



Installation and Maintenance Manual

IM 1267-4

Group: Applied Air Systems

Part Number: 910278062

Date: June 2019

PreciseLine® Blower Coil Air Handler

Sizes 006 through 050



Sizes 006-020



Sizes 030-050

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Hazardous Information Messages

CAUTION

Cautions indicate potentially hazardous situations, which can result in personal injury or equipment damage if not avoided.

WARNING

Warnings indicate potentially hazardous situations, which can result in property damage, severe personal injury, or death if not avoided.

DANGER

Dangers indicate a hazardous situation which will result in death or serious injury if not avoided.

NOTICE

Notices give important information concerning a process, procedure, special handling or equipment attributes.

WARNING

Improper installation maintenance can cause equipment damage or personal injury.

Installation and maintenance must be performed by qualified personnel familiar with applicable codes and regulations, and experienced with this type of equipment.

CAUTION

PreciseLine units are not designed to be weather resistant; DO NOT install outdoors.

DANGER

Improper ground may result in severe injury or death.

Check grounding nut tightness before connecting power to the external junction box.

Smoke Control and Management Systems

WARNING

Improper smoke or fume air handling can result in severe personal injury or death.

A registered professional engineer must design and approve the air conditioner and air handler application to make sure smoke and fume control meet local fire codes and NFPA requirements for the specific building application. Due to the wide variation in building design and ambient operating conditions into which our products can be applied, we do not represent or warrant that our products will be fit and sufficient for smoke and fume control and management purposes. The owner and building designer must consult a registered professional engineer to satisfy themselves in this regard.

The system design and installation must follow accepted industry practice, such as described in the [ASHRAE Handbook](#), the [National Electric Code](#), and other applicable standards. The installation of this equipment must be in accordance with regulations of authorities having jurisdiction and all applicable codes. It is the responsibility of the installer to determine and follow the applicable codes.

Receiving and Handling

1. Carefully check items against the bills of lading to verify all crates and cartons were received. Carefully inspect all units for damage when received. Report visible and concealed damage immediately to the carrier and a file a claim for damage.
2. PreciseLine air handler units are thoroughly inspected before leaving the factory. Install units carefully to prevent damage.
3. All fans are dynamically balanced before leaving the factory. Carefully inspect fans for rough handling that can cause misalignment or a damaged shaft.

Storing the Unit

Store unit on a level surface. If air handling units are to be stored for any period of time, it is important to rotate the motor shaft (quarterly, as a minimum) to prevent permanent distortion of drive components.

Store units indoors in a clean, dry environment on a level surface. Moisture, debris, and minerals can cause permanent damage to the cabinet and components. Do not allow coverings to trap moisture on the galvanized surface.

1-2	3	4	6-8	5	9	10	11	12	13	14	15	16	17	18	19	20-21	22	23-25	26	27
BC	H	D	012	1	E	L	W	R	L	W	A	T	A	B	P	E1	E	005	D	D

Category	Code Option	Code Designation	Description
Model Type	1-2	BC	= Daikin Blower Coil
Unit Arrangement	3	H	= Horizontal
Fan Arrangement	4	D	= Draw Thru
Model Size	6-8	006	= Nominal 600 CFM
		008	= Nominal 800 CFM
		010	= Nominal 1,000 CFM
		012	= Nominal 1,200 CFM
		016	= Nominal 1,600 CFM
		018	= Nominal 1,800 CFM
		020	= Nominal 2,000 CFM
		030	= Nominal 3,000 CFM
		040	= Nominal 4,000 CFM
		050	= Nominal 5,000 CFM
Design Series	5	1	= 1st Vintage
Voltage	9	A	= 115/60/1
		E	= 208/60/1
		G	= 460/60/1
		K	= 230/60/1
		P	= 277/60/1
		D	= 208/60/3
		L	= 230/60/3
		T	= 460/60/3
		W	= 575/60/3
Primary Coil Connection Location	10	L	= Left Hand (Air back of the head)
		R	= Right Hand (Air back of the head)
Primary Coil Type	11	W	= Water / Glycol
		D	= DX / 410A
Secondary (Heating) Coil Location	12	P	= Preheat
		R	= Reheat
		Y	= None
Secondary (Heating) Coil Connection Location	13	L	= Left Hand (Air back of the head)
		R	= Right Hand (Air back of the head)
		Y	= None
Secondary (Heating) Coil Type	14	W	= Hot Water / Glycol
		Y	= None
Corrosion Package	15	A	= (Coil Casing) Stainless / (Fin Coating) None / (Drip Pan Corrosion Pkg.) Stainless
		Y	= (Coil Casing) Galvanized / (Fin Coating) None / (Drip Pan Corrosion Pkg.) Galvanized
Mix Box Openings	16	T	= Top + Rear
		B	= Bottom + Rear
		Y	= None
Mix Box Actuator Type	17	T	= On/Off
		A	= 0-10V M
		M	= Manual
		Y	= None
Discharge Plenum Opening	18	B	= Bottom
		T	= Top
		E	= End
		G	= Front
		Y	= None - No Discharge Plenum
		R	= Right Hand (Air back of the head)
		L	= Left Hand (Air back of the head)
		F	= Field Cut-Out (Has A Plenum, Does Not Have Cut-Outs)
Electric Heat Location	19	P	= Preheat
		Y	= None
Electric Heat Stages	20-21	E1	= 1st Stage Electric Heat
		SS	= SCR (Silicone Controlled Rectifier)
		Y	= None
Electric Heat Power Supply	22	A	= 115/60/1
		E	= 208/60/1
		G	= 460/60/1
		K	= 230/60/1
		P	= 277/60/1
		D	= 208/60/3
		L	= 230/60/3
		T	= 460/60/3
		W	= 575/60/3
		Y	= None
Electric Heat Size	23-25	00A	= 0.5 kW Electric Heat
		001	= 1.0 kW Electric Heat
		002	= 2.0 kW Electric Heat
		003	= 3.0 kW Electric Heat
		004	= 4.0 kW Electric Heat
		005	= 5.0 kW Electric Heat
		006	= 6.0 kW Electric Heat
		008	= 8.0 kW Electric Heat
		009	= 9.0 kW Electric Heat
		010	= 10.0 kW Electric Heat
		011	= 11.0 kW Electric Heat
		012	= 12.0 kW Electric Heat
		013	= 13.0 kW Electric Heat
		015	= 15.0 kW Electric Heat
		018	= 18.0 kW Electric Heat
		020	= 20.0 kW Electric Heat
		021	= 21.0 kW Electric Heat
		024	= 24.0 kW Electric Heat
		030	= 30.0 kW Electric Heat
		036	= 36.0 kW Electric Heat
		039	= 39.0 kW Electric Heat
		YYY	= None
Primary (Cooling) Coil Piping Package Type	26	B	= Basic (No Strainer and Circuit Setter)
		D	= Deluxe (Includes strainer and circuit setter)
		N	= Internal Piping Connections
		Y	= None
Secondary (Heating) Coil Piping Package Type	27	B	= Basic (No Strainer and Circuit Setter)
		D	= Deluxe (Includes Strainer and Circuit Setter)
		N	= Internal Piping Connections
		Y	= None

Optional Mixing Box and Discharge Plenum Removal

Blower coil units ship fully assembled however, the discharge plenum and/or mixing box may be removed if necessary to navigate constricted passageways. Detachment of these components requires removal of the screws on the sides, top and bottom of the unit as shown in Figure 1. If the unit must be turned over or tilted up to access the bottom screws, care must be used to avoid damage.

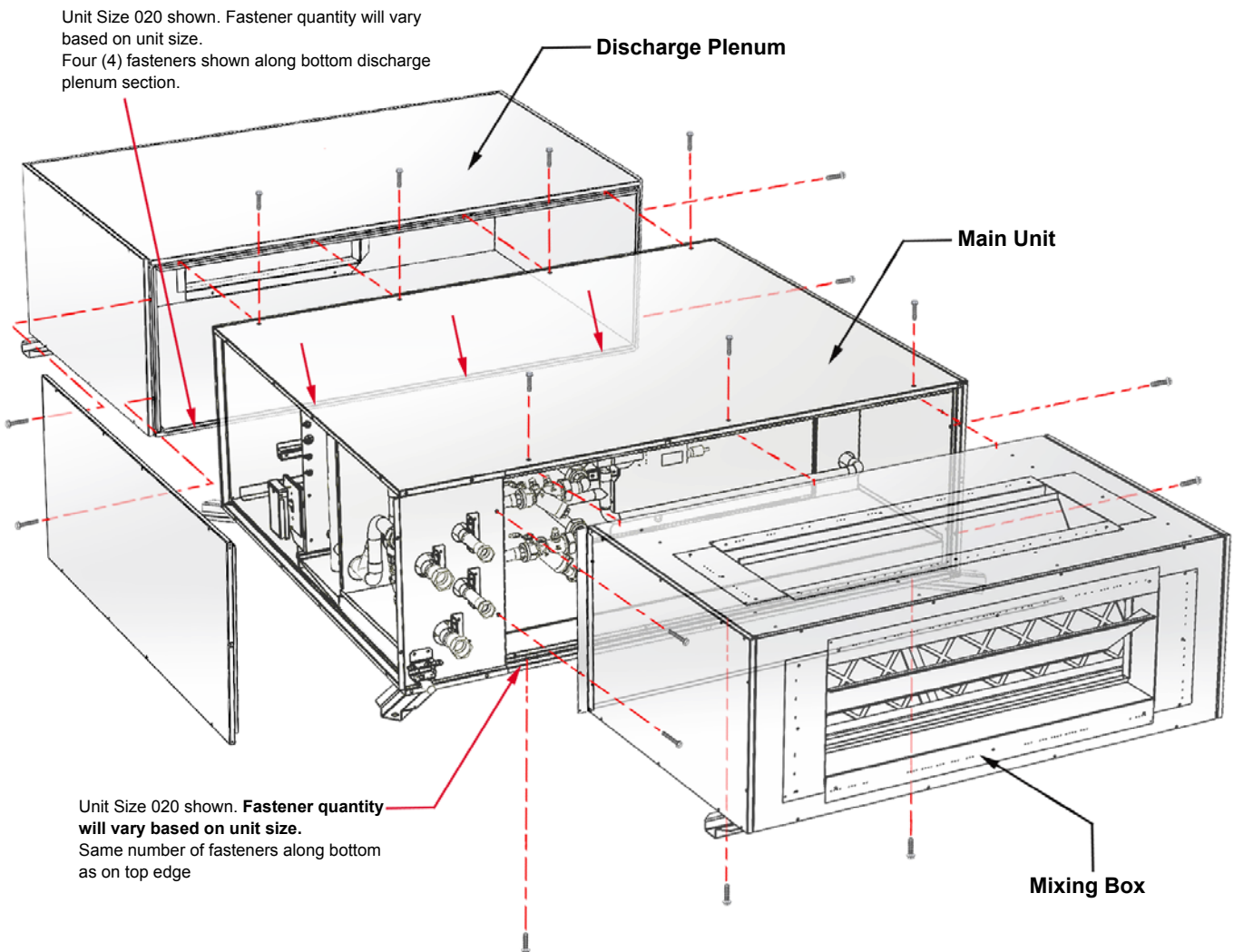
CAUTION

Sharp edges can cause personal injury. Avoid contact with them. Use care and wear protective clothing, safety glasses and gloves when handling parts and servicing unit.

NOTICE

It is recommended all bottom screws be removed first. If the unit must be turned over or tilted up to access the bottom screws, care must be used to avoid damage.

Figure 1: Blower Coil Unit - Disassembling Optional Mixing Box and Discharge Plenum



Service Clearances

Leave adequate space around the unit for piping, coils, and drains. Always have access to at least one side of the unit for regular service and maintenance. Refer to images in [Figure 2](#) for servicing space requirements. Routine maintenance examples include filter replacement and drain pan inspection/cleaning. Provide sufficient space on the controls access side of the unit for filter replacement, drain pan cleaning and coil removal, if necessary.

For routine maintenance, remove service panels on either side of the unit. See [Figure 10](#) panel removal on [page 10](#). Allow sufficient space for service panel removal and to meet the service clearance requirement of the section it accesses. Service panels are not interchangeable with service panels on the opposite side of the unit. Leave at least 42" of clearance in front of electrical power devices (starters, VFDs, disconnect switches, and combination devices) mounted behind service panels.

Figure 2: Clearance Requirements

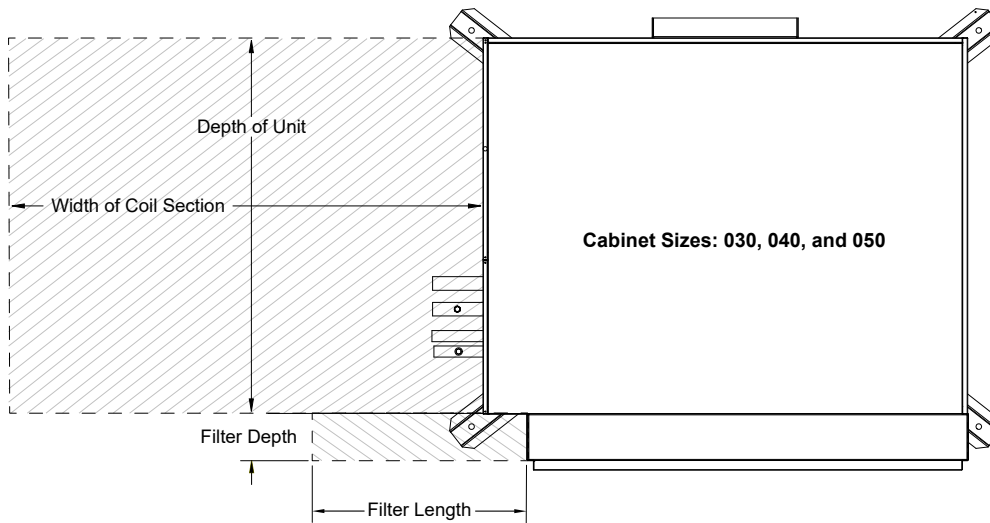
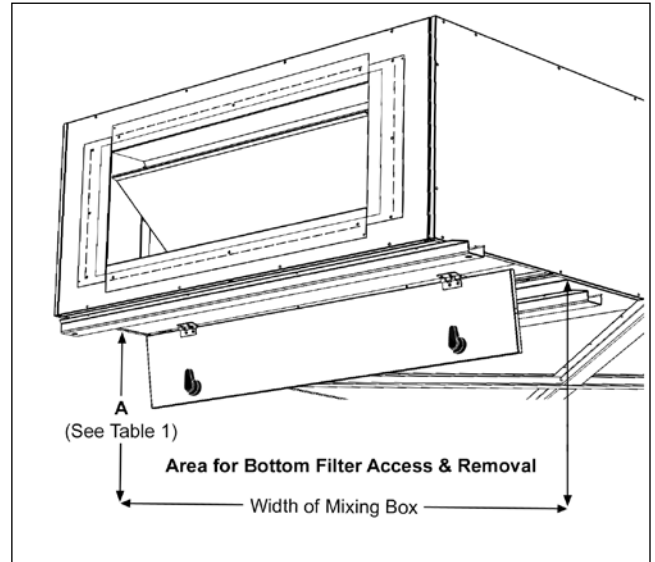
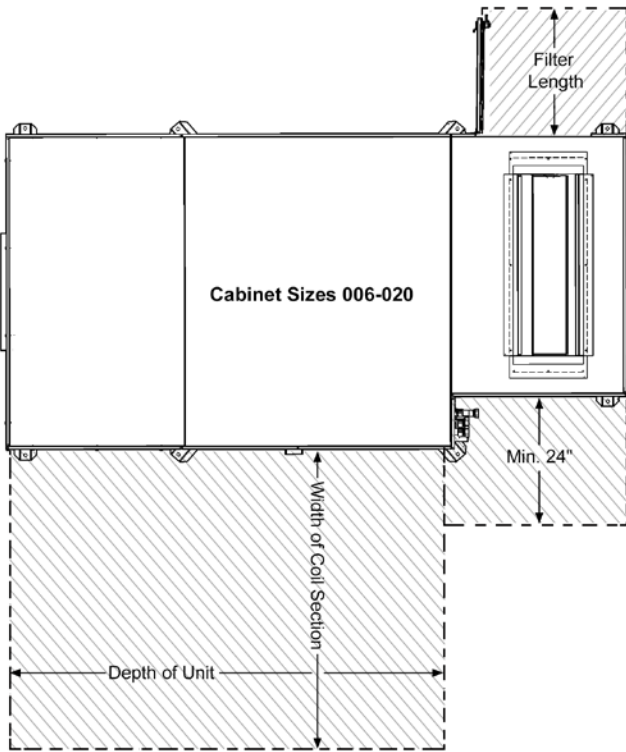
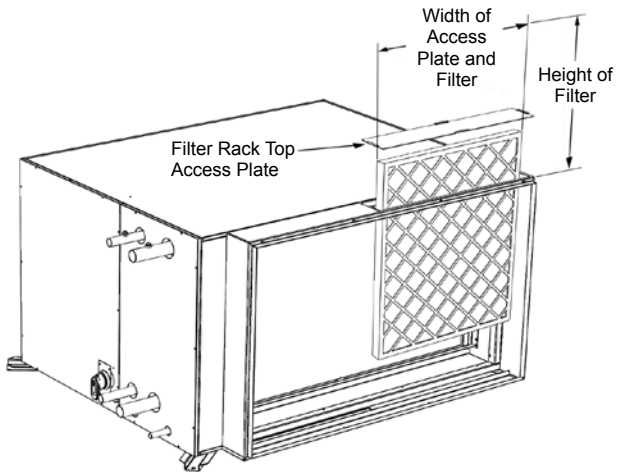


Table 1: Bottom Filter Access Clearance

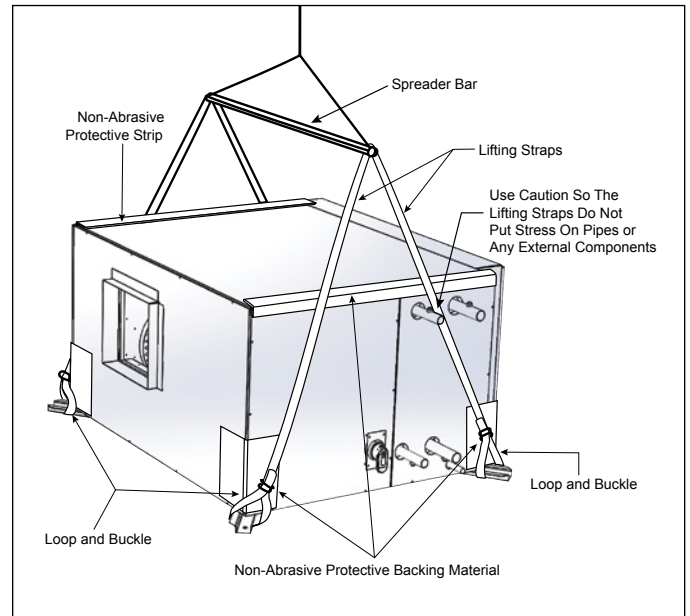
	006	008	010	012	016	018	020	030	040	050
Cabinet	30L x 15W x 18H	30L x 20W x 18H	30L x 28W x 18H	30L x 28W x 18H	30L x 36.5W x 18H	30L x 45W x 18H	30L x 45W x 18H	33L x 49W x 26H	33L x 54W x 30H	33L x 61W x 32H
A	18.00	18.00	18.00	18.00	18.00	18.00	18.00	24.00	28.00	30.00

Figure 3: Clearance for Filter Access from Top - Unit Size 030-050



Before hoisting into position, test lift for stability and balance. Avoid twisting or uneven lifting of the unit.

Figure 4: Rigged Main Unit - Size 030-050 Shown



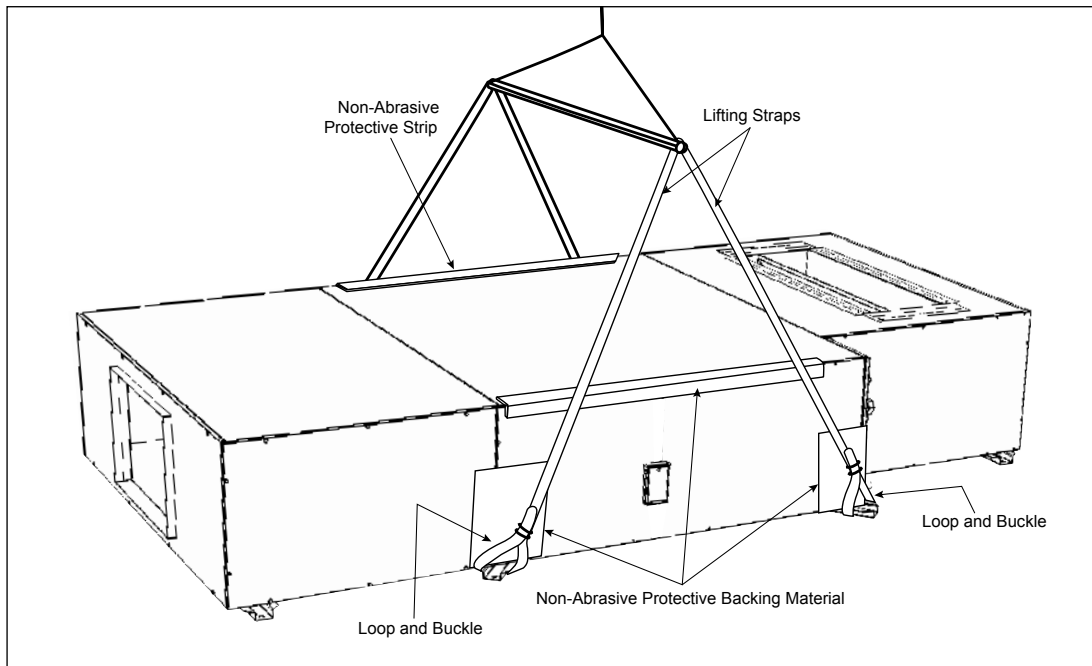
Rigging

Rig units using straps or a sling with a loop and buckle. Fasten strapping loop around the mounting brackets on the unit main section (Figure 4 & Figure 5). If a field-installed mixing box and/or an optional discharge plenum is attached, adjust to balance the unit properly.

⚠ CAUTION

To avoid damage to the unit cabinet, use spreader bars. Position spreader bars and position protective backing material to keep cables from rubbing the frame, connections, or panels.

Figure 5: Rigged Main Unit with Optional Mix Box and Discharge Plenum - Size 006-020 Shown



Hanging the Unit from a Ceiling

⚠ WARNING

Do not suspend the unit from the top. The unit top will not support the weight of the unit. Equipment damage and severe personal injury can result.

