The Alfa Laval Niagara Wet Surface Air Cooler (WSAC®) provides many water saving benefits.

**Run higher cycles of concentration**
- Purchase less water
- Dispose/treat less water

**Use poor quality water**
- Reuse plant water
- Brackish water, seawater
- Agricultural runoff
- FGD water

**Co-current spray system design**
- Lower discharge height
- Lower PM10

**Pump less water**
- Lower horsepower
- Reduced installation costs
- More available power for sale
- Lower carbon footprint

**Evaporate blowdown**
- Smaller evaporation ponds
- Less ZLD system capacity
- Cost savings—less expensive to own and operate
Water usage diagram

What is a WSAC?
Alfa Laval Niagara Wet Surface Air Coolers (WSAC®) are efficient closed-loop, evaporative cooling systems designed for the power, process, wastewater, natural gas and petrochemical industries.
These fluid cooling and vapor condensing systems are optimized for industrial applications where rugged designs, and cost-effective, efficient closed-loop cooling and condensing duties are required.

Cycles of concentration in a WSAC

Evaporation (GPM) = Heat Load (Btu/hr)/~500000 (same as CT)
Blowdown = Evaporation / Cycles –1
Total makeup = Evaporation + Blowdown

<table>
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<th>Makeup</th>
<th>Evaporation</th>
<th>Blowdown</th>
<th>Cycles</th>
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For more information about Niagara WSAC applications, please contact our factory office.

Alfa Laval Niagara
Phone +1 716-875-2000
Email: sales.niagara@alfalaval.com
Web: www.niagarablower.com
www.alfalaval.com/air

Alfa Laval reserves the right to change specifications without prior notification.