



# SureFlow® Series

## FAN COIL TECHNICAL CATALOG



# SureFlow™

Build your reputation on ours

It is the responsibility of the end user to properly characterize and dispose of all waste materials according to applicable regulatory and legal entities. Where reasonable, safe, and compliant with local regulatory and legal requirements, IEC encourages recycling materials when disposing of its products.

International Environmental Corporation (IEC) works continually to improve its products. As a result, the design and specifications of each product may be changed without notice and may not be as described herein. Please contact IEC for information regarding current design and product specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties but are merely IEC's opinion or commendation of its products. Manufacturer's standard limited warranty applies.

## **Table of Contents**

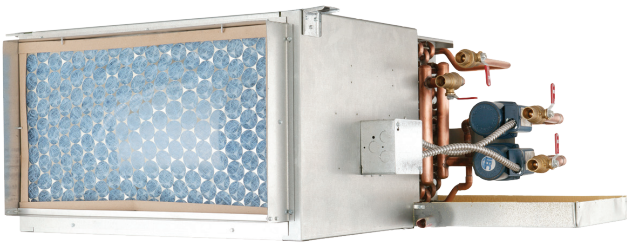
<b>4</b>	The System
<b>5</b>	System Comparison
<b>6</b>	Design Tools
<b>7-10</b>	Portfolios
<b>11-13</b>	Applications
<b>14</b>	Features and Benefits
<b>15-16</b>	Ratings and Listings
<b>17-18</b>	Hydronic Heating Capacity/Motor Data
<b>19-34</b>	Submittal Data
<b>35</b>	Weights
<b>36</b>	Piping Connections

## The System

### What is SureFlow®

SureFlow® is an innovative approach to flexible cooling and heating hydronic system design.

Figure 1.



The key component of a SureFlow system is a custom designed fan coil (see Figure 1) with an integrated low watt circulator. The circulator delivers the design waterflow through the coil and back to a primary loop. This allows the individual fan coils to be hydraulically isolated from one another and be decoupled from the distribution primary loop.

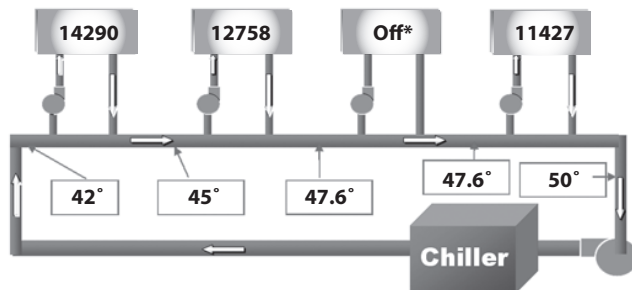
A benefit of this arrangement is the ability to satisfy the comfort requirements of a cooling-only system with one pipe instead of two and for a cooling and heating system with two pipes instead of four.

Since the primary pump is no longer responsible for overcoming the valve and coil losses, and is only responsible for moving the water in the primary loop, the horsepower demand is reduced significantly resulting in energy savings.

### How Does SureFlow® Work

Multiple SureFlow® units are placed in series on a primary loop. The primary loop has a constant water flow that is engineered to satisfy the total BTU demands of the loop at peak load conditions.

Figure 2. 48,000 BTU/H; 42°F EWT; 10°F ΔT; 9.6 GPM Primary



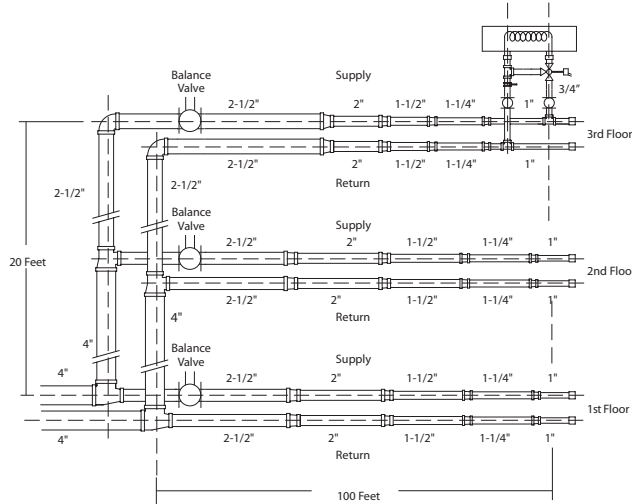
In the example shown in Figure 2, four coils are connected to a loop with a peak load of 48,000 BTU/H. The designer plans for a 10 degree water temperature rise from the loop and configures the primary for 9.6 GPM of water flow with an initial temperature of 42 degrees. The primary loop is set up for constant water flow while the SureFlow units cycle on local thermostat demand. As each unit cycles on, the local circulator “borrows” water for use in the coil and then returns the used water to the loop. The blended water then becomes the inlet water for the next operating unit. Units are selected to operate at the available water temperature.



## System Comparison

### Parallel Flow vs. SureFlow®

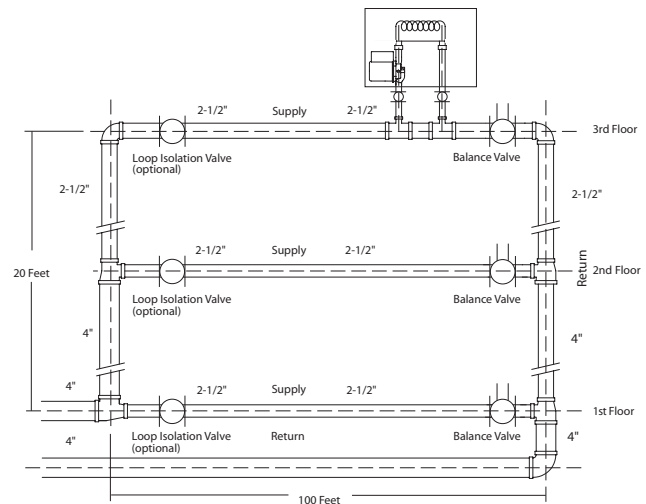
Figure 3. Basic Two-pipe Direct-return Piping Diagram



In parallel flow hydronic systems (see Figure 3), a central pump delivers constant water temperature throughout the building to each fan coil unit. The central pump must overcome system head losses (piping, balancing valves or circuit setters, fittings, accessories, zone control valves) and still produce sufficient pressure to push water through the coil. Unfortunately building diversity causes problems balancing flow at actual operating conditions. Parallel flow systems are “design specific,” making changes in zoning difficult to implement.

### SureFlow® System

Figure 4. Single-pipe, Primary/Secondary SureFlow System



In SureFlow® systems, flow controls and zone control valves are removed from the fan coil unit. The central pump moves water past the fan coil units in a primary circuit called a “SureFlow Loop.” The integral circulator delivers the rated flow to each unit and cycles on demand of the local thermostat.

## Design Tools

Quick Rate

Selection Tool

Working Unit List (10)

Schedules

Documentation

SureFlow® Loops

Create Schedule

Add Copy Delete

M House SureFlow

Cooling Conditions

Entering Fluid Temp: 45

Flow Rate: 8

Target SHR%: 80

Leaving Fluid Temp: 59.88

Peak Load

Total: 66000 Sensible: 52800

Actual Capacity

Total: 59515.67 Sensible: 51632.08

Pipe Size: 1.00

Fluid Velocity: 2.935

Fluid: Water

Input Type: Imperial

Auto-Select

Add Unit

Add Non-SF Unit

Rearrange

Edit

Copy

Delete

Recalculate

<input type="checkbox"/>	Tag	Target Total	Model/Size	Coil Rows	Airflow	EDB	EWB	EFT	Total Cap	Sensible Cap	Latent Cap	Active
<input type="checkbox"/>		12,000	CPF04	3Pri	558	80	67	45	14,026	10,783	3,243	<input checked="" type="checkbox"/>
<input type="checkbox"/>		12,000	CPF04	3Pri	558	80	67	48.5	12,251	10,097	2,154	<input checked="" type="checkbox"/>
<input type="checkbox"/>		24,000	CPF10	3Pri	1,046	80	67	51.5	20,169	18,135	2,034	<input checked="" type="checkbox"/>
<input type="checkbox"/>		6,000	CPF02	4Pri	273	80	67	56.5	5,495	5,042	453	<input checked="" type="checkbox"/>
<input type="checkbox"/>		12,000	CPF04	3Pri	558	80	67	57.9	7,575	7,575	0	<input checked="" type="checkbox"/>

25,000

20,000

15,000

10,000

5,000

0

Unit 1

Unit 2

Unit 3

Unit 4

Unit 5

### Design Tools

A SureFlow® Rating Program and Loop Simulator are available for use by the design engineer.

### SureFlow® Rating Program

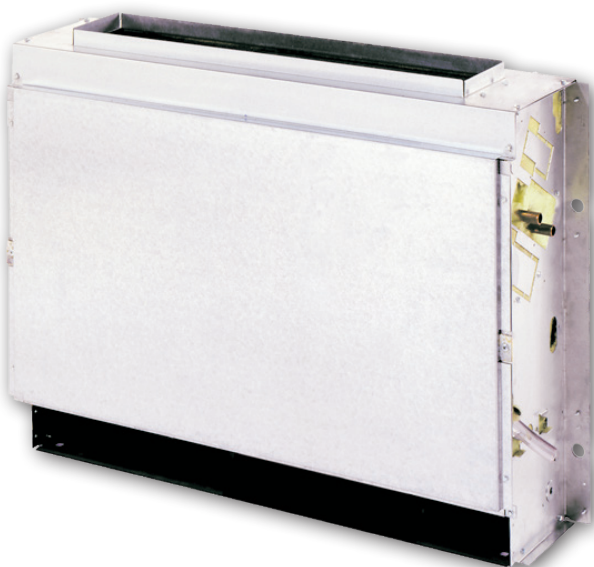
- Individual selection at specific criteria
- Provides performance rating data
- Includes schedule builder
- Provides submittal drawings
- Provides sample specifications

### SureFlow® Loop Simulator

- Models individual unit performance at selected design conditions
- Allows units to be modeled at multiple fan speeds or cycled off
- "AUTO SELECT" function automatically selects unit sizes and coil rows
- Displays total capacity, sensible capacity, and latent capacity for each unit
- Charts entering, leaving, and mixed water temperatures
- Loop performance is displayed graphically
- Allows fast, interactive system design

## Vertical Series Portfolio

**FHF – SureFlow® Vertical Hideaway,  
200 CFM to 1200 CFM**



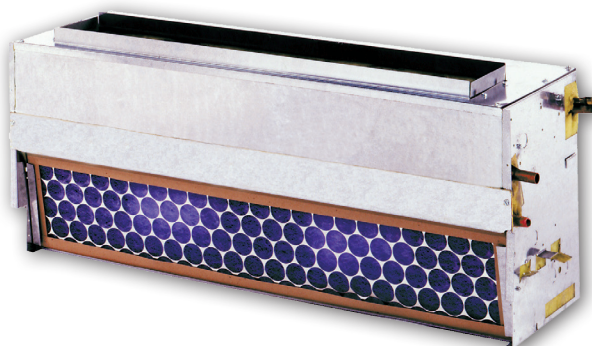
**FSF – SureFlow® Vertical Slope-Top  
Cabinet, 200 CFM to 1200 CFM**



**FXF – SureFlow® Vertical Cabinet,  
200 CFM to 1200 CFM**



**\*LHF – SureFlow® Vertical Lowboy  
Hideaway, 200 CFM to 600 CFM**



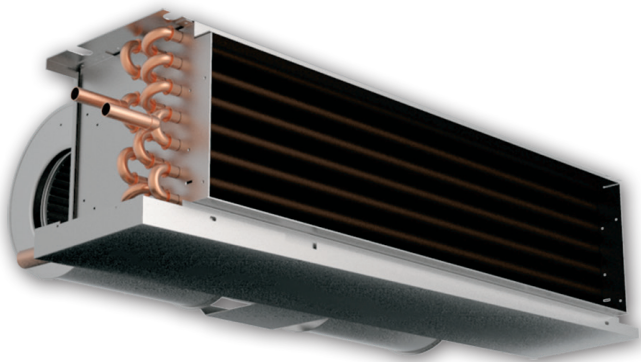
**\*LXF – SureFlow® Vertical Lowboy Cabinet,  
200 CFM to 600 CFM**



\* - Contact factory for LHF and LXF model application.

## Horizontal Series Portfolio

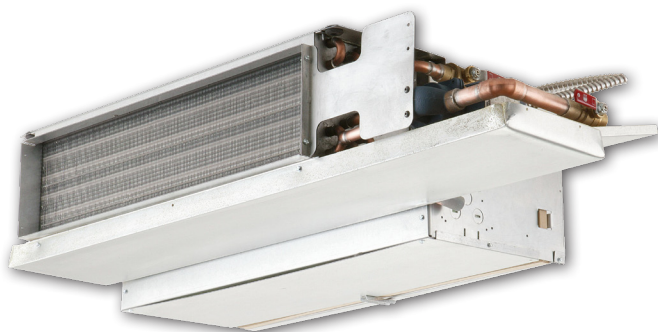
**CHF – SureFlow® Horizontal Hideaway,  
200 CFM to 1200 CFM**



**CBF – SureFlow® Horizontal Telescoping  
Hideaway, 200 CFM to 1200 CFM**



**CPF – SureFlow® Horizontal Hideaway  
with Plenum, 200 CFM to 1200 CFM**



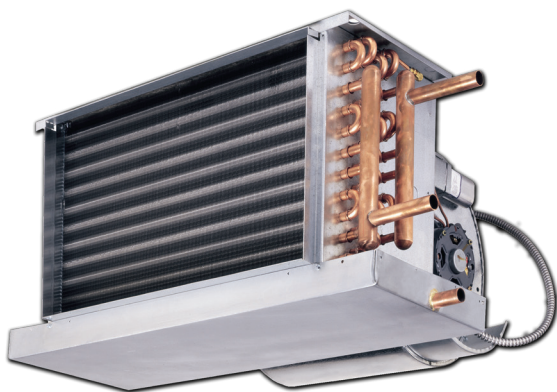
**CXF – SureFlow® Horizontal Cabinet,  
200 CFM to 1200 CFM**





## Hi-Performance Series Portfolio

**HHF – SureFlow® Hi-Performance  
Hideaway, 600 CFM to 2000 CFM**



**HXF – SureFlow® Hi-Performance  
Horizontal Cased, 600 CFM to 2000 CFM**



**HLF – SureFlow® Hi-Performance Cabinet,  
600 CFM to 2000 CFM**



**\*VEF – SureFlow® Hi-Performance Vertical  
Cased, 600 CFM to 2000 CFM**



**HPF – SureFlow® Hi-Performance  
Hideaway w/Plenum, 600 CFM to 2000 CFM**



\*Contact Factory for VEF applications.

