# MOJAVE

# Mojave Energy Systems



## Introducing ArctiDry

The Mojave ArctiDry represents the next generation of liquid desiccant air conditioners. It installs like conventional packaged HVAC equipment needing only an electrical connection: no chilled water, domestic water, or gas line required! With ground-breaking efficiency and simple implementation, Mojave ArctiDry is changing the nature of air conditioning.

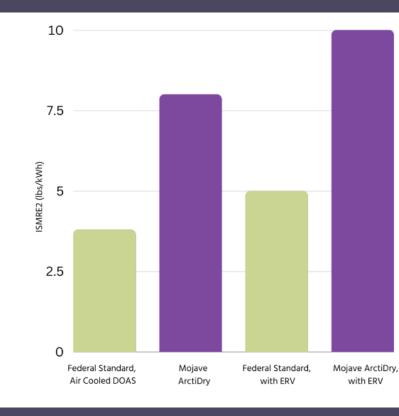
# **Configurable from Four Base Models**

Two cabinet sizes cover airflow requirements from 1,000 – 6,000 CFM. ArctiDry's technology not only saves energy, it increases capacity: our line covers total loads from 10 to 50 tons and offers all the accessories you expect in a product line.

## **Reducing Energy Use**

With an ISMRE over 8 lbs/kWh, it's twice as efficient as conventional Dedicated Outdoor Air Systems (DOAS). Selecting our optional ERV raises this to over 10.

These are more than double the Department of Energy (DOE) standards that <u>goes into effect May</u> <u>1st, 2024</u>. Add to that independent dew point and temperature control and you can unlock buildingwide energy savings by raising chiller temperatures or running dry coils.



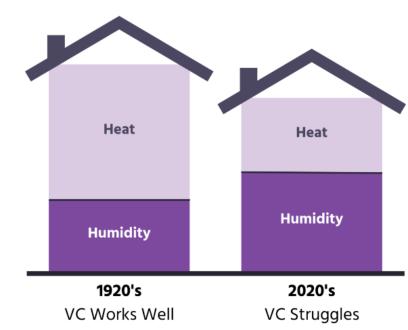
# MOJAVE

# Mojave Technology

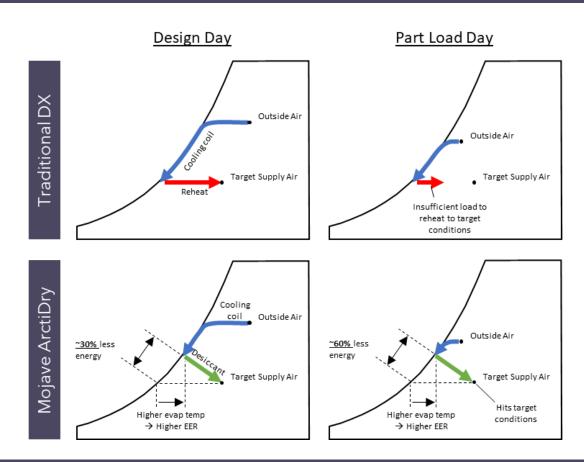
# The Needs of Our Buildings Have Changed...

Since its invention in 1902, air conditioning has relied on vapor compression (VC) to cool and dehumidify air. VC has become progressively more efficient at changing the temperature of air but will remain fundamentally inefficient at humidity control.

Further, the need to control humidity has increased dramatically since the invention of VC. Modern building codes, ventilation requirements, and efficient appliances have reduced temperature loads but increased humidity loads:, buildings now use more energy to control humidity than temperature.



# Mojave Technology Meets Those Needs



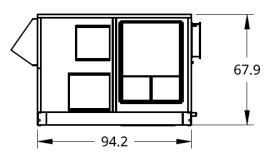
ArctiDry – the smartest way to cool. Every day of the year.

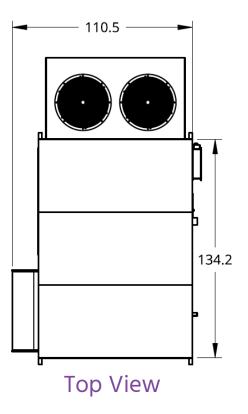


# ArctiDry A Cabinet (1000 - 3000 CFM)

# **Right Side View** - 210.0 -- 142.0 -– Regen Air Exhaust Regen Air Inlet Supply Air Outlet 3D CAD View - Supply Air Inlet - Electrical Ingress

