

# **Pool Dehumidification Systems**

## **New Series 4**

Low Global Warming Potential (GWP) R454b Units



The perfect balance of water and air.









## We don't set the standards... we exceed them.

Today's pool room environments require better technology and higher quality, longer lasting equipment that is energy efficient and environmentally friendly. For more than 37 years, DXair engineers have surpassed industry standards for dehumidifiers, designing systems using minimal amounts of refrigerant per ton. Our systems and our expertise help you meet all LEED/ASHRAE/ACCA/SPS/UL Guidelines for indoor pools, while maximizing comfort at the lowest cost operation. These highly efficient units not only reduce operating costs, but contribute to reducing carbon dioxide emissions, a leading cause of global warming.

DXair systems are easily serviced with lower installation costs. DXair's compact design makes the units the smart choice for tight retrofit spaces and leads the industry with our "take apart" construction, allowing for units capable of moving thru a 36" door. The variety of options, energy efficiency, and uncompromising quality of all DXair products makes them the ideal choice for retrofits, and new residential, commercial, school, hospitality, rehabilitation, or athletic facility construction.

## Built in the U.S.A.

All DXair equipment is built in the U.S.A. using R454B refrigerant, and is ETL Intertek Listed.







## **Systems & Options**

## **Systems**

DXair produces a large and diverse line of high-efficiency packaged heat recovery dehumidification systems from 2 to 40 tons for residential and commercial indoor pools, natatoriums, and water parks. Our product line features a Hybrid Stainless Steel series with a High Grade 304 Stainless Steel Cabinet.

#### **Green Machines**

DXair's RRS (Reduced Refrigeration Systems) separates manufacturers, engineers and contractors from the competition. DXair introduced RRS in their indoor swimming pool dehumidification systems in 1988 and they continue distancing themselves from the competition. DXair has offered RRS for over 30 years. Instead of the larger refrigerant charge needed with air-cooled condensers, fluid/glycol cooled fluid coolers are used for heat rejection.

#### **DXair Geothermal**

The DXair Stainless Steel Geothermal unit is a non-reversing heat pump using the hot gas reheat condenser in heating mode and the evaporator in cooling mode. Units are tested to current ENERGY STAR® geothermal heat pumps, with heating COP's and EER's comparable to those numbers.

## The Truth About Evaporator Coil Rows

A common misconception in dehumidification is the belief that "more coil rows—such as 6, 8, or even 10—always mean better performance." This is simply not true. The effectiveness of a coil is determined by its total surface area, not just the number of rows. While adding rows does increase surface area, other factors—such as coil face area and fin design—also play a critical role in heat transfer. At DXair, we engineer our systems for optimal performance and efficiency. That's why we design our units with 3-4 row, field-cleanable evaporator coils, ensuring maximum heat transfer, reliability, and easy maintenance.

### **Coil Coatings**

DXair offers Bronze Glow, ElectroFin coated coils to protect against highly corrosive environments.

## DXair offers more than 64 different applications for:

- Air-cooled systems
- Liquid-cooled systems
- Water-cooled systems
- Boiler/HWC systems
- Cooling tower applications
- Heat pump applications
- Geothermal open and closed loop systems
- Optional no cooling dehumidification systems

## Other options include:

- Take-Apart Construction (TAC)
- Energy recovery options
- Outside air/purge options
- Bronze glow coated coils
- BAC Net Module



## Why Specify DXair?

## We're experienced.

When you purchase a DXair system, you're also buying our 37 years of engineering expertise. We're your partner from the moment you start your project. From ductwork design and layout, to ensuring the correct vapor barriers and building materials are selected, we bring a wealth of knowledge to the table and 30 years experience in the natatorium industry.

## Superior products.

Our extensive hands-on pool dehumidification application experience is the foundation of our product lines. As a result, our pool dehumidification systems are compact, highly efficient, and designed for indoor installation. Because they're indoors, they're easier and less expensive to install, service, and maintain than outdoor and/or rooftop systems. In addition, our products come standard with features and options that our competitors consider "add-ons"— saving you money on installation and long-term maintenance costs.

#### One size does not fit all.

We manufacture systems tailored to your facility's unique requirements—whether it's a rehab hospital maintaining 95°F water temperatures, a competitive swimming facility, a water park, a hotel, or a small residential project. Our designs accommodate your specific needs with vertical, horizontal, and take-apart construction options, ensuring a perfect fit for your space and operational demands. At DXair, we understand that one size does not fit all, and we are committed to delivering custom solutions that meet your challenges.

#### Customer service.

Consulting, customer service, and fast turnaround on project quotes is a DXair priority. With the high cost of building and capital equipment expenditures today, DXair has many advantages over other manufacturers and has become the respected choice of architects, engineers, and mechanical firms across the country.







# We Believe in Doing It Right the First Time.

Whether you're the architect, the general contractor, the mechanical contractor/engineering firm, or the owner, we partner with you from the design stage to the final installation and beyond. We know that making the right choices now will minimize costly repairs down the road.

## **Design stage**

Our process begins with the building itself— our experienced consultants will recommend vapor barriers, lighting, windows, insulation, and other building materials that are most suited to the natatorium environment.

## **Proposal stage**

Based upon your design criteria, we will provide a complete equipment proposal for your dehumidification system to include heating, cooling, pool heat recovery and the peripherals necessary for a complete turnkey package.

## **Engineering stage**

Our engineering staff will size the system based on standard pool room load data, design temperatures, and relative humidity. We'll also determine the air turnover rate and outside air requirements, and select the heating and cooling options. Each system will provide complete dehumidification, space heating, space cooling, and pool heating on a reclaim basis.

#### **Installation stage**

The most critical aspect of any installation is your air delivery and ductwork system. DXair provides comprehensive shop drawings for the mechanical space layout, proper air turnover rates, and the air delivery system with each project to ensure all specifications are met and followed according to (and exceeding) industry standards.



## DXair Pool Dehumidifier Systems

dxair.com sales@dxair.com (800) 514-7051



Call today for a free consultation and quote!