



**Air<sub>2</sub>O** is the next generation hybrid air conditioning system, utilizing a unique combination of indirect and direct evaporative cooling to achieve **70% energy savings.**

(Indirect-Direct Evaporative Cooling) **IDEC**



## IDEC System Operation

At its heart, **Air<sub>2</sub>O IDEC** technology utilizes a two stage evaporative cooling solution - in the first stage, outdoor air is passed through the Heat Rejecter section of the unit, which houses an evaporative cooling system optimized to cool water. As the warm air passes the wetted media, some water is evaporated and the resulting enthalpy change cools the water.

This cooled water is then transferred to a high efficiency heat exchanger within the supply section of the unit, over which the primary supply air is passed, to deliver the first stage of cooling with no added moisture -Indirect Evaporative Cooling. The air is further cooled as it passes the second cooling stage - Direct Evaporative Cooling.

The combination of these two stages delivers the highest performing evaporative cooling system in the world today.

**Air<sub>2</sub>O's** equally unique intelligent control system, **ACESS**, automatically responds to external weather conditions, continuously adapting its cooling strategy to run only the most efficient cooling systems for the ambient condition of the moment. This means that the higher energy systems are only used when needed, ensuring consistent performance, **high efficiency and significant energy savings.**

- ❑ Up to 130% Wet Bulb Efficiency (70% Dew Point Efficiency)
- ❑ Double wall insulated construction
- ❑ Integral Automated Control / ACESS system BACnet optional
- ❑ Single Point Power Connection, Single Point Water Supply Connection, Single Point Drain Connection
- ❑ Automatic Water Quality Management System
- ❑ Supply Air Section:
  - Intake filters.
  - EC Fans to maximize efficiency
  - Indirect Cooling Coil & Pump
  - Direct Evaporative Cooling Pads c/w Stainless sump and circ pump.
- ❑ Indirect Heat Rejection Section:
  - Evaporative Cooling Pads c/w Stainless sump
  - Direct drive heat rejection fan
- ❑ Gas Heating Option Available

	Volume (CFM)	Volume (m <sup>3</sup> /s)	Volume (m <sup>3</sup> /h)	Cooling Capacity* Room (Ton)	Cooling Capacity* Nominal (Ton)
S-CRS-2500	2500	1.18	4230	5	12
S-CRS-5000	5000	2.35	8460	10	24
S-CRS-7500	7500	3.53	12690	15	36
S-CRS-10000	10000	4.70	16920	20	48
S-CRS-12500	12500	5.88	21150	25	60
S-CRS-15000	15000	7.05	25380	30	72
S-CRS-20000	20000	9.40	33840	40	84
S-CRS-25000	25000	11.75	42300	50	96
S-CRS-30000	30000	14.10	50760	60	108
S-CRS-35000	35000	16.45	59220	70	120
S-CRS-40000	40000	18.80	67680	80	132
S-CRS-45000	45000	21.15	76140	90	144
S-CRS-50000	50000	23.50	84600	100	156

\*Cooling capacity measured considering outdoor conditions 100°F (37°C) DBT and 70°F (21°C)WBT - Room Temperature 78°F (25°C).

