

STANDARD FEATURES

Construction

- Modular design facilitates retrofit
- Galvanized steel cabinet construction
- 1" thick fiberglass insulation, glued and pinned in place
- Gasketed, removable access panels sized for easy handling
- Left and right hand arrangement
- Access panels on all sections

Fan Assembly

- Single forward-curved fan sections
- Statically and dynamically balanced
- Solid steel shafting
- Ball bearings with a minimum design average life (L₅₀) of 100,000 hours
- Fan decks with internal vibration isolation

Fan Motor and Drive

- Single speed ODP motors
- 1750 RPM single speed, 60 Hertz
- Single phase motors with inherent thermal protection
- Three phase motors
- 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
- G90 steel coil casings
- Collared aluminum fins
- Manual air vent plug on all water coils
- 300 PSIG Working Pressure at 200°F
- Copper ODM sweat connections
- 0.016" tube wall on water and evaporator coils
- 0.025" tube wall on steam coils

Filters and Filter Rack

- Hinged side access flat filter rack
- 2" pleated filters (30%)

Electrical

- Fan motor wired and terminated to junction box
- All units cETL listed in compliance with UL/ANSI 1995

Electric Heat Section

- Draw Thru or Blow Thru configurations
- Factory mounted electric heater with single point power connection, ETL listed as an assembly

OPTIONAL FEATURES

Construction

- Double wall (solid or perforated) cabinets
- 304 stainless steel IAQ drain pan with stainless steel male pipe threaded connection
- Fan discharge arrangements
- Scrim reinforced foil faced insulation
- Hinged access panels with lift and turn fasteners
- 4" Base rails with rigging slots factory assembled and installed

Fan Motor and Drive

- Direct drive plug fans with internal rubber-in-shear (RIS) isolation
- TEFC motors
- High efficiency motors
- Two-speed motors with contactors
- Variable frequency drives, factory installed (mounted and wired)
- Motor starter (contactor with overload for three phase; contactor for single phase), factory installed (mounted and wired)
- Return FC and plug fan sections

Coils

- 3, 4, 6 and 8 row chilled water or R22 DX coils
- Up to 4 rows hot water or up to 2 rows standard steam
- Heating coil in preheat or reheat position
- Coil connections opposite handing
- Stainless steel coil casings

- 0.025" tube wall thickness
- Auto air vents

Filters and Filter Rack

- 4" high efficiency pleated filters (65, 85, and 95%)
- Mixing box with filter sections (flat or v-bank filter arrangements)

Inlet Damper Section

- Factory assembled and installed
- Heavy gauge galvanized steel formed blade dampers
- Low leak dampers with extruded vinyl blade seals and flexible metal jamb seals
- Medium and large inlet plenums with v-bank or flat filters
- Parallel blade operation
- Interconnecting damper linkage
- Damper actuator (modulating from 100% OA to 100% RA)

Additional Modules

- Face and bypass with medium and small coils
- Economizer sections
- Discharge plenums
- Access sections
- High efficiency filter sections

Electrical

- Motor wiring in conduit
- Single phase fan control package
- Three phase fan control package
- Door interlocking disconnect switch (non-fused or fused)
- Fusing (main or per stage)
- Hand off auto switch (HOA)
- Frequency inverters
- Electric heat interlock relay
- Relays, transformers, etc.



MQL

Series B

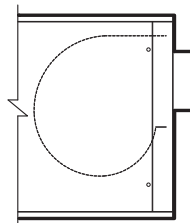


Modular Indoor Air Handling Unit

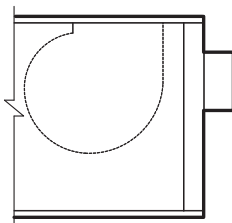
- **Flexibility** Through Modular Design
- **IAQ Focused** to Meet Tough Standards of Schools, Hospitals, and Other Commercial Buildings
- **Accessibility** for Ease of Maintenance
- **Quiet Operation** for Sound Sensitive Applications