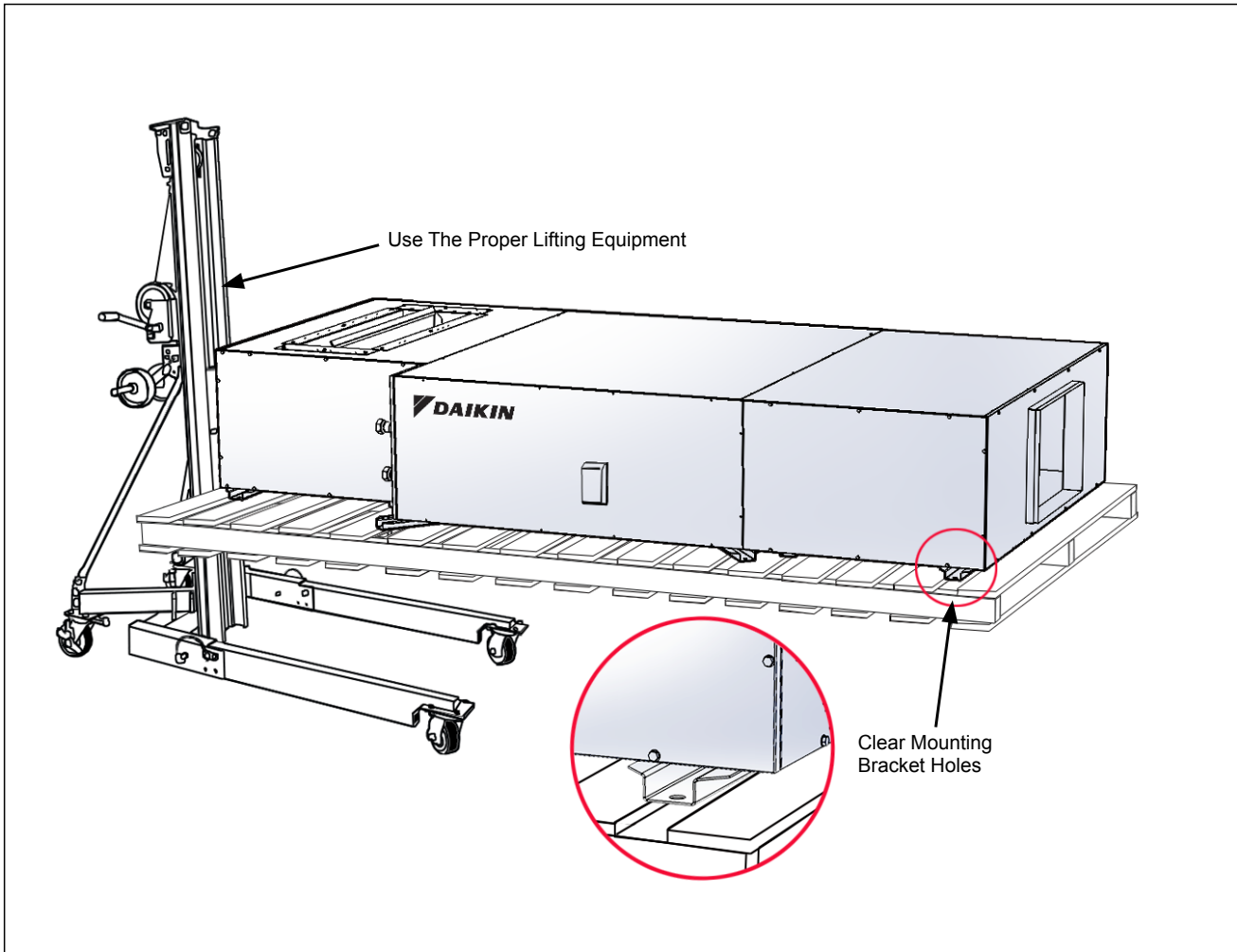
Before hanging, the unit should be rigged and completely assembled. The PreciseLine blower coil main section should be positioned on the pallet to permit access to mounting holes in the structural cross bracing under the unit. The entire unit is then lifted on the pallet (Figure 6) and secured with minimum 1/2" threaded rod, washers and lock nuts through all support bracing. If the pallet is not available, the fully assembled unit

may be supported by the main section, while lifting into place (Figure 4 & Figure 5 on page 7). In this case, the main section must be secured with the threaded rod before the mixing box or discharge plenum. Spring isolation is recommended on sizes 030, 040 and 050 as these units do not have any internal vibration isolation. Refer to Figure 8 and Figure 9 on page 9.

⚠ CAUTION

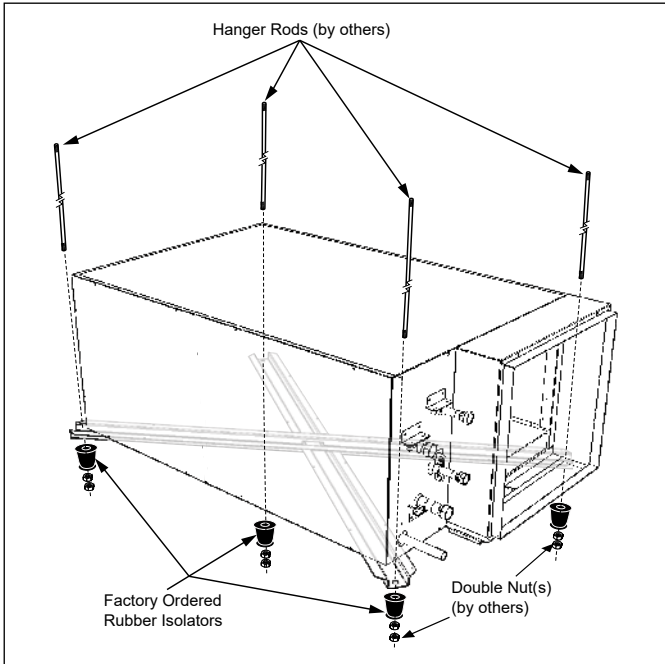
To avoid damage to the unit cabinet, use spreader bars and non-abrasive protective strips between straps and unit cabinet. To keep straps from rubbing the frame, connections, or panels.

Figure 6: Use The Proper Lifting Equipment



Mounting Isolation

Figure 7: Ceiling Hung with Rubber Isolators - Unit Sizes 030-050.



Spring Mount—Sizes 030, 040, 050

Factory ordered spring isolators are recommended on unit sizes 030, 040 and 050. The isolators should all be at the same height opening. If adjustments are required, loosen the 5/16" capscrew on top of the isolator and turn the adjusting bolt to lower or raise the unit base. Retighten the capscrew when adjustments are completed. See [Figure 8](#).

Figure 8: Floor Mounted Spring Isolation - Unit Sizes 030, 040, 050.

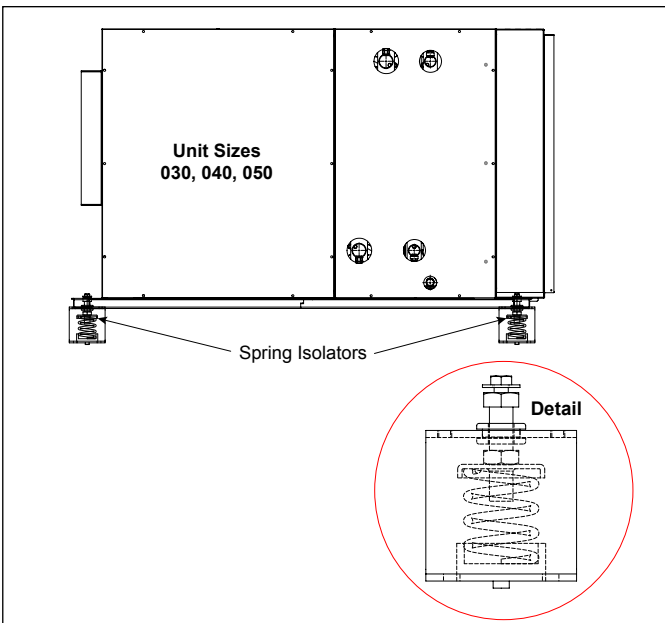
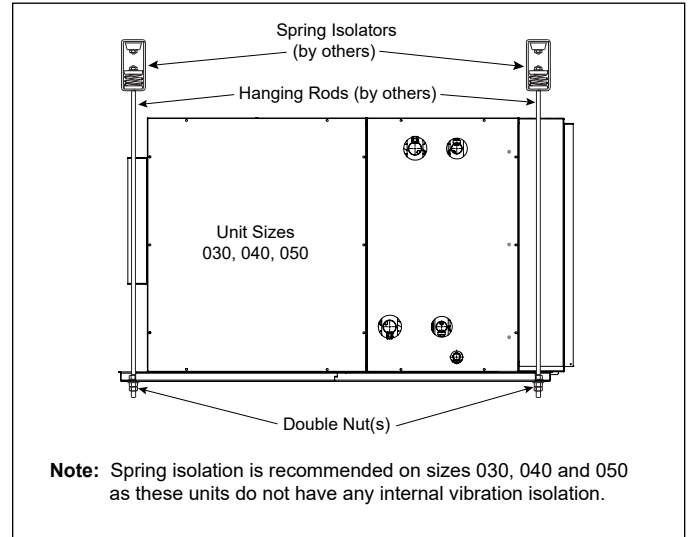


Figure 9: Ceiling Hung Spring Isolation - Unit Sizes 030, 040, 050.



Unit Leveling

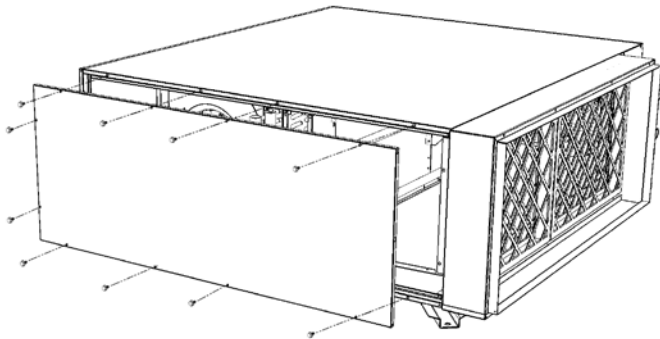
Install the blower coil on a flat and level surface (or verify that unit is level when hanging from the ceiling). Where the surface irregularities allow the equipment to distort, shim the appropriate base rails to straighten the unit. Distorted units can cause misfit between sections, cabinet leaks, binding of the doors and access panels and prevent proper draining of drain pans.

Panels and Doors

Panel Removal

Blower coils have hinged access doors or screw-on panels that can be easily removed and handled. To gain access through a side panel, remove the fasteners along the sides of the panel and lift the panel off. Note that the number of fasteners will vary based on unit size.

Figure 10: Panel Removal



To open the hinged filter access door, rotate the latch handle(s) 1/4 turn as shown in Figure 11.

Figure 11: Mixing Box Filter Access Door

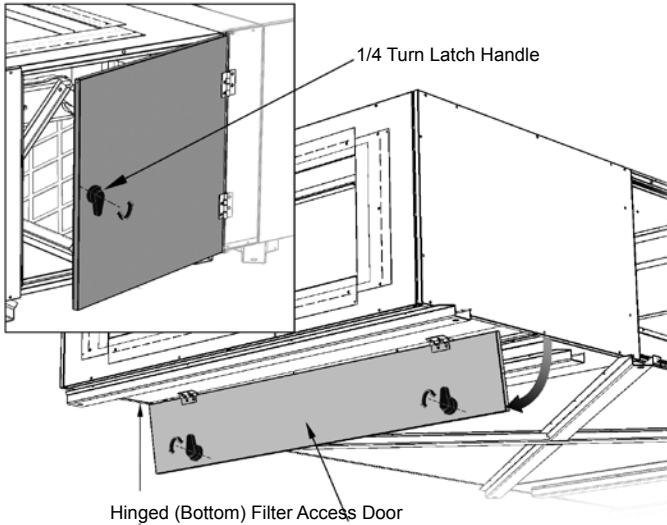


Figure 12: Side Filter Access

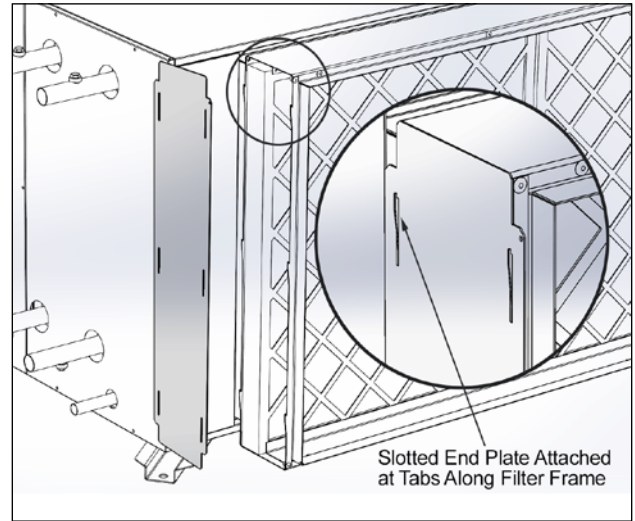


Figure 13: Top Filter Access

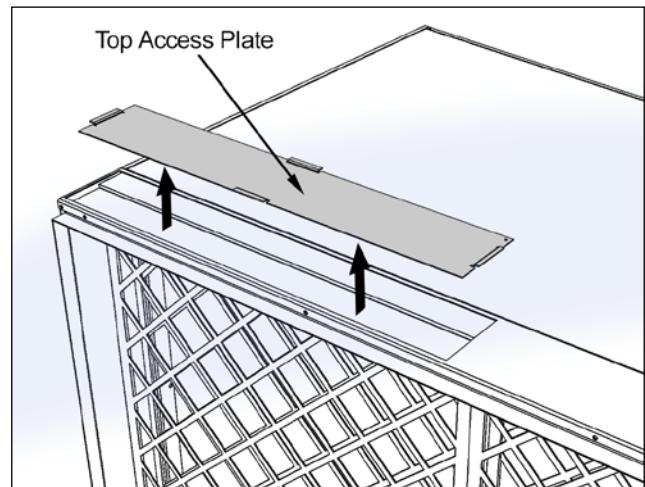
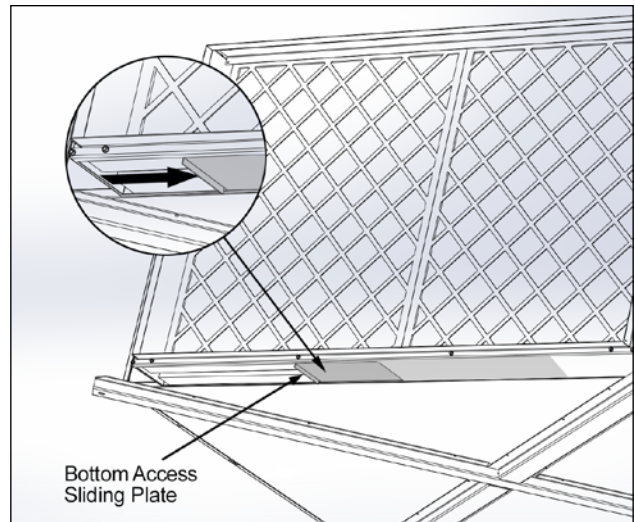


Figure 14: Bottom Filter Access



Piping and Coils

Follow applicable piping design, sizing, and installation information presented in ASHRAE Handbooks in the design and installation of piping. Observe all local codes and industry standards. Do not apply undue stress at the connection to the coil headers. Support pipe work independently of the coils.

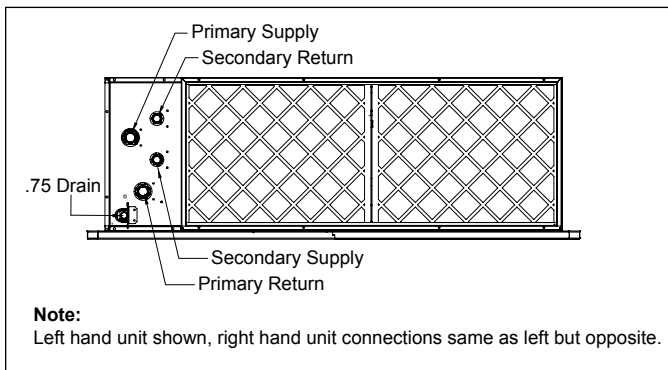
NOTE: Piping field connection locations for units with and without the optional factory installed valve package are outside the cabinet. Refer to dimensional drawings beginning on page 33 for connection locations and dimensions. Piping field connections for units selected with the "no piping" option are inside the cabinet. See [Hydronic Coil Size and Connection Type](#) on page 29.

Hydronic Cooling Coil Connections

Hydronic cooling coil guidelines are listed below. Also, refer to [Figure 15](#) and [Figure 18](#) on page 12.

1. Chilled water supply, chilled water return, and drain stubs extend through the end panel of the cabinet so all field connections are made outside the cabinet. All stubs are labeled on the end panel.
2. Chilled water supply and chilled water return connections are copper FPT on sizes 006 through 020 and copper sweat on sizes 030 through 050. See [Hydronic Coil Size and Connection Type](#) on page 29.
3. When making threaded connections, do not apply undue stress to the stub. Use a backup wrench to avoid damaging the braze joint between the stub and the valve package or coil. When making a sweat connection the cabinet and valves must be protected from heat damage. Use wet cloths or a heat shield to prevent the heat from soldering from burning the paint and insulation around the stub.

Figure 15: Coil Connections, Unit Sizes 006 Thru 020



Hydronic Heating Coil Connection

Hydronic heating coil guidelines are listed below.

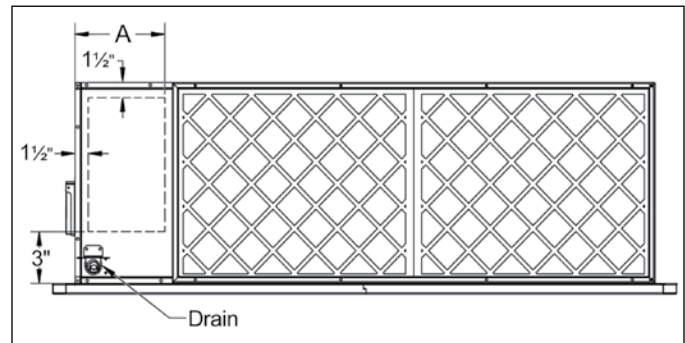
1. Hot water supply and hot water return stubs extend through the panel of the cabinet so all field connections are made outside the cabinet. Stub locations are the same for preheat and reheat coils. All stubs are labeled on the panel.
2. Hot water supply and hot water return connections are copper FPT on unit sizes 006 through 020 and copper sweat on sizes 030 through 050. See [Hydronic Coil Size and Connection Type](#) on page 29.
3. When making threaded connections, do not apply undue stress to the stub. Use a backup wrench to avoid damaging the braze joint between the stub and the valve package or coil. When making sweat connections the cabinet and valves must be protected from heat damage. Use wet cloths or a heat shield to prevent heat from soldering from burning the paint and insulation around the stub.
4. Entering air below 40°F is not recommended. Extended periods of temperatures below freezing can cause some components to function improperly.
5. If fresh air and return air are to be heated by a hot water coil, take care in the design of the system to provide thorough mixing before air enters the coil.

Hydronic Coils with No Piping

Hydronic coil guidelines for units selected with the "No Piping" option are listed below. Refer to [Table 2](#) on page 12 for connection size and type.

1. The supply and return coil stubs terminate inside the cabinet over the drip pan so all field connections are made inside the cabinet. All stubs are factory labeled.
2. Piping penetration holes must be field drilled and must be completely within the drill area on one of the factory designated panels. (See [Figure 16](#) below and [Figure 17](#) on page 12) The diameter of the hole should be no more than 1/2" larger than the pipe and gap around the pipe should be sealed after installation.
3. When making the sweat connection the cabinet, coil and drain pan must be protected from heat damage. Use wet cloths or a heat shield to prevent the heat from soldering from burning the paint and insulation around the stub.

Figure 16: Size 006 - 020 Hydronic Coil Drill Area - Front



Unit Size	006	008	010	012	016	018	020
A	7.13	7.80	7.62			7.53	

Figure 17: Size 006 - 020 Hydronic Coil Drill Areas – Top and Right Side

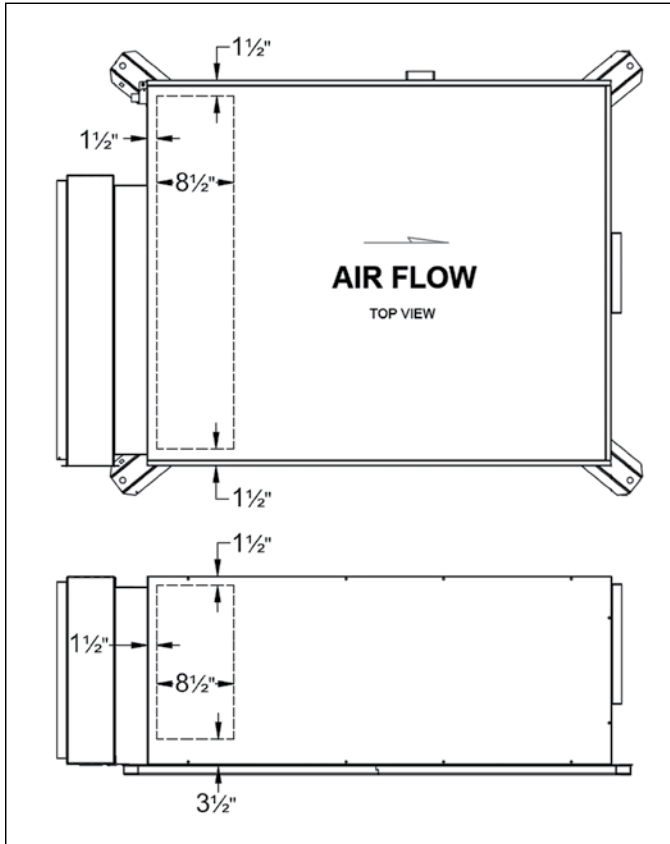


Figure 18: Field Pipe Connections, Unit Sizes 030, 040, 050

NOTE: Preheat coil option shown in figure below.

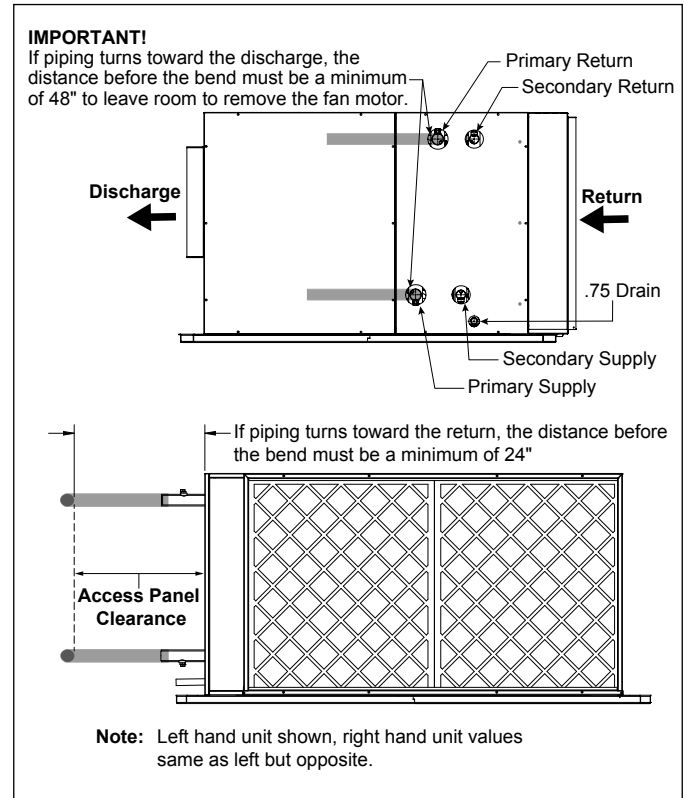


Figure 19: DX Interlaced Coil, Unit Sizes 030, 040, 050

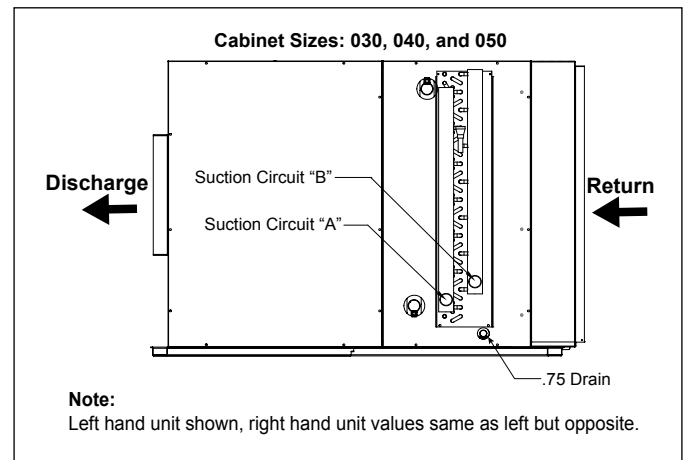


Table 2: Hydronic Coil Connection Size and Type with No Piping Option

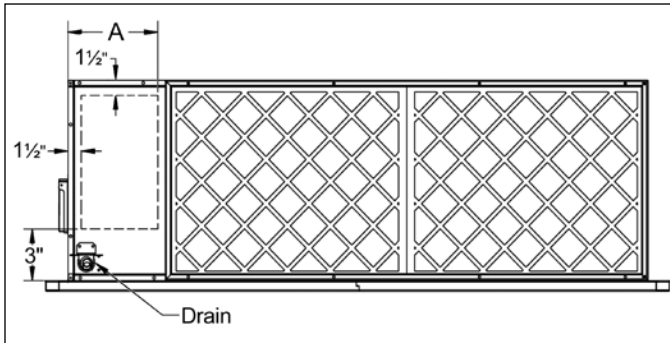
Unit Size	006	008	010	012	016	018	020
Connection Type	M-SWT						
2-Row Cooling	0.625	0.625	0.625	0.625	0.875	0.875	0.875
4-Row Cooling	0.625	0.625	0.875	0.875	0.875	1.125	1.125
6-Row Cooling	0.625	0.875	0.875	0.875	1.125	1.125	1.125
8-Row Cooling	—	—	—	—	—	—	—
1-Row Heating	0.625	0.625	0.625	0.625	0.625	0.625	0.625
2-Row Heating	0.625	0.625	0.625	0.625	0.875	0.875	0.875

Direct Expansion (DX) Coils

Direct expansion coil connection guidelines are listed below.

