

 **Speedglas™**

# Supplied Air



Supplied Air - Welding Respiratory Protection

 **AWS**

# Breathable air systems

## The ultimate filtration & drying technology

Due to the increasing demand for improved environmental and safety control, AWS and Walker Filtration have teamed up to offer a comprehensive range of wall and portable floor mounted breathable air systems suitable for use with Speedglas Fresh-air C compressed air respirator systems.

Carefully researched and tested to ensure high levels of performance, these breathable air filter products can be installed where pure breathable compressed air is required.

The filter packages offer filtration and oil removal efficiencies down to 0.01 micron particulate size and maximum oil carryover efficiencies to 0.003 mg/m<sup>3</sup> (0.003 ppm). The operator is supplied clean, particle and liquid oil free air with the added benefit of taste and odour removal for improved user comfort and performance which exceeds the requirements of AS/NZS1715.

Knowing that each person requires 6cfm/170lpm/2.88lps of breathable air, we have systems that provide the following:  
1-2 person at 7 bar = provides 15cfm  
3-4 person at 7 bar = provides 30cfm  
5-6 person at 7 bar = provides 45cfm

When deciding how many stages are required, you need to assess the operators requirement and current quality of compressed air.

When the system is being used at a point of use, where filtration (generally two filters and refrigeration dryers in many cases) is installed for general plant air, the two stage system can generally be used.

Where the system is being used at a point of use and basic filtration (possibly only one filter and no dryer) is installed for general plant air the 3 stage system can generally be used.

Where no other filtration is in place or high levels of liquid can be seen at the point where the system is to be used, the 4 stage system should be used.

The breathing air systems should not be used when using air pressure in excess of 10 bar.



\* Please note all flow rates quoted in this document are in scfm at 7 barg.

# Breathable air systems

## Product Information

### Systems



### Spare Parts



### Part Number Description

WBA22WM	BA system 1-2 man 2 stage wall mountable
WBA23WM	BA system 1-2 man 3 stage wall mountable
WBA24WM	BA system 1-2 man 4 stage wall mountable
WBA22P	BA system 1-2 man 2 stage portable
WBA23P	BA system 1-2 man 3 stage portable
WBA24P	BA system 1-2 man 4 stage portable
WBA42WM	BA system 3-4 man 2 stage wall mountable
WBA43WM	BA system 3-4 man 3 stage wall mountable
WBA44WM	BA system 3-4 man 4 stage wall mountable
WBA42P	BA system 3-4 man 2 stage portable
WBA43P	BA system 3-4 man 3 stage portable
WBA44P	BA system 3-4 man 4 stage portable
WBA45P1/2	BA system 5 man 4 stage 1/2" portable
C103441152	BA 1-2 man system coupling 1/4" BSPTM
C103441154	BA 3-4 man system coupling 3/8" BSPTM
WE361X1	Pre-filter (1 mic) 1-2 man BAS
WE361XA	High efficiency filter (0.01) 1-2 man BAS
WE371X1	Pre-filter (1 mic) 3-4 man BAS
WE371XA	High efficiency filter (0.01) 3-4 man BAS
WE381AC	Carbon filter BAS
BAHOSE05M	Breathing air hose 5m with fittings
BAHOSE10M	Breathing air hose 10m with fittings
BAHOSE15M	Breathing air hose 15m with fittings
BAHOSE20M	Breathing air hose 20m with fittings
BAHOSE30M	Breathing air hose 30m with fittings
BAHOSE40M	Breathing air hose 40m with fittings
C103425004	BA hose nipple 10MM for 3/8" hose
C103421004	BA hose coupling 10MM for 3/8" hose

2 stage system - oil/water removal high efficiency filter (0.01) & carbon filter (AC)

3 stage system - prefilter (AO) (1 mic) & 2 stage

4 stage system - water separator (WS), & 3 stage

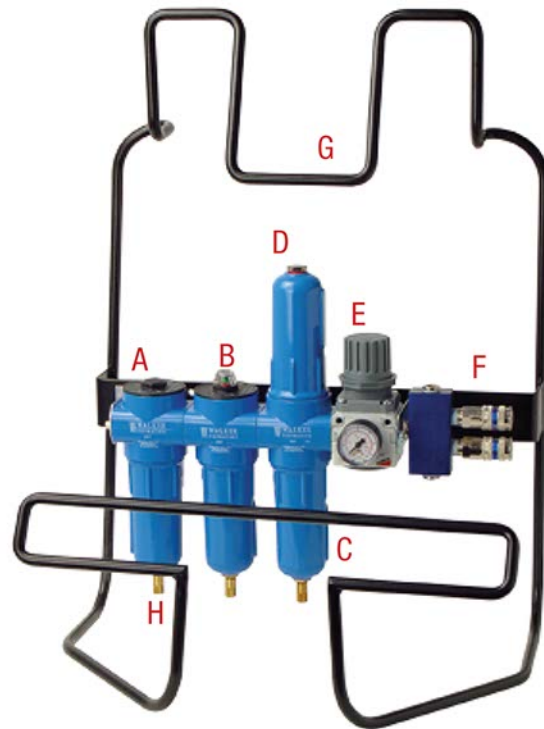
1-2 man systems include one inlet and one outlet fitting. Additional fittings order C103441152