## Modular Hi-Rise Series Portfolio

**MPF, MMF, MSF – SureFlow® Modular  
Concealed, 300 CFM to 1200 CFM**



**MXF – SureFlow® Modular Cabinet,  
300 CFM to 1200 CFM**



## Applications

### Applications

SureFlow® systems can be used in either renovation or new construction projects

- Transporting BTUs in pipe is easier to conceal, less costly and more efficient than by air duct.
- Superior comfort of a 4-pipe system is achieved by using a 2-pipe distribution system.
- Minimize or eliminate core drilling.
- Zones are easy to change.
- Configuration is dictated by design. (In many cases, SureFlow® reduces the piping and installation costs significantly compared to the conventional parallel piping system.)
- Floors may have varying layouts.

### Primary/Secondary Piping System Considerations

When designing SureFlow® piping systems, several things need to be considered:

- A. Location of Equipment Room. Strategically locating the equipment room may result in pipe size reductions and savings.

- B. Design Requirements. Requirements for auxiliary and common space equipment such as make-up air units should be considered. In those situations it might be advisable to connect such equipment through a conventional two-pipe distribution system following industry accepted design practice (see Figure 6).

Figure 6. SureFlow® System with Decoupled Common Areas

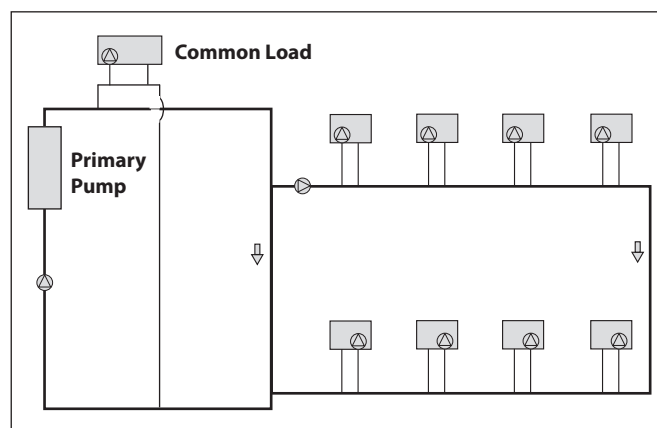
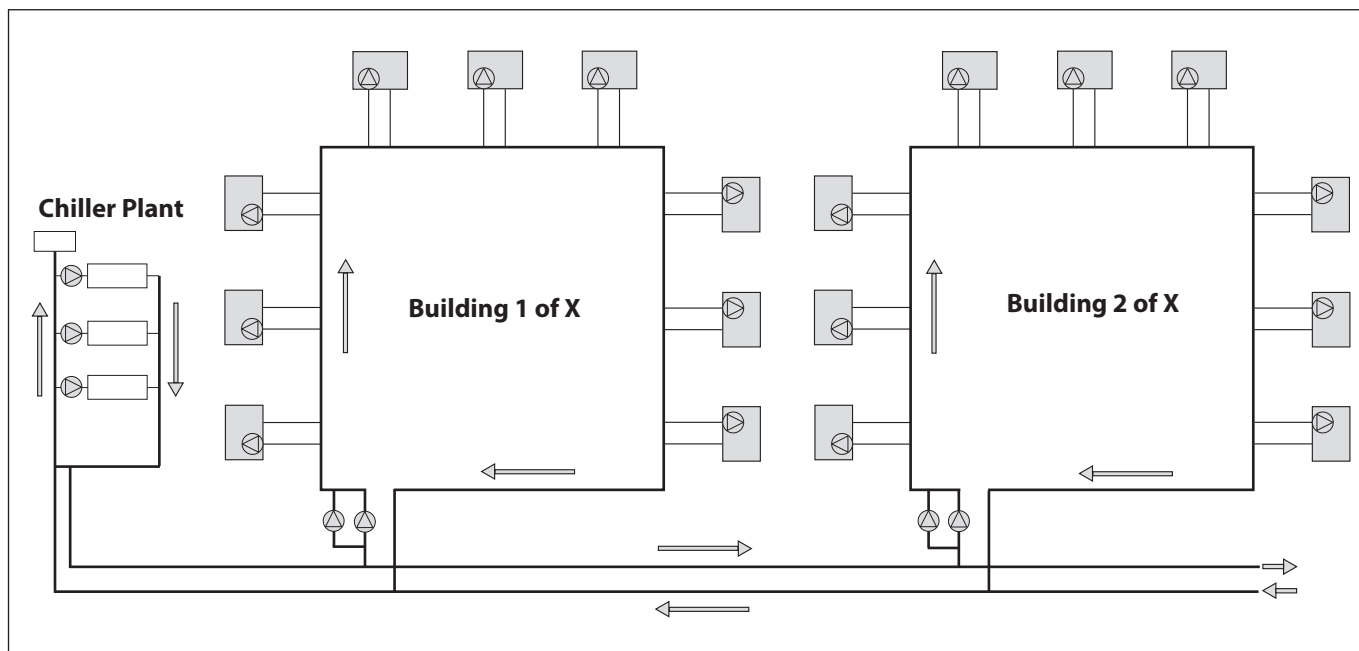


Figure 5. SureFlow® System in Multiple-building Applications



## Applications, Cont'd.

C. Piping Loops. Piping loops may be run vertically or horizontally through a building, limited only by practical considerations. Hybrid combinations often present opportunities to achieve the best system design (see Figure 7).

Symmetrical piping layouts achieve the most natural flow balance while optimizing the effect of natural diversity on the loads (see Figure 8).

Try to loop piping around at least two sides of the building to take advantage of solar load variation. An alternate method is to run a supply loop down a hallway with take-off piping feeding room fan coils on both the left and right sides of the hallway. For maximum diversity potential, the supply and return mains may be separated by top and bottom floors to create mini-loops (see Figure 9).

Figure 7. Alternate-distribution and Loop-piping Layouts

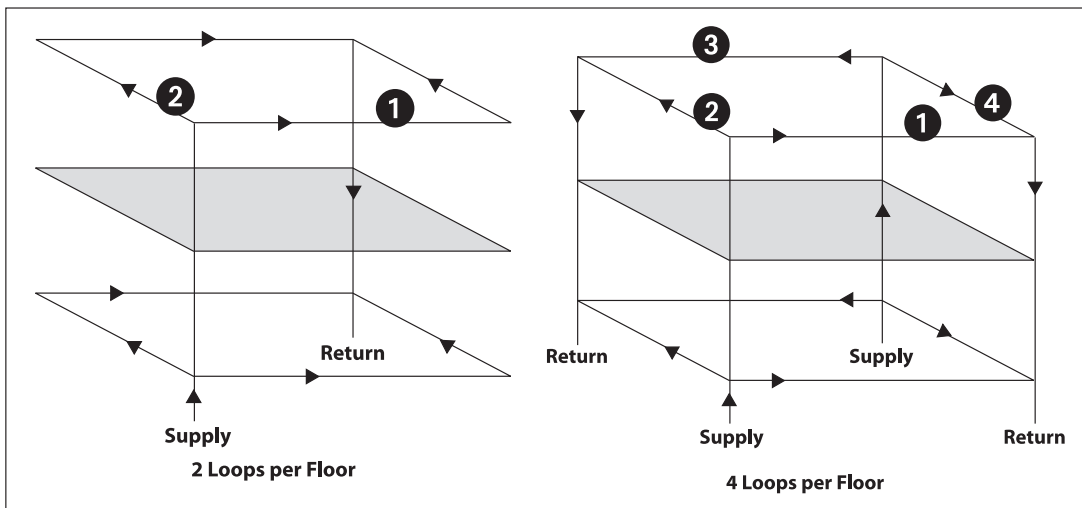
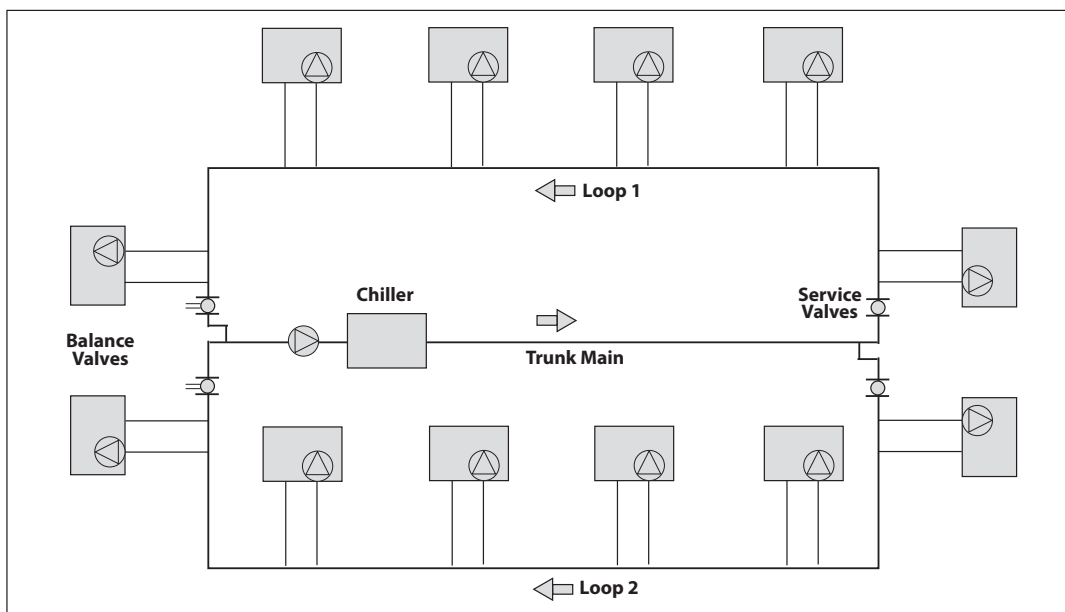


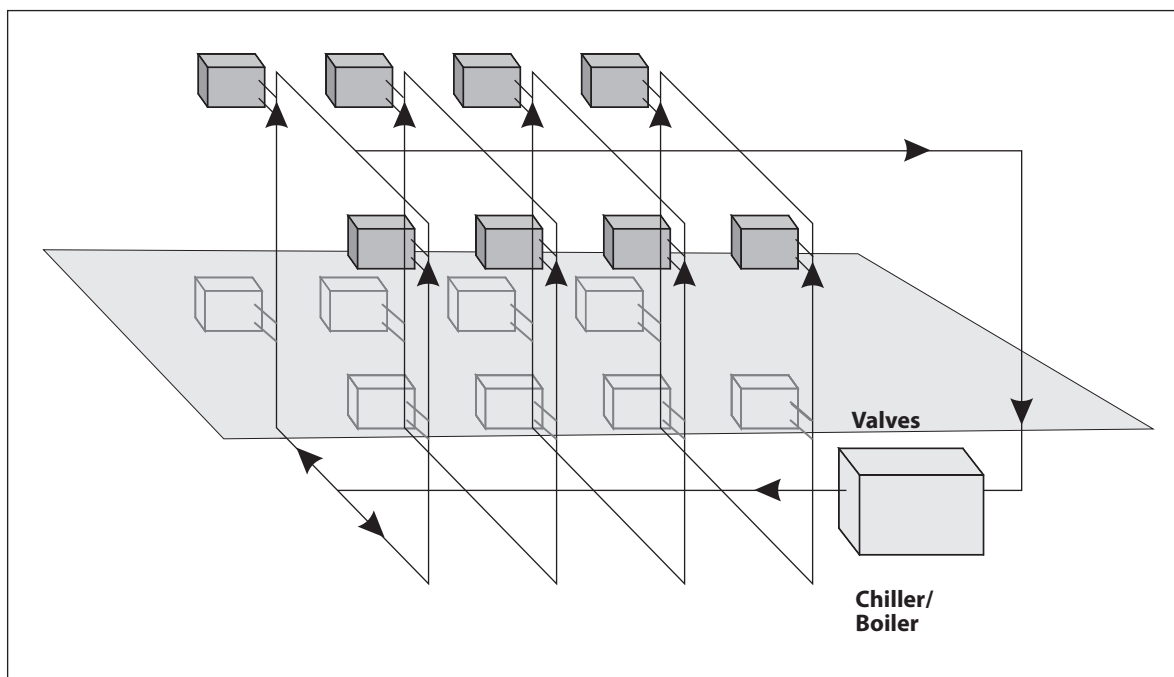
Figure 8. Symmetrical and Diversity-sensitive SureFlow® Installation





## Applications, Cont'd.

Figure 9. Hybrid Loop Design



It is often desirable to divide a heavily-loaded loop into two or more loops with smaller pipe sizes. Depending on building layout, it may be practical to use one loop per floor and exposure. With other designs, it may be better to split loops and use a common riser to distribute the load.

Distribution risers can supply the parallel loops by direct- or reverse-return arrangements (see Figures 8 and 10). Standard balancing valves, service isolation valves and air vents should be installed as necessary for service and to balance flow to each loop.

Figure 10. Vertical Risers with Horizontal Distribution

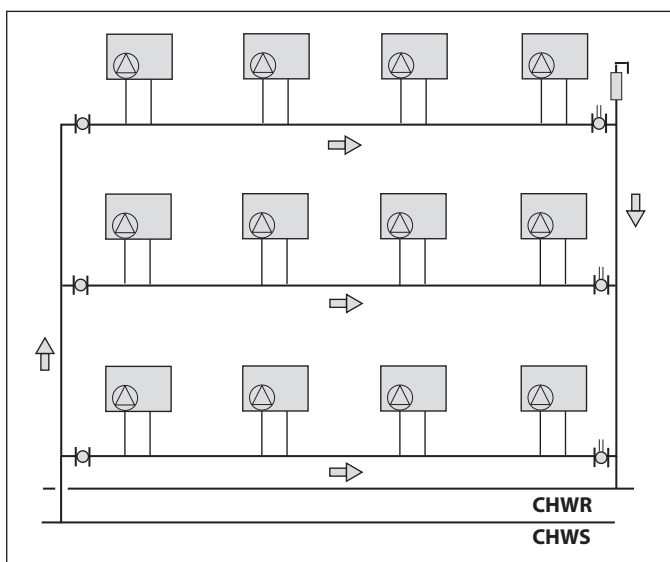
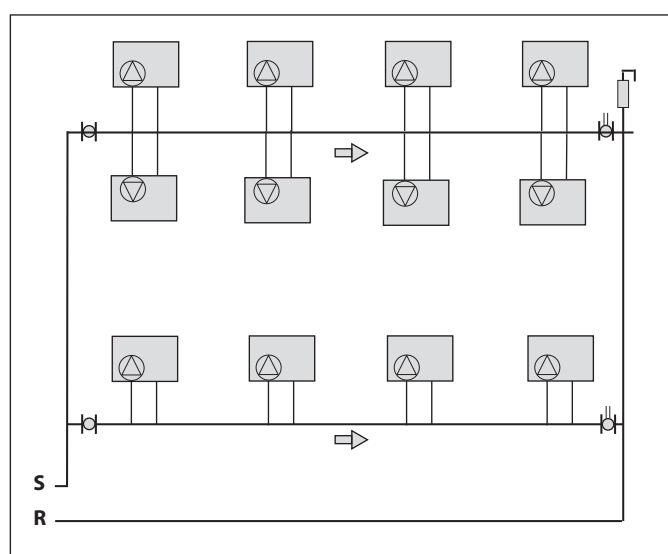


Figure 11. Alternate Layout



## Features and Benefits

### Application Fit

- SureFlow® units are offered in many configurations making them adaptable to any space requirements.
- Because of the simplified design, SureFlow® makes it possible to apply hydronic systems in applications where a conventional scheme is too costly, or where a hydronic solution has not been applied in the past.
- The BTU flow design allows the loop to be sized for a capacity range. The result is a SureFlow® Loop rated at a total capacity and a constant pipe size, that is adaptable to future requirements.
- Decoupling the fan coil from the system permanently reduces central pump horsepower.

