

## PSK AIR TREATMENT

### HEATLESS DESICCANT COMPRESSED AIR DRYERS

CAPS Australia's heatless desiccant compressed air dryers are designed and built to offer compressed air users the highest reliability in the industry.

The key to reliability of the PSK series dryer is the proprietary air flow switching valve. Based on its superior design and proven performance, this shuttle valve is covered by a lifetime replacement warranty.

#### Highest Reliability

- Three valves replace up to 13 separate valves used for air flow switching in other designs.
- Shuttle valve life - tested to more than 500,000 cycles, equivalent to 10 years of continuous operation.
- Continued air flow, even with loss of electrical power to the dryer.

#### Minimal Maintenance

- Long desiccant life.
- Upflow drying minimises effects of accidental slugging with water.
- Muffler cores replace quickly and easily to prevent back pressure in purge exhaust line.

#### Unmatched Performance

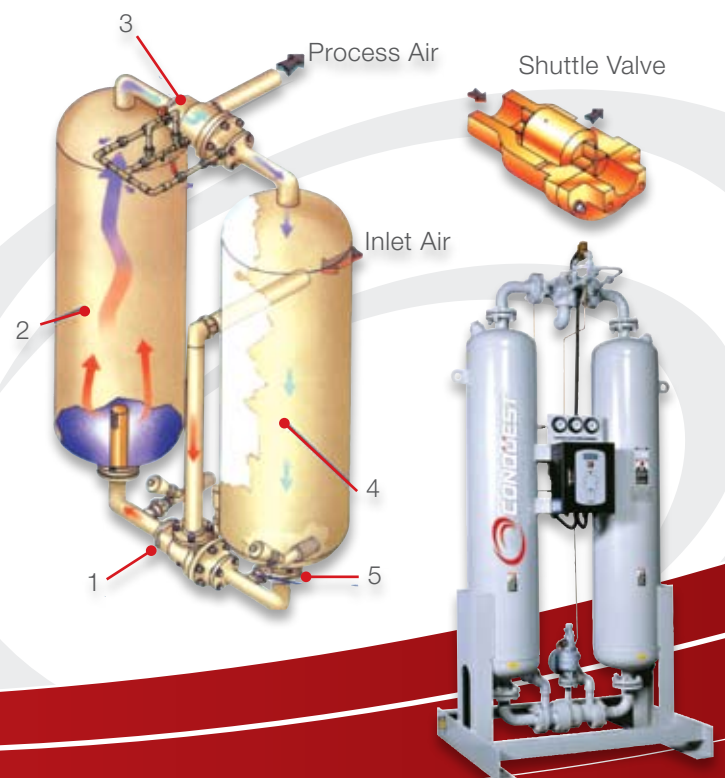
- Dependable  $-40^{\circ}\text{C}$  PDP standard:  $-73.3^{\circ}\text{C}$  PDP available.
- Controlled contact time - not less than 5 seconds - assure required moisture adsorption.
- Desiccant protection based on 30-year history of dryer design.

#### Operating Economy

- Field adjustable purge flow on standard dryer.
- Select purge rate 13% to 17% at 7 bar.
- Match purge to seasonal or process needs.

#### How It Works

1. Oil, liquid water and particulate are removed from inlet air through the pre-filter and filtered air passes through the lower shuttle valve into on-stream tower.
2. Wet air flows upward through desiccant bed becomes dry air. Dry air at  $-40^{\circ}\text{C}$  PDP exists through upper shuttle valve and splits into process air and low flow purge air.
3. Purge air flows into top of regenerating vessel and dry purge air flows downward through vessel, removing moisture from saturated desiccant bed.
4. Wet purge air exists through lower purge valve into exhaust muffler.



**CONQUEST DESICCANT AIR DRYERS TECHNICAL DATA**

Model	Flow Capacity (-40DegC PDP)		Inlet / Outlet Connections (Inches)	Dimensions (mm)			Approx Weight Kg
	NM3/min	CFM		Height	Width	Depth	
PS 56K	1.62	55	1 (PT)	1677	804	610	125
PS 100K	2.89	100	1 (PT)	1864	860	712	185
PS 160K	4.63	160	1-1/2 (PT)	1956	980	712	273
PS 200K	5.79	200	1-1/2 (PT)	2433	982	914	347
PS 275K	7.96	275	1-1/2 (PT)	2433	1072	914	500
PS 350K	10.13	350	2 (PT)	2572	1100	1016	743
PS 475K	13.74	475	2 (PT)	2492	1174	1016	1050
PS 600K	17.36	600	2 (PT)	2680	1240	1100	1280
PS 900K	26.04	900	3 (PT)	3323	1765	1100	1720
PS 1000K	28.93	1000	3 (PT)	3244	1822	1194	1970
PS 1200K	34.72	1200	3 (PT)	3250	1862	1194	2320
PS 1450K	41.95	1450	3 (PT)	3340	2031	1194	2715
PS 1710K	49.47	1710	3 (PT)	3330	2090	1194	2943
PS 2010K	58.1	2010	4 (PT)	3431	2138	1524	3097
PS 2250K	65.03	2250	4 (PT)	3311	2195	1524	3520
PS 2600K	75.14	2600	4 (PT)	3372	2232	1524	3945
PS 3250K	93.93	3250	4 (PT)	3442	2332	1524	5644

\*Model number is flow rate in scfm at 100°F (38°C) - 40°F PDP (-40°C) and 100 psig (7kg/cm<sup>2</sup>g). For larger flows consult CAPS Australia.  
 \*Dessicant shipped separately. Dryer weight does not include dessicant. \* -100°F PDP (-73.3°C) is optional features and to determine inlet capacity for -100°F PDP (-73.3°C), multiply standard dryer capacity by 0.8.  
 • Specifications subject to change without notice.

**CORRECTION FACTOR**

Presssure (bar)	Inlet Temperature (Degree C)						
	32	35	38	41	43	46	49
4.1	1.156	1.289	1.451	1.643	1.915	2.296	2.793
4.8	1.022	1.140	1.283	1.453	1.694	2.030	2.470
5.5	0.929	1.036	1.166	1.320	1.539	1.844	2.244
6.2	0.855	0.954	1.074	1.216	1.417	1.699	2.067
6.9	0.797	0.888	1.000	1.132	1.320	1.582	1.925
7.6	0.742	0.828	0.932	1.055	1.230	1.474	1.793
8.3		0.775	0.872	0.987	1.151	1.379	1.678
9.0		0.737	0.829	0.939	1.095	1.312	1.596
9.7		0.707	0.796	0.901	1.047	1.255	1.527
10.3			0.768	0.870	1.012	1.213	1.476
11.0			0.742	0.841	0.979	1.174	1.428
11.7			0.717	0.812	0.947	1.135	1.380
12.4				0.784	0.913	1.095	1.332

**Custom-Built Options Available Including:**

- Special paint.
- Control options.
- Outdoor modifications.
- Dew point demand control.

