

Prevent condensation in chilled beam and chilled ceiling applications

Chilled beam and chilled ceiling applications use chilled water for room temperature control. Nautica, Dedicated Outdoor Air Systems (DOAS), also use chilled water to dehumidify outdoor air below the dew point of the building being served. This eliminates the expense for compressorized equipment.

Chilled beams systems with built in condensate removal capability can operate with low temperature chilled water. In these cases the DOAS is responsible for only part of the humidity control capacity.

Chilled beam and chilled ceiling systems with no condensate removal capability must rely 100% on the Nautica DOAS to maintain room dew point below the chilled water temperature entering the chilled beam or chilled ceiling systems

In either case the MSP® chilled water DOAS plays an important role in maintaining indoor humidity.

The key to managing moisture issues is effective dew point control. When the dew point of the air inside the building is kept below the chilled water temperature of the beams, condensation is avoided.

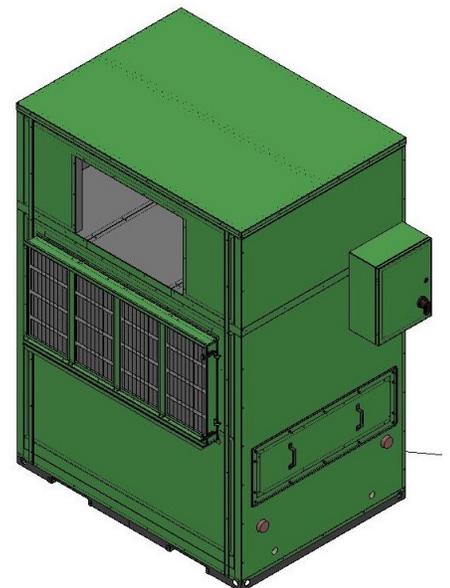
MSP® Wrap-Around Plate Dehumidification Technology has no moving parts in the airstream (except a fan) and is a reliable, low maintenance product with superior operating costs savings.



▶ Key Benefits & Features

- Controls: Sweating, Condensation, Corrosion
- Stability: Creates dry, stable environment
- Reliable: Simple technology, no moving parts, low Maintenance
- Performance: Delivers consistent low dew-point temperatures
- Sanitary: Full Draining, No Standing Water
- Efficient : Cuts dehumidification operating costs by up to 70%
- Fast Return on Investment: Lower capital costs, competitively priced
- Versatile: Chilled water and refrigerant units
- Flexible : Horizontal, vertical and modular configurations
- State-of-the-Art: Cutting-edge control systems

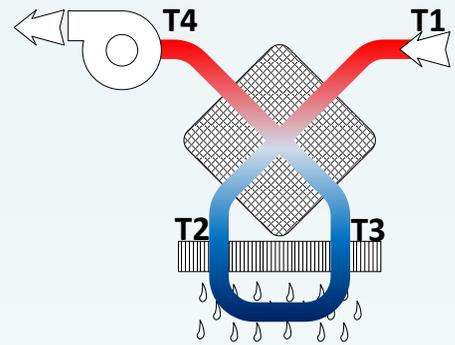
DEHUMIDIFIER WITH MSP® TECHNOLOGY



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.

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.

Feature Highlights

High Efficiency

Cuts dehumidification operating costs by up to 50%

Low Maintenance

Direct Drive Fans, No belts and pulleys to adjust

No moving parts in airstream (except fan)

Versatile

Horizontal or Vertical configurations

chilled water or refrigerant

Sanitary

Full Draining, no standing water