Respiratory Filters

Reliable Protection against Gases and Particles

The greatest experience and know-how, as well as one of the widest filter ranges in the market make MSA filters the first choice for users in all industries.

PlexTec Technology

The high-performance particle filter P3 PlexTec and the combination filters use the PlexTec Media to provide even better comfort for the user. MSA PlexTec is based on a particle filter element with a significantly increased filtering surface. The reduction in inhalation resistance improves filtering performance and service time, while at the same time allowing slightly more relaxed breathing. Additionally, using PlexTec Technology, filter housings have been reduced in size, being now more compact and lightweight.

Filter Selection

The most frequently used filters are of the ABEK type, which protect against many hazards at the same time, due to the wide range of protection that they provide.
Based on EN 14387, these filters have an application range designated by the code letters A, B, E and K. Benefits for the user include: safe selection, no mix-ups, economical procurement, simpler stockkeeping.

High-grade multiple range filters have an even greater sphere of application, as e. g. the combined filter 93 ABEK CO NO Hg/St or 93 A2B2E2K2 Hg/St.

The 9X series of MSA gas and combination filters are in full compliance with the REACH regulation and do not include any toxic materials listed in the European Regulation.

The following pages will help you select the right filter protection for your needs.

	Features	Benefits
Optimal safety	■ Proven and optimized filter technology	→ Reliable protection
	■ Robust metal housing	→ Good mechanical resistance
Flexibility and reduced cost	■ Complete filter program (including special filters)	→ Suitable for all applications
		→ All products from one source
	■ Special packaging provides longer shelf life	→ Up to 6 years storage for gas filters
High operational performance and comfort	■ Highly efficient filter media	→ Exceeds performance requirements of EN 14387
	■ PlexTec particle filter technology with increased filtering surface	→ Low breathing resistance
	■ Filter opening easy to cover (even when wearing gloves)	→ Easy and reliable pressure fit test

MSA
The Safety Company

Applications and Markings

Colour mark	Type	Application	Class	Max. allowed gas concentration	Standard
	A	**Organic gases and vapours** (boiling point >65°C)	1 2 3	1000 ml/m³ (0.1 Vol.-%) 5000 ml/m³ (0.5 Vol.-%) 10000 ml/m³ (1.0 Vol.-%)	EN 14387
	B	**Inorganic gases and vapours** (not CO), e.g. chlorine, H_2S, HCN ...	1 2 3	1000 ml/m³ (0.1 Vol.-%) 5000 ml/m³ (0.5 Vol.-%) 10000 ml/m³ (1.0 Vol.-%)	EN 14387
	E	**Sulfur dioxide and acidic gases and vapours**	1 2 3	1000 ml/m³ (0.1 Vol.-%) 5000 ml/m³ (0.5 Vol.-%) 10000 ml/m³ (1.0 Vol.-%)	EN 14387
	K	**Ammonia and organic ammonia derivatives**	1 2 3	1000 ml/m³ (0.1 Vol.-%) 5000 ml/m³ (0.5 Vol.-%) 10000 ml/m³ (1.0 Vol.-%)	EN 14387
	AX	**Organic gases and vapours** (boiling point <65°C) of low boiling substance groups 1 and 2	–	Gr. 1 (100 ml/m³ max. 40 min.) Gr. 1 (500 ml/m³ max. 20 min.) Gr. 2 (1000 ml/m³ max. 60 min.) Gr. 2 (5000 ml/m³ max. 20 min.)	EN 14387
	NO-P3	**Nitrogen oxides** e.g. NO, NO_2, NO_X **and particles**	–	Maximum allowed time of use 20 minutes	EN 14387
	Hg-P3	**Mercury vapours and particles**	–	Maximum allowed time of use 50 hours	EN 14387
	CO*	**Carbon monoxyde**	–	Local guidelines	DIN 58620 EN 14387
	Reactor P3*	**Radioactive iodine and particles**	–	Local guidelines	DIN 3181*
	P	**Particles**	1 2 3	Max. filter penetration 20% Max. filter penetration 6% Max. filter penetration 0.05%	EN 143 EN 14387

*only colour mark and type standardized

Particle Filter P3 PlexTec

Gas Filter 90 AB

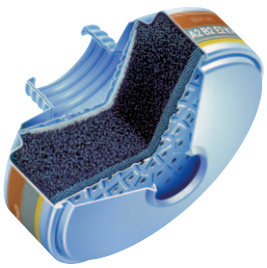
Combined Filter 93 ABEK2-Hg/St

An Excerpt of our Wide Range

	Description	Part No.	Pack of	Packs in Carton	Acc. to DIN/EN	Weight in g (approx.)	Ø/Height in mm (approx.)	Thread Connector
Particle Filters	Prefilter for Filter cartridge	D1070754	12	–	flame resistant	3	107/35	P3 PlexTec, series 92 & 93
	Particle Filter P3 PlexTec	10094376	10	20	P3 R	80	104/46	EN 148-1
Gas Filters	Gas Filter 90 A	10115187	1	60	A2	230	107/70	EN 148-1
	Gas Filter 90 AB	10098113	1	60	A2, B2	230	107/70	EN 148-1
	Gas Filter 90 E	10115349	1	60	E2	>300	107/70	EN 148-1
	Gas Filter 90 K	10115320	1	60	K2	>300	107/70	EN 148-1
	Gas Filter 90 ABEK	10098114	1	60	A2, B2, E2, K1	255	107/70	EN 148-1
	Gas Filter 90 AX	10108408	1	60	AX, A2	230	107/80	EN 148-1
	Gas Filter 90 ABEK2	10098112	1	60	A2, B2, E2, K2	290	107/77	EN 148-1
Combined Filters	Combined Filter 92 A/St	10115188	1	60	A2-P2 R D	260	107/85	EN 148-1
	Combined Filter 92 AB/St	10097994	1	60	A2, B2-P2 R D	270	107/85	EN 148-1
	Combined Filter 92 ABEK/St	10097995	1	60	A2, B2, E2, K1-P2 R D	295	107/85	EN 148-1
	Combined Filter 92 ABEK2/St	10097996	1	60	A2, B2, E2, K2-P2 R D	350	107/93	EN 148-1
	Combined Filter 93 A/St	10115189	1	60	A2-P3 R D	260	107/85	EN 148-1
	Combined Filter 93 AX/St	10108409	1	60	AX-P3 R D	260	107/85	EN 148-1
	Combined Filter 93 AB/St	10097993	1	60	A2, B2-P3 R D	270	107/85	EN 148-1
	Combined Filter 93 K/St	10115190	1	60	K2-P3 R D	295	107/85	EN 148-1
	Combined Filter 93 ABEK-Hg/St	10097231	1	60	A2, B2, E2, K1, Hg-P3 R D	295	107/85	EN 148-1
	Combined Filter 93 ABEK2-Hg/St	10097232	1	60	A2, B2, E2, K2, Hg-P3 R D	350	107/93	EN 148-1
Special Filters	Combined Filter 93 Hg/St	10115201	1	60	Hg-P3 R D	270	107/85	EN 148-1
	Combined Filter 93 NO-CO/St	10115314	1	60	NO-P3 R D	470	107/85	EN 148-1
	Comb. Filter 93 ABEK-CO-NO-Hg/St	10115315	1	60	A1, B2, E2, K1, CO, NO, Hg-P3 R D	420	107/93	EN 148-1

R = Reusable according EN 143:2000 / A1:2006
D = Dolomite tested

Particle Filter



Gas Filter

Combined Filter

Criteria for Filter Selection

Application

Respiratory filters protect against numerous known contaminants which, if inhaled, can be dangerous to health: toxic gases, vapours and particles, as well as many combinations with immediate or delayed harmful effects.

Requirements for Selection

The efficacy of filters designed to provide respiratory protection is dependent on the ambient atmosphere.

- The oxygen content of the inhalation air must be sufficient, at least 17 vol. %!
- Type, properties and composition of the hazardous agent in the ambient air must be known. Material Safety Datasheets may contain this information.
- Local regulations concerning the use of filtering devices, the requested oxygen content and the threshold limit values may differ and must always be observed.
- When using a particle filter, no hazardous gases may be present in the ambient air, when using a gas filter no hazardous particles. In case of doubt a combined filter must be used.
- Filtering devices must not be used in confined spaces such as containers, canals, etc. due to poor ventilation.
- Only filters with a weight of up to, but not exceeding, 300 g may be used on quarter and half face masks. Only filters with a weight of up to, but not exceeding, 500 g may be used on full face masks.
- Never use filters that show signs of damage.

If you are in doubt concerning any of the above-mentioned points, or if you believe that the composition of your atmosphere at work has changed, use protection that operates independently of the ambient air. MSA provides you with a wide range of breathing apparatus and airline devices.

Storage Time

For factory sealed and properly stored gas and combined filters the following storage lives can be expected:

- Filters type A, AX, B, E, K, Hg, Reactor: 6 years
- Filters type CO, NO: 4 years
- Particle Filters: 10 years

Proper storage conditions are indicated on the filter packaging. The expiration date is marked on the individual filters. Gas and combined filters that have been opened must be replaced after 6 months at the latest, or earlier if they are exhausted.

Service Time

- The expiration of the service life of gas filters can be detected by odour or tasted on the clean air side. The filters must then be replaced.
- The expiration of the service life of particle filters or combined filters that are used against particles can be detected by an increase in inhalation resistance.
- With combined filters – depending on the predominant protective function – both criteria must be observed. Particle filters must only be used once against radioactive contaminants, spores, bacteria, viruses and proteolytic enzymes.
- Some filters have a specified maximum service time (CO filter cartridges, combined filters 93 Hg/St) or they have an incorporated warning system (CO filter canisters).
- Filters that are used against hazardous gases whose infiltration cannot be detected by odour, taste or irritation, are subject to special regulations concerning duration and usage that depend on the conditions of use. Otherwise a form of protection that functions independently of the ambient air must be used.

Further conditions of use in each individual workplace and of each user affect the service life of respiratory devices:

- Pace of breathing – the higher the rate of breathing the higher the contamination rate of the filtering device
- Temperature of the ambient air – the higher the temperature, the shorter the service life
- Humidity – the higher the humidity the lower the intake capacity of activated carbon against organic gases and vapours
- Mixtures of hazardous agents – less absorbent components in the activated carbon can be replaced with components that offer higher rates of absorption (desorption)

The following extract of industrial gases and toxic substances will guide you in making the correct choice of respiratory device and filter. Always read the instructions provided with every device before use. In any case, final choice and use of filtering devices remain the responsibility of the user.

The filter recommendations are based on pure substances. Concerning mixtures, by-products, or decomposition products, the presence of impurities must be taken into account. For organic compounds with a boiling point below 65 °C, AX Filters must be used.

If the above list mentions a particle filter (e.g. A – P2) for a specific substance, this is because particles are commonly found with the gas or vapour.

For information on other substances or detailed filter datasheets, please contact your local MSA Affiliate or a Regional Head Office near you.

