Comfortable
Light
Ultra-compact

Protective respirators
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.
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.
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.
**Gases and vapours:** Gases and vapours are molecules, so small that they penetrate particulate filters. You need to use a chemical filter against these.

### Protection against gases and vapours

**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:

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Cartridge</th>
<th>Labels Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic vapors</td>
<td>Black</td>
<td></td>
</tr>
<tr>
<td>Acid gases</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Organic vapors and Acid gases</td>
<td>Yellow</td>
<td></td>
</tr>
<tr>
<td>Ammonia and Methylamine</td>
<td>Green</td>
<td></td>
</tr>
<tr>
<td>Any other gas or vapor</td>
<td>Olive</td>
<td></td>
</tr>
</tbody>
</table>

**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.

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

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Cartridge</th>
<th>Labels Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic vapors</td>
<td>Black</td>
<td></td>
</tr>
<tr>
<td>Acid gases</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Organic vapors and Acid gases</td>
<td>Yellow</td>
<td></td>
</tr>
<tr>
<td>Ammonia and Methylamine</td>
<td>Green</td>
<td></td>
</tr>
<tr>
<td>Any other gas or vapor</td>
<td>Olive</td>
<td></td>
</tr>
</tbody>
</table>

### 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 contaminant 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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Harmful Substances / Risks</th>
<th>Suggested Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction</strong></td>
<td>- Construction, grinding, cutting, drilling</td>
<td>P100 filters SPR451</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P100 filters SPR457</td>
</tr>
<tr>
<td><strong>Wood processing</strong></td>
<td>- Woodcutting</td>
<td>P100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Replacement filters SPR321</td>
</tr>
<tr>
<td><strong>Painting</strong></td>
<td>- Coatings</td>
<td>P100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Replacement filters SPR449</td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td>- Bonding</td>
<td>P100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Replacement filters SPR456</td>
</tr>
<tr>
<td><strong>Removal / Separation waste</strong></td>
<td>- Bacteria, spores, odours</td>
<td>P100</td>
</tr>
<tr>
<td><strong>Agriculture</strong></td>
<td>- Insecticides</td>
<td>Replacement filters SPR450</td>
</tr>
<tr>
<td><strong>Welding</strong></td>
<td>- Manual arc welding, hard soldering, structure steel, zinc</td>
<td>P100</td>
</tr>
<tr>
<td></td>
<td>- Chrome paint removal, thin paint particles</td>
<td>Replacement filters SPR451</td>
</tr>
<tr>
<td><strong>Food Industry</strong></td>
<td>- Poultry, meat, dairy, pet foods, fermentation</td>
<td>P100</td>
</tr>
<tr>
<td></td>
<td>- Active substances treatment</td>
<td>Replacement filters SPR449</td>
</tr>
<tr>
<td><strong>Pharmaceutical industry</strong></td>
<td>- Pollen, allergies, flours, spores, contact</td>
<td>P100</td>
</tr>
<tr>
<td></td>
<td>- Mould, spores</td>
<td>Replacement filters SPR450</td>
</tr>
<tr>
<td><strong>Diesel soot / smoke</strong></td>
<td>- Bacteria in case of tuberculosis</td>
<td>Replacement filters SPR451</td>
</tr>
<tr>
<td></td>
<td>- Diesel soot / smoke</td>
<td>Replacement filters SPR457</td>
</tr>
</tbody>
</table>

