

# Regenerative Desiccant Dryers

KAD, KED and KBD Series



## Why Desiccant Air Dryers?

Desiccant dryers provide extremely dry air. For applications where ambient conditions require dew points below freezing and as low as  $-100^{\circ}\text{F}$ , Kaeser Compressors has the right solution.

Kaeser's desiccant dryers are twin tower regenerative dryers. Standard sizes range from 5 cfm to 5400 cfm with larger models also available. These highly-effective units combine an adsorption drying process using activated alumina with choices in the regeneration method. Our desiccant dryer line includes:

- Heatless desiccant dryers (KAD and KADW series)
- Heated purge desiccant dryers (KED series)
- Heated blower purge desiccant dryers (KBD series)

Careful evaluation and planning is essential for an efficient clean air treatment system. Desiccant dryer selection should be based on specified dew points and energy saving capabilities. These dryers should only be applied to portions of the compressed air system that require dew points below  $35^{\circ}\text{F}$ . Because desiccant dryers require a higher initial investment and higher overall operating costs, Kaeser strongly recommends using refrigerated dryers whenever practical. However, when desiccant dryers are needed, evaluate all three designs with respect to initial cost vs. electrical operating cost. Significant energy savings are possible in many applications.

## Basic Operation

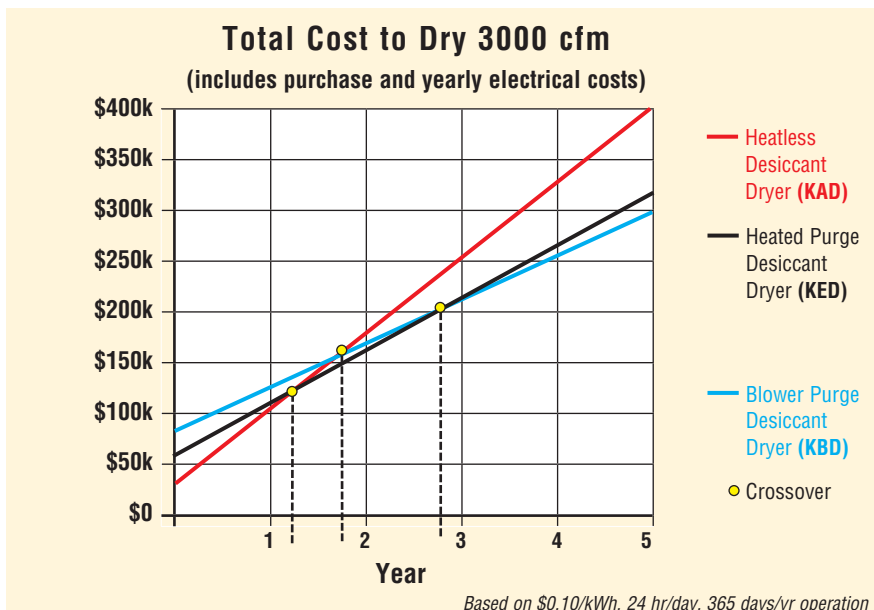
Kaeser desiccant dryers employ the principles of adsorption and desorption to produce a continuous supply of dry compressed air.

Desiccant materials have a high surface-to-volume ratio and great affinity for water vapor. Adsorption occurs until the vapor pressure of water on the desiccant and the compressed air reaches equilibrium. The water vapor condenses on the desiccant surface and heat is released.

During regeneration, "purge air" flowing through the tower of wet desiccant evaporates water on the desiccant and carries it out of the tower as vapor.

