Dräger

PERSONAL PROTECTION EXPERTS

PPE by Dräger

Dräger. Technology for Life®

Contents

Dräger X-pect® 8100

High Protection against small droplets and splashes due to moulded brow guard.
Highest Level of safety thanks to best optical class and highest possible UV protection.
Especially robust thanks to brake proof poly-carbonate.
Large Mono lens for a large field of vision, can be worn with any type of prescription glasses.
Reduced fog on prescription glasses due to lateral ventilation (8110 Only).
Temple arms are adjustable in angle and length (8120 only).

TECHNICAL SPECIFICATIONS

Intended Use	Eye Protection against mechanical influences according to markings
Material	PC
Colour	Clear
Thickness (Lens)	2 mm / 2.5mm
Packing Unit	10 pairs
Approvals	EN 166/CE

ORDER INFORMATION

Product Name	**Dräger X-pect® 8110**	**Dräger X-pect® 8120**
Description	10 Pairs Thickness (Lens) 2.5mm	10 Pairs Thickness (Lens) 2mm
Part Number	R58247	R58248

Dräger X-pect® 8200/8300/8500

The spectacles Dräger X-pect® 8200 and 8300 are designed for an optimal fit and high comfort.

They feature a long life time thanks to high class materials.
Each model provides special features, like soft nose bridge or flat and flexible temples, to fit your individual needs.

All spectacles are compatible with respiratory protection like half masks.

TECHNICAL SPECIFICATIONS

Thickness (Lens)	2.2mm / 2.4mm
Packing Unit	10 Pairs / 6 pairs
Approvals	EN 166/CE

ORDER INFORMATION

Product Name	**Dräger X-pect® 8240**	**Dräger X-pect® 8310**	**Dräger X-pect® 8312 Tinted**	**Dräger X-pect® 8320**
Description	Thickness (Lens) 2.2mm 10 Pairs	Thickness (Lens) 2.2mm 10 Pairs	Thickness (Lens) 2.2mm 10 Pairs	Thickness (Lens) 2.2mm 10 Pairs
Part Number	R58957	R58249	R58266	R58268

Product Name	**Dräger X-pect® 8321 Tinted**	**Dräger X-pect® 8330**	**Dräger X-pect® 8340**	**Dräger X-pect® 8351**
Description	Thickness (Lens) 2.2mm 10 Pairs	Thickness (Lens) 2.2mm 10 Pairs	Thickness (Lens) 2.4mm 10 Pairs	Thickness (Lens) 2.4mm 10 Pairs
Part Number	R58269	R58267	R58270	R58619

Product Name	**Dräger X-pect® 8510**	**Dräger X-pect® 8520**
Description	Thickness (Lens) 2.2mm 6 Pairs Goggles	Thickness (Lens) 2.2mm 6 Pairs Goggles
Part Number	R58373	R58272

Dräger X-plore® 1300

Practical and comfortable: The VarioFLEX™ head harness with a four-point adjustment and extra-wide textile straps ensures the best possible fit.

Quick and easy to use: The straps are arranged for fast donning. An integrated safeguard prevents straps from slipping out of place.

Secure and comfortable: Integrated, all-around comfort sealing.

Clean and hygienic: Each face piece is individually packaged in its own plastic bag.

Individually adjustable: Available in two different sizes S/M and M/L – the right size for different face shapes.

TECHNICAL SPECIFICATIONS

Packing Unit	5 / 10 / 20
Approvals	FFP1 NR D / FFP2 NR D / FFP3 NR D

ORDER INFORMATION




Product Name	**Dräger X-plore® 1310**	**Dräger X-plore® 1310V**	**Dräger X-plore® 1320**	**Dräger X-plore® 1320V**
Description	Approvals FFP1 NR D Packing Unit 20	Approvals FFP1 NR D Packing Unit 10	Approvals FFP2 NR D Packing Unit 20	Approvals FFP2 NR D Packing Unit 10
Part Number	3951211	3951212	3951213	3951214




Product Name	**Dräger X-plore® 1330V S/M**	**Dräger X-plore® 1330V M/L**	**Dräger X-plore® 1320V Odour**	**Dräger X-plore® 1330V Odour**
Description	Approvals FFP3 NR D Packing Unit 5	Approvals FFP3 NR D Packing Unit 5	Approvals FFP2 NR D Packing Unit 10	Approvals FFP3 NR D Packing Unit 5
Part Number	3951216	3951217	3951215	3951218

Dräger X-plore® 1700

Practical and comfortable: The VarioFLEX™ head harness with a four-point adjustment and extra-wide textile straps ensures the best possible fit.

