




There's Innovation in the Air

Custom-made
air handlers

- 
- Ventilation
 - Heating
 - Air conditioning
 - Energy recovery



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There's Innovation in the Air

For the past 30 years, Bousquet Technologies has been designing and manufacturing top-of-the-line heating and cooling air handlers. Trust our team of engineers, technicians and experienced representatives to design high-tech air handlers in accordance with your specifications. All of our air handlers are manufactured using proven high-performance materials, and built according to the most stringent standards in the areas of safety, water-proofing, resistance, power, energy efficiency, noise reduction and space maximization.

Sectors of Activity

Industrial

- Mines
- Wood transformation
- Aluminum factories
- Transportation
- Water filtration and wastewater treatment
- Paint shops
- Mechanical shops
- Garages

Commercial

- Restaurants
- Commercial centres
- Multiple-use complexes

Institutional

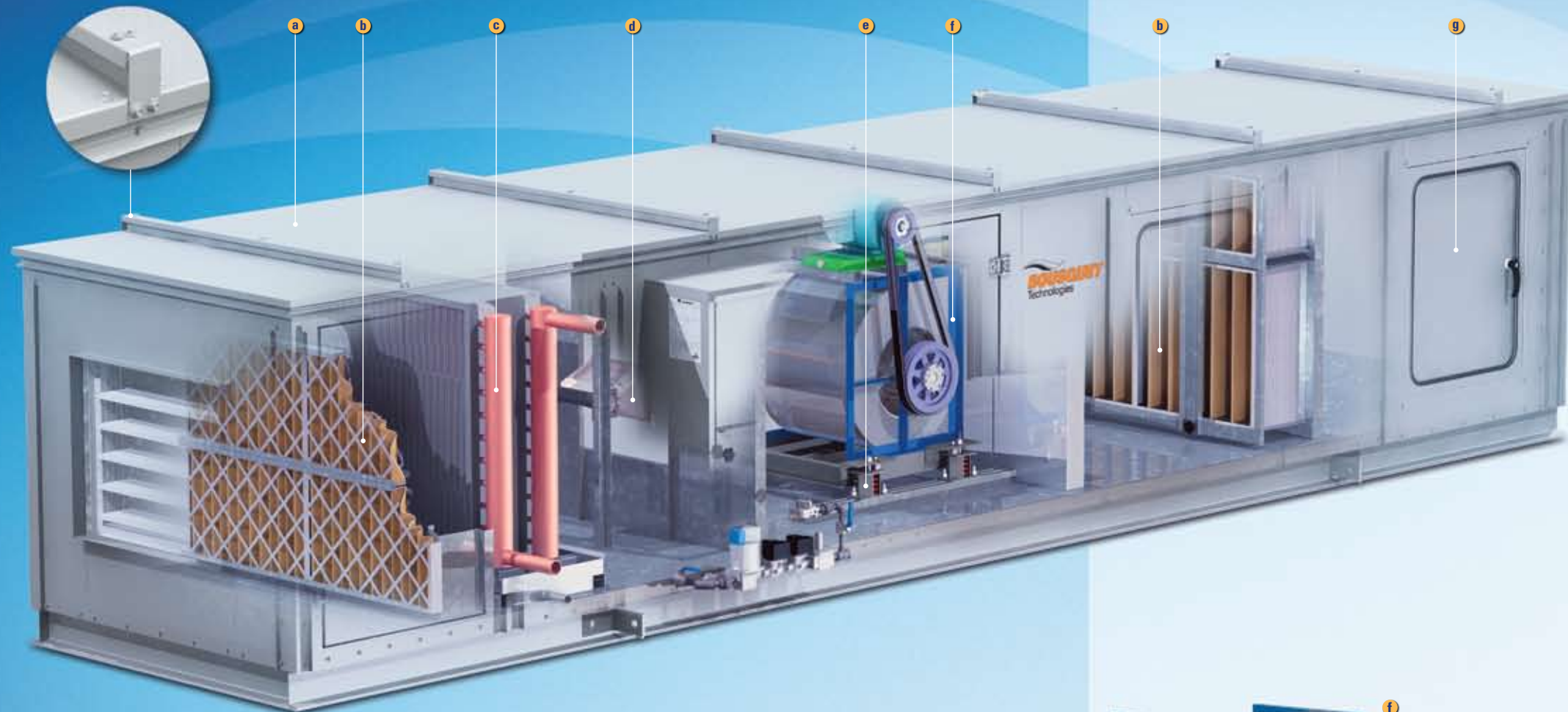
- Arenas
- Schools
- Nursing homes
- Pools
- Hospitals

Thanks to an adaptable design method and variable-geometry construction, the BC series of custom-made air handlers from Bousquet Technologies is able to meet the ventilation requirements of multiple applications by integrating heating, cooling, humidification, and appropriate energy-recovery equipment.