There are three basic sources of purge air for regenerating a wet desiccant bed, they are:

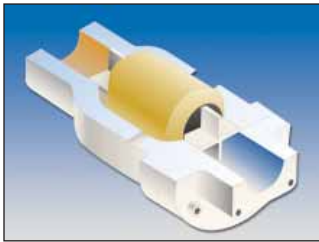
- KAD - dried compressed air reduced to near atmospheric pressure (14.4% of dryer capacity when operating at 100 psig)
- KED - dried compressed air reduced to near atmospheric pressure and heated to  $375^{\circ}\text{F}$  (6% to 7% of dryer capacity when operating at 100 psig)
- KBD - ambient air heated to  $375^{\circ}\text{F}$



The chart above compares the combined purchase and electrical costs for three types of desiccant dryers sized to dry 3000 cfm. It shows that the efficiencies of heated dryers quickly pay back their initially higher investment (within 2 to 3 years). The crossover point between heated dryers (KED and KBD) occurs within 3 years. Payback calculations are directly tied to the volume of air being dried. Generally, the larger the volume being dried the shorter the payback period. The operating cost for regeneration in the KAD, KED and KBD are approximately \$54,000, \$41,000 and \$37,000 respectively.

## Quality Valves

Desiccant dryer performance and reliability are driven by component quality. Kaeser dryers are fitted with the most reliable valves and actuators. Designed to hold up under the harshest operating conditions year after year, these leak-free switching valves ensure consistent dew point performance and low pressure drop.



Nylon shuttle valve



Direct acting solenoid switching valve



Butterfly valve with rack and pinion actuator

## How it Works

The dryer alternately cycles the compressed air flow through twin desiccant towers. As the vapor-laden air enters and flows upward through one tower, the moisture is adsorbed onto the desiccant. Clean, dry air flows from the dryer downstream into the compressed air system.

While one desiccant chamber is in the drying cycle, the other chamber goes through a regeneration cycle. Three methods of regeneration are available.

## Desiccant Selection

All Kaeser desiccant dryers use spherical activated alumina desiccant for adsorption. Activated alumina has a high static adsorption capacity (42% by weight), a high abrasion resistance



and crush strength and maintains its physical integrity in the presence of liquid water. These characteristics allow for long service life and minimize dusting. Because the desiccant is not altered by the adsorption process, the cycle of adsorption and desorption can be repeated many thousands of times before the desiccant needs replacing.

## Desiccant Bed Design

Kaeser regenerative dryers have large desiccant beds to ensure consistent outlet dew point performance and compensate for the effects of natural desiccant aging (which reduces adsorptive capacity). Desiccant bed symmetry is selected to assure uniform flow distribution and maximize contact time.

**KAD** dryers use a portion of the dry outlet air (about 15%), which is reduced in pressure through an orifice, further reducing its dew point. This extremely dry air, aided by the heat of adsorption, regenerates the desiccant.

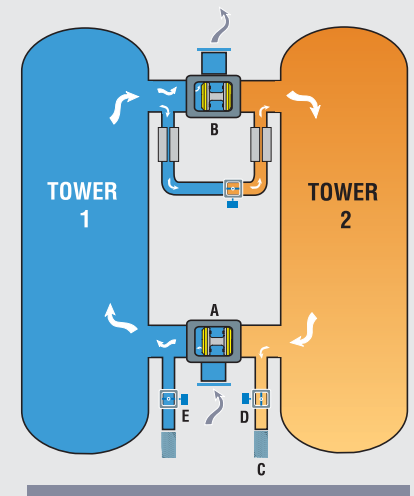
**KED** dryers use a smaller portion of dry outlet air (about 7%), which is also reduced in pressure through an orifice and then heated to 375°F. This hot, extremely dry, air is passed through the bed regenerating the desiccant.

## Counterflow Regeneration

Kaeser's up flow drying and down flow regeneration extends desiccant service life and assures consistent outlet dew points.

This counter flow arrangement also controls the accumulation of liquid water in the desiccant beds. Regardless of design, liquid water will accumulate in the piping between the prefilters and the dryer inlet. Eventually, the air stream will carry a "slug" of water into the desiccant bed. In down-flow dryers this water percolates down through the desiccant toward the "dry" end of the bed resulting in degradation and poor dryer performance.

In the countercurrent design, gravity and low velocities allow moisture to settle in the bottom of the desiccant vessel, where it is safely discharged from the system when the tower depressurizes for regeneration. This design also ensures that the driest portion of the desiccant bed is nearest the dryer outlet at switchover, and allows purge air to be evenly distributed throughout the desiccant bed, providing more effective regeneration.



