



# **PRODUCT OPERATING MANUAL**

**PANBLAST™**

***VISIFLO RESPIRATOR AIRLINE FILTERS***

***Manual Number: ZVP-PC-0084-01***

***Pressure Equipment Directive 97/23/EC***

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## 1.0 GENERAL INFORMATION

### 1.1 Panblast notice to purchasers and users

1.1.1 All products and equipment designed and manufactured by Panblast are intended for use by experienced users of abrasive blasting equipment and its associated operations and abrasive blasting media.

1.1.2 It is the responsibility of the user to:

- Determine if the equipment and abrasive media is suitable for the users' intended use and application.
- Familiarize themselves with any appropriate laws, regulations and safe work practices, which may apply within the users' working environment.
- Provide appropriate operator training and a safe working environment including operator protective equipment (PPE) such as, but not limited to, blasting suit, safety footwear, protective eyewear and hearing protection.

1.1.3 Panblast Standard Terms and Conditions of Sale apply. Contact your local Panblast office or distributor should you require any further information or assistance.

1.2 **⚠ ! WARNING ! - READ THIS SECTION CAREFULLY BEFORE USING THIS EQUIPMENT/APPARATUS.**

1.2.1 Heavy metal paint, asbestos and other toxic material dusts will cause serious lung disease or death without the use of properly designed and approved supplied air respiratory (SAR) equipment by blast operators and all personnel within the work site area.

1.2.2 The compressor must have adequate output and the plumbing between the compressor and the point of attaching the air supply hose must have sufficient capacity to supply the volume of air at the pressure required.

### 1.3 Standard safety precautions

1.3.1 Approved safety eyewear, hearing and footwear protection should be worn at all times by the operator and all personnel in the immediate area that may be exposed to any hazards generated by the abrasive blasting process.

1.3.2 Suitably approved respiratory protection should also be worn when handling abrasive media, abrasive refuse dust and when carrying out any service/maintenance work where any dust may be present.

1.3.3 Any work performed on electrical wiring or components must only be carried out by suitably qualified and registered electrical trades' personnel.

1.3.4 Under no circumstances should any safety interlocks, lockouts or features be altered or disabled in any way.

1.3.5 All equipment must be isolated from the compressed air supply and electrical power source prior to any service or maintenance work being carried out.

1.3.6 All care must be taken by the operator when lifting or moving equipment or components in

order to prevent injury. Pressure Blast Pots must always be emptied of abrasive media before any attempt is made to move them.

1.3.7 Any modification of the equipment or use of non-genuine PanBlast™ replacement parts will void warranty.

1.3.8 Always check the Material Safety Data Sheet (MSDS) on the abrasive being used to ensure that it is free of harmful substances, in particular, free silica, cyanide, arsenic or lead.

1.3.9 Test the surface to be blasted for harmful substances, taking the appropriate measures and precautions to ensure the safety of the operator and others.

1.3.10 The operator should carry out a daily inspection before start up of all wearing and safety items to ensure that they are in correct operating order. In particular check all blast hose couplings and nozzle holders, ensuring that all couplings have engaged correctly and the safety locking pins are fitted and in good condition. Always install safety whip check cables at every connection. Ensure that the blast nozzle has been securely screwed into the nozzle holder and the nozzle holder has been secured to the blast hose correctly and that all screws are engaged.

## 2.0 INTRODUCTION

2.1 These instructions cover the operation and maintenance of the PanBlast™ VisiFlo Respirator Airline Filters.

2.2 The PanBlast™ VisiFlo Premium and Standard Respirator Airline Filters are industrial grade breathing air filters, designed to remove water vapor, odor and taste from the incoming air supply.

**NOTE: THE VISIFLO RESPIRATOR AIRLINE FILTERS WILL NOT REMOVE CARBON MONOXIDE, CARBON DIOXIDE AND ANY OTHER TOXIC OR HAZARDOUS GAS.**

2.3 As the quality of air from different compressors varies, the VisiFlo Respirator Airline Filter may need additional purification filtration devices for removal of oil mist, carbon monoxide, carbon dioxide and toxic gases to produce air that meet the overall air quality requirements of the applicable local statutory authority regulations of the country where the product is being used, examples of which are as follows:

CE: EN 12021  
AS/NZ 1715  
OSHA Grade D Breathing Air

2.4 Never connect a respirator airline filter to an air source that has not been tested for gas or particulate contamination. The presence of unacceptable levels of carbon monoxide (CO) in the breathing air system will cause death to the operator.

