ALPHA SENTINEL

Filter Guide

This guide provides explanation to the type and fitting of the Alpha Sentinel Filters as well as guidance on the appropriate filter selection for hazardous substances. It is essential that the correct filter is selected to provide full protection for the wearer, therefore this guide should be used in conjunction of the COSHH risk assessment (Control of Substances Hazardous to Health Regulations 2002).

TYPES OF FILTERS

Filters are classified in relation to the type of hazardous substance(s) they can be used against – particles, gas/vapour, multi-gas or combined (particle and gas/vapour).

Particulate

Protects from non-toxic dusts and oil/water-based particulates.

Gas

Protects against gases and vapours.

Combination

Protects against particles, gases and vapours.

HOW FILTERS WORK

Particulate

Filters are marked with a 'P' (Particulate) and a number which determines the level of protection:

P1 = Low protection **P2 = Medium protection** **P3 = High protection**

The Alpha Sentinel range consists of two P3 filters, P3S (Standard) and P3H (High capacity). Both filters are encapsulated, low profile filters containing pleated filter media. The pleats provides more surface area which lowers the breathing resistance and increases filtration capacity. High capacity offers more surface area than Standard, which means it lasts longer. Both P3 filters are tested for reusability ('R'), allowing use for more than one shift (eight hours).

Gas filters

Gas filters remove gases or vapours and are classed according to their capacity of how much of the contaminant they can hold and the type of substance they can be used against:

Class 1 = Low capacity **Class 2 = Medium capacity** **Class 3 = High capacity combination**

The filters are also marked up with a letter and a colour to reference the type of substance they are suitable for (see 'Filter types' table).
The Alpha Sentinel range consists of three gas filters, A1, A2 and ABEK1. The gas filters are snowstorm-filled, ensuring a higher concentration of activated carbon, which means more efficient filtration.

Combination filters

Combination filters are required for protection against particles, gases and vapours. The Alpha Solway Sentinel range include a particulate P3P filter, which is easily fitted over the gas filter, then clicked into position with the filter case provided with the mask.

DESIGNED & MADE IN THE UK

FILTER TYPES

FILTER TYPE	COLOUR DESIGNATION	MAIN AREA OF APPLICATION
P3R	White	Particles 'R' marking means that the particle filters are suitable for reuse against aerosols (several work shifts)
A	Brown	Organic gases and vapours with boiling point >65°C
B	Grey	Inorganic gases and vapours
E	Yellow	Sulphur Dioxide and other acidic gases and vapours
K	Green	Ammonia and organic ammonia derivatives

HALF MASK FILTER GUIDE

	DUSTS			ODOURS		FUMES	WOODS			FIBRES		PAINTING							MAINTENANCE					
	Silica	Concrete & Stone Cutting	Plaster	Earth Moving Contaminated	Resins	Welding (Ferrous & Lead)	Woods – Hard	Woods – Soft	MDF (Machine Tooling)	Asbestos Removal	Fibres & Fibre Glass	Water Based	Brush – Solvent-based	Spray – Solvent-based	Manual Prep	Powered Prep	Chemical Paint Stripping	Heat Paint Stripping	White Spirit	Chlorine	Glyphosate (Weed Killer)	Brick Acid	Ammonia	Sulphur Dioxide
P3	▲	▲	▲			▲	▲	▲			▲	▲			▲	▲					▲			
A					▲								▲				▲	▲	▲					
B																				▲				
E																						▲		▲
K																							▲	
ABEK P3				▲	▲	▲	▲	▲			▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		▲	▲	▲

