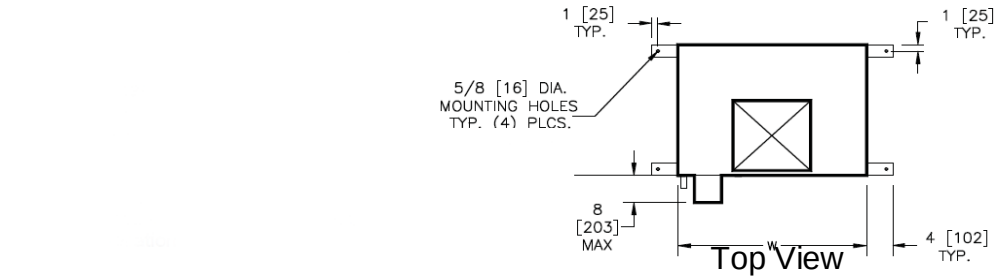
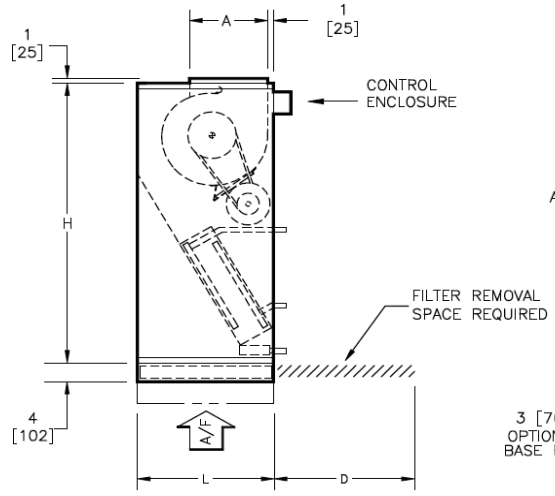
TBL