2.5 It is recommended not to use piston type or oil bath compressors for breathing air. Use of these types of compressors poses an extreme danger of producing unacceptable levels of carbon monoxide in the breathing air which could cause death to the operator.

2.6 Do not use any caustic chemicals or solvents that may be irritating or harmful to the user, or which change the properties of the materials used in any part of the VisiFlo Respirator Airline Filter assembly.

2.7 The design Approvals and Standards applicable to the VisiFlo Respirator Airline Filters apply only when used as a complete system as supplied, without any modification, deletion or substitution.

**NOTE: THE VISIFLO RESPIRATOR AIRLINE FILTER CASING CONFORMS TO PRESSURE EQUIPMENT DIRECTIVE 97/23/EC CATEGORY I, PS\*DN<3000 FOR USE WITH COMPRESSED AIR.**

2.8 The quality of breathing air supplied to the supplied air respirator helmet is critical to the safety and comfort of the operator. Special care must also be taken to avoid accidental connection to any other gas lines; such as oxygen, acetylene or nitrogen etc.

2.9 Air supplied by oil lubricated air compressors must be equipped with a high temperature alarm or a carbon monoxide (CO) alarm, or, both. If only a high temperature alarm is used, the air from the compressor must be tested frequently for the presence of carbon monoxide (CO). It is the operator's responsibility to check the air supply. This includes the compressor, carbon monoxide alarms, air filters and shut down devices. An overheated compressor or one that is in poor mechanical condition may produce carbon monoxide (CO) and objectionable odors. A carbon monoxide (CO) removal system may also be used to ensure breathing air quality.

2.10 When breathing air is supplied by oil lubricated and oil less air compressors, certain precautions must be taken. The compressor inlet must be located away from all sources of toxic contaminants including carbon monoxide which is found in the engine exhaust and in any combustion of oil products. No vehicles should be allowed near the compressor air intake. Other contaminants that may be harmful to the operator can enter the respiratory equipment through the compressor air intake. This intake must not be located in proximity to any exhaust system outlet, ventilation flue or source of fumes or particles of any kind.

2.11 The precautions described above also apply to portable compressors. In addition, in the case of engine driven compressors, precautions must be taken to prevent engine exhaust gases from entering the air intake of the compressor. The compressor engine exhaust should be piped to a location safely downwind from the compressor air intake. Compressors vary in design and operation, therefore it is important that users carefully read the manufacturers' operation and maintenance instructions.

### 3.0 PREPARATION FOR OPERATION

**⚠ ! WARNING ! THE COMPRESSED AIR SOURCE MUST BE ISOLATED BEFORE PERFORMING ANY INSTALLATION WORK. FAILURE TO DO SO MAY CAUSE SERIOUS INJURY OR DEATH.**

3.1 The VisiFlo Respirator Airline Filter is designed for use by up to four (4) operators.

3.2 Remove the VisiFlo assembly from the packaging and fit the floor/wall support brackets (Item 8) and mount in either of the following orientations as required:

3.2.1 Horizontally on a flat, level surface.

3.2.2 Vertical wall mount.

3.2.3 If the unit is required to be in a floor mounted vertical orientation, this will require the optional vertical stand kit, BAC-AF-0282-00.

3.3 Check that all fasteners and fittings are tight and secure, note that the four (4) main tie rod locking nuts have been factory adjusted prior to delivery.

3.4 Fit and secure the pressure regulator and safety pressure relief valve assembly to the outlet port located on the top cap using the 13mm (½") hex nipple provided.

3.5 Ensure that the mini ball valve located on the bottom of the bottom cap is in the closed position.

3.6 Screw a suitable size and type of compressed air fitting (by purchaser) to suit your compressed air supply hose. For one (1) and two (2) operators a minimum hose size of 13mm (1/2") is recommended, while for the three (3) and four (4) operator option a minimum air supply hose size of 19mm (3/4") is recommended.

3.7 Now connect your respirator airline hoses to the breathing air quick disconnect fitting(s) located on the outlet manifold.

3.8 Slowly open the compressed air supply to the VisiFlo unit and check the system for any compressed air leaks.

3.9 Adjust the VisiFlo pressure regulator to the specified pressure required for the supplied air respirator helmet and respirator airline hose length being utilized, this will be stipulated in the supplied air respirator helmet operating manual.

**NOTE: THE MAXIMUM COMPRESSED AIR SUPPLY PRESSURE TO THE SUPPLIED AIR RESPIRATOR HELMET IS 860kPa (125psi).**

3.10 The Set up for the VisiFlo Respirator Airline Filter operation is as per the above 3.1 through to 3.9. The VisiFlo Respirator Airline Filter is now ready for operation.

