



A Sound Decision



Environmental Technologies, Inc. was founded on engineering HVAC comfort solutions for our customers. "Engineering for Excellence" is a corporate philosophy reflected in the products, processes, people and customers we support.

Established in 1979 to develop and manufacture variable air volume terminals, the ENVIRO-TEC® brand is now found on the most comprehensive line of air delivery and control products in the industry. From premium quality VAV products to highly specialized isolation room air handling units and DDC building control systems, some of today's most prestigious buildings employ ENVIRO-TEC® equipment.

Engineering, Research and Development

At ENVIRO-TEC®, product integrity is a top priority. That's why we've invested in one of the most sophisticated design and research laboratories in the industry. All products are developed using the finest test equipment and sound evaluation facilities available.

Quiet technology, developed and tested in the Environmental Technologies Acoustical Laboratory, is designed into every product. Environmental Technologies has been the leader in developing quiet VAV terminals for over 25 years. Our continuing focus on acoustical superiority has been invaluable in the development of the ENVIRO-TEC® fan coil and air handling product lines.

Forward Thinking

A key component to our success is innovation. ENVIRO-TEC® is proud to offer Web-Select®, the

industry's first browser-based rating and selection program for HVAC products. Web-Select® allows representatives, engineers and contractors to rate and select products using an Internet-enabled computer. Selections may be saved into project schedules, allowing easy collaboration between engineers and reps. Contact your representative to learn more about Web-Select®.

Make a sound decision from every standpoint – choose ENVIRO-TEC® for your next project!

ENVIRO-TEC®
ENGINEERING FOR EXCELLENCE

Project Name: Sample Project
Line #: 30 Tag: FCU-1
Date: 1/4/2006 12:08:46 PM ET Selection Version: 1.0.6
Selection Method: Fixed Airflow/Design ESP Elevation: 0 ft.

General												
Mfg	Model	Unit Size	Airflow (cfm)	ESP (in. wc)	Motor (Hp)	Motor RPM	Fan Amps	Fan Watts	Fan Qty	VPHz	Motor Speed	Weight (lb)
Enviro-Tec	VHC	06	374	0.05	(1) 1/15	1075	0.5	146	1	277/1.60	Low	273

* Weight does not include accessories.

Fan selection and performance is shown at elevation of 0 ft.

Chilled Water Coil												
EAT DBWB (deg.F)	LAT DBWB (deg.F)	Total Capacity (Btu/h)	Sensible Capacity (Btu/h)	EWTL WT (deg.F)	Fluid Flow (gpm)	Fluid PD (ft)	Air PD (in. wc)	Coil Rows	Coil FPI	No. Circuits	Fin Material	Tube Wall
75 / 63	50.6 / 49.8	13895	9897	45 / 55	2.78	11.65	0.08	4	14	2	0.0055 in. Al	0.016 in.

Sound Power By Octave Band (dB Re 10 ⁻¹² Watts)							
Band	2	3	4	5	6	7	8
Frequency	125	250	500	1000	2000	4000	8000
Total	55	44	42	35	28	25	24

- Unit data is certified in accordance with ARI 440.
- Coils are manufactured in accordance with ARI 410.
- Sound data tested in accordance with ARI 290-2000.
 - Total sound power level data based on Model VHC with fan CFM at corresponding motor tap with 115/1.60 volt motor, 4 row coil, 1" throwaway filter, 0.05" external static pressure and standard rated internal pressure losses.
- Unit pressure drop and CFM based upon dry coil as required by ARI 440.
- Scheduled motor information is for HI Speed.
- The coil selection has been made at Standard conditions.
- Outside Airflow is a user input value for scheduling purposes.

A completed selection from Web-Select®

SDR Single Duct Terminal

Engineered for quiet performance, Model SDR precisely controls the flow of conditioned air to a room or zone. Constructed of G90 galvanized steel, the SDR features the highly amplified and aerodynamically designed FlowStar™ sensor. The combination results in minimum pressure drops and low noise levels.

Electric heat is located upstream of the damper, providing uniform airflow at all damper positions and extended element life.

