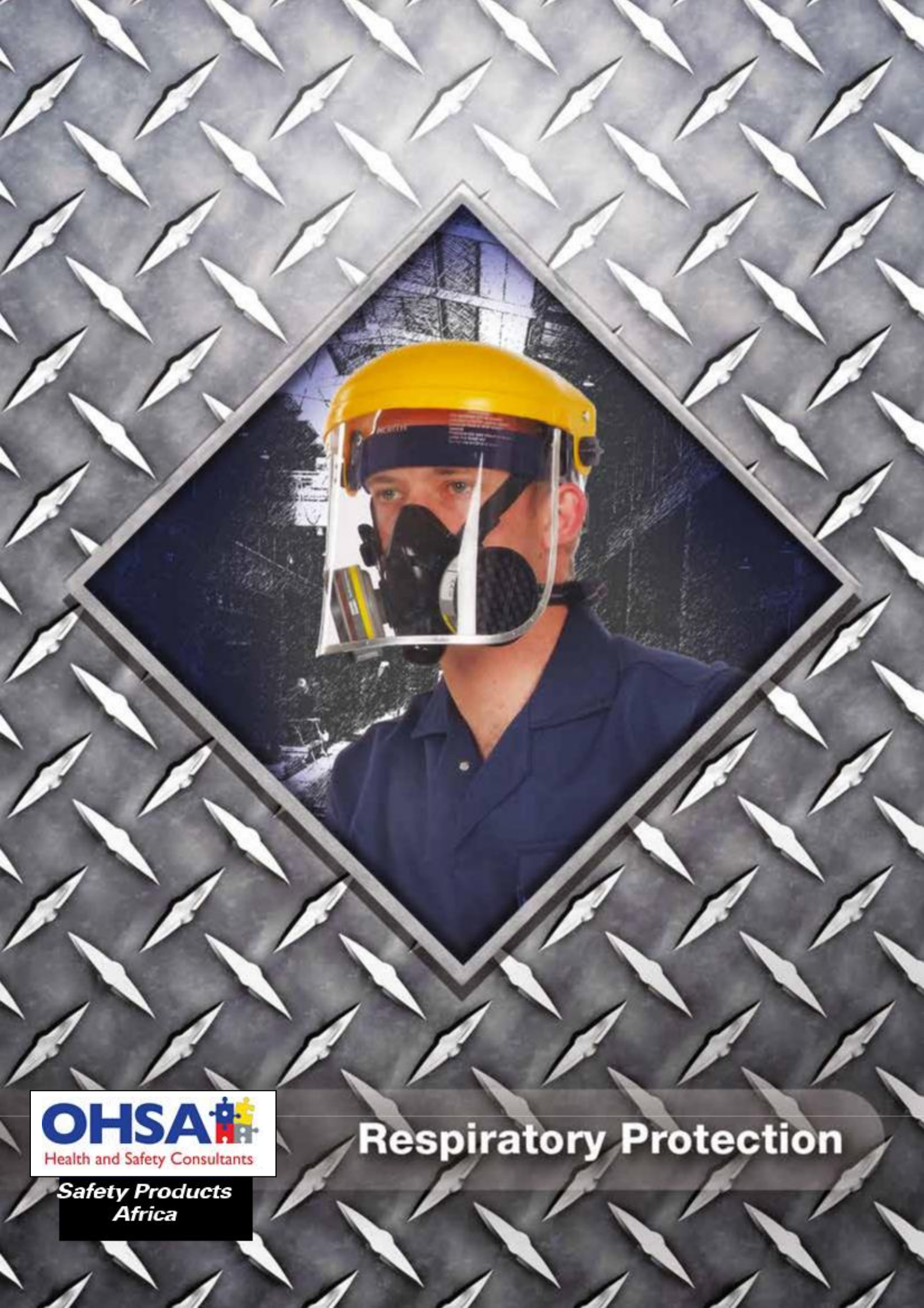

OHSA
Health and Safety Consultants
Safety Products Africa
Respiratory Protection

Selection of Respiratory Protective Equipment

Respiratory Protective Equipment (RPE), like all other types of Personal Protective Equipment should be used in case technical or procedural measures can not totally exclude exposure to contamination in the ambient air, or the risk of oxygen deficiency. North Safety Products cannot be held liable for the incorrect use or choice of respiratory products. Suggestions on specific items will be made based on information from the user.

Respiratory Protection Equipment can be divided into two main groups:

A. FILTERING RESPIRATORS - dependent on the ambient air
The air is cleaned when drawn through the filter. Respirators are not suitable for use in the IDLH environments including oxygen-deficient atmospheres.

Subdivision in this group

- Negative pressure filtering devices for instance disposable-, half- and full face masks with filters
- Positive pressure filtering devices for instance powered air hoods and masks.

B. BREATHING APPARATUS (BA) - Independent on the ambient air
The breathing air is supplied from an external source, f.i. compressed air or cylinders. BA may be suitable for use in IDLH environments including oxygen-deficient atmospheres.

Suitable Choice
Whether a filtering device or breathing apparatus is chosen, depends on criteria like oxygen content, nature and concentration of contamination, mobility of user and the required protection level. The level of protection is expressed in the Protection Factor. Note that filtering respirators should never be used in situations dangerous to life and health.

Protection Factor (PF)
The PF is a measure of the respirator efficiency and follows from the EN standard - it expresses its ability to protect against dangers. If the PF is 50 this means that the air inhaled through the respirator is 50 times cleaner than the surrounding air. The higher the PF, the better protection can be expected.

Occupational Exposure Limit (OEL)
Most individual hazardous substances have been assigned a concentration level, below which RPE is not necessary. Please refer to your local exposure limit sources for specific guidance.

In Practice the Protection (PF) is used as Follows:
The PF multiplied by the OEL gives the maximum allowed ambient concentration of the contaminant. Note that in some European countries rules have been established that introduce a so called Assigned Protection Factor (APF). This APF is typically lower than the EN standard PF (Nominal Protection Factor).

PF (Protection Factor)
Multiplicator to find max allowed concentration.
NPF (Nominal Protection Factor)
PF that follows from the relevant EN Standard for the device.
APF (Assigned Protection Factor)
PF relevant to national rules.
OEL (Occupational Exposure Limit)
Concentration connected to a certain chemical substance.

Due to the fact that the APF is not the same in all European countries, only the NPF is mentioned in the brochure.

Workplace Protection Factor
Multiply the stated figure by the TLV (Threshold Limited Value) of the contaminant you want protection against. Lists are published in each country to find TLV's for most chemicals and aerosols. The value found (APF x TLV) is the maximum concentration the selected respiratory product can be used in.

Warning About Overuse of Filters
A gas filter is saturated as soon as the penetration of contamination is noticed by the odour or taste. The filter must then be replaced immediately! ABEK filters may not be used after one another in different gas environments. Always use a new filter!

FILTER FACE PIECES ARE DIVIDED INTO THE FOLLOWING THREE CLASSES:

FFP1	FFP2	FFP3
Offers protection against inert dust such as dust from stone, plaster, grain.	Offers protection from harmful fine dust such as dust from metal, wood, glass fibre.	Offers protection from toxic fine dust such as from spores, colourants, bacteria.

When Is A Dust Filter Saturated?
A dust filter is saturated if the inhalation resistance increases notably. From a hygiene point of view our advice is: replacement daily. Gas filters are saturated when you notice a change of smell or taste.

What is parts per million (PPM)?
The ratio of the amount of one substance to the amount of another, expressed as a unit of solute dissolved in one million units of solution. It denotes the number of units of one substance relative to one million units of another substance. It may be further expressed in terms of mass-to-mass, volume-to-volume, or another relationship of units of measure.

