Comfort & Fit
Wherever you are...
VENUS Safety & Health Pvt. Ltd. is a global quality manufacturer of Personal Protective Equipments (PPE) based in Navi Mumbai.

- VENUS, a 100% Indian company has grown manifold in volume and revenues since its inception in year 1986.
- A continuous urge to improve the performance of existing products & development of new products is a driving force for its experienced team of professionals. This combination has helped the company stay ahead in this competitive industry.

**OUR MISSION**

“To deliver occupational safety and healthcare products through ingenious use of technology and research.”
**NECK UP SPECIALIST**

Our Neck-up product range includes:

- **Respiratory Protective Devices:** Particulate filtering masks, half masks, full face masks, chemical filters, PAPR, SCBA & airline apparatus
- **Hearing Protective Devices:** Ear plugs and ear-muffs
- **Eye & Face Shield Devices:** Spectacles, goggles and face shields
- **Head Protective Devices:** Helmets

**SALES CAPABILITY**

- The needs of our global partners for design and development of new products / packaging are supported by our sales office in UAE & product realisation team in India.

- We support market development activities of 200+ distributor partners across India.

**R&D, PATENTS**

We are among the foremost specialist respirator manufacturers in India.

We constantly keep abreast of the latest global standards, to develop the new products.

Our product design team has developed and incorporated several patented features in products for customer benefits.

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We endeavor to pre-empt customer needs and study how our products and services must be worked on to deliver the requirement when it arises. Our team of innovators then pushes itself to fill in the gap.
“Stay Cool Butterfly Vent Valve”

Our latest innovation is inspired by the butterfly. The Stay Cool Butterfly Vent Valve, now incorporated in the disposable respirator series, is widely preferred by users. The design facilitates easy and comfortable breathing. The Valve efficiently expels warm exhaled air high in CO₂ & allows fresh air to enter through the filter maximizing the comfort to the user. This seemingly simple invention is the most dynamic change we have brought about in the respirators.

The Butterfly Vent Valve is part of our endeavour to combine inspiration from mystique nature with value-based innovations to our products.

FACTORY CAPABILITY

- Over a million units manufacturing per day
- Cost competitive products
- Primary materials manufacturing: nonwovens, plastics parts processing
- Independent tool room
- Balance of dedicated young trained workforce and experienced leaders
- International sea / air port proximity & Logistics capability
- Proximity to National transport and logistics hub.

NORMS & PROTECTING PEOPLE

VENUS manufacturing plants operates as per the safety standards.

VENUS adheres to the National Factories Act & Rules in all its manufacturing plants and ensures compliance with these regulations through its entire supply chain.

SUPPLY CHAIN

VENUS has long-standing, strategic partners for development, manufacture and supply of materials and intermediate products. On-site representatives ensure that high quality practices are adhered to consistently.

The products comply to:

- Quality Management Systems
- Free from harmful substances
- Social standards
- Green approach
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• Social standards
• Green approach

The processes and procedures in all VENUS manufacturing plants have been certified in accordance with ISO 9001:2008 and are audited annually by BUREAU VERITAS.

The certified facilities produce and supply products conforming to:

| American Standards | 42 CFR Part 84 |
| European Standards | EN 149 | EN140 | EN143 | EN14387 |
| Malaysian SIRIM Standards |  |
| AS/NZS Standards | 1716:2012 |
| Indian Standards | IS 9473 | IS 14746 | IS 14166 | IS 15323 |
| | IS 10245(II) | IS 10245(III) | IS 2925 | IS 9167 |
| | IS 5983 |
Respiratory Protection Need:

Workplace concentration of contaminants (dust, mist, smoke, vapour or gases) should be reduced or minimized by adopting appropriate engineering control measures. Subject to effective engineering control being not feasible, suitable performing respirators shall be used.

The purpose of respiratory protection is to ensure that the workers are adequately protected from inhaling excessive airborne contaminants or oxygen deficient air.

Workers should not be exposed to airborne contaminants in excess of their permissible exposure levels, wherever possible.

Health Effects

Respiratory Hazard and their Effects

Oxygen deficiency
- Normal - 21% by Vol. in air
- Breathing - 17%
- Dizziness - 13%
- Unconsciousness / Death - 8 to 10%

Gaseous & Vapour contaminants

Affect supply of oxygen to body, damage organs and cause respiratory paralysis, inflammation, unconsciousness &/or death

Particulate contaminants
- Relatively inert - ( Gypsum, Marble ): Minor irritation and discomfort
- Pulmonary Fibrosis producing - ( Quartz, Crystalobalite, Tridymite, Coal, Asbestos ): Nodulation and fibrosis in the lungs
- Cancer producing - ( Asbestos, Chromates, Radioactive particulates ): Causing cancer after 20 to 40 years
- Chemical irritants - ( Acid mist, Alkali mist ): Irritation, Inflammation, Ulceration in upper respiratory tract
- Systemic poison - ( Lead, Manganese, Cadmium ): Pathologic reactions
- Allergy producing - ( Pollens, Isocyanates, Spices ) Itching, sneezing and asthma
- Febrile reaction producing - ( Zinc, Copper ): Chills and fever
Common Definitions

Respiratory Protection Definitions

Particulate: The generic name of dust, mist, smoke and fumes.

Fume: Fine solid aerosol which may be chemically generated or of metallic origin.

Aerosol: Suspension of solid, liquid or solid and liquid particles in a gaseous medium, having a negligible falling velocity (generally considered to be less than 0.25 microns).

Vapour: Gaseous phase of a substance which is liquid or solid at 20°C and 1 bar (absolute).

Gas: An air-like fluid substance which expands freely to fill any space available, irrespective of its quantity.

Fog: An atmosphere in which visibility is reduced because of a cloud of some substance.

Mist: General term denoting liquid aerosols.

Smoke: General term denoting an aerosol generated by incomplete combustion.

Hazardous Atmosphere: An atmosphere that contains a contaminant in excess of its permissible exposure level or that is oxygen deficient.

Contaminant: Undesirable solid, liquid or gaseous substance in the air.

Dust: General term denoting solid particles (see also Fume and Smoke).

Nuisance Dust: These dust may dissolve and pass into the bloodstream or may remain in the lungs either producing local or systemic effects. Dust or grain, flour, wood, etc, are common examples. But these dust may cause irritation or produce allergy.

Values

Immediately Dangerous to Life or Health (IDLH) Level: Any atmosphere that poses an immediate hazard to life or poses immediate irreversible debilitating effects on health or impairs the ability to escape.

Time Weighted Average (TWA): The concentration of a contaminant in air determined by adding together the products of each concentration and the corresponding time over which that concentration was measured, and dividing the sum by the total time over which the measurements were taken.

Threshold Limit Value (TLV): Air-borne concentration of toxic substances and represents conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect.

Protection Factor: Ratio of the concentration of contaminant present in the ambient atmosphere to its concentration in the air inhaled by the wearer of a respiratory protective device.

Types of RPD

Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory inlet covering is less than the ambient air pressure during inhalation.

Positive Pressure Respirator: A respirator in which the pressure inside the respiratory inlet covering is higher than the ambient air pressure.

M.U.L: Maximum Usage Level

Particles Visible to Human Eye
Greater than or equal to 10 micron (µ)

- Human hair 100 µ
- First Ash 10 µ
- Smoke 7 µ
- Poll. 10 µ
- PM 10
- PM 2.5
Respiratory Protection Devices

How to choose the appropriate RPD

'4' STEPS FOR SELECTION OF RPD

STEP 1
IDENTIFY THE HAZARD
- Oxygen deficiency
- Particulate matter
- Gas, odour & vapour
- Combination of particulate & gas

STEP 2
ASSESS THE HAZARD
- Area of work - open, ventilated area, closed, air conditioned or exhaust
- Presently used product
- Facial contour
- Physical properties
- Chemical properties

STEP 3
SELECT APPROPRIATE EQUIPMENT
Selection parameters
- Identifying characteristics of contaminant
- Protection and filter efficiency
- Good wearer comfort & low breathing resistance
- Man-hours worked & optimum protection with aid of Nominal Protection Factor

STEP 4
TRAIN FOR THE USE OF RPD
- Training to use RPD

User Selection Guide

<table>
<thead>
<tr>
<th>Basic Type</th>
<th>Design</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposable Respirator</td>
<td>Disposable half mask respirator (the classic 'dust mask' design). In Low P1, Medium P2, High efficiency P3</td>
<td>For various types of particulates such as dust, fibres, mist and fumes. Some are fitted with exhalation valves to make breathing easier.</td>
</tr>
<tr>
<td>Re-usable half mask respirator.</td>
<td>Re-usable half mask respirator. In Low-1, Medium-2, High-3 efficiency or capacity</td>
<td>For various types of particulates or vapours and gases depending on fitted filter cartridge. Some have combination filters.</td>
</tr>
<tr>
<td>Re-usable full face mask</td>
<td></td>
<td>As above, but incorporates visor for face protection.</td>
</tr>
<tr>
<td>Powered hood/helmet with hip mounting unit.</td>
<td>Powered hood/helmet with hip mounting unit. Positive pressure respirator</td>
<td>Powered fan and filter worn on a belt and connected via a hose to the face piece.</td>
</tr>
<tr>
<td>Breathing Apparatus (BA) supplying breathable air.</td>
<td>Constant flow airline BA</td>
<td>For all contaminants. Usually uses a full face mask/hood with long hose. Continuous supply of air from a compressor.</td>
</tr>
<tr>
<td>Independent of ambient atmosphere.</td>
<td>Self Contained BA</td>
<td>For all contaminants. Usually full face mask has a demand valve arrangement. Compressed air supply is carried in cylinder on the wearer's back. Sometimes worn inside a gas-tight suit.</td>
</tr>
</tbody>
</table>

Types of Filtering devices dependent on ambient atmosphere

- Disposable Respirator
- Reusable half & full face respirators
- Powered air and supplied air systems
Composite filter media

Prefilter coarse dust
- Does not clog the filter
- High dust holding capacity
- Can be used over longer period of time

Soft Inner layer
- Comfort to the wearer
- Skin friendly even when perspiring

Superior technology Micro fine filter media
- Protects from respirable suspended particulate matter
- Composite of multiple layers pre-filter, fine filter and skin comfort layer

Outer filter media
- Sheds minimum lint
- Application friendly

Application friendly
- Soft Inner layer
- Comfort to the wearer
- Skin friendly even when perspiring

Unique Adjuster Beads
Gives customized fitting option based on size of the user's head and preference of positions
- Provides optimum comfort

Drop Down
- Activated carbon layer
  For absorption of Nuisance level of odour and vapour

Activated carbon layer
- For absorption of Nuisance level of odour and vapour

Anticlogging (NR D)
- Having passed dolomite test, they resist clogging even in very high dust environments

Colour coded
- Headband
- FFP1
- FFP2
- FFP3

Guide to feature icons

Full foam seal
- For leak proof comfortable fit

Half Foam Seal
- The soft material of the foam cushions the nose bridge thereby providing comfort as well as fit

Nose liner
- Provides fit and comfort
- Prevents leakage

User instructions in multiple languages / Bi-lingual
- For easy acceptance by different wearers

Pharma-Food industry variant available
- No Metal exposure
- Minimum lint minimizes the risk of product contamination

Drop Down
- Can be dropped down hanging when not in use

Outer flame retardant layer
- Protects from welding sparks

Compatibility
- Compatible with Venus head protection and eye protection devices

Effectively removes CO₂ & heat build-up

Promotes easy communication

Provides breathing comfort

Transparent Valve
- Transparent valve clearly demonstrates the performance of valve
- It also indicates fogging levels
- Fogging indicates good fitting of RPD

Unique Adjuster Beads
- Gives customized fitting option based on size of the user's head and preference of positions
- Provides optimum comfort

Full foam seal
- For leak proof comfortable fit

Anti Clogging (NR D)
- Having passed dolomite test, they resist clogging even in very high dust environments

Colour coded
- Headband
- FFP1
- FFP2
- FFP3

Compatibility
- Compatible with Venus head protection and eye protection devices
**UNIVERSAL SERIES**

**V-44 +**

*User friendly pocket design*

*Entry level value product*

**Unique fit adjusters**
- Provides optimum protection & comfort

**IS 13473**

**CML-C007440957**

**ISI Approved**
- FFP1 Class
- Filters at least 80% solid particles

**Flat fold “V” style**
- User friendly pocket design
- Easy to store while not in use
- “V” style for large surface area

**Superior technology micro fine filter media**
- Protects from respirable suspended particulate matter
- Composite of multiple layers: pre-filter, fine filter and skin comfort layer

**VENUS V-44 +**

**CLASS: FFP1 S**

Protection: Solid Dust / Mist

M.U.L: Upto 4 x TLV

**Item #** 14337

**Colour** YELLOW

**Elastic** STAPLED

**Application examples**

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Pesticides, Insecticides, Grain dust</td>
</tr>
<tr>
<td>Construction</td>
<td>Sanding, Drilling, Cutting</td>
</tr>
<tr>
<td>Ceramics</td>
<td>Material mixing</td>
</tr>
<tr>
<td>Mining</td>
<td>Drilling, Material handling</td>
</tr>
<tr>
<td>Textiles</td>
<td>Spinning, Weaving</td>
</tr>
</tbody>
</table>
V-44 ++ Style Flat Fold “C”
Pocket style with inside nose clip
Held securely in place within the layers
Entry level value product

Latex free knitted textile elastic
- Long life
- Skin friendly
- Does not deform in high temperature

Stapled outside filter area
- Leakproof
- Avoids puncture

Unique fit adjusters (44 ++ & 4400)
Provides optimum protection & comfort

Application examples
Agriculture: Pesticides, Insecticides, Grain dust
Construction: Sanding, Drilling, Cutting
Ceramics: Material mixing
Mining: Drilling, Material handling
Textiles: Spinning, Weaving
V-410 Style Flat Fold BIG

User friendly large pocket design
Easy to store while not in use

Applies examples

Agriculture
- Pesticides, Insecticides, Grain dust

Cement
- Crushing, Bagging, Cement handling

Ceramics
- Material mixing

Construction
- Sanding, Drilling, Cutting

Engineering
- Sand Blasting, Powder coating,
  Buffing, Cutting

Mining
- Drilling, Material handling

Pharmaceuticals
- Bulk drugs, Material handling

Textiles
- Spinning, Weaving

Tyre
- Carbon black

ISO 9473
CE 0121

ISI Approved
European Approval

Anti Clogging (NR D)
Having passed dolomite test, they resist clogging even in very high dust environments

