



RESPIRATORY PROTECTION

When is it needed?

Inhalation is the most common route of exposure for various kind of health hazards materials such as dusts, fumes, mists, gases and vapors. Therefore knowing when to use and choosing suitable respirators are very important.

What to look for in Respiratory Protection

- ▶ The masks or respirators chosen must be appropriate for the user's application and able to provide the intended protection.
- ▶ Must ensure that the masks or respirators chosen provide good fit to the user. Tests such as self-seal check shall be done every time after donning in order to make sure that the seal of the respirator is good.
- ▶ The masks or respirators must be comfortable to wear so that the user's ability to work is not compromised.

Type of Particulate Respirators

Standard	Class Available	Filtration Efficiency	Example
U.S. Standard	N = Not For Oil R = Oil Resistant P = Oil Proof	95 = 95% 99 = 99% 100 = 99.97%	N95 masks = Masks designed for protection against non-oil particulates with at least 95% filtration efficiency. P100 masks = Masks designed for protection against both non-oil and oil based particulates with at least 99.97% filtration efficiency.
European Standard	Class Available Only available as one class, which filter both non-oil and oil-based particulates	FFP1 = 80% FFP2 = 94% FFP3 = 99%	FFP1 masks = Masks designed for protection against both non-oil and oil based particulate with at least 85% filtration efficiency. FFP2 masks = Masks designed for protection against both non-oil and oil based particulate with at least 95% filtration efficiency.

How To Select The Correct Masks Or Respirators

Type of Respirator	Assigned Protection Factor (APF)
Particulate Respirator	10
Half Face Respirator	10
Full Face Respirator	50
Powered Air Purifying Respirator (PAPR) with Half Mask with Full Facepiece / Hoods	50 1,000
Airline Respirator (SAR) (Continuous Flow / Pressure Demand) with Half Mask with Full Facepiece / Hoods	50 1,000
Self-Contained Breathing Apparatus (SCBA) (Pressure Demand / Positive Pressure) with Half Mask with Full Facepiece / Hoods	10,000 10,000




CleanAir™ 1-Ply & 2-Ply Paper Mask

Item Code	Material	Color	Type	Size	Packing	Unit
PM100	1-Ply	White	Earloop	20cm x 7cm	100 pcs /box	Box
PM200	2-Ply	White	Earloop	20cm x 7cm	100 pcs /box	Box

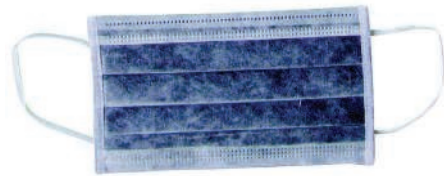
- Made of special lightweight and breathable paper
- For general protection against non-toxic airborne particles




CleanAir™ 3-Ply Non-Woven Surgical Face Mask

Item Code	Material	Color	Type	Size	Packing	Unit
NW503ELB	3-Ply	Blue	Earloop	17.5cm x 9.2cm	50 pcs /box	Box
NW503TOB	3-Ply	Blue	Tie-On	17.5cm x 9.2cm	50 pcs /box	Box

- Made of 100% Non-woven Polypropylene (PP) which is soft, non-irritating, fluid repelling and free from fiberglass
- The encapsulated nose-piece provides better fit
- The High Bacteria Filtration Efficiency (BFE) of 99.8% at 2.7 micron and low breathing resistance offers excellent protection against airborne and splatters of saliva and blood

CleanAir™ 4-Ply Active Carbon Face Mask

Item Code	Material	Color	Type	Size	Packing	Unit
NW504AC	4-Ply	Blue	Earloop	17.5cm x 9.2cm	50 pcs /box	Box

- Made of 100% Non-woven Polypropylene (PP) which is soft, non-irritating, fluid repelling and free from fiberglass with the addition of a carbon layer which filters bad odors and organic vapors
- Comes with encapsulated nose-piece which provide better fit
- The High Bacteria Filtration Efficiency (BFE) of 99.8% at 2.7 micron and low breathing resistance offers excellent protection against airborne and splatters of saliva and blood




CleanAir™ Reusable Nylon Face Mask

Item Code	Material	Color	Type	Size	Packing	Unit
FMNM1L	Nylon Tricot	White	Earloop	17.5cm x 9.2cm	50 pcs /box	Box
FMNM2L	Nylon Tricot	White	Earloop	17.5cm x 9.2cm	50 pcs /box	Box

- Made with 2 layers of nylon tricot material
- Reusable, soft and comfortable to wear




CleanAir™ Premium Nuisance Dust Mask

Item Code	Material	Color	Type	Size	Packing	Unit
PDM50	Non-Woven Polypropylene (PP), 260g	White	Headloop (single strap)	Universal	50 pcs /box	Box

- Economical solution to protect workers from nuisance dust and particles
- The compact design allows users with glasses or goggles to wear it easily
- Non-irritating, odorless low breathing resistant
- The soft and adjustable nose piece allows for better comfort and fit
- Suitable for sweeping, cleaning, farm work and protection against other non-toxic airborne dusts and particles



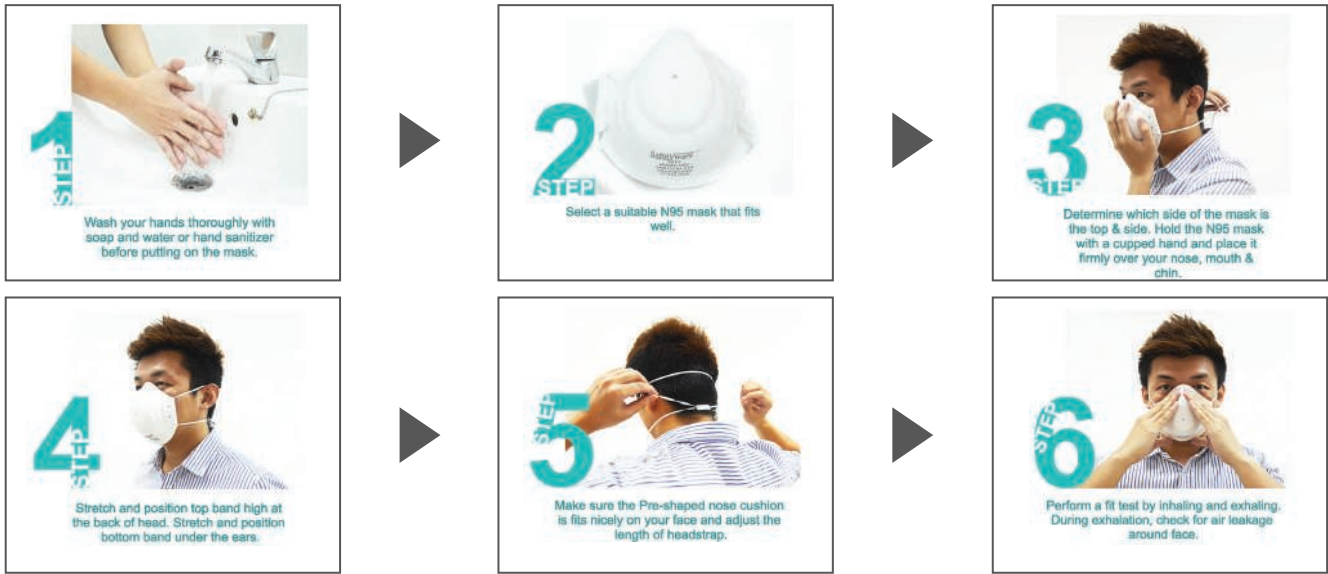

SAFETYWARE Plastic Clear Mask With Double Anti Fog

Item Code	Material	Color	Size	Packing	Unit
PFM	Polycarbonate	Transparent	14cm x 7cm	10 pcs /box	Box

- Reusable and environmentally friendly
- Comfortable fit, enhances breathing ventilation
- Ergonomic design, beautiful and fashionable
- Suitable for restaurants, kitchen, beauty shop, cakes & bakery shop, hotels, health care



6 Steps To Wear N95 Masks



SAFETYWARE N95 Particulate Respirator with Valve

3223V

1 Pre-Shaped Nose Cushion
Ensure custom shape and increase the worker comfort and acceptance. No metal used. It is avoid the contact between skin and metal, suitable for those environment where metal is not allowed

2 Embossed Fringe Seal
Avoids fluffy open layer around the edges, contour design ensure the compatibility of glasses, goggles and reduces fogging