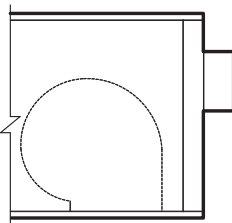
Fan Arrangements



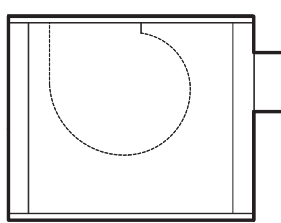
Arrangement 1



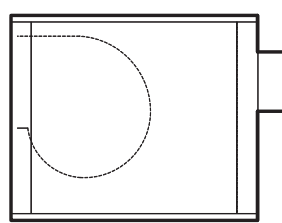
Arrangement 2



Arrangement 3



Arrangement 4



Arrangement 5

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THE PERFECT SOLUTION FOR SCHOOLS, HOSPITALS, COMMERCIAL BUILDINGS

ENVIRO-TEC® MQL INDOOR AIR HANDLER

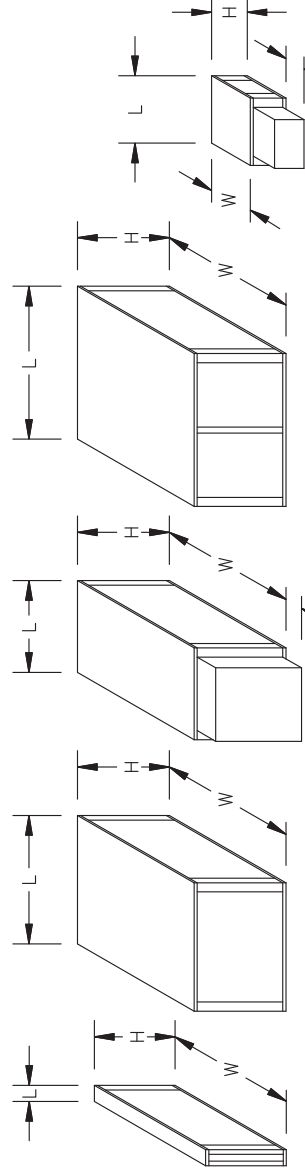


Fig. 1 [178]

Fig. 2 [178]

Fig. 3 [178]

Fig. 4 [178]

UNIT CONFIGURATION (IN DIRECTION OF AIRFLOW)