Superior microfibre media
Provides protection against sub-micron particles, fine dusts, water/oil based liquid mist and biological agents e.g. TB, SARS and pandemic influenza

Color coded fittings
- Allows easy identification
- Denotes the level of protection

Flat Fold style
- Large pocket style design
- Easy and compact to store while not in use
- Enhanced protection & comfort

Stay cool butterfly vent valve
- Provides breathing comfort and promotes easy communication
- Effective removal of heat build-up

 Aluminum nose clip
- Leak-proof fit
- Disallows fogging of eyewear

 Unique fit adjusters
Provides optimum protection & comfort

 Latex free textile elastic
- Long life
- Skin friendly
- Does not deform in high temperature

 Elastic fitted outside filter area
- Leak-proof
- Avoids puncture

 Nose liner
- Provides fit and comfort

 Choice of different colours
To suit user conditions

 Compatibility
Compatible with Venus head protection and eye protection devices

 Bi-lingual user instructions
For easy acceptance by different wearers

ISI Approved
European Approval

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Multi-Layer
Adjuster Beads
Nose Liner
Compatibility
Anti-Clogging
Drop Down
Bi-lingual User Instructions
### VENUS V-410 S
**CLASS:** FFP1 S
**Protection:** Solid Dust / Mist
**M.U.L.:** Upto 4 x TLV

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Elastic</th>
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<tbody>
<tr>
<td>14147</td>
<td>GREY</td>
<td>STAPLED</td>
</tr>
<tr>
<td>14146</td>
<td>YELLOW</td>
<td>STAPLED</td>
</tr>
</tbody>
</table>

### VENUS V-410 SL
**CLASS:** FFP1 NR D
**Protection:** Solid Dust / Oil Mist
**M.U.L.:** Upto 4 x TLV

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
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<tbody>
<tr>
<td>14010</td>
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</tr>
<tr>
<td>14015</td>
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<td>SEWN</td>
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</tbody>
</table>

### VENUS V-420 SL
**CLASS:** FFP2 NR D
**Protection:** Solid Dust / Oil Mist
**M.U.L.:** Upto 12 x TLV

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>14038</td>
<td>GREY</td>
<td>SEWN</td>
</tr>
<tr>
<td>14039</td>
<td>WHITE</td>
<td>SEWN</td>
</tr>
</tbody>
</table>

### VENUS V-410 V
**CLASS:** FFP1 S
**Protection:** Solid Dust / Mist
**M.U.L.:** Upto 4 x TLV

Exhalation Vent Valve

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Elastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>14148</td>
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</tr>
<tr>
<td>14153</td>
<td>YELLOW</td>
<td>STAPLED</td>
</tr>
</tbody>
</table>

### VENUS V-410 SLV
**CLASS:** FFP1 NR D
**Protection:** Solid Dust / Oil Mist
**M.U.L.:** Upto 4 x TLV

Exhalation Vent Valve

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Elastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>14019</td>
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</tr>
<tr>
<td>14025</td>
<td>GREY</td>
<td>SEWN</td>
</tr>
</tbody>
</table>

### VENUS V-420 SLV
**CLASS:** FFP2 NR D
**Protection:** Solid Dust / Oil Mist
**M.U.L.:** Upto 12 x TLV

Exhalation Vent Valve

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
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<tbody>
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<td>14338</td>
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</tr>
<tr>
<td>14337</td>
<td>WHITE</td>
<td>SEWN</td>
</tr>
</tbody>
</table>

### VENUS V-9420-V
**CLASS:** FFP3 NR D
**Protection:** Solid Dust / Oil Mist
**M.U.L.:** Upto 50 x TLV

New! 2016

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Elastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>14353</td>
<td>GREY</td>
<td>SEWN</td>
</tr>
</tbody>
</table>

**Net reinforcement shell**

**Exhalation Vent Valve**
**Application examples**

**Engineering**
- Welding, Sand Blasting
- Powder coating, Buffing
- Painting, Cutting
- Bulk drugs, Material handling
- Painting

**Pharmaceuticals**
- Agriculture
- Battery
- Ceramics
- Chemical

**Other Application**
- Pesticides, Insecticides
- Lead handling
- Material mixing
- Material handling

**Protection:** Solid Dust / Oil Mist / Nuisance Level of odour, Painting application

**M.U.L:** Upto 4 x TLV

**Exhalation Vent Valve**
- New! 2016
- Transparent

**Activated Carbon Layer**
- Multi-Layer
- Anti-Clogging
- Drop Down

**Compatibility**
- Bilingual User Instructions
- Flame Retardant

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**VENUS V-414 SLOV-V**
**CLASS:** FFP1 NR D
**Colour:** GREEN
**Elastic:** SEWN

**VENUS V-4214 SLOV-V**
**CLASS:** FFP2 NR D
**Protection:** Solid Dust / Oil Mist / Nuisance Level of odour, Painting application
**M.U.L:** Upto 12 x TLV

**Exhalation Vent Valve**
- STAPLED
- SEWN

**Activated Carbon Layer**
- New! 2016
- Transparent
- Drop Down

**Compatibility**
- Bilingual User Instructions
- Flame Retardant

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**VENUS V-425 SLOV-V**
**CLASS:** FFP2 NR D
**Protection:** Solid Dust / Oil Mist / Nuisance Level of odour, Welding application
**M.U.L:** Upto 12 x TLV

**Exhalation Vent Valve**
- STAPLED
- SEWN

**Activated Carbon Layer**
- New! 2016
- Transparent
- Drop Down

**Compatibility**
- Bilingual User Instructions
- Flame Retardant
**Application examples**

**Agriculture**
- Pesticides, Insecticides, Grain dust

**Cement**
- Crushing, Bagging, Cement handling

**Ceramics**
- Material mixing

**Textiles**
- Spinning, Weaving

**Tyre**
- Carbon black

**Construction**
- Sanding, Drilling, Cutting

**Engineering**
- Sand Blasting, Powder coating, Buffing, Cutting

**Mining**
- Drilling, Material handling

**Pharmaceuticals**
- Bulk drugs, Material handling

**Bi-lingual User Instructions**
- For easy acceptance by different wearers

**Stay cool butterfly vent valve**
- Quickly releases hot, humid exhaled breath
- Provides breathing comfort even in work situations involving heat, humidity, or long periods of wear

**Elastic sewn outside filter area**
- Leakproof
- Avoids puncture

**Aluminum nose clip**
- Disallows fogging of eyewear

**Braided textile elastic**
- Diminishes the risk of reactions to skin allergy
- Does not deform with repeat wears, high temperature
- Soft and does not entangle / pull hair

**Compatibility**
- Compatible with Venus head protection and eye protection devices

**Anti clogging (NR D)**
- Having passed dolomite test, they resist clogging even in very high dust environments

**Braided textile elastic**
- Diminishes the risk of reactions to skin allergy
- Does not deform with repeat wears, high temperature
- Soft and does not entangle / pull hair

**Convex seam style**
- Classic collapse-resistant shell with seamed filter cover
- Maintains high integrity of filter media

**Pharma-Food industry variant available**
- No Metal exposure
- Minimum lint
- Minimizes the risk of product contamination
- Soft & does not pull/entangle hair

**Advanced technology micro fine filter media**
- Provides protection against sub-micron particles, fine dusts, water/oil based liquid mist and biological agents e.g. TB, SARS and pandemic influenza
- Tested for Dolomite clogging test

**Color-coded fittings**
- Easy to identify
- Indicates the level of protection

**VENUS V-210 SL**
- CLASS: FFP1 NR D
- Protection: Solid Dust / Oil Mist
- M.U.L: Upto 4 x TLV
- Item #: 12047, Colour: WHITE, Elastic: SEWN

**VENUS V-210 SLV**
- CLASS: FFP1 NR D
- Protection: Solid Dust / Oil Mist
- M.U.L: Upto 4 x TLV
- Exhalation Vent Valve
- Item #: 12086, Colour: WHITE, Elastic: SEWN

**VENUS V-220 SL**
- CLASS: FFP2 NR D
- Protection: Solid Dust / Oil Mist
- M.U.L: Upto 12 x TLV
- Item #: 12108, Colour: WHITE, Elastic: SEWN

**VENUS V-220 SLV**
- CLASS: FFP2 NR D
- Protection: Solid Dust / Oil Mist
- M.U.L: Upto 12 x TLV
- Exhalation Vent Valve
- Item #: 12109, Colour: WHITE, Elastic: SEWN

**VENUS V-2430 SLV**
- CLASS: FFP3 NR D
- Protection: Solid Dust / Oil Mist
- M.U.L: Upto 50 x TLV
- Exhalation Vent Valve
- Half foam seal
- Item #: 12268, Colour: WHITE, Elastic: SEWN

**Multi-Layer**

**Adjustor Beads**

**Nose Liner**

**Anti-Clogging**

**Bi-lingual User Instructions**
V-2400 Style Convex Seam

Flame retardant + Granular activated carbon with particle filter

UNIVERSAL SERIES

VENUS V-2424 SLOV
CLASS: FFP2 SLO
Protection: Solid Dust / Oil Mist
Nuisance Level of Paint mist & odour < TLV
M.U.L: Upto 12 x TLV

VENUS V-2426 SL-AC
CLASS: FFP2 SL
Protection: Solid Dust / Oil Mist
Nuisance Level of Acid gas < TLV
M.U.L: Upto 12 x TLV

VENUS V-2427 SL-HF
CLASS: FFP2 SL
Protection: Solid Dust / Oil Mist
Nuisance Level of HF-AC odour < TLV
M.U.L: Upto 12 x TLV

VENUS V-2428 SL-AM
CLASS: FFP2 SL
Protection: Solid Dust / Oil Mist
Nuisance Level of Ammonia < TLV
M.U.L: Upto 12 x TLV

VENUS V-2425 SLOV
CLASS: FFP2 SLO
Protection: Solid Dust / Oil Mist
Nuisance Level Of odour Flame retardant outer layer
M.U.L: Upto 12 x TLV

Application examples

Engineering
- Welding, Sand Blasting,
- Powder coating, Buffing,
- Painting, Cutting

Pharmaceuticals
- Battery
- Bulk drugs, Material handling
- Ceramics
- Material mixing
- Chemical

Other Application
- Agriculture
- Pesticides, Insecticides
- Lead handling
- Material handling

ISI Approved
Superior technology
- micro-fine filter media
- Protects micro-fine respirable suspended particulate matter
- Higher dust holding capacity
- Doesn’t let the filter clog thereby increasing the respirator’s life

Color coded fittings
- Allows easy identification
- Denotes the level of protection

Low profile design
- Fits wide range of face contours

Tough shell
- Well-integrated structure maintains the shape disallowing collapse

Stay cool butterfly vent valve
- Provides breathing comfort and promotes easy communication
- Effectively removes heat build-up

Aluminum nose clip
- Leak-proof fit
- Disallows fogging of eyewear

Unique fit adjusters
- Provides optimum protection & comfort

Latex free textile elastic
- Long life
- Skin friendly
- Does not deform in high temperature

Compatibility
- Compatible with Venus head protection and eye protection devices

Elastic sewn outside filter area
- Leakproof
- Avoids puncture

Bi-lingual user instructions
- For easy acceptance by different wearers
**Application examples**

- **Agriculture**: Pesticides, Insecticides, Grain dust
- **Cement**: Crushing, Bagging, Cement handling
- **Construction**: Sanding, Drilling, Cutting
- **Ceramics**: Mixing
- **Mining**: Drilling, Material handling
- **Pharmaceuticals**: Bulk drugs, Material handling

**VENUS CN95+**
- CLASS: N95
- TC: 84A-7514
- Protection: Solid Dust / Non oil based liquid mist

**VENUS CN95**
- CLASS: N95
- TC: 84A-5492
- Protection: Solid Dust / Non oil based liquid mist

**VENUS CVN95+**
- CLASS: N95
- TC: 84A-7514
- Protection: Solid Dust / Non oil based liquid mist

**VENUS CVN95**
- CLASS: N95
- TC: 84A-5634
- Protection: Solid Dust / Non oil based liquid mist

**VENUS CN95 ME**
- CLASS: N95
- TC: 84A-5632
- Protection: Solid Dust / Non oil based liquid mist / Nuisance Level of odour

**VENUS CN95 OV**
- CLASS: N95
- TC: 84A-5631
- Protection: Solid Dust / Non oil based liquid mist

**Stay cool butterfly vent valve**
- Provides breathing comfort and promotes easy communication
- Effectively removes heat build-up

**NiOSH Approved N95 respirators**
- With American Approval
- Filters >95% solid particles
- Superior microfibre media
- Provides protection against sub-micron particles, fine dusts, non oil based liquid mist and biological agents e.g. TB, SARS and pandemic influenza

**Convex seam style**
- Classic collapse-resistant shell with seamed filter cover
- Maintains high integrity of filter media

**Bi-lingual user instructions**
- For easy acceptance by different wearers

**VENUS CN95 ME**
- Item # Colour Elastic
- 12266 WHITE SEWN

**VENUS CN95 OV**
- Item # Colour Elastic
- 12266 GREY SEWN
**VENUS V-20** Style CONVEX

*Double shell*
Primary filter supports high dust retention capacity and long duration wears.

