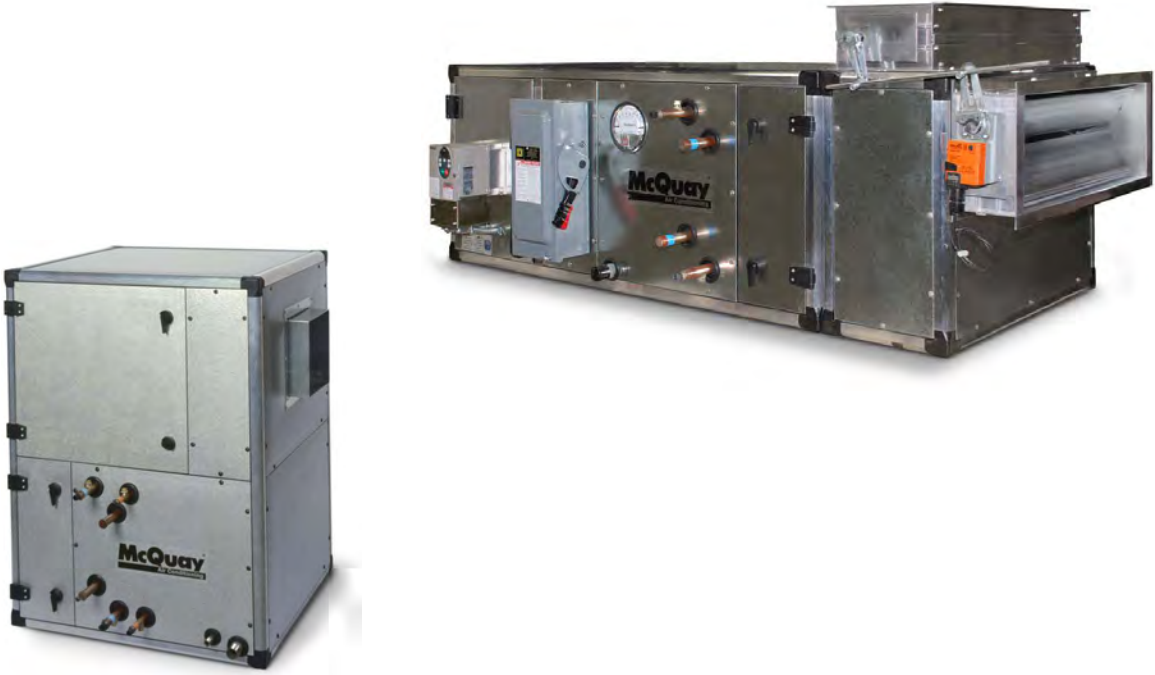




# Destiny Indoor Air Handler

Catalog 580-5

Sizes 002 through 030



*Engineered for flexibility and performance™*

# Contents

---

<b>Introduction</b> .....	<b>3</b>	<b>Performance Data</b> .....	<b>16</b>
Certification .....	3	Fan Data .....	16
AHRI Certification .....	3	Filter Data .....	17
Agency Listed .....	3	Coil Data .....	18
Smoke Control and Management Systems .....	3	Drain Pan Data .....	19
<b>Features and Benefits</b> .....	<b>4</b>	Electric Heat Data .....	19
Horizontal and Vertical Configurations .....	4	<b>Dimensional Data</b> .....	<b>20</b>
The Destiny Advantage .....	6	Cabinet Dimensions—Horizontal .....	20
Flexibility .....	6	Cabinet Dimensions—Vertical .....	22
Indoor Air Quality .....	6	Mixing Box Dimensions .....	23
Unit Construction .....	6	Electric Heat Dimensions—Left/Right Oriented .....	24
Coil Selections .....	6	Control Box Dimensions .....	25
Filter Selections .....	6	<b>Engineering Guide Specification</b> .....	<b>26</b>
Motors .....	6	Part 1: General .....	26
Mixing Section Option .....	6	1.01 Section Includes .....	26
Variable Frequency Drive (VFD) .....	7	1.02 References .....	26
Electric Heat Option .....	7	1.03 Submittals .....	26
Double-Wall Construction .....	7	1.04 Operation and Maintenance Data .....	26
Sloped Drain Pan .....	7	1.05 Qualifications .....	26
Cabinets and Service Access .....	8	1.06 Delivery, Storage, and Handling .....	26
Quiet Blower and Motor Assembly .....	8	1.07 Environmental Requirements .....	26
Starters and Disconnects .....	8	Part 2: Products .....	26
Option Summary .....	8	2.01 Manufacturers .....	26
<b>Application Considerations</b> .....	<b>9</b>	2.02 Air Handler Type And Arrangement .....	26
Mounting and Access .....	9	2.03 Air Handler Casing .....	27
Ductwork .....	10	2.04 Supply Fan .....	27
Piping and Drain Pan Traps .....	10	2.05 Bearings and Drives .....	27
Vibration Isolation .....	10	2.06 Electrical .....	27
Sound .....	10	2.07 Cooling and Heating Sections .....	27
Air Supply Systems and Fan Laws .....	11	2.08 Filters .....	28
Fan and Motor Heat .....	12	2.09 Mixing Box .....	28
<b>Physical Data</b> .....	<b>13</b>	Part 3: Execution .....	28
Component and Section Weights .....	13	3.01 Installation .....	28

---

## Certification

### AHRI Certification



Standard size units certified in accordance with the central station air handling units certification program, which is based on AHRI Standard 430.

### Agency Listed



All standard units  
All Canadian units

## MEA

87-04-E

## 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.

### AVERTISSEMENT

Un traitement inadéquat de l'air contenant de la fumée peut entraîner des blessures personnelles ou même la mort.

Un ingénieur professionnel doit faire la conception et approuver l'unité de traitement d'air et son application pour s'assurer que le contrôle de la fumée rencontre les codes d'incendies locaux et les normes NFPA pour l'application spécifique du bâtiment.

Dû à la grande diversité de conceptions des édifices ainsi que des conditions d'opération ambiantes dans lesquelles nos produits peuvent être appliqués, nous n'avancons ni ne garantissons que nos produits seront adéquats et efficaces quant au contrôle de la fumée. Le propriétaire et le concepteur du bâtiment doivent consulter un ingénieur professionnel à cet égard.

# Features and Benefits

## Horizontal and Vertical Configurations

### 1 Motor Options

- Adjustable motor mount simplifies belt tightening
- Drive side is field interchangeable to avoid clearance restrictions
- Voltage choices
- Motor power connection through external junction box
- Standard, high, and premium efficiency options
- VFD, starter, and disconnect motor control options

### 2 FC Centrifugal Blower

- Minimum turbulence for quiet, efficient operation
- Allows higher static pressure operation than blower coil for flexible ducting and unit placement (up to 3" wg total)
- Flex collar at discharge minimizes vibration transmission
- Flexible, end or top discharge arrangements

### 3 Anti-Microbial Coated Galvanized or Optional Stainless Steel, Sloped Drain Pan

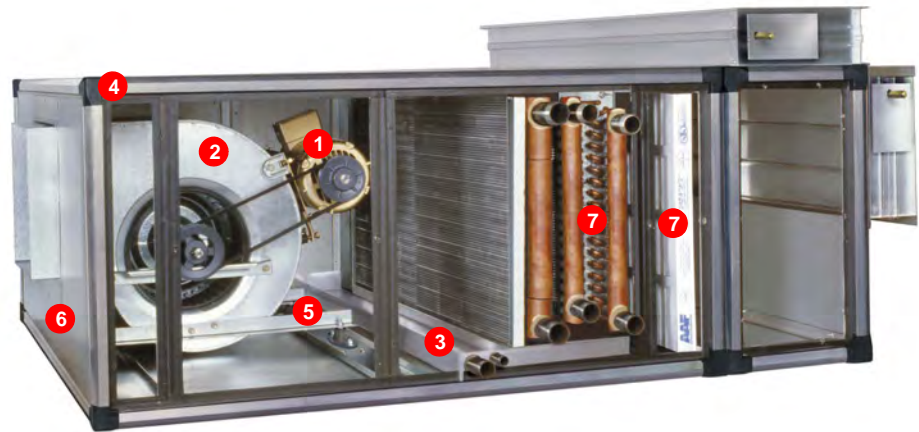
- Eliminates standing water to inhibit microbial growth
- Drain connections on both sides to avoid clearance restrictions
- Standard secondary drain connection

### 4 Aluminum Frame and Polymeric Corners

- Provide rigidity to structure and maximum corrosion resistance
- Unique frame structure simplifies hanger bracket attachment

### 5 Internally Isolated Fan and Motor

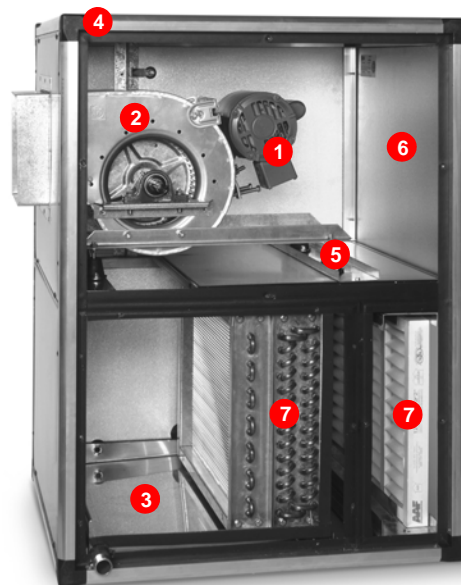
- Minimizes vibration transmission for quiet operation
- Rubber in shear (sizes 002 to 010)
- Spring isolators (sizes 015 and larger)



Horizontal Configuration

### 6 Double-Wall Construction with Foam-Injected Insulation

- Eliminates insulation fibers from air stream
- Helps prevent dust buildup and provides wipe-clean surface
- Optional Galvalume® steel panels provide superior corrosion resistance
- Choice of casing materials available (special options)



Vertical Configuration

### 7 Flexible Coil and Filter Options

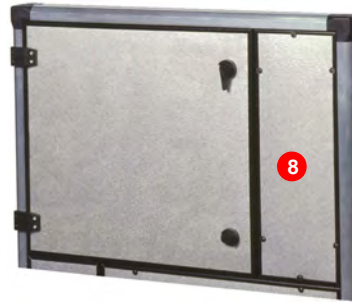
- Allow you to match application requirements
- Universal-hand coils are field interchangeable to avoid clearance restrictions
- Preheat and reheat arrangements available
- Flat or angular filters
- MERV-7 or MERV-8, 2" and 4" standard
- Optional high efficiency 4" minipleats (MERV-11 through MERV-15)

## 8 Access Panels on Both Sides of Each Section

- Provide complete easy access to the unit interior
- Pocket pull handles to simplify removal and handling of access panels
- Optional hinged and quarter-turn latched access doors.
- Optional bottom filter access for horizontal units



**Pocket Pull Access Panel**



**Hinged Tool Access Panel with Quarter-Turn Handle**



**Bottom Filter Access Panel**

## 9 Mixing Box Sections

- Provide superior mixing of return and outside air streams in ducted return applications
- Optional factory mounted actuator and damper linkage to reduce field labor



## 10 Electric Heat Section (Sizes 002 - 010)

- Single point power connection for supply fan motor and heater
- 1.5 kW - 55 kW
- 1, 2, 3, or 4 steps (1 and 2 steps on size 002)
- Factory wired contactors and fuses per step
- Factory wired motor contactors or starter and fuses as applicable
- Non-fused disconnect switch
- 24 volt control transformer
- Complete with overload and thermal protection
- High quality alloy nichrome wire (80% Ni and 20% Cr)
- Horizontal and vertical air flow arrangements
- Control box with tool access hinged door
- SCR control option (special)



## 11 Variable Frequency Drive (VFD)

- Factory mounted and wired
- McQuay brand MD2 or MD3 or Telemechanique ATV-11
- Fused disconnect required
- No bypass



## 12 Starter/Disconnects

- Factory mounted and wired
- Disconnect only option: fused or non-fused
- Full control box options: fused disconnect, motor starter, and 24 V transformer
- Software selectable
- Wiring diagrams generated



## 13 Direct Drive Plenum Fan

- Higher static applications (up to 4" wg total)
- Multiple discharge directions
- Better static efficiency and less noise than a forward curved fan
- No belt maintenance and drive loss typically associated with a belt driven forward curved fan

# Features and Benefits

## The Destiny Advantage

The McQuay Destiny™ air handler is a full featured, light air handler that provides a single, economical solution for blower coil and low pressure air handler applications from 600 to 15,000 cfm. Destiny air handlers include many features that make it a superior choice over blower coils and other low pressure air handlers, including:

- Double-wall construction with foam injected insulation for durable construction, easy cleaning and superior IAQ.
- Internally isolated FC fan and motor assembly with a flex collar on the fan discharge for low vibration and quieter operation.
- Plenum fan option for higher efficiency and less noise than FC fans.
- AHRI Certified performance for all belt driven, FC fan units.
- Higher operating static pressures than blower coils for greater flexibility in ducting and placement.
- Easy maintenance and service access on both sides.
- Factory-installed motor control devices.

