CompAir®

TX-Series Heatless Desiccant Compressed Air Dryers

Intelligent Air Technology

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Compressed air is polluted with dirt particles, water, oil, oil vapor and condensate. These contaminants result in high maintenance costs, premature wear, spoiled products and the failure of control systems.

A CompAir TX-Series dryer will effectively remove these contaminants.

The traditional adsorption principle used in this design is simple, robust and flexible using compressed air for regeneration. This eliminates needs for an outside energy supply.

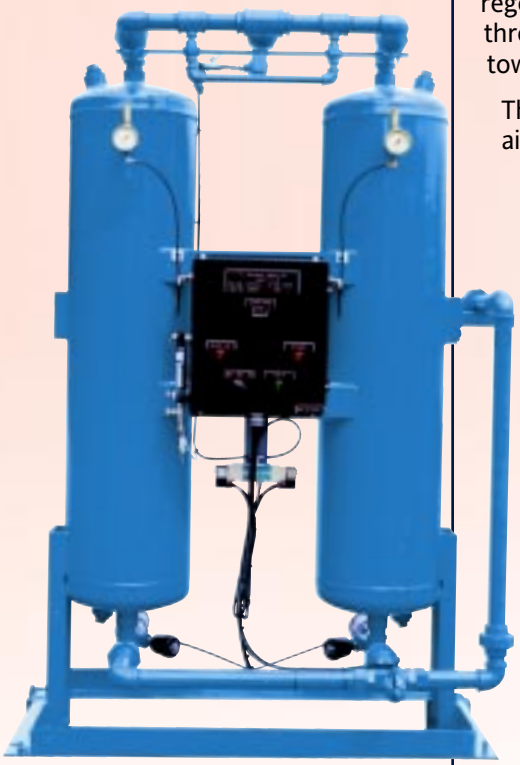
High levels of reliability are achieved by the use of proven engineering technology and components.

How TX-Series Dryers Work

The compressed air is passed through a high-efficiency inlet filter which removes solid and liquid particles down to a size of 0.01 micron/0.01 ppm. An automatic drain valve then removes the bulk liquid.

After being filtered, the compressed air (which is still 100% saturated), is directed by an inlet switching valve into one of the towers which is filled with a moisture adsorbent desiccant material. To ensure even distribution through the tower, the desiccant is supported by a self-cleaning stainless steel support screen.

During the drying phase, the moisture in the compressed air is adsorbed by the desiccant material. Dried, clean air is then directed by an outlet check valve out into the pipe distribution system. As tower A is drying the compressed air, tower B is being regenerated. This is achieved by passing a small amount of dry compressed air through a fixed orifice where it expands to atmospheric pressure, flowing through tower B in a counter-current direction to drying.



The expansion from line pressure to atmospheric pressure allows the dried air to remove the moisture in the bed of tower B thereby drying (regenerating) the desiccant bed. This purged air then passes out through an exhaust valve and silencer.

Standard Features

- Dewpoint options of -40°F (-40°C) and -100°F (-73°C) PDP.
- Standard desiccant allows inlet temperature up to 120°F with high adsorption and desorption efficiency.
- High capacity drying beds offer good moisture separation and long reserve times.
- Stainless steel support screens ensure low pressure drop and an even flow distribution through the desiccant beds.
- Pressure vessel codes to ASME VIII ('UM' or 'U' stamp), other approvals upon request (CRN available).
- Vessel designs have good aspect ratios resulting in optimum bed velocities and contact times.
- Low power requirements. 120 Volt /1 PH/60 Hz electrical input.
- Fail safe design. If power or pilot air failure occurs, the purge exhaust valves close. The dryer will continue to deliver low dewpoint for several hours.
- 10 minute NEMA dryer cycle - standard.
- EEMAC 4/NEMA 4 electrical class, CSA approved.
- Electronically controlled pilot valves are fitted as standard.
- Tower pressure gauges.
- Locally mounted tower pressure gauges and purge pressure gauge.
- Adjustable purge valve.
- Moisture indicator, color change type.
- High performance shifting value.
- Five year warranty on dryer automatic switching valves (A220TX to A0600TX).

Optional Features

- TX-Series dryers are available with Dewpoint Dependent Switching, an energy saving purge air control and digital dewpoint monitor.
- NEMA 7 option available for Class 1 Division 1 Groups C & D.
- Stainless steel control lines.
- Copper control lines.
- 250 psi g design pressure.
- Special temperature and pressure gauge packages.
- Hours run meter.
- Mounted filter and bypass piping.