**ISI Approved**
Superior technology
micro-fine filter media
- Protects micro-fine respirable suspended particulate matter
- Higher dust holding capacity
- Doesn’t let the filter clog thereby increasing the respirator’s life

**Multiple Shells**
- The design aids use for multiples shifts
- Lasts longer

**Elastic sewn outside filter area**
- Leakproof
- Avoids puncture

**Stay cool butterfly vent valve**
- Provides breathing comfort and promotes easy communication
- Effectively removes heat build-up

**VENUS V-2210 V**
CLASS: FFP1 S
Protection: Solid Dust / Mist
M.U.L: Upto 4 x TLV
Exhalation Vent Valve
Nose Liner
Item #: Colour Elastic
12269 WHITE SEWN

**VENUS V-20 V**
CLASS: FFP2 S
Protection: Solid Dust / Mist
M.U.L: Upto 12 x TLV
Exhalation Vent Valve
Half Foam Seal
Item #: Colour Elastic
12253 WHITE STAPLED
12254 GREY STAPLED
12071 WHITE SEWN
12072 GREY SEWN

**VENUS V-2230 SLV**
CLASS: FFP3 SLV
Protection: Solid Dust / Oil Mist
M.U.L: Upto 50 x TLV
Exhalation Vent Valve
Full Foam Seal
Item #: Colour Elastic
12070 WHITE SEWN

**Application examples**

- **Cement**: Crushing, Bagging, Cement handling
- **Ceramics**: Material mixing
- **Chemical**: Material handling
- **Construction**: Sanding, Drilling, Cutting
- **Tyre**: Carbon black
- **Engineering**: Sand Blasting, Cutting
- **Mining**: Drilling, Material handling
- **Pharmaceuticals**: Bulk drugs, Material handling
- **Textiles**: Spinning, Weaving

**Aluminum nose clip**
Mouldable clip to get comfortable and perfect fit

**Braided textile elastic**
- Diminishes risk of reactions to skin allergy
- Does not deform with repeat wears, high temperature

**Unique fit adjusters**
Provides optimum protection & comfort

**Color coded fittings**
- Allows easy identification
- Denotes the level of protection

**Compatibility**
- Compatible with Venus head protection and eye protection devices

**Bi-lingual user instructions**
For easy acceptance by different wearers

**Adaptor Beads**

**Multi-Layer**

**Half foam seal**

**Bi-lingual User Instructions**
**V-2500** Style Convex Nose Form

*Metal free respirator*

*Suitable for pharma / food industry application*

---

**Application examples**

- **Agriculture**
  - Pesticides, Insecticides, Grain dust
- **Cement**
  - Crushing, Bagging, Cement handling
- **Ceramics**
  - Material mixing
- **Construction**
  - Sanding, Drilling, Cutting
- **Tyre**
  - Carbon black

---

**ENGINEERING**

- **Mining**
- **Pharmaceuticals**
- **Textiles**
- Sand Blasting, Buffing, Cutting  
  - Drilling, Material handling  
  - Bulk drugs, Material handling  
  - Spinning, Weaving

---

**RESPIRATORS**

- **VENUS V-2510**
  - CLASS: FFP1 NR D
  - Protection: Solid Dust / Oil Mist
  - M.U.L: Upto 4 x TLV

- **VENUS V-2520**
  - CLASS: FFP2 NR D
  - Protection: Solid Dust / Oil Mist
  - M.U.L: Upto 12 x TLV

- **VENUS V-2510 SLV**
  - CLASS: FFP1 NR D
  - Protection: Solid Dust / Oil Mist
  - M.U.L: Upto 12 x TLV

- **VENUS V-2520 SLV**
  - CLASS: FFP2 NR D
  - Protection: Solid Dust / Oil Mist
  - M.U.L: Upto 12 x TLV

---

**Certifications**

- **European Approval**

---

**Unique fit adjusters**

- Provides optimum protection & comfort

**Braided textile elastic**

- Does not deform with repeat wears, high temperature

**Bi-lingual instructions**

- For easy acceptance by different wearers

**Compatibility**

- Compatible with Venus head protection and eye protection devices

**Elastic sewn outside filter area**

- Leakproof
- Avoids puncture

---

**Pharma-Food industry variant available**

- No metal exposure
- Minimum lint
- Minimizes the risk of product contamination

---

**Color coded fittings**

- Allows easy identification
- Indicates the level of protection

**Tough shell**

- Well-integrated structure maintains the shape disallowing collapse

**Low Profile Design**

- Fits wide range of face contours

---

**Activated Carbon Layer**

- Effectively removes heat build-up

---

**RESPIRATORS**

- **VENUS V-2524 SLOV-V**
  - CLASS: FFP2 NR D
  - Protection: Solid Dust / Oil Mist
  - Nuisance level of odour
  - M.U.L: Upto 12 x TLV
  - Transparent Exhalation Vent Valve
  - Activated Carbon Layer
  - Bi-lingual User Instructions

---

**Application examples**

- **Agriculture**
  - Pesticides, Insecticides, Grain dust
- **Cement**
  - Crushing, Bagging, Cement handling
- **Ceramics**
  - Material mixing
- **Construction**
  - Sanding, Drilling, Cutting
- **Tyre**
  - Carbon black

---

**Engineering**

- **Mining**
- **Pharmaceuticals**
- **Textiles**
- Sand Blasting, Buffing, Cutting  
  - Drilling, Material handling  
  - Bulk drugs, Material handling  
  - Spinning, Weaving

---

**Nose Liner**

- Activated Carbon Layer
- Adjustor Beads
- Compatibility
- Multi-Layer
- Pharma-Food Variant
- Bi-lingual User Instructions

---

**Activation**

- 2016

---

**NEW!**

- Item # 12256
  - Colour WHITE
  - Elastic SEWN

- Item # 12265
  - Colour WHITE
  - Elastic SEWN

- Item # 12267
  - Colour WHITE
  - Elastic SEWN

- Item # 12238
  - Colour WHITE
  - Elastic SEWN

- Item # 12234
  - Colour GREY
  - Elastic SEWN
Venus V-90

*Style Convex Mesh*

**Net reinforced shell**
- Retains shape in tough conditions
- Primary filter supports high dust retention capacity and long duration wears

**Elastic**
- STAPLED
- SEWN

**Half foam seal**
- Provides a leak-proof and comfortable fit

**Unique fit adjusters**
- Provides optimum protection & comfort

**Bi-lingual user instructions**
- For easy acceptance by different wearers

---

**VENUS V-90 V**

**CLASS:** FFP2 S

Protection: Solid Dust / Mist

M.U.L: Upto 12 x TLV

Transparent Exhalation Vent Valve

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Elastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>19016</td>
<td>YELLOW</td>
<td>SEWN</td>
</tr>
<tr>
<td>19017</td>
<td>GREY</td>
<td>SEWN</td>
</tr>
<tr>
<td>19021</td>
<td>YELLOW</td>
<td>STAPLED</td>
</tr>
<tr>
<td>19025</td>
<td>GREY</td>
<td>STAPLED</td>
</tr>
</tbody>
</table>

**VENUS V-9210 SLV**

**CLASS:** FFP1 NR D

Protection: Solid Dust / Oil Mist

M.U.L: Upto 4 x TLV

Transparent Exhalation Vent Valve

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Elastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>19024</td>
<td>YELLOW</td>
<td>SEWN</td>
</tr>
<tr>
<td>19023</td>
<td>GREY</td>
<td>SEWN</td>
</tr>
</tbody>
</table>

**VENUS V-9220 SLV**

**CLASS:** FFP2 NR D

Protection: Solid Dust / Oil Mist

M.U.L: Upto 12 x TLV

Transparent Exhalation Vent Valve

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Elastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>19023</td>
<td>GREY</td>
<td>SEWN</td>
</tr>
</tbody>
</table>

**VENUS V-9230 SLV**

**CLASS:** FFP3 NR D

Protection: Solid Dust / Oil Mist

M.U.L: Upto 50 x TLV

Transparent Exhalation Vent Valve

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Elastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>19020</td>
<td>WHITE</td>
<td>SEWN</td>
</tr>
</tbody>
</table>

**Application examples**

- **Cement:** Crushing, Bagging, Cement handling
- **Ceramics:** Material mixing
- **Construction:** Sanding, Drilling, Cutting
- **Engineering:** Sand Blasting, Cutting
- **Mining:** Drilling, Material handling
- **Tyre:** Carbon black

**ISI Approved**

European Approval

Superior technology micro-fine filter media
- Protects from micro-fine respirable suspended particulate matter
- Higher dust holding capacity
- Doesn’t let the filter clog thereby increasing the respirator’s life

Color coded fittings
- Easy to identify
- Denotes the level of protection

Low Profile Design
- Fits wide range of face contours

Stay cool butterfly vent valve
- Provides breathing comfort and promotes easy communication
- Effectively removes heat build-up

Embedded nose clip inside media
- No loose parts, so no risk to safety in production

Half foam seal
- Provides a leak-proof and comfortable fit

Braided textile elastic
- Diminishes risk of reactions to skin allergy
- Does not deform with repeat wears, high temperature

Elastic sewn outside filter area
- Leakproof
- Avoids puncture

Compatibility
- Compatible with Venus head protection and eye protection devices

Bi-lingual user instructions
- For easy acceptance by different wearers

New! 2016

- Color coded fittings
- Easy to identify
- Denotes the level of protection
**V-2900**

*Style Convex Double Shell*

*Double outer Shell & soft inner shell*

Suits tough conditions yet offers high comfort

---

**European Approval**

Anti Clogging (NR D)
Having passed dolomite test, they resist clogging even in very high dust environments

Advanced microfibre media
- Restricts sub-micron particles, fine dust, water/oil based liquid mist and biological agents e.g. TB, SARS and pandemic influenza
- Tested for Dolomite clogging test

Color coded fittings
- Easy to identify
- Indicates the level of protection

Convex style double shell
- Classic collapse-resistant shell with seamed filter cover
- Maintains high integrity of filter media

---

**RESPIRATORS**

Pharma-Food industry variant available
- No Metal exposure
- Minimum lint
- Minimizes the risk of product contamination

Embedded nose clip inside media
No loose parts, so no risk to safety in production

Full foam seal (Only for V-2930)
- Absorbs perspiration offering more comfort
- Improves fitting and safety

Elastic welded outside filter area
- Leakproof
- Avoids puncture

Compatibility
Compatible with Venus head protection and eye protection devices

Bi-lingual user instructions
For easy acceptance by different wearers

Stay cool butterfly vent valve
- Provides breathing comfort and promotes easy communication
- Effectively removes heat build-up

---

**VENUS V-2910 SLV**

CLASS : FFP1 NR D

Protection : Solid Dust / Oil Mist

M.U.L: Upto 4 x TLV

Exhalation Vent Valve

Item # | Colour | Elastic
---|---|---
12239 | WHITE | SEWN

**VENUS V-2920 SLV**

CLASS: FFP2 NR D

Protection: Solid Dust / Oil Mist

M.U.L: Upto 12 x TLV

Exhalation Vent Valve

Item # | Colour | Elastic
---|---|---
12240 | WHITE | SEWN

**VENUS V-2930 SLV**

CLASS: FFP3 NR D

Protection: Solid Dust / Oil Mist

M.U.L: Upto 50 x TLV

Transparent Exhalation Vent Valve

Item # | Colour | Elastic
---|---|---
12236 | WHITE | WELDED

---

**Application examples**

Avian Flu
- Lead handling

Virus & Bacteria
- Material handling

Chemical
- Bulk drugs,
- Material handling

Pharmaceuticals

**TRANSPARENT VALVE**

**COMPATIBILITY**

**ANTI-CLOGGING**

**MULTI-LAYER**

**PHARMA-FOOD VARIANT**

**BILINGUAL USER INSTRUCTIONS**

**FULL FOAM SEAL**

---

21
**V-230** Style Convex BEY

*Large surface area due to pleated filters*  
*For high breathing comfort*

- **European Approval**
- **Anti Clogging (NR D)**  
  Having passed dolomite test, they resist clogging even in very high dust environments
- **High microfibre media**  
  Provides protection against sub-micron particles, fine dusts, water/oil based liquid mists and biological agents e.g. TB, SARS and pandemic influenza
- **Convex Big eye style**  
  Large surface area due to pleated filters for high breathing comfort
- **Color coded fittings**  
  - Allows easy identification
  - Indicates the level of protection
- **Low Profile Design**  
  Fits wide range of face contours

---

**VENUS V-230 SLV**

- **CLASS:** FFP3 NR D  
- **Protection:** Solid Dust / Oil Mist
- **M.U.L:** Upto 50 x TLV
- **Elastic**
- **WELDED**
- **Stay cool butterfly vent valve**  
  - Provides breathing comfort and promotes easy communication
  - Effectively removes heat build-up
- **Preventive measures**  
  - Activated Carbon Layer
  - Flame Retardant CLASS: FFP3 SLOV

---

**VENUS V-2735 SLOV-V**

- **CLASS:** FFP3 SLOV  
- **Protection:** Solid Dust / Oil Mist / Nuisance Level of odour
- **M.U.L:** Upto 50 x TLV
- **Activated carbon & Flame retardant outer layer**
- **Bi-lingual user instructions**  
  For easy acceptance by different wearers

---

**Application examples**

- Avian Flu
- Virus & Bacteria
- Battery: Lead handling
- Chemical: Material handling
- Pharmaceuticals: Bulk drugs, Material handling
## Nominal Protection Factor

**Nominal Protection Factor (Clause 8.4.3 - IS 9623:2008)**

<table>
<thead>
<tr>
<th>Device</th>
<th>Marking</th>
<th>Nominal Protection Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Filtering half mask</td>
<td>FFP1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>FFP2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>FFP3</td>
<td>50</td>
</tr>
<tr>
<td>b) Filter with quarter mask or half mask</td>
<td>FFP1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>FFP2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>FFP3</td>
<td>50</td>
</tr>
<tr>
<td>c) Filter with full face mask</td>
<td>FFP1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>FFP2</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>FFP3</td>
<td>1000</td>
</tr>
</tbody>
</table>

### Gas Filtering Devices

<table>
<thead>
<tr>
<th>Device</th>
<th>Marking</th>
<th>Nominal Protection Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Filter with quarter or half mask</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>b) Filter with full face mask</td>
<td></td>
<td>2000</td>
</tr>
</tbody>
</table>

### Fresh Air Hose Breathing Apparatus

<table>
<thead>
<tr>
<th>Device</th>
<th>Marking</th>
<th>Nominal Protection Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) With half mask</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>b) With hood (only powered)</td>
<td></td>
<td>1000</td>
</tr>
<tr>
<td>c) With full face mask</td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>d) With mouthpiece assembly</td>
<td></td>
<td>1000</td>
</tr>
</tbody>
</table>

### Compressed Airline Breathing Apparatus

<table>
<thead>
<tr>
<th>Device</th>
<th>Marking</th>
<th>Nominal Protection Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) With half mask</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>b) With hood</td>
<td></td>
<td>1000</td>
</tr>
<tr>
<td>c) With full face mask</td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>d) With mouthpiece assembly</td>
<td></td>
<td>10000</td>
</tr>
</tbody>
</table>

### Self-contained Open Circuit Component Air Breathing Apparatus

<table>
<thead>
<tr>
<th>Device</th>
<th>Marking</th>
<th>Nominal Protection Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) With full face mask</td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>b) With mouthpiece assembly</td>
<td></td>
<td>10000</td>
</tr>
<tr>
<td>c) With positive pressure</td>
<td></td>
<td>50000</td>
</tr>
</tbody>
</table>

### Self-Contained Closed Circuits Oxygen Breathing Apparatus

<table>
<thead>
<tr>
<th>Device</th>
<th>Marking</th>
<th>Nominal Protection Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) With full face mask**</td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>b) With mouthpiece assembly**</td>
<td></td>
<td>10000</td>
</tr>
<tr>
<td>c) With positive pressure**</td>
<td></td>
<td>50000</td>
</tr>
</tbody>
</table>

