



KOOL PAK EVAPORATIVE COOLER



Mueller Environmental Designs, Inc.



Air Filtration
Evaporative Cooling
Noise Control
Mist Elimination
Turnkey Projects



KOOL PAK - EVAPORATIVE COOLER

Mueller Environmental Designs, Inc.'s. "Kool Pak" evaporative cooler is custom designed to provide maximum cooling performance with 95 % to 98 % saturation efficiencies. The Mueller "Kool Pak" provides economical air cooling with low initial, operating and maintenance costs by capitalizing on the basic advantages of evaporative cooling.

EVAPORATIVE COOLING

Evaporative cooling involves heat and mass transfer by lowering the dry bulb temperature of air through the evaporation of water. It is an adiabatic process by which sensible heat of the inlet air is exchanged for the latent heat of water through evaporation. As inlet air passes through the wetted rigid media blocks, water evaporates absorbing energy while changing from liquid to vapor state, and removing heat from the inlet air, which lowers dry bulb temperature. This process increases the moisture content of the air, raising the inlet air saturation percentage

APPLICATIONS

The Mueller Environmental Designs, Inc. "Kool Pak" provides spot cooling, total area cooling, generator and motor room cooling, reciprocating and gas turbine inlet air cooling, and humidification.

SELECTION

Proper selection procedures require the following application information:

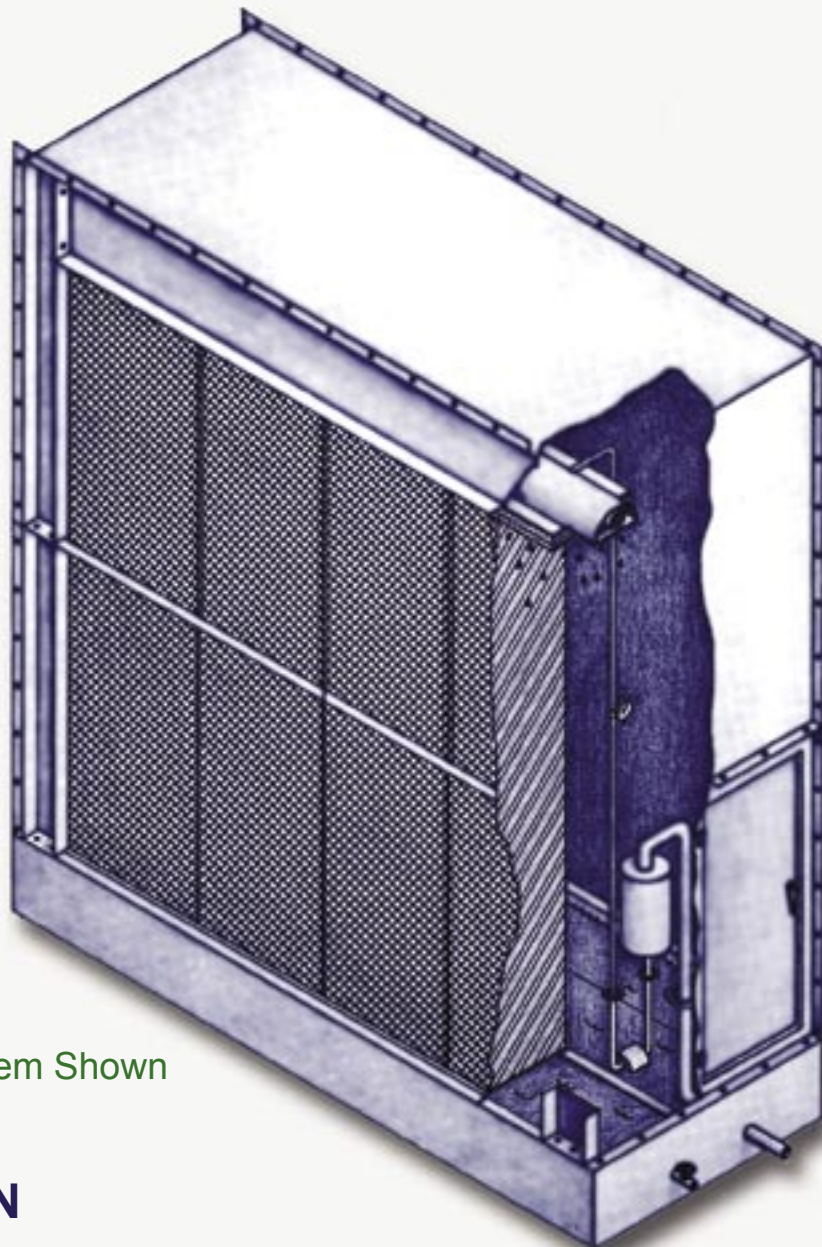
- ◆ Type of Rotating Equipment
- ◆ Inlet Flange Size and Orientation
- ◆ Intake Air Flow
- ◆ Atmospheric Conditions (ambient pressure and temperature)
- ◆ Saturation Efficiency Required
- ◆ Allowable Pressure Drop