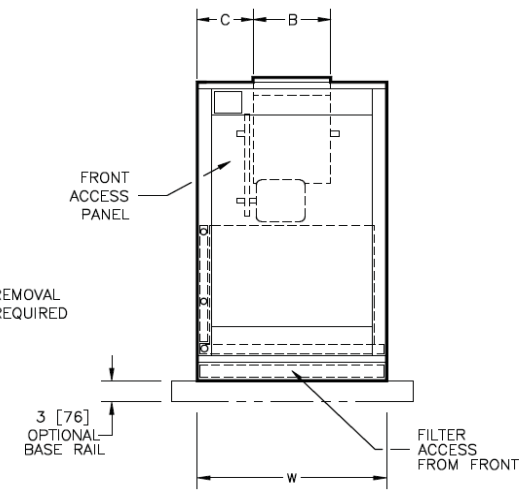
Belt Drive Bottom Return Blower Coil



Top View



Side View

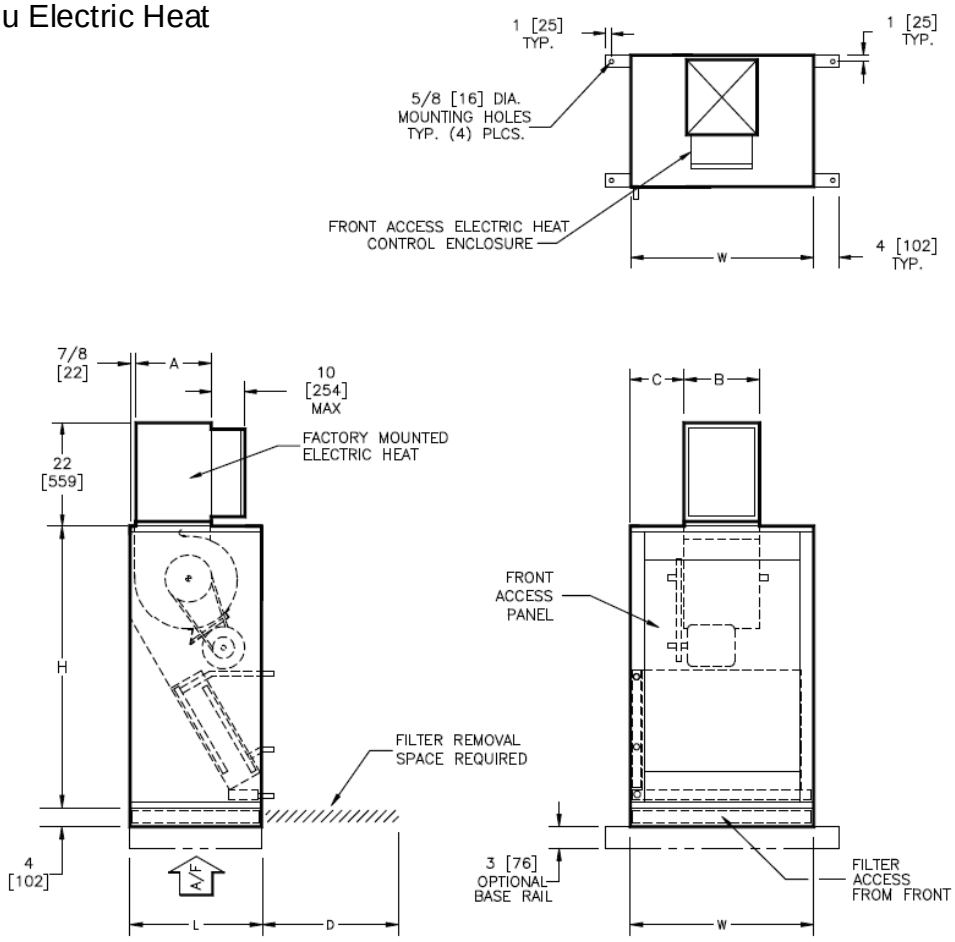


Front View

Left hand unit shown. All dimensions are inches [millimeters].

Unit Size	Filter Size	Quantity	H	W	L	A	B	C	D
08	16x20x2 [406x508x51]	1	46 [1168]	26 [660]	19 [483]	6 ½ [165]	6 7/8 [175]	9 9/16 [243]	16 [406]
12	20x20x2 [508x508x51]	1	46 [1168]	26 [660]	21 [533]	7 ½ [190]	8 ¼ [210]	8 7/8 [225]	20 [508]
16	24x24x2 [610x610x51]	1	54 [1372]	29 [737]	25 [635]	7 ½ [190]	10 ¼ [260]	9 3/8 [238]	24 [610]
20	24x24x2 [610x610x51]	1	54 [1372]	29 [737]	28 [711]	11 3/8 [289]	13 ¼ [337]	7 7/8 [200]	24 [610]
25	24x24x2 [610x610x51]	1 each	60 [1524]	39 [991]	28 [711]	13 1/2 [343]	12 7/8 [327]	13 1/16 [332]	24 [610]
30	12x24x2 [305x610x51]	1 each	60 [1524]	39 [991]	28 [711]	15 1/4 [387]	15 [381]	12 [305]	24 [610]

☐ TBL with Blow Thru Electric Heat

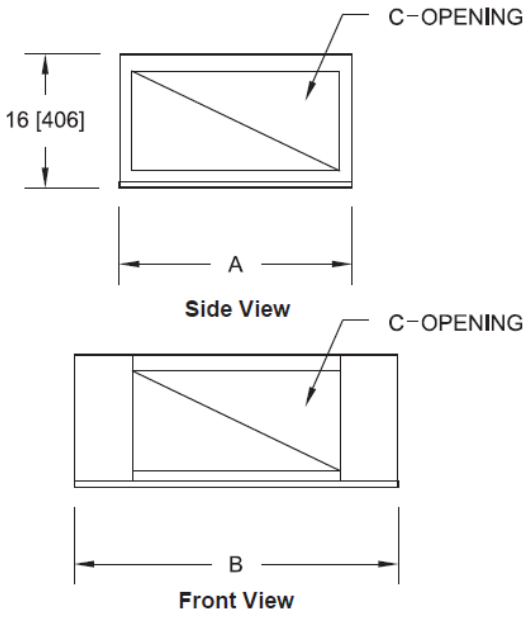


Left hand unit shown.