Quick and easy to use: The straps are arranged for fast donning. An integrated safeguard prevents straps from slipping out of place.

Secure and comfortable: Integrated, all-around comfort sealing.

Clean and hygienic: Each face piece is individually packaged in its own plastic bag.

Individually adjustable: Available in two different sizes S/M and M/L – the right size for different face shapes.

TECHNICAL SPECIFICATIONS

Packing Unit	5 / 10 / 20
Approvals	FFP1 NR D / FFP2 NR D / FFP3 NR D

ORDER INFORMATION




Product Name	**Dräger X-plore® 1710**	**Dräger X-plore® 1710V**	**Dräger X-plore® 1720**	**Dräger X-plore® 1720V**
Description	Approvals FFP1 NR D Packing Unit 20	Approvals FFP1 NR D Packing Unit 10	Approvals FFP2 NR D Packing Unit 20	Approvals FFP2 NR D Packing Unit 20
Part Number	3951080	3951081	3951083	3951084




Product Name	**Dräger X-plore® 1730**	**Dräger X-plore® 1730V**	**Dräger X-plore® 1710 Odour**	**Dräger X-plore® 1710V Odour**
Description	Approvals FFP3 NR D Packing Unit 20	Approvals FFP3 NR D Packing Unit 10	Approvals FFP 1 NR D Packing Unit 20	Approvals FFP1 NR D Packing Unit 10
Part Number	3951086	3951088	3951140	3951082

Product Name	**Dräger X-plore® 1720V Odour**
Description	Approvals FFP2 NR D Packing Unit 10
Part Number	3951085

Dräger X-plore® 1900

Practical and comfortable: The VarioFLEX™ head harness with a four-point adjustment and extra-wide textile straps ensures the best possible fit.

Quick and easy to use: The straps are arranged for fast donning. An integrated safeguard prevents straps from slipping out of place.

Secure and comfortable: Integrated, all-around comfort sealing.

Clean and hygienic: Each face piece is individually packaged in its own plastic bag.

Individually adjustable: Available in two different sizes S/M and M/L – the right size for different face shapes.

TECHNICAL SPECIFICATIONS

Packing Unit	10 / 20
Approvals	FFP1 NR D / FFP2 NR D / FFP3 NR D

ORDER INFORMATION




Product Name	**Dräger X-plore® 1910 S**	**Dräger X-plore® 1910 M/L**	**Dräger X-plore® 1910 V S**	**Dräger X-plore® 1910 V M/L**
Description	Approvals FFP1 NR D Packing Unit 20	Approvals FFP1 NR D Packing Unit 20	Approvals FFP1 NR D Packing Unit 10	Approvals FFP1 NR D Packing Unit 10
Part Number	3951911	3951910	3951916	3951915




Product Name	**Dräger X-plore® 1920 S**	**Dräger X-plore® 1920 M/L**	**Dräger X-plore® 1920 V S**	**Dräger X-plore® 1920 V M/L**
Description	Approvals FFP2 NR D Packing Unit 20	Approvals FFP2 NR D Packing Unit 20	Approvals FFP2 NR D Packing Unit 10	Approvals FFP2 NR D Packing Unit 10
Part Number	3951921	3951920	3951926	3951925




Product Name	**Dräger X-plore® 1930 V M/L**	**Dräger X-plore® 1930 V S**	**Dräger X-plore® 1930 S**	**Dräger X-plore® 1930 M/L**
Description	Approvals FFP3 NR D Packing Unit 10	Approvals FFP3 NR D Packing Unit 10	Approvals FFP3 NR D Packing Unit 20	Approvals FFP3 NR D Packing Unit 20
Part Number	3951935	3951936	3951931	3951930

Dräger X-plore® 3300/3500

If exposure to harmful gases or dangerous particles are a part of your everyday work, you need effective protection. The Dräger X-plore® 3300/3500 twin filter respiratory line has been developed together with users from the industry and skilled professionals. It combines practical use and comfort very successfully.