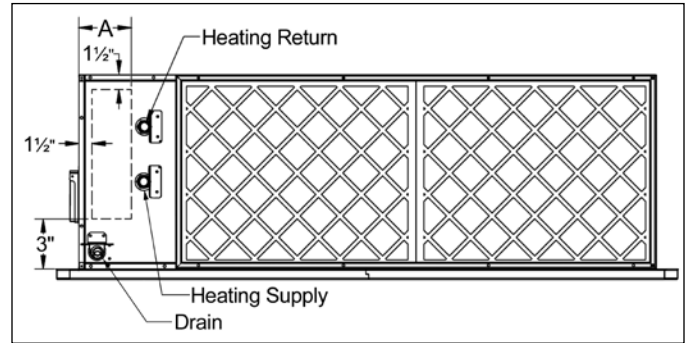
1. On unit sizes 006 - 020 the coil distributor and suction connections are inside the cabinet. On unit sizes 30 - 50 the distributor connection is inside the cabinet and the suction line connection is outside the cabinet. (Refer to [Table 20 on page 30](#)).
2. For connections inside the cabinet, piping penetration holes must be field drilled and must be completely within the drill area on the factory designated panel. (See [Figure 20](#) or [Figure 21](#)) The diameter of the hole should be no more than 1/2" larger than the pipe and gap around the pipe should be sealed after installation.
3. The liquid line penetration should be made after the thermal expansion valve has been installed such that the hole aligns with the elbow off the bottom of the valve. The thermal expansion valve should be located directly below the distributor and connected to it with a short (2" maximum) section of straight pipe.
3. The thermostat expansion valve must be an external equalizer tube type. The equalization tube must be connected to suction header for proper function. (See [page 31](#))
4. Use care when piping up the system, making sure all joints are tight and all lines are dry and free of foreign material. For typical refrigerant piping, see the condensing unit product manual.

Figure 20: Sizes 006 - 020 Dx Coil Drill Area



Unit Size	006	008	010	012	016	018	020
A	7.13	7.80	7.62			7.53	

Figure 21: Sizes 006 - 020 Dx Coil with Reheat or Preheat Drill Area



Unit Size	006	008	010	012	016	018	020
A	4.38	5.05		4.87		4.78	

Figure 22: Sizes 030 - 050 – DX Only and DX with Preheat Drill Area

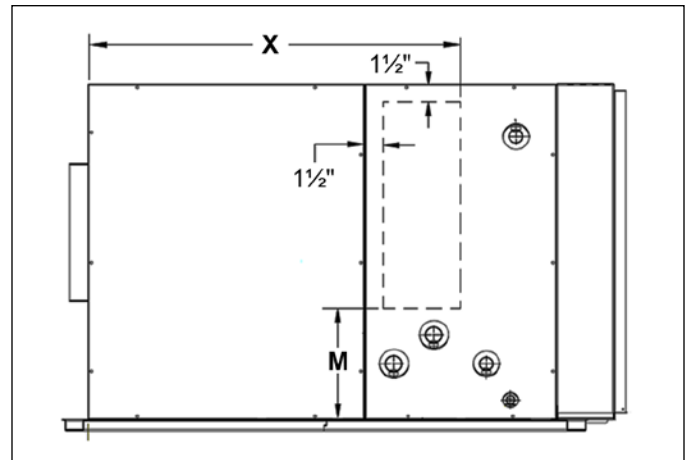


Table 3: Drill Area Locations – DX Only and DX with Preheat

Single Circuit Dx Primary Only		
Unit Size	X	M
30	29.18	6.35
40	32.18	6.35
50	32.18	6.35
Interlaced Dx Primary Only		
30	29.18	11.35
40	32.18	11.35
50	32.18	9.35
Single Circuit Dx Primary with 1 Row Hydronic Preheat		
30	29.18	6.62
40	32.18	7.62
50	32.18	6.62
Interlaced Dx Primary with 1 Row Hydronic Preheat		
30	29.18	7.35
40	32.18	7.62
50	32.18	7.35

Drill Area Locations – DX Only and DX with Preheat (Continued)

Single Circuit Dx Primary with 2 Row Hydronic Preheat		
Unit Size	X	M
30	29.18	6.65
40	32.18	6.62
50	32.18	6.62
Interlaced Dx Primary with 2 Row Hydronic Preheat		
30	29.18	7.35
40	32.18	7.35
50	32.18	7.35

Figure 23: Sizes 030 - 050 Drill Area – DX with Reheat

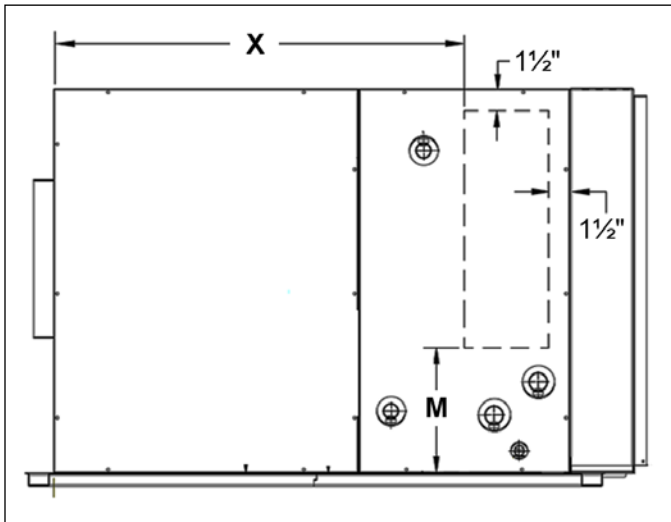


Table 4: Drill Area Locations – DX with Reheat

Single Circuit Dx Primary with 1 Row Hydronic Reheat		
Unit Size	X	M
30	27.13	6.61
40	30.14	7.65
50	30.14	6.62
Interlaced Dx Primary with 1 Row Hydronic Reheat		
30	27.13	7.35
40	30.14	7.62
50	30.14	7.35
Single Circuit Dx Primary with 2 Row Hydronic Reheat		
30	27.13	6.62
40	30.14	6.62
50	30.14	6.62
Interlaced Dx Primary with 2 Row Hydronic Reheat		
30	27.13	7.35
40	30.14	7.35
50	30.14	7.35

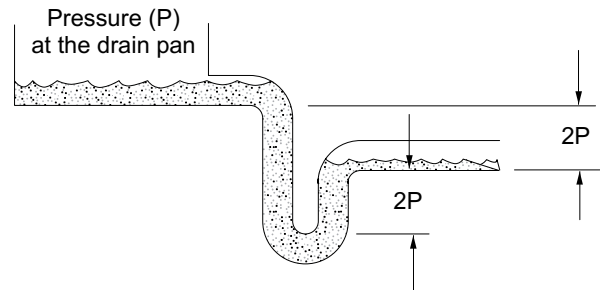
Condensate Overflow Switch

The optional condensate overflow switch if ordered, should be field tested to verify proper operation. To test, fill drain pan with water to within 1/4" of top of pan and verify that the normally closed switch opens. If a normally closed overflow switch is required for the control sequence, the action of the factory installed switch can be reversed in the field. To reverse the action, remove the float retainer from the bottom of the guide pin, turn the float upside down and replace the retainer. Test the modified switch as described above to verify the switch closes when water rises to within 1/4" of the top of the pan.

Condensate Drain Pan Traps

Condensate drain stub is .75 O.D.. Drain lines and traps should run full size from the drain pan stub. Drain pans should have traps to allow condensate from coils to drain freely. The trap depth and distance between the trap outlet and the drain pan outlet should be twice the static pressure in the drain pan section under normal operation for the trap to remain sealed. Refer to Figure 24.

Figure 24: Allow Adequate Distance Between Trap Outlet and Drain Outlet



Factory Installed Valve Package

The optional factory installed deluxe valve package includes a temperature control valve, a ball shut off valve with supply strainer, P/T port and clean out, and an automatic flow control valve with ball shut off and P/T ports. The temperature control valve is the Belimo B series characterized flow ball valve with SS ball and stem and is selectable as 2-way or 3-way. The valve flow coefficient and connection ports are appropriately sized for the selected flow rate. The control actuator can be configured for spring return on-off normally closed to the coil, spring return on-off normally open to the coil or non-spring return 0-10VDC modulating control. The strainer and ball shut off valve assembly is the Nexus UltraY and the automatic flow control valve and shut off assembly is the Nexus UltraMatic model UM. The piping schematics are shown in Figure 27 and Figure 28. The control valve wiring diagrams are shown in Figure 32 and Figure 33 and valve package component part numbers are listed in Table 5 on page 16 through Table 7.

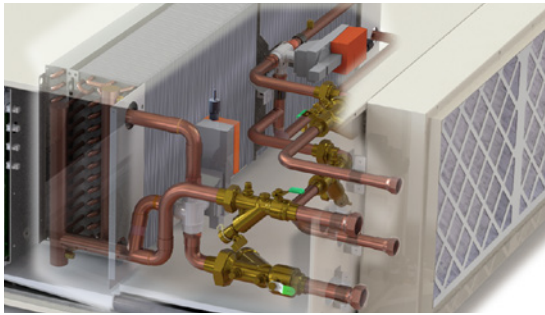


Figure 25: Basic 2-Way Valve Package

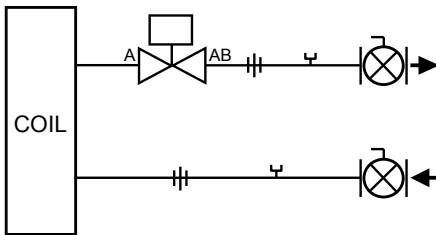


Figure 26: Basic 3-Way Valve Package

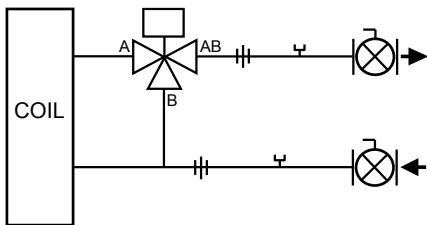


Figure 27: Deluxe 2-Way Valve Package (Auto CS)

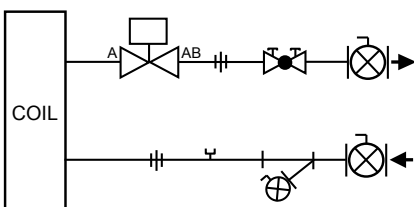


Figure 28: Deluxe 3-Way Valve Package (Auto CS)

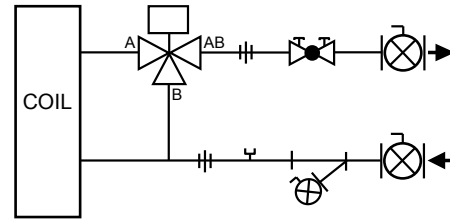


Figure 29: Deluxe 2-Way Valve Package (Manual CS)

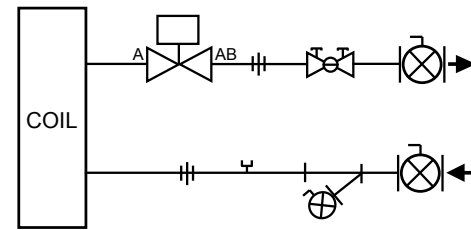


Figure 30: Deluxe 3-Way Valve Package (Manual CS)

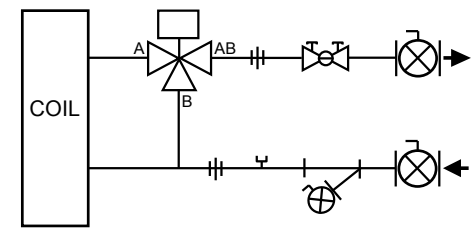


Figure 31: Components Key for Schematics

	Manual Shutoff Ball Valve with Memory Stop: Used on return line for limiting water flow.
	2-Way, ON/OFF Valve: Turn ON or OFF water flow to the coil in response to 24V or line voltage signal
	3-Way, ON/OFF Valve: Bypass water flow away from coil in response to 24V or line voltage signal. Includes fixed orifice for balancing.
	PT Port: For connecting a pressure or temperature gauge.
	Y-Strainer: Removable screen filters out small particles from supply line during normal system operation.
	Auto Circuit Setter: Pressure-compensated, automatic flow control.
	Manual Circuit Setter: Pressure-compensated, manual flow control.
	Union: For easy removal of piping from coil.

Note: Daikin 3-way valves are equipped with a fixed balance orifice in the bypass line, eliminating the need for a separate balancing valve

Figure 32: ON/OFF Control Valve Wiring (Table 5 below)

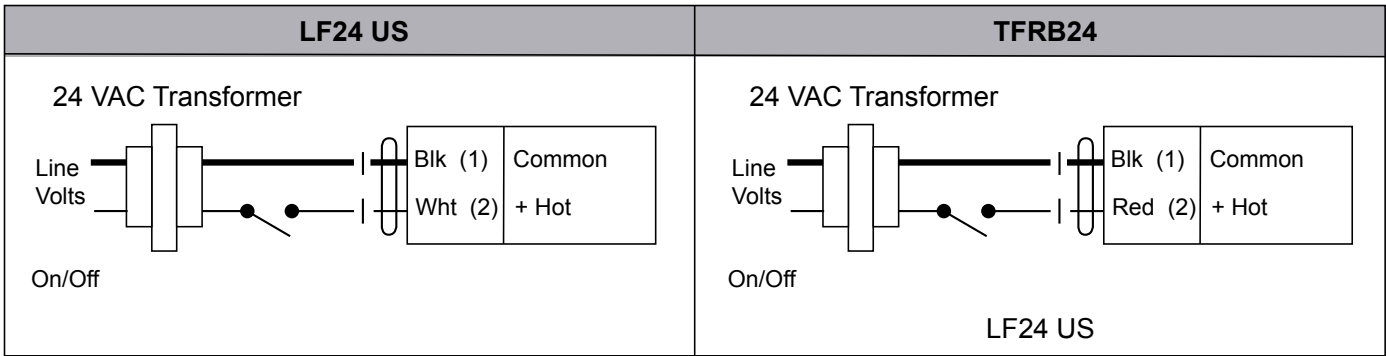
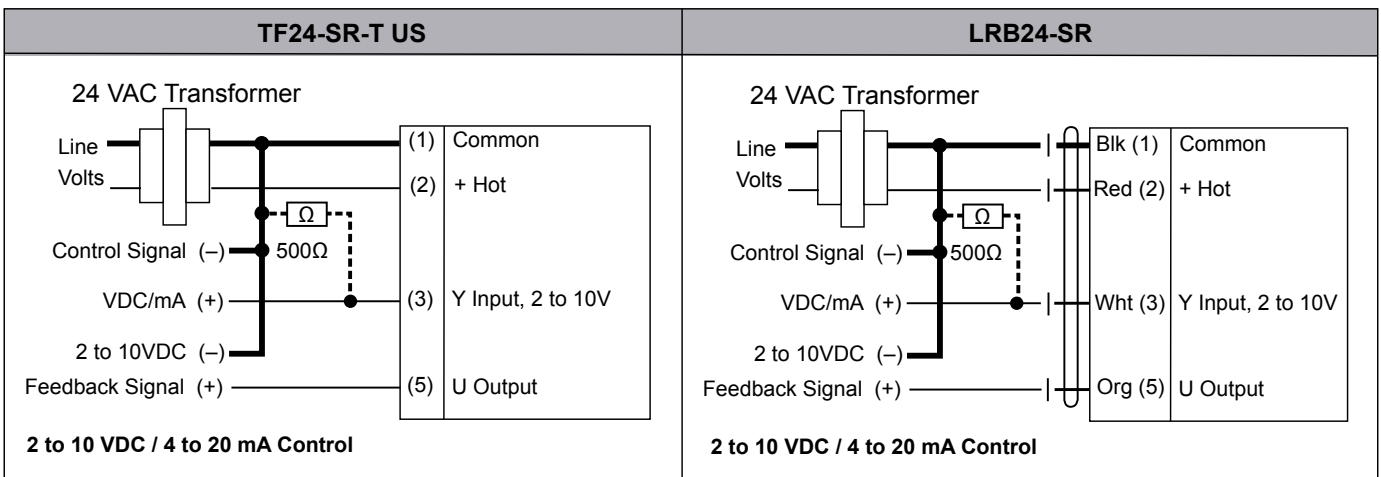


Figure 33: Modulating Control Valve Wiring (Table 6 on page 17)



Control Valve Parts Lists

Table 5: ON/OFF Control Valve Part List

Daikin P/N	Valve Type	Size	Cv	Control Type	Control Voltage	Spring Return	Normal State	Vendor PN*
263940312	2 Way	0.5 FPT	1.9	On/Off	24V	Yes	Normally Closed	B211B+TFRB24 DKN
263940304	2 Way	0.5 FPT	1.9	On/Off	24V	Yes	Normally open	B211B+TFRB24 DKN
263940313	2 Way	0.5 FPT	16	On/Off	24V	Yes	Normally Closed	B216B+TFRB24 DKN
263940305	2 Way	0.5 FPT	16	On/Off	24V	Yes	Normally open	B216B+TFRB24 DKN
263940314	2 Way	0.75 FPT	24	On/Off	24V	Yes	Normally Closed	B221B+LF24 DKN
263940306	2 Way	0.75 FPT	24	On/Off	24V	Yes	Normally open	B221B+LF24 DKN
263940315	2 Way	1.0 FPT	30	On/Off	24V	Yes	Normally Closed	B225+LF24 DKN
263940307	2 Way	1.0 FPT	30	On/Off	24V	Yes	Normally open	B225+LF24 DKN
263940308	3 Way	0.5 FPT	1.9	On/Off	24V	Yes	Normally Closed	B311B+TFRB24 DKN
263940300	3 Way	0.5 FPT	1.9	On/Off	24V	Yes	Normally open	B311B+TFRB24 DKN
263940309	3 Way	0.5 FPT	16	On/Off	24V	Yes	Normally Closed	B316B+TFRB24 DKN
263940301	3 Way	0.5 FPT	16	On/Off	24V	Yes	Normally open	B316B+TFRB24 DKN
263940310	3 Way	0.75 FPT	24	On/Off	24V	Yes	Normally Closed	B321B+LF24 DKN
263940302	3 Way	0.75 FPT	24	On/Off	24V	Yes	Normally open	B321B+LF24 DKN
263940311	3 Way	1.0 FPT	30	On/Off	24V	Yes	Normally Closed	B325+LF24 DKN
263940303	3 Way	1.0 FPT	30	On/Off	24V	Yes	Normally open	B325+LF24 DKN

*Valve vendor is Belimo

Table 6: Modulating Control Valve Part List

Daikin P/N	Valve Type	Size	Cv	Control Type	Control Voltage	Spring Return	Normal State	Vendor PN*
263940901	2 Way	0.50 FPT	0.3	Modulating	0-10VDC	No	N/A	B207B+TR24-SR DKN
263940902	2 Way	0.50 FPT	0.46	Modulating	0-10VDC	No	N/A	B208B+TR24-SR DKN
263940903	2 Way	0.50 FPT	0.8	Modulating	0-10VDC	No	N/A	B209B+TR24-SR DKN
263940904	2 Way	0.50 FPT	1.2	Modulating	0-10VDC	No	N/A	B210B+TR24-SR DKN
263940905	2 Way	0.50 FPT	1.9	Modulating	0-10VDC	No	N/A	B211B+TR24-SR DKN
263940906	2 Way	0.50 FPT	3	Modulating	0-10VDC	No	N/A	B212B+TR24-SR DKN
263940907	2 Way	0.50 FPT	4.7	Modulating	0-10VDC	No	N/A	B213B+TR24-SR DKN
263940908	2 Way	0.50 FPT	10	Modulating	0-10VDC	No	N/A	B215B+TR24-SR DKN
263940909	2 Way	0.50 FPT	16	Modulating	0-10VDC	No	N/A	B216B+TR24-SR DKN
263941001	2 Way	0.75 FPT	4.7	Modulating	0-10VDC	No	N/A	B217B+TR24-SR DKN
263941002	2 Way	0.75 FPT	7.4	Modulating	0-10VDC	No	N/A	B218B+TR24-SR DKN
263941003	2 Way	0.75 FPT	14	Modulating	0-10VDC	No	N/A	B220B+TR24-SR DKN
263941101	2 Way	0.75 FPT	24	Modulating	0-10VDC	No	N/A	B221+LRB24-SR DKN
263941201	2 Way	1.00 FPT	7.4	Modulating	0-10VDC	No	N/A	B222+LRB24-SR DKN
263941202	2 Way	1.00 FPT	10	Modulating	0-10VDC	No	N/A	B223+LRB24-SR DKN
263941203	2 Way	1.00 FPT	30	Modulating	0-10VDC	No	N/A	B225+LRB24-SR DKN
263940501	3 Way	0.50 FPT	0.3	Modulating	0-10VDC	No	N/A	B307B+TR24-SR DKN
263940502	3 Way	0.50 FPT	0.46	Modulating	0-10VDC	No	N/A	B308B+TR24-SR DKN
263940503	3 Way	0.50 FPT	0.8	Modulating	0-10VDC	No	N/A	B309B+TR24-SR DKN
263940504	3 Way	0.50 FPT	1.2	Modulating	0-10VDC	No	N/A	B310B+TR24-SR DKN
263940505	3 Way	0.50 FPT	1.9	Modulating	0-10VDC	No	N/A	B311B+TR24-SR DKN
263940506	3 Way	0.50 FPT	3	Modulating	0-10VDC	No	N/A	B312B+TR24-SR DKN
263940507	3 Way	0.50 FPT	4.7	Modulating	0-10VDC	No	N/A	B313B+TR24-SR DKN
263940508	3 Way	0.50 FPT	10	Modulating	0-10VDC	No	N/A	B315B+TR24-SR DKN
263940509	3 Way	0.50 FPT	16	Modulating	0-10VDC	No	N/A	B316B+TR24-SR DKN
263940601	3 Way	0.75 FPT	4.7	Modulating	0-10VDC	No	N/A	B317B+TR24-SR DKN
263940602	3 Way	0.75 FPT	7.4	Modulating	0-10VDC	No	N/A	B318B+TR24-SR DKN
263940701	3 Way	0.75 FPT	14	Modulating	0-10VDC	No	N/A	B320B+LRB24-SR DKN
263940702	3 Way	0.75 FPT	24	Modulating	0-10VDC	No	N/A	B321B+LRB24-SR DKN
263940801	3 Way	1.00 FPT	7.4	Modulating	0-10VDC	No	N/A	B322+LRB24-SR DKN
263940802	3 Way	1.00 FPT	10	Modulating	0-10VDC	No	N/A	B323+LRB24-SR DKN
263940803	3 Way	1.00 FPT	30	Modulating	0-10VDC	No	N/A	B325+LRB24-SR DKN

*Valve vendor is Belimo

Table 7: Autoflow Valve Part List

GPM	0.5"	0.75"	1.0"
0.50	263578301	263578401	–
0.75	263578302	263578402	–
1.00	263578303	263578403	–
1.50	263578304	263578404	–
2.00	263578305	263578405	–
2.50	263578306	263578406	–
3.00	263578307	263578407	–
3.50	263578308	263578408	–
4.00	263578309	263578409	–
4.50	263578310	263578410	–
5.00	263578311	263578411	–
5.50	263578312	263578412	–
6.00	263578313	263578413	–
7.00	263578314	263578414	263578501

GPM	0.5"	0.75"	1.0"
8.00	263578315	263578415	263578502
9.00	263578316	263578416	263578503
10.00	–	–	263578504
10.50	263578317	263578417	–
11.00	263578318	263578418	–
12.00	263578319	263578419	–
15.00	–	–	263578505
18.00	–	–	263578506
20.00	–	–	263578507
25.00	–	–	263578508
30.00	–	–	263578509

Table 8: Strainer Part List

CV	0.5"	0.75"	1.0"
5.5	263940136	–	–
9.0	–	263940135	263940137

Table 9: Manual Circuit Setter Part List

Valve Size	Daikin PN	Vendor PN
1/2	263922380	MB-050-S-050S-V-L
3/4	263922370	MB-075-S-075S-V-L
1	263922360	MB-100-S-100S-V-L

Table 10: Isolation Ball Valve Part List

Valve Size	Daikin PN	Vendor PN
1/2	910244107	DA-NXP-050-S-050S-P
3/4	910244097	DA-NXP-075-S-075S-P-L
1	910244108	DA-NXP-100-S-100S-P-L