Discover the variety of equipment that can be integrated into the composition of your air handlers by consulting our state-of-the-art achievements.

Air handler with fresh air heating & cooling

This air handler cools and dehumidifies the air using a chilled-water coil, and heats it with a direct-fired burner. Then the high-static double-width double-inlet blower with airfoil blades propels the air through high-efficiency cartridge filters (90% to 95%, MERV 14). The unit also includes a humidifier section that is equipped with a humidity distributor and a 304L stainless steel condensation pan.



a Flat roof

- Double wall with 2 inches of insulation
- High rigidity with exterior double-break edges
- Air- and water-tightness guaranteed by the application of sealant and neoprene gaskets between panels
- Aesthetic finish provided by inverted-U shaped mouldings and an aluminum drip rail



b Cartridge filters

- Robust construction with 12-inch media for prolonged service life
- 90% to 95% filtration efficiency (MERV 14)
- Installation at the blower discharge prevents contamination by infiltration
- Low-velocity design (375 fpm)

30/30 Pre-Filters

- 25% to 30% filtration efficiency (MERV 6 or 7)
- Medium-velocity design (400 to 500 fpm)
- Installed in slide-rail supports

c Chilled-water cooling coil

- Cooling coil with 8 rows and 11 fins/inch
- 304L stainless steel condensation drain pan
- Optional hot water and glycol applications
- ARI certified performance



d Direct gas-fired heating module

- 500 MBH capacity and temperature range up to 96°F
- 25:1 modulation ratio and temperature controls
- 100% thermal efficiency
- Constant-velocity profile plate for variable air volume
- CSA approved for the US and Canada



e Springs

- Antiseismic construction
- Integrated base frame for motor and blower assembly
- Calibrated to base frame corner weights



f Supply blower

- DWDI-type blower with backward inclined Class I wheel
- Constant air volume
- 4,500 CFM flow rate against a total static pressure of 4.2 i.w.c.
- High-efficiency design
- Ball bearing with L(50) 200,000 hrs life cycle
- AMCA certified performance



g Doors and handle

- Rigid double wall with 2 inches of insulation
- One-piece frame with no welds
- G90, 18G galvanized steel
- Neoprene bulb gasket ensures low-leakage rates
- Non-rusting door hinges and handle designed to -40°C
- Quick opening
- Lock with key
- Full-width rain gutter
- Positive-pressure downstream of fan



Air handler with energy recovery

This unit is designed to recover latent & sensible heat from the exhaust airflow, and to perform in extreme cold temperatures (-40°C) and at a variety of fresh air flows. The wheel is equipped with a speed controller to prevent the formation of ice. The unit has an integrated gas heating module, the capacity of which is established according to recovery capacity.



a Sloped roof

- Eliminates water quickly
- Painted and galvanized steel for corrosion protection
- High stiffness with double-break edges and 18G construction
- U-shaped mouldings over each joint ensures water-tightness
- Integrated aluminum rail for securing the roof without perforating the sealed boundary
- All screws have integrated gaskets

i Intermediate floors

- G90, 14G galvanized steel
- Double-bend paneling
- 2 inches of fiberglass insulation
- PVC gasket between panels
- Welded structural framing as required



h Indirect gas-fired drum and tube heating module

- Net capacity of 750 MBH
- Pressurized natural gas burner
- High turndown ratio (25:1)
- Four-pass 304L stainless steel heat exchanger
- 80% thermal efficiency
- ETL approved for the US and Canada



b Gravity-controlled backdraft damper

- Airtight neoprene gaskets
- Aluminum parallel blades and frame



c Exhaust blower

- DWDI-type blower with forward-curved Class I wheel
- Stable performance at low static pressure
- Galvanized steel construction ensures increased durability
- Ball bearing with L(50) 200,000 hrs life cycle
- AMCA certified performance



d Air-to-air, latent, and sensible energy recovery wheel

- 8,600 CFM flow rate
- Transfers sensible and latent energy
- Vertical side-by-side airflows
- 70% exchange efficiency
- Variable rotation speed ensures frost control
- Very low cross-contamination rates
- ARI certified performance



e Insulated low-leakage fresh air dampers

- Aluminum blades and insulated frame
- Exceptional precision and durability
- Leakage rates of less than 4.12 CFM/ft² (20.8l/s·m²) against a static pressure of 4 i.w.c. (1kPa)
- Thermal break construction
- Designed for operating temperatures down to -40°C



g Louvers

- Complete extruded aluminum construction
- Design prevents water infiltration
- Integrated bird screen

