

Operation Manual: MPV INTEGRAL AIR-FED FACE VIZOR OUTFIT

SB-EE-25-0481-C



Important:

Read and follow all instructions and **SAFETY PRECAUTIONS** before using this equipment.

SAFETY WARNINGS

IMPROPER USE IS DANGEROUS. READ INSTRUCTIONS BEFORE USING

This supplied air respirator is designed to provide a high level of protection in contaminated atmospheres when worn and used correctly. It is not for use in atmospheres immediately dangerous to life or health and if accidentally disconnected or removed the wearer must be able to safely reach clean breathable air supply. The compressed air supply to the respirator must be of breathable quality and conform to relevant Australian Standards.

THE ACTIVATED CARBON FILTER DOES NOT REMOVE CARBON MONOXIDE OR CARBON DIOXIDE.

APPROVAL FOR USE

The MPV supplied Air Vizor Respirator is a class 2 device with a protection factor of 100 approved, under the Pulsafe Safety Product numbers MAK-2021/2023 by the Health and Safety Executive. It is fully approved and designed to meet or exceed regulations for gas vapours, dust mist and particles, in accordance with the requirements of Australian Standards AS/NZ1715/1716:1994

It is kite marked to BS 2092 for eye and face protection and satisfies 62C for impact & liquid splash. MPV Supplied Air Vizor system, correctly fitted and applied by trained personnel in accordance with these instructions, may be used subject to the user determining its suitability, in atmospheric contaminant concentrations up to 100 times the relevant exposure limit for protection from particles, fumes, gases and vapours.

SUITABILITY FOR USE

Australian Standards require that respiratory protective equipment be "suitable for the purpose". It is the duty of the user to determine such suitability and in so doing the following factors should be considered bearing in mind that the circumstances of use determine the level of protection provided.

- 1) The respirator must not be used in atmospheres immediately dangerous to life or health; i.e those atmospheres from which it would not be possible to escape without risk to life or health. Such atmospheres include those deficient in oxygen.
- 2) The respirator must not be used in atmosphere where the concentration of contaminant may exceed 100 times the relevant exposure limit and it should be noted that at exceptionally high levels of physical work the peak inhalation may exceed the constant flow of supplied air.
- 3) The wearer must be able to adjust and fit the respirator correctly. The wearer must be trained in the correct wearing and operation of the respirator and understand the limitations of use.
- 4) The user should examine the working area and the task to be performed to ensure that the respirator, which is intended for light duty service, is suitable and that the appropriate model is selected and that the trailing supply hose will not present a hazard to the wearer or others in the vicinity.
- 5) The user must provide a suitable management system, to ensure that the respirator is maintained in accordance with the manufacturers instructions.

DESCRIPTION

The MPV supplied air vizor has a lightweight fully adjustable headband and browguard. The neck and ears are also protected with a disposable cover. The detachable acetate vizor has flexible foam face skirt incorporating a diffused compressed air feed tube. The vizor can be lifted up from the face when the operator is not working in a hazardous area. Two half turn tension knobs adjust the vizor movement.

The vizor air feed tube is connected to a filter/regulator attached to the waistbelt. The preset compressed air pressure regulator maintains a constant flow of air of the vizor. Operating inlet pressure range is 2.5 bar (36 lbf/in²) to 7.0 bar (100 lbf/in²). Normal flow rate to the vizor 180 litres/min (6.4 ft³/min).

The disposable activated carbon filter removes odour, 3 oil vapour and incorporates a colour change indicator. The filter should be changed when odours are no longer effectively removed or when oil vapour activates the start of a colour change from white to red. Appropriate filters should be fitted at the supply hose inlet to remove bulk oil, water and particulate matter.

A short hose with connections is supplied for the attachment of a spray gun or air tool to the belt inlet supply.

Two disposable vizor covers and a disposable hood for additional skin protection when used with materials containing chemicals that have harmful effects, are also provided.

SPECIFICATIONS

The **MPV-622** Air Fed Vizor Outfit, comprises of:

- MPV-526: Vizor Assembly with ratchet headband, detachable vizor covers neck cover, disposable hood, 2 face cassettes and a quick detachable stem to attach flexible hose to MPV-518 waistbelt.
- MPV-518 Waistbelt Assembly: An adjustable nylon belt with quick fit buckle. The disposable carbon odour removal filter and pre-set regulator are contained in a moulded housing which is moveable on the belt.
- MPV-456 Rubber air hose (1.2 M) with quick detachable fittings to connect spray gun or air tool.
- H-5824 Supply hose 10 m long Australian Standards approved Air Breathing hose and fitting.

