

Compressed Air Dryers

TX Series



Water is extremely harmful to compressed air systems!

Hot compressed air contains a large amount of water. In fact, at 75°F and 75% relative humidity, a typical 25 hp compressor will generate 6 gallons of water every 8 hours.

As the saturated air moves downstream, water vapor cools and condenses into liquid. As a liquid, water promotes rust and corrosion in piping, tools and product. Rust leads to air leaks and pressure drops. Maintenance and repair costs on pneumatic equipment

increase, products can be ruined, and production time is lost.

Kaeser's TX Series refrigerated dryers efficiently remove the harmful moisture by cooling the air and forcing moisture to condense. Once condensed, the water is removed from the system by a separator and drain trap.

Efficient design

All Kaeser dryers are built for maximum efficiency, durability and reliability. Low pressure drops are achieved due to smooth copper heat exchangers.

Capacity

- 10 and 15 cfm @ 100 psig

Instrumentation and Controls

- Power cord with plug
- Power on light

All dryers are UL 508 listed, CSA certified, and use environmentally friendly R134a refrigerant

Reliability

Only carefully selected, high quality components are built into each dryer. The result is exceptional reliability. Advanced engineering has reduced the number of joints and components of the dryer thus lowering the potential for leaks and malfunctions.

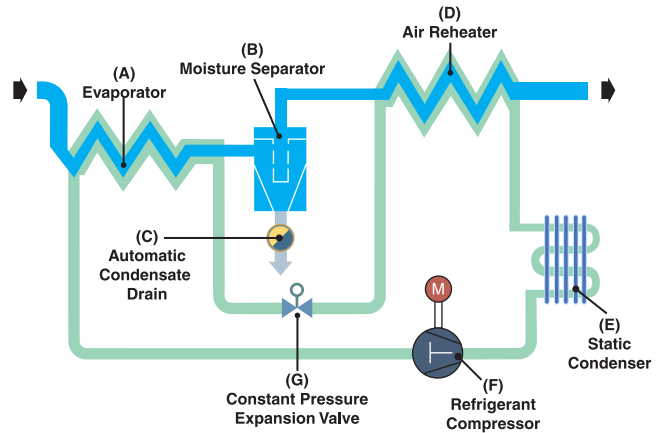
Value

High efficiency features, high reliability, and easy maintenance make the TX refrigerant dryer an exceptional value.

Operation

Warm saturated air enters the Evaporator (A) where it is cooled by the evaporating refrigerant. As the compressed air cools, water vapor condenses and is separated from the air stream by the Moisture Separator (B). The Automatic Condensate Drain (C) ejects the separated liquid from the system. The cold, dry air is reheated by hot refrigerant in the Air Reheater (D), preventing "sweating" of downstream piping, and exits the dryer.

The Static Condenser (E) radiates heat from the hot refrigerant being discharged by the Refrigerant Compressor (F). The partially cooled refrigerant then passes through the Air Reheater (D) where it is cooled further. The Constant Pressure Expansion Valve (G) meters the flow of cool, liquid refrigerant into the Evaporator (A) to maintain proper cooling under all load conditions. This assures a constant evaporator temperature and prevents freeze-up assuring continuous, and automatic, dew point control.



Sizing

Table 1: Dryer Sizing Chart

Inlet Pressure		Inlet Temperature			
(psig)	(bar)	90°F	100°F	110°F	120°F
80	5.5	1.17	0.95	0.79	0.66
100	6.9	1.23	1.00	0.82	0.70
125	8.6	1.31	1.07	0.91	0.74
150	10.3	1.37	1.13	0.95	0.80
175	12.1	1.42	1.18	0.99	0.84
200	13.8	1.47	1.22	1.03	0.89
250	17.2	1.49	1.24	1.05	0.91

Table 2: Correction Factor

Ambient Air Temperature	80°F	90°F	100°F	110°F
Correction Factor	1.12	1.06	1.00	0.94

To adjust dryer capacity for conditions other than rated, use Correction Factors (multipliers) from Tables 1 and 2.

Example: What is the capacity of a model TX 3 when the compressed air at the inlet to the dryer is at 150 psig and 100°F, and the ambient temperature is 90°F?

Answer: 15 scfm (rated flow from Specifications Table) x 1.13 (correction factor for inlet temperature and pressure from Table 1) x 1.06 (correction factor from Table 2) = 18 scfm

Specifications

Model	Flow* @ 38°F pdp (scfm)	Flow* @ 50°F pdp (scfm)	Max. Working Pressure (psig)	Nominal Refrigeration Horsepower	Input Power (kW)	Available Voltages **	Inlet/Outlet Connection (in.)	Dimensions H x W x D (in.)	Shipping Weight (lb.)
TX 2	10	13	250	1/8	0.21	115-1-60	3/8	16 x 13 x 13	64
TX 3	15	20	250	1/7	0.24	115-1-60	3/8	16 x 13 x 13	69

Maximum Inlet air temperature: 122°F. Min/Max ambient temperature: 40°F-113°F. *Capacities are per CAGI Standard ADF 100 Conditions. **50 Hz also available.

Specifications are subject to change without notice.



Built for a lifetime™

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Certified Management Systems



The Air Systems Specialist

With over 85 years of experience, Kaeser is the air systems specialist. Our extensive 100,000 square foot facility allows us to provide unequalled product availability. With service centers nationwide and our 24-hour emergency parts guarantee, Kaeser customers can rely on the best after-sales support in the industry. Kaeser stands committed to providing the highest quality air system for your specific compressed air needs.