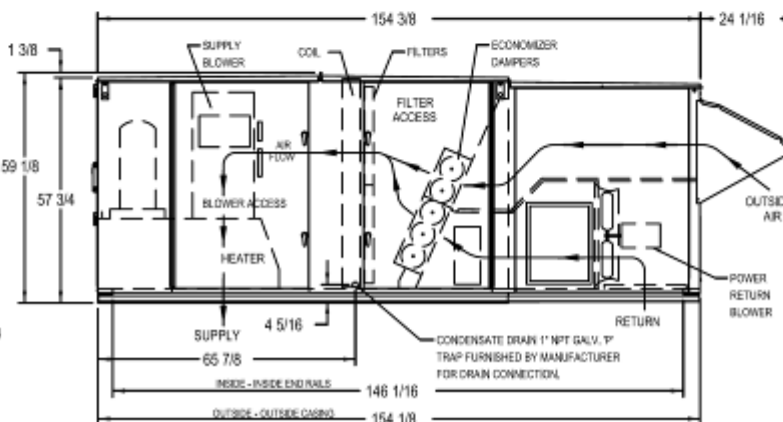
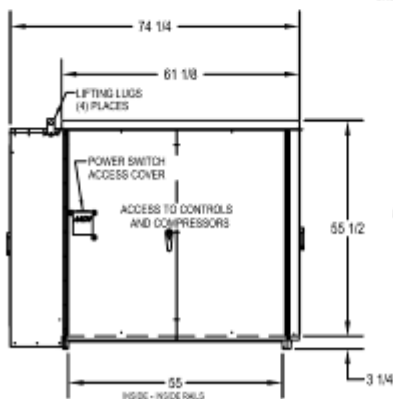
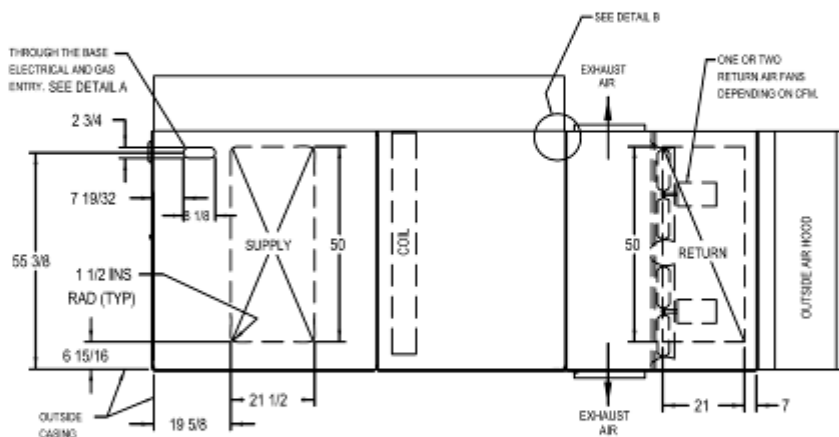
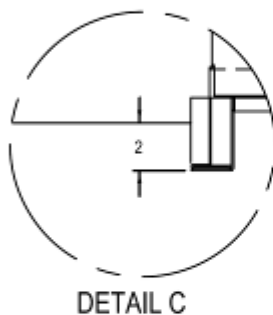
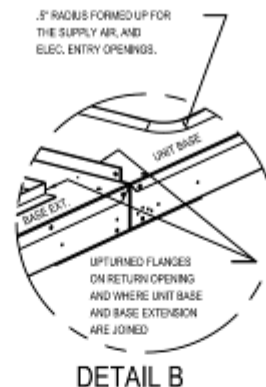
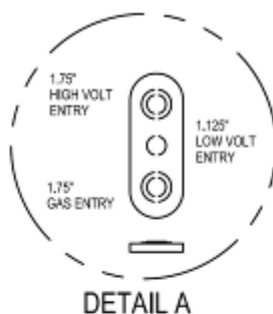


NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

C Cabinet (16-30 Tons) Water-Cooled Condenser Packaged DX Unit
C Cabinet (16-30 Tons) Air Handler
Power Return Option

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"

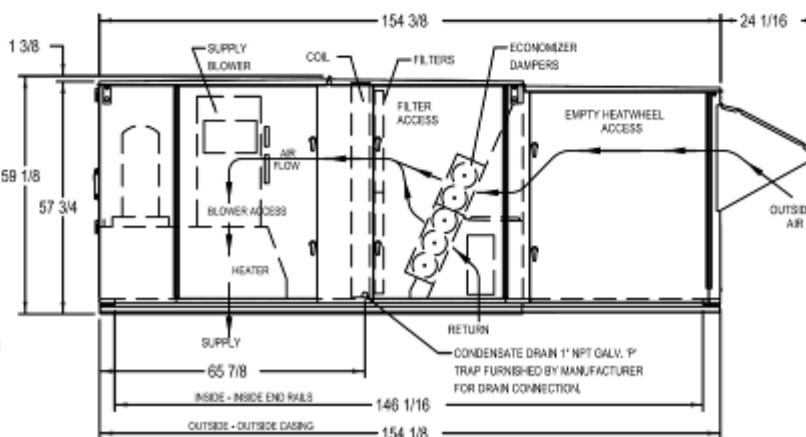
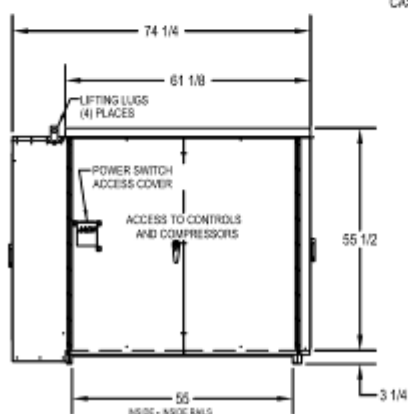
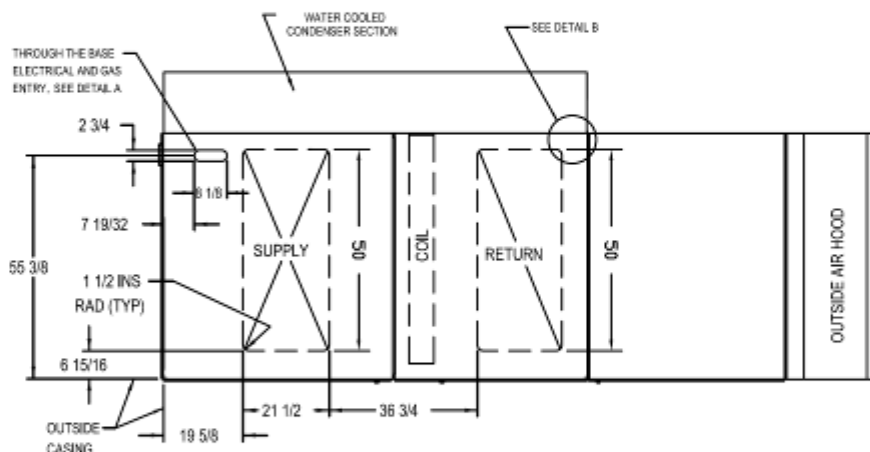
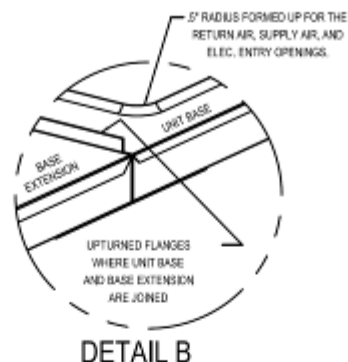
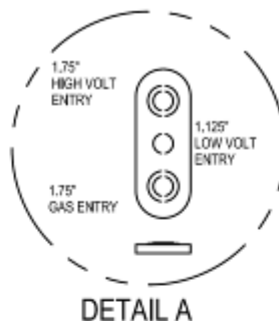


NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

C Cabinet (16-30 Tons) Water-Cooled Condenser Packaged DX Unit
C Cabinet (16-30 Tons) Air Handler
Empty Energy Recovery Wheel Option Box

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

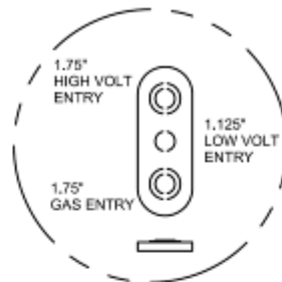


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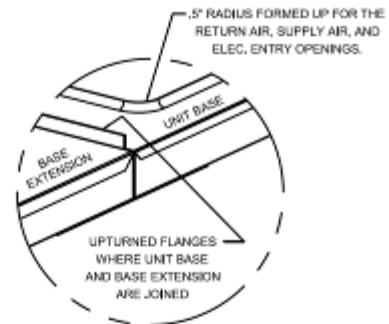
C Cabinet (16-30 Tons) Water-Cooled Condenser Packaged DX Unit
C Cabinet (16-30 Tons) Air Handler
Empty Energy Recovery Wheel Option Box with Power Exhaust

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

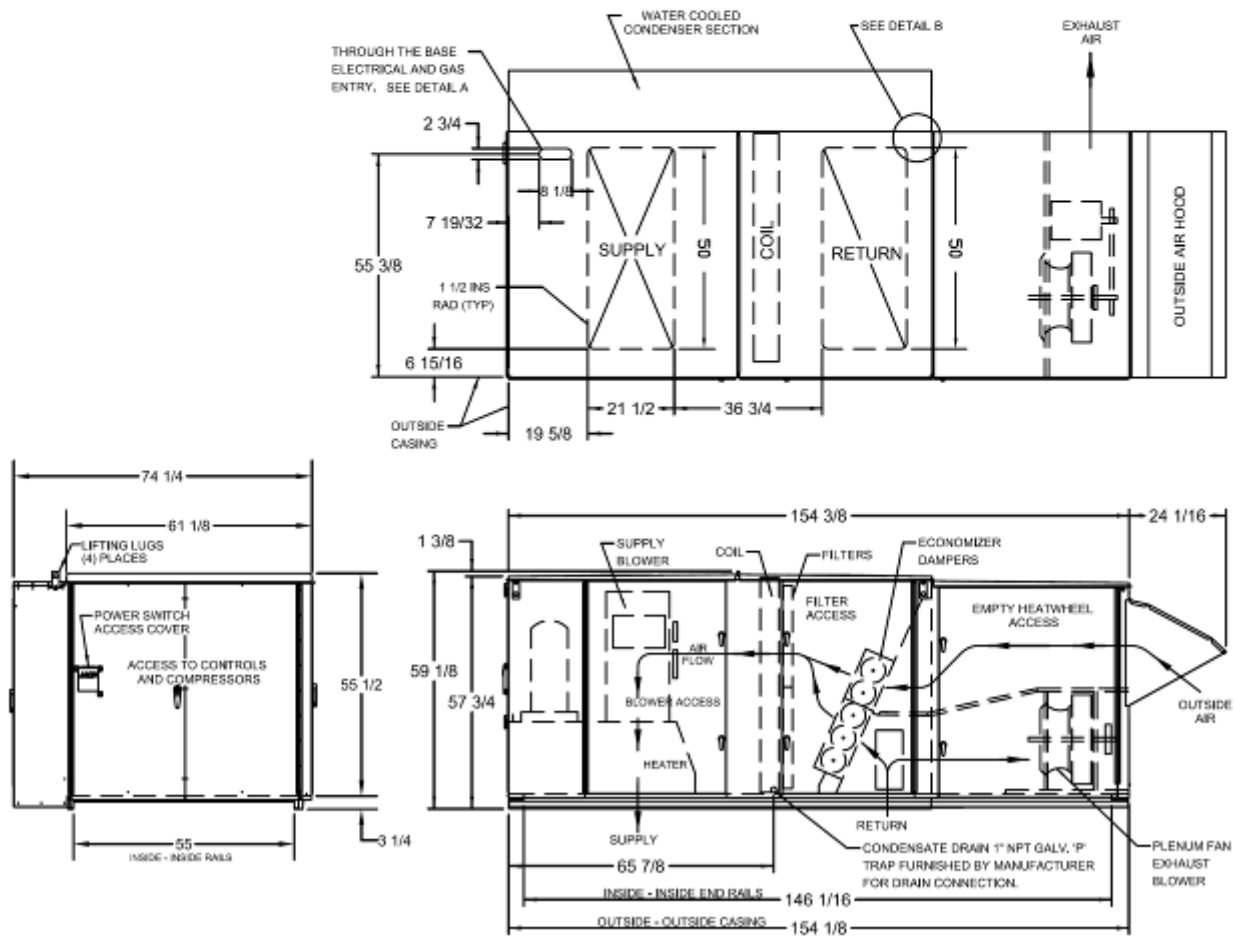
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



DETAIL A



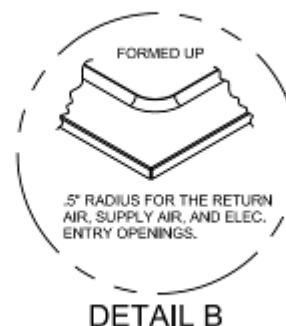
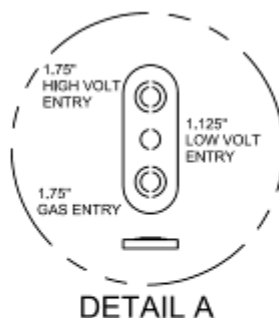
DETAIL B



NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

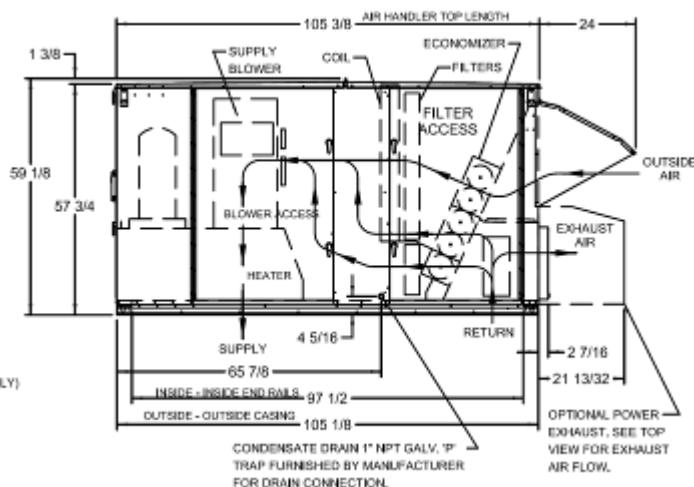
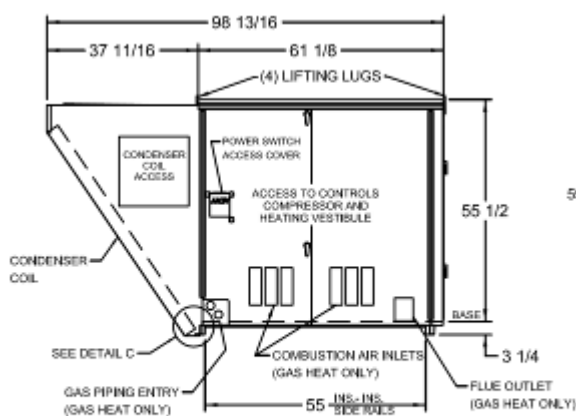
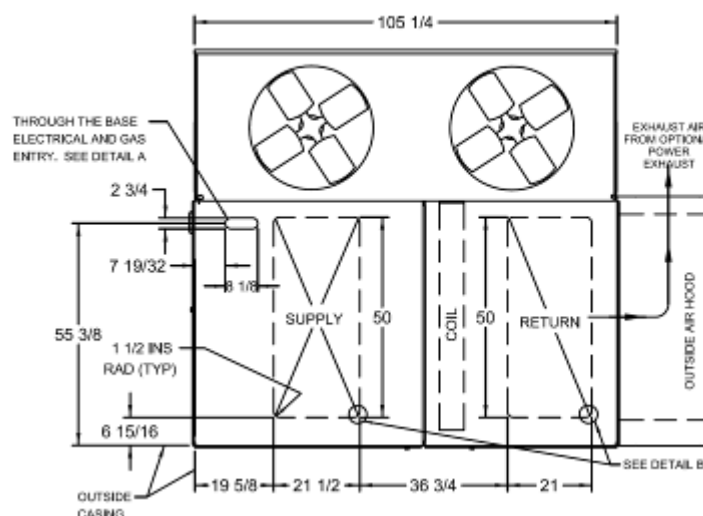
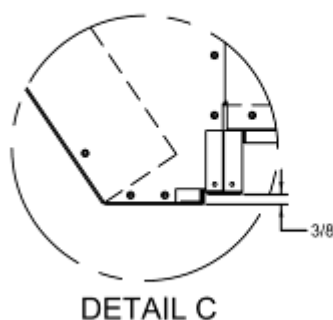
C Cabinet (16-30 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Return Air Bypass Power Exhaust Options

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



NUMBER OF CONDENSER FANS

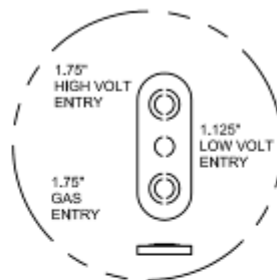
16,18-20 TON	-	2 FANS
25-30 TON	-	3 FANS



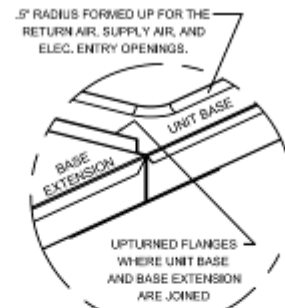
NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

C Cabinet (16-30 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel Option

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



DETAIL A

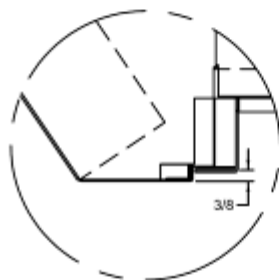


DETAIL B

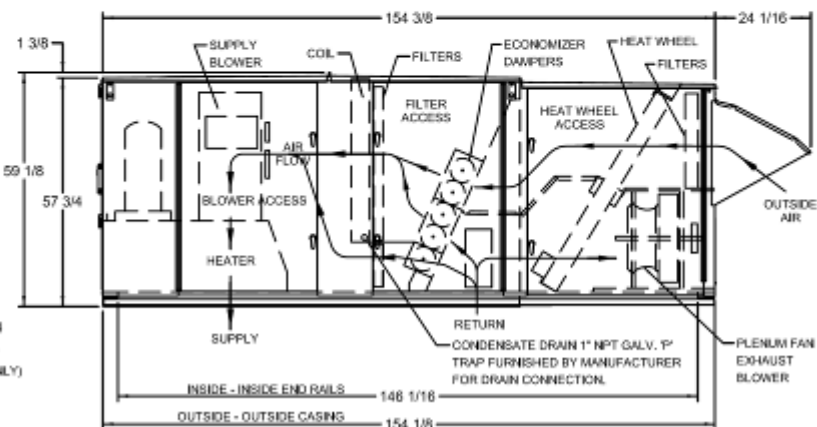
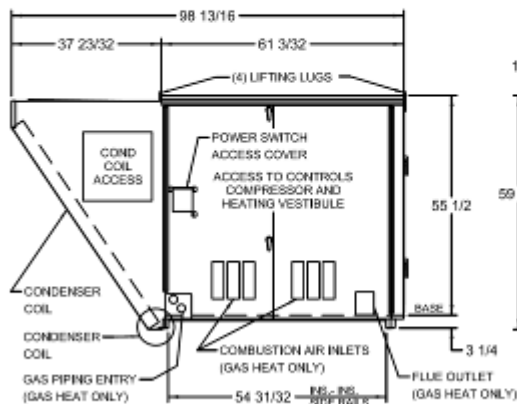
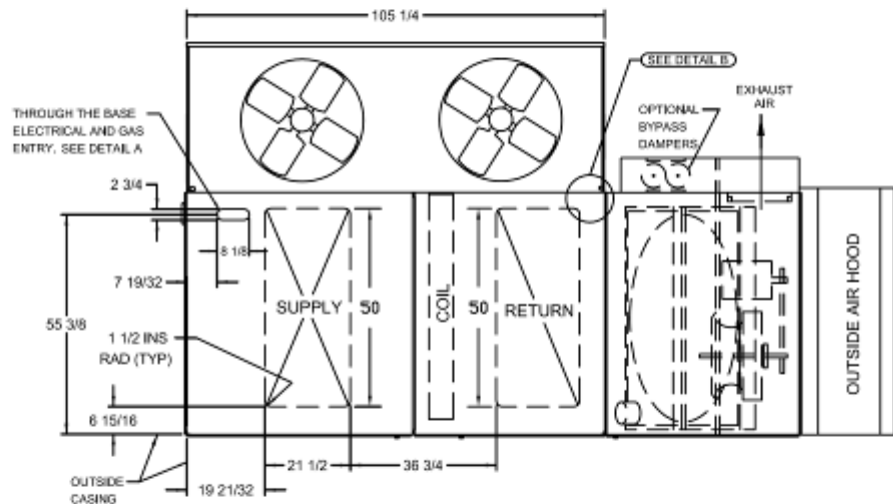
NUMBER OF CONDENSER FANS

16,18-20 TON - 2 FANS

25-30 TON - 3 FANS



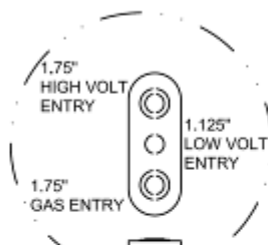
DETAIL C



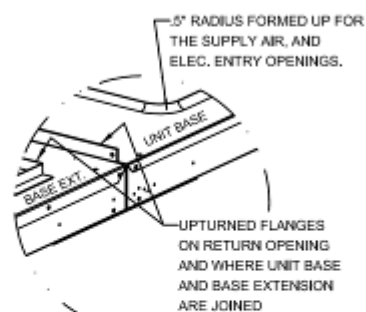
NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

C Cabinet (16-30 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Power Return Option

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	60
TOP	UNOBSTRUCTED



DETAIL A



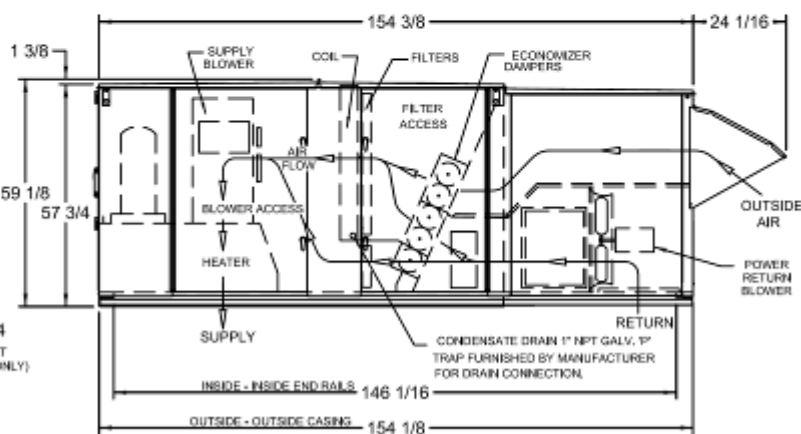
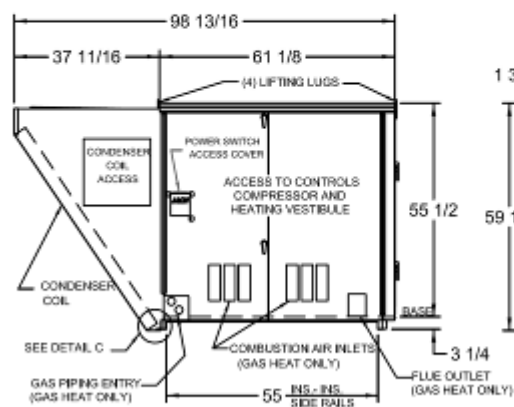
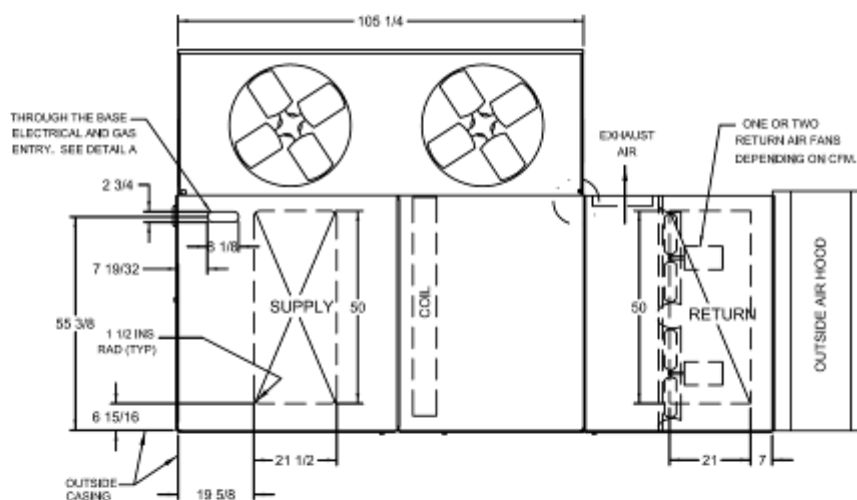
DETAIL B

NUMBER OF CONDENSER FANS

16,18-20 TON	- 2 FANS
25-30 TON	- 3 FANS



DETAIL C

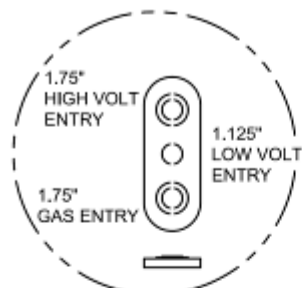


NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

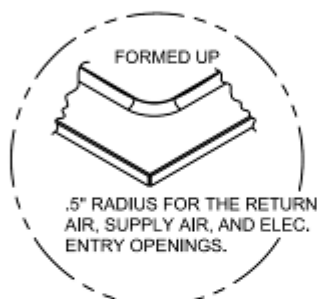
C Cabinet (16-30 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer and Return Air Bypass Power Exhaust Options

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

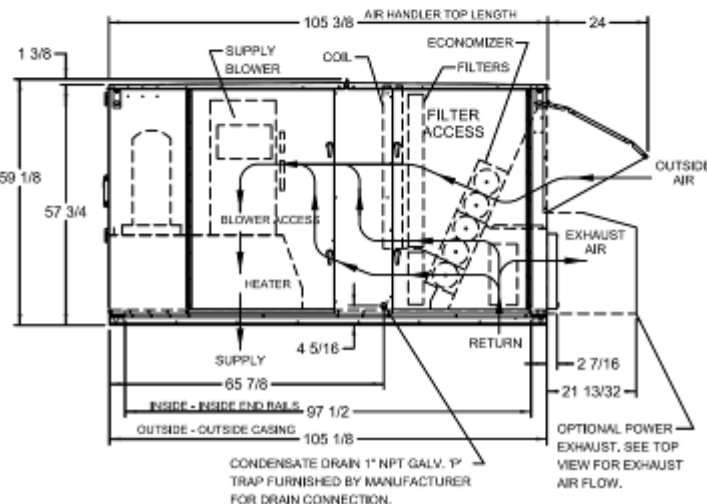
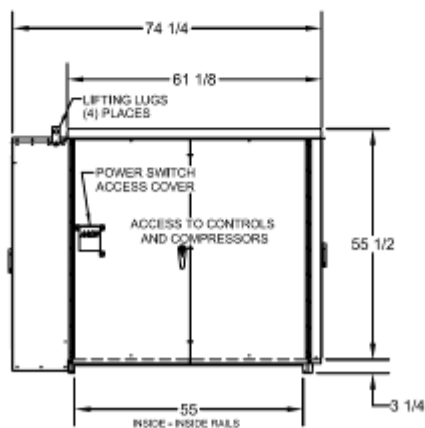
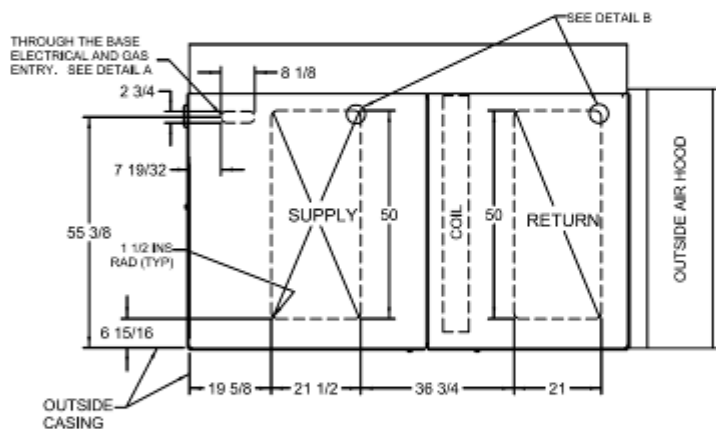
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 8"



DETAIL A



DETAIL B

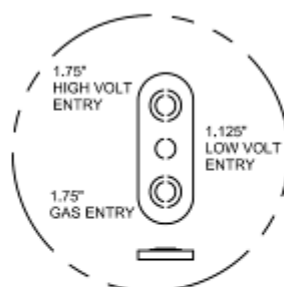


NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

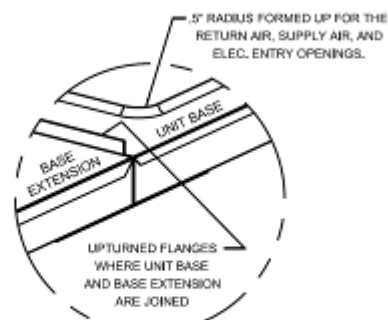
C Cabinet (16-30 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel Option

CLEARANCES	
LOCATION	• UNIT SIZE • 16 - 30 TON
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

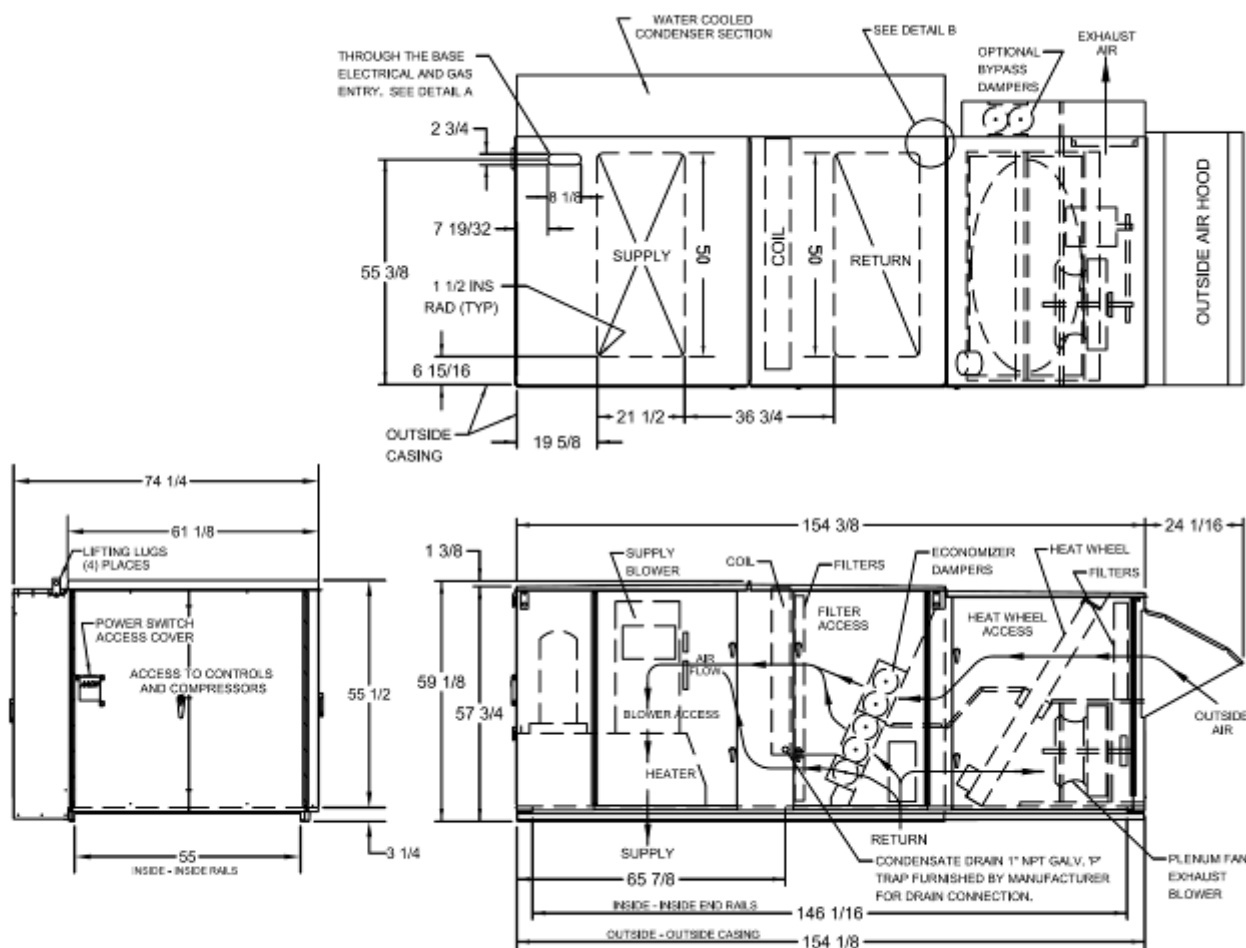
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



DETAIL A



DETAIL B

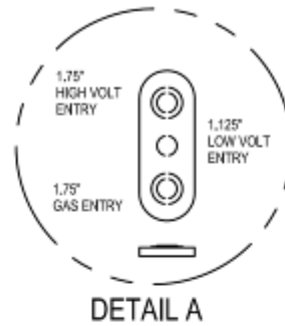


NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

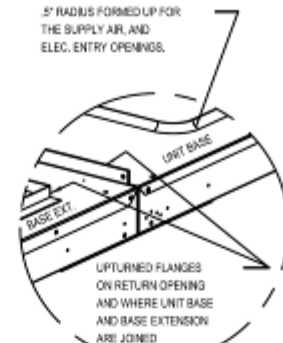
C Cabinet (16-30 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Power Return Option

CLEARANCES	
LOCATION	* UNIT SIZE *
RETURN AIR (BACK)	48
VENT SIDE (FRONT)	48
LEFT SIDE	48*
RIGHT SIDE	60
TOP	UNOBSTRUCTED

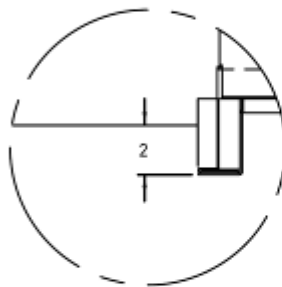
* FOR NON CHILL WATER OR WATER COOLED CONDENSER CLEARANCE IS 6"



