

Humidity for a better life

Using Adiabatic Humidification/Cooling for Decarbonization

When implemented as part of your building IAQ plan, Adiabatic Humidification is a reliable solution to either offset or eliminate the need for mechanical cooling.

This cost-effective and environmentally friendly solution will help reduce the energy usage of your building.



Contact us for a free energy assessment of your facility.



How Adiabatic Humidification / Cooling Works

- ✓ Injects cold water directly into the air
- ✓ Heat from the surrounding air allows the water to evaporate
 - Air becomes more humid
 - Air becomes cooler “evaporative cooling”
- ✓ Can save energy and energy costs
 - If cooling is beneficial, cooling can reduce mechanical cooling needs
 - If cooling is not beneficial, preheating is required to offset cooling
 - Total energy balance is consistent with steam humidification
- ✓ Often requires water treatment
 - Removes minerals from water (avoid dust)
 - Reduce the risk of biological contamination
- ✓ May have hygiene requirements that limit use in certain applications.



Condair's Evaporative / Adiabatic Product Offering



	Ultrasonic	Compressed Air Fogging	High-Pressure Fogging	Evaporative Media	Hybrid Fogging
Energy	Electricity	Compressed Air	Electricity	Electricity	Electricity
Water Type	RO, DI	Potable, RO, DI	RO, DI	Potable, RO	RO, DI
Capacity	5 – 50 lb/h 2 – 23 kg/h	5 – 1000+ lb/h 2 – 450+ kg/h	200–3000+ lb/h 90 – 1300+ kg/h	50–2000+ lb/h 22 – 900+ kg/h	50–2000+ lb/h 23–900+ kg/h
Capital Cost	\$\$	\$	\$\$	\$\$\$	\$\$\$
Operating Cost	\$\$	\$	\$\$	\$ - \$\$\$	\$
Key Advantage	Packaged Product	Low First Costs	Largest capacities	Highest Cooling Performance	Compact Footprint

Want to learn more about decarbonization with adiabatic technologies? Check out these resources.



Contact us today to speak to one of our experts about decarbonization strategies with a focus on reducing cooling costs.