



## Enhanced Dryer Features

- SingleCel & MultiCel designs.
- Advanced digital scroll technology.
- Proprietary Aircel digital capacity control.
- Precise dew point at any load.
- Reduced power and energy consumption.
- Stainless steel heat exchangers.
- High performance micro-channel condensers.
- Powered by programmable logic controller.
- Highly efficient moisture separation.
- Globally accepted ozone safe R407C refrigerant.
- Robust state of the art industrial controls.
- Zero-air loss drains standard.
- Lighter and smaller footprint.
- NEMA 4 standard.

With the introduction of Aircel's **DC Series (1,000 - 4,000 scfm)** refrigerated air dryers, the bar has been raised and a new performance standard has been set for cycling dryers. You no longer have to accept dryers with a large heavy footprint, circulating pumps, unpredictability, and uncontrollable dew points as found in typical cycling dryers utilizing 30 year old technology.

From heavy industrial to high technology environments, Aircel's DigiCel offers you the exact air treatment you require.

Aircel's DigiCel is a truly energy efficient dryer design that provides the precise dew point control that industrial processes demand. The DigiCel is available in SingleCel models, ranging from 1,000 to 2,000 scfm and MultiCel models ranging from 2,500 to 4,000 scfm, offering total installation flexibility to meet your specific needs.

## Sustainable Energy Savings

**40% Lighter Shipping Weight than Typical Thermal Mass Designs**  
**32% More Energy Efficient than Typical Thermal Mass Designs**

## End-User Benefits

### Solid Performance

- NEMA 4 standard.
- No glycol tank or pump.
- Stainless steel heat exchangers.
- Top-quality components & design.
- Available air-cooled or water-cooled.
- Steady pressure dew point at all loads.

### Easy Installation

- Small footprint.
- Lightweight design.
- Easy to maintain & service.
- Minimum installation costs.
- Single electrical connection.
- Plug & play MultiCel designs.

## Cost Effective Operation & Optimum System Performance

### Digital Scroll Technology

- Simple proven design.
- Less noise & vibrations.
- Capacity control between 0%-100%.
- Precise load matching, no thermal lag.
- Nearly linear power reduction unloading.
- Economical & reliable alternative to variable speed drive.

### Control & Monitoring

- Easily adjust parameters.
- Custom alarm messaging.
- Easy-to-use digital controller.
- Advanced control capabilities.
- Operational/kilowatt meter reading.
- UL/cUL listed electrical controls.



DC-3200

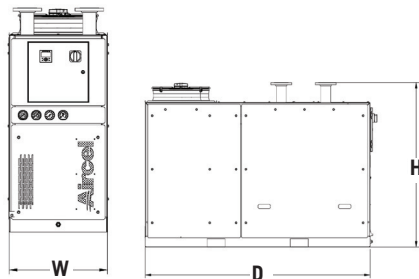
# DC SERIES TECHNICAL SPECIFICATIONS



## DC Model Comparison

	Model	Capacity <sup>1</sup> (scfm)	Connection	H"	W"	Air-Cooled D"	Water-Cooled D"	Weight (lbs)	Nominal Ref. HP	Air-Cooled kW	Water-Cooled kW
SINGLECEL MODEL	DC-1000	1000	3" Flange	60	26	81	55	1100	7	5.1	3.15
	DC-1250	1250	3" Flange	60	26	81	55	1450	8.5	5.6	3.51
	DC-1600	1600	4" Flange	60	26	81	55	1700	10	7.7	4.80
	DC-2000	2000	4" Flange	60	26	81	55	1900	13	10.5	7.23
MULTICEL MODEL	DC-2500	2500	4" Flange	79	70	81	55	3400	17	11.2	7.02
	DC-3200	3200	6" Flange	79	70	81	55	3900	20	15.4	9.60
	DC-4000	4000	6" Flange	79	70	81	55	4300	26	21.0	14.47

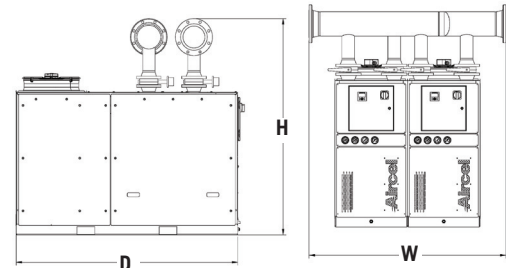
<sup>1</sup> Capacity rated in accordance with CAGI:  
100 psig inlet pressure / 100°F inlet temperature / 100°F ambient temperature / 38°F pressure dew point. Average kW per hour of dryer operation at full capacity. 460/3/60 standard.  
Due to a continuous program of product improvement, specification and dimensions are subject to change without notice.



## DC Model Dimensions

SINGLECEL  
MODEL

MULTICEL  
MODEL



## DC Series Capacity Correction Factors

### To Size the Dryer Capacity for Actual Conditions

$$\text{Adjusted Capacity} = \text{scfm} \times C1 \times C2 \times C3 \times C4$$

To calculate the capacity of a given dryer based on non-standard operating conditions, multiply the standard capacity by the appropriate correction factor(s).

**EXAMPLE:** Dryer Model: DC-1000  
Standard Capacity: 1000 scfm  
Actual Operating Conditions: 90°F ambient temperature: C1 = 1.05  
100°F inlet temperature: C2 = 1.0  
125 psig system pressure: C3 = 1.07  
38°F required dew point: C4 = 1.0  
Adjusted Capacity = 1000 scfm x 1.05 x 1.0 x 1.07 x 1.0 = 1,124 scfm

### To Select the Dryer Model for Actual Conditions

$$\text{Adjusted Capacity} = \text{scfm}/C1/C2/C3/C4$$

To choose a dryer based on a given flow at non-standard operating conditions, divide the given flow by the appropriate correction factor(s).

**EXAMPLE:** Given Flow: 2000 scfm  
Actual Operating Conditions: 80°F ambient temperature: C1 = 1.07  
90°F inlet temperature: C2 = 1.21  
100 psig system pressure: C3 = 1.0  
Required dew point: 38°F pdp: C4 = 1.0  
Adjusted Capacity = 2000 scfm / 1.07 / 1.21 / 1.0 / 1.0 = 1,545 scfm  
Selected Dryer Model: DC-1600

The Compressed Air and Gas Institute (CAGI) has developed standards to protect users of compressed air & gas equipment. ADF100 the current standard for refrigerated compressed air dryers, specifies the dryers performance to be rated at 100°F inlet temperature, 100°F ambient temperature, and 100 psig system pressure. To adjust the

dryer capacity from these "CAGI conditions" to your specific application, please use the correction factors below for differing ambient air temperatures (C1), inlet air temperatures (C2), system pressures (C3), and varying dew point requirements (C4).

#### \*Capacity correction factors for differing ambient air temperature (C1)

Ambient Temperature (°F)	70	80	90	100	110	115	120
Correction Factor	1.10	1.07	1.05	1	0.94	0.85	0.65

\*Applies to air-cooled units only

#### Capacity correction factors for differing inlet air temperature (C2)

Inlet Temperature (°F)	80	90	100	110	120	140
Correction Factor	1.50	1.21	1	0.82	0.72	0.61

#### Capacity correction factors for differing system air pressure (C3)

System Pressure (psig)	50	75	100	125	150	175	200	225	250
Correction Factor	0.85	0.95	1	1.07	1.13	1.18	1.20	1.22	1.24

#### Capacity correction factors for differing pressure dew point requirements (C4)

Dew Point (°F)	38	41	45	50
Correction Factor	1	1.12	1.17	1.22