

# **Custom Air Handling Solutions**



# **BENEFITS AT A GLANCE**

# For Consulting/Specifying Engineers

- Versatile product offering for equipment selection tailored to performance, budget and space requirements
- Efficient product design using AMCA® application guidelines to ensure optimal air performance
- Virtually limitless options for fans, motors, heating, cooling, humidification, filtration and energy recovery
- Complete packaged systems with controls for single source responsibility
- · Personalized guidance for challenging applications

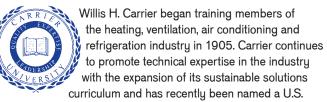
## For Building Owners & Managers

- Precision engineered, high-quality manufacturing for long, reliable performance
- Low-leakage, energy efficient unit design for low life cycle costs and quick payback for recovery applications
- Optimized designs for lowest first cost
- Simplified maintenance for continual cost savings
- Compact designs for maximum space in tight mechanical rooms or wherever floor space is at a premium
- · Custom solutions for the most difficult projects

#### **For Contractors**

- Designed for ease of installation and shipping: modular construction, knocked-down units and sections available
- Completely built-up units with full factory supervision available for easy on-site assembly
- Full size access doors, motor removal rails and intelligent design for ease of service
- · Factory testing for guaranteed unit performance
- · Proven quality for minimum maintenance and servicing
- · Experienced technical & sales staff at your service

# A Legacy of Training



Green Building Council Education Provider (USGBC EP).

To earn this status, Carrier's course materials were reviewed by a panel of USBGC peers and deemed to provide the high level of quality required for training Leadership in Energy and Environmental Design (LEED®) professionals. The courses and workshops supporting LEED-Accredited Professional and Green Associates credential maintenance are administered through Carrier University.

# The Future of the World Depends on Our Ability... to Sustain it.

As the world's leader in high technology heating, air-conditioning and refrigeration solutions, we believe that market leadership requires environmental leadership. Carrier sets industry standards for environmentally sound business practices and a commitment to sustainability across its products, services and operations. We demonstrate this commitment environmentally responsible solutions that considerations.



and operations. We demonstrate this commitment by creating environmentally responsible solutions that consume less energy and incorporate innovations that improve the world — indoors and out.









# Custom Air Handling Units Quiet, Efficient, Reliable, Durable









Healthcare Facilities & Pharmaceuticals

Industrial & Specialty Applications

Schools and Universities

Office Buildings & Commercial Spaces

Turn to the experts with over 40 years of experience in providing custom air handling solutions to the HVAC industry. Our goal is to be our customers' first choice in custom air conditioning, heating and refrigeration solutions everywhere in the world. We want to make the world a better place to live by creating comfortable, productive and healthy environments. We are a solutions company, committed to research and development in order to provide high quality energy efficient technologies to our clients.

#### **DESIGN FLEXIBILITY**

Racan Air Handling Units (AHUs) are the perfect solution for custom applications with volumetric flow rates ranging from 2,000 to over 300,000 CFM.

Racan AHUs are designed using proven structural principles and leading edge manufacturing technologies. With dimensions that can be manipulated in one inch increments, Racan AHUs can be designed to fit virtually anywhere. Racan has a full selection of filters, fans, heat exchangers, heating, cooling and humidification options. Units can be provided as a single piece, in multiple modules or entirely knocked-down for complete on-site assembly.



## **APPLICATION SPECIFIC FEATURES**

#### **Healthcare Facilities**

High efficiency (HEPA and ULPA) particulate filtration, Agion® antimicrobial coated inner liners, UV light technology, "free cooling" and energy efficient unit design provide the ideal and economical air conditioning system for the many demanding requirements of healthcare institutions.

# Food and Drug Administration and Pharmaceutical Design

Wipe-down and wash-down units with smooth aluminum or stainless steel inner liners and fully drainable floors provide clean precisioncontrolled supply air.

#### **Airports and Museums**

Outdoor air particulate filtration, gas phase filtration and energy recovery provide safe cost-effective Indoor Air Quality (IAQ) space conditioning.

#### **Schools and Universities**

Ultra-quiet 100% outdoor air systems with enthalpy wheel, heat pipe and fixed plate energy recovery technologies to provide the ideal learning environment for students and teachers.

#### Construction

Built for performance and durability, units are constructed from ASTM G-90 galvanized steel, but are also available in aluminum and stainless steel suitable for even the most challenging environments. All panels and bases are designed to resist deflection or bowing. Cabinets are designed for minimum deflection at the highest possible operating pressures and are also available with thermal break construction. The casing can withstand static pressures up to 15 inch water gauge with a leakage rate of less than one percent. Coupled with optimized component selection and superior unit design, Racan sets the industry standard for energy efficiency.

#### **Acoustics**

For optimal sound performance, each Racan air handler is built with two or four inch thick, acoustically rated panels. Double wall construction, complete with thermal/acoustic media and solid innerliners, provides excellent transmission losses while ensuring the highest IAQ standards. To enhance acoustic design, panels are also available with perforated inner liners and optional vinyl wrapping of insulation. In order to minimize noise at its source, fan sections are designed in accordance with Air Movement and Control Association International (AMCA®) recommendations. To further reduce inlet and discharge sound power levels, complete sound attenuation packages are available for sound-critical applications. A sound power level analysis is available upon request for any Racan unit.

#### **Indoor Air Quality**

Carrier has a recognized history of product and service leadership and Racan is no exception. Whether your application requires dilution, filtration or source control, Racan has the solution to meet your IAQ needs. From 100% outdoor air units with energy recovery options to the most advanced particulate and gas phase filtration technologies available on the market today, Racan has the answer. One of the best ways to encourage IAQ is to promote progressive design. All Racan units feature panels that are easily wiped down, incorporate sloped stainless steel drain pans to prevent standing water and may include UV lights to prevent problems before they begin. For added protection, inner liners can be specified with Agion® antimicrobial coated steel. This technology uses the controlled release of silver ions to provide the continuous suppression of microbial growth on the interior surface of the air handling unit.

## Innovation, Experience, and Expertise

Racan Carrier offers the most complete line of air handling equipment to match the specific requirements of your unique application.

#### STANDARD AND SEMI-CUSTOM AHUS

#### Optimair - 2,000 to 102,500 CFM

Semi-custom central station and rooftop curb-mounted air handlers designed for maximum flexibilty, small footprint and superior performance. The same quality you've come to expect from Racan, with standardized options and size ranges.

#### Acoustair® - 2.000 to 300.000 CFM (and above)

Custom air handling solutions designed to meet your applications-specific requirements. Flexible dimensions, optimized design and nearly unlimited options provide you with a custom unit at quality commercial pricing.

#### **FULL CUSTOM CENTRAL STATION AHUS**

## Builtair - 10,000 to 102,500 CFM (and above)

Full custom designs for exterior installations with large airflow requirements. Units are shipped knocked-down for complete on-site assembly under the guidance of our factory experts

#### Compactair - 4,000 to 30,500 CFM

Compartmental air handling units that are ideal for extremely quiet variable-air-volume floor-by-floor applications. Inlet and outlet silencers and overall unit design allow for indoor installation in close proximity to almost any occupied space.