



Donaldson
FILTRATION SOLUTIONS

HEATLESS REGENERATIVE DESICCANT DRYERS

ULTRAPAC 2000

Process Filtration

Compressed air is an important utility and energy medium applied in many areas of industrial production and often needs to be free of contaminants such as dirt, oil, and water condensate.

The Donaldson® Ultrapac 2000 is a complete purification package including a pre-filter, after-filter, and automatic condensate drain, and is designed to produce clean, dry air to -40°F/-40°C and lower pressure dew points.

The Ultrapac 2000 is the ideal drying solution for compressed air flows under 60 scfm at 100 psi because of its compact design and self-controlled operation. Dryer functions and preventative maintenance reminders are automatically monitored using internal micro-electronics. Since this is a heatless regenerative dryer, the only required input is a standard 115V power supply.

Superplus: The Superplus version is an energy saving upgrade to the standard Ultrapac 2000. It is ideally suited for applications requiring transient air demands or irregular use. The Superplus dryer uses a combination of adsorption and regeneration sensors to extend the adsorption time for each desiccant tower while using a fixed regeneration time; this reduces purge air demands when conditions allow.



Ultrapac 2000

FEATURES & BENEFITS

- Easy installation and set up
- Less maintenance
- Minimal down time for repairs
- Increased cost savings

APPLICATIONS

Sterile Air Production: The combination of heat, moisture and oil in dark compressed air pipes are an ideal environment for microbial growth. Removing the moisture from the system will render the microbes inactive spores.

Laser Cutting Machines: To produce clean, reliable cuts, precision lasers need the beam surrounded with clean, dry, slightly pressurized air as it passes through the internal shaping optics to keep dirt and condensate from contaminating mirrors and lenses.

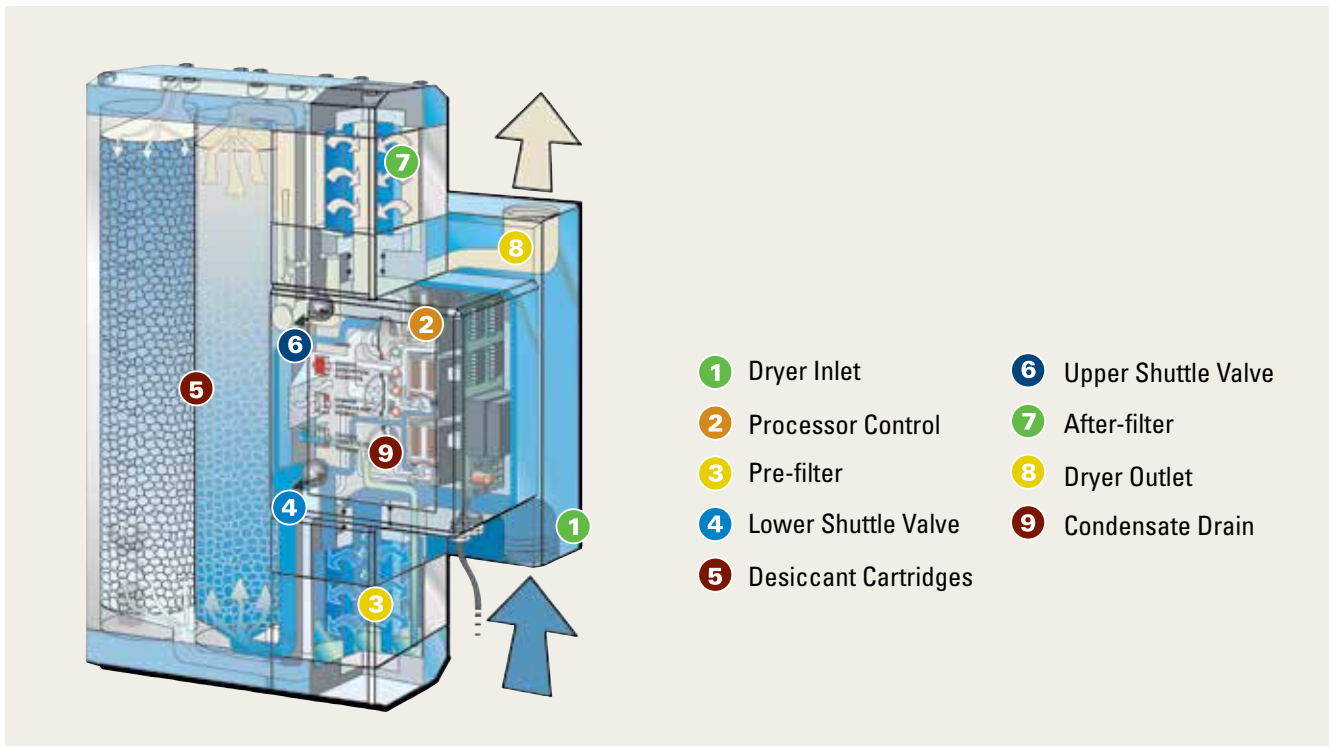
Packaging Equipment: As air expands to delivery mechanical energy to pneumatic devices, its temperature drops and condensation of water will occur inside motors and cylinders. A coalescing filter will not remove gaseous water vapor and therefore the Ultrapac 2000 is needed to protect this equipment.