3 Patented Adjustable Head Strap
Patent adjustable head strap buckle for personal adjustment

4 Valve
Remove hot air effectively, stay cool and breathe easier. Good circulation of air inside the mask to minimize misting of eyewear

5 Continuous Loop Headstrap
Allows to hang the mask around the neck when not in use

6 Cool Latex-Free Cloth Head Strap
Cool latex-free cloth head strap for comfortable wearing, fit and seals securely, no metal used

*Safetyware™
3223V
N95H N95
PARTICULATE
RESPIRATOR
TC-84A-4000*



SAFETYWARE N95 Series Particulate Respirator

Item Code	Material	Color	Type	Packing	Unit
3223	Polyester Fabric	White	Continuous Loop	20 pcs/box	Box
3223V	Soft Polypropylene (PP)	White	Continuous Loop (Valve)	10 pcs/box	Box
3223CV	Soft Polypropylene (PP)	White	Continuous Loop (Valve)	10 pcs/box	Box
3223A	Soft Polypropylene (PP)	White,Green	Continuous Loop	20 pcs/box	Box

- Patent-pending adjustable headstrap buckle for personal adjustment
- Metal free and suitable for those environments where metal is not allowed
- Cool latex-free cloth headstrap for comfortable wearing
- Continuous loop headstrap design can allows to hang the mask around the neck when not in use
- Polypropylene (PP) inner layer provides the most intimate touch to your face
- Pre- shaped nose cushion and soft closed-cell nose foam ensure custom shape and increase the worker comfort and acceptance
- Embossed fringe seal avoids fluffy open layer around the edges
- Contour design ensures the compatibility of glasses, goggles and reduces fogging



SAFETYWARE N95 Series Particulate Respirator (Foldable)

Item Code	Material	Color	Type	Packing	Unit
3280	Soft Polypropylene (PP)	White	Continuous Loop (Foldable)	20pcs/box	Box

- Foldable design for easy carry, storage and individual hygienically packed
- Sealed edge that avoids open layers and eliminates the possibility of irritation
- Made of soft Polypropylene (PP) outer and inner layer that provides smooth lining and comfortable feel shapes with minimum leakage
- The continuous loop design allows the users to hang the mask around the neck when not in use



SAFETYWARE FFP2 Vertical Fold-Flat Series

Item Code	Material	Color	Type	Packing	Unit
8800	Soft Polypropylene (PP)	Blue	Continuous Loop	20 pcs/box	Box
8800V	Soft Polypropylene (PP)	Grey	Continuous Loop (Valve)	20 pcs/box	Box
8800CV	Soft Polypropylene (PP)	Blue	Continuous Loop (Valve)	20 pcs/box	Box

- The 8800 Series are made with invisible nose bridge without any exposure of metal parts
- Patented headstrap buckle to adjust length of headstrap for various facial sizes
- Cool latex-free textile braided headstrap for comfortable wearing
- No staple used to avoid the contact between skin and metal and suitable for those environment where metal is not allowed
- Continuous loop design can allow to hang the mask around the neck when not in use
- Foldable design and individually hygienically packed



SAFETYWARE FFP2D Series

Item Code	Material	Color	Type	Packing	Unit
8200AV	Polyester Fabric	White	Headloop (Foldable)	20pcs/box	Box

- Patent-pending adjustable headstrap buckle
- No metal used
- Designed to offer protection against both oil-based and non oil-based particulate



PORTWEST FFP3 Valved Dolomite Fold Flat Respirator

Item Code	Color	Packing	Unit
P351WHR	White	20pcs/box	Box

- Dolomite optional clogging test (D) to provide more comfortable breathing and longer lasting filtration performance
- Flexible shape which allows the mask to be folded flat
- High performance exhalation valve to reduce heat and provide comfort when used in hot and humid conditions
- Ultrasound welded elastic straps
- Ideal for all day use



3M N95 Series Particulate Respirator

Item Code	Material	Color	Type	Packing	Unit
8210	Soft Polypropylene (PP)	White	Cup	20pcs/box	Box

- Two-strap design with welded dual point attachment helps provide a secure seal
- Lightweight construction promotes greater worker acceptance and may help increase wear time
- NIOSH approved for at least 95 percent filtration efficiency against certain non-oil based particles



3M N95 Series Particulate Respirator

Item Code	Material	Color	Type	Packing	Unit
8110S	Soft Polypropylene (PP)	White	Cup	20pcs/box	Box

- Two-strap design with welded dual point attachment helps provide a secure seal
- Lightweight construction promotes greater worker acceptance and may help increase wear time
- NIOSH approved for at least 95 percent filtration efficiency against certain non-oil based particles

3M**3M N95 Series Particulate Respirator**

Item Code	Material	Color	Type	Packing	Unit
9010	Polyester Fabric	White	Headloop (Foldable)	20pcs/box	Box

- Patent-pending adjustable headstrap buckle
- Metal free
- Designed to offer protection against both oil-based and non oil-based particulate

3M**3M V-Flex N95 Maint Free Particulate Respirator**

Item Code	Color	Packing	Unit
9105	White	50 pcs /box	Box

- 3M proprietary filter media and V-shaped pleats helps make breathing easier
- Uniquely designed tabs for respirator positioning on the face
- Pleats flex with mouth movement while talking
- Flat fold design allows for convenient storage prior to use
- Provide quality, reliable worker respiratory protection for certain non oil based particles
- Adjustable noseclip helps provide a custom and secure seal
- Contain no natural rubber latex components for elastic headbands
- Embossed front panel helps the respirator to retain its shape
- Compatible with a variety of eyewear and hearing protection from 3M

3M**3M R95 Acid Gases Particulate Respirator**

Item Code	Material	Color	Packing	Unit
8246	Carbon Filter	White	20 pcs /box	Box

- NIOSH Approved R95
- Carbon layer helps reduce nuisance levels of acid gases
- Collapse resistant shell offers increased durability
- Two-strap design with four point stable attachment helps provide a secure seal
- Promote greater worker acceptance and may help increase wear time
- Ideal for agricultural, oil & gas industries

3M**3M R95 Organic Vapor Particulate Respirator**

Item Code	Material	Color	Packing	Unit
8247	Carbon Filter	Grey	20 pcs /box	Box

- NIOSH Approved R95
- Carbon layer helps reduce nuisance levels of organic vapors
- Liquid or oil based particles from sprays that do not also emit harmful vapors
- Collapse resistant shell
- Adjustable noseclip helps provide a custom secure seal
- Advanced Electrostatic Media - with highly charged microfibers to enhance the capture of airborne particles while allowing you to breathe easier
- Ideal for agricultural, general manufacturing, mining, oil & gas, transportation industries

SELECTING BREATHING PROTECTION

When all other measures have been taken to reduce dangerous levels of exposure, respiratory protection is the last but important step to prevent harmful air contaminants from entering the body through the airways.

The employer is responsible for the selection, maintenance and provision of breathing protection equipment and its use in the workplace. The user is in his turn responsible for using it according to the employer's routines. A programme designed to protect employees from exposure to air con-recommendations for the selection, use, care and maintenance of respiratory protection equipment.

4 THINGS TO CONSIDER

1. IDENTIFICATION:

Which hazardous gases, vapours, dust, smoke or aerosols do we need to protect ourselves from? Make workplace measurements and monitor the concentrations of the hazardous substances.

2. RISK ASSESSMENT:

Is sufficient oxygen level present during the entire period of exposure? What are the effects on health of the substances present? Are there any occupational exposure limits for these substances? Are there any other risks, such as splashing, sparks or explosive mixtures?

3. SELECTION OF BREATHING

Half mask, full-face mask, powered or air-fed respirators.

4. TRAINING:

Fitting, function checks, donning, storage and maintenance. Routines for cleaning and replacing filters and wearing parts.



SELECTING BREATHING PROTECTION

ON THE BASIS OF LEVEL OF CONTAMINANT – PROTECTION FACTOR

All types of breathing protection have a specific protection factor that describes how efficiently they reduce the level of the contaminant in the airways, i.e. inside the face piece.

The Assigned Protection Factor (APF) is based on measurements inside and outside the protective device, conducted on workers in real work environments.

The Nominal Protection factor (NPF) is based on laboratory measurements in conjunction with approval of the protection equipment to the EN standard.