MQL - Module Size	Upper Deck - B		Lower Deck - A		Position:													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Fig. 1	Notes: 1. All dimensions are ± 1/4" (6mm). Metric values are soft conversions. 2. Section images are for identification of unit configuration only. See individual section at www.enviro-tec.com for details. 3. Certain configuration rules apply; see catalog and selection program for details.																	
Fig. 2	External Flat Filters (2")	H - in (mm) W - in (mm) L - in (mm)	17-3/8 (441) 28 (711) 5-1/4 (133)	17-3/8 (441) 34 (864) 5-1/4 (133)	26-3/8 (670) 42 (1069) 5-1/4 (133)	26-3/8 (670) 46 (1168) 5-1/4 (133)	26-3/8 (670) 56 (1422) 5-1/4 (133)	26-3/8 (670) 64 (1626) 5-1/4 (133)	26-3/8 (670) 68 (1727) 5-1/4 (133)	26-3/8 (670) 80 (2032) 5-1/4 (133)	41-3/16 (1046) 80 (2032) 5-1/4 (133)	41-3/16 (1046) 88 (2227) 5-1/4 (133)	41-3/16 (1046) 96 (2422) 5-1/4 (133)	41-3/16 (1046) 104 (2617) 5-1/4 (133)	41-3/16 (1046) 112 (2812) 5-1/4 (133)	41-3/16 (1046) 120 (3007) 5-1/4 (133)	41-3/16 (1046) 128 (3202) 5-1/4 (133)	
Fig. 2	Small Access Small Coil Small Flat Filters (2" and/or 4" Cartridge)	H - in (mm) W - in (mm) L - in (mm)	22 (559) 30 (762) 15 (381)	22 (559) 36 (914) 15 (381)	22 (559) 44 (1118) 15 (381)	22 (559) 48 (1219) 15 (381)	22 (559) 56 (1422) 15 (381)	22 (559) 64 (1626) 15 (381)	22 (559) 72 (1830) 15 (381)	22 (559) 80 (2032) 15 (381)	34 (864) 44 (1118) 15 (381)	34 (864) 48 (1219) 15 (381)	34 (864) 56 (1422) 15 (381)	34 (864) 64 (1626) 15 (381)	34 (864) 72 (1830) 15 (381)	34 (864) 80 (2032) 15 (381)	34 (864) 88 (2227) 15 (381)	
Fig. 2	Medium Access Medium Coil Med. INTELLITRAC® Mix. Box w/Flat Filters (2") Med. INTELLITRAC® Inlet Plenum w/V-Bank Filters (2") Med. INTELLITRAC® Inlet Plenum w/Flat Filters (2") Medium Mixing Box with Flat Filters (2") Medium Inlet Plenum with Flat Filters (2") Medium V-Bank Filters (2")	H - in (mm) W - in (mm) L - in (mm)	22 (559) 30 (762) 15 (381)	22 (559) 36 (914) 15 (381)	22 (559) 44 (1118) 15 (381)	22 (559) 48 (1219) 15 (381)	22 (559) 56 (1422) 15 (381)	22 (559) 64 (1626) 15 (381)	22 (559) 72 (1830) 15 (381)	22 (559) 80 (2032) 15 (381)	34 (864) 44 (1118) 15 (381)	34 (864) 48 (1219) 15 (381)	34 (864) 56 (1422) 15 (381)	34 (864) 64 (1626) 15 (381)	34 (864) 72 (1830) 15 (381)	34 (864) 80 (2032) 15 (381)	34 (864) 88 (2227) 15 (381)	34 (864) 96 (2422) 15 (381)
Fig. 2	Horizontal FC Fan Horizontal Plug Fan Return FC Fan Return Plug Fan Vertical Coil Vertical FC Fan	H - in (mm) W - in (mm) L - in (mm)	22 (559) 30 (762) 32 (813)	22 (559) 36 (914) 32 (813)	22 (559) 44 (1118) 32 (813)	22 (559) 48 (1219) 32 (813)	22 (559) 56 (1422) 32 (813)	22 (559) 64 (1626) 32 (813)	22 (559) 72 (1830) 32 (813)	22 (559) 80 (2032) 32 (813)	34 (864) 44 (1118) 36 (914)	34 (864) 48 (1219) 36 (914)	34 (864) 56 (1422) 36 (914)	34 (864) 64 (1626) 36 (914)	34 (864) 72 (1830) 36 (914)	34 (864) 80 (2032) 36 (914)	34 (864) 88 (2227) 36 (914)	34 (864) 96 (2422) 36 (914)
Fig. 2	Medium Face & Bypass Medium Tail Coil Small Tail Coil	H - in (mm) W - in (mm) L - in (mm)	30 (762) 30 (762) 30 (762)	30 (762) 36 (914) 30 (762)	30 (762) 44 (1118) 30 (762)	30 (762) 48 (1219) 30 (762)	30 (762) 56 (1422) 30 (762)	30 (762) 64 (1626) 30 (762)	30 (762) 72 (1830) 30 (762)	30 (762) 80 (2032) 30 (762)	46 (1168) 56 (1422) 30 (762)	46 (1168) 64 (1626) 30 (762)	46 (1168) 72 (1830) 30 (762)	46 (1168) 80 (2032) 30 (762)	46 (1168) 88 (2227) 30 (762)	46 (1168) 96 (2422) 30 (762)	46 (1168) 104 (2617) 30 (762)	46 (1168) 112 (2812) 30 (762)
Fig. 3	Electric Heat Draw Thru	H - in (mm) W - in (mm) L - in (mm)	22 (559) 30 (762) 30 (762)	22 (559) 36 (914) 30 (762)	22 (559) 44 (1118) 30 (762)	22 (559) 48 (1219) 30 (762)	22 (559) 56 (1422) 30 (762)	22 (559) 64 (1626) 30 (762)	22 (559) 72 (1830) 30 (762)	22 (559) 80 (2032) 30 (762)	34 (864) 44 (1118) 30 (762)	34 (864) 48 (1219) 30 (762)	34 (864) 56 (1422) 30 (762)	34 (864) 64 (1626) 30 (762)	34 (864) 72 (1830) 30 (762)	34 (864) 80 (2032) 30 (762)	34 (864) 88 (2227) 30 (762)	34 (864) 96 (2422) 30 (762)
Fig. 4	Large Access Lg. INTELLITRAC® Mix. Box w/V-Bank Filters (2") Lg. INTELLITRAC® Inlet Plenum w/V-Bank Filters (2") Large Mixing Box with V-Bank Filters (2") Large Inlet Plenum with V-Bank Filters (2") Large Discharge Plenum	H - in (mm) W - in (mm) L - in (mm)	22 (559) 30 (762) 42 (1067)	22 (559) 36 (914) 42 (1067)	22 (559) 44 (1118) 42 (1067)	22 (559) 48 (1219) 42 (1067)	22 (559) 56 (1422) 42 (1067)	22 (559) 64 (1626) 42 (1067)	22 (559) 72 (1830) 42 (1067)	22 (559) 80 (2032) 42 (1067)	34 (864) 44 (1118) 42 (1067)	34 (864) 48 (1219) 42 (1067)	34 (864) 56 (1422) 42 (1067)	34 (864) 64 (1626) 42 (1067)	34 (864) 72 (1830) 42 (1067)	34 (864) 80 (2032) 42 (1067)	34 (864) 88 (2227) 42 (1067)	34 (864) 96 (2422) 42 (1067)
Fig. 4	FC Fan and Coil Combination (Horizontal Only) Horizontal Economizer	H - in (mm) W - in (mm)	22 (559) 30 (762)	22 (559) 36 (914)	22 (559) 44 (1118)	22 (559) 48 (1219)	22 (559) 56 (1422)	22 (559) 64 (1626)	22 (559) 72 (1830)	22 (559) 80 (2032)	34 (864) 44 (1118)	34 (864) 48 (1219)	34 (864) 56 (1422)	34 (864) 64 (1626)	34 (864) 72 (1830)	34 (864) 80 (2032)	34 (864) 88 (2227)	34 (864) 96 (2422)
Fig. 5	Electric Heat Blow Thru	H - in (mm) W - in (mm) L - in (mm)	13-1/2 (343) 11-1/2 (292) 22 (559)	13-1/2 (343) 11-1/2 (292) 22 (559)	13-1/2 (343) 11-1/2 (292) 22 (559)	13-1/2 (343) 11-1/2 (292) 22 (559)	13-1/2 (343) 11-1/2 (292) 22 (559)	13-1/2 (343) 11-1/2 (292) 22 (559)	13-1/2 (343) 11-1/2 (292) 22 (559)	18 (457) 17 (432) 22 (559)	18 (457) 17 (432) 22 (559)	18 (457) 17 (432) 22 (559)	18 (457) 17 (432) 22 (559)	18 (457) 17 (432) 22 (559)	18 (457) 17 (432) 22 (559)	18 (457) 17 (432) 22 (559)	18 (457) 17 (432) 22 (559)	18 (457) 17 (432) 22 (559)