### Design Flexibility

- The IEC Rating Program and SureFlow® Loop Simulator are available to assist the designer.
- SureFlow® designs can be combined with parallel systems where the advantages of each approach can be utilized.
- Simplified pipe designs save time and money by eliminating terminal unit balancing, reducing fittings, transitions, and accessories, reducing design time, reducing errors, and make the design easier to communicate.

### Ease of Installation

- Self-balancing design eliminates the need to balance the fan coils on startup, reducing installation time and costs.
- Heating and cooling loops of a constant pipe size reduce field coordination compared to a stepped parallel system.

### Reducing the number of pipes (2-to-1 and 4-to-2):

- Speeds the installation of the system and reduces the installed costs.
- Reduces core drilling on renovation projects.
- “As built” drawings and shop-to-field drawings are easier to create, monitor and record.
- Simplified takeoff saves time and improves accuracy,
- Reduction of purchasing and bill of material management, saving overhead costs, and SureFlow® is a system that can be installed as designed.

### Reliability

- The circulator delivers the correct water flow to the SureFlow® fan coil ensuring performance and comfort are maintained.
- The self-balancing design results in more predictable operation.
- Standard SureFlow® units are UL and MEA listed.

### Efficiency

- Eliminating balancing devices and associated specialties and their added pressure drop reduces the required pump horsepower and results in a more efficient and lower cost system.

### Ratings and Listings



#### C-UL US Listing

IEC's SureFlow® Series units are listed by Underwriters' Laboratories. The C-UL US listing signifies that IEC's fan coil units have been examined by UL and are in compliance with both the U.S. and Canadian organizations' applicable standards.

#### Vertical Series Standard Ratings

IEC's Vertical Series coils are tested in accordance with ARI 410.

Unit Type	Rows	Unit Size	CFM	Cooling Capacity	
				Total MBH	Sensible MBH
FHF FXF FSF	3-Rows	02	248	8.2	5.8
		03	284	9.5	6.7
		04	444	13.0	9.4
		06	601	16.5	12.6
		08	670	18.6	14.3
		10	1031	25.6	20.6
	4-Rows	12	1188	28.7	23.5
		02	230	8.9	6.1
		03	270	10.3	7.1
		04	422	14.2	10.3
		06	568	18.5	13.6
		08	630	20.8	15.2
		10	976	28.6	22.1
		12	1129	32.0	25.2

- NOTES: 1. Ratings are based on 80F DB and 67F WB EAT, high fan speed, EC motor voltage 115/1/60, and airflow under dry coil conditions.  
2. For all application ratings use IEC's Rating Program or contact your local IEC representative.

#### Vertical Series Heating

Unit Type	Rows	Unit Size	CFM	GPM	Heating Capacity
					Total MBH
FHF FXF FSF	1-Row	02	212	3.2	9.7
		03	256	3.1	11.8
		04	401	2.9	16.8
		06	536	2.6	22.2
		08	589	2.6	25.0
		10	922	2.4	34.9
	2-Row	12	1070	2.2	39.2
		02	212	4.5	15.5
		03	256	4.4	18.7
		04	401	4.2	27.2
		06	536	4.0	36.0
		08	589	3.8	40.4
	3-Row	10	922	3.6	57.5
		12	1070	3.4	64.7
		02	248	3.9	16.8
		03	284	3.8	19.4
		04	444	3.6	48.4
		06	601	5.0	38.1
	4-Row	08	670	4.9	42.9
		10	1031	4.8	61.3
		12	1188	4.7	69.2
		02	230	3.6	13.5
		03	270	3.5	15.9
		04	422	3.3	23.4
		06	568	4.8	31.5
		08	630	4.7	35.2
		10	976	4.6	50.9
		12	1129	4.4	57.5

- NOTES: 1. All base hot water capacities are given in thousands of BTUH (MBH).  
2. Ratings are based on 70°F EAT and 180°F EWT for 1 and 2 row coils, 160°F EWT for 3 row coils and 140°F EWT for 4 row coils.  
3. Data is taken from the IEC's Rating Program.



## Ratings and Listings, Cont'd.

### Horizontal Series Standard Ratings

IEC's Horizontal Series coils are tested in accordance with ARI 410.

Unit Type	Rows	Unit Size	CFM	Cooling Capacity	
				Total MBH	Sensible MBH
CPF CXF CBF	3-Rows	02	281	8.7	6.3
		03	327	10.2	7.4
		04	500	13.7	10.4
		06	603	16.4	12.6
		08	739	19.5	15.3
		10	1042	25.7	20.8
		12	1277	29.7	24.7
	4-Rows	02	262	9.6	6.7
		03	313	11.3	7.9
		04	482	15.3	11.3
		06	600	19.1	14.2
		08	724	22.4	16.9
		10	1011	29.2	22.7
		12	1217	33.3	26.6

- NOTES: 1. Ratings are based on 80F DB and 67F WB EAT, high fan speed, EC motor voltage 115/1/60, and airflow under dry coil conditions.  
2. For all application ratings use IEC's Rating Program or contact your local IEC representative.

### Horizontal Series Heating

Unit Type	Rows	Unit Size	CFM	GPM	Heating Capacity
					Total MBH
CPF CXF CBF	1-Row	02	233	3.2	10.3
		03	294	3.1	12.8
		04	446	2.9	17.9
		06	582	2.8	23.2
		08	696	2.6	27.4
		10	1006	2.4	36.5
	2-Row	12	1208	2.2	41.5
		02	233	4.5	16.5
		03	294	4.4	20.6
		04	446	4.2	29.1
		06	582	4.0	37.9
		08	696	3.8	44.8
	3-Row	10	1006	3.6	60.4
		12	1208	3.4	69.1
		02	281	3.9	18.4
		03	327	3.8	21.6
		04	500	3.6	30.9
		06	603	5.0	38.0
	4-Row	08	739	4.9	45.9
		10	1042	4.8	61.8
		12	1277	4.7	72.3
		02	262	3.6	15.0
		03	313	3.5	17.9
		04	482	3.3	25.9
		06	600	4.8	32.8
		08	724	4.7	39.1
		10	1011	4.6	52.2
		12	1217	4.4	60.5

- NOTES: 1. Ratings are based on 70F EAT and 180F EWT for 1 and 2 row coils, 160F EWT for 3 row coils, and 140F EWT for 4 row coils.  
2. For all application ratings use IEC's Rating Program or contact your local IEC representative.

### Hydronic Heating Capacity

#### Hi-Performance Series Standard Ratings

IEC's Hi-Performance Series coils are tested in accordance with ARI 410-2001.

Unit Type	Rows	Unit Size	CFM	Cooling Capacity	
				Total MBH	Sensible MBH
HHF HPF HXF	4 Rows	06	800	20.7	16.8
		08	1020	25.9	21.3
		10	1158	29.3	24.1
		12	1438	37.2	30.3
		14	2031	46.8	40.3
		16	2358	52.8	46.2
		18	2416	55.4	48.0
		20	2548	58.3	50.6
	6 Rows	06	732	24.7	18.6
		08	978	31.3	24.1
		10	1101	34.8	27.1
		12	1286	43.8	32.8
		14	1814	55.0	43.5
		16	2005	60.0	47.8
		18	2067	62.7	49.7
		20	2374	68.6	55.7
HLF	4 Rows	06	597	17.8	13.6
		08	720	21.6	16.5
		10	896	25.6	19.9
		12	1154	33.2	25.7
		14	1313	37.4	29.2
		16	1581	43.0	34.3
		18	1788	47.5	38.3
		20	1937	50.8	41.3
	6 Rows	06	533	20.7	14.7
		08	654	25.0	17.9
		10	817	29.5	21.6
		12	1092	39.9	29.0
		14	1276	45.4	33.4
		16	1424	49.9	37.0
		18	1698	56.5	42.9
			1888	60.9	47.0

- NOTES: 1. Ratings are based on 80°F DB and 67°F WB EAT, high fan speed, EC motor voltage 115/1/60, and airflow under dry coil conditions. Hi-Performance units are rated at 0.2 in. W.C. external static pressure.
2. For all application ratings, use IEC's Rating Program or contact your local IEC representative.

#### Hi-Performance Series Heating

Unit Type	Rows	Unit Size	CFM	GPM	Heating Capacity
					Total MBH
HHF HPF HXF	1 Row	06	800	2.6	25.4
		08	1020	2.4	31.8
		10	1158	2.3	35.9
		12	1438	2.1	41.9
		14	2031	2.0	50.4
		16	2358	1.9	54.9
		18	2416	1.9	56.7
		20	2548	1.8	58.7
	2 Rows	06	766	3.9	41.8
		08	999	3.8	53.1
		10	1130	3.6	59.9
		12	1362	3.5	69.5
		14	1923	3.4	84.9
		16	2181	3.3	92.4
		18	2242	3.2	95.7
		20	2461	3.1	100.7
HLF	1 Row	06	597	2.6	21.9
		08	720	2.4	26.7
		10	896	2.3	31.7
		12	1154	2.1	38.0
		14	1313	2.0	42.1
		16	1581	1.9	47.2
		18	1788	1.9	50.9
		20	1937	1.8	53.4
	2 Rows	06	565	3.9	35.1
		08	687	3.8	43.0
		10	857	3.6	51.5
		12	1123	3.5	63.0
		14	1294	3.4	70.6
		16	1522	3.3	79.0
		18	1702	3.2	85.3
		20	1894	3.1	90.9

- NOTES: 1. All base hot water capacities are given in thousands of BTUH (MBH).
2. Ratings are based on 70°F EAT and 180°F EWT for 1 and 2 row coils, 160°F EWT for 3 row coils.
3. For all application ratings, use IEC's Rating Program or contact your local IEC representative.

## Hydronic Heating Capacity, Cont'd.

### Modular Hi-Rise Series Standard Ratings

IEC's Modular Hi-Rise Series coils are tested in accordance with ARI 410-2001.

Unit Type	Rows	Unit Size	CFM	Cooling Capacity	
				Total MBH	Sensible MBH
MPF MMF MSF MXF	3 Rows	03	368	13.7	9.6
		04	466	15.7	11.4
		06	568	18.9	13.9
		08	788	22.5	17.7
		10	997	29.4	22.8
		12	1239	32.9	26.7
	4 Rows	03	364	15.7	10.6
		04	458	18.2	12.6
		06	561	22.4	15.5
		08	769	27.1	19.7
		10	979	33.1	24.5
		12	1230	37.7	29.3

- NOTES: 1. Ratings are based on 80F DB and 67F WB EAT, high fan speed, EC motor voltage 115/1/60, and airflow under dry coil conditions.  
2. For all application ratings, use IEC's Rating Program or contact your local IEC representative.

### Modular Hi-Rise Series Heating

Unit Type	Rows	Unit Size	CFM	GPM	Heat Capacity
					Total MBH
"MPF MMF MSF MXF"	1 Row	03	360	2.0	19.9
		04	430	2.0	22.1
		06	574	1.8	29.0
		08	817	1.8	34.9
		10	1047	1.6	42.1
		12	1251	1.6	45.4
	2 Rows	03	360	3.4	30.5
		04	430	3.4	34.6
		06	574	3.1	45.8
		08	817	3.1	57.1
		10	1047	2.8	69.9
		12	1251	2.8	76.6
	3 Rows	03	371	2.9	28.4
		04	442	2.9	32.6
		06	587	2.6	42.1
		08	824	2.6	53.0
		10	1048	3.7	69.2
		12	1259	3.7	77.7
	4 Rows	03	367	4.7	23.6
		04	435	4.7	27.4
		06	579	4.5	36.1
		08	813	4.5	47.5
		10	1049	4.2	59.4
		12	1244	4.2	67.0

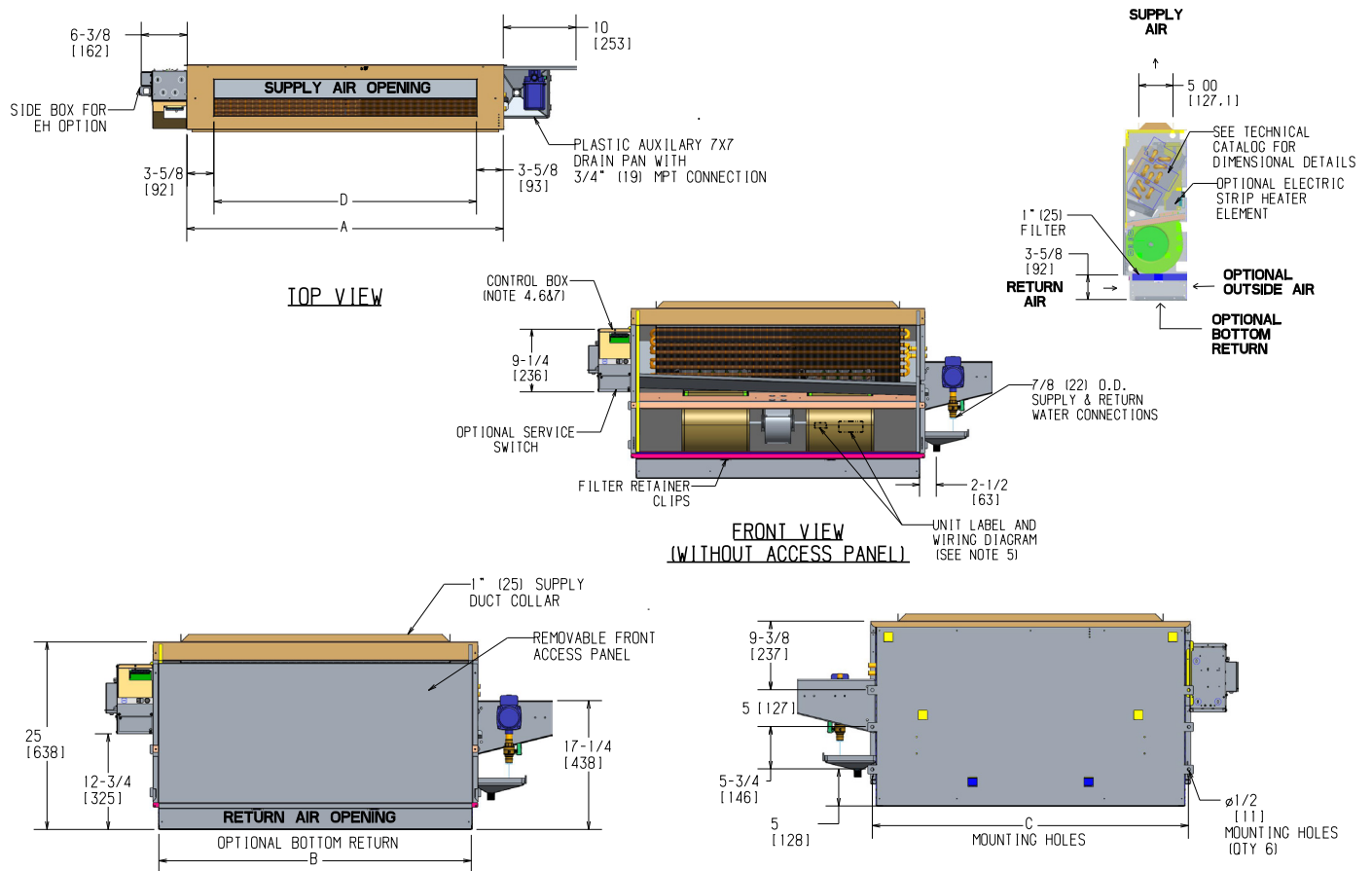
- NOTES: 1. All base hot water capacities are given in thousands of BTUH (MBH).  
2. Ratings are based on 70°F EAT and 180°F EWT for 1 and 2 row coils, 160°F EWT for 3 row coils and 140°F EWT for 4 row coils.  
3. For all application ratings, use IEC's Rating Program or contact your local IEC representative.