Calculation of the protection needed at the workplace should be based on the Assigned Protection Factor (APF). Check national requirements for assigned protection factors EN 529.

The following calculations can be made on the basis of the degree of pollution, ideally determined by work environment measurements, and the occupational exposure limit of the substance involved:

IMPORTANT FORMULAS

Required protection factor
= Contaminant concentration/OEL

Max. user concentration
= OEL x APF

Concentration in the respirator
= Contaminant concentration/APF

OEL = Occupational exposure limit
APF = Assigned protection factor

N.B: Filter protection must never be used in concentrations Immediately Dangerous to Life and Health (IDLH). Select appropriate breathing protection whose protection factor exceeds the required protection factor.

In the event of exposure to carcinogenic, sensitizing and similar substances, it is important to select equipment with a maximum protection factor so that the contaminant concentrations within the mask are minimized. Various types of filter protection and their nominal protection factors are shown below.

NOMINAL PROTECTION FACTOR (NPF)

MASKS

Filtering facepiece FFP	4 TIMES
Filtering facepiece FFP2	12 TIMES
Sundström half masks	50 TIMES

POWERED HOOD/ VISOR/HELMET

TH1	10 TIMES
TH2	50 TIMES
TH3	500 TIMES

FULL FACE MASK

SR 200	2000 TIMES
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POWERED W. FULL FACE MASK

TM3 Sundström	2000 TIMES
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COMPRESSED AIR LINE EN 14594

A designates light duty, i.e. spiral hose SR 360. B designates heavy duty, i.e. tubes SR 358 and SR 359

1A/1B	10 TIMES
2A/2B	50 TIMES
3A/3B	500 TIMES
4A/4B	2000 TIMES

PARTICLE FILTERS

For half and full face masks are divided into three classes depending on how effectively they can separate dust. Colour code- white.

A highly efficient filter such as the SR 510 P3 R offers protection against all types of particles. A higher class also covers the lower ones, i.e. P3 covers both P1 and P2. The filters are replaced when the particle filter leads to increased breathing resistance. Particle filters offer protection only against particles.

Protection Classes with respect to efficiency
(EN 143) (NaCl and paraffin oil)

P1 R/NR	solid and wet particles 1	80 %
P2 R/NR	solid and wet particles 1	94 %
P3 R/NR	solid and wet particles 1	99,95 %

"R" after the class means that the particle filter can be reused.

"NR" after the class means that the particle filter must not be used for more than one shift.

GAS FILTERS

For half and full masks are divided into three classes on the basis of their capacity and test concentration.

Filter Class Tested in concentrations
(EN 14387)

1	0,1 percent by volume = 1000 ppm
2	0,5 percent by volume = 5000 ppm
3	1,0 percent by volume = 10000 ppm

ppm=parts per million

Filter type	Protects against	Color code
A	Organic gases/vapours with a boiling point above 65°C, e.g. solvent naphtha, toluene, styrene and xylene	Brown
B	Inorganic gases/vapours such as chlorine, hydrogen cyanide and hydrogen sulphide	Grey
E	Acidic gases/vapours such as sulphur dioxide and formic acid	Yellow
K	Ammonia and certain amines	Teal
AX	Organic gases and vapours with a boiling point below 65°C, such as acetone, methanol and dichloromethane	Brown
HG-P3	Mercury	Red

Gas filters afford protection only against gases.

COMBINATION FILTERS

Combination filters are used when gases/vapours occur simultaneously with particles, e.g. in high - pressure cleaning, spray painting, heating substances or gas condensation. Select an appropriate gas filter and combine it with a particle filter by simply pressing them together or use filters with a fixed gas and particle filter in one.



FILTER RECOMMENDATIONS



Mobile Apps:
**Sundström
Safety Filter
Guide**

Substance	CAS-no	Filter	Note
1, 2-DICHLOROETHANE	107-06-2	A	
2-NITROPROPANE	79-46-9	A	4
2-PROPANOL	67-63-0	A	
ACETALDEHYDE	75-07-0	AX	4
ACETAMIDE	60-35-5	A+P3	1, 4
ACETIC ACID	64-19-7	B	
ACETIC ANHYDRIDE	108-24-7	B	
ACETONE	67-64-1	AX	
ACETYLCHLORIDE	75-36-5	B	
ACETYLENE	74-86-2	COMPR.AIR EQ	
ACROLEIN	107-02-8	AX	3
ACRYLAMIDE	79-06-1	A+P3	1, 4, 5
ACRYLIC ACID	79-10-7	B	
ACRYLONITRILE	107-13-1	A	4
ADIPIIC ACID	124-04-9	P3	
ALIPHATIC NAPHTA	8052-41-3	A	
ALLYL ALCOHOL	107-18-6	A	3
ALLYL CHLORIDE	107-05-1	AX	5
ALLYLAMINE	107-11-9	K	5
ALUMINIUM CHLORIDE	7446-70-0	B+P3	1
ALUMINIUM OXIDE	1344-28-1	P3	
AMMONIA	7664-41-7	K	
AMYL ACETATE	628-63-7	A	
ANILINE	62-53-3	K	4, 5
ANTIFOULING PAINTS		A+P3	1
ANTIMONY	7440-36-0	P3	
ANTIMONY HYDRIDE	7803-52-3	B	
AROMATIC NAPHTA		A	
ARSENIC (NOT ARSINE)	7440-38-2	P3	
ARSINE	7784-42-1	B	
BARIUM	7440-39-3	P3	
BENZALDEHYDE	100-52-7	A	
BENZENE	71-43-2	A	4
BENZOTRIAZOLE	95-14-7	A+P3	1
BENZOYL CHLORIDE	98-88-4	B	
BENZYL ALCOHOL	100-51-6	A	
BENZYL CHLORIDE	100-44-7	B	3, 4
BERYLLIUM	7440-41-7	P3	4, 6
BIPHENYL	92-52-4	A+P3	1
BROMINE	7726-95-6	B	
BUTYL ACETATE	123-86-4	A	
BUTYL ALCOHOL	71-36-3	A	
BUTYR ALDEHYDE	123-72-8	A	
CADMIUM	7440-43-9	P3	4
CALCIUM OXIDE	1305-78-8	P3	
CARBON DIOXIDE	124-38-9	COMPR.AIR EQ	
CARBON DISULPHIDE	75-15-0	AX	5
CARBON MONOXIDE	630-08-0	COMPR.AIR EQ	
CARBONTETRACHLORIDE	56-23-5	A	4

Substance	CAS-no	Filter	Note
CHLORATE		P3	
CHLORINE	7782-50-5	B	
CHLORINE DIOXIDE	10049-04-4	B	
CHLOROFORM	67-66-3	AX	4
CHLOROPRENE	126-99-8	AX	4
CHROMIC ACID	1333-82-0	P3	4, 6
COBALT (DUST AND SMOKE)	7440-48-4	P3	6
CRESOL	1319-77-3	A+P3	1
CUMENE	98-82-8	A	5
CUPPER	7440-50-8	P3	
COTTON DUST		P3	
CYANIDE (AS CN)	57-12-5	B+P3	1, 3
CYCLOHEXANOL	108-93-0	A+P3	1
CYCLOHEXANONE	108-94-1	A	
DIACETONE ALCOHOL	123-42-2	A	3
DIGLYCIDYL ETHER	2238-07-5	A	3, 6
DIMETHYL SULPHATE	77-78-1	A	3, 4, 5
DIMETHYLFORMAMIDE	68-12-2	A	4, 5
DIOXANE	123-91-1	A	4, 5
DUST, INERT		P3	
EDTA	60-00-4	P3	
EPICHLOROHYDRIN	106-89-8	A	4, 5, 6
ETHANOL	64-17-5	A	
ETHYL ACETATE	141-78-6	A	
ETHYL ACRYLATE	140-88-5	A	4, 5, 6
ETHYL BROMIDE	74-96-4	AX	3
ETHYL CHLORIDE	75-00-3	AX	4
ETHYL ETHER	60-29-7	AX	
ETHYLENE GLYCOL	107-21-1	A	
ETHYLENE OXIDE	75-21-8	AX	4, 5
ETHYLENEDIAMINE	107-15-3	K	3, 6
FERROUS CHLORIDE		BE+P3	1
FERROUS OXIDE (SMOKE)	1309-37-1	P3	
FLUOR	7782-41-4	B	
FLUORIDE (AS F)		P3	
FLUOROSILICIC ACID	16961-83-4	B+P3	1
FORMALDEHYDE	50-00-0	B	4, 5, 6
FORMIC ACID	64-18-6	E	
FREON 113	76-13-1	COMPR.AIR EQ	
FURFURAL	98-01-1	A	
GLUTARALDEHYDE	111-30-8	A	6
GLYCOLMONOBUTYL ETHER	111-76-2	A	5
GLYCOLMONOMETHYL ETHER	109-86-4	A	5
HYDRAZINE	302-01-2	K	3, 4, 5, 6
HYDROCHLORIC ACID	7647-01-0	B	
HYDROFLUORIC ACID	7664-39-3	B+P3	1
HYDROGEN CYANIDE	74-90-8	B	3, 5
HYDROGEN PEROXIDE	7722-84-1	COMPR.AIR EQ	
HYDROGEN SELENIDE	7783-07-5	B	3

Compressed air equipment can always be used instead of a filter respirator. It should always be used if the gas concentrations are in excess of 0.5% by volume. Should be used for physically strenuous or long-duration work.