**P100 Filters**

- **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

**Contact**
<table>
<thead>
<tr>
<th>HARMFUL SUBSTANCE / RISK</th>
<th>SUGGESTED FILTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sealant</td>
<td>P100</td>
</tr>
<tr>
<td>Spray foam insulation</td>
<td></td>
</tr>
<tr>
<td>Rust, iron, stucco/filler material</td>
<td></td>
</tr>
<tr>
<td>Masonry/ concrete</td>
<td></td>
</tr>
<tr>
<td>Cement, wood, steel</td>
<td></td>
</tr>
<tr>
<td>Paints/varnishes/anti-rust paints</td>
<td></td>
</tr>
<tr>
<td>Stainless steel</td>
<td></td>
</tr>
<tr>
<td>Anti-fouling paints</td>
<td></td>
</tr>
<tr>
<td>Work with asbestos</td>
<td></td>
</tr>
<tr>
<td>Work with fibre glass and mineral fibres</td>
<td></td>
</tr>
<tr>
<td>Sand blasting</td>
<td></td>
</tr>
<tr>
<td>Boiler maintenance</td>
<td></td>
</tr>
<tr>
<td>Sanding - Sandpapering soft / hard wood</td>
<td></td>
</tr>
<tr>
<td>Woodcutting</td>
<td></td>
</tr>
<tr>
<td>Particles / Fine wood powder</td>
<td></td>
</tr>
<tr>
<td>Wood colours (dye containing copper, chromium or arsenic)</td>
<td></td>
</tr>
<tr>
<td>Removing thin layers of paint,</td>
<td></td>
</tr>
<tr>
<td>Water-borne paint (with solvent residue)</td>
<td></td>
</tr>
<tr>
<td>Water-based paint</td>
<td></td>
</tr>
<tr>
<td>Wood protection</td>
<td></td>
</tr>
<tr>
<td>Colour dispersion via spray painting</td>
<td></td>
</tr>
<tr>
<td>Water-based paint</td>
<td></td>
</tr>
<tr>
<td>Adhesives with solvents</td>
<td></td>
</tr>
<tr>
<td>Pest control, cleaning</td>
<td></td>
</tr>
<tr>
<td>Lubricant spray</td>
<td></td>
</tr>
<tr>
<td>Glue spray, foam, paint, adhesives</td>
<td></td>
</tr>
<tr>
<td>Bacteria, spores, odours</td>
<td></td>
</tr>
<tr>
<td>Insecticides, Pesticides</td>
<td></td>
</tr>
<tr>
<td>Spreading of insecticides by spraying</td>
<td></td>
</tr>
<tr>
<td>Manual arc welding with electrodes or laser welding, Hard soldering</td>
<td></td>
</tr>
<tr>
<td>Structural steel, zinc</td>
<td></td>
</tr>
<tr>
<td>Chrome paint removal, Thin paint particles</td>
<td></td>
</tr>
<tr>
<td>Poultry / meat and dairy products, Pet foods, Fermentation</td>
<td></td>
</tr>
<tr>
<td>Active substances treatment</td>
<td></td>
</tr>
<tr>
<td>Pollen</td>
<td></td>
</tr>
<tr>
<td>Flours</td>
<td></td>
</tr>
<tr>
<td>Mould/spores</td>
<td></td>
</tr>
<tr>
<td>Bacteria in case of tuberculosis</td>
<td></td>
</tr>
<tr>
<td>Diesel soot/smoke</td>
<td></td>
</tr>
<tr>
<td><strong>RESPIRATORY AND FILTERS</strong></td>
<td></td>
</tr>
</tbody>
</table>
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”

---

**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

---

**Elipse Filters SPR450**

**P100 Filter Nuisance Odour (R) HESPA®**

---

**Elipse 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.

---

**NOW WITH NUISANCE ODOUR**

---

**NEW PROTECTIVE GRILL**

---

**NEW LARGER SIZE**

---

**Code**
SPR451 Small/Medium Size
SPR457 Medium/Large Size

**Type**
P100(R)

**Packaging**
10 pcs. per box

---

**Code**
SPR449 Small/Medium Size
SPR456 Medium/Large Size

**Type**
P100(R)

**Packaging**
10 pcs. per box

---

**Code**
SPR321

**Type**
P100 (R)

**Packaging**
10 sets of 2 pcs. per box

---

**Code**
SPR450

**Type**
P100 Nuisance Odour

**Packaging**
10 sets of 2 pcs. per box
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 foundaries.

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.
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
gvssrussia@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.

Copyright © 2014 GVS ® S.p.A.
All rights reserved.
Printed in Italy
Version 260514

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
go 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
gvsbr@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
gvsmex@gvs.com

Argentina
GVS Argentina S.A.
Parral 246-9º A
1405 Buenos Aires - Argentina
tel. +54 11 49889041
fax +54 11 49889042
gvssargi@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

Distributed by: