

# elipse

Protective  
respirators



**GVS**

FILTER TECHNOLOGY



## FILTER TECHNOLOGY

The GVS Group is one of the world's leading manufacturers of microfiltration devices. GVS Filter Technology produces a wide range of filters and components, including GVS innovative in-house filtration media development, covering many applications in the Healthcare, Life Sciences, Automotive, Appliance, Safety, Chemical & Carbon, Cosmetic and Building applications. GVS Safety Filtration division provides a custom design and manufacture capability in addition to an already extensive proprietary range.



Innovative design,  
compact profile

Replaceable filters

Hypo-allergenic materials,  
for a unique kind of comfort

HEPA efficiency protection low  
breathing resistance



## SOFT - LIGHTWEIGHT - RESISTANT

The Elipse range of face masks, designed and developed in the UK by GVS, represent a major advance in mask design. As one of the lightest on the market in its class, its ergonomic shape provides maximum visibility to wearers, can safely be worn with goggles, helmets and hearing protection, and the ability to replace filters extends the masks overall working life.

These compact profile masks are made of hypo-allergenic materials and the replaceable filters offer a minimum efficiency of 99.95% or higher at 0.3 microns particle size.

### ●●● ANATOMICAL DESIGN

Range of extremely lightweight masks that fit perfectly to the face, without hindering the user. The compact profile of the body and filters allows all ELIPSE® range masks to perfectly seal to the face and ensure the greatest possible field of vision during use, without interfering with other eye or ear protections which users choose to wear. Elipse come in 2 sizes.

### ●●● COMFORTABLE AND HYPO-ALLERGENIC

Unique comfort, thanks to the flexible and soft characteristics of the TPE (Thermo Plastic Elastomer), used in the ELIPSE® masks, making them very comfortable even for extended use. The materials that make up the mask are odourless and hypo-allergenic, "FDA" compatible, latex and silicone free.

### ●●● REPLACEABLE FILTERS

Unique, small, thin, flexible, strong, lightweight filters, which are patented, innovative and extremely effective. The development of the elipse pioneering filters are specifically designed to be the smallest, lightest filters with the lowest breathing resistance to that of a similar size particulate filters.

### ●●● HIGH PROTECTION AND RESISTANCE

Maximum protection from vapours, dust, metal fumes, oil and water mists, micro-organisms with a minimum efficiency of 99.95%.

The use of HESPA® filter media, a special synthetic material developed by GVS-NFC, ensures high efficiency and low breathing resistance, therefore less resistance to air flow, ensuring less fatigue for the user.

The materials used in the construction of the mask are classified as F1 in accordance with standard DIN 53438, which determines the class of fire resistance and flame retardancy.



# GUIDE TO RESPIRATORY PROTECTION

Indications for the choice of respiratory protection devices are based on current knowledge. Before each use of the ELIPSE respirator devices, the buyer and user must ensure that the masks and filters used are those specified for the type of pollutant and its concentrations.

The ultimate responsibility concerning selection and use of products lies solely with the buyer and user.

## ● ● ● TYPES OF FILTERS

Dust filters are able to retain airborne particulates and are offered in various constructions, which enhance the filters characteristics with use of various types of filter material with different thickness, porosity and surfaces, to protect against particulates, gases and nuisance odours. Activated carbon cartridge filters contain specific activated carbon, which retain certain gases and vapours by adsorption, while combined filters can remove both gases, vapours and particulates.

## ● ● ● TECHNICAL CHARACTERISTICS OF FILTERS

There are various types of particulate dust filters which have different filtration efficiency. Depending on which you choose, you can have the most suitable means of protection against environmental pollution conditions. The airborne particles are retained by the filter by means of mechanical and/or electrostatic action.

In the case of gas filters, substances are retained by the chemical-physical action of activated carbons in the filter, able to adsorb and neutralise contaminants.