KOOL PAK MEDIA

Maximum performance is assured by even distribution of water flow over a contact media bank of fluted layers of Melamine impregnated cellulose blocks. The media is designed to handle water flow from top to bottom through alternating 45° and 15° fluted channels. Air flows directly from front to rear. High surface area to volume ratio assures exceptionally high saturation efficiency. The large fluted openings permit operating velocities up to 600 FPM with minimal pressure drop and moisture carry over. Media depths are 12", 18" and 24" depending on saturation efficiency requirements.

WARRANTY

Mueller Environmental Designs guarantees to meet pressure drop and saturation efficiency and warranties against poor workmanship, material defects, and failure due to improper equipment selection.



Recirculating System Shown

DESCRIPTION

The Mueller Environmental Designs, Inc. Kool Pak evaporative cooler is heavy duty all welded construction. The housing is formed angle and plate design with all external seal welds. All surfaces, internally and externally, are mechanically cleaned and red oxide prime coated.

Non-circulating systems include:

- ◆ Drain tank and spray head enclosure are formed galvanized sheet construction.
- ◆ Water internal supply piping and distribution header are schedule 80 PVC.
- ◆ Supply piping includes pressure gauge and flow control valve.
- ◆ Evaporative cooling contact and distribution header pads are rigid Melamine impregnated cellulose blocks with adjusting media and end wall rods.

Circulating systems additionally include:

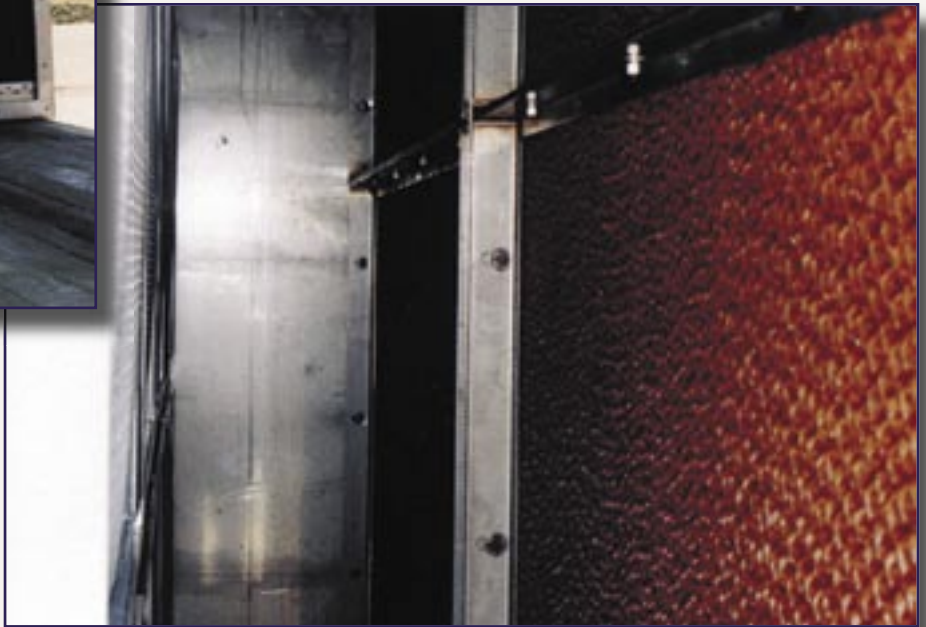
- ◆ Water pump and motor assembly
- ◆ Water quick fill and makeup water float valve
- ◆ Pump intake strainer screens



Retro-Fit Evaporative Cooler for Solar Saturn Gas Turbine



Kool-Pak Drift Eliminators



Kool-Pak Media

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