3.11 VisiFlo Respirator Airline Filters, Models BAC-AF-0275-00 and BAC-AF-0276-00 are supplied with CO Monitors. Refer to Operator Manual ZVP-PC-0070-00 for set up and operating instructions on the PanBlast™ Air Scan CO Monitor.

### 4.0 OPERATING INSTRUCTIONS

**⚠ ! WARNING ! - READ THIS SECTION CAREFULLY BEFORE USING THIS EQUIPMENT/ APPARATUS.**

4.1 Using the mini ball valve (item 1) located on the bottom of the VisiFlo assembly, drain any moisture/water from the VisiFlo after every four (4) hours of operation.

- 4.2 The VisiFlo filter cartridge should be replaced after every three (3) months, based on forty (40) hours of operation per week.
- 4.3 The filter cartridge should be replaced sooner if:
  - 4.3.1 The user(s) detect any objectionable odors.
  - 4.3.2 The filter begins to pass any moisture/water through to the breathing air outlets.
  - 4.3.3 The outlet pressure nears the lowest pressure recommended for the supplied air respirator helmet being used.

**5.0 MAINTENANCE**

**⚠ ! WARNING ! - BEFORE REPLACING THE FILTER CARTRIDGE ENSURE THAT ALL COMPRESSED AIR SUPPLY IS SHUT OFF; ALLOW COMPRESSED AIR TO COMPLETELY BLEED OUT VIA THE DRAIN VALVE AND ENSURE THAT THE PRESSURE GAUGE READS ZERO.**

- 5.1 To replace the VisiFlo filter cartridge, unscrew the four (4) nuts retaining the top cap cover (item 10) and remove the cover from the top cap assembly (item 7).
- 5.2 Remove the seal (item 6), then carefully remove the filter cartridge from the assembly.
- 5.3 Inspect the condition of the O-rings (item 9) fitted to the top cap cover, looking for any cuts or damage that may compromise the performance of the O-rings.

**NOTE: IT IS RECOMMENDED THAT ALL SEALS BE REPLACED WHEN REPLACING THE FILTER CARTRIDGE.**

- 5.4 Carefully clean and dry the internal surfaces of the VisiFlo tube (item 5) using the microfiber cloth provided, and remove any foreign objects/debris.
- 5.5 Carefully insert the new filter cartridge (BAC-AF-PB-0002) into the assembly, ensuring that the directional arrow on the cartridge is pointing upwards and towards the top cap as shown and labeled on the cartridge.
- 5.6 Refit the seal (item 6) on the top of the filter cartridge.
- 5.7 Insert the top cap cover (item 10) into the top cap assembly (item 7) and align the top cap cover with the top cap fixing studs.
- 5.8 Refit the top cap cover retaining nuts and tighten the nuts securely. Re-connect the compressed air supply and check the VisiFlo unit for leaks.

**6.0 ASSEMBLIES, PARTS LISTING & EXPLODED VIEW**

**6.1 VisiFlo Premium Respirator Airline Filter Assemblies**

| Stock Code     | Description                              | Weight               |
|----------------|--|----------------------|
| BAC-AF-0274-00 | VisiFlo-P Respirator Airline Filter      | 12.35 kg (27.08 lbs) |
| BAC-AF-0276-00 | VisiFlo-P Respirator Airline Filter W CO | 15.45 kg (33.88 lbs) |