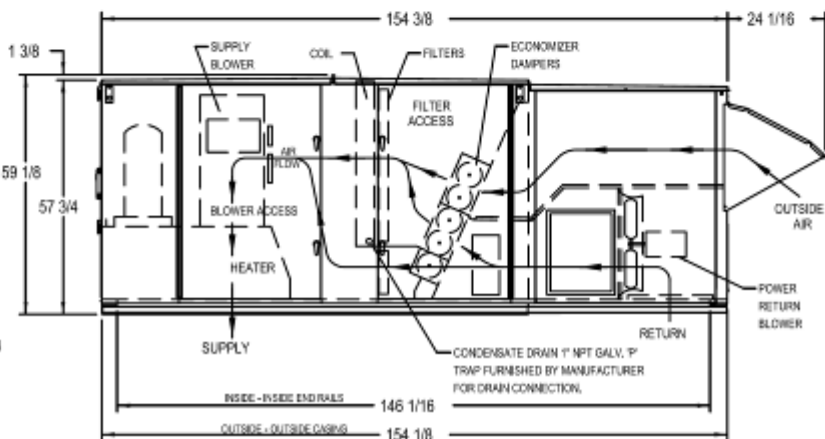
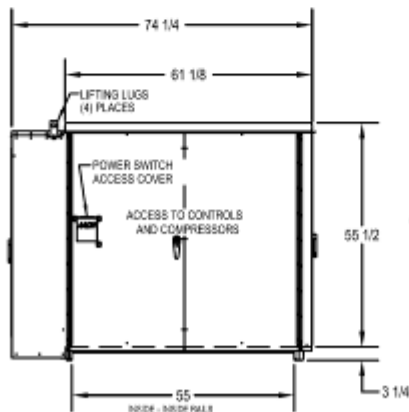
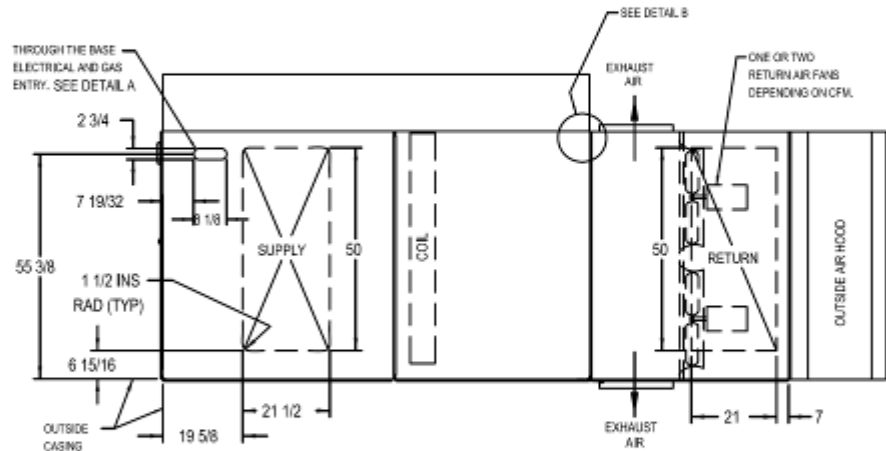
DETAIL A



DETAIL B

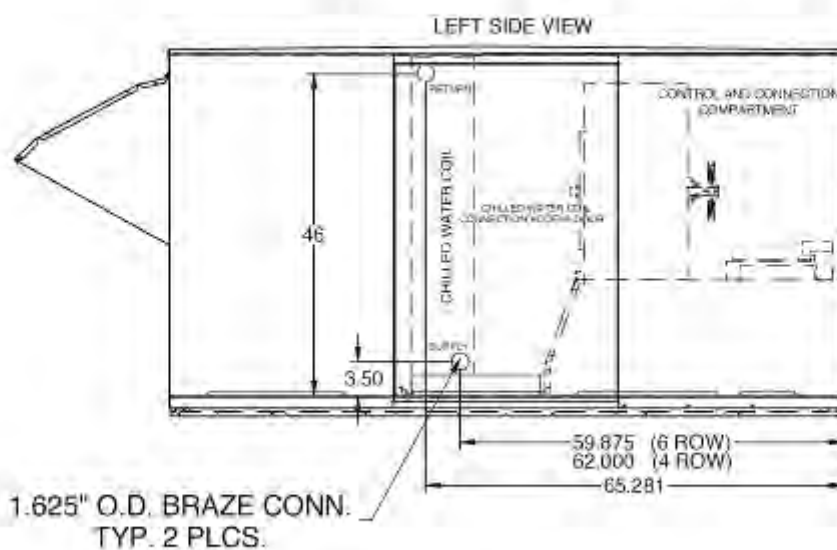
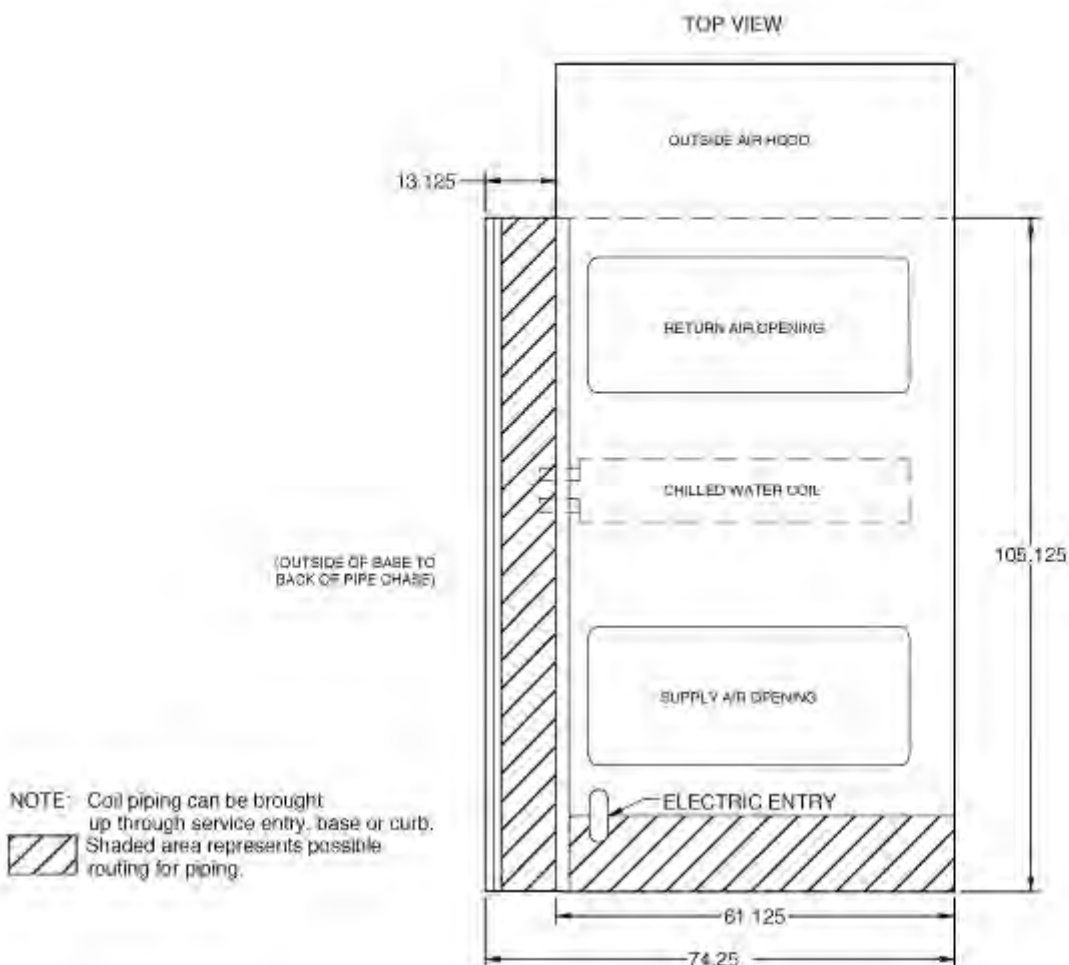


DETAIL C



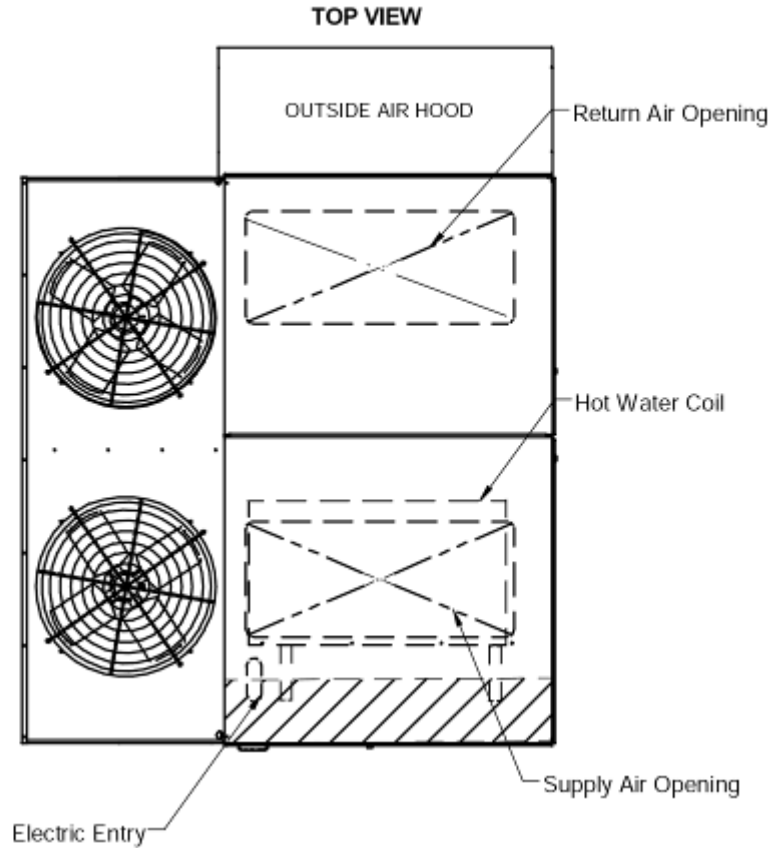
NOTE: ALL DIMENSIONS ARE OUTSIDE TO OUTSIDE UNLESS NOTED OTHERWISE.

C Cabinet (16-30 Tons) Chilled Water Cooling Coil Piping

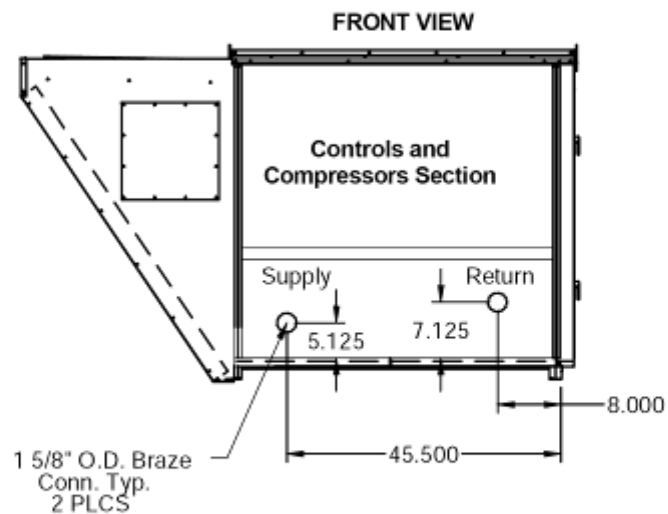


ALL DIMENSIONS SHOWN ARE IN INCHES
DIMENSIONS ARE FOR REFERENCE ONLY

C Cabinet (16-30 Tons) Hot Water Heating Coil Piping



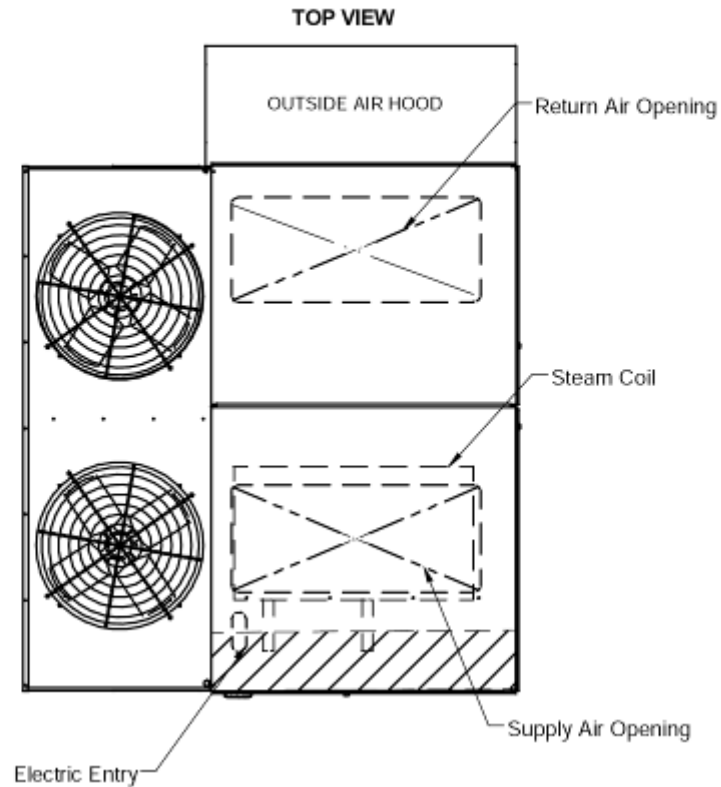
NOTE: COIL IS SLOPED TO THE HEADER SIDE



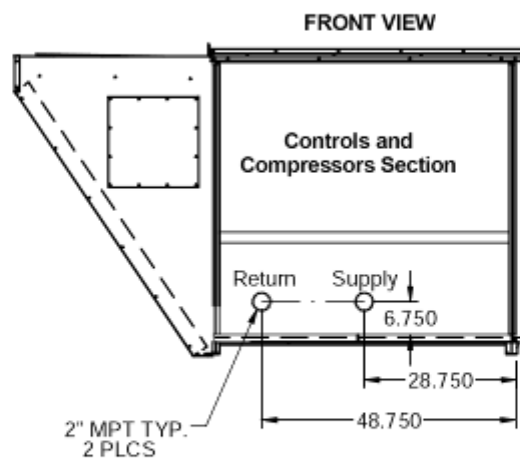
NOTE: Coil piping can be brought up through the service entry.
 Shaded area represents possible routing for piping.

**All Dimensions Shown Are in Inches
 Dimensions Are For Reference Only**

C Cabinet (16-30 Tons) Steam Heating Coil Piping



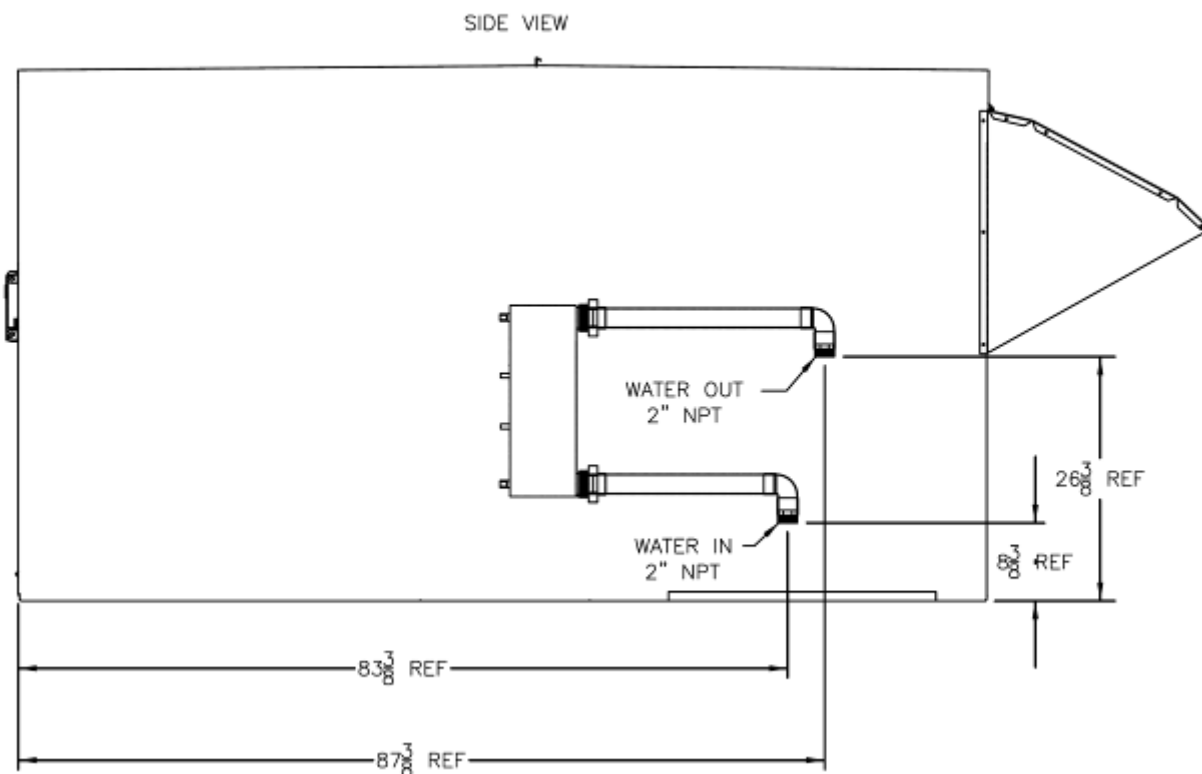
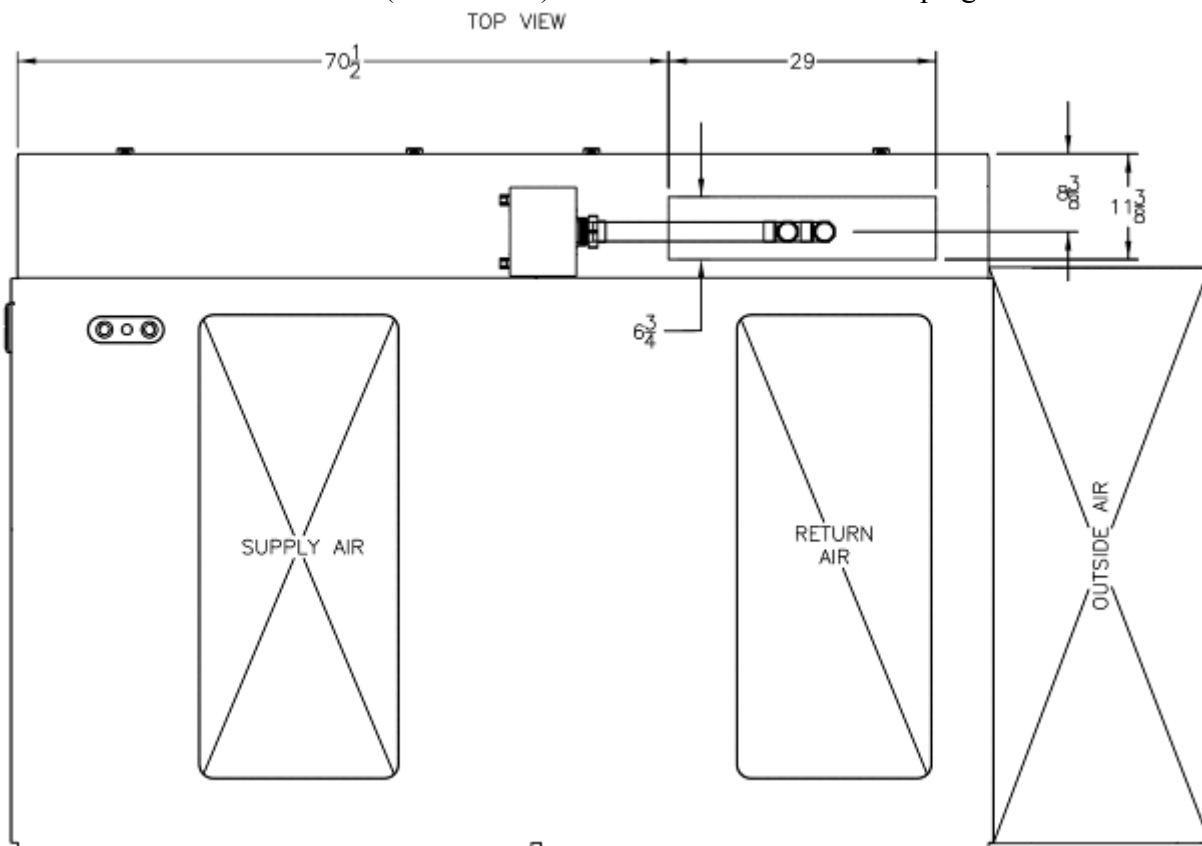
NOTE: COIL IS SLOPED TO THE HEADER SIDE



NOTE: Coil piping can be brought up through the service entry.
Shaded area represents possible routing for piping.

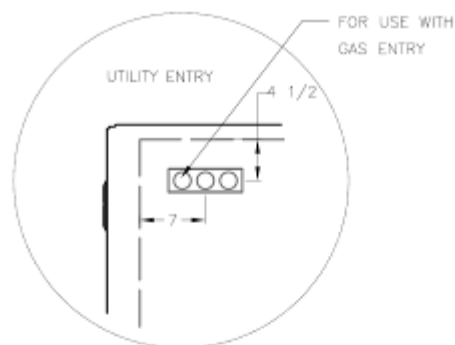
**All Dimensions Shown Are in Inches
Dimensions Are For Reference Only**

C Cabinet (16-30 Tons) Water-Cooled Condenser Piping

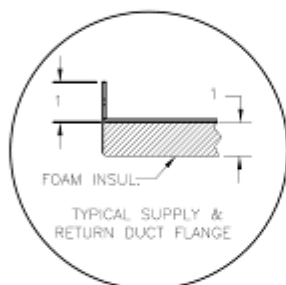


D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit

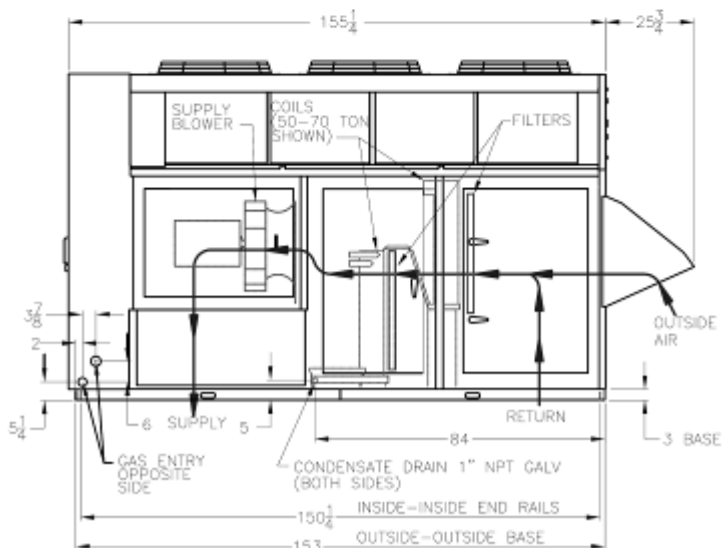
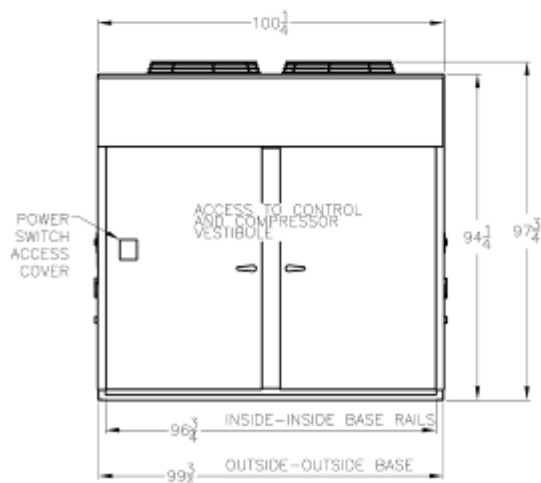
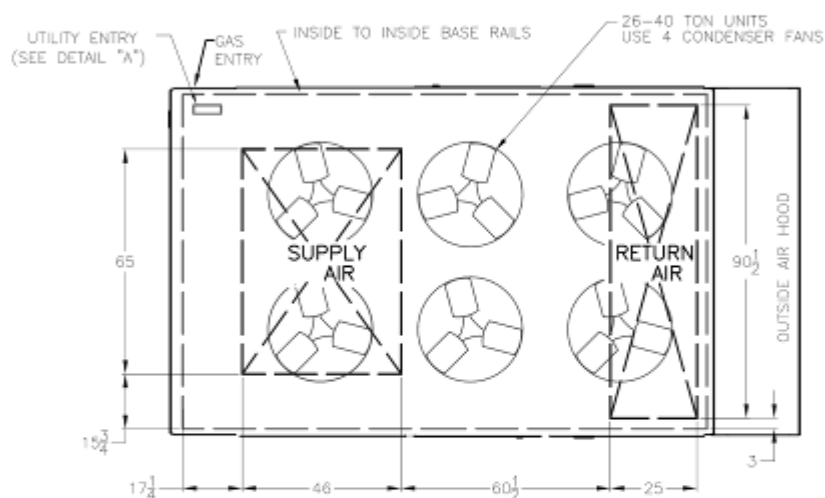
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



DETAIL A



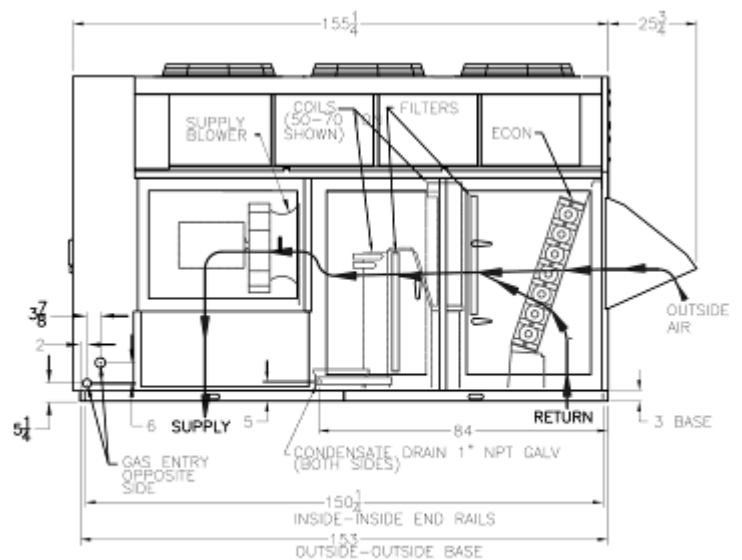
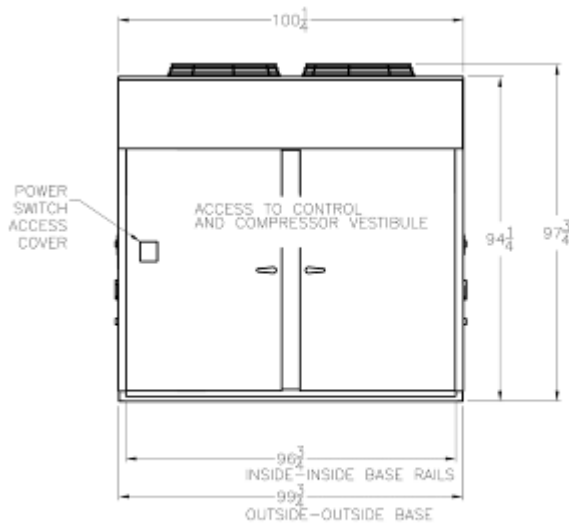
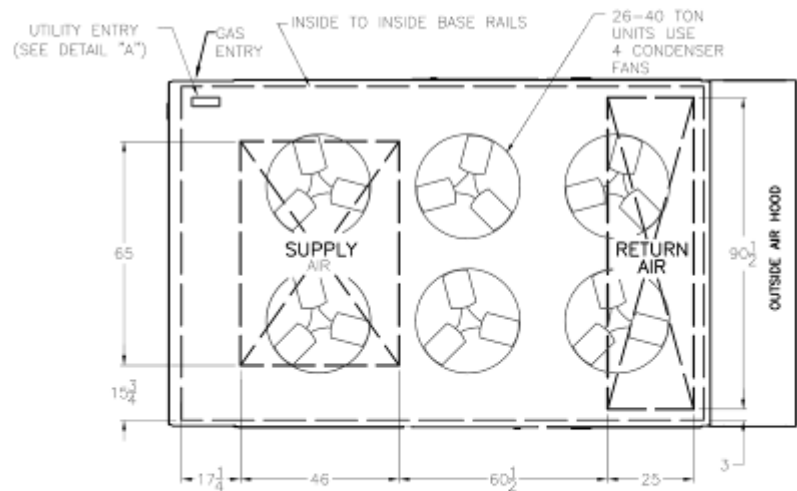
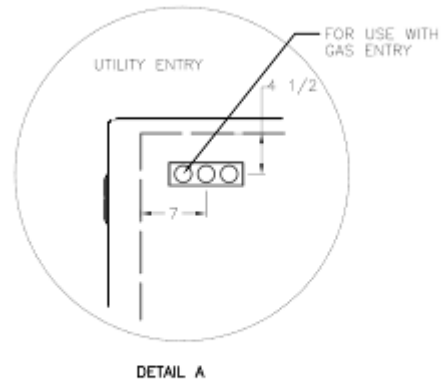
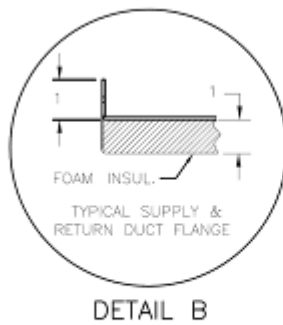
DETAIL B



ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Economizer Option

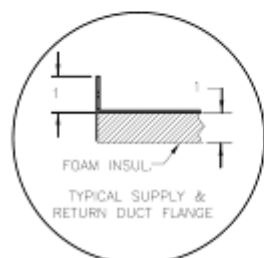
CLEARANCES	
LOCATION	UNIT SIZE 26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



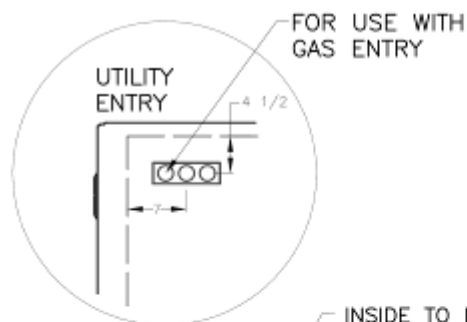
ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Power Exhaust Option

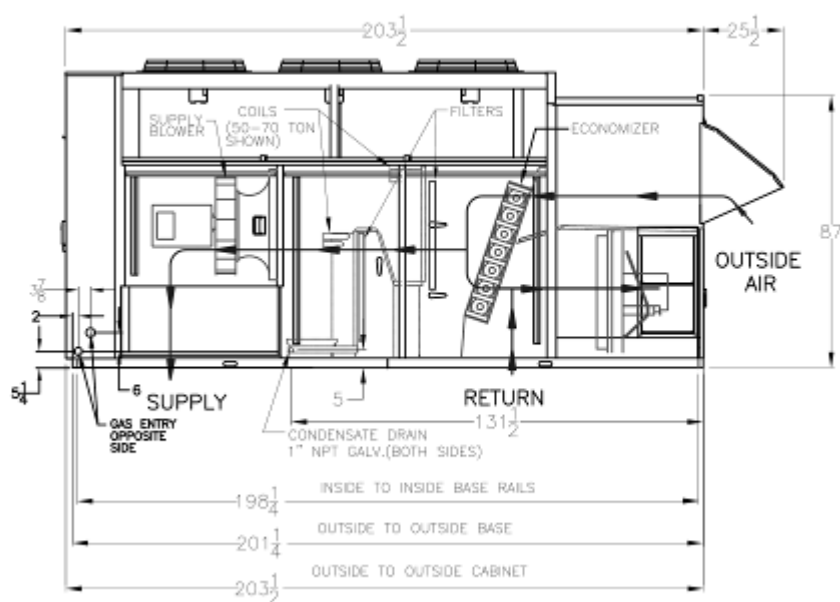
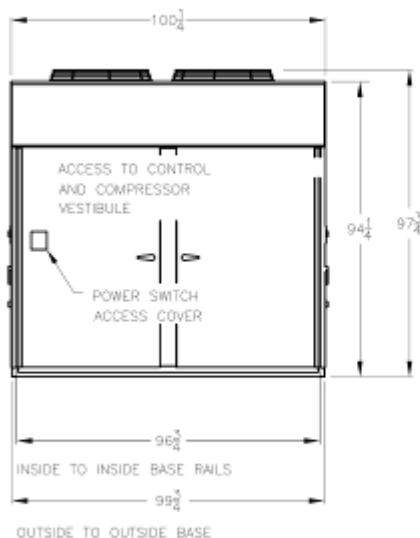
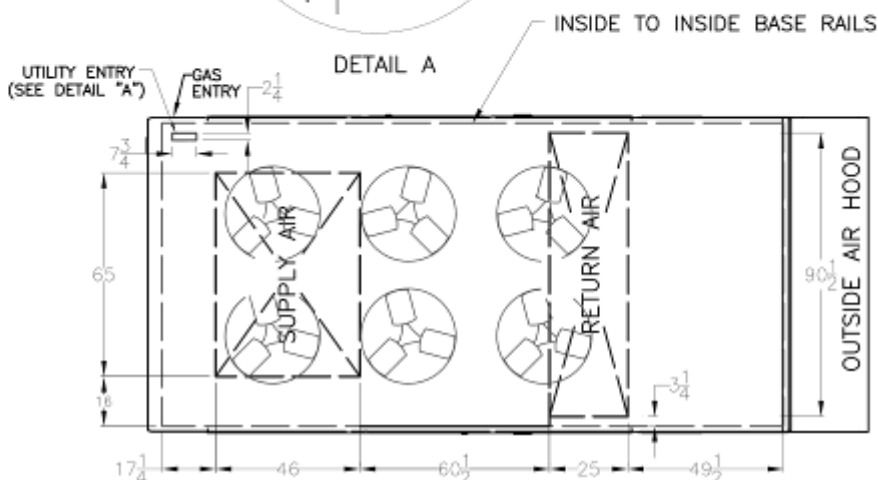
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



