

OWNER'S MANUAL

AIRLINE-SERIES HELMET AIR FILTER

IMPORTANT WARNING FOR SAFER BLAST CLEANING

1. Use protective equipment: Abrasive-resistant clothing, safety shoes, leather gloves, ear protection, CE-approved air-fed helmet. Air for helmet must be supplied by a breathing air compressor or through a helmet air filter.
2. Check for possible silicosis hazards. Avoid dust.
3. Do not blast with damaged or worn equipment.
4. Point nozzle only at area being cleaned.
5. Use only proper dry and well-screened abrasives specifically intended for blasting.
6. Keep unprotected workers out of the blast area.
7. Before blasting:
 - Check fittings and hose for wear.
 - Safety-wire couplings together.
 - Check helmet filters and air supply.
 - Check pop-up valve for alignment.
 - Test remote controls.
 - Make sure blast machine is adequately grounded.
8. Do not weld on blast machine, this voids approval.
9. Do not substitute Blastrite parts or modified equipment in any way.



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AIRLINE-SERIES HELMET AIR FILTER

1.0 INTRODUCTION.

Blastrite Breathing Air Filters can be used in conjunction with other compressor safeguards to supply clean air to airline respirators and many pneumatic tools and systems. Blastrite filters are designed to remove 98 % of particles down to 0.5 micron size, but will not remove carbon monoxide and other toxic gases from the airline. Monitors or suitable filters are available.

2.0 SET-UP.

2.1 Location. Select a flat stable location to place the filter. It is desirable to site the filter in a permanent location. If wall mounting is desired, use Model 41P6/WM, which is designed for such purposes.

2.2 Hook-up. Connect the hose from the compressor to the air inlet. Connect the airline hose that leads to your respirator or pneumatic tool to the filter outlet. Tighten the connections to prevent leaks and possible pressure loss.

IMPORTANT

WHEN USING A BLAST HELMET OR RESPIRATOR, DO NOT CONNECT THE FILTER TO ANY AIR SOURCE UNLESS YOU ARE CERTAIN IT CONTAINS BREATHABLE AIR.

3.0 OPERATION.

3.1 AIR REQUIREMENTS – Air source. The law requires that when oil lubricated compressors are used as sources of breathing air, you must equip them with high temperature alarms or carbon monoxide monitors / alarms, or both. If only a high temperature alarm is used, you must frequently test the compressor air for carbon monoxide to insure it meets the Grade 'D' requirement discussed below.

The law also requires that breathing air hose couplings be incompatible with outlets for other gas systems in order to prevent accidental connection of a supplied air respirator to non-respirable gases or oxygen.

3.2 Quality of breathing air. Supplied breathing air passing through this filter to a

respirator must meet at least the requirements for Type 1 gaseous air as described in the Compressed Gas Association Commodity Specification G7.1 (Grade D or higher). The Blastrite Filter does not remove carbon monoxide and other toxic gases from the air being supplied. The requirements for Grade D breathable air include:

- Oxygen 19.5 – 23.0 %
- Hydrocarbons (condensed) in Mg/m³ of gas 5 mg/m³ max.
- Carbon monoxide 20 ppm max.
- Carbon dioxide 1000 ppm max.
- No toxic contaminants at levels which would make the air unsafe to breathe.

3.3 Air pressure. The air pressure at the air filter inlet should not exceed 100 PSIG. Air will be released by the pressure relief valve when pressure within the filter exceeds 125 PSIG.

Air discharging from the filter can be controlled to meet specific air pressure requirements by using the pressure regulator adjustment knob. Refer to your helmet or pneumatic tool instruction manual to find the appropriate air pressure required for correct use of the equipment. Available on request.

3.4 Temperature. Air supplied to the filter should not exceed 140 degrees F. Therefore, do not connect the filter directly to, or near, the compressor exhaust manifold.

3.5 Correct operational procedures. Drain accumulated water and oil from the filter tank as required by opening the petcock valve at least once a day. In humid climates, or if large amounts of water or oil are present in the air supply, drain the filter tank more often.

Tighten the fasteners which secure the head to the filter tank. Over time, the fasteners may loosen which could cause a leak in the air system. Standard tightness for fasteners of this type (3/8" x 1 3/4" - grade 5 - 14 mm - 9/16 spanner) is 31 lbs.

