

First in Quality, First in Service.

MECHANICAL PRODUCTS

VOLUME 8 ··

PROVINCE OF QUEBEC

1990

COMMERCIAL GAS FIRED *Make-Up Air Units*

HVAC Products and Services for the Commercial Sector

Gas fired make-up air units and air handling units are used throughout the warehouse, transportation garage, restaurant, and manufacturing industries. The rigorous demands of these applications form the backbone of the Commercial Gas Fired Make-Up Air Series of products. Contractors, engineers and building owners are challenged daily with HVAC construction, design and performance – both in new and retrofit applications. Designers must meet stringent requirements regarding energy efficiency, indoor air quality (IAQ) standards, and life cycle cost. To meet these challenges, SolutionAir has developed the PMI-IF, AW-I, and AW-D series of gas fired make-up air units.



90% EFFICIENT FURNACE

For Indirect Fired Rooftop Units

Reduce operating costs with high efficiency Indirect Fired Make-Up Air Units



PMI-IF series

The PMI-IF series is an indirect fired unit that utilizes a standard (80% efficient) or an optional high efficiency (90% efficient) stainless steel convoluted tube heat exchanger. By separating combustion air from the supply air, the unit is able to maintain excellent indoor air quality (IAQ). These units can be used in schools, offices, and institutional projects – anywhere that IAQ is paramount. The convoluted tube furnace is one of the most cost effective indirect fired designs.



AW-I series

For demanding indirect fired applications, SolutionAir offers the AW-I series with a three pass stainless steel drum and tube heat exchanger. The robust heat exchanger was designed to be incredibly reliable.



AW-D Series

For applications requiring a large volume of 100% outdoor air, the AW-D series offers a direct-fired alternative. The unit incorporates a high efficiency burner, which is capable of a high turndown ratio, maximizing discharge air temperature control with minimal combustion by-products.



LABORATORY PRODUCT APPLICATION

Room Pressure Sensor

- Maintenance and calibration-free sensor technology
- · Accurate to 3% of reading
- · Designed to prevent buildup of airborne particulates

Supply Venturi Valves

- Medium (0.6 to 3.0 in.w.c.) or low (0.3 to 3.0 in.w.c.) pressure operation
- High-speed actuation
- Characterized and calibrated using NVLAP
 accredited test stations (Lab Code: 201067-0)
- · Operating pressure feedback

Pace™

- · Pressure or volumetric offset control strategies
- Airflow control utilizing Venturi Valves, Venturi FX Valves or Terminal Units
- High speed room level network for communication to Pace and FHC controllers
- BACnet MS/TP

Integrated Reheat Coil

- \cdot $\;$ Factory mounted transition
- Coil access door

Thermostat

- · LCD or blank-face options
- Optional humidity or CO₂ sensing

725" 💌

 Optional connection to room level network for commissioning

General Exhaust Venturi Valve

- Medium (0.6 to 3.0 in.w.c.) or low (0.3 to 3.0 in.w.c.) pressure operation
- High-speed actuation
- Characterized and calibrated using NVLAP
 accredited test stations (Lab Code: 201067-0)
- · Operating pressure feedback

Pace™

- Pressure or volumetric offset control strategies
- Airflow control utilizing Venturi Valves, Venturi FX Valves or Terminal Units
- High speed room level network for communication to Pace and FHC controllers
- · BACnet MS/TP

Integrated Silencer

- Factory mounted transition
- Specifically designed for Venturi Valves

Fume Hood Venturi Valve

- Medium (0.6 to 3.0 in.w.c.) or low
 (0.3 to 3.0 in.w.c.) pressure operation
- High-speed actuation
- Characterized and calibrated using NVLAP
 accredited test stations (Lab Code: 201067-0)
- · Operating pressure feedback
- Optional corrosion resistant coatings

Fume Hood Controller

- Sash position, sidewall sensor or combination face velocity control
- High speed response
- · LCD fume hood interface
- · Connection to room level network



Above: Chilled Beams

ACTIVE & PASSIVE BEAMS

BUILDING APPLICATIONS

- + Thermal comfort is a major design consideration
- $+\ensuremath{\,\text{Spaces}}$ with high sensible heat releases
- + Spaces requiring high indoor air quality (100% fresh air)
- + Spaces requiring energy conservation