DETAIL B



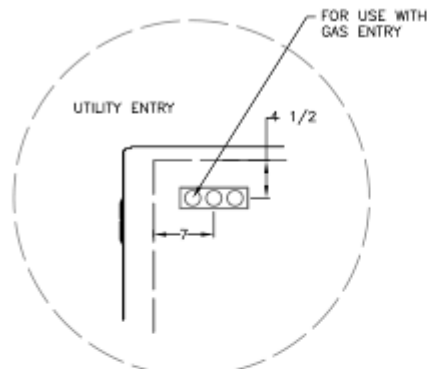
DETAIL A



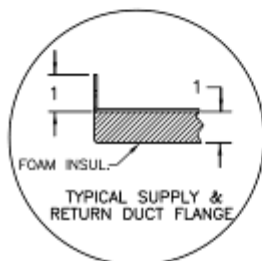
ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Energy Recovery Wheel Option

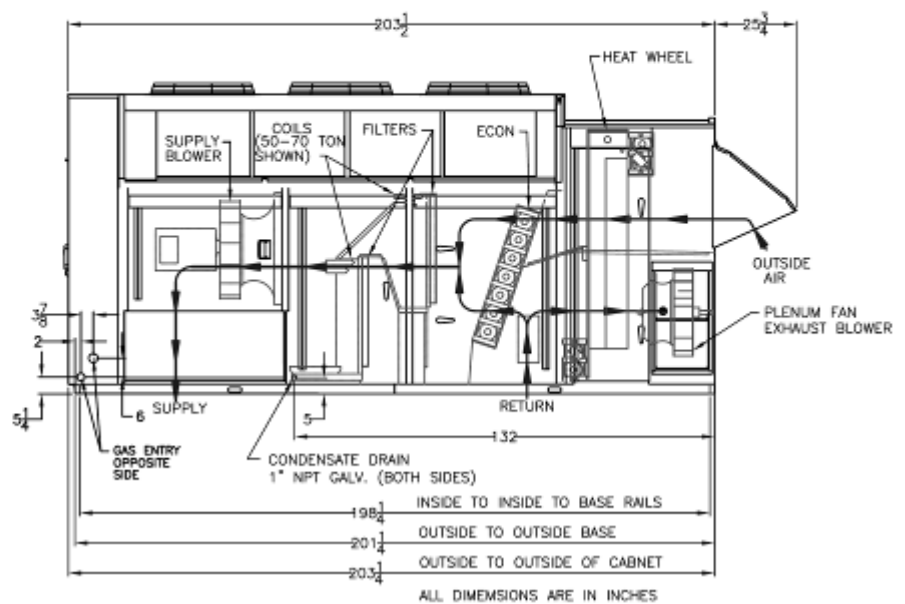
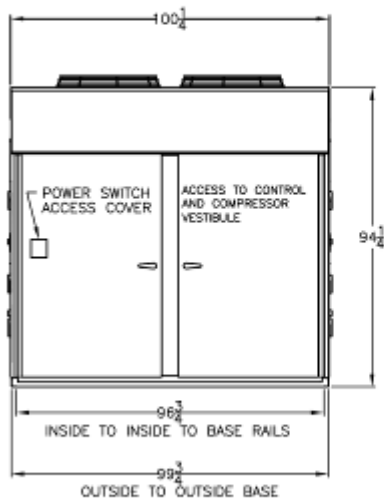
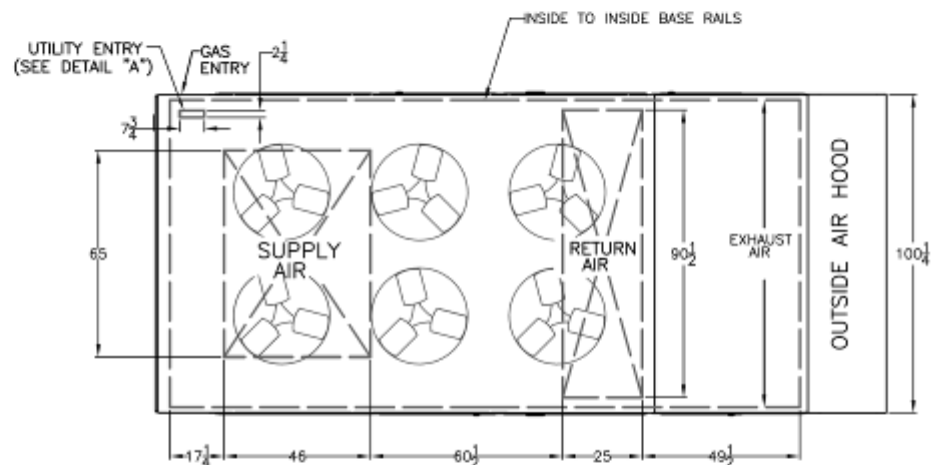
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



DETAIL A



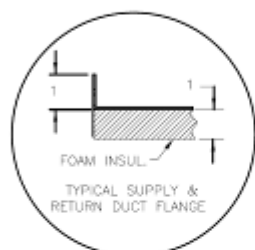
DETAIL B



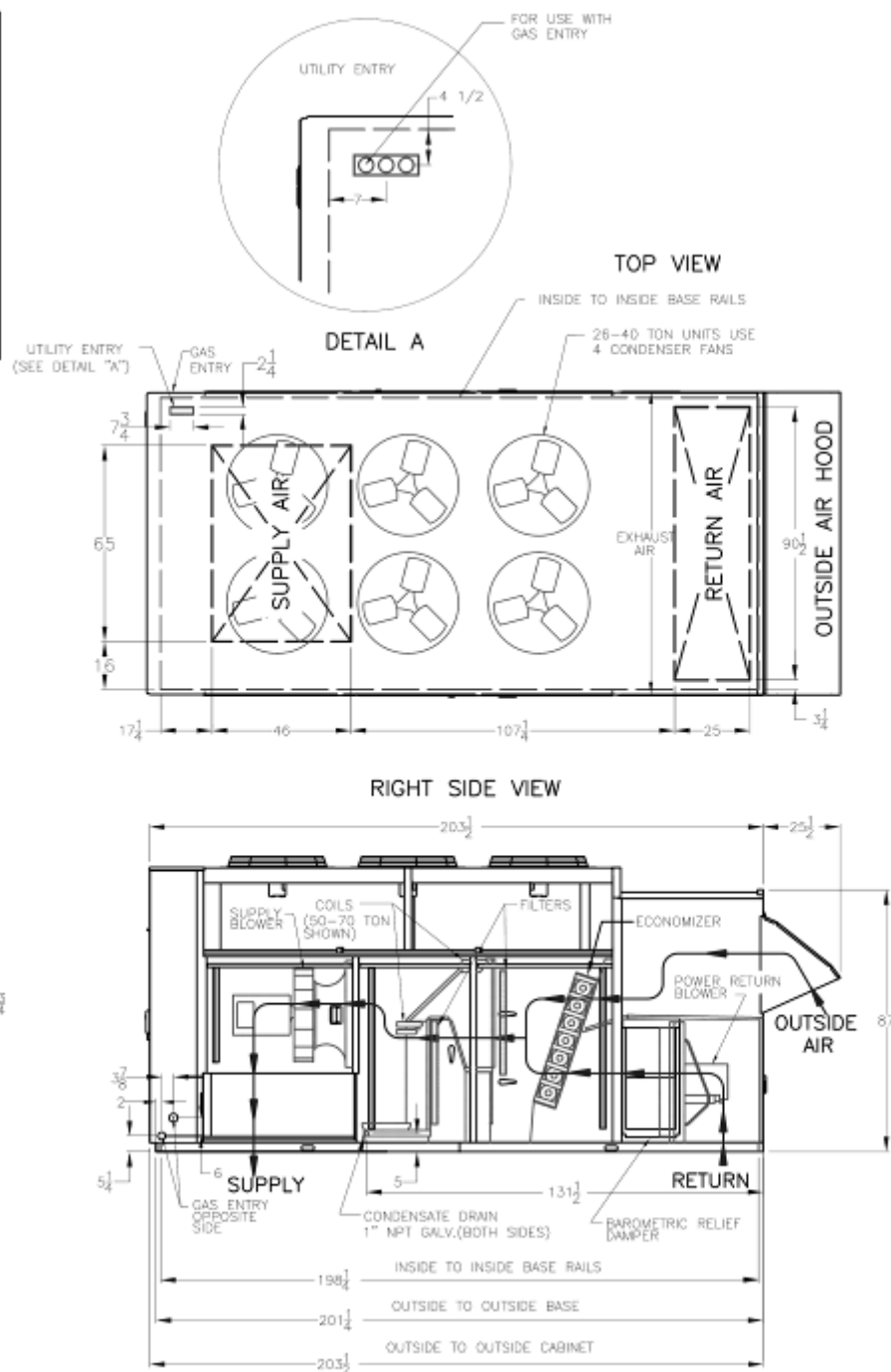
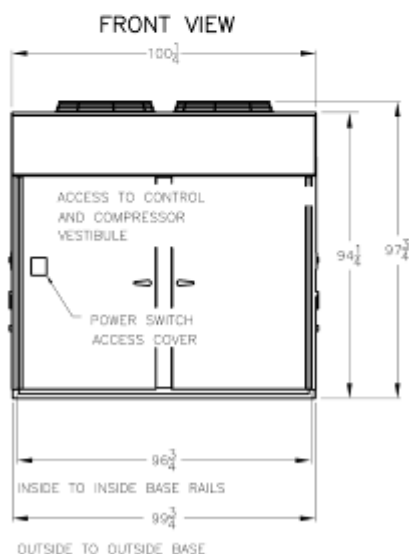
ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Power Return Option

CLEARANCES	
LOCATION	UNIT SIZE
26-70 TON	
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



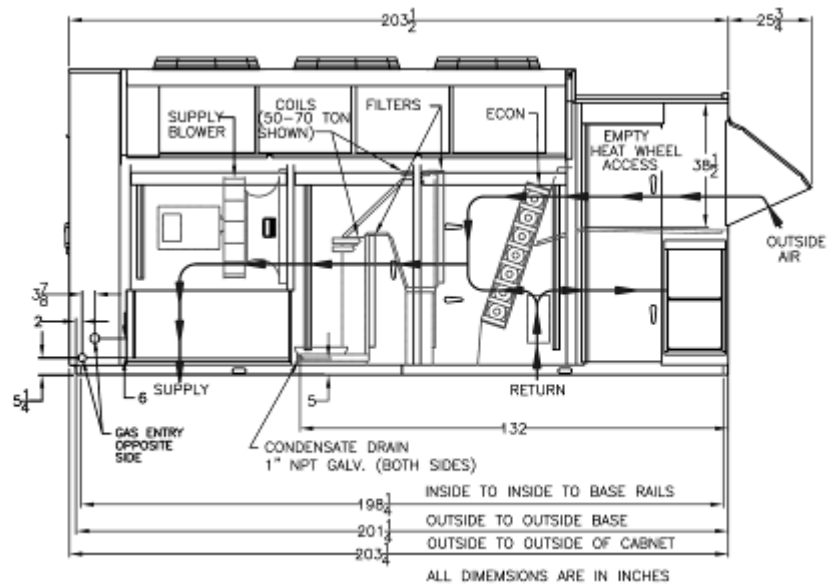
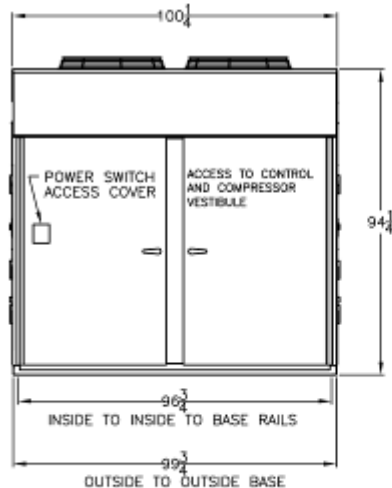
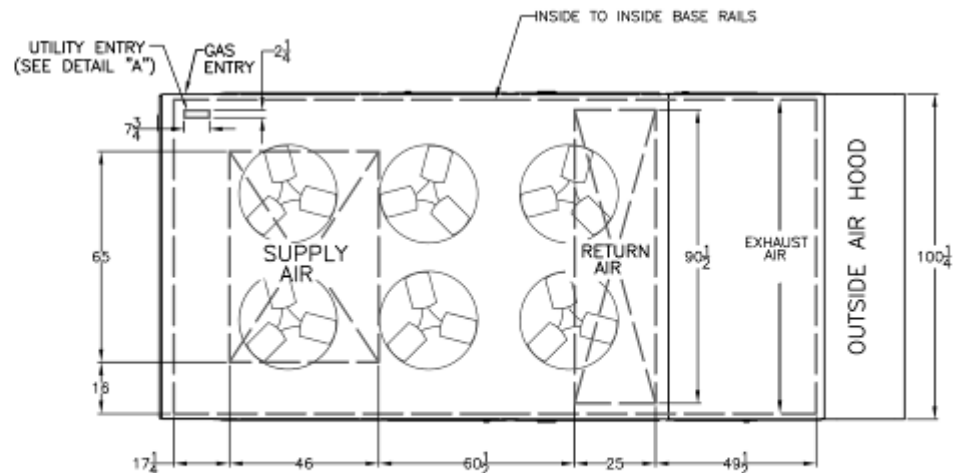
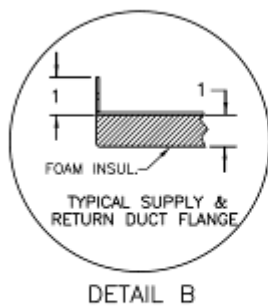
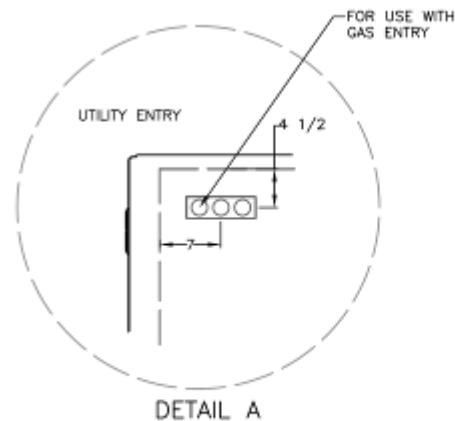
DETAIL B



ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel Option Box

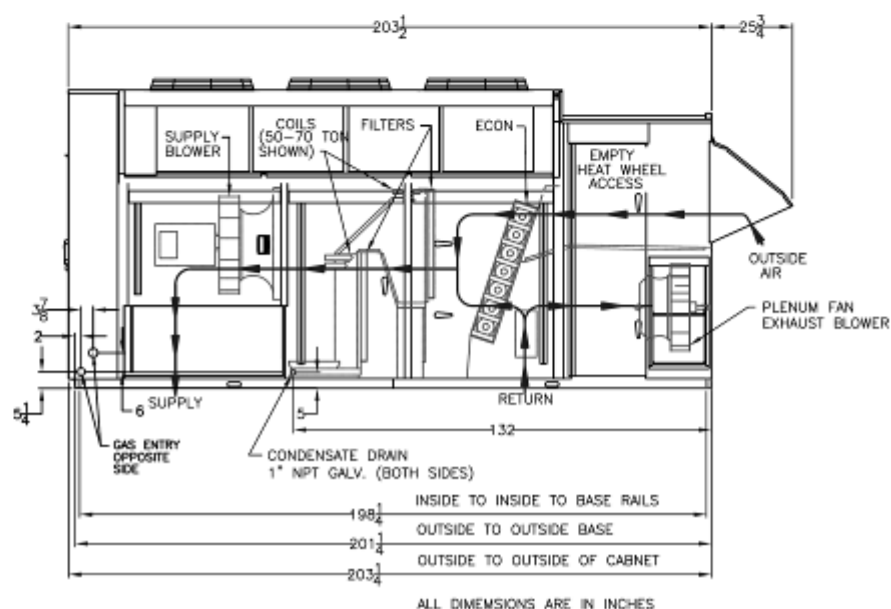
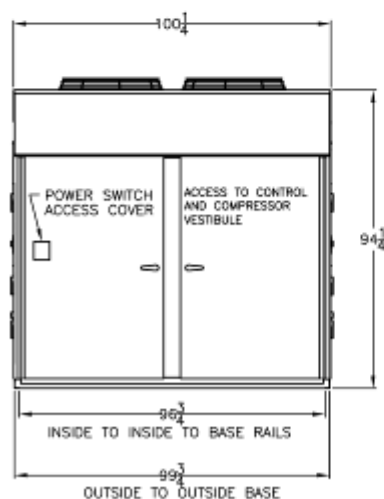
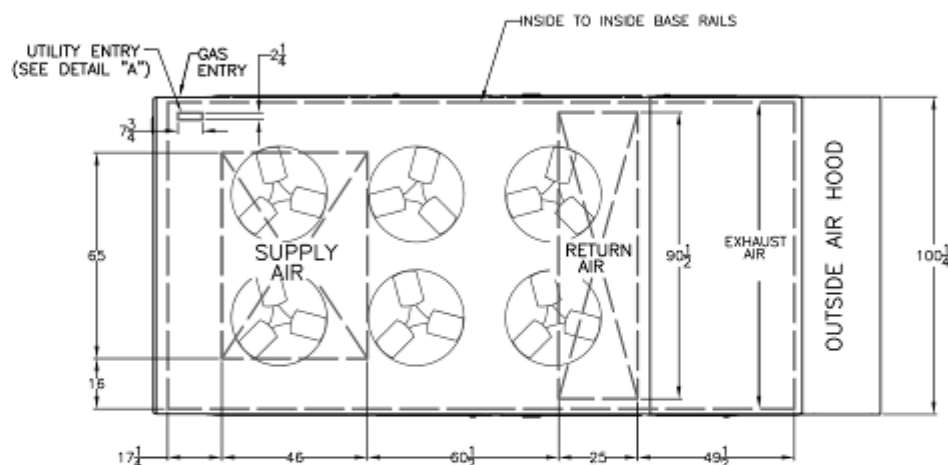
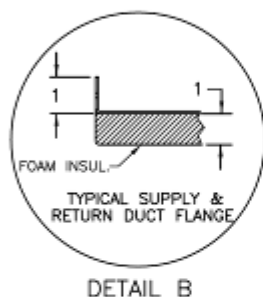
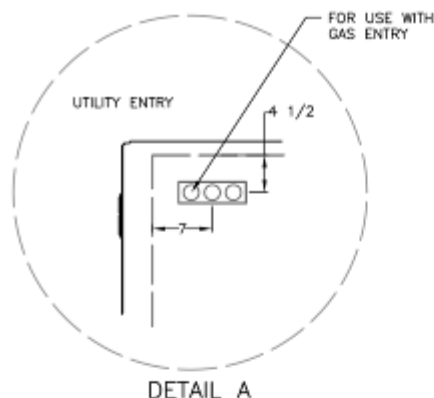
CLEARANCES	
LOCATION	UNIT SIZE 26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel Option Box with Power Exhaust

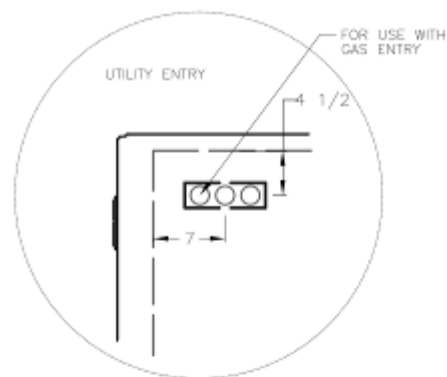
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED

NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)

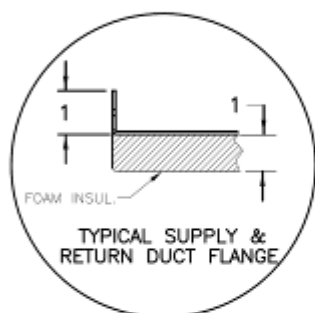


D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit

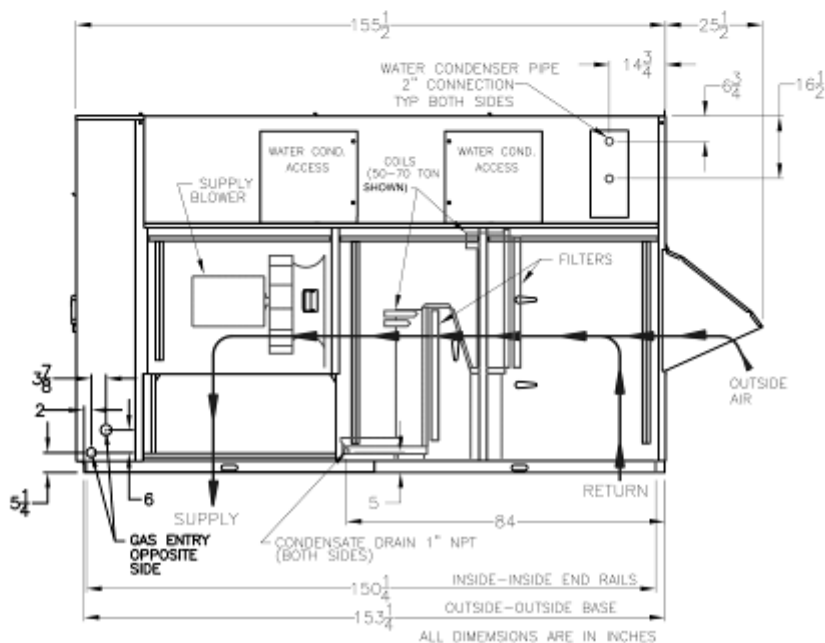
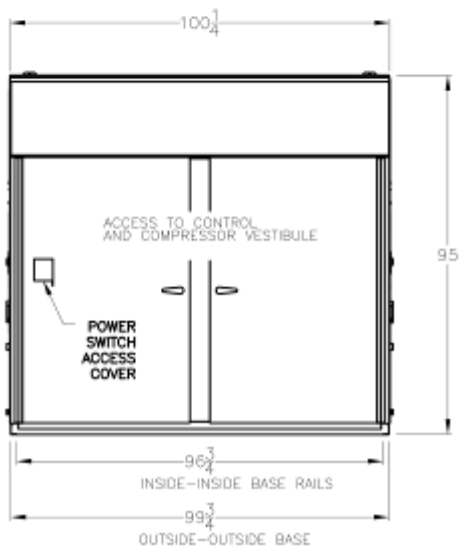
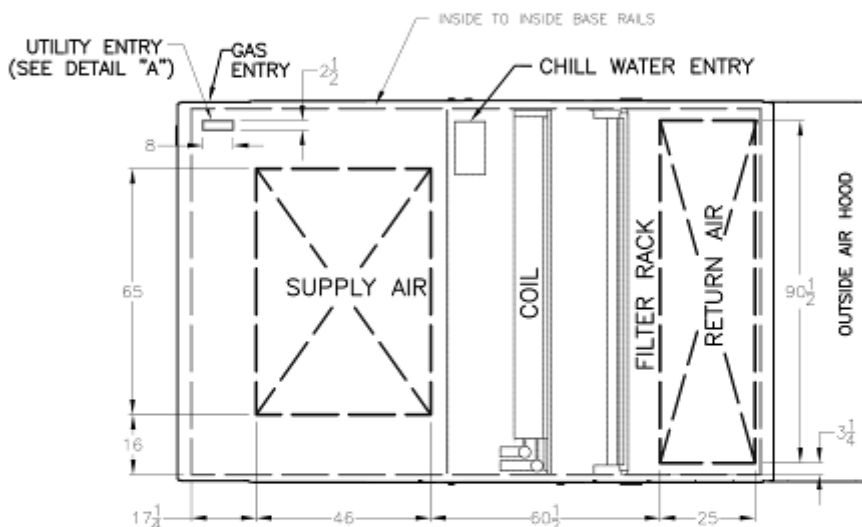
CLEARANCES	
LOCATION	UNIT SIZE 26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



DETAIL A

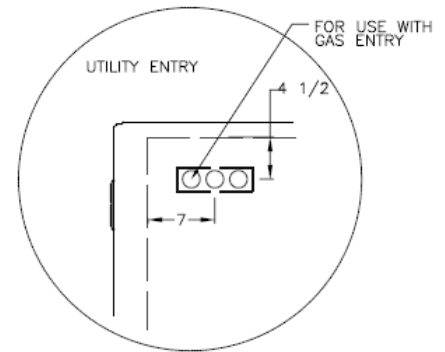


DETAIL B

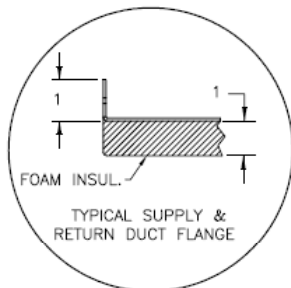


D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Economizer Option

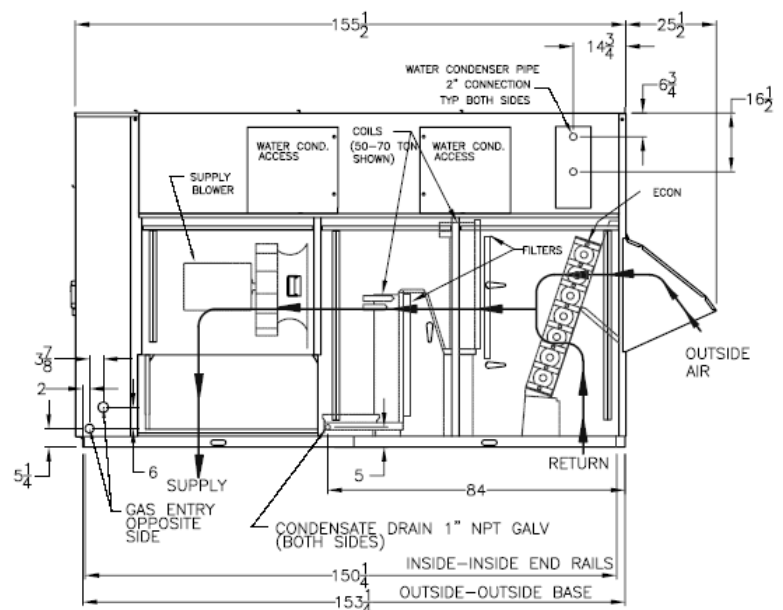
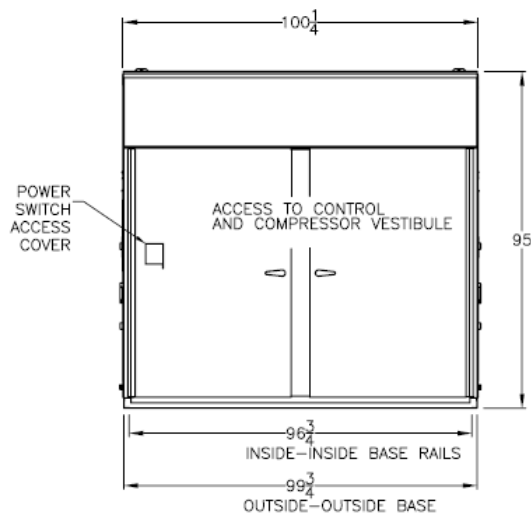
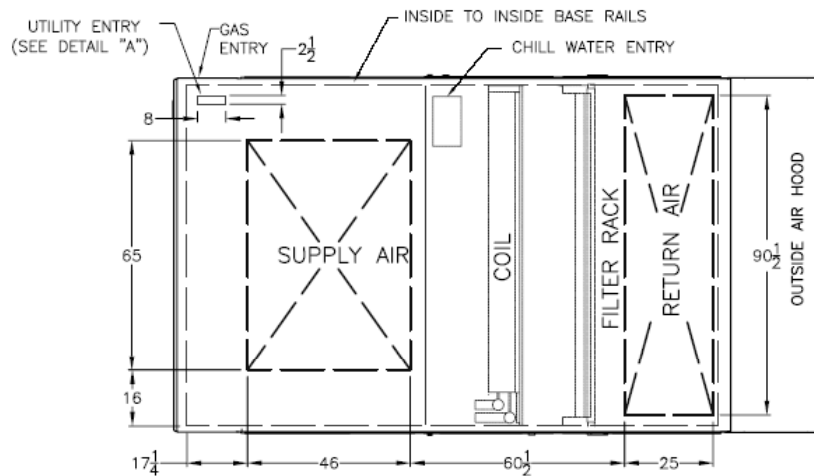
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



DETAIL A



DETAIL B

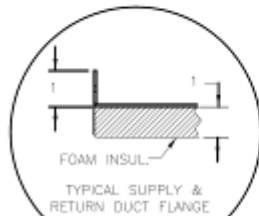


ALL DIMENSIONS ARE IN INCHES

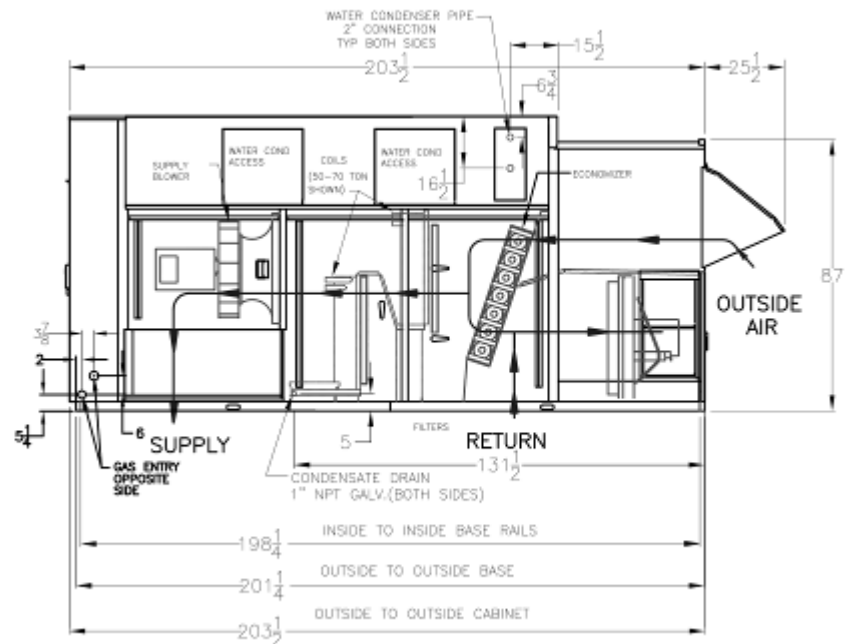
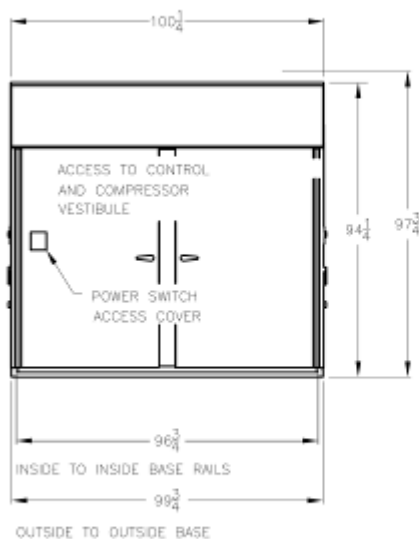
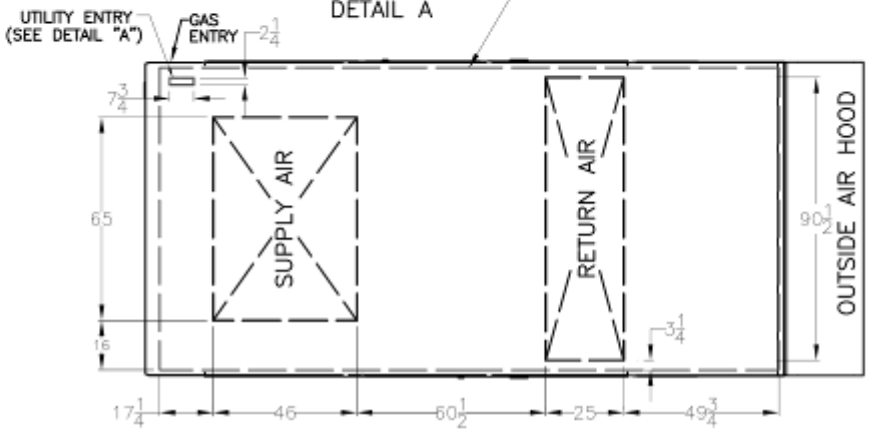
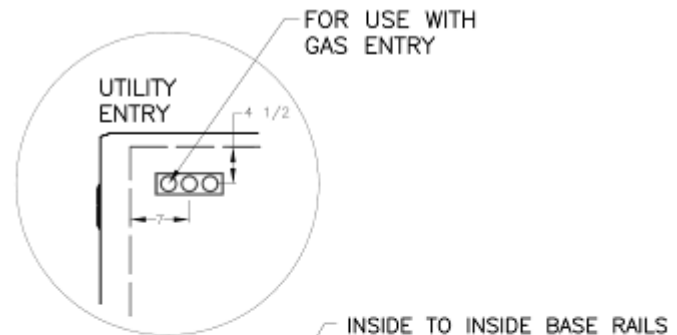
D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Power Exhaust Option

CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED

NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)