3-4 man systems include one inlet and two outlet fittings. Additional fittings order C103441154

# Breathable Air Systems

## Components

- A) WS - Water Separator
- B) X1 - 1 micron pre-filter
- C) XA - 0.01 micron oil/water removal filter
- D) AC - Activated carbon filter
- E) Regulator and gauge
- F) Distribution manifold
- G) Frame - for portable units
- H) Internal automatic drains



\*3-4 man, 4 stage shown with 2 couplings fitted

## Filtration Stages

Stage 1 - Centrifugal water separator that removes larger/heavier particles of dirt and water droplets

Stage 2 - 1 micron filter which removes dirt, rust and particulate matter down to 1 micron in size, whilst coalescing liquids and gives a maximum oil carryover of 0.1ppm (does not include vapour).

Stage 3 - 0.01 micron filter which removes dirt, rust & particulate matter down to 0.01 micron in size, whilst coalescing liquids and gives a maximum oil carryover of 0.01 ppm (does not include vapour).

Stage 4 - An activated carbon filter which adsorbs all smells & odours from the air, and gives a maximum oil carry over of 0.003ppm.

(Stage 3 & 4 are present in the two, three and four stage systems.)

## Consumable Change Frequency

1 Micron Pre-filter - Replace every twelve (12) months or 8,000 hours (red in colour).

0.01 Micron Filter - Replace every twelve (12) months or 8,000 hours (blue in colour).

Carbon Filter - Maximum life of six (6) months

Water Separator - No serviceable element. Regular inspections should be carried out to ensure no rust or particulate build up is inhibiting operation of the automatic drain. Replace drain if necessary.

# Welding Protection

## 3M™ Speedglas™ with Fresh-air C Compressed Air Respirator

For highly-contaminated welding environments, you need the Fresh-air C (Compressed air) respirator system with a nominal protection factor of 100+. The lightweight, belt mounted regulator allows the user to adjust the airflow from 170 to 300 litres per minute, making Fresh-air C ideal for hot and strenuous work. For extremely hot or cold environments the user can replace the regulator with a Vortex personal air conditioner (see overleaf). The Speedglas systems are approved to AS/NZS1716 for respiratory protection and AS/NZS1337 & AS/NZS1338.1 for eye and face protection.



3M™ Speedglas™ 9000 FlexView  
Welding Shield with Fresh-air C

Includes a welding lens with a clear protective visor underneath for continuous eye, face and respiratory protection.

### Part Number

- 448170 - Speedglas 9002V FlexView Fresh-air C system
- 448180 - Speedglas 9002X FlexView Fresh-air C system
- 448870 - Speedglas 9002V FlexView Fresh-air C system with SideWindows
- 448880 - Speedglas 9002X FlexView Fresh-air C system with SideWindows
- 443900 - Speedglas Constant FlexView Fresh-air C system



3M™ Speedglas™ 9000  
Welding Shield with Fresh-air C

Ergonomic welder protection for highly contaminated environments. User-adjustable airflow from 170 to 300 l/min.

### Part Number

- 468870 - Speedglas 9002V Fresh-air C system with SideWindows
- 468880 - Speedglas 9002X Fresh-air C system with SideWindows

## Full Face Visors with Fresh-air C

The Fresh-air C respirator is also available as a system with a clear or shaded protective visor.

### Part Number

- 899100 - Fresh-air C system with polycarbonate clear visor (high impact)
- 899101 - Fresh-air C system with acetate clear visor (solvent resistant)
- 899105 - Fresh-air C system with acetate shade 5 visor (solvent resistant)



# Cool Down the Hottest Jobs

## Vortec Personal Air Conditioner



The Vortec Personal Air Conditioner uses filtered compressed air to keep workers comfortable in extremely hot conditions. When used with the Speedglas Fresh-air welding shield the Vortec personal air conditioner provides consistent and continuous cooling air to minimize heat stress and increase worker productivity in hot surroundings. The Vortec cooler simply replaces your regulator.

- Reduces worker fatigue
- Reduces air temp by up to 30°C
- 10 year warranty
- Keeps the welder more energised
- No moving parts
- Exceptionally reliable
- Provides continuous cooled air delivery
- Easy temperature adjustment even with gloves

The Vortec cooler (AWS4590) consumes 35cfm. As a result the 5-6 man system (WBA45P1/2) is needed as it filters 45cfm at 7 bar and each user requires 6cfm.

Part Number

AWS4590 - Vortec cooling system with air hose



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