Auto-Air™ Product Line

Automatic Reserve Breathing Air Systems for Immediately Dangerous to Life or Health (IDLH) Work Locations

Why Use An Auto-Air™ System?

The Auto-Air™ System was developed to provide Grade-D breathing air with full automatic reserve air for use in Immediately Dangerous to Life or Health (IDLH) work locations.

The **Auto-Air™ Breather Box**® provides Grade-D breathing air while continuously monitoring for Carbon Monoxide (CO). In the event of electrical failure or air pressure failure, the System automatically switches to the reserve air cylinder(s). Audible and visual alarms signal the worker(s) that the primary air system has failed and switched to the back-up air system automatically. This allows the user to leave the work space until the system is returned to normal operating conditions.

For additional portability, the **Auto-Air™ Cart** adds twin air cylinders to a portable cart. Depending on the work environment, a pneumatic or electronic reserve air system may be chosen. Select the cart size based on the desired amount of users and reserve air needed to allow workers to safely egress the work area in an emergency.

NIOSH requires the use of a 5 minute airline escape respirator when working in IDLH environments.

Our Auto-Air™ feature does not replace the NIOSH requirement. Some work environments may require a 30 minute (or longer) airline escape method to safely egress the hazardous area. This situation would require the use of an Auto-Air™ Breather Box® or Auto-Air™ Cart with reserve air cylinder.

Primary Air Line

Auto-Air™ Breather Box® Air Flow

Reserve Air Line

Reserve Air Line Cylinders

Applications
- **Fuel Cell Maintenance**
- **Confined Space Entry**
- **Refineries**
- **Hazardous Material Handling**
- **Nuclear Facilities**
- **Tank Entry and Cleaning**

Also Available:
- **CO/O$_2$ Monitor**
- **Panel Mounted**
- **Intrinsically Safe Models**

How Often Should I Calibrate The Monitor?

Air Systems recommends calibrating our CO and CO/O$_2$ Series breathing air monitors monthly. If monthly calibrations are not followed, the monitor should be recalibrated at least every six months from the last calibration prior to use.

Zero Air - When calibrating the monitor, Zero Air is used to achieve a true zero reading on the monitor before using the Carbon Monoxide (CO) test gas. Zero air removes all background interference gasses.

Carbon Monoxide (CO) - Use only 10-20 ppm CO gas for calibration. Using a higher CO concentration may decrease accuracy at lower scale readings. Note: 10 ppm gas must be used to satisfy Canadian calibration requirements.

Oxygen (O$_2$) - For CO/ O$_2$ monitor, use only 20.9% oxygen in nitrogen gas for calibration.