DETAIL B

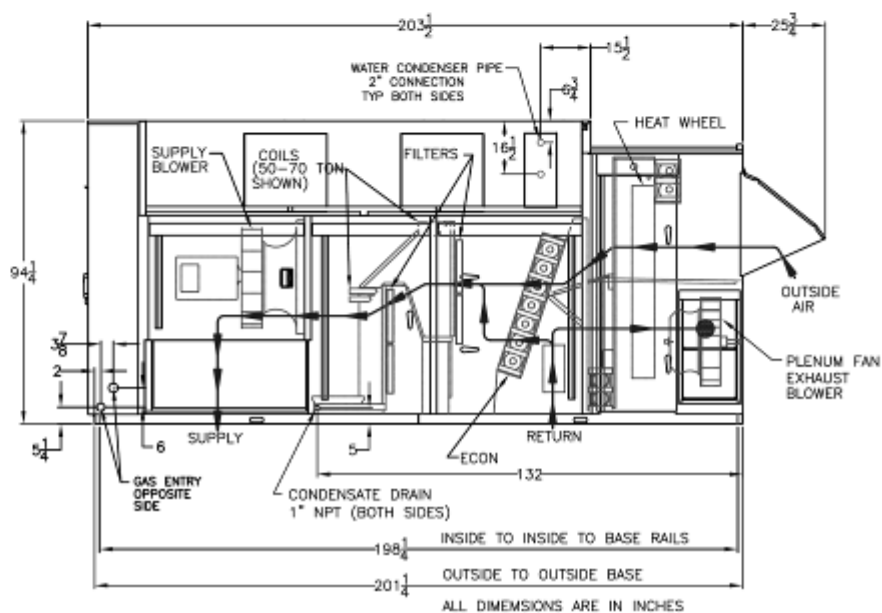
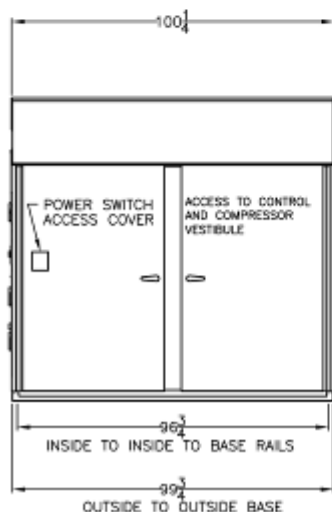
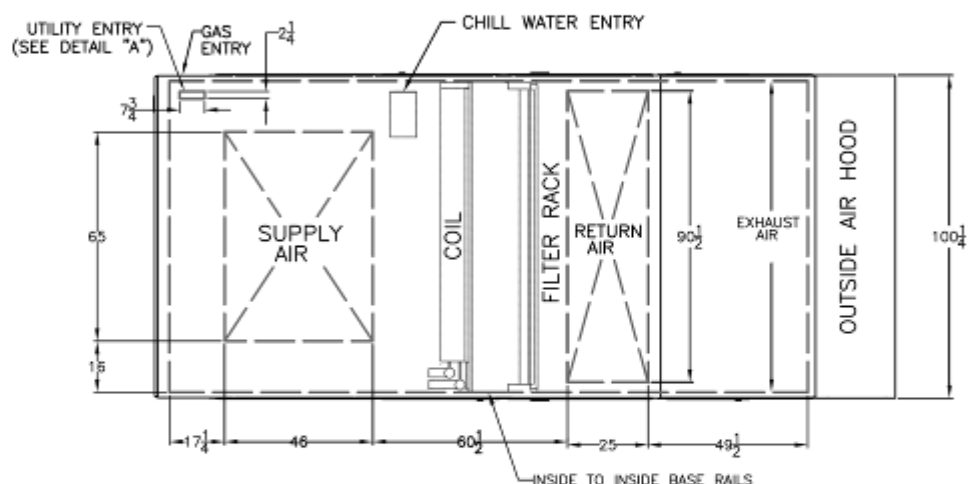
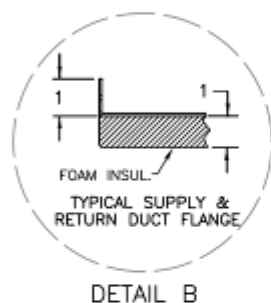
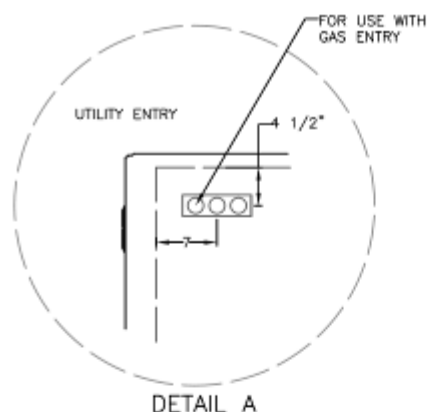


ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Energy Recovery Wheel Option

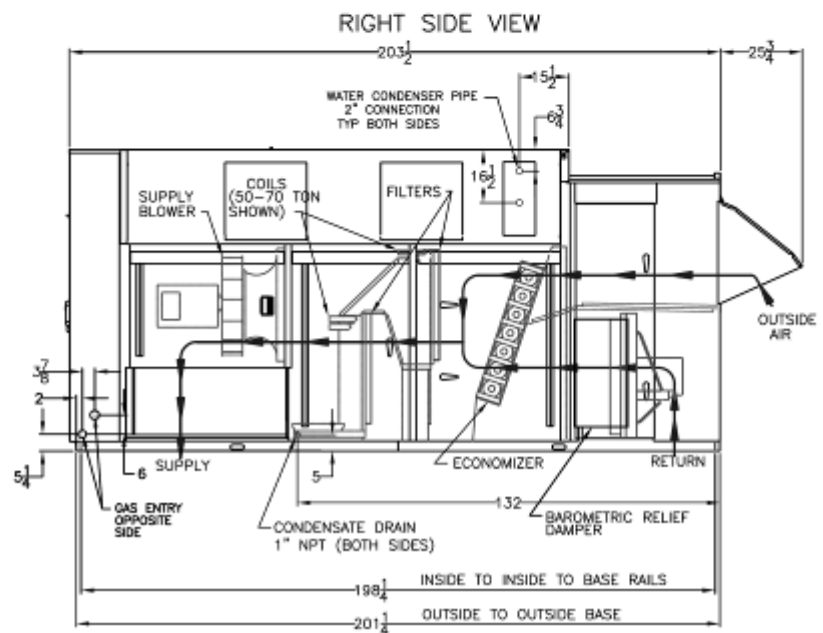
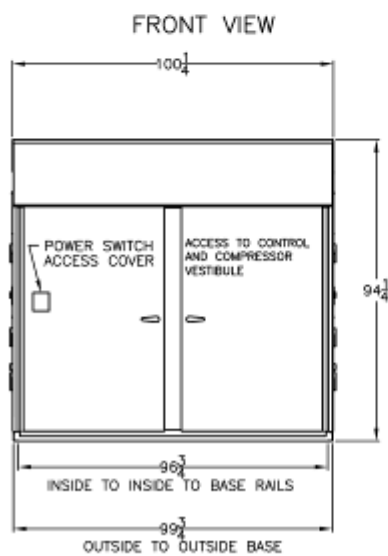
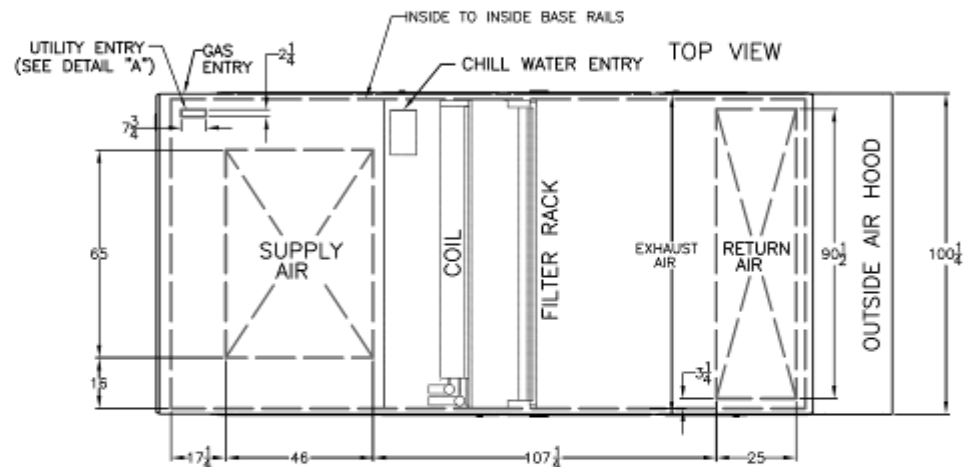
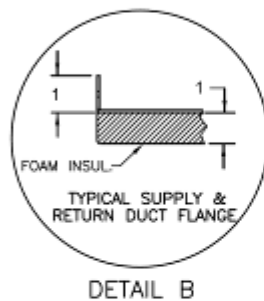
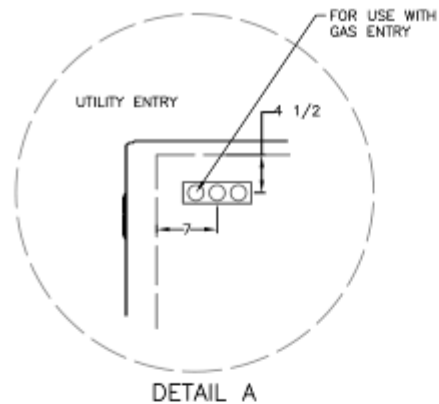
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED

NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)



D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Power Return Option

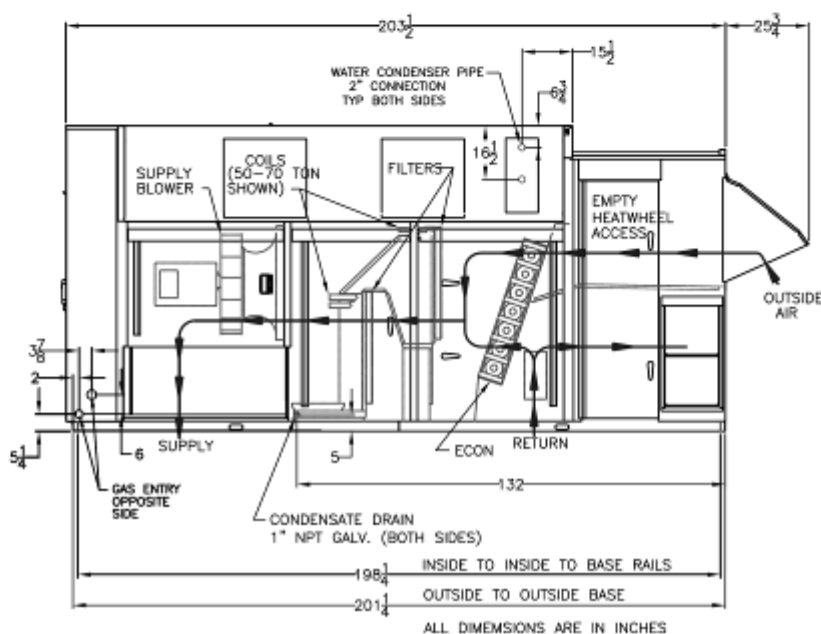
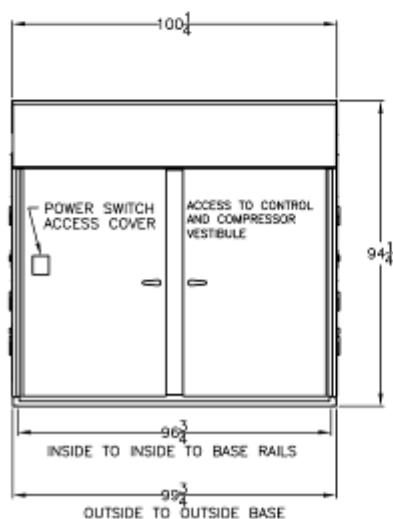
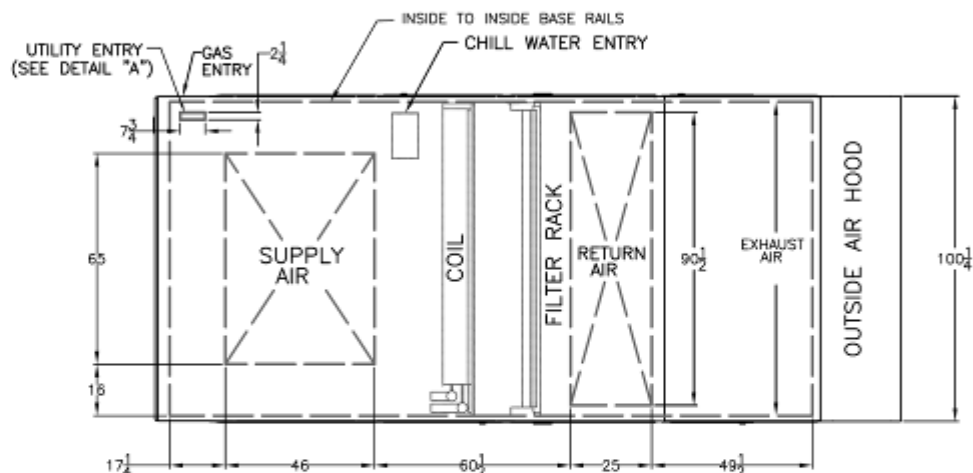
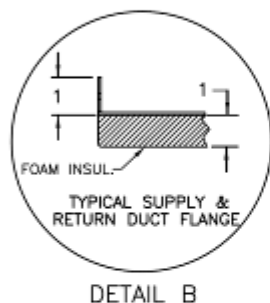
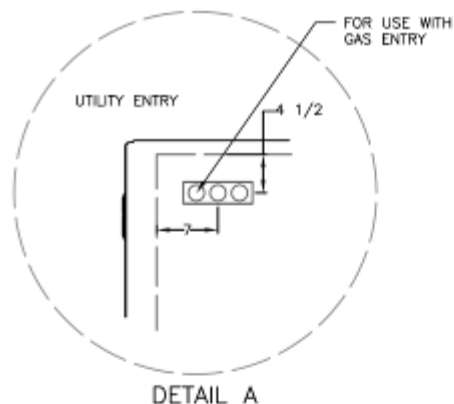
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



ALL DIMENSIONS ARE IN INCHES

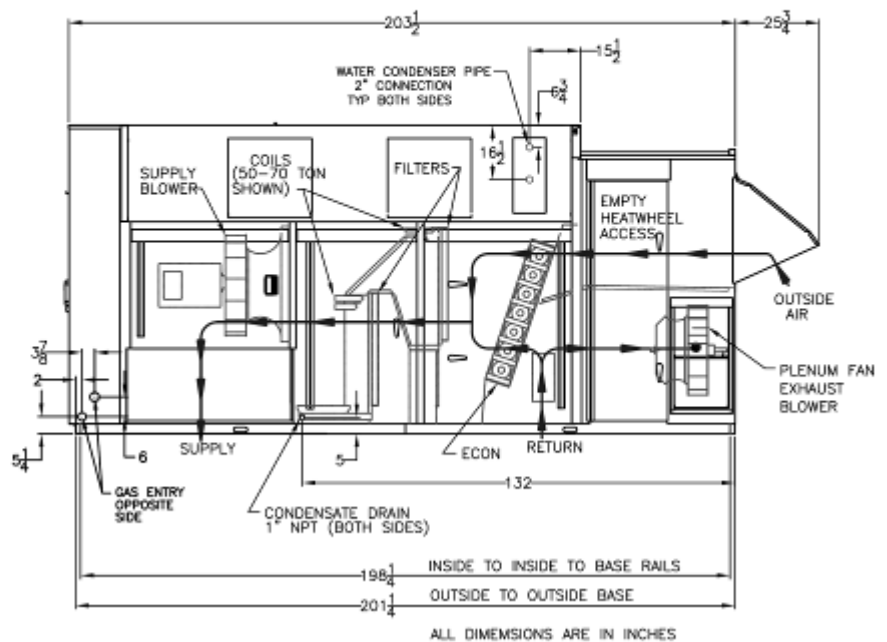
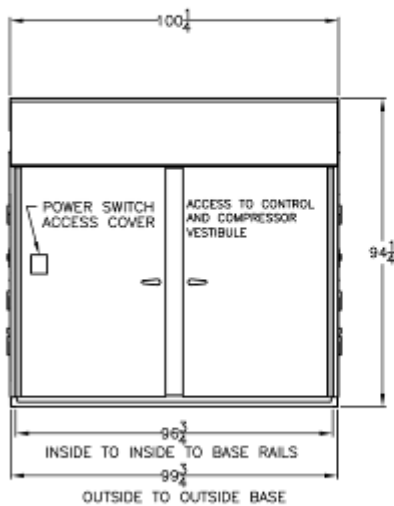
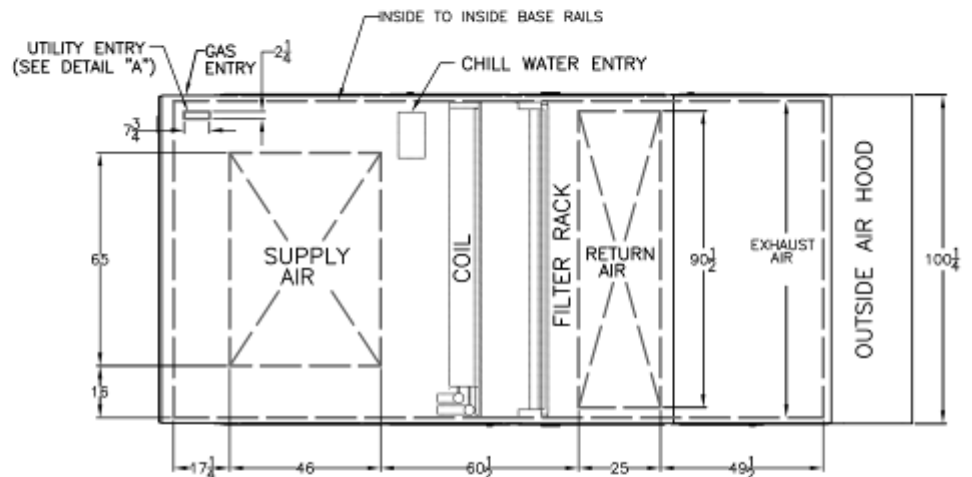
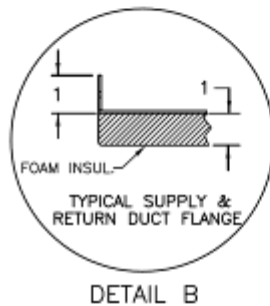
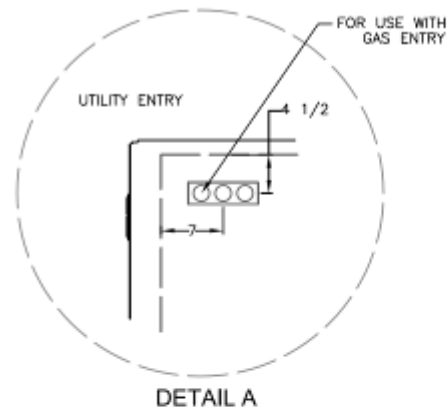
D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel Option Box

CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Empty Energy Recovery Wheel Option Box with Power Exhaust

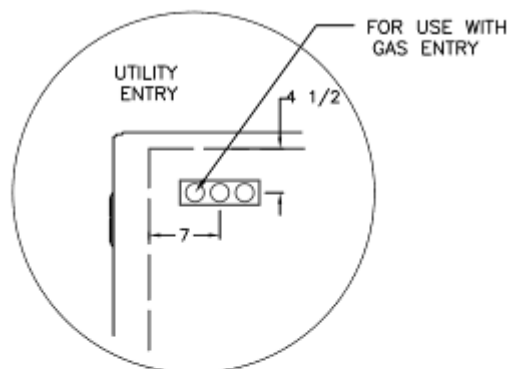
CLEARANCES	
LOCATION	UNIT SIZE 26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



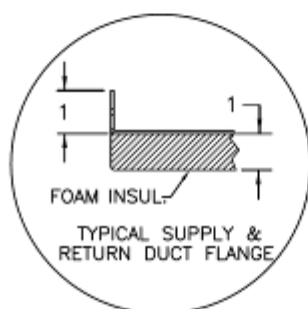
D Cabinet (26-70 Tons) Air Handler

CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	

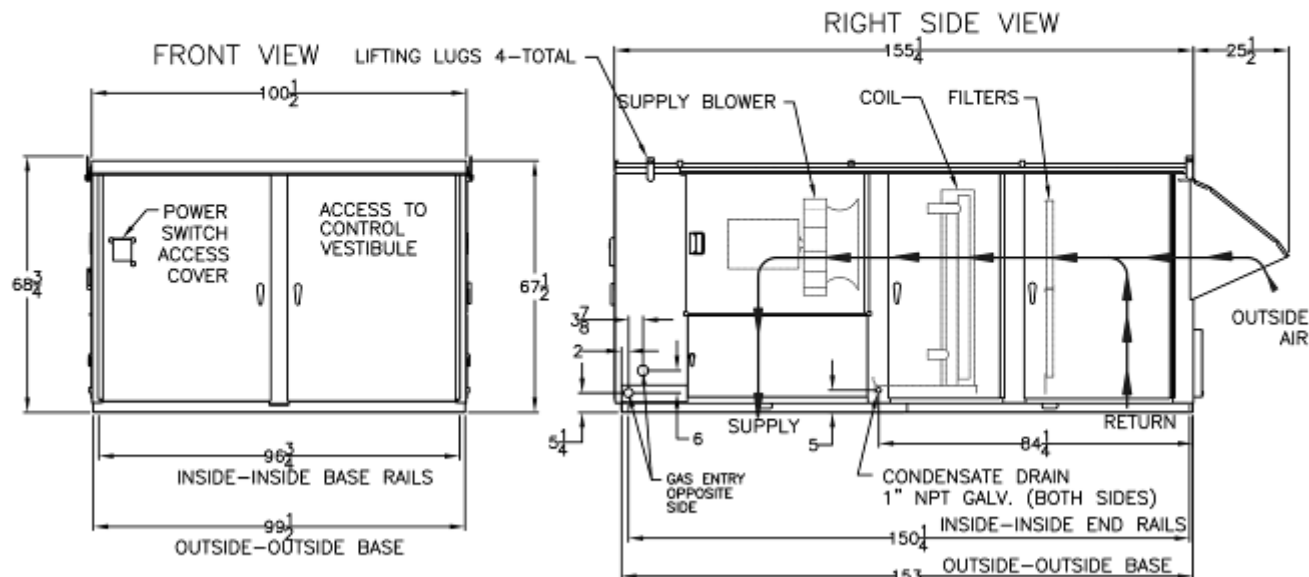
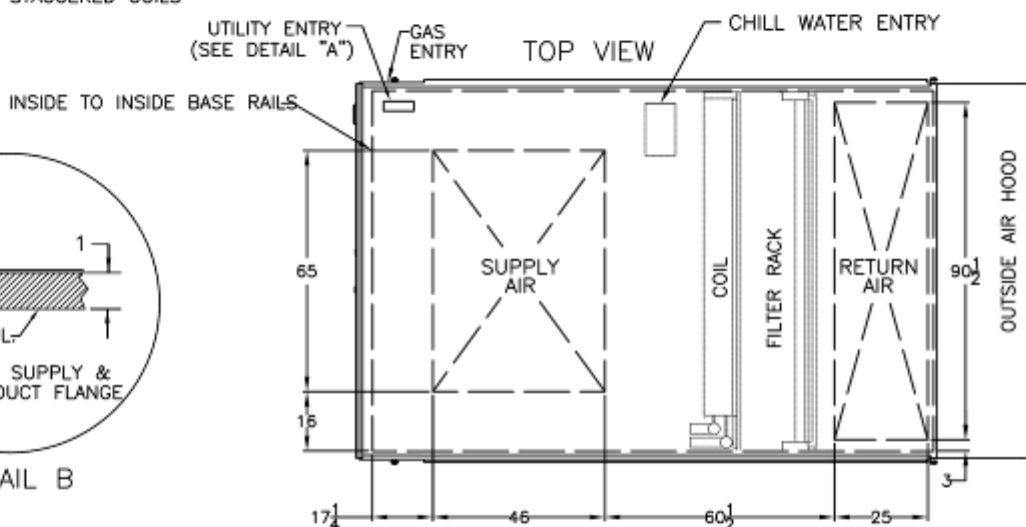
NOTE: 50-70 TON CHILLED WATER UNITS HAVE 2 STAGGERED COILS



DETAIL A



DETAIL B

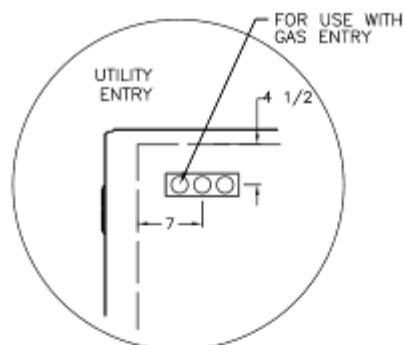


ALL DIMENSIONS ARE IN INCHES

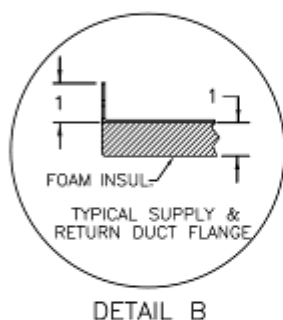
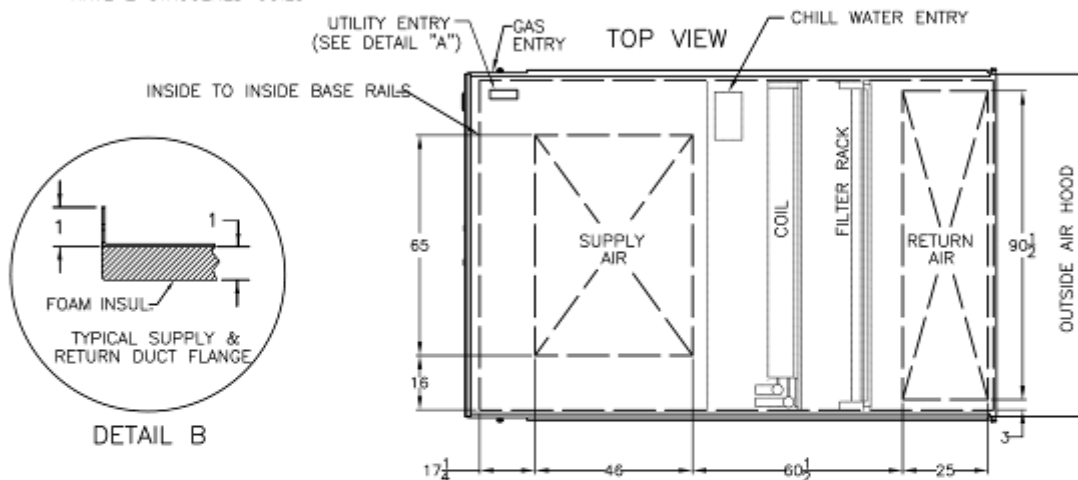
D Cabinet (26-70 Tons) Air Handler Economizer Option

CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	

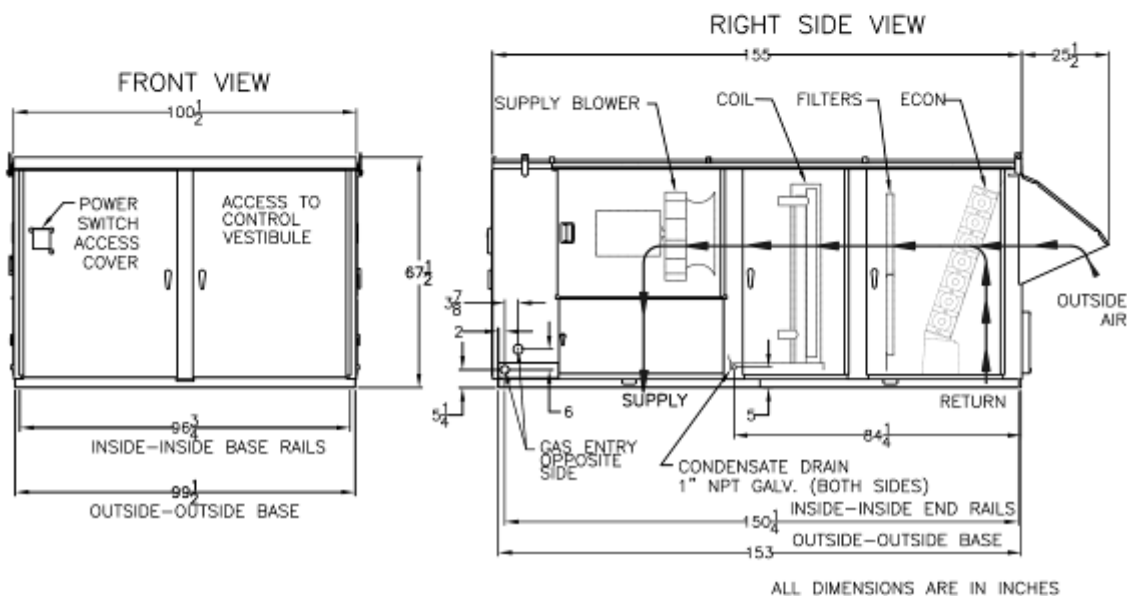
NOTE: 50-70 TON CHILLED WATER UNITS HAVE 2 STAGGERED COILS



DETAIL A



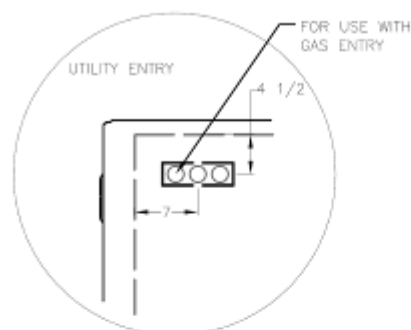
DETAIL B



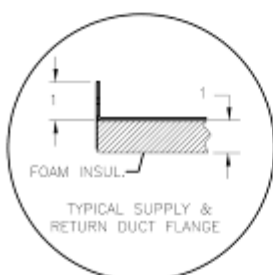
D Cabinet (26-70 Tons) Air Handler Power Exhaust Option

CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED

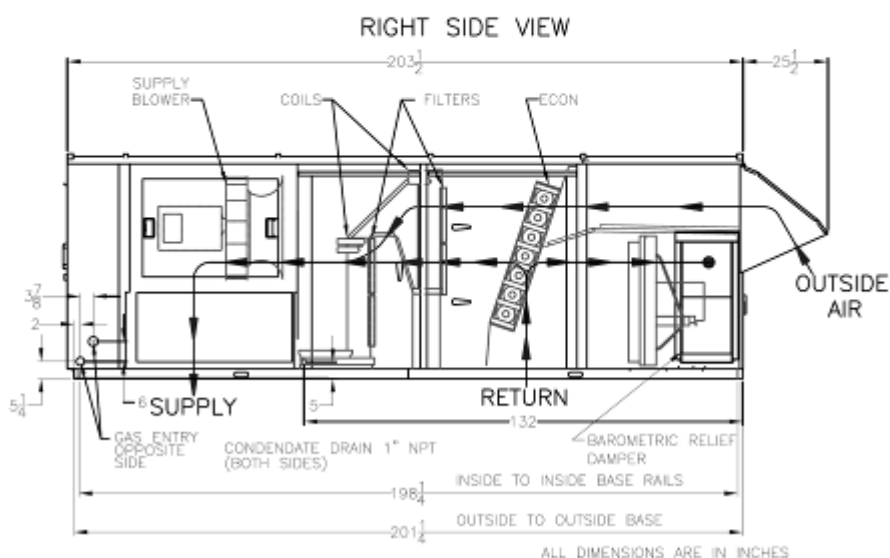
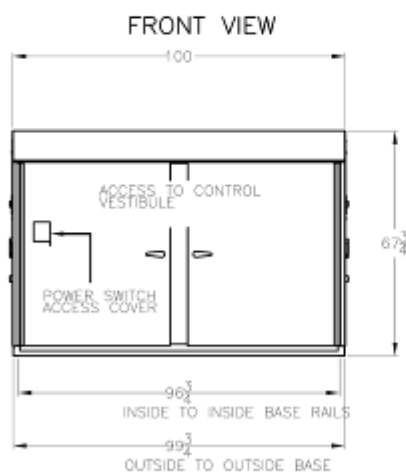
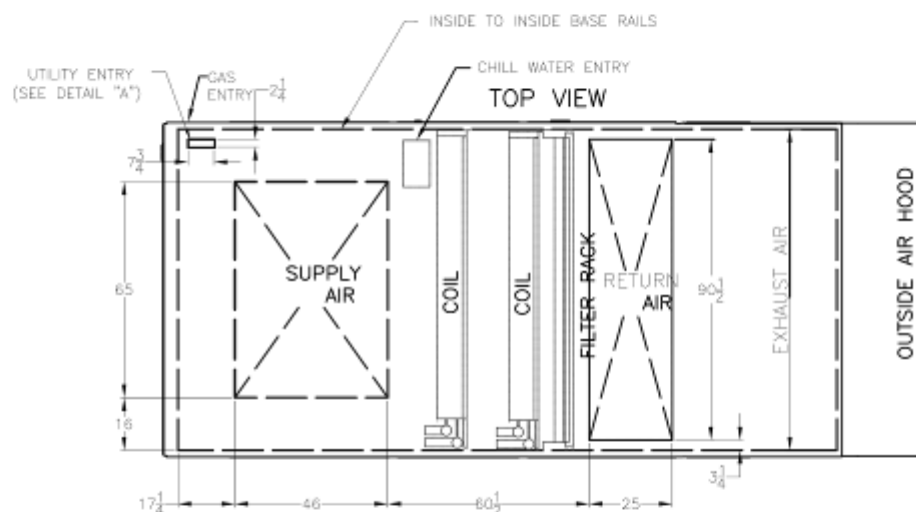
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)