### Circulator Performance Data

Mode	Model Size	WATTS	AMPS @115 Volts
Cooling	C°F, F°F, M°F 02 - 12	65	0.52
	H°F 06 - 10		
	H°F 12 - 20	95	0.79
Heating	All Sizes	65	0.52

## Submittal Data

### FHF- SureFlow Vertical Hideaway Top Supply



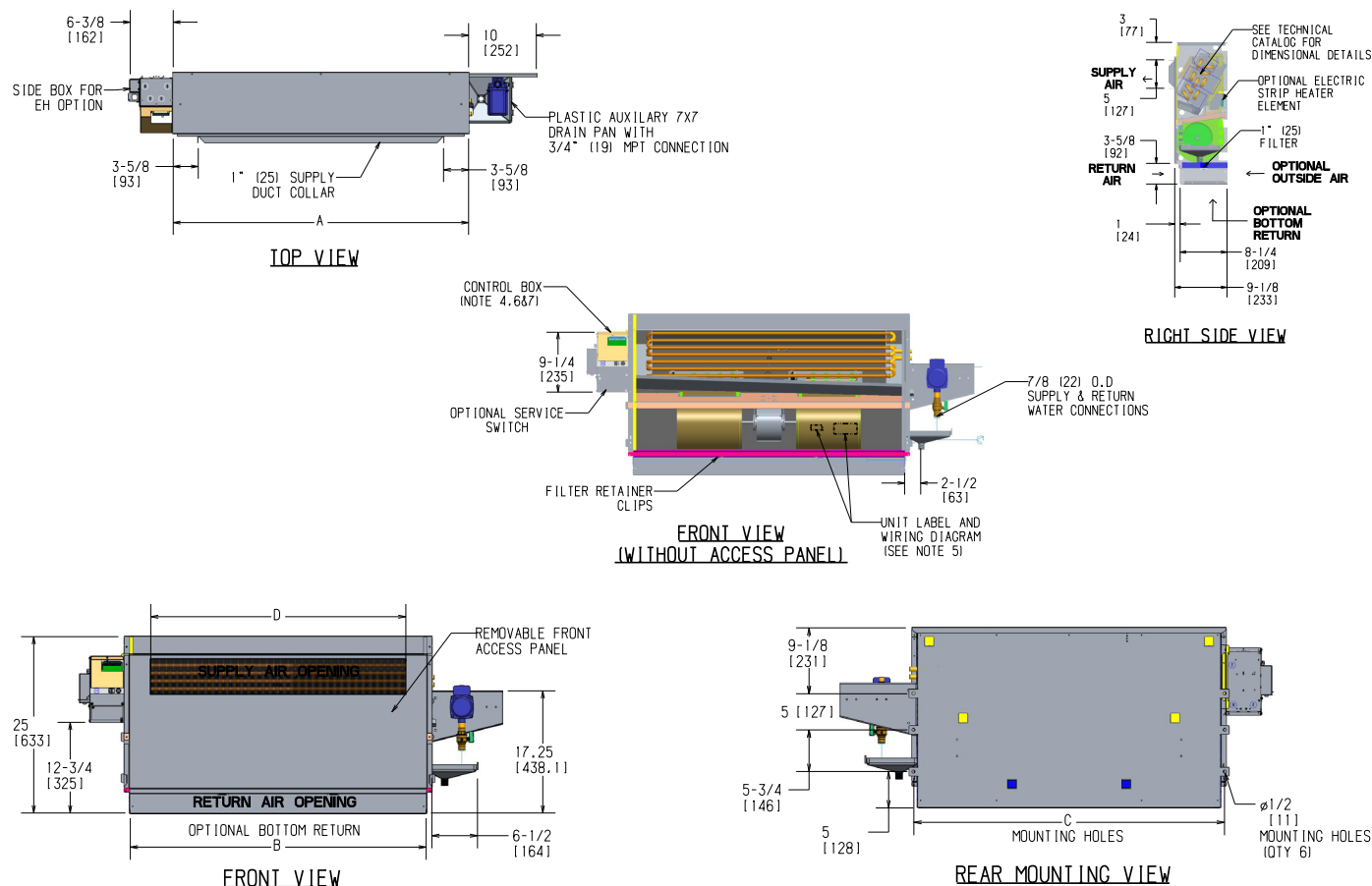
Unit Model	Dimensions - Inches (Millimeters)				Quantity/Unit	
	A	B	C	D	Blower	Motor
FHF 02	23-1/2 (597)	22 (559)	23 (584)	16 (406)	1	1
FHF 03	27-1/2 (699)	26 (699)	27 (686)	20 (508)	1	1
FHF 04	33-1/2 (851)	32 (813)	33 (838)	26 (660)	2	1
FHF 06	43-1/2 (1105)	42 (1067)	43 (1092)	36 (914)	2	1
FHF 08	45-1/2 (1156)	44 (1118)	45 (1143)	38 (965)	2	1
FHF 10	59-1/2 (1511)	58 (1473)	59 (1499)	52 (1321)	4	2
FHF 12	67-1/2 (1715)	66 (1676)	67 (1702)	60 (1524)	4	2

- NOTES:**
1. I RH coil with 2P shown LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Control box size and position may vary (consult factory).
  5. Position may vary.
  6. Service access is located on the front of the control box.
  7. Knockouts on the bottom and side of the control box for incoming power connections.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

### Submittal Data, Cont'd.

#### FHF - SureFlow Vertical Hideaway Front Supply



Unit Model	Dimensions - Inches (Millimeters)				Quantity/Unit	
	A	B	C	D	Blower	Motor
FHF 02	23-1/2 (597)	22 (559)	23 (584)	16 (406)	1	1
FHF 03	27-1/2 (699)	26 (660)	27 (686)	20 (508)	1	1
FHF 04	33-1/2 (851)	32 (813)	33 (838)	26 (660)	2	1
FHF 06	43-1/2 (1105)	42 (1067)	43 (1092)	36 (914)	2	1
FHF 08	45-1/2 (1156)	44 (1118)	45 (1143)	38 (965)	2	1
FHF 10	59-1/2 (1511)	58 (1473)	59 (1499)	52 (1321)	4	2
FHF 12	67-1/2 (1715)	66 (1676)	67 (1702)	60 (1524)	4	2

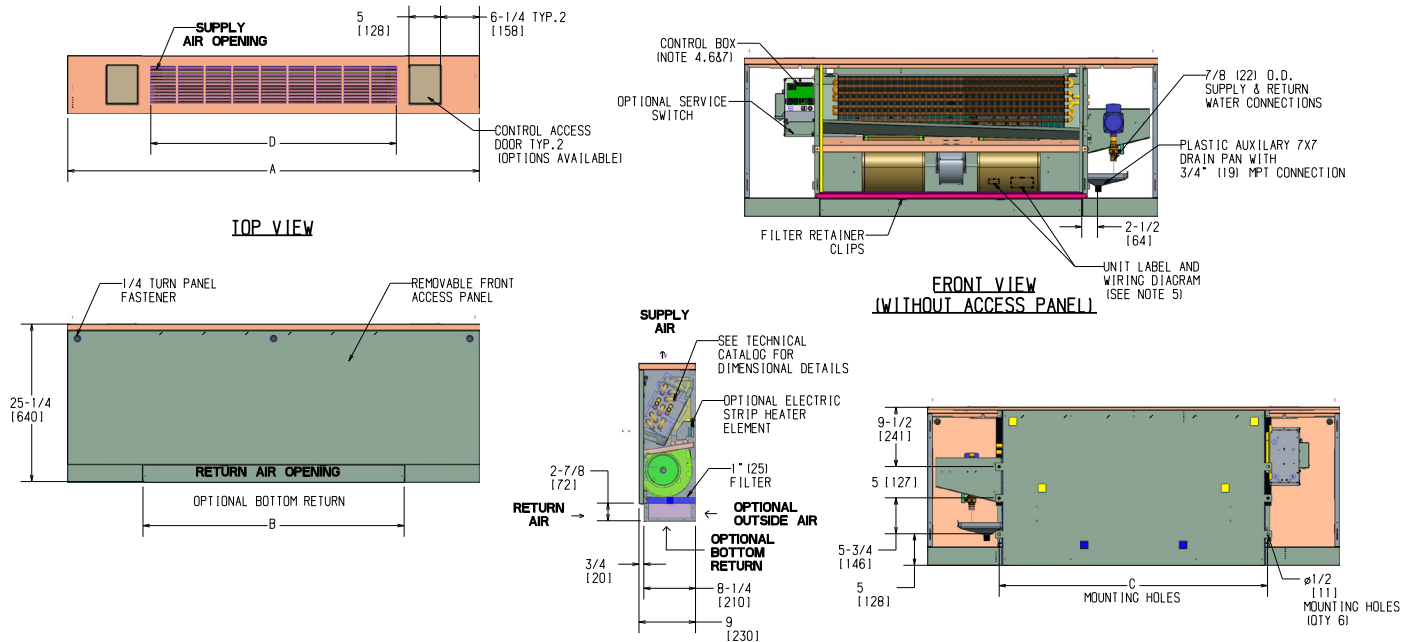
- NOTES:
1. I RH coil with 2P shown LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Control box size and position may vary (consult factory).
  5. Position may vary.
  6. Service access is located on the front of the control box.
  7. Knockouts on the bottom and side of the control box for incoming power connections.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.



### Submittal Data, Cont'd.

#### FXF - SureFlow Vertical Cabinet Top Supply

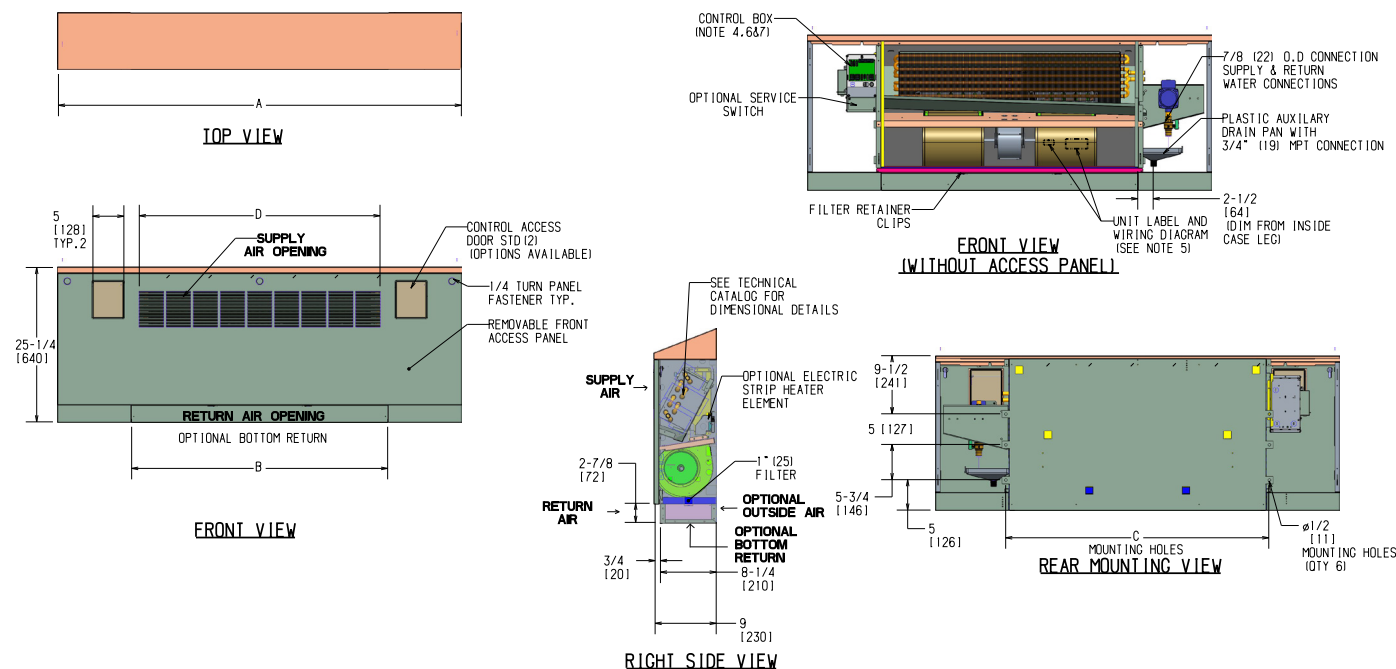


Unit Model	Dimensions - Inches (Millimeters)				Quantity/Unit	
	A	B	C	D	Blower	Motor
FXF 02	46 (1168)	22 (559)	23 (584)	17-1/4 (438)	1	1
FXF 03	50 (1270)	26 (699)	27 (686)	21-1/2 (546)	1	1
FXF 04	56 (1422)	32 (813)	33 (838)	26 (660)	2	1
FXF 06	66 (1676)	42 (1067)	43 (1092)	39-1/4 (997)	2	1
FXF 08	68 (1727)	44 (1118)	45 (1143)	39-1/4 (997)	2	1
FXF 10	82 (2083)	58 (1473)	59 (1499)	52-1/2 (1334)	4	2
FXF 12	90 (2286)	66 (1676)	67 (1702)	61-1/4 (1556)	4	2