VFR Parallel Flow Fan Powered VAV Terminal

The VFR is designed for zones that require heat while the central system is cooling. Owners enjoy lower operating costs through heat recovery from the ceiling plenum space, thereby reducing the need to cycle the central air system. Additionally, fan power is consumed only while heating, and at a lower airflow than the cooling CFM. Indoor air quality is enhanced by higher air motion than with single duct units.

CFR Series Flow Fan Powered VAV Terminal

This unit provides a constant conditioned airflow by blending induced and primary air. The CFR's low noise levels allow properly sized units to be located above occupied office spaces. Enhanced IAQ is achieved with the outside air valve option, which controls outside air to each occupied zone, independent of primary cooling requirement. DDC control systems can track and adjust the amount of primary and outside air per zone. Model CFR is available with an ECM™ fan motor.

SINGLE DUCT TERMINAL



PARALLEL FLOW FAN POWERED



SERIES FLOW FAN POWERED



VARIABLE AIR VOLUME

Available Models / Options

- SDR-EH with electric heat
- SDR-WC with hot water coil
- SDR-SA with integral discharge sound attenuator
- SDR-MOP with integral multiple outlet plenum
- Low height Model SDL
- Analog electronic "Series 7000" controls by ENVIRO-TEC[®]
- Factory provided piping packages, shipped loose for field installation

Sizes

- 4 through 22

Airflow Ranges

- 100 - 8000 CFM

Ratings / Certifications

- ARI 880 certified
- cETL listed

Available Models / Options

- VFR-EH with electric heat
- VFR-WC with hot water coil
- Low height Model VFL
- Analog electronic "Series 7000" controls by ENVIRO-TEC[®]
- Factory provided piping packages, shipped loose for field installation

Sizes

- 4 through 16 (inlet sizes)
- 4 through 24 (fan sizes)

Airflow Ranges

- 100 - 4100 CFM (primary)
- 50 - 2400 CFM (fan)

Ratings / Certifications

- ARI 880 certified
- cETL listed

Available Models / Options

- CFR-EH with electric heat
- CFR-WC with hot water coil
- Low height Model CFL
- Outside air valve option
- Low temperature option
- ECM™ ultra high efficiency motor option
- Factory provided piping packages, shipped loose for field installation

Sizes

- 4 through 18 (inlet sizes)
- 4 through 44 (fan sizes)

Airflow Ranges

- 100 - 4600 CFM

Ratings / Certifications

- ARI 880 certified
- cETL listed

CFRQ Extra Quiet Series Flow Fan Powered Terminal

The king of quiet, Model CFRQ is specifically designed for applications requiring very low sound levels. Each terminal boasts improved space comfort, application flexibility, and whisper quiet operation.

If energy efficiency is also a concern, consider the ECM™ ultra high efficiency fan motor option, providing efficiency ratings between 70 and 80% for most applications.

Series 7000 Analog Electronic Controls

Series 7000 controls provide the same accuracy and dependability as Direct Digital Controls, at about **50% of the installed cost.**

A modular design provides greater flexibility for modifying control applications in the field. Modules can be added to the standalone master controller to provide options such as staged heat, variable or series flow fan operation, night setback and/or morning warm-up.

FlowStar™ Airflow Sensor

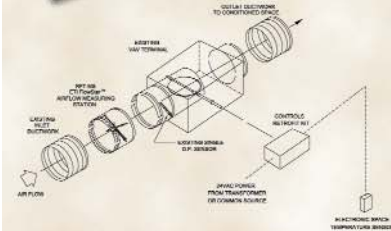
The FlowStar™ has brought new meaning to airflow control accuracy. A greatly amplified signal allows more accurate and stable airflow control at low airflow capacities. The face area's streamlined design generates less pressure drop and noise.

Add the power of the FlowStar™ to any round inlet VAV terminal with the RFT-MS. This standalone airflow measuring station features the FlowStar™ sensor in a short circular collar.