It is assumed that the efficiency of gas and vapour interception on adsorbent material is 100%, at least until the completion of the capacity of the filter material. For gas filters, we refer to; time to completion or, rather, the period beyond which the filter is saturated and the pollutant begins to pass through the filter. This 'breakthrough' time depends on the quantity of adsorbent material used, on its filtration capacity against the pollutant and on environmental concentrations.



## Protection against particulates (dust, mists and toxic fumes)



**DUST:** dust forms when a solid material is broken down into tiny fragments. The finer the dust, the higher the risk.



**MISTS:** mists are tiny droplets that are formed from liquid materials by atomisation and condensation processes, such as spray painting.



**FUMES:** fumes are formed when a solid material is vaporised by the high heat. The vapour cools quickly and condenses into very fine particles.

Respiratory filters have 3 classes of protection with increasing efficiency, normally expressed with a Nominal Protection Factor (NPF) which is the ratio between concentration of the contaminant in the environment and inside the mask. The resulting factor indicates how many times the device can reduce the external concentration.



classes of efficiency of dust respirators	Minimum total filtration efficiency	NPF	Max external concentration
FFP1/P1 (Facial Anti-Dust Filter class 1/filter class 1)	80%	4	Up to 4 x TLV
FFP2/P2 (Facial Anti-Dust Filter class 2/filter class 2)	94%	10	Up to 10 x TLV
FFP3/P3 (Facial Anti-Dust Filter class 3/filter class 3)	99,5%	40	Up to 40 x TLV

Anti-dust filters are distinguished by the colour WHITE.

## Protection against gases and vapours



**GASES AND VAPOURS:** gases and vapours are molecules, so small that they penetrate particulate filters. You need to use a chemical filter against these.

Anti-gas respirators have activated carbon filters which, for physical or chemical adsorption, withhold the harmful substances that are distinguished by identifying letters and colours:

Type	Protection	Class
<b>A</b>	organic gases and vapours with a boiling point above 65°C	1, 2, 3
<b>B</b>	inorganic gases and vapours (excluding carbon monoxide)	1, 2, 3
<b>E</b>	acids / acid gases	1, 2, 3
<b>K</b>	ammonia and organic ammonia derivatives	1, 2, 3
<b>AX</b>	organic gases and vapours - boiling point $\leftarrow$ 65°C - groups of low-boiling substances 1 and 2	

There are three protection classes for each type of anti-gas filter, depending on the amount of contaminants that the filter is able to adsorb. The choice is therefore determined by the predicted concentration of the pollutant:

Classe	Capacity	Limit of use
1	low	1.000 ppm
2	medium	5.000 ppm
3	high	10.000 ppm

**Combined** filters (gas and dust), besides the colour of the specific gas/es, include a white band and their marking show all the distinctive letters with their relative efficiency classes.

# GUIDE TO CHOOSING



**P3**  
code  
SPR299 (S/M)  
SPR501 (M/L)      code  
SPR316

Protection against particulates  
(dust, mists and toxic fumes)