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

### Submittal Data, Cont'd.

#### FXF - SureFlow Vertical Cabinet Front Supply



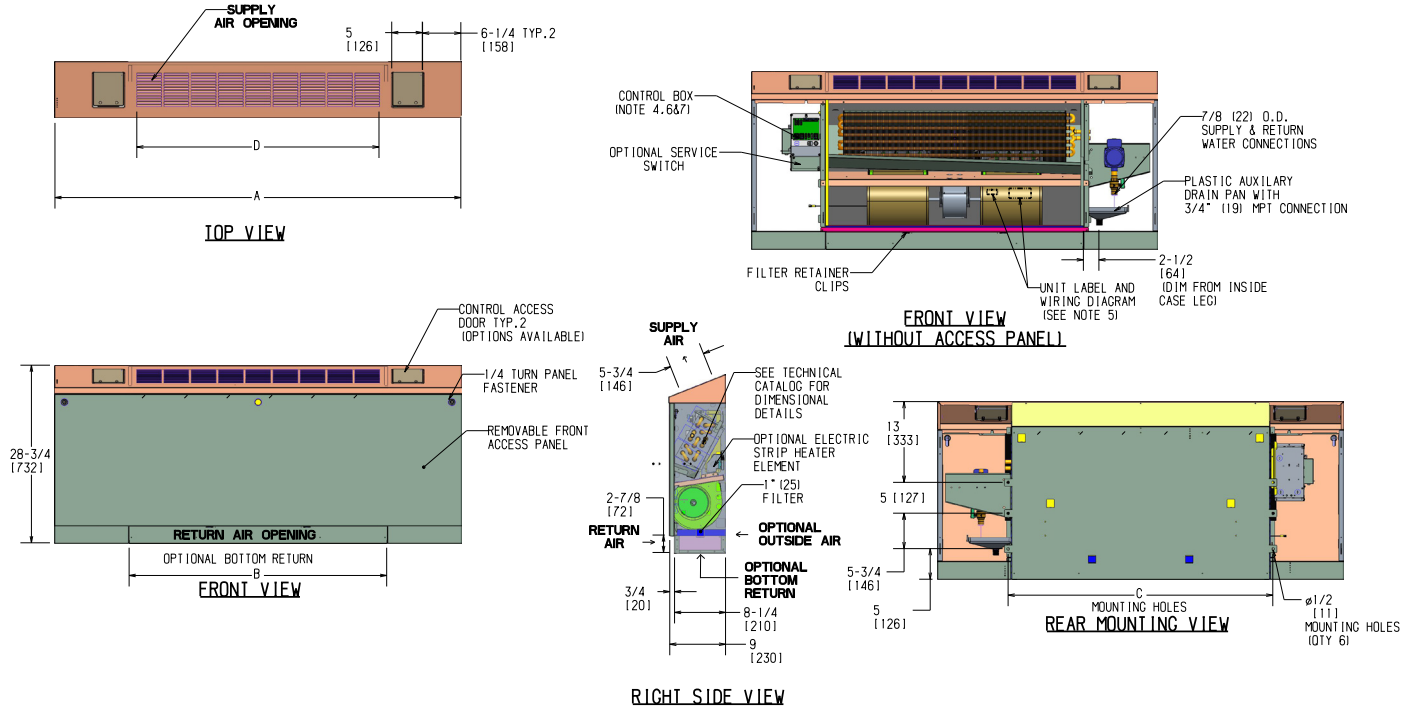
Unit Model	Dimensions - Inches (Millimeters)				Quantity/Unit	
	A	B	C	D	Blower	Motor
FXF 02	46 (1168)	22 (559)	23 (584)	17-1/4 (438)	1	1
FXF 03	50 (1270)	26 (699)	27 (686)	21-1/2 (546)	1	1
FXF 04	56 (1422)	32 (813)	33 (838)	26 (660)	2	1
FXF 06	66 (1676)	42 (1067)	43 (1092)	39-1/4 (997)	2	1
FXF 08	68 (1727)	44 (1118)	45 (1143)	39-1/4 (997)	2	1
FXF 10	82 (2083)	58 (1473)	59 (1499)	52-1/2 (1334)	4	2
FXF 12	90 (2286)	66 (1676)	67 (1702)	61-1/4 (1556)	4	2

- NOTES:**
1. RH coil with 2P shown LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Control box size and position may vary (consult factory).
  5. Position may vary.
  6. Service access is located on the front of the control box.
  7. Knockouts on the bottom and side of the control box for incoming power connections.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

### Submittal Data, Cont'd.

#### FSF - SureFlow Vertical Sloped Top Cabinet Top Supply



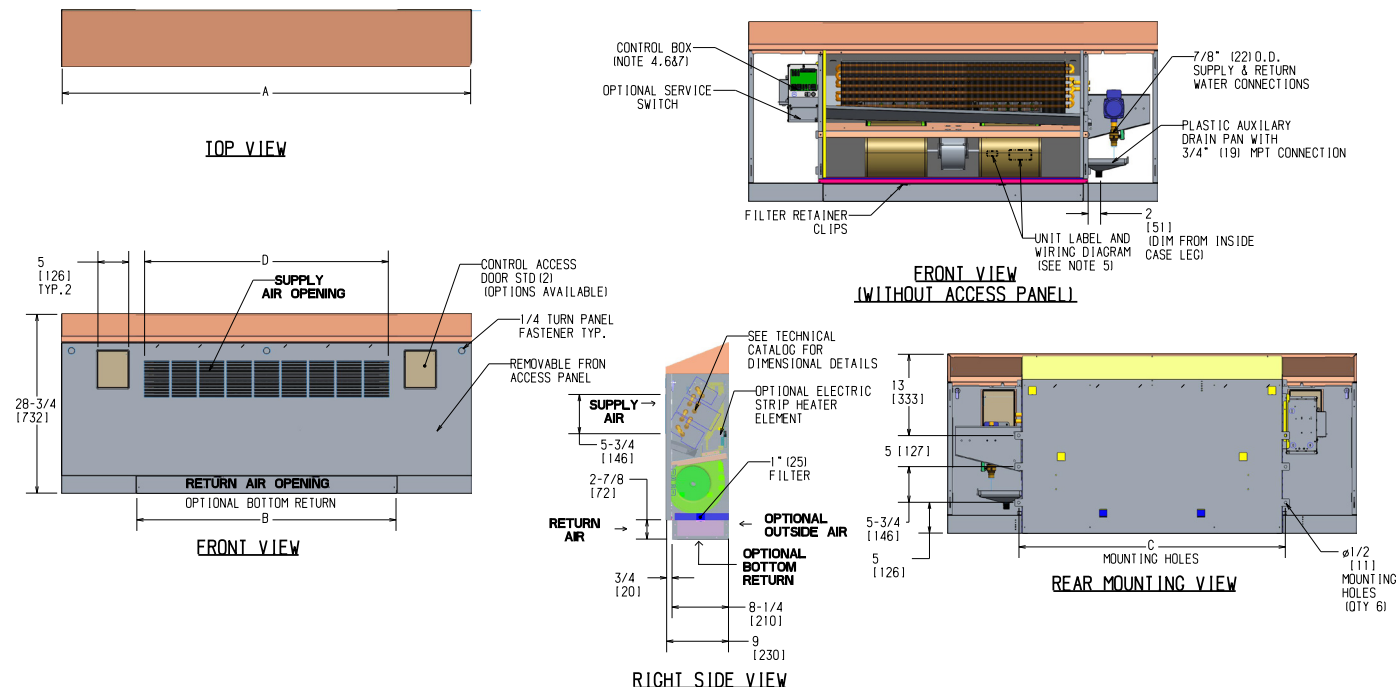
Unit Model	Dimensions - Inches (Millimeters)				Quantity/Unit	
	A	B	C	D	Blower	Motor
FSF 02	46 (1168)	22 (559)	23 (584)	17-1/4 (438)	1	1
FSF 03	50 (1270)	26 (699)	27 (686)	21-1/2 (546)	1	1
FSF 04	56 (1422)	32 (813)	33 (838)	26 (660)	2	1
FSF 06	66 (1676)	42 (1067)	43 (1092)	39-1/4 (997)	2	1
FSF 08	68 (1727)	44 (1118)	45 (1143)	39-1/4 (997)	2	1
FSF 10	82 (2083)	58 (1473)	59 (1499)	52-1/2 (1334)	4	2
FSF 12	90 (2286)	66 (1676)	67 (1702)	61-1/4 (1556)	4	2

- NOTES:
1. I RH coil with 2P shown LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Control box size and position may vary (consult factory).
  5. Position may vary.
  6. Service access is located on the front of the control box.
  7. Knockouts on the bottom and side of the control box for incoming power connections.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

### Submittal Data, Cont'd.

#### FSF - SureFlow Vertical Sloped Cabinet Front Supply



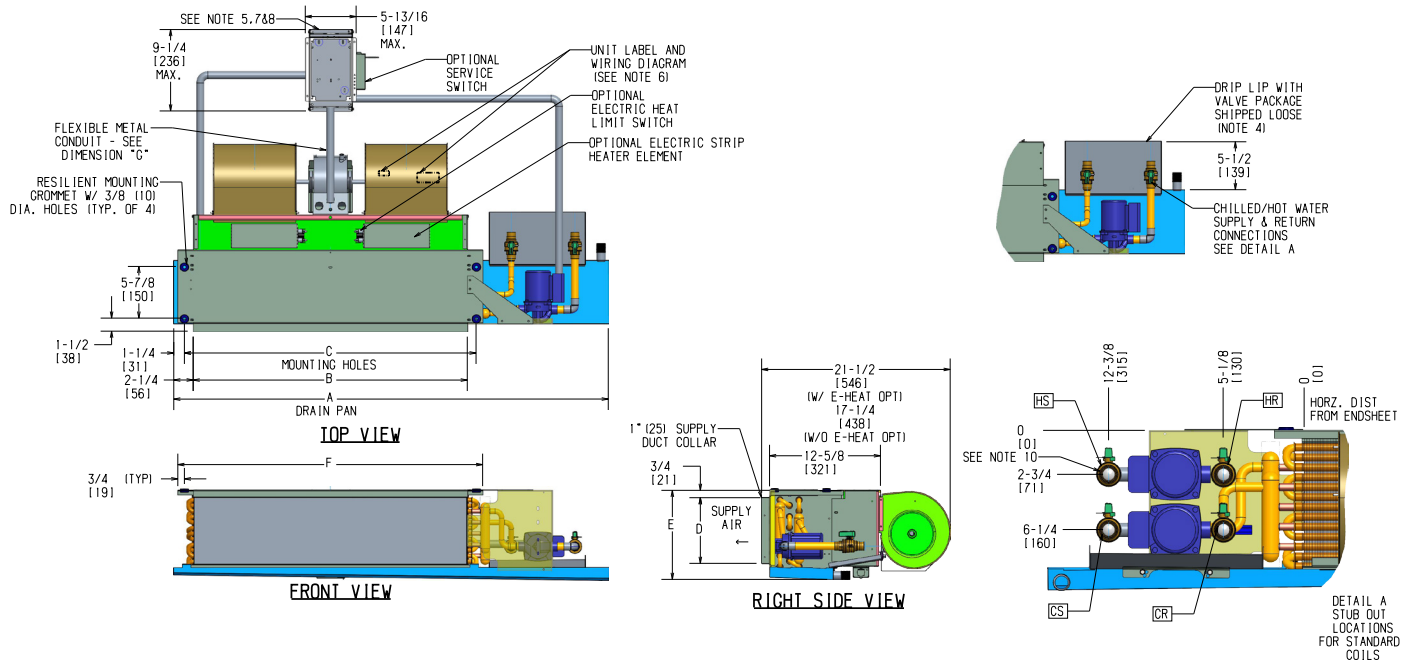
Unit Model	Dimensions - Inches (Millimeters)				Quantity/Unit	
	A	B	C	D	Blower	Motor
FSF 02	46 (1168)	22 (559)	23 (584)	17-1/4 (438)	1	1
FSF 03	50 (1270)	26 (699)	27 (686)	21-1/2 (546)	1	1
FSF 04	56 (1422)	32 (813)	33 (838)	26 (660)	2	1
FSF 06	66 (1676)	42 (1067)	43 (1092)	39-1/4 (997)	2	1
FSF 08	68 (1727)	44 (1118)	45 (1143)	39-1/4 (997)	2	1
FSF 10	82 (2083)	58 (1473)	59 (1499)	52-1/2 (1334)	4	2
FSF 12	90 (2286)	66 (1676)	67 (1702)	61-1/4 (1556)	4	2

- NOTES:**
1. RH coil with 2P shown LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Control box size and position may vary (consult factory).
  5. Position may vary.
  6. Service access is located on the front of the control box.
  7. Knockouts on the bottom and side of the control box for incoming power connections.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

### Submittal Data, Cont'd.

#### CHF - SureFlow Horizontal Hideaway with Plenum



Unit Model	Dimensions - Inches (Millimeters)							Quantity/Unit	
	A	B	C	D	E	F	G	Blower	Motor
CHF 02	34-1/2 (876)	16 (406)	18-1/4 (464)	6-1/4 (159)	8-3/4 (222)	19-3/4 (502)	38 (965)	1	1
CHF 03	38-1/2 (978)	20 (508)	22-1/4 (565)	6-1/4 (159)	8-3/4 (222)	23-3/4 (603)	38 (965)	1	1
CHF 04	44-1/2 (1130)	26 (660)	28-1/4 (718)	6-1/4 (159)	8-3/4 (222)	29-3/4 (756)	38 (965)	2	1
CHF 06	49-1/2 (1257)	31 (787)	33-1/4 (865)	7-1/2 (191)	10 (254)	34-3/4 (883)	38 (965)	2	1
CHF 08	56-1/2 (1435)	38 (965)	40-1/4 (1022)	7-1/2 (191)	10 (254)	41-3/4 (1060)	38 (965)	2	1
CHF 10	70-1/2 (1790)	52 (1321)	54-1/4 (1378)	7-1/2 (191)	10 (254)	55-3/4 (1416)	38 (965)	4	2
CHF 12	78-1/2 (1994)	60 (1524)	62-1/4 (1581)	7-1/2 (191)	10 (254)	63-3/4 (1619)	38 (965)	4	2