The **MPV-623** Air Fed Vizor Outfit, comprises of:

- MPV-526: Vizor Assembly with ratchet headband, detachable vizor covers neck cover, disposable hood, stowage bag, 2 face cassette and a quick detachable stem to attach flexible hose to MPV-518 waistbelt.
- MPV-518 Waistbelt Assembly: An adjustable nylon belt with quick fit buckle. The disposable carbon odour removal filter and pre-set regulator are contained in a moulded housing which is moveable on the belt.
- MPV-456 Rubber air hose (1.2 M) with quick detachable fittings to connect spray gun or air tool.

INSTALLATION / OPERATION

WARNING: NEVER USE THIS RESPIRATOR IN AN AREA WHERE THE ATMOSPHERE IS IMMEDIATELY HAZARDOUS TO LIFE OR HEALTH. IN AN EMERGENCY THE WEARER MUST BE ABLE TO ESCAPE FROM THE WORK AREA WITHOUT THE NEED OF A RESPIRATOR.

THE AIR SUPPLIED MUST BE OF BREATHABLE QUALITY AND CONFORM TO AUSTRALIAN STANDARDS.

ONLY USE 8MM (⁵/₁₆") AIRLINE BORE OR LARGER WHEN SPRAY GUN OR OTHER AIR TOOL IS FITTED AT BELT OUTLET.

CAUTION: It is essential to site the air intake of the compressor so that the air intake is free from contaminants. The compressed air must be regularly checked for breathable quality.

Supply Air, must be pre-filtered and regulated. Maximum pressure 7.0 bar (100 lbf/in²).

As a precaution against a supply failure or pressure loss an audible low pressure warning device should be fitted as described under accessories.

NOTE: It is recommended that a new air supply hose is used and specially identified for breathing air. In the interest of hygiene each user should have their own face vizor and hood.

TABLE A – A guide to the minimum regulated air supply pressure to maintain 2.3 bar (34 lbf/in²) at the waistbelt inlet.

HOSE LENGTH. Ū	HOSE INTERNAL DIAMETER		
	METERS (FEET)	6MM (¹ / ₄ ")	8MM (⁵ / ₁₆ ")
RESPIRATOR ONLY NOMINAL AIR FLOW 170 litre/min (6ft³/min)			
7.5 (25 ft)	2.8 bar (40 lbf/in ²)	2.5 bar (36 lbf/in ²)	2.4 bar (35 lbf/in ²)
15 (50 ft)	3.0 bar (45 lbf/in ²)	2.7 bar (40 lbf/in ²)	2.5 bar (36 lbf/in ²)
30 (100 ft)	3.8 bar (55 lbf/in ²)	3.0 bar (44 lbf/in ²)	2.6 bar (38 lbf/in ²)
RESPIRATOR AND AIR TOOL COMBINED AIR FLOW 170 litre/min (6ft³/min)			
7.5 (25 ft)	*	3.5 bar (50 lbf/in ²)	2.8 bar (40 lbf/in ²)
15 (50 ft)	*	4.0 bar (60 lbf/in ²)	3.1 bar (45 lbf/in ²)
30 (100 ft)	*	5.5 bar (80 lbf/in ²)	3.8 bar (55 lbf/in ²)

WARNING * DO NOT USE 6mm (¹/₄") INTERNAL DIAMETER HOSE WITH A SPRAY GUN OR AIR TOOL

NOTE: To increase the airflow to a spray gun or tool adjust the regulated pressure, e.g. using 7.5m X 8mm bore, a regulated pressure of 5 bar (75 lbf/in²) will increase the combined airflow to approximately 710 l/min (25ft³/min).

DONNING PROCEDURE

WARNING: DO NOT ENTER THE CONTAMINATED AREA UNTIL ITEM 10 IS COMPLETED

- 1) Connect the air supply hose to the outlet of a coalescing air filter. Do not turn on the air supply.
NOTE: Ensure that the supply hose is of sufficient length to allow the operator to enter and leave the contaminated area without disconnecting or removing the vizor.
- 2) Check the waistbelt and respirator assemblies ensuring that all parts are in good condition. Replace if damaged.
- 3) Attach and adjust the waistbelt assembly ensuring that the supply air inlet and spray gun outlet connectors are pointing down.
- 4) Connect the air supply hose to the waistbelt inlet.
- 5) Connect the respirator feed tube to the outlet socket on top of the filter assembly.
- 6) Connect the spray gun air supply hose to QD outlet on the bottom of the filter assembly (if required).
- 7) Place the browguard/vizor assembly on the head and, with the vizor in the open position, adjust the tension knobs. Ensure that the feed tube is not twisted or kinked and will not interfere with normal movements.
- 8) Turn on the air supply and check that the air is flowing freely to the inside of the vizor.
- 9) Adjust the air pressure with the gun (if fitted) triggered to ensure that the minimum supply pressure at the inlet of supply hose is in accordance with Table A.
NOTE: An air flow indicator MPV-461 is available as an accessory item, to enable an easy periodic check of the inlet pressure to the waistbelt filter. The pressure at the waistbelt filter must be a minimum of 2.3 bar (34 lbf/in²).
- 10) Before entering the contaminated area, the vizor must be pulled down, so that the foam skirt is in contact with the face around its entire periphery and the tension knobs are adjusted so that the vizor is locked in this position.
NOTE: Do not lift or remove the vizor inside the contaminated area. Retreat from the area immediately if any malfunction is suspected or if the warning whistle sounds (if fitted).