FULL MASK FILTER GUIDE

	DUSTS			ODOURS		FUMES	WOODS			FIBRES		PAINTING							MAINTENANCE					
	Silica	Concrete & Stone Cutting	Plaster	Earth Moving Contaminated	Resins	Welding (Ferrous & Lead)	Woods – Hard	Woods – Soft	MDF (Machine Tooling)	Asbestos Removal	Fibres & Fibre Glass	Water Based	Brush – Solvent-based	Spray – Solvent-based	Manual Prep	Powered Prep	Chemical Paint Stripping	Heat Paint Stripping	White Spirit	Chlorine	Glyphosate (Weed Killer)	Brick Acid	Ammonia	Sulphur Dioxide
P3	▲	▲	▲			▲	▲	▲		▲	▲	▲			▲	▲					▲			
A					▲								▲				▲	▲	▲					
B																				▲				
E																						▲		▲
K																							▲	
ABEK P3	▲	▲	▲	▲	▲	▲	▲	▲	▲		▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

Disclaimer: The filter selector tables are for guidance only. A full risk assessment under COSHH and HSE guidelines should always be undertaken to understand the WEL (Workplace Exposure Limits) and determine the correct protection against hazardous substances. Further information on hazardous substances and WELs can be found in the HSE EH40 publication.

FILTER SELECTION

In order to ensure full protection from hazardous substances for the wearer, there are considerations that need to be understood to ensure the RPE and filter selection is adequate and suitable.

Adequate: selecting the correct protection level for the hazard that reduces the wearer's exposure to the below required level as stated by HSE.

Suitable: ensuring this selection does not impose further risks by assessing the working environment, task and wearer's freedom of movement. In order to determine if the RPE selection is appropriate, a HSE risk assessment under COSHH guidance is required, which will assess a wide range of factors, some of which are presented below:

- Is the environment oxygen deficient?
- Identifying the hazardous substance and the exposure
- What the airborne hazardous substances are (gas, particulate, vapour or a combination)?
- The type of work, including the space, temperature, humidity, movement required and additional PPE.

OXYGEN-DEFICIENT ATMOSPHERES

The respirator should not be used in an oxygen deficient or oxygen enriched environment. The HSE L101 provides further information 'Safe Work In Confined Spaces.'

HAZARDS AND EXPOSURE

Hazardous substances in the workplace can be identified from the employer's COSHH risk assessment. The hazardous substance is either identified through the products SDS datasheet or from the work activity that generates the substance and contaminates the air. Most hazardous substances are prescribed a workplace exposure limit (WEL) which are subject to the requirements of COSHH (Control of Substances Hazardous to Health). WELs are in place to control and reduce the exposure of hazardous substances to the wearer, to a level that does not have any adverse effect on health.

WORKPLACE FACTORS

In addition to the hazardous substance, other considerations need to be made regarding the wearer's working environment and the worker's health. Such considerations include the length of time the wearer requires RPE protection, humidity and space of the environment, compatibility with other PPE, and freedom of movement. This is to ensure the wearer is not at any risk of any danger as a result of incorrectly selected RPE.

Certification

Authorised Representative [EU]: Globus EMEA Ltd., 51 Dawson Street, Dublin, D02 AN25, Ireland. Product conforms to the requirement of: UK Regulation 2016/425 on PPE, brought into UK Law and amended & Regulation (EU) 2016/425 of the European Parliament and of the Council as Personal Protective Equipment (PPE).

Type-Examination, (Module B), Certificates issued by:
UK - CCQS UK Ltd., Level 2, 5 Harbour Exchange Square, London, E14 9GE, UK. [A.B. No. 1105].
EU - CCQS Certification Services Ltd., Block 1 Blanchardstown Corporate Park, Ballycoolin Road, Blanchardstown, Dublin D155 AKK1, Ireland. [N.B. No. 2834].

PPE is subject to the conformity assessment procedure, conformity to type based on Quality Assurance of the production process, (Module D), under the surveillance of the Approved/ Notified Body(-ies): UK - SGS UK Ltd., Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN, UK. [A.B. No. 0120]. EU - SGS Fimko Oy, Takomtie 8, FI-00380, Helsinki, Finland. [N.B. No. 0598].

Materials List

COMPONENT	MATERIAL
Particulate Filter (P3S, P3H)	Fibreglass
Particulate Filter Case(P3S, P3H)	ABS
P3 P Filter	Polypropylene
Gas Filter	Activated Carbon
Gas Filter Case	ABS

This document has been produced with reference to HSE EH40 (Workplace Exposure Limits) and HSG53 (Respiratory protective equipment at work) guides.