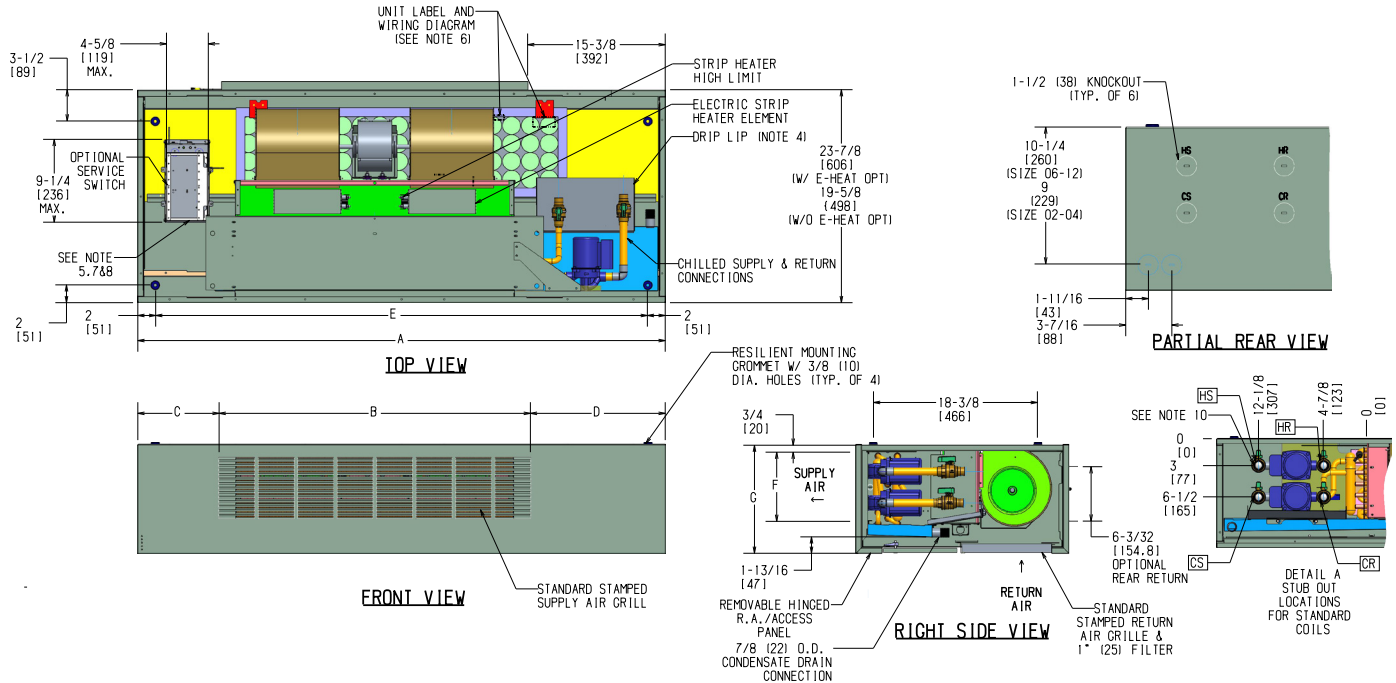
- NOTES:**
1. RH 2P shown. LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Drip lip required when valve PKG is ordered.
  5. Control box size and position may vary (consult factory).
  6. Position may vary.
  7. Service entrance is located on the rear of the control box with knockouts.
  8. Units without service switch use the knockouts on the rear side of the control box.
  9. Typical size 06 unit shown with 1-motor and 2-blwr - refer to table for variation.
  10. Upper Sureflow pump and valves on 4-pipe option only.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.



### Submittal Data, Cont'd.

#### CXF – SureFlow® Horizontal Cabinet



Unit Model	Dimensions - Inches (Millimeters)							Quantity/Unit	
	A	B	C	D	E	F	G	Blower	Motor
CXF 02	44 (1118)	17-1/8 (435)	10-7/16 (265)	16-7/16 (418)	40 (1016)	5-3/4 (146)	11 (279)	1	1
CXF 03	48 (1219)	21-1/2 (546)	10-1/4 (413)	16-1/4 (413)	44 (1118)	5-3/4 (146)	11 (279)	1	1
CXF 04	54 (1372)	25-7/8 (657)	11-1/16 (281)	17-1/16 (433)	50 (1270)	5-3/4 (146)	11 (279)	2	1
CXF 06	59 (1499)	34-5/8 (879)	9-3/16 (233)	15-3/16 (386)	54 (1372)	6-3/4 (171)	12 (305)	2	1
CXF 08	66 (1676)	39 (991)	10-1/2 (267)	16-1/2 (419)	62 (1575)	6-3/4 (171)	12 (305)	2	1
CXF 10	80 (2032)	52-1/8 (1324)	10-15/16 (262)	16-5/16 (430)	76 (1930)	6-3/4 (171)	12 (305)	4	2
CXF 12	88 (2235)	60-7/8 (1546)	10-9/16 (268)	16-9/16 (421)	84 (2134)	6-3/4 (171)	12 (305)	4	2

- NOTES:**
1. RH shown. LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Drip lip required when valve PKG is ordered.
  5. Control box size and position may vary (consult factory).
  6. Position may vary.
  7. Service access is located on the front of the control box.
  8. Knockouts on the bottom and side of the control box for incoming power connections.
  9. Typical size 06 unit shown with 1-motor and 2-blwr - refer to table for variation.
  10. Upper Sureflow pump and valves on 4-pipe option only.
  11. Field connection pipes will be shipped loose with valve packages.

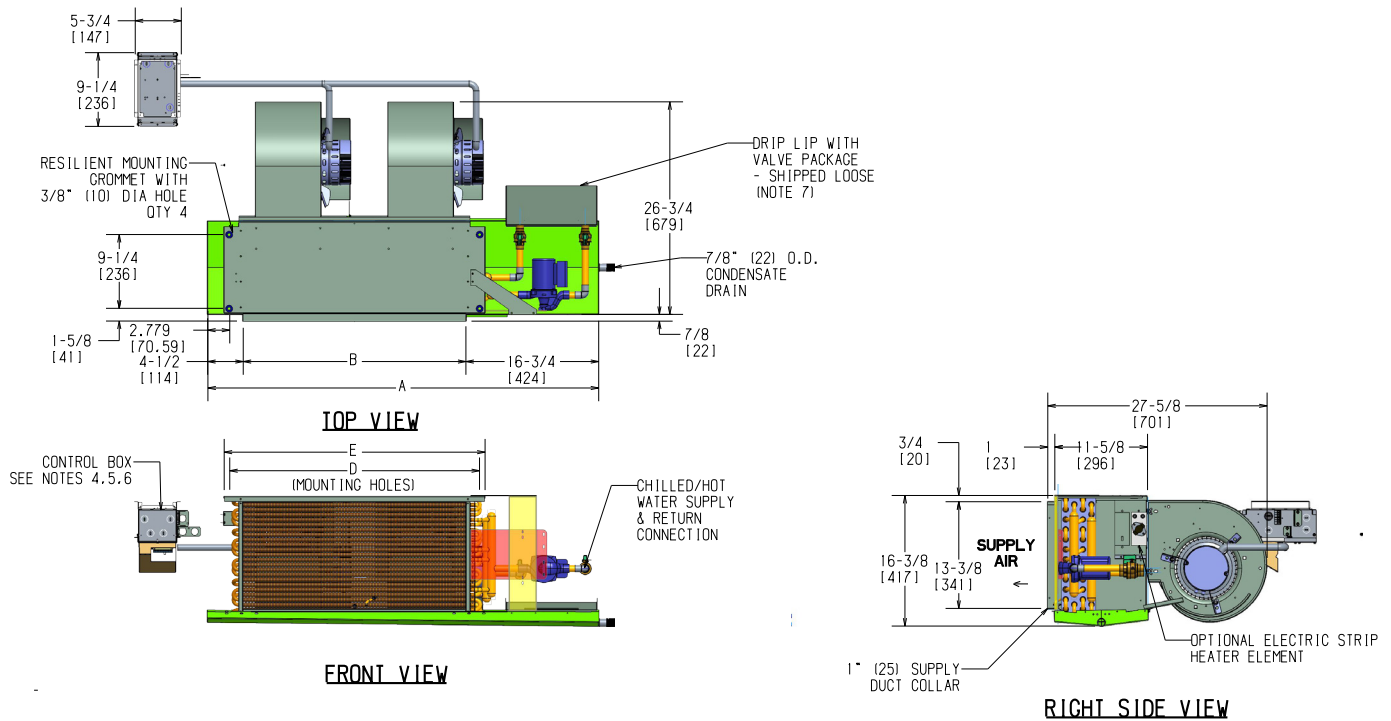
Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.





## Submittal Data, Cont'd.

### HHF – SureFlow® Hi-Performance Hideaway



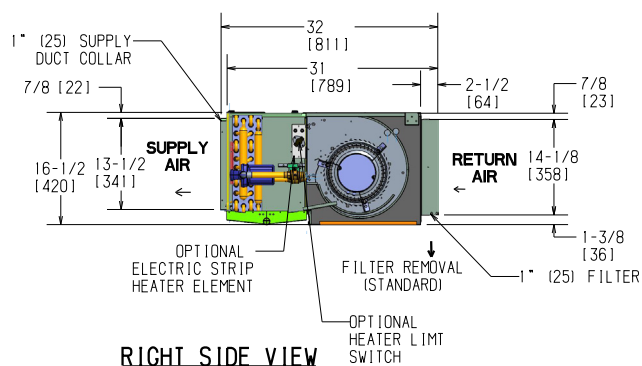
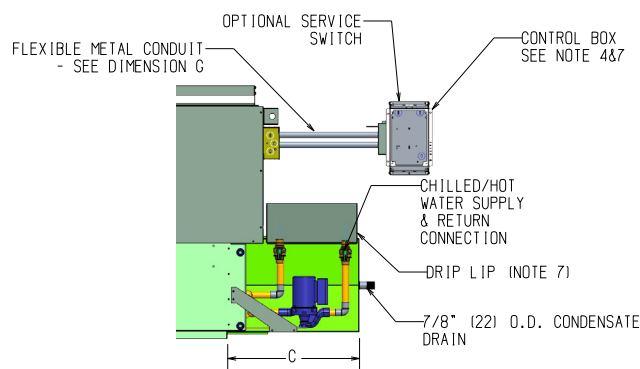
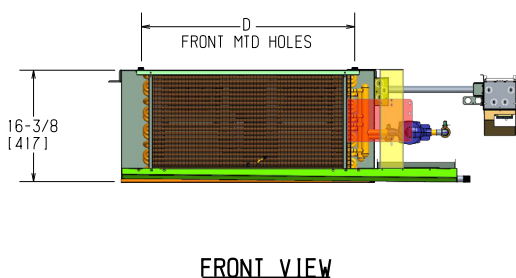
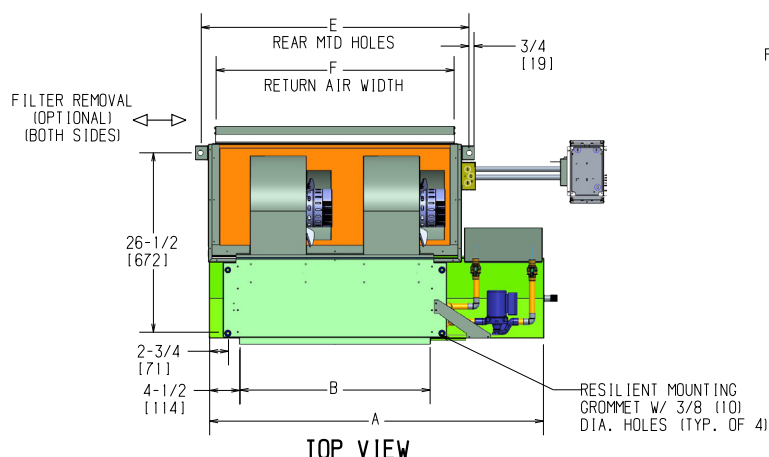
Unit Model	Dimensions - Inches (Millimeters)					Quantity/Unit	
	A	B	C	D	E	Blower	Motor
HHF 06	30-1/2 (775)	14 (356)	13-1/2 (343)	17 (432)	18-3/4 (476)	1	1
HHF 08	35-1/2 (902)	19 (483)	13-1/2 (343)	22 (559)	23-3/4 (603)	1	1
HHF 10	39-1/2 (1003)	23 (584)	14-1/2 (368)	26 (660)	27-3/4 (705)	1	1
HHF 12	44-1/2 (1130)	28 (711)	14-1/2 (368)	31 (787)	32-3/4 (832)	2	2
HHF 14	49-1/2 (1257)	33 (838)	14-1/2 (368)	36 (914)	37-3/4 (959)	2	2
HHF 16	54-1/2 (1384)	38 (965)	13-1/2 (343)	41 (1041)	42-3/4 (1086)	2	2
HHF 18	59-1/2 (1511)	43 (1092)	14-1/2 (368)	46 (1168)	47-3/4 (1213)	2	2
HHF 20	63-1/2 (1613)	47 (1194)	14-1/2 (368)	50 (1270)	51-3/4 (1314)	2	2

- NOTES:**
1. RH coil shown. LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Control box size and position may vary (consult factory).
  5. Service access is located on the front of the control box.
  6. Knockouts on the bottom and side of the control box for incoming power connections.
  7. Drip lip required when valve package is ordered.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