How The System Works

Compressed air enters the primary air line and is continuously monitored for Carbon Monoxide (CO) and/or Oxygen Level, depending on the model. In the event of electrical or air pressure failure, the system automatically switches to the reserve air source and air flows through the reserve air line. An alarm signals the worker the primary air system has failed and switched to the back-up air system automatically. Workers can then exit the work space to resolve the alarm and the system is returned to normal operating conditions.
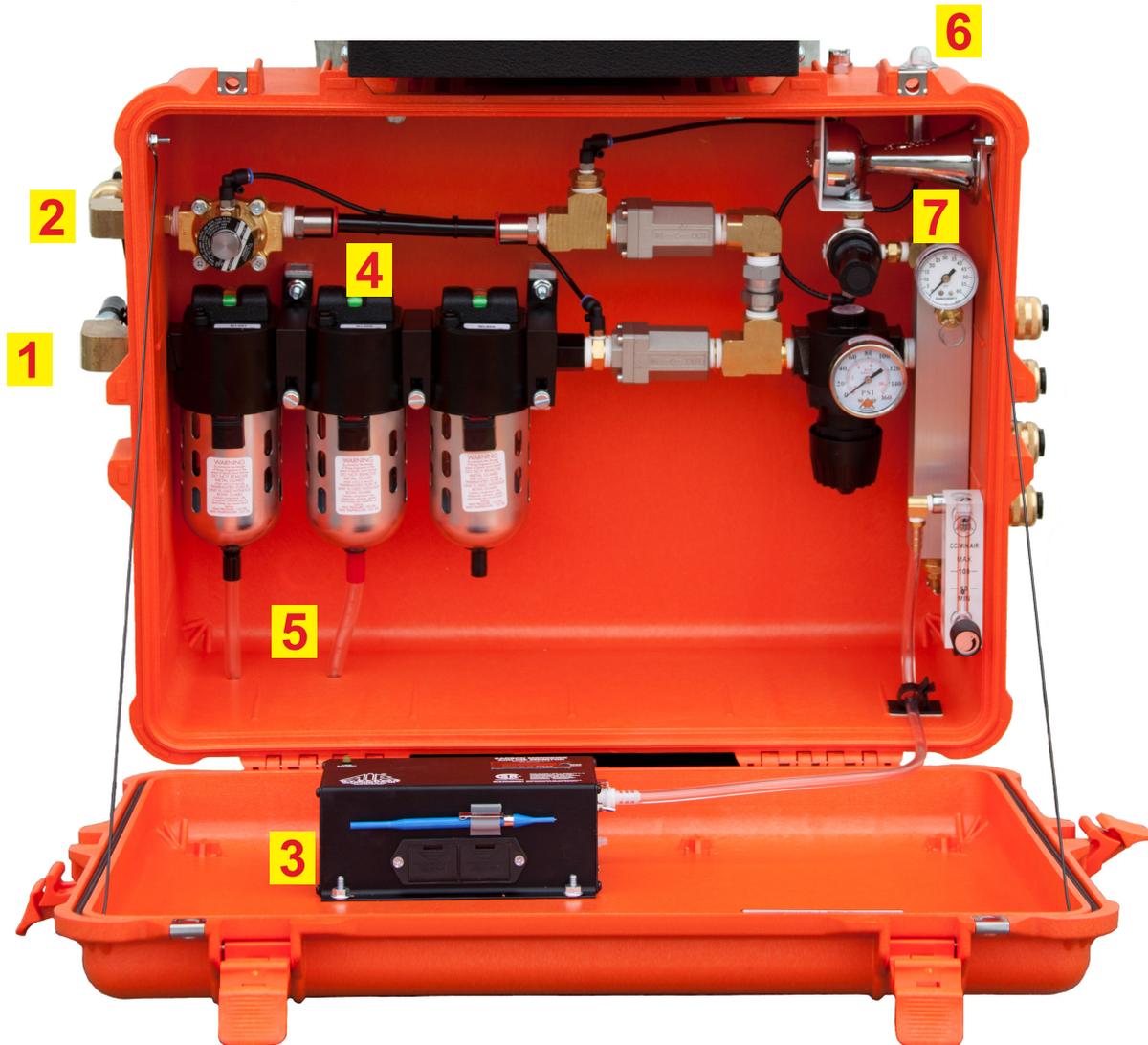
Auto-Air™ System Key Details:
1) Primary Air Line, ½" Inlet - Hansen 5000 Style Fitting
2) Reserve Air Line, ¼" Inlet - Hansen 3000 Style Fitting
3) Intrinsically Safe CO Monitor
  Note: Carbon Monoxide (CO) and CO/O_2 Monitors also Available
4) Filter Change Indicators on All Filters
5) 2 Automatic Drains with Discharge Tubes
6) External Warning Indicator
7) External Warning Alarm

Always size the reserve air system to allow an adequate safety factor for all workers to egress the environment.