## Flexibility

The McQuay Destiny™ air handler is available in horizontal and vertical configurations with chilled water or direct expansion (DX) cooling, and hot water, or electric heat. Units can be floor mounted or ceiling hung. The coil section is field-interchangeable, allowing the unit to be piped from either side to help avoid obstructions, conserve space and simplify installation. Drain connections on both ends of the drain pan further support this flexibility.

## Indoor Air Quality

The McQuay Destiny™ air handler is designed to provide superior indoor air quality in support of ASHRAE Standard 62.1-2001 and a quiet indoor environment.

## Unit Construction

### Coil Selections

Coil selections include:

- Chilled water with 4 or 6 rows and 12 fins per inch
- Direct expansion with 4 or 6 rows and 12 fins per inch
- R22, R407C, R410A, or R134a refrigerant
- Hot water with 1 or 2 rows and 12 fins per inch

All coils are rated in accordance with AHRI Standard 410 and built with copper tubing and highly corrugated aluminum fins mounted in a galvanized or optional stainless steel casing.

- Special (interlaced DX and non-distributing steam) coils are available on request

## Filter Selections

Filter selections include:

- 2" or 4" flat filters (MERV-7, 8, or 11 through 15)
- 2" angular filters (MERV-7 or 8)

## Motors

Motors are belt driven open drip proof (ODP) for FC fans and direct driven ODP for plenum fans, in sizes ranging from 1/3 to 20 horsepower and a wide range of voltages.

Motors are mounted to the blower frame on an adjustable base for easy alignment and belt tensioning (Figure 1).

Premium efficiency and TEFC motors are available as an option for FC fans. Premium efficiency ODP is standard for plenum fans.

Factory motor wiring is available through an external junction box. Premium efficiency ODP and TEFC motors are software-selectable.

**Figure 1: Adjustable Motor Mount and Pulley**



## Mixing Section Option

Optional mixing section with low leak dampers (Figure 2) is available for applications where return and fresh air are delivered directly to the unit.

An optional factory-mounted actuator and damper linkage is available.

**Figure 2: Mixing Section Options with Dampers**



## Variable Frequency Drive (VFD)

A VFD provides adjustable speed control of a single fan motor. Factory mounted outside the fan door (Figure 3), the VFD provides not only a lower cost than field installation, but also an optimal installation location. VFDs are pre-programmed and include a keypad for local or remote control.

A fast-blow fused disconnect (supplied by McQuay or provided by others) is required upstream of the drive.

**Figure 3: Variable Frequency Drive**



## Electric Heat Option

An optional electric heat section (Figure 4, sizes 002 - 010) is available at the discharge end of the Destiny air handler to provide reheat in a horizontal or upblast vertical arrangement.

The electric heat section includes heating coils in a galvanized steel enclosure, a control box with motor starter, fused disconnect, and a 24 volt control transformer that is factory wired for single-point power connection for the heater and fan motor. Staging options are standard. An SCR controller is available as a special item.

**Figure 4: Electric Heat Option**



## Double-Wall Construction

Units feature solid double-wall panel construction with foam injected polyurethane insulation, and a mechanically assembled extruded aluminum frame with polymeric corner protectors. The design provides superior rigidity to the structure as well as a smooth interior surface that promotes easy cleaning. Panels are constructed of G60 galvanized steel or optional Galvalume™ steel for superior corrosion resistance.

The foam injected polyurethane insulation used in Destiny panels provides a more effective thermal barrier than 1" fiberglass insulation and eliminates concerns over insulation fibers eroding into the air stream.

## Sloped Drain Pan

### Anti-Microbial Coated Galvanized Steel

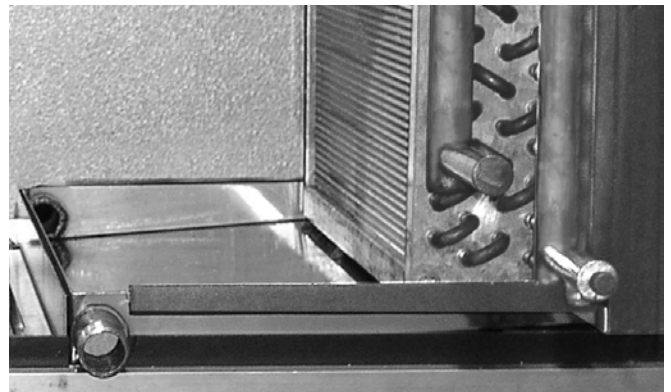
Destiny air handlers are equipped with a standard anti-microbial coated galvanized or optional stainless steel drain pan that is sloped to promote complete drainage (Figure 5).

### Stainless Steel Option

The stainless steel option provides an easy, wipe-clean surface that encourages regular cleaning to help prevent microbial growth.

Drain connections on either side of the unit give installers flexibility to make proper connections around obstructions without additional field labor. A secondary drain connection is standard on the right-hand side of a unit.

**Figure 5: Anti-Microbial Coated Galvanized Steel or Optional Stainless Steel Sloped Drain Pan**



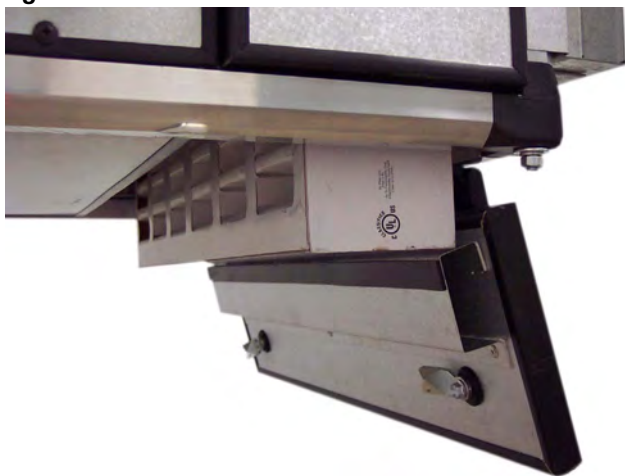
# Features and Benefits

## Cabinets and Service Access

The cabinet interior and components are easily accessed by removing the screws holding the double wall panels in place. Unique pocket pull handles are included in alternate sections to provide sufficient grip to easily remove the panel. Optional tool access hinged doors provide access without having to remove screws.

An optional bottom filter access door (Figure 6) provides easy ceiling-mounted unit filter service.

Figure 6: Bottom Filter Access Door



## Quiet Blower and Motor Assembly

Destiny air handlers are equipped with a high efficiency double width, double inlet (DWDI) centrifugal blower that maximizes efficiency while minimizing turbulence and operating sound levels. The blower shaft is solid steel with self-aligning ball bearings that are designed for 200,000 hours of operation.

Horizontal Destiny air handlers may also be equipped with high-efficiency, prebalanced direct driven Single Width, Single Inlet (SWSI) plenum fans that will provide better efficiency and sound levels compared to FC centrifugal blowers.

The fan and motor are isolated from the unit frame using rubber in shear isolators (010 and smaller) and spring isolators (sizes 015 and larger) to help minimize vibration and provide quiet operation. A tarpaulin cloth “flex collar” between the fan housing and discharge helps to further minimize vibration and operating sound levels.

## Starters and Disconnects

A factory-mounted wired control box (Figure 7) with disconnect-only option (fused or non-fused) or starter/disconnect option significantly reduces field labor, cost of construction, and start-up.

A NEMA 1 enclosure with tooled access is factory mounted on the unit bulkhead panel next to the fan discharge. Other locations are available upon request.

Figure 7: Starters and Disconnects



## Option Summary

- Hinged access panels and latches for filter and fan sections
- 2" or 4" flat filters – MERV 7, 8, 11, 14, or 15
- 2" angular filters – MERV 7 or 8
- External prefilter – 2" thick MERV 7 (special option)
- Base rail 4" high (special option)
- Interlaced DX coil for all unit sizes (special option)
- Filter gauge (special option)
- Premium and TEFC motors
- Mixing boxes with dampers, damper actuator and linkage
- Electric heat section (horizontal and vertical flow)
- SCR controller or electric heater (special)
- Galvanized or stainless steel coil casings
- Bottom filter access for horizontal units
- Motor wiring through external junction box (standard)
- Factory-mounted VFD, starter, and/or disconnect
- Painted steel exterior (special option) or stainless steel liner interior (special option)
- Non-distributing (type SS) steam coils (special option)
- Modular design for vertical units (special option)

**Note:** Please contact McQuay for all special option pricing.

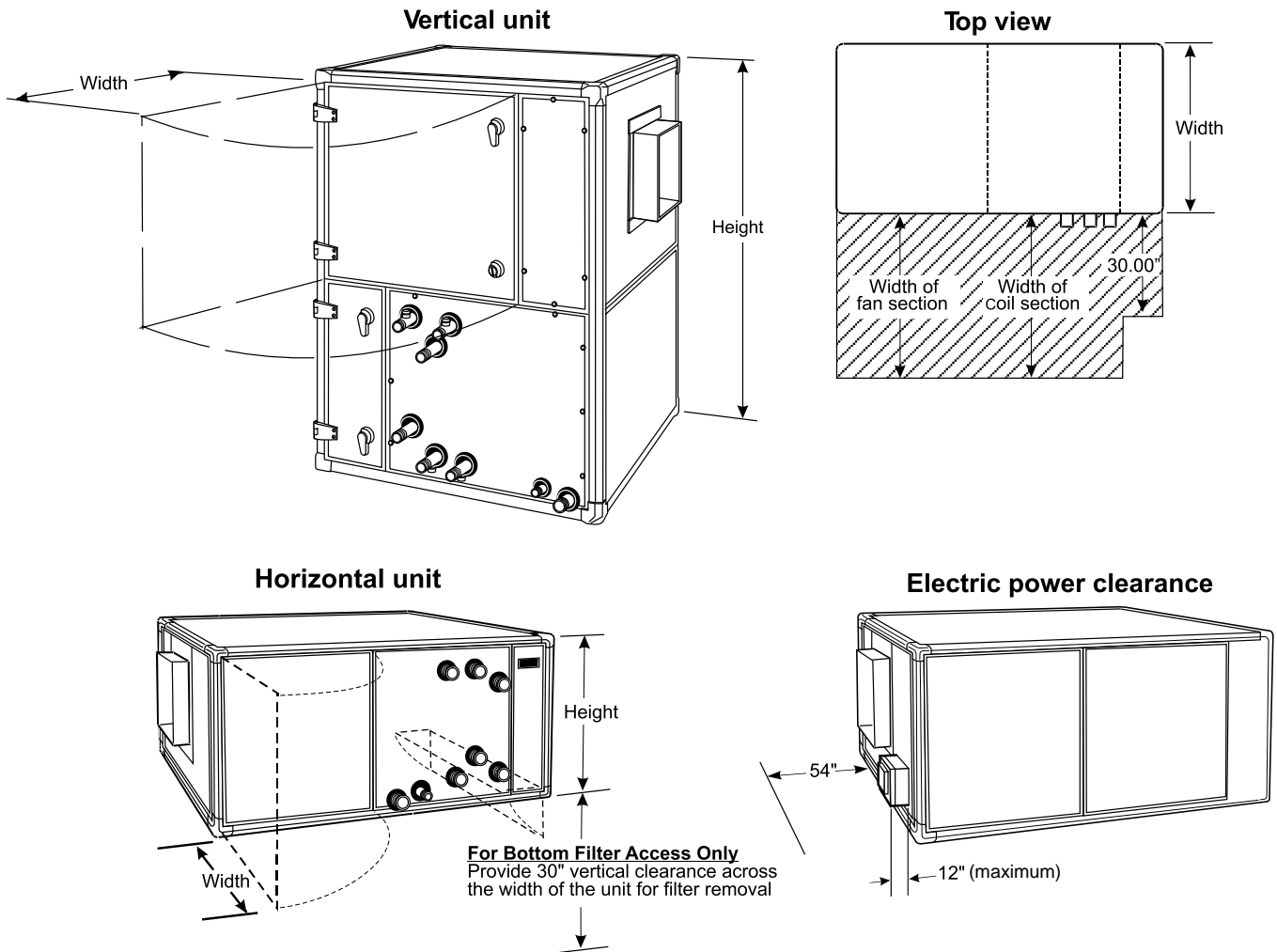
## Mounting and Access

Whether units are floor or ceiling mounted, take care to keep the supporting structure level and rigid enough for satisfactory unit operation. Ideally, a heavy concrete slab should be used for floor mounted units and main support beams for ceiling supported hung units. Trapeze ceiling suspended units from field-supplied materials. Avoid long floor or ceiling spans.

Locate units to provide proper access for routine service (Figure 8). Clearance for filter removal on both sides of the filter section is usually necessary. Provide clearance as required for access panels. Allow room for coil removal. Cooling units require clearance for a trap in the drain pan line.

Access to the interior of the Destiny air handler is provided by hinged access doors or removable panels.