Alphabetical List of Industrial Gases and Toxic Substances

	Substances	Formula	Filter Performance Type	Colour Mark	Remarks
A	Acetaldehyde	CH_3CHO	AX	brown	90 AX
	Acetic acid	CH_3COOH	E	yellow	also B or A
	Acetone	CH_3COCH_3	AX	brown	90 AX
	Acetonecyanhydrin	$CH_3C(OH)(CN)CH_3$	A – (P3)	brown – (white)	[1]
	Acetonitrile	CH_3CN	A	brown	in presence of hydrogen cyanide: B
	Acidic gases	–	E	yellow	also B
	Acids (fuming concentrated)	–	E – (P2)	yellow – (white)	[1]
	Acrolein (2-Propenal)	CH_2CHCHO	AX	brown	90 AX
	Acrylic acid-esters	$CH_2CHCOOR$	A	brown	[1]
	Acrylonitrile	CH_2CHCN	A – (P3)	brown – (white)	in presence of hydrogen cyanide: B – P3
	Alcohols	$R \cdot OH$	A	brown	methyl alcohol: AX
	Aldehydes	$R \cdot CHO$	A or AX	brown	formaldehyde: filter B
	Allylchloride (3-chloride-1-propen)	CH_2CHCH_2Cl	AX	brown	90 AX
	2-Amino ethanol	$CH_2OHCH_2NH_2$	A	brown	[1]
	Ammonia	NH_3	K	green	[1]
	Aniline	$C_6H_5NH_2$	A – (P3)	brown – (white)	[1]
	Aqueous ammonia	NH_3H_2O	K	green	[1]
	Arsenic trioxide	As_2O_3	P3	white	in presence of arsine: 93 B/St (B2 – P3)
	Arsine	AsH_3	B	grey	in presence of arsenides: 93 B/St (B2 – P3)
B	Benzene	C_6H_6	A	brown	[1]
	Benzyl bromide	$C_6H_5CH_2Br$	A – (P2)	brown – (white)	also B
	Beryllium	Be	P3	white	[1]
	Bromine	Br_2	B – (P3)	grey – (white)	[1]
	Bromoform	$CHBr_3$	A	brown	[1]
	Bromomethane	CH_3Br	AX	brown	90 AX
	Butanone	$CH_3COC_2H_5$	A	brown	[1]
	Butyl acetate	$CH_3COOC_4H_9$	A	brown	[1]
	Butyl acrylate	$CH_2CHCOOC_4H_9$	A	brown	[1]
	Butyl alcohols (butanols)	C_4H_9OH	A	brown	[1]
C	Carbon black	C	P2	white	[1]
	Carbon dioxide	CO_2	[2]	–	self-contained BA
	Carbon disulfide	CS_2	B	grey	[1]
	Carbon monoxide	CO	CO	black	CO filter canister, CO filter cartridge
	Carbon oxysulfide	COS	B	grey	[1]
	Carbon tetrachloride	CCl_4	A	brown	[1]
	Caustic soda	NaOH	P2	white	[1]
	Chlorobromomethane	CH_2ClBr	AX	brown	90 AX
	Chlorine	Cl_2	B – (P3)	grey – (white)	[1]
	Chlorine dioxide	ClO_2	B	grey	[1]
	Chloromethane	CH_3Cl	[2]	–	self-contained BA
	Chloroform	$CHCl_3$	AX	brown	90 AX
	Chloroprene	$CH_2C(C)CHCH_2$	AX	brown	90 AX
	Chlorosulfonic acid	$ClSO_3H$	B – (P2)	grey – (white)	also E – P2
	Chromium oxide	Cr_2O_3, CrO_3	P3	white	[1]
	Cresols	–	A	brown	[1]
	Cyanogen chloride	ClCN	B	grey	93 B/St
	Cyclohexane	C_6H_{12}	A	brown	[1]
	Cyclohexanol	$C_6H_{11}OH$	A	brown	[1]
	Cyclohexanone	$C_6H_{10}O$	A	brown	[1]
D	DD-products (Desmodur-Desmophen)	–	A – (P2)	brown – (white)	[1]
	DDT dust	–	P3	white	also 93 B/St
	Diacetonel alcohol	$(CH_3)_2C(OH)CH_2COCH_3$	A	brown	[1]
	1,2-Dibromoethane	CH_2BrCH_2Br	A	brown	[1]
	1,2-Dichloroethane	CH_2ClCH_2Cl	A	brown	[1]

[1] All filters of the indicated performance type could be used, please see overview on page 3

[2] Use of self-contained respiratory protection necessary (compressed air breathing apparatus or airline breathing apparatus)