What is immediately dangerous to life or health (IDLH)?
The purpose for establishing this IDLH value was to determine a concentration from which a worker could escape without injury or without irreversible health effects in the event of respiratory protection equipment failure (e.g. contaminant breakthrough in a cartridge respirator or stoppage of air flow in a supplied-air respirator) and a concentration above which only "highly reliable" respirators would be required. In determining IDLH values, the ability of a worker to escape without loss of life or irreversible health effects was considered along with severe eye or respiratory irritation and other deleterious effects (e.g. disorientation or incoordination) that could prevent escape.

Classes and Marking of Filtering Devices

Particulate filter media is mostly a fine paper type material that filters liquid and solid aerosols. This media can not filter gasses and vapours. Gas/vapour filter media is typically activated carbon, whereby porous carbon flakes bind the contaminant chemically. Activated carbon is chemically impregnated to improve binding of certain groups of chemicals.

To clearly identify which filter media is used the different filter types are marked. The marking consists of a letter and a colour code.

Filter type	Colour code	Applications
P	White	Particulates (Aerosols)
A	Brown	Organic gasses and vapours with a boiling point > 65°C
AX	Brown	Organic gasses and vapours with a boiling point < 65°C
B	Grey	Inorganic gases and vapours
E	Yellow	Organic acids, acid gasses and generally gaseous acids
K	Green	Ammonia
HG	Red	Mercury vapour
CO	Black	Carbon Monoxide
Reactor P3	Orange	Radioactive iodine, methyl iodide and radioactive particulates

Special Carbon

North uses top quality Carbon produced from coconut shells. After the activation process an average class 2 filter contains an extremely porous carbon that represent the surface of some 20 football fields.

Number Marking (Classification)

Particulate filters and devices are marked with the numbers 1, 2 or 3. This refers to the Protection Factors (see Table).

GAS FILTERS NEGATIVE PRESSURE
(used with half or full face mask) (EN141)

Filter class	Maximum allowed concentration
1 (low)	0.1 percent by volume or 1000 p.p.m.
2 (medium)	0.5 percent by volume or 5000 p.p.m.
3 (high)	1.0 percent by volume or 10 000 p.p.m.

GAS FILTERS POSITIVE PRESSURE
(used with powered air system) (EN12941/12942)

Filter class	Maximum allowed concentration
1 (low)	0.05 percent by volume or 500 p.p.m.
2 (medium)	0.1 percent by volume or 1000 p.p.m.
3 (high)	0.5 percent by volume or 5 000 p.p.m.

Gas filters for Powered Air units are classified into three classes according to the absorption capacity.

Combinations of filter media are possible. For instance an A2P3 filter is a commonly used filter.

No respiratory protection or using the wrong kind of respiratory protection for your application can be extremely dangerous or even fatal. North Safety Products offers a complete range of respiratory protection so that a ready-to-wear solution can be offered for any work situation. North's respiratory protection can be broken down into the following groups: disposable APR masks, half masks, full-face masks, filters, powered air respirators and compressed airline systems.

Filter Selection Guide

Substance	Filter recommendation
A	
Acetaldehyde	AX
Acetic acid	A–P 3
Acetic annhydride	A
Acetone	AX
Acetone cyanhydrin	A–P 3
Acetonitrile	A
Acetylene	Supplied air
o-Acetylsalisyclic acid	P 3
Acidic gases	EB
Acids (fuming concentrated)	E–P 3
Acrolein (2-Propenal)	AX
Acrylaldehide	AX
Acrylic acid-esters	A
Acrylonitrile	A–P 3
Alcohol	A
Aldehydes	AX
Aliphatic hydrocarbons	A–P 3
Allyl alcohol	A
Allylamine	BE
Allylchloride (3-chloride-1-propen)	AX
Allyl glycidyl ether (AGE)	A
Aluminium	P 3
Aluminium compounds	P 3
Aluminium oxide fume	P 3
Amines	B
2-Amino ethanol	A
Ammonia	K
Amosite	P 3
Amyl acetate	A
Aniline	A–P 3
Aqueous ammonia	K
Arsenic trioxide	P 3
Arsine	B
Asbestos	P 3
Asphalt	A–P 3
B	
Barium compounds	P3
Banana oil	A
Benzene	A
Benzoe(a)pyrene	A
Benzyl bromide	A–P 3
Benzyl chloride	A–B–P3
Beryllium	P 3
Borax	P3
Boric acid	E–P3
Bromine	B–P 3
Bromoform	A
Bromomethane	AX
Butan-2-ol	A
n-Butanol	A
2-Butanone	A

Substance	Filter recommendation
2-Butoxyethanol	A
Butyl acetate	A
Butyl acrylate	A
Butyl alcohols (butanols)	A
Butyl glycol	A
Butylamine	K
Butyric acid	A–P3
C	
Cadmium inorganic	P 3
Cadmium sulphide	P 3
Caesium hydroxide	P 3
Calcium carbonate	P 3
Calcium hydroxide	P 3
Calcium oxide	P 3
Calcium silicate	P 3
Camphor	A–P3
Carbolic acid	A–P3
Carbon black	P 3
Carbon dioxide	Supplied air
Carbon disulfide	B
Carbon monoxide	CO
Carbon oxysulfide	B
Caustic soda	P 3
Chlorobromomethane	AX
Chlorine	B–P 3
Chlorine dioxide	B
Chloromethane	Supplied air
Chloroform	AX
Chloropicrin	A
Chloroprene	AX
Chlorosulfonic acid	B–P 3
Chlorotoluene	A–P3
Chromium	P 3
Chromium oxide	P 3
Chrysotile	P 3
Copper	P 3
Creosote	A–P3
Cresols	A
Crocidolite	P3
Crotonaldehyde	A
Cyanogen chloride	B
Cyclohexane	A
Cyclohexanol	A
Cyclohexanone	A
D	
DD-products (Desmodur-Desmophen)	A–P 3
DDT dust	P 3
Decahydrate	P 3
Diacetonel alcohol	A
Diazinon	A–P3
1,2-Dibromoethane	A

Substance	Filter recommendation
1,2-Dichloroethane	A
1,2-Dichloroethylene	AX
Dichloromethane	AX
1,2-Dichloropropane	A
Diesel fuel	A
Diethylamine	K
Diethylaminoethanol	A
Diethyl ether	A
Diethyl oxide	A
Diethylene dioxide	Supplied air
Diethylene ether	Supplied air
Dimethylformamide (DMF)	A
Dimethyl hydrazine	Supplied air
Dimethylaldehyde	Supplied air
Dimethylamine	Supplied air
1,4-Dioxane	A
Diphenyl	A–P 3
Dust	P 3
E	
Endrin	A–P 3
Epichlorhydrin	A–P 3
Epoxyethane	Supplied air
Esters	AX
Ethanol	A
Ethanolamine	A
Ethers	AX
Ethylamine	K
Ethyl acetate	A
Ethyl acrylate	A
Ethyl alcohol (ethanol)	A
Ethyl benzene	A
Ethyl bromide	Supplied air
Ethyl butyl ketone	A
Ethylene chloride	A
Ethylene dichloride	A
Ethylene oxide (T-gas)	AX
Ethyl formate	AX
F	
Fluorine	Supplied air
Formaldehyde (formalin)	B–P 3
Formic acid	E–P 3
Furfural	A
Furfuraldehyde	A
Furfural alcohol	A
G	
Gasoline	A
Glycerine trinirate	Supplied air
Glycole	Supplied air
Glycole dinitrate	Supplied air
H	
Halothane	Supplied air
Halogenated hydrocarbons	AX