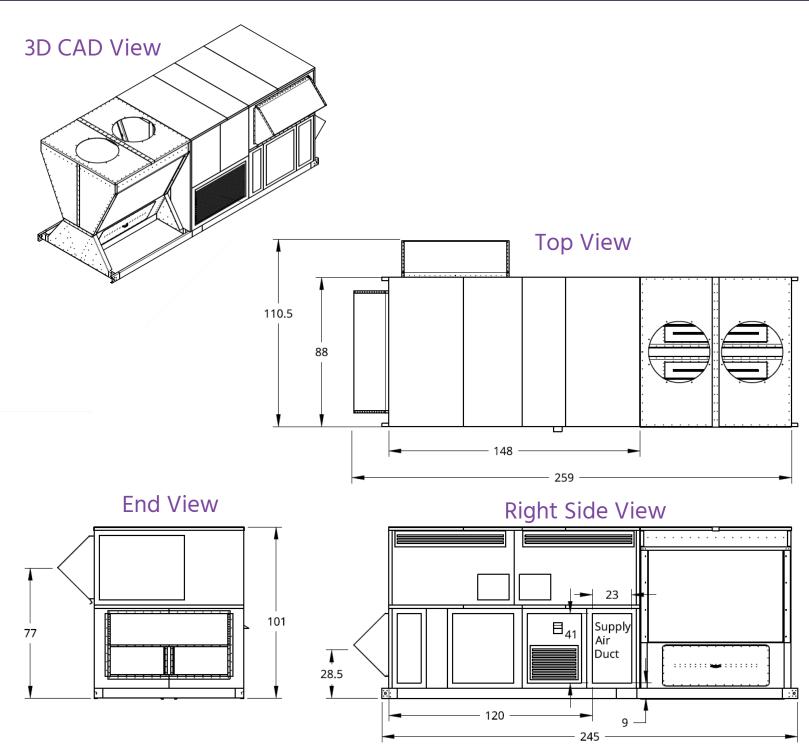
## End View







## ArctiDry B Cabinet (3000 - 6000 CFM)





Up to 50% Reduction in Electrical Energy Use

Capable of Delivering a 40°F Dew Point with DX

Independent Temperature and Humidity Control

Positioned to Compete in the Conventional DOAS Market

Cost Effective Alternative to Solid Desiccant Systems

### Biocidal

Minimal Additional Maintenance Vs. Traditional DOAS Systems

> Desiccant Lasts the Life of the Unit

Double Wall Construction

# 

## **High Ventilation**

- ➤ Hospitality
- > Multifamily
- ➤ Education
- Outpatient Medical Facilities
- > Airports

## **High Internal Latent Load**

- Indoor Agriculture
- Pools (Post Launch Application)

## Low Dew Point

- Hospitals
- Supermarkets
- Ice Rinks
- Food Processing
- Manufacturing

## **Precise Control**

Industrial Applications

	A Cabinet	B Cabinet
Air Flow	1,000 – 3,000 CFM	3,000-6,000 CFM
Cooling Capacity	Up to 26 tons	26 to 40 tons
Moisture Removal Rate	Up to 130 lb/hr	Up to 260 lb/hr
Supply Air Conditions	55-75°F DB	
	40-55°F DP (36-64 gr/lb)	
ISMRE	8.0 lb/kWh	
	10 lb/kWh with ERV	
Indirect Gas Fired	• 100 MBH	• 300 MBH
Heater Option	• 200 MBH	• 400 MBH
Electric Heater Option	• 20 kW	• 60 kW
	• 45 kW	• 90 kW
Refrigerant	R-454B	
Filtration	Up to 6" Filter Rack	
Weight	2500 lb	4000 lb
Electrical	208V / 230V / 460V, 3ph	
Controls	DDC w/ BacNet & MODBUS integration	
Options	<ul> <li>Return air opening + damper</li> </ul>	
	ERV wheel	
	<ul> <li>Inlet + outlet damper</li> </ul>	
	<ul> <li>Inlet hood &amp; roof curb</li> </ul>	
	LonWorks connectivity	
	• 10,000 hr salt spray cabinet coating	



## Mojave Energy Systems

#### Grocery



The Most Efficient Way to Control Condensation

Mojave provides the only packaged solution that can inexpensively and single-handedly control condensation and frost formation in supermarkets, maintaining dew points as low as 40F in critical humidity control zones. Mojave's liquid desiccant technology efficiently dehumidifies the air without overcooling and allows the user to independently specify a supply air dry bulb and dew point. Mojave's ArctiDry also cost less than a comparable solid desiccant wheel unit and use less energy, as shown in the table below, all while cleaning the air with the natural biocidal properties of liquid desiccant



Healthcare

#### A Breath of Fresh Air for Healthcare Facilities

Mojave's ArcticDry units are the only packaged solution on the market that can effectively handle operating room outdoor air requirements using only electricity: no chilled water or gas required. Mojave's liquid desiccant technology cools and dehumidifies the air, enabling the user to independently specify a supply air dry bulb and dew point. Mojave units also cost less than a comparable solid desiccant wheel unit and use less energy, as shown in the table below, all while cleaning the air with the natural biocidal properties of liquid desiccant.

### **Process & Other Dehumidification**



#### Precise Control for Temperature and Dew Point

Mojave's ArctiDry excels in addressing the demands of process dehumidification applications. Mojave units are capable of operating solely on electricity: no hot or cold water utilities needed. ArctiDry leverages vapor compression and liquid desiccant systems allowing precise control of both temperature and dew point. Distinguished by their costeffectiveness when compared to solid desiccant wheel systems, Mojave units exhibit heightened energy efficiency.

### Education



#### Improve Student Health and Academic Performance

Mojave's ArctiDry DOAS provides a solution ideal for schools seeking excellent Indoor Air Quality and energy-efficiency. Better ventilation has been shown to improve both student health and academic performance. Now the ArctiDry can provide these benefits at even lower energy cost than conventional DOAS: why would you choose anything else?

### **Multifamily & Hospitality**



#### Provide a Luxury Experience with Improved Air Quality

Mojave's ArctiDry DOAS reduces your cost to ventilate. Further, liquid desiccant technology improves indoor air quality providing building occupants a luxury experience that cost you less than a budget solution.

### Office & Other Commercial



#### Reduce Energy Consumption and Improve IAQ

Mojave's ArctiDry DOAS is an innovative packaged solution focused on reduced energy consumption and improved IAQ. Mojave's liquid desiccant technology cools and dehumidifies the air, enabling the user to independently control dew point and dry bulb setpoints. Mojave DOAS boasts superior efficiency, and lowest total cost of ownership when compared to legacy DOAS technologies.

## Changing the Nature of Air Conditioning