**6.1.1 VisiFlo Premium Respirator Airline Filter Parts Listing**

| Item | Stock Code     | Description                                | Qty |
|------|----------------|--|-----|
| 1    | YAC-PF-PB-0167 | Mini Ball Valve                            | 1   |
| 2    | YAC-AF-0345-00 | Bottom Cap Sub Assembly                    | 1   |
| 3    | YAC-AF-0317-00 | Tube Seal                                  | 2   |
| 4    | BAC-AF-PB-0002 | PBF Filter Cartridge                       | 1   |
| 5    | BAC-AF-0290-00 | VisiFlo Premium Tube                       | 1   |
| 6    | YAC-AF-0335-00 | 112mm OD X 98mm ID X 6mm Silicone Seal     | 1   |
| 7    | YAC-AF-0346-00 | Top Cap Sub Assembly                       | 1   |
| 8    | YAC-AF-0315-00 | Floor/Wall Support Bracket                 | 2   |
| 9    | YAC-BS-0078-00 | O-Ring                                     | 2   |
| 10   | YAC-AF-0334-00 | Top Cap Cover                              | 1   |
| 11   | BAC-PF-PB-0226 | 1/4" BSP - 150 PSI Pressure Relief Valve   | 1   |
| 12   | BAC-PF-PB-0031 | 6mm (1/4") Pressure Gauge - Rear Entry     | 1   |
| 13   | YAC-PF-0323-00 | Union - Stainless Steel                    | 1   |
| 14   | YAC-AF-PB-0019 | 1/2" Regulator                             | 1   |
| 15   | YAC-PF-PB-0099 | Nipple                                     | 3   |
| 16   | YAC-PF-PB-0092 | Quick Disconnect Fitting Male              | 4   |
| 17   | YAC-AF-0332-00 | 4 Outlet 3/8" Manifold                     | 1   |
| 18   | BAC-PF-PB-0030 | 6mm (1/4") - 125 PSI Pressure Relief Valve | 1   |
| 19   | BAC-AF-0278-00 | VisiFlo CO Monitor Kit                     | 1   |
| 20   | YAC-AF-0311-00 | Microfibre Cloth                           | 1   |
| 21   | YAC-PF-PB-0151 | Elbow - Stainless Steel                    | 1   |
| 22   | YAC-NP-0130-00 | P.E.D. 97/23/EC CE Label                   | 1   |
| 23   | YAC-AF-0371-00 | NP Bracket                                 | 1   |

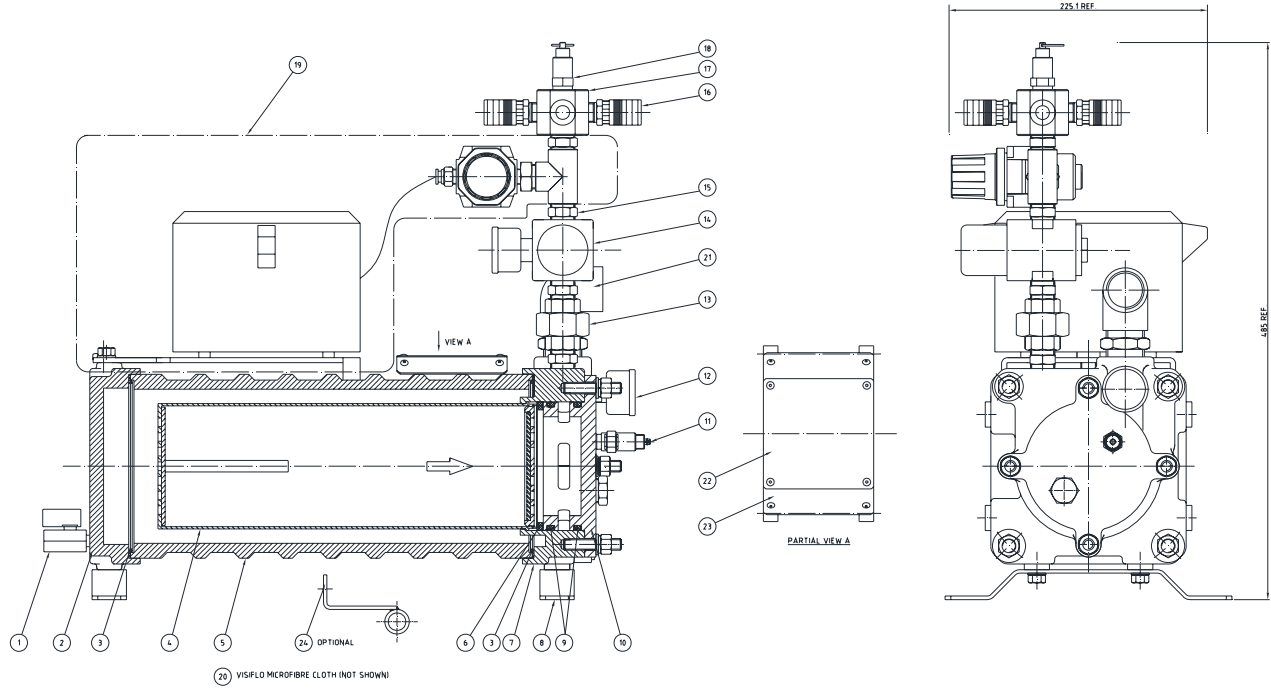
**6.1.2 VisiFlo Premium Respirator Airline Filter Optional Items**

| Item | Stock Code     | Description                | Qty |
|------|----------------|----------------------------|-----|
| 24   | BAC-AF-0282-00 | VisiFlo Vertical Stand Kit | 1   |