AIR-WATER SYSTEM BENEFITS

- + Reduced system power consumption
- + Reduced maintenance costs
- + Environmental quality
 - · Improved indoor air quality
 - Improved thermal comfort
- + Reduced mechanical footprint

ACTIVE & PASSIVE BEAM TYPES

- + Active linear, vertical, horizontal, modular, perimeter induction units, exposed, and floor mounted cabinets
- + Passive linear beams
- + Passive beams with integrated return

The Science of Comfort[™]

Visit priceindustries.com or call 1.866.430.0969





- Air-Cooled DOAS Units
- Up to 20,000 CFM
- Heating Options: Gas, Electric, Steam and Hydronic
- Cooling Options: Hydronic and DX (Packaged or Split)
- Energy Recovery Options
- Customizable Air Handlers
 - Up to 100,000 CFM
 - Indoor / Outdoor Construction
 - Single / Double Wall Construction
 - Heating Options: Gas, Electric, Steam and Hydronic
 - Cooling Options: Hydronic and DX (Packaged or Split)
 - Energy Recovery
 - Packaged Control

SolutionAir www.solutionairgroup.com

- Make-Up Air Units
 - Direct Fired: 250 15,000 MBH
 - Indirect Fired Drum and Tube: 200 – 6,000 MBH
 - Indirect Fired Convoluted Tube: 75 – 1,200 MBH
 - 90% Efficient Indirect Fired: 250 – 1,600 MBH
- Rooftop Units (8 250 Tons)
 - Highly Configurable
- Heating Options: Indirect Gas, Electric, Steam and Hydronic
- Cooling Options: Hydronic and DX (Packaged Up to 160 Tons and Split Up to 250 Tons)
- Energy Recovery Options



Antec Controls www.anteccontrols.com

Valves

- Venturi Valves High Turndown Ratio and Mechanical Pressure Independence
- Venturi FX Measured Airflow and Low Pressure Operation
- Integrated Venturi Valve Assembly Options
 - Performance Guaranteed Venturi with Integrated Silencer Assemblies
 - AHRI 410 Certified Venturi with Hot Water Coil Assemblies
 - UL1995 Certified Venturi with Electric Coil Assemblies
- Monitors and Controls
 - Room Monitors
 - Touchscreen Room
 Pressure Monitor
 High Resolution
 Touchscreen Display

- Multi-Variable Monitor – High Resolution Touchscreen Displaying up to 8 Rooms on Main Screen
- All Monitors Have Native BACnet MS/TP Connection
- Pace[™] Critical Space Controller
 - Volumetric Offset or Pressure Control
- Temperature and Humidity Control
- Fume Hood Controls
 - Fume Hood Controller
 - Sash Position Sensing Fume Hood Control
 - Sidewall Sensing Fume Hood Control
 - Hybrid Fume Hood Control
 - · Presence Sensing
 - · Fume Hood Interface







SolutionAir www.solutionairgroup.com

- RegenCore Alternating Mass-Exchanger Energy Recovery Units
 - No Pre-Heat Requirements Down to Outdoor Temperatures of -40°C
 - Up to 92% Effectiveness



FAN & BLOWER COILS

- High Performance Fan Coils
 - Optional Integrated Silencer
 - Standard ECM Motor

Price Industries Limited www.priceindustries.com

Horizontal Blower Coils

- · Vertical Fan Coils
 - Concealed and Exposed

- Commercial and Custom Silencers
- Rectangular, Elbow and Circular Silencers
- Absorptive, Film-Lined and Packless Silencers
- Air Transfer and Cross-Talk Silencers

Price Industries Limited

www.priceindustries.com

- Acoustic Panels, Enclosures and Barriers
- Acoustical Louvers



Yulcan

Vulcan Radiator www.vulcanrad.com

- Commercial Hydronic Heating Products Including:
 - Commercial Wall-Fin Radiation
 - Light Commercial Wall-Fin Radiation
 - Cabinet Unit Heaters

- Convectors
- Horizontal and Vertical Unit Heaters
- Panel Radiators
- Custom Enclosure
- Security Enclosure



Nu-Air Ventilation www.nu-airventilation.com

- · Heat and Energy Recovery
 - HRVs and ERVs for Residential Applications
 - HRVs and ERVs for Commercial Applications
 - Central Air and Fan Coils
 - Air Exchangers
 - Controls and Accessories



DUCTSON*

Fabric Duct Ventilation

Final Filters

.