## P3 NUISANCE ODOUR



code  
SPR337 (S/M)  
SPR502 (M/L)      code  
SPR336

Protection against particulates  
(dust, mists and toxic fumes)  
Nuisance Odour



**A1P3**  
code  
SPR359 (S/M)  
SPR504 (M/L)  
disposable      code  
SPR341

SPR338 (S/M)  
SPR503 (M/L)  
with replaceable  
filters

Combined protection against  
organic gases, vapours and  
particulates



code  
SPR425 (S/M)  
SPR505 (M/L)  
with replaceable  
filters

code  
SPR426

Combined protection against  
inorganic gases, vapours and  
particulates

Construction, grinding, cutting, drilling

## FIRE-FIGHTING



## CONSTRUCTION

## WOOD PROCESSING



Wood processing

## PAINTING



Painting  
Coatings  
Bonding

## MAINTENANCE



Maintenance, Decoration  
Removal / Separation waste  
Agriculture

## SEPARATION WASTE



## AGRICULTURE



Welding, cutting, sandpapering

## WELDING



## GRINDING PROCESS

Food Industry

Pharmaceutical industry  
Allergies

Contact

# RESPIRATORY AND FILTERS

HARMFUL SUBSTANCE / RISK	SUGGESTED FILTER			
	P3	P3 Nuisance Odour	A1P3	B1P3
Sealant				
Spray foam insulation				
Rust, iron, stucco/filler material				
Masonry/ concrete				
Cement, wood, steel				
Paints/varnishes/anti-rust paints				
Stainless steel				
Anti-fouling paints				
Work with asbestos				
Work with fibre glass and mineral fibres				
Sand blasting				
Boiler maintenance				
Sanding - Sandpapering soft / hard wood				
Woodcutting				
Particles / Fine wood powder				
Wood colours (dye containing copper, chromium or arsenic)				
Removing thin layers of paint,				
Water-borne paint (with solvent residue)				
Water-based paint				
Wood protection				
Colour dispersion via spray painting				
Water-based paint				
Adhesives with solvents				
Pest control, cleaning				
Lubricant spray				
Glue spray, foam, paint, adhesives				
Bacteria, spores, odours				
Insecticides, Pesticides				
Spreading of insecticides by spraying				
Manual arc welding with electrodes or laser welding, Hard soldering				
Structural steel, zinc				
Chrome paint removal, Thin paint particles				
Poultry / meat and dairy products, Pet foods, Fermentation				
Active substances treatment				
Pollen				
Flours				
Mould/spores				
Bacteria in case of tuberculosis				
Diesel soot/smoke				



**elipse**

Designed to fit  
the contours  
of your face



# RESPIRATORS PROTECTION CLASS - P3

with replaceable filters for dust, fumes and mists



## ●●● DESCRIPTION

Compact, lightweight and flexible design which adapts perfectly to the face and offers a full range of vision without interfering with other eye or ear protections which users choose to wear.

Large central non-return valve which allows for a reduction of the user's breathing resistance and moisture build-up inside the mask to a minimum.

Lightweight, non-slip strap that is easily adjusted in 4 positions for improved comfort and to allow safe use even in high humidity or wet conditions. Elipse come in 2 sizes.

## ●●● PROTECTION PROPERTIES

Effective against dust and fumes containing substances such as micro-organisms, marble, gypsum, titanium oxide, soapstone, rock wool, wood, detergents, textile fibres, spices, salt, feed, etc. ...

Protects against dust that can cause lung disease. In particular, protects against coal, silica, cotton, iron ore, graphite, kaolin, zinc, aluminium dusts. Protects against harmful dusts such as asbestos, bauxite, coal, silica, iron, and against toxic dusts such as manganese, lead and chromium.

Pleated, interchangeable P3 filters have a minimum efficiency of 99.95%, at 0.3 microns and a breathing resistance of 4.2 mbar at a flow of 47.5 L/min for each filter. Maximum breathing resistance after loading is 7mbar.

## ●●● FIELDS OF APPLICATION:

Mining, steel mills, foundries, mechanical, pharmaceutical, cement, glass, ceramics, chemicals, textile industries. Shipyards, battery manufacturing, toxic waste elimination, with asbestos fibres, reclamation, heavy metals (lead, nickel, chromium), active manipulation.

## ●●● CERTIFICATIONS

Mask conforms to EN140: 1998

Filters conform to BS EN143:2000/A1 P3 ( R D )

Masks and filters are CE certified.

## ●●● TYPE OF FILTER/ CLASS

HESPA (High Efficiency Synthetic Particulate Airfilter) + P3( R D ) \* →99.95% (minimum efficiency)

## ●●● MATERIALS

The materials used for masks and filters are hypo-allergenic, odourless, medical grade and without latex or silicone.

## ●●● TEMPERATURE RANGE:

-5°C +55°C

## ●●● STORAGE LIFE: ELIPSE P3 (R)

5 years, for mask and filters.