FITTING INSTRUCTIONS

Before use

Only use the filter if the packaging is undamaged before first use and check the filter is clean and undamaged. Replace the filter if it is damaged and check the marking on the filter to ensure it is within a usable period. The filter type and class are marked on the filter. Ensure the correct filter is used, once the environment and contamination is known.

Use

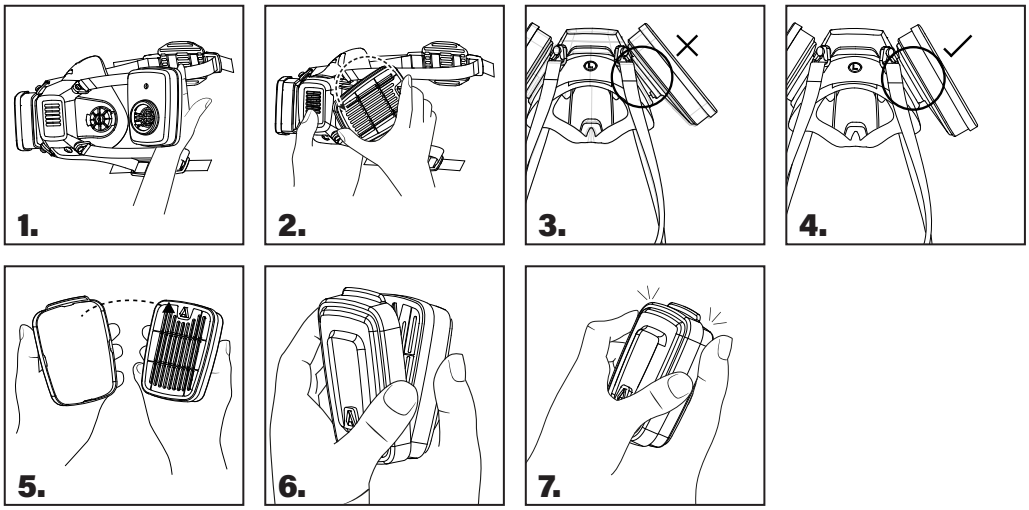
For use only with approved Alpha Solway respiratory face-pieces (Alpha Sentinel FFM or Alpha Sentinely HM); refer also to face-piece user instructions (Alpha Sentinel FFM or Alpha Sentinel HM). Two filters must be used at the same time; these must be the same type and class.

Attaching filters to a mask

1. Check the integrity of the mask connector (seal on the full face mask or mask surface on the half mask); if worn away or damaged, replace the seal/mask as appropriate.
2. Push the filter onto the mask connector, with the tabs on the filter connector aligning with the respective tabs on the filter body [see Diagram 1].
3. Rotate the filter clockwise until the filter clicks into place [see Diagram 2].
4. Make sure the filter is correctly seated [see Diagrams 3 and 4].

Removing the filters from the mask

1. Rotate the filter anticlockwise until loose.
2. Lift the filter away from the mask.



COMBINATION FILTERS

1. To assemble combination gas, vapour and particulate filters, insert the Particulate P3-P filter into the filter retaining cover as shown; marking should be visible once fitted to the filter [see Diagram 5].
2. Push the gas filter body into the retaining cover, ensuring a correct fit. Ensure all retaining cover clips are firmly in place on the gas filter [see Diagram 6].
3. Assemble the filter body onto the masks, as described in these instructions, as normal [see Diagram 7].

DURATION OF USE

The duration of use of a filter depends on its load, e.g. type and concentration of contaminant, the wearer's breathing rate and other factors. A greater load will reduce the duration of use.

GAS FILTERS

There is a limit to the amount of gas and vapours that filters can protect against before gas or vapour passes through, and breakthrough occurs. When breakthrough does occur, the filters no longer offer any protection to the wearer.

PARTICULATE FILTERS

Particulate and combined filters must be replaced at the latest when the breathing resistance becomes too high.