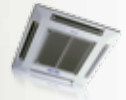
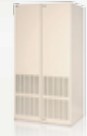


**AIREDALE**



**Solutions in classroom  
HVAC design**

**RAISE YOUR  
COMFORT LEVEL.**



Our single packaged vertical units blend seamlessly into the classroom, delivering plenty of fresh air at low noise levels to teachers and students.

**“The Airedale product line represents not only product quality, but the company’s factory support and commitment to meet the needs of the market set Airedale apart from other manufacturers.”**

**Robert N. Roop**  
CPD, LEED® AP  
Peter Basso Associates, Inc.  
Troy | Ann Arbor | Las Vegas | Phoenix



Colby High School (Colby, Wis.) looked to Airedale to replace inefficient equipment in its existing structure.

# AIREDALE. KEEPING TEACHERS AND STUDENTS COMFORTABLE FOR MORE THAN 35 YEARS.

Founded in 1974, Airedale has grown to become an industry leader in the research, design and production of heating, ventilation and air conditioning systems for schools and commercial applications. Our products ensure improved energy efficiency and a healthy environment for all end users. We offer a number of customized HVAC solutions to new school construction as well as retrofit applications that can both heat and cool the air to meet AHSRAE indoor quality standards.

In 2005, our heating portfolio was greatly expanded after being acquired by Modine Manufacturing Company. That means that in addition to our renowned single packaged vertical air conditioning units and ceiling cassettes, we now offer schools a full line of steam/hot water cabinet and unit heaters, fin tube radiation, indirect and direct gas-fired heating and low-intensity infrared heating.

**“Since purchasing 200 Airedale univents we have reduced our carbon footprint while increasing our customer satisfaction for climate control.”**

**Mark Ceo**  
Manager of Maintenance and Engineering  
Birmingham Public Schools  
Birmingham, MI



During construction of the new Rivercrest Elementary School (Hudson, Wis.) Airedale worked with the school district to meet HVAC specifications.



# FROM CLASSROOM TO BREAK ROOM.

As a leader in the research, design and production of classroom HVAC systems, Airedale offers a variety of solutions to obstacles encountered in new construction and retrofit situations. For more than a quarter of a century we have been actively solving air quality problems in U.S. schools by offering systems designed to provide a healthy, safe and quiet learning environment, all while creating a sensible balance between energy efficiency and supplying the proper amount of outside ventilation air.

We are best known for our single packaged vertical HVAC classroom solutions. These products are available as chilled water cooling/hot water heating, steam heating, gas heating, DX cooling and heat pump, and ground source (geothermal)/water source heat pump units. With sizes available to handle almost any airflow demand, school districts, architects and engineers are finding out why Airedale is the solution for all their HVAC needs.

Airedale also offers a number of complimentary products, creating a one-stop-shop when it comes to specifying an HVAC solutions provider. This includes products such as ceiling cassettes, under-the-window unit ventilators, hydronic and cabinet unit heaters, fin tube radiation and packaged rooftop units, to name a few.

## WHEREVER COMFORT CALLS,



### Low Intensity Infrared

Spot- or area-heating for objects (not air) in larger environments such as high ceilings, near open doors and loading docks



### Indirect Fired Rooftop (WeatherHawk)

For buildings that require significant space heating and/or make-up air; wide performance capabilities



### Direct Fired Rooftop

For buildings that require significant make-up air; wide performance capabilities; 100% efficient



### Duct Furnace

Supplies heat to an air stream provided by other equipment; ideal for make-up air



**“When we needed heating/cooling solutions for 22 classrooms that were constructed in 1973, we went with ClassMate HE units from Airedale. The maintenance staff is happy not to be on the roof in winter and we are pleased with the efficiency, savings and overall performance of the units.”**