Manual Circuit Setter Flow Charts

Figure 34: Manual Circuit Setter Flow Chart – 1/2" Valves

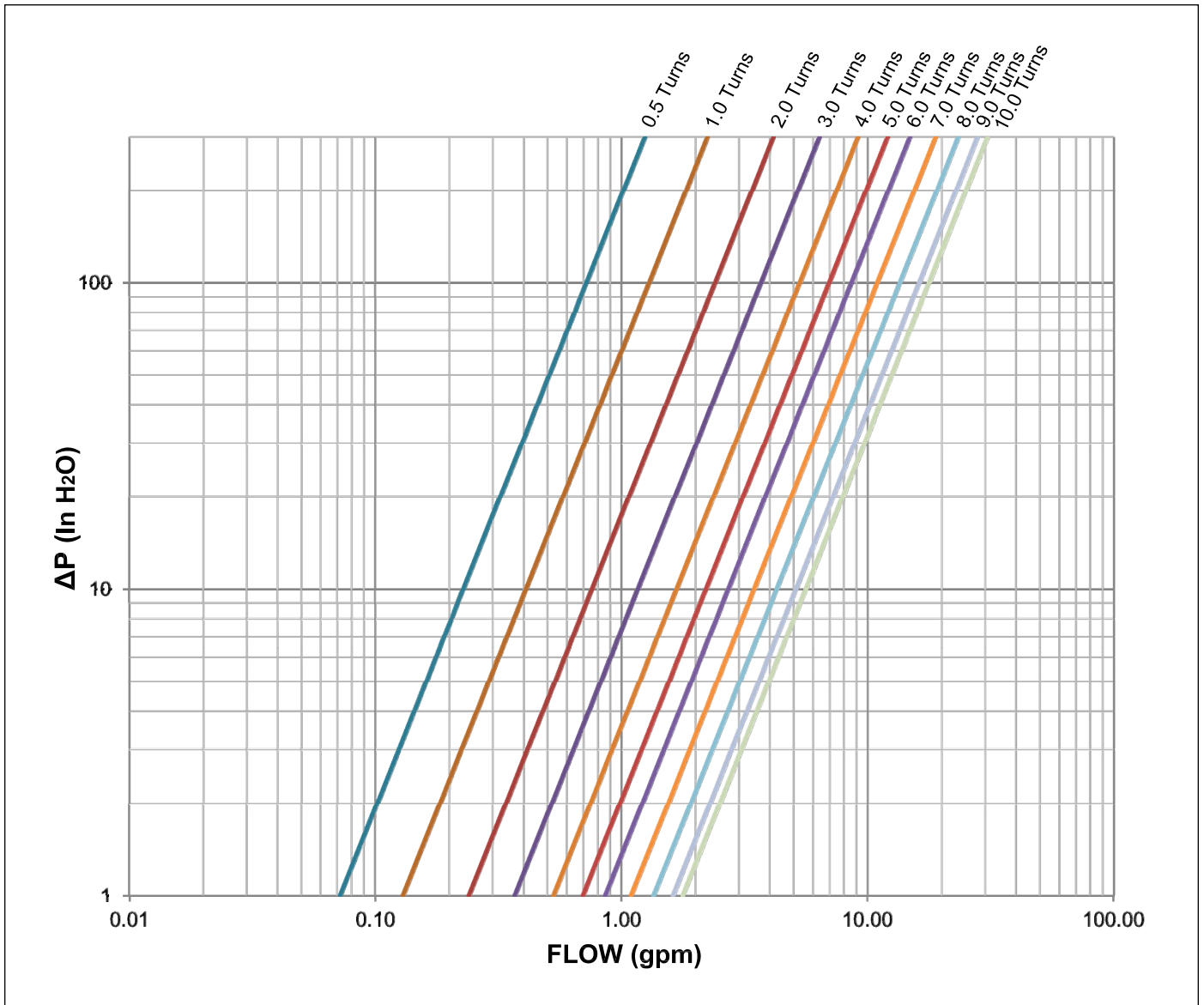
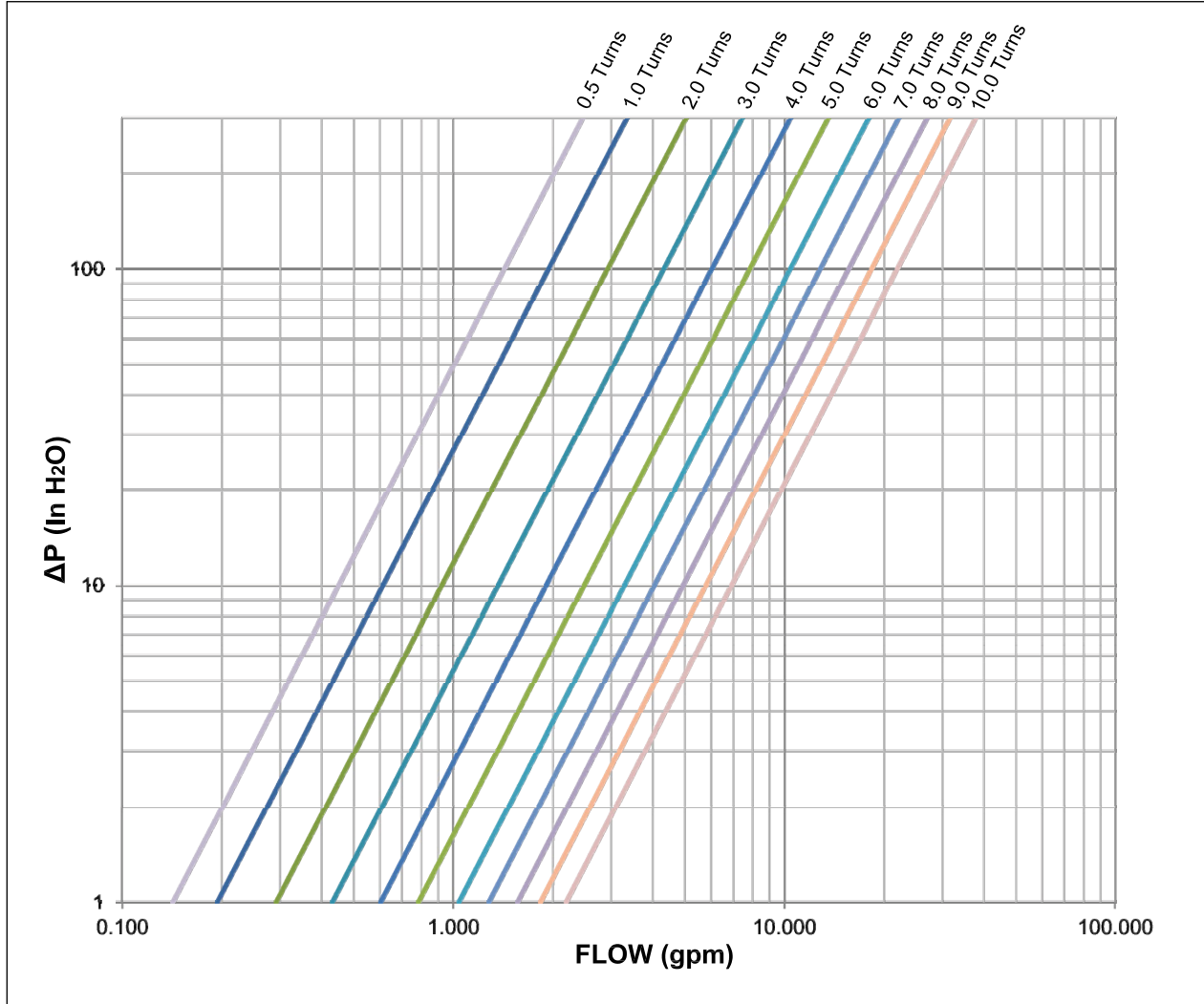


Figure 35: Manual Circuit Setter Flow Chart – 3/4" and 1" Valves



Electric Heat (Optional)

The optional factory installed electric heat section consists of an open coil heater rack mounted to the units' primary coil in the preheat position. Electric heat is designed to operate only when the supply fan is running, heating the air as it passes through the heating elements. The electric heat section consists of the mounting rack, electric elements, contactor, optional SCR module and the manual and automatic reset thermal limits. Electric heat comes pre-wired to the main control box for a single point power connection to the unit.

The temperature of the air leaving the unit (LAT) which is dependent on the entering air temperature (EAT), electric heat capacity (kW), and the air volume (CFM), must not exceed 125°F. The minimum allowable air volume for various combinations of EAT and kW are provided in [Table 11 on page 20](#) or may be calculated using the equation below.

$$LAT = (kW \times 3145.622 \div CFM) + EAT$$

Electric Heat Safety

Overcurrent Protection

Optional factory provided over current protection is available on all units with a maximum operating current less than or equal to 48 amps. This protection is provided with fuses located on the unit main power circuit. Units with a maximum operating current greater than 48 amps will come with factory installed fusing on the electric heat circuit.

Thermal (Over Temperature) Protection

All units with electric heat are provided with at least two thermal protection devices. The primary thermal protection device is an automatic limit switch which opens when it reaches a temperature of 150°F. The switch will reset itself when the temperature drops below 110°F. The secondary thermal protection device is a manual reset thermal cutout. This switch opens when it reaches 180°F but must be reset manually after the over temperature issue has been resolved. Units provided with the SCR type electric heat control have an additional automatic thermal protection built into the SCR controller. This switch opens the circuit when the temperature reaches 170°F.

Minimum Allowable Air Volume For Units With Electric Heat

Table 11: Minimum Allowable Air Volume With Electric Heat

KW	Entering air Temperature (°F)				
	60	65	70	75	80
	Air Volume - CFM				
0.41	20	21	23	26	29
0.5	24	26	29	31	35
0.82	40	43	47	52	57
1	48	52	57	63	70
1.64	79	86	94	103	115
2	97	105	114	126	140
2.45	119	128	140	154	171
3	145	157	172	189	210
3.27	158	171	187	206	229
4	194	210	229	252	280
4.09	198	214	234	257	286
4.91	238	257	281	309	343
5	242	262	286	315	350
6	290	315	343	377	419
6.54	316	343	374	411	457
7.36	356	386	421	463	514
8	387	419	458	503	559
8.18	396	429	468	515	572
9	436	472	515	566	629
9.81	475	514	561	617	686
10	484	524	572	629	699
10.63	514	557	608	669	743
11	532	577	629	692	769
11.3	547	592	646	711	790
12	581	629	686	755	839
13	629	682	744	818	909
13.5	653	708	772	849	944
15	726	786	858	944	1049
18	871	944	1029	1132	1258
21	1016	1101	1201	1321	1468
24	1161	1258	1373	1510	1678
30	1452	1573	1716	1887	2097
36	1742	1887	2059	2265	2516
39	1887	2045	2231	2454	2726

- Notes:**
1. Listed minimum CFM may be below the allowable minimum CFM for a given unit size.
 2. Minimum allowable CFM for each KW option is based on a max LAT = 125°F.
 3. Minimum CFM = $(3145.622 * KW) / (LAT - EAT)$.

Electric Heat kW Options

Table 12: Electric Heat kW Options by Unit Size

Unit Size	Voltage	kW												
006	120/60/1	0.5	1	2	3	4	-	-	-	-	-	-	-	-
	208/60/1	0.4	0.8	1.6	2.5	3.3	4.1	4.9	-	-	-	-	-	-
	230/60/1	0.5	1.0	2.0	3.0	4.0	5.0	6.0	-	-	-	-	-	-
	277/60/1	-	1.0	2.0	3.0	4.0	5.0	6.0	-	-	-	-	-	-
	460/60/1	-	1.0	-	3.0	-	-	6.0	-	-	-	-	-	-
008	120/60/1	0.5	1.0	2.0	3.0	4.0	5.0	-	-	-	-	-	-	-
	208/60/1	0.4	0.8	1.6	2.5	3.3	4.1	4.9	6.5	8.2	-	-	-	-
	230/60/1	0.5	1.0	2.0	3.0	4.0	5.0	6.0	8.0	9.0	10.0	-	-	-
	277/60/1	0.5	1.0	2.0	3.0	4.0	5.0	6.0	8.0	-	10.0	-	-	-
	460/60/1	-	-	2.0	-	4.0	5.0	-	8.0	-	10.0	-	-	-
010	120/60/1	0.5	1.0	2.0	3.0	4.0	5.0	-	-	-	-	-	-	-
	208/60/1	0.4	0.8	1.6	2.5	3.3	4.1	4.9	6.5	8.2	-	-	-	-
	230/60/1	0.5	1.0	2.0	3.0	4.0	5.0	6.0	8.0	-	10.0	-	-	-
	277/60/1	0.5	1.0	2.0	3.0	4.0	5.0	6.0	8.0	-	10.0	-	-	-
	460/60/1	-	-	2.0	-	4.0	5.0	-	8.0	-	10.0	-	-	-
012	120/60/1	0.5	1.0	2.0	3.0	4.0	5.0	-	-	-	-	-	-	-
	208/60/1	0.4	0.8	1.6	2.5	3.3	4.1	4.9	6.5	8.2	-	-	-	-
	230/60/1	0.5	1.0	2.0	3.0	4.0	5.0	6.0	8.0	-	10.0	-	-	-
	277/60/1	0.5	1.0	2.0	3.0	4.0	5.0	6.0	8.0	-	10.0	-	-	-
	460/60/1	-	-	2.0	-	4.0	5.0	-	8.0	-	10.0	-	-	-
016	120/60/1	-	1.0	2.0	-	4.0	5.0	-	-	-	-	-	-	-
	208/60/1	-	0.8	1.6	-	3.3	-	4.9	6.5	8.2	-	-	-	-
	230/60/1	-	1.0	2.0	-	4.0	-	6.0	8.0	-	10.0	-	-	-
	277/60/1	-	1.0	2.0	-	4.0	-	6.0	8.0	-	10.0	-	12.0	13.0
	460/60/1	-	-	-	-	4.0	-	-	8.0	-	10.0	12.0	16.0	20.0
018	120/60/1	-	1.0	2.0	-	4.0	5.0	-	-	-	-	-	-	-
	208/60/1	-	0.8	1.6	-	3.3	-	4.9	6.5	8.2	9.0	-	-	-
	230/60/1	-	1.0	2.0	-	4.0	-	6.0	8.0	-	10.0	11.0	-	-
	277/60/1	-	1.0	2.0	-	4.0	-	6.0	8.0	-	10.0	-	12.0	13.0
	460/60/1	-	-	-	-	4.0	-	-	8.0	-	10.0	12.0	17.0	20.0
020	120/60/1	-	1.0	2.0	-	4.0	5.0	-	-	-	-	-	-	-
	208/60/1	-	0.8	1.6	-	3.3	-	4.9	6.5	8.2	9.0	-	-	-
	230/60/1	-	1.0	2.0	-	4.0	-	6.0	8.0	-	10.0	11.0	-	-
	277/60/1	-	1.0	2.0	-	4.0	-	6.0	8.0	-	10.0	-	12.0	13.0
	460/60/1	-	-	-	-	4.0	-	-	8.0	-	10.0	12.0	-	20.0
030	208/60/3	7.4	11.3	13.5	-	-	-	-	-	-	-	-	-	-
	240/60/3	9.0	15.0	18.0	-	-	-	-	-	-	-	-	-	-
	460/60/3	9.0	15.0	18.0	21.0	24.0	-	-	-	-	-	-	-	-
	575/60/3	9.0	15.0	18.0	21.0	24.0	-	-	-	-	-	-	-	-
040	208/60/3	7.4	11.3	13.5	-	-	-	-	-	-	-	-	-	-
	240/60/3	9.0	15.0	18.0	-	-	-	-	-	-	-	-	-	-
	460/60/3	9.0	15.0	18.0	21.0	24.0	30.0	36.0	39.0	-	-	-	-	-
	575/60/3	9.0	15.0	18.0	21.0	24.0	30.0	36.0	39.0	-	-	-	-	-
050	208/60/3	7.4	11.3	13.5	-	-	-	-	-	-	-	-	-	-
	240/60/3	9.0	15.0	18.0	-	-	-	-	-	-	-	-	-	-
	460/60/3	9.0	15.0	18.0	21.0	24.0	30.0	36.0	39.0	-	-	-	-	-
	575/60/3	9.0	15.0	18.0	21.0	24.0	30.0	36.0	39.0	-	-	-	-	-

Electric Heat Heater Amps

Table 13: Heater Amps

Heater Amps											
kW	120V / 1Ø	230V / 1Ø	277V / 1Ø	460V / 1Ø	kW	240V / 3Ø	460V / 3Ø	575V / 3Ø	kW	208V/1Ø†	208V/3Ø†
0.5	4.17	2.17	1.81	–	0.5	1.20	0.63	0.50	0.41	1.97	–
1	8.33	4.35	3.61	2.17	1	2.41	1.26	1.00	0.82	3.94	–
2	16.67	8.70	7.22	4.35	2	4.81	2.51	2.01	1.64	7.88	–
3	25.00	13.04	10.83	6.52	3	7.22	3.77	3.01	2.45	11.78	–
4	33.33	17.39	14.44	8.70	4	9.62	5.02	4.02	3.27	15.72	–
5	41.67	21.74	18.05	10.87	5	12.03	6.28	5.02	4.09	19.66	–
6	–	26.09	21.66	13.04	6	14.43	7.53	6.02	4.91	23.61	–
8	–	34.78	28.88	17.39	8	19.25	10.04	8.03	6.54	31.44	–
9	–	–	–	–	9	21.65	11.30	9.04	6.80	–	35.38
10	–	43.48	–	21.74	10	24.06	12.55	10.04	8.18	39.33	–
11	–	47.83	39.71	–	11	26.46	13.81	11.04	9.00	43.27	–
12	–	–	43.32	26.09	12	28.87	15.06	12.05	9.81	47.16	–
13	–	–	46.93	–	13	31.27	16.32	13.05	10.63	51.11	–
15	–	–	–	–	15	36.08	18.83	15.06	11.30	–	54.33
18	–	–	–	39.13	18	43.30	22.59	18.07	13.50	–	64.90
21	–	–	–	45.65	21	–	26.36	21.09	–	–	–
24	–	–	–	–	24	–	30.12	24.10	–	–	–
30	–	–	–	–	30	–	37.65	30.12	–	–	–
36	–	–	–	–	36	–	45.18	36.15	–	–	–
39	–	–	–	–	39	–	48.95	39.16	–	–	–

Note: † Indicates that 208V single and three phase applications make use of a de-rated 230/240V heater.

Field Power Wiring

⚠ DANGER

Improper ground may result in severe injury or death.
Check grounding nut tightness before connecting power to the external junction box.

⚠ DANGER

Hazardous voltage. Can cause severe injury or death.
Disconnect electric power before servicing equipment. More than one disconnect may be required to de-energize the unit.

Wiring must comply with all applicable codes and ordinances. The warranty is voided if wiring is not in accordance with these specifications. An open fuse or starter indicates a short, ground, or overload. Before replacing a fuse or resetting a starter, identify the trouble and correct.

According to the [National Electrical Code](#), a disconnecting means shall be located within sight of and readily accessible from the air conditioning equipment. Power leads must be over-current protected at the point of distribution. The maximum allowable overcurrent protection (MROPD) appears on the unit nameplate.

Supply Power Wiring

1. Allowable voltage tolerances:
 - a. 60 Hertz
 - Nameplate 208V: Min. 187V, Max. 229V
 - Nameplate 230V: Min. 207V, Max. 253V
 - Nameplate 460V: Min. 414V, Max. 506V
 - Nameplate 575V: Min. 518V, Max. 633V
2. Minimum Circuit Ampacity (MCA) Calculation is based on the following formulas:
 - Electric heat without compressor
MCA = 1.25 (heater FLA + motor loads)
3. MROPD is calculated per UL 1995 methodology.
4. Size wires in accordance with Table 310-16 or 310-19 of the National Electrical Code.
5. Wires should be sized for a maximum of 3% voltage drop.

Electrical Installation

1. Electrical service to the fan must correspond to the rated voltage on the motor nameplate and be in conformance with the National Electric Code and local restrictions.
2. The unit metal frame must be connected to the building electrical ground and all wiring must be in conformance with the national electric code and local restrictions.

NOTE: All field wiring penetrations, for both power and controls wiring, must only be made at the factory designated locations on the top or bottom panel. These locations are identified on the panels with a 3/16" pilot hole.

3. To make a field wiring connection, use a hole saw to penetrate the double wall panel at the designated locations and install up to a 1" electrical conduit bulkhead connector as shown below. Route the power wires through the conduit connector to the disconnect box and the wire to the control box inside the cabinet.
4. All units are provided with a safety disconnect switch. Unit sizes 006 – 020 are available as single phase only and are provided with a two pole switch. Three phase units, sizes 030 – 050, are provided with a three pole switch.
5. Optional factory provided over current protection is available on all units with a maximum operating current less than or equal to 48 amps. This protection is provided with fuses located on the unit main power circuit. Units with a maximum operating current greater than 48 amps are provided with factory installed fusing on the electric heat circuit only.
6. All field provided controllers must be powered by the unit transformer.
7. All grounds, both AC and DC, are to be consolidated at the unit.
8. A negative DC input is not included on the unit. Accordingly, the AC ground and DC ground are the same. Any field provided controller must be compatible with this.

Figure 36: Cabinet Sizes 008-020 Field Cut Electrical Service Entry Pilot Hole Location

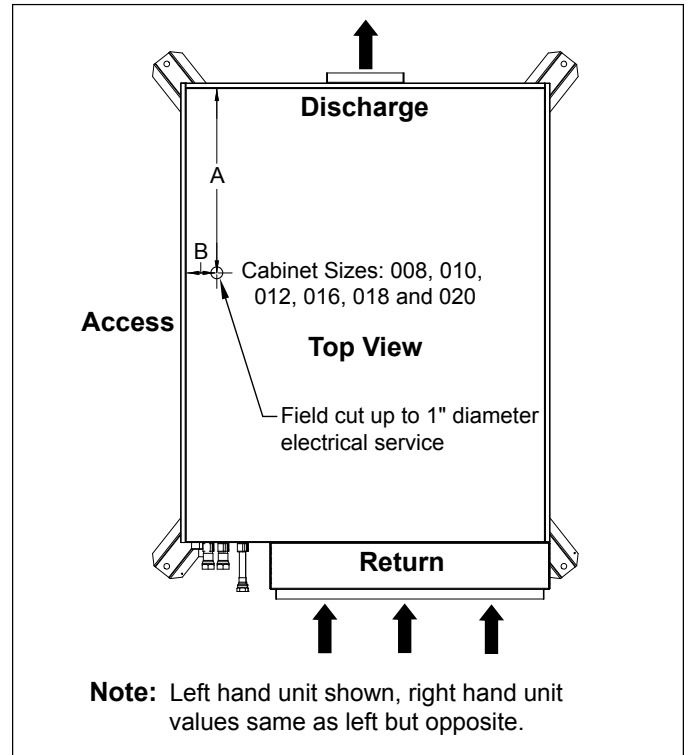


Table 14: Figure 36 Letter Dimensions

Unit Sizes	Left-Hand		Right-Hand	
	A	B	A	B
008, 010, 012, 016, 018, 020	17.51	1.92	17.51	1.92

Figure 37: Cabinet Sizes 030-050 Field Cut Electrical Service Entry Pilot Hole Location

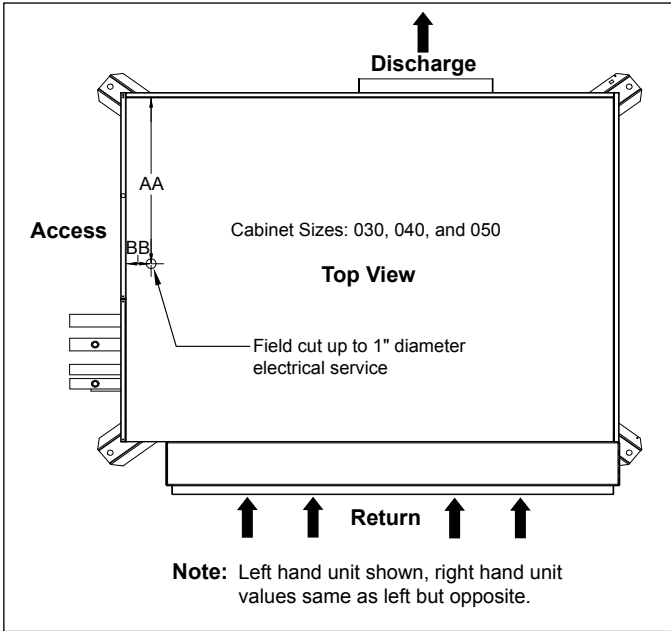
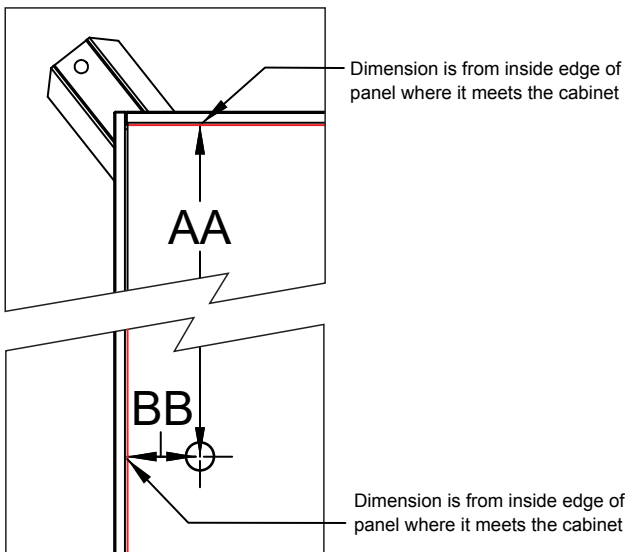


Table 15: Figure 37 Letter Dimensions

Unit Sizes	Top or Bottom Entry	Left-Hand		Right-Hand	
		AA	BB	AA	BB
030	Top	18.97	2	19	2
	Bottom	18.74	3.45	18.35	3.45
040	Top	21.74	2.31	21.73	1.93
	Bottom	21.03	3.44	21.02	3.44
050	Top	21.46	1.93	21.65	2.63
	Bottom	20.95	3.62	20.95	3.62



Electric Heat Control

1. Electric heat control can be factory configured for either on-off or analog control.
2. On-off control requires a 24VAC signal applied to terminal EH 24+ to cycle the electric heat elements.
3. Analog control uses an SCR control module to power the electric elements and requires a 0-10VDC signal applied to terminal EH 0-10V, to modulate heat output.

