

elipse

Comfortable

Light

Ultra-compact

Protective
respirators



elipse
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 manufactured 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 99.97% or higher at 0.3 microns particle size.

Already approved in Europe, the Elipse achieved NIOSH approval in 2011 to make it available on the US market.

● ● ● 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.

● ● ● 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 99.97%.

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.



NIOSH approved respiratory filters have different classes of protection for removal of any particle including oil-based liquid aerosols, with increasing efficiency.

Particulate filters are classed as N, R, or P combined with 95, 99, or 100

N - Not resistant to oil mist

R - Resistant to oil mist

P - Protective against all particulates

95, 99, 100 - approximate filter efficiency against 0.3 micron particles



P100 particulate Filters capture at least 99.97% of 0.3 micron airborne particles. They are strongly resistant to oil mist. P100 filters are distinguished by the Magenta colour.

ELIPSE HESPA® P100 filters conform to the NIOSH standards



TESTS CONDUCTED BY NIOSH	P100 NIOSH TEST LEVELS
Exhalation Resistance Maximum Allowable Resistance (MM of H2O)	25
Inhalation Resistance Maximum Allowable Resistance (MM of H2O)	35
Exhalation Valve Leakage Maximum Allowable (mL/min)	30
DOP (filter efficiency): INITIAL Maximum Allowable % Leakage FINAL Maximum Allowable % Leakage	0.03% 0.03%
DOP (filter efficiency): INITIAL Filter Efficiency FINAL Filter Efficiency	99.97% 99.97%

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:

NIOSH approved Respiratory Gas and vapours filters classification system are distinguished by identifying colours:

Contaminant

Organic vapors

Acid gases

Organic vapors and Acid gases

Ammonia and Methylamine

Any other gas or vapor

Cartridge

Black

White

Yellow

Green

Olive

Labels Color



Face Fit Testing

Fit testing each model of respirator the employee is to use in workplace tasks before their use is important to assure the expected level of protection is provided by minimizing the total amount of contaminant leakage into the facepiece. The benefits of this testing include better protection for the employee and verification that the employee is wearing a correctly-fitting model and size of respirator. Higher than expected exposures to a contaminate may occur if users have poor face seals with the respirator, which can result in excessive leakage.

There are two types of test:

Qualitative

This test is conducted using a hood over the mask wearer into which a bitter/sweet odour is injected. If the mask wearer can taste or smell the odour, the mask requires adjustment. While useful, it is purely subjective as perceptions can differ between subjects undertaking the test.

Quantitative

Provides a numerical measure of the effectiveness of fit - a Fit Factor. This test is typically carried out using a particle counting device or a controlled negative pressure device. The test commences by taking a count of the number of ambient particles leaking into the facepiece and compares this with the particle number challenging the facepiece while the wearer carries out a number of specified exercises. There are a number of devices available on the market for employers to use to conduct either Qualitative or Quantitative face fit tests. In addition independent testers can be contracted. For further information or GVS adaptors, please contact us.

GUIDE TO CHOOSING

P100



Small/Medium Size with P100 filters SPR451
 Medium/Large Size with P100 filters SPR457

P100 REPLACEMENT FILTERS



Replacement pair of P100 filters - SPR321

P100 NUISANCE ODOUR



Small/Medium Size with P100 and nuisance odour filters SPR449
 Medium/Large Size with P100 nuisance odour filters SPR456

P100 NUISANCE ODOUR REPLACEMENT FILTERS



Replacement pair of P100 nuisance Odour filters - SPR450

Construction, grinding, cutting, drilling

FIRE-FIGHTING



CONSTRUCTION

WOOD PROCESSING



Wood processing

PAINTING



Painting
 Coatings
 Bonding

MAINTENANCE



Maintenance, Decoration
 Removal / Separation waste
 Agriculture

SEPARATION WASTE

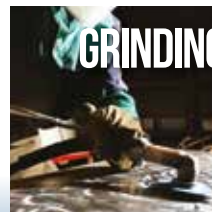


Welding, cutting, sandpapering

AGRICULTURE



Food Industry



GRINDING PROCESS

WELDING

Pharmaceutical industry
 Allergies

Contact

RESPIRATORY AND FILTERS

HARMFUL SUBSTANCE / RISK	SUGGESTED FILTER	
	P100	P100 Nuisance Odour
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 - P100

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.

●●● 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 P100 filters have a minimum efficiency of 99.97%, 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

NIOSH Approval number: P100 TC-84A-6949

P100 with nuisance odour TC-84A-6950

Elipse P100 respirator has met the requirements of 42CFR84 (Code of Federal Regulations).

●●● TYPE OF FILTER/ CLASS

HESPA (High Efficiency Synthetic Particulate Airfilter) + P100(R) * →99.97% (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 P100(R)

5 years, for mask and filters.

Elipse Mask

P100 (R) - Half-mask for protection from dust, metal fumes, oil and water mists and micro-organisms, i.e. bacteria and viruses

Mask Materials

Body: Blue TPE (thermoplastic elastomer), latex & silicone free, odour-free, non-allergenic material.

Filter Materials

HESPA® (High Efficiency Synthetic Particulate Air filter)

Dimensions

Mask: 3.66" x 5.04" x 4.33" (widest point)

Weight

Mask + Filters: 4.65 oz

Ultra Low-weight HESPA® + filters only: 0.60 oz each

Low-weight Elipse® mask body: 3.44 oz

HESPA® + filter, Ultra low profile design, depth of visual filter on the mask : 0.19"

NEW PROTECTIVE GRILL

NEW LARGER SIZE



Code	SPR451 Small/Medium Size SPR457 Medium/Large Size
Type	P100(R)
Packaging	10 pcs. per box



Code	SPR321
Type	P100 (R)
Packaging	10 sets of 2 pcs. per box

Elipse Filters SPR321

P100 Filter (R) HESPA® - smaller, thinner, more flexible, innovative encapsulation™ design.

Materials

HESPA® P100 (R) , Encapsulation(TM) TPE

Filter dimensions

0.47" x 3.7" x 1.97" (widest point)

Filter weight

Ultra Low-weight HESPA® + filters only: 0.60 oz each

NOW WITH NUISANCE ODOUR



Code	SPR449 Small/Medium Size SPR456 Medium/Large Size
Type	P100(R)
Packaging	10 pcs. per box

P100 Nuisance Odour - The Elipse P100 Nuisance Odour is designed to remove low level odours and gases which may be as much unpleasant as injurious to health, in addition to particulates. Typical applications would be in general use where low level odours arise, food processing, pharmaceutical production, and laboratories.



Code	SPR450
Type	P100 Nuisance Odour
Packaging	10 sets of 2 pcs. per box

Elipse Filters SPR450

P100 Filter Nuisance Odour (R) HESPA®



COMING SOON

ELIPSE P100 HEPA GAS AND CHEMICAL FILTERS

The Elipse P100 HEPA Gas and Chemical filters cartridge combines a particulate and carbon filter designed to protect against organic vapours, solids and oil mists in accordance with NIOSH limitations. Typical applications would include timber spraying (preservatives and coatings), solvent and paint spraying, crop spraying, and foundries.



COMING SOON

ELIPSE Vis-Air

The Elipse Vis-Air P100 provides eye and respiratory protection against dust particles, 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.



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Trademarks:

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

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