	Substances	Formula	Filter Performance Type	Colour Mark	Remarks
	1,2-Dichloroethylene	CHClCHCl	AX	brown	90 AX
	Dichloromethane	CH_2Cl_2	AX	brown	90 AX
	1,2-Dichloropropane	$C_3H_6Cl_2$	A	brown	[1]
	Diesel fuel	–	A	brown	[1]
	Dimethylformamide (DMF)	$HCON(CH_3)_2$	A	brown	[1]
	1,4-Dioxane	$C_4H_8O_2$	A	brown	[1]
	Dust	–	P2, P3	white	[1]
E	Epichlorhydrin	C_3H_5OCl	A – (P3)	brown – (white)	[1]
	Esters	R-COOR	A or AX	brown	[1]
	Ethanolamine	$CH_2OHCH_2NH_2$	A	brown	[1]
	Ethers	ROR	A or AX	brown	[1]
	Ethyl acetate	$CH_3COOC_2H_5$	A	brown	[1]
	Ethyl alcohol (ethanol)	C_2H_5OH	A	brown	[1]
	Ethyl benzene	$C_6H_5CH_2CH_3$	A	brown	[1]
	Ethylene dichloride	CH_2ClCH_2Cl	A	brown	[1]
	Ethylidene dichloride	CH_3CHCl_2	AX	brown	[1]
	Ethylene oxide (T-gas)	C_2H_4O	AX	brown	90 AX
	Ethyl formate	$HCOOC_2H_5$	AX	brown	90 AX
F	Formaldehyde (formalin)	HCHO	B – (P3)	grey – (white)	[1]
	Formic acid	HCOOH	E	yellow	also B
	Furfuryl alcohol	$C_5H_4O_2$	A	brown	[1]
G	Gasoline	–	A	brown	[1]
H	Halogenated hydrocarbons	R-Hal	A or AX	brown	no filter for chloromethane
			B – (P2) or	grey – (white)	if they produce HCl/H_2O
			B – (P3)	grey – (white)	
	Halogens	Hal_2	B	grey	[1]
	Hexachlorocyclohexane	$C_6H_6Cl_6$	A – (P3)	brown – (white)	also 93 B/St
	Hydrazine	N_2H_4	K – (P3)	green – (white)	[1]
	Hydrocarbons	R-H	A	brown	[1]
	Hydrochlorid acid	HCl/H_2O	E – (P2)	yellow – (white)	also B – P2
	Hydrofluoric acid (hydrogen fluoride)	HF/H_2O	E	yellow	also B
	Hydrogen bromide	HBr	E – (P2)	yellow – (white)	also B
	Hydrogen chloride	HCl	E – (P2)	yellow – (white)	also B
	Hydrogen cyanide	HCN	B	grey	[1]
	Hydrogen halogenides	HF, HCl, HBr, HJ	E – (P2)	yellow – (white)	also B – P2
	Hydrogen selenide	H_2Se	B – (P2)	grey – (white)	[1]
	Hydrogen sulfide	H_2S	B	grey	[1]
I	Insecticide (organic)	–	A – (P2)	brown – (white)	[1]
	Iodine	J_2	B – (P2)	grey – (white)	also A – P2
	Iodine (radioactive)	J_2	Reactor – (P3)	orange – (white)	[1]
	Iodomethane	CH_3J	AX	brown	90 AX
	Iodomethane (radioactive)	CH_3J	Reactor – (P3)	orange – (white)	[1]
	Iron pentacarbonyl	$Fe(CO_5)$	CO – (P3)	black – (white)	CO filter canister with particle filter P3
	Isocyanates (organic)	R-NCO	B – (P2)	grey – (white)	in case of spray and propellent gas
			B	grey	if vapours only are present
	Isopropyl alcohol	$CH_3CH(OH)CH_3$	A	brown	[1]
K	Ketenes	$R\text{-}CH_2=CO$	[2]	–	self-contained BA
	Ketones	R-CO-R	A	brown	Acetone: AX
L	Lead fumes	Pb	P2	white	[1]
M	Maleic anhydride	$C_4H_2O_3$	A – (P2)	brown – (white)	[1]
	Mercaptans	R-SH	B	grey	[1]
	Mercury compounds	–	Hg – (P3)	red – (white)	93 Hg/St
	Mercury vapour	Hg	Hg – (P3)	red – (white)	93 Hg/St
	Metal fumes	–	P2, P3	white	[1]
	Methyl alcohol (methanol)	CH_3OH	AX	brown	90 AX
	Methyl bromide	CH_2Br	AX	brown	90 AX

[1] All filters of the indicated performance type could be used, please see overview on page 3

[2] Use of self-contained respiratory protection necessary (compressed air breathing apparatus or airline breathing apparatus)