Substance	Filter recommendation
	B–P 3
	B–P 3
Halogens	B
Hexachlorocyclohexane	A–P 3
Heptane	A
Hexane	Supplied air
Hexanone	A
2-Hexanone	Supplied air
Hydrazine	K–P 3
Hydrocarbons	A
Hydrochlorid acid	B–P 3
Hydrofluoric acid (hydrogen fluoride)	E–P 3
Hydrogen bromide	B–P 3
Hydrogen chloride	B–P 3
Hydrogen cyanide	B
Hydrogen halogenides	B–P 3
Hydrogen selenide	B–P 3
Hydrogen sulfide	B
I	
Insecticide (organic)	A–P 3
Iodine	B–P 3
Iodine (radioactive)	Reactor P3
Iodomethane	AX
Iodomethane (radioactive)	Reactor P3
Iron oxide fumes	P 3
Iron pentacarbonyl	CO–P 3
Isocyanates (organic)	A–B
Isopropyl alcohol	A
Isopropyl ether	A
K	
Ketenes	Supplied air
Ketones	A
L	
Lead fumes	P 3
Liquid Petroleum Gas (LPG)	Supplied air
M	
Magnesium oxide fumes	P 3
Maleic anhydride	A–P 3
Mercaptans	B
Mercury compounds	Hg–P 3
Mercury vapour	Hg–P 3
Metal fumes	P 3
Methyl alcohol (methanol)	AX
Methyl bromide	AX
Methyl chloride	Supplied air
Methyl chloroform	A
Methylene chloride	AX
Methyl ethyl ketone (MEK)	A
Methyl isobutyl ketone (MIBK)	A
Methylamine	K
Methylcyclohexane	Supplied air
Methylcyclohexanol	Supplied air

Substance	Filter recommendation
Methylcyclohexanone	Supplied air
Morpholine	A
N	
Naphtalene	A–P 3
Naphta petroleum	A
Nickel carbonyl	Supplied air
Nickel tetracarbonyl	CO–P 3
Nitric acid	A-B
Nitro benzene	A
Nitro compounds (organic)	A
Nitrogen oxides	NO
Nitroglycerine	Supplied air
Nitromethane	Supplied air
Nitrotoluene	Supplied air
Nitrous fumes	NO
O	
Organic nitro compounds	A
Organic vapours, solvent	A, AX
Ozone	Rector Hg P 3
P	
Paint sprays, vapours	A–P 3
Pentachloroethane	A
Pentachlorophenol	A–P 3
Perchloroethylene	A
Pesticides	A–P 3
Petroleum	A
Phenol	A
Phenyl hydrazine	A
Phosgene	B
Phosphine	B
Phosphorus trichloride	B–P 3
Picric acid	P 3
Polychlorinated biphenyl	A–P 3
Polyacrylates	A–P 3
Potassium cyanide (dust)	B–P 3
Propyl alcohol (propanol)	A
Pyridine	A–P 3
Q	
Quartz	P 3
R	
Rhodium metal and fume	P 3
Rhodium compounds	P 3
S	
Silica amorphous	P 3
Sodium fluoroacetate	P 3
Sodium hydroxide	P 3
Solvents	A
Stibine	B–P 3
Styrene	A
Sulfur compounds (burning)	E–P 3
Sulfur dioxide	E
Sulfuric acid	B–P 3

Substance	Filter recommendation
Sulfur hexafluoride	Supplied air
Sulfur monochloride	B–P 3
Sulfur trioxide	P 3
Sulfuryl chloride	B
T	
1,1,2,2-Tetrachloroethane	A
Tetrachloroethylene	A
Tetrachloromethane	A
Tetrahydrofuran	A
T-gas (etylene oxide)	AX
Toluene	A
Tribromomethane	A
Trichloroethane (TCA)	A
Trichloroethylene (Tri)	A
Trichloromethane	AX
Trimethylbenzene	A
Trimethylphosphate	A–P 3
Turpentine	A
U	
Uranium compounds	P 3
Uretahne (INN)	A–P 3
V	
Vanadium pentoxide	P 3
Vinyl acetate	A
Vinyl benzene	A
Vinyl bromide	A
Vinyl chloride	AX
Vinylidene chloride	AX
Vinyltoluene	A
W	
Warfarin	P 3
Welding fume	P 3
White spirit	A
Wood dust	P 3
X	
Xylene	A
Y	
Yttrium	P 3
Z	
Zinc chloride	P 3
Zinc chromates	P 3
Zinc oxide	P 3
Zyklon (hydrogen cyanide with irritant)	B

Disposable Respirators

Product	RPD1 SH9100
Description	FFP1 NR Dust/Mist Respirator
Physical Properties	A low profile mask offers a better fit with glasses and goggle. A soft inner lining offers more comfort and less irritation. Low breathing resistance increases worker's acceptance. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. (Latex free). Contoured adjustable nosepiece offers maximum performance.
Standards	FFP1 NR EN 149:2001 + A1:2009 SABS Homologation Approval No.: AZ2003/45
Precautions	Do not use in spray-paint operations. Do not use in sandblasting operations. Do not use for protection against asbestos. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.
Uses	For use against fine respirable non-toxic dust and fibres. For use up to 4.5 X OEL or 4 X APF.
Pack Size	Box of 20

Product	RPD1 SH9250
Description	FFP2 NR Dust/Mist Respirator
Physical Properties	A low profile mask offers a better fit with glasses and goggle. A soft inner lining offers more comfort and less irritation. Low breathing resistance increases worker's acceptance. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. (Latex free). Contoured adjustable nosepiece offers maximum performance.
Standards	FFP2 NR EN 149:2001 + A1:2009 SABS Homologation Approval No.: AZ2003/47
Uses	For use against low to average toxic dust, fumes and aqueous mist. For use up to 12 X OEL or 10 X APF.
Precautions	Do not use in spray-paint operations. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.
Pack Size	Box of 20

Product	RPD1 SH9250V
Description	FFP2 NR Dust/Mist Respirator with Valve
Physical Properties	A low profile mask offers a better fit with glasses and goggle. A soft inner lining offers more comfort and less irritation. Exhalation valve offers comfort and durability. Low breathing resistance increases worker's acceptance. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. (Latex free). Contoured adjustable nosepiece offers maximum performance.
Standards	FFP2 NR EN 149:2001 + A1:2009 SABS Homologation Approval No.: AZ2003/39
Uses	For use against fine respirable non-toxic dust and fibres. For use up to 12 X OEL or 10 X APF.
Precautions	Do not use in spray-paint operations. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.
Pack Size	Box of 10

Product	RPD1 SH9250CV
Description	FFP2 NR Active Carbon Respirator with Valve
Physical Properties	The exhalation valve offers lower breathing resistance for easier breathing which increases worker's acceptance. Activated carbon offers the additional protection against organic gas at nuisance levels. A low profile mask offers a better fit with glasses and goggle. A soft inner lining offers more comfort and less irritation. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. (Latex free). Contoured adjustable nosepiece offers maximum performance.
Standards	FFP2 NR EN 149:2001 + A1:2009 SABS Homologation Approval No.: AZ2003/49
Uses	For use against low to average toxic dust, fumes and aqueous mist. For use up to 12 X OEL or 10 X APF. For use against organic gases at nuisance levels.
Pack Size	Box of 10
Precautions	Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.