The Auto-Air™ Breather Box®
Fully Automatic Reserve Air System

Auto-Air™ Breather Box® Key Details:
- Primary Air Line, ½" Inlet - Hansen 5000 Style Fitting
- Reserve Air Line, ¼" Inlet - Hansen 3000 Style Fitting
- Carbon Monoxide (CO) Monitor
- **CO/O$_2$ Monitors also Available**
- **Intrinsically Safe CO/O$_2$ Monitors also Available on Pneumatic Models**
- Filter Change Indicators on All Filters
- 2 Automatic Drains with Discharge Tubes
- Remote Alarm Jack Receptacle (Remote Alarm Optional)
- External Warning Lights and Alarm
- Reserve Cylinders Sold Separately

> **Always size the reserve air system to allow an adequate safety factor for all workers to egress the environment.**

> **Specify 1/4" Hansen style or Schrader style respirator fittings when ordering. Other fittings available for an additional charge.**

2 YEAR WARRANTY ON CO SENSOR & MONITOR
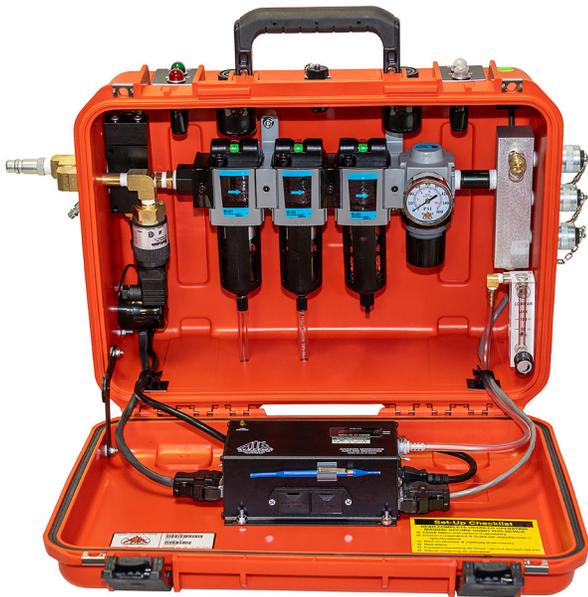
Auto-Air™ Breather Box®
Electronic Reserve Air System
BB30-COAA
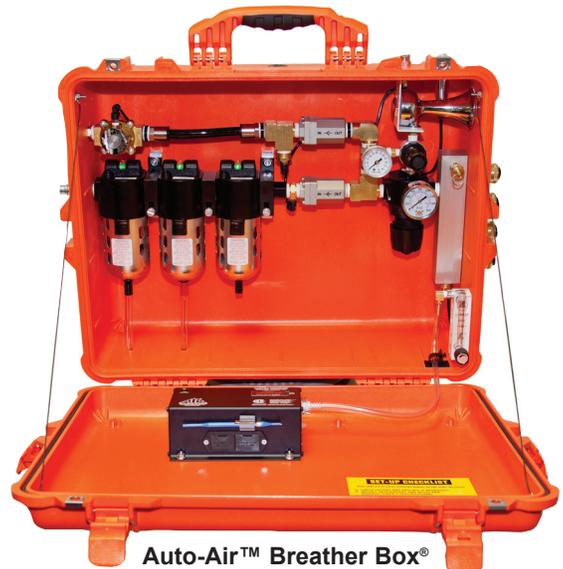
Auto-Air™ Breather Box®
Pneumatic Reserve Air System
BB50-COAAP

Auto-Air™ Breather Box® with CO Monitor
Electronic Reserve Air System

Item No.	Description
BB30-COAA	30 cfm Auto-Air™ Breather Box®, 115 VAC, 48 cfm flow capacity, 2 or 3 couplings
BB50-COAA	50 cfm Auto-Air™ Breather Box®, 115 VAC, 79 cfm flow capacity, 4 couplings
BB75-COAA	75 cfm Auto-Air™ Breather Box®, 115 VAC, 97 cfm flow capacity, 4 couplings
BB100-COAA	100 cfm Auto-Air™ Breather Box®, 115 VAC, 123 cfm flow capacity, 4 couplings

Auto-Air™ Breather Box® - with Intrinsically Safe (IS) CO Monitor
Pneumatic Reserve Air System

Item No.	Description
BB30-COAAP	30 cfm Intrinsically Safe Auto-Air™ Breather Box®, 48 cfm flow capacity, 2 or 3 couplings
BB50-COAAP	50 cfm Intrinsically Safe Auto-Air™ Breather Box®, 79 cfm flow capacity, 4 couplings
BB100COAAP	100 cfm Intrinsically Safe Auto-Air™ Breather Box®, 123 cfm flow capacity, 4 couplings