Figure 8: Vertical and Horizontal Unit Access and Clearances

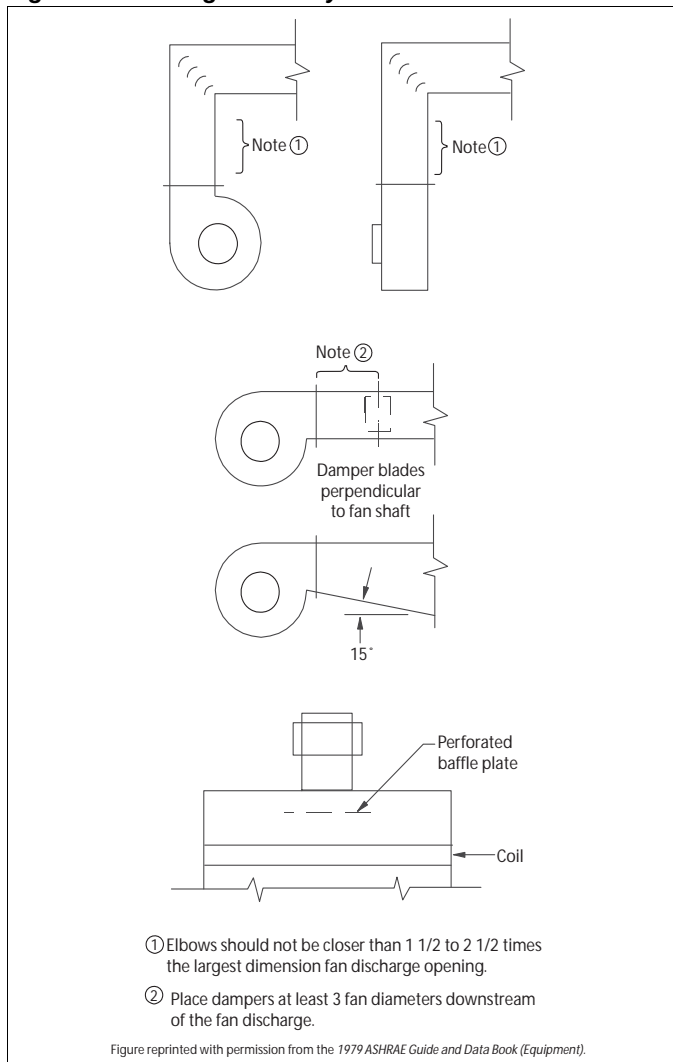


# Application Considerations

## Ductwork

Good ductwork layout minimizes system resistance and sound generation. Duct connections to and from units should allow straight, smooth airflow. Avoid sharp turns in the fan discharge, particularly turns opposed to wheel rotation. Use turning vanes. Avoid discharge plenums or any abrupt change in duct size. For units with electric heat, 20" of straight duct at the outlet of the heater is required as a minimum. See [Figure 9](#) for good fan outlet practices.

**Figure 9: Discharge Duct Layout**

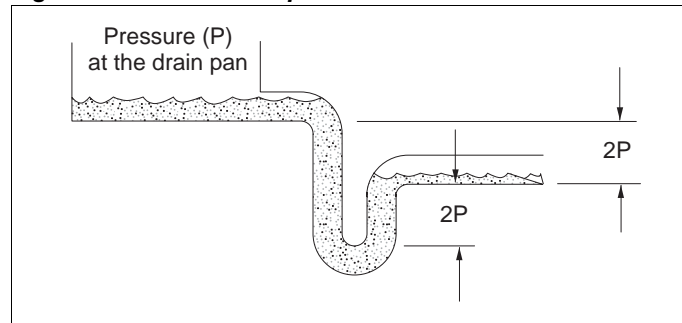


## Piping and Drain Pan Traps

When installing piping and drain pan traps:

- Install piping in accordance with accepted industry standards.
- Do not apply undue stress at the connection to coil headers.
- Support pipe work independently of the coils with adequate piping flexibility for thermal expansion.
- Run drain lines and traps full size from the drain pan connection.
- Drain pans should have traps to permit the condensate from the coils to drain freely.
- On a draw-through unit, the trap depth and the distance between the trap outlet and drain pan outlet should be twice the negative static pressure under normal unit operation ([Figure 10](#)).
- A secondary drain connection on the drain pan is standard on all Destiny units. Secondary drain connections are required in some application as a visual means of identifying clogged primary drain lines.

**Figure 10: Drain Pan Traps**



## Vibration Isolation

To help keep noise and vibration compatible with the intended use of the conditioned air space, apply good acoustical and vibration engineering practices during the early stages of design.

Since most applications require vibration isolation, the Destiny air handler is available with factory-installed internal isolation. Internally isolated units feature spring or rubber in shear isolators sized specifically for each fan wheel and unit size.

## Sound

The unit inlet, outlet, and radiated sound levels for each octave band, based on your specific application, are calculated by the Destiny SelectTools™ Software. Sound performance data is derived from testing performed in accordance with the AMCA Standard 300. The effects of various components, casework, and unit configurations have been taken into account.

## Air Supply Systems and Fan Laws

An air supply system consists of an air handler cabinet, heat exchanger, filters, ductwork, grilles and registers used to distribute air throughout the building. The system is independent of the fan used to supply the system.

The resistance of the system, referred to as static pressure (SP), is dependent upon the quantity of air (cfm) that is moved through it. The air quantity is determined by the cooling, heating and ventilating requirements.

For any system, the static pressure varies directly as the square of the air quantity. This relationship between cfm and SP establishes the system curve for that system and can be expressed as follows:

$$\left(\frac{cfm_1}{cfm_2}\right)^2 = \frac{SP_1}{SP_2} \text{ or } SP_2 = SP_1 \left(\frac{cfm_1}{cfm_2}\right)^2$$

The system curve is unique for a particular system configuration. Any change to the system caused by dirty filters, damper changes, etc. results in a new system curve.

For fans operating at low pressures (less than 10" W.G.), the effects of air compression are negligible. Disregarding air compression allows fan operation in a fixed system to be expressed by simple relationships. These relationships are known as fan laws and can be used to calculate the effects of fan speed and air density changes on this system.

- 1 The flow rate varies directly with the change in fan speed:

$$\frac{cfm_1}{cfm_2} = \frac{rpm_1}{rpm_2} \text{ or } cfm_2 = cfm_1 \left(\frac{rpm_1}{rpm_2}\right)$$

A 10% increase in fan speed increases air quantity 10%.

- 2 The static pressure varies as the square of the change in fan speed:

$$\frac{SP_1}{SP_2} = \left(\frac{rpm_1}{rpm_2}\right)^2 \text{ or } SP_2 = SP_1 \left(\frac{rpm_2}{rpm_1}\right)^2$$

A 10% increase in fan speed increases static pressure 21%.

- 3 The fan brake horsepower varies as the cube of the change in fan speed:

$$\frac{hp_1}{hp_2} = \left(\frac{rpm_1}{rpm_2}\right)^3 \text{ or } hp_2 = hp_1 \left(\frac{rpm_2}{rpm_1}\right)^3$$

A 10% increase in fan speed increases fan horsepower 33%.

- 4 System static pressure and brake horsepower are directly proportional to the air density:

$$SP_2 = SP_1 \left(\frac{\text{density}_2}{\text{density}_1}\right) \left(\frac{rpm_2}{rpm_1}\right)^2$$

$$SP_2 = SP_1 \left(\frac{\text{density}_2}{\text{density}_1}\right) \left(\frac{rpm_2}{rpm_1}\right)^3$$

Consequently, the static pressure and brake horsepower decrease with an increase in air temperature or higher altitude, and increase with a decrease in air temperature or lower altitude.

To determine fan performance for temperatures and altitudes other than standard (70°F, 0 ft. altitude), adjust the static pressure by the density ratio before determining the fan rpm and bhp requirements. Density ratios are expressed as temperature and altitude conversion factors in [Table 1](#).

**Table 1: Temperature and Altitude Conversion Factors**

Air temp. (°F)	Altitude (feet)								
	0	1000	2000	3000	4000	5000	6000	7000	8000
-20	1.20	1.16	1.12	1.08	1.04	1.00	.97	.93	.89
0	1.15	1.10	1.08	1.02	.99	.95	.92	.88	.85
20	1.11	1.06	1.02	.98	.95	.92	.88	.85	.82
40	1.06	1.02	.98	.94	.91	.88	.84	.81	.78
60	1.02	.98	.94	.91	.88	.85	.81	.79	.76
70	1.00	.96	.93	.89	.86	.83	.80	.77	.74
80	.98	.94	.91	.88	.84	.81	.78	.75	.72
100	.94	.91	.88	.84	.81	.78	.75	.72	.70
120	.92	.88	.85	.81	.78	.76	.72	.70	.67
140	.89	.85	.82	.79	.76	.73	.70	.68	.65
160	.85	.82	.79	.76	.74	.70	.68	.65	.63
200	.80	.77	.75	.72	.69	.67	.64	.62	.60
250	.75	.72	.69	.67	.65	.62	.60	.58	.56

# Application Considerations

## Fan and Motor Heat

**Motor and drive heat**—The total energy input to any fan motor is consumed in two ways: by heat dissipated through the motor frame and by work output. The amount of heat dissipated by the motor is a function of its operating efficiency:

$$\text{Motor heat} = \text{input} \times (1 - \text{motor efficiency})$$

A small amount of the motor work output is dissipated by the drive mechanism, which also results in a heat gain. Belt drive losses are a function of belt tension and number of belts as well as power transmitted. Typical belt drive losses range from 2% to 6% of bhp.

Whether motor and drive heat gain become part of an air handling system cooling load depends on the motor location relative to the conditioned space. For air handlers with internal motors, the motor and drive are within the conditioned space. Therefore, the motor and drive add heat to the system. Subtract this heat from the cooling capacity and add it to the heating capacity of the unit.

**Fan heat generation**—All of the power input to a fan results in heat gain, which must be considered as a cooling load. The amount of heat generated is directly proportional to the fan bhp:

$$\text{Fan heat (Btuh)} = \text{bhp} \times 2545 / \text{motor efficiency}$$

**Temperature rise due to motor heat**—

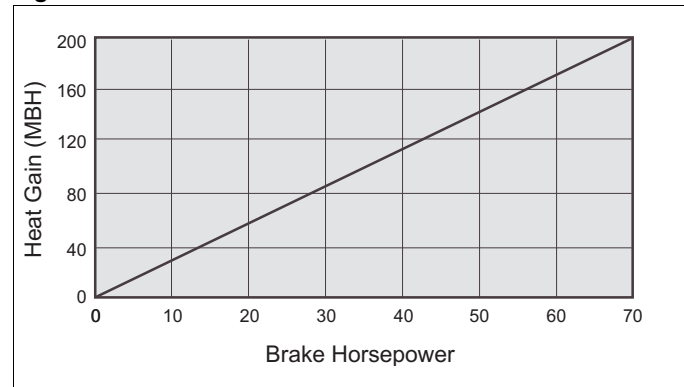
$$\text{Temp. rise} = \frac{\text{fan heat (Btuh)}}{\text{air flow (cfm)} \times 1.09} \quad [^{\circ}\text{F}]$$

Much of this heat generation occurs within the fan itself. Fans are not 100% efficient, and the energy losses that occur are converted into heat. The work done by the fan on the airstream increases the temperature, pressure, and velocity of air. The heat of compression required to raise the airstream to this increased energy level is also a heat gain.

As the air travels throughout the building, its energy is deteriorated by friction, resulting in pressure drop. This also is heat gain, but it does not result in temperature rise because the air expands as the pressure is reduced. The expansion is a cooling process that offsets the heat generated by friction.

Typical fan and motor heat values are given in [Figure 11](#).