Unit Size	Filter Size	Quantity	H	W	L	A	B	C	D
08	16x20x2 [406x508x51]	1	46 [1168]	26 [660]	19 [483]	8 7/8 [226]	11 7/8 [302]	7 1/16 [180]	16 [406]
12	20x20x2 [508x508x51]	1	46 [1168]	26 [660]	21 [533]	8 7/8 [226]	11 7/8 [302]	7 1/16 [180]	20 [508]
16	24x24x2 [610x610x51]	1	54 [1372]	29 [737]	25 [635]	10 7/8 [277]	12 [305]	8 ½ [216]	24 [610]
20	24x24x2 [610x610x51]	1	54 [1372]	29 [737]	28 [711]	13 7/8 [353]	14 [356]	7 ½ [190]	24 [610]
25	24x24x2 [610x610x51]	1 each	60 [1524]	39 [991]	28 [711]	13 7/8 [353]	16 5/8 [422]	11 1/16 [281]	24 [610]
30	12x24x2 [305x610x51]	1 each	60 [1524]	39 [991]	28 [711]	15 5/8 [397]	16 5/8 [422]	11 1/16 [281]	24 [610]

All dimensions are inches [millimeters].

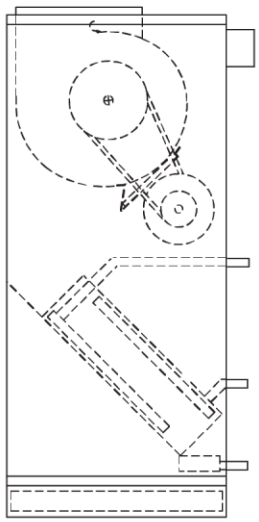
☐ Return Plenum



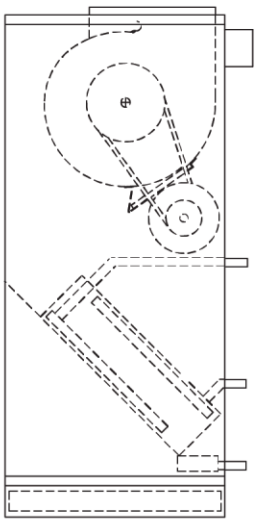
Unit Size	A	B	C-Opening
08	19 [483]	26 [660]	9x16 [229x406]
12	21 [533]	26 [660]	9x18 [229x457]
16	25 [635]	29 [737]	9x22 [229x559]
20	28 [711]	29 [737]	12x22 [305x559]
25	28 [711]	39 [991]	12x25 [305x635]
30	28 [711]	39 [991]	12x25 [305x635]

NOTES:
1. Bottom and back panels are fixed.
2. Both side panels are removable and can be used to cover the front opening.