N.B. Compressed-air supplied equipment should not be used where there is danger of loss of consciousness or asphyxiation. Advice concerning the selection of filters and the method of use can always be obtained directly from Sundström Safety AB.

Substance	CAS-no	Filter	Note
HYDROGEN SULPHIDE	7783-06-4	B	
HYDROGENE	1333-74-0	COMPR.AIR EQ	
HYDROQUINONE	123-31-9	P3	4, 6
IODINE	7553-56-2	P3	3
ISOPHORONE	78-59-1	A	
ISOPROPHYL ALCOHOL	67-63-0	A	
LEAD (SMOKE AND DUST)	7439-92-1	P3	
MALEIC ANHYDRIDE	108-31-6	B+P3	1, 6
MANGAN	7439-96-5	P3	
MDI	101-68-8	B+P3	1, 6
MEK	78-93-3	A	5
MELAMINE	108-78-1	COMPR.AIR EQ	
MERCURY (VAPOUR)	7439-97-6	HG-P3	2, 5, 6
METHYL ACRYLATE	96-33-3	A	5, 6
METHYL ALCOHOL	67-56-1	AX	5
METHYL BROMIDE	74-83-9	AX	3, 5
METHYL CHLORIDE	74-87-3	AX	4
METHYL ETHYL KETONE (MEK)	78-93-3	A	5
METHYL IODIDE	74-88-4	AX	4, 5
METHYL ISOBUTYLKETONE (MIBK)	108-10-1	A	3, 5
METHYL METHACRYLATE	80-62-6	A	5, 6
METHYLAMINE	74-89-5	K	
METHYLCHLOROFORM	71-55-6	A	
METHYLENE CHLORIDE	75-09-2	AX	4
MIBK	108-10-1	A	3, 5
MONOMETHYLAMINE	74-89-5	K	
MORPHOLINE	110-91-8	A	5
NICKEL CARBONYL	13463-39-3	COMPR.AIR EQ	4, 5
NICKEL, METAL	7440-02-0	P3	4, 6
NITRIC ACID	7697-37-2	B	
NITROBENZENE	98-95-3	A	5
NITROGEN	7727-37-9	COMPR.AIR EQ	
NITROGEN DIOXIDE	10102-44-0	COMPR.AIR EQ	
NITROGEN OXIDE	10102-43-9	COMPR.AIR EQ	
NITROGLYCERINE	55-63-0	A	5
NITROGLYCOL	628-96-6	A	5
NITROUS GAS		COMPR.AIR EQ	
NITROUS OXIDE	10024-97-2	COMPR.AIR EQ	
OCTANE	111-65-9	A	
ORGANIC PEROXIDES		A+P3	1
OXALIC ACID	144-62-7	P3	
OZONE	10028-15-6	B	
P-PHENYLENEDIAMINE	106-50-3	P3	3, 6
PCB		A+P3	1, 4, 5
PENTACHLOROPHENOL	87-86-5	P3	4, 5
PERCHLORIC ACID	7601-90-3	BE	
PERCHLOROETHYLENE	127-18-4	A	4, 5
PETROL	86290-81-5	AX	
PHENOL	108-95-2	B+P3	1, 5

Pre-filter SR 221 should always be used. N.B. This pre-filter can never replace particle filter SR 510 P3 R.

These recommendations are derived from a number of different sources and they follow the current Swedish regulation. Note that there can be national differences in the regulations for use of respiratory protective equipment.

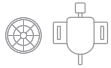
Substance	CAS-no	Filter	Note
PHOSGENE	75-44-5	B	
PHOSPHINE	7803-51-2	B	
PHOSPHORIC ACID (MIST)	7664-38-2	BE+P3	1
PHTHALIC ANHYDRIDE	85-44-9	P3	6
PIPERAZINE	110-85-0	K+P3	1, 6
PIPERIDINE	110-89-4	K	
POTASSIUM HYDROXIDE	1310-58-3	P3	
POTASSIUM PERMANGANATE	7722-64-7	P3	
PROPINOIC ACID	79-09-4	B	
PYRIDINE	110-86-1	A	
SELENIUM	7782-49-2	P3	
SELENIUM SULPHIDE	7782-49-2	P3	4
SILICON DIOXIDE	14464-46-1	P3	4
SILVER NITRATE	7761-88-8	P3	
SODIUM CARBONATE	497-19-8	P3	
SODIUM FLUORIDE	7681-49-4	P3	
SODIUM HYDROXIDE	1310-73-2	P3	
SODIUM HYPOCHLORITE	7681-52-9	B+P3	1
SODIUM PERBORATE	10486-00-7	P3	
SODIUM SILICATE	6834-92-0	P3	3
STYRENE	100-42-5	A	5
SULFAMIC ACID	5329-14-6	B+P3	1
SULFUR DIOXIDE	7446-09-5	E	
SULPHURIC ACID (MIST)	7664-93-9	E+P3	1
TDI	91-08-7	COMPR.AIR EQ	4, 6
TERPENTINE (OIL)	8006-64-2	A	5, 6
TETRACHLOROETHYLENE	127-18-4	A	5, 6
TETRAETHYL LEAD	78-00-2	A+P3	1, 5
TETRAHYDROFURAN	109-99-9	A	
TETRAMETHYL LEAD	75-74-1	A+P3	1, 5
TOLUENE	108-88-3	A	5
TRIBUTYL PHOSPHATE	126-73-8	A	
TRICHLOROETHANE	71-55-6	A	
TRICHLOROETHYLENE	79-01-6	A	4
TRIDYMIT (SILICON DIOXIDE)	15468-32-3	P3	
TRIMETHYLBENZENE	526-73-8	A	
TRISODIUM PHOSPHATE	7601-54-9	P3	
VANADIUM OXIDE (DUST)	1314-62-1	P3	
VINYL ACETATE	108-05-4	A	
VINYL CHLORIDE	75-01-4	AX	4, 5
VINYL TOULENE	25013-15-4	A	
VINYLDENE CHLORIDE	75-35-4	AX	
WHITE SPIRIT	8052-41-3	A	
XYLENE	1330-20-7	A	5
ZINC CHLORIDE (SMOKE)	7646-85-7	P3	
ZINC OXIDE (SMOKE)	1314-13-2	P3	

NOTES:

1. Combinations of filters shall be used.
2. Combination filter SR 299-2 ABEK1 Hg P3 R and SR 599 A1BE2K1 Hg P3 R. Type Hg- maximum use time 50 hours.
3. Full face mask should be used.
4. Carcinogenic
5. Skin adsorbing
6. Regarded as a sensitizer

HALF & FULL FACE MASKS

Sundström 



* Cartridge is sold separately

SUNDSTROM SR 100 Half Face Mask

Item Code	Material	Color	Type	Size	Unit
H01-2112	Silicon	Blue	Headloop	S/M	EA
H01-2012	Silicon	Blue	Headloop	M/L	EA

- One of the world's most comfortable and reliable half masks
- Made from silicone throughout, with wide and soft application surfaces for an optimal fit
- Direct air flow into the mask and two exhalation valves ensure a very low breathing resistance
- Two exhalation valves minimize and reduce the formation of moisture in the mask
- Harness and mask attachment distribute the pressure equally against the face
- A long service life with few spares simplifies care and maintenance