**Figure 11: Fan and Motor Heat Gain**



Component and Section Weights

Table 2: Unit Coil Weights

Coil type	Weight—lbs (kg)									
	002	003	004	005	007	010	015	020	025	030
4-row chilled water	31.64 (14.35)	40.56 (18.40)	54.30 (24.64)	59.19 (26.85)	84.80 (38.46)	111.99 (50.80)	185.93 (84.34)	255.08 (115.70)	298.34 (135.32)	341.54 (154.92)
6-row chilled water	39.94 (18.12)	54.81 (24.86)	69.01 (31.30)	86.91 (39.42)	112.30 (50.94)	154.05 (69.88)	261.55 (118.64)	353.14 (160.18)	416.35 (188.85)	477.93 (216.79)
1-row hot water	16.11 (7.31)	19.95 (9.05)	28.36 (12.86)	33.60 (15.24)	45.86 (20.80)	66.07 (29.97)	91.35 (41.44)	116.29 (52.75)	132.03 (59.89)	168.86 (76.59)
2-row hot water	24.36 (11.05)	29.96 (13.59)	38.07 (17.27)	46.13 (20.92)	64.28 (29.16)	83.91 (38.06)	121.10 (54.93)	171.48 (77.78)	197.12 (89.41)	223.03 (101.16)
4-row DX	32.73 (14.85)	42.91 (19.46)	50.11 (22.73)	64.80 (29.39)	88.18 (40.00)	115.42 (52.35)	195.54 (88.70)	248.63 (112.78)	300.8 (136.44)	344.86 (156.43)
6-row DX	43.37 (19.67)	57.01 (25.86)	71.53 (32.45)	91.69 (41.59)	105.18 (47.71)	158.52 (71.90)	268.37 (121.73)	365.31 (165.71)	429.85 (194.98)	493.24 (223.73)

Table 3: Base Unit Cabinet Weights—Horizontal Unit with Forward Curved Fan

Unit size	Weight—lbs (kg)									
	Configuration		Configuration		Configuration		Configuration		Configuration	
	No heat	Reheat coil	No heat	Reheat coil	No heat*	Reheat coil	No heat*	Reheat coil	Preheat coil	
	Flat filters	Flat filters	Angular filters	Angular filters	Flat filters	Flat filters	Angular filters	Angular filters	Flat filters	Angular filters
	Cooling coil	Cooling coil	Cooling coil	Cooling coil	N/A	N/A	N/A	N/A	Cooling coil	Cooling coil
Fan	Fan	Fan	Fan	Fan	Fan	Fan	Fan	Fan	Fan	
002	142.34 (64.56)		187.56 (85.08)		122.36 (55.50)		149.39 (67.76)		157.12 (71.27)	184.19 (83.55)
003	170.89 (77.51)		213.02 (96.62)		148.04 (67.150)		169.18 (76.74)		186.67 (84.67)	208.34 (94.50)
004	207.68 (94.20)		257.99 (117.02)		182.04 (82.47)		205.76 (93.33)		233.73 (106.02)	257.55 (116.82)
005	245.41 (111.32)		317.41 (143.98)		213.25 (96.73)		253.09 (114.80)		267.13 (121.17)	307.89 (139.66)
007	262.71 (119.16)		340.86 (154.61)		224.74 (101.94)		271.81 (123.29)		298.53 (135.41)	346.93 (157.36)
010	302.58 (137.25)		392.63 (178.09)		260.15 (118.00)		312.73 (141.85)		341.67 (154.98)	395.58 (179.43)
015	359.18 (162.92)		463.09 (210.05)		352.58 (159.93)		411.89 (186.83)		419.72 (190.38)	480.74 (218.06)
020	445.55 (202.10)		596.73 (270.67)		440.70 (199.90)		533.01 (241.77)		511.86 (232.18)	606.56 (275.13)
025	559.02 (253.57)		736.09 (333.89)		554.95 (251.72)		658.10 (298.51)		616.52 (279.65)	773.96 (351.06)
030	603.25 (273.63)		817.52 (370.82)		599.00 (271.70)		730.10 (331.17)		633.19 (287.21)	830.10 (376.53)

Note: \*Ventilation only

# Physical Data

**Table 4: Base Unit Cabinet Weights—Horizontal Unit with Plenum Fan**

Unit size	Weight—lbs (kg)									
	Configuration		Configuration		Configuration		Configuration		Configuration	
	No heat	Reheat coil	No heat	Reheat coil	No heat*	Reheat coil	No heat*	Reheat coil	Preheat coil	
	Flat filters	Flat filters	Angular filters	Angular filters	Flat filters	Flat filters	Angular filters	Angular filters	Flat filters	Angular filters
	Cooling coil	Cooling coil	Cooling coil	Cooling coil	N/A	N/A	N/A	N/A	Cooling coil	Cooling coil
Fan	Fan	Fan	Fan	Fan	Fan	Fan	Fan	Fan	Fan	
002	126 (57)		125 (57)		102 (46)		105 (47)		129 (59)	128 (58)
003	140 (63)		161 (73)		131 (59)		151 (69)		168 (76)	173 (78)
004	220 (100)		214 (97)		193 (88)		193 (88)		225 (102)	252 (114)
005	186 (84)		231 (105)		175 (79)		202 (92)		216 (98)	237 (107)
007	285 (129)		315 (143)		224 (102)		267 (121)		304 (138)	349 (158)
010	309 (140)		395 (179)		270 (122)		316 (143)		392 (178)	454 (206)
015	561 (254)		600 (272)		545 (247)		583 (264)		626 (284)	674 (306)
020	663 (301)		708 (321)		679 (308)		692 (314)		729 (331)	774 (351)
025	743 (337)		740 (335)		698 (317)		845 (383)		767 (348)	788 (357)
030	770 (349)		947 (430)		749 (340)		894 (406)		929 (421)	941 (427)

Note: \*Ventilation only

**Table 5: Base Unit Cabinet Weights—Vertical Unit**

Unit size	Weight—lbs (kg)			
	Configuration		Configuration	
	No heat	Reheat coil	No heat*	Reheat coil
	Flat filters	Flat filters	Flat filters	Flat filters
	Cooling coil	Cooling coil	N/A	N/A
Fan	Fan	Fan	Fan	
002	134.70 (61.10)		134.70 (61.10)	
003	183.20 (83.10)		183.20 (83.10)	
004	209.79 (95.16)		209.79 (95.16)	
005	239.00 (108.40)		239.00 (108.40)	
007	349.08 (158.30)		349.08 (158.30)	
010	399.23 (181.09)		399.23 (181.09)	
015	484.20 (219.63)		484.20 (219.63)	
020	566.96 (257.17)		566.96 (257.17)	
025	725.28 (328.98)		725.28 (328.98)	
030	750.14 (340.26)		750.14 (340.26)	

Note: \*Ventilation only

**Table 6: Electric Heat Weights**

Unit size	Weight—lbs (kg)			
	1 Step	2 Steps	3 Steps	4 Steps
002	31 (14.00)	35 (16.00)	-	-
003	32 (14.50)	36 (16.50)	41 (18.50)	45 (20.50)
004	32 (14.50)	36 (16.50)	41 (18.50)	45 (20.50)
005	34 (15.50)	39 (17.50)	43 (19.50)	47 (21.50)
007	36 (16.50)	41 (18.50)	45 (20.50)	50 (22.50)
010	36 (16.50)	41 (18.50)	45 (20.50)	50 (22.50)

**Table 7: Motor Weights\*\*\***

Unit size	Motor	Fan motor size – horsepower (hp)											
		0.33	0.5	0.75	1	1.5	2	3	5	7.5	10	15	20
002	Max. weight, lb (kg)	25 (11.33)	27 (12.25)	27 (12.25)	40 (18.41)	44 (19.96)	46 (20.87)	-	-	-	-	-	-
	Frame size	56	56	56	*	**	145T	-	-	-	-	-	-
	Shaft dia. in	5/8	5/8	5/8	*	**	7/8	-	-	-	-	-	-
003	Max. weight, lb (kg)	25 (11.33)	27 (12.25)	27 (12.25)	40 (18.41)	44 (19.96)	46 (20.87)	69 (31.30)	85 (38.55)	-	-	-	-
	Frame size	56	56	56	*	**	145T	182T	184T	-	-	-	-
	Shaft dia. in	5/8	5/8	5/8	*	**	7/8	1-1/8	1-1/8	-	-	-	-
004	Max. weight, lb (kg)	25 (11.33)	27 (12.25)	27 (12.25)	40 (18.41)	44 (19.96)	46 (20.87)	69 (31.30)	85 (38.55)	-	-	-	-
	Frame size	56	56	56	*	**	145T	182T	184T	-	-	-	-
	Shaft dia. in	5/8	5/8	5/8	*	**	7/8	1-1/8	1-1/8	-	-	-	-
005	Max. weight, lb (kg)	-	-	27 (12.25)	40 (18.41)	44 (19.96)	46 (20.87)	69 (31.30)	85 (38.55)	-	-	-	-
	Frame size	-	-	56	*	**	145T	182T	184T	-	-	-	-
	Shaft dia. in	-	-	5/8	*	**	7/8	1-1/8	1-1/8	-	-	-	-
007	Max. weight, lb (kg)	-	-	-	40 (18.41)	44 (19.96)	46 (20.87)	69 (31.30)	85 (38.55)	129 (58.51)	-	-	-
	Frame size	-	-	-	*	**	145T	182T	184T	213T	-	-	-
	Shaft dia. in	-	-	-	*	**	7/8	1-1/8	1-1/8	1-3/8	-	-	-
010	Max. weight, lb (kg)	-	-	-	40 (18.41)	44 (19.96)	46 (20.87)	69 (31.30)	85 (38.55)	129 (58.51)	-	-	-
	Frame size	-	-	-	*	**	145T	182T	184T	213T	-	-	-
	Shaft dia. in	-	-	-	*	**	7/8	1-1/8	1-1/8	1-3/8	-	-	-
015	Max. weight, lb (kg)	-	-	-	-	44 (19.96)	46 (20.87)	69 (31.30)	85 (38.55)	129 (58.51)	129 (58.51)	217 (98.43)	-
	Frame size	-	-	-	-	143T	145T	182T	184T	213T	215T	254T	-
	Shaft dia. in	-	-	-	-	7/8	7/8	1-1/8	1-1/8	1-3/8	1-3/8	1-5/8	-
020	Max. weight, lb (kg)	-	-	-	-	-	46 (20.87)	69 (31.30)	85 (38.55)	129 (58.51)	129 (58.51)	217 (98.43)	-
	Frame size	-	-	-	-	-	145T	182T	184T	213T	215T	254T	-
	Shaft dia. in	-	-	-	-	-	7/8	1-1/8	1-1/8	1-3/8	1-3/8	1-5/8	-
025	Max. weight, lb (kg)	-	-	-	-	-	-	-	85 (38.55)	129 (58.51)	129 (58.51)	217 (98.43)	259 (117.48)
	Frame size	-	-	-	-	-	-	-	184T	213T	215T	254T	256T
	Shaft dia. in	-	-	-	-	-	-	-	1-1/8	1-3/8	1-3/8	1-5/8	1-5/8
030	Max. weight, lb (kg)	-	-	-	-	-	-	-	85 (38.55)	129 (58.51)	129 (58.51)	217 (98.43)	259 (117.48)
	Frame size	-	-	-	-	-	-	-	184T	213T	215T	254T	256T
	Shaft dia. in	-	-	-	-	-	-	-	1-1/8	1-3/8	1-3/8	1-5/8	1-5/8

Note: \* 56/56H frame and 5/8" shaft diameter for 1-ph motors  
143T frame and 7/8" shaft diameter for 3-ph motors

\*\* 56/56H frame and 5/8" shaft diameter for 1-ph motors  
143T frame and 7/8" shaft diameter for 3-ph motors

\*\*\* Refer to "HP range" in [Table 9, page 16](#) for applicable motors per unit size

# Performance Data

## Fan Data

**Table 8: Forward Curved Fan Data**

Fan data	Unit size									
	002	003	004	005	007	010	015	020	025	030
Fan type	DWDI FC	DWDI FC	DWDI FC	DWDI FC	DWDI FC	DWDI FC	Twin DWDI FC	Twin DWDI FC	Twin DWDI FC	Twin DWDI FC
Diameter (in)	7/7	9/9	9/9	10/10	12/12	12/12	10/10	12/12	15/15	15/15
HP range	0.33–2	0.33–3	0.33–5	0.75–5	1–5	1–7.5	2–15	3–15	5–20	5–20
cfm minimum—fan limit	206	206	529	529	765	765	1059	1529	2118	2118
cfm maximum—fan limit	2,088	2,088	5,765	6,176	8,529	8,529	12,353	17,059	26,706	26,706
Maximum rpm	2,680	2,650	2,650	2,100	1,700	1,700	2,100	1,700	1,500	1,500
Class	1	1	1	1	1	1	1	1	1	1
Motor sheave	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM
Fan sheave	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK
Belt	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX
Fan shaft diameter	3/4"	3/4"	3/4"	3/4"	1.0"	1.0"	3/4"	1.0"	1.0"	1.0"
Weight—lbs (kg)	19.03 (8.63)	33.95 (15.40)	33.95 (15.40)	41.45 (18.80)	60.85 (27.60)	60.85 (27.60)	79.37 (36.00)	126.77 (57.50)	154.87 (70.25)	154.87 (70.25)

**Table 9: Plenum Fan Data**

Fan data	Unit size									
	002	003	004	005	007	010	015	020	025	030
Fan type	SWSI DD Plenum	SWSI DD Plenum	SWSI DD Plenum	SWSI DD Plenum	SWSI DD Plenum	SWSI DD Plenum	SWSI DD Plenum	SWSI DD Plenum	SWSI DD Plenum	SWSI DD Plenum
Diameter (in)	9	10	11	12.5	14	16	20	22	25	25
HP range	1.5–2	1.5–5	1–5	1–5	1–7.5	1–7.5	1.5–15	2–15	5–20	5–20
cfm minimum—fan limit	100	150	200	200	250	325	525	650	800	800
cfm maximum—fan limit	1800	2650	4100	4100	5000	5200	9200	12,900	16,150	16,150
Maximum rpm	5175	5175	4245	4245	3600	2625	2265	2310	2060	2060
Weight with smallest motor—lbs (kg)	50 (22.7)	57 (25.9)	59 (26.8)	62 (28.1)	71 (32.2)	86 (39)	147 (66.7)	176 (79.8)	263 (119.3)	263 (119.3)
Weight with largest motor—lbs (kg)	56 (25.4)	84 (38.1)	86 (39)	89 (40.4)	114 (51.7)	154 (69.9)	281 (127.4)	312 (141.5)	363 (164.7)	363 (164.7)