Fabric Faced Diffusers

· Underfloor Fabric Duct

DuctSox www.ductsox.com



- Radiant Panels
- · Chilled Sails
- · Active Beams
- Induction Units

Twa Panel Systems www.twapanels.ca

- Available With:
 - Hydronic Controls
 - Condensate Sensors
 - Hose Kits





- MiniPac[®]
 - Standard Sizes of 100 1,800 CFM Process Air
 - Fully Self-Contained Unitary Design
 - Insulated Process and React Airflow Sectors
 - Dry Desiccant Rotor with Stainless Steel Flange
 - Electric Reactivation Heat System
 - Integral Volume Dampers
 - ETL Listed System Design
 - Integrated Control System
 - Optional Humidistat Control
 - Optional Pre and Post Cooling Modules
 - Optional Stainless Steel Construction

® and ™ Trademarks of Bry-Air (Asia) Pvt. Ltd.

- VFB[™] and EcoDry Series
 - Standard Sizes of 300 30,000 CFM Process Air
 - Single or Double Wall Construction
 - Dry Desiccant Rotor with Chain Drive
 - Direct Drive Fans with Premium Motors
 - Chilled Water, Ammonia or Packaged DX Pre or Post Cooling
 - Steam, Electric or Gas Heating and Regen Options
 - Hinged Access Doors
 - Lights and Miscellaneous Power Options
 - VFD Fan Motor Control Optional
 - Reactivation Energy Recovery Options







Bry-Air www.bry-air.com

Panasonic

- ECOiX EX[™] Series Variable Refrigerant Flow (VRF), Multi-Zone, Heat Pump and Heat Recovery Systems
 - Dual Large-Capacity Inverter Compressors
- Enlarged Heat-Exchanger Surface Area with Triple Surface
- Gas-Liquid Separation and Oil Separation for Increased Efficiency
- Large Air Discharge Area with New Flush Surface Top Panel
- Newly Designed Curved Air Discharge Bell Mouth for Better Aerodynamics
- High 0.32" W.C.
 External Static Pressure
 Large Diameter Fan (27-1/2")

- Panasonic www.panasonic.ca
- Compatible with Various Types of Indoor Units:
 - · 4-Way Cassette
 - · Mini Cassette
 - \cdot Wall-Mounted
 - Low Profile Duct
 - Mid Static Duct
 - · Ceiling







Greenheck www.greenheck.com

- · Air Distribution Products
 - Extra Direct and Indirect Fire Air Units With or Without Cooling
 - Air Handling Units
 - Fan Coil
 - Energy Recovery Units
 - Energy Recovery Equipment
 - Variations in Cooling
 - Coils
- Products for Energy Recovery
 - VRE / ERV: Energy Recovery Ventilator
 - ERH / VREH: Energy Recovery Ventilator with Heating





The VMC GROUP THE POWER OF TOGETHER' The VMC Group WWW.thevmcgroup.com

- Anti-Vibration Seismic Roof Bases
 - Unitized Curbs and Rails for Rooftop Mounted Mechanical Equipment





Big Ass Fans www.bigassfans.com

- Large Fans for Commercial and Industrial Applications
 - Summer Cooling
 - Winter Destratification / Heat Recirculation
 - High Volume, Low Speed Fans 8' to 24' in Diameter





· Specialists in



 Containment Systems for Laboratory, Pilot Plant and Manufacturing Areas

Nanotechnology and Powder Containment Dedicated Engineers on Staff to Assist in Custom Equipment





United CoolAir www.unitedcoolair.com

Complete Compact System

-	Vertical Water-Cooled Units:	3 to 35 t
-	Vertical Air-Cooled Units:	3 to 35 t
-	Water-Cooled Heat Pump Units:	3 to 35 t
-	Water-Cooled Units for Limited Space	
	(Space Saver):	2-15 t
-	Water-Cooled Units for Ceiling Mounting:	1-3 t