* NOTE: Class I and II are available.

MQL Unit Sizes	Nominal CFM	Fan Size FC Type	Air Volume Available CFM Range		Fan Motors Available HP Range		Coil CFA (sq.ft.)	Flat Filters		V-Bank Filters		
			Min	Max	Min HP	Max HP		Dimensions (in.)	Face Area (sq.ft.)	Filter Quantity	Dimensions (in.)	Face Area (sq.ft.)
02	1000	9-4	600	1100	1/3	2	2.1	1	16 x 20 x 2	2	16 x 20 x 2	4.4
03	1500	9-6	900	1600	1/3	2	2.9	1	16 x 25 x 2	2	16 x 25 x 2	5.6
04	2000	10-7	1200	2000	1/3	2	3.8	2	16 x 20 x 2	2	20 x 25 x 2	6.9
06	3000	12-9	1800	3200	1/2	3	5.6	2	20 x 25 x 2	4	20 x 20 x 2	11.1
08	4000	12-12	2300	4200	1/2	5	7.4	2	20 x 25 x 2	2	16 x 20 x 2	11.4
10	5000	15-11*	2900	5300	3/4	5	9.7	1	16 x 25 x 2	2	16 x 20 x 2	15.6
12	6000	18-13*	3800	6850	1	7-1/2	12.6	4	20 x 25 x 2	6	20 x 25 x 2	20.8
14	7000	18-18*	4400	8000	1	7-1/2	14.3	8	16 x 20 x 2	3	20 x 25 x 2	27.1
17	8500	18-18*	5100	9350	1-1/2	15	17.0	6	20 x 25 x 2	12	20 x 20 x 2	33.3

UNIT VOLTAGE AND PHASE	BLOW THRU ELECTRIC HEAT Unit Size																
	02		03		04		06		08		10		12		14		17
Single Phase	kW	3	5	3	5	4	5	5	9	7	9	9	11	9	11	11	11
	AMPS	26.1	43.5	26.1	43.5	34.8	43.5	26.1	43.5	26.1	43.5	26.1	43.5	26.1	43.5	26.1	43.5
Three Phase	kW	3	9	3	9	4	9	6	9	7	9	9	11	9	11	11	11
	AMPS	14.4	43.3	14.4	43.3	19.2	43.3	28.8	43.3	33.7	43.3	14.4	43.3	14.4	43.3	14.4	43.3

- Blow thru heaters can have a maximum of two stages.
- VFD controllers cannot be supplied with blow thru heaters.
- Specific kW ratings are available within the ranges shown. Refer to catalog or selection program.

NOTE: All data subject to change without notice.

UNIT VOLTAGE AND PHASE	DRAW THRU ELECTRIC HEAT Unit Size																
	02		03		04		06		08		10		12		14		17
Single Phase	kW	3	5	3	5	4	5	5	9	7	9	9	11	9	11	11	11
	AMPS	26.1	43.5	26.1	43.5	34.8	43.5	26.1	43.5	26.1	43.5	26.1	43.5	26.1	43.5	26.1	43.5
Three Phase	kW	3	9	3	9	4	9	6	9	7	9	9	11	9	11	11	11
	AMPS	14.4	43.3	14.4	43.3	19.2	43.3	28.8	43.3	33.7	43.3	14.4	43.3	14.4	43.3	14.4	43.3

- Draw thru heaters can have a maximum of four stages.
- All heaters that have an AMP draw greater than 48 AMPs will have a minimum of two stages.
- Specific kW ratings are available within the ranges shown. Refer to catalog or selection program.