Product	RPD1 SH9370V
Description	FFP3 NR Premium Respirator with Valve
Physical Properties	The exhalation valve offers lower breathing resistance for easier breathing which increases worker's acceptance. Activated carbon offers the additional protection against organic gas at nuisance levels. A low profile mask offers a better fit with glasses and goggle. A full facial foam lining offers more comfort and less irritation. Low breathing resistance increases worker's acceptance. Fully adjustable head straps offer a good fit and comfort over the head and neck. Contoured adjustable nosepiece offers maximum performance.
Standards	FFP3 NR EN 149:2001 + A1:2009 SABS Homologation Approval No.: AZ2012/18
Uses	For use against average to high toxic dust and fumes aqueous mist. For use up to 50 X OEL or 20 X APF.
Pack Size	Box of 5
Precautions	Do not use in spray-paint operations. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.

Product	RPD1 SH3720
Description	FFP2 NR Dust/Mist Respirator
Physical Properties	A low profile mask offers a better fit with glasses and goggle. A soft inner lining offers more comfort and less irritation. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. Contoured adjustable nosepiece offers maximum performance.
Standards	FFP2 NR EN 149:2001 + A1:2009 SABS Homologation Approval No.: AZ2007/33
Uses	For use against low to average toxic dust, fumes and aqueous mist. For use up to 12 X OEL or 10 X APF.
Precautions	Do not use in spray-paint operations. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.
Pack Size	Box of 20

Product	RPD1 A-501P1
Description	FFP1 NR Dust/Mist Respirator (Arrow)
Physical Properties	A low profile mask offers a better fit with glasses and goggle. A soft inner lining offers more comfort and less irritation. Low breathing resistance increases worker's acceptance. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. (Latex free). Contoured adjustable nosepiece offers maximum performance.
Standards	FFP1 NR EN 149:2001 & A1:2009 CE0194 SABS Homologation Approval No.: AZ2010/22
Uses	For use against fine respirable non-toxic dust and fibres. For use up to 4.5 X OEL or 4 X APF.
Precautions	Do not use in spray-paint operations. Do not use in sandblasting operations. Do not use for protection against asbestos. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.
Pack Size	Box of 20

Product	RPD1 SH1201
Description	FFP1 NR D Dust/Mist Respirator
Physical Properties	A low profile mask offers a better fit with glasses and goggle. A soft inner lining offers more comfort and less irritation. Low breathing resistance increases worker's acceptance. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. Contoured adjustable nosepiece offers maximum performance.
Standards	FFP1 NR D EN 149:2001 + A1:2009 SABS Homologation Approval No.: AZ2008/57 The Dolomite test is an optional test under norms EN 149: 2001 and respirators that pass this test will provide more comfortable breathing as the Dolomite test is a clogging test.
Uses	Single-use respirator providing protection against solid and liquid aerosols in concentrations up to 4.5 X OEL or 4 X APF.
Precautions	Do not use in spray-paint operations. Do not use in sandblasting operations. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.
Pack Size	Box of 20

Product	RPD1 A-502P2
Description	FFP2 NR Dust/Mist Respirator (Arrow)
Physical Properties	A low profile mask offers a better fit with glasses and goggle. A soft inner lining offers more comfort and less irritation. Low breathing resistance increases worker's acceptance. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. (Latex free). Contoured adjustable nosepiece offers maximum performance.
Standards	FFP2 NR EN 149:2001 & A1:2009 CE0194 SABS Homologation Approval No.: AZ2010/24
Uses	For use against low to average toxic dust, fumes and aqueous mist. For use up to 12 X OEL or 10 X APF.
Precautions	Do not use in spray-paint operations. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.
Pack Size	Box of 20

Product	RPD1 SH2910
Description	FFP1 NR Foldable Dust/Mist Respirator
Physical Properties	A foldable low profile mask offers a better fit with glasses and goggle. Ease of storage increases life of mask and offers increased savings in usage. A soft inner lining offers more comfort and less irritation. Low breathing resistance increases worker's acceptance. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. Contoured adjustable nosepiece offers maximum performance.
Standards	FFP1 NR EN 149:2001 + A1:2009 SABS Homologation Approval No.: AZ2003/40
Precautions	Do not use in spray-paint operations. Do not use in sandblasting operations. Do not use for protection against asbestos. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.
Uses	For use against fine respirable non-toxic dust and fibres. For use up to 4.5 X OEL or 4 X APF.
Pack Size	Box of 20

Product	RPD1 A-502P2V
Description	FFP2 NR Dust/Mist Respirator with Valve (Arrow)
Physical Properties	A low profile mask offers a better fit with glasses and goggle. A soft inner lining offers more comfort and less irritation. Exhalation valve offers comfort and durability. Low breathing resistance increases worker's acceptance. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. (Latex free). Contoured adjustable nosepiece offers maximum performance.
Standards	FFP2 NR EN 149:2001 & A1:2009 CE0194 SABS Homologation Approval No.: AZ2010/23
Uses	For use against fine respirable non-toxic dust and fibres. For use up to 12 X OEL or 10 X APF.
Precautions	Do not use in spray-paint operations. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.
Pack Size	Box of 10

Product	RPD1 SH2920
Description	FFP2 NR Foldable Dust/Mist Respirator
Physical Properties	A foldable low profile mask offers a better fit with glasses and goggle. Ease of storage increases life of mask and offers increased savings in usage. A soft inner lining offers more comfort and less irritation. Low breathing resistance increases worker's acceptance. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. Contoured adjustable nosepiece offers maximum performance.
Standards	FFP2 NR EN 149:2001 + A1:2009 SABS Homologation Approval No.: AZ2003/43
Uses	For use against low to average toxic dust, fumes and aqueous mist. For use up to 12 X OEL or 10 X APF.
Precautions	Do not use in spray-paint operations. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.

Product	RPD1 SH2930V
Description	FFP3 NR Foldable Premium Respirator with Valve
Physical Properties	A foldable low profile mask offers a better fit with glasses and goggle. Ease of storage increases life of mask and offers increased savings in usage. The exhalation valve offers lower breathing resistance for easier breathing which increases worker's acceptance. A soft inner lining offers more comfort and less irritation. Smooth, pre-stretched head straps offer a good fit and comfort over the head and neck. Contoured adjustable nosepiece offers maximum performance.
Standards	FFP3 NR EN 149:2001 + A1:2009 SABS Homologation Approval No.: AZ2003/38
Precautions	Do not use in spray painting operations. Do not use when concentrations of contaminant are unknown or immediately dangerous to life or health. Not to be worn with facial hair, i.e. no beards or moustaches.
Pack Size	Box of 20
Uses	For use against low to average toxic dust, fumes and aqueous mist. For use up to 50 X OEL. or 20 X APF. For use against organic gases at nuisance levels.

RPD2 3M8810

RPD2 3M8822

Product	RPD2 3M88
Description	3M FFP2 NR D Respirator
Physical Properties	The 3M 8810 and 8822 respirator provides lightweight, effective, comfortable and hygienic respiratory protection against dusts and mists. The convex shape, twin strap design, foam nose seal and aluminium nose clip ensure a good face seal over a wide range of face sizes. These respirators are exempt from costly time consuming maintenance requirements. The 8822 model has a unique valve and collapse resistant shell offering durable, comfortable protection particularly in hot and humid conditions.
Standards	SANS 50149:2001
Precautions	This product does not protect from paint spray operations or atmospheres containing less than 19.5% oxygen. Use in adequately ventilated areas. Do not use when concentrations of contaminants are dangerous to health. Leave area if breathing becomes difficult or distress occurs. Replace respirator if damaged, breathing resistance becomes excessive, or at the end of one shift.
Uses	8810-base metal manufacture, laboratories, powdered additives, pharmaceuticals, foodstuffs e.g. bagging, powdered chemicals, sawmills. 8822 in addition to above uses may be used for iron and steel foundries, shipbuilding/ship repairing, potteries, brick fire clay and refractory materials, construction. Maximum usage level up to 12xTLV.