Sundström 



* Cartridge is sold separately

SUNDSTROM SR 900 Half Face Mask

Item Code	Material	Color	Type	Size	Unit
H01-3012	Thermoplastic	Black	Headloop	S	EA
H01-3112	Thermoplastic	Black	Headloop	M	EA

- The mask is equipped with two exhalation valves, which ensures very low exhalation resistant
- Equipped with one inhalation valves and two exhalation valves to ensure very low breathing resistance
- The valve covers with partitions effectively protect the exhalation membrane against dust and paint mist. The material and pigment of the mask body are approved by FDA for foods, which minimizes the risk of contact allergies
- The easily adjustable elastic head harness straps of the mask are designed as a V-shaped loop and have a large dished crown plate, which contributes towards a comfortable and safe fit



Sundström 



* Cartridge is sold separately

SUNDSTROM SR 200 Half Face Mask

Item Code	Material	Color	Type	Size	Unit
H01-1212	Silicon	Blue	Headloop	Universal	EA

- Made of silicon and is produced in one sizes that will fit most face sizes
- Equipped with one inhalation valves and two exhalation valves to ensure very low breathing resistance
- The exhalation valves cover with baffles effectively protect the valves and membranes against dust and paint mist
- The materials and pigment of mask body are FDA and BGA approved for exposure to provisions which minimizes the risk of contact allergies
- The easily adjustable elastic head harness straps of the mask is secured to the visor frame and to the exhalation valves which together with a large dished crown plate which contributes towards a comfortable and safe fit
- The spherical visor of the mask is made of scratch-resistant polycarbonate which provides a large field of vision





SUNDSTROM SR 510 P3 R Cartridges

Item Code	Filter	Unit
H021312	Dust Filter	EA

- The filter provides protection against all types of particulate pollutants
- The particle filter should be combined with pre-filter SR221, which will thereby extend the life of the particle filter
- The particle filter can easily be combined with gas filter from the Sundstrom filter range in order to provide protection also against gases and vapours, e.g. during spray painting
- The SR500/SR500 EX fan should always be used with two particle filters or two combined filters consisting of gas filters and particle filters



SUNDSTROM SR 217 A1 Cartridges

Item Code	Filter	Unit
H02-2512	Gas Filter	EA

- Gas filter SR 217, Class 1 are designed for use with Sundstrom half masks and full face mask
- The filter are of type A and provide protection against organic gases and vapours, such as solvents, with boiling points > +65°C
- The gas filter can easily be combined with particle filter SR 510 P3 R in order to obtain protection also against aerosols (particle), e.g. during spray painting



SUNDSTROM SR 315 ABE1 Cartridges

Item Code	Filter	Class	Type	Unit
H02-3212	Gas Filter	Class 1	A, B, E	EA

- Type A protects against organic gases and vapours, such as solvents, with boiling point > +65°C
- Type B protects against inorganic gases and vapours, such as chlorine, hydrogen sulphide and hydrogen cyanide
- Type E protects against acidic gases and vapours, such as sulphur dioxide and hydrogen fluoride



SUNDSTROM SR 316 K1 Cartridges

Item Code	Filter	Class	Type	Unit
H02-4212	Gas Filter	Class 1	K1	EA

- Class 1 are designed for use with Sundström half masks and full face masks
- Type K protects against ammonia and certain amines, such as ethylene diamine
- The gas filter can easily be combined with particle filter SR 510 P3 R in order to obtain protection also against aerosols (particles), e.g. during high-pressure washing



SUNDSTROM SR 297 ABEK1 Cartridges

Item Code	Filter	Class	Type	Unit
H02-5312	Gas Filter	Class 1	A, B, E	EA

- Type A protects against organic gases and vapours, such as solvents, with boiling point > +65°C
- Type B protects against inorganic gases and vapours, such as chlorine, hydrogen sulphide and hydrogen cyanide
- Type E protects against acidic gases and vapours, such as sulphur dioxide and hydrogen fluoride
- Type K protects against ammonia and certain amines, such as ethylene diamine



SUNDSTROM SR 298 AX Cartridges

Item Code	Filter	Type	Unit
H02-2412	Gas Filter	AX	EA

- The filter is of type AX and provides protection against organic gases and vapours, such as solvents, with boiling points $\leq +65^\circ\text{C}$
- The gas filter can easily be combined with particle filter SR 510 P3 R in order to obtain protection also against aerosols (particle), e.g. during spray painting



SUNDSTROM SR 299-2 Combination Filter ABEK1-HG-P3 R

Item Code	Filter	Class	Type	Unit
H02-6512	Combined Filter	Class 1	A, B, E	EA

- Type A protects against organic gases and vapours, such as solvents, with boiling point > +65°C
- Type B protects against inorganic gases and vapours, such as chlorine, hydrogen sulphide and hydrogen cyanide
- Type E protects against acidic gases and vapours, such as sulphur dioxide and hydrogen fluoride
- Type K protects against ammonia and certain amines, such as ethylene diamine
- Type Hg protects against mercury vapour. Warning: Maximum use time 50 hours
- Type P3 R protects against all types of particulate pollutions, e.g. dust, mist and smoke



SUNDSTROM SR 221 Pre-Filter

Item Code	Filter	Class	Type	Unit
H02-0312	Combined Filter	Class 1	A, B, E	EA

- Pre filter SR 221 is a disc that is meant to catch coarse particles and by that extend the lifetime of the particle filters SR 510 P3 R and SR 710 P3 R, combined filter SR 299-2 ABEK1-Hg-P3 R and SR 599 A1BE2K1-Hg-P3 R
- The pre-filter is placed in the pre-filter holder and then snapped on to the particle filter or combined filter



PRACTICAL ACCESSORIES & SPARE PARTS



SR 230 Storage Box
ART NO H09-3012



Pre-filter Holder
ART NO R01-0605



Head Harness
Half Mask Single
ART NO R01-2001



Head Harness
For SR200
ART NO R01-1203



Membrane Kit for SR 100
SR90-3/SR900
ART NO R01-2004



Set of Membranes for
SR200
ART NO R01-1204



SR 343 Protective Film
For Full Face Mask SR 200
ART NO T01-1204



SR 522 Protective Film
For Hoods SR 520 & SR 530
ART NO T06-0201



SR 345 Protective Hood
ART NO H09-1012



SR 280-3 Filter Adapter
ART NO H09-0212



SR 341 Spectacle frame
ART NO T01-1201



SR 324 Small Talk
ART NO T01-1217



Storage Bag For Half Mask
ART NO R01-0607



SR 550 Breathing Hose
ART NO T01-1216



SR 5226 Cleaning Wipes
ART NO H09-0401

3M



3M Half Face Respirator Single Cartridge

Item Code	Type	Color	Size	Packing	Unit
3200	Headloop	Grey	M/L	1 pc /box	Box

- Low profile design allows a wide field of vision
- Lightweight makes long period of wear bearable
- Soft, elastomeric face-fit secures a lasting comfort
- Unique easy to don/doff strap system
- DOSH Approval No.: JKPP MR 46/98

3M



3M Half Face Respirator Double Cartridge

Item Code	Type	Color	Size	Packing	Unit
6200	Headloop	Grey	M/L	1 pc /box	Box

- This series combines comfort and convenience
- Comfortable soft, lightweight facepiece with easy-to-adjust head straps
- NIOSH approved for negative pressure air purifying and supplied air dual airline applications
- Can be disassembled, cleaned and reused
- DOSH Approval No.: JKPP MR 51/99

3M



3M Full Face Respirator Double Cartridge

Item Code	Type	Color	Size	Packing	Unit
6800	Headloop	Grey	M/L	1 pc /box	Box

- Large lens provides a wide field of view for excellent visibility
- Lightweight well-balanced design and silicone face seal for enhanced comfort, durability and ease of cleaning
- Available in air-purifying and supplied air respirator modes
- Center adapter directs exhaled breath downward

3M



3M Organic Vapor Cartridge with Dust/Mist Filter

Item Code	Filter	Unit
3311K55	Dust/Mist Filter	EA

- Use with 3000 Series Single Cartridge Respirator
- At least 95 percent filtration efficiency against certain non-oil based particles
- With Activated Carbon 55cc to help remove Organic Vapour Odour
- With advanced electrostatically charged microfiber filter media
- DOSH Approval No.: JKPP MR 46/98