DESICCANT CARTRIDGE – THE EASY SOLUTION

Sealed desiccant provides minimum desiccant abrasion, easy servicing, and long service life.

HOW THE ULTRAPAC 2000 WORKS



SPECIFICATIONS

TEMPERATURE

Operating Temperature Range +40°F / +125°F

Ambient Temperature Range +38°F / +125°F

STANDARD POWER SUPPLY

115V / 60 Hz, other options available

OPERATING PRESSURE

Minimum 60 psig; maximum 225 psig

DIMENSIONS

Model	Capacity ¹ (scfm)	Connection (FNPT)	Voltage (V)	Dimensions (inches)			Weight (lbs)	Desiccant Cartridges		Pre-filter Element (MF) After-filter Element (PE)	
				Height	Width	Depth		Size	Qty	Size	Qty (ea)
UP0003-60	3	1/2"	115	14	12	5	15	10/2	2	0205	1
UP0005-60	5	1/2"	115	23	12	5	24	10/2	4	0305	1
UP0010-60	10	1/2"	115	34	12	5	33	10/2	6	0410	1
UP0015-60	15	1/2"	115	55	12	5	53	10/2	10	0610	1
UP0020-60	20	1"	115	26	21	7	64	10/4	4	0420	1
UP0030-60	30	1"	115	36	21	7	84	10/4	6	0520	1
UP0040-60	40	1"	115	46	21	7	106	10/4	8	0525	1
UP0050-60	50	1"	115	56	21	7	125	10/4	10	0725	1
UP0060-60	60	1"	115	66	21	7	147	10/4	12	0725	1

¹ Capacity based on -40°F pdp, 100 psig inlet pressure, 100°F inlet temperature and 100°F ambient according to CAGI ADF 200.

CAPACITY CORRECTION FACTORS

The leading manufacturers of compressed air and gas equipment in North America are organized in the Compressed Air & Gas Institute (CAGI). As the premier industry organization, CAGI has developed standards to protect users of this equipment. ADF 200 is the current standard for desiccant compressed air dryers. ADF 200 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 temperatures (C1) and system pressures (C2).

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

CAPACITY CORRECTION FACTORS FOR INLET TEMPERATURE (C1)

System Pressure (psig)	68	77	86	100	104	115	125
Correction Factor	1.10	1.10	1.10	1.00	0.80	0.70	0.50

CAPACITY CORRECTION FACTORS FOR SYSTEM PRESSURE (C2)

System Pressure (psig)	60	75	90	100	115	130	150	160	175	190	200	220	250
Correction Factor	0.63	0.75	0.88	1	1.12	1.25	1.38	1.50	1.63	1.75	1.88	2	2.13

Important Notice

Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, specifications, availability and data are subject to change without notice, and may vary by region or country.



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