4.0 FILTER CARTRIDGE.

4.1 Replacement. The frequency of filter cartridge replacement depends on the conditions of the particular air system in which the filter is installed. However, the filter cartridge should be replaced immediately if:

- The user smells or tastes contaminants in the air being supplied to an air supplied respirator, or;

AIRLINE-SERIES HELMET AIR FILTER

- There is a large pressure drop in the system, even though the compressor and other components appear to be operating correctly.

4.2 Stage operation. Cartridges effectively trap and remove 98 % of impurities down to 0.5 micron in size, with little pressure loss. The compressor supplied air enters at inlet fitting, filters up through 7 filter materials and exits into hose connected to airline filter. All 7 stages work in sequence to trap and hold water, oil particles, odors and organic vapors so that the cleaner air is delivered to workers or equipment.

- Water is removed by vortex action of air in outer cylinder.
- Carded cotton removes particles.
- Activated alumina absorbs oil and moisture.

- Activated charcoal removes odors and moisture.
- Felt material removes particulates.
- Carded cotton removes more particulates.
- Respiratory felt at final stage operates at 98 % efficiency down to 0.5 micron size.
- All contained in corrosion proof plastic housing which does not require a gasket.

WARNING

USE ONLY BLASTRITE 41AF FILTER CARTRIDGES AS REPLACEMENT.

THIS FILTER DOES NOT REMOVE CARBON MONOXIDE AND OTHER TOXIC GASES.

SPECIFICATIONS

<u>Blastrite Filter</u>	Model 41A	Model 41P2	Model 41P6	Model 41P6 / WM
Air flow rate	100 CFM *	75 CFM *	0 – 75 CFM *	0 – 75 CFM *
Inlet connection	1" NPT (FEM)	1" NPT (FEM)	1" NPT (FEM)	1" NPT (FEM)
Outlet connection	1" NPT (FEM)	2 outlets 1/4" & 3/8" NPT (FEM)	6 outlets 3/8" NPT (FEM)	6 outlets 3/8" NPT (FEM)
Tank diameter	5 1/2"	5 1/2"	5 1/2"	5 1/2"
Height	25 1/4"	25 1/2"	25 1/4"	22"
Weight	19 lbs	22 lbs	24 lbs	28 lbs
Cube (boxed)	2.9	2.9	2.9	2.9

* At maximum recommended pressure of 100 PSIG (689 kPa).