**Keith Gourlay**  
Director of Facilities  
Sparta Township Public Schools  
Sparta, NJ

# AIREDALE IS THERE.



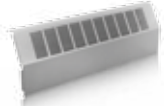
**Steam/Hot Water Unit Heater**  
Ideal for commercial and industrial apps; horizontal and vertical throw available; low cost and easy installation



**Cabinet Unit Heater**  
Ideal for independent heating zones; flexible control and configuration options; steam/hot water heating source



**Convactor**  
Maximum installation flexibility; can be recessed, wall hung and free standing; steam/hot water heating source



**Fin Tube**  
Variety of styles and enclosures to meet any architectural style; steam/hot water heating source



**Cassette**  
Ductless cooling; zone controlled for better efficiency; low equipment/installation costs; space-saving



**Sentinel® – Vertical Unit Ventilator**  
Operates with a school's central chiller/boiler; available in chilled water, hot water/steam or both; available in high-humidity and draw-through face and bypass



**ClassMate® HE – Vertical DX Cooling & Heat Pump**  
Available with two stage R410a compressor. Highly efficient single packaged vertical air conditioning and heat pump unit



**SchoolMate® HE – Vertical Water/Ground Source Heat Pump**  
Water source unit that uses building's heating/cooling system for energy savings; ground source units use the heat sink of the earth



**Varsity® – Vertical Under-the-Window Unit Ventilator**  
Time-tested solution to bring fresh air into classroom; blends in with surroundings, inside and out



# SOLUTIONS FOR EVERY CLASSROOM PROBLEM.

When it comes to improving your school's indoor air quality and lowering your energy costs, Airedale makes the most **SENSE**.

**S**erviceability – Our packaged HVAC units have a modular design, allowing easy access to controls or the removal of critical components. That means less time spent on maintenance and fewer expensive service calls. Annual tasks like filter-replacement or general unit cleaning are a snap with Airedale.

**E**fficiency – More efficiency equals greater savings. Our classroom HVAC solutions ensure school districts are getting the latest technology – such as multi-stage compressors, multi-speed fans and energy recovery wheels/economizers – to allow for efficient operation.

**N**oise reduction – Classroom environments are more conducive to learning when it's quiet. All of our packaged units are equipped with sound attenuating panels, acoustic foam insulation and an optional sound-deadening compressor jacket and sound-attenuating door. Students can no longer complain they didn't hear the teacher.

**S**ize options are many – Space and capacity are common concerns among classrooms. We offer multiple configurations, capacity options, and product footprints to handle a wide variety of specifications and CFM demands.

**E**nvironmentally conscious – At Airedale, we understand schools are trying to stay in front of the environmental curve to reduce their global footprint. And so is Airedale, through our early adoption of R410a refrigerant and our expanded line of vertical water source/ground source heat pump units.



Service technicians need only open the doors to see how easy it is to access critical components such as the control panel, supply fan and filters. They can also find the keys to added efficiency with our multi-stage compressor and energy recovery ventilator.



Our sound-deadening compressor jacket and sound-attenuating door deliver the quietest environment possible.

**“Many modern schools are multi-functional community facilities. Airedale allows flexibility in the control and operation of each space to meet the changing needs and time of occupancy. The ability to control each area’s HVAC needs results in an extremely energy efficient, cost effective facility.”**

**Joe Di Cara**  
Di Cara | Rubino Architects  
Wayne, New Jersey

Airedale understands schools have limited space. We have products to fit any unique situation, whether it's under a window, tucked into a ceiling or located in the corner of a classroom.







We have a variety of louvers that make it easy to integrate products into new or existing structures.

## Customized Designs for Any Room Application

Airedale offers outside air louvers in multiple styles and colors that blend into the exterior, allowing architectural freedom in the design of roofs and facades.

- Single or twin louvers
- Baked enamel or clear anodized aluminum
- Over/under sill
- Through windows

## A Variety of Supply Air Options

Airedale's vertical classroom solutions allow a variety of supply air options ... all of which assure superior classroom air circulation to meet or exceed local requirements.