**Filter Data**

Table 10: Filter Data

Filter data	Unit size									
	002	003	004	005	007	010	015	020	025	030
<b>Flat filters</b>										
Flat filter bank number	1	1	1	1	1	1	2	2	2	2
Flat filter (qty) size	(1) 16 × 25	(1) 18 × 24	(2) 16 × 20	(2) 20 × 24	(2) 24 × 24	(3) 20 × 25	(3) 12 × 24 (3) 24 × 24	(6) 24 × 24	(4) 20 × 24 (4) 24 × 24	(6) 16 × 25 (4) 20 × 25
Flat filter depth options	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"
<b>Angular filters</b>										
Angular filter bank number	1	1	1	2	2	2	2	3	3	3
Angular filter (qty) size	(1) 20 × 24	(2) 16 × 20	(2) 20 × 20	(4) 16 × 20	(4) 16 × 25	(6) 16 × 20	(6) 20 × 24	(9) 20 × 24	(6) 20 × 24 (6) 24 × 24	(6) 20 × 24 (6) 24 × 24
Angular filter depth options	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"

# Performance Data

## Coil Data

**Table 11: Coil Data—Chilled Water**

Chilled water coil data	Unit size									
	002	003	004	005	007	010	015	020	025	030
Fin height	14	16	16	22	22	26	32.5	45	45	52.5
Fin length	21	27	34	34	48	54	65	65	80	80
Rows	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6
FPI	12	12	12	12	12	12	12	12	12	12
Connection material	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Steel NPT	Steel NPT	Steel NPT	Steel NPT
Connection size 4-row	0.875 OD	1.125 OD	1.625 OD	1.625 OD	1.625 OD	1.625 OD	1.5 NPT	2.5 NPT	2.5 NPT	2.5 NPT
Connection size 6-row	0.875 OD	1.125 OD	1.625 OD	1.625 OD	1.625 OD	2.125 OD	2.0 NPT	2.5 NPT	2.5 NPT	2.5 NPT
Casing	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS

**Table 12: Coil Data—DX Coils**

DX coils data	Unit size									
	002	003	004	005	007	010	015	020	025	030
Fin height	14	16	16	22	22	26	32.5	45	45	52.5
Fin length	21	27	34	34	48	54	65	65	80	80
Rows	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6
FPI	12	12	12	12	12	12	12	12	12	12
Connection material	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat
Suction Connection size 4-row	0.875 OD	1.125 OD	1.125 OD	1.125 OD	1.625 OD	1.625 OD	1.625 OD	1.625 OD	1.625 OD	1.625 OD
Liquid Connection size 4-row	0.625 OD	0.625 OD	0.625 OD	0.875 OD	0.875 OD	1.125 OD	0.625 OD	0.875 OD	1.125 OD	1.125 OD
Suction Connection size 6-row	0.875 OD	1.125 OD	1.625 OD	1.625 OD	1.625 OD	2.125 OD	1.625 OD	1.625 OD	2.125 OD	2.625 OD
Liquid Connection size 6-row	0.625 OD	0.625 OD	0.625 OD	1.125 OD	1.125 OD	1.125 OD	0.875 OD	0.875 OD	1.125 OD	1.375 OD
Casing	Galv./SS.	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS
Number of circuits	1	1	1	1	1	1	2	2	2	2
Circuit type	Normal	Normal	Normal	Normal	Normal	Normal	Face split	Face split	Face split	Face split

**Table 13: Coil Data—Hot Water Coils**

Hot water coil data	Unit size									
	002	003	004	005	007	010	015	020	025	030
Fin height	14	16	16	22	22	26	32.5	45	45	52.5
Fin length	21	27	34	34	48	54	65	65	80	80
Rows	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2
FPI	12	12	12	12	12	12	12	12	12	12
Connection material	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Steel NPT	Steel NPT	Steel NPT	Steel NPT
Connection size 1-row	.625 OD	.625 OD	.875 OD	.875 OD	1.125 OD	1.375 OD	1.0 NPT	1.5 NPT	1.5 NPT	2.0 NPT
Connection size 2-row	.875 OD	.875 OD	1.125 OD	1.125 OD	1.625 OD	1.625 OD	1.5 NPT	2.0 NPT	2.0 NPT	2.0 NPT
Casing	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS	Galv./SS

## Drain Pan Data

Table 14: Drain Pan Connections

Standard and optional stainless steel	Unit size									
	002	003	004	005	007	010	015	020	025	030
Arrangement	Sloped	Sloped	Sloped	Sloped	Sloped	Sloped	Sloped	Sloped	Sloped	Sloped
Connection size - Main	1" ID MPT	1" ID MPT	1" ID MPT	1" ID MPT	1" ID MPT	1" ID MPT	1-1/4" ID MPT	1-1/4" ID MPT	1-1/4" ID MPT	1-1/4" ID MPT
Connection size - Secondary	1/2" ID MPT	1/2" ID MPT	1/2" ID MPT	1/2" ID MPT	1/2" ID MPT	1/2" ID MPT	1/2" ID MPT	1/2" ID MPT	1/2" ID MPT	1/2" ID MPT

## Electric Heat Data

Table 15: Electric Heat Data for Unit Sizes

Unit size	# Stages	Voltage/kW Range						
		120/1/60	208/1/60	240/1/60	208/3/60	240/3/60	480/3/60	600/3/60
002	1	1.5 - 4.5	1.5 - 8	1.5 - 9	1.5 - 10	1.5 - 10	1.5 - 10	1.5 - 10
	2	4 - 9	4 - 9	4 - 10	4 - 10	4 - 10	4 - 10	4 - 10
003	1	2.5 - 4.5	2.5 - 8	2.5 - 9	2.5 - 13	2.5 - 15	2.5 - 20	2.5 - 20
	2	4 - 9	4 - 16	4 - 20	4 - 20	4 - 20	4 - 20	4 - 20
	3	10 - 13	15 - 20	15 - 20	15 - 20	15 - 20	15 - 20	15 - 20
	4	14 - 18	20	20	20	20	20	20
004	1	2.5 - 4.5	2.5 - 8	2.6 - 9	2.5 - 13	2.5 - 15	2.5 - 20	2.5 - 20
	2	4 - 9	4 - 16	4 - 18	4 - 20	4 - 20	4 - 20	4 - 20
	3	9.5 - 13	15 - 20	15 - 20	15 - 20	15 - 20	15 - 20	15 - 20
	4	14 - 18	20	20	20	20	20	20
005	1	4 - 4.5	4 - 8	4 - 9	4 - 13	4 - 15	4 - 24	4 - 26
	2	4 - 9	4 - 16	4 - 18	4 - 26	4 - 26	4 - 26	4 - 26
	3	10 - 13	15 - 24	15 - 26	15 - 26	15 - 26	15 - 26	15 - 26
	4	14 - 18	20 - 26	20 - 26	20 - 26	20 - 26	20 - 26	20 - 26
007	1	NA	6 - 8	6 - 9	6 - 13	6 - 15	6 - 20	6 - 20
	2	6 - 9	6 - 16	6 - 18	6 - 26	6 - 30	6 - 36	6 - 36
	3	10 - 13	15 - 24	15 - 26	15 - 38	15 - 38	15 - 38	15 - 38
	4	14 - 18	20 - 32	20 - 36	20 - 38	20 - 38	20 - 38	20 - 38
010	1	NA	6 - 8	6 - 9	6 - 13	6 - 13	6 - 19	6 - 19
	2	6 - 9	6 - 16	6 - 18	6 - 26	6 - 30	6 - 36	6 - 36
	3	10 - 13	15 - 24	15 - 26	15 - 40	15 - 45	15 - 55	15 - 55
	4	14 - 18	20 - 32	20 - 36	20 - 55	20 - 55	20 - 55	20 - 55

# Dimensional Data

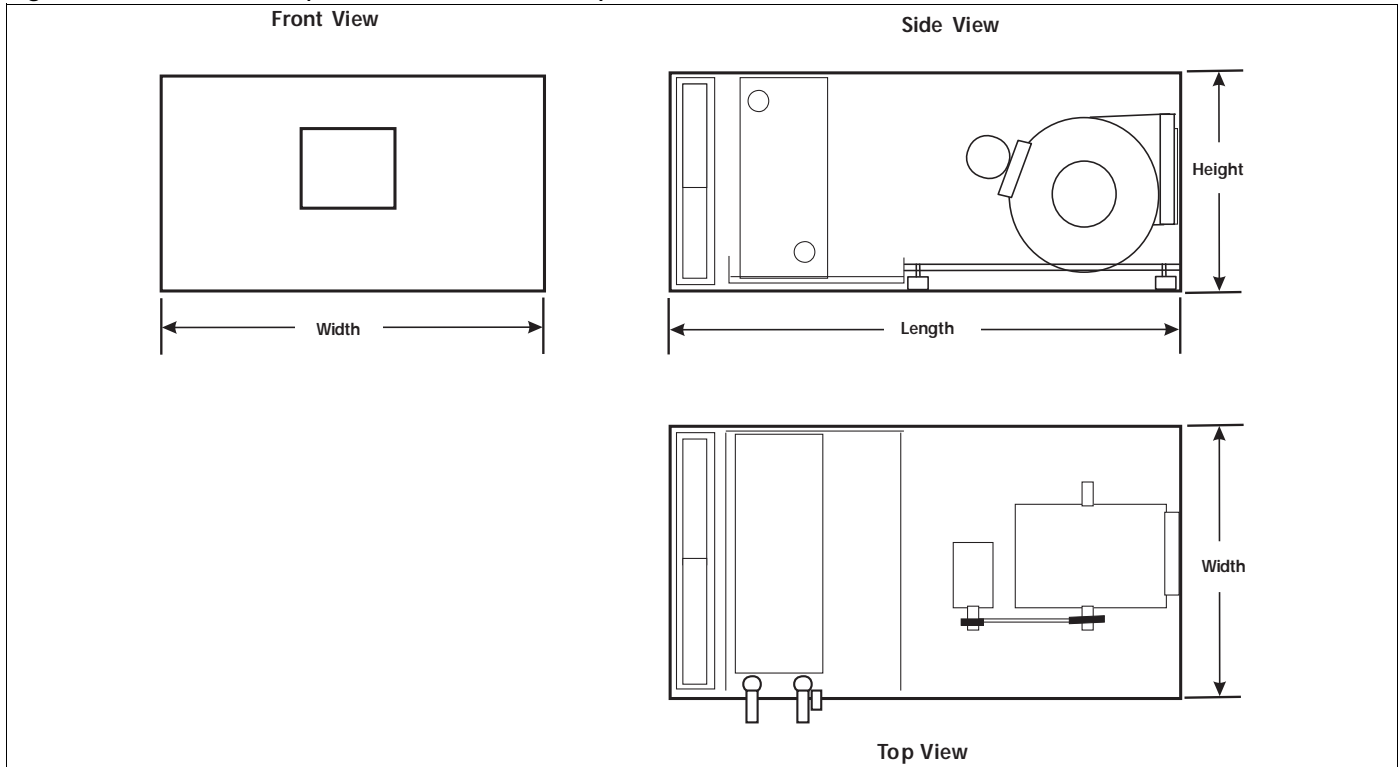
## Cabinet Dimensions—Horizontal

Table 16: Cabinet Dimensions—Horizontal Unit with Forward Curved Fan

Dimension/ Configuration		Unit size									
		002	003	004	005	007	010	015	020	025	030
<b>Cabinet Dimension</b>		<b>Unit height and width dimensions in. (mm)</b>									
Height		20.47 (520)	22.44 (570)	22.44 (570)	28.35 (720)	28.35 (720)	32.48 (825)	39.37 (1000)	51.57 (1310)	51.57 (1310)	59.06 (1500)
Width		28.54 (725)	34.84 (885)	42.52 (1080)	42.52 (1080)	56.50 (1435)	63.00 (1600)	74.41 (1890)	75.00 (1905)	89.96 (2285)	89.96 (2285)
<b>Configuration</b>		<b>Unit length dimensions in. (mm)</b>									
Cooling only or cooling with reheat coils	Flat filter	47.84 (1215)	47.84 (1215)	53.35 (1355)	54.72 (1390)	58.86 (1495)	58.86 (1495)	53.74 (1365)	56.30 (1430)	62.00 (1575)	62.00 (1575)
	Angular filter	58.27 (1480)	55.12 (1400)	60.63 (1540)	65.95 (1675)	70.08 (1780)	70.08 (1780)	64.37 (1635)	71.26 (1810)	76.97 (1955)	80.12 (2035)
Cooling with preheat coils	Flat filter	51.97 (1320)	51.97 (1320)	59.25 (15.05)	59.45 (15.10)	65.55 (1665)	65.55 (1665)	62.80 (15.95)	65.35 (1660)	69.09 (17.55)	69.09 (17.55)
	Angular filter	62.40 (15.85)	59.25 (1505)	66.53 (1690)	70.67 (17.95)	76.77 (1950)	76.77 (1950)	73.42 (18.65)	80.32 (2040)	84.06 (2135)	87.20 (2215)
Heating only	Flat filter	39.96 (1015)	39.96 (1015)	45.47 (1155)	45.67 (1160)	49.80 (1265)	49.80 (1265)	52.56 (1335)	55.51 (1410)	61.42 (1560)	61.42 (1560)
	Angular filter	50.39 (1280)	47.24 (1200)	52.76 (1340)	56.89 (1445)	61.02 (1550)	61.02 (1550)	63.19 (1605)	70.47 (1790)	76.38 (1940)	79.53 (2020)
Ventilation only	Flat filter	39.96 (1015)	39.96 (1015)	45.47 (1155)	45.67 (1160)	49.80 (1265)	49.80 (1265)	52.56 (1335)	55.51 (1410)	61.42 (1560)	61.42 (1560)
	Angular filter	50.39 (1280)	47.24 (1200)	52.76 (1340)	56.89 (1445)	61.02 (1550)	61.02 (1550)	63.19 (1605)	70.47 (1790)	76.38 (1940)	79.53 (2020)
<b>Discharge Opening Dimension</b>		<b>Discharge height and width dimensions in. (mm)</b>									
Height		9.17 (233)	11.77 (299)	11.77 (299)	13.07 (332)	15.51 (394)	15.51 (394)	2 x 13.07* (332)	2 x 15.51* (394)	2 x 18.54* (471)	2 x 18.54* (471)
Width		8.74 (222)	10.20 (259)	10.20 (259)	11.34 (288)	13.46 (342)	13.46 (342)	2 x 11.34* (288)	2 x 13.46* (342)	2 x 15.83* (402)	2 x 15.83* (402)