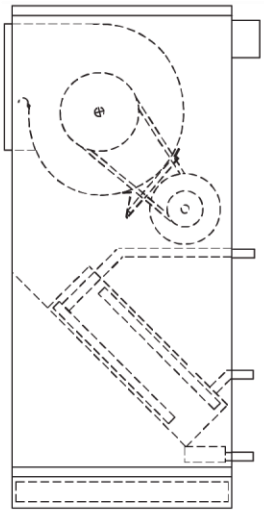
☐ TBL Unit Discharge Options



Reverse Rotation Arrangement 1



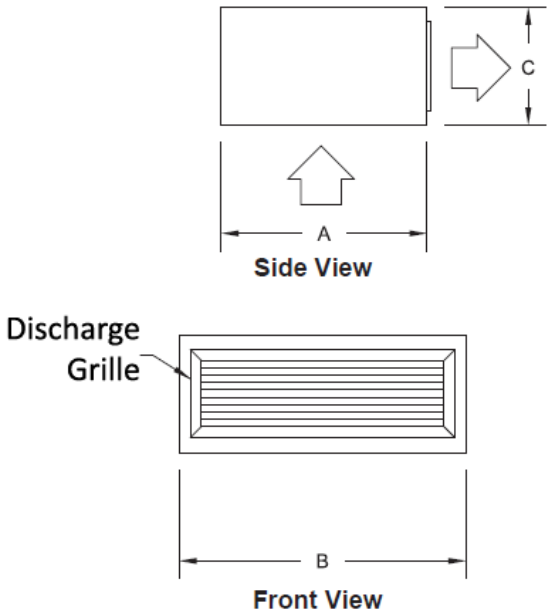
Standard Rotation Arrangement 2



Horizontal Rear Discharge Arrangement 7

All dimensions are inches [millimeters].

☐ Discharge Plenum with Double Deflection Grille

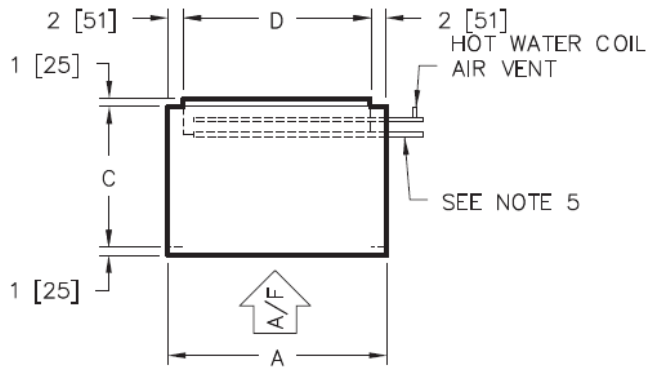


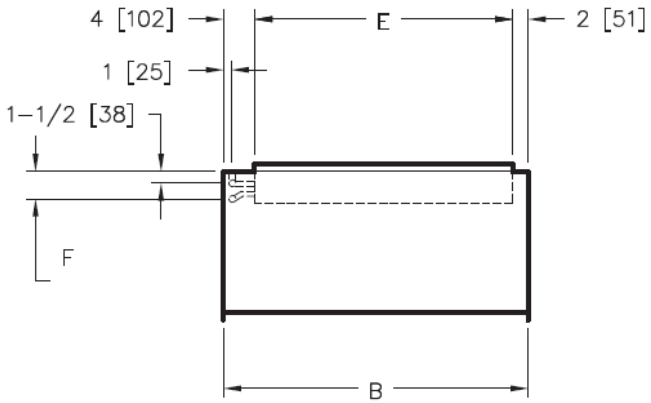
Unit Size	A	B	C	Supply Grille
08	19 [483]	26 [660]	12 [305]	18x8 [457x203]
12	21 [533]	26 [660]	12 [305]	22x8 [559x203]
16	25 [635]	29 [737]	14 [356]	24x10 [610x254]
20	28 [711]	29 [737]	16 [406]	24x12 [610x305]
25	28 [711]	39 [991]	16 [406]	30x12 [762x305]
30	28 [711]	39 [991]	16 [406]	36x12 [914x305]

NOTES:
1. Discharge plenum shipped attached to unit.
2. Discharge plenum includes double deflection discharge grille mounted on front as shown.
3. Discharge plenum may not be combined with blow through electric heat.

All dimensions are inches [millimeters].