**KBD** dryers use a regenerative blower to move ambient air through a heater where its temperature is increased to 375°F, and then through the bed, regenerating the desiccant.

In all cases, after regeneration is complete, the desiccant chamber is gradually repressurized and put on-line for another drying cycle.

# Heatless Desiccant Dryer (KAD)

Kaeser adsorption desiccant dryers use approximately 15% of their dry air output to regenerate the saturated tower. KADs are initially less expensive than heat reactivated dryers, but they have the highest overall operating costs. KADs produce pressure dewpoints as low as -100°F at rated conditions (see Dew Point Options on page 5).

Sizes: 40 – 5400 scfm



590-3000 cfm design

40 to 450 cfm design

## Outstanding Features

### 1 Controls and instrumentation

- Tower pressure gauges
- Tower status lights
- Switch failure alarm\*
- Purge flow indicator
- NEMA 4
- RS232 comm port\*

### 2 Standard moisture indicator

- Color change indicates elevated outlet dew point

### 3 Standard purge flow valve

- Offers convenient purge rate adjustment

### 4 Separate top fill and bottom drain ports

- Easy desiccant replacement

### 5 ASME stamped pressure vessels rated for 150 psig at 450°F

### 6 Nylon shuttle valve

- Corrosion resistant aluminum housing
- Only one moving part-very long life
- No maintenance
- No check valves
- Tested to over 500,000 cycles

### 7 Standard pressure relief valve

- Meets ASME Section VIII

### 8 Standard stainless steel support screens and air diffusers

- Located at top and bottom of each vessel
- Easy to remove and clean
- Efficiently filters out large contaminants and protects outlet shuttle valve
- Effectively prevents channeling

### 9 Structural steel frame complete with floor stand for ease of installation

- Lifting lugs for easy handling
- Optional factory mounting of pre- and after-filters

\*Not available on KAD E

## Kaeser Heatless Desiccant Dryers (KAD) (Table 1)

Model	Inlet Flow @ 100 psig (scfm)	Purge Rate @ 100 psig (scfm)		Outlet Air Flow Rate (scfm)		Power Supply	Dimensions W x D x H (inches)	Inlet and Outlet Connection (inches)	Weight (lbs)	Filter Package Capacity (scfm)	Total Replacement Desiccant (lbs)
		Avg	Max	Avg	Min						
KAD 40	40	5.8	7	34.2	33.0	KAD and KAD PS: 100-240 V 1 Ph 50 or 60 Hz	32 x 32 x 46	1 NPT	365	60	52
KAD 60	60	8.6	10.5	51.4	49.5		32 x 32 x 61		445	60	80
KAD 90	90	13	15.8	77.0	74.2		32 x 32 x 78		575	100	110
KAD 115	115	16.6	20.1	98.4	94.6		44 x 38 x 54	685	170	210	
KAD 165	165	23.8	28.9	141	136			685	170	210	
KAD 260	260	37.4	45.5	223	215		48 x 38 x 72	1010	375	318	
KAD 370	370	53.3	64.8	317	305		55 x 38 x 63	1215	375	457	
KAD 450	450	64.8	78.8	385	371		55 x 38 x 71	1350	485	542	
KAD 590	590	85	103	505	487		52 x 48 x 101	1473	625	708	
KAD 750	750	108	131	642	619		54 x 48 x 104	2134	780	906	
KAD 930	930	134	163	796	767	59 x 56 x 109	2414	1000	1180		
KAD 1130	1130	163	198	967	932	63 x 56 x 112	2875	1250	1420		
KAD 1350	1350	194	236	1156	1114	65 x 56 x 117	3722	1875	1846		
KAD 1550	1550	223	271	1327	1279	71 x 56 x 115	4167	1875	2064		
KAD 2100	2100	302	368	1798	1732	79 x 56 x 116	4417	2500	2520		
KAD 3000	3000	432	525	2565	2475	78 x 65 x 122	9010	3125	3734		
KAD 4100	4100	590	718	3510	3382	93 x 85 x 122	9900	5000	5398		
KAD 5400	5400	778	945	4622	4455	102 x 86 x 122	12,000	6875	7200		

