

PRECOOLER SUGGESTED SPECIFICATIONS



WET SECTION – MEDIA HOUSING

The media housing is custom constructed from $\frac{3}{16}$ " thick, industrial grade, high impact, UV resistant, and extruded ABS polymer. All exterior surfaces are painted with a UV resistant acrylic coating to increase protection from the sun. Housing has a removable top section for front media removal. Bottom media supports suspend the media above any standing water.

HOUSING OPTIONS – The wet section media housing may be specified as constructed of a Fire Resistant, Industrial Grade ABS. This media housing and sump material, if specified, meets UL 94VE-1 at $\frac{1}{16}$ " for fire resistance. The housing may be treated with a UV resistant coating on the exterior, if requested.

CORROSION PREVENTION

All wetted areas are constructed of high impact ABS, which has the unique physical property of being corrosion proof. Piping and fittings are manufactured from polyethylene, PVC, vinyl, or copper. Installation hardware is designed to ensure galvanic compatibility.

MEDIA

The standard evaporative media shall consist of 78 lb. Kraft cellulose material impregnated with rigidifying agents, fungicides, and wetting agents to provide a self-supporting, highly-absorbent, non-decomposing unit.

The media is designed to provide equal airflow through flutes arranged at an angle 15 degrees to the horizontal airflow and consistent water flow through flutes 45 degrees to the horizontal airflow. Media construction provides at least 123 square feet of evaporative surface per cubic foot of media.

The 4-inch deep standard media pad has a static pressure drop not to exceed 0.09 inches (water gauge), at a face velocity of 500 fpm, when wet and develop a saturation efficiency of not less than 59%. The standard media pad has a dry weight of 1.98 lb/ft³ and wet weight of 4.16 lb/ft³.

The media will not exceed ASTM-E84-94 Flame Spread of 45 and Smoke Developed value of 310. The media does not contain aspen, animal hair, or other synthetic materials.

All ENERGY SAVER units have no more than a maximum face velocity of 500 FPM.

- 90 lb, High Performance Media is optional.
- Leading Edge Coated Media is optional.

MEDIA OPTION – Fire Resistant Fiberglass media may be specified. The cross-fluted pad material consists of large glass fibers bound together by inorganic, non-crystalline fillers and is approved with a UL 900, Class 2 rating up to a 12-inch depth.

DISTRIBUTION HEADER SYSTEM

The water distribution plumbing and interconnections are schedule 40 PVC or copper tubing with solid brass inlet fittings where applicable. Water distribution over the media sections is through 100% polyester cloth fiber hose with at least ten (10) perforations per foot and includes a half round PVC spray distribution cover along the entire media width. The water distribution system is easily accessible from outside the unit.

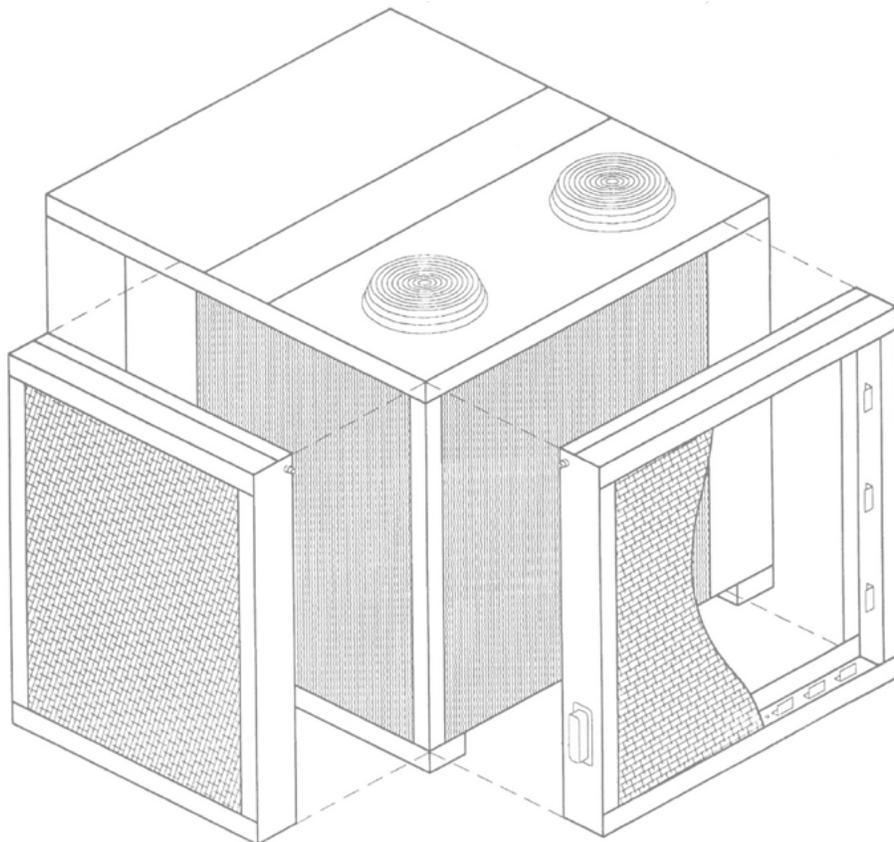
REGULATED WATER SUPPLY SYSTEM

The Microprocessor Regulated Water Supply System shall measure the ambient air temperature and use this information to open and close a 24-volt activated continuous duty solenoid valve using a predetermined time schedule.

This solenoid valve will be normally closed to provide positive shut off when de-energized and allow for full flow when energized. This valve must withstand 180°F and 160 PSI operating pressures. This valve must then deliver water to the media water distribution system to provide maximum evaporation and minimum water usage.

The system electronics shall consist of a crystal oscillator to provide a high frequency clock for the microprocessor as well as a high resolution time base for accurately controlling the on and off time of the valve drive electronics.

A digital thermostat must provide a 0.5°C (0.9°F) resolution for accurate temperature measurements. The system timers must use a divided-down crystal frequency and be programmed to provide interrupts to the microprocessor at a specific elapsed time or at regular time intervals. The microprocessor must communicate with the digital thermostat at regular time intervals and use the current and average temperature for accurately controlling the on and off times of the valve drive electronics. It must also interact with the user for testing and calibration and continually display status information.



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