### Submittal Data, Cont'd.

#### HPF – SureFlow® Hi-Performance Hideaway with Plenum



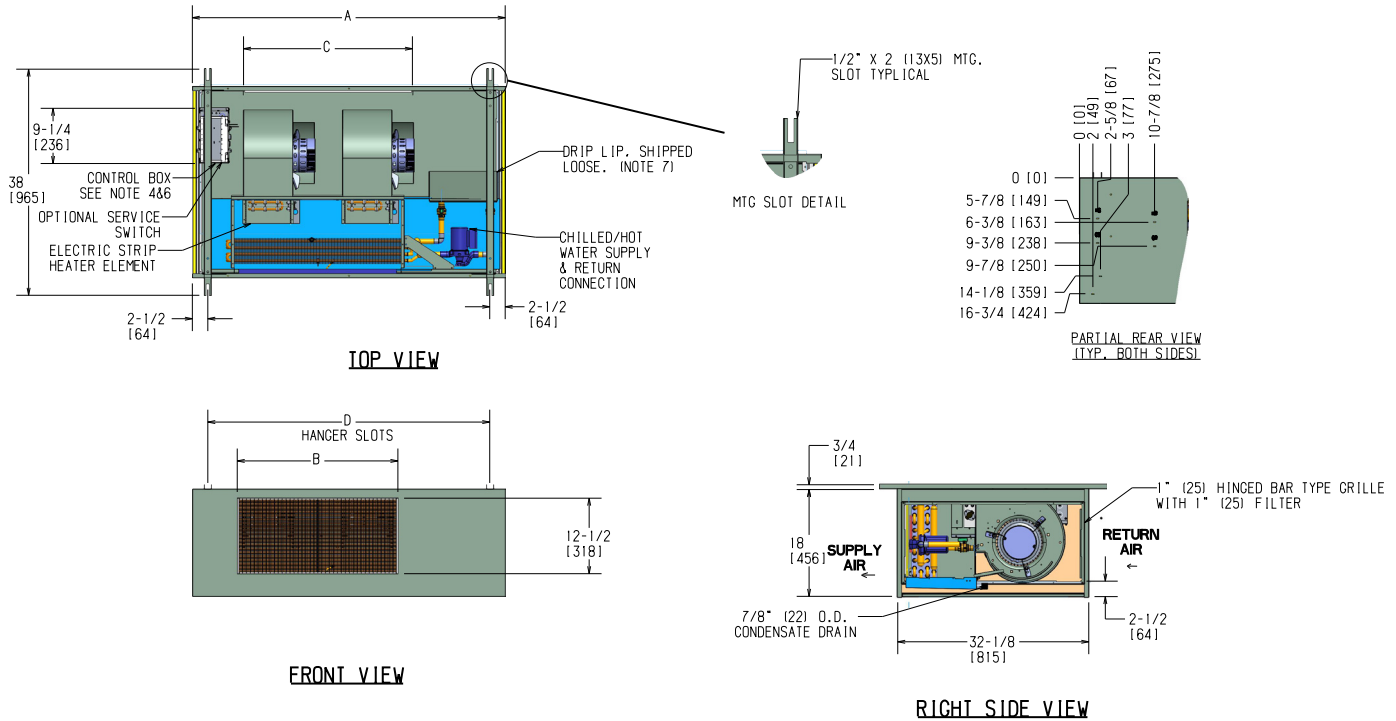
Unit Model	Dimensions - Inches (Millimeters)							Quantity/Unit	
	A	B	C	D	E	F	G	Blower	Motor
HPF 06	35 (889)	14 (356)	16-1/2 (419)	17 (432)	25-1/2 (648)	21 (533)	38 (965)	1	1
HPF 08	40 (1016)	19 (483)	16-1/2 (419)	22 (559)	30-1/2 (775)	26 (660)	38 (965)	1	1
HPF 10	44 (1118)	23 (584)	16-1/2 (419)	26 (660)	34-1/2 (877)	30 (762)	38 (965)	1	1
HPF 12	49 (1245)	28 (711)	16-1/2 (419)	31 (787)	39-1/2 (1004)	35 (889)	38 (965)	2	2
HPF 14	54 (1372)	33 (838)	16-1/2 (419)	36 (914)	44-1/2 (1131)	40 (1016)	38 (965)	2	2
HPF 16	59 (1499)	38 (965)	16-1/2 (419)	41 (1041)	49-1/2 (1258)	45 (1143)	38 (965)	2	2
HPF 18	64 (1626)	43 (1092)	16-1/2 (419)	46 (1168)	54-1/2 (1385)	50 (1270)	38 (965)	2	2
HPF 20	68 (1727)	47 (1194)	16-1/2 (419)	50 (1270)	58-1/2 (1487)	54 (1372)	38 (965)	2	2

- NOTES:
1. RH coil shown. LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Control box size and position may vary (consult factory).
  5. Service access is located on the front of the control box.
  6. Knockouts on the bottom and side of the control box for incoming power connections.
  7. Drip lip required when valve package is ordered.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

## Submittal Data, Cont'd.

### HLF – SureFlow® Hi-Performance Cabinet, Low Static



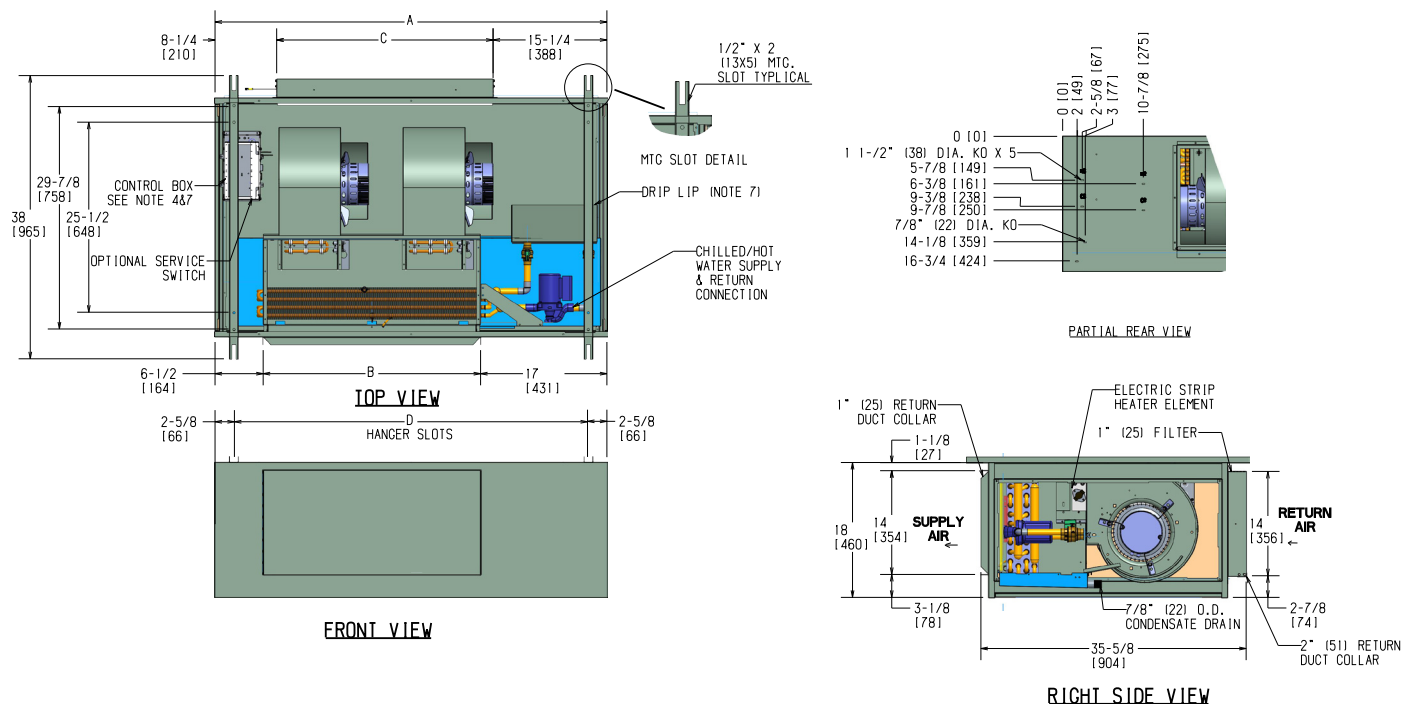
Unit Model	Dimensions - Inches (Millimeters)				Quantity/Unit	
	A	B	C	D	Blower	Motor
42DF 06	38-1/2 (978)	13 (330)	14 (356)	33-1/2 (851)	1	1
42DF 08	43-1/2 (1105)	18 (457)	20 (508)	38-1/2 (978)	1	1
42DF 10	47-1/2 (1207)	22 (558)	24 (610)	42-1/2 (1080)	1	1
42DF 12	52-1/2 (1334)	27 (686)	28 (711)	47-1/2 (1207)	2	2
42DF 14	57-1/2 (1461)	32 (813)	34 (864)	52-1/2 (1334)	2	2
42DF 16	62-1/2 (1588)	37 (940)	38 (965)	57-12/2 (1461)	2	2
42DF 18	67-1/2 (1715)	42 (1067)	44 (1118)	62-1/2 (1588)	2	2
42DF 20	71-1/2 (1816)	46 (1168)	48 (1219)	66-1/2 (1689)	2	2

- NOTES:**
1. RH coil shown. LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Control box size and position may vary (consult factory).
  5. Service access is located on the front of the control box.
  6. Knockouts on the bottom and side of the control box for incoming power connections.
  7. Drip lip required when valve package is ordered.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

### Submittal Data, Cont'd.

#### HXF – SureFlow® Hi-Performance Horizontal Cased



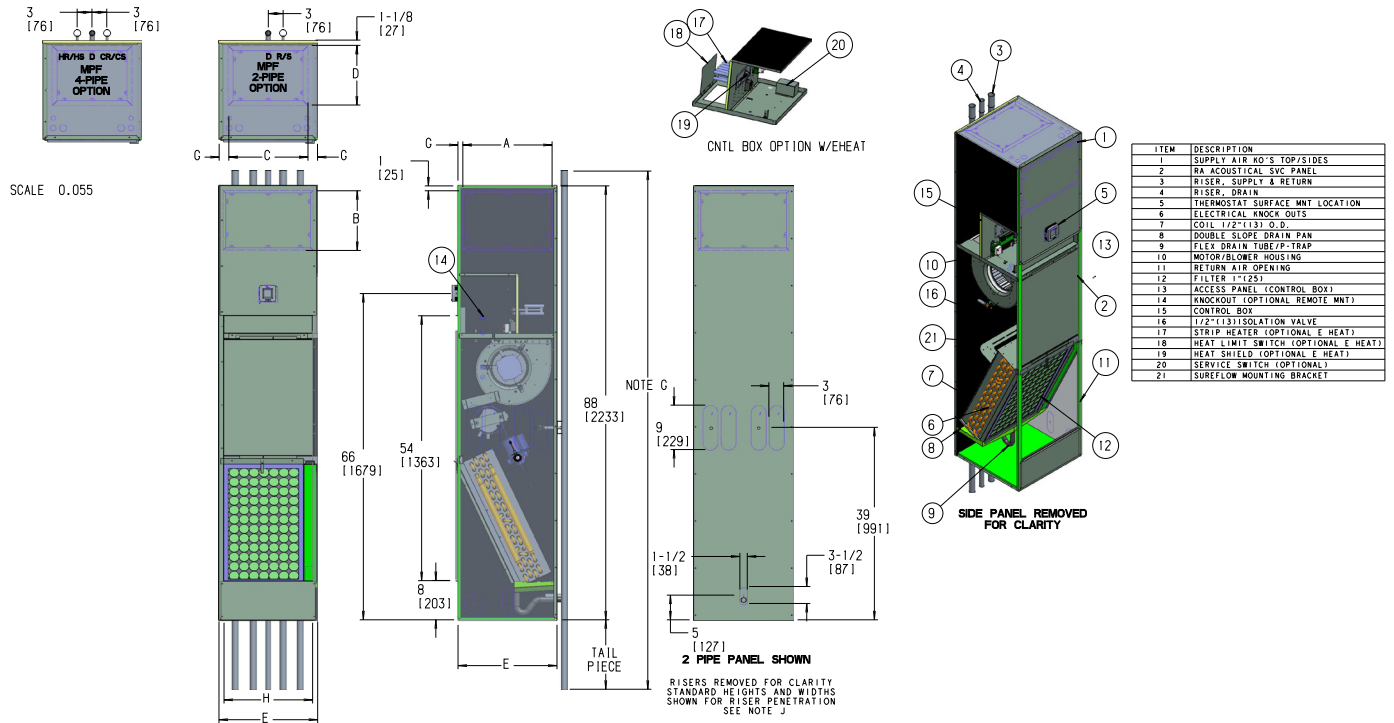
Unit Model	Dimensions - Inches (Millimeters)				Quantity/Unit	
	A	B	C	D	Blower	Motor
42DE 06	38-1/2 (978)	15 (381)	15 (381)	33-1/4 (845)	1	1
42DE 08	43-1/2 (1105)	20 (508)	20 (508)	38-1/4 (972)	1	1
42DE 10	47-1/2 (1207)	24 (610)	24 (610)	42-1/4 (1073)	1	1
42DE 12	52-1/2 (1334)	29 (737)	29 (737)	47-1/4 (1200)	2	2
42DE 14	57-1/2 (1461)	34 (864)	34 (864)	52-1/4 (1327)	2	2
42DE 16	62-1/2 (1588)	39 (991)	39 (991)	57-12/4 (1454)	2	2
42DE 18	67-1/2 (1715)	44 (1118)	44 (1118)	62-1/4 (1581)	2	2
42DE 20	71-1/2 (1816)	48 (1219)	48 (1219)	66-1/4 (1683)	2	2

- NOTES:**
1. RH coil shown. LH opposite.
  2. All dimension are +/- .25" (6). Drawing not to scale.
  3. Product specifications are subject to change without notice.
  4. Control box size and position may vary (consult factory).
  5. Service access is located on the front of the control box.
  6. Knockouts on the bottom and side of the control box for incoming power connections.
  7. Drip lip required when valve package is ordered.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

### Submittal Data, Cont'd.

#### MPF – SureFlow® Modular Hi-Rise Unit



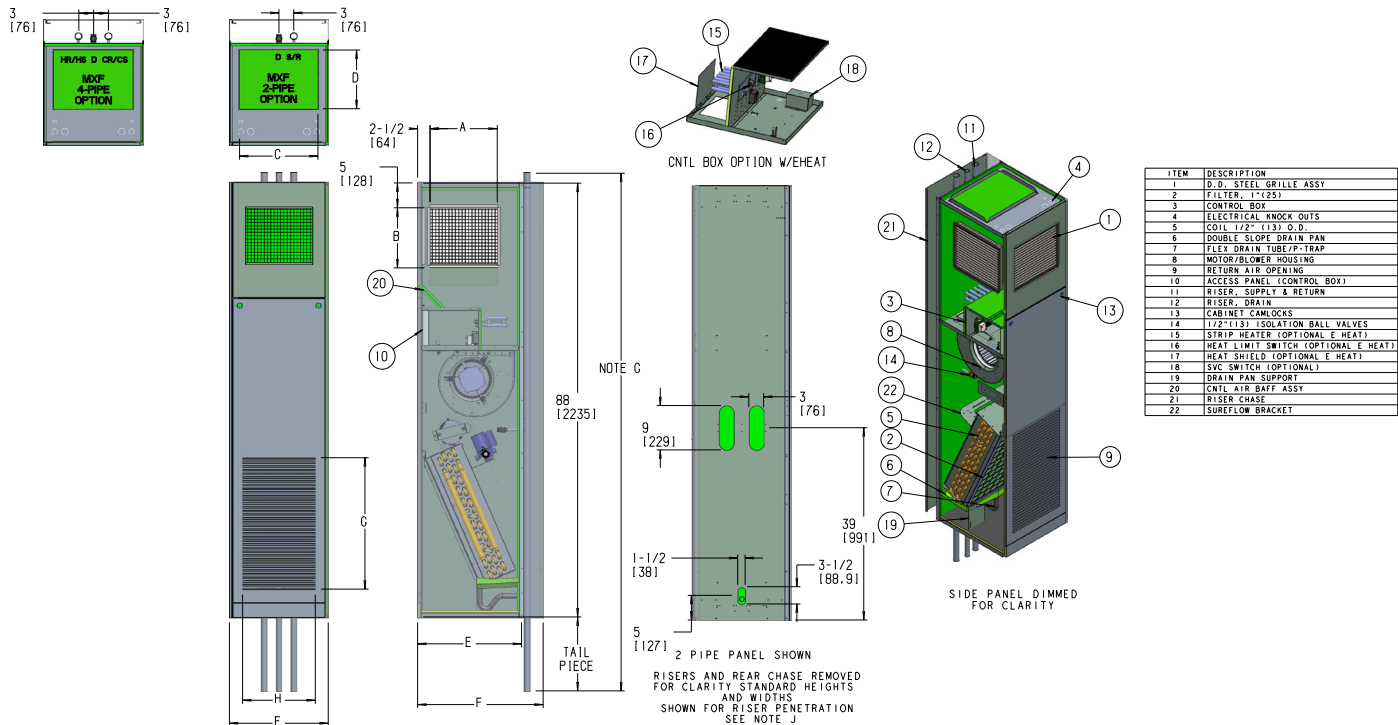
Unit Model	Dimensions - Inches (Millimeters)													
	Single Supply			Double Supply			Top Supply			Dimensions				Filter Size
	A	B	Size	A	B	Size	C	D	Size	E	F	G	H	
M*F 03	14 (356)	12 (305)	14X12	14 (356)	6 (152)	14X6	14 (356)	10 (245)	14X10	17 (432)	1-1/2 (38)	1-1/2 (38)	14 (356)	12-1/2 X 24-1/4 X 1 (318 X 616 X 25)
M*F 04	14 (356)	12 (305)	14X12	14 (356)	6 (152)	14X6	14 (356)	10 (245)	14X10	17 (432)	1 1-1/2 (38)-	1-1/2 (38)	14 (356)	12-1/2 X 24-1/4 X 1 (318 X 616 X 25)
M*F 06	18 (457)	12 (254)	18X12	18 (457)	6 (152)	18X6	16 (406)	12 (305)	16X12	20 (508)	1 (25)	2 (51)	18 (457)	16-1/4 X 26-3/4 X 1(413 X 679 X 25)
M*F 08	18 (457)	12 (305)	18X12	18 (457)	6 (152)	18X6	16 (406)	12 (305)	16X12	20 (508)	1 (25)	2 (51)	18 (457)	16-1/4 X 26-3/4 X 1(413 X 679 X 25)
M*F 10	22 (559)	16 (406)	22X16	22 (559)	8 (203)	22X8	18 (457)	16 (406)	18X16	24 (610)	1 (25)	3 (76)	22 (559)	20-1/2 X 29-1/4 X 1(521 X 743 X 25)
M*F 12	22 (559)	16 (406)	22X16	22 (559)	8 (203)	22X8	18 (457)	16 (406)	18X16	24 (610)	1 (25)	3 (76)	22 (559)	20-1/2 X 29-1/4 X 1(521 X 743 X 25)