Valve Control

1. Valve control can be factory configured for either on-off or analog control.
2. On-off control requires a 24VAC signal applied to terminal VLV1 24+ or VLV2 24+ to control the valve.
3. Analog control requires a 0-10VDC signal, applied to terminal VLV1 0-10V or VLV2 0-10V to modulate the valve.

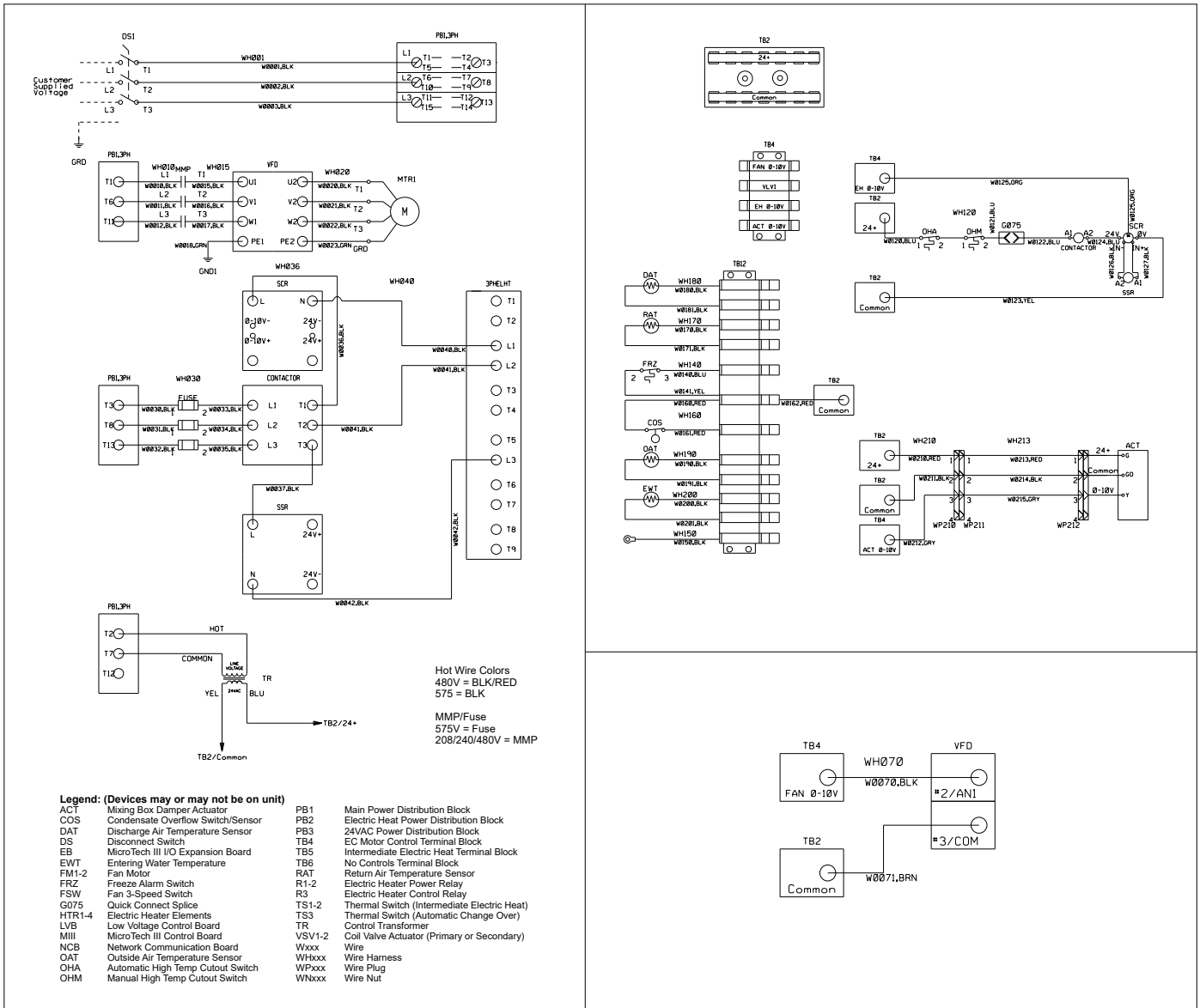
Motor Controls

1. Unit sizes 006 – 020 ship with an EC motor factory configured for either three speed or analog control.
2. The three speed control option provides three separate field adjustable motor speeds that can be activated by applying a 24VAC signal to the appropriate terminal. This allows fan control with a conventional three position fan switch or fan coil style thermostat. The speed terminals in the unit, FLO 1, FLO 2, and FLO 3 correspond to the low, medium and high speed terminals on the switch. Speed adjustment is made at the EVO board by turning the dial adjacent to the speed terminal to change the motor's RPM for that speed.
3. The analog speed control option requires a 0-10VDC signal applied to terminal FAN 0-10V on terminal block TB4 to control motor RPM. 0.0VDC turns the fan off. 1.0VDC is the threshold for turning on the fan and induces the minimum motor RPM. 10.0VDC runs the motor at maximum RPM.
4. Unit sizes 030 – 050 are provided with a factory installed VFD programmed for analog motor speed control. A 0-10VDC signal applied to terminal FAN 0-10V on terminal block TB4 allows motor RPM to be adjusted.

Damper Control

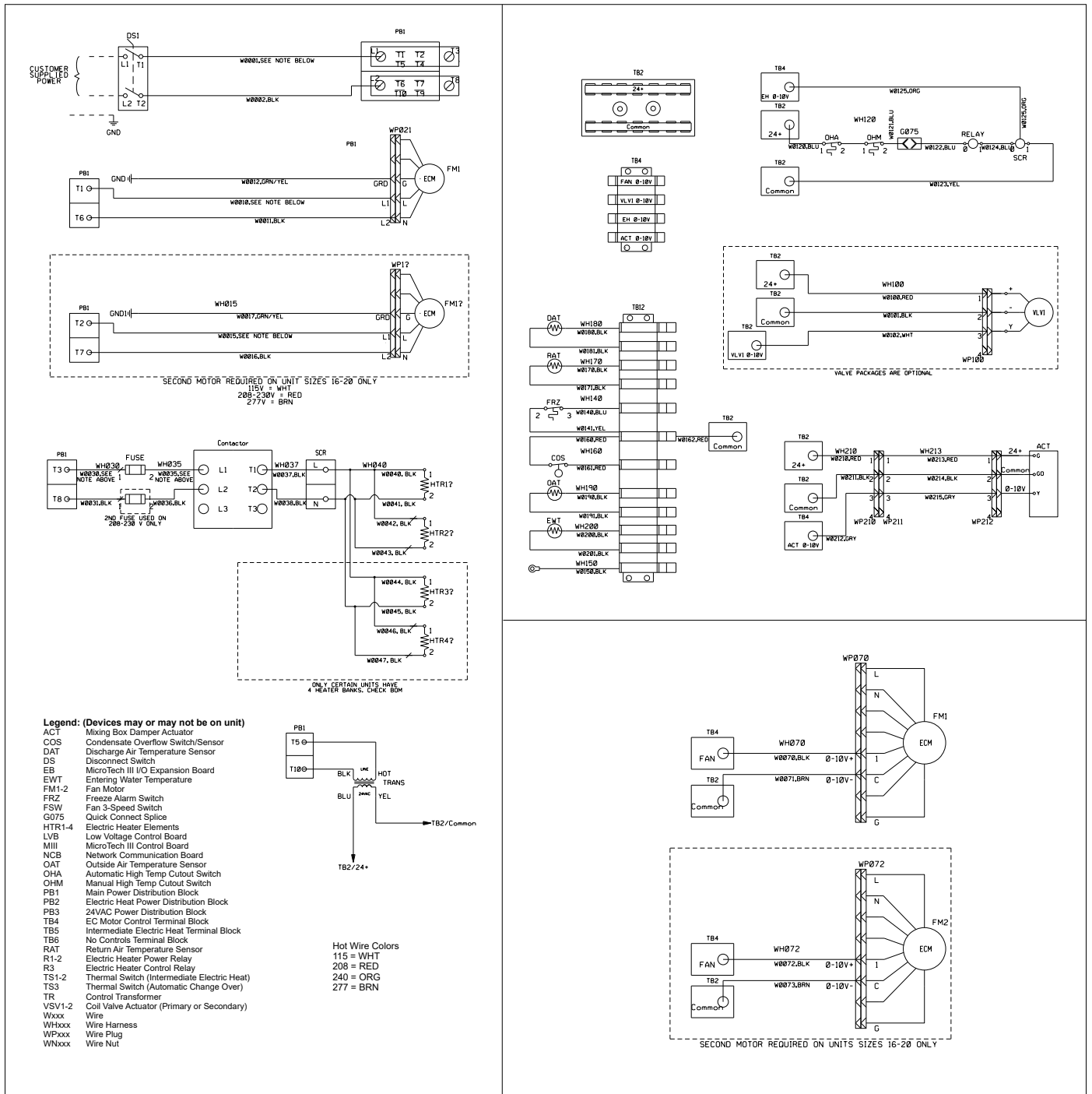
1. Damper control can be factory configured for either on-off or analog control.
2. On-off control requires a 24VAC signal applied to terminal ACT 24+ to cycle the damper.
3. Analog control requires a 0-10VDC signal applied to terminal ACT 0-10V to modulate the damper.

3 Phase Power, SCR Electric Heat, No Valve, Modulating Damper, VFD Fan



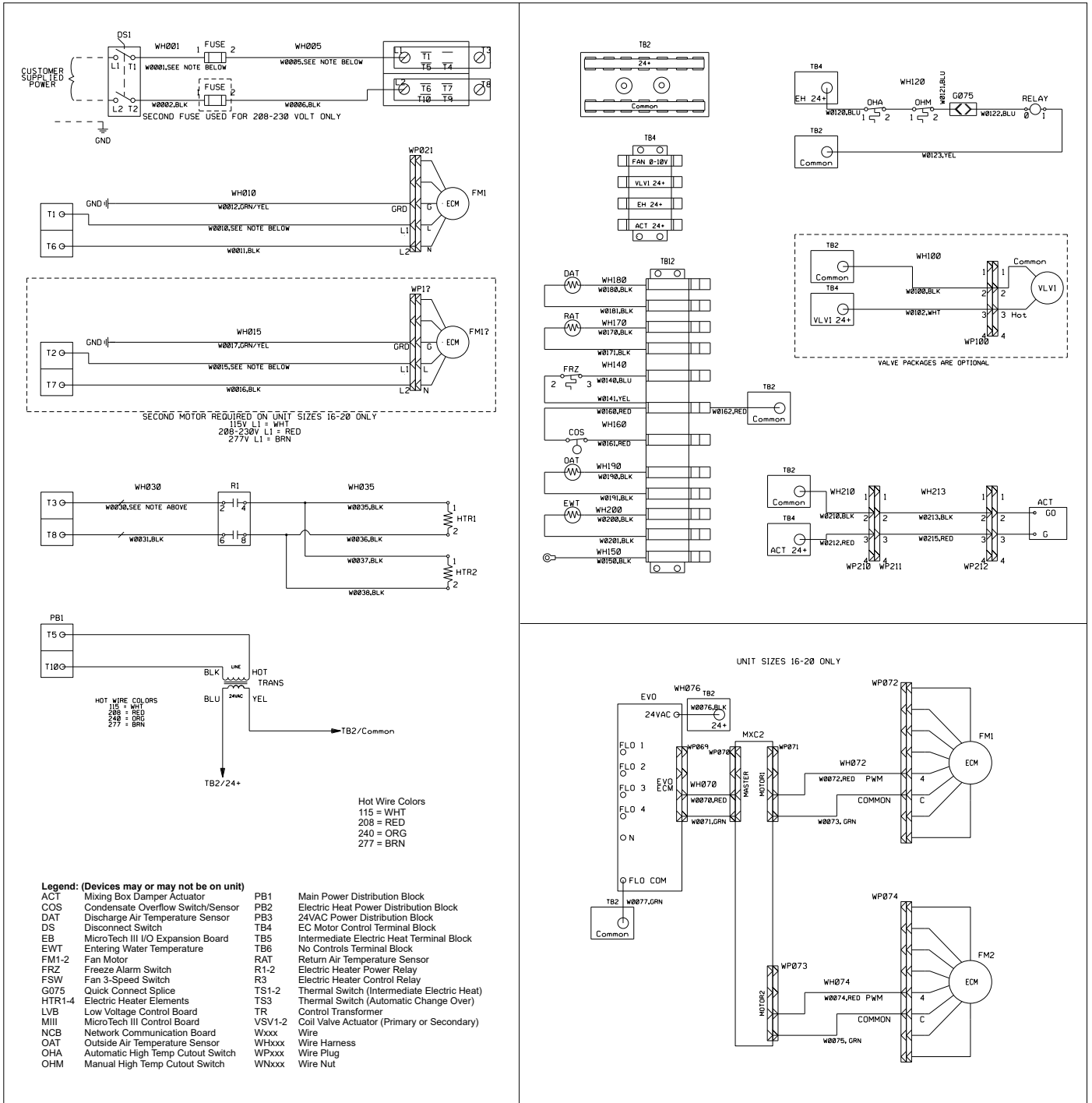
Note: Wiring diagrams are typical, always defer to the wiring diagram provided with the unit.

1 Phase Power, SCR Electric Heat, Modulating Valve, Modulating Damper, Modulating Fan



Note: Wiring diagrams are typical, always defer to the wiring diagram provided with the unit.

1 Phase Power, On-Off Electric Heat, On-Off Valve, On-Off Damper, 3-Speed Fan



Component Weights

Table 16: Component Weights

Component	Weight—lbs (kg)									
	006	008	010	012	016	018	020	030	040	050
1 Row 12FPI Coil (Dry)	19 (9)	21 (10)	26 (12)	26 (12)	30 (14)	35 (16)	35 (16)	44 (20)	53 (24)	60 (27)
1 Row 12FPI Coil (Wet)	22 (10)	25 (11)	30 (14)	30 (14)	34 (15)	40 (18)	40 (18)	51 (23)	62 (28)	71 (32)
1 Row 16FPI Coil (Dry)	20 (9)	23 (10)	28 (13)	28 (13)	33 (15)	39 (18)	39 (18)	50 (23)	60 (27)	68 (31)
1 Row 16FPI Coil (Wet)	23 (10)	27 (12)	32 (15)	32 (15)	37 (17)	44 (20)	44 (20)	57 (26)	69 (31)	79 (36)
2 Row 12FPI Coil (Dry)	21 (10)	24 (11)	30 (14)	30 (14)	35 (16)	41 (19)	41 (19)	54 (25)	65 (30)	76 (35)
2 Row 12FPI Coil (Wet)	25 (11)	28 (13)	35 (16)	35 (16)	42 (19)	48 (22)	48 (22)	65 (30)	79 (36)	93 (42)
2 Row 16FPI Coil (Dry)	22 (10)	26 (12)	33 (15)	33 (15)	39 (18)	45 (20)	45 (20)	61 (28)	74 (34)	86 (39)
2 Row 16FPI Coil (Wet)	26 (12)	30 (14)	38 (17)	38 (17)	46 (21)	52 (24)	52 (24)	72 (33)	88 (40)	103 (47)
4 Row 12FPI Coil (Dry)	27 (12)	32 (15)	41 (19)	41 (19)	50 (23)	60 (27)	60 (27)	79 (36)	98 (45)	115 (52)
4 Row 12FPI Coil (Wet)	34 (15)	41 (19)	50 (23)	50 (23)	61 (28)	72 (33)	72 (33)	98 (45)	122 (55)	145 (66)
4 Row 16FPI Coil (Dry)	29 (13)	35 (16)	45 (20)	45 (20)	55 (25)	66 (30)	66 (30)	89 (40)	111 (50)	130 (59)
4 Row 16FPI Coil (Wet)	36 (16)	44 (20)	54 (25)	54 (25)	64 (29)	78 (35)	78 (35)	108 (49)	135 (61)	160 (73)
6 Row 12FPI Coil (Dry)	34 (15)	40 (18)	53 (24)	53 (24)	65 (30)	78 (35)	78 (35)	104 (47)	130 (59)	155 (70)
6 Row 12FPI Coil (Wet)	42 (19)	51 (23)	67 (30)	67 (30)	82 (37)	98 (45)	98 (45)	131 (60)	168 (76)	201 (91)
6 Row (16FPI) Coil (Dry)	36 (16)	44 (20)	58 (26)	58 (26)	72 (33)	86 (39)	86 (39)	117 (53)	147 (67)	175 (80)
6 Row (16FPI) Coil (Wet)	45 (20)	54 (25)	72 (33)	72 (33)	88 (40)	106 (48)	106 (48)	146 (66)	185 (84)	221 (100)
8 Row (12FPI) Coil (Dry)	—	—	—	—	—	—	—	139 (63)	173 (79)	207 (94)
8 Row (12FPI) Coil (Wet)	—	—	—	—	—	—	—	177 (80)	221 (100)	267 (121)
8 Row (16FPI) Coil (Dry)	—	—	—	—	—	—	—	156 (71)	196 (89)	233 (106)
8 Row (16FPI) Coil (Wet)	—	—	—	—	—	—	—	194 (88)	244 (111)	293 (133)
3 Row Dx Normal (12FPI) Coil	20 (9)	24 (11)	31 (14)	31 (14)	38 (17)	45 (20)	45 (20)	59 (27)	74 (34)	86 (39)
3 Row Dx Interlaced (12FPI) Coil	-	-	-	-	-	-	-	65 (30)	81 (37)	95 (43)
3 Row Dx Normal (16FPI) Coil	21 (10)	26 (12)	34 (15)	34 (15)	42 (19)	50 (23)	50 (23)	67 (30)	83 (38)	97 (44)
3 Row Dx Interlaced (16FPI) Coil	—	—	—	—	—	—	—	73 (33)	91 (41)	107 (49)
Standard Cabinet	180 (82)	260 (118)	324 (147)	324 (147)	440 (200)	530 (241)	530 (241)	490 (223)	585 (266)	730 (332)
Mixing Box	22 (10)	32 (15)	40 (18)	40 (18)	54 (25)	54 (25)	65 (30)	68 (31)	72 (33)	90 (41)
Discharge Plenum	20 (9)	29 (13)	36 (16)	36 (16)	49 (22)	49 (22)	59 (27)	63 (29)	67 (30)	81 (37)
Primary Valve Package	6 (3)	6 (3)	9 (4)	9 (4)	10 (5)	12 (5)	12 (5)	—	—	—
Heating Valve Package	4 (2)	4 (2)	6 (3)	6 (3)	6 (3)	8 (4)	8 (4)	—	—	—

Fan and Motor Data

Table 17: Fan and Motor Data

Forward Curved Fan Data										
Unit Size	006	008	010	012	016	018	020	030	040	050
Fan Quantity	1	1	1	1	2	2	2	1	1	1
Fan Type	FC, DWDI	FC, DWDI	FC, DWDI	FC, DWDI	FC, DWDI	FC, DWDI	FC, DWDI	FC, DWDI	FC, DWDI	FC, DWDI
Fan Size	9.5" X 4.5"	9.5" X 4.5"	9.5" X 4.5"	9.5" X 4.5"	9.5" X 4.5"	9.5" X 4.5"	9.5" X 4.5"	10" X 10"	12" X 12"	12" X 12"
Maximum RPM	2065	2065	2065	2065	2065	2065	2065	2550	2100	2100
Class	1	1	1	1	1	1	1	2	2	2
Fan Part Number	910210867	910210867	910210867	910210867	910210867	910210867	910210867	910212478	910212479	910212477
EC Motors	1	1	1	1	2*	2*	2*	–	–	–
Poly Phase Motors	–	–	–	–	–	–	–	1	1	1
Motor 1/3 HP	X	X			X					
Motor 1/2 HP	X	X	X	X	X	X	X			
Motor 3/4 HP	X	X	X	X	X	X	X			
Motor 1 HP			X	X		X	X			
Motor 1½ HP**								X		
Motor 2 HP**								X	X	
Motor 3 HP**								X	X	
Motor 5 HP									X	X
Motor 7½ HP										X

* Motors are the same HP
 ** HP is limited by VFD size

Filter Data

Table 18: Filter Data for Main Unit and Optional Mixing Box

Main Unit Filters										
Unit Size	006	008	010	012	016	018	020	030	040	050
Quantity	1	1	2	2	2	2	2	2	2	2
Height	17.69							25.38	29.75	28.00
Width	12.13	17.13	13.75		17.94	22.25		21.88	24.50	27.81
Nom. Face Velocity (FPM)	421	393	296	355	363	329	366	389	395	408
(Optional) Mixing Box Filters										
Quantity	1	1	2	2	2	2	2	2	2	2
Height	18.50							23.50	27.50	29.50
Width	12.50	17.50	12.75		17.00	21.25		23.25	25.75	29.25

Coil Data

Table 19: Hydronic Coil Size and Connection Type

Unit Size	006	008	010	012	016	018	020	030	040	050
Connection Type	FPT							F-SWT		
2-Row Cooling	0.75	0.75	0.75	0.75	1.00	1.00	1.00	1.375	1.625	1.625
4-Row Cooling	0.75	0.75	0.75	0.75	1.00	1.00	1.00	1.375	1.625	1.625
6-Row Cooling	0.75	0.75	0.75	0.75	1.00	1.00	1.00	1.375	1.625	1.625
8-Row Cooling	–	–	–	–	–	–	–	1.375	1.625	1.625
1-Row Heating	0.50	0.50	0.50	0.50	0.75	0.75	0.75	1.125	1.125	1.375
2-Row Heating	0.50	0.50	0.50	0.50	0.75	0.75	0.75	1.125	1.125	1.375
Coil Size										
Finned Height	14	14	14	14	14	14	14	22	26	28
Finned Length	12.5	16.5	25	25	33	41.5	41.5	39.5	44.5	51.5
Fin Spacing										
FPI	12 or 16	12 or 16	12 or 16	12 or 16	12 or 16	12 or 16	12 or 16	12 or 16	12 or 16	12 or 16