WARNING: When adjusting the air pressure to the spray gun ensure that the pressure to the waistbelt filter is maintained at a minimum of 2.3 bar (34 lbf/in²).

Table A is a guide to the minimum regulated air pressure required when the outfit is used with or without a spray gun/air tool. As there are many factors in a compressed air system that can cause a pressure drop, dirty filters/compressor output/air leakage etc. It is recommended that a low pressure warning device is used or frequent checks are carried out with the MPV-461 air flow indicator (see accessory items).

MAINTENANCE

INSPECTION:

- 1) Check carbon filter indicator visible through the window in the side of the filter/regulator housing. If the colour has started to change from white to red the filter must be replaced.
- 2) Check security of the hose connections and that hoses and tubes are in good condition. Replace if damaged.
- 3) Visually check the condition and function of all components of the vizor particularly the foam face skirt, head harness.
Replace if damaged

REPLACEMENT OF PARTS

DISPOSABLE CARBON FILTER (11):

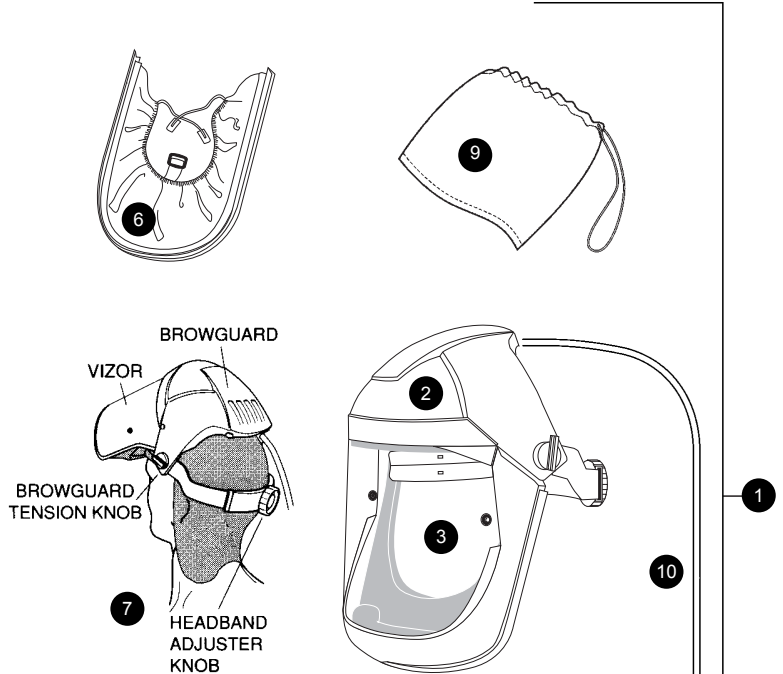
1. Unscrew the three cross head screws holding the regulator housing (10) to filter the housing (15). There are one at each side and one front. The 2 side screws will be retained in the regulator housing to avoid loss.
2. Remove spent filter from the filter housing
3. Remove the new carbon cartridge from the packing taking care not to lose the 2 black "o" rings that are supplied with the cartridge.
4. Apply a very light smear of petroleum jelly to the "o" ring grooves at each end of the carbon cartridge and fit the "o" rings into place. The grease is to ensure the "O" rings do not slip out of position.
5. Replace the regulator housing and retighten the 3 securing screws.
6. Connect air supply and ensure free airflow to mask before use.

ACCESSORIES

- MPV-461:** Air flow indicator provides an easy check of inlet pressure to the waistbelt filter. Indicator can be snap fitted between the filter and the inlet air hose. Minimum inlet pressure at filter should be 2.3 bar (34lbf/in²).
- MPV-405:** Low pressure Warning device provides an audible whistle to warn the operator when the air pressure falls below 2.1 bar (30 lbf/in²). Permanently fit to the waistbelt, remove (16) screw device in place then fit connection (16) to device inlet.
- DVFR-2** Filter regulator coalescer. Suitable for 2 operators, this unit provides air filtered to 99.99% at 0.01 micron.