Features

- Three sizes and a flexible nose section ensure an individual fit and more secure seal
- Optimal field of vision due to swept-back design
- Intuitive handling, like simply opening the neck clips (X-plore® 3500), ensures high user acceptance
- Flexi-Fit" head cradle and X-guided strap-system provide an excellent fit
- Easy and secure filter attachment by two large lateral bayonet filters
- Skin friendly and resistant protection thanks to innovative DrägerFlex*

ORDER INFORMATION

Product Name	Dräger X-plore® 3300		Dräger X-plore® 3500	
Part Number & Description	R55331	Small	R55350	Small
	R55330	Medium	R55351	Medium
	R55332	Large	R55332	Large
	R55686	Painter Set: (size M) + 2 filters A2 P3 RD	R56960	Construction Set: (size M) + 2 filters Pure P3 R
	R55740	Chemical Work Set: (size M) + 2 filters A1B1E1K1 Hg P3 RD		

Dräger X-plore® 4700

The Dräger X-plore® 4700 is a robust and durable half mask designed to withstand the most demanding conditions.

Features

- Highly Durable and Robust
- Available in either TPE or hypoallergenic silicone
- Silicone version available in two sizes S/M and M/L
- The FlexiFit head harness eliminates hair entanglement and added pressure
- Compatible with Dräger Rd40 & Rd90 filter ranges

ORDER INFORMATION

Product Name	Dräger X-plore® 4740 Silicone	Dräger X-plore® 4740 TPE	Dräger X-plore® 4790 Silicone	Dräger X-plore® 4790 TPE
Part Number & Description	R55874 Medium/Large R55875 Small/Medium	R55876 Universal Size	R55877 Medium/Large R55878 Small/Medium	R55879 Universal Size
	Compatible X-plore® 4740 Filters X-plore® Rd40 Filter: 6732974 680 P3 6727381 900 A2 6729182 900 A2B2 6735871 900 A2B2E2K1 6735896 620 A2B2-P3D 6735903 105 AX-P3D 6735874 900 A2B2E2K1-P2D 6737064 620 A2B2E2K1Hg-P3D		Compatible X-plore® 4790 Filters X-plore® Rd90 Filter: 6736705 Coarse dust filters (set of 50) 6737357 674 P2 6737190 674 P3 6736711 671 A1 6736712 671 A2 6736721 672 A1-P2D 6736729 672 A1B1E1K1-P2D 6736739 673 A1B1E1K1Hg-P3D	

Dräger X-plore® 5500

Whether in the chemical, metal, or automotive industries, ship building, maintenance, supplies, or disposal: The Dräger X-plore® 5500 full face mask is the right solution for environments where not only increased respiratory protection is required, but also a clear vision is mandatory

Features

- Double-layer face seal ensures a secure seal for every type of face, and provides the highest level of protection
- Large, distortion-free visor with excellent field of vision and high chemical, thermal and mechanical resistance
- Swept-back low profile design of the filters provides an unobstructed wide field of vision
- The 5-point head harness allows quick and easy donning and doffing of
- the mask without hair entanglement
- EPDM mask body offers excellent chemical and temperature resistance
- Bayonet connection* for easy and secure filter attachment

ORDER INFORMATION

Product Type	Description	Part Number
X-plore® 5000 EPDM/PC	With PC lens & Plastic Frame	R55270
X-plore® 5500 EPDM/Triplex	With Triplex lens & Stainless Steel Frame	R55655
Accessories	Spectacle Kit (Frame & Holder)	R51548
	Mabox I Mask Box	R53680
	Mabox II Mask Box	R54610
	Wikov V Mask Box	R51019
	Lens Cover (set of 25) self adhesive	4055092
	Klar pilot gel (Anti fogging gel for visor)	R52560
	Klar pilot fluid	R52550
	DAISY quick cleaning cloths (pack of 10)	R54134
	Welding Screen	4053437
	Adaptor for welding shield	R57308

Dräger X-plore® Bayonet Filters

Quality filters for Dräger masks with bayonet connection. Experience a new dimension of comfort and safety in respiratory protection: The Dräger X-plore® bayonet filter series. Bearing in mind todays requirements for modern PPE, Dräger Safety has worked together with users from industry and the skilled professions to develop a new line of respirators. It combines very successfully practicality of use with comfort. For use with Dräger X-plore® half masks 3300 and 3500 and full face masks Dräger X-plore® 5500 (bayonet connectors).

All filters are packed as pairs (e.g. packing unit 20 = 10 pairs).

