

COMPRESSED AIR TO MEET YOUR STRINGENT STANDARDS

# BURAN REFRIGERATED DRYER



# PUT MOISTURE IN ITS PLACE

When compressed air contains moisture and contaminants, your entire production process is at risk. Increase your level of protection with Donaldson's premium Buran Refrigerated Dryer that delivers state-of-the-art drying performance and equipment longevity.

## INDUSTRIES & APPLICATIONS

- + Automotive
- + Beverages
- + Chemicals
- + Electrical Machinery
- + Energy
- + Environment
- + Food Manufacturing
- + Food Processing
- + Industrial Gases
- + Industrial Machinery
- + Marine
- + Medical & Hospitals
- + Offshore
- + Oil & Gas
- + Packaging & Bottling
- + Paints & Coatings
- + Pharmaceutical



# DRYER AIR FOR PREMIUM PRODUCTION

The Buran Refrigerated Dryer from Donaldson removes moisture from compressed air and helps:

- + Reduce or eliminate condensation
- + Protect against equipment corrosion and failure
- + Support the quality of the final product or process

## HOW THE BURAN WORKS

The Buran's innovative aluminum heat exchanger provides a consistent supply of clean, dry air for your valuable equipment and processes.

Compressed air enters the dryer and is pre-cooled via the air-to-air heat exchanger. The inlet air is initially cooled by the outgoing cold compressed air.

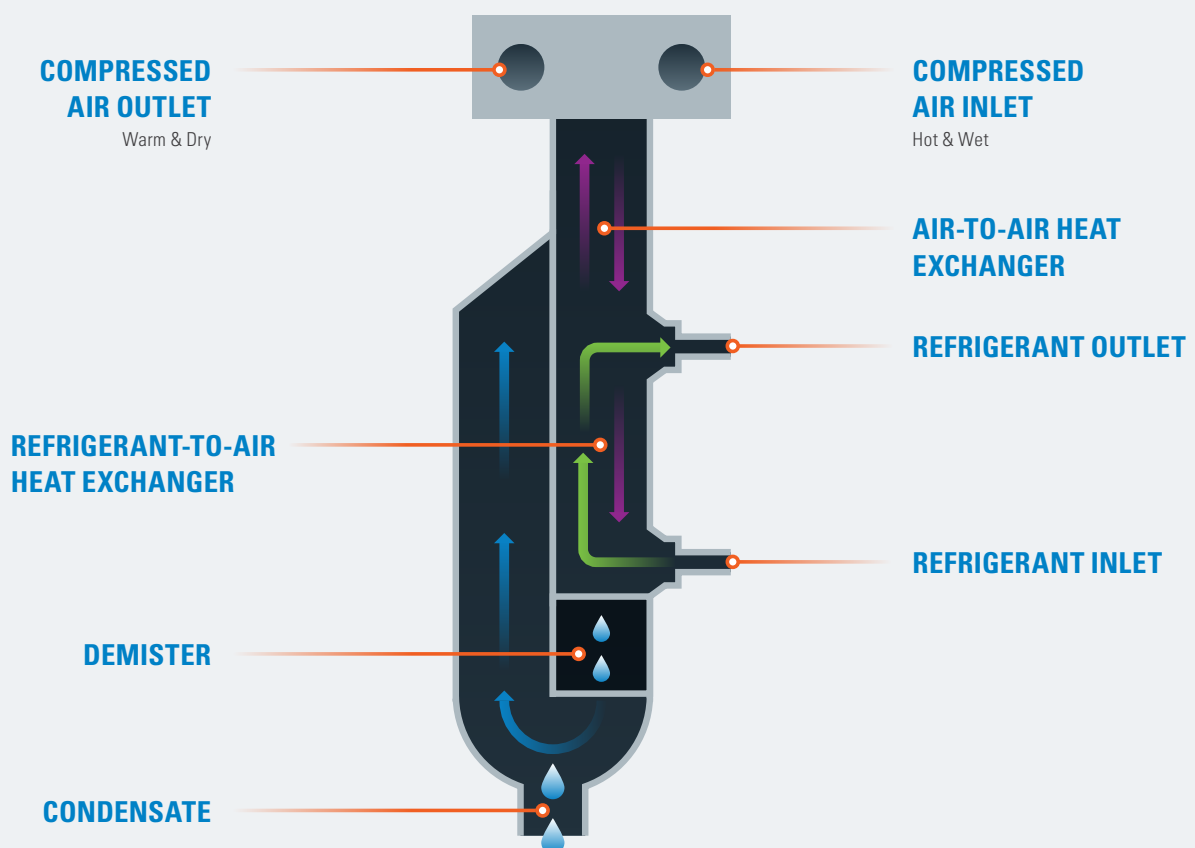
The pre-cooled air then passes through the refrigerant-to-air heat exchanger where it is cooled to the required pressure dewpoint.

The moisture in the inbound compressed air condenses and collects in the dryer's drain and discharges automatically.