**Note 1:** KAD dryer inlet flow capacities are established in accordance with CAGI (Compressed Air and Gas Institute) Standard ADF-200: Inlet air pressure 100 psig, inlet air temperature 100°F, saturated.  
**Note 2:** The purge flow rate of any pressure swing (heatless) desiccant dryer is not constant throughout the purge cycle. The purge cycle consists of a maximum purge flow period when the purge valve is open and a reduced flow period during repressurization. The total purge flow during the purge flow cycle is the product of the average purge flow times the purge cycle time.  
**Note 3:** Maximum working pressure: 150 psig standard; 250 psig optional.

Specifications are subject to change without notice.

## Flow Capacities

### Maximum inlet flow capacities at various pressures:

To determine a dryer's inlet flow capacity at inlet pressures other than 100 psig, multiply the dryer's rated inlet flow (found in Table 1) by the multiplier from Table 2 that corresponds to the system pressure at the dryer inlet.

### Outlet flow capacities:

For dryers operating at less than maximum flow and using the Purge Economizer feature and/or operating at pressures other than 100 psig, contact factory for correct purge flow.

## KAD Inlet Pressure Correction Factor (Table 2)

Inlet Pressure (psig)	Multiplier	Inlet Pressure (psig)	Multiplier
60*	0.65	130	1.12
70	0.74	140	1.16
80	0.83	150	1.20
90	0.91	175	1.29
100	1.00	200	1.37
110	1.04	225	1.45
120	1.08	250	1.52

\*For operation at pressures lower than 60 psig, please contact factory.

## KAD Dew Point Options Meet ISO 8573.1 Air Quality Standards (Table 3)

Models KAD and KAD PS allow the user to select outlet pressure dew points corresponding to the four different ISO 8573.1 air quality classes.

KAD E models are preset to deliver the commonly used ISO 8573.1 Class 2 outlet pressure dew point.

ISO 8573.1 Class	Dew Point	Remaining Moisture**		Cycle Time and Mode	
		ppmw	mg/m <sup>3</sup>	Standard	with Optional Purge Saver <sup>†</sup>
1	-100°F (-73°C)	0.12	0.16	4 min. fixed	N/A
2	-40°F (-40°C)	10	14	10 min. fixed	Yes
3	-4°F (-20°C)	81	110	16 min. fixed	Yes
4	+38°F (+3°C)	611	823	24 min. fixed	Yes

\* This performance exceeds Quality Class 1 set at -94°F (-70°C)

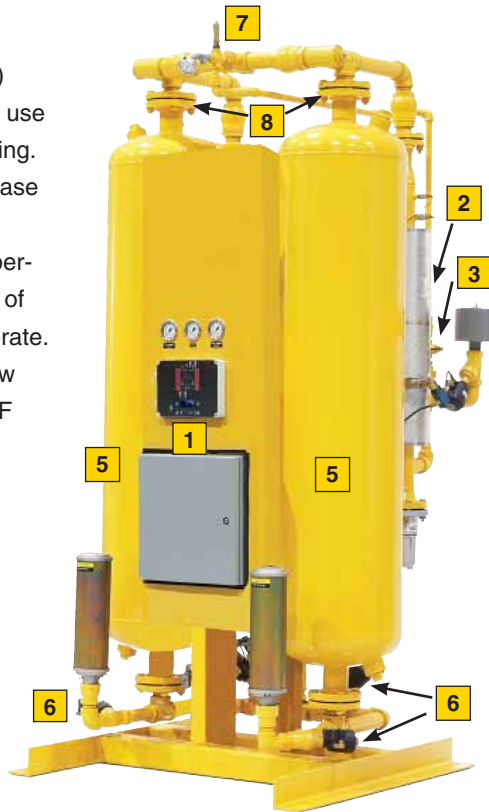
\*\* At 100 psig (7 bar)

\*\*\* The Purge Saver controller also offers fixed cycle settings

# Externally Heated Desiccant Dryers

Kaeser Heated Purge Dryers (KED) are heated regenerative dryers that use only 7% of compressed air for purging. They heat the dry purge air to increase its capacity to hold moisture and to regenerate. KED's provide lower operating costs by reducing the amount of expensive purge air used to regenerate. Standard design outlet pressure dew point at rated conditions: -4°F (-40°F with the optional purge booster).