EXTRA QUIET SERIES FAN POWERED



ANALOG ELECTRONIC CONTROLS



FLOWSTAR™ MEASURING STATION



Available Models / Options

- CFRQ-EH with electric heat
- CFRQ-WC with hot water coil
- ECM™ ultra high efficiency motor option
- Factory provided piping packages, shipped loose for field installation

Sizes

- 6 through 16 (inlet sizes)
- 6 through 30 (fan sizes)

Airflow Ranges

- 200 - 3100 CFM

Ratings / Certifications

- ARI 880 certified
- cETL listed

Features

- Designed, manufactured, installed and tested at ENVIRO-TEC®
- Retrofit kit and FlowStar™ measuring station available to upgrade existing control systems

Benefits Over Pneumatic Controls

- Energy efficient
- Low maintenance
- Seldom requires calibration

Ratings / Certifications

- Terminal units and control assemblies cETL listed

Features

- 12 to 20 sensing points across equal concentric circular areas
- Total pressure measured at the center of each concentric circle for maximum accuracy
- Two-axis low profile design
- Provides differential pressure signal 2.5 to 3 times the equivalent velocity pressure signal, idea for low airflow capacities
- Retrofit existing terminals with Model RFT-MS standalone measuring station
- Patent Number 5,481,925

HL and HP Series

Horizontal Fan Coil Unit

The HL Series low profile design allows for installation virtually anywhere. Model HLE features a powder coat painted cabinet and is an excellent choice for under-ceiling applications. The optional telescoping bottom panel on Model HLP allows full recessing of the unit, with full access into the ceiling plenum. The high performance HP Series delivers up to 2400 CFM.

Numerous piping packages and control accessories are available.

VF and VL Series Vertical Floor Mount Fan Coil Unit

This product may be used in interior and exterior areas requiring 25% or less outside air. Model VFS slope top is ideal for classrooms, protecting the unit from seating or storage abuse. The low height VL Series is designed for limited space under a window.

Powder coat paint finish on exposed cabinets hides fingerprints and resists scratches and fading.

Options include stainless steel drain pan and outside air dampers.

VH Vertical Hi-Rise Fan Coil Unit (Enviro-Stack[®])

The elite of the "hi-rise" market, Enviro-Stack[®] units feature stainless steel flexible hose kits to simplify installation and servicing. Additional standard features include G90 sloped drain pans, removable fan decks, and powder coat paint finish. The Enviro-Pac[™] fire rated tandem units and 79" cabinet model complete the line.

A wide variety of unit arrangements, risers, piping and control packages are available.

HORIZONTAL FCU



Available Models

- HLP and HPP concealed plenum return
- HLE and HPE exposed cabinet
- HLF and HPF concealed free return

Key Features

- Easily removable fan assembly
- Reversible coils and drain pan
- Foil faced or elastomeric closed cell foam insulation

Sizes

- 20 through 60 (HL Series)
- 6 through 20 (HP Series)

Airflow Ranges

- 200 - 2400 CFM

Ratings / Certifications

- ARI 440 certified
- cETL listed

VERTICAL FLOOR FCU



Available Models

- VFC and VLC concealed
- VFE and VLE exposed cabinet
- VFS sloped top

Key Features

- Filter replaceable without removal of front panel
- Easily removable fan assembly
- Extended end pockets
- Foil faced or elastomeric closed cell foam insulation

Sizes

- 20 through 60

Airflow Ranges

- 200 - 1205 CFM

Ratings / Certifications

- ARI 440 certified
- cETL listed

VERTICAL HI-RISE FCU



Available Models

- VHC concealed
- VHE exposed cabinet
- VHM master
- VHS slave
- VHA/VHB tandem units

Key Features

- Stainless steel flexible hose kits
- Maximum of 24" wide cabinet
- Field configurable
- Ship in advance risers
- Foil faced or elastomeric closed cell foam insulation

Sizes

- 3 through 12

Airflow Ranges

- 200 - 1250 CFM

Ratings / Certifications

- ARI 440 certified
- cETL listed
- Enviro-Pac[™] UL 1479 listed (option)

CDV Vertical Direct Drive Fan Coil Unit

Versatility abounds with up to 0.75" E.S.P. direct drive fan coils. Vertical units with front access may be configured with bottom filter access for easy servicing. A 1600 CFM vertical unit measures only 46"w x 20"d x 48"h, including 1" front filter.

Mixing boxes and discharge plenums with double deflection grilles are available. Single point power with electric heat is a standard offering.

VB/VR Vertical Belt Drive Blower Coil Units

Reduced footprint makes the VB/VR ideal for tight spaces such as closets and small mechanical rooms. A typical classroom size unit measures only 29"w x 25"d.