CSA **Approved for Class I, Division 1, Groups C and D environments (9 VDC operation only)**

MADE in the USA

For Use In Hazardous Locations

The Auto-Air™ Cart
Cart Mounted Automatic Reserve Air System

Auto-Air™ Cart Key Details:
- Primary Air Line, ½" Inlet - Hansen 5000 Style Fitting
- Reserve Air Line, ¼" Inlet - Hansen 3000 Style Fitting
- Carbon Monoxide (CO) Monitor
- **CO/O$_2$ Monitors also Available**
- **Intrinsically Safe CO/O$_2$ Monitors also Available on Pneumatic Models**
- Filter Change Indicators on All Filters
- 2 Automatic Drains with Discharge Tubes
- Remote Alarm Jack Receptacle (Remote Alarm Optional)
- External Warning Lights and Alarm
- Reserve Cylinders Sold Separately
- Steel Cart
- Storage Box with Latch
- Pneumatic Tires

2 YEAR WARRANTY ON CO SENSOR & MONITOR

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

Small Cylinder Carts (up to 4500 PSI)
Holds Two 60 or 87 cf Air Cylinders

Large Cylinder Carts (up to 5000 PSI)
Holds Two 300, 444 or 472 cf Air Cylinders
Order Cylinders Separately

Auto-Air™ Cart with CO Monitor
Electronic Reserve Air System

Item No.	Description
	Small Cylinder Carts - 115 VAC Electronic Reserve Air System
BB30-HTAA	30 cfm Auto-Air™ Cart, CO monitor, 115 VAC, 48 cfm flow capacity, 2 couplings
BB50-HTAA	50 cfm Auto-Air™ Cart, CO monitor, 115 VAC, 79 cfm flow capacity, 4 couplings
BB100HTAA	100 cfm Auto-Air™ Cart, CO monitor, 115 VAC, 123 cfm flow capacity, 4 couplings
	Large Cylinder Cart - 115 VAC Electronic Reserve Air System
BB100-23AA	100 cfm Auto-Air™ Cart, CO monitor, 115 VAC, 123 cfm flow capacity, 4 couplings

Auto-Air™ Cart - with Intrinsically Safe (IS) CO Monitor
Pneumatic Reserve Air System

Item No.	Description
	Small Cylinder Carts - Pneumatic Reserve Air System
BB30-HTAAP	30 cfm Auto-Air™ Cart, intrinsically safe CO monitor, 48 cfm flow capacity, 2 couplings
BB50-HTAAP	50 cfm Auto-Air™ Cart, intrinsically safe CO monitor, 79 cfm flow capacity, 4 couplings
BB100HTAAP	100 cfm Auto-Air™ Cart, intrinsically safe CO monitor, 123 cfm flow capacity, 4 couplings
	Large Cylinder Cart - Pneumatic Reserve Air System
B10023HTAP	100 cfm Auto-Air™ Cart, intrinsically safe CO monitor, 123 cfm flow capacity, 4 couplings

MADE in the USA

For Use In Hazardous Locations

CSA **Approved for Class I, Division 1, Groups C and D environments (9 VDC operation only)**

COMP-3EA™ Auto-Air™ Breathing Air Compressor System

The COMP-3EA™ Compressor System includes all the features of an Auto-Air™ Breather Box® and adds a compressor to create a self-contained system.

The System comes with an Auto-Air™ Breather Box®, model BB30-COAA, the TA-3EA compressor supplied with a CGA-347 high pressure reducing regulator, primary hose, and secondary hose. An optional 60 or 87 cf cylinder can be installed on the frame to provide additional egress air.

The COMP-3EA™ System is designed for pressure demand respirators only.