The nominal protection factors are given only for guidance. 
**In closed circuit breathing apparatus, the exhaled breath is re-circulated to remove carbon dioxide. Any other contaminant present is also re-circulated and may reduce the effective protection given by the device.”
V-500 Reusable Half Face Mask & V-7500 Single Filters

ISI Approved

Adjustable elastic band
Distributes weight evenly, provides head support and good fit

4 point strap tightening with head cradle
Front pull strap tightening gives the required ergonomic fit

Threaded cartridge
Easy to fit and replace

Packing
Re-sealable bag makes it easy to store and re-use without compromising on hygiene and also avoiding wear and tear

Light weight body
- Made from soft thermoplastic elastomer, skin friendly
- Low maintenance
- Minimum hindrance in working

Exhalation vent valve
Allows efficient escape of CO₂ & hot exhaled air

Single filter
- Low profile & provides more peripheral view
- Does not hinder while working and makes the use more convenient

Latex-free elastic
- Braided textile elastic is skin friendly
- Lasts longer without deforming

VENUS V-500 SF Half Mask
For single filter
Compatible with Venus V-7500 Filters

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>15024</td>
<td>GREY</td>
<td>MEDIUM</td>
</tr>
</tbody>
</table>

Application examples

Pesticides
- Pesticides spraying

Paints
- Paint spray, Mixing, Resins

Pharmaceuticals
- Bulk drugs, Material handling

Ships
- Tank cleaning

Sewage
- Drains

Battery
- Lead handling

Chemical
- Laboratory, Chemical spills

Cold storage
- Warehouses

Engineering
- Welding, Powder coating, Painting

Foundries
- Foundry areas

Mining
- Drilling

V-7500 Single Filters
VENUS single gas filters used in connection with the VENUS V-500 half masks

<table>
<thead>
<tr>
<th>FILTER</th>
<th>COLOUR CODE</th>
<th>HAZARD TYPE</th>
<th>TEST GASES</th>
<th>MAXIMUM USER LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VENUS V-7500 A1P1S Filter</td>
<td>Colour</td>
<td>Organic Vapour (OV)</td>
<td>Carbon Tetrachloride (CCl₄)</td>
<td>1000 ppm or 20 X OEL whichever is lower</td>
</tr>
<tr>
<td>Item # 17021</td>
<td>Colour</td>
<td>Inorganic Gases(IO)</td>
<td>Chlorine (Cl₂), Hydrogen Sulphide (H₂S), Hydrogen Cyanide (HCN)</td>
<td>1000 ppm or 20 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-7500 E1 Filter</td>
<td>Colour</td>
<td>Acid Gases(AG)</td>
<td>Sulphur Dioxide (SO₂)</td>
<td>1000 ppm or 20 X OEL whichever is lower</td>
</tr>
<tr>
<td>Item # 17020</td>
<td>Colour</td>
<td>Ammonia(AM) &amp; derivatives</td>
<td>Ammonia (NH₃)</td>
<td>1000 ppm or 20 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-7500 K1 Filter</td>
<td>Colour</td>
<td>OV/IO/AG/AM</td>
<td>Carbon Tetrachloride (CCl₄), Chlorine (Cl₂), Hydrogen Sulphide (H₂S), Hydrogen Cyanide (HCN), Sulphur Dioxide (SO₂), Ammonia (NH₃)</td>
<td>1000 ppm or 20 X OEL whichever is lower</td>
</tr>
<tr>
<td>Item # 17022</td>
<td>Colour</td>
<td>Particle Filter</td>
<td>Solid particles</td>
<td>4 X OEL</td>
</tr>
<tr>
<td>VENUS V-7500 P1 S Pre-Filter</td>
<td>Colour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item # 13082</td>
<td>Colour</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>VENUS V-500 COMBO A1 P1S Filter</td>
<td>Colour</td>
<td>Organic Vapour(OV)</td>
<td>Carbon Tetrachloride (CCl₄)</td>
<td>1000 ppm or 20 X OEL whichever is lower</td>
</tr>
<tr>
<td>Item # 15030</td>
<td>Colour</td>
<td>Acid Gases(AG)</td>
<td>Sulphur Dioxide (SO₂)</td>
<td>1000 ppm or 20 X OEL whichever is lower</td>
</tr>
</tbody>
</table>
**ACE SERIES**

**V-800** Reusable Half Face Mask & **V-7800** Dual filters

- **Light weight body**
  - Made from soft thermoplastic elastomer, skin friendly
  - Low maintenance
  - Minimum hindrance in working

- **Exhalation vent valve**
  - Allows efficient escape of CO\(_2\) and exhaled air

- **Threaded cartridge**
  - Easy to fit and replace

- **Size options**
  - Available in small, medium and large sizes to facilitate better fit

**VENUS V-800 DF**

For dual filter

Compatible with Venus V-7800 Filters

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>15076</td>
<td>GREY</td>
<td>SMALL</td>
</tr>
<tr>
<td>15025</td>
<td>GREY</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>15132</td>
<td>GREY</td>
<td>LARGE</td>
</tr>
</tbody>
</table>

**Application examples**

- **Battery**
  - Lead handling
  - Laboratory, Chemical spills
  - Warehouses
  - Welding, Powder coating, Painting
  - Foundry areas
  - Drilling

- **Petrochemicals**
  - Pesticides
  - Paints
  - Pharmaceuticals
  - Ships
  - Sewage

- **Unventilated areas**
  - Pesticides spraying
  - Paint spray, Mixing, Resins
  - Bulk drugs, Material handling
  - Tank cleaning
  - Drains

- **Engineering**
  - Foundries

- **Mining**
  - Drilling

- **Cold storage**
  - Laboratories

- **Chemical**
  - Chemical spills

- **Laboratory**
  - Chemical spills

- **Labour**
  - Chemical spills

- **Sewage**
  - Drains

- **Drains**

- **TPE material**

- **Adjustable Strap**

- **Latex-free elastic**
  - Braided textile elastic is skin friendly and lasts longer without deforming in high temperature

- **4 point Adjustable elastic band**
  - Distributes weight evenly
  - Provides head support and good fit

- **Packing**
  - Re-sealable bag makes it easy to store and re-use without compromising on hygiene and also avoiding wear and tear

- **Compatibility**
  - Compatible with most other PPEs
### Venus dual gas filters pair-wise used in connection with the Venus V-800 half masks

<table>
<thead>
<tr>
<th>FILTER</th>
<th>COLOUR CODE</th>
<th>HAZARD TYPE</th>
<th>TEST GASES</th>
<th>MAXIMUM USER LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VENUS V-7800 A1 Filter + Pre-filter P2R Item # 17087</td>
<td></td>
<td>Organic Vapour (OV) + Particulate filter</td>
<td>Cyclohexane (C₆H₁₂)</td>
<td>1000 ppm or 10 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-7800 B1 Filter Item # 17091</td>
<td></td>
<td>Inorganic Gases(IO)</td>
<td>Chlorine (Cl₂), Hydrogen Sulphide (H₂S), Hydrogen Cyanide (HCN)</td>
<td>1000 ppm or 10 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-7800 E1 Filter Item # 17088</td>
<td></td>
<td>Acid Gases(AG)</td>
<td>Sulphur Dioxide (SO₂)</td>
<td>1000 ppm or 10 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-7800 K1 Filter Item # 17089</td>
<td></td>
<td>Ammonia(AM) &amp; derivatives</td>
<td>Ammonia (NH₃)</td>
<td>1000 ppm or 10 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-7800 ABEK1 Filter + Pre-filter P2R Item # 17090</td>
<td></td>
<td>OV/IO/AG/AM + Particulate filter</td>
<td>Cyclohexane (C₆H₁₂), Hydrogen Sulphide (H₂S), Chlorine (Cl₂), Hydrogen Cyanide (HCN), Sulphur Dioxide (SO₂), Ammonia (NH₃)</td>
<td>1000 ppm or 10 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-7800 P3R HEPA Filter Item # 17026</td>
<td></td>
<td>Particle Filter</td>
<td>Non highly volatile liquid / solid particles</td>
<td>50 X OEL</td>
</tr>
<tr>
<td>VENUS V-7800 P3R PANCAKE Filter Item # 17129</td>
<td></td>
<td>Particle Filter</td>
<td>Non highly volatile liquid / solid particles</td>
<td>50 X OEL</td>
</tr>
<tr>
<td>VENUS V-7800 P3R OV PANCAKE Filter Item # 17178</td>
<td></td>
<td>Particle Filter with nuisance odour filter</td>
<td>Non highly volatile liquid / solid particles</td>
<td>50 X OEL</td>
</tr>
<tr>
<td>VENUS V-7800 A1 P3R Filter Item # 17062</td>
<td></td>
<td>Combined Filter OV+ Particle Filter P3 with Hepa particle filter</td>
<td>Cyclohexane (C₆H₁₂)</td>
<td>1000 ppm or 10 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-7800 ABEK1 P3R Filter Item # 17059</td>
<td></td>
<td>Combined Multigas Filter (OV/IO/AC/AM) + Particle Filter P3</td>
<td>Cyclohexane (C₆H₁₂), Hydrogen Sulphide (H₂S), Chlorine (Cl₂), Hydrogen Cyanide (HCN), Sulphur Dioxide (SO₂), Ammonia (NH₃)</td>
<td>1000 ppm or 10 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-800 COMBO ABEK1+P2R Filter Item # 15054</td>
<td></td>
<td>Combined Multigas Filter OV/IO/AG/AM + P2 Particle Filter</td>
<td>Cyclohexane (C₆H₁₂), Hydrogen Sulphide (H₂S), Chlorine (Cl₂), Hydrogen Cyanide (HCN), Sulphur Dioxide (SO₂), Ammonia (NH₃)</td>
<td>1000 ppm or 10 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-800 COMBO A Filter + P2R blister pack Item # 15047</td>
<td></td>
<td>Combined Filter OV+ P2 Particle Filter</td>
<td>Cyclohexane (C₆H₁₂)</td>
<td>1000 ppm or 10 X OEL whichever is lower</td>
</tr>
<tr>
<td>VENUS V-800 COMBO ABEK1 Filter+P2R +Retail blister pack Item # 15133</td>
<td></td>
<td>Combined Multigas Filter OV/IO/AG/AM + P2 Particle Filter</td>
<td>Cyclohexane (C₆H₁₂), Hydrogen Sulphide (H₂S), Chlorine (Cl₂), Hydrogen Cyanide (HCN), Sulphur Dioxide (SO₂), Ammonia (NH₃)</td>
<td>1000 ppm or 10 X OEL whichever is lower</td>
</tr>
</tbody>
</table>
FAQs

1. How to calculate protection factor?
   You should aim at reducing the concentration inside the respirator to below any applicable occupational exposure limit (OEL). RPE uses a system called Assigned Protection Factor (APF), the factor by which the equipment reduces the contaminant concentration. An APF of 4, for example, means that the contaminant concentration will reduce to a quarter. Choose the equipment that has an APF which exceeds the OEL, keeping margin for equipment error and other factors.

Example 1: Complete Equipment
   Filtering half mask FFP1
   Permitted total inward leakage = 22%

   Nominal Protection Factor = \frac{1}{\text{Permitted total inward leakage}} = \frac{1}{22} \times 100 = 4.5

Example 2: Multi-component Equipment
   Particle filter P1 and half mask
   Permitted inward leakage through the filter 20%
   Permitted inward leakage at the face seal and exhalation valve 2%

   Nominal Protection factor = \frac{1}{22} \times 100 = 4.5

Example 3:
   How to estimate the protection factor required?
   Contaminant: Harmful airborne dust
   Concentration: the time-weighted average is 20mg/m³
   The occupational exposure limit: 0.2 mg/m³
   The required minimum protection factor is 20/0.2 = 100 from the list of respiratory protection devices can be seen the types of equipment which may meet this requirement if used correctly.

Example 4:
   The maximum allowed concentration of contaminant with P2 filter and full face mask:
   Contaminant: Chlorine
   Occupational exposure limit: 1 ppm
   Full face mask gives a nominal protection factor
   P2 + full mask gives a nominal protection factor 2000
   2000 x 1 ppm = 2000 ppm = 0.2% chlorine

2. How to assess respirator fitting?
   Face fit for the wearer is critical as the face-fitting range relies on a tight face fit, to be effective. Facial features such as scars and beards, as well as the shape and size of the wearer's head and face can affect the fit. A formal fit test is essential.

3. When is respirator fit test required?
   Fit testing of all negative or positive pressure tight-fitting face piece respirators is required prior to initial use, whenever a different respirator face piece is used, and at least annually thereafter. An additional fit test is required whenever there are changes in the user's physical condition that could affect respirator fit (e.g. facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight). The employee must be fit tested with the same make, model, style, and size of respirator that will be used.

4. What are the guidelines for Selection, Training, Use, Maintaining and Storing respirators?
   Refer to IS 9623:2008 & IS 8347:2007

5. How long can a particulate respirator be used before it must be discarded?
   Respirators with replaceable filters are reusable, and a respirator classified as disposable may be reused depending upon the intensity of particulate matter in the atmosphere. All filters must be replaced whenever they are damaged, soiled, or causing discomfort to the wearer (e.g. increased breathing resistance). Before each use, the exterior of the filter material should be inspected. If the filter material is physically damaged or soiled, the filter should be changed (in the case of respirators with replaceable filters) or the respirator discarded (in the case of disposable respirators). Always follow the respirator manufacturer user instructions. Employers must develop standard operating procedures for storing, reusing, and disposing of respirators that have been designated as disposable and for disposing of replaceable filter elements.
**V-666 TPE / NP Full Face Mask**

**6-Strap Head Harness**
- Facilitates even distribution of weight and gives head support.
- Good skin comfort in tough conditions.
- Provides leak-proof fit.

**Flame retardant textile cradle**
- Neck straps: Adjustable for better handling.

**Zero power hard coated visor**
- PC lens impact resistant for face protection.
- High clarity, durability and double anti-fog.

**Inner face piece silicone**
- Prevents fogging on visor.

**Option to use twin filters**
- Special Venus threads for superior ergonomic fit.

**Standard Thread**

**New! 2016**
- Adjustable Penta Belt.
  - Gives head support and even distribution of weight.
  - Good skin comfort in tough conditions.
  - Provides leak-proof fit.