All internal components are easily accessible from the front via a full size access panel, available with lift and turn fasteners. This versatile air handler is available with mixing box, stainless steel drain pan, single point power connection, electric heat, and foil faced insulation.

H/V Belt Drive Blower Coil Units

Ideal for central station equipment applications with limited space.

All internal components are easily accessible from both sides of the unit, available with hinged doors and lift and turn fasteners. This versatile air handler is available with mixing box, stainless steel drain pan, single point power connection, electric heat, foil faced insulation, and high efficiency pleated filters (2" and 4").

DIRECT DRIVE



Available Models

- CDV vertical

Key Features

- Lower cost alternative to classroom unit ventilators
- Direct drive 3-speed motor reduces vibration while providing whisper quiet operation
- Foil faced or elastomeric closed cell foam insulation

Sizes

- 4 through 20

Airflow Ranges

- 400 to 2000 CFM

Ratings / Certifications

- Coils ARI 410 certified
- cETL listed

BELT DRIVE VERTICAL



Available Models

- VB bottom return
- VR rear return
- VBD/VRD direct drive to 2000 CFM

Key Features

- Reduced footprint design for tight spaces
- Constant or variable volume applications
- Front access to all components
- Standard foil faced insulation

Sizes

- 8 through 30

Airflow Ranges

- 600 - 3000 CFM

Ratings / Certifications

- Coils ARI 410 certified
- cETL listed

BELT DRIVE VERTICAL AND HORIZONTAL



Available Models

- H horizontal
- V vertical

Key Features

- Space saving design
- Constant or variable volume applications
- Dual side access to all components

Sizes

- 8 through 40

Airflow Ranges

- 600 - 4000 CFM

Ratings / Certifications

- Coils ARI 410 certified
- cETL listed

MQL Indoor Air Handler

Flexibility is key with this unit's modular construction, allowing draw-through configurations in horizontal, vertical, and footprint-saving stacked arrangements. Ideal for schools, hospitals and commercial buildings where IAQ is a top priority.

Features include double sloped stainless steel IAQ drain pan, single or double wall construction, base rails, outside air measuring station, HEPA filters, face and bypass modules, removable access panels and single point power connection.

Plug Fan with HEPA Filter

The Plug Fan / HEPA Filter arrangement is ideal for isolation room units. The plug fan is an unhooded, single width, backward inclined fan typically used in medium pressure and blow thru applications. A plug fan achieves pressure ranges from 2.5" through 4.5". The plug fan's strength lies in the positive airflow over the entire area of the HEPA (final) filter. The HEPA filter is a 99.97% final filter used immediately before entering the space at a velocity of 500 FPM maximum.

Outside Air Measuring Station

Accurately measure and control outside airflow (required cfm) with the patented FlowStar™ sensor. The measuring station option for Model MQL allows the fresh air set point to match predicted building occupancy or VAV box requirements, and records maximum / minimum outside airflow rates. Delivering only the specified amount of outside air minimizes building energy costs. Helps meet the stringent ventilation requirements of ASHRAE Standard 62-2001.

INDOOR AIR HANDLING UNIT



Available Models

- MQL

Key Features

- Modular design allows limitless design flexibility for retrofit and new constructions
- IAQ focused to meet tough standards of schools, hospitals and other commercial buildings

Sizes

- 2 through 17

Airflow Ranges

- 600 to 10,000 CFM

Ratings / Certifications

- ARI 430 certified
- Coils ARI 410 certified
- cETL listed

IAQ FEATURES



ENVIRO-TEC® manufactures the MQL Plug Fan / HEPA Filter unit in direct driven assemblies. Airflow ranges from 400 to 9000 CFM at up to 4.5" of total static pressure are typically done with direct driven casings incorporating variable frequency drives.

These units are ideal engineering selections for hospitals, lab type environments, and isolation areas which must operate under close pressure tolerances.

MAXIMUM ENERGY SAVINGS



Economizer Section

"Free" heating and cooling maximizes energy savings for space conditioning. While outside air must be cooled or heated most of the time, the Economizer system ensures minimum occupancy outside air by use of a supply and return fan. Working in tandem with a dampered outside air mixing box, the supply and return fans utilize outside air between 40°F and 60°F. No chiller or boiler is used within these ambient temperatures, giving meaning to the term "free cooling".



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