

IN-LINE DESICCANT DRYER

The compressed air flow path through the dryer assures desiccant packing and maximum utilization of the desiccant's adsorption qualities. The compressed air enters the dryer (1) and is dispersed through a 70 micron polypropylene element (2) for the removal of particles. The air is then distributed uniformly through the full desiccant bed (3) to the bottom of the intake tube (4). The intake tube is protected by a 40 micron porous bronze element (5). As the desiccant adsorbs moisture, a dramatic and highly visible color change from dark blue to light pink is evident. The color change works its way through the desiccant as the adsorptive qualities of the desiccant are diminished. Once the color change is visible through the exclusive sight dome (6), the full desiccant bed has reached its maximum drying capacity and must be either changed or regenerated. Dry air exits through the inside diameter of the intake tube (7) and out the outlet port of the unit (8).

ADSORPTION

Adsorption means the attraction of a substance – the adsorbate – to, and its subsequent accumulation on, the surface of a solid material – the adsorbant – which is caused by physical forces of attraction. Adsorbants are substances which are permeated by a large number of very fine pores which give rise to a large internal surface area. This, in turn, determines the adsorption capacity of the adsorbant, since a large internal surface can accommodate more adsorbate. Other factors which influence the amount of adsorbate are: temperature, relative humidity and pressure.

REGENERATION PROCESS

Regeneration is accomplished by heating the desiccant to a temperature of 275°F in a drying oven. Regeneration is complete when the desiccant returns to its blue color.

For extended life and protection of the desiccant and equipment being serviced, an F3 Prefilter and F5 Coalescing filter should be used as a prefiltering system ahead of the dryer.



In-Line Desiccant Dryer



D05-03



D10-04



D25-06

FEATURES

- Available in capacities from .5 to 50 scfm
- Compact sizes are ideal for portable or original equipment
- Drying efficiency can be tailored to your needs down to -30°F pressure dew point
- Highly visible color change from blue to pink through exclusive sight-glass highlights the need for service
- Exclusive hard spherical bead resists attrition and dusting and can be recharged
- Exclusive intake flow design takes air through entire supply of desiccant for maximum drying capacity
- Built-in particulate after-filter prevents downstream dust
- Needs no electrical connection
- No "purge air" lost as with regenerative dryers

SPECIFICATIONS

Bowl

- D05-03: Metal with sight gauge
- D10 & D25: Metal with sight gauge
- D10-04XL: Metal with sight gauge

Desiccant

- Silica gel

Maximum Pressure

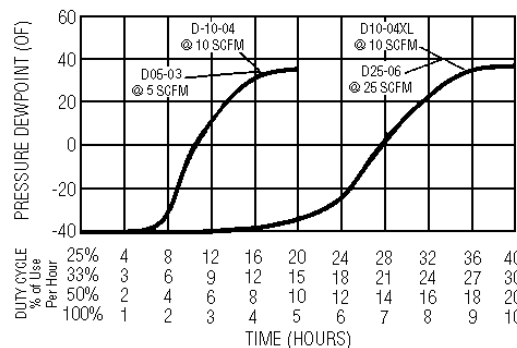
- 250 psig

Operating Temperature Range

- 0°F to 120°F

APPLICATIONS

- Always install an F5 coalescing filter upstream of the D05, D10 & D25
- For compressed air service only
- Not to be used on life support systems or breathing air systems
- Dry air for parts blowoff
- Paint spray systems
- Air gauging equipment
- Laboratory air



KITS

Replacement Desiccant

No. 34189 – 6 pack of 1 qt. jars

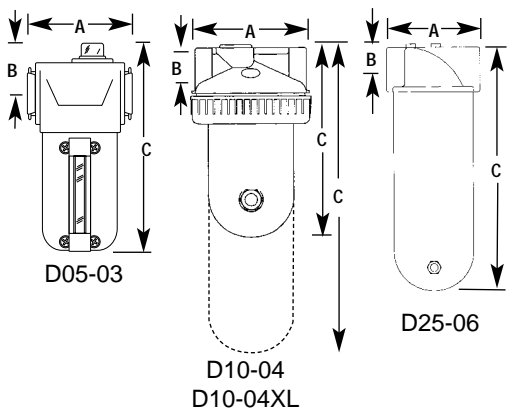
No. 34417 – 4-1 gallon jugs

Check the exhaust element to avoid high pressure drop due to desiccant dust entrapment. We recommend replacement of the exhaust element.

D05, D10 & D10XL Use:

Element Kit EKD10 (1-pack each)

D25 Use: Element Kit EKD25 (1-pack each)



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	SCF*	DESICCANT WEIGHT (LBS.)	DESICCANT CHARGE	DIMENSIONS (INCHES)			WEIGHT (LBS.)
						A	B	C	
3/8"	D05-03	.5 to 5	830	5/8	10 oz.	3 3/4	1 1/8	8 1/4	2.7
1/2"	D10-04	5 to 15	2500	1 1/4	1 Qt.	4 7/8	1 1/8	8 7/8	5
1/2"	D10-04XL	15 to 25	5000	2 1/2	2 Qt.	4 7/8	1 1/8	13 1/2	7
3/4"	D25-06	25 to 50	12500	6	1 Gal.	6 3/4	2	17 3/4	23

* SCFM and SCF based on 70°F inlet temp. @ 100 psig