HANKISON

AN SPX BRAND

CONTINUOUS FLOW BREATHING AIR PURIFIERS

CATALITE® CBA SERIES

DEDICATED TO EXCELLENCE...

Since 1948, compressed air users around the world have relied on Hankison to provide innovative compressed air treatment solutions for critical applications.

Hankison maintains a long standing reputation for manufacturing products that deliver superior performance, time proven reliability and optimal energy savings.

Hankison today is the preferred choice for providing clean, dry compressed air for the most challenging industries.

CATALITE® BREATHING AIR PURIFIERS...

SAFETY IN THE WORK PLACE
Maintain Health and Safety Requirements

The CATALITE CBA Series delivers breathing air quality in accordance to international standards.

OSHA: CFR1910.134
(Occupational Safety & Health Association)
CSA: Z180.1-00
(Canadian Standards Association)
CGA: G-7
(Compressed Gas Association)
ANSI: Z88.2-1080
(American National Standards Institute)

Environmental safety standards mandate the need for a suitable air supply to ensure worker safety. CATALITE CBA Breathing Air Purifiers enable industries meet required standards.

PETROCHEMICAL
The oil and gas industries select CATALITE breathing air purifiers to protect workers from the inhalation of hazardous fumes, gases, and vapors inherent in the manufacturing process.

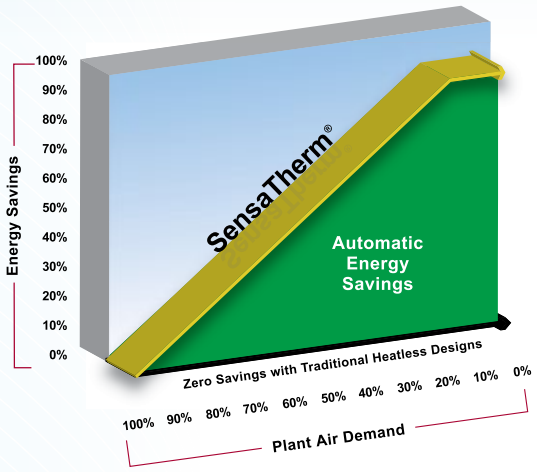
ASBESTOS ABATEMENT
Asbestos was a commonly used insulation material for old dwellings. CATALITE Breathing Air Purifiers provide suitable breathing air to workers in asbestos abatement applications.

PAINT SPRAY
Automotive body shops utilize atomized paint to spray vehicles. Workers exposed to airborne paint emissions benefit from CATALITE Breathing Air Purifiers.

PROTECTIVE COATINGS
Manufacturers utilize compressed air to apply protective coatings. Airborne compounds will not adversely affect workers when respiratory air is supplied with CATALITE Breathing Air Purifiers.

CONFINED SPACES
The quality of breathing is in critical in confined space industries. Mining, vats, tanks, boilers, ships' hulls, and grain storage facilities are environments with stale, contaminated air that is unsuitable for breathing.

OPTIONAL SENSATHERM® ENERGY SAVINGS



The optional SensaTherm energy management system automatically matches purge air requirements to real time load on the dryer. When operating at reduced capacity, the on-line drying tower remains active until the full drying capacity of the desiccant material is utilized. Each tower is precisely controlled to manage drying times to reduce purge air consumption.

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OPTIMAL PERFORMANCE AND OPERATION...

SIX STAGE FILTRATION

Stage ①

General purpose filter removes solid and liquid contaminants down to 1.0 micron.

Stage ②

High efficiency oil removal filter captures liquid aerosols and sub-micronic particles down 0.01 micron.

Stage ③

Pressure-swing regenerative desiccant dryer removes water vapor to ensure the effectiveness of the catalyst bed.

Stage ④

Dried air travels through a catalytic converter reducing CO concentrations by converting CO to CO_2

Stage ⑤

Particulate removal filter collects contaminants 1.0 micron and larger from the purified air stream.

Stage ⑥

Activated carbon filter removes oil vapor, trace odors and other gases normally absorbable by activated carbon.

FOR QUALITY BREATHING AIR...