DX Coil Size and Connection Type

Table 20: DX Coil Size and Connection Type

Unit Size	Circuits		Fin Height	Fin Length	FPI	Connection Size (M-SWT)	
	Number	Type				Distributor	Suction
006	1	Normal	14	12.5	12	0.500	0.750
					16	0.500	0.750
008	1	Normal	14	16.5	12	0.500	0.750
					16	0.500	0.750
010	1	Normal	14	25	12	0.500	0.875
					16	0.500	0.875
012	1	Normal	14	25	12	0.500	0.875
					16	0.500	0.875
016	1	Normal	14	33	12	0.500	1.125
					16	0.625	1.125
018	1	Normal	14	41.5	12	0.625	1.125
					16	0.625	1.125
020	1	Normal	22	41.5	12	0.625	1.125
					16	0.625	1.125
030	1	Normal	22	39.5	12	0.875	1.375
					16	0.875	1.375
	2	Interlaced	22	39.5	12	0.500	0.875
					16	0.500	0.875
040	1	Normal	26	44.5	12	0.875	1.375
					16	0.875	1.375
	2	Interlaced	26	44.5	12	0.625	1.125
					16	0.625	1.125
050	1	Normal	28	51.5	12	0.875	1.625
					16	0.875	1.625
	2	Interlaced	28	51.5	12	0.625	1.375
					16	0.625	1.375

Thermal Expansion Valve Kits

Table 21: Thermal Expansion Valve Kits

	Size	FPI	Circuit	Connections		TEV Option 1 ¹		TEV Option 2 ²	
				Inlet ³	Outlet	Vendor PN	Daikin PN	Vendor PN	Daikin PN
Single Circuit	6	12		0.375	0.500	BBIZE-1 - 1/2	263922461	BBIZE-2	263922463
		16		0.375	0.500	BBIZE-1 - 1/2	263922461	BBIZE-2	263922463
	8	12		0.500	0.500	BBIZE-1 - 1/2	263922462	BBIZE-2	263922464
		16		0.500	0.500	BBIZE-2	263922464	BBIZE-3	263922465
	10	12		0.500	0.500	BBIZE-3	263922465	BBIZE-4	263922466
		16		0.500	0.500	BBIZE-3	263922465	BBIZE-4	263922466
	12	12		0.500	0.500	BBIZE-3	263922465	BBIZE-4	263922466
		16		0.500	0.500	BBIZE-3	263922465	BBIZE-4	263922466
	16	12		0.500	0.500	BBIZE-4	263922466	BBIZE-5	263922467
		16		0.500	0.500	BBIZE-4	263922466	BBIZE-5	263922467
	18	12		0.625	0.500	BBIZE-5	263922466	BBIZE-6	263922467
		16		0.625	0.500	BBIZE-5	263922466	BBIZE-6	263922467
	20	12		0.625	0.500	BBIZE-5	263922468	BBIZE-6	263922469
		16		0.625	0.500	BBIZE-5	263922468	BBIZE-6	263922469
	30	12		0.625	0.875	BBIZE-6	263922482	BBIZE-8	263922484
		16		0.625	0.875	BBIZE-8	263922484	BBIZE-12	263922486
40	12		0.625	0.875	BBIZE-8	263922484	BBIZE-12	263922486	
	16		0.625	0.875	BBIZE-12	263922486	BBIZE-15	263922488	
50	12		0.875	0.875	BBIZE-12	263922487	BBIZE-15	263922489	
	16		0.875	0.875	BBIZE-15	263922489	N/A	N/A	
Interlaced Circuit	30	12	A	0.500	0.500	BBIZE-3	263922465	BBIZE-4	263922466
		12	B	0.500	0.500	BBIZE-3	263922465	BBIZE-4	263922466
		16	A	0.500	0.500	BBIZE-4	263922466	N/A	N/A
		16	B	0.500	0.500	BBIZE-3	263922465	N/A	N/A
	40	12	A	0.500	0.625	BBIZE-5	263922499	BBIZE-6	263922483
		12	B	0.500	0.625	BBIZE-4	263922470	BBIZE-5	263922499
		16	A	0.500	0.625	BBIZE-5	263922499	BBIZE-6	263922483
		16	B	0.500	0.625	BBIZE-4	263922470	BBIZE-5	263922499
	50	12	A	0.625	0.625	BBIZE-5	263922500	BBIZE-6	263922471
		12	B	0.625	0.625	BBIZE-5	263922500	BBIZE-6	263922471
		16	A	0.625	0.625	BBIZE-6	263922471	BBIZE-8	263922485
		16	B	0.625	0.625	BBIZE-6	263922471	BBIZE-8	263922485

¹ Use Option 1 for standard entering air and suction temperatures.
² Use TEV Option 2 with higher entering air temperatures and lower suction temperatures.
³ TEV inlet size is the recommended liquid line size when using factory provided TEV

Thermal Expansion Valve (TEV)

For each unit size there are two TEV options available (Table 21). TEV Option 1 is optimized for the standard entering air and suction temperatures while option 2 is intended for applications with higher entering air temperatures and lower suction temperatures.

Thermal Expansion Valve Installation

The TEV should be located directly below and as close to the distributor as possible. The distance between them should not exceed 18" and should minimize the use of any bends or elbows between. The sensing bulb

from the TEV should be attached to a horizontal section of the suction line within 12" of the coil header using the proper mounting straps to ensure good thermal contact. On suction lines 7/8" OD and larger, the bulb should be installed in the 4 or 8 o'clock position. For smaller lines, the bulb may be attached anywhere but the bottom. For optimal performance, a TEV with an external equalization tube is recommended. The equalization tube must be soldered to the suction header by drilling a hole in the header, inserting the tube and securing in place with solder. Care must be taken to ensure that the equalization tube is inserted to the proper depth and is free of crimps, solder, debris, etc.

Mixing Box (Optional)

The optional mixing box includes a fresh air and return air damper that are linked together and driven from the same actuator. It may be ordered with or without the factory mounted damper actuator. Those with the factory mounted actuator ship pre wired to the main unit control box and do not require field adjustment of the hardware or linkage.

For the mixing box ordered without the factory mounted damper actuator one must be provided in the field that meets the following criteria.

- Maximum range of rotation = 95°
- Maximum torque = 62 in/lbs
- On-off control = spring return
- Modulating control = 0-10VDC fail in place
- Damper shaft size = 0.5" diameter

A mounting plate is provided on the shaft side of the damper frame to accommodate a variety of actuators. However, due to the number of options, size variations, and arrangements available, some actuators may require alternate field provided mounting hardware. Proper support for the actuator is important to avoid putting excess stress in the cabinet, linkage, or damper shafts. The installing contractor is responsible for mounting, and wiring of the actuator and adjustment of the damper linkage.

Optional Mixing Box Damper or Discharge Plenum Loss

For reference, losses are similar to those used in custom openings, however, their coefficients are multipliers of velocity pressure based on opening size. These are multipliers of coil velocity pressure. The intake loss assumes a fully open damper in line with the unit, based on the sudden expansion into the unit of 2x the face area and 20% drag from the blade. The discharge loss assumes the sudden expansion off the fan of 10X then a sudden contraction at the discharge of 3x the face area. Losses from a grille are not taken into account.

$$\text{Intake, intake with damper or discharge plenum loss} = \left(\frac{V \cdot C}{4005} \right)^2$$

V = velocity through the opening

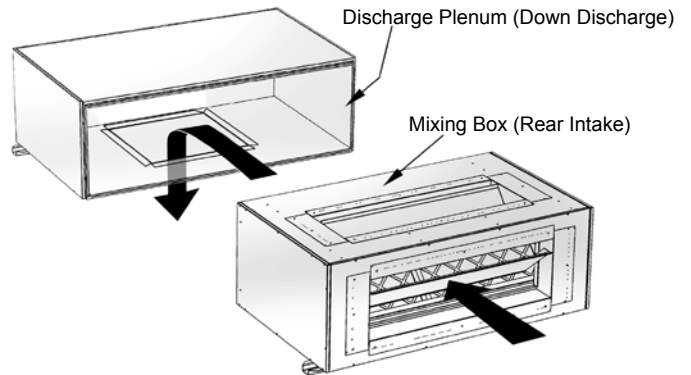
- C:
- Straight intake without damper = 0.75
 - Turned intake without damper = 1.0
 - Straight intake with damper = 1.0
 - Turned intake with damper = 1.33
 - Straight discharge = 1.5
 - Turned discharge = 2

Example:

For a selection at 1000 ft/min, mix box with rear intake and discharge plenum down discharge:

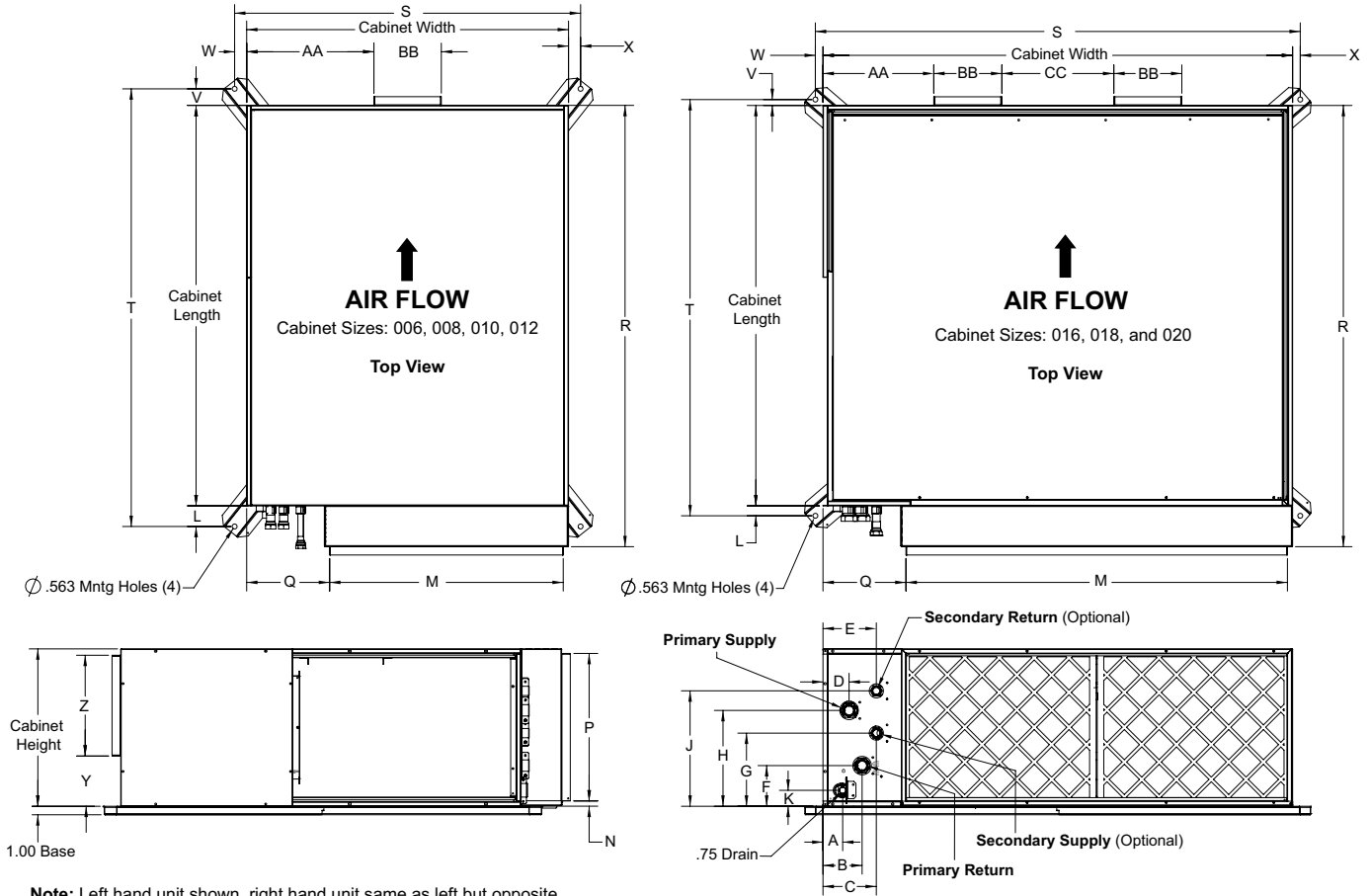
Intake loss is $(1000 \cdot 1 / 4005)^2 = 0.062"$

Discharge loss is $(1000 \cdot 1.5 / 4005)^2 = 0.140"$



Unit Dimensions – Unit Sizes 006-020

Figure 38: Left-Hand – Single and Dual Fan



Note: Left hand unit shown, right hand unit same as left but opposite.

Overall Cabinet Dimensions

- 006 = 43L × 24W × 18H
- 008 = 43L × 29W × 18H
- 010 & 012 = 46L × 37W × 18H
- 016 = 46L × 45.5W × 18H
- 018 & 020 = 46L × 54W × 18H

Table 22: Dimension Letter Reference for Figure 38 on page 33

Dimension	006	008	010	012	016	018	020
A	2.26	2.28	2.18	2.18	2.60	2.25	2.25
B	4.01	4.51	4.26	4.26	4.52	4.50	4.50
C	5.75	6.45	6.24	6.24	6.15	6.19	6.19
D	2.51	3.00	2.76	2.76	3.02	3.00	3.00
E	5.75	6.42	6.24	6.24	6.15	6.15	6.15
F	5.45	5.42	4.67	4.67	4.67	4.67	4.67
G	7.42	7.40	8.13	8.13	8.38	8.38	8.38
H	11.03	10.77	11.15	11.15	11.03	11.03	11.03
J	13.85	13.32	13.26	13.26	13.27	13.27	13.27
K	1.83	1.80	1.83	1.83	1.83	1.83	1.83
L	1.70	1.38	2.42	2.42	1.79	1.18	1.18
M	11.61	16.61	26.87	26.87	35.27	43.87	43.87
N	0.67	0.59	0.60	0.60	0.60	0.60	0.60
P	16.97	16.97	16.97	16.97	16.97	16.97	16.97
Q	9.56	9.53	9.53	9.53	9.63	10.67	10.67
R Bottom Access	47.70	47.70	50.70	50.70	50.70	50.70	50.70
R Side Access	49.50	49.50	53.90	53.90	52.50	52.50	52.50
S	24.79	29.77	39.80	39.80	47.89	55.80	55.80
T	45.90	45.25	50.34	50.34	48.97	47.87	47.87
V	1.19	0.87	1.90	1.90	1.23	0.67	0.67
W	0.38	0.38	1.39	1.39	1.19	0.87	0.87
X	0.38	0.38	1.39	1.39	1.19	0.87	0.87
Y	5.77	5.77	5.77	5.77	5.77	5.77	5.77
Z	11.59	11.59	11.59	11.59	11.59	11.59	11.59
AA	8.13	10.63	14.63	14.63	9.24	12.74	12.74
BB	7.73	7.75	7.75	7.75	7.75	7.82	7.82
CC	0.00	0.00	0.00	0.00	11.53	12.88	12.88

Unit Dimensions – Unit Sizes 030-050

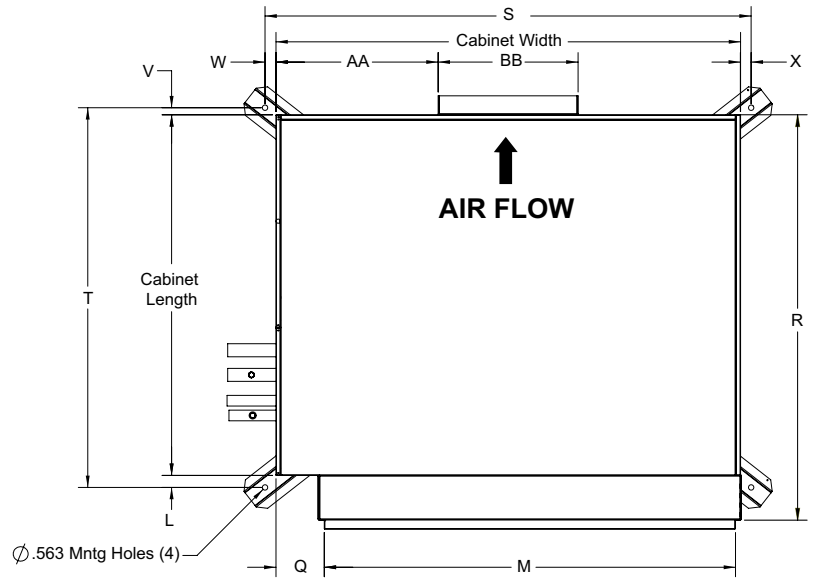
Figure 39: Left-Hand – Sizes 030, 040 and 050, Single Fan

Notes:

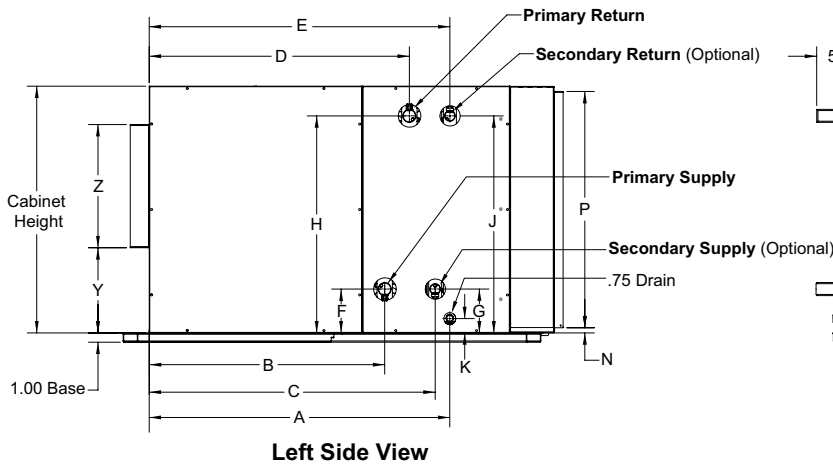
1. Refer to submittal drawings in Daikin SelectTools for piping connection dimensions.
2. Left hand unit shown, right hand unit values same as left but opposite.
3. Preheat option shown, reheat option viable.

Overall Cabinet Dimensions

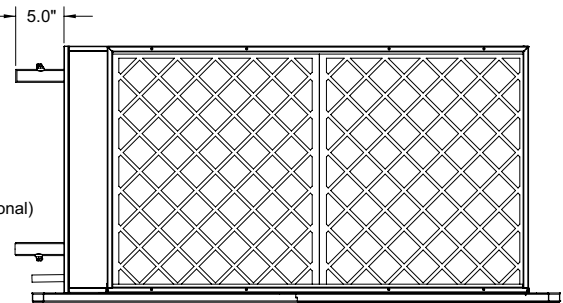
- 030 = 38L × 49W × 26H
- 040 = 41L × 54W × 30H
- 050 = 41L × 61W × 32H



Top View



Left Side View



Front View

Table 23: Dimension Letter Reference for Hanger Brackets

Dimension	030	040	050
R Bottom Access	42.65	45.72	45.66
R Side Access	44.40	47.40	47.40
L	1.26	1.16	0.87
S	51.23	56.02	62.59
T	40.01	42.80	42.22
V	0.74	0.63	0.35
W	1.15	1.01	0.80
X	1.12	1.01	0.80

Unit Size	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	Y	Z	AA	BB
2-Row Primary - Hydronic Connections																		
030	32.12	24.00	-	25.50	-	4.62	-	22.86	-	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.00	-	28.50	-	4.62	-	26.87	-	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.00	-	28.86	-	4.62	-	28.87	-	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
4-Row Primary - Hydronic Connections																		
030	32.12	24.00	-	26.50	-	4.62	-	22.86	-	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.87	-	30.43	-	4.62	-	26.87	-	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.12	-	29.68	-	4.62	-	28.87	-	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
6-Row Primary - Hydronic Connections																		
030	32.12	24.81	30.13	27.43	-	4.62	4.62	22.86	-	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.83	33.15	30.43	-	4.62	4.62	26.87	-	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.81	33.10	30.41	-	4.62	4.74	28.87	-	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
8-Row Primary - Hydronic Connections																		
030	32.1	24.81	-	29.16	-	4.61	-	22.86	-	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.1	27.83	-	32.16	-	4.62	-	26.87	-	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.1	27.79	-	32.12	-	4.62	-	28.87	-	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
2-Row Cooling with 1-Row Preheat - Hydronic Connections																		
030	32.00	24.00	30.13	25.50	31.50	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.00	33.12	28.50	34.50	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.00	33.87	29.00	35.44	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
4-Row Cooling with 1-Row Preheat - Hydronic Connections																		
030	32.00	24.00	30.13	26.56	31.50	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.87	33.12	30.50	34.50	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.00	33.87	29.68	35.31	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
6-Row Cooling with 1-Row Preheat - Hydronic Connections																		
030	32.00	24.81	30.13	27.41	31.50	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.87	33.12	30.50	34.50	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.87	33.82	30.37	35.25	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
2-Row Cooling with 2-Row Preheat - Hydronic Connections																		
030	32.00	24.00	30.13	25.50	31.50	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.00	33.12	28.50	34.50	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.00	33.87	29.00	35.44	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
4-Row Cooling with 2-Row Preheat - Hydronic Connections																		
030	32.00	24.00	30.13	26.56	31.50	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.87	33.12	30.50	34.50	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.00	33.87	29.68	35.31	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
6-Row Cooling with 2-Row Preheat - Hydronic Connections																		
030	32.00	24.81	30.13	27.41	31.50	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.87	33.12	30.50	34.50	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.87	33.82	30.37	35.25	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
2-Row Cooling with 1-Row Reheat - Hydronic Connections																		
030	32.00	24.00	28.12	25.12	29.62	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.00	31.12	28.50	32.67	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.68	31.12	29.12	33.00	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
4-Row Cooling with 1-Row Reheat - Hydronic Connections																		
030	32.00	24.00	28.12	25.12	30.69	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.00	32.00	28.50	34.62	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.68	31.25	29.12	33.82	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
6-Row Cooling with 1-Row Preheat - Hydronic Connections																		
030	32.00	24.00	29.00	25.12	31.50	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.00	32.00	28.25	34.62	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.75	33.87	30.43	35.31	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
2-Row Cooling with 2-Row Reheat - Hydronic Connections																		
030	32.00	24.00	28.12	25.12	29.62	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.00	33.12	28.50	34.50	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.68	31.12	29.12	33.00	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
4-Row Cooling with 2-Row Reheat - Hydronic Connections																		
030	32.00	24.00	28.12	25.12	30.69	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.00	31.12	28.50	32.62	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.68	31.25	29.12	33.82	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
6-Row Cooling with 2-Row Reheat - Hydronic Connections																		
030	32.00	24.00	29.00	25.12	31.50	4.62	4.62	22.86	22.86	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.12	27.00	32.00	28.25	34.62	4.62	4.62	26.87	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.12	27.75	33.87	30.43	35.31	4.62	4.62	28.87	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62

Table 24: DX Connections – Sizes 030, 040 and 050, Dimension Letter Reference for Figure 25 on page 30

Unit Size	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	Y	Z	AA	BB
Single Circuit DX Primary Only																		
030	32.10	25.69	-	-	-	4.35	-	-	-	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.10	28.71	-	-	-	4.35	-	-	-	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.10	28.69	-	-	-	4.35	-	-	-	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
Interlaced DX Primary Only																		
030	32.10	24.38	25.70	-	-	5.35	9.35	-	-	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.10	27.27	28.70	-	-	5.35	9.35	-	-	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.10	27.13	30.25	-	-	5.35	7.35	-	-	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
Single Circuit DX Primary with 1-Row Hydronic Reheat																		
030	32.10	23.95	29.83	25.04	-	4.61	4.35	22.86	-	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.10	26.97	32.85	28.29	-	5.65	4.39	25.38	-	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.10	27.68	32.84	29.13	-	4.62	4.35	28.87	-	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
Interlaced DX Primary with 1-Row Hydronic Reheat																		
030	32.10	23.88	28.45	25.09	29.76	4.61	5.35	22.86	9.35	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.10	26.97	31.41	28.29	32.85	5.62	5.35	25.37	9.35	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.10	27.68	31.27	29.13	34.40	4.62	5.35	28.87	7.35	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
Single Circuit DX Primary with 2-Row Hydronic Reheat																		
030	32.10	23.88	29.76	25.42	-	4.62	4.35	22.87	-	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.10	26.97	32.85	28.52	-	4.62	4.35	26.87	-	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.10	26.90	32.83	29.24	-	4.62	4.35	28.87	-	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
Interlaced DX Primary with 2-Row Hydronic Reheat																		
030	32.10	23.88	28.45	25.43	29.76	4.62	5.35	22.87	9.35	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.10	26.97	31.41	28.52	32.85	4.62	5.35	26.87	9.35	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.10	26.90	31.26	29.24	34.39	4.62	5.35	28.87	7.35	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
Single Circuit Dx Primary with 1-Row Hydronic Preheat																		
030	32.10	25.69	30.16	-	31.24	4.35	4.62	-	22.87	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.10	28.69	33.16	-	34.48	4.35	5.62	-	25.37	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.10	28.69	33.87	-	35.32	4.35	4.62	-	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
Interlaced DX Primary with 1-Row Hydronic Preheat																		
030	32.10	24.30	30.07	25.62	31.28	5.35	4.62	9.35	22.87	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.10	27.26	33.16	28.70	34.48	5.35	5.62	9.35	25.37	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.10	27.13	33.87	30.25	35.32	5.35	4.62	7.35	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
Single Circuit DX Primary with 2-Row Hydronic Preheat																		
030	32.10	25.61	30.07	-	31.61	4.35	4.65	-	22.87	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.10	28.70	33.16	-	34.70	4.35	4.62	-	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.10	28.68	33.09	-	35.43	4.35	4.62	-	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62
Interlaced DX Primary with 2-Row Hydronic Preheat																		
030	32.10	24.30	30.07	25.61	31.61	5.35	4.62	9.35	22.87	1.61	43.34	0.57	24.90	5.08	9.73	11.47	23.35	13.21
040	35.10	27.26	33.16	28.70	34.70	5.35	4.62	9.35	26.87	1.61	48.45	0.55	28.92	5.01	9.51	13.53	22.64	15.62
050	35.10	27.12	33.09	30.24	35.43	5.35	4.62	7.35	28.87	1.61	54.96	0.55	30.94	5.50	10.25	13.53	22.64	15.62