DETAIL A

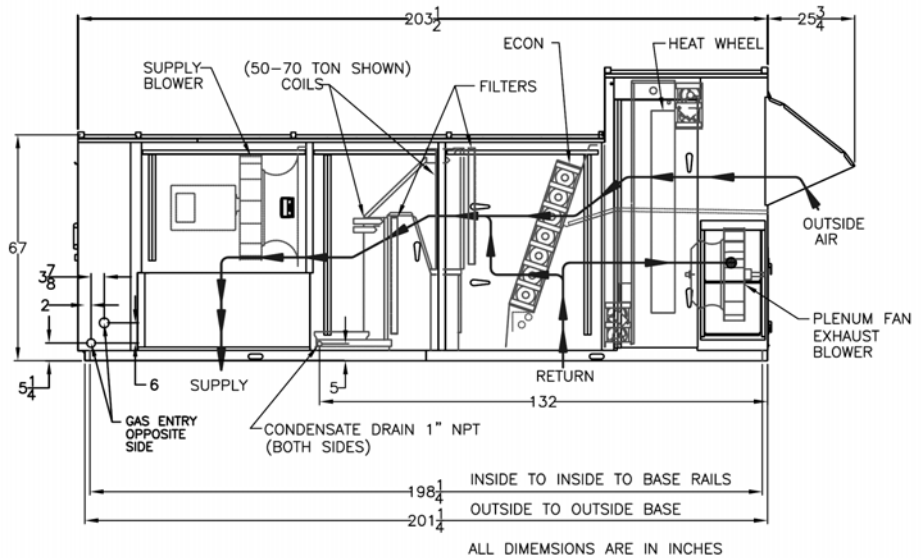
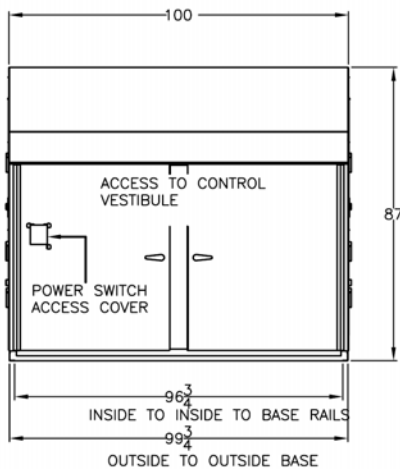
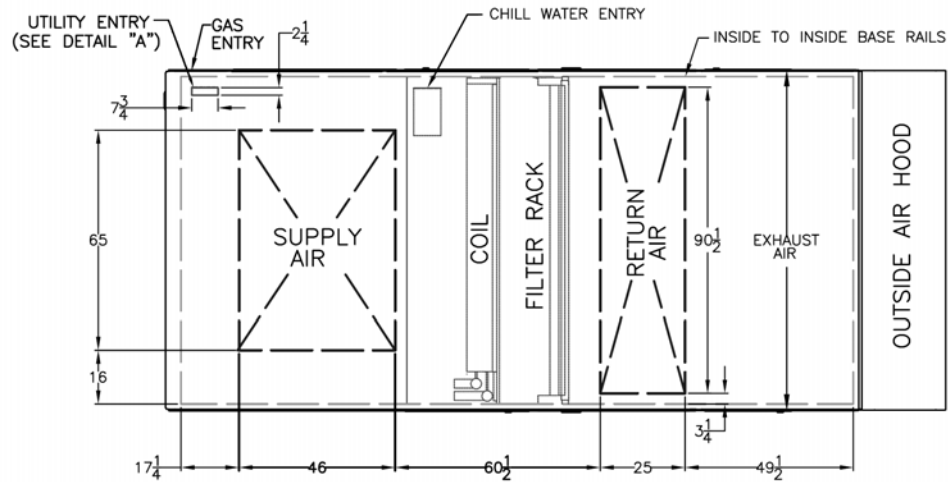
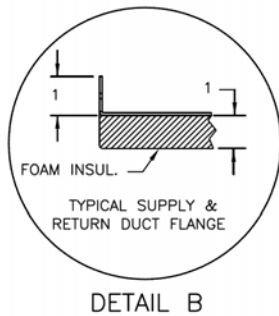
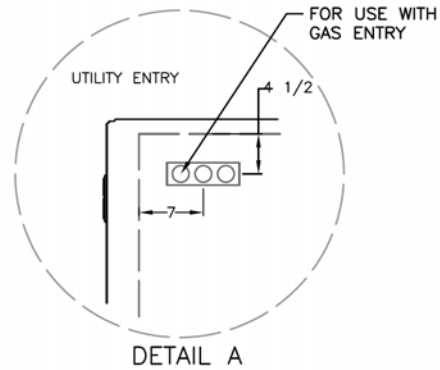


DETAIL B



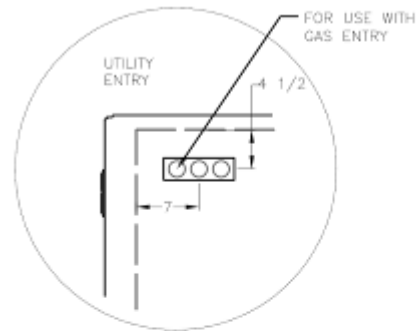
D Cabinet (26-70 Tons) Air Handler Energy Recovery Wheel Option

CLEARANCES	
LOCATION	UNIT SIZE 26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	

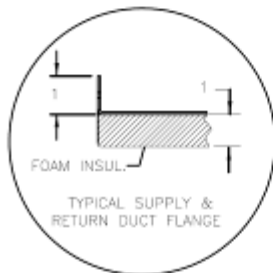


D Cabinet (26-70 Tons) Air Handler Power Return Option

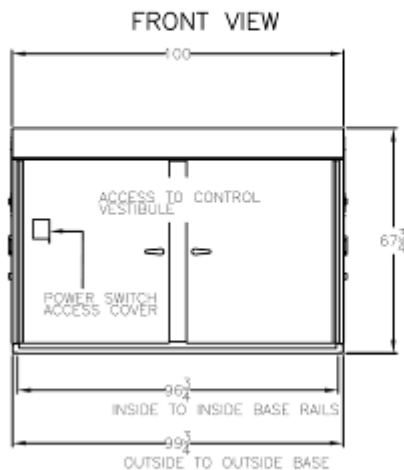
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



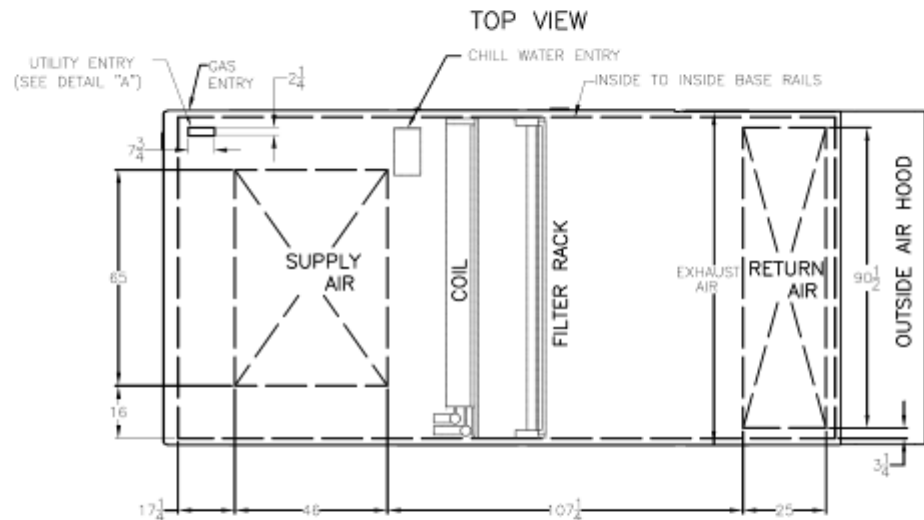
DETAIL A



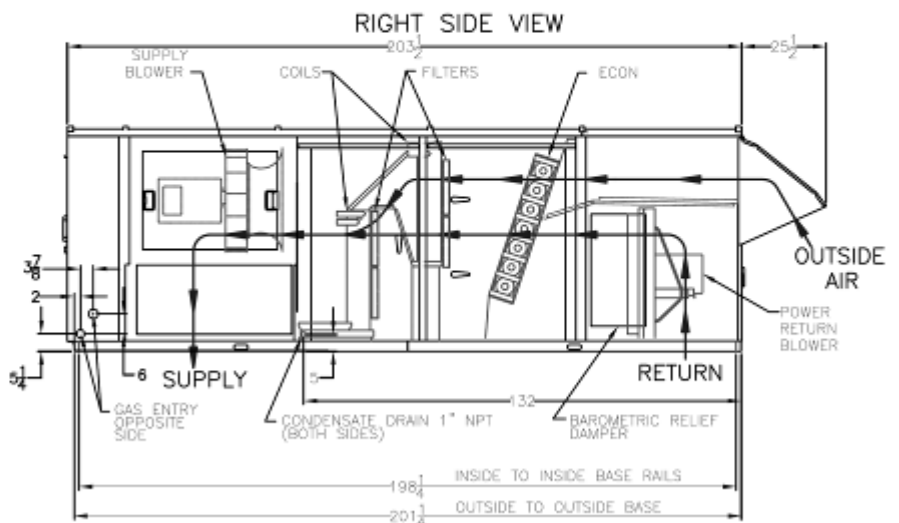
DETAIL B



FRONT VIEW



TOP VIEW

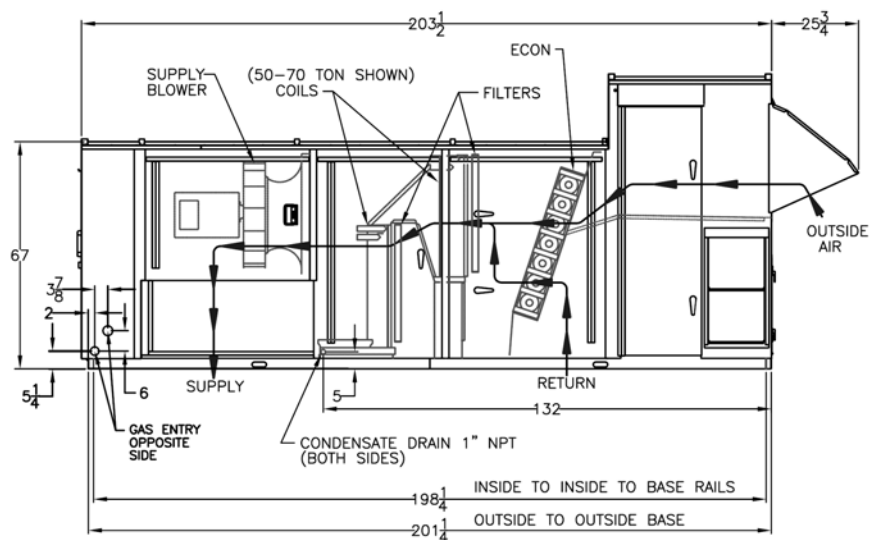
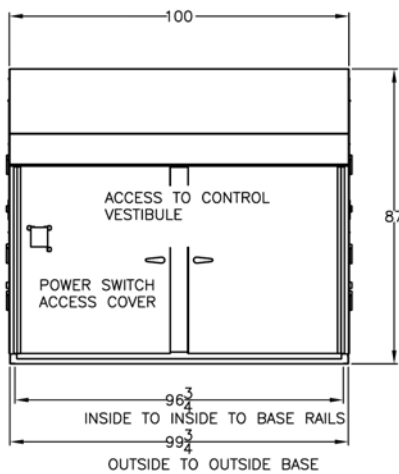
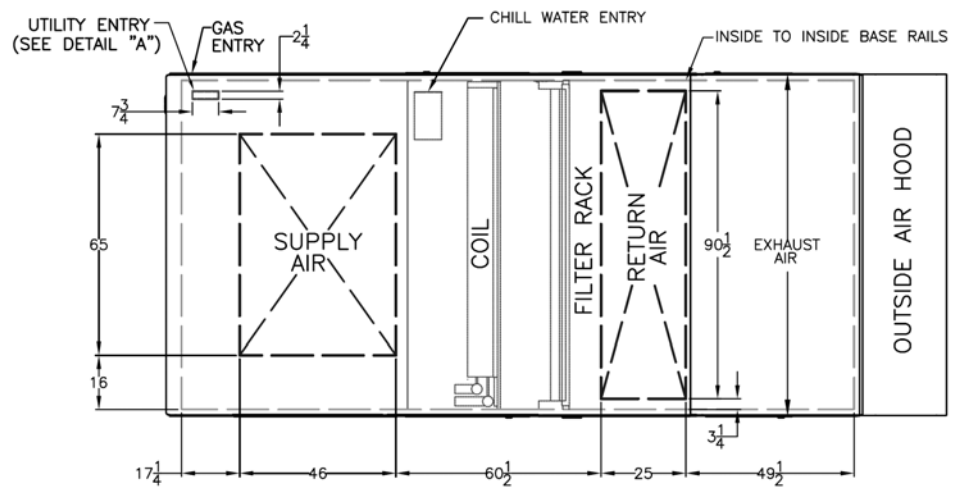
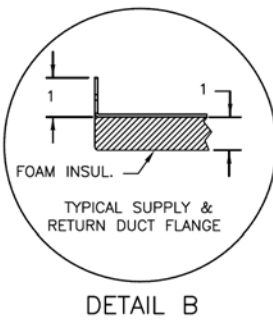
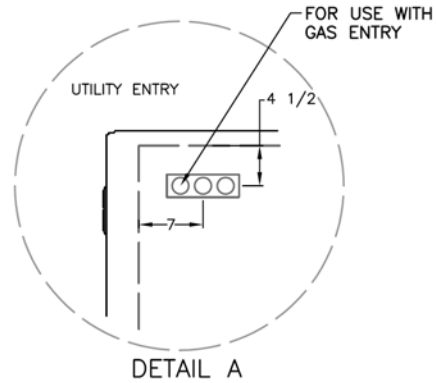


RIGHT SIDE VIEW

ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Air Handler Empty Energy Recovery Wheel Option Box

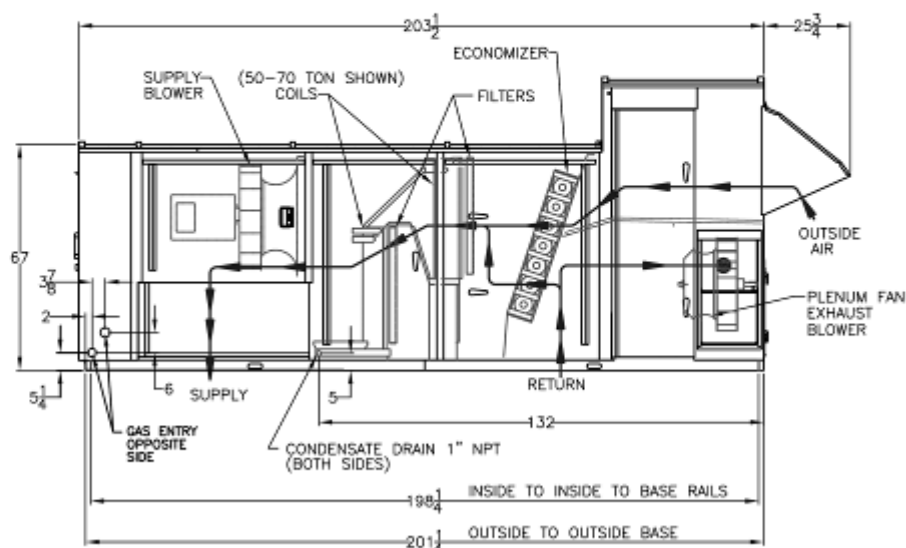
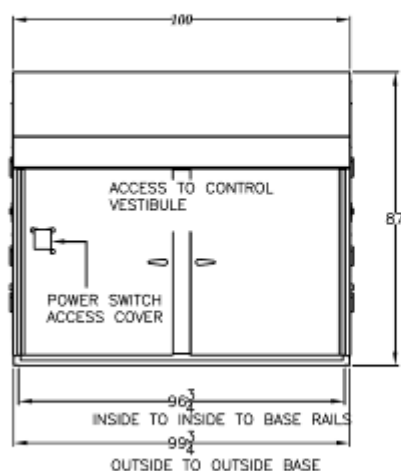
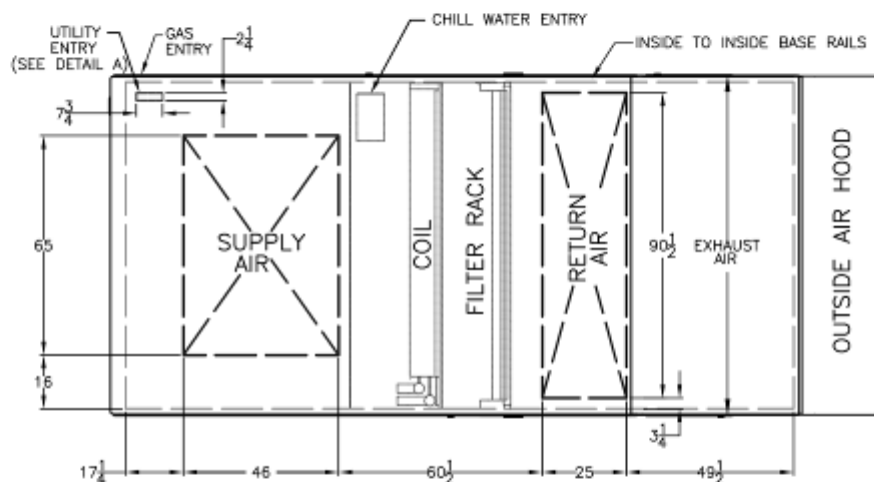
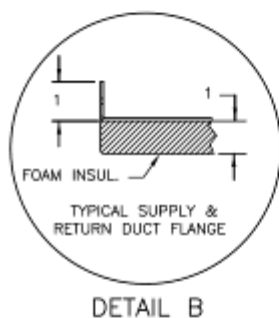
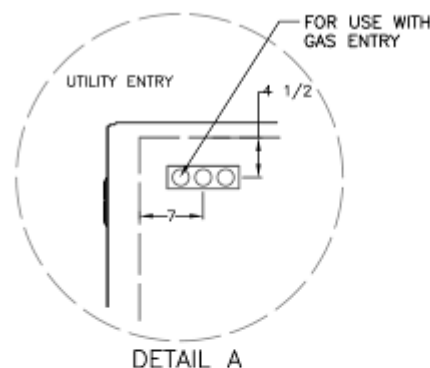
CLEARANCES	
LOCATION	UNIT SIZE 26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Air Handler Empty Energy Recovery Wheel Option Box with Power Exhaust

CLEARANCES	
LOCATION	UNIT SIZE 26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	

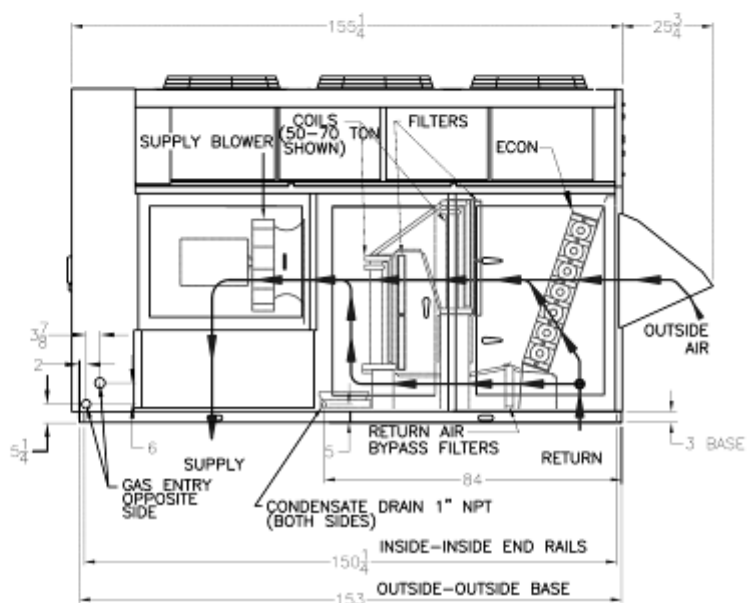
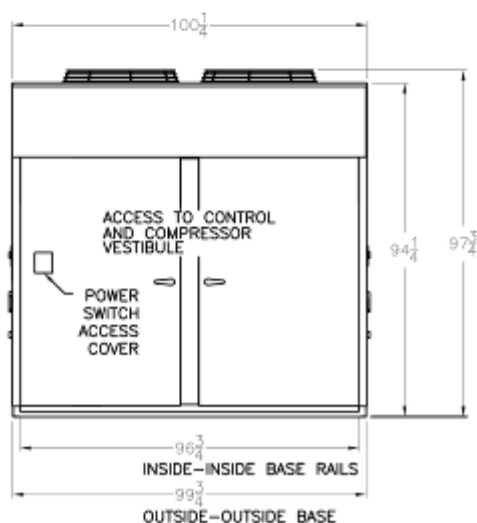
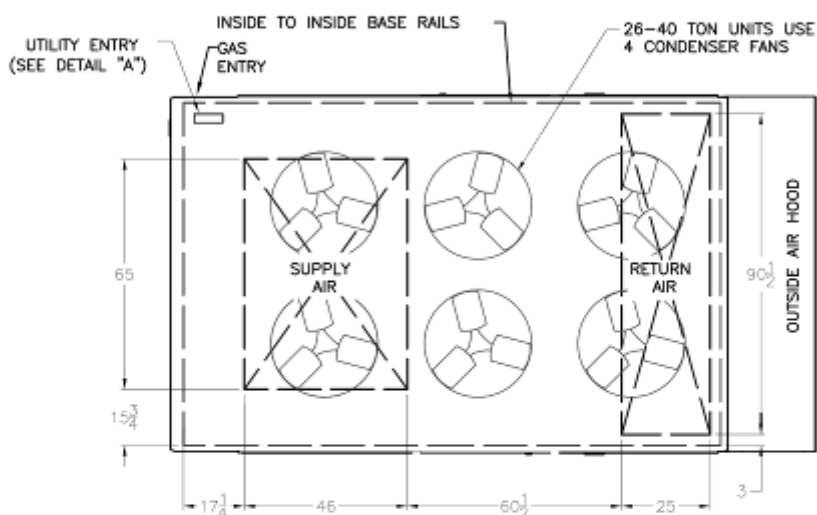
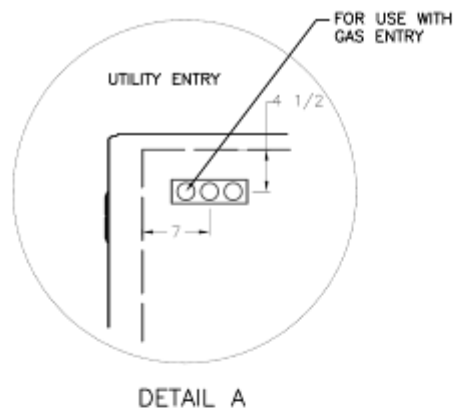
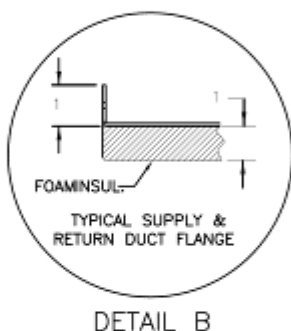


ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer Option

CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED

NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)

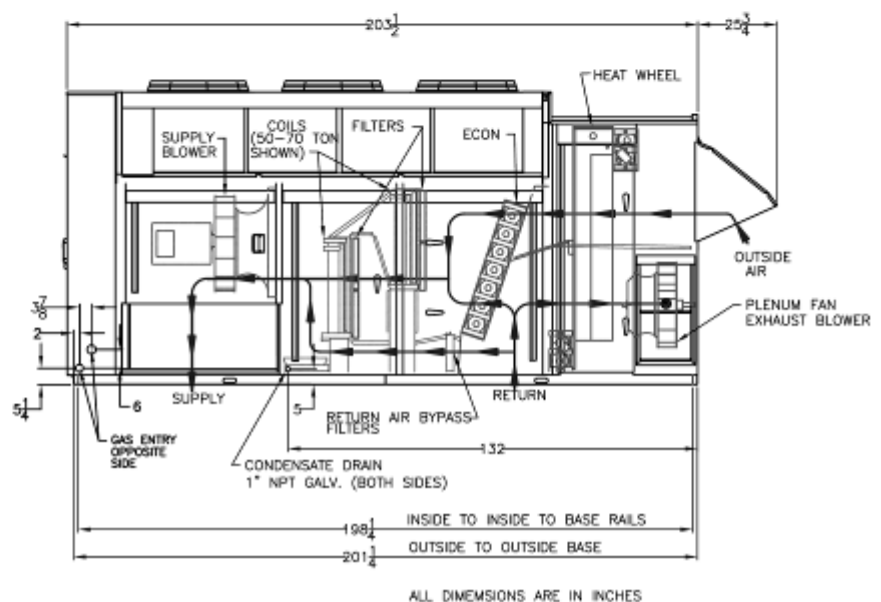
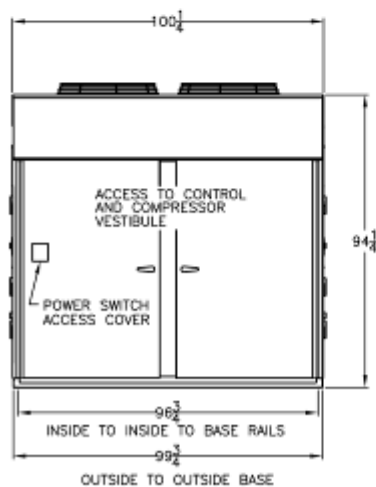
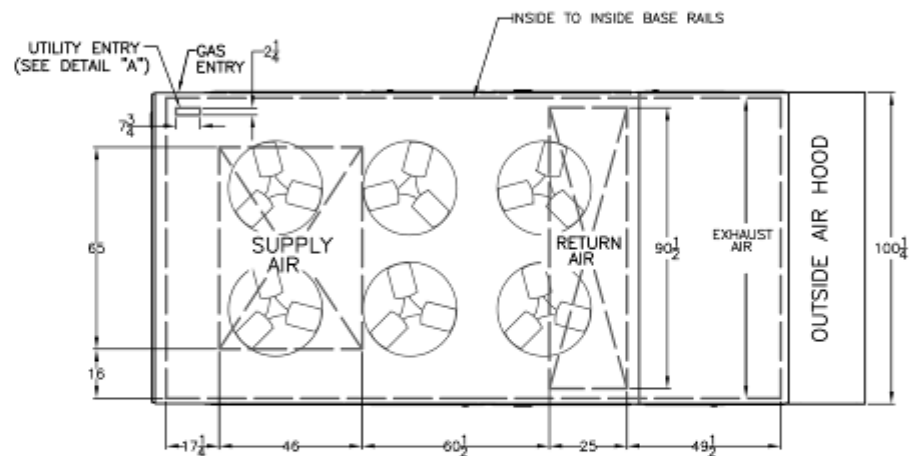
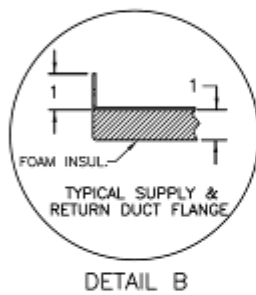
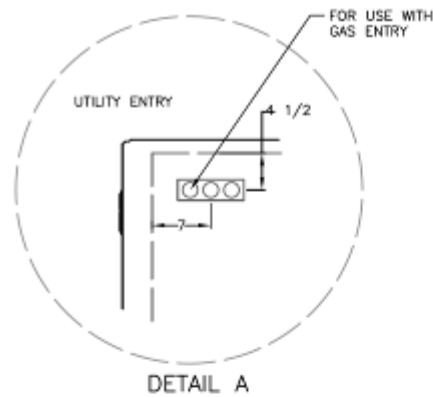


ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel Option

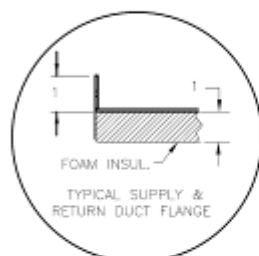
CLEARANCES	
LOCATION	UNIT SIZE 26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED

NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)

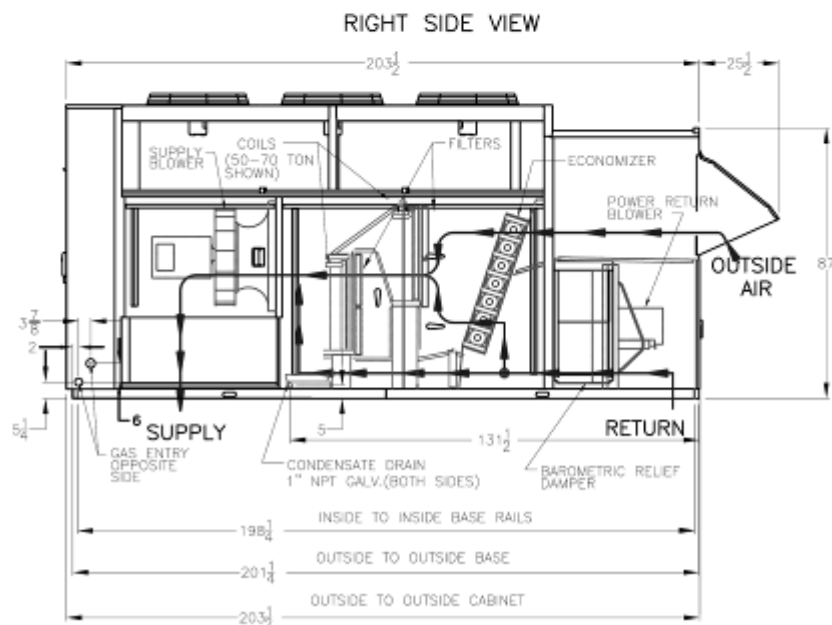
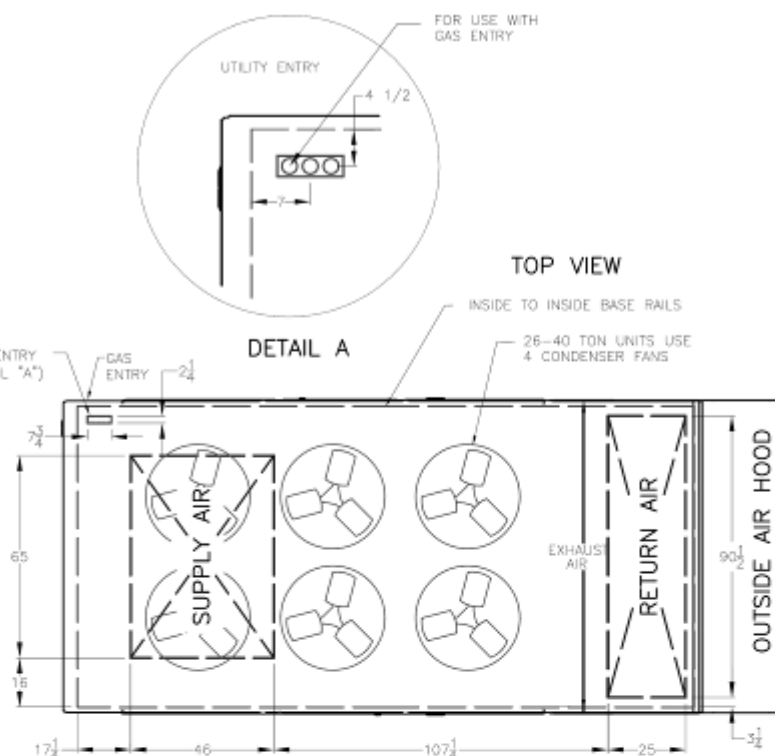
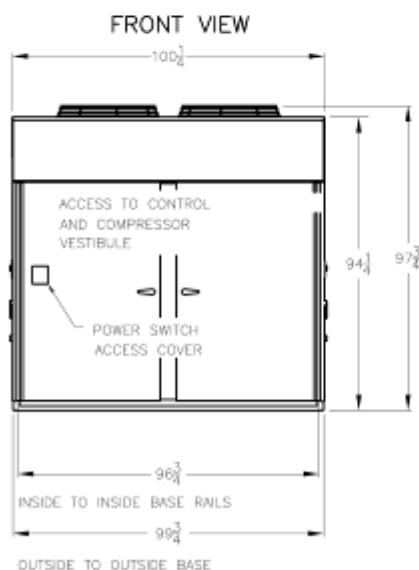


D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Power Return Option

CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



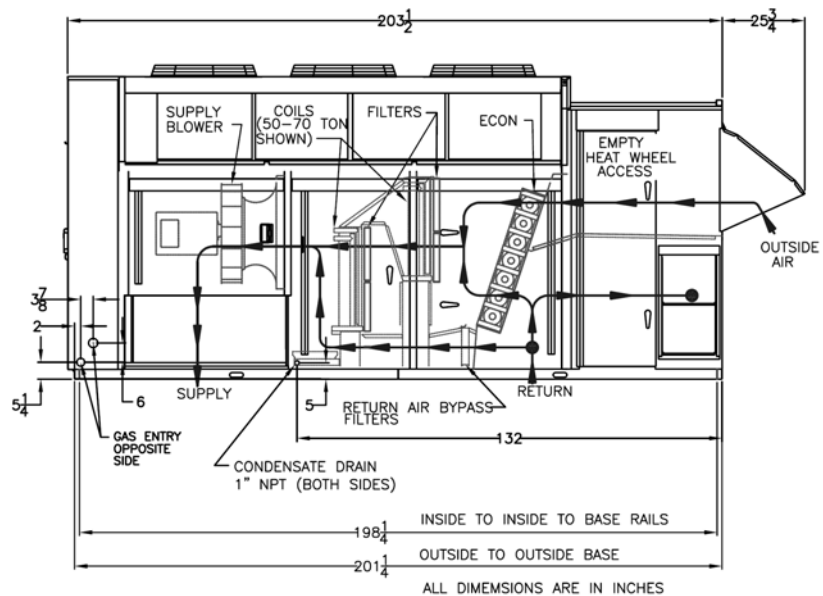
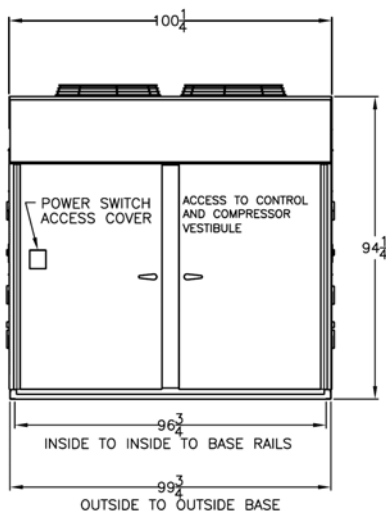
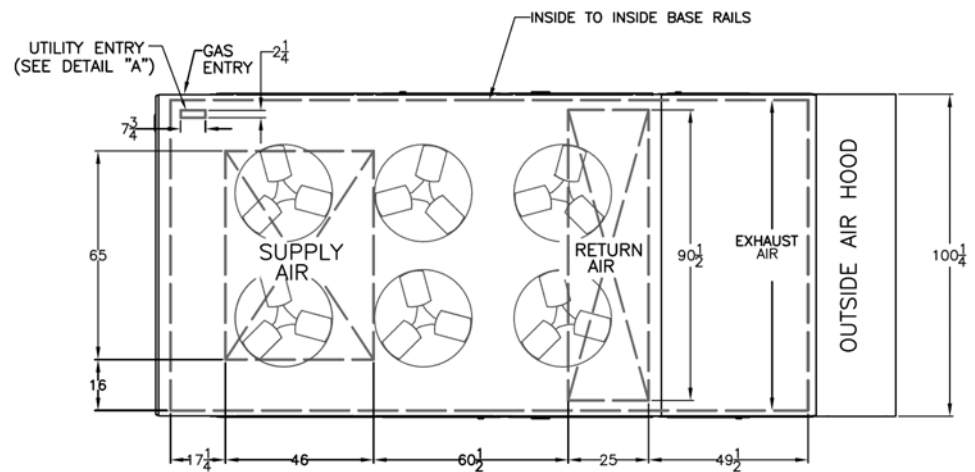
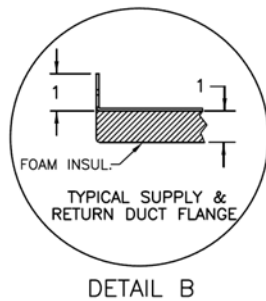
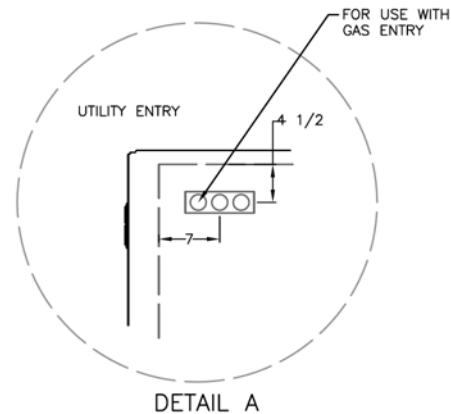
DETAIL B



