



SPX Air Treatment

Legendary Blower Purge Desiccant Dryers

CAB Series





CAB Series – Legendary Blower Purge Drying Technology

Since 1946, the world has turned to PNEUMATIC PRODUCTS for the quality and service demanded by the most critical of applications. Global leaders of industry require durable components that deliver unquestionable reliability. Our precision engineered components and designs, deliver outstanding service life and operational longevity. Invest in our experience and gain annuities that will grow for years.

Superior Efficiency - Legendary Design

CAB Series dryers use multi-stage centrifugal blowers to deliver 100% inlet-to-outlet compressed air capacity and, superior energy efficiency. Everyone knows, heat rises. Our legendary down flow drying process takes advantage of that principle. In regeneration mode, atmospheric air, stored heat of adsorption and, a high-efficiency external heater combine to evacuate the collected water vapor. Operating at full, design load conditions, inlet-to-outlet air volume remains constant and -40°F (-40°C) pressure dew points are produced. CAB Series dryers deliver superior efficiency by design.

Patented Automated Moisture Load Control (AMLOC®)

Today's air system auditors know that it is rare to find a dryer that operates under full-load conditions. That is why AMLOC® is standard equipment on every CAB Series dryer we build. AMLOC® energy management systems generate tens-of-thousands of dollars in energy saving annuities for industry leaders. Our PTFE coated stainless steel capacitance probes sense the dielectric strength imparted upon the desiccant by the extracted water vapor. Capable of identifying an aging or fouled bed, the heating and purge cycles are managed with precision. AMLOC® reduces cycle frequency to extend component life and ensures consistent dew points.

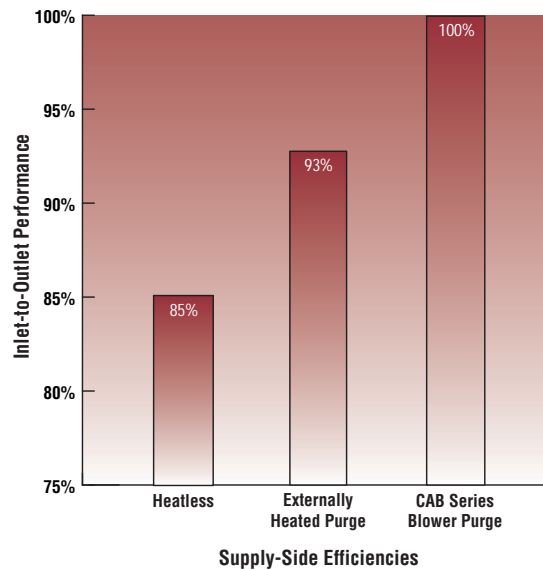
Patented Process Quality Valves - Engineered Simplicity

Standard off-the-shelf valves were not good enough for critical applications so we engineered our own. Tested under adverse conditions without failure in excess of 500,000 cycles, our full port, air-operated Century Series poppet valves feature stainless steel internals. Protected against wear, a friction-free PTFE coating is applied to all wear surfaces. Corrosion resistant and non-lubricated, these valves were engineered to withstand elevated temperatures, clogging, and erosion caused by abrasive desiccant dust. These are the best valves in the industry - period.

Demand-Side Impact on Supply-Side Dryer Types

Plant Air Demand (scfm)	Dryer Types (efficiency)	Air Volume Required to Meet Demand (scfm)	Air Compressor Needed to Meet Air Volume (HP)	Compressed Air Volume (scfm)	Compressed Purge Air Penalty* (Dollars)	Preferred Supply-Side Solution
1000	Blower Purge (100%)	1,000	200	1,000	\$0	Yes
1000	Heated Purge (93%)	1,075	250	1,250	\$11,436	No
1000	Healess (85%)	1,176	250	1,250	\$24,506	No

*Assumes 5 scfm per HP, 8760 hours of operation per year, 10 cents per kW/h

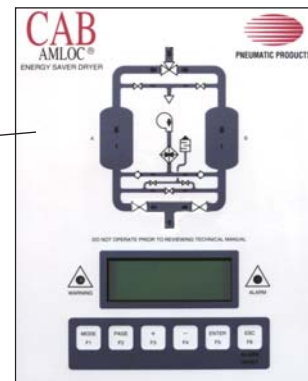


CAB Series – Key Product Features



Engineered Performance
Non-lubricated Century Series valves.
The ULTIMATE in reliability

Sensory Perception
AMLOC® Probe proven in over 25,000 applications.
Lifetime Warranty. No calibration required.



AMLOC® Energy Optimizer
Synoptic indication of process phases
RS-232 Communications capable via PLC, computer or modem.
4 line X 80 character information center

Energy Efficient
Multi-stage centrifugal blowers to deliver superior energy efficiency.