Mixing Box Dimensions

Figure 40: Mixing Box – Top and End Damper, Left Hand Sizes 006–020 and Right Hand Sizes 030–050 – Side Filter Access

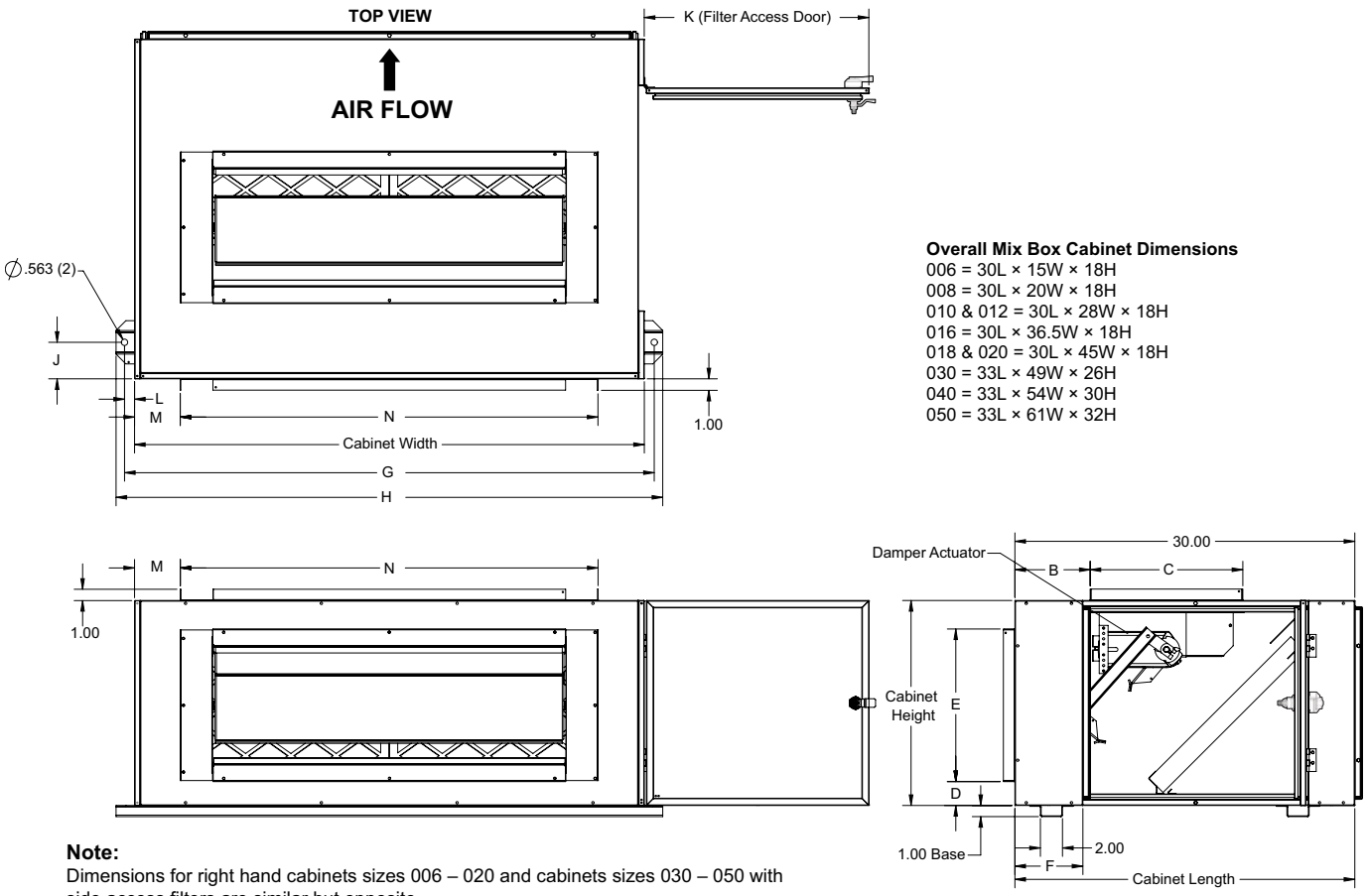


Table 25: Mixing Box Letter Reference for Figure 40

Cabinet	006	008	010	012	016	018	020	030	040	050
B	6.64	6.64	6.64	6.64	6.64	6.64	6.64	5.54	5.54	5.54
C	13.47	13.47	13.47	13.47	13.47	13.47	13.47	18.39	18.39	18.39
D	2.11	2.11	2.11	2.11	2.11	2.11	2.11	3.80	5.80	6.80
E	13.47	13.47	13.47	13.47	13.47	13.47	13.47	18.39	18.39	18.39
F	6.12	6.12	6.12	6.12	6.12	6.12	6.12	14.06	14.06	14.06
G	16.75	21.75	29.75	29.75	38.25	46.75	46.75	51.00	56.00	63.00
H	18.25	23.25	31.25	31.25	39.75	48.25	48.25	52.50	57.50	64.50
J	3.22	3.22	3.22	3.22	3.22	3.22	3.22	3.22	3.22	3.22
K	19.75	19.75	19.75	19.75	19.75	19.75	19.75	14.75	14.75	14.75
L	0.87	0.87	0.87	0.87	0.87	0.87	0.87	1.00	1.00	1.00
M	0.98	2.66	2.29	2.29	2.80	4.04	4.04	6.32	3.82	2.82
N	10.18	14.66	23.41	30.90	30.90	36.87	36.87	36.34	46.34	55.34

Figure 41: Mixing Box – Bottom and End Damper, Left Hand Sizes 006–020 and Right Hand Sizes 030–050 – Side Filter Access

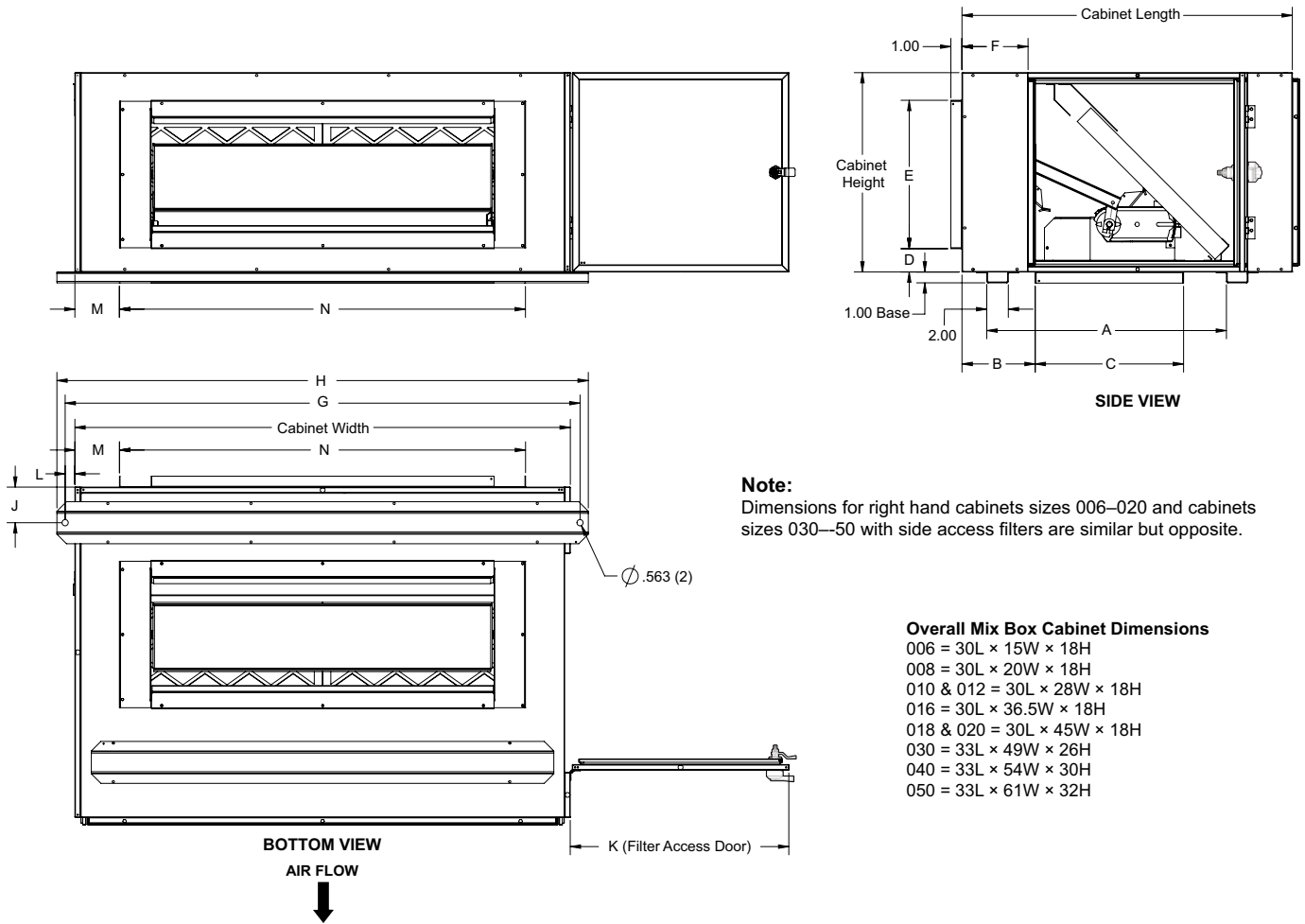


Table 26: Mixing Box Letter Reference for Figure 41

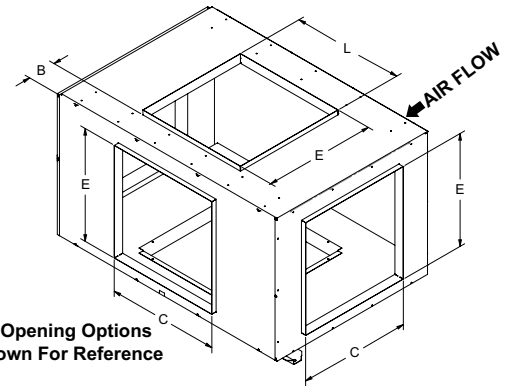
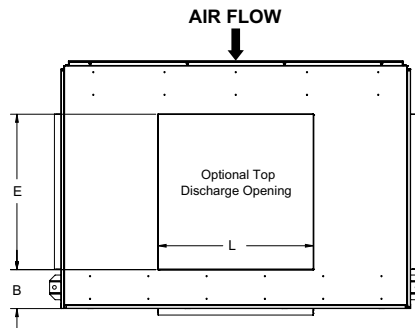
Cabinet	006	008	010	012	016	018	020	030	040	050
A	21.76	21.76	21.76	21.76	21.76	21.76	21.76	27.27	27.27	27.27
B	6.64	6.64	6.64	6.64	6.64	6.64	6.64	5.54	5.54	5.54
C	13.47	13.47	13.47	13.47	13.47	13.47	13.47	18.39	18.39	18.39
D	2.11	2.11	2.11	2.11	2.11	2.11	2.11	3.80	5.80	6.80
E	13.47	13.47	13.47	13.47	13.47	13.47	13.47	18.39	18.39	18.39
F	6.12	6.12	6.12	6.12	6.12	6.12	6.12	14.06	14.06	14.06
G	16.75	21.75	29.75	29.75	38.25	46.75	46.75	51.00	56.00	63.00
H	18.25	23.25	31.25	31.25	39.75	48.25	48.25	52.50	57.50	64.50
J	3.22	3.22	3.22	3.22	3.22	3.22	3.22	3.22	3.22	3.22
K	19.75	19.75	19.75	19.75	19.75	19.75	19.75	14.75	14.75	14.75
L	0.87	0.87	0.87	0.87	0.87	0.87	0.87	1.00	1.00	1.00
M	0.98	2.66	2.29	2.29	2.80	4.04	4.04	6.32	3.82	2.82
N	10.18	14.66	23.41	30.90	30.90	36.87	36.87	36.34	46.34	55.34

Discharge Plenum Dimensions

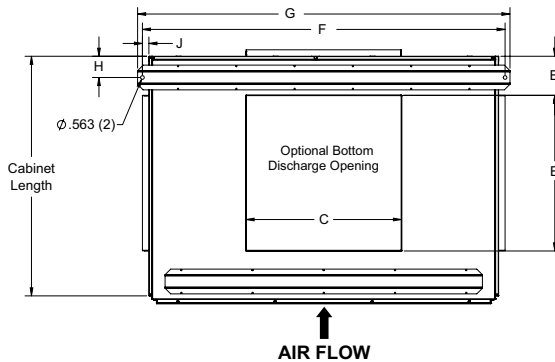
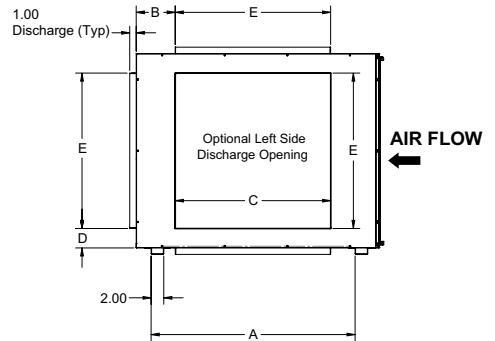
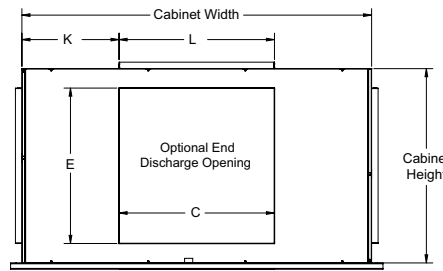
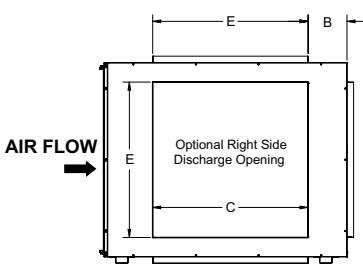
Figure 42: Horizontal Blower Coil Discharge Plenum

Notes:

- 1. Discharge opening is offered on any one particular side, but is shown here on all available surfaces for dimensioning purposes only.
- 2. A discharge plenum is also available without discharge openings.



All Opening Options Shown For Reference



Overall Discharge Plenum Cabinet Dimensions

- 006 = 30L × 24W × 18H
- 008 = 30L × 29W × 18H
- 010 & 012 = 30L × 37W × 18H
- 016 = 30L × 45.5W × 18H
- 018 & 020 = 30L × 54W × 18H
- 030 = 30L × 49W × 26H
- 040 = 37L × 54W × 30H
- 050 = 37L × 61W × 32H

Table 27: Discharge Plenum Letter Reference for Figure 42

Cabinet	006	008	010	012	016	018	020	030	040	050
A	22.00	22.00	22.00	22.00	22.00	22.00	22.00	24.50	31.50	32.88
B	6.56	6.10	6.56	6.56	6.56	6.56	6.56	5.53	6.02	5.06
C	12.00	12.00	14.00	14.00	16.00	20.00	20.00	24.00	24.00	28.00
D	5.00	3.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00
E	8.00	12.00	14.00	14.00	14.00	14.00	14.00	20.00	24.00	28.00
F	26.00	30.00	39.00	39.00	48.00	56.00	56.00	50.50	56.00	62.50
G	27.50	31.50	40.50	40.50	49.50	57.50	57.50	52.00	57.50	64.00
H	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	2.63
J	1.00	0.50	1.00	1.00	1.25	1.00	1.00	0.75	1.00	0.75
K	6.00	8.50	11.50	11.50	14.75	17.00	17.00	12.50	15.00	16.50
L	12.00	12.00	14.00	14.00	16.00	20.00	20.00	24.00	24.00	28.00

NOTE: Discharge opening is offered on any one particular side, but is shown here on all available surfaces for dimensioning purposes only. A discharge plenum is also available without discharge openings.

Figure 43: Mixing Box Dimensions – Left Hand Sizes 006–020 and Right Hand Sizes 030–050 – Bottom Filter Access

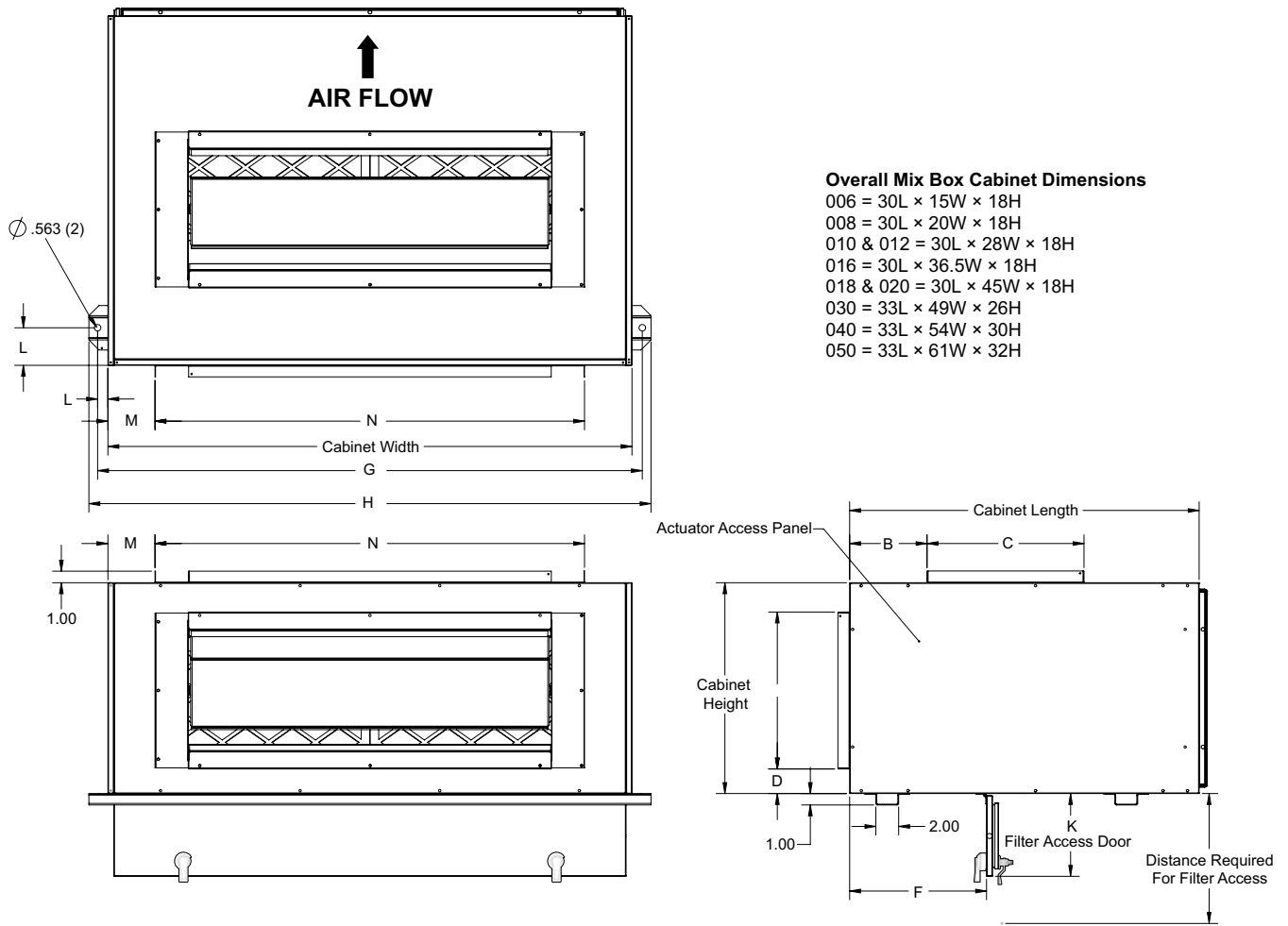


Table 28: Mixing Box Letter Reference for Figure 43

Cabinet	006	008	010	012	016	018	020	030	040	050
B	6.64	6.64	6.64	6.64	6.64	6.64	6.64	5.54	5.54	5.54
C	13.47	13.47	13.47	13.47	13.47	13.47	13.47	18.39	18.39	18.39
D	2.11	2.11	2.11	2.11	2.11	2.11	2.11	3.80	5.80	6.80
E	13.47	13.47	13.47	13.47	13.47	13.47	13.47	18.39	18.39	18.39
F	11.62	11.62	11.62	11.62	11.62	11.62	11.62	19.56	17.86	17.36
G	16.75	21.75	29.75	29.75	38.25	46.75	46.75	51.00	56.00	63.00
H	18.25	23.25	31.25	31.25	39.75	48.25	48.25	52.50	57.50	64.50
J	3.22	3.22	3.22	3.22	3.22	3.22	3.22	3.22	3.22	3.22
K	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
L	0.87	0.87	0.87	0.87	0.87	0.87	0.87	1.00	1.00	1.00
M	0.98	2.66	2.29	2.29	2.80	4.04	4.04	6.32	3.82	2.82
N	10.18	14.66	23.41	30.90	30.90	36.87	36.87	36.34	46.34	55.34

Startup Checks

WARNING

ROTATING FAN(S)

Can cause severe injury or death. Before servicing fans, lockout and tag out power.

DANGER

FIRE/ELECTRIC SHOCK HAZARD

Can cause property damage, personal injury or death. Wire fan power supply and ground motor frame in accordance with local electric codes.

DANGER

FAN MOTOR REQUIRES OVERLOAD PROTECTION

Failure to provide motor overload protection can result in fire, property damage, electric shock, personal injury or death. Connect motor to an overload protective device rated in compliance with local electric codes.

WARNING

DO NOT OVERHEAT FAN MOTOR

High air temperatures the fan section can cause the fan motor to burnout. On draw-through air handlers or air handlers with the fan section down the air stream from the heating section, the discharge air temperature of the heating section must not exceed 104°F (40°C).

CAUTION

Cautions indicate potentially hazardous situations, which can result in personal injury or equipment damage if not avoided.

When performing startup and service, always take thorough safety precautions. Start-up functions must be performed by trained, experienced personnel.

Before Starting the Unit

- Make sure that fan electrical power source is disconnected and locked in the OFF position before entering fan section.
- With ductwork connected, check the unit for complete and proper installation.
- Check that all construction debris is removed and filters are clean.
- Check that all electrical work is complete and properly terminated. Check that all electrical connections are tight and that the proper voltage is connected. Phase imbalance must not exceed 2%.
- Fan motors are pre-lubricated and do not need grease before startup.
- Check that fan wheel(s) turn freely, are aligned properly and do not rub against the fan housing(s), etc.
- Leak test the thermal system to verify that connections are tight.
- Check that condensate drain is trapped and clear of debris.
- Rotate shaft by hand to be sure it is free.
- Fan startup: Fan should start and run. Verify fan rotation is correct.

Note: 3-phase motor rotation may be reversed by reversing two legs of the three-phase power at the motor.

Coil Maintenance

⚠ WARNING

SHARP EDGES AND COIL SURFACES are a potential injury hazard. Avoid contact with them.