ALL DIMENSIONS ARE IN INCHES

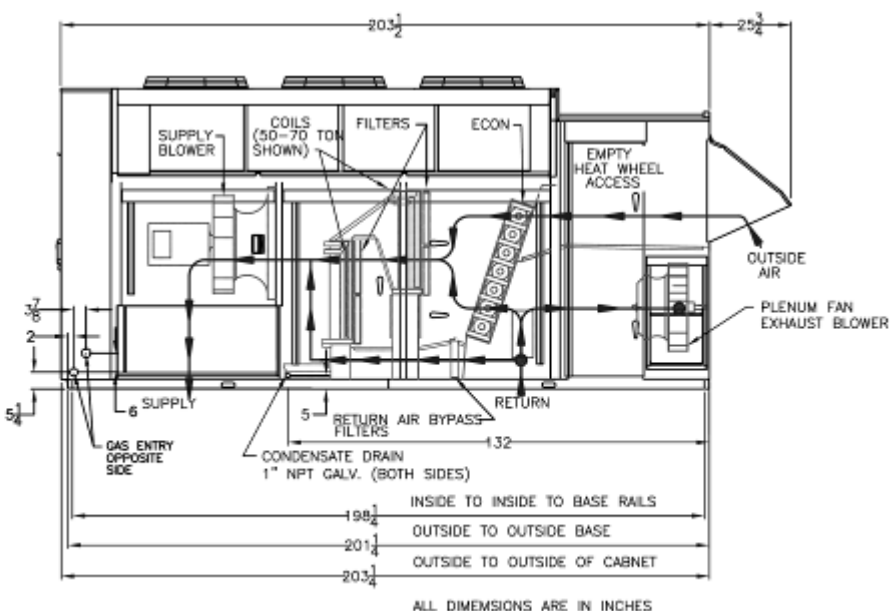
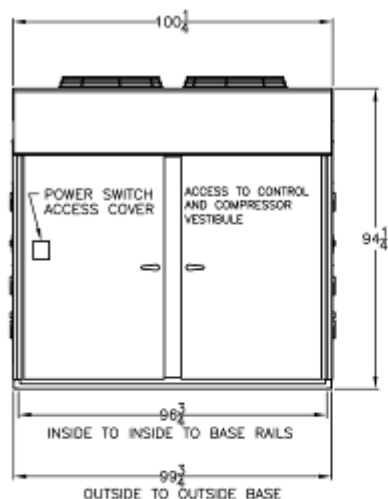
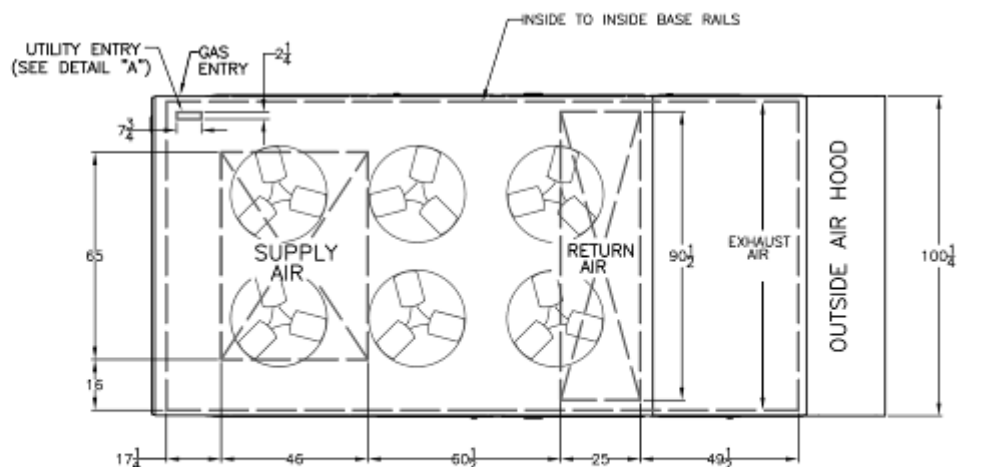
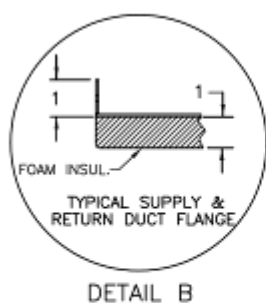
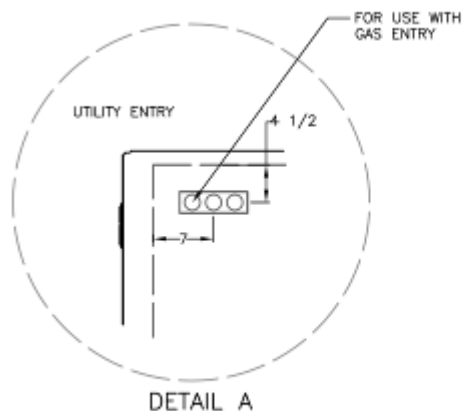
D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Empty Energy Recovery Wheel Option Box

CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



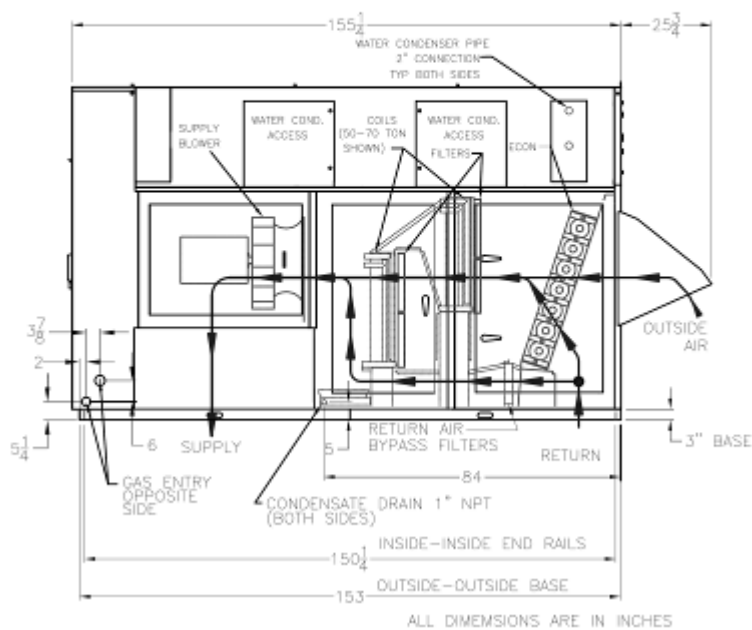
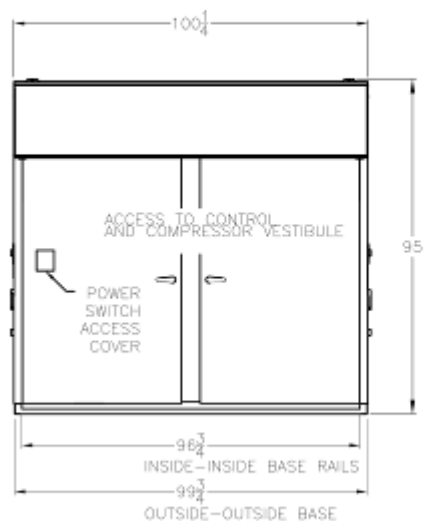
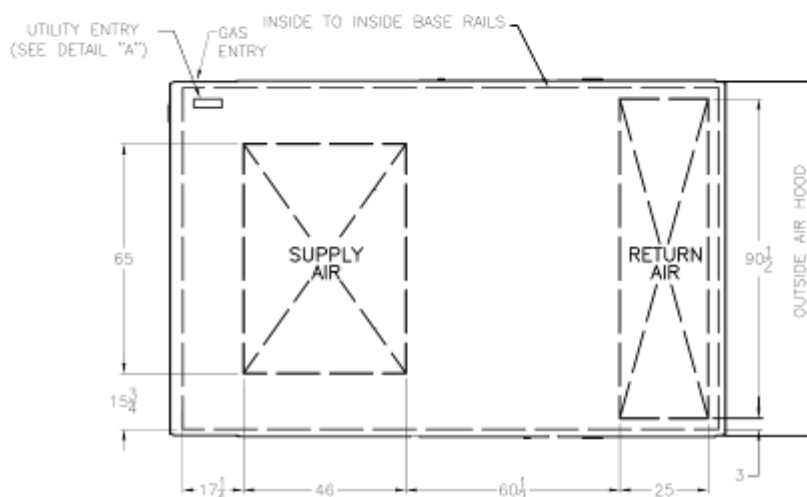
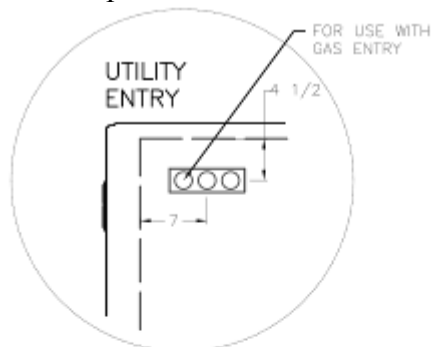
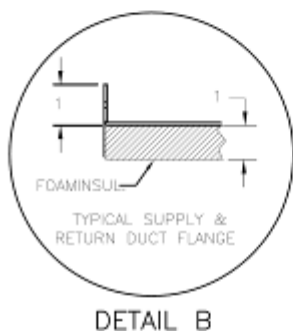
D Cabinet (26-70 Tons) Air-Cooled Condenser Packaged DX Unit Return Air Bypass Empty Energy Recovery Wheel Option Box with Power Exhaust

CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



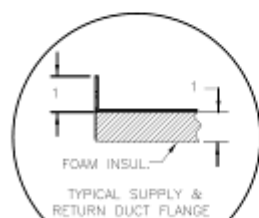
D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Economizer Option

CLEARANCES	
LOCATION	UNIT SIZE 26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	

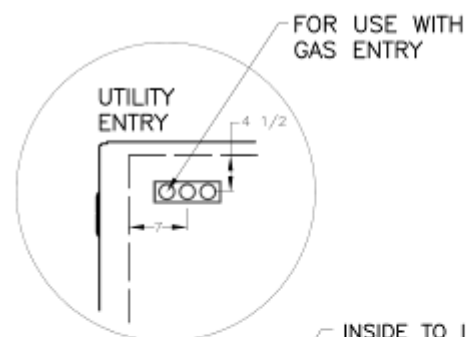


D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Power Exhaust Option

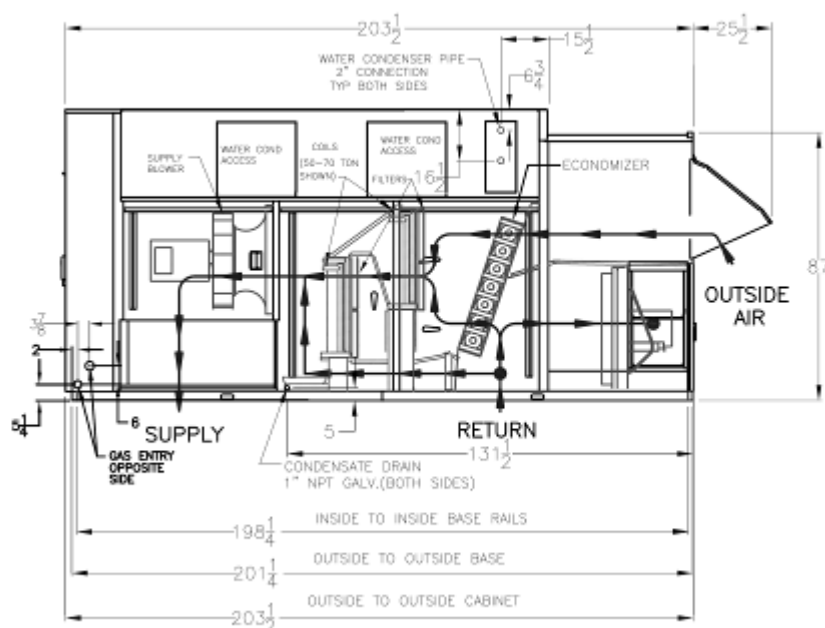
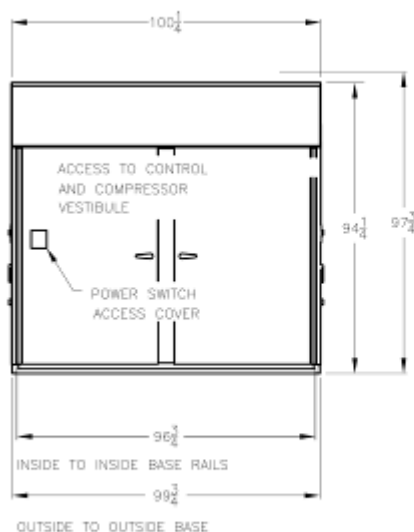
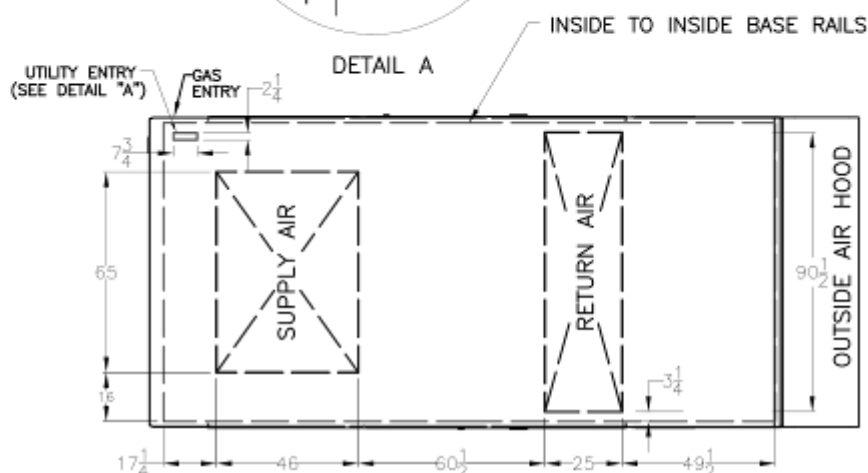
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



DETAIL B



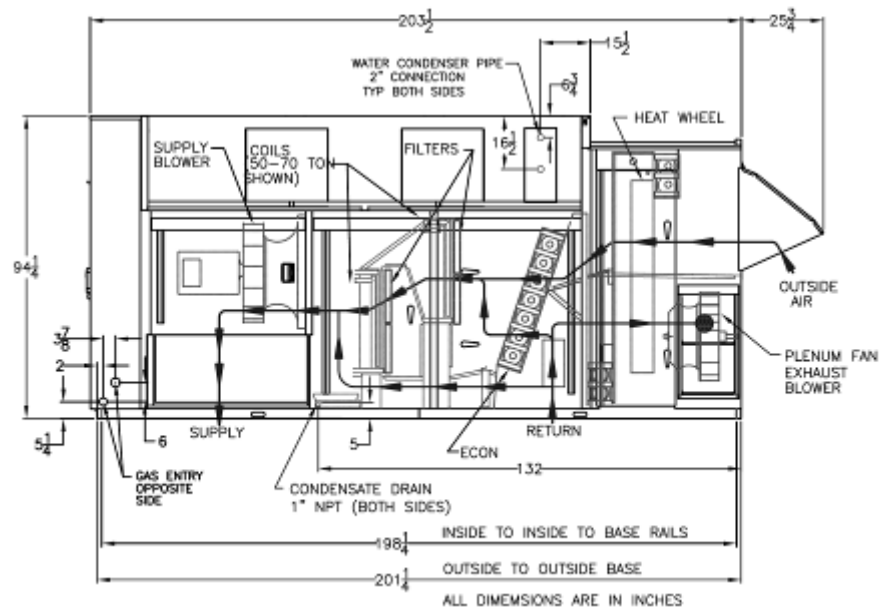
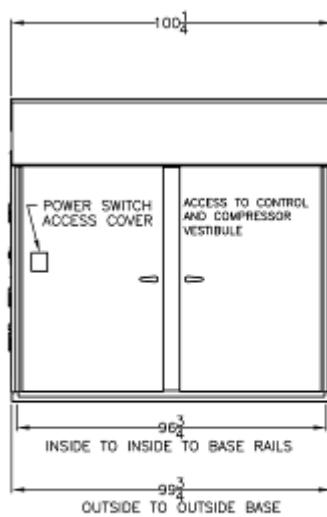
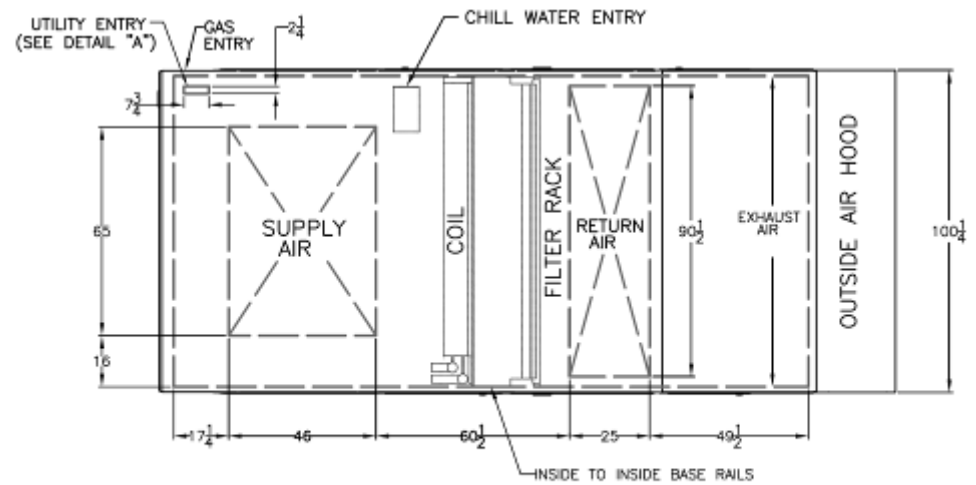
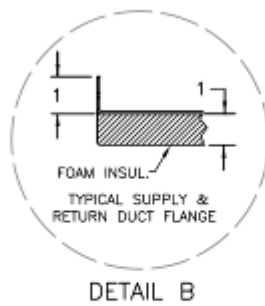
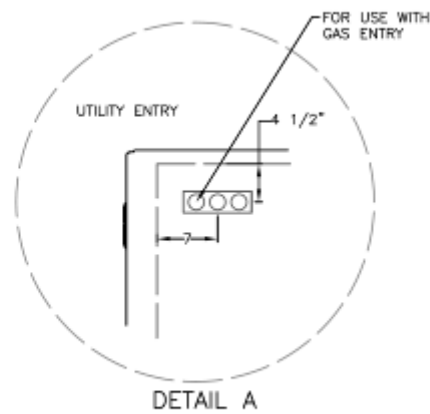
DETAIL A



ALL DIMENSIONS ARE IN INCHES

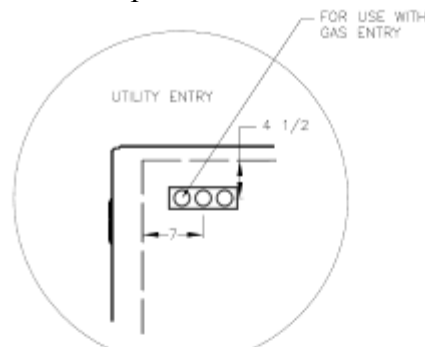
D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Energy Recovery Wheel Option

CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	

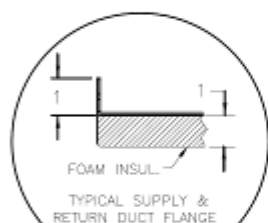


D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Power Return Option

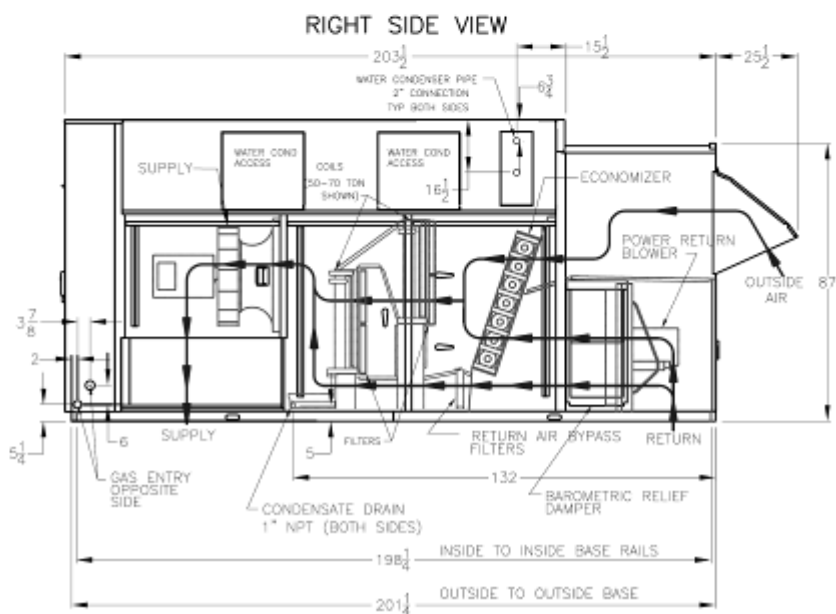
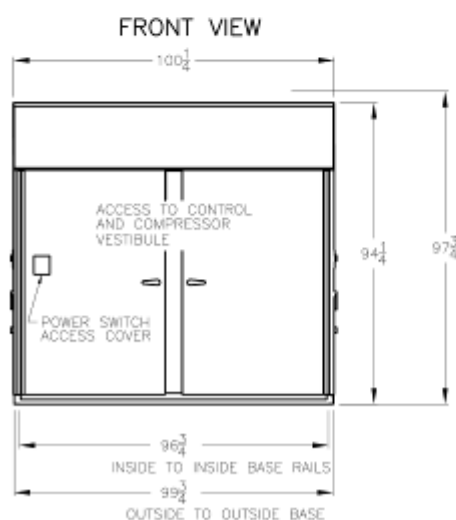
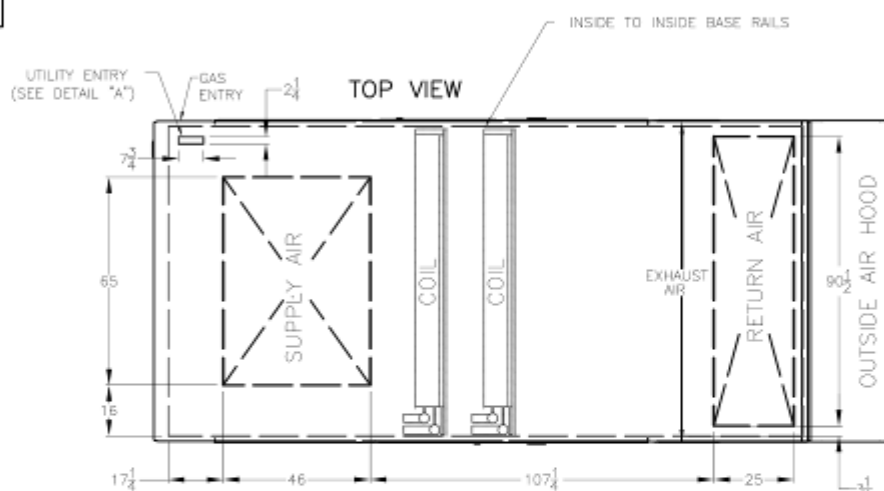
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



DETAIL A



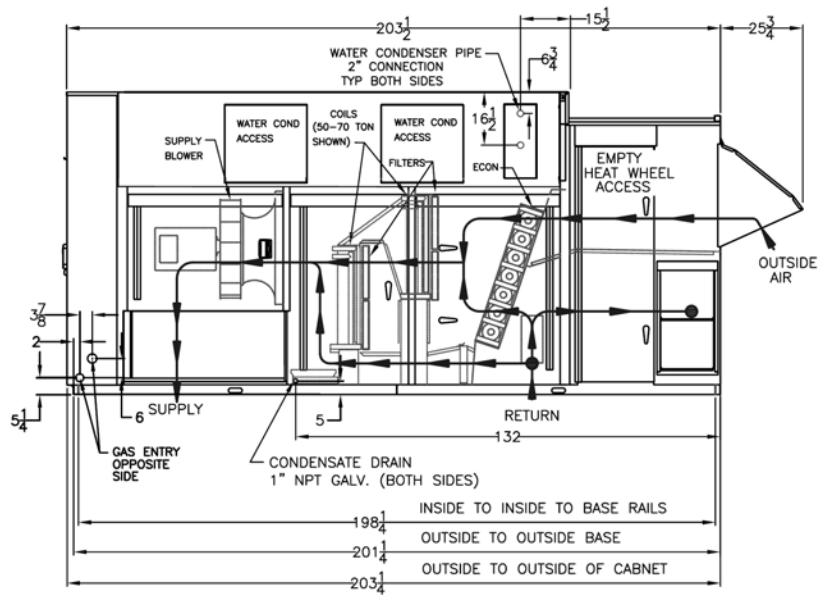
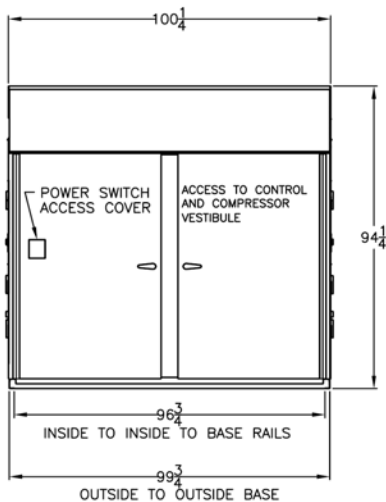
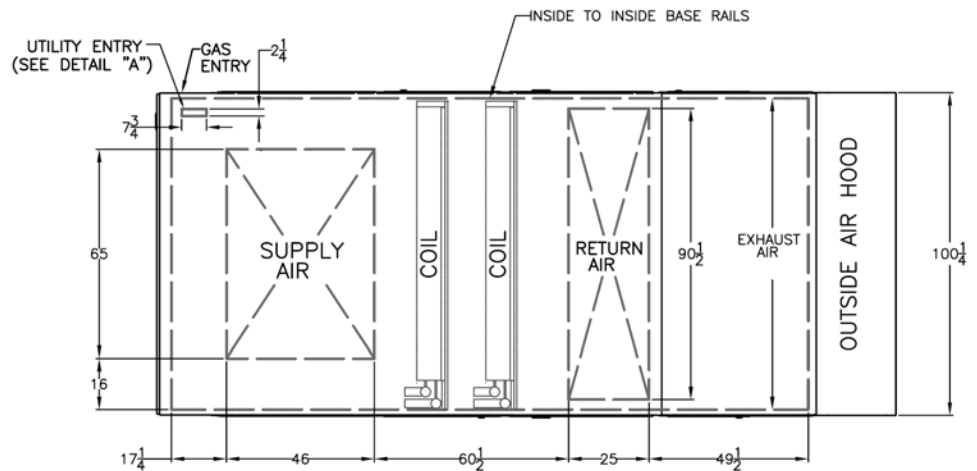
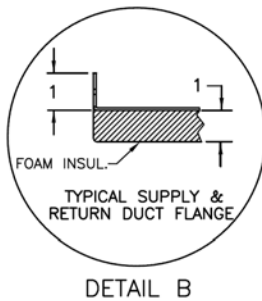
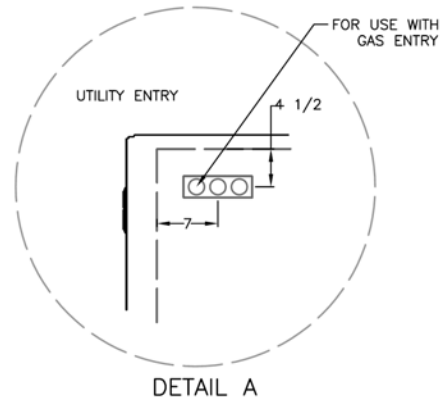
DETAIL B



ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Empty Energy Recovery Wheel Option Box

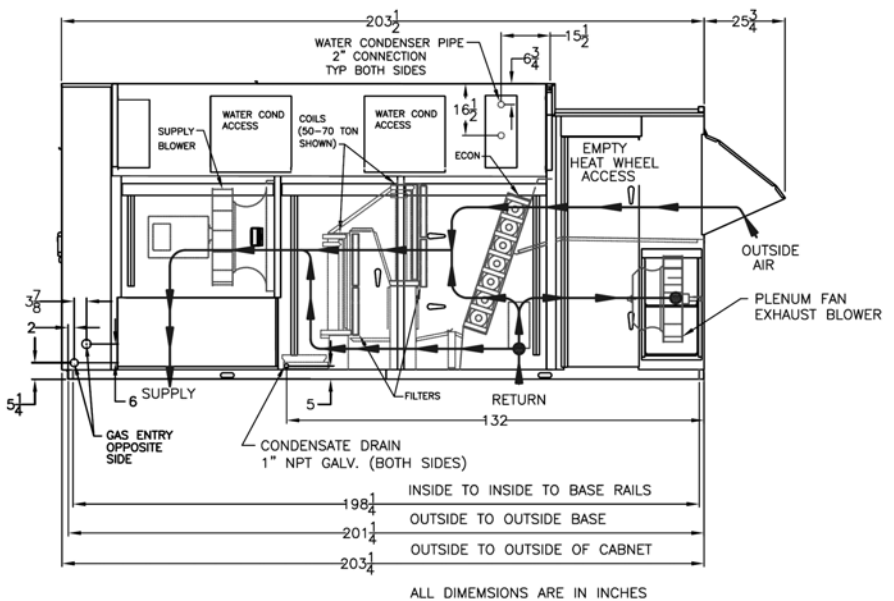
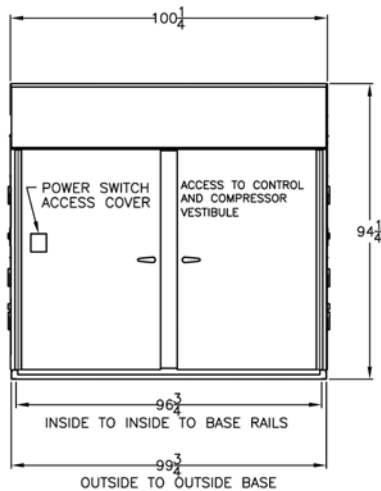
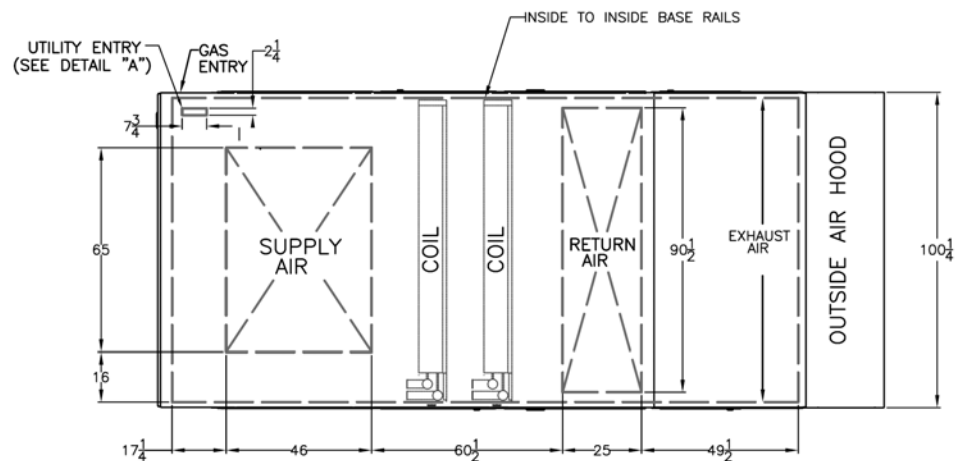
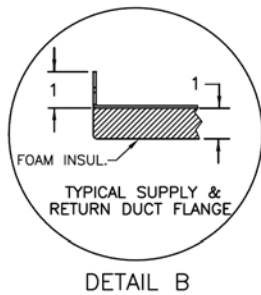
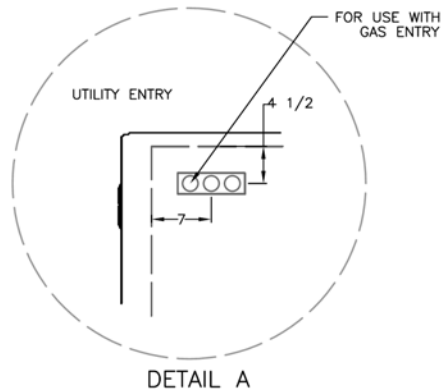
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



ALL DIMENSIONS ARE IN INCHES

D Cabinet (26-70 Tons) Water-Cooled Condenser Packaged DX Unit Return Air Bypass Empty Energy Recovery Wheel Option Box with Power Exhaust

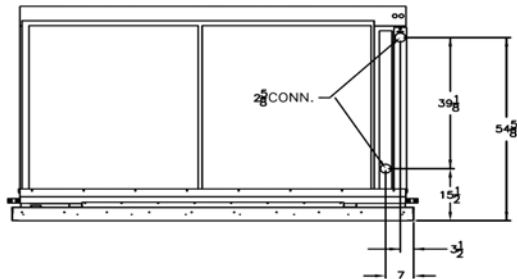
CLEARANCES	
LOCATION	UNIT SIZE
	26-70 TON
RETURN AIR BACK	48
VENT SIDE FRONT	48
LEFT SIDE	48
RIGHT SIDE	70
TOP	UNOBSTRUCTED
NOTE: RIGHT AND LEFT SIDE UNIT CLEARANCES ARE INTERCHANGEABLE ON UNITS THAT DO NOT HAVE THE HYDRONIC HEATING OPTION. (UNITS WITH HYDRONIC HEAT MUST HAVE 70" RIGHT SIDE ACCESS FOR SERVICE.)	