## Elipse Mask P3

**P3** - Half-mask for protection from dust, metal fumes, oil and water mists and micro-organisms, i.e. bacteria and viruses.

### Mask Materials

Body: TPE (Thermo Plastic Elastomer)

### Filter Materials

HESPA®

### Dimensions

Filter: 12mm x 94mm x 50mm

Mask: 93mm x 128mm x 110mm

### Weight

Mask + Filter: 132 g

Mask body: 97.6 g



<b>Code</b>	SPR299 (S/M) SPR501 (M/L)
<b>Type</b>	P3
<b>Packaging</b>	10 pcs. per box



<b>Code</b>	SPR316
<b>Type</b>	P3
<b>Packaging</b>	10 sets of 2 pcs. per box

## Elipse Filters P3

**P3 Filter (R) HESPA** - smaller, thinner, more flexible, innovative encapsulation™ design.

### Materials

HESPA® P3 ( R ) , Encapsulation( TM) TPE

### Filter dimensions

12mm x 94mm x 50mm

### Filter weight

17.2 g

## Elipse Mask P3 Nuisance Odour

**P3 Nuisance Odour** - Half-mask for Anti-odour protection against nuisance odour, dust, all types of fumes, oil and water mists and micro-organisms i.e. bacteria and viruses.

### Mask Materials

Body: TPE (Thermo Plastic Elastomer)

### Filter Materials

HESPA® P3 (R)

### Dimensions

Filter: 12mm x 94mm x 50mm

Mask: 93mm x 128mm x 110mm

### Weight

Mask + Filter: 132 g

Mask body: 97.6 g



<b>Code</b>	SPR337 (S/M) SPR502 (M/L)
<b>Type</b>	P3 Nuisance Odour
<b>Packaging</b>	10 pcs. per box



<b>Code</b>	SPR336
<b>Type</b>	P3 Nuisance Odour
<b>Packaging</b>	10 sets of 2 pcs. per box