LIST OF PARTS FOR VIZOR

REF NO.	DESCRIPTION	ORDER NO	QTY
1	VIZOR ASSEMBLY (includes ref nos. 2-11)	MPV-526	1
2	BROWGUARD	-	1
3	CLEAR VIZOR	MPV-478-K5	1
4	KIT OF 10 VIZOR COVERS	MPV-44-K10	1
5	FACE CARTRIDGE - FOAM	MPV-476-K5	1
6	FACE CARTRIDGE - TYVEK	MPV-477-K5	1
7	KIT OF 10 NECK COVERS	MPV-24-K10	1
8	KIT OF 10 HOODS	MPV-2-K10	1
9	STOWAGE BAG	MPV-458	1
10	TUBE AND DIFFUSER ASSEMBLY	MPV-457-K5	1
11	QUICK DETACHABLE STEM	MPV-20	1
12	QUICK DETACHABLE CONNECTOR	MPV-442	1
13	REGULATOR AND HOUSING	MPV-455-K5	1
14	DISPOSABLE FILTER (Kit of 5)	MPV-22-K5	1
15	WAISTBELT AND FILTER HOUSING	MPV-519	1
16	QUICK DETACHABLE STEM	MPV-10	1
17	QUICK DETACHABLE CONNECTOR	MPV-424	1
18	SUPPLY HOSE	H-5824	1
19	GUN HOSE ASSEMBLY	MPV-456	1
20	QUICK DETACHABLE ASSEMBLY	MPV-5	1



CLEANING

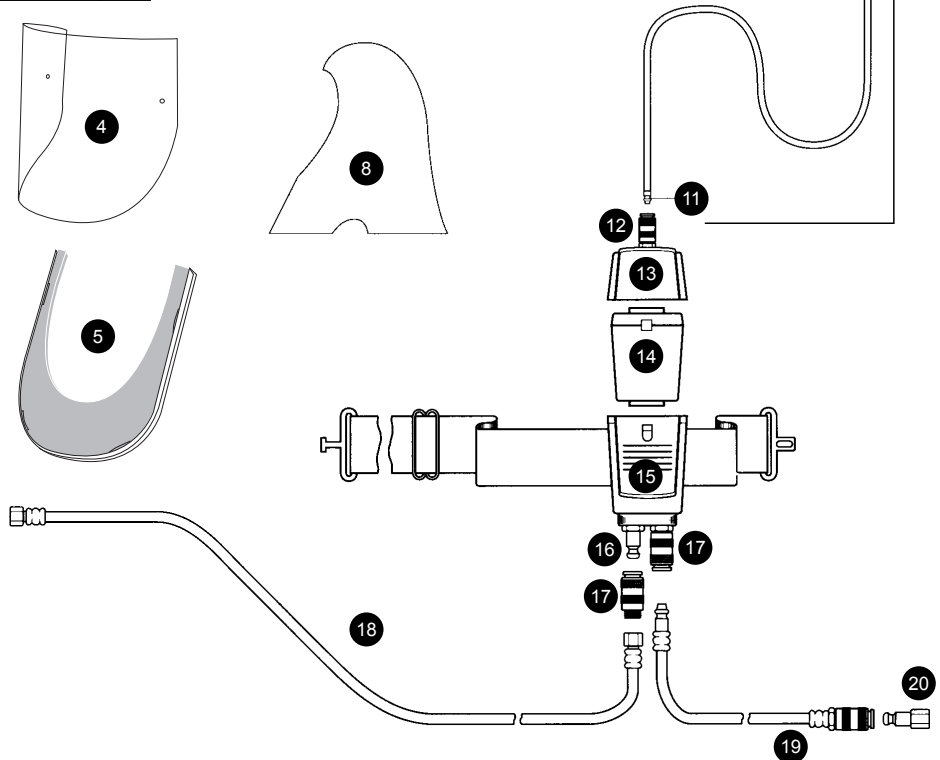
- 1) Regularly clean and/or disinfect the vizzor and headband assemblies. DO NOT USE PAINT SOLVENTS.

Recommended solutions:-

- Cleaning: 3ml of liquid detergent to 1 litre of warm water, mix thoroughly.
- Disinfectant: 2 ml of Dettol to 1 litre of warm water, mix thoroughly.

Method for cleaning and/or disinfecting

Use a lint free cloth dampened with the solution and wipe outside of the vizzor and headband assemblies. Repeat with a clean lint free cloth dampened with clean luke warm water. Allow to dry naturally, maximum ambient temperature 40°C.



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