3M**3M Organic Vapor Cartridge For 3M 6000 series Respirator**

Item Code	Gas & Vapor Protection Type	Unit
6001	Organic Vapor	EA

- NIOSH approved for protection against certain organic vapors
- Swept-back design allows an enhanced field of view and comfort
- Bayonet compatibility allows use with many 3M half and full facepiece designs
- Wide range of applications reduces inventory needs
- DOSH Approval No: JKPP MR 150/02

3M**3M Organic Vapour/ Acid Gas Cartridge**

Item Code	Gas & Vapor Protection Type	Unit
6003	Organic Vapor/Acid gas	EA

- NIOSH approved for protection against certain organic vapors or acid gases
- Swept-back design allows an enhanced field of view and comfort
- Bayonet compatibility allows use with many 3M half and full facepiece designs
- Wide range of applications reduces inventory needs
- DOSH: JKPP MR 152/02

3M**3M Ammonia/Methylamin Cartridge**

Item Code	Gas & Vapor Protection Type	Unit
6004	Ammonia and Methylamine	EA

- Use in a variety of applications including agriculture, chemical manufacturing, laboratories and the food industry
- When properly fitted, helps provide respiratory protection from ammonia and methylamine at concentrations up to 10 times the Permissible Exposure Limit (PEL) with half facepieces or 50 times PEL with full facepieces. Full facepieces must be quantitatively fit tested to claim assigned protection factor above 10 in negative pressure mode
- Not for use in environments that are immediately dangerous to life or health (IDLH)

3M**3M Formaldehyde Organic Vapor Cartridge**

Item Code	Gas & Vapor Protection Type	Unit
6005	Formaldehyde/Organic Vapor	EA

- Formaldehyde and organic vapor cartridge
- Swept-back design for enhanced field of view and balance
- Use with 3M™ Reusable Respirators

3M**3M Multigas/ Vapour Cartridge**

Item Code	Gas & Vapor Protection Type	Unit
6006	Organic Vapor/Acid Gas/Ammonia/Methylamine/Formaldehyde	EA

- NIOSH approved for protection against certain organic vapors, acid gases, ammonia, methylamine and formaldehyde
- Swept-back design allows an enhanced field of view and comfort
- Bayonet compatibility allows use with many 3M half and full facepiece designs
- Wide range of applications reduces inventory needs
- Simple installation and usage requirements reduces training requirements

3M**3M Mercury Vapor/ Chlorine Cartridge**

Item Code	Gas & Vapor Protection Type	Unit
6009	Mercury Vapor or Chlorine	EA

- NIOSH approved for protection against mercury vapor or chlorine gas
- Swept-back design allows an enhanced field of view and comfort
- Bayonet compatibility allows use with many 3M half and full facepiece designs
- Passive End-of-Service-Life Indicator (ESLI) for mercury vapor shows when cartridges need to be replaced
- Simple installation and usage requirements reduce training needs

3M**3M Mercury Vapor/ Chlorine/ Sulphur Dioxide Cartridge**

Item Code	Gas & Vapor Protection Type	Unit
6009S	Mercury Vapor or Chlorine, Particulates, Sulfur dioxide	EA

- NIOSH approved for protection against mercury vapor, chlorine or sulfur dioxide and certain particulates
- Swept-back design allows an enhanced field of view and comfort
- Bayonet compatibility allows use with many 3M half and full facepiece designs
- Passive End-of-Service-Life Indicator (ESLI) for mercury vapor shows when cartridges need to be replaced
- Simple installation and usage requirements reduce training needs

3M**3M N95 Particulate Filter**

Item Code	Gas & Vapor Protection Type	Packing	Unit
5N11	Particulates	10 pcs /box	Box

- NIOSH approved for environments containing certain non-oil-based particles
- Use on top of 3M gas and vapor cartridges with 3M™ 501 Retainer when particles are also present
- Use on top of 3M™ 603 Filter Holder and 3M™ 501 Retainer to reduce particulate exposure
- Replaceable particle filter for cost savings
- Wide range of applications reduces inventory needs and training requirements

3M**3M P95 Particulate Filter**

Item Code	Gas & Vapor Protection Type	Packing	Unit
5P71	Particulates	10 pcs /box	Box

- NIOSH approved for environments containing certain oil and non-oil based particles
- Use with 3M™ Respirators 5000 Series or 3M™ Cartridges 6000 Series or 3M™ Filter Adapter 603, and 3M™ Filter Retainer 501
- For occupational use only
- Recommend for construction, design & construction, facility sanitation, food processing, food safety, general manufacturing, heavy infrastructure, industrial maintenance, marine, metal production & fabrication, mining, oil & gas, transportation industries

3M**3M P100 High Efficiency Particulate Filter**

Item Code	Gas & Vapor Protection Type	Unit
7093	Particulates	EA

- Exceptional 99.97% filter efficiency meets NIOSH P100-series test criteria
- Plastic filter encasement designed for high heat or wet applications
- Channeled airflow protects filter for enhanced breathability and longer service life
- Swept-back design provides enhanced field of view and greater comfort
- DOSH: JKKP MR 157/03

3M**3M Retainer for 5N11 Filter Retainer for Dust/Mist Filter**

Item Code	Product Type	Unit
501	Accessories and Spare Parts	EA

- Approved 3M system component
- Designed to hold 3M Particulate Filter 5N11 and 5P71/07194 (AAD) (sold separately)
- Component works with 3M Respirator 5000 Series, 3M Cartridges 6000 Series and 3M™ Filter Adapter 603
- Color: Translucent white
- Measures 4" high x 8.5" long x 4.5" wide

3M**3M Adapter for 7093 Filter Adapter for Particulate Filter**

Item Code	Product Type	Unit
502	Accessories and Spare Parts	EA

- Approved 3M system component
- Designed to attach 3M™ Particulate Filters 2000/2200 Series and 7093/7093C to 3M gas/vapor respirators and cartridges
- Component works with 3M Respirator 5000 Series and 3M Cartridges 6000 Series (sold separately)
- Particle filter adapters increases scope of potential applications

ALLEGRO
INDUSTRIES



ALLEGRO Fit Test Kit & Solution

Item Code	Size	Unit
2041	10"(W) x 13.5"(D) x 8"(H)	SET

- Included test hood, 2 nebulizers, 1 box of sensitivity solution (6 vials), 1 box of fit test solution (6 vials), complete written instructions in English and Spanish version, a fit test record and MSDS
- Offer qualitative OSHA-compliant fit testing for disposable and reusable dust and mist respirators rated N95 and higher
- Bitrex creates bitter taste that indicates breakthrough on the respirator fit
- New disposable glass ampules make pouring solution into nebulizers easier and reduce the chance of contamination
- Each glass ampule is enough for approximately 3 to 5 tests

POWER ASSISTED FILTER PROTECTION

Sundström



SUNDSTROM SR 500 Fan Unit For Particles And Gas

Item Code	Unit
H06-0112	EA

The SR 500 is a fan unit designed to give protection against harmful particles as well as gases and vapours. It is equipped with two particle filters SR 510 P3 R or a threaded filter SR 710 P3 R and two pre-filters SR 221 for protection against particles.

For protection against gas exposure: two gas filters SR 518 A2, or two gas filters SR 515 ABE1, or two SR 597 A1B2E2K1 and particle filters SR 510 P3 R. NB: Gas filters must be used in combination with particle filters at all times.

- Optical, acoustic and vibration alarms
- Standard battery SR 501, 14.8 V, 2.2 Ah, lithium-ion with 30 min. charging time to reach 80% and 1.5 hours to reach 100%
- Heavy duty battery SR 502, 14.8 V, 3.6 Ah, lithium-ion with 45 min. charging time to reach 80% and 2 hours to reach 100%
- The display indicates the battery capacity when the fan starts
- Operating time up to 13 hours depending on selection of filter, flow rate and battery type

Sundström



SUNDSTROM SR 500 EX Easily Operated Battery Powered Fan With Particle- Or Combination Filters

Item Code	Unit
H06-2012	EA

The SR 500 EX fan is explosion-proof and specially adapted for use in an explosive atmosphere. The SR 500 EX is included together with filters and head-tops in Sundström fan-assisted respiratory protective devices.

The SR 500 EX can be used as an alternative to filter protections in all situations in which the latter are recommended. This applies particularly to situations in which the work is intensive, hot or of long-duration. The fan is equipped with filters and the filtered air is supplied through a breathing hose to the head-top. The latter is then pressurized, which prevents the surrounding pollutants from being admitted.