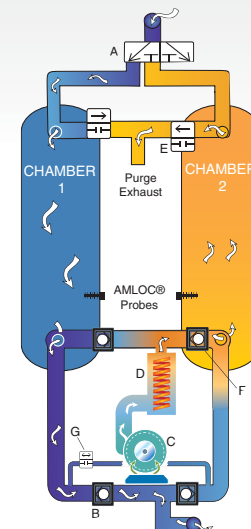


Functions, Features, and Specifications

How It Works

Moist, filtered compressed air enters down flow drying Chamber 1 via valve (A). Water vapor is adsorbed onto the desiccant and dry compressed air exits through valve (B) where, abrasive desiccant dust is captured by a high-temperature afterfilter. In regeneration mode, atmospheric air is drawn through a muffler/filter and compressed by a multi-stage centrifugal blower (C). Balanced heat distribution in Chamber 2 comes from natural heat-of-adsorption and an external, low watt density heater (D). Blower discharge flows through the heater, through valve (F) and then through the desiccant bed. Water vapor releases from the heated desiccant and evacuates through valve (E). Once desorbed, the heater and blower turn off and the bed is allowed to cool. Finally, valves (E) and (F) close and Chamber 2 is repressurized through valve (G). No further energy will be consumed until AMLOC® determines the on-line bed is fully utilized. Whereupon, operations will switch and Chamber 1 will be regenerated.

AMLOC® governs this process with precision. Patented capacitance probes sense the dielectric strength water vapor imparts on the desiccant. Low moisture loads extend the drying cycle while eliminating energy use. Fewer flow reversals and minimal thermal stress yields longer desiccant and valve life. Serious performance, reliability, and energy savings result as energy consumption mirrors plant air usage.



Product Features

AMLOC® Probe	Desiccant	Moisture Indicator	ADC Control System w/ AMLOC® Intelligence				Information Center				Alarm Protection Parameters				
Patented PTFE coated, stainless steel capacitance sensor	Premium grade/activated alumina	Aquadex® Visual, Color Change	Energy Management System - Automatic Savings	Extended drying cycles - long component life	RS-232 port-communications capable	Operational History log stores 20 events - simplifies troubleshooting	Synoptic display with active path illumination LEDs	NEMA 7 - Class 1, Groups C & D, Division II	Back-lit LCD in diverse lighting conditions	4 categories: Dryer Status, Service, History, Configuration	Warning & Alarm Lights	Alarm Failures: Depressurization, On-line Pressure, Thermocouple, Heater Over-Temperature,	Warning: AMLOC® Failure, High Humidity	Warning: Heater Burnout	Service Reminders: Valves, Desiccant, Filters
S	S	S	S	S	S	S	S	0	S	S	S	S	S	0	S

S=Standard O=Option

Engineering Data

Model	Inlet Flow ¹		Blower	Heater Rated Output	Total	Dimensions (inches)			Approx. Weight	Inlet/Outlet Connections	Mounted Filtration	
	@ 100 psig, 100°F	-40°F				W	D	H			Prefilter	Afterfilter
1200CAB	1,238	scfm	5	26	40.2	79	51	136	3,900	3" FLG	PCC114003SU	PCC114003HT
1600CAB	1,592		10	32	54.2	90	59	128	5,300	3" FLG	PCC118003SU	PCC118003HT
2000CAB	1,951		7.5	40	61.2	90	59	140	6,300	4" FLG	PCC124004SU	PCC124004HT
2500CAB	2,312		10	44	69.2	90	59	152	7,300	4" FLG	PCC124004SU	PCC124004HT
3000CAB	2,806		15	56	91.2	105	69	147	9,500	4" FLG	PCC136003SU	PCC136003HT
4000CAB	3,815		10	77	111.0	125	73	156	13,600	6" FLG	PCC148004SU	PCC148004HT
5000CAB	5,006		20	100	153.0	139	73	156	16,600	6" FLG	PCC160005SU	PCC160005HT
6000CAB	6,216		25	117	181.0	153	95	161	21,000	6" FLG	PCC172006SU	PCC172006HT
7000CAB	7,387		40	141	229.0	153	95	178	23,700	8" FLG	PCC172006SU	PCC172006HT
9000CAB	9,143		30	174	258.0	168	101	181	28,200	8" FLG	PCC196008SU	PCC196008HT
10000CAB	11,097		50	208	317.0	184	101	184	33,000	8" FLG	PCC11600015SU	PCC11600015HT
12000CAB	12,915		75	236	393.0	184	101	196	37,300	10" FLG	PCC11600015SU	PCC11600015HT

¹ Performance data per CAGI Standard ADF 200 for Dual-Tower Regenerative Desiccant Compressed Air Dryer. Rating conditions are 100°F (37.8°C) inlet 100 psig (6.9 bar) inlet pressure, 100% relative humidity, 100°F (37.8°C) ambient temperature. Consult factory for sizing assistance and -100°F pressure dew point applications. Larger models available.

SPX PNEUMATIC PRODUCTS

SPX Air Treatment
 4647 S.W. 40th Avenue
 Ocala, Florida 34474-5788 U.S.A.
 Phone: 352-873-5793 • Fax: 352-873-5770
 Email: pneumatic.products.sales@airtreatment.spx.com
www.pneumaticproducts-spx.com

Improvements and research are continuous at SPX Pneumatic Products.
 Specifications may change without notice.

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