**Produced from TPE**
- Easy to use.
- Low maintenance.

**Inner face piece**
- Prevents face fogging.

**Speech diaphragm**
- For easy and audible communication.

**Compatible with** Venus V-776 / V-7800 Filters for class 2 & class 1.

**Silicone exhalation valve**
- Efficient ventilation system with easy maintenance.

**Application examples**
- Petrochemicals
- Pesticides spraying
- Paint spray, Mixing, Resins
- Bulk drugs, Material handling
- Tank cleaning
- Drains
- Battery
- Chemical
- Cold storage
- Engineering
- Foundries
- Mining
- Lead handling
- Laboratory, Chemical spills
- Warehouses
- Powder coating, Painting
- Foundry areas
- Drilling

**VENUS V-666**
- Single Filter - NP
- Item #: 15012
- Colour: BLACK
- Size: MEDIUM

**VENUS V-668 DF**
- Dual Filter - TPE
- Item #: 15014
- Colour: GREY
- Size: MEDIUM

**VENUS V-668 SF**
- Single Filter - TPE
- Item #: 15013
- Colour: GREY
- Size: MEDIUM
**V-777** Reusable Silicone Full Face Mask

**S-Strap head harness**
- Gives head support and even distribution of weight
- Good skin comfort in tough conditions
- Provides leakproof fit

**Zero power hard coated Toric visor**
- PC lens impact resistant for face protection
- High clarity, durability and double anti-fog
- For wide vision

**Two point Adjusters**
- For quick fit

**Standard Thread**
- RD40 Thread for connection to any standard thread, canister as per IS 14138 (Part1): 1994

**Flame retardant textile cradle**
- Withstands high temperature
- Skin friendly

**Produced from silicone rubber**
- Light in weight and comfortable to use

**Head harness**
- Flame retardant material withstands high temperature

**Inner face piece silicone**
- Prevents fogging on visor

**Neck straps**
- Adjustable for better handling

**Silicone exhalation valve**
- Efficient ventilation system with easy maintenance

**Speech diaphragm**
- For easy and audible communication

---

**Application examples**

- **Petrochemicals**
  - Pesticides spraying
  - Paint spray, mixing, resins

- **Pesticides**
  - Bulk drugs, material handling
  - Tank cleaning

- **Paints**
  - Drains

- **Pharmaceuticals**
  - Lead handling
  - Laboratory, chemical spills

- **Ships**
  - Powder coating, painting
  - Foundry areas

- **Sewage**
  - Drilling
VENUS Gas filters in standard connection suitable for VENUS Full Face Masks or PAPR’s.

<table>
<thead>
<tr>
<th>FILTER</th>
<th>COLOUR CODE</th>
<th>HAZARD TYPE</th>
<th>TEST GASES</th>
<th>MAXIMUM USER LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VENUS V-776</td>
<td></td>
<td></td>
<td>Carbon Tetrachloride (CCl₄)</td>
<td>5000 ppm or 2000 X OEL whichever is lower, 0.5% by volume</td>
</tr>
<tr>
<td>A2 Filter</td>
<td></td>
<td>Organic Vapour (OV)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item # 17014</td>
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<td></td>
<td></td>
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<tr>
<td>VENUS V-776</td>
<td></td>
<td>Inorganic Gas (IO)</td>
<td>Chlorine (Cl₂), Hydrogen Sulphide (H₂S)</td>
<td>5000 ppm or 2000 X OEL whichever is lower, 0.5% by volume</td>
</tr>
<tr>
<td>B2 Filter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item # 17013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VENUS V-776</td>
<td></td>
<td>Acid Gas (AC)</td>
<td>Sulphur Dioxide (SO₂)</td>
<td>5000 ppm or 2000 X OEL whichever is lower, 0.5% by volume</td>
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<tr>
<td>E2 Filter</td>
<td></td>
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<tr>
<td>Item # 17011</td>
<td></td>
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<tr>
<td>VENUS V-776</td>
<td></td>
<td>Ammonia (AM) &amp; derivatives</td>
<td>Ammonia (NH₃)</td>
<td>5000 ppm or 2000 X OEL whichever is lower, 0.5% by volume</td>
</tr>
<tr>
<td>K2 Filter</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Item # 17012</td>
<td></td>
<td></td>
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<tr>
<td>VENUS V-776</td>
<td></td>
<td>Multigas (OV/IO/AC/AM)</td>
<td>Carbon Tetrachloride (CCl₄), Chlorine (Cl₂), Hydrogen Sulphide (H₂S), Sulphur Dioxide (SO₂), Ammonia (NH₃)</td>
<td>5000 ppm or 2000 X OEL whichever is lower, 0.5% by volume</td>
</tr>
<tr>
<td>ABEK2 Filter</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Item # 17037</td>
<td></td>
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<td></td>
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<tr>
<td>VENUS V-776</td>
<td></td>
<td>Combined Filter</td>
<td>Carbon Tetrachloride (CCl₄) with HEPA particle filter</td>
<td>5000 ppm or 2000 X OEL whichever is lower, 0.5% by volume</td>
</tr>
<tr>
<td>A2 P3 Filter</td>
<td></td>
<td>OV + Particle Filter P3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item # 17144</td>
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<td></td>
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</tr>
<tr>
<td>VENUS V-776</td>
<td></td>
<td>Combined Multigas Filter</td>
<td>Carbon Tetrachloride (CCl₄), Chlorine (Cl₂), Hydrogen Sulphide (H₂S), Sulphur Dioxide (SO₂), Ammonia (NH₃) with HEPA filter</td>
<td>5000 ppm or 2000 X OEL whichever is lower, 0.5% by volume</td>
</tr>
<tr>
<td>ABEK2 P3 Filter</td>
<td></td>
<td>(OV/IO/AC/AM) + Particle Filter P3</td>
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</tr>
<tr>
<td>Item # 17143</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>VENUS V-776</td>
<td></td>
<td>Particle Filter P3</td>
<td>Non highly volatile liquid / solid particles</td>
<td>1000 X OEL</td>
</tr>
<tr>
<td>P3 Hepa Filter</td>
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<tr>
<td>Item # 17179</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
ESCAPE MASK
Smoke Escape Mask

European Approval

Electrostatic particle filter
- Highly efficient
- Low pressure-drop enables easy breathing

Multi-valve breathing device
Enables easy communication while mask is worn

Better orientation
- Wide view.
- Transparent film on visor enables 95% light transmission

State-of-the-art filtration unit
- Multi layer impregnated activated carbon enables maximum absorption of toxic gases
- Works as a catalyst for carbon monoxide oxidation

High performance
- Fire resistant (as per NFPA 701)
- Flame retardant polychloroprene latex
- Hood resists 200°C temperature
- Visor resists 150°C temperature

Packaging weight and shelf life
Less than 1 kg & lasts 5 years until opened

Filter capacity
- Particulate matter
- Gases (HCl, HCN, CO, Propeno)

Ease of portability and storage
Small size and less weight makes it portable and easy to store

Universal adult size,
complies inward leak test
- Lowers inventory
- No need to store multiple sizes
- Easy to distribute amongst workers as no size-wise bifurcation needed while distribution

User friendly instructions
- Easy to grasp instructions on package
- No advanced training required

Effortless wearing
Upto 8 times enlargeable elastic and resilient latex hood for easy and effortless wearing process

Ready for use
Pre-assembled and ready for use

Physiological comfort
Minimal dead space prevents buildup of heat vapors and CO₂

Packing

Application examples
- Chemical / First responders
- Law enforcement agencies
- High-rise Buildings
- Hospitals
- Hotels
- IT office

DURAM SMOKE HOOD
Item # 13183
VENUS Clean Air Basic Universal

Powered Air Purifying Respirator (PAPR)

A time-tested powered respiratory system determined for workplaces with air contaminated by particles. An easily exchangeable P3 particle filter protects against solid and liquid particles (e.g., toxic dust, smoke, fibre, mist, fumes, bacteria and viruses).

**Technical specification**

<table>
<thead>
<tr>
<th>Specification</th>
<th>VENUS Clean Air Basic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow rate:</td>
<td>*140 l/min -160 l/min</td>
</tr>
<tr>
<td>Weight (incl. filter and battery):</td>
<td>900g</td>
</tr>
<tr>
<td>Filter type:</td>
<td>PSL</td>
</tr>
<tr>
<td>Filter Efficiency:</td>
<td>99.998%</td>
</tr>
<tr>
<td>Noisiness:</td>
<td>Max. 61dB</td>
</tr>
<tr>
<td>Operating duration:</td>
<td>**6-9 h</td>
</tr>
<tr>
<td>Filter Certification:</td>
<td>EN 12941 TH1PSL</td>
</tr>
</tbody>
</table>

**User-friendly design**

Easy to use control panel with well-arranged pictograms

**Compatibility**

- Compatible with whole range of Venus headpieces
- Can be used in a wide range of applications

**Application examples**

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>Lead handling</td>
</tr>
<tr>
<td>Chemical</td>
<td>Bulk drugs, Welding, Sand Blasting, Powder coating, Buffing, Painting</td>
</tr>
<tr>
<td>Engineering</td>
<td></td>
</tr>
<tr>
<td>Paints</td>
<td>Paint spray, Mixing</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>Bulk drugs, Material handling</td>
</tr>
</tbody>
</table>
CleanAir Chemical

A powered respiratory system for use against gaseous contaminants as well as their combination with particle pollutants. The unit is designed for standard filters with screw Rd40*1/7" acc. EN 148-1.

Technical specification

- **Flow rate:**
  - *140 l/min - 160 l/min - ECO mode
  - *180 l/min - 200 l/min - TURBO mode
- **Battery type:** NiMH 6V/4.5Ah
- **Weight (incl. filter and battery):** 1050g
- **Noisiness:** Max. 62 dB
- **Operating duration:** **6.5 - 12 h**
- **Filter Certification:** EN 12941

*with fully charged battery and clean filters.
**parameters depend on the chosen operating regime.

Venus CleanAir Chemical

Set includes Battery, Charger, PVC Breathing Hose
Compatible with Venus Hoods & Venus V776 filters

| Item # | 13016 |

Accessory

- **Venus CleanAir Chemical**
- **Battery**
  - Item # 13186

Application examples

- **Battery**
  - Lead handling
- **Chemical**
  - Material handling
- **Engineering**
  - Welding, Painting
- **Paints**
  - Paint spray, Mixing
- **Pharmaceuticals**
  - Bulk drugs, Material handling

European Approval

Compatible
- With whole range of Venus hoods and chemical filters V-776 type, RD 40 thread
- Can be used in a wide range of applications

High Protection
- Protects from particles, gases & vapour
- Use for dust, non-toxic and toxic fumes, gases & vapours

Light weight
- Can be used for long duration applications
- Good comfort to wearer

User-friendly design
- Simple control panel with well-arranged pictograms

Rechargeable battery
- Ensures operations for up to 10 hours
CleanAir Autoflow

Powered Air Purifying Respirator (PAPR)

European Approval

High resistance
Mechanical and chemical resistance

Different modes
Can be used as HOOD or MASK

Decontamination
Can be decontaminated by a shower

Advanced electronic system
For warning the wearer

Service indicator
Informs the users about service interval expiration

Chemical 3F

Set includes Battery, Charger, PVC Breathing Hose
Compatible with Venus Hoods / Coverall & Venus V776 chemical filters

ITEM CODE 13401

Technical Specification

Airflow 120-235 LPM
Weight incl. battery 1420g
Noisiness max 62 dB
Operating duration 8-10 h
Dimensions 320mm / 200mm / 150mm
Battery type Li-ion 14,4V/2.6Ah
Certification EN 12941 TH2/TH3,
EN 12942 TM2/TM3

Particle 2F

Set includes Battery, Charger, PVC Breathing Hose
Compatible with Venus Hoods / Coverall & Venus V776 particle filters

ITEM CODE 13400

Technical Specification

Airflow 120-235 LPM
Weight incl. battery 960g
Noisiness max 62 dB
Operating duration 7-10 h
Dimensions 240mm / 110mm / 120mm
Battery type Li-ion 14,4V/2.6Ah
Certification EN 12941 TH2/TH3,
EN 12942 TM2/TM3

Suggested Applications

Heavy industrial environments
Chemical industry
Laboratories
Pharmaceutical industry
Remediation operations
As the name suggests, the Supplied Air Respirator Unit, supplies clean air to the wearer. The air is filtered after being supplied from a compressor. Hoods, helmets, full face pieces, half face pieces and loose-fitting face pieces can be worn to which this clean air can be supplied.

The Supplied Air Respirator Unit increases comfort, productivity and protection while offering many advantages over other respiratory protection systems.

**Clean Air Basic Spiral Hose**
- 10 Meter Length
- Item # 13052

**Airline PVC Braided Hose**
- 10 Meter Length
- Item # 13111

**Airline PVC Braided Hose**
- 30 Meter Length
- Item # 13166

**Low Pressure Conditioner**
- Regulator, PC Bowl, Coalescing + Borosilicate 0.3 micron Particulate + GAC odour filter, Gauge and manual drain.
- Inlet Ø 6 mm
- Item # 13097

**Air pre-filter-regulator**
- Metal bowl coalescing type for removal of liquid water
- Inlet / Outlet Ø 12 mm
- Item # 13046

**High Pressure Conditioner**
- with metal container, high capacity combined filter inside for particulate and odour, gauge and manual drain.
- Inlet Ø12mm
- Item # 13055

**Pressure Control Valve**
- Low Pressure Connector CA40M
- High Pressure Connector CA40M
- EN 14594:05 2A
- Item # 13045

**Flow Control Valve**
- Low pressure Connector CA40M
- Item # 13156

**Flow Control Valve**
- High Pressure Connector CA40M
- EN 14594:05 2A
- Item # 13045

**Breathing Tube**
- PVC Breathing Hose with Connector
- CA40F & CA40M
- Item # 13160

**Application examples**
- **Engineering**
  - Welding, Sand Blasting, Powder coating, Buffing, Painting, Cutting
  - Drilling
- **Mining**
  - Petrochemicals
  - Unventilated areas
- **Paints**
  - Pharmaceuticals
  - Ships
  - Waste treatment
- **Paint spray, Mixing**
  - Bulk drugs, Material handling
  - Tank cleaning
  - Sewage handling,
  - Cleaning drains
- **Waste treatment**
  - Sewage handling,
  - Cleaning drains
Hoods for SA & PAPR

Face pieces like hoods and full face pieces are attached with connectors to the pressure connectors. They are light in weight and are ideal for long wear periods. Compatible with SA & Powered air respirators.

Supplied air
waist flow control devices

Protection film for
CA2 Hood (optional)

Universal Hood CA2- Painting Construction of material-Typek
Connector CA40F
Item # 13178

Universal Hood CA 2
Construction of material-
Typek
Connector CA40F
Item # 13069

Universal Hood CA2
EN 12941:1998
EN 14594:2005
Connector CA40F
Item # 13019

Grinding Visor CA3
Connector CA40F
Item # 13057

CA40F & CA40M

PVC Breathing Hose
with Connector
(Hood-Valve)

Protection film for
CA2 Hood (optional)

CA40F & CA40M

Breathing Tube
This tube delivers air to the
face piece. Careful selection
of material of breathing tube
would be important since it
could be more vulnerable to
the surrounding atmospheric
contaminants.