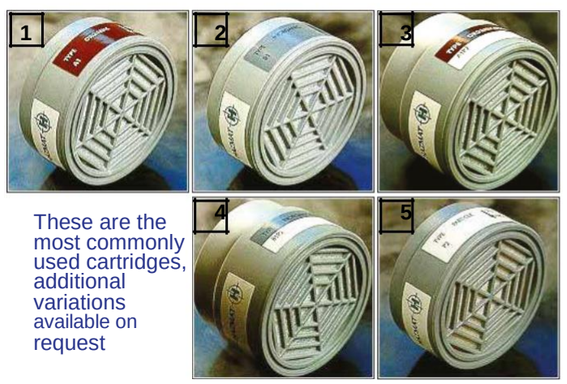
RPD2 8732200

RPD2 8732210

Product	RPD2 87322
Description	uvex Silv-Air c FFP2 Respirator
Physical Properties	Innovative design with an optimised shape. Soft material edges for greater comfort and wearer acceptance. Seamless headband for a comfortable, secure fit. Adjustable nose clip ensure an excellent individual fit. Mask fulfills the requirements of the dolomite dust test. Compatible with uvex safety eyewear Upper face seal offers both secure positioning and comfort. Exhalation valve for easy airflow exchange and reduces the build-up of heat and moisture inside the mask (applicable to valve option only).
Standards	CE EN 149, EU guideline 89/686/EEC
Uses	For use against fine respirable non-toxic dust and fibres. Protection from fibre glass insulating materials, Quartz dust. Protection during sanding, cutting, milling, drilling, angle grinding, sawing, power station retrofitting & filter cleaning, sewage treatment, mining, resin & adhesive processing.

Product	RPD2 8732310
Description	uvex Silv-Air c FFP3 Respirator
Physical Properties	Innovative design with an optimised shape. Soft material edges for greater comfort and wearer acceptance. Seamless headband for a comfortable, secure fit. Exhalation valve for easy airflow exchange and reduces the build-up of heat and moisture inside the mask. Adjustable nose clip ensure an excellent individual fit. Mask fulfills the requirements of the dolomite dust test. Compatible with uvex safety eyewear. Upper face seal offers both secure positioning and comfort
Standards	CE EN 149, EU guideline 89/686/EEC
Uses	For use against fine respirable non-toxic dust and fibres. Protection from fibre glass insulating materials, Quartz dust. Protection during sanding, cutting, milling, drilling, angle grinding, sawing, power station retrofitting & filter cleaning, sewage treatment, mining, resin & adhesive processing.

Product	RPD2 3M8233
Description	3M FFP2 NR D VFlex Flat Fold 9100 Respirator
Physical Properties	V-shaped pleats which flex with mouth movement for easier talking and expand to help ease of breathing. Adjustable noseclip which helps provide a custom fit and secure seal. Noseclip is imbedded and are metal detectable. Elastic headbands contain no natural rubber latex components. Flat-fold ensures convenient storage prior to use. Spacious inside with minimal impact on field of vision. Compatible with a variety of eyewear and hearing protection. This product is available in two sizes to fit a broad range of faces.
Standards	EN 149:2001 + A1:2009
Uses	Sweeping, sanding, grinding, sawing, bagging, dry chemical handling, emergency preparedness, pharmaceutical/ laboratory, food preparation, mineral processing, Agriculture, general maintenance, fibreglass manufacturing. Maximum usage level up to 12xTLV.
Precautions	This product does not protect from paint spray operations or atmospheres containing less than 19.5% oxygen. Use in adequately ventilated areas. Do not use when concentrations of contaminants are dangerous to health. Leave area if breathing becomes difficult or distress occurs. Replace respirator if damaged, breathing resistance becomes excessive, or at the end of one shift.



These are the most commonly used cartridges, additional variations available on request

Product	BOX & LID CARTRIDGES
1	RPC2 RP369 — A1 Organic Filter
2	RPC2 RP357 — B1 Inorganic Filter
3	RPC2 RP386 — A1P2 Filter
4	RPC2 RP395 — B1P2 Filter
5	RPC2 RP374 — P2 Filter

Product	RPH1 RP191
Description	Single Half Mask (Box and Lid)
Physical Properties	PVC rubber half mask with single cartridge holders. Comfortable low breathing resistance and easy fit headgear. Wide assortment of cartridges for various applications. Non-allergenic moulded soft rubber. Elastic type head harness. Quick release buckle on the elastic neck strap.
Standards	SANS 50140:1998
Uses	Half mask Respirator approved for use against organic, inorganic, acid gases and particulates
Precautions	Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19%. Not to be used where the contaminant is IDLH. Only to be used with North Safety Products approved cartridges. Only to be used with the applicable cartridges to protect from the particular hazard. Not to be worn with facial hair, i.e. no beards or moustaches.

Size Medium

Product	RPH1 RP192
Description	Twin Half Mask (Box and Lid)
Physical Properties	PVC rubber half mask with double cartridge holders. Comfortable low breathing resistance and easy fit headgear. Wide assortment of cartridges for various applications. Non-allergenic moulded soft rubber. Elastic type head harness. Quick release buckle on the elastic neck strap.
Standards	SANS 50140:1998
Uses	Half mask respirator approved for use against organic, inorganic, acid gases and particulates
Precautions	Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19%. Not to be used where the contaminant is IDLH. Only to be used with North Safety Products approved cartridges. Only to be used with the applicable cartridges to protect from the particular hazard. Not to be worn with facial hair, i.e. no beards or moustaches.

Size Medium

Product	RPH1 RP193
Description	Single Half Mask
Physical Properties	PVC rubber half mask with single direct thread cartridge holders. Comfortable low breathing resistance and easy fit headgear. Wide assortment of cartridges for various applications. Non-allergenic moulded soft rubber. Elastic type head harness. Quick release buckle on the elastic neck strap.
Standards	SANS 50140:1998
Uses	Can be used with the Class 1 series filters, or as a face piece with compressed airline apparatus CF2007 Plus.
Precautions	Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19%. Not to be used where the contaminant is IDLH. Only to be used with North Safety Products approved class 1 series screw in cartridges. Only to be used with the applicable cartridges to protect from the particular hazard. Not to be used with combination cartridges. Not to be worn with facial hair, i.e. no beards or moustaches.

Size Medium

Protection against: (see cartridges & index filter type) P | A | AX | B | E | K | HG | CO | P3

Product	RPH1 RP194
Description	Twin Half Mask
Physical Properties	PVC rubber half mask with 2 direct thread cartridge holders. Comfortable low breathing resistance and easy fit headgear. Wide assortment of cartridges for various applications. Non allergenic moulded soft rubber. Elastic type head harness. Quick release buckle on the elastic neck strap.
Standards	SANS 50140:1998
Uses	Can be used with the Class 1 series filters, or as a face piece with compressed airline apparatus CF2007 Plus.
Precautions	Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19%. Not to be used where the contaminant is IDLH. Only to be used with North Safety Products approved Class 1 series screw in cartridges. Only to be used with the applicable cartridges to protect from the particular hazard. Not to be worn with facial hair, i.e. no beards or moustaches.