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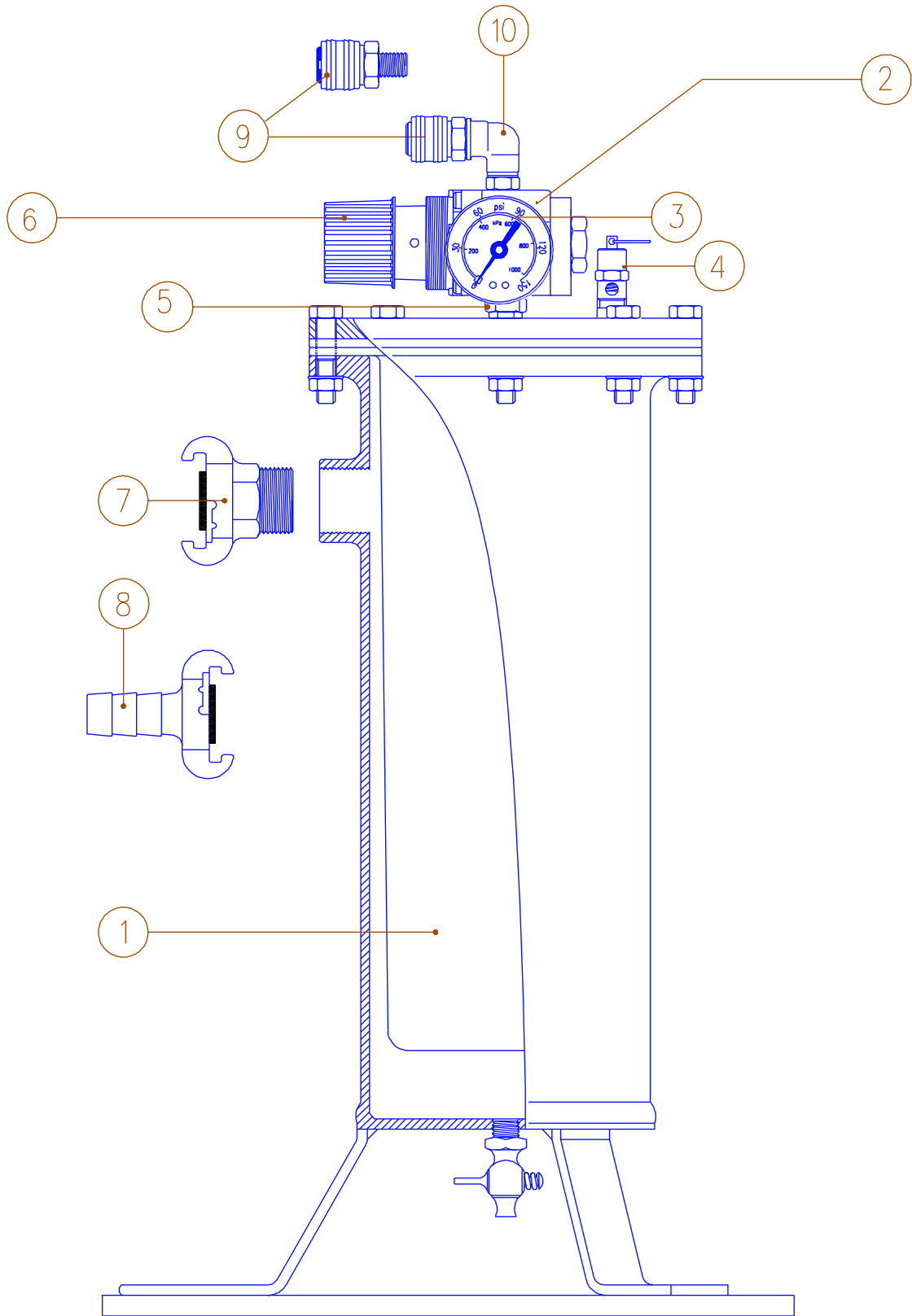
5.0 AIRLINE-SERIES HELMET AIR FILTERS.

ART.NR.	MODEL	DESCRIPTION
42500	41A	Helmet air filter, bare. Single outlet filter without pressure gauge, relief valve or regulator.
42501	41P2	Helmet air filter, bare, for one or two users. Double outlet filter. Includes pressure regulator, gauge, relief valve, excluding all couplings.
42501.1		Helmet air filter, complete, for one user. Includes helmet air filter model 41P2 with one quick connect coupling, pressure regulator, gauge, relief valve, 1" (25 mm) outside thread claw coupling
42501.2		Helmet air filter, complete, for two users. Executed as 42501.1 with 2 quick connect couplings.
42502	41P6	Helmet air filter, bare, max. 6 users. 6-Outlet manifold on standard 41A vessel. Includes pressure regulator, gauge, relief valve, excluding all couplings.
42502.3		Helmet air filter, complete for three users. Includes helmet air filter model 41P6 with 3 quick connect couplings, pressure regulator, gauge, relief valve, 1" (25 mm) outside thread claw coupling and 3/4" (19 mm) hose adapter fitting.
42502.4		Helmet air filter, complete, for four users. Executed as 42502.3 with 4 quick connect couplings.
42502.5		Helmet air filter, complete, for five users. Executed as 42502.3 with 5 quick connect couplings.
42502.6		Helmet air filter, complete, for six users. Executed as 42502.3 with 6 quick connect couplings.
42503	41P6 / WM	Helmet air filter on wall mount bracket, bare, max. six users. Executed as 42502 model 41P6 complete with galvanized steel wall mount bracket (no legs).