Note: \* Twin openings

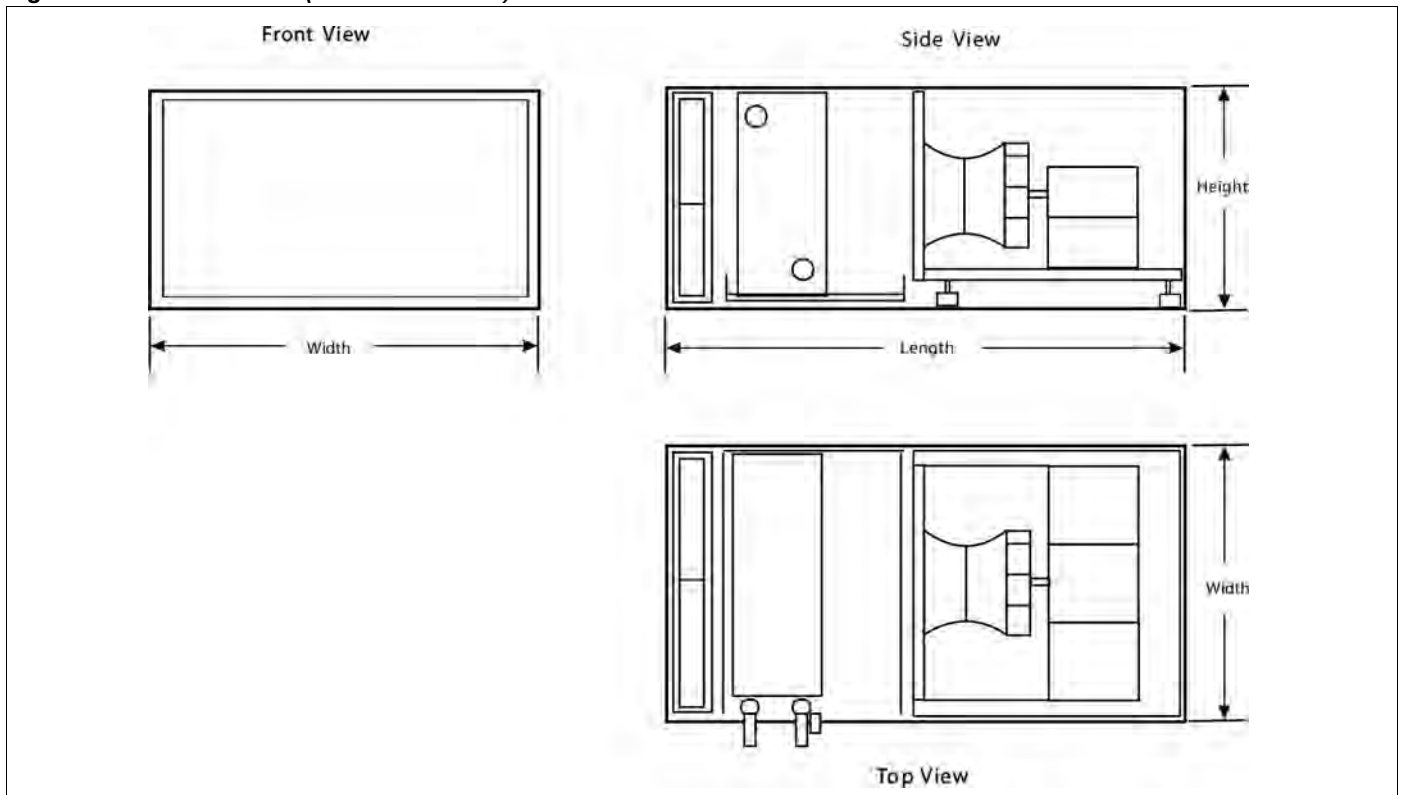
Figure 12: Horizontal Unit (with Forward Curved Fan) Dimensions



**Table 17: Cabinet Dimensions—Horizontal Unit with Plenum Fan**

Dimension/ Configuration		Unit size									
		002	003	004	005	007	010	015	020	025	030
<b>Cabinet Dimension</b>		<b>Unit height and width dimensions in. (mm)</b>									
Height		20.47 (520)	22.44 (570)	22.44 (570)	28.35 (720)	28.35 (720)	32.48 (825)	39.37 (1000)	51.57 (1310)	51.57 (1310)	59.06 (1500)
Width		28.54 (725)	34.84 (885)	42.52 (1080)	42.52 (1080)	56.50 (1435)	63.00 (1600)	74.41 (1890)	75.00 (1905)	89.96 (2285)	89.96 (2285)
<b>Configuration</b>		<b>Unit length dimensions in. (mm)</b>									
Cooling only or cooling with reheat coils	Flat filter	47.83 (1215)	53.94 (1370)	59.45 (1510)	62.01 (1575)	70.08 (1780)	70.08 (1780)	70.87 (1800)	78.35 (1990)	88.54 (2250)	88.54 (2250)
	Angular filter	58.27 (1480)	61.42 (1560)	66.54 (1690)	73.03 (1855)	81.50 (2070)	81.50 (2070)	81.50 (2070)	93.31 (2370)	103.54 (2630)	106.69 (2710)
Cooling with preheat coils	Flat filter	51.97 (1320)	58.27 (1480)	62.99 (1600)	66.73 (1695)	76.77 (1950)	76.77 (1950)	79.92 (2030)	87.40 (2220)	95.67 (2430)	95.67 (2430)
	Angular filter	62.40 (15.85)	65.55 (1665)	70.08 (1780)	77.76 (1975)	88.19 (2240)	88.19 (2240)	90.55 (2300)	102.36 (2600)	110.63 (2810)	95.67 (2430)
Heating only	Flat filter	39.96 (1015)	46.06 (1170)	51.57 (1310)	52.95 (1345)	61.02 (1550)	61.02 (1550)	69.69 (1770)	77.56 (1970)	88.19 (2240)	88.19 (2240)
	Angular filter	50.79 (1290)	53.54 (1360)	58.66 (1490)	63.98 (1625)	72.44 (1840)	72.44 (1840)	80.31 (2040)	92.52 (2320)	103.15 (2620)	105.91 (2690)
Ventilation only	Flat filter	39.96 (1015)	46.06 (1170)	51.57 (1310)	52.95 (1345)	61.02 (1550)	61.02 (1550)	69.69 (1770)	77.56 (1970)	88.19 (2240)	88.19 (2240)
	Angular filter	50.79 (1290)	53.54 (1360)	58.66 (1490)	63.98 (1625)	72.44 (1840)	72.44 (1840)	80.31 (2040)	92.52 (2320)	103.15 (2620)	105.91 (2690)
<b>(Horizontal) Discharge Opening Dimension</b>		<b>Opening height and width dimensions in. (mm)</b>									
Height		18.11 (460)	20.08 (510)	20.08 (510)	25.98 (660)	25.98 (660)	30.11 (765)	37.00 (940)	49.21 (1250)	49.21 (1250)	56.69 (2225)
Width		26.18 (665)	32.48 (825)	40.16 (1020)	40.16 (1020)	54.13 (1375)	60.63 (1540)	72.05 (1830)	72.64 (1845)	87.60 (2225)	87.60 (2225)

**Figure 13: Horizontal Unit (with Plenum Fan) Dimensions**



# Dimensional Data

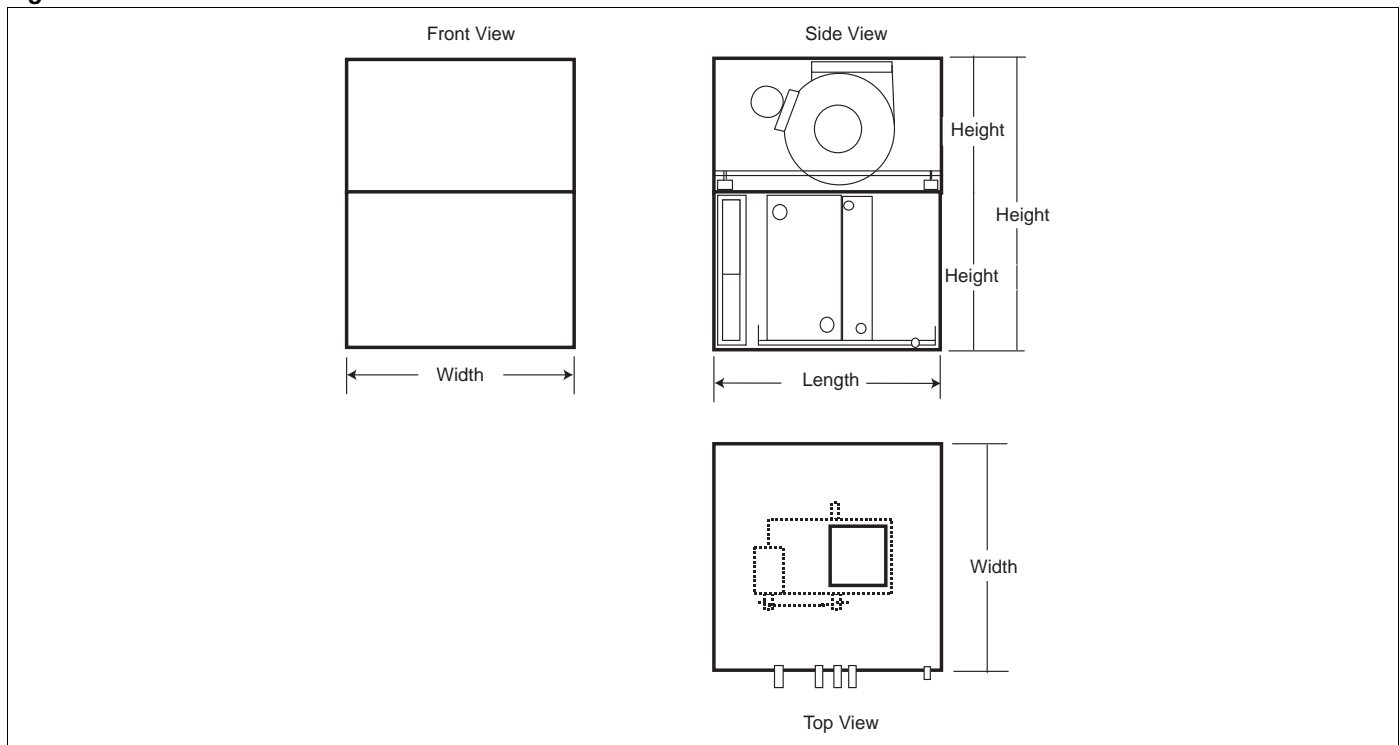
## Cabinet Dimensions—Vertical

Table 18: Cabinet Dimensions—Vertical Unit

Dimensions	Unit size									
	002	003	004	005	007	010	015	020	025	030
<b>Cabinet Dimension</b>	<b>Unit height, length, and width dimensions in. (mm)</b>									
Width—in (mm)	28.54 (725)	34.84 (885)	42.52 (1080)	42.52 (1080)	56.50 (1435)	62.99 (1600)	74.41 (1890)	75.00 (1905)	89.96 (2285)	89.96 (2285)
Length—in (mm)	29.92 (760)	33.07 (840)	33.07 (840)	36.42 (925)	39.96 (1015)	39.96 (1015)	42.72 (1085)	47.83 (1215)	51.18 (1300)	51.18 (1300)
Upper section height—in (mm)	17.13 (435)	19.88 (505)	19.88 (505)	22.05 (560)	24.61 (625)	24.61 (625)	23.82 (605)	26.97 (685)	31.30 (795)	31.30 (795)
Lower section height—in (mm)	20.47 (520)	22.44 (570)	22.44 (570)	28.35 (720)	28.35 (720)	32.48 (825)	39.37 (1000)	51.57 (1310)	51.57 (1310)	59.06 (1500)
<b>Discharge Opening Dimensions</b>	<b>Unit height and width dimensions in. (mm)</b>									
Height—in (mm)	9.17 (233)	11.77 (299)	11.77 (299)	13.07 (332)	15.51 (394)	15.51 (394)	13.07* (332)	15.51* (394)	18.54* (471)	18.54* (471)
Width—in (mm)	8.74 (222)	10.20 (259)	10.20 (259)	11.34 (288)	13.46 (342)	13.46 (342)	11.34 (288)	13.46 (342)	15.83 (402)	15.83 (402)

