



UP0020-60

Regenerative compressed air dryers use desiccant to adsorb water vapor from the compressed airstream. In the twin tower design one tower dries the air from the compressor while the desiccant in the other tower is being regenerated to provide continuous operation. These dryers are typically referred to as “heatless” or “heated”. Heatless dryers do not use any source of heat for regeneration other than the heat given off during the drying phase. This is known as the “Heat of Adsorption”. Heated dryers, on the other hand, utilize an external heat source for regeneration and require little or no process air.

The **Aircel Ultrapac 2000 Series Dryers (3 - 60 scfm)** purification system includes a prefilter, dryer, afterfilter, control system, and automatic condensate drain and silencer.

The prefilter retains solids and condensate (oil/water mixture) up to residual oil content 0.03 ppm. The adsorption dryer next in line adsorbs the moisture in the compressed air up to a pressure dew point of -40°F. Finally, in the afterfilter, remaining particles from the drying agent are retained.

Ultrapac Features & Benefits

- Easy installation and setup.
- Less maintenance.
- Minimal downtime for repairs.
- Increased cost savings.

Ultrapac Applications

- Laser cutting systems.
- Bottling plants.
- Dental laboratories.
- Packaging machines.
- Rail vehicles.
- Optical measuring systems.
- Sprinkler systems.

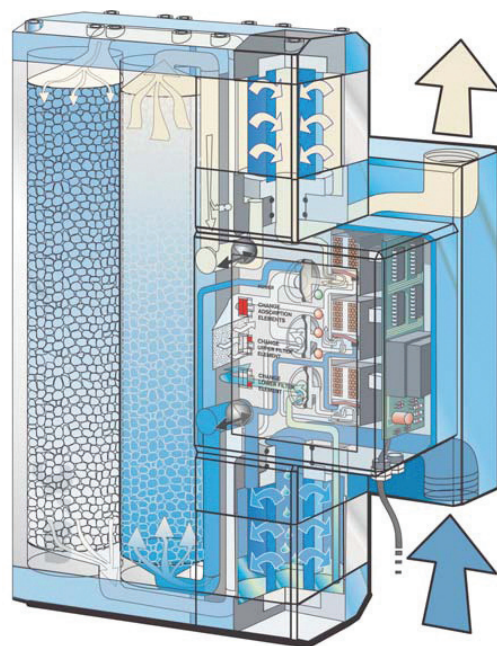
Desiccant Cartridge

the easy solution: Sealed desiccant provides minimum desiccant abrasion and long service life.



ULTRAPAC SERIES

How it Works



ULTRAPAC SERIES TECHNICAL SPECIFICATIONS



Ultracpac Model Comparison

Model	Capacity ¹ (scfm)	Connection (in. FPT/ANSI)	Dimensions (inches)			Weight (lbs)	Desiccant Cartridges		Filter Elements	
			H	W	D		Size	Qty	Prefilter (MF) Size	Afterfilter (PE) Qty (each)
UP0003-60	3	1/2	14	12	5	15	10/2	2	0205	1
UP0005-60	5	1/2	23	12	5	24	10/2	4	0305	1
UP0010-60	10	1/2	34	12	5	33	10/2	6	0410	1
UP0015-60	15	1/2	55	12	5	53	10/2	10	0610	1
UP0020-60	20	1	26	21	7	64	10/4	4	0420	1
UP0030-60	30	1	36	21	7	84	10/4	6	0520	1
UP0040-60	40	1	46	21	7	106	10/4	8	0525	1
UP0050-60	50	1	56	21	7	125	10/4	10	0725	1
UP0060-60	60	1	66	21	7	147	10/4	12	0725	1

¹ Capacity rated in accordance with CAGI ADF 200 @ 100 psig, 100°F inlet, 100° ambient, and a PDP of -40°F.
A pressure dew point of -100°F can be achieved at a capacity decrease of 30%.
Ambient air temperature: 38°-125°F, inlet air temperature: 40-125°F, operating pressure: 60-225 psig.
Standard power supply: 110V/60 Hz, other options available.
Due to a continuous program of product improvement, specification and dimensions are subject to change without notice.

Ultracpac Series Capacity Correction Factors

To Size the Dryer Capacity for Actual Conditions

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

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: UP0060-60
Standard Capacity: 60 scfm
Actual Operating Conditions: 100°F inlet temperature: **C1 = 1.0**
150 psig system pressure: **C2 = 1.38**
Adjusted Capacity = 60 scfm x 1.0 x 1.38 = **82.8 scfm**

To Select the Dryer Model for Actual Conditions

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

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: 34 scfm
100°F inlet temperature: **C1 = 1.0**
Actual Operating Conditions: 150 psig system pressure: **C2 = 1.38**
Adjusted Capacity = 34 scfm / 1.0 / 1.38 = **24.6 scfm**
Selected Dryer Model: **UP0030-60**

The Compressed Air and Gas Institute (CAGI) has developed standards to protect users of compressed air & gas equipment. ADF200 the current standard for regenerative 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 inlet air temperatures (C1) and system pressures (C2).



Capacity correction factors for inlet air temperature (C1)

*Inlet Temperature (°F)	68	77	86	100	104	115	125
Correction Factor	1.1	1.1	1.1	1	0.8	0.7	0.5

*For inlet temperature above 100°F, molecular sieve desiccant is required

Capacity correction factors for system air pressure (C2)

System Pressure (psig)	60	75	90	100	115	130	150	160	175	190	200	220	250
Correction Factor	0.63	0.75	0.9	1	1.12	1.25	1.38	1.5	1.63	1.75	1.88	2	2.13