

## Creating An Ideal Environment For Indoor Swimming Pools



MSP equipped natatorium: The Nashville Sportsplex

Moisture, evaporating from a large water surface, makes an indoor swimming pool the perfect environment for problems: mold, mildew, humidity-induced corrosion. In addition, occupant comfort and safety is critical due to potential for high concentrations of chlorine and chloramine in the air. The solution: a super-efficient MSP dehumidification system with patented, Multiple Small Plate (MSP®) technology, providing the lowest possible cost per pound of moisture removal.

The MSP pool dehumidification solution consists of a MSP® dehumidifier coupled with a water-cooled chiller or water-cooled condensing unit, fully engineered and sourced through MSP, which feeds the MSP® dehumidification coil and room cooling coil. This configuration enables three options for heat rejection: pool water heating, indoor air heating and outdoor heat rejection. One, two, or all three of these options can be configured for your application.

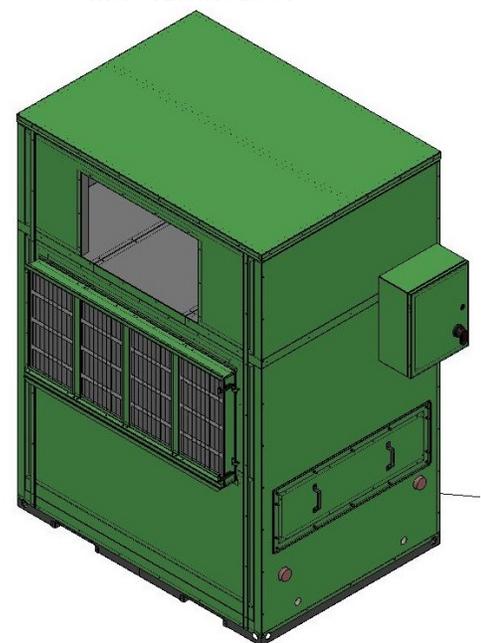
## ABOUT MSP® TECHNOLOGY

MSP Technology is offered in a wide range of super-efficient, industrial grade equipment. Designed specifically for green applications, MSP products are engineered for high performance, guaranteed.