Size Medium

Protection against: (see cartridges & index filter type) P | A | AX | B | E | K | HG | CO | P3

Product	CLASS 1 FILTERS
	DUST FILTERS
RPC1 RN75008	P3 high efficiency filter
	PRE-FILTERS
RPC1 RN750010	P2 Pre-filter paint spray/mists
RPC1 RN750027	Pre-filter holder
RPC1 RN750015	GAS FILTERS Filter holder
RPC1 RN75001	A1 Organic vapours
RPC1 RN75003	A1B1E1 Organic/Inorganic/Acid

Direct Thread Respirators

	GAS FILTERS continued
RPC1 RN75004	K1 Ammonia/Methylamine/Ethylamine
RPC1 RN75009	A1B1E1K1 Organic/Inorganic/Acid/Ammonia
	COMBINATION FILTERS
RPC1 RN750081	A1P3 Organic/P3
RPC1 RN75003P2	RPC1 RN750083 A1B1E1P2 Organic/Inorganic/Acid/P2
RPC1 RN750084SG	K1P3 Ammonia/Methylamine/Ethylamine/P3
RPC1 RN750089	A1B1E1K1P3 Organic/Inorganic/Acid/Ammonia/P3

Protection against: (see cartridges & index filter type) P | A | AX | B | E | K | HG | CO | P3

Sizes Medium or Large

Product	RPH1 RN550030
Description	Twin Cartridge Neoprene Rubber Half Mask
Physical Properties	Face piece made from soft, hypoallergenic elastomer. Contoured sealing flange, cradle suspension system and headband yoke. Exceptionally low breathing resistance. Positive pressure fit check without removing cover, eliminates the risk of improper seal and reduced protection due to lost or worn sealing gaskets. Minimises replacement parts, ease of maintenance and no cartridge receptacles to clean.
Standards	SANS 50140:1998
Uses	Can be used with the Class 1 series filters, or as a face piece with compressed airline apparatus CF2007 Plus.
Precautions	Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19%. Not to be used where the contaminant is IDLH. Only to be used with North Safety Products approved Class 1 series screw in cartridges. Only to be used with the
Precautions continued	applicable cartridges to protect from the particular hazard. Not to be worn with facial hair, i.e. no beards or moustaches.

Product RPH1 RN770030

Description Twin Cartridge Silicone Rubber Half Mask

Physical Properties Face piece made from soft, hypoallergenic elastomer. Contoured sealing flange, cradle suspension system and headband yoke. Exceptionally low breathing resistance. Positive pressure fit check without removing cover, eliminates the risk of improper seal and reduced protection due to lost or worn sealing gaskets. Minimises replacement parts, ease of maintenance and no cartridge receptacles to clean.

Standards SANS 50140:1998

Precautions Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19%. Not to be used where the contaminant is IDLH. Only to be used with North Safety Products approved class 1 series screw in cartridges. Only to be used with the applicable cartridges to protect from the particular hazard. Not to be used with combination cartridges. Not to be worn with facial hair, i.e. no beards or moustaches.

Sizes Medium or Large

Protection against: (see cartridges & index filter type) P | A | AX | B | E | K | HG | CO | P3

Uses Can be used with the Class 1 series filters, or as a face piece with compressed airline apparatus CF2007 Plus.

Product RPC2 3M6000/ RPC2 3M2000

Description Gas/Vapour & Particulate Filters

Physical Properties Lightweight. Flexible system (gas / vapour and / or particulate filters plus Supplied-Air option). Hypo-allergenic facepiece material. Easy to use. Well balanced. Low maintenance. Economical

Standards EN 141 / EN 143

Uses The 6000 Series half masks can be used in a variety of different filter applications. Gas and vapour filters - The 6000 series filters fit directly onto the 6000 series half masks. Particulate Filters - The 2000 series particulate filters fit directly onto the 6000 series half masks. The 5911/5925/5935 particulate filters may be used on their own with platform 603 & retainer 501. A combination of gas/vapour and particulate filters - The 2000 series filters can be used with the 6000 series gas/vapour filters (not 6098 and 6099) using the 502 adapter. The 5911/5925/5935 particulate filters can be used

Uses continued with 6000 series gas/vapour filters using retainer 501. Note: The 6098/6099 filters should not be used with the 6000 series half masks. Supplied-Air mode using 3M S-200 Respirator System (for information on the Supplied-Air System and application please see the 3M S-200 Data Sheet).

Product RPH2 3M6000

Description 6000 Series Half Mask (Small, Medium and Large)

Physical Properties Lightwieght. Flexible system (gas/vapour and/or particulate filters plus supplied-air option). Hypo-allergenic facepiece material. Easy to use. Well balanced. Low maintenance. Economical.

Standards SANS 50140:1998

Uses The 6000 Series Respirators are used with twin lightweight filters which are fitted by a simple bayonet attachment system, providing an economical and flexible choice. Respirators can also be used with the 3M S-200 Supplied air System for increased convinience and flexibility.

Precautions Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19.5%. Not to be used where the contaminant is IDLH. Only to be used with 3M filters/product options. Only to be used with the applicable cartridges to protect from the particular hazard. Not to be used with combination cartridges. Not to be worn with facial hair, i.e. no beards or moustaches.

Size Small
RPD2 3M6100
(Light Grey/Grey)

Protection against: (see cartridges & index filter type) P | A | AX | B | E | K | HG | CO | P3

Size Medium
RPD2 3M6200
(Grey)

Size Large
RPD2 3M6300
(Dark Grey)

Product

Description 6500 Series Half Mask (Small, Medium and Large)

Physical Properties Adjustable Head Harness Assembly, including 3M Quick Latch drop down mechanism on QL models. Silicone Faceseal, providing comfort and stability with a soft but firm faceseal. Flexible System (gas/vapour and/or particulate filters. Overmolded/ Low-Profile Design Simplified cleaning and maintenance with fewer parts and crevices. Valve Cover Design that directs exhaled breath and moisture downward and allows for an easy positive pressure seal check. Twin filter design provides lower breathing resistance, a more balanced fit, and improves field of vision. Available with 2 head cradle suspensions, a standard version, and the Quick latch version, designed so that the half mask can easily be "dropped down" when not in a contaminated area, without having to remove the head cradle from your head.

Standards SANS 50140:1998

Uses The 6500 Series Respirators can be used with a variety of different filter options. Gas and Vapour Filters only: The filters generally protect against either single or multiple contaminant type(s). Particulate filters only: These filters provide protection against solid and non-volatile liquid particles. Combination of Gas & Vapour and Particulate filters.

Precautions These respirators do not supply oxygen. Do not use in oxygen deficient areas i.e. where oxygen is below 19.5%.Do not use for respiratory protection against atmospheric contaminants which have poor warning properties, are unknown or immediately dangerous to life and health, or against chemicals, which generate high heats of reaction with chemical filters. Do not modify or alter this device. The assembled respirator may not provide a satisfactory face seal with certain physical characteristics (such as beards or large side burns) resulting in leakage between the respirator and the face. The user assumes all risks of bodily injury, which may possibly result. Do not use with unknown concentrations of contaminants. Do not use for escape purposes. Leave the work area immediately and check the integrity of the respirator and replace respirator and/or filters if: Damage has occurred or is apparent. Breathing becomes difficult or increased breathing resistance occurs. Dizziness or other distress occurs. You taste or smell the contaminant or an irritation occurs. Store this device in a sealed container away from contaminated areas when not in use. Use strictly in accordance with respirator and filter user instruction leaflet.

Size Small
RPH2 3M6501
RPH2 3M6501QL (Quick-Latch)

Size Medium
RPH2 3M6502
RPH2 3M6502QL (Quick-Latch)

Size Large
RPH2 3M6503
RPH2 3M6503QL (Quick-Latch)

Protection against: (see cartridges & index filter type) P | A | AX | B | E | K | HG | CO | P3

Direct Thread Respirators

Full Face Mask Respirators

Product	RPF1 RN76008A
Description	Silicone Rubber Direct Thread Full Face Mask
Physical Properties	Designed to provide eye, face and respiratory protection while providing optimum comfort. Provides a 200 degree field of vision. Polycarbonate lens features optimal optical properties to minimise distortion and astigmatism. Dual flange, silicone full face piece. Chin cup designed to cover worker's entire face. Cartridges have an inside thread connection. 5 strap head harness. Oral/nasal cup reduces fogging. Speaking diaphragm for easy communication. Hard coated polycarbonate lens which is scratch and impact resistant. Meets impact & penetration requirements of ANSI Z87.1-1989.
Precautions	Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19%. Not to be used where the contaminant is IDLH. Only to be used with North Safety Products approved class 1 series screw in cartridges. Only to be used with the applicable cartridges to protect from the particular hazard. Not to be worn with facial hair, i.e. no beards or moustaches.