Note: \* Twin openings

Figure 14: Vertical Unit Dimensions

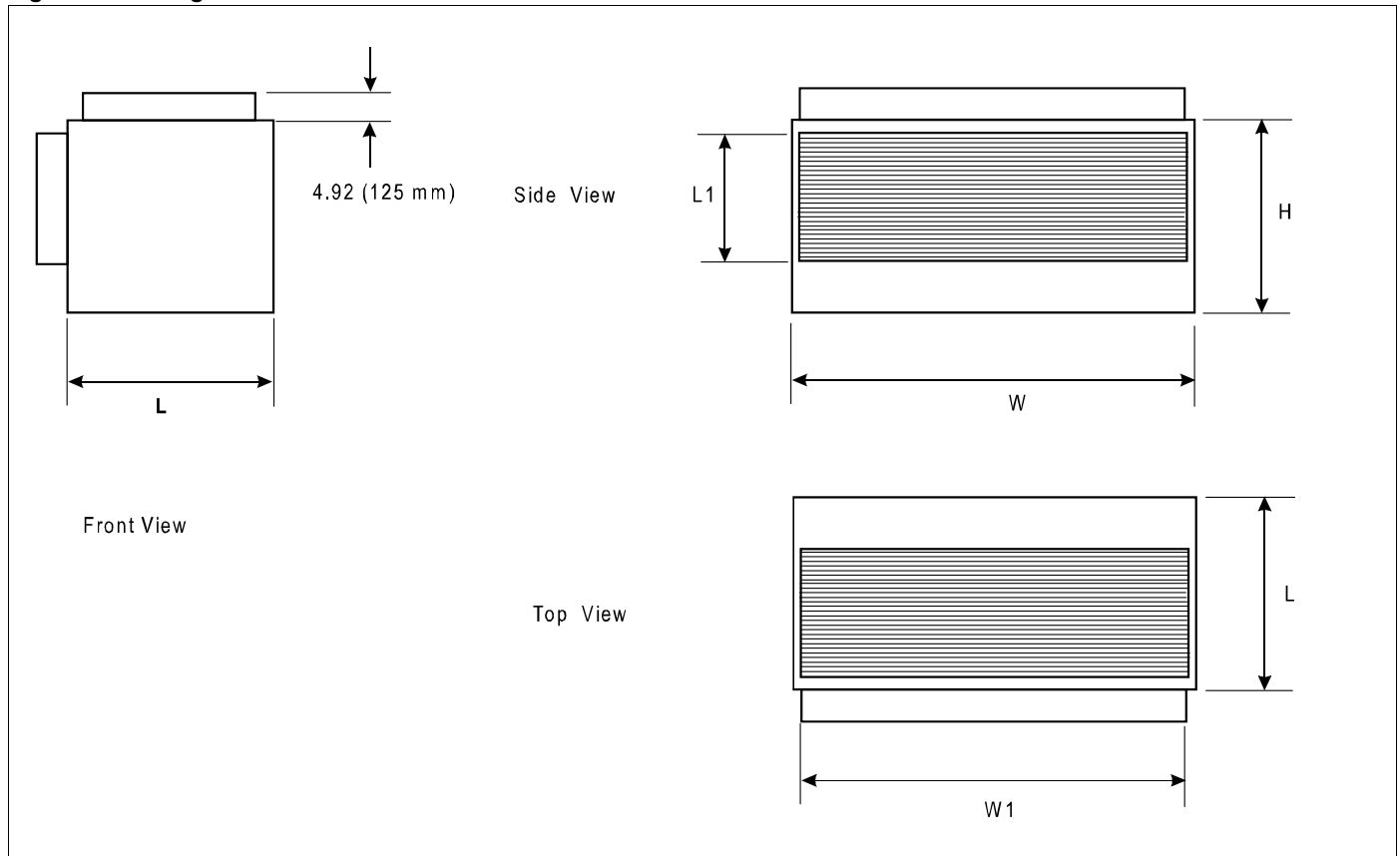


### Mixing Box Dimensions

Table 19: Mixing Box Dimensions—Horizontal and Vertical Units

Unit size	Cabinet in. (mm)			Damper in. (mm)		Area (ft <sup>2</sup> )
	W	H	L	W1	L1	
002	28.54 (725)	20.47 (520)	10.24 (260)	26.18 (665)	7.87 (200)	1.43
003	34.84 (885)	22.44 (570)	10.24 (260)	32.48 (825)	7.87 (200)	1.78
004	42.52 (1080)	22.44 (570)	10.24 (260)	40.16 (1020)	7.87 (200)	2.20
005	42.52 (1080)	28.35 (720)	14.17 (360)	40.16 (1020)	11.81 (300)	3.29
007	56.50 (1435)	28.35 (720)	14.17 (360)	54.13 (1375)	11.81 (300)	4.44
010	62.99 (1600)	32.48 (825)	14.17 (360)	60.63 (1540)	11.81 (300)	4.97
015	74.41 (1890)	39.37 (1000)	18.11 (460)	72.05 (1830)	15.75 (400)	7.88
020	75.00 (1905)	51.57 (1310)	25.98 (660)	72.64 (1845)	23.62 (600)	11.92
025	89.96 (2285)	51.57 (1310)	25.98 (660)	87.60 (2225)	23.62 (600)	14.37
030	89.96 (2285)	59.06 (1500)	29.92 (760)	87.60 (2225)	27.56 (700)	16.76

Figure 15: Mixing Box Dimensions



# Dimensional Data

## Electric Heat Dimensions—Left/Right Oriented

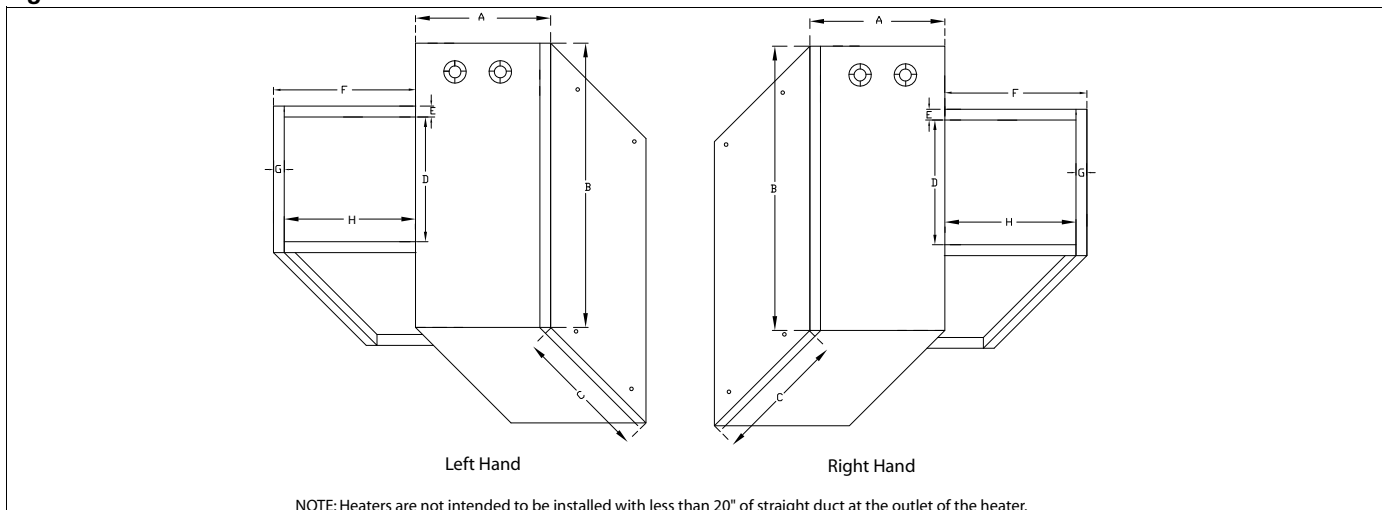
Table 20: Electric Heat Dimensions - in. (mm), Sizes 002 through 004

Dimension -in. (mm)	Unit Size										
	002		003				004				
	1 Step	2 Steps	1 Step	2 Steps	3 Steps	4 Steps	1 Step	2 Steps	3 Steps	4 Steps	
A	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)
B	20 (508)	20 (508)	22-1/4 (565)	22-1/4 (565)	22-1/4 (565)	22-1/4 (565)	22-1/4 (565)	22-1/4 (565)	22-1/4 (565)	22-1/4 (565)	22-1/4 (565)
C	11-1/2 (292)	16 (406)	11-1/2 (292)	16 (406)	20 (508)	24 (610)	11-1/2 (292)	16 (406)	20 (508)	24 (610)	24 (610)
D	8-3/4 (222)	8-3/4 (222)	10-3/8 (264)	10-3/8 (264)	10-3/8 (264)	10-3/8 (264)	10-3/8 (264)	10-3/8 (264)	10-3/8 (264)	10-3/8 (264)	10-3/8 (264)
E	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
F	10 (254)	10 (254)	12-3/4 (324)	12-3/4 (324)	12-3/4 (324)	12-3/4 (324)	12-3/4 (324)	12-3/4 (324)	12-3/4 (324)	12-3/4 (324)	12-3/4 (324)
G	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
H	9-1/4 (235)	9-1/4 (235)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)

Table 21: Electric Heat Dimensions - in. (mm), Sizes 005 through 010

Dimension - in. (mm)	Unit Size											
	005				007				010			
	1 Step	2 Steps	3 Steps	4 Steps	1 Step	2 Steps	3 Steps	4 Steps	1 Step	2 Steps	3 Steps	4 Steps
A	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)	9-1/2 (241)
B	23-1/2 (597)	23-1/2 (597)	23-1/2 (597)	23-1/2 (597)	25 (635)	25 (635)	25 (635)	25 (635)	25 (635)	25 (635)	25 (635)	25 (635)
C	11-1/2 (292)	16 (406)	20 (508)	24 (610)	11-1/2 (292)	16 (406)	20 (508)	24 (610)	11-1/2 (292)	16 (406)	20 (508)	24 (610)
D	11-3/8 (289)	11-3/8 (289)	11-3/8 (289)	11-3/8 (289)	13-1/2 (343)	13-1/2 (343)	13-1/2 (343)	13-1/2 (343)	13-1/2 (343)	13-1/2 (343)	13-1/2 (343)	13-1/2 (343)
E	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
F	14 (356)	14 (356)	14 (356)	14 (356)	16-1/2 (419)	16-1/2 (419)	16-1/2 (419)	16-1/2 (419)	16-1/2 (419)	16-1/2 (419)	16-1/2 (419)	16-1/2 (419)
G	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
H	13-1/4 (337)	13-1/4 (337)	13-1/4 (337)	13-1/4 (337)	15-3/4 (400)	15-3/4 (400)	15-3/4 (400)	15-3/4 (400)	15-3/4 (400)	15-3/4 (400)	15-3/4 (400)	15-3/4 (400)

Figure 16: Electric Heat Dimensions



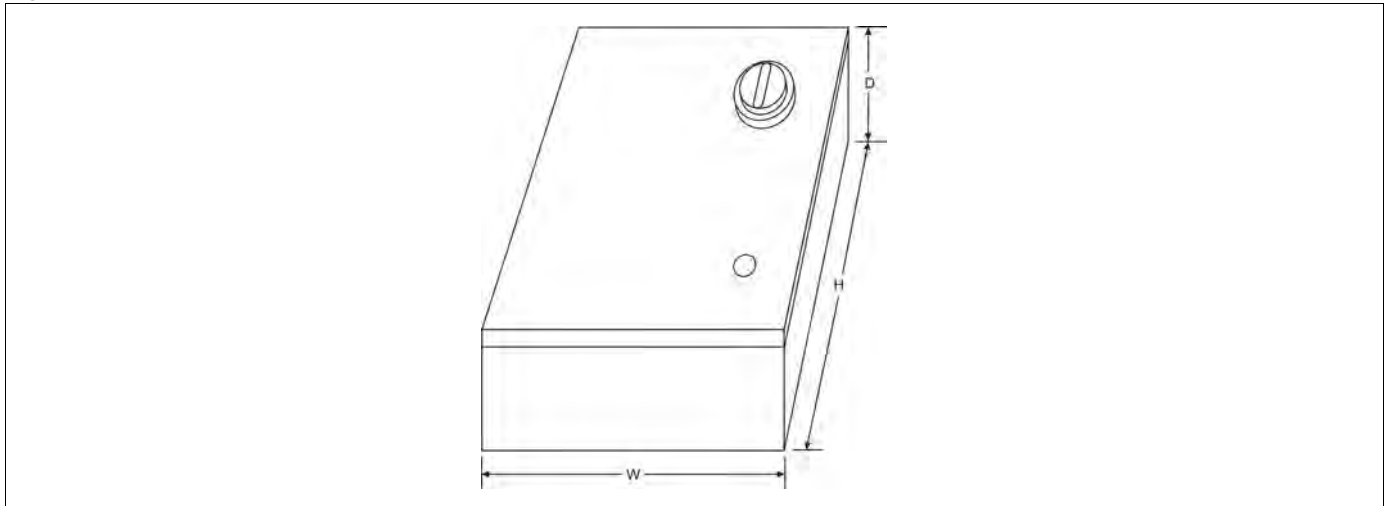
NOTE: Heaters are not intended to be installed with less than 20" of straight duct at the outlet of the heater.