### ▶ Key Benefits & Features

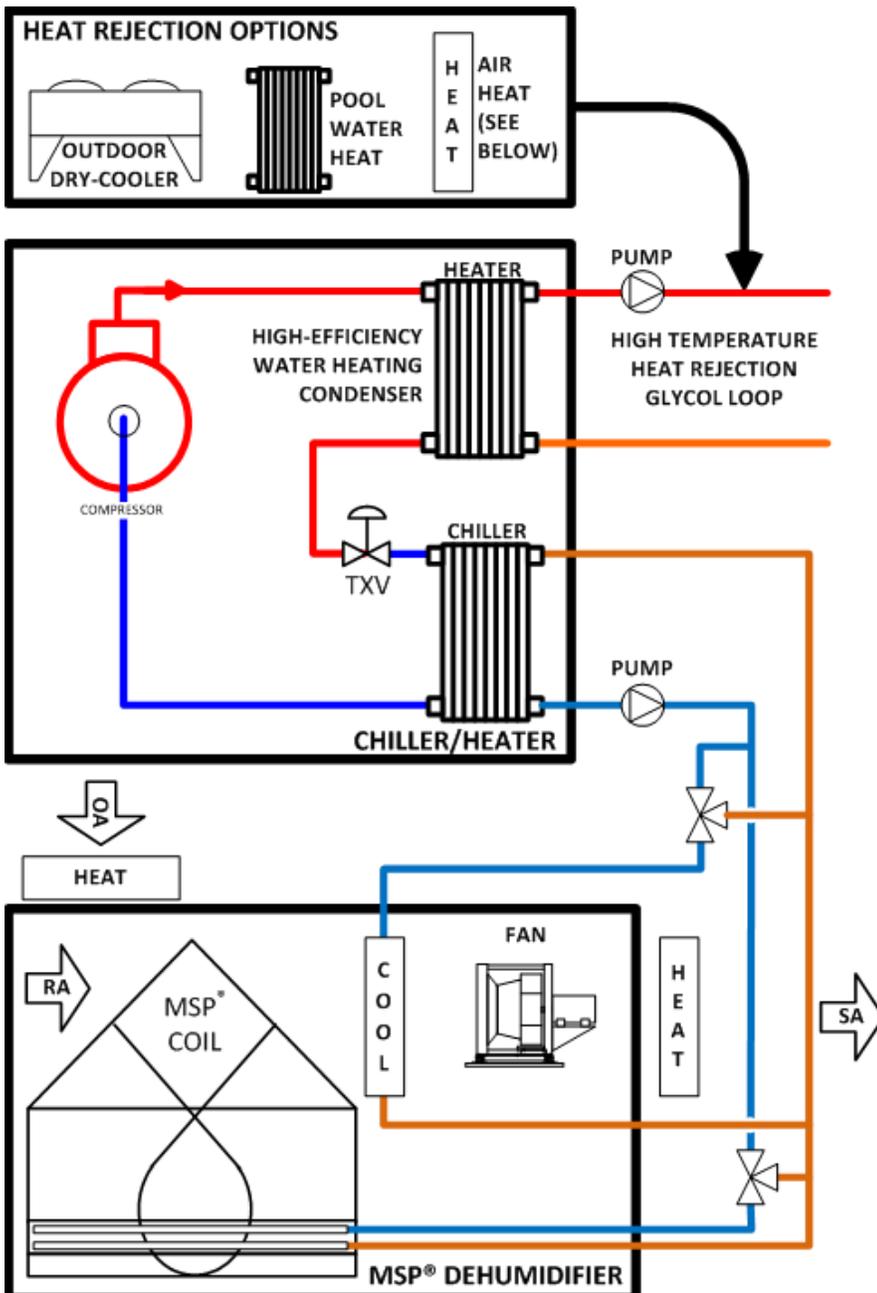
- **Very Low Refrigerant Charge**
- **Little or no Refrigerant Piping**
- **Fully Engineered** Dehumidification/Cooling/Heating Unit and matched Chiller
- **Low Air Flow** Reduced drafts
- **Reliable** Simple Technology, No Moving Parts, Low Maintenance
- **Performs** Delivers consistent low dew-point temperatures
- **Sanitary** Full Draining, No Standing Water
- **Efficient** Cuts dehumidification operating costs by up to 50%
- **Fast ROI** Lower capital costs, Competitively priced
- **Advanced** Single system provides dehumidification, cooling, heating and ventilation
- **Flexible** Horizontal, Vertical and Modular configurations
- **Cutting-Edge Control Systems**

DEHUMIDIFIER WITH MSP® TECHNOLOGY

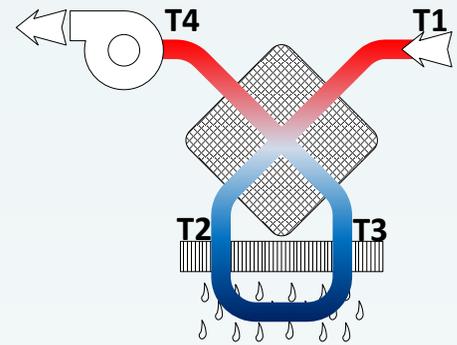


## MSP'S HYDRONIC POOL DEHUMIDIFICATION TECHNOLOGY

MSP Technology offers a unique hydronic dehumidification/cooling/heating and ventilation system. Using a remote water cooled chiller or water cooled condensing unit, this simple system is managed by a central controller and can be installed and maintained by most local HVAC companies without the need for single sourcing.



## ABOUT MSP® AWG AND DEHUMIDIFICATION TECHNOLOGY



**STEP 1** Warm, humid incoming air (T1) flows through the first pass of the plate type air-to-air heat exchangers for pre-cooling and initial dehumidification. This is accomplished by regenerative thermal exchange with the cooler air that is leaving the heat exchanger. (see step 3)

**Advantage:** Pre-cooling and dehumidification by regenerative thermal exchange are "free" and involve no additional equipment.

**STEP 2** Pre-cooled air (T2) then passes twice over conventional cooling coils for final cooling and dehumidification.

**Advantage:** Pre-cooled and pre-dehumidified air can be treated much more efficiently, using smaller compressors that require as little as one-half the power.

**STEP 3** The cool, dehumidified air (T3) is then drawn back through the opposite side of the heat exchanger where it absorbs some heat from incoming air (see step 1) and continues on to the building's HVAC system.

**Advantage:** No heating coil—and no energy penalty—needed to reheat the dehumidified air before it enters the conditioned environment.