Finally, the cold, discharged air is reheated by the incoming compressed air before it enters your system. The process prevents moisture from forming beyond the dryer.

The cooling capacity of the refrigeration cycle is controlled by a hot gas bypass, which provides proper functioning and compressed air delivery even during partial loading.

## ALUMINUM HEAT EXCHANGER



# FEATURES & BENEFITS



## EASY TO INSTALL, MONITOR & SERVICE

- + Compact design, intuitive set-up
- + Service kits
- + Service display
- + Easy access to components within the housing

## CERTIFIED TO MEET STRINGENT STANDARDS

- + cETLus certification: Intertek (ETL) certified in accordance with Underwriters Laboratories (UL) and CSA group (CSA) standards

## HIGH OVERLOAD CAPACITY

- + In case of overload, the dryer will only switch off at a dewpoint above approximately 68 °F

## INTEGRATED ALARM SIGNAL

- + Economical operation and integrated alarm installation in the compressed air network
- + Connection to higher-level control possible

## ELECTRONIC LEVEL CONTROLLED CONDENSATE ZERO LOSS DRAIN

- + No compressed air loss due to condensate removal

## ALUMINUM HEAT EXCHANGER

- + Low operating costs due to low pressure drop across the heat exchanger
- + No corrosion inside the heat exchanger due to contact with wet compressed air

## HOT GAS BYPASS CONTROL

- + Proven and reliable technology
- + Constant dewpoint even with changing loads





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Stable 37.4 °F Dewpoint

Low Pressure Drop

Optimal Performance  
& Equipment Longevity

# TECHNICAL SPECIFICATIONS

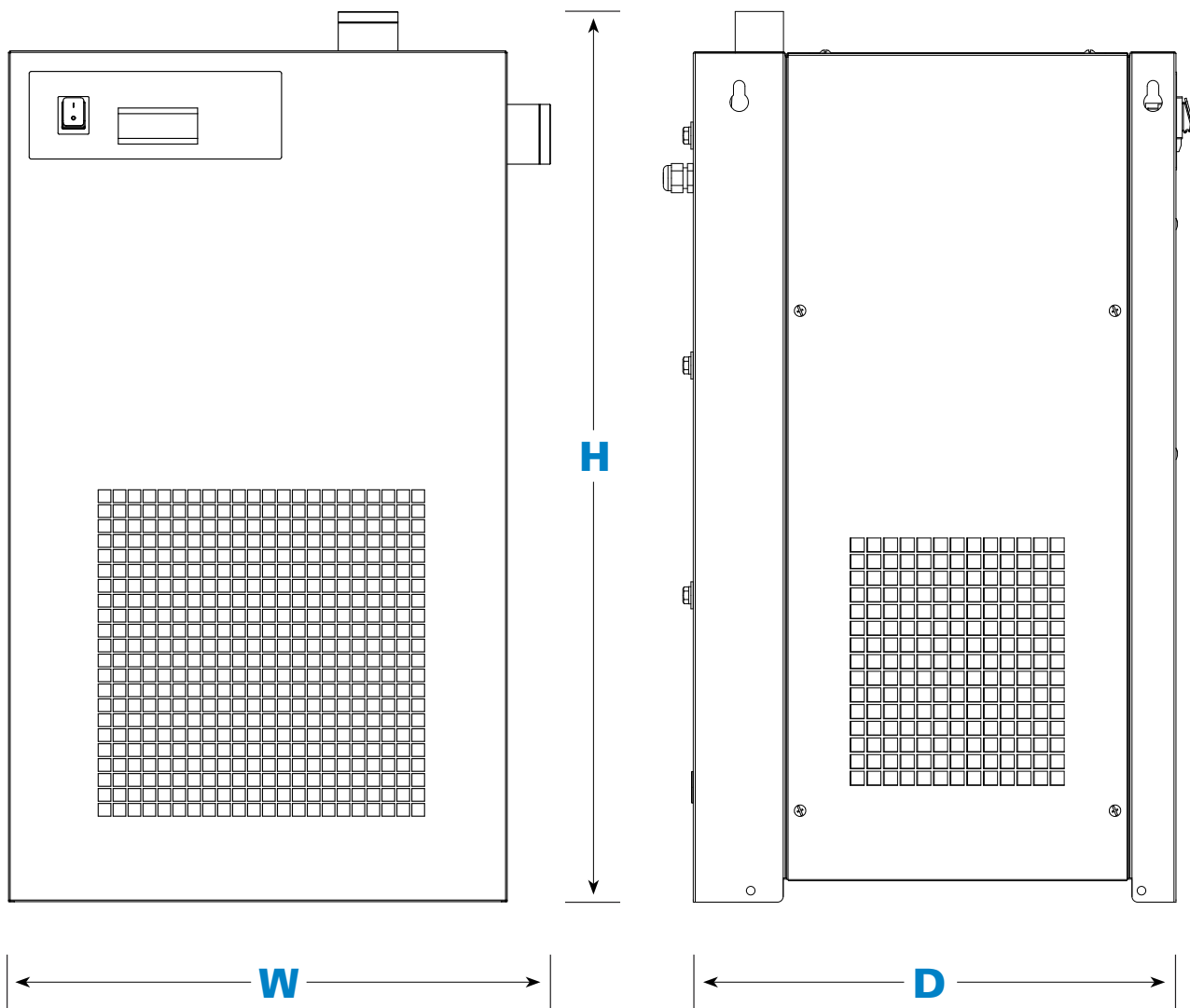
Donaldson	Donaldson Description	Power Supply	Volume Flow	Power Consumption	Cooling Air Requirement CFM (m³/h)	Dryer Dimensions (inches)		
						Width	Depth	Height
AX0641401	BURAN 0020 CFM 1 / 115 / 60 Hz	1 / 115 / 60 Hz	20.01 CFM	.26 kW	180 (305)	14.76	16.53	29.13
AX0641501	BURAN 0030 CFM 1 / 115 / 60 Hz	1 / 115 / 60 Hz	30.02 CFM	.27 kW	180 (305)	14.76	16.53	29.13
AX0641601	BURAN 0050 CFM 1 / 115 / 60 Hz	1 / 115 / 60 Hz	50.03 CFM	.39 kW	180 (305)	14.76	16.53	29.13
AX0641701	BURAN 0075 CFM 1 / 115 / 60 Hz	1 / 115 / 60 Hz	74.75 CFM	.48 kW	180 (305)	14.96	16.53	29.13
AX0641801	BURAN 0100 CFM 1 / 115 / 60 Hz	1 / 115 / 60 Hz	100.06 CFM	.58 kW	180 (305)	20.47	17.91	32.48
AX0641901	BURAN 0125 CFM 1 / 115 / 60 Hz	1 / 115 / 60 Hz	124.78 CFM	1.00 kW	350 (594)	20.47	17.91	32.48
AX0642001	BURAN 0150 CFM 1 / 115 / 60 Hz	1 / 115 / 60 Hz	150.09 CFM	1.05 kW	350 (594)	20.47	17.91	32.48
AX0642101	BURAN 0200 CFM 1 / 115 / 60 Hz	1 / 115 / 60 Hz	200.12 CFM	1.10 kW	530 (900)	23.82	22.83	34.84
AX0642201	BURAN 0250 CFM 1 / 230 / 60 Hz	1 / 230 / 60 Hz	250.15 CFM	1.39 kW	530 (900)	23.82	22.83	34.84
AX0642301	BURAN 0300 CFM 1 / 230 / 60 Hz	1 / 230 / 60 Hz	299.59 CFM	1.64 kW	1500 (2548)	24.02	24.60	38.38
AX0642401	BURAN 0350 CFM 1 / 230 / 60 Hz	1 / 230 / 60 Hz	349.62 CFM	2.19 kW	1550 (2633)	24.02	24.60	38.38
AX0642501	BURAN 0400 CFM 1 / 230 / 60 Hz	1 / 230 / 60 Hz	399.64 CFM	2.48 kW	2100 (3567)	28.15	28.54	43.50
AX0642601	BURAN 0500 CFM 1 / 230 / 60 Hz	1 / 230 / 60 Hz	499.70 CFM	2.5 kW	2100 (3567)	28.15	28.54	43.50