D Cabinet (26-70 Tons) Chilled Water Cooling Coil Piping

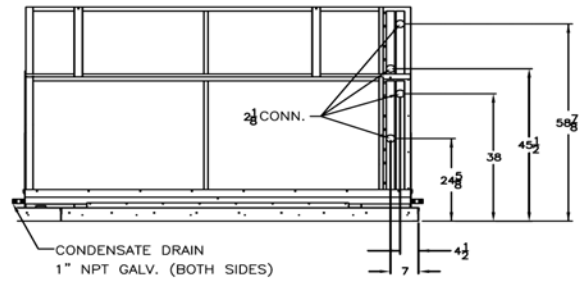
END VIEW

26-40 CW COIL PIPING CONNECTION SIZE AND LOCATION



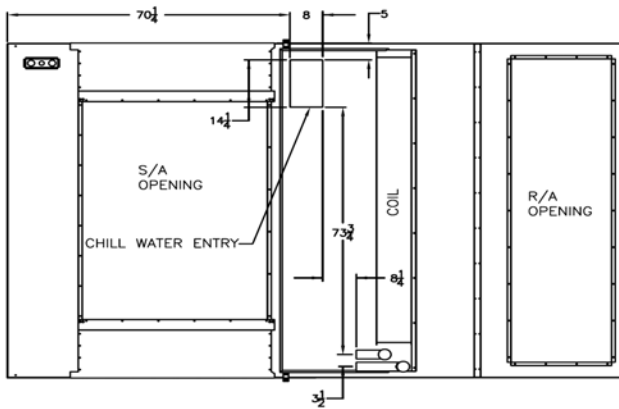
END VIEW

50-70 CW COIL PIPING CONNECTION SIZE AND LOCATION



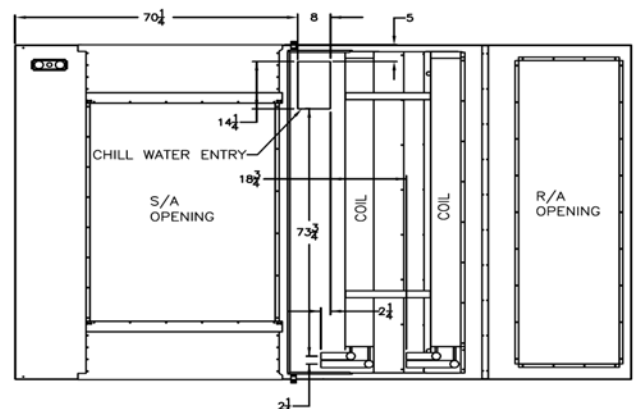
TOP VIEW

26-40 CW COIL PIPING CONNECTION LOCATION +/- 1"



TOP VIEW

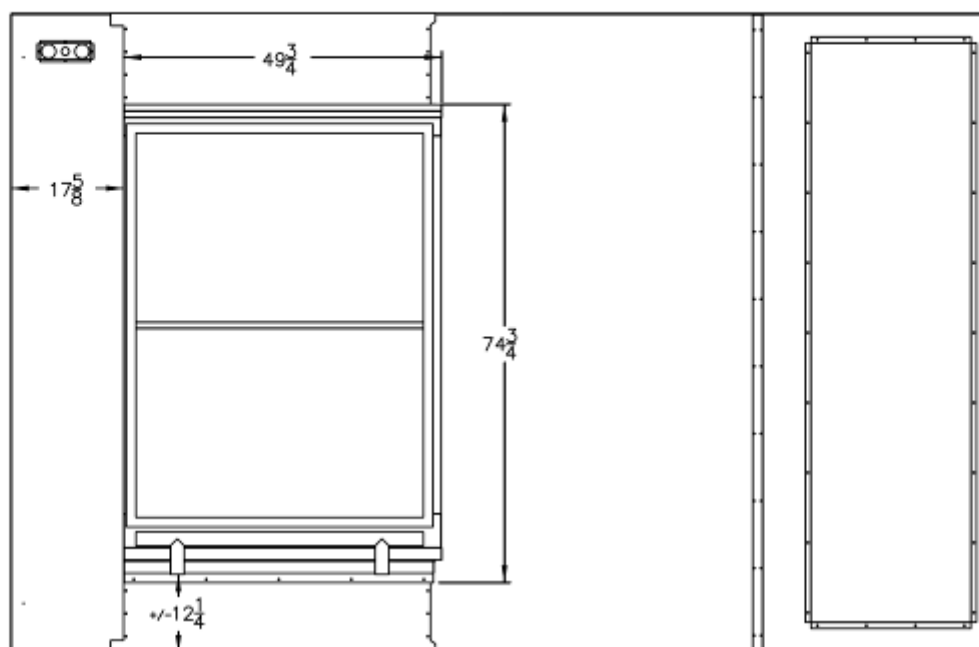
50-70 CW COIL PIPING CONNECTION LOCATION +/- 1"



D Cabinet (26-70 Tons) Hot Water Heating Coil Piping

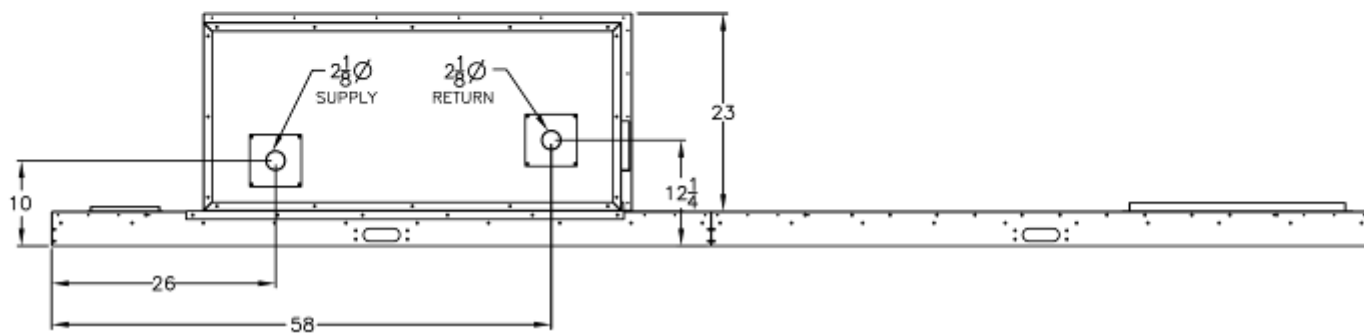
TOP VIEW

HOT WATER PIPING CONNECTION SIZE AND LOCATION



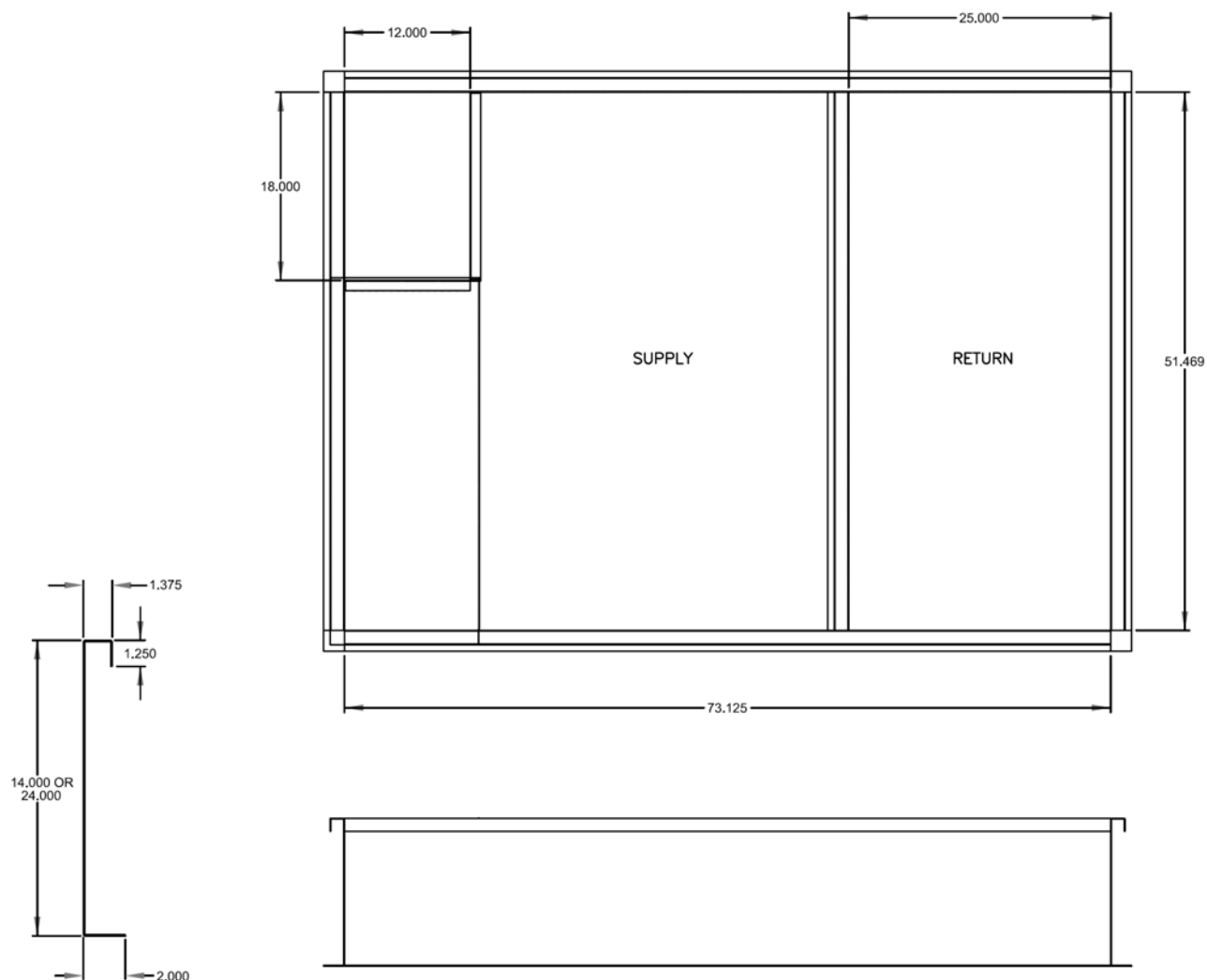
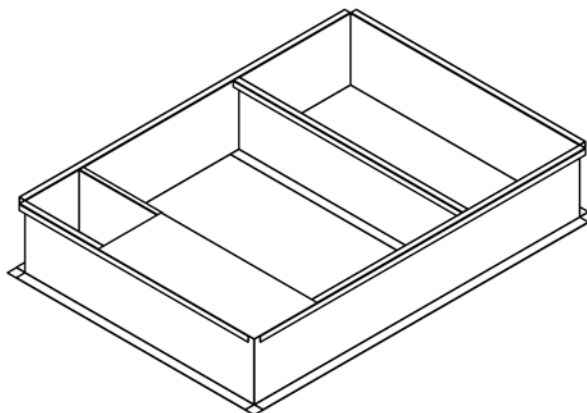
RIGHT SIDE VIEW

HOT WATER PIPING CONNECTION SIZE AND LOCATION



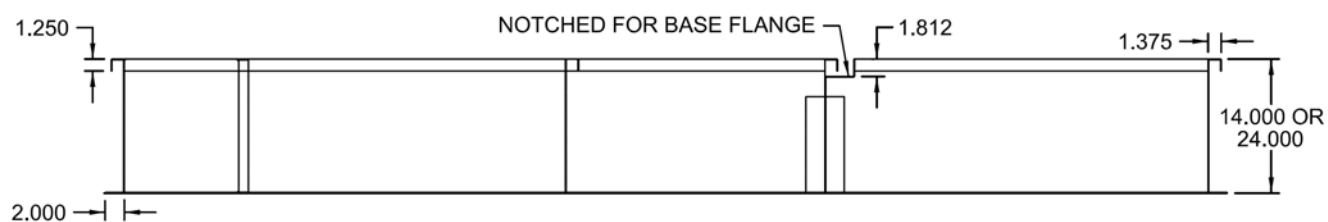
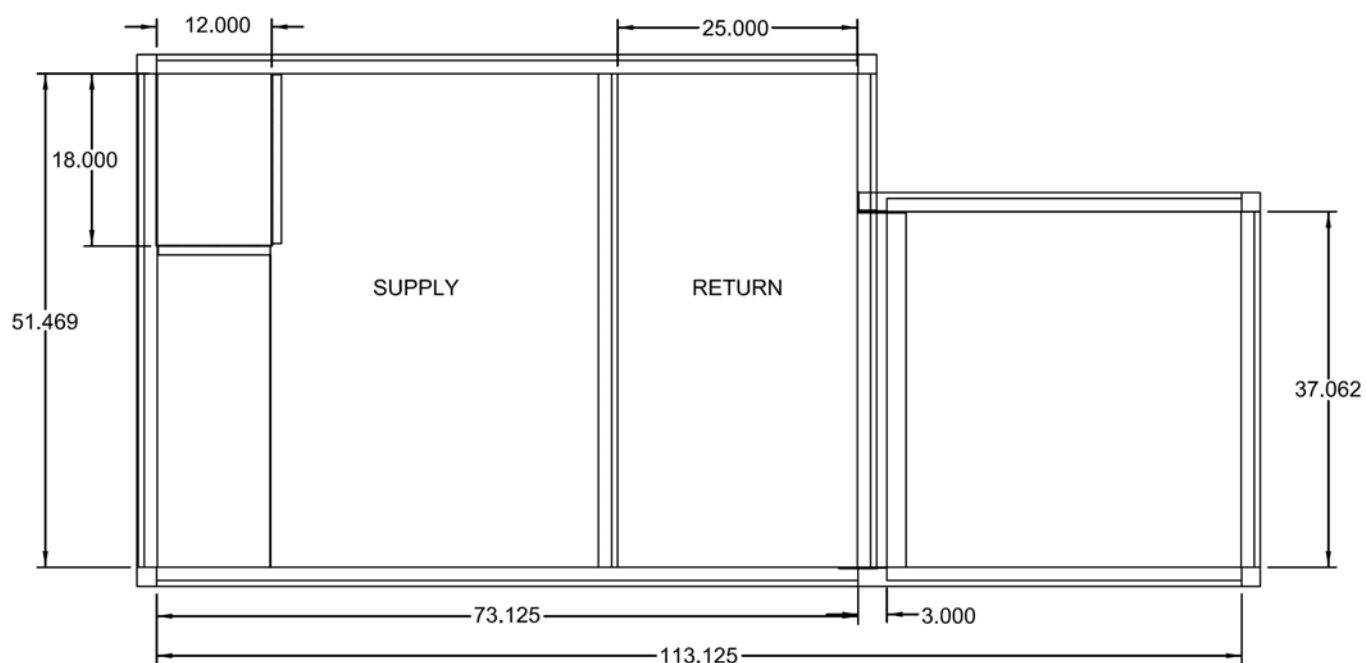
A and B Cabinet (2-15 Tons) Solid Bottom Standard and Power Exhaust Curb

MINIMUM CONNECTION		
OPENING AREA		
	SUPPLY	RETURN
A	3	3.2
B	3.5	3.6



A and B Cabinet (2-15 Tons) Solid Bottom Energy Recovery Wheel Curb

MINIMUM CONNECTION		
OPENING AREA		
	SUPPLY	RETURN
A	3	3.2
B	3.5	3.6



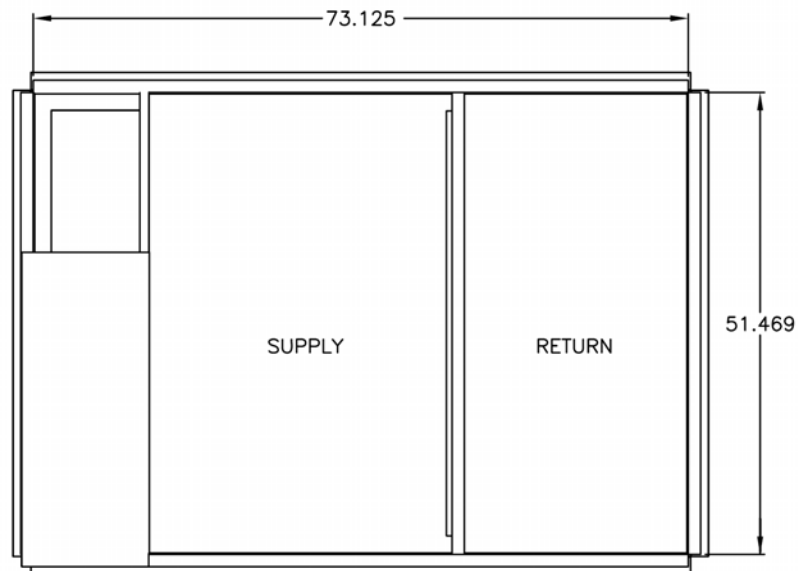
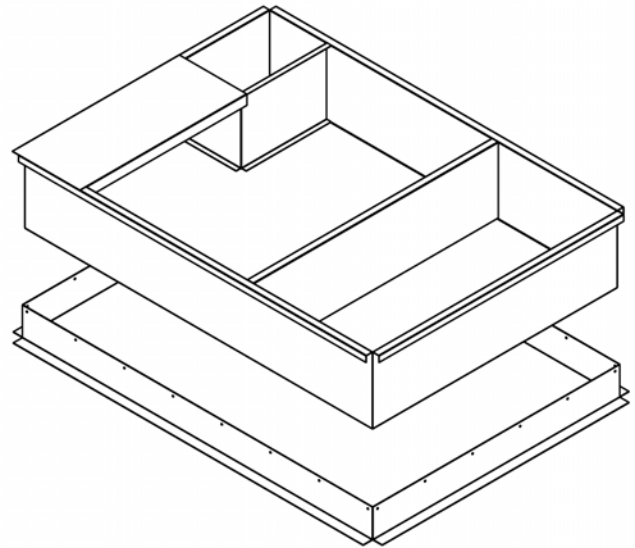


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A and B Cabinet (2-15 Tons) Solid Bottom Adjustable Pitch Standard and Power Exhaust Curb

MAXIMUM PITCH ADJUSTMENTS
3/4" PER FOOT IN EITHER DIRECTION

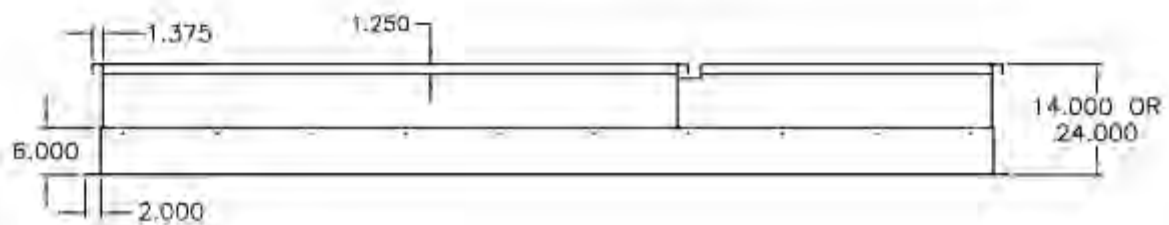
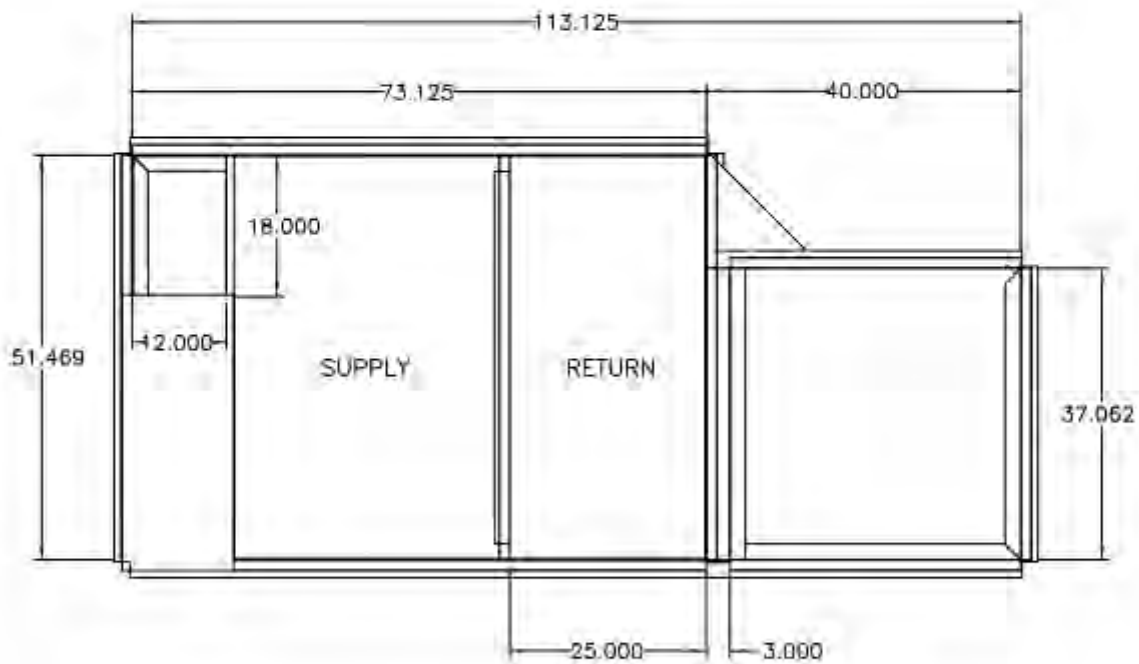
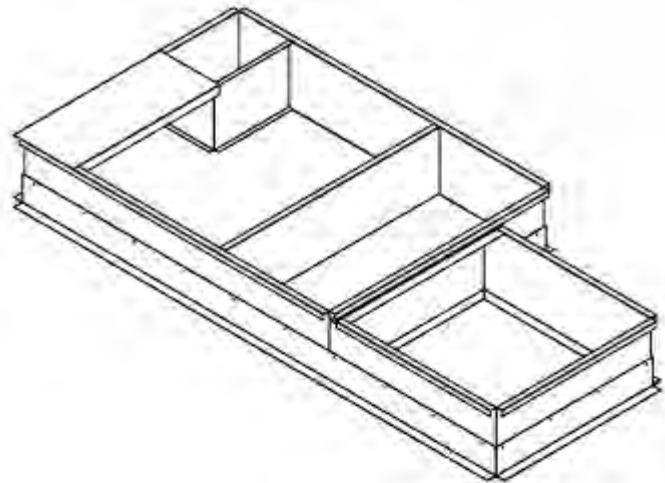
MINIMUM CONNECTION OPENING AREA		
	SUPPLY	RETURN
A	3	3.2
B	3.5	3.6



A and B Cabinet (2-15 Tons) Solid Bottom Adjustable Pitch Energy Recovery Wheel Curb

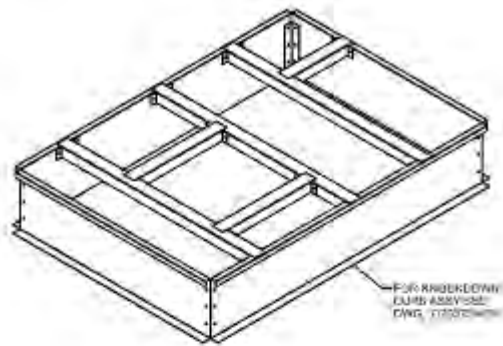
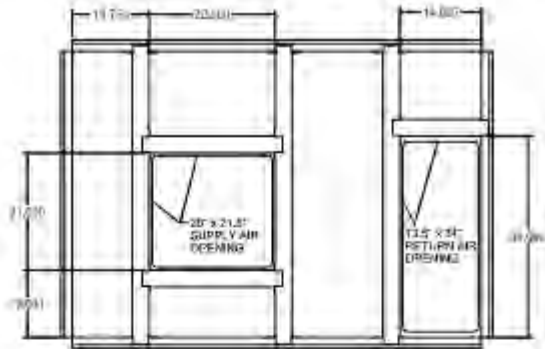
MAXIMUM PITCH ADJUSTMENTS
3/4" PER FOOT IN EITHER DIRECTION

MINIMUM CONNECTION OPENING AREA		
	SUPPLY	RETURN
A	3	3.2
B	3.5	3.6

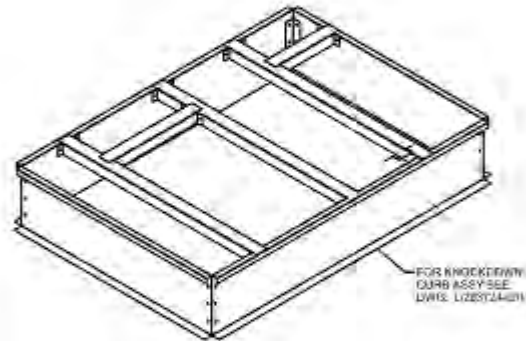
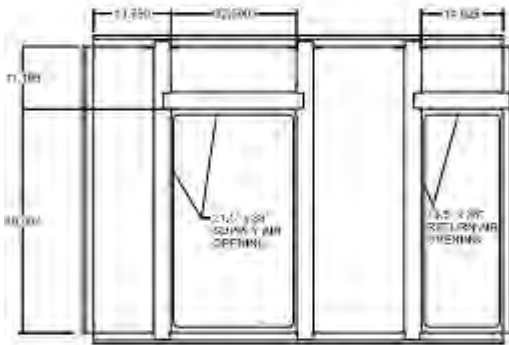


A and B Cabinet (2-15 Tons) Knock Down Standard and Power Exhaust Curb

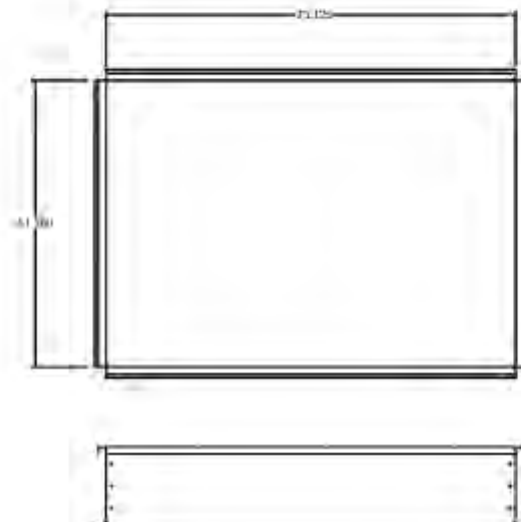
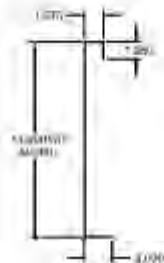
CURB WITH A CABINET DUCT SUPPORT RAILS
KNOCKDOWN



CURB WITH B CABINET DUCT SUPPORT RAILS
KNOCKDOWN

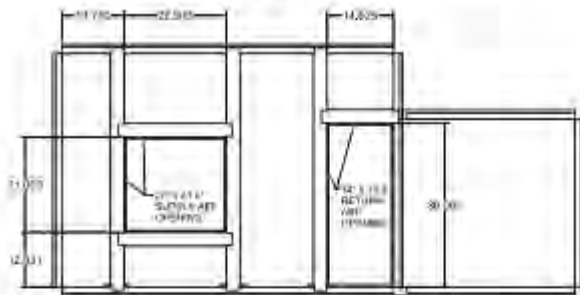


CURB WITH C CABINET DUCT SUPPORT RAILS

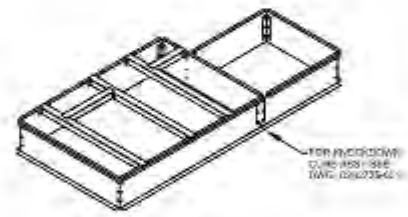
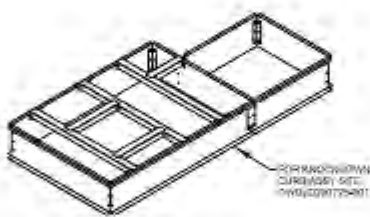
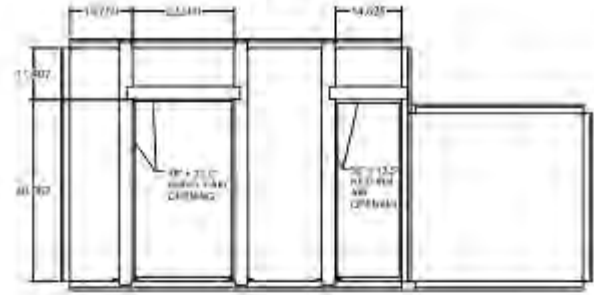


A and B Cabinet (2-15 Tons) Knock Down Energy Recovery Wheel Curb

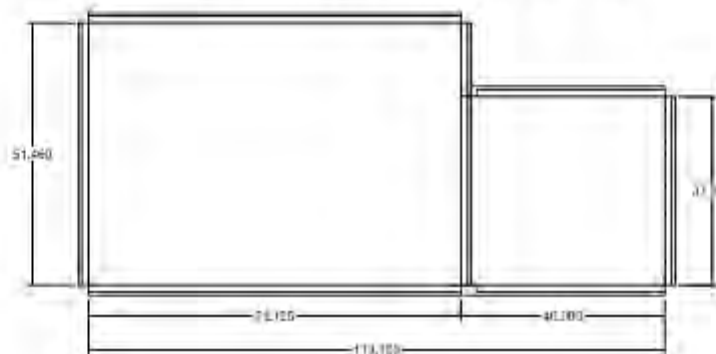
CURB WITH A CABINET DUCT SUPPORT RAIL
KIT# K00068



CURB WITH B CABINET DUCT RAIL SUPPORT
KIT# K00069



CURB WITHOUT DUCT SUPPORT RAIL

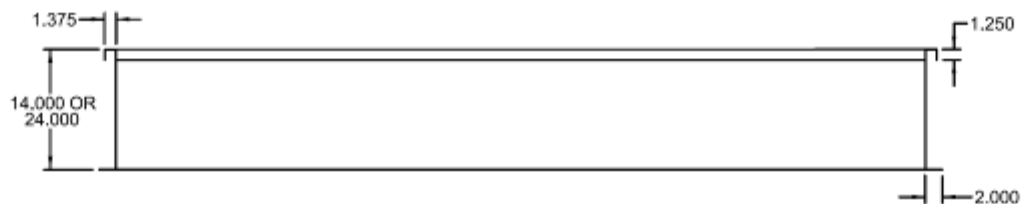
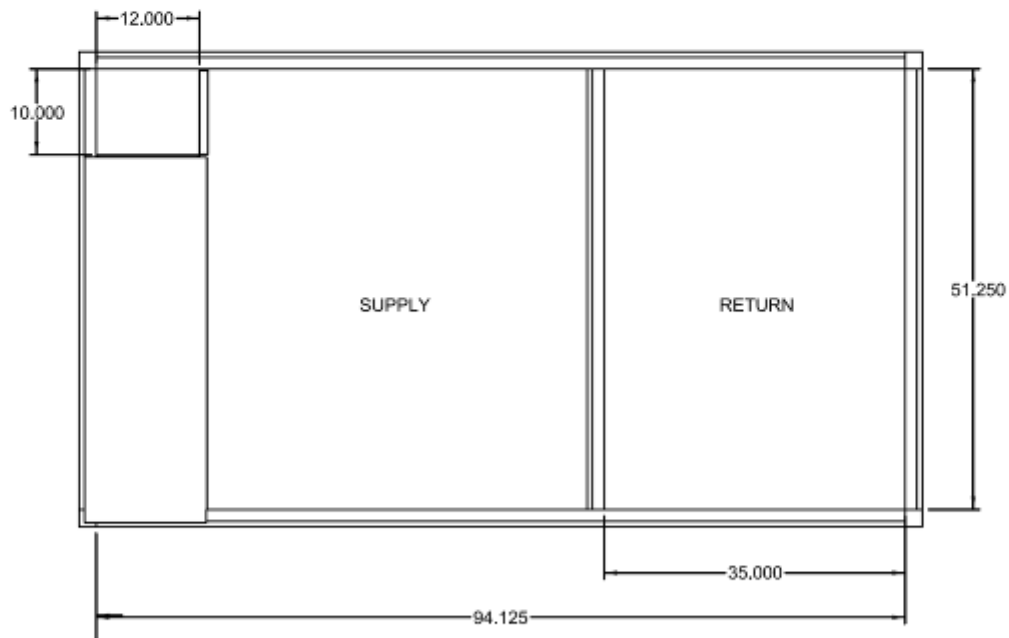
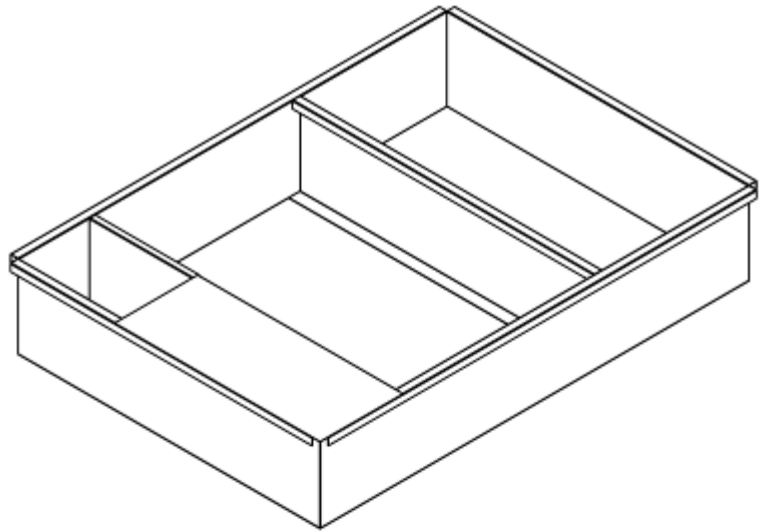