CA40F & CA40M

Hoods for SA & PAPR

Powered air purifying respirator

CA40F & CA40M

Powered air purifying respirator

Safety Helmet CA4
for Indl-Engg.
Item # 13040

Welding Hood CA27
Item # 13182

Full Face Mask
V-777
Item # 13151

Full Face Mask
V-668+ SF
Item # 15013

Full Face Mask
V-777
Item # 13168

Universal Hood CA2- Painting Construction of material-Typek
Connector CA40F
Item # 13178

Universal Hood CA 2
Construction of material-
Typek
Connector CA40F
Item # 13069

Universal Hood CA2
EN 12941:1998
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Item # 13182

Full Face Mask
V-777
Item # 13151

Full Face Mask
V-668+ SF
Item # 15013

Full Face Mask
V-777
Self Contained Breathing Apparatus

Emergency rescue / respond device

Application examples
- Fire Services
- Respondent / Rescue / Escape
- Highly hazardous industry

Carbon composite cylinder
- Cylinder Pressure: 6.8 Ltr, 300 bar
- Work life: 45 minutes
- Item #: 13196
- With Cylinder gauge
- Item #: 13208
- W/o. Cylinder gauge

Steel cylinder
- Cylinder Pressure: 6.2 Ltr, 300 bar
- Work life: 45 minutes
- Item #: 13197

ABS Carrying case
- Item #: 13187

Wooden case
- Item #: 13198

Head strap in flame retardant material
Silicone full face mask
- Toric lens for wide vision
- Shock resistant & scratch resistant
- Easy & quick to use & low maintenance

Adjustable waistband
- With quick release buckles

Dual quick release coupling
- Facilitates instant coupling & decoupling with auxiliary outlet for emergency rescue

Reflective flame retardant harness
- For high visibility
- Withstands high temperatures

Water proof remote pressure gauge with alarm
- Denotes air flow pressure from cylinder
- Handy when cylinder is back-mounted

Pressure gauge on cylinder
- Denotes cylinder pressure at standby mode

User instructions and training CD

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Pressure gauge on cylinder
- Denotes cylinder pressure at standby mode

User instructions and training CD
Hearing Protection

Hearing Protection Need:
Noise risk assessment is usually a requirement at industrial workplaces / factories. At a workplace, if two people at two meter distance from each other have to raise their voices to be heard, it indicates the need for noise risk assessment. The purpose of a workplace noise risk assessment is to identify persons who may be exposed to higher levels of noise and / or for longer exposure period.

Hearing Hazard and their Effects
The effects of noise induced hearing loss are
- Psychological- Can cause stress / interferes with communication & concentration
- Interference with job performance and safety
- Physiological- aural pain, or even nausea

Rating Terms
Each rating number is based upon different test standards, test frequencies and calculation methods, and any given hearing protector generates different numbers depending on the rating method used. For example, single-use earplug displays the following ratings:
- NRR 32
- SNR 35 (H=34, M=32, L=31)
- SLC 25.0 (Class 4)

Noise Reduction Rating (NRR):
It is specified in USA by 40 CFR (Code of Federal Regulations) Part 211, Product Noise Labeling (ANSI S12.6-1997). The current range of NRR available extends from 0 to 33 decibels. The NRR is derived from an involved calculation that begins with attenuation test results from at least ten laboratory subjects across a range of frequencies. The NRR estimates the amount of protection achievable by 98% of users in a laboratory setting when hearing protectors are properly fitted. The higher the NRR, the greater reduction in noise level.

Single Number Rating (SNR):
It is calculated in accordance with ISO 4869-2(1994). Independent laboratories test earplugs to determine their SNR value which can be used to compare the level of noise attenuation offered by different hearing protectors. To determine acoustic pressure on your ears, SNR value needs to be subtracted from the average noise level measured.

For example:
- The machine noise in a plant measures an average of 99dB.
- You are wearing the Ear Plug with a SNR of 19.
- Thus, the acoustic pressure on your ears is on average 80 dB (99 – 19 = 80 dB).

SOUND LEVEL CONVERSION (SLC80) rating as applied to hearing protection devices (HPD) is a simple number and class rating derived from a test procedure outlined in the Australian / New Zealand Standard, AS/NZS 1270: 2002. It provides a simple number guide to the level of noise attenuation (reduction) that can be expected from a particular HPD. Because humans are different, the level of protection achieved for each person could also be different and so a scientific formula is used to allow for differences. The SLC value includes a correction to ensure that the stated degree of noise reduction is obtained on 80% of occasions, hence the SLC80 rating. The SLC80 rating is the difference between the sound level of the environment in which the HPD is worn and the sound level reaching the wearer’s ears. The testing procedure can be separated into two different areas: Mechanical Testing & Audiometric Testing.
Single use (Disposable) Earplugs
This is the most common type of protection. Such earplugs are usually made of a PU (polyurethane) foam. They are compressed or rolled-down prior to insertion following which they slowly re-expand to fill the ear canal. They come with or without a pre-attached cord and are usually one-size-fit-all.
(Earplugs of different sizes are also available.)

Reusable Earplugs
Multiple-use ear plugs are typically moulded with a semi-rigid stem and pliable flanges, so they don't require rolling prior to insertion. They insert easily and can be quite comfortable for extended periods.

How to Choose Ear Protection Equipment
- Identify the level and type of noise
- Identify the environment
- Choose equipment that fits well

Identify the level and type of noise
Permissible noise exposure scale

<p>| | | | | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>85</td>
<td>dB</td>
<td>8 hours</td>
<td></td>
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<td>88</td>
<td>dB</td>
<td>4 hours</td>
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<td>91</td>
<td>dB</td>
<td>2 hours</td>
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<td>94</td>
<td>dB</td>
<td>1 hour</td>
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<td>97</td>
<td>dB</td>
<td>30 minutes</td>
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<tr>
<td>100</td>
<td>dB</td>
<td>15 minutes</td>
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<td></td>
</tr>
<tr>
<td>103</td>
<td>dB</td>
<td>7.5 minutes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>dB</td>
<td>3.75 minutes ( &lt; 4 min)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>dB</td>
<td>1.875 minutes ( &lt; 2 min)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>dB</td>
<td>.9375 min ( ~ 1 min)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>115</td>
<td>dB</td>
<td>.46875 min (~ 30 Sec)</td>
<td></td>
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</tr>
</tbody>
</table>

Choose equipment that fits well
Ear muffs
To be used when the noise exposure is intermittent
- Are easier to fit
- Are generally more durable than plugs
- Have replaceable parts
Ear Plugs
- To be used when the noise is continuous
- Are simple to use
- Are less expensive than muffs for short term work
- Are more comfortable in hot or damp work areas

FAQ
Q: How can I tell if a noise situation is too loud?
A: There are two rules: First, if you have to raise your voice to talk to someone who is an arm’s length away, then the noise is likely to be hazardous. Second, if your ears are ringing or sounds seem dull or flat after leaving a noisy place, then you probably were exposed to hazardous noise.

Q: How often should your hearing be tested?
A: Anyone regularly exposed to hazardous noise should have an annual hearing test. Also, anyone who notices a change in his /her hearing (ringing or buzzing in the ears) should have his or her ears checked. People who have healthy ears and who are not exposed to hazardous noise should get a hearing test every three years.

Identify the environment
Standard Decibel Levels
Q: What is the difference between Disposable and Reusable earplugs?
A: Disposable earplugs and reusable ones are not very different in the level of hearing protection. The major difference, however, is in how they stand up to wear and tear. A disposable (single use) PU earplug will degrade after first use. PU is not environmental friendly and end up in landfill. Unlike disposables, most reusable ear plugs are made of TPE material. It's environment friendly product. Other apparent benefits of using a reusable earplug are stated below. It does not require rolling for insertion, so it is a good pick in case of soiled hands. Moreover, it doesn't require the user to wait to let foam recover unlike a disposable one. Plus, the user will be able to easily get multiple wears out of it since reusable earplugs are designed with added durability in mind. They degrade slower than disposable earplugs since they're typically made with a more resilient design and material to suit washing and hygienic repeat wears.

Q: What is the difference between earplugs and earmuffs?
A: Earplugs are simple to use, less expensive than muffs, and more comfortable in hot or damp work areas. Ear muffs are easier to fit, generally more durable than plugs, and have replaceable parts. In areas where noise levels are very high, muffs and plugs can be worn together to give better protection.

Q: Will the eardrums be poked out with earplugs?
A: That is unlikely for two reasons. First, the average ear canal is about 1 inch long. The typical ear plug is between 1/2 to 3/4 of an inch long. So even if you insert the entire earplug, it would still not touch the eardrum. Secondly, the path from the opening of the ear canal to the eardrum is not straight. In fact, it is quite irregular. This prevents you from poking objects into the eardrum.

Q: If earplug and earmuff are used together, will the NRR be total of both the equipments?
A: Earplugs worn in combination with earmuffs, helmets, or communications headsets, typically provide greater protection than either device alone. However, the attenuation of the combination is not equal to the sum of the individual attenuation values. For example, at 1000 Hz the combination of a 19-dB plug and a 21-dB muff does not yield 40-dB overall, but rather about 31dB. The simplified solution would be to add 10 dB over the highest device viz 21dB + 10 dB = 31dB.

Q: What is the unit measurement of noise?
A: It is calculated in Decibel (dB). For every 5 dB increase, the noise is louder by double.
Suggested Applications

- **Airport**: Aircraft marshaling, Bagging
- **Cement**: Crushing, Bagging
- **Ceramics**: Material mixing
- **Construction**: Sanding, Drilling, Cutting
- **Engineering**: Sand Blasting, Buffing, Cutting
- **Mining**: Drilling, Material handling
- **Pharmaceuticals**: Material handling
- **Textiles**: Spinning, Weaving

**VENUS H-101 Earplug**

- NRR 32 dB

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Cord</th>
</tr>
</thead>
<tbody>
<tr>
<td>16011</td>
<td>Orange</td>
<td>Corded</td>
</tr>
<tr>
<td>16017</td>
<td>Orange</td>
<td>Uncorded</td>
</tr>
<tr>
<td>16039</td>
<td>Orange</td>
<td>Metallic detectable for Pharma/ Food</td>
</tr>
</tbody>
</table>

**VENUS H-103 Earplug**

- NRR 32 dB

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Cord</th>
</tr>
</thead>
<tbody>
<tr>
<td>16013</td>
<td>Orange</td>
<td>Corded</td>
</tr>
<tr>
<td>16018</td>
<td>Orange</td>
<td>Uncorded</td>
</tr>
</tbody>
</table>

**VENUS Earplug Dispenser**

Item #: 16066

Soft Polyurethane foam
- Single use, hygienic

- **Soft Polyurethane foam**
  - Ultimate comfort fit allows easy use for long duration without discomfort
  - One size fits all
  - No need to stock different sizes
  - Lowers inventory

- **Adequate sound protection**
  - With NRR 32, user is well-protected from noisy environments

- **Textile cord**
  - Reduces transmission of sound
  - Skin friendly

- **Easy Accessibility**
  - Earplugs can be dispensed directly from the packing

**VENUS Earplug Pharmaceutical Variant**

- Clearly identifiable with metal detector

**ISI Approved**

**ISI**

**CMEL-0007892102**

- **Identifiable colour**
  - Distinct bright orange colour makes monitoring easy for supervisors

- **High Attenuation**
  - Slow expansion to perfectly fit the ear canal size & form
  - Minimizes noise disturbance immediately

- **Instructions on each pack**
  - Wearer instructions on each pack ensure correct ways of use thereby providing fitting and protection

- **Tapered / Bell Shape**
  - Suitable for long time duration use
  - Provides superior fit

- **Pharma variant**
  - Easily detectable with metal detector
REUSABLE EARPLUGS

**ISI Approved**
- Multi Range design
  - Enhanced protection against hazardous noise, water, and other particles
  - Repeat wear, value addition
- Quick to use
  - Quick insert
  - No rolling and waiting for correct fit
- Even and moderate attenuation
  - Blocks hazardous noise yet allows warning signals and voices
- Smart packaging
  - Convenient containers available

**VENUS H-301** Earplug
- NRR 27 dB
- Item # Colour Packing
  - 16019 BLUE With Pouch

**VENUS H-303** Earplug
- NRR 27 dB
- Item # Colour Packing
  - 16035 ORANGE With Pouch
  - 16036 ORANGE With Container

**VENUS H-401** Earband (For Rifle Shooting)
- NRR 27 dB
- Item # Colour Packing
  - 16046 RED With Band

**VENUS H-307 / V-Shant** Earplug
- NRR 27 dB
- Item # Colour Packing
  - 16044 YELLOW-BLUE With Pouch
  - 16038 YELLOW-BLUE With Container
  - 16042 YELLOW-BLUE With Blister

**Suggested Applications**
- **Airport**: Aircraft marshaling
- **Cement**: Crushing, Bagging
- **Ceramics**: Material mixing
- **Construction**: Sanding, Drilling, Cutting
- **Engineering**: Sand Blasting, Buffing, Cutting
- **Mining**: Drilling, Material handling
- **Pharmaceuticals**: Material handling
- **Textiles**: Spinning, Weaving

**TPE material**
- Low bacteria growth
- Easily washable
- Environment friendly

**Hygienic**
- Spilling due to rolling eliminated
- No change in performance after washing

**Adequate protection**
Max NRR 27 dB

**Removable textile cord**
Cord can be detached and reattached as per requirement

**Washable**
- Easy to wash and re-use without compromising on hygiene

**ACE & PREMIUM SERIES**
**Hearing Protection**

**CMO-000792102**

**VENUS**
EARMUFFS

IS 9167
CMS-0007832102
ISI Approved

One size fits all
No need to stock different sizes
Lowers inventory

Better attenuation level
Provides adequate protection from noisy environments

Height adjustment
To achieve proper fit

Compatibility
Can be used with ear plug with minimum hindrance in working

VENUS H-556
Earmuff
For Helmet
NRR 23 dB
SNR 26 dB
Item # Colour
16068 BLACK

VENUS H-555
Earmuff
NRR 23 dB
SNR 26 dB
Item # Colour
16058 BLACK

VENUS H-530
Earmuff
NRR 23 dB
SNR 26 dB
Item # Colour
16034 FLUORESCENT GREEN

VENUS H-510
Earmuff
NRR 23 dB
SNR 26 dB
Item # Colour
16014 RED

VENUS H-550
Earmuff
NRR 23 dB
SNR 26 dB
Item # Colour
16015 BLACK

Suggested Applications
- Airport: Aircraft marshaling
- Cement: Crushing, Bagging
- Ceramics: Material mixing
- Construction: Sanding, Drilling, Cutting
- Engineering: Sand Blasting, Buffing, Cutting
- Mining: Drilling, Material handling
- Pharmaceuticals: Material handling
- Textiles: Spinning, Weaving

New! 2016

Venus

One size fits all
Light weight
Height adjustment
**Eye Safety at Work**

**Need:**
The risk of workplace eye injuries is reduced if proper prevention measures are followed. To improve eye safety at work, you must first identify the hazards.