ORDER INFORMATION

Product Type		Part Number & Description
Filters (EN) Particle filters (EN 143)		6738001 Pad P1 NR 6738002 Pad P2 R
		6738011 P3 R
		6738353 Pure P2 R 6738354 Pure P3 R 6738391 Pure Odour P3 R
Gas filters (EN 14387)		6738872 A1 6738873 A2 6738778 A1B1E1 6738816 A1B1E1K1 6738775 A2B2
Combination filters (EN 14387)		6738874 A1 P3 R D 6738875 A2 P3 R D 6738817 A1B1E1K1 Hg P3 R D 6738776 A2B2 P3 R D 6738819 A2B2E2K2 Hg P3 R D*
Gas cartridges		6738159 Particle Pre-Filter
Combination filters (EN 14387)		6737576 Particle Pre-Filter Retainer
Combination cartridges		6738356 Pure Adapter

Dräger X-plore® Rd40 Filters

Quality filter with standard Rd40-thread (EN 148-1). Whether used in chemical industry or automobile industry, shipbuilding, metal processing industry or by public utility services for decades Dräger respiratory protection filters have been a synonym for experience and safety worldwide. They clean breathable air from contaminants in a low-cost and effective manner.

ORDER INFORMATION

Product Type	Filters (EN) Particle filters (EN 143)		Gas filters (EN 14387)	
Part Number & Description	6738932	1140 P3 R (incinerable)	6738855	940 A2
		1140 P3 R (incinerable),	6738779	940 A2B2
	6732974	bulk pack	6738863	1140 AX
			6738782	1140 AXB2
			6738856	940 K2
			6738802	940 A2B2E2K1
			6738804	1140 A2B2E2K2

Dräger X-plore® Rd40 Filters

Product Type	Combination filters (EN 14387)		Special filters	
Part Number & Description	6738857	940 A2 P2 R D	6738871	1140 A2 P3 R D / Reactor / Nuclear P3 R D
	6738860	1140 A2 P3 R D		
	6738780	940 A2B2 P2 R D		
	6738783	1140 A2B2 P3 R D		
	6738862	1140 AX P3 R D		
	6738858	940 K2 P2 R D		
	6738803	940 A2B2E2K1 P2 R D		
	6738815	1140 A2B2E2K1 Hg P3 R D		
	6738797	1140 A2B2E2K2 Hg P3 R D*		
	6738801	1140 A1B2E2K1 Hg NO P3 R D / CO 20 P3 R D		
	6738814	1140 A2B2E2K2 Hg NO P3 R D / CO 20 P3 R D		

Dräger Civil Defence Filters

Dräger civil defence filters are combined filters that were specially designed for scenarios in which not only industrial chemical vapours and substances may be present, but also chemical and biological warfare agents.

The broad application range meets the requirements of civil defence and disaster control teams and other rescue services.

The filters have a low breathing resistance and a high filtration and protection capacity. Suitable for full-face masks with standard thread connection Rd40 (EN 148-1) e.g. Dräger DHR 7000, CDR 4500, M2000, FPS® 7000, Pan Nova

The civil defence filters are subject to export approval.

ORDER INFORMATION

Product Type	**Civil Defence Filters** Combination filter with Rd40 standard thread connection in accordance with EN 148-1		**Full-Face Masks**
Part Number & Description	6739224	A2B2E2K2-P3 R D/NBC (silver) Approved acc. to EN 14387	Compatible with Full-Face Mask CDR 4500 or Full-Face Mask, NBC-Protection System M2000. For other Dräger Full-Face Masks. **See price list Full-Face Masks.**
	6739344	A2B2E2K2-P3 R D/NBC (black) Approved acc. to EN 14387	
	6738146	CBRN CAP1 Filter (black) NIOSH CBRN APR approval in combination with full-face masks DHR 7000, CDR 4500 **The minimum order quantity is 50 pcs**	

Dräger X-plore® 8000

Powered air purifying respirator for filtration of gases, vapors and particles. Robust design for tough environments. High wearing comfort due to the ergonomic carrying system and virtually no breathing resistance. Safe through self-explanatory operation and an intelligent alarm system. Automatic adjustment of the air flow for the headpiece connected. In addition, manual adjustment of the airflow in three stages possible. Advanced sensor technology detects the filters used and displays the saturation of the particle filter. Wide range of tight- and loose-fitting headpieces for a variety of applications.

Approved according to EN 12941 and EN 12942.

X-plore® 8000 System (configurator)
A complete system consists of the following components:

- blower unit
- battery
- filter (particle, gas or combination filter)
- carrying system
- hose
- headpiece (hood, helmet, visor or mask)
- Approved according to EN 12941 (in combination with Dräger X-plore® 8000 Hoods, Helmets and Visors)
- EN 12942 (in combination with Dräger X-plore® Half and Full Face Masks, or Dräger FPS® Full Face Masks)
- Ingress Protection IP65 (dust tight, resistant to water jets from all sides)

Dräger X-plore® 8700 (EX) with EX battery is suitable for use in potentially explosive atmospheres (see technical data for detailed classification).