	Substances	Formula	Filter Performance Type	Colour Mark	Remarks
	Methyl chloride	CH_3Cl	[2]	–	self-contained BA
	Methyl chloroform	CH_3CCl_3	A	brown	[1]
	Methylene chloride	CH_2Cl_2	AX	brown	90 AX
	Methyl ethyl ketone (MEK)	$CH_3COC_2H_5$	A	brown	[1]
	Methyl isobutyl ketone (MIBK)	$CH_3COC_4H_9$	A	brown	[1]
N	Nickel tetracarbonyl	$Ni(CO)_4$	CO – (P3)	black – (white)	CO filter canister and particle filter P3
	Nitric acid	HNO_3/H_2O	NO	blue	93 NO/St
	Nitro compounds (organic)	$R\text{-}NO_2$	A	brown	[1]
	Nitrogen oxides	NO, NO_2, N_2O_5	NO	blue	93 NO/St
	Nitrous fumes	$NO, NO_2, N_2O_5, HNO_2, HNO_3$	NO	blue	93 NO/St
O	Organic nitro compounds	$R\text{-}NO_2$	A	brown	[1]
	Organic vapors, solvent	–	A, AX	brown	[1]
	Ozone	O_3	CO	black	CO filter canister
			NO	blue	93 NO/St
P	Paint sprays, vapours	–	A – (P2)	brown – (white)	[1]
	Pentachloroethane	$CHCl_2CCl_3$	A	brown	[1]
	Perchloroethylene	CCl_2CCl_2	A	brown	[1]
	Pesticides	–	A – (P2)	brown – (white)	[1]
	Petrol	–	A	brown	[1]
	Phenols	–	A	brown	[1]
	Phenylhydrazine	$C_6H_5NHNH_2$	A	brown	also K
	Phosgene	$COCl_2$	B	grey	[1]
	Phosphine	PH_3	B	grey	[1]
	Phosphorus trichloride	PCl_3	B – (P2)	grey – (white)	[1]
	Polyacrylates	–	A – (P2)	brown – (white)	[1]
	Potassium cyanide (dust)	KCN	B – (P3)	grey – (white)	[1]
	Propyl alcohol (propanol)	$CH_3CH_2CH_2OH$	A	brown	[1]
	Pyridine	C_5H_5N	A	brown	also K
Q	Quartz	SiO_2	P2	white	[1]
S	Sodium hydroxide	NaOH	P2	white	[1]
	Solvents	–	A	brown	[1]
	Stibine	SbH_3	B – (P3)	grey – (white)	[1]
	Styrene	$C_6H_5CHCH_2$	A	brown	[1]
	Sulfur compounds (burning)	(SO_2)	E – (P2)	yellow – (white)	[1]
	Sulfur dioxide	SO_2	E	yellow	[1]
	Sulfuric acid	H_2SO_4	B – (P2)	grey – (white)	[1]
	Sulfur monochloride	S_2Cl_2	B – (P2)	grey – (white)	[1]
	Sulfur trioxide	(SO_3)	P2	white	[1]
	Sulfuryl chloride	SO_2Cl_2	B	grey	[1]
T	1,1,2,2-Tetrachloroethane	$CHCl_2CHCl_2$	A	brown	[1]
	Tetrachloroethylene	CCl_2CCl_2	A	brown	[1]
	Tetrachloromethane	CCl_4	A	brown	[1]
	Tetrahydrofuran	C_4H_8O	A	brown	[1]
	T-gas (etylene oxide)	(C_2H_4O)	AX	brown	90 AX
	Toluene	$C_6H_5 \cdot CH_3$	A	brown	[1]
	Tribromomethane	$CHBr_3$	A	brown	[1]
	Trichloroethane (TCA)	CH_3CCl_3	A	brown	[1]
	Trichloroethylene (Tri)	C_2HCl_3	A	brown	[1]
	Trichloromethane	$CHCl_3$	AX	brown	90 AX
	Turpentine	–	A	brown	[1]
V	Vanadium pentoxide dust, fumes	V_2O_5	P2	white	[1]
	Vinyl acetate	$C_4H_6O_2$	A	brown	[1]
	Vinyl chloride	CH_2CHCl	AX	brown	90 AX
	Vinylidene chloride	CH_2CCl_2	AX	brown	90 AX
	Vinyltoluene	$CH_3C_6H_4CHCH_2$	A	brown	[1]
X	Xylenes	$CH_3C_6H_4CH_3$	A	brown	[1]
Z	Zinc oxide	ZnO	P2	white	[1]
	Zyklon (hydrogen cyanide with irritant)	–	B	grey	[1]

[1] All filters of the indicated performance type could be used, please see overview on page 3

[2] Use of self-contained respiratory protection necessary (compressed air breathing apparatus or airline breathing apparatus)

Full Face and Half Masks – APR

Ordering Information

D2055000	3S
D2055790	3S Basic Plus
D2056700	Ultra Elite
10027724	Advantage 3111, small
10027723	Advantage 3121, medium
10027725	Advantage 3131, large
10042664	Advantage 3112, small (silicone harness)
10042730	Advantage 3122, medium (silicone harness)
10042731	Advantage 3132, large (silicone harness)
10102276	Advantage 410, small
10102277	Advantage 410, medium
10102278	Advantage 410, large
D1070712	Adapter Rd 40 x 1/7/plug[1)]
10039412	Adapter PS-MaXX[2)]
D5026000	Breathing hose for full face masks

[1)] Filter adapter for full face masks with MSA plug-in adapter
[2)] Filter adapter for full face masks with MaXX-Quick connector

The weight of a single filter shall not exceed 300 g when used with the Advantage 410

Please contact us for detailed information on full face masks.

3S

3S is the synonym for safety, sight and style. With its connector EN 148-1, it can be used with respiratory filters or with breathing apparatus.

Ultra Elite

The full face mask with the specially large field of vision, comfortable and secure fit. It is service friendly and robust (e. g. lens with silicate coating).

Advantage 3000

The innovative full face mask series with a large, optically corrected lens.
The Advantage 3000 comes in 3 different sizes and offers an incomparable comfort in donning and using.

Advantage 400

The innovative Advantage 400 convinces through exceptional comfort and sophisticated design. The user-friendly half mask comes in 3 different sizes.

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