**Hazards and their Effects:**
Potential eye hazards against which protection is needed in the workplace are:

- **Projectiles** (dust, concrete, metal, wood and other particles)
- **Chemicals** (splashes and fumes)
- **Radiation** (especially visible light, ultraviolet radiation, heat or infrared radiation, and lasers)
- **Blood borne pathogens** (hepatitis or HIV) from blood and body fluids

**Types of eye injuries include**
- Scratch or cut
- Puncture
- Embedded object
- Chemical burn
- Welding flash (vision loss caused by bright light)

**Sources of optical radiation**
- Sunlight
- Radiation from heat
- Ultraviolet rays
- Infrared rays
- Reflected light

**Types of materials**

<table>
<thead>
<tr>
<th>Glass</th>
<th>Plastic</th>
<th>Polycarbonate</th>
</tr>
</thead>
</table>

**Terms**

**Hard Coating for preventing scratches**
It is applied to the exterior of the lens to minimize the likelihood of accidental scratching. This does not make the lens scratch proof, but helps in tremendously reducing fine hair line scratches.

**Bridge**
It is the part of a frame that connects the two lenses and goes over the nose. The bridge can be either decorative or simple.

**Frame**
It is the part that holds the lens. Frame can be made of plastic or memory retention nylon.
User Selection Guide

Appropriate wearing of eye protection relevant for the task can significantly reduce the risk of injury. Always buy eye protection that complies with the applicable National and International Standards.

Safety eyewear includes:

- Non-prescription and prescription safety glasses
- Full-face respirators
- Welding helmets
- Goggles
- Visors
- Face shields
- Safety spectacles
- Safety goggles
- Safety face shield

General recommendations include:

**Low impact:** For tasks including chipping, riveting, and hammering. Recommended protection includes safety spectacles with/without side shields, eye cup goggles, wide vision goggles, eye shields and face shields. Choose items marked with manufacturer ID and Standards mark.

**Medium impact:** For tasks including scaling, grinding and machining metals, some woodworking tasks, stone dressing, wire handling and brick cutting. Recommended protection includes goggles, wide vision goggles, eye shields and face shields.

**High impact:** For tasks including explosive power tools and nail guns. Recommended protection includes face shields.

**Welding:** Recommended protection includes filters and shields.

**Chemical handling:** Recommended protection includes wide vision goggles, eye shields or face shields.

**Hazardous radiation:** For tasks like welding, lasers, or fiber optics. Recommended protection includes safety glasses, goggles, face shields, or helmets designed for that task.

**Dust:** Recommended protection includes goggles.

**Risk or Use**

<table>
<thead>
<tr>
<th>Safety Spectacles</th>
<th>Safety goggles</th>
<th>Safety Face shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Welding</td>
<td>★</td>
<td>★</td>
</tr>
<tr>
<td>Electric welding</td>
<td>★</td>
<td>★</td>
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<tr>
<td>Ultraviolet radiation</td>
<td>★</td>
<td>★</td>
</tr>
<tr>
<td>Laser radiation</td>
<td>★</td>
<td>★</td>
</tr>
<tr>
<td>Solar radiation</td>
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</table>

**For industrial use**

**DESIGNATION OF FILTERS**

<table>
<thead>
<tr>
<th>DESIGNATION OF FILTERS</th>
<th>LIGHT TRANSMISSION VALUE(V)</th>
<th>LENS SHADE</th>
<th>UV PROTECTION</th>
<th>FUNCTIONS AND SUITABLE USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1.2</td>
<td>74.4%-100%</td>
<td>Clear</td>
<td></td>
<td>Suitable for use in good visibility conditions.</td>
</tr>
<tr>
<td>2C-1.2</td>
<td>74.4%-100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-1.4</td>
<td>58.1%-74.4%</td>
<td>Indoor / Outdoor</td>
<td></td>
<td>Reduces dazzling and the harmful effects of blue light. Ideal moving between light and dark areas.</td>
</tr>
<tr>
<td>5-1.7</td>
<td>43.2%-58.1%</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5-3</td>
<td>8.5%-17.8%</td>
<td>Smoke</td>
<td></td>
<td>For direct sunlight and bright glare conditions.</td>
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<tr>
<td>5-2.5</td>
<td>17.8%-29.1%</td>
<td>Blue Mirror</td>
<td></td>
<td>Ideal protection against sun glare as it reflects solar rays before filtering UV.</td>
</tr>
<tr>
<td>2-1.2</td>
<td>74.4%-100%</td>
<td>Yellow</td>
<td></td>
<td>Offers sharpness, acuity and contrast. Primary function is to block blue light.</td>
</tr>
<tr>
<td>2C-1.2</td>
<td>74.4%-100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FUNCTIONS AND SUITABLE USES**

- Suitable for use in good visibility conditions.
- Reduces dazzling and the harmful effects of blue light. Ideal moving between light and dark areas.
- For direct sunlight and bright glare conditions.
- Ideal protection against sun glare as it reflects solar rays before filtering UV.
- Offers sharpness, acuity and contrast. Primary function is to block blue light.
F.A.Q.’s on Eye Protection

Q: Why should safety eyewear protect against UV and IR rays?
A: Various industrial processes emit IR rays i.e. over luminous transmittance. Also there is very strong UV rays spectrum below luminous transmittance in tropical countries like India. These radiations can cause cataract, retinal burn, painful eye condition, skin cancer around the eyelids etc. The lens of safety spectacles are made up of polycarbonate material which block the entry of UVs radiation into the eyes. Shaded PC lens protect against IR rays.

Q: How to select correct welding filters?
A: Selection and use of welding filters are described in IS: 5983-1980.

Q: What are markings on an approved eye protector?
A: Manufacturer’s name or trademark and national standard need to be mentioned on temple. Alphabets are used to indicate speciality. For e.g. Ocular “C” for chemically toughened, “V” for High velocity and “M” for molten metals and hot solids.

Q: What type of safety eye protection should I wear?
A: The type of safety eye protection you should wear depends on the hazards in your workplace. If you are working in an area that has particles, flying objects, or dust, you must at least wear safety glasses with side protection (side shields). If you are working with chemicals, you should wear goggles. If you are working near hazardous radiation (welding, lasers, or fiber optics) you must use special-purpose safety glasses, goggles, face shields or helmets designed for that task.

Q: What is the difference between glass and polycarbonate safety lenses?
A: Both types of safety lenses meet or exceed the requirements for protecting your eyes.

Glass lenses
- Can not be easily scratched
- Can be used around harsh chemicals
- Can be made in your corrective prescription
- Are sometimes heavy and uncomfortable
- Are likely to fog

Polycarbonate lenses
- Are lightweight
- Protects against welding splatter
- Are not likely to fog if coated with AF coating
- Are stronger than glass
- Are more impact resistant than glass
- Are not as scratch resistant as glass
- Are also available as Bifocal or corrective lens

Eye-wear Tests

- Hot Oven Tester
- Cooling Oven Impact Tester
- Lens Transmission Tester
- Flame Resistance Tester
- Anti-Ultraviolet & Radiation tester
- Refractive Power Bench
**PROTECTIVE SPECTACLES**

**VENUS G-101**

Clear hard coated lens
- Polycarbonate material
- 99.9% UV protection

Side shield
For enhanced protection

Adjustable side arms
Temple length can be altered

**VENUS G-102**

Style
- New frameless design
- Light weight provides comfort

Nose bridge
Clear inbuilt nose bridge gives comfortable nose fit

Temple length can be altered

**Application examples**

- **Agriculture**: Pesticides, Insecticides, Grain dust
- **Battery**: Lead handling
- **Cement**: Crushing, Bagging, Cement handling
- **Ceramics**: Material mixing
- **Chemical**: Material handling
- **Construction**: Sanding, Drilling, Cutting
- **Engineering**: Sand blasting, Powder coating,
  - Buffing, Cutting
- **Mining**: Drilling, Material handling
- **Pharmaceuticals**: Bulk drugs, Material handling
- **Textiles**: Spinning, Weaving
- **Tyre**: Carbon black

**VENUS G-101**

Nylon flexible support side arms

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13108</td>
<td>CLEAR</td>
<td>CHC</td>
</tr>
</tbody>
</table>

**VENUS G-102**

Lens
- Polycarbonate material
- 99.9% UV protection
- Single lens made from clear hard coated polycarbonate material for scratch & high impact resistance wrap around design
- Provide wide coverage
- Flexible body, one size fits all

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13107</td>
<td>CLEAR</td>
<td>CHC</td>
</tr>
<tr>
<td>13125</td>
<td>AMBER</td>
<td>AHC</td>
</tr>
<tr>
<td>13126</td>
<td>GREY</td>
<td>GHIC</td>
</tr>
<tr>
<td>13128</td>
<td>CLEAR</td>
<td>CUC</td>
</tr>
<tr>
<td>13159</td>
<td>CLEAR</td>
<td>ANTI-FOG CAF</td>
</tr>
<tr>
<td>13200</td>
<td>CLEAR</td>
<td>2.0 BI-FOCAL</td>
</tr>
<tr>
<td>13201</td>
<td>CLEAR</td>
<td>2.5 BI-FOCAL</td>
</tr>
</tbody>
</table>
OVER SPECS & WELDING SPECTACLES

VENUS G-103 Overspec

Temple
Poly carbonate flexible temples with side shield & vent

Lens
Poly carbonate material 99.9% UV protection Single lens made from clear hard coated poly carbonate material for scratch & high impact resistance

Nose bridge
Clear inbuilt nose bridge gives comfortable nose fit

Style
- Frameless fit over spectacles
- Can be worn over with other spectacles

VENUS G-103

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13106</td>
<td>CLEAR</td>
<td>CHC</td>
</tr>
<tr>
<td>13140</td>
<td>CLEAR</td>
<td>ANTI-FOG AF</td>
</tr>
</tbody>
</table>

Welding Spectacles

VENUS G-717-HC

Nylon flexible support side arms
ANSI Z87.1

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13132</td>
<td>LIGHT GREEN</td>
<td>HC</td>
</tr>
</tbody>
</table>

VENUS G-730-HC

Adjustable temples with soft tips
ANSI Z87.1

<table>
<thead>
<tr>
<th>Item #</th>
<th>Colour</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13133</td>
<td>DARK GREEN</td>
<td>HC</td>
</tr>
</tbody>
</table>

Application examples

<table>
<thead>
<tr>
<th>Industry</th>
<th>Activities</th>
<th>Industry</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Pesticides, Insecticides, Grain dust</td>
<td>Engineering</td>
<td>Sand blasting, Powder coating, Buffing, Cutting</td>
</tr>
<tr>
<td>Battery</td>
<td>Lead handling</td>
<td>Mining</td>
<td>Drilling, Material handling</td>
</tr>
<tr>
<td>Cement</td>
<td>Crushing, Bagging, Cement handling</td>
<td>Textiles</td>
<td>Spinning, Weaving</td>
</tr>
<tr>
<td>Ceramics</td>
<td>Material mixing</td>
<td>Chemical</td>
<td>Bulk drugs, Material handling</td>
</tr>
<tr>
<td>Chemical</td>
<td>Bulk drugs</td>
<td>Construction</td>
<td>Sanding, Drilling, Cutting</td>
</tr>
<tr>
<td>Construction</td>
<td>Sanding, Drilling, Cutting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**PROTECTIVE SPECTACLES**

**VENUS G-204**
- Light weight and comfortable
- Streamline and modern style
- Standard compliant
- Complies with all standards
- Quick release for lens interchange
- 4-step angle adjustment
- Maintains shape
- PC arms flexibility without shape distortion (unlike nylon arms)

![Integral foam pad](image1)
![Elastic head band](image2)

- Item: 13312
- Colour: CLEAR
- Type: CHC

**VENUS G-304**
- Light weight and comfortable
- Streamlined and modern style
- Standard compliant
- Complies with all standards
- Ventilated temples
- Provides exceptional ventilation
- Larger fitting size
- To suit most possible users

- Item: 13113
- Colour: Clear
- Type: CHC
- Temple Colour: RED
- Temple Colour: YELLOW
- Temple Colour: GREEN
- Temple Colour: BLACK
- Temple Colour: BLUE
- Temple Colour: VIOLET-BLUE

**VENUS G-404 R**
- None-slip grip TPR tips
- Pivoting temples
- For fitting adjustment
- Universal fitting
- One size fits all
- Streamlined design
- Complies with all kinds of safety standards
- Safe to use

- Item: 13115
- Colour: CLEAR
- Type: CHC

- Dielectric safety glasses
- Metal-free hinges
- Integral brow guard
- For additional coverage
- Ventilated temples
- Provides exceptional ventilation
- PC single molded lens
- For firmer built
- Larger fitting size
- To suit most users

- Item: 13117
- Accessories (Optional)
- FOAM PAD
- Item: 13204
- ELASTIC HEAD BAND

- Item: 13120
- Lens: CLEAR
- Temple Colour: BLACK

- Item: 13123
- Lens: CLEAR
- Temple Colour: VIOLET-BLUE

- Item: 13207
- Lens: CLEAR
- Temple Colour: VIOLET-BLUE
SAFETY GOGGLES

Style
- Wrapped PVC Frame with four side ventilation
- Can be worn over with other spectacles

Lens
- Polycarbonate material 99.9%
- UV protection
- Single lens made from clear hard coated polycarbonate material for scratch & high impact resistance
- Protect against liquid, dust & molten metals

Ventilation
- Direct ventilation provides cool flow of air
- Reduces fogging

Temples
Adjustable side strap shields with vents

Nose bridge
Clear inbuilt nose bridge gives comfort

VENUS G-503-CHC
Side shields with vent valve (indirect vent) allow free movement of air, prevent direct passage of liquid splash
ANSI Z87.1 : 2003
Item # Colour Type
13100 CLEAR CHC

VENUS G-501-CHC
With side ventilation (direct vent) to allow cool air flow and help prevent fogging
ANSI Z87.1 : 2003
Item # Colour Type
13101 CLEAR CHC

VENUS G-505 with shield
Quick and easy to use
Take off and assembly within 3 seconds each

Anti-fog spherical lens
For clear vision

Over the glass version
For better protection

Compatibility
Compatible with respiratory mask

Superior protection to lower face
Protects lower face from chemical splash

VENUS G-505 SHIELD
Item # 13206

VENUS G-505
ANSI Z87.1
Item # Colour Type
13205 CLEAR CHC

Application examples
Agriculture
- Pesticides, Insecticides
- Lead handling
- Material mixing
- Powder coating, Painting

Mining
- Drilling, Material handling
- Paint spray, Mixing
- Bulk drugs, Material handling
- Tank cleaning

Battery
- Material mixing

Ceramics
- Material mixing

Chemical
- Mixing

Engineering
- Powder coating, Painting

- Material mixing
Head Protection

Head Protection Need:
Head protection device shall be worn in case of possibility of any of the following:
• Objects falling from above and striking on head;
• Heads bumping against fixed objects, such as exposed pipes or beams; or
• Accidental head contact with electrical hazards.

