



**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 **80% energy saving**.



# HYBRID HEAT PUMP



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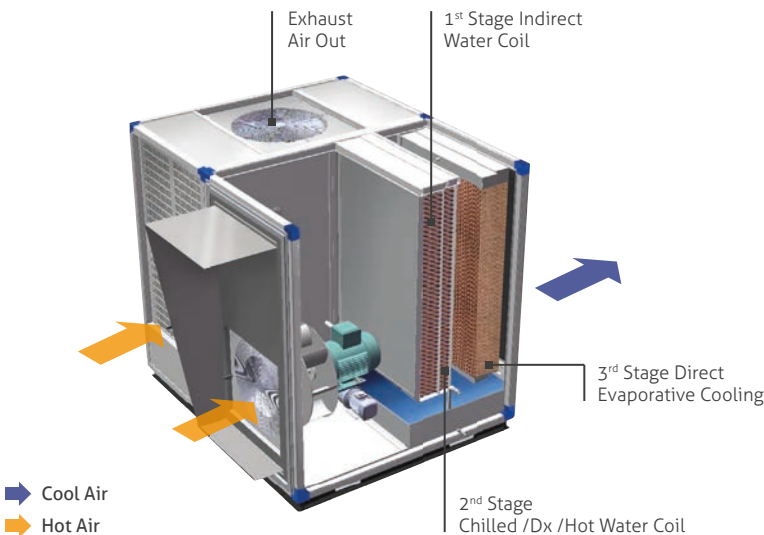
## System Operation

Air<sub>2</sub>O Hybrid system is now available with heat pump to provide the complete efficient heating and cooling solution.

Air<sub>2</sub>O Hybrid IDEC technology combines a two stage evaporative cooling solution with an integrated Dx system. Utilizing Air<sub>2</sub>O's equally unique intelligent control system, ACSESS, 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.**

Conditioning the ambient supply air with the indirect coil as the first stage of cooling significantly reduces the size of the evaporator coil, saving energy and increasing efficiency. The condenser coils, located within the heat rejecter section of the unit, ensure the air onto the coil is always pre cooled to the WB temperature of the ambient, dramatically increasing their efficiency when compared to traditional condenser systems.

The combination of these innovations deliver the highest performing Hybrid Evaporative Cooling system in the world today.



## Features and Benefits

- ❑ Up to 130% Wet Bulb Efficiency (70% Dew Point Efficiency).
- ❑ Double wall insulated construction.
- ❑ Integral Automated Control / ACSESS 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.
  - High Efficiency Direct drive supply fan c/w VFD.
  - Indirect Cooling Coil & Pump.
  - DX Cooling Coil.
  - Direct Evaporative Cooling Pads c/w Stainlessump & circ pump.
  - Mixing box option available.
- ❑ Indirect Heat Rejection Section:
  - Evaporative Cooling Pads c/w Stainlessump.
  - Condenser Coil & R410A Scroll Compressor.
  - Direct drive heat rejection fan.
- ❑ Gas Heating Option Available.

	Volume (CFM)	Cooling DX capacity* (Ton)	Heat pump capacity (BTU) @47F	Heat pump capacity (BTU) @17F
H-2500	2500	5	56668	33876
H-5000	5000	10	113336	67752
H-7500	7500	15	170005	101629
H-10000	10000	20	226673	135505
H-12500	12500	25	283341	169381
H-15000	15000	30	340009	203257
H-17500	20000	35	396678	237133
H-20000	25000	40	42300	271009
H-22500	30000	45	510014	304886
H-25000	35000	50	566682	338762
H-30000	40000	60	680019	406514
H-35000	45000	70	793355	474266
H-37500	50000	75	850024	508143
H-40000	1070166	80	906692	542019
H-45000	1203937	90	1020028	609771
H-50000	1337707	100	1133365	677523

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