ORDER INFORMATION

Blower unit
Please choose the blower unit and Lithium-Ion battery as well as the required battery charger:

Description	Part Number
Dräger X-plore® 8500 PAPR unit	R59500
Dräger X-plore® 8500 Standard battery	R59565
Dräger X-plore® 8500 High caPAC®ity battery	R59585
Dräger X-plore® 8700 PAPR unit (EX)	R59550
Dräger X-plore® 8700 Standard battery (EX)	R59575
Dräger X-plore® 8700 High caPAC®ity battery (EX)	R59595
Dräger X-plore® 8000 Standard Charger	R59780
Dräger X-plore® 8000 Multi-Unit Charger, 1 module w/o cable	R59890
Dräger X-plore® 8000 Multi-Unit Charger, 1 module w/ EU cable	R59950
Dräger X-plore® 8000 Multi-Unit Charger, 1 module w/ UK cable	R59960

Dräger X-plore® 8000



Carrying system
Please choose one of the following belt versions:

Description	Part Number
Dräger X-plore® 8000 Standard belt	R59700
Dräger X-plore® 8000 Comfort pad	R59730
Belt extension for X-plore® 8000 Standard belt, 35 cm	R59750
Dräger X-plore® 8000 Decon belt	R59710
Belt extension for X-plore® 8000 Decon belt, 35 cm	R59760
Dräger X-plore® 8000 Welding belt	R59720
Dräger X-plore® 8000 Shoulder carrying system	R59740



Filter
In combination with the Dräger X-plore® 8000 system the following filters are approved according to EN 12941 and EN 12942.
Please choose one of the following filters:

Description	Pack Size	Part Number
Dräger X-plore® 8000 Filter P R SL	1	6739535
Dräger X-plore® 8000 Filter A2	1	6739580
Dräger X-plore® 8000 Filter K2	1	6739585
Dräger X-plore® 8000 Filter A2 P R SL	1	639545
Dräger X-plore® 8000 Filter A1B1E1 P R SL	1	6739550
Dräger X-plore® 8000 Filter A1B1E1K1 Hg P R SL	1	6739555
Dräger X-plore® 8000 Prefilter	10	6739730
Dräger X-plore® 8000 Odour filter	5	6739605
Dräger X-plore® 8000 Odour filter, Set	10	6739735

Half masks - Protection level TM2
In combination with the Dräger X-plore® 8000 system the following half masks are approved according to EN 12942.

Description	Part Number
Dräger X-plore® 4740, Silicone, S/M	R55875
Dräger X-plore® 4740, Silicone, M/L	R55874
Dräger X-plore® 8000 Standard hose (for tight-fitting headpieces)	R59630
Dräger X-plore® 8000 Flexible hose (for tight-fitting headpieces)	R59610

Dräger X-plore® 8000

Half masks - Protection level TM2

In combination with the Dräger X-plore® 8000 system the following half masks are approved according to EN 12942.

Description	Part Number
Dräger X-plore® 4740, Silicone, S/M	R55875
Dräger X-plore® 4740, Silicone, M/L	R55874
Dräger X-plore® 8000 Standard hose (for tight-fitting headpieces)	R59630
Dräger X-plore® 8000 Flexible hose (for tight-fitting headpieces)	R59610

Full face masks - Protection level TM3

In combination with the Dräger X-plore® 8000 system the following full face masks are approved according to EN 12942.

Description	Part Number
Dräger X-plore® 6300 EPDM / PMMA	R55800
Dräger X-plore® 6530 EPDM / PC	R55795
Dräger X-plore® 6570 Silicone / PC	R55790
Dräger FPS® 7000 EPDM-S1-PC-CR	R56502
Dräger FPS® 7000 EPDM-M2-PC-CR	R56310
Dräger FPS® 7000 EPDM-L2-PC-CR	R56503
Dräger X-plore® 8000 Standard hose (for tight-fitting headpieces)	R59630
Dräger X-plore® 8000 Flexible hose (for tight-fitting headpieces)	R59610

Accessories

Description	Pack Size	Part Number
Dräger X-plore® 8000 Transport case	1	R59690
Transport box standard black (internal dimensions: 390 x 300 x 235 mm)	1	R63425
Dräger X-plore® 8000 Hose cover, disposable	10	R59670
Dräger X-plore® 8000 Hose cover, spark proof	1	R59660
Dräger X-plore® 8000 Flow measurement tube	1	R59566
Dräger X-plore® 8000 Plug (hose connection opening)	1	R59563
Dräger X-plore® 8000 Plug (blower inlet opening)	1	R59564

Dräