# Compressed Air Purification JEMACO



#### **Desiccant Air Dryers**

## PSK Series

This newest generation of heatless desiccant compressed air dryers are designed and built with confidence to offer the compressed air user the highest reliability in the industry. 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 lifetime replacement warranty.

#### **PSK Series Feature**

- 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 10years of continuous operation
- Minimal Maintenance
  - Upflow drying minimizes effects of accidental slugging with water
  - Muffler cores replace quickly and easily to prevent back pressure in purge exhaust line
- Operating Economy
  - Field adjustable purge flow on standard dryer
  - Adjust purge rate 13% to 17% at 7 bar
  - Match purge to seasonal or process needs
  - Compu-purge automatic purge control is optional
- Vessels are constructed to meet the requirements of ASME code, Section WIII,
   Division 1 and stamped



#### How It Works

Oil, liquid water and particulate are removed from inlet air through pre-filter and filtered air passes through lower shuttle valve into on-stream valve.

Wet air flows upward through desiccant bed becomes dry air. Dry air at -40 °C PDP(standard) or -73 °C PDP(optional) exists through upper shuttle valve and splits into process air and low flow purge air.

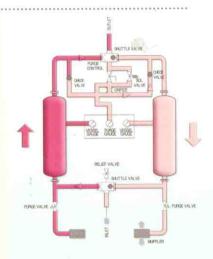
Purge air flows into top of regenerating vessel and dry purge air flows downward through vessel removing moisture from saturated desiccant bed.

Wet purge air exists through lower purge valve into exhaust.

#### Optional

- Dew Point Monitor
- Switch Failure Signal
- High Humidity Signal
- Dew Point Demand Control
- -73°C PDP

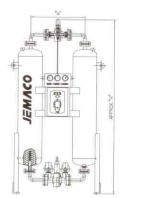
- Moisture Indicator
- Pneumatic Control System
- Digital Display
- Audible Alarm with aux.

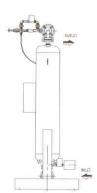


**PSK Series Flow Diagram** 



## Specifications (ASME Certified





PS900K~PS9100K

Mod	Flow el Capacity		Dimension(mm	1)	Inlet/Conne	Weight	
	(Nm³/min)	Н	W	D	PT	FLG	(kg)
PS56K	1.62	1300	658	400	1"		95
PS100	K 2.89	1530	764	400	1"		125
PS160	K 4.63	1600	918	500	1"		175
PS200	<b>K</b> 5.79	1902	915	500	1-1/2"		- 225
PS275	K 7.96	1947	1015	800	1-1/2"		326
PS350	K 10.13	2580	1099	1016	2"		517
PS475	K 13.74	2471	1174	1016	2"		761
PS600	K 17.36	2585	1227	1100	2"		906
PS900	K 26.04	3200	1785	1100		3″	1232
PS100	<b>DK</b> 28.93	3194	1822	1194		3″	1360
PS1200	<b>OK</b> 34.72	3130	1862	1194		3"	1586
PS1450	OK 41.95	3248	2051	1194		3"	1830
PS1710	<b>OK</b> 49.47 ·	3280	2087	1194		3″	1910
PS2010	<b>DK</b> 58.10	3297	2158	1524		4"	1970
PS2250	OK 65.03	3311	2195	1524		4"	2230
PS2600	<b>OK</b> 75.14	3372	2232	1524		4"	2430
PS3250	93.93	3442	2332	1524		4"	3690
PS4430	DK 128.16	3495	3240	1830		6″	3890
PS5820	DK 168.37						
PS7500	OK 212.33						
PS9100	OK 257.62						

Rating condition are 38°C inlet temperature, 6.9 barg inlet pressure, 100% relative humidity, 38°C ambient temperature.
 Standard voltage is 220V/1PH/50-60Hz. Consult factory for larger models than PS3250K
 The following information is required with all PSK Series orders: Inlet flow, Inlet air temperature, Inlet pressure, required pressure dew point.
 To determine inlet capacity for -73°C pressure dew point, multiply standard dryer capacity by 0.8.

### **Correction Factors**

Operating	psig	60	70	80	90	100	110	120	130	140	150	175	200	225	250
Pressure	barg	4.1	4.8	5.5	6.2	6.9	7.6	8.3	9.0	9.7	10.3	12.1	13.8	15.5	17.0
Multiplie	er	0.65	0.74	0.83	0.91	1.00	1.04	1.08	1.12	1.16	1.20	1.29	1.37	1.45	1.52