## Elipse Filters P3 Nuisance Odour

**Filters P3 Nuisance Odour (R) HESPA** - with Carbons to eliminate low level nuisance odour.

### Materials

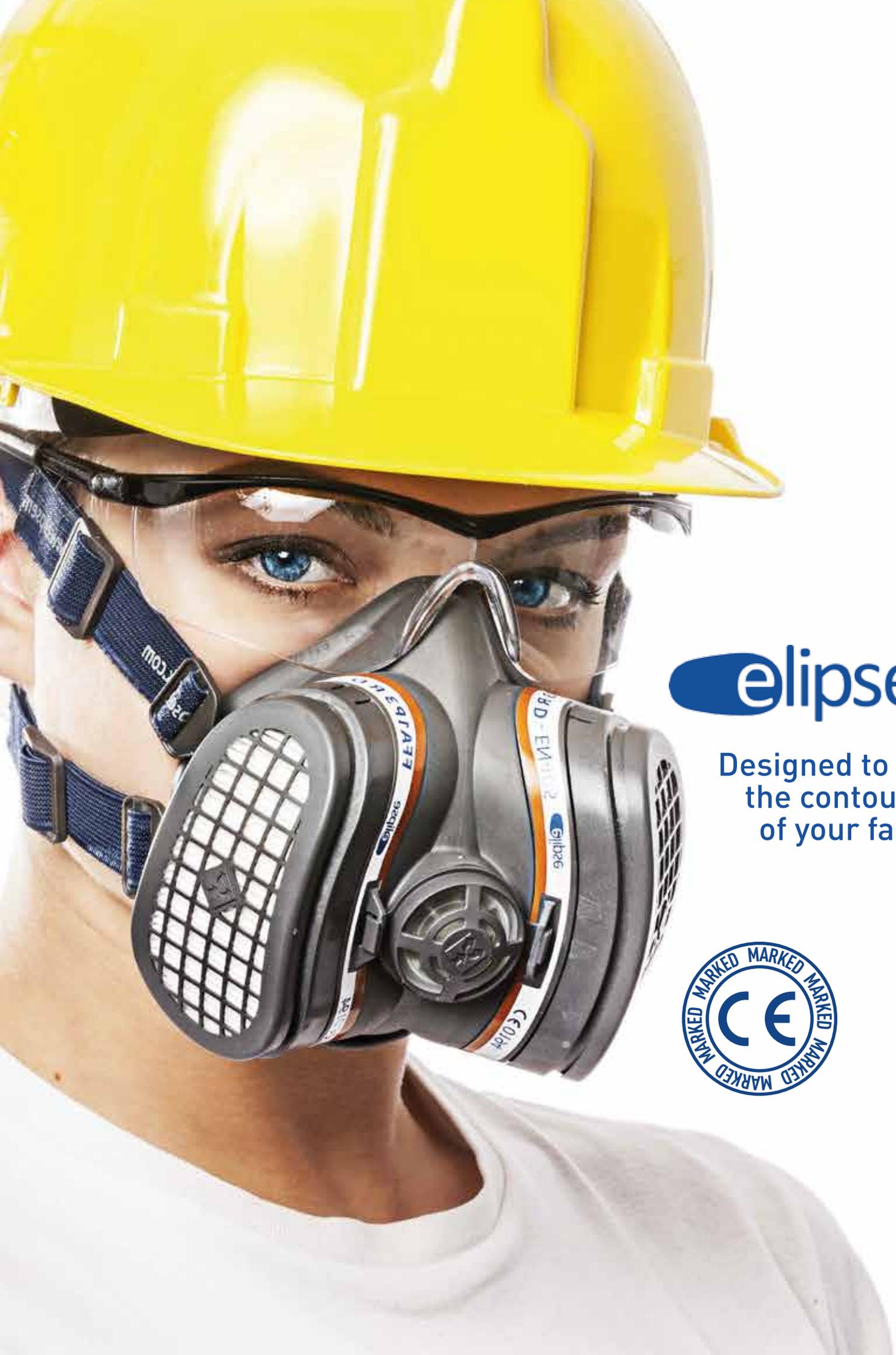
HESPA® P3 ( R ) Nuisance Odour Non woven Carbon pad

### Filter dimensions

12mm x 94mm x 50mm

### Filter weight

17.2 g



**elipse**

Designed to fit  
the contours  
of your face



# ELIPSE COMBINED RESPIRATORS

with filters for most organic and inorganic vapour hazards



## ●●● DESCRIPTION

Compact, lightweight and flexible design which adapts perfectly to the face and offers a full range of visibility without interfering with other eye or ear protections which users choose to wear.

Large central non-return valve which allows for a reduction of the user's breathing resistance and keeps moisture build-up inside the mask to a minimum.

Lightweight, non-slip strap that is easily adjusted in 4 positions for improved comfort and to allow safe use even in high humidity or wet conditions. Elipse come in 2 sizes.

## ●●● ADSORPTION

The activated carbon has a selected pore structure for maximum adsorption efficiency and a selected pore size for an optimised breathing resistance.

The respirator is supplied with two specific activated carbon filtering elements for the protection against a range of gases, vapours, dust and mists. Once these are finished, they can be replaced with replacement filters.

These offer versatile protection against substances in concentrations up to 1,000 ppm...xTLV and from dust and mists up to 50 TLV.

## ●●● TYPE OF FILTER/ CLASS

- A1P3 (R) & FFA1P3: For protection against certain organic gases and vapours with a boiling point  $\rightarrow$  65 degC as specified.

- B1P3: For protection against inorganic gases and vapours.

- Containing a P3 Element: Protection against dust, metal fumes, oil and water mists and micro-organisms. Using HESPA (High Efficiency Synthetic Particulate Airfilter) + A1P3\* (R)  $\rightarrow$  99.95% (minimum efficiency) High efficiency activated carbon filter

## ●●● MATERIALS

The materials used for masks and filters are hypo-allergenic, odourless, FDA compatible and Non latex or silicone.