⚠ WARNING

Clean drain pan regularly so mold does not develop or water overflows causing property damage.

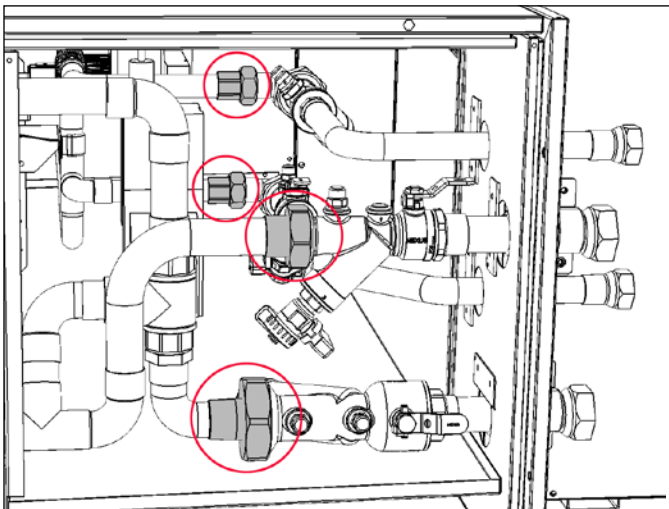
- For maximum performance, the coil must be clean.
Check once a year under normal operating conditions and brush or vacuum clean if necessary. Use a chemical coil cleaner on multiple row coils. Read and follow the chemical cleaner instructions since some cleaners may contain harsh chemicals. Take care not to damage fins while cleaning.
- Drain pans in any air conditioning unit may have some moisture, with growth of organisms possible due to airborne spores and bacteria. Clean drain pans periodically to prevent build-up from plugging the drain and causing the drain pan to overflow. Keep drain pans clean to prevent the spread of disease. Cleaning should be performed by qualified personnel.
- Dirt and lint can clog the condensate drain, especially with dirty filters. Inspect twice a year to help avoid overflow.

Component Removal and Replacement

Hydronic Coil Removal - Sizes 006 - 020

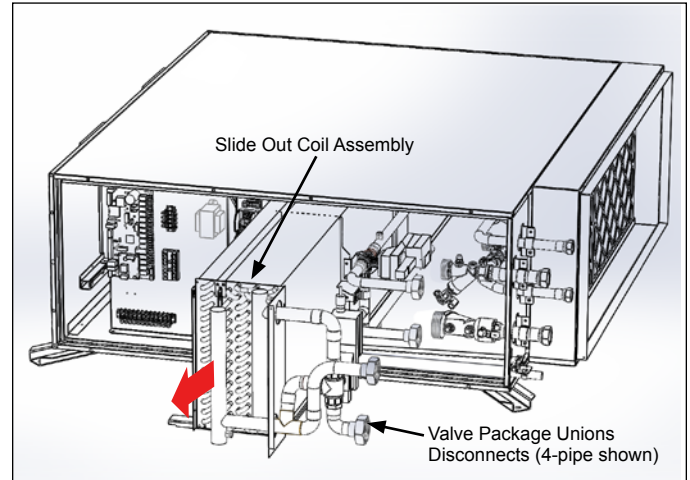
- Remove coil section access panel
- Drain the coils
- Disconnect unions on supply and return of heating and cooling coils inside cabinet. Field piping does not need to be disconnected.

Figure 44: Heating and Cooling Coil Unions



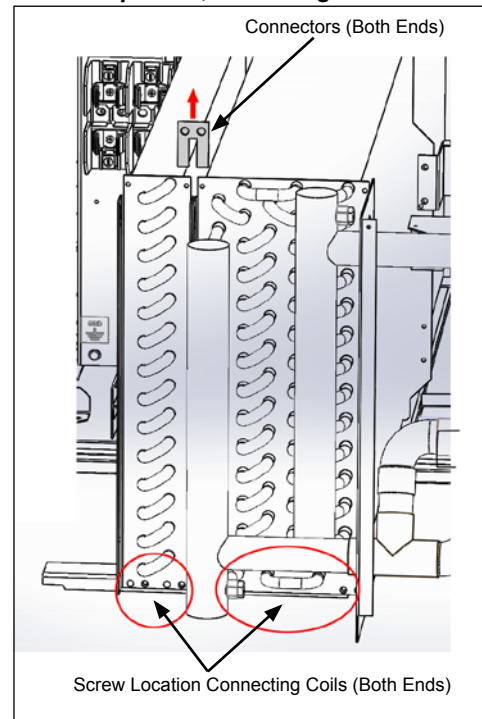
- Disconnect any valve, damper, or electric heat wires that may interfere with removing the coil.
- Slide the coil out by pulling on the header tube. The coil is not fastened in cabinet. If unit is equipped with factory installed valve package, part of the valve package will be removed with coil.

Figure 45: Slide Coil Out



- For four pipe units, the cooling coil is attached to the preheat or reheat coil. To separate the coils remove the screws along the bottom edge of the header end plate, on each end of the coil and the connectors.

Figure 46: Four Pipe Unit, Detaching Coils

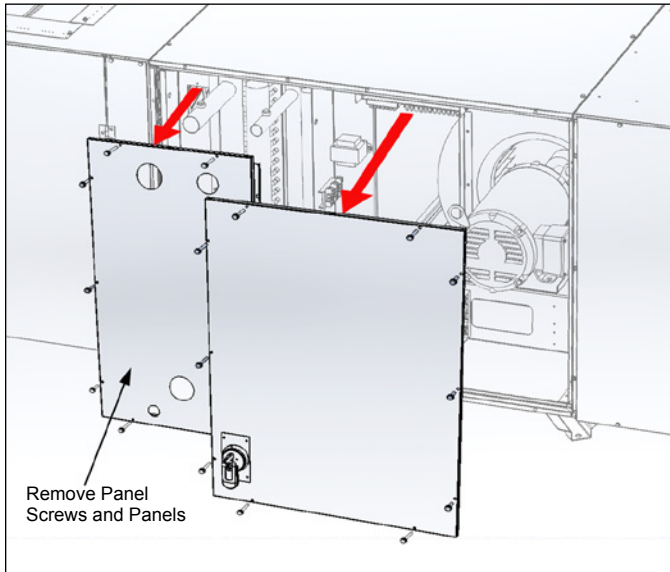


- For units with the electric heat option, the electric heat rack is attached to the cooling coil in the preheat position. To separate the electric heat rack from the cooling coil remove the screws on each end of the coil, and the connectors.

Hydronic Coil Removal - Sizes 030 - 050

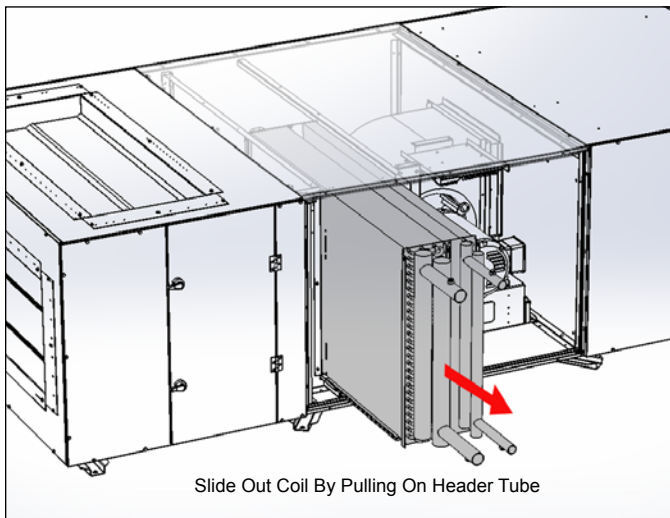
1. Remove coil section panels

Figure 47: Remove Panel Screws and Panels



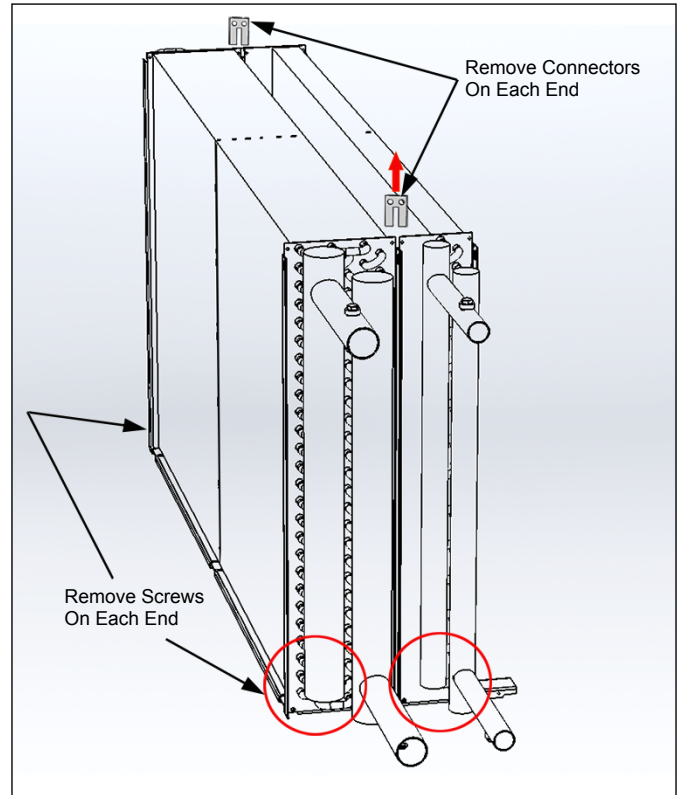
2. Drain coils
3. Disconnect supply and return on heating and cooling coils from field piping
4. Remove any field piping that might interfere with coil removal.
5. Disconnect any damper or electric heat wires that may interfere with coil removal.
6. Slide the coil out by pulling on the header tube.

Figure 48: Slide Coil Out



7. For four pipe units, the cooling coil is attached to the preheat or reheat coil. To separate the coils remove the screws on each end of the coil and the connectors.

Figure 49: Remove Screws Holding Coil Sections Together and Connectors On Each End



8. For units with the electric heat option, the electric heat rack is attached to the cooling coil in the preheat position. To separate the electric heat rack from the cooling coil remove the screws on each end of the coil, and the connectors.

Motor Replacement

To Remove the EC Motor:

1. Unplug the wires going from the control box to motor
2. Remove the top and bottom screws on the downstream side of the control box and loosen the top and bottom screws on the upstream side. Swing the control box out to make room for the fan housing to slide out.
3. Remove the set screw on the fan housing rail and slide out the blower assembly.

Figure 50: Remove Set Screw On Fan Housing Rail

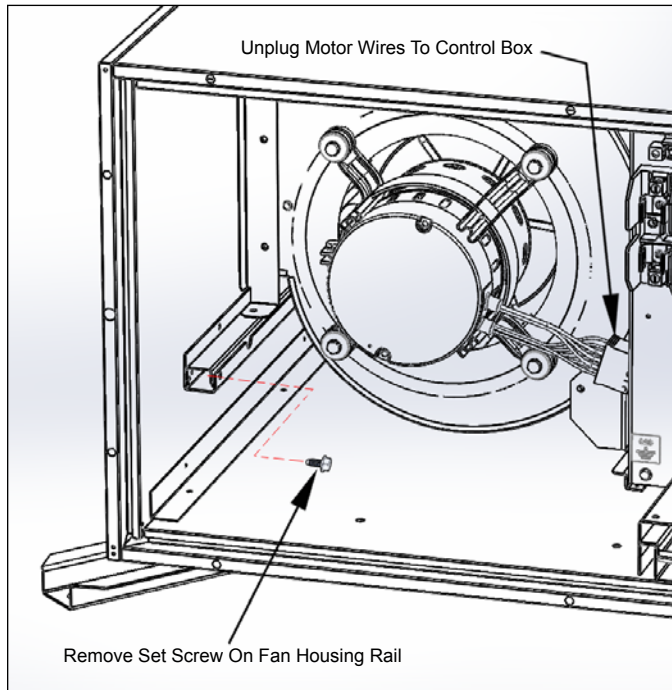
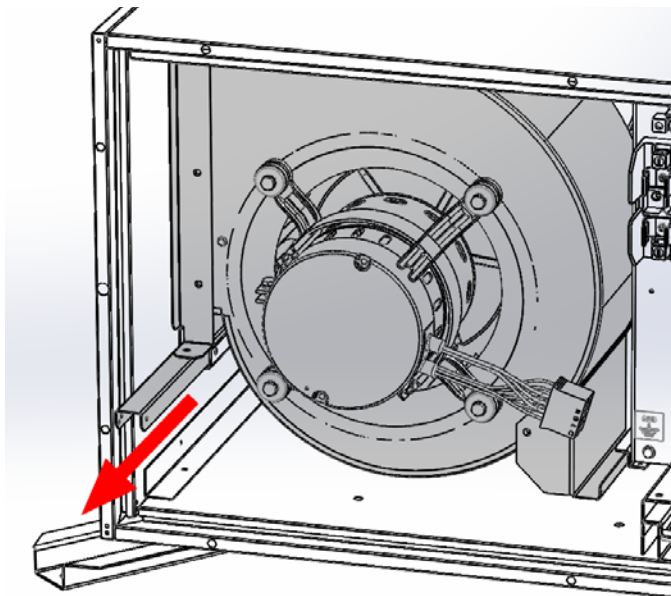
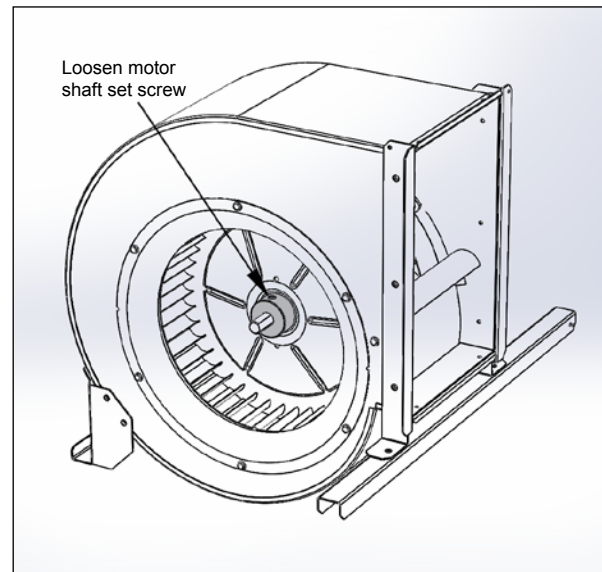


Figure 51: Slide Out The Blower Assembly



4. Loosen the motor shaft set screw on the opposite side of the fan.

Figure 52: Loosen The Motor Shaft Set Screw



5. Remove the four bolts holding the belly band to the fan housing and pull the motor out.

Figure 53: Loosen The Motor Shaft Set Screw

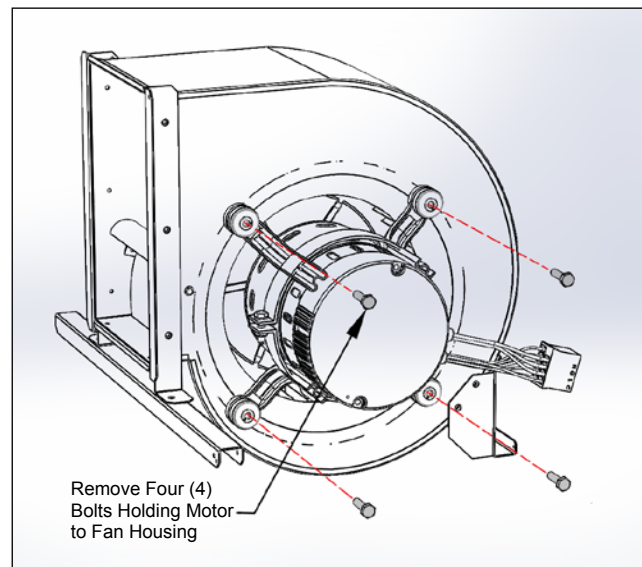
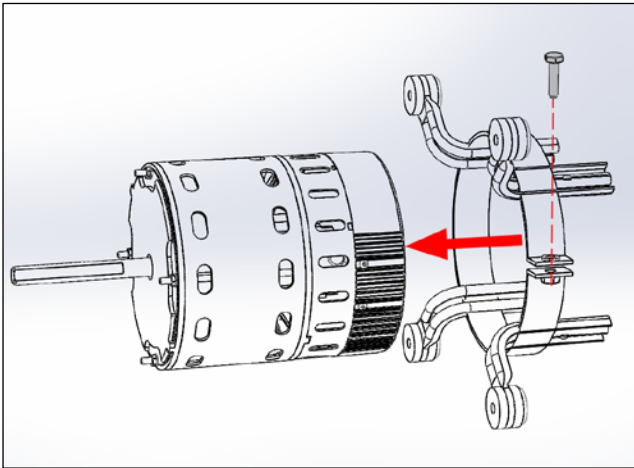


Figure 54: Loosen Belly Band Bolt And Remove From Motor



- Reverse this process to install the new motor, taking care to center the fan on the shaft before tightening the motor shaft set screw.

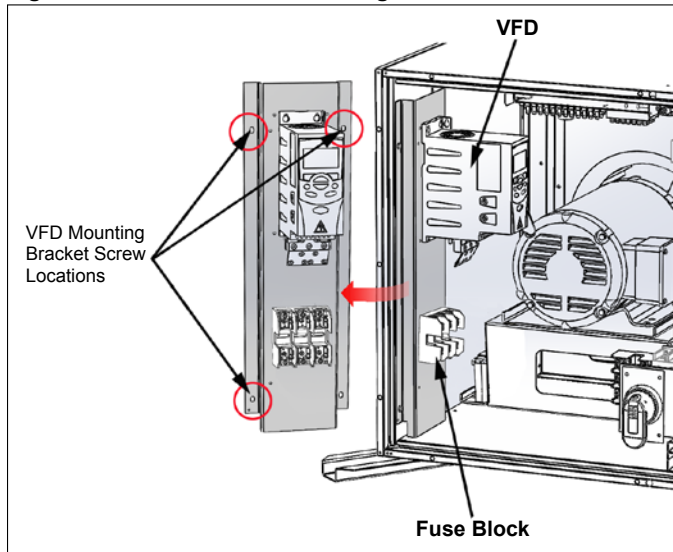
To Remove the Poly Phase Motor:

- Disconnect the wires from the motor to the VFD at the VFD. The wires between the VFD/Fuse Block and the control box may be left attached.

NOTE: Unit size 030 shown. Views may vary by unit size. For clarity not all wiring and components are shown.

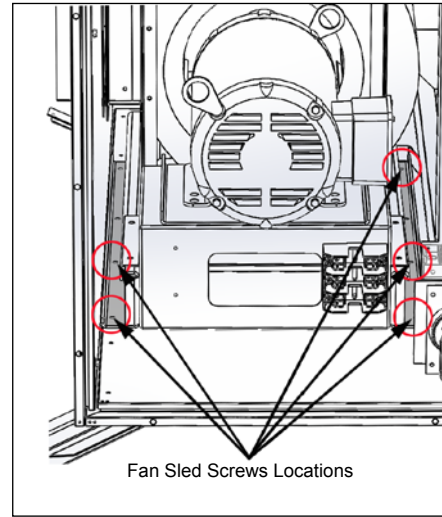
- Remove the VFD mounting bracket by removing three mounting screws; two on the access panel side of the bracket and one on the upper-back side of the bracket.
- The VFD mounting bracket with the control box wires still attached should be moved out of the way and supported to avoid straining the wires.

Figure 55: Remove VFD Mounting Bracket



- Remove the five screws holding the fan sled to the cabinet bottom panel; two screws on the access panel side and three on the upstream side of the sled.

Figure 56: Remove Five (5) Screws Holding Fan Sled



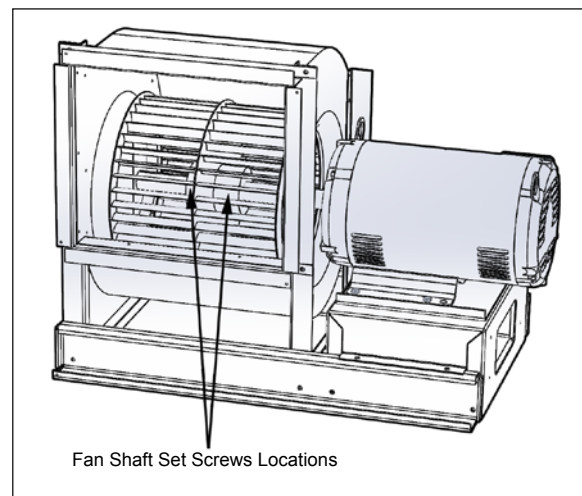
- Pull the sled assembly out, using caution to support its weight and gain access to the motor shaft set screws shown in Figure 57.

⚠ DANGER

FAN MOTOR SLED ASSEMBLY IS HEAVY!
 Failure to use the proper lifting equipment specified to support the weight of the sled assembly can cause property damage, personal injury or death.

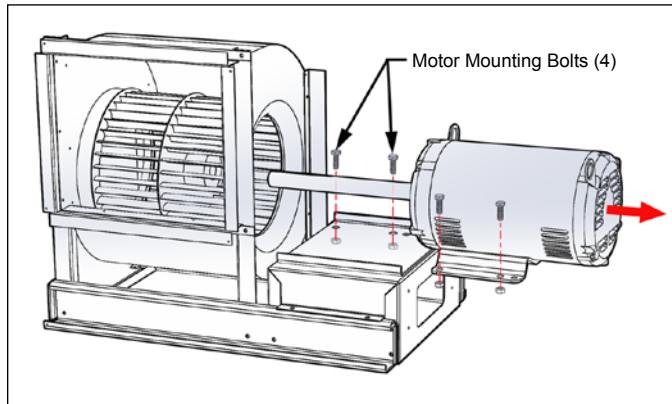
- Loosen the two motor shaft set screws; one on either side of the fan center partition.

Figure 57: Fan Shaft Set Screw Locations



- Remove the four motor mounting bolts using a wrench to hold the nut on the underside of the motor base.
- Slide the motor shaft out of the fan hub while supporting the motor.

Figure 58: Motor Mounting Bolts



To replace the poly phase motor:

1. Place the new motor on the base and insert the shaft into the fan hub, leaving the set screws loose.
2. Install the motor mounting bolts, washers and nuts leaving the nuts loose.
3. Adjust the motor on the base and the fan on the shaft so that the fan is straight and centered in the housing.
4. Tighten the mounting bolts and shaft set screws.
5. Push the sled into the cabinet until it is against the back stop and the fan housing is tight against the front panel.
6. Reinstall and tighten the five sled screws.
7. Reattach the VFD bracket on the front panel
8. Reconnect the motor wires to the VFD.

Warranty

Consult your local Daikin representative for warranty details. To find your local Daikin representative, go to www.DaikinApplied.com.

Warranty Return Material Procedure

Defective material may not be returned without permission of authorized factory service personnel of Daikin Applied in Minneapolis, Minnesota, (763) 553-5330. A "Return Goods" tag must be included with the returned material. Enter the required information to expedite handling and prompt issuance of credits. All parts must be returned to the appropriate Daikin facility, designated on the "Return Goods" tag. Transportation charges must be prepaid.

The return of the part does not constitute an order for replacement. Therefore, a purchase order must be entered through the nearest Daikin representative. The order should include part number, model number, and serial number of the unit involved.

Credit will be issued on customer's purchase order following an inspection of the return part and upon determination that the failure is due to faulty material or workmanship during the warranty period.

Replacement Parts

When writing to Daikin Applied for service or replacement parts, refer to the model number and serial number of the unit stamped on the serial plate attached to the unit. If replacement parts are required, mention the date of installation of the unit and date of failure, along with an explanation of the malfunctions and a description of the replacement parts required.



Daikin Applied Training and Development

Now that you have made an investment in modern, efficient Daikin equipment, its care should be a high priority. For training information on all Daikin HVAC products, please visit us at www.DaikinApplied.com and click on Training, or call 540-248-9646 and ask for the Training Department.

Warranty

All Daikin equipment is sold pursuant to its standard terms and conditions of sale, including Limited Product Warranty. Consult your local Daikin Applied representative for warranty details. To find your local Daikin Applied representative, go to www.DaikinApplied.com.

Aftermarket Services

To find your local parts office, visit www.DaikinApplied.com or call 800-37PARTS (800-377-2787). To find your local service office, visit www.DaikinApplied.com or call 800-432-1342.

This document contains the most current product information as of this printing. For the most up-to-date product information, please go to www.DaikinApplied.com.

Products manufactured in an ISO Certified Facility.