Protection against: (see cartridges & index filter type) — P | A | AX | B | E | K | HG | CO | P3

Standards	NIOSH/MSHA Certified - ANSI Z87.1-1989.
Uses	Can be used with the class 1 series filters, or as a face piece with compressed airline apparatus,using North CF2007 Plus.

Protection against: (see cartridges & index filter type) — P | A | AX | B | E | K | HG | CO | P3

Product	RPF1 RN76008AW
Description	Full Face Welder's Mask
Physical Properties	Allows use of full face piece respirators in welding environments. This attachement constructed of fire resistant thermoplastic material, is designed so that when the worker is not welding it can be lifted upward on a locking hinge for a wide angle view of the work area. Easily attaches to North RN76008A full face piece respirators. The lightweight lift front low profile conforms to the shape of the respirator lens allowing work to be performed in tight spaces.
Precautions	Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19%. Not to be used where the contaminant is IDLH. Only to be used with North Safety Products approved class 1 series screw in cartridges. Only to be used with the applicable cartridges to protect from the particular hazard. Not to be used with combination cartridges. Not to be worn with facial hair, i.e. no beards or moustaches.

Standards	NIOSH/MSHA Certified - ANSI Z87.1-1989.
Uses	Can be used with the class 1 series filters, or as a face piece with compressed airline apparatus, using North CF2007 Plus

Product	RPF1 N65754101
Description	Neoprene Rubber Direct Thread Full Face Mask
Physical Properties	Face piece made from soft, hypoallergenic elastomer. Contoured sealing flange, cradle suspension system and headband yoke. Exceptionally low breathing resistance. Positive pressure fit check without removing cover, eliminates the risk of improper seal and reduced protection due to lost or worn sealing gaskets. Minimises replacement parts, ease of maintenance and no cartridge receptacles to clean.
Standards	SANS 50136:1998 EN 136:1998 CL1 SABS Homologation Approval No.: AZ2009/01
Precautions	Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19%. Not to be used where the contaminant is IDLH. Only to be used with North Safety Products approved class 1 series screw in cartridges. Only to be used with the applicable cartridges to protect from the particular hazard. Not to be used with combination cartridges. Not to be worn with facial hair, i.e. no beards or moustaches.

Protection against: (see cartridges & index filter type) — P | A | AX | B | E | K | HG | CO | P3

Uses	Can be used with the Class 1 series filters, or as a face piece with compressed airline apparatus CF2007 Plus.

Class 2 Filters

Product	RPC1 HFPC3007
Description	Compact Air Filters
Physical Properties	Lightweight double coated aluminium catridges. Wide range of filters against almost al substances. No damage by sparks or heat. No air-cracks possible, no chemical penetration. Reduce inventory.
Standards	EN 148-1
Uses	The North filter canisters are approved to be used on North 7700/15 half mask, the N5400 Class 2 and all other manufacturers approved masks with DIN 148 standard thread connection. The same filters can be used for the North Powered Air system, Compact Air.

Description	EPDM Direct Thread Full Face Mask
Physical Properties	Face piece made from soft, hypoallergenic elastomer. Contoured sealing flange, cradle suspension system and headband yoke. Exceptionally low breathing resistance. Positive pressure fit check without removing cover, eliminates the risk of improper seal and reduced protection due to lost or worn sealing gaskets. Minimises replacement parts, ease of maintenance and no cartridge receptacles to clean.
Standards	EN 136 (Class 2). Filter connector to EN 148-1 (40mm DIN thread). Visor: EN 166B
Precautions	Not to be used in areas that are oxygen deficient i.e. where oxygen is below 19%. Not to be used where the contaminant is IDLH. Only to be used with North Safety Products approved class 2 series screw in cartridges. Only to be used with the applicable cartridges to protect from the particular hazard. Not to be worn with facial hair, i.e. no beards or moustaches.

Protection against: (see cartridges & index filter type) — P | A | AX | B | E | K | HG | CO | P3

Uses	Can be used with EN40 mm thread connection, powered filter device in combination with Airbelt or Compact Air. Also available as continues flow compressed airline apparatus, using North airbelt and regualtor RPP1 MC91A.

Powered Air-Purifying Respirators

Product	RPP1 PAF
Description	Cleanspace2™ Respirator is a Compact, Light Weight Powered Air Unit
Physical Properties	Low profile silicone mask fitted with exhalation valve and adjusted with ratchet adjustment for comfortable fit. Sensor adjusts positive pressure air-flow inside mask. Ergonomic, padded, neck mounted design with robust, patented Micro-turbine motor which generates airflow. Quick charge Lithium ion battery provides between 6 and 11 hours of operation. High efficiency pleated, easy to fit, particulate filter will remove solid and liquid particles. Nylon and polyester harness.
Uses	Welding, woodworking, manufacturing, smelting, construction, recycling plants, emergency services, mining, agriculture, processing plants, grinding, DIY. Options: Full Face or Half Mask.
Precautions	Do not use in IDLH, or in oxygen enriched or deficient atmospheres, to protect against gases/vapours that cannot be filtered. Can operate between temperatures 0˚C to 45˚C.
Standards	NRCS/8072/0090 SANS 12942:1998 AS/NZS1716:2012 PAPR-P EN 12942:1998+A2:2008 TM3: ISO9001

Product	RPP1 PA121EU
Description	Premier Plus Hood with Bib and Harness Coated
Physical Properties	A full coated hood available for occasional splash, part of the light duty airhoods range designed for use with powered air respiratory protection. This model is semi reusable. It is recommended in working area where protection is required for respiratory organs, face and head against harmful particles, mists, gasses and vapours. This system procures air to the user via the supply hose connected between PAPR (equipped with filters) and the hood. The filtered airflow enters at the rear or the hood flows through the air duct and leaves the hood via the neck bib.
Standards	EN 12941:1998
Uses	Whenever full head and shoulder should be protected. Light chemical handling. Handling powder and liquids in the pharmaceutical industry. Agriculture use. Paint spraying.

Product	RPP1 A114106
Description	Light Duty Full Transparent Airhood with Plastic Clamps for Disposable Visors against Damage and/or Splashes.
Physical Prop.	PU/Ferranyl/Neoprene. Airflow of 160 litres per minute.
Standards	EN 12941 class TH2P NPF=50
Uses	Spray painting. Grinding. Light chemical handling.
Precautions	Not to be used where the contaminant is IDLH, unless in conjunction with a compressed airline. Only to be used with North Safety Products approved Compact Air & Airbelt. Not to be worn in areas that are oxygen deficient i.e. where oxygen is below 19%.

Product	RPP2 AFS104
Description	4 Port In-line Filter Unit (Compressed Air)
Physical Properties	The AFS104 contains the following filter: filter/regulator. Regulates airflow. Micro mist separator. Removes mists and moisture from compressed air. Odour removal filter. Removes oil mists and odours.
Standards	None
Uses	To be used in confined spaces when attached to an external air supply. To be used in IDLH (Less than 19% oxygen) situations when attached to an external air supply. To be used in conjunction with a North Safety Full Face or Twin Half Mask and the CF2007 Plus connector hose.
Precautions	Only to be used with North Safety Products approved Respirators. Only use when the airline hose is below a length of 80 meters.