## ●●● TEMPERATURE RANGE

-5°C +55°C

## ●●● STORAGE LIFE

3 years, for mask and filters.

## Elipse EN405 Disposable Safety Respirator A1P3

**FFA1P3** - Half-mask for Protection against most organic gases and vapours, dust, metal fumes, mists and micro-organisms, i.e. bacteria and viruses.

### Filter Type / Grade

EN405 FFA1P3 R D

→99.95% Efficiency HESPA+

High Activated Carbon Element

Non maintenance

### Respirator Construction

FDA Compatible Facepiece, Grey TPE (Thermoplastic Elastomer), Latex & silicone free, odour-free, non-allergenic material.

Unique profiled carbon filters, compact design, incorporating close-pleated low profile HESPA® P3 ( R D ) media.

### Dimensions

Mask: 97 x 128 x 140mm

### Weight

257.7 g

### Certifications

Conforms to EN405: 2001 + A1:2009



<b>Code</b>	SPR359 (S/M) SPR504 (M/L)
<b>Type</b>	FFA1P3
<b>Packaging</b>	6 pcs. per box

## Elipse Mask with replaceable Combined filters A1P3

**A1P3** - Half-mask for Protection against most organic gases and vapours, dust, metal fumes, mists and micro-organisms, i.e. bacteria and viruses.

### Mask materials

Body: TPE (Thermo Plastic Elastomer)

### Filter materials

A1 immobilised Carbon filter incorporating HESPA® P3 ( R ) low profile particulate filter

### Dimensions

Mask: 97 x 128 x 140mm

Filters: 48.5 x 94.5 x 60mm

### Weight

Mask + A1 P3 Filters: 257.7 g

Mask body: 97.6 g

A1P3 Filters: 83.4 g each

### Certifications

Conforms to EN14387:2004 + A1:2008



<b>Code</b>	SPR338 (S/M) SPR503 (M/L)
<b>Type</b>	A1P3
<b>Packaging</b>	6 pcs. per box



<b>Code</b>	SPR341
<b>Type</b>	A1P3
<b>Packaging</b>	6 sets of 2 pcs. per box

## Elipse Filters SPR341

**A1P3 Filters** - Combined replacement filters to protect against most organic vapours, dust, metal fumes, mists and micro-organisms, i.e. bacteria and viruses.

### Filter Construction

Activated Carbon filter incorporating P3(R) HESPA® low profile particulate filter

### Dimensions

48.5 x 94.5 x 60mm

### Weight

83.4 g each

### Certifications

Conform to EN14387:2004 + A1:2008

## Ellipse Mask with replaceable filters B1P3

**B1P3** - Half mask for protection against most inorganic gases and vapours, dust, metal fumes, mists and micro organisms, i.e bacteria and viruses.

### Mask Construction

Body: TPE (Thermo Plastic Elastomer)

### Filter materials

B1 immobilised carbon filter incorporating HESPA® P3 ( R D )  
low profile particulate filter/

### Dimensions

Mask: 97 x 128 x 140mm

Filters: 48.5 x 94.5 x 60mm

### Weight

Mask + B1P3 Filters: 269.5g

Mask Body: 97.6g

B1P3 Filters: 89.3g each

### Certifications

Conforms to EN14387:2004 + A1:2008



<b>Code</b>	SPR425 (S/M) SPR505 (M/L)
<b>Type</b>	B1P3
<b>Packaging</b>	6 pcs. per box



<b>Code</b>	SPR426
<b>Type</b>	B1P3
<b>Packaging</b>	6 sets of 2 filters

## Ellipse Filters B1P3

**B1P3 Filters** - Combined replacement filters to protect against most inorganic gasses and vapours, dust, metal fumes, mists and micro organisms, i.e. bacteria and viruses.

### Filter Construction

Activated Carbon filter incorporating P3 ( R D ) HESPA® low profile particulate filter

### Dimensions

48.5 x 94.5 x 60mm

### Weight

89.3g each

### Certifications

Conform to EN14387:2004 + A1:2008





**COMING SOON**

## ELIPSE RANGE OF COMBINED GAS FILTERS

The Elipse Vapour Gas filter range combines a particulate and carbon filter designed to protect against vapours, solids and oil mists in accordance with EN regulations.

Typical applications would include timber spraying (preservatives and coatings), solvent and paint spraying, crop spraying, and foundaries.



**COMING SOON**

## ELIPSE Vis-Air

The Elipse Vis-Air provides eye and respiratory protection against gas, vapour and particulate, metal fumes, mists, and vapours.

Many potential eye injuries can be avoided by wearing the Vis-Air integrated safety goggles and respirator. Use the Elipse Vis-Air whenever there is the possibility of objects striking the eye, such as particles, glass, or metal shards.



# GVS Worldwide

## EUROPE

### **Italy - Headquarters Office**

GVS S.p.A  
Via Roma 50  
40069 Zola Predosa (BO) - Italy  
tel. +39 051 6176311  
fax +39 051 6176200  
gvs@gvs.com

### **Germany - Central Europe**

Germany office  
Siebengebirgsstrasse 5  
D-53619 Rheinbreitbach - Germany  
tel. +49 (0) 2224-3786  
fax +49 (0) 2224-3786  
gvsgermany@gvs.com

### **United Kingdom**

NFC House  
Vickers Industrial Estate  
Mellishaw Lane, Morecambe  
Lancashire LA3 3EN  
tel. +44 (0) 1524 847600  
gvsuk@gvs.com

### **Spain**

Avila 50, Edificio Miete, 3-6  
08005 Barcelona - Spain  
tel. +34 93 300 90 57  
gvsspain@gvs.com

### **Russia**

gvsrussia@gvs.com

### **Serbia**

gvsserbia@gvs.com

### **Trademarks:**

HESPA® and Elipse® are trade marks of GVS -  
NFC Specialist Products.  
The pleat encapsulation filter technology used in  
this face mask is patented.

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## AMERICA

### **U.S.A.**

GVS Filter Technology Inc.  
5353 West 79th Street  
Indianapolis, IN 46268 - USA  
tel. +1 317 471 3700  
fax +1 317 471 8370  
gvsusa@gvs.com

### **Brazil**

GVS do Brasil Ltda.  
Rodovia Conego Cyriaco Scaranello  
Pires 251  
Jd. Progresso, CEP 13190-000  
Monte Mor (SP) - Brasil  
tel. +55 19 38797200  
fax +55 19 38797251  
gvs@gvs.com.br

### **México**

México office  
Paseo de Santa Anita 548  
Condominio Santa Anita  
45645 Tlajomulco de Zuñiga (JAL) -  
México  
tel. +52-33 3110 0844  
gvmex@gvs.com

### **Argentina**

GVS Argentina S.A.  
Parral 246-9° A  
1405 Buenos Aires - Argentina  
tel. +54 11 49889041  
fax +54 11 49889042  
gvsarg@gvs.com

## ASIA

### **Cina**

GVS Technology (Suzhou) Co., Ltd.  
Fengqiao Civil-Run Sci-Tech Park,  
602 Changjiang Road, S.N.D.  
Suzhou, China 215129  
tel. +86 512 6661 9880  
fax: +86 512 6661 9882  
gvschina@gvs.com

### **Japan**

GVS Japan K.K.  
KKD Building 4F, 7-10-12  
Nishishinjuku  
Shinjuku-ku, Tokyo 160-0023 Japan  
tel. +81 3 5937 1447  
fax +81 3 5937 1448  
gvsjapan@gvs.com

### **Korea**

GVS Korea Ltd.  
368 Gyungchun-Ro (Gaun-Dong),  
#315 Bricks Tower,  
Namyangju-Si, Gyunggi-Do  
472-060, South Korea  
tel.+82 31 563 9873  
Fax:+82 31 563 9874  
gvskorea@gvs.com

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