Sizes: 300 – 3200 scfm



Kaeser Blower Purge Dryers (KBD) use little or no purge air by introducing atmospheric air and heating it. The heated air has a higher capacity for absorbing water and provides effective regeneration. KBD's provide the greatest energy savings by eliminating the need to use costly compressed air for purging. Standard design outlet pressure dew point at rated conditions: -40°F.

Sizes: 500 – 4300 scfm

## Outstanding Features

### 1 Controls and instrumentation

- Tower pressure gauges
- Tower status lights
- Switch failure alarm
- Purge flow indicator (KED only)
- NEMA 4
- RS232 comm port

### 2 Standard moisture indicator

- Color change indicates elevated outlet dew point

### 3 Standard purge flow valve (KED only)

- Offers convenient purge rate adjustment

### 5 ASME stamped pressure vessels rated for 150 psig at 450°F

### 6 Non-lubricated inlet and purge control valves standard

- Requires less maintenance
- Long lasting

### 7 Standard pressure relief valves

- Meets ASME Section VIII

### 8 Standard stainless steel support screens and air diffusers

- Located at top and bottom of each vessel
- Easy to remove and clean
- Efficiently filters out large contaminants and protects valves
- Effectively prevents channeling

## Kaeser Heated Purge Dryers (KED) (Table 4)

KED Model Number	Inlet flow @ 100 psig 100°F (scfm)	Purge Flow Rate (scfm)	Air Available Average (scfm)	Heater		Dimensions W x D x H (in)	Approx. Weight (lb)	In/Out Connection (in)	Pre-filter (KOR Series)	High-Temp After-filter (HTA Series)	Desiccant per Tower (lb)
				(nom kW)	(Avg kW)						
300	300	21	279	5	2.0	48 x 46 x 98	1360	1.5 NPT	375	400	210
400	400	28	372	7	2.7	53 x 52 x 104	1776		625		354
500	500	35	465	7	3.3	53 x 52 x 105	1776	2 NPT	625	600	354
600	600	42	558	8	4.0	55 x 53 x 108	1978		780		453
750	750	53	697	10	5.0	60 x 59 x 114	2323	3 FLG	1000P	1200	590
900	900	63	837	12	6.0	60 x 59 x 114	2323				1250P
1050	1050	74	976	14	7.0	64 x 62 x 113	2816		1875P	1800	710
1300	1300	91	1209	17	8.7	66 x 63 x 118	3326				923
1500	1500	105	1395	19	10.0	80 x 66 x 116	5094		2500P	3000	1259
1800	1800	126	1674	23	12.0	80 x 66 x 116	5094				3125P
2200	2200	154	2046	28	14.7	85 x 73 x 128	7753	4 FLG	5000P	4800	1867
2600	2600	182	2418	33	17.4	85 x 73 x 128	7753				2377
3200	3200	224	2976	40	21.4	85 x 82 x 125	8963				

Average Heater kW (fixed cycle) = [kW required to produce 280°F temperature rise] x [235 min. max heat time] / [240 min. drying time]  
 Actual kW is normally much lower and proportional with the average annual water load presented to the dryer.