Definitions
• Brim - The rim surrounding the shell
• Chinstrap - An adjustable strap that fits under the chin to secure the helmet on the head
• Harness set - The complete assembly by means of which the helmet is maintained in position on the head, which includes headband, cradle etc.
• Headband - Part of harness surrounding the head. The plane of lower margin of headband shall correspond to reference line of the head form. The chinstrap may or may not be worn when nape strap is provided.
• Cradle - The fixed or adjustable assembly comprising of anti-conclusion tapes and if required, nape strap as well.
• Nape strap - An adjustable (with respect to the shell) strap that fits behind the head to secure the helmet and may be an integral part of the headband.
• Peak - The extension of the shell above the eyes.
• Shell - The smoothly finished material that provides the general outer form of the helmet.
• Cap Style helmets - Type of helmet characterized by a brim/peak in the front. Most helmets use this design. The design looks very similar to cap.
• Full Brim helmets - Type of helmet with a brim that wraps completely around the helmet. Helps to cover the neck and ears from the sun and other elements.
• Marking
Each helmet (shell and harness) will be legibly and indelibly marked with the following information:
 a) Manufacturer’s name or trade-mark and
 b) Range / size of helmet
 c) Month & year of manufacturing

Certification
The helmets shall be marked with the relevant certification mark.

How to choose the appropriate HPD
• Identify head hazards
• Choose head protection accordingly
• Know the limitations of head protection
• Take the required care of the device

FAQ
What is the shelf life of Helmet?
Head protection products do not have an indefinite life. Helmets should be replaced periodically where user environments are known to include higher exposure to temperature extremes, sunlight or chemicals. If a helmet has been struck by a forcible blow of any magnitude, both the helmet shell and suspension should be replaced immediately even if no damage is visible.

All safety helmets are marked with month and year of manufacturing. It is recommended that a helmet should not be in use after 5 years from the manufacturing date.

Standard Helmet Test Requirements
• Penetration Resistance
• Flammability Resistance
• Electrical Resistance
• Shock Absorption Resistance
**UNIVERSAL SERIES**

**HELMETS**

- **HDPE shell material**
  - Cost effective
  - Suits working -10°C to 50°C
  - Improved durability
  - Better insulation to the wearer

- **Integral rain channel**
  - Prevents falling of water on neck

- **Accessory slot**
  - Standard accessory slot for ear muff, face shield etc.

- **Adjustable nape strap**
  - Nape position can be adjusted to get the right fit and protection to the wearer

- **Adjustable chin strap**
  - Provides snug fit

- **Textile cradle option**
  - For soft skin contacts

- **Branding panel**
  - Customized 4 colour logo print

- **Optimum peak**
  - Provides added protection against sun and rain yet allows unobstructed view

- **Comfortable sweatband**
  - Does not become soggy
  - More comfort to the wearer
  - Easy to replace - maintains comfort and hygiene

- **Inbuilt air vents option**
  - Facilitates enhanced air flow and better comfort

- **Integral rain channel**
  - Prevents falling of water on neck

- **Accessory slot**
  - Standard accessory slot for ear muff, face shield etc.

- **Adjustable nape strap**
  - Nape position can be adjusted to get the right fit and protection to the wearer

- **Adjustable chin strap**
  - Provides snug fit

- **8 Point Cradle suspension**

---

**Step 1 - Select Shell**

<table>
<thead>
<tr>
<th>HDPE Shell (ITEM CODE)</th>
<th>Ventilated</th>
<th>Non-Ventilated</th>
</tr>
</thead>
<tbody>
<tr>
<td>VENUS C-110 18024 18026 18020 18017 18012 18014</td>
<td>Ventilated</td>
<td>Non-Ventilated</td>
</tr>
<tr>
<td>VENUS C-210 18025 18028 18023 18104 18013 18016</td>
<td>Ventilated</td>
<td>Non-Ventilated</td>
</tr>
<tr>
<td>VENUS C-310 18099 18010 18097 18095 18092 18093</td>
<td>Ventilated</td>
<td>Non-Ventilated</td>
</tr>
<tr>
<td>VENUS C-410 18099 18011 18098 18096 18091 18094</td>
<td>Ventilated</td>
<td>Non-Ventilated</td>
</tr>
</tbody>
</table>

- **ABS Shell (ITEM CODE)**
  - **Ventilated**
  - **Non-Ventilated**

- **Step 2 - Select Harness Set**

- **Step 3 - Select other accessories** like Visor, Earmuff etc. (if available)
GAS DETECTORS

T40 single gas monitor
CO, H₂S
- Low cost CO or H₂S monitoring
- Peak/hold feature
- 1500 hour run time on 1 AA alkaline battery
- Compact size and light weight
- Certifications: UL, ATEX, CSA

Item #: 13310

Tango TX1 single gas monitor - CO, H₂S, NOₓ, SO₂
- First-ever single gas monitor that uses two sensors to detect the same gas
- Certifications: ATEX, UL, IECEx, PESO

Item #: 13309

Gas Badge Pro single gas monitor
CO, H₂S, SO₂, O₂, NOₓ, NH₃, Cl₂, CLO₂, PH₃, HCN, H₂
- Full-featured, single gas detector
- Interchangeable sensors
- iNetTM Ready and Docking StationTM compatible
- Certifications: UL, CSA, ATEX, Australia: Ex, IEC: Ex, Russia: GOST-R

Item #: 13308

Mx4 Ventis multi-gas monitor
CO, H₂S, O₂, SO₂, NOₓ, LEL, CH₄, CO/H₂ low
- Monitors 1-4 gases
- Configures with or without a pump
- Available with a black or safety orange overmold
- iNet TM Ready and DS2 compatible
- Certifications: UL, ATEX, CSA, MSHA, GOST, PESO, DGMS

Item #: 13307

Mx6 multi-gas monitor with pump
LEL, CH₄, O₂, CO, H₂S, H₂, NO, Cl₂, NOₓ, SO₂, HCN, HCL, NH₃, CLO₂, PH₃, CO₂, PID
- 1-6 Gas monitor
- Full color LCD display
- 24 Sensor options including PID & IR
- iNet TM Ready and Docking Station M compatible
- Certifications: UL, ATEX, CSA, MSHA, GOST

Item #: 13306

Ventis Pro Series
CO, LEL/CH₄, CO, H₂S, SO₂, NOₓ, CO-H₂ low, HCN, NH₃, COSH, CO/HC-IR, CO/CH₄-IR
- Flexible sensor configuration
- Alarm action messages
- iAssign Technology
- Dedicated PANIC BUTTON
- Man down alarm
- Certifications: ATEX / IECEx

Item #: 13315
DOCKING STATION & GAS DETECTORS

The DSX Docking Station

INSTRUMENTS SUPPORTED
Gastec Detector Tube System

GAS INLETS
3-Port Version: One “fresh” air port, two calibration gas ports
6-Port Version: One “fresh” air port, five calibration gas ports

PUMP FLOW RATE
1.2 SCFH (550 mL / min)

COMMUNICATION
10 / 100 Ethernet support, RJ-45 Category 5 Connection

DISPLAY
128 x 64 Dot Matrix LCD

WHAT’S YOUR MODE?

<table>
<thead>
<tr>
<th></th>
<th>STANDALONE</th>
<th>CLOUD-CONNECTED</th>
<th>LOCAL SERVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record Storage</td>
<td>USB</td>
<td>Cloud</td>
<td>PC, Server</td>
</tr>
<tr>
<td>Bump and Cal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Print Certificates</td>
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<td></td>
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<tr>
<td>6-Ports (Optional)</td>
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<tr>
<td>Reports</td>
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<tr>
<td>Fleet Management</td>
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<td>Event Scheduling</td>
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<td>Email Alerts</td>
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</tr>
<tr>
<td>Auto Software Updates</td>
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</tr>
<tr>
<td>Auto Cal Gas Replacement (Optional)</td>
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Price

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<tr>
<th></th>
<th>$</th>
<th>$5</th>
<th>$55</th>
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</thead>
<tbody>
<tr>
<td>Software</td>
<td>Not Applicable</td>
<td>Included</td>
<td>Included</td>
</tr>
</tbody>
</table>

Item # 13312

SharpEye Flame Detector UV, UV-IR, IR3, IR4

- SIL2 capability (TOV)
- A range of industrial detectors UV/UV-IR/IR3/IR4
- Designed for all fires: hydrogen, hydrocarbons, metals etc.
- Industrial or commercial applications

Price

- Not Applicable
- Included
- Included

Software

- Not Applicable
- Included
- Included

Item # 13311

Open Path IR SAFETY series 700/900

- Hydrocarbons detection (C1 to C8)
- SIL2 capability (TOV)
- Heated optics
- 10-year warranty for xenon flash bulb
- Detection range: up to 140 M
- 4-20 mA and Modbus RTU outputs

Item # 13314

Detector Tube System

- Gastec Detector Tubes indicate concentrations directly by way of a calibrated scale printed on the tubes

Item # 13313

New! 2016
**Absorption capacity**
- 10 times its own body weight
- Large surface area

**Stays afloat**
- Does not sink after absorbing the spill oil
- Can be removed easily

**Large surface area**
Attracts majority of the spilled oil to its surface and absorbs large quantities of spilled fluids

**Flexible**
- Can be easily placed around a liquid spill to block it from spreading
- Absorbs leaks in tight places

**Light weight**
- Can be transported or carried to the area of the spill with minimum effort

**Multi-use**
- Can be used to clean areas with liquid spills, oils, coolants, cutting oils and solvents
- Identifies oil and water separately
  - Floats in water, but absorbs oil

**VENUS V-Sorb Pillows**
- Item # 18101
- Colour: GREY

**VENUS V-Sorb Booms**
- Item # 18103
- Colour: GREY

**VENUS V-Sorb Pads**
- Item # 18107
- Colour: GREY

**VENUS V-SPILL KIT**
75 Lts. (Capacity)
- Contents: Pad, Boom, Pillows, V-8007800 ABEK1P3R, Multipurpose Gas Mask, Splash Goggle, Nitrile Gloves, Chemical Gum Boots, Barricade Tape, Disposable Bag
- Quantity:
  - Pad: 12 Nos.
  - Boom: 3 Nos.
  - Pillows: 2 Nos.
  - V-8007800 ABEK1P3R: 1 Set
  - Multipurpose Gas Mask: 1 Set
  - Splash Goggle: 1 No.
  - Nitrile Gloves: 1 Pair
  - Chemical Gum Boots: 1 Pair
  - Barricade Tape: 1 Roll
  - Disposable Bag: 1 No.
- Item # 18100

**Suggested Applications**
- Drains
- Oil drum storage
- Leaks and Drips
- Spill response
- Paint sludge
- Oil and grease spills
- Nuisance leaks
SERVICES

Walk-through Survey & PPE selection
- Contaminants in the hazardous area are analyzed and studied based on which suitable respirator is recommended as per the application.
- Aerosol monitor survey services available.
- Samples order supply, no MOQ.
- Product demonstrations are organized.

Awareness programs
- PPE awareness programs are conducted to create awareness among users about their health and safety.
- Safety awareness films produced by Venus are distributed for free.
- Safety posters are distributed to customers.
- On site safety PPE displays done for awareness and education.
- Safety Day campaigns & exhibitions.

Fit tests
- Fit tests are performed to check the fit of masks on different face sizes and contours as per guidelines mentioned in the standard.
- Quantitative fit testing program with Portacount, TSI USA.
- Quantitative fit testing program with pressure sensor equipment OHD, USA.

Training programs
- Educational presentations available on Neck up safety subject.
- On Site training is given with aid of safety films.
- Visits to PPE test facility at Venus, Navi Mumbai.
- PPE seminars are organized for end users.
# LIST OF NATIONAL & INTERNATIONAL STANDARDS

## Respiratory Protection

<table>
<thead>
<tr>
<th>SN</th>
<th>Group</th>
<th>Indian Standard No</th>
<th>Description</th>
<th>European / American Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>IS 10245(Part 3):1982</td>
<td>Fresh air hose and compressed air line breathing apparatus.</td>
<td>EN 14593-1 EN 14593-2 EN 14594</td>
<td>Compressed air line breathing apparatus with a full face mask, half mask or a mouthpiece.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IS 10245(Part 4):1982</td>
<td>Escape breathing apparatus. (short duration self-contained type)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Hearing Protection

<table>
<thead>
<tr>
<th>SN</th>
<th>Group</th>
<th>Indian Standard No</th>
<th>Description</th>
<th>European Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ear Protectors</td>
<td>IS 9167- 1979</td>
<td>Specification For Ear Protectors</td>
<td>EN 352-1:2002 EN 352-2:2002</td>
<td>Hearing protectors- Safety requirements and testing Earmuff Hearing protectors- Safety requirements and testing Earplug</td>
</tr>
</tbody>
</table>

## Eye Protection

<table>
<thead>
<tr>
<th>SN</th>
<th>Group</th>
<th>Indian Standard No</th>
<th>Description</th>
<th>European Standard</th>
<th>Description</th>
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<td>Eye protectors</td>
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<td>Specification For Eye Protectors</td>
<td>EN 166</td>
<td>Personal Eye Protection specification</td>
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## Head Protection

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<th>SN</th>
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<th>European Standard</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Safety Helmet</td>
<td>IS 2925:1984</td>
<td>Specification for industrial safety helmets</td>
<td>EN 397 : 2012</td>
<td>Industrial safety helmets</td>
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