☐ Discharge Section with Heating Coil





Unit Size	A	B	C	D	E	F				Weight Lbs [kg]
						Hot Water		Steam		
						1 Row	2 Row	1 Row	2 Row	
08	19 [483]	26 [660]	12 [305]	15 [381]	20 [508]	2 ¾ [70]	2 ¾ [70]	2 ¾ [70]	2 ¾ [70]	35 [16]
12	21 [533]	26 [660]	12 [305]	17 [432]	20 [508]	2 ¾ [70]	2 ¾ [70]	2 ¾ [70]	2 ¾ [70]	37 [17]
16	25 [635]	29 [737]	14 [356]	21 [533]	23 [584]	2 ¾ [70]	3 [76]	2 ¾ [70]	3 ¼ [83]	49 [22]
20	28 [711]	29 [737]	14 [356]	24 [610]	23 [584]	2 ¾ [70]	3 [76]	3 ¼ [83]	3 ¼ [83]	53 [24]
25	28 [711]	39 [991]	18 [457]	24 [610]	33 [838]	2 ¾ [70]	3 [76]	3 ¼ [83]	3 ¾ [95]	76 [35]
30	28 [711]	39 [991]	18 [457]	24 [610]	33 [838]	3 [76]	3 ¼ [83]	3 ¾ [95]	3 ¾ [95]	80 [36]

Coil Connection Sizes

Unit Size	Hot Water		Steam			
	1 Row	2 Row	1 Row		2 Row	
			Supply	Condensate	Supply	Condensate
08	5/8 [16]	5/8 [16]	1 1/8 [29]	7/8 [22]	1 1/8 [29]	7/8 [22]
12	5/8 [16]	5/8 [16]	1 1/8 [29]	7/8 [22]	1 1/8 [29]	7/8 [22]
16	5/8 [16]	5/8 [16]	1 1/8 [29]	7/8 [22]	1 3/8 [35]	1 1/8 [29]
20	5/8 [16]	5/8 [16]	1 3/8 [35]	1 1/8 [29]	1 3/8 [35]	1 1/8 [29]
25	5/8 [16]	7/8 [22]	1 3/8 [35]	1 1/8 [29]	1 5/8 [41]	1 1/8 [29]
30	7/8 [22]	7/8 [22]	1 5/8 [41]	1 1/8 [29]	1 5/8 [41]	1 1/8 [29]

NOTES:
1. This section required with 6 row cooling in conjunction with hot water and all steam heating.
2. Weight with 2 row dry coil.
3. Coil connection dimension + 1/2" [13mm].
4. Hot Water Coils: Supply, bottom; Return, top.
5. Steam Coils: Supply, top; Condensate, bottom.
6. Discharge section may not be combined with blow thru electric heat.

All dimensions are inches [millimeters].

Coil

TBL is available with hot water, chilled water, direct expansion (DX), and standard steam coils for specific application. Coils are AHRI certified and labeled.

Nominal Coil Connection Sizes

UNIT SIZE	COIL TYPE											
	WATER				STEAM				REFRIGERANT			
	1 ROW	2 ROW	4 ROW	6 ROW	1 ROW		2 ROW		4 ROW		6 ROW	
					STM.	COND.	STM.	COND.	LIQ.	SUCT.	LIQ.	SUCT.
08	5/8" [16]	5/8" [16]	7/8" [22]	7/8" [22]	1 1/8" [29]	7/8" [22]	1 1/8" [29]	7/8" [22]	5/8" [16]	5/8" [16]	5/8" [16]	5/8" [16]
12	5/8" [16]	5/8" [16]	7/8" [22]	7/8" [22]	1 1/8" [29]	7/8" [22]	1 1/8" [29]	7/8" [22]	5/8" [16]	7/8" [22]	5/8" [16]	7/8" [22]
16	5/8" [16]	5/8" [16]	7/8" [22]	1 1/8" [29]	1 1/8" [29]	7/8" [22]	1 3/8" [35]	1 1/8" [29]	5/8" [16]	7/8" [22]	5/8" [16]	7/8" [22]
20	5/8" [16]	5/8" [16]	7/8" [22]	1 1/8" [29]	1 3/8" [35]	1 1/8" [29]	1 3/8" [35]	1 1/8" [29]	5/8" [16]	7/8" [22]	5/8" [16]	7/8" [22]
25	5/8" [16]	7/8" [22]	1 1/8" [29]	1 3/8" [35]	1 3/8" [35]	1 1/8" [29]	1 5/8" [41]	1 1/8" [29]	5/8" [16]	7/8" [22]	5/8" [16]	1 1/8" [29]
30	7/8" [22]	7/8" [22]	1 1/8" [29]	1 3/8" [35]	1 5/8" [41]	1 1/8" [29]	1 5/8" [41]	1 1/8" [29]	5/8" [16]	1 1/8" [29]	5/8" [16]	1 1/8" [29]

All dimensions are inches [millimeters].

