



**ClimateCraft**<sup>®</sup>

A SUBSIDIARY OF LSB INDUSTRIES, INC.



air

As reliable  
as the  
you breathe...



**ClimateCraft:** meeting specialized air conditioning demands in health care environments



**H**health care facilities are unlike any other types of buildings. Critical control of the HVAC, electrical and communication systems and environments is essential...24 hours a day, seven days a week. Special demands are often put on the HVAC system, which can be complex and costly to own and operate (especially

when standard commercial units are used on hospitals).



ClimateCraft has the specialized knowledge and experience to manufacture reasonably-priced, industrial-strength air handling units for medical applications. We have earned a solid reputation for providing the products hospitals need for virtually all areas, including surgical suites and emergency rooms, laboratory environments, patient care rooms, support services and medical office buildings.

Each ClimateCraft unit is custom designed for low-cost, long-term ownership with special features

and componentry that do more than simply provide for a comfortable environment for building occupants.

Units are optimally configured to ensure good indoor air quality, providing adequate ventilation and humidity control to curtail exposure to the airborne transmission of viruses, bacteria and fungal spores. They operate reliably and efficiently, conditioning large amounts of outside air in the most economical manner possible. ClimateCraft units meet high acoustic performance standards, as well.

*Nine large ClimateCraft units were installed on a six-story Patient Tower at Baylor Medical Center in Grapevine, Texas. The units, all designed with service vestibules for ease of maintenance, were factory-tested and field-verified for air tightness and sound attenuation. The units serve patient rooms, a cafeteria, two operating rooms, an Intensive Care Unit and a Cardiac Catheterization Laboratory.*



## ClimateCraft Units are Value-Engineered

High static pressure, typical in hospital applications due to special filtration requirements and complex duct work, places an extraordinary demand on air handler cabinets and fans. Unlike standard commercial units, ClimateCraft cabinets are built to withstand high operating pressure without deflection or air leakage.

### Our patented bolted standing seam cabinet construction method

results in cabinets that are extremely strong, operationally efficient and easy to maintain. The unit bases are welded from carbon steel for a sturdy, durable assembly that isolates vibration from the building



as the system operates, and **our unique panel and door construction with its integrated thermal break** helps eliminate sweating at panel joints and door seals. This 100 percent thermal break reduces opportunities for water to collect under and around the unit, preventing building degradation, safety hazards and fungal growth.

**High quality bulb gaskets**, mechanically attached to the door for easy replacement, eliminate air leakage.

An **aluminum roof rail** ties individual panels together and supports the roof even when panels are removed for maintenance. Panels are joined by **rugged, stainless steel fasteners that are accessible from the outside of ClimateCraft units**, making panels easy to remove as a single piece assembly. There is no need to remove the roof, disassemble a panel or cut out internally-welded structural members to service large components!



*ClimateCraft's unique roll-formed construction results in a unit cabinet that is significantly stronger than framed units that are welded. An aluminum roof rail ties individual panels together and supports the standing seam roof.*

## The ClimateCraft Advantage...

In addition to the AMCA-certified QEP fan, ClimateCraft uses only rugged, quality components selected for years of reliable service, such as AMCA-certified, low leakage dampers, ARI-certified coils, and sloped stainless steel drain pans that drain completely, resisting corrosion and meeting IAQ standards.

ClimateCraft has years of experience in the unique requirements of hospital HVAC, including

- make-up air (100% outside air requirements),
- special filtration systems,
- optional materials (stainless steel for corrosive environments, galvanized skins on indoor units for cost-driven applications),
- energy-efficient options, including VFDs and heat recovery systems,
- integrated control systems and starter panels,
- maintenance-oriented features including conditioned service vestibules, fluorescent lighting, convenience outlets and treadplate flooring, and
- perforated liners and hospital-grade sound attenuators to reduce and eliminate operational noise.

ClimateCraft offers several options for fan selection, including plenum, DWDI, mixed flow and vane axial fans.