Working Overpressure	Bar (g)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Factor	f <sub>p</sub>	0.49	0.66	0.77	0.86	0.93	1.00	1.05	1.10	1.14	1.18	1.21	1.24	1.27	1.30	1.33

Pressure Dewpoint	°F	37.4	41	44.6	50	Temperature of ambient air, only for air-cooled dryers					°F	77	86	95	104	113	122
Factor	f <sub>tpd</sub>	1.00	1.09	1.19	1.37	Factor					f <sub>tu</sub>	1.00	0.96	0.90	0.82	0.72	0.60

Compressed air inlet temperature		°F	77	86	95	104	113	122	131	140	149	158
Factor		f <sub>te</sub>	1.20	1.12	1.00	0.83	0.69	0.59	0.50	0.44	0.39	0.37

Corrected dryer capacity = Standard dryer capacity x f<sub>p</sub> x f<sub>tpd</sub> z f<sub>tu</sub> x f<sub>te</sub>





# THE DONALDSON DIFFERENCE

With more than a century of experience and expertise, you can count on Donaldson to help address your operation's filtration challenges.

From the initial review of your process needs to identifying the right refrigerated dryer for your operation, we will work with you to provide energy-efficient, cost-effective compressed air for your organization.

Post installation, you can continue to rely on Donaldson for unrivaled customer service and support, a comprehensive portfolio of replacement parts, and access to industry experts ready to answer your questions.



**Talk to a Donaldson representative to learn more about the Buran Refrigerated Dryer and our other filtration solutions to help meet your operational challenges.**



**Donaldson**  
FILTRATION SOLUTIONS

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