

# Indoor Pool Dehumidification

Smart Design with High Efficiency



# Meeting Today's Need for Sustainable Solutions

The attitudes and operating strategies of pool owners and managers have changed in recent years. Comfort is primary but comfort without efficient operation is not an option. The high cost of energy plus on-going maintenance and premature replacement is not a choice. Pool owners want equipment that will deliver user satisfaction at the lowest price and that is easy to operate. PoolPak® is the answer!

## Staying One Step Ahead of the Competition

PoolPak has a philosophy of taking operational efficiency to a higher level. Our forward thinking engineers are constantly striving to extract the last amount of operational efficiency from our moisture removal equipment without affecting comfort or operational ease. Beginning with our ComPak® PCP Series dehumidifiers to today's PPK and ClimatePak® VHR Series and Virtual-Tech® remote monitoring control system, you'll know why we are the dehumidification equipment of choice for yesterday, today and tomorrow!

## PoolPak PPK Series

The PPK provides exceptional value delivering unparalleled, consistent environment control at competitive market pricing. The smart design of this fluid-cooled system provides improved energy savings, simpler installation requirements, significantly less refrigerant and other operational advantages over traditional air-cooled refrigeration systems. All refrigerant components are factory sealed and fully factory tested for reliable performance.



## High-Performance

For over 45 years PoolPak has manufactured indoor pool dehumidifiers designed to meet the test of time in the corrosive pool environment. Our design strategy provides pool owners with high efficiency operation that delivers a superb environment for years of low maintenance. The PoolPak product lineup includes the cost effective ComPak PCP Series, multi-functional StakPak Series, flexible PPK Series, and outside air ClimatePak VHR Series.



### Heat Recovery and Pool Water Heating

Heat pump design recycles waste heat from dehumidification to heat pool water and space. Satisfies up to 90% of heating requirements limiting fuel usage for auxiliary heaters.

### Airside Heat Recovery

Air-side heat recovery captures heat energy normally exhausted during space ventilation. Limits the need for fossil fuels to maintain high space temperatures in colder climates.

### Heating, Cooling and Dehumidification Economizer

Full and partial economizing is available on select PoolPak units. Economizing eliminates or limits compressor operation by modulating favorable outside air as conditions permit. Energy savings are significant and compressor life is extended.

### Occupied/Unoccupied Mode

PoolPak dehumidifiers can be programmed to operate in occupied and unoccupied modes to manage ventilation requirements. In the unoccupied mode, the outside and exhaust air are shut off eliminating make-up air conditioning and blower operation.

### Airflow Control

Airflow is controlled in real-time with flow sensors, variable speed fans, and dampers. Proper airflow is maintained continuously, even as filters load, etc.

### Smart Pump Control

The supplementary pool water pump is turned off when the unit is in a space heating or dehumidifying mode. Pump operation can be reduced by 50% saving \$3,000 annually.

### Wall Condensate Prevention

An internally mounted sensor monitors the coldest wall temperature and directs the controller to lower the room relative humidity and dew point eliminating condensation formation. Dehumidifier oversizing is eliminated as well as reducing excessive compressor operation.

### Modulating Reheat Capacity

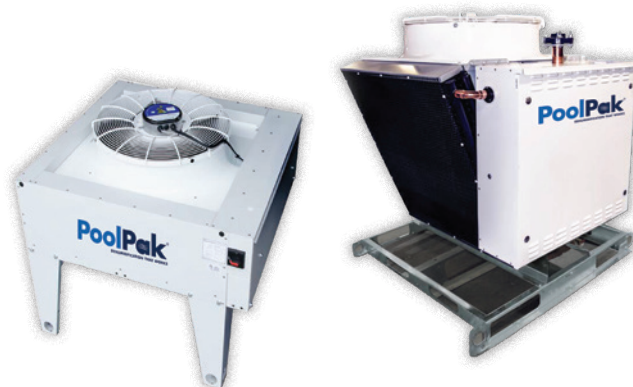
The PoolPak PPK Series has modulating reheat capacities. This features saves approximately 5% on average of traditional hot gas reheat dehumidifiers. It also helps to reduced operating costs and provides more comfortable poolroom temperatures.

### Condensate Return

Condensate return recycles recovered water and returns it back to the pool. Average recovery per year equals that of a full pool, resulting in reduced water refill requirements and easing the load on utility infrastructures. Check local codes to determine if condensate return is allowed.

### Dry Coolers and Condensers

PoolPak's outdoor condensers and dry coolers deliver the ultimate in quality, reliability and performance, with the most advanced, ultra-quiet and energy efficient fan designs. By building to meet our market's exact cooling needs while reducing unit size, we've been able to increase heat rejection performance while also reducing the amount of energy consumed.



## OTHER HIGH-EFFICIENCY FEATURES

### High Performance Components

- Our fully-dipped coated coils are aluminum-finned, copper-tubed coil with a high corrosion-resistant coated finish that is electrostatically applied.
- PoolPak uses Backward Inclined Airfoil-Type Fans (BIAF), NEMA/TEFC premium efficiency motors and scroll compressors for reduced energy requirements.
- ECM or Plenum direct-drive fans with VFD provide excellent performance without the penalty of a full-sized return fan or losses in the mixing box while improving airflow pattern across the coils.

### Efficient Design and Construction

- PoolPak locates compressors and other critical components outside of the corrosive air stream for longer life.
- We use closed cell foam insulation that expands into a rigid cabinet assembly.
- Process-grade sensors accurately measure air flow and relay that information to the system controller.

## REAL-TIME SYSTEM MONITORING

### CommandPak® Control System

A leading edge controller developed by PoolPak, the CommandPak Control System (CPCS), includes proprietary software developed by PoolPak for real-time management. It also displays critical refrigeration circuit conditions including suction pressure and temperature, superheat, sub-cooling, discharge pressure and liquid line temperature.

### Virtual-Tech® System Simplifies Data Access

PoolPak's Virtual-Tech® web-based remote interface allows immediate access to the CPCS controller's datalogger for remote system monitoring and control. Virtual-Tech® is wireless, eliminating the concern for firewall coordination. The CPCS allows simultaneous operation with popular BAS systems like BACnet MS/TP and Modbus® for outstanding facility management.

Through a simple Ethernet connection (Wi-Fi and cellular network options also available), this incredible innovation allows factory engineers to remotely monitor, analyze, fine-tune or troubleshoot over 100 critical dehumidifier functions via the Internet to deliver truly exceptional product performance and reliability.

Virtual  
TECH®



## Source Capture Exhaust Systems

Smart Technology designed to handle the chloramines at their source (pool surface). Our PoolPak units are ideally suited to integrate with this system to provide a healthier indoor pool environment.



PoolPak is a Dehumidified Air Solutions company and member of Dehumidified Air Services, a coast-to-coast service network of local customer support specialists. Backed by the real-time remote monitoring of Virtual-Tech® technology and direct access to the engineers who designed and built your dehumidifier, Dehumidified Air Services is the only organization in North America that has the scale and expertise to deliver trouble-free pool dehumidification and unparalleled customer service.



**PoolPak®**

3491 Industrial Drive | York, PA 17402 USA | 717-757-2648 | [www.poolpak.com](http://www.poolpak.com)  
©2019 PoolPak LLC. All rights reserved. MKW02-SMTDSNBRO-20190618