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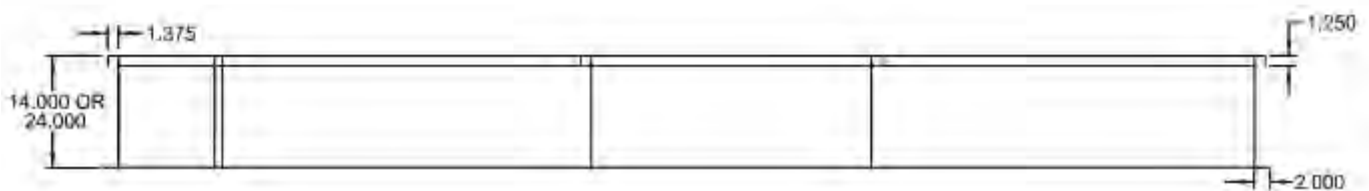
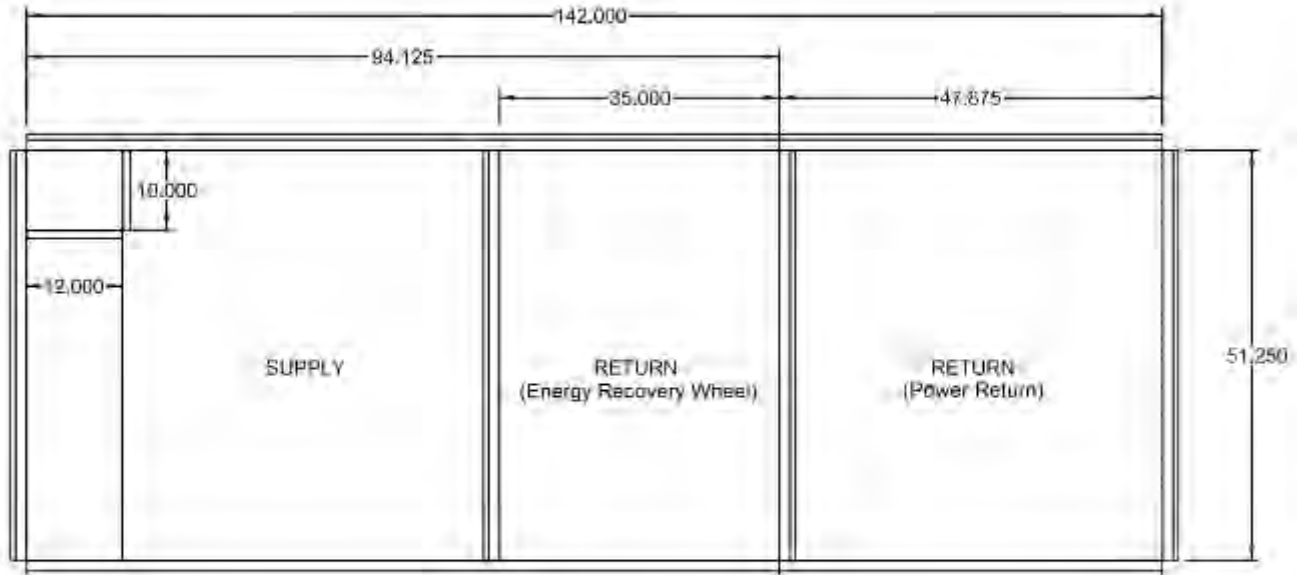
C Cabinet (16-30 Tons) Solid Bottom Standard and Power Exhaust Curb

MINIMUM CONNECTION OPENING AREA		
	SUPPLY	RETURN
C	7.1	7.3



C Cabinet (16-30 Tons) Solid Bottom Energy Recovery Wheel and Power Return Curb

MINIMUM CONNECTION		
OPENING AREA		
	SUPPLY	RETURN
C	7.1	7.3

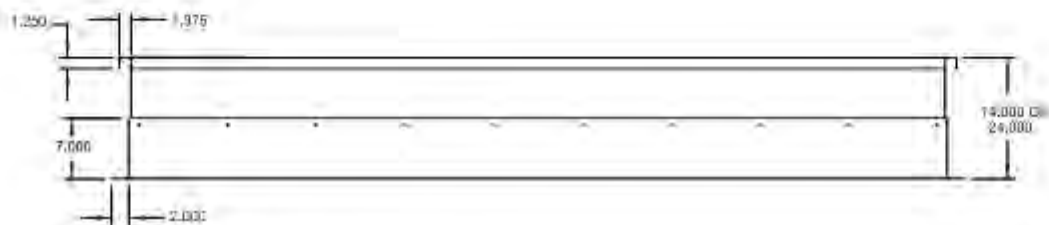
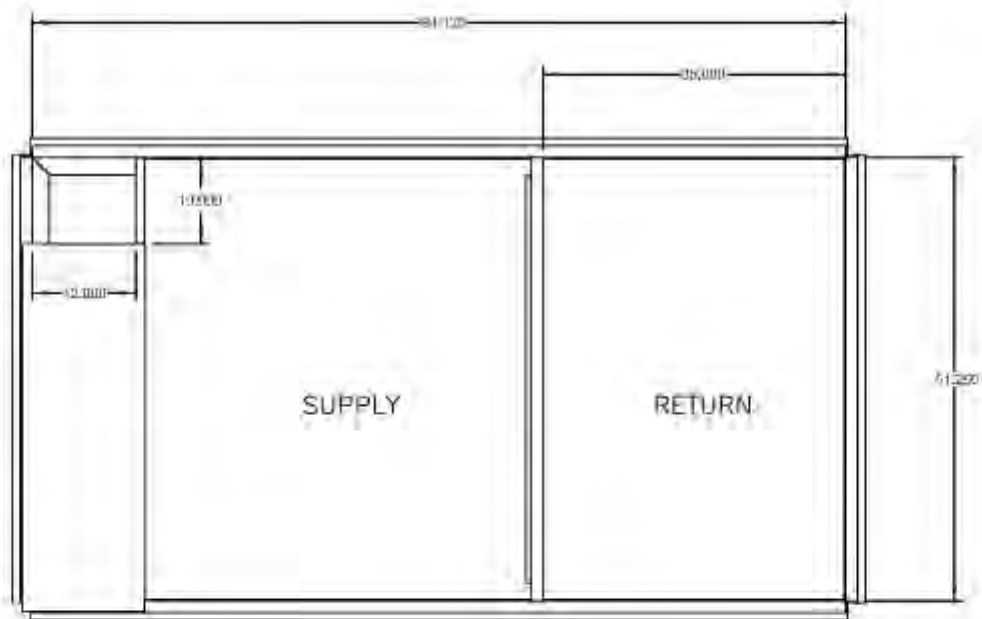
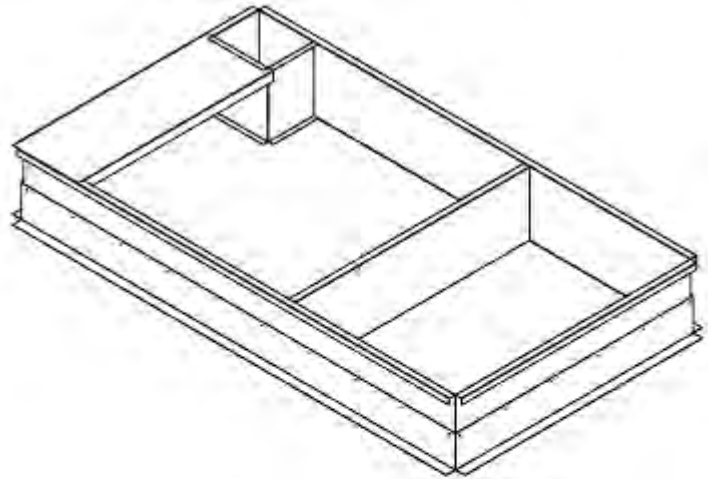




C Cabinet (16-30 Tons) Solid Bottom Adjustable Pitch Standard and Power Exhaust Curb

MAXIMUM PITCH ADJUSTMENTS
3/4" PER FOOT IN EITHER DIRECTION

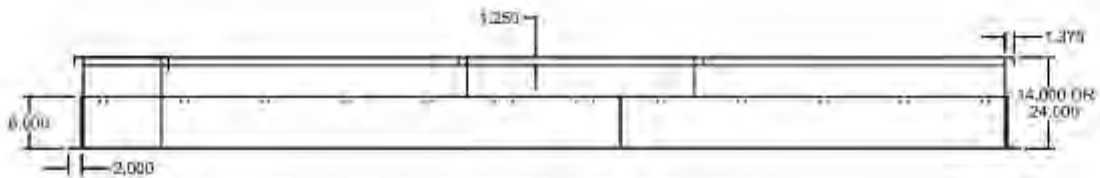
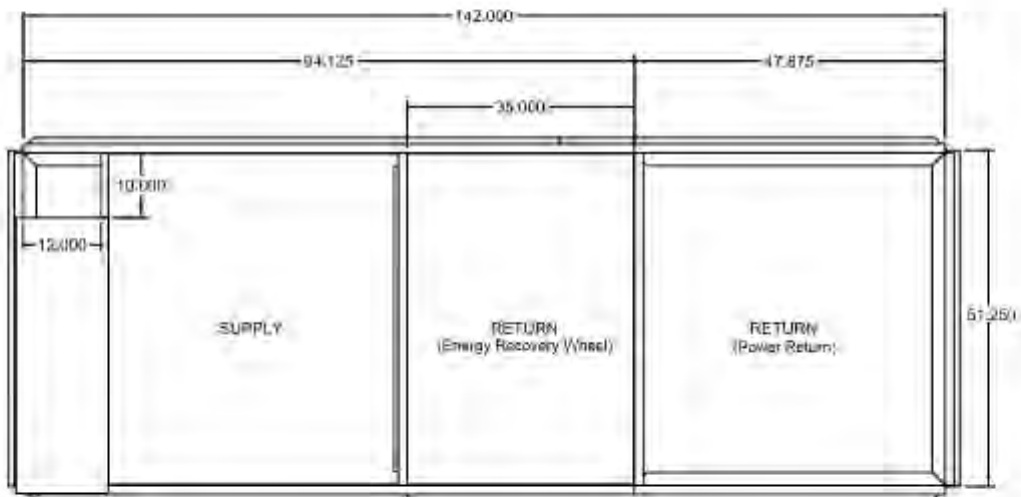
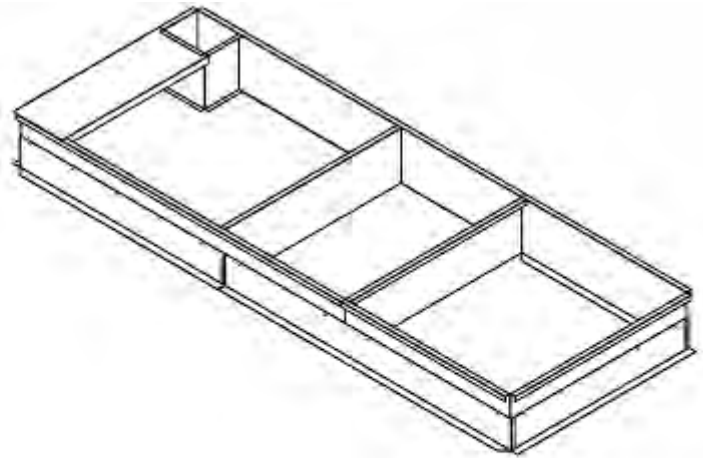
MINIMUM CONNECTION DRAINING AREA		
	SUPPLY	RETURN
□	7.1	7.3



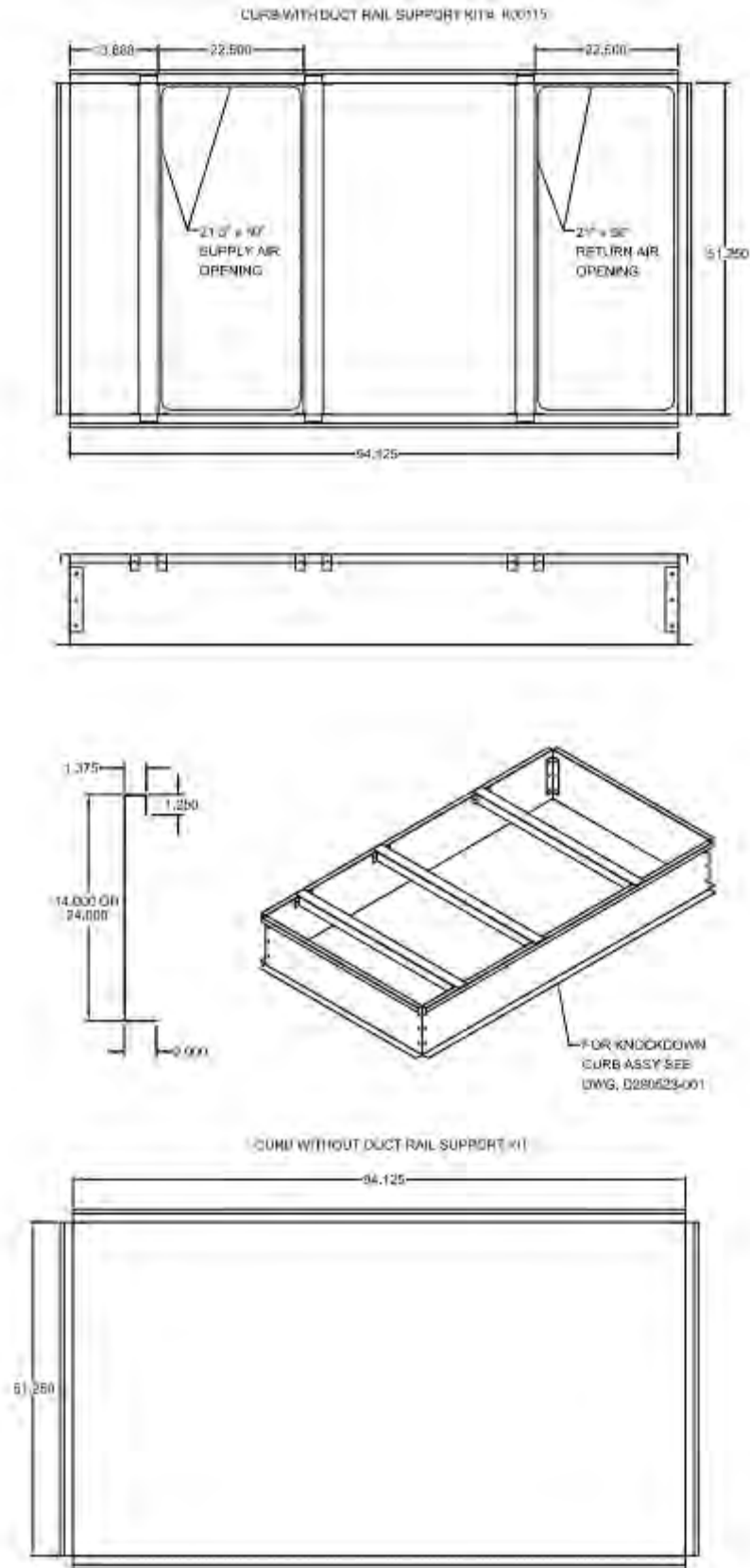
C Cabinet (16-30 Tons) Solid Bottom Adjustable Pitch Energy Recovery Wheel and Power Return Curb

MAXIMUM PITCH ADJUSTMENTS
3/4" PER FOOT IN EITHER DIRECTION

MINIMUM CONNECTION OPENING AREA		
	SUPPLY	RETURN
C	7.1	7.3

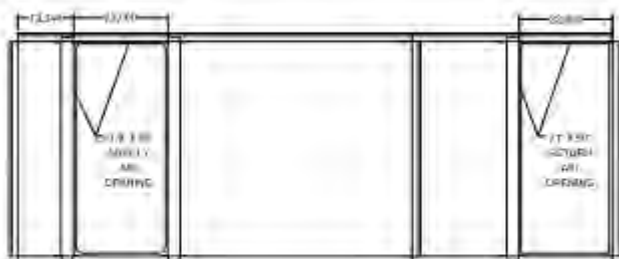


C Cabinet (16-30 Tons) Knock Down Standard and Power Exhaust Curb

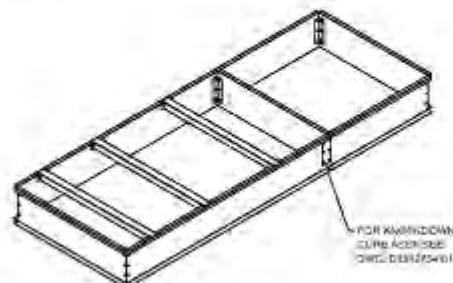
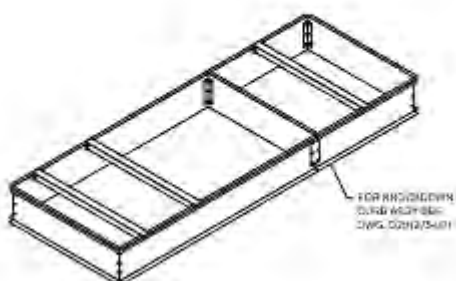
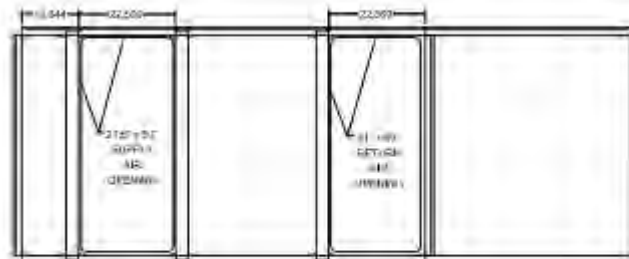


C Cabinet (16-30 Tons) Knock Down Energy Recovery Wheel and Power Return Curb

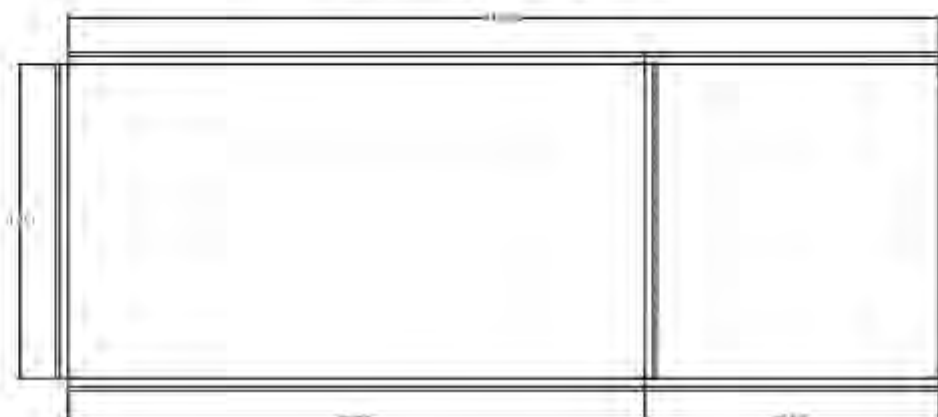
CURB WITH C CABINET DUCT SUPPORT RAIL KIT IN POWER RETURN POSITION
KIT# K00115



CURB WITH D CABINET DUCT SUPPORT RAIL KIT IN HEATWHEEL POSITION
KIT# K00115

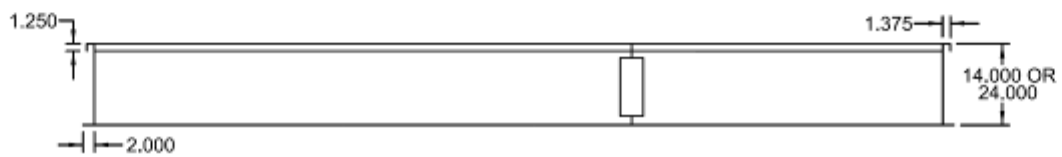
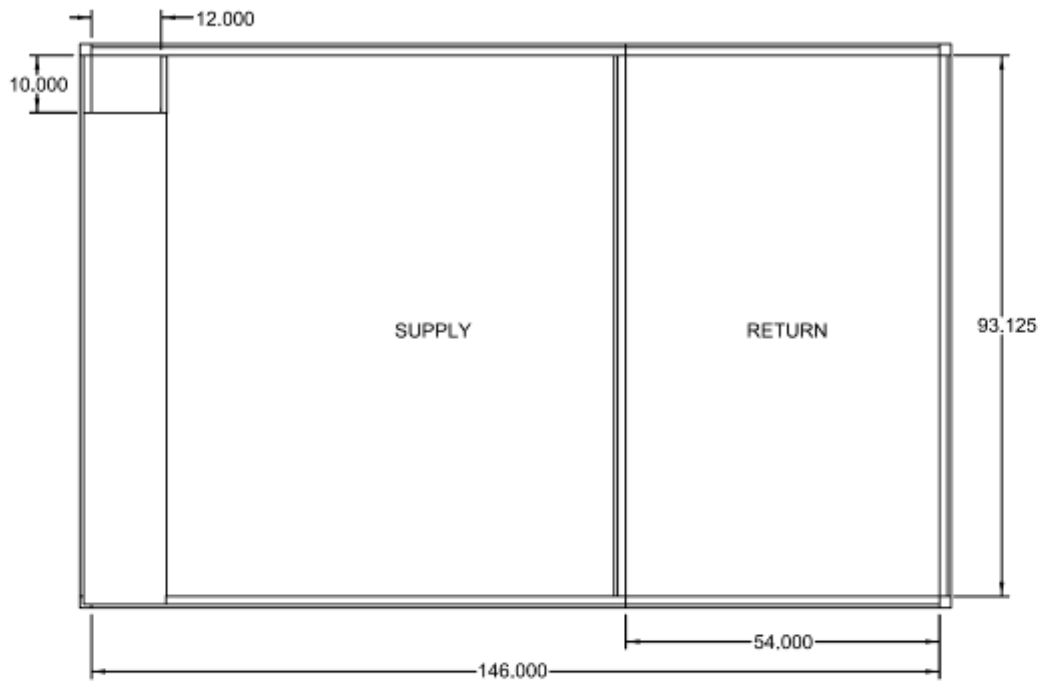
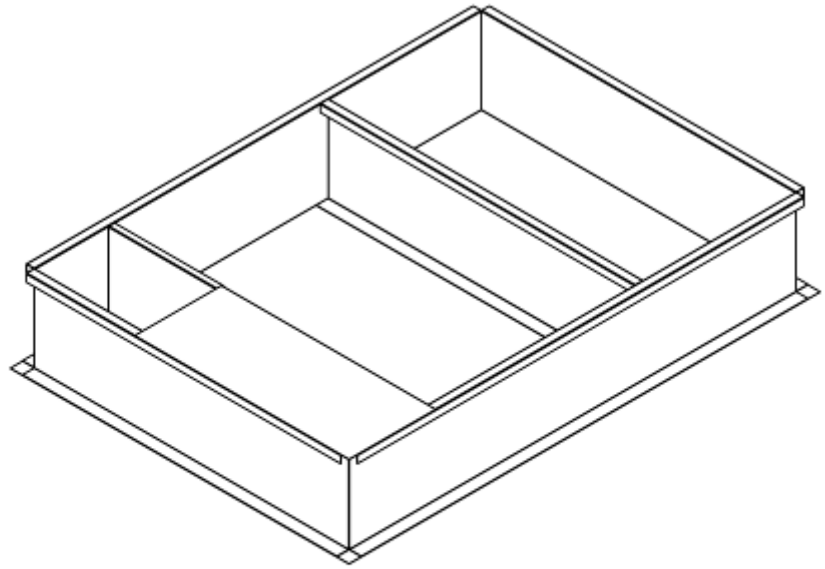


CURB WITHOUT DUCT RAIL SUPPORT



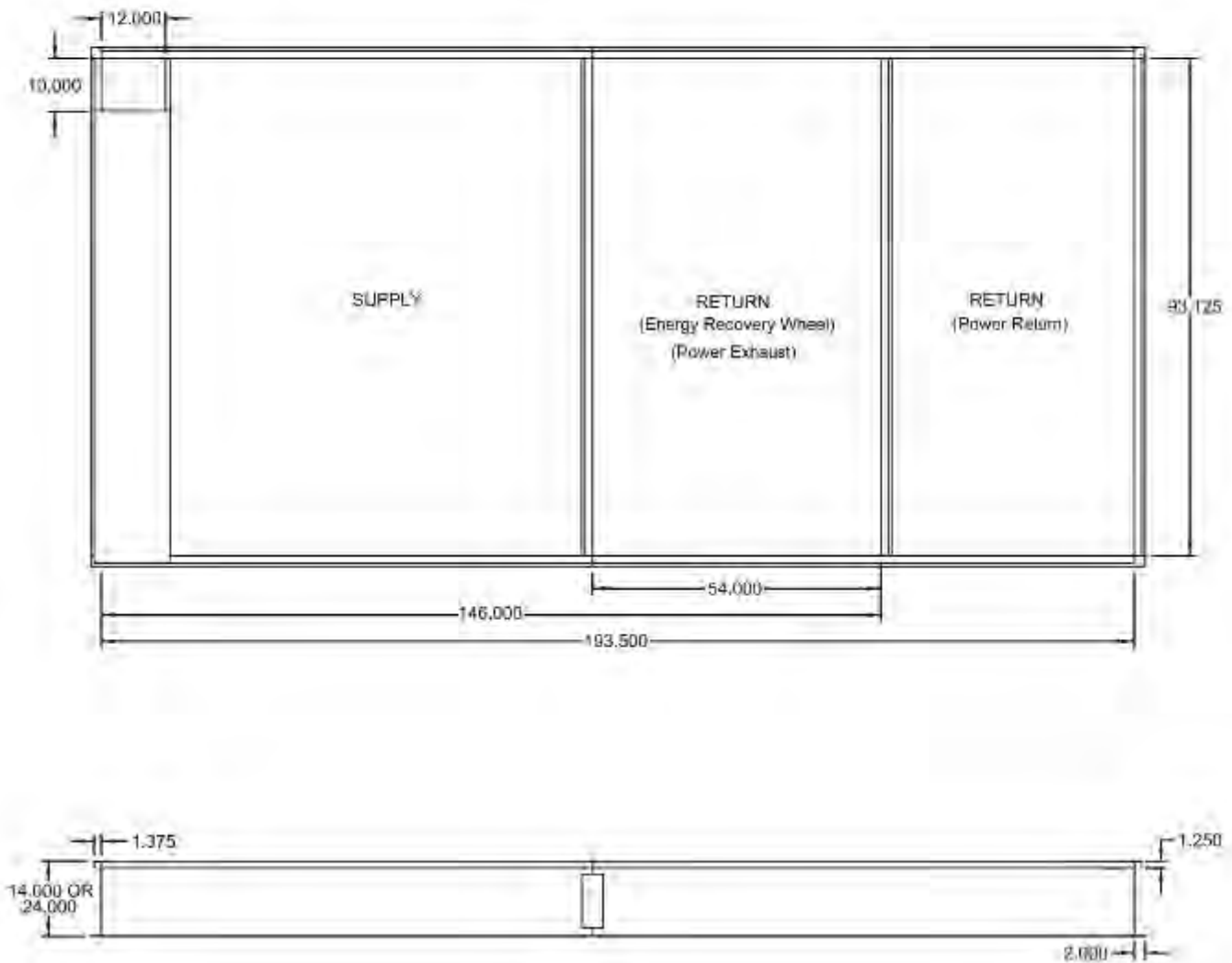
D Cabinet (26-70 Tons) Solid Bottom Standard Curb

MINIMUM CONNECTION OPENING AREA		
	SUPPLY	RETURN
D	12.5	13.4

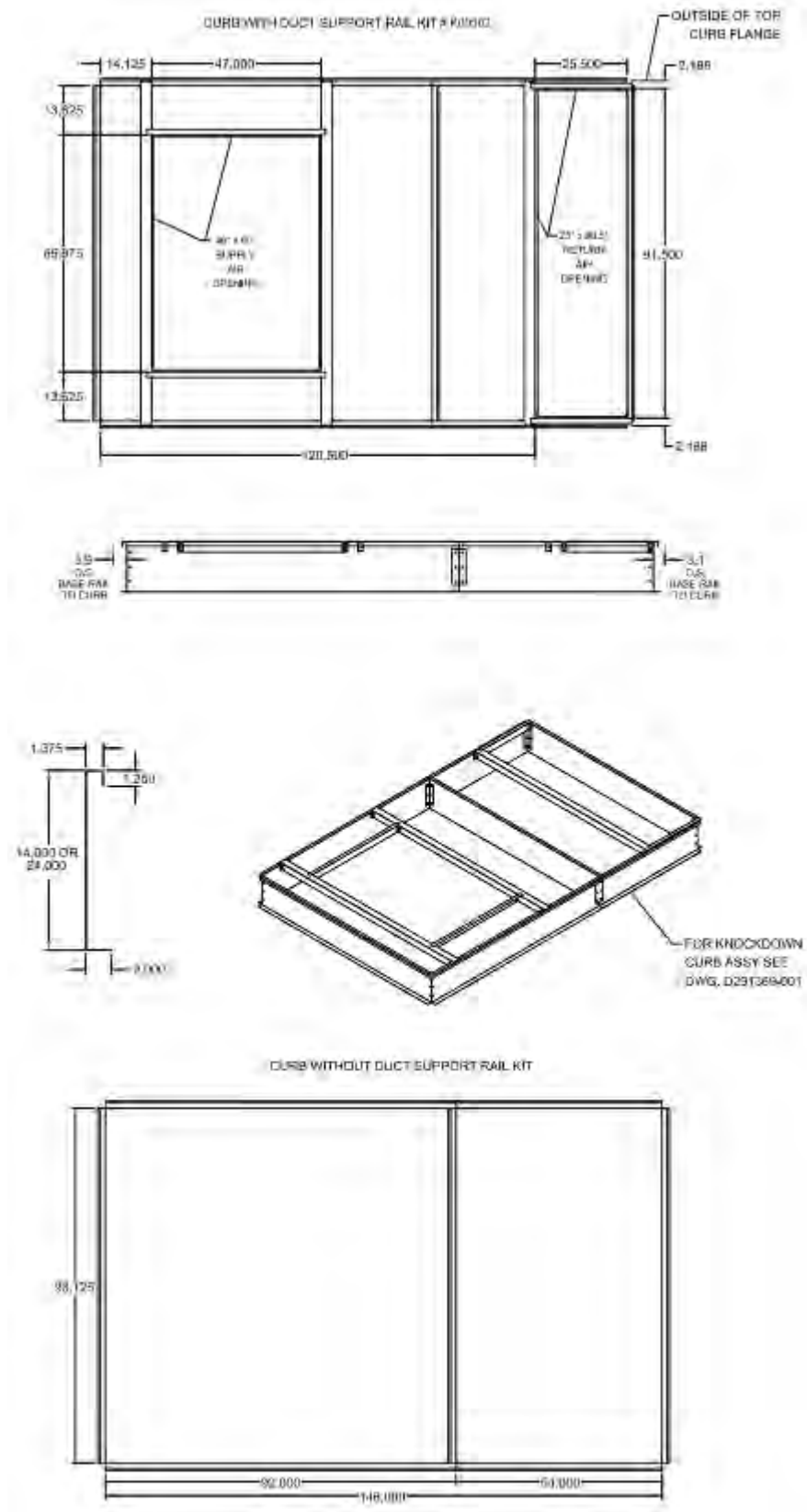


D Cabinet (26-70 Tons) Solid Bottom Power Exhaust, Power Return, and Energy Recovery Wheel Curb

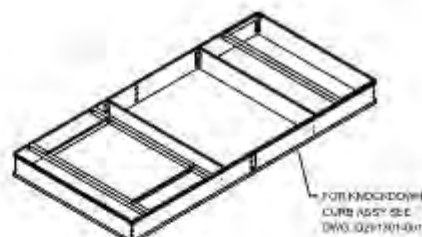
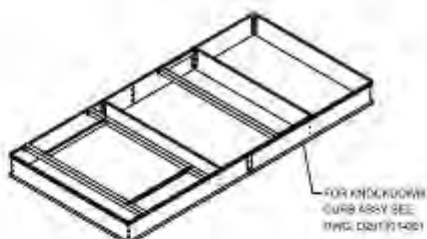
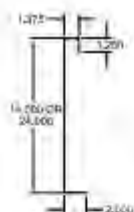
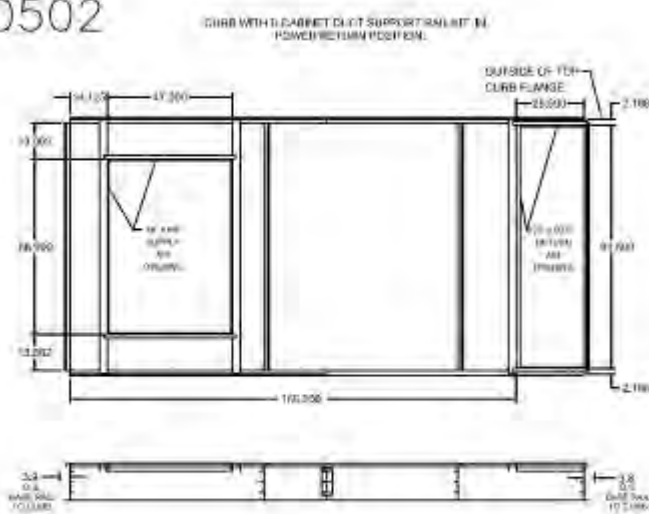
MINIMUM CONNECTION OPENING AREA		
	SUPPLY	RETURN
D	12.5	13.4



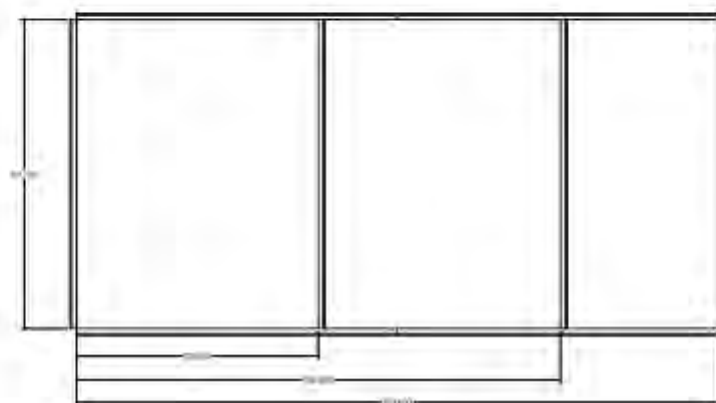
D Cabinet (26-70 Tons) Knock Down Standard Curb



KIT# K00502



DIPG WITHOUT DUCT SUPPORT RAAS





Literature Change History

April 2007

Update of catalog for correction of Figures 15 and 17. Length of A and B cabinet energy recovery wheel knock down curb was changed from 133.200" to 113.125".

July 2007

Update of catalog adding Unit Drawings Section and Application Capacities with the AAONAIRE® Factory Installed Energy Recovery Wheel Section.

November 2007

Update of catalog correcting D Cabinet chilled water coil and hot water coil drawings in the Unit Drawings section, page 194-195. Moved updated curb drawings to the Unit Drawings section page 196-211.

March 2008

Update of catalog adding the R-410A Digital Scroll™ compressor option to Model Option A1, correcting the description of hot gas bypass in Feature 8, and updating Feature 21 Water-Cooled Condenser option combinations. Added RM water-cooled condenser piping drawings.

October 2008

Updated the MERV ratings of the 30% efficient filters to MERV 8.

December 2008

Updated the description of the RM insulation in Features 16 and 17



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