PURIFICATION CAPABILITIES

Contaminants *mg/m³*	Maximum Allowable Concentration OSHA[1]	Maximum Allowable Concentration CSA	Purifier Outlet Rated Conditions
Carbon Monoxide *(CO)*	10	5	95% Conversion[5]
Carbon Dioxide *(CO_2)*	1000	500	[2]
Oil *(Condensed Hydrocarbons)*	5	1	0
Oil Vapor *(Gaseous Hydrocarbons)*	—	—	<.02 [3]
Odor	Lack of noticeable odor		— [4]

[1] OSHA Standard references CGA (Compressed Gas Association) pamphlet G-7.1, Grade D and is generally consistent with those published by ANSI

[2] CO is converted to CO_2 by the purifier and added to the concentration of CO_2 already present (normal atmospheric air contains 314 mg/m³ of CO_2) Although some CO_2 is absorbed in the desiccant beds, high concentrations of CO in the system and/or high concentrations of CO_2 at the compressor intake could result in exceeding allowable CO_2 limits

[3] Will remove only those gaseous hydrocarbons normally adsorbed by activated carbon. Outlet concentration is expressed as methane equivalent, Activated carbon will not remove methane

[4] Will remove only those odors normally adsorbed by activated carbon

[5] 95% Conversion example (200 mg/m³ @ inlet = 10 mg/m³ @ outlet)

Excessive contamination of intake air to the compressor will adversely affect performance of the purifier.

CATALITE Breathing Air Purifiers remove moisture, solid particles, oil aerosols and mists, carbon monoxide, and hydrocarbon vapors commonly present in compressed air resulting in air which can be safely used by supplied-air breathing devices such as masks, hoods and helmets.

BREATHING AIR ANALYZERS

OSHA maximum concentrations for breathing air:

- 10 mg/m³ of Carbon Monoxide (CO)
- 1,000 mg/m³ of Carbon Dioxide (CO_2)
- 5 mg/m³ Oil (Condensed Hydrocarbons)

Breathing air system performance is subject to excessive intake of air contaminants. It is important that breathing air systems are routinely monitored for proper operation. The CATALITE CBA Series Breathing Air Purifier can be monitored using several air analyzing options.

Carbon Monoxide (CO) Monitor
Recommended

- Digital readout of CO concentration
- Visual and audible alarm
- Adjustable high & low alarms with indication
- Contacts for remote alarm
- Push-to-test button
- Alarm silence switch
- Simple calibration

Analyzer Choices:
Additional Option

- Multiple alarm capabilities
  - » CO & oxygen
  - » CO & dew point
  - » CO, oxygen & dew point

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FEATURES AND OPTIONS

① Filtration & Monitoring

- Pre-filtration removes solids and oils
- After-filters collect remaining particles and adsorb vapor
- CO catalyst converter
- Air sample ports for optional analyzer installation

② Moisture Indicator

- Visual color change

③ Pressure Gauges

- Left / right tower
- Inlet / outlet purifier
- Purge pressure

④ Standard Controller

- NEMA 4/4X with critical LED indicators
- Soft on / off switch with two power recovery modes
- Switching failure alarms
- Adjustable service indications
- Tower / valve status LEDs
- Voltage free common alarm contacts
- RS-232 communications port

OPTIONS

- Nema 7 electrical rating
- Copper, brass or stainless steel instrument tubing and fittings
- SSPC-SP10 sandblast & epoxy paint
- Breathing air analyzers

Advanced Controls Featuring:

- Vacuum fluorescent text display
- Automatic SensaTherm® energy savings
- Calibration-free temperature sensors
- High inlet temperature & low inlet pressure alarms

CBA SERIES SPECIFICATIONS...