NOTES:

1.Water coils are based on Standard GPM Circuiting. Consult Titus for applications requiring special circuiting.
2.Refrigerant coil connection sizes for single circuit coils and may vary with application. Contact Titus for double circuit coils.
3. All dimensional data is outside diameter (O.D.),.

Electric Heat

UNIT VOLTAGE AND PHASE			ELECTRIC HEAT KW LIMITS											
			Unit Size											
			08		12		16		20		25		30	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Single Phase	115	kW	3	5	3	5	3	5	4	5				
		AMPs	26.1	43.5	26.1	43.5	26.1	43.5	34.8	43.5				
	208	kW	3	9	3	9	3	9	4	9	6	9	6	9
		AMPs	14.4	43.3	14.4	43.3	14.4	43.3	19.2	43.3	28.8	43.3	28.8	43.3
	230	kW	3	11	3	11	3	11	4	11	6	11	6	11
		AMPs	13.0	47.8	13.0	47.8	13.0	47.8	17.4	47.8	26.1	47.8	26.1	47.8
	277	kW	3	13	3	13	3	13	4	13	6	13	6	13
		AMPs	10.8	46.9	10.8	46.9	10.8	46.9	14.4	46.9	21.7	46.9	21.7	46.9
Three Phase	208	kW	3	13	3	16	3	16	4	16	4	16	4	16
		AMPs	8.3	36.1	8.3	44.4	8.3	44.4	11.1	44.4	11.1	44.4	11.1	44.4
	230	kW	3	13	3	18	3	18	4	18	4	18	4	18
		AMPs	7.5	32.6	7.5	45.2	7.5	45.2	10.0	45.2	10.0	45.2	10.0	45.2
	460	kW	3	13	3	20	3	20	4	26	4	26	4	26
		AMPs	3.8	16.3	3.8	25.1	3.8	25.1	5.0	32.6	5.0	32.6	5.0	32.6
	575	kW	3	13	3	20	3	20	4	26	4	26	4	26
		AMPs	3.0	13.1	3.0	20.1	3.0	20.1	4.0	26.1	4.0	26.1	4.0	26.1

NOTES:

1. Electric heat sections may be shipped separate for field installation to unit..
2.Standard heater kW limits are maximum per unit size and voltage.
3.Heater should be sized for a maximum leaving air temperature of 104° F.

Unit Weight Data

COMPONENT		UNIT SIZE					
		08	12	16	20	25	30
BASIC UNIT		125 [57]	131 [60]	160 [73]	167 [76]	231 [105]	236 [107]
DAMPER SECTION		42 [19]	53 [24]	59 [27]	73 [33]	91 [41]	91 [41]
BLOW THRU ELECTRIC HEATER		42 [19]	42 [19]	42 [19]	50 [23]	55 [25]	55 [25]
DISCHARGE COIL SECTION		35 [16]	37 [17]	49 [22]	53 [24]	76 [35]	80 [36]
SUPPLY PLENUM		22 [10]	26 [12]	35 [16]	38 [17]	76 [35]	76 [35]
RETURN PLENUM (ACB)		29 [13]	30 [14]	33 [15]	35 [16]	44 [20]	44 [20]
COIL ROWS	1 ROW - DRY	12 [5]	14 [6]	17 [8]	21 [10]	23 [10]	27 [12]
	1 ROW - WET	14 [6]	17 [8]	21 [10]	26 [12]	28 [13]	34 [15]
	2 ROW - DRY	17 [8]	21 [10]	26 [12]	32 [15]	37 [17]	43 [20]
	2 ROW - WET	21 [10]	27 [12]	33 [15]	42 [19]	48 [22]	56 [25]
	4 ROW - DRY	29 [13]	36 [16]	45 [20]	57 [26]	65 [30]	76 [35]
	4 ROW - WET	37 [17]	47 [21]	58 [26]	75 [34]	86 [39]	101 [46]
	6 ROW - DRY	40 [18]	51 [23]	64 [29]	81 [37]	93 [42]	109 [50]
	6 ROW - WET	52 [24]	66 [30]	84 [38]	109 [50]	124 [56]	146 [66]