- Ducted high wall supply – Conditioned air supplied through field-installed ductwork. Provides excellent supply air with low sound levels for retrofit projects and restricted ceiling space.
- Ducted ceiling supply – Conditioned air supplied through a ducted ceiling system. Provides reduced sound levels and superior air distribution.
- Three way discharge plenum – Acoustically lined and painted to match the unit, these plenums distribute conditioned air at high levels up to three directions. Ideal for tight budgets or on projects with restricted ceiling space.
- Accessory gas plenum – Available on the ClassMate HE, this plenum provides additional heating capacity. Compatible with ducted supply.

Supply air is ventilated throughout the classroom via a ducted ceiling system in this example.



Optional rear extensions are available, giving schools the flexibility of installing new equipment without having to create new holes in outside walls. This illustration also features a three way discharge plenum atop the unit, along with a sound-attenuating door.





# CLASSMATE® HE

## Air Conditioning and Heat Pump School Units

Model Sizes of 2, 3, 4, and 5 Nominal Cooling Tons

### STANDARD FEATURES

- Two-stage scroll compressor provides staged capacity control, enabling part load efficiencies to be increased
- ECM fan technology offers the perfect compromise between performance and noise
- Designed and optimized for R410A refrigerant
- Modulating economizer damper providing 100% free-cooling and minimum fresh air requirements

- Powered exhaust
- Aluminized steel casing with a durable polyester powder coat paint finish
- 2" filters, MERV 8 rated

### OPTIONS

- Ultra-quiet door with side intake air louvers and 2" insulation
- Sound-reducing compressor jacket assembly
- Single stage compressor

- Factory supplied BACnet or LonWorks compatible controls
- Energy recovery wheel
- Hot water or steam heating coil
- Hot gas reheat for dehumidification control
- Hot water valve and piping packages

### ACCESSORIES

See accessory listing below



# SCHOOLMATE® HE

## Water Source & Ground Source Heat Pump School Unit

Model Sizes of 2, 2.5, 3, 3.5, 4 and 5 Nominal Cooling Tons

### STANDARD FEATURES

- Self-contained air conditioning/heat pump
- Hermetic two-stage scroll compressor
- Designed and optimized for R410A refrigerant
- EC fan Motor
- Aluminized steel casing with a durable polyester powder coat paint finish

- 2" filters, MERV 8 rated

### OPTIONS

- Ultra-quiet door with side intake air louvers and 2" insulation
- Sound-reducing compressor jacket assembly
- Factory supplied BACnet or LonWorks compatible control
- Energy recovery ventilator

- Hot water or steam heating coil
- Electric heating
- Hot gas reheat for dehumidification control

### ACCESSORIES

See accessory listing below



# COMMON ACCESSORIES

Accessories listed below are available for ClassMate HE, SchoolMate HE, and Sentinel

- Wall sleeve and rear extension for customized solutions
- Discharge plenums
- Humidity sensor
- Duct shrouds
- Outdoor louvers





## SENTINEL®

### School Unit Ventilator

Model Sizes of 3, 4, 5, and 6 Nominal Cooling Tons

#### STANDARD FEATURES

- Five models: Chilled water, hot water, steam or a combination of both chilled and hot water (two-pipe and four-pipe configurations)
- Modulating economizer damper providing 100% free-cooling and minimum fresh air requirements
- Aluminized steel casing with a durable polyester powder coat paint finish
- 2" filters, MERV 8 rated

#### OPTIONS

- Factory supplied BACnet or LonWorks compatible controls
- Energy recovery wheel
- Face & bypass
- 3-speed switch
- Powered exhaust
- Hot water and chilled water valve and piping packages