Key Details for TA-3EA Compressor:
- Rotary vane air compressor
- Pressure range to 110 psi output
- 2 HP electric motor, 1750 rpm continuous duty – thermally protected
- 115/230 VAC, 1-phase, 60 Hz, 17.2 amps (requires 20 amp service)
- Low maintenance - 500 hours between oil changes
- Automatic pressure unloading - full modulation air control
- Noise level below 70 dBA at 3 feet
- USDA approved food grade oil in compression end
- Adjustable high pressure (5000 psi) regulator
- 10" pneumatic tires
- Built-in skid plate for stair climbing
- ASME coded 8 gallon Twin-Air™ tank assembly, 8.5 cf air storage @ 110 psi
- Auto-Air™ Breather Box® Grade-D supplied with COMP-3EA package
- Weight: 150 lbs.

COMP-3EA™ Compressor & Components

Item No.	Description
COMP-3EA	TA-3EA compressor, ½" x 10' hose, ⅜" x 10' hose, high pressure regulator, and BB30-COAA Breather Box®
TA-3EA	TA-3 Twin-Air™ Compressor with adjustable high pressure (5000 psi) regulator for attachment to a CGA-346 or CGA-347 cylinder and cylinder strap
BB30-FK	Replacement filter kit for BB30-COAA Breather Box®

Do not use with constant flow respirators or vortex cooling tubes.

Note: Size the reserve air system to achieve the required egress time

Reserve Air Storage Cylinders

Item No.	Description
AC-60	60 cf CGA-346, 2216 psi, aluminum, DOT/TC/ISO/UN
AC-87	87 cf CGA-347, 4500 psi, fully wrapped carbon fiber, DOT/TC approved
AC-300	300 cf CGA-346, 2400 psi, steel, DOT/TC approved
AC-444	444 cf CGA-347, 4500 psi, steel, DOT/TC/ISO/UN approved
AC-472	472 cf CGA-347, 5000 psi, steel, DOT/TC/ISO/UN approved

CO Monitor Calibration Kit

Item No.	Description
BBK-20	CO monitor calibration kit - 20 ppm CO, zero air, regulator, tubing, and hard case. 17 liter size disposable cylinders
BBK-10	CO monitor calibration kit - 10 ppm CO, zero air, regulator, tubing, and hard case. 17 liter size disposable cylinders. For Canadian CO monitor settings.

BBK-20

TA3-AXAF™ - Explosion-Proof Auto-Air™ Compressor

The TA3-AXAF™ Explosion-Proof Compressor System combines the auto reserve functionality of an Auto-Air™ System with the portability of the COMP-3EA™ Compressor System and adds an explosion-proof motor for hazardous locations. The System is popular in the airline industry for fuel cell maintenance due to the compact design.

The TA3-AXAF™ System is designed to provide automatic back-up air for up to 3 workers in the event of compressor failure. Combining an intrinsically safe Grade-D air filtration package and the TA-3EXP compressor mounted on the Twin-Air™ frame, the TA3-AXAF™ provides an all in one explosion-proof Grade-D air filtration system.

The TA3-AXAF™ System is designed for pressure demand respirators only.

Key Details:
- Certified intrinsically safe CO Monitor
- Explosion-proof electric motor - 230/460 VAC, 3 phase 50/60 Hz
- 25 foot power cord, explosion-proof plug sold separately
- ASME coded Twin-Air™ tank design for cool breathing air output
- Full automatic back-up air feature, up to 5500 psi capability
- Pneumatic visual indicator and audible alarm for system failure
- 110 psi output air pressure, 3 couplings supplied
- Holds one back-up SCBA air cylinder, up to 4500 psi
- Air control panel with high pressure regulator
- 10" pneumatic tires
- Weight: 185 lbs.

Explosion-Proof Auto-Air™ Compressor TA3-AXAF

Explosion-Proof Auto-Air™ Compressor

Item No.	Description
TA3-AXAF	Explosion-proof compressor includes: Grade-D filtration, air control panel with CO monitor, 25' power cord, user wired per NEC requirements 1-3 workers. Reserve air cylinders sold separately.
BB30-FK	Replacement filter kit for TA3-AXAF

2 YEAR WARRANTY ON CO SENSOR & MONITOR

MADE in the USA

Explosion-proof Plug sold separately

Reserve air cylinders and calibration kits available on pg 5

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