The Breather Box®

The Industry Standard in Grade-D Air Filtration

High Performance Grade-D Breathing Air Filtration Systems

The Breather Box® Works with <u>ANY</u> Airline Respirator Brand

Connected to a mobile or plant compressor, the Breather Box® provides Grade-D breathing air for 1 to 8 users (based on model) and continuously monitors for Carbon Monoxide (CO).

Air Systems International, Inc.

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What is Grade-D Air Quality?

Breathing air quality standards have been developed by ANSI / Compressed Gas Association (CGA) G-7.1 - 1989, and adopted by OSHA under their respiratory standard 29 CFR, 1910.134.

Air Quality Must Meet or Exceed The Following Requirements:

- **Oxygen:** 19.5%-23.5% (20%-22% Canada)
- **Hydrocarbon (condensed oil):** 5 mg/m³ maximum (<1Mg/m³ in Canada)
- **Carbon Monoxide (CO):** 10 ppm maximum (5 ppm in Canada)
- **Carbon Dioxide (CO2):** 1000 ppm maximum (500 ppm in Canada)
- **Odor:** No noticeable tastes or smells
- **Water Content:**
  - **High pressure cylinder air** must have a dew point of at least -50˚F (-45.6˚C) at 1 atmosphere (14.7 psi).
  - **Low pressure breathing air** must have a dew point of at least 10˚F (5.56˚C) below the ambient temperature at 1 atmosphere (14.7 psi)
  - **Canada:** 5˚ C below lowest temperature, 27 ppm maximum water vapor
- **Total Volatile Hydrocarbons (Canada):** 5 ppm maximum

Standard Breather-Box® Models from 15 CFM to 175 CFM

Custom Filtration Models Up To 2,200 CFM

Air Systems' portable and fixed breathing air filtration systems meet or exceed OSHA 1910.134, Canadian Z180.1 Breathing Air Standards and British Standard BS-EN 12021:1999 "Respiratory Protective Devices" for Grade-D air.

NIOSH requires that each respirator wearer be supplied with 15 cfm of Grade-D Air at the manufacturer's required pressure.

Sizing a Type-C / CE Airline Filtration System

All of Air Systems' filtration products are designed to flow the NIOSH maximum amount of air a worker's respirator could demand. NEVER undersize a filtration system.

Air Consumption (CFM) and Pressure (PSI) ranges for representative types of respirators are listed below:

Pressure Demand	4 - 15 cfm @	60 - 120 psi
Constant Flow Half/Full Mask	4 - 15 cfm @	4 - 30 psi
Constant Flow Hood (Low Pressure)	6 - 15 cfm @	3 - 15 psi
Constant Flow Hood (High Pressure)	6 - 15 cfm @	25 - 110 psi
Vortex Cooling Tube (Option)*	15 - 25 cfm @	60 - 110 psi

If a vortex cooling or heating tube is used by the worker, the total air consumed is calculated by the air consumption of the vortex device.

Portable Grade-D Air Filtration with CO Monitor

Item No.	Description
BB15-CO	15 cfm Breather Box®, 48 cfm flow capacity, - 1 coupling
BB30-CO	30 cfm Breather Box®, 48 cfm flow capacity, 2 couplings
BB30-CO3	30 cfm Breather Box®, 48 cfm flow capacity, 3 couplings
BB50-CO	50 cfm Breather Box®, 79 cfm flow capacity, 4 couplings
BB75-CO4	75 cfm Breather Box®, 97 cfm flow capacity, 4 couplings
BB75-CO6	75 cfm Breather Box®, 97 cfm flow capacity, 6 couplings
BB100-CO	100 cfm Breather Box®, 123 cfm flow capacity, 4 couplings
BB100-CO6	100 cfm Breather Box®, 123 cfm flow capacity, 6 couplings
BB100-CO8	100 cfm Breather Box®, 123 cfm flow capacity, 8 couplings
BB150-CO	150 cfm Breather Box®, 203 cfm flow capacity, three ½″ industrial interchange couplings

Please specify 1/4" Hansen style or Schrader style fittings when ordering. Other fittings available for an additional charge.

See Our Master Catalog for Intrinsically Safe Breather Boxes®, Replacement Filters, and Calibration Kits.

MADE in the USA

2 YEAR WARRANTY ON CO SENSOR & MONITOR

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