- High humidity unit with outside air pretreatment coil

#### ACCESSORIES

See accessory listing on previous page at the bottom



## VARSIY®

### Under-the-Window, Vertical Unit Ventilator

Model Sizes of 750; 1,000; 1,250 and 1,500 CFM

#### STANDARD FEATURES

- Chilled water cooling coil
- Modulating economizer damper providing 100% free cooling and minimum fresh air requirements
- 14 gauge cabinet panels
- Textured, fingerprint free hammertone finish

#### OPTIONS

- Hot water heating coil
- Face & bypass
- Factory supplied controls
- Hot water and chilled water valve and piping packages
- Multiple rear extension/adaptor inlet air arrangements

#### ACCESSORIES

- Subbases
- Utility compartments
- Wall sleeves
- Outside air louvers



## SLIMLINE PERFORMER® CEILING CASSETTES

### Air Conditioning, Heat Pump and Chilled Water Models

Ratings from 8,000 BTU/h to 42,000 BTU/h

#### STANDARD FEATURES

- Energy efficient, space saving design
- Low noise level operation
- R410a air conditioning or heat pump from 18,000 to 42,000 BTU/h
- Chilled water cooling from 8,000 to 36,000 BTU/h
- Easy installation and maintenance
- Built-in condensate pump
- Branch knock-outs for duct to remote outlets
- Fresh air knock-outs for ducted connections to outside air
- Control transformer 230V/1Ph to 24V

#### OPTIONS

- Hot water heating
- Hot water coil freeze protection
- Electric heat

- Microprocessor controller

#### ACCESSORIES

- Mechanical and digital thermostats
- Duct collars
- Valve packages for chilled water and hot water models
- Spare filters



## INDIRECT FIRED DUCT FURNACES AND MAKE-UP AIR UNITS

**Indirect Gas-Fired, Indoor and Outdoor, Duct Furnace and Make-Up Air Units**  
Ratings from 75,000 BTU/h to 1,200,000 BTU/h, Natural or Propane Gas Airflow Ranges from 556 to 14,500 CFM

### STANDARD FEATURES

- Available in 17 gravity, separated combustion, or power vented model sizes
- 80% thermally efficient
- Aluminized steel heat exchanger, burner, drip pan (stainless optional)
- Blower performance certified to 3.0" W.C. external static pressure
- Single stage, two stage, or electronic modulating gas valves

- Separate line voltage and low voltage terminal strips

### OPTIONS

- Downturn plenum section (outdoor)
- DX or chilled water cooling coil section
- Evaporative cooling section (Outdoor)
- 1" or 2" permanent, 2" disposable, or 2" FARR® 30/30 filters
- Building management compatible or master/slave gas controls

- Insulation for blower, cooling cabinet, and/or downturn plenum, and double wall construction

- Two position, modulating, or floating inlet dampers, economizer control packages

- Totally enclosed, high efficiency, and two speed motor options, variable frequency drives

- Blower and motor vibration isolation



## DIRECT FIRED MAKE-UP AIR UNITS

**Direct Gas-Fired, Indoor and Outdoor, Heating and Make-Up Air Units**  
Input Ratings Up to 7,862,000 BTU/h, Natural or Propane Gas, Airflow Ranges from 1,600 to 60,000 CFM  
Return Air Model Capable of 75% Maximum Return Air

### STANDARD FEATURES

- 100% thermal efficiency (92% sensible)
- Fully insulated 8 gauge unpainted G90 galvanized steel casing (paint optional)
- Four (4) full access service doors
- Separate manifold and controls compartments

- Terminal strip, color coded wiring, and job specific wiring
- Motor ratings to 50HP
- Maxitrol 14, 44, or SC11 modulating temperature controls

### OPTIONS/ACCESSORIES

- Inlet hood, inlet dampers, v-bank filter section, discharge dampers, discharge louvers