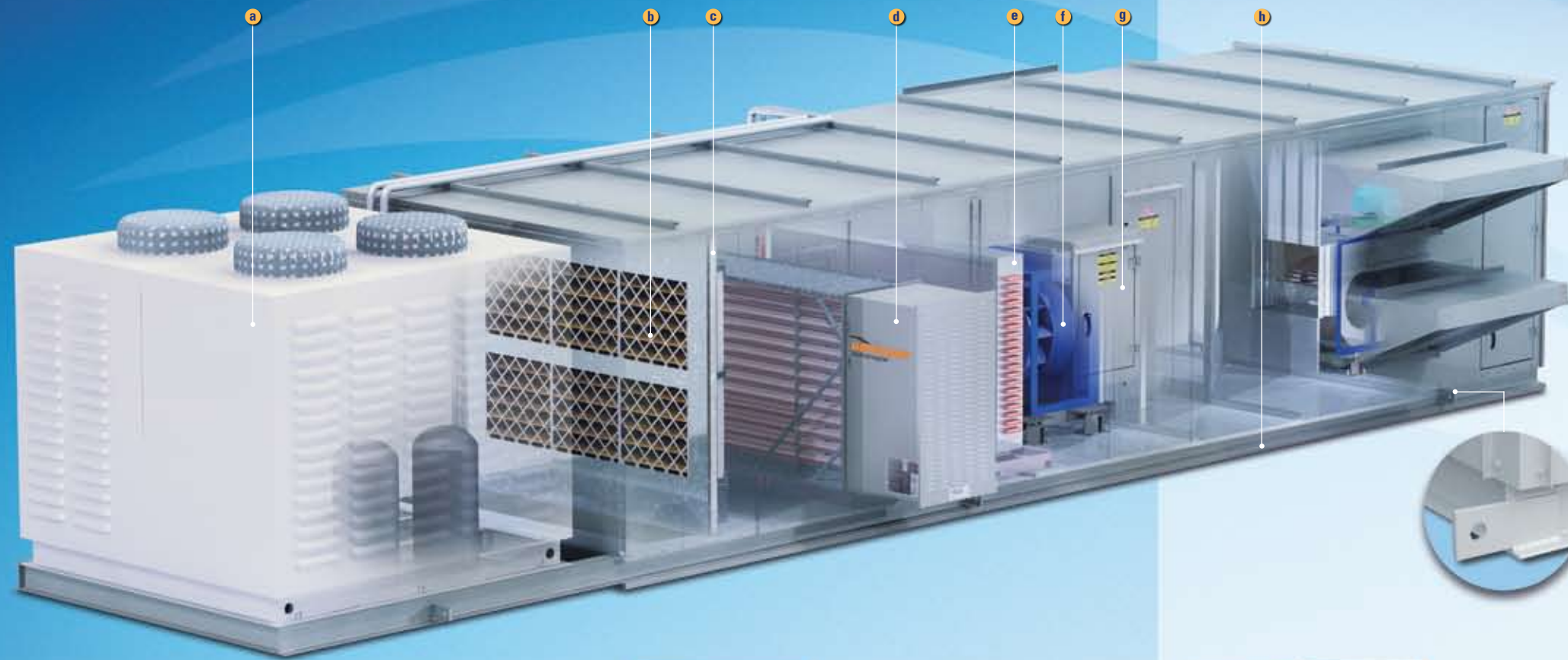


f Pressurized burner

- High turndown ratios (20:1, 25:1, and 40:1)
- Low maintenance
- Temperature accuracy
- Natural propane and gas

Air handler with integrated cooling

This unit is designed to vary the flow of fresh air & exhaust air with a single modulating signal. It is equipped with a return air blower and a mixing section with modulated exhaust, return, and fresh air dampers. The opening of the dampers varies according to fresh air needs in order to accommodate the requirements of the ventilation loads or free cooling. The air is then mixed and then propelled by the supply blower to be cooled and dehumidified or heated before being filtered through high-efficiency cartridge filters.