Wide range of face pieces such as hoods, helmets and visors, all in TH3. They can also be connected to the SR 200 full mask in TM3.



SUNDSTROM SR 700 Fan Unit For Particles

Item Code	Unit
H06-7010	EA

The SR 700 is a compact lightweight fan designed especially to provide protection against harmful particles where optimal protection properties are required. It is equipped with two particle filters, SR 510 P3 R, or threaded filter with two particle filters, SR 510 P3 R, or threaded filter SR 710 P3 R, as well as pre-filter SR 221. With acoustic and optical alarms.

- Battery SR 701, 14.8V, 2.2 Ah, lithium-ion with a charging time of approx. 2 hours
- Approx. 8 hours operating time at a flow rate of 175 l/min., and approx. 5 hours at 225 l/min



PRACTICAL ACCESSORIES & SPARE PARTS



Battery SR 500 FL STD 2,2
ART NO R06-0108



SR 505 Storage Bag
ART NO T06-0102



SR 552 Harness
For SR 500
ART NO T06-0116



SR 514 Splash Cover
For SR 500
ART NO T06-0114

FACE SHIELDS, HOODS & HELMETS



SUNDSTROM SR 530 Hood

Item Code	Unit
H06-0412	EA

SR 530 covers not only the face and crown of the head but also the neck, throat and shoulders. One size. SR 530 has an easily adjustable neck seal that assures a very high level of protection, also for persons with a beard.

- Low weight
- Ready mounted Velcro strip for simple adjustment to head size
- Visor made of chemicals-resistant cellulose acetate (CA)
- PVC-coated polyester in the hood
- Exhalation valve that reduces the build-up of carbon dioxide inside the hood during heavy work
- Can be equipped with peel-offs or a protective hood against strong splash-backs and similar hazards



Sundström



SUNDSTROM SR 540 Hood

Item Code	Unit
H06-0512	EA

The SR 540 face shield together with the battery-powered SR 500 or SR 700 fan and approved filters are included in the Sundstrom fan-assisted respiratory protection device systems.

The breathing hose of the face shield is to be connected to the fan, equipped with filters. The pressure generated in the face shield prevents particles and other pollutants from entering the hood. The SR 540 can also be used with the SR 507 compressed air equipment. This combination forms a breathing apparatus designed for continuous air flow, for connection to a compressed air supply.

The equipment can be used as an alternative to filter respirators in all situations for which filter respirators are recommended. This applies particularly to work that is hard, warm or of long duration.

Sundström



SUNDSTROM SR 580 Safety Helmet With Visor

Item Code	Unit
H06-8012	EA

- Complete protection of airways, head and face
- If required, may be complemented with most ear protectors for helmet mounting
- Easily raised visor made of polycarbonate
- Exhalation valve minimises the concentration of carbon dioxide inside the protective gear during heavy work
- Easily replaceable visor and face seal

Sundström



SUNDSTROM SR 591 Welding Shield

Item Code	Unit
H06-4312	EA

- The welding shield is designed for easy use and operation
- Adjustable head harness for best comfort
- Can be equipped with different types of welding filters
- To get the best and appropriate respiratory protection can choose to use it with either SR 900 half mask with remote filter holder SR 905 or with our powered fan unit SR 500 or SR 700 in the highest protection level (TM3)
- Can also use the SR 900 with our SR 507 compressed air attachment in class 3A/3B

Sundström



SUNDSTROM SR 584/ SR 580 Helmet with Visor and Welding Shield

Item Code	Unit
H06-8310	EA

- With the cassette in the raised position, the helmet's large clear visor may be used as face protection when clearing cinders and grinding
- Supplied with passive welding lens, shade EN10 with dimensions 90 x 110mm
- Face seal made of flame-resistant material
- The SR 584 welding shield is intended for use together with the Sundstrom SR 580 Helmet with visor
- The breathing hose of the helmet with visor is to be connected to the fan, equipped with a filter
- The overpressure in the helmet's visor prevents particles and other pollutants from being admitted into the breathing zone
- Can be used with the SR 507 compressed air equipment to form a breathing apparatus designed for continuous air flow, for connection to a compressed air supply
- Protect against harmful gases, radiation and spatter during welding and similar work
- Can be used as an alternative to filter respirators in all situations
- Apply particularly to work that is hard, warm or of long duration

Sundström


SUNDSTROM SR 561 Hood

Item Code	Unit
H06-5012	EA

- The pressure generated in the hood prevents particles and other impurities from being admitted into the hood
- Can also be used with the SR 507 compressed air equipment
- Designed for continuous air flow, for connection to a compressed air supply
- The equipment can be used as an alternative to filter protections in all situations in which the latter are recommended
- This applies particularly to situations in which the work is intensive, hot or of long duration


Sundström


SUNDSTROM SR 710 P3 R Cartridges

Item Code	Filter	Unit
H02-1512	Particle Filter	EA

- The SR 710 particle filter is provided with a special thread and is designed for use in the Sundstrom SR 500/ SR 500 EX/SR 700 battery-powered fan as a separate particle filter, i.e. it cannot be combined with a gas filter
- The filter is of P3 R* type and provides protection against all types of particulate pollutants
- If a combined filter for fan SR 500/SR 500 EX is needed, the gas filter should be combined with the SR 510 particle filter
- The filter should be combined with prefilter SR 221 in order to increase its useful life

Sundström


SUNDSTROM SR 518 A2 Cartridges

Item Code	Filter	Unit
H02-7012	Gas Filter	EA

- The SR 710 particle filter is provided with a special thread and is designed for use in the Sundstrom SR 500/ SR 500 EX/SR 700 battery-powered fan as a separate particle filter, i.e. it cannot be combined with a gas filter
- The filter is of P3 R* type and provides protection against all types of particulate pollutants
- If a combined filter for fan SR 500/SR 500 EX is needed, the gas filter should be combined with the SR 510 particle filter
- The filter should be combined with prefilter SR 221 in order to increase its useful life

Sundström


SUNDSTROM SR 597 A1BE2K1 Cartridges

Item Code	Filter	Unit
H02-7212	Gas Filter	EA

- Type A protects against organic gases and vapours, such as solvents, with boiling points >+65 °C
- Type B protects against inorganic gases and vapours, such as chlorine, hydrogen sulphide and hydrogen cyanide
- Type E protects against acidic gases and vapours, such as sulphur dioxide and hydrogen fluoride
- Type K protects against ammonia and certain amines, such as ethylene diamine
- The SR 500/SR 500 EX fan unit must always be used with two particle filters or two combined filters consisting of gas filters and particle filters

Sundström


SUNDSTROM SR 599 A1BE2K1-HG-P3 R Cartridges

Item Code	Filter	Unit
H02-7312	Combined Filter	EA

- Type A protects against organic gases and vapours, such as solvents, with boiling points >+65 °C
- Type B protects against inorganic gases and vapours, such as chlorine, hydrogen sulphide and hydrogen cyanide
- Type E protects against acidic gases and vapours, such as sulphur dioxide and hydrogen fluoride
- Type K protects against ammonia and certain amines, such as ethylene diamine
- Type Hg protects against mercury vapour. Warning. Maximum use time 50 hours
- Type P3 R* protects against all types of particulate pollutants, e.g. dust, mist and smoke



Mobile Apps :
Sundström
Safety Filter
Guide

FILTER GUIDE

SUPPLIED AIR RESPIRATORS (SAR)



SUNDSTROM SR 200 Airline Polycarbonate Visor

Item Code	Unit
H03-1012	EA

SR 200 airline with filter backup. This consists of an SR 200 full mask with a hose connection mounted in the front part of the mask where the air from the regulating valve enters.

A suitable filter/filter combination in the mask offers protection in the event of loss of pressure and when moving to and from the workplace. Complete with regulating valve and belt.

- In restricted spaces, the equipment can be used with a plugged front hole
- Specially developed for environments requiring a high protection factor
- The air flow is controlled by the regulating valve in the belt to assure a flow rate of between 150 and 320 l/min
- The inlet pressure to the regulating valve shall be 5 - 7 bar
- A flow meter and warning whistle for temporary and continuous monitoring of the air flow are included
- The breathing hose can be detached from both the mask and regulating valve, allowing the face piece to be used as a regular full mask with a filter, or connected to one of Sundstrom Safety's fans SR 500 or SR 700



SUNDSTROM SR 307 Compressed Air Attachment

Item Code	Unit
H03-1412	EA

The SR 307 compressed air attachment is designed for connection to Sundstrom half masks and full face masks. This combination forms a breathing apparatus designed for continuous air flow, for connection to a compressed air supply.