## Kaeser Blower Purge Dryers (KBD) (Table 5)

KBD Model Number	Inlet flow @ 100 psig 100°F (scfm)	Blower Flow Rate (scfm)	Blower		Heater		Dimensions W x D x H (in)	Approx. Weight (lb)	In/Out Connection (in)	Pre-filter (KOR Series)	High-Temp After-filter (HTA Series)	Desiccant per Tower (lb)
			(nom kW)	(Avg kW)	(nom kW)	(Avg kW)						
500	500	94	2.5	1.6	10	6.4	53 x 52 x 105	1776	2 NPT	625	600	354
600	600	113	4	2.5	12	7.7	55 x 60 x 108	1861		780		453
750	750	140		2.2	14	9.6	60 x 68 x 114	2429	3 FLG	1000P	1200	590
900	900	158	2.0		17	10.8	60 x 68 x 114	2445				710
1050	1050	183	5	2.6	19	12.5	64 x 62 x 113	2966	1875P	1800	923	
1300	1300	227	7.5	4.9	23	15.5	66 x 73 x 118	3576			1259	
1500	1500	281	10	7.8	28	19.3	80 x 79 x 116	5359	2500P	3000	1867	
1800	1800	317		7.3	33	21.7	80 x 79 x 116	5359			1867	
2200	2200	403	15	5.9	40	27.6	85 x 86 x 128	8018	4 FLG	3125P	4800	2377
2600	2600	449		9.8	45	30.7	85 x 89 x 128	8123				2610
3200	3200	552	5	2.4	54	37.7	85 x 107 x 128	9243	6 FLG	5000P	4800	3544
3600	3600	614	7.5	3.1	60	42.0	85 x 116 x 134	12,095				2377
4300	4300	732		4.2	70	50.1	109 x 123 x 130	13,245				

Average Heater kW (fixed cycle) = [kW required to produce 280°F temperature rise] x [235 min. max heat time] / [240 min drying time]  
 Average Blower kW (fixed cycle) = [Blower kW] x [235 min. max heat time] / [240 min dryer time]  
 Average Dryer kW (fixed cycle) = [Average Heater kW] + [Average Blower kW]  
 Actual kW is normally much lower and proportional with the average annual water load presented to the dryer.

## KED/KBD Inlet Conditions Correction Factors (Table 6)

### Inlet Flow

Inlet Flow capacities shown in the Specifications Table have been established at an inlet pressure of 100 psig (7 bar) and a saturated inlet temperature of 100°F (38°C). To determine maximum inlet flow at other conditions, multiply the inlet flow from the Specifications Table by the multiplier from Table 6 that corresponds to your operating conditions.

Pressure psig (bar/cm2)	Inlet Temperature °F (°C)						
	60 (15.6)	70 (21.1)	80 (26.7)	90 (32.2)	100 (37.8)	110 (43.3)	120 (48.9)
60 (4.2)	1.03	1.01	0.99	0.80	0.58	0.43	0.32
70 (4.9)	1.10	1.08	1.07	0.94	0.68	0.50	0.37
80 (5.6)	1.17	1.15	1.14	1.08	0.79	0.58	0.43
90 (6.3)	1.24	1.22	1.20	1.18	0.89	0.66	0.49
100 (7.0)	1.30	1.28	1.26	1.24	1.00	0.74	0.55
110 (7.0)	1.36	1.34	1.32	1.30	1.11	0.82	0.61
120 (8.4)	1.42	1.40	1.38	1.36	1.22	0.90	0.67
130 (9.1)	1.48	1.46	1.44	1.42	1.33	0.99	0.74
140 (9.8)	1.53	1.51	1.49	1.47	1.44	1.07	0.80
150 (10.6)	1.58	1.56	1.54	1.52	1.50	1.16	0.87

### Important:

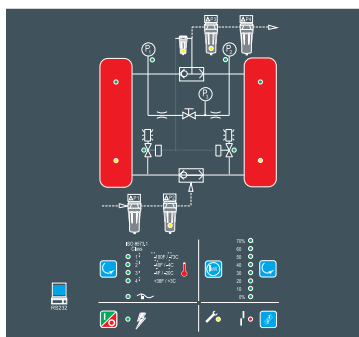
For inlet temperatures above 100°F, we **strongly** recommend the installation of a trim cooler. Please note that for every 20°F inlet temperature increase, moisture load/dryer size doubles!