### Control Box Dimensions

Table 22: Control Box Dimensions – Left and Right Hand Access

Dimension/ Configuration	Unit size									
	002	003	004	005	007	010	015	020	025	030
<b>Disconnect/Starter/ Transformer</b>	<b>Dimensions in. (mm)</b>									
Width	8 (203)	8 (203)	8 (203)	8 (203)	8 (203)	8 (203)	12 (305)	12 (305)	12 (305)	12 (305)
Depth	6 (152)	6 (152)	6 (152)	6 (152)	6 (152)	6 (152)	6 (152)	6 (152)	6 (152)	6 (152)
Height	18 (407)	18 (407)	18 (407)	18 (407)	18 (407)	18 (407)	16 (415)	16 (415)	16 (415)	16 (415)
<b>Disconnect Only/ Left Hand Access Only</b>	<b>Dimensions in. (mm)</b>									
Width	7 (178)	7 (178)	7 (178)	7 (178)	7 (178)	9 (223)	9 (223)	9 (223)	9 (223)	9 (223)
Depth	5 (125)	5 (125)	5 (125)	5 (125)	5 (125)	6.5 (162)	6.5 (162)	6.5 (162)	6.5 (162)	6.5 (162)
Height	15 (378)	15 (378)	15 (378)	15 (378)	15 (378)	17.5 (444)	17.5 (444)	17.5 (444)	21.3 (540)	21.3 (540)

Figure 17: Control Box Dimensions



# Engineering Guide Specification

---

## Part 1: General

### 1.01 Section Includes

- A Air handling units.

### 1.02 References

- A AFBMA 9—Load Ratings and Fatigue Life for Ball Bearings
- B AMCA 99—Standards Handbook
- C AMCA 210—Laboratory Methods of Testing Fans for Rating Purposes
- D AMCA 300—Test Code for Sound Rating Air Moving Devices
- E AMCA 500—Test Methods for Louver, Dampers, and Shutters
- F AHRI 430—Central-Station Air-Handling Units.
- G AHRI 435—Application of Central-Station Air-Handling Units
- H ASTM B117—Standard Practice for Operating Salt Spray Apparatus
- I NEMA MG1—Motors and Generators
- J NFPA 70—National Electrical Code
- K SMACNA—HVAC Duct Construction Standards - Metal and Flexible
- L UL 723—Test for Surface Burning Characteristics of Building Materials
- M UL 900—Test Performance of Air Filter Units
- N UL 1995—Standard for Heating and Cooling Equipment
- O UL 94—Test for Flammability of Plastic Materials for Parts in Devices and Appliances

### 1.03 Submittals

- A Shop Drawings: Indicate assembly, unit dimensions, weight loading, required clearances, construction details, field connection details, and electrical characteristics and connection requirements. Computer generated fan curves for each air handling unit shall be submitted with specific design operating point noted. A computer generated psychometric chart shall be submitted for each cooling coil with design points and final operating point clearly noted.
- B Product Data:
  - 1 Provide literature that indicates dimensions, weights, capacities, ratings, fan performance, finishes of materials, and electrical characteristics and connection requirements.

- 2 Provide data of filter media, filter performance data, filter assembly, and filter frames.
- 3 Manufacturer's Installation Instructions.

### 1.04 Operation and Maintenance Data

- A Maintenance Data: Include instructions for lubrication, filter replacement and motor and drive replacement.

### 1.05 Qualifications

- A Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum five years documented experience, which issues complete catalog data on total product.

### 1.06 Delivery, Storage, and Handling

- A Deliver, store, protect and handle products to site.
- B Accept products on site on factory-installed shipping skids. Inspect for damage.
- C Store in clean dry place and protect from weather and construction traffic. Handle carefully to avoid damage to components, enclosures, and finish.

### 1.07 Environmental Requirements

- A Do not operate units for any purpose, temporary or permanent, until ductwork is clean, filters are in place, bearings lubricated, and fan has been test run under observation.

## Part 2: Products

### 2.01 Manufacturers

- A The following manufacturers are approved for use. No substitutions will be permitted.
  - 1 McQuay - "Destiny" Air Handler is the basis of design, including standard product features and all special features required per plans and specifications.
  - 2 ETI
  - 3 Greenheck

### 2.02 Air Handler Type And Arrangement

- A The air handler shall be furnished as a horizontal [vertical] ventilation [draw-through cooling coil only] [heating only] [draw-through cooling coil and heating coils in reheat position] [draw-through cooling coil and heating coils in preheat position] type.

## 2.03 Air Handler Casing

**A** Unit shall have corrosion resistant casing design consisting of an aluminum frame with 1" thick, double wall panels. Extruded aluminum frame and polymeric corners pieces are required for casing protection and rigidity. Unit panels shall consist of injected polyurethane insulation sandwiched between galvanized steel [Galvalume Steel] exterior and interior sheets. Panels shall be fastened to frame with perimeter screws that hold panels in place with a closed cell neoprene gasket in-between the panel and the frame to prevent thermal bridging from the interior to the exterior of the unit.

- 1** Removable panels on both sides of unit shall provide full access to unit interior. [In addition, removable panel shall be furnished in the bottom of filter section. Bottom filter frame shall be equipped with a clip to prevent filter media from falling when the panel is removed.] Filter and blower access panels shall include flush-mounted handle to assist in removing panels.
- 2** [Opt.] Hinged and quarter-turn latched access doors to fan and filter sections on drive side [opposite drive side] [both sides of air handler]. Blower panel shall be furnished with two quarter-turn open-to-close, latch assemblies, one with tooled flathead screw type operation and one with lever handle operation. Plenum fan units use three quarter-turn latch assemblies, one with tooled flathead screw type operation and two with lever handle operation. Access doors shall have the same construction as air handler panels. [Hinged and latched bottom access filter panel shall be furnished with two quarter-turn open-to-close, latch assemblies in the bottom of the filter section. Bottom filter frame shall be equipped with a clip to prevent filter media from falling when the panel is open. Side filter section panels shall be removable on both sides of the unit and include pocket pull handle to assist in panel removal]

## 2.04 Supply Fan

- A** The supply fan shall be a DWDI forward-curved type. Fan assemblies including fan, motor and sheaves shall be dynamically balanced by the manufacturer on all three planes and at all bearing supports. Manufacturer must ensure maximum fan RPM is below the first critical speed [SWSI backward inclined plenum].
- B** Fan and motor assembly shall be mounted on vibration type isolators inside cabinetry.
- C** Units shall be certified in accordance with the central station air handling units certification program, which is based on AHRI Standard 430. Plenum fan units are not AHRI 430 certified.

## 2.05 Bearings and Drives

**Note:** Not applicable for direct drive plenum units.

- A** Bearings: Basic load rating computed in accordance with AFBMA - ANSI Standards, L-50 life at 200,000 hours heavy duty pillow block type, self-aligning, grease-lubricated ball bearings.
- B** Shafts shall be solid, hot rolled steel, ground and polished, keyed to shaft, and protectively coated with lubricating oil. Hollow shafts are not acceptable.
- C** V-Belt drives shall be cast iron or steel sheaves, dynamically balanced, bored to fit shafts and keyed. Variable and adjustable pitch sheaves selected, so required RPM is obtained with sheaves set at mid-position and rated based on motor horsepower. Contractor to furnish fixed sheaves at final RPM as determined by balancing contractor.

## 2.06 Electrical

- A** Motor shall be a High [Premium] Efficiency ODP [TEFC] type and must meet EPACT minimum efficiency standards (applicable only to 1 HP motors and larger). Electrical characteristics shall be as shown in schedule.
- B** Air handler power connections and any control devices shall be field provided
- C** [Opt.] A junction box shall be furnished and mounted by manufacturer for field power connection to motor.
- D** [Opt.] Manufacturer shall furnish and mount a non-fused [fused] disconnect switch [with rotary handle and motor starter].
- E** [Opt.] A variable frequency drive with junction box [fused disconnect switch] shall be furnished and mounted by air handler manufacturer for field power connection.

## 2.07 Cooling and Heating Sections

- A** Access to coils from drive side [opposite connection side] of unit for service and cleaning shall be provided. Coil headers and return bends shall be fully enclosed within unit casing. Coil connections shall be factory sealed with grommets on interior and exterior and gasket sleeve between outer wall and inner liner where each pipe extends through the unit casing to minimize air and condensate leakage.
- B** Cooling Coils:
- 1** Cooling performance shall be as specified on the unit schedule
  - 2** Water coil fins shall have full drawn collars to provide a continuous surface cover over the entire tube for maximum heat transfer. Tubes shall be mechanically expanded into the fins to provide a continuous primary-to-secondary compression bond over the entire finned length for maximum heat transfer rates. Bare copper tubes shall not be visible between fins.
  - 3** Coil tubes shall be seamless copper, expanded into fins, brazed at joints.

# Engineering Guide Specification

---

- 4 Water coils shall be provided with headers of seamless copper tubing with intruded tube holes to permit expansion and contraction without creating undue stress or strain. Coil connections shall be carbon steel or copper with connection size to be determined by manufacturer based upon the most efficient coil circuiting. Vent connections shall be provided at the highest point to assure proper venting. Drain connections shall be provided at the lowest point for proper drainage.
- 5 Coils shall be tested with 320 pounds air pressure and suitable for 250 psig working pressure.
- 6 Coil casings shall be a formed channel frame of galvanized steel [stainless steel].

## C Refrigerant Coils:

- 1 Coils designed for use with Refrigerant [R-22] [R-134a] [R-407C] [R-410A] as specified on the unit schedule. Fins shall have a minimum thickness of 0.006 inches aluminum with full drawn collars to provide a continuous surface cover over the entire tube for maximum heat transfer. Tubes shall be mechanically expanded into the fins to provide a continuous primary-to-secondary compression bond over the entire finned length for maximum heat transfer rates. Bare copper tube shall not be visible between fins. Coil casings shall be a formed channel frame of galvanized steel [stainless steel].
  - 2 Refrigerant coil suction connections shall be constructed of copper sweat type and shall be located at the bottom of the suction headers for gravity oil drainage. Pressure type liquid distributors shall be furnished. Coils shall be tested with 315 pounds air pressure, and suitable for 250 psig working pressure.
- D Drain pan shall be constructed from antibacterial coated galvanized steel [stainless steel] with sloping pitch to drain connection to allow for condensate drainage. Drain Pan is positioned above 1" thick insulated double wall panel. Condensate drain connections shall be provided on both sides of drain pan. Secondary drain connections shall extend to cabinet exterior to comply with International Building Code and International Mechanical Code.

- E Electric heating coils shall be factory installed ETL listed open wire resistance heaters with single point power connection for the unit and heater. Heating coils shall be constructed of high nickel-chromium alloy resistance wire (80% Ni/20% Cr). Heaters shall have primary and secondary protection circuits, airflow switch, 24v control transformer, and disconnect switch. Contactors and fuses shall be provided for each heating stage with [1] [2] [3] [4] stage(s). Heaters shall be dielectrically tested for 1000V + twice the rated voltage, or 2000V (whichever is higher). The resistance heater shall be within 5% of rated value. Heating performance shall be as specified on the unit schedule.

## 2.08 Filters

- A Filter section shall be a 2" [4"] flat [angle] type furnished with MERV 7 [MERV 8] [MERV 11] [MERV 14] [MERV 15].deep pleated panel filters.
- B Filter media shall be UL 900 listed, Class I or Class II.

## 2.09 Mixing Box

- A [Opt.] Mixing Box shall be constructed as described in section titled Air Handler Casing. The mixing box return and outside air openings shall be located as specified on plans and schedule.
- 1 Damper blades shall not be furnished on the outside [fresh] air damper. [The outside {fresh} air mixing box dampers shall be constructed of airfoil design extruded aluminum blades and aluminum frame.]
  - 2 Damper actuator(s) shall be field mounted. [An outside {fresh} air damper actuator shall be factory mounted.]

## Part 3: Execution

### 3.01 Installation

- A Install in accordance with manufacturer's instructions.

### ***McQuay Training and Development***

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

### ***Warranty***

All McQuay equipment is sold pursuant to its standard terms and conditions of sale, including Limited Product Warranty. Consult your local McQuay Representative for warranty details. Refer to Form 933-43285Y. To find your local McQuay Representative, go to [www.mcquay.com](http://www.mcquay.com).

This document contains the most current product information as of this printing. For the most up-to-date product information, please go to [www.mcquay.com](http://www.mcquay.com).

Products manufactured in an ISO certified facility.