Technical Data

Flow Range @ 100 psi g	220 cfm to 3,400 cfm	**Maximum Operating Pressure:** **Minimum Operating Pressure:**	140 psi g 80 psi g
Pressure Dewpoint:	-40˚F (-40°C) Nominal -100˚F (-70°C) Optional	**Maximum Inlet Temperature:** **Minimum Inlet Temperature:**	120˚F (49°C) 50˚F (10°C)
Air Quality Class:	ISO 8573.1 Class 1.2.1. Nominal ISO 8573.1 Class 1.1.1. Optional	**Controls:**	Electronic
		Standard Electrical Supply:	120 V/1 Ph/60 Hz

Performance, Specifications and Weight

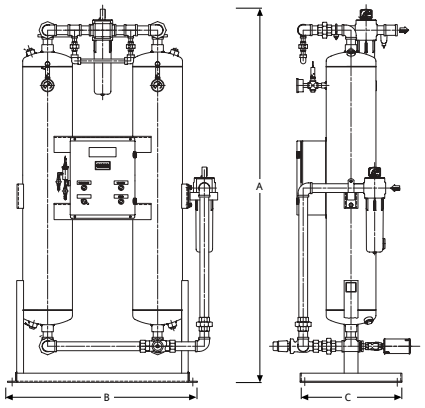
Model*	Flow Rate cfm 100 psi	Dimensions inches			Weight lbs.	Recommended Inlet Filter Grade C	Recommended Outlet Filter Grade E	Inlet and Outlet Connections
		A	B	C				
A0220TX	220	83	45	29	550	CF0087	CF0087	1 1/2" NPT
A0300TX	300	71	49	29	650	CF0120	CF0120	1 1/2" NPT
A0400TX	400	83	54	38	780	CF0120	CF0120	2" NPT
A0500TX	500	73	59	38	1,320	CF0198	CF0198	2" NPT
A0600TX	600	83	59	38	1,500	CF0198	CF0198	2" NPT
A0820TX	820	109	68	46	2,000	CF0258	CF0258	3" NPT
A1050TX	1,050	121	68	46	2,200	CF0372	CF0372	3" NPT
A1200TX	1,200	111	70	46	2,500	CF0372	CF0372	3" NPT
A1450TX	1,450	123	70	46	2,800	CF0600F	CF0600F	4" ANSI
A1710TX	1,710	120	64	40	3,400	CF0600F	CF0600F	4" ANSI
A2000TX	2,000	120	66	42	3,800	CF0600F	CF0600F	4" ANSI
A2350TX	2,350	120	68	44	4,200	CF0780F	CF0780F	4" ANSI
A2700TX	2,700	120	70	46	4,600	CF0780F	CF0780F	4" ANSI
A3400TX	3,400	124	72	48	5,000	CF1170F	CF1170F	6" ANSI

Correction Factors (Based on 100°F (38°C) Inlet Air Temperature)

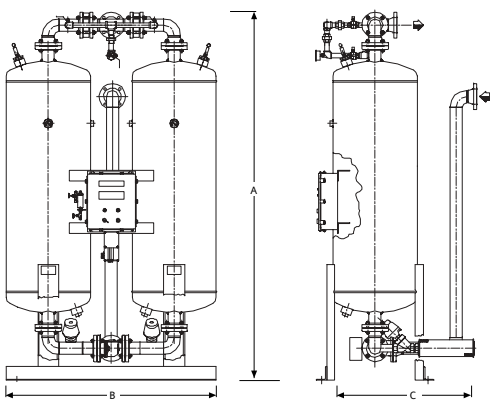
Working Pressure (psi g)	80	90	100	110	120	130	140	150
Pressure Correction Factor	0.83	0.91	1.0	1.09	1.17	1.26	1.35	1.43

Example: Model A0500TX flows 500 scfm @ 100 psi g. Multiply flow (500 scfm) x new correction factor (1.17) for 120 psi g = A corrected dryer capacity of 585 scfm @ 120 psi g.

Models A0220TX - A0600TX



Models A0820TX - A3400TX



Intelligent Air Technology

Compressed air solutions for every application

Compressors

Up to 2,750 cfm

1 - 604 hp

Up to 6,000 psi

Lubricated

Rotary Vane

Single-Stage Screw

Two-Stage Screw

Speed Regulated Screw

Piston

Portable

Oil-Free

Two-Stage Screw

Water-Sealed Screw

Piston

Portable

Complete Accessories Program

Filters and Dryers

Cooling Systems

Heat Recovery

Condensate Management

Air Receivers

Multi-Set Controllers

Lubricants

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Air Audit

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Utility Air

Performance Contracting

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Engineering of Complete Compressor Stations

Local Service Centers

Guaranteed Parts Availability

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