

# NIAGARA BLOWER SOLUTIONS

## What is WSAC®?

*The Wet Surface Air Cooler is a closed-loop, evaporative cooling system.*

*Wet Surface Air Coolers are optimized for industrial applications where rugged design/fabrication and cost effective efficient closed-loop cooling/condensing are required.*

### Applications:

Liquid Cooling  
Gas Cooling  
Vapor Condensing

### Industries:

Refining  
Power  
Wastewater  
Pulp & Paper  
Metals  
Mining  
Food/Beverage

## CASE STUDY

### **ECOLAB UTILIZES NIAGARA WSAC® COOLER AS PART OF GREEN WASTE REUSE FOR DISTILLERY**

Customer: **ALCOHOL DISTILLER**  
Installation Location: **SOUTHERN US**  
Application: **WASTEWATER COOLER FOR GREEN WASTE REUSE SYSTEM**

**THE CHALLENGE** A distilling company needed to cool anaerobic biologically treated wastewater as part of a proprietary waste stream treatment system. Designed by Ecolab Inc.'s Ecovation division, the process will recycle the plant's waste stream and generate renewable energy. This system requires specific temperature conditions crucial to the biological treatment process that is generating renewable biogas from soluble organics.

**THE SOLUTION** The Niagara wastewater cooler has the ability to achieve and maintain the required narrow temperature range and approach to the ambient wet bulb. This stillage treatment process with an integrated WSAC system will increase productivity and offset 15-30% of natural gas consumption at the distillery.

### **WSAC® ADVANTAGES**

- Requires less horsepower than other heat transfer systems resulting in lower carbon footprint and reduced greenhouse gas emissions
- Ability to use poor quality water (including blowdown, reclaimed, or produced water) as spray makeup
- Can achieve and maintain required narrow temperature range and tight approach to ambient wet bulb
- Lower operating and maintenance costs



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