**6.1.3 VisiFlo Premium Respirator Airline Filter Service Kits**

| Stock Code     | Description  |
|----------------|--|
| BAC-AF-0278-00 | VisiFlo CO Monitor Kit - Includes Item 19  |
| BAC-AF-0282-00 | VisiFlo Vertical Stand Kit- Includes Items 24  |
| BAC-AF-0286-00 | VisiFlo Premium Tube Kit - Includes Items 3(2 off), 5, 20                                  |
| BAC-AF-0287-00 | VisiFlo Pneumatic Repair Kit - Includes Items 11, 12, 13, 14, 15(3 off), 16(4 off), 17, 18 |
| BAC-AF-0288-00 | VisiFlo Gaskets & Seals Kit - Includes Items 3(2 off), 6, 9(2 off)                         |

### 6.1.4 VisiFlo Premium Respirator Airline Filter Exploded View



**6.2 VisiFlo Standard Respirator Airline Filter Assemblies**

| Stock Code     | Description                              | Weight               |
|----------------|--|----------------------|
| BAC-AF-0273-00 | VisiFlo-S Respirator Airline Filter      | 12.45 kg (27.30 lbs) |
| BAC-AF-0275-00 | VisiFlo-S Respirator Airline Filter W CO | 15.55 kg (34.10 lbs) |

**6.2.1 VisiFlo Standard Respirator Airline Filter Parts Listing**

| Item | Stock Code     | Description                                | Qty |
|------|----------------|--|-----|
| 1    | YAC-PF-PB-0167 | Mini Ball Valve                            | 1   |
| 2    | YAC-AF-0345-00 | Bottom Cap Sub Assembly                    | 1   |
| 3    | YAC-AF-0317-00 | Tube Seal                                  | 2   |
| 4    | BAC-AF-PB-0002 | PBF Filter Cartridge                       | 1   |
| 5    | BAC-AF-0289-00 | VisiFlo Standard Tube                      | 1   |
| 6    | YAC-AF-0335-00 | 112mm OD X 98mm ID X 6mm Silicone Seal     | 1   |
| 7    | YAC-AF-0346-00 | Top Cap Sub Assembly                       | 1   |
| 8    | YAC-AF-0315-00 | Floor/Wall Support Bracket                 | 2   |
| 9    | YAC-BS-0078-00 | O-Ring                                     | 2   |
| 10   | YAC-AF-0334-00 | Top Cap Cover                              | 1   |
| 11   | BAC-PF-PB-0226 | 1/4" BSP - 150 PSI Pressure Relief Valve   | 1   |
| 12   | BAC-PF-PB-0031 | 6mm (1/4") Pressure Gauge - Rear Entry     | 1   |
| 13   | YAC-PF-0323-00 | Union - Stainless Steel                    | 1   |
| 14   | YAC-AF-PB-0019 | 1/2" Regulator                             | 1   |
| 15   | YAC-PF-PB-0099 | Nipple                                     | 3   |
| 16   | YAC-PF-PB-0092 | Quick Disconnect Fitting Male              | 4   |
| 17   | YAC-AF-0332-00 | 4 Outlet 3/8" Manifold                     | 1   |
| 18   | BAC-PF-PB-0030 | 6mm (1/4") - 125 PSI Pressure Relief Valve | 1   |
| 19   | BAC-AF-0278-00 | VisiFlo CO Monitor Kit                     | 1   |
| 20   | YAC-PF-PB-0151 | Elbow - Stainless Steel                    | 1   |
| 21   | YAC-NP-0130-00 | P.E.D. 97/23/EC CE Label                   | 1   |
| 22   | YAC-AF-0371-00 | NP Bracket                                 | 1   |

**6.2.2 VisiFlo Standard Respirator Airline Filter Optional Items**

| Item | Stock Code     | Description                | Qty |
|------|----------------|----------------------------|-----|
| 23   | BAC-AF-0282-00 | VisiFlo Vertical Stand Kit | 1   |

**6.2.3 VisiFlo Standard Respirator Airline Filter Service Kits**

| Stock Code     | Description  |
|----------------|--|
| BAC-AF-0278-00 | VisiFlo CO Monitor Kit - Includes Items 19   |
| BAC-AF-0282-00 | VisiFlo Vertical Stand Kit - Includes Items 23   |
| BAC-AF-0287-00 | VisiFlo Pneumatic Repair Kit - Includes Items 11, 12, 13, 14, 15(3 off), 16(4 off), 17, 18 |
| BAC-AF-0288-00 | VisiFlo Gaskets & Seals Kit - Includes Items 3(2 off), 6, 9(2 off)                         |



6.2.4 VisiFlo Standard Respirator Airline Filter Exploded View