NOTES:

1.Unit weight data is shipping weight in pounds [kilograms].

2.Discharge section includes a 2 row coil.

STANDARD FEATURES

Construction

- Galvanized steel cabinet construction, minimum 18 gauge
- 1" thick 1.6 lb/ft$_3$ scrim reinforced foil faced insulation, glued, taped and pinned in place
- 1" supply duct collars
- Gasketed, removable access panel sized for easy handling
- Galvanized steel drain pan with 1 1/8" ODM copper pipe outlet
- Left and right hand arrangement

Fan Assembly

- Forward curved (double width, double inlet) fans
- Statically and dynamically balanced
- Solid steel shafting
- Ball bearings with a minimum design average life (L50) of 100,000 hours

Fan Motor and Drive

- NEMA design ODP motors
- 1750 RPM single speed, 60 Hertz
- Single phase motors with inherent thermal protection
- Three phase motors
- Rigid mount adjustable motor base
- Standard cross section "V-belt" drive with 1.2 service factor
- Adjustable pitch motor pulley and fixed pitch blower pulley

Coils

- ARI 410 certified and labeled
- 1/2" O.D. seamless copper tubes
- Collared and corrugated aluminum fins
- Manual air vent plug on all water coils
- 300 PSIG working pressure at 200°F
- Steam coils rated at 15 PSIG maximum
- Copper ODM sweat connections
- 0.016" tube wall on water and evaporator coils
- 0.025" tube wall on steam coils
- High efficiency aluminum fin surface for optimizing heat transfer, pressure drop and carryover

Filters and Filter Rack

- Top access flat filter rack (TBL only)
- Standard size 2" nominal throwaway filters

Electrical

- Fan motor wired and terminated to J-box
- All units ETL listed in compliance with UL/ANSI Standard 1995

OPTIONAL FEATURES

Construction

- Stainless steel drain pan with 1" MPT galvanized pipe outlet
- 1" thick EcoShield Insulation
- External rubber-in-shear or spring type vibration isolators, floor mount
- Fan discharge arrangements
- Discharge plenum w/ dbl. deflection discharge grille
- Access panel with lift and turn fasteners
- Double wall access panel w/lift and turn fasteners
- Return plenum with removable panels (ACB only)
- Base rails with rigging slots factory assembled and installed

Fan Motor and Drive

- TEFC motors
- High efficiency motors

Coils

- 4 and 6 row chilled water or R22 DX coils
- 1 and 2 row hot water coils
- 1 and 2 row hot water or standard steam coils in discharge coil section only
- Hot water coil in preheat or reheat position
- Stainless steel coil casings
- 0.025" tube wall on water and evaporator coils
- Auto air vents on water coils

Filters and Filter Rack

- 2" pleated filter
- Spare throwaway or pleated filters

Electrical

- Motor wiring in conduit
- Motor starter (contactor with overload for three phase; contactor for single phase), factory installed (mounted and wired)
- Door interlocking disconnect switch (non-fused) (with main fusing)
- Hand off auto switch (HOA)
- Main fusing

Electric Heat Section

- Factory mounted electric heater with single point power connection, ETL listed as an assembly (see page 9)