- Air-Cooled Units for Ceiling Mounting: 1-3 t



FRANKLIN CONTROL SYSTEMS

- HVAC Specialty Products
 - Building Automation Starters
 - Standard Automation Starters
 - Cooling Tower Controls





Franklin Control Systems www.franklin-controls.com

- Kitchen Hood Controls
- Pump and HVAC Controls
- Variable Frequency Drive: Q-link





Delta Cooling Towers Inc. www.deltacooling.com

- · 10 T to 2000 T Model
 - All Delta towers are "Rotationally Molded" of High Density Polyethylene (HDPE) Plastic.
 - Excellent chemical resistance unaffected by chemicals typically used for cooling water treatment.
 - Not affected by acids or salt water.
 - Does not support growth of algae, bacteria, or fungi.
 - Resin contains UV inhibitors to prevent degradation.
 - Can withstand inlet temperatures of up to 180°F.
- · Corrosion Proof
 - Delta cooling towers are made of a corrosion proof engineered plastic. The cooling tower shell will never rust, flake, chip, peel, or ever need painting or protective coatings applied.
- · Seamless
 - Delta manufactures a seamless cooling tower. Delta towers are the only large packaged cooling towers in the industry that have a one-piece shell.
 - This means there are no seams, panels, rivets, or hundreds of fasteners to leak or compromise the performance or integrity of the product.

- · Light Weight
 - Due to the materials of construction, Delta cooling towers can be 30% to 50% lighter in weight than steel towers of the same capacity.
 - This is beneficial on roof installations, light weight raised platforms, or at ground level installations by reducing the rigging / placement cost.
- Value
 - There has generally been a trade-off between longterm durability achieved through the choice of materials of construction, and the overall cooling tower cost.
 - Delta has broken this traditional trade-off by offering cooling towers with excellent corrosion protection at cost comparable to those with far lesser protection.
- · 20 Year Warranty
 - Delta stands behind its products with the best warranty in the industry. Delta provides a 20 year warranty on the cooling tower's structural shell.
 - In addition, Delta cooling tower motors have a 5 year warranty.

ROJECT: Morris, Manning & Martin, LLP | LOCATION: Atlanta, Georgia | ARCHITECT: Gensler

FROM PUBLIC TO PRIVATE CROSS TALK SILENCERS

OPTIMIZING THE ACOUSTIC ENVIRONMENT

The design team created luxuriously quiet and intimate spaces for Morris, Manning & Martin, LLP by integrating Noise Control products such as Cross Talk Silencers, Return Air Silencers, and Return Air Canopies. Price's expansive range of Noise Control solutions allow for endless design possibilities without compromise.

WHY USE PRICE NOISE CONTROL?

- + Maximize Privacy: Minimize noise flanking.
- + Laboratory Tested: Reliable performance data.
- + Custom Applications: Endless design flexibility.
- + LEED: School & Healthcare applications.

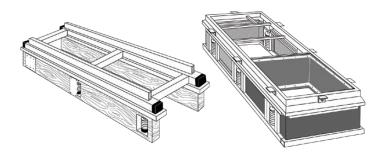
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www.thevmcgroup.com

ANTI-VIBRATION SEISMIC ROOF BASES

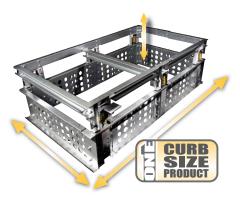
"P" Series Curbs and "R" Series Rails for rooftop mounted mechanical equipment



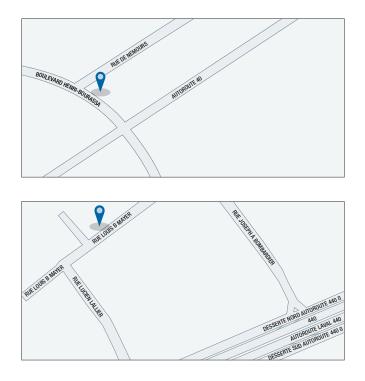
"P" Series Curbs

"R" Series Rails

- · Unitized Curbs & Rails for Easy Installation
- · Flush Profile Design
- Manufactured Entirely from Structural Steel to Resist Seismic & High Wind Forces
- · Fully Flashable Systems
- · Spring Isolated for Peak Vibration & Sound Control







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