The SR 307 is an accessory that enables a given facepiece to be used as either a filtering device or a protective device supplied with compressed air. The compressed air attachment is especially intended for applications involving heavy and sustained work in environments in which the pollutants have poor warning properties or are particularly toxic.

The SR 307 is made of a material which is not liable to give rise to frictional sparking, which enables the attachment to be used in an explosive or flammable environment. The flow meter and warning whistle for temporary and continuous monitoring of the air flow rate are included. Control valve mounted on the user's belt is included.



Sundström 



SUNDSTROM SR 507 Compressed Air Attachment

Item Code	Unit
H03-0612	EA

- The SR 507 compressed air attachment is designed for connection to Sundström hoods SR 520/ SR 530/ SR 561/ SR 562, visors SR 570/ SR 540 EX, half mask SR 900, welding shield SR 590, helmet with visor SR 580 and welding shield/helmet with visor SR 584/ SR 580
- This combination forms a breathing apparatus designed for continuous air flow, for connection to a compressed air supply
- The SR 507 is an accessory that enables a given face piece to be used as either a protective device supplied with compressed air or a powered air purifying respirator (PAPR)
- The compressed air attachment is especially intended for applications involving heavy and sustained work in environments in which the pollutants have poor warning properties or are particularly toxic
- The SR 507 is made of materials which are not liable to give rise to friction sparking, which enables the attachment to be used in an explosive or flammable environment
- The flow meter and warning whistle for temporary and continuous monitoring of the air flow rate are included. Control valve mounted on the user's belt is included

Sundström 



SUNDSTROM SR 99 Compressed Air (CA) Filter

Item Code	Unit
H03-2612	EA

- The SR 99 compressed air filter is used for producing clean breathing air from ordinary compressed air
- The unit consists of a regulator (C), pre-collector (D) and main filter (SR 292), all of which are mounted in an enclosing steel sheet stand. The unit can be placed on the floor or mounted on a wall
- The pre-filter, which has a pressure-controlled/manual drain, collects coarse particles, water and oil. The SR 292 main filter consists of a carbon filter part (500g), surrounded by two P3 particulate filters
- The air is cleaned to remove any remaining particles/gases/vapours/odours. A Y coupling that increases the number of outlets is available as accessory

Sundström 



SUNDSTROM SR 292 Filter Cartridge

Item Code	Unit
R03-2001	EA

- The SR 292 filter element is intended for use together with Sundström compressed air filter
- Type A protects against oils, organic gases and vapours, such as solvents, with boiling points > +65 °C. Type P3 protects against all types of particulate pollutants, e.g. dust, mist and smoke

Sundström 



SUNDSTROM SR 358 Compressed Air Hose 10m

Item Code	Unit
H03-3010	EA

- Plastic hose, made of polyester reinforced PVC. Oil and chemicals resistant
- Sundström compressed air hoses are tested and approved together with the following products, and are intended for use together with Sundström SR 99-1 compressed air filter
- They are also the only hoses that are approved for use. SR 200 Airline compressed air-fed mask SR 90 Airline compressed air-fed mask SR 307 compressed air attachment SR 507 compressed air attachment SR 63 compressed air-fed hood



SUNDSTROM SR 359 CA Hose with Antistatic & Heat Resistance

Item Code	Unit
H03-3110	EA

- Rubber hose, made of EPDM/Polyester. Antistatic, heat resistant.
- Sundström compressed air hoses are tested and approved together with the following products, and are intended for use together with Sundström SR 49/SR 99 compressed air filter.
- They are also the only hoses that are approved for use. SR 200 Airline compressed air-fed mask (SAR) SR 307 compressed air attachment (SAR)



SUNDSTROM SR 360 Spiral Coiled Tube 2m

Item Code	Unit
H03-3420	EA

- Plastic spiral coiled hose made of Polyurethane.
- The surface of the hose has a coating that provides good protection against sparks, e.g. during welding.
- Sundström compressed air hoses are tested and approved together with the following products, and are intended for use together with Sundström SR 99-1 compressed air filter.
- They are also the only hoses that are approved for use. SR 200 Airline compressed air-fed mask SR 90 Airline compressed air-fed mask SR 307 compressed air attachment SR 507 compressed air attachment SR 63 compressed air-fed hood



SUNDSTROM Safety Coupling

Item Code	Color	Unit
R03-2103	Silver	EA

- Used with compressed air filter SR 79-1 and SR 79-1/H



SUNDSTROM Y-Coupling

Item Code	Color	Unit
R03-2127	Silver	EA

- Mount on the compressed air filters airoutlet to increase the number of users



SUNDSTROM Pressure Control Drain

Item Code	Color	Unit
R03-2109	Silver	EA

- Used with SR49, SR79, SR99
- For 3 users together with R032127

Honeywell



HONEYWELL T8000 Type II Self-Contained Breathing Apparatus (SCBA) Set

Item Code	Unit
SCBA845	SET

- Come with Pano Full Face Masks & 6.8 litres Carbon Composite Cylinder
- Certified to European EN 137-2006 standard
- Provide approximately 50-minutes of breathing air
- Passed continuous breathing tests 1.2 million times and provides high reliability
- The whole SCBA only weighs 10.4 kg (including 4.0 kg gas cylinder)
- The light weight design meets easy mobility and long working time requirements

Sundström



SUNDSTROM SR77-3 Escape Hood

Item Code	Material	Color	Unit
H15-3512	Flame-resistant material	Yellow	EA

- Filtering respiratory protective device combined with a hood for self rescue in the event of a fire or a chemical emission accident
- Vacuum-packed in aluminum bags
- Can be put on quickly and simply without prior adjustment
- Available in two sizes and fits most adults and teenagers
- Equipped with gas filter SR 331-2, ABEK1-CO and particle filter SR 510, P3
- Provide short time protection against carbon monoxide and other toxic gases and particles
- Comply with EN 14387:2004 + A1:2008 and EN 403:2004 standards

MSA



MSA S-Cap Air

Item Code	Color	Unit
10017668	Hood: Yellow Bag: Red	EA

- Provide 15 minutes of life-saving respiratory protection in extremely toxic or oxygen-deficient environments
- Fast, automatic activation
- Lightweight and compact
- High-visibility outer bag and hood for added safety
- Integrated oro-nasal mask and nose seal for a tight yet comfortable fit
- Featuring fast, automatic activation, fluorescent protective carrying bag, and three liters of 200 bar compressed air
- Ideal for use on ships, off-shore oil rigs, refineries, water utilities and confined spaces
- Comply with EN 1146 standard



ABOUT US

When it comes to occupational safety & health, rest assured that you can count on Safetyware Group – an award winning integrated safety & health solutions provider with over 30 years of experience that provide one-stop OSH products & services. We manufacture safety shoes, safety apparels, rubber gloves, and signage & labels in our manufacturing facilities in Penang. With headquarters and 2 manufacturing plants in Penang, supported by 4 other regional offices in Kuala Lumpur, Melaka, Johor & Singapore, Safetyware is uniquely placed to deliver the superb customers' experience that our customers have come to expect. We have also established collaborations with other renowned Personal Protective Equipment (PPE) manufacturers in Malaysia, USA, Taiwan, China, and India, to manufacture other range of PPE including safety helmet, safety glasses and goggles, ear muffs and ear plugs, particulate respirators and masks, fall protection products, sorbents and spill containment products, safety cabinets, traffic safety products, floor safety products, lockout & tagout (LOTO) products, amongst many others.

Apart from PPE manufacturing, we also partner with international PPE brands such as Sundstrom (Sweden), Ultitec (Taiwan), Elvex (USA), Honeywell (USA), GMI (UK), Delta Plus (France), Portwest (Ireland), and Harvik (Malaysia), to distribute their products in Malaysia and the region. Besides safety products, we provide EHS consultancy and safety training. Our Safetyware Academy offers both public and in-house training programmes catering a diverse range of industries. Safetyware is preferred and entrusted by more than 3,000 companies to be their OSH solution provider, because we do not just sell products or services, we offer complete OSH solution.

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