# Controls and Instrumentation

## Heatless Desiccant Dryers

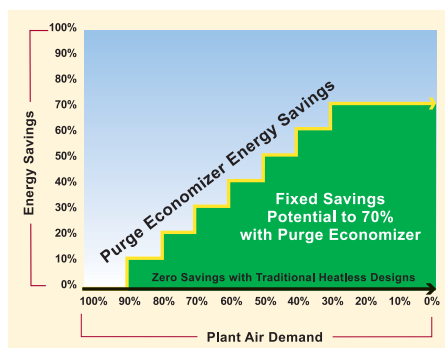
### Standard Control (KAD)

The standard controller with its process flow schematic and LED's makes status checks of control sequence, valves and filters simple, and allows the user to program reminders for routine maintenance intervals. A diagnostic mode steps through the dryer's operational sequence to verify proper function and performance. The display clearly notifies the user if a malfunction occurs.



Standard controller

This controller has four fixed cycle operating modes corresponding to ISO 8573.1 air quality classes for moisture content. In addition, the standard controller includes a manually selectable purge saving feature. The Purge Economizer Switches allow the user to reduce purge consumption, in incre-



Energy savings of Purge Economizer

ments of 10% of full purge requirement and down to 30% of dryer capacity, to closely match a constant, fixed load.

### Purge Saver Control (KAD PS)

To precisely, and automatically, match purge air consumption to a changing load, Kaeser offers the Purge Saver Control. Having the same features as the Standard Control (excepting the Purge Economizer Switches) the Purge Saver monitors temperature changes within the desiccant bed when the dryer is operating at less than its full capacity and keeps the towers on-line until the full drying capacity is reached. This reduces the number of purge cycles and assures that only the necessary volume of purge air is consumed.

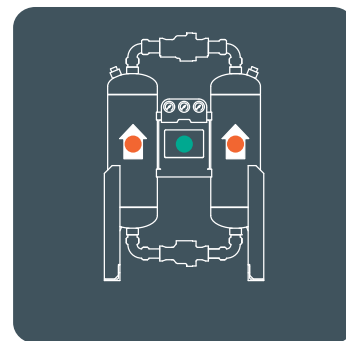


Purge Saver controller shown with gauges.

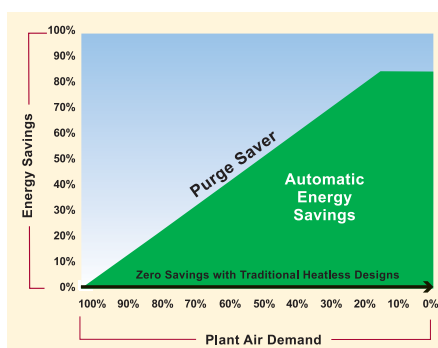
In the event of a malfunction with the Purge Saver Control, standard fixed cycle operation is automatically initiated. Dryer operating status is displayed on a two-line vacuum fluorescent text display with choice of three languages: English, Spanish or French.

### Basic Timer Control (KAD E)

The Basic Timer Control is a reliable fixed cycle timer with LED's indicating which tower is drying. This controller maintains a fixed 10-minute cycle delivering an ISO Class 2 pressure dew point (-40°F). Choose this controller when air demand is uniform and closely matches dryer capacity.



Fixed Cycle controller



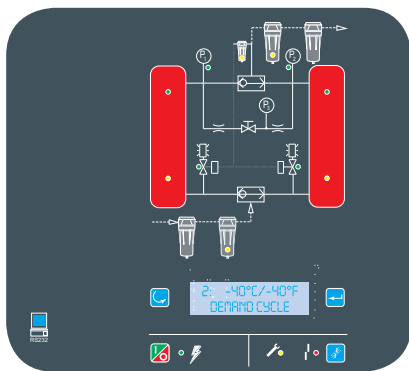
Energy savings of Purge Saver

## Externally Heated Desiccant Dryers

### Standard Control (KED and KBD)

The standard controller for heated dryers operates the dryer on a fixed eight-hour cycle. A tower is on-line (drying compressed air) for four hours and then taken off-line to be regenerated during the remaining four hours.