a
Packaged condenser unit

- Prefabricated unit integrated in the factory
- Refrigeration pipe and controls integrated in the factory
- Factory-tested
- R22, R407, and R410 refrigerants



b
High-efficiency filters (HEPA)

- 99.9% filtration efficiency
- Installed at the supply blower outlet
- 500 fpm maximum velocity

c
Walls and insulation

- Outside skin made from G90, 18G galvanized steel (16G optional)
- Optional inside skin made from 22G aluminum, or galvanized or stainless steel
- Variable-width (6 inch, 12 inch, 18 inch) double-break panels
- 2-inch insulation thickness (3-inch and 4-inch options available)
- PVC gaskets between panels
- Water- and air-tightness provided by a sealant applied at each panel joint
- 1.5 lb/ft³ density fiberglass insulation (up to 4.5 lb/ft³ available)
- Humidity and moisture resistant



d
Indirect gas-fired tubular heating module

- Net capacity of 650 MBH
- Natural gas burner
- Multi-stage (19) modulation with 22:1 ratio
- 80% thermal efficiency
- Heat exchanger made from 304L stainless steel
- ETL approved for the US and Canada



f
Plenum-type blower with backward-inclined blades

- Uniform air distribution
- Optimal efficiency
- Efficient mixing of return air and fresh air streams
- Airflow rate of 12,000 CFM @ 3.7 i.w.c.



e
Direct-expansion cooling coil

- Up to 4 circuits
- Optimal design for all applications
- R22, R407, and R410 refrigerants
- Integrated 304L stainless steel drain pan
- ARI certified performance



g
Control panels

- Factory-tested control options:
 - Sensors
 - Thermostats
 - Wall-mounted panel
 - Actuators
 - Variable-frequency drives
 - Switches
 - Programmable logic controllers with mainstream language protocols, including BACnet
 - Heating element
 - Units CSA approved for the US and Canada

h
Structural floor framing

- Welded "C" framed channels
- CWB certified welders
- G90 22G galvanized steel underliner
- Galvanized G90 14G floor
- 2 inches of fiberglass insulation
- PVC gaskets between panels

Other components



Air-to-air sensible energy recovery wheel

- 1,500 CFM to over 30,000 CFM capacity
- Transfers sensible energy
- 50% to 75% exchange efficiency
- VFD frost control
- ARI certified performance



Air-to-air plate heat exchanger

- 1,500 CFM to over 30,000 CFM capacity
- Transfers sensible energy
- 50% to 75% exchange efficiency
- By-pass frost control
- No cross-contamination
- ARI certified performance



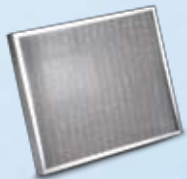
Heating and cooling coils

- Custom-designed
- Available for all HVAC applications
- Frost-protection designs
- Glycol runaround loop
- ARI certified performance



Electric heaters

- Custom-designed
- SCR-type modulation
- Open or tubular elements
- Harmonized design or NEMA 4X construction
- Up to 40 kW/ft²
- CSA approved for the US and Canada



Permanent aluminum filters

- Full aluminum construction
- Available in all formats
- Ideal for installation in inlet hoods
- Rail-type support



Bag filters

- Aluminum frame
- 45% to 95% efficiency (MERV 9 to 14)
- Front-loading support frame



Heat-pipe energy recovery heat exchanger

- Transfers sensible energy
- No moving parts
- ARI certified performance

Why choose Bousquet Technologies?

Plant characteristics

- Components certified by recognized and independent organizations
- G90 galvanized steel finish on all surfaces
- 304L stainless steel gas heat exchanger
- Superior quality finish
- Design by means of 3D creation visualization software applications
- Laser cutting table and interrelated folder

Experts and know-how

- Team of engineers and technicians with HVAC experience
- Know-how comprising more than 30 years in manufacturing
- Founded in 1946

Certifications

- Performance of components certified by AMCA and ARI
- Products are certified by the CSA or ETL for Canada and the United States
- Plant certified by the Canadian Welding Bureau (CWB)

Benefits

- Outstanding after-sales service
- Quick turn around
- Reliability and robustness of products
- Strict manufacturing standards