5.1 SPARE PARTS.

ART.NR.	MODEL	DESCRIPTION	
01)	42504	41AF	Filter cartridge for all models.
	42505	41P6M	Manifold for 41P6, (not shown) includes: regulator, adjustable between 0-100 psi (0-6.8 bar), relief valve set at 125 psi (8.5 bar) and pressure gauge.
02)	42506	41P2R	Regulator for 41P2, includes: regulator, pressure relief valve and pressure gauge.
03)	42507	41RG	Regulator gauge for 41P2 and 41P6 helmet air filters.
04)	42508	41PRV	Pressure relief valve for 41P2 and 41P6 helmet air filters.
05)	40982		Nipple 3/8" x 3/8" to connect 41P2R to filter outlet.
06)	42510	41KB	Regulator knob for 41 series air pressure regulators.
07)	21704	KAG-10	Quick Coupling, 1" (25 mm) outside thread
08)	21685	SKG-25	Quick Coupling to fit 1" (25 mm) ID hose (optional)
09)	21741	CCC-14/0	Quick connect coupling, male 1/4" (6 mm) thread
10)	73123		Brass Elbow 1/4" FM

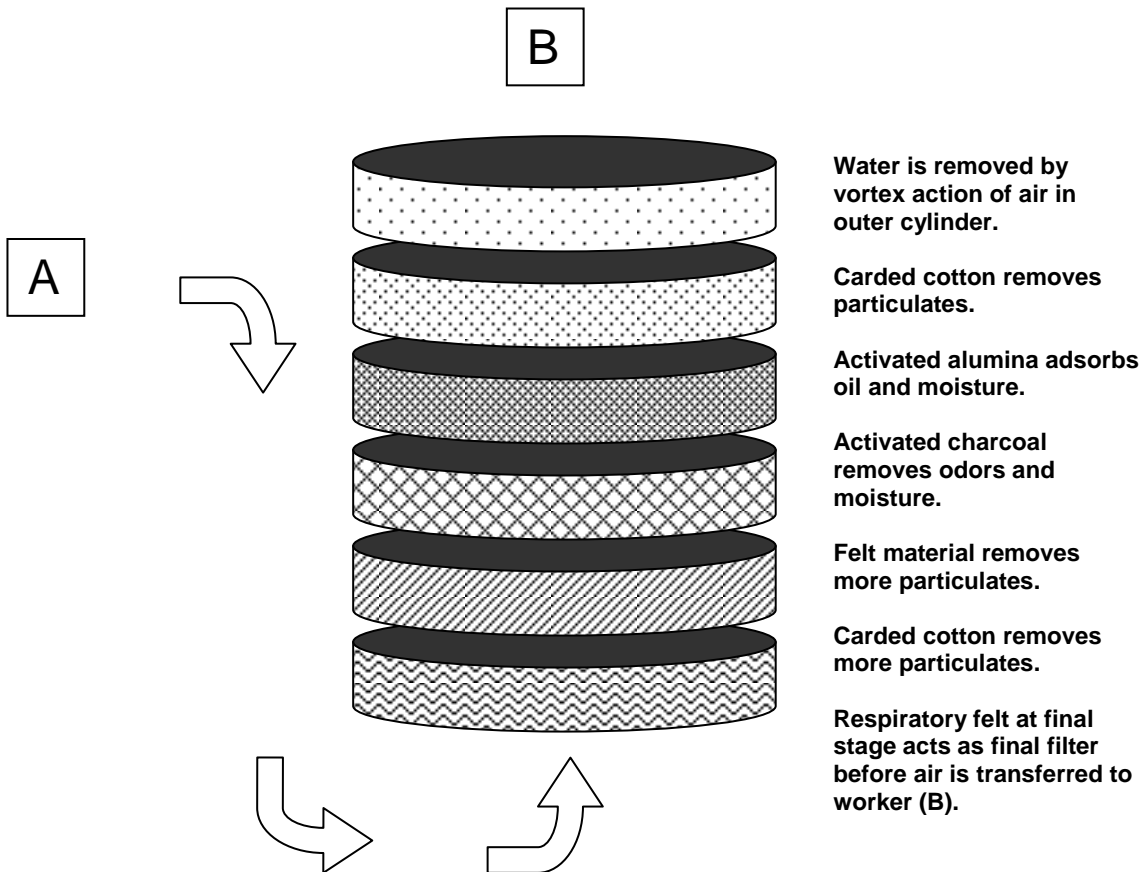
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41AF Filter Cartridge

7-stage operation

Cartridges effectively trap and remove impurities with little pressure loss. The supplied-air enters the compressor at inlet connector (A), travels through 7 layers of filter material and exits into hose connector (B). Filter materials work in sequence to trap and hold water, oil particulates, odors and organic vapors so that cleaner air is delivered to workers or equipment.



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