Heater operation is terminated when temperature sensors detect that desiccant bed heating is complete. The standard controller's process flow schematic



Fixed Cycle controller

and LED's make status checks of control sequence, valves and filters simple, and allow the user to program reminders for routine maintenance intervals. A diagnostic mode steps through the dryer's operational sequence to verify proper function and performance. The display clearly notifies the user if a malfunction occurs. Dryer operating status is displayed on a two-line vacuum fluorescent text display with choice of three languages: English, Spanish or French.

### Energy Management Control (KED and KBD)

The Energy Management Control for heated dryers monitors the moisture level in the desiccant bed and keeps a tower on-line drying compressed air until the desiccant's full adsorptive capacity has been utilized. Regeneration is then initiated and completed in the following four hours. The regenerated tower then sits idle until the Energy Management Control detects full use of the adsorptive capacity of the drying tower and brings the regenerated tower back on-line. For operation at less than full capacity the Energy Management Control will match power requirement to demand by reducing the frequency of regeneration. Heater operation is terminated when temperature sensors detect that desiccant bed heating is complete. The standard controller's process flow schematic and LED's make status checks of control sequence, valves and filters simple, and allow the user to program reminders for routine maintenance intervals. A diagnostic mode steps through the dryer's operational sequence to verify proper function and performance. The display clearly notifies the user if a malfunction occurs. Dryer operating status is displayed on a two-line vacuum fluorescent text display with choice of three languages: English, Spanish or French.

## Optional Controls

### Heated Purge (KED) Purge Booster

Without increasing the use of compressed air, purge flow can be increased



from 7% to 12% with the optional Purge Booster. This device reduces compressed air consumption from 7%

to 6% and draws in an equal volume of ambient air mixing it with the purge air. The increased purge airflow produces lower outlet dew points and eliminates dew point spikes.

### Heated Purge and Blower Purge (KED and KBD)

#### Energy Saver

The Energy Saver Option integrates moisture and temperature sensors to monitor the humidity level near the outlet end of the desiccant beds. During periods of reduced flow the Energy Saver extends the drying cycle thereby reducing the number of regeneration cycles, saving energy. For KED models, the Energy Saver Option also includes the Purge Booster.

#### Energy Management

The Energy Management Option includes the Energy Saver Option above and a digital dew point monitor. This feature displays the dryer's outlet dew point and allows the user to prevent tower changeover until a user specified outlet dew point has been achieved, or let the Energy Saver determine the length of the drying period. For KED models the Energy Management Option also includes the Purge Booster.

## Options

### Insulation for heated desiccant air dryers (KED and KBD)

Insulation with protective jacket for heater and heater discharge piping is standard; however, insulation for the desiccant vessels is optional. Vessel insulation offers protection for personnel and reduces operating costs. Vessel insulation is flexible open-cell melamine foam having a permanently bonded PVC film laminated polyester fabric jacket. This insulating system absorbs impacts and returns to its original shape thus maintaining its insulating qualities.



KED with optional vessel insulation.

### Other options

- High humidity alarm
- Dew point monitor
- Stainless steel or copper pilot and instrument air tubing and fittings
- NEMA 4 low ambient protection packages
- NEMA 7 Explosion-proof electrical packages (KAD only)
- Parallel piped pre-filters and after-filters

### Wall-mounted heatless desiccant air dryers (KADW)

Compact and convenient, these wall-mounted dryers are available in five models from 5 to 25 scfm all with factory supplied filter packages. Ten-minute cycles (-40°F pressure dew point) and 4-minute cycles (-100°F pressure dew point) are standard and user selectable.



## Filtration



All desiccant dryers require proper filtration. Coalescing pre-filters prevent contamination of desiccant beds by hydrophobic aerosols. Particulate after-filters collect traces of desiccant dust that may exit the dryer. Maintaining these filters extends service intervals and provides excellent air quality. All Kaeser desiccant dryers offer optional filter packages with or without block and bypass valves.

**KAESER  
COMPRESSORS**

**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.