



Niagara Blower Heat Transfer Solutions

673 Ontario St., Buffalo, NY 14207

Phone: (716) 875-2000 ~ Fax: (716) 875-1077

sales@niagarablower.com / www.niagarablower.com

Advantages of WSAC™ closed-loop, evaporative coolers



- Process fluid is contained in a closed-loop; never exposed to the environment or recirculating spray water.
- Rugged industrial design utilizes 12 gauge steel and/or concrete. Construction is fireproof and has been known to last over 30 years. Niagara can also offer FRP designs.
- WSAC units can run at higher cycles of concentration than cooling towers, resulting in reduced makeup water requirements and blowdown. These reductions are accredited to smooth tube materials, wide spacing, high flow/low pressure spray nozzle design, and the absence of plastic fill.
- Makeup water can come from almost any source (including cooling tower blowdown, R/O, plant discharge, etc.).
- A wide variety of tube materials and component configurations can be optimized for each heat transfer application based on the stream to be cooled or condensed (inside the tubes) and the quality of the spray water (outside the tubes).
- WSACs have the ability to achieve closer approach temperatures (5-10°F to the wet bulb) than most other cooling technologies.
- Intrinsic freeze protection is achieved when sprays operate year round.
- Partial dry operation designs are available to reduce plume & overall water consumption.
- WSAC co-current flow of air and water:
 - *Dramatically reduces the possibility of scaling
 - *Eliminates the possibility of tube bundle icing
 - *Offers less drift and plume due to the 180°turn
- Lower pump HP than a cooling tower due to quantity of spray required and reduced head
- Single source thermal responsibility
- Water treatment can be easily achieved. Niagara recommends consulting a water treatment professional.
- Easy maintenance:
 - *Easily accessible & removable spray system
 - *Pressure washable tubes
- Serpentine tube bundles can be designed for operating pressures up to 2500 psi.

To learn how Niagara can provide custom-built coils for your requirements, contact a Niagara Applications Engineer today.