- NOTES:
- Unit galv steel with 16 GA fan deck.
  - All riser insulated.
  - Thermostats shipped loose for field installation.
  - Risers are factory piped to coil with valves as specified.
  - Blower, motor, valves, coil, and filter are accessible through the return air opening.
  - Unit and cntl box are insulated.
  - Riser length=[(floor to floor) +2" (51)] max riser length =119"(3023) consult riser submittals for specs.
  - Max riser diam is 2-1/2"(64). If larger diameters are required, consul the factory.
  - Expansion loops in hot water heating circuits as required.
  - Slots provided in the back panel for coil connection to permit expansion and contraction of risers. Coil connections to be at center of the slots.
  - See unit arrangements for supply and return air orientation.
  - Dimensions are in inches, dim in ( ) are in mm.
  - Risers chase available see I100-90047874

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

### Submittal Data, Cont'd.

#### MXF – SureFlow® Modular Hi-Rise Cabinet Unit



Unit Model	Dimensions - Inches (Millimeters)													
	Single Supply			Double Supply			Top Supply			Dimensions				Filter Size
	A	B	Size	A	B	Size	C	D	Size	E	F	G	H	
MXF 03	14 (356)	8 (203)	14X8	14 (356)	6 (152)	14X6	14 (356)	10 (245)	14X10	17 (432)	22-1/8 (375)	22-1/8 (562)	14-3/4 (375)	12-1/2 X 24-1/4 X 1 (318 X 616 X 25)
MXF 04	14 (356)	12 (305)	14X12	14 (356)	8 (203)	14X8	14 (356)	10 (245)	14X10	17 (432)	22-1/8 (375)	22-1/8 (562)	14-3/4 (375)	12-1/2 X 24-1/4 X 1 (318 X 616 X 25)
MXF 06	14 (356)	12 (305)	14X12	14 (356)	8 (203)	14X8	16 (406)	12 (305)	16X12	20 (508)	26-5/8 (676)	26-5/8 (676)	17-3/4 (451)	16-1/4 X 26-3/4 X 1(413 X 679 X 25)
MXF 08	14 (356)	16 (406)	14X16	14 (356)	10 (254)	14X10	16 (406)	12 (305)	16X12	20 (508)	26-5/8 (676)	26-5/8 (676)	17-3/4 (451)	16-1/4 X 26-3/4 X 1(413 X 679 X 25)
MXF 10	18 (457)	16 (406)	18X16	14 (356)	12 (305)	14X12	18 (457)	16 (406)	18X16	24 (610)	31-1/8 (791)	31-1/8 (791)	17-3/4 (451)	20-1/2 X 29-1/4 X 1(521 X 743 X 25)
MXF 12	18 (457)	16 (406)	18X16	14 (356)	12 (305)	14X12	18 (457)	16 (406)	18X16	24 (610)	31-1/8 (791)	31-1/8 (791)	17-3/4 (451)	20-1/2 X 29-1/4 X 1(521 X 743 X 25)

- NOTES:**
- Unit galv steel with 16 GA fan deck.
  - All riser insulated.
  - Thermostats shipped loose for field installation.
  - Risers are factory piped to coil with valves as specified.
  - Blower, motor, valves, coil, and filter are accessible through the return air opening.
  - Unit and cntl box are insulated.
  - Riser length=[(floor to floor) + 2" (51)] max riser length =119" (3023) consult riser submittals for specs.
  - Max riser diam is 2-1/2" (64). If larger diameters are required, consul the factory.
  - Expansion loops in hot water heating circuits as required.
  - Slots provided in the back panel for coil connection to permit expansion and contraction of risers. Coil connections to be at center of the slots.
  - See unit arrangements for supply and return air orientation.
  - Dimensions are in inches, dim in ( ) are in mm.

Drawing is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for submittal drawings.

### Weights

#### Shipping Weight Calculations

Unit Series	Unit Weight	02	03	04	06	08	10	12	14	16	18	20
Vertical Series	FHF 2-Pipe	71	86	96	118	121	146	176	–	–	–	–
	FHF 4-Pipe	77	92	102	124	127	152	182	–	–	–	–
	FXF 2-Pipe	95	101	112	140	143	175	198	–	–	–	–
	FXF 4-Pipe	101	107	118	146	149	181	204	–	–	–	–
	FSF 2-Pipe	98	104	128	150	150	184	211	–	–	–	–
	FSF 4-Pipe	104	110	134	156	156	190	217	–	–	–	–
Horizontal Series	CHF 2-Pipe	42	45	55	65	70	101	113	–	–	–	–
	CHF 4-Pipe	48	51	61	71	76	107	119	–	–	–	–
	CPF 2-Pipe	61	66	76	88	101	141	160	–	–	–	–
	CPF 4-Pipe	67	72	82	94	107	147	166	–	–	–	–
	CXF 2-Pipe	98	104	134	159	169	218	242	–	–	–	–
	CXF 4-Pipe	104	110	140	165	175	224	248	–	–	–	–
	CBF 2-Pipe	121	126	141	156	161	233	247	–	–	–	–
	CBF 4-Pipe	127	132	147	162	167	239	253	–	–	–	–
Hi-Performance Series	HHF 2-Pipe	–	–	–	79	92	104	125	136	143	158	168
	HHF 4-Pipe	–	–	–	85	98	110	131	142	149	164	174
	HPF 2-Pipe	–	–	–	100	113	156	177	182	186	203	228
	HPF 4-Pipe	–	–	–	106	119	162	183	188	192	209	234
	HXF 2-Pipe	–	–	–	156	166	176	203	213	223	238	243
	HXF 4-Pipe	–	–	–	162	172	182	209	219	229	244	249
	HLF 2-Pipe	–	–	–	163	173	183	210	223	233	248	263
	HLF 4-Pipe	–	–	–	169	179	189	216	229	239	254	269
Modular Hi-Rise Series	MPF 2-Pipe	–	186	231	246	266	286	311	–	–	–	–
	MPF 4-Pipe	–	192	237	252	272	292	317	–	–	–	–
	MXF 2-Pipe	–	208	253	268	292	317	342	–	–	–	–
	MXF 4-Pipe	–	214	259	274	298	323	348	–	–	–	–

**NOTES:** Above are approximate shipping weights that might vary based on the number of coils and accessories selected. For approximate operating weights, calculate the weight of the water from the table below and add the weights to the shipping weight.

Unit Series	Unit Weight	02	03	04	06	08	10	12	14	16	18	20
Vertical Series	FHF, FXF, FSF	0.8	0.9	1.2	1.6	1.9	2.6	3.0	–	–	–	–
Horizontal Series	CHF, CPF, CXF, CBF	0.8	0.9	1.2	1.6	1.9	2.6	3.0	–	–	–	–
Hi-Performance Series	HHF, HPF, HXF, HLF	–	–	–	1.6	2.0	2.3	2.8	3.1	3.5	4.0	4.3
Modular Hi-Rise Series	MPF, MXF	–	1.8	1.8	2.7	2.7	3.5	2.5	–	–	–	–

**NOTES:** Above weights are per row. Multiply the number of rows by the above weights and add it to the shipping weights from the table above to get to the operating weights.

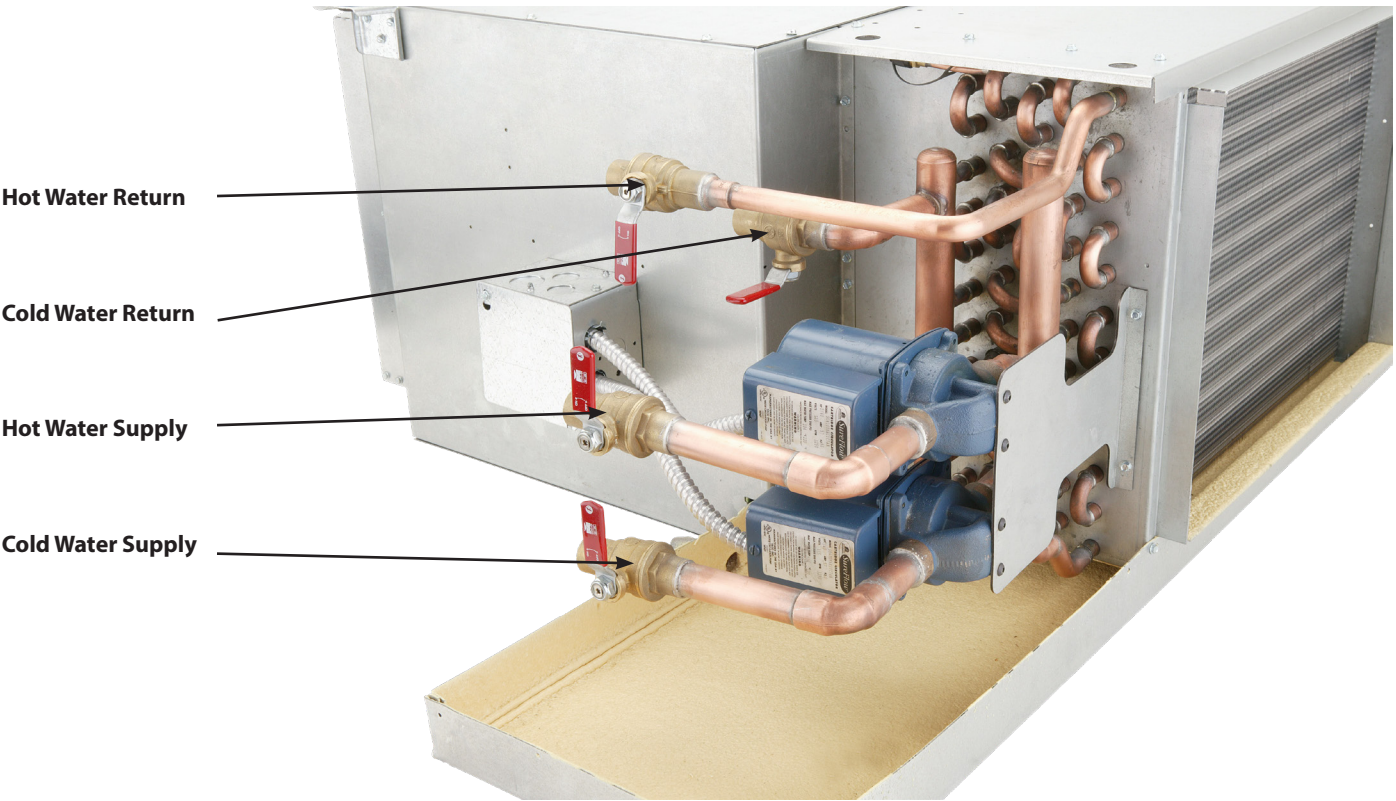


Piping Connections

Water Supply Piping Connections

Unit Series	Unit Weight		02	03	04	06	08	10	12	14	16	18	20
Vertical Series	FHF, FXF,FSF	Supply	7/8" OD							-	-	-	-
		Return	7/8" OD							-	-	-	-
		Condensate	3/4" MPT Connection							-	-	-	-
Horizontal Series	CHF, CPF, CXF, CBF	Supply	7/8" OD							-	-	-	-
		Return	7/8" OD							-	-	-	-
		Condensate	7/8" OD							-	-	-	-
Hi-Performance Series	HHF, HPF, HXF, HLF	Supply	-	-	-	7/8" OD							
		Return	-	-	-	7/8" OD							
		Condensate	-	-	-	7/8" OD							
Modular Hi-Rise Series	MPF, MXF, MMF, MSF	Supply	-	7/8" OD						-	-	-	-
		Return	-	7/8" OD						-	-	-	-
		Condensate	-	7/8" OD						-	-	-	-

NOTES: 1. 5/8" OD equals 1/2" Nominal Pipe Size.  
2. 7/8" OD equals 3/4" Nominal Pipe Size.





This page intentionally left blank.

This page intentionally left blank.

This page intentionally left blank.

# SureFlow® Series

## FAN COIL TECHNICAL CATALOG

---



Contact your local IEC Sales Representative for further details and pricing applicable to this product. Visit our website ([iec-okc.com](http://iec-okc.com)) to find your local IEC Sales Rep.

IEC Part Number: I100-90003255

CA-230 Revision 5 (8/2023)

©2011-2023 International Environmental Corporation (IEC)



5000 W. I-40 Service Rd.  
Oklahoma City, OK 73128  
P: 405.605.5000  
F: 405.605.5001  
[www.iec-okc.com](http://www.iec-okc.com)