- Evaporative cooler, fill & drain kits

- Two speed motors or variable frequency drive motor control

- Compatible building management system controls

- Blower and motor spring vibration isolation



## GAS-FIRED LOW INTENSITY INFRARED HEATERS

### STANDARD FEATURES

- Input ratings from 50,000 to 200,000 BTU/h in natural or propane gas
- Heat-treated darkened 16 gauge corrosion-resistant aluminized steel heat exchanger tubes for long life and maximum radiant heat output
- Water-resistant controls compartment for indoor/outdoor installation

- Polished aluminum reflectors efficiently direct radiant heat
- Rotatable gas valve for right or left-hand accessibility
- Durable, long-life, gray-green polyester powder coat paint finish
- Permanently-lubricated combustion air blower mounted inside burner box (for quiet operation)

- Side access panels for servicing both sides of burner box

- Enclosed burner compartment allows burner box to be open while manifold pressure is adjusted



# STEAM/HOT WATER UNIT HEATERS

**Steam/Hot Water Unit Heaters** Ratings from 12,600 BTU/h to 952,000 BTU/h

## STANDARD FEATURES

- Horizontal, vertical, or horizontal high velocity air delivery
- Copper coil tubes with optional fin spacing for low outlet temperatures
- Cupro-Nickel coil tubes on select models for high steam pressure/water temperatures

- Rugged construction to handle rigorous conditions
- Totally enclosed motors with thermal overload protection
- An electrical junction box for easy electrical connections
- Optional finger proof fan guard

## ACCESSORIES

- Optional air deflectors
- Solid state speed controllers
- Pipe hanger kits



# CONVECTORS

**Steam/Hot Water Convectors** Ratings from 1,000 BTU/h to 27,000 BTU/h

## STANDARD FEATURES

- 20 gauge liner, 18 gauge front
- Heating elements available in three nominal depths: 4" (2-tube), 6" (3-tube), or 8" (4-tube)
- Mechanically bonded aluminum fins with integral collars for uniform spacing and maximum heat transfer

## OPTIONS/ACCESSORIES

- Louvered, security perforated or aluminum bar grille inlet/outlet front covers
- 18, 16, or 14 gauge liner and/or cover options
- Access door

- Tamperproof hardware
- Right and/or left hand end pocket
- Optional colors per AIR13-416
- Outlet damper assembly, knob or tamperproof operator



# FIN TUBE

**Steam/Hot Water Fin Tube Radiation - Element and Enclosures**  
Ratings from 840 BTU/h to 3,860 BTU/h

## STANDARD FEATURES

- Full range of enclosure styles and sizes for the most demanding architectural requirements
- Air discharge louvers with "pencil proof" design
- Interlocking slip-joints for smooth hairline joints; no fasteners required

- 3/4", 1", or 1-1/4" OD seamless copper tube elements with many fin options

## OPTIONS/ACCESSORIES

- Dampers, knob or tamperproof operator
- Aluminum bar discharge grilles

- Optional colors per AIR75-403
- End caps and end enclosures
- Enclosure extensions, with or without door
- Valve compartments
- Corners, inside or outside, 90° or 135°



# CABINET UNIT HEATERS

**Steam/Hot Water Cabinet Unit Heaters** Ratings from 7,800 BTU/h to 121,800 BTU/h

## STANDARD FEATURES

- Attractive one-piece cabinet top and sides for rigorous conditions
- Cabinet end pockets and sound dampening insulation
- Quick change permanent filters
- Copper tube, aluminum fin coils, single row coil
- Blower and motor removable as a single platform

- Solid state speed control with Off position

## OPTIONS/ACCESSORIES

- High capacity 2-row coil
- Disconnect switch
- Access doors on WCC models
- Tamperproof hardware and/or keylocks
- Aluminum bar grilles

- Duct collars
- Dampers - manual or motorized
- Unit mounted return air thermostat
- Optional colors per AIR75-403
- Perma-Lap frame for recessed applications
- Valves - two and three position electric and modulating non-electric





To learn more visit [www.AiredaleUSA.com](http://www.AiredaleUSA.com)  
or call 1-866-823-1631

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