Product	RPP1 A114400
Description	Heavy Duty Airhood with PU hood and visor clamps for disposable visors. The Combi version includes a safety helmet.
Physical Prop.	PU/Ferranyl/Neoprene. Airflow of 160 litres per minute
Standards	EN 12941 class TH2P NPF=50
Uses	Spray painting. Grinding. Light chemical handling.
Precautions	Not to be used where the contaminant is IDLH, unless in conjunction with a compressed airline. Only to be used with North Safety Products approved Compact Air & Airbelt. Not to be worn in areas that are oxygen deficient i.e. where oxygen is below 19%.

Product	RPP1 CF2007
Description	Interchangeable Breathing Tube, Adjustable Airflow Valve and Waist Belt. Series CF-SAR.
Physical Properties	Easily converts air-purifying respirator into a continuous flow respirator. Easily adaptable to the North 5500, 7700, 5400 or 7600 series air purifying face pieces, simply by removing cartridges and attaching interchangeable breathing tube to the face piece cartridge connectors. No modifications, tools or extra components needed. Using common face pieces for air-purifying and supplied air applications reduce inventory and maintenance costs, simplifying respiratory training and compliance with OSHA requirements for annual fit testing. Designed to rest on the back not to restrict the worker. Allows workers to function for long periods of time in toxic environments that are Immediately Dangerous to Life or Health (IDLH) by supplying continuous flow of breathing air. North quick-connect couplers and air supply hoses must be ordered separately.

Uses	Utilises North halfmask and full-face pieces, giving advantages of industry leading products. 2-piece hose engineered to be soft and flexible where it attaches to the face piece, reducing strain on face seal while providing protection against kinking and shutoff when exposed to work area. Durable, ergonomically designed control valve monitors airflow. Wide, adjustable belt will not “cut” into worker’s side.

Precautions	Not to be used where the contaminant is IDLH. Not to be worn in areas that are oxygen deficient i.e. where oxygen is below 19%.
Packaging	Supplied complete with hose, battery, charger, & fuse in plastic case
Charging Time	8 hours (battery supplied in uncharged state)

Product	RPP1 A150102
Description	Compact Air Powered Respirator
Physical Properties	Used in combination with particle or gas filters. The contaminated air is drawn through 3 filters and supplies continuous flow of clean air to the wearer’s headpiece (hood or mask). The unit is supplied as standard with a support belt to distribute the weight evenly over the back. Both battery and blower are separate which makes it easy to change the battery.
Uses	Welding, grinding, chemical handling, cleaning, spray painting
Airflow	150 to 200 L/min (dependant on filter type)
Battery Hose	NiMH - rechargeable 800mm long with 22mm diameter HDPE
Operating Time	10 hours (Battery supplied in uncharged state)
Standards	EN 12941 for Airhoods EN 12942 for Masks

Product	RPP1 A114102
Description	Kolibri Airhood
Physical Properties	Very light and comfortable, low profile design. Concentrated field of vision - reducing light reflections. Soft, elastic and washable face seal, easily replaced, offering increased operator comfort. Disposable visor-system allowing removal during operation.
Standards	EN 14594 NPF=50 & EN 146
Uses	Spray painting. Grinding. Light chemical handling.
Airflow	160 L/min
Precautions	Not to be used where the contaminant is IDLH, unless in conjunction with a compressed airline. Only to be used with North Safety Products approved Compact Air & Airbelt. Not to be worn in areas that are oxygen deficient i.e. where oxygen is below 19%.

Product	RPP1 A114110
Description	Primair Airhood
Physical Properties	Extemely light and comfortable. Easy to change the top. Headband and airduct reusable, reduces costs. Airduct takes air to the visor, no misting up, no cold air on wearers head.
Standards	EN 12941 class TH1P & EN 14594 class 2A
Uses	Spray painting. Agriculture. Light chemical handling.
Airflow	160 L/min
Precautions	Not to be used where the contaminant is IDLH, unless in conjunction with a compressed airline. Only to be used with North Safety Products approved Compact Air & Airbelt. Not to be worn in areas that are oxygen deficient i.e. where oxygen is below 19%.

Product	RPP1 A114725
Description	Tigerhood 2999
Physical Properties	Auto-darkening lens ordered separately. Sturdy and durable for extended service life. High performance material compared with other thermoplastic welding helmets. Higher melting point/better heat resistant. More chemical resistant. More scratch and crack resistant.
Standards	EN 12941 class TH2P NPF=50. EN175
Uses	Welding
Airflow	160 L/min
Precautions	Not to be used where the contaminant is IDLH, unless in conjunction with a compressed airline. Only to be used with North Safety Products approved Compact Air & Airbelt. Not to be worn in areas that are oxygen deficient i.e. where oxygen is below 19%. To be used with 212920 auto-darkening lens.

Gas Detection

Product	GAA1 EZ GUIDE
Description	EZ Guide for Respiratory Protection - an interactive respiratory guide used to assist users in making the correct choice of respirator, cartridge or canister.
Physical Prop.	Comes with Compact Multimedia Disk and Manual book
Uses	1) The user specifies the contaminant that is being protected against 2) A list of concentration levels is presented 3) The appropriate respirator type(s) are displayed, along with a description and comments about the specified contaminant

Product	GAT1 TB
Description	Gas Detection Tubes
Physical Properties	Gastec standard tubes are thin glass tubes with calibration scales printed by which you can directly read concentrations of the substances (gases and vapours) to be measured. Each tube contains detecting reagent(s) that are especially sensitive to the target substance and quickly produce a distinct layer of colour change.
Manufacturer's Quality	To assure a high precision indication, Gastec detector tubes' inner diameters are tightly controlled and detecting reagents with long term stability are strictly selected. All detector tubes undergo stringent quality control. Individual production lots are tested and calibrated independently of each other to ensure the highest calibration accuracy for each lot. Each detector tube has its quality control number printed on it.
Standards	ANSI/ ISEA 102/ BS5343/ DIN33882/ JIS K 0804

GASTEC

GASTEC

Product	GAP1 TA800
Description	Gas Sampling Pump - Model GV-100S
Physical Properties	The full-stroke (100ml) and the half stroke (50ml) positions are marked exactly by the red line on the pump shaft, and the handle is precisely locked at those positions. If you pump fully n times by allowing for sampling time intervals, a volume of 100ml x n can be sampled. Each detector tube is calibrated based upon a prescribed (standard) volume of sample. Also the pump piston has been designated with a smaller diameter so that the handle can be pulled out with even less effort. Gastec piston sampling pump design provides you with advanced non-sparking design and superior features.
Uses	The Model GV-100S Gas Sampling Pump can precisely collect a sample volume for a detector tube
Standards	ANSI/ ISEA 102/ NIOSH/JIS K 0804

Product	GAP1 TA810
Description	Gas Sampling Pump - Model GV-110S
Physical Properties	The full-stroke (100ml) and the half stroke (50ml) positions are marked exactly by the red line on the pump shaft, and the handle is precisely locked at those positions. If you pump fully n times by allowing for sampling time intervals, a volume of 100ml x n can be sampled. Each detector tube is calibrated based upon a prescribed (standard) volume of sample. Also the pump piston has been designated with a smaller diameter so that the handle can be pulled out with even less effort. Gastec piston sampling pump design provides you with advanced non-sparking design and superior features.
Uses	The Model GV-110S Gas Sampling Pump can precisely collect a sample volume for a detector tube. The model GV-110S has an automatic sample counter which indicates how many pump strokes you have already completed.
Standards	ANSI/ ISEA 102/ NIOSH/JIS K 0804

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