

Compressed Air Dryers

Wall Mounted Desiccant Dryer**Consistently dry air**

For small applications that need very dry air, Kaeser offers a wall mounted version of its heatless adsorptive desiccant dryer, the KADW. These dryers are based on a “counterflow” design. Towers dry air as it flows up, and purge air on the way down. Therefore the driest desiccant is always at the top of the bed. This results in air leaving the on-stream tower consistently at the specified dew point.

To ensure proper unit operation, the towers are designed to limit the air veloc-

ity. This prevents bed fluidization and desiccant dusting and ensures proper contact time between the air and desiccant.

All units are designed for easy connection to an optional Kaeser Oil Removal (KOR) prefilter and the Kaeser Particulate (KPF) afterfilter.

Precise dew points

All KADW's include a highly accurate solid-state timer. The timer is set for a standard 10 minute cycle to ensure the required dew point.

Capacity

- 5 to 25 scfm @ 100 psig

Features

- Convenient wall-mounting
- Consistent dew-points
- Regenerative desiccant
- Solid state timer
- Completely assembled, piped, and wired for installation

Recommended Accessories

- KOR or KOX coalescing oil removal filter as a prefilter (shown at far left)
- KPF particulate filter as an after-filter (shown at left)

Large desiccant beds insure sufficient water vapor removal to yield -40°F pressure dew point on a 10 minute cycle. However, this timer is also field-adjustable to a 4 minute cycle if a -100°F pressure dew point is needed.

For easy installation, Kaeser KADW series dryers are furnished in ready-to-mount cabinets. The dryers are completely assembled, piped and wired at the factory, and fully charged with desiccant. Simply make the utility connections, and the air dryer is ready for operation.

Flow capacities

Maximum inlet flow capacities at various pressures: To determine maximum inlet flow at air inlet pressures other than 100 psig, multiply the inlet flow from Table 1 by the multiplier from Table 2 that corresponds to system pressure at inlet of dryer.

Purge flow at various capacities: To determine average or maximum purge flow at inlet pressures other than 100 psig, multiply purge flow (Table 1), by the correction factor (Table 3) that corresponds to system pressure at inlet of dryer

Outlet flow capacities: To determine outlet flow capacity, subtract purge flow from inlet flow.



Optional Equipment: Filters

Filters provide the additional protection from contaminants that degrade desiccant performance. Filters remove

Specifications are subject to change without notice.

Table 1: Kaeser Wall-Mounted Desiccant Dryers

Model	Cycle Time (Minutes)	Inlet Flow (scfm)	Purge Flow		Downstream Air Available		Dimensions L x W x H (in.)	In/Out Connect.	Weight (lbs.)
			Avg. (scfm)	Max. (scfm)	Avg. (scfm)	Min. (scfm)			
KADW-5	4	4.3	0.8	1.1	3.5	3.2	23 x 7 x 31	1/2 NPTF	82
	10	5	1.0	1.1	4	3.9			
KADW-10	4	8.5	1.7	2.2	6.8	6.3			119
	10	10	2.0	2.2	8	7.8			
KADW-15	4	13	2.6	3.3	10.4	9.7			136
	10	15	3.0	3.3	12	11.7			
KADW-20	4	17	3.4	4.4	13.6	12.6	31 x 9 x 31	171	
	10	20	4.0	4.4	16	15.6			
KADW-25	4	21	4.4	5.5	16.6	15.5			196
	10	25	5.0	5.5	20	19.5			

Maximum working pressure: 150 psig. **Electrics:** 115/1/60; 230/1/60; NEMA 1 (standard); NEMA 4 (optional).

Note 1: Inlet flows are established in accordance with CAGI (Compressed Air and Gas Institute) standard ADF-200, Dual Stage Regenerative Desiccant Compressed Air Dryers - Methods for Testing and Rating. Conditions for rating dryers are: Inlet pressure - 100 psig; inlet temperature - saturated at 100°F. Actual pressure drop for all units is less than 3 psi at rated conditions.

Note 2: Average Purge Flow is the total amount of air used to purge and repressurize off-stream towers averaged over the cycle time. Maximum purge flow is the flow rate through the off-stream tower during that portion of the cycle the purge/repressurization valve is open.

Table 2: Capacity Correction Factor for Various Inlet Pressures

Inlet Pressure (psig)	50	60	70	80	90	100	110	120	130	140	150
Multiplier	0.31	0.42	0.54	0.68	0.83	1.0	1.09	1.17	1.26	1.35	1.44

Table 3: Purge Flow Correction Factor for Various Inlet Pressures

Inlet Pressure (psig)	50	60	70	80	90	100	110	120	130	140	150
Multiplier	0.55	0.64	0.73	0.82	0.91	1.0	1.09	1.17	1.26	1.35	1.44

solid particles, oil aerosols, moisture and oil vapors. Adding filters to the compressed air system will save consid-

erable costs in process downtime, cleaning tools, and repairing equipment.

**KAESER
COMPRESSORS**

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