Model	Inlet Flow[1]		Outlet Flow[1]		Voltages	In / Out Connection	Dimensions H		W		D		Weight	
	scfm	nm³/h	scfm	nm³/h	V/ph/Hz	in	in	mm	in	mm	in	mm	lbs	kg
CBA 15	18	31	15	26	85-264/1/47-63 AC 11.5-28 V DC	0.50	49	1244	35	889	35	889	440	200
CBA 25	30	51	25	42		0.50	49	1244	35	889	35	889	450	204
CBA 35	42	71	35	59		0.75	49	1244	35	889	35	889	455	206
CBA 50	60	102	50	85		1.0	64	1626	35	889	35	889	560	254
CBA 75	90	153	75	127		1.0	79	2006	37	940	35	889	700	318
CBA 95	114	194	95	161		1.0	57	1448	50	1270	41	1041	820	372
CBA 135	162	275	135	229		1.0	57	1448	50	1270	41	1041	820	372
CBA 205	246	418	205	348		1.5	75	1905	56	1422	43	1092	1190	540
CBA 305	366	622	305	518		2.0	65	1651	62	1575	51	1295	1405	637
CBA 375	450	765	375	637		2.0	73	1854	66	1676	51	1295	1560	708
CBA 490	590	1002	490	833		CONSULT FACTORY								
CBA 625	750	1274	625	1062										
CBA 775	930	1580	775	1317										
CBA 940	1130	1920	940	1597										

[1] Flow capacity rated at CAGI conditions: 100 psig (7.0 bar) and 100°F (38°C) saturated inlet

Capacity Correction Factors

Inlet Pressure		100°F	105°F	110°F	115°F	120°F
psig	bar	38°C	40°C	43°C	46°C	49°C
60	4.2	0.65	0.64	0.62	0.60	0.58
70	4.9	0.74	0.73	0.71	0.69	0.66
80	5.6	0.83	0.81	0.80	0.77	0.74
90	6.3	0.91	0.89	0.87	0.85	0.81
100	7.0	1.00	0.98	0.96	0.93	0.89
110	7.7	1.04	1.02	1.00	0.97	0.93
120	8.4	1.08	1.06	1.04	1.00	0.96
130	9.1	1.12	1.10	1.08	1.04	1.00
140	9.8	1.16	1.14	1.11	1.08	1.03
150	10.5	1.20	1.18	1.15	1.12	1.07

CAPACITY CORRECTION FACTORS

To adjust CATALITE® capacity for conditions other than rated, use the correction factors (multipliers) for inlet air temperature and pressure shown below.

Example: What is the capacity of a 205 scfm (348 nm³/h) model when the compressed air at the inlet is 130 psig (9 bar) and 110°F (43°C)?

Answer: 205 scfm (348 nm³/h) (rated flow from Product Specifications Table) x 1.08 (correction factor for inlet air temperature and pressure) = 221 scfm (375 nm³/h).

Replacement Filter Elements

Prefilters		Catalyst	Afterfilters	
Grade 7	Grade 3	Cartridge	Grade 1	Grade 6
HF7-12-4-DGL	HF3-12-4-DGL	CC0	HF1-12-4	HF6-12-4-G
HF7-16-4-DGL	HF3-16-4-DGL	CC0	HF1-16-4	HF6-16-4-G
HF7-20-4-DGL	HF3-20-4-DGL	CC0	HF1-20-4	HF6-20-4-G
HF7-20-4-DGL	HF3-20-4-DGL	CC1	HF1-20-4	HF6-20-4-G
HF7-24-8-DGL	HF3-24-8-DGL	CC1	HF1-24-8	HF6-24-8-G
HF7-28-8-DGL	HF3-28-8-DGL	CC2	HF1-28-8	HF6-28-8-G
HF7-28-8-DGL	HF3-28-8-DGL	CC2	HF1-28-8	HF6-28-8-G
HF7-32-12-DGL	HF3-32-12-DGL	CC3	HF1-32-12	HF6-32-12-G
HF7-36-12-DGL	HF3-36-12-DGL	CC4	HF1-36-12	HF6-36-12-G
HF7-40-16-DG	HF3-40-16-DG	CC5	HF1-40-16	HF6-40-16-G
HF7-44-20-DG	HF3-44-20-DG	CC6	HF1-44-20	HF6-44-20-G
HF7-48-20-DG	HF3-48-20-DG	CC7	HF1-48-20	HF6-48-20-G
HF7-54-24-G	HF3-54-24-G	CC8	HF1-54-24	HF6-54-24-G
HF7-56-24-G	HF3-56-24-G	CC9	HF1-56-24	HF6-56-24-G

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