An **exclusive feature** from ClimateCraft is the **reliable QEP fan**, the most efficient plenum fan on



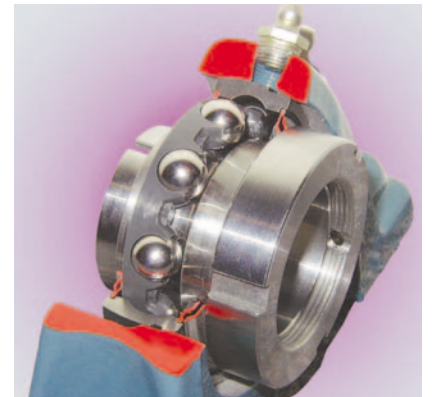
QEP Plenum Fan

QEP PHOTOS  
COURTESY OF GREENHECK

the market. The QEP fan is available at **no extra cost.**

**An all-aluminum wheel with 12 airfoil blades** results in reduced vibration, producing more air flow while using less energy. Also significant in hospital applications, the QEP fan operates much more quietly than traditional nine-blade plenum fans. Sound quality is improved by reducing low frequency tones that are difficult to attenuate in other fans.

The QEP fan utilizes **concentric locking ball bearings**, specifically manufactured and tested for HVAC applications, that have increased holding strength without shaft marring. The standard bearing life is L10 80,000 hours.



*The concentric locking ball bearings in the QEP plenum fan have increased holding strength without shaft marring.*

**ClimateCraft's Design Assistant® software** also enables engineers to generate quick and accurate drawings.

Units can be designed for indoor or outdoor installation, and for new or retrofit applications. Facilities renovation and retrofit applications pose

their own sets of challenges for designing and operating HVAC systems. ClimateCraft has the manufacturing flexibility to design units to fit a specific footprint or utilize existing ductwork, and the ability to meet tight deadlines for installation and startup.



*Powder coating is also available in custom colors, as specified by the biotechnology company that ordered this custom air handler. The extremely durable, high quality coating won't chip, flake or peel over the life of the unit.*

## High Quality Coating System Adds to Overall Unit Durability

ClimateCraft's standard cabinet is finished with a **high quality industrial coating system specially formulated to withstand adverse conditions and weathering**, including 1,000 hours exposure to five percent salt spray. Customers also have the **option of specifying a powder coat finish**, an advanced painting process which stays "clean looking" over the life of the unit.

Powder coating produces an extremely durable, high quality and attractive finish that won't chip, flake or peel. Dry powdered paint is sprayed onto the surface being coated. The powder adheres

electrostatically and is then baked at high temperatures until it fuses into a uniform coating. This process presents a dramatic advantage over traditional liquid coating techniques in terms of durability and corrosion resistance. Additionally, no solvents are used so only negligible amounts of VOCs (Volatile Organic Compounds) are released into the air.

Powder coating is very versatile and can be applied to virtually any type of metal, resulting in a finish that is typically twice as thick as standard paint (three to four mils, compared to one to two mils). The thickness of the powder coating helps make it more resistant to scratches and nicks.



## Two ClimateCraft Systems at Work

■ A 65,000 cfm air handler manufactured for a [hospital-based physical rehabilitation center in Minneapolis, Minnesota](#) (above), was installed in a large room underneath a two story parking garage... an area that previously served as an employee fitness room. The only access to the newly-created mechanical equipment room was through a small opening in the side of the garage.

The ClimateCraft unit was split into nine pieces and each section turned horizontally to get through



this opening, with only a few inches of clearance on each side (above inset photo). The coils and fans had to be removed as well. With ClimateCraft's unitized cabinet construction, the unit was quickly

reassembled on site, easily meeting the original specifications for air flow and acoustical performance.

■ When the [Medical Center in Plano, Texas](#) (left), built a new addition to house its surgical services department, ClimateCraft was selected to manufacture two air handlers to provide a total of 55,000 cfm of conditioned air to the surgery suites. A sight-proof fence was added to meet city codes.





*Ship to: 1427 N.W. 3rd, Oklahoma City, OK 73106*

*Mail to: P.O. Box 1538, Oklahoma City, OK 73101-1538*

*Phone: (405) 415-9230 Fax: (405) 415-9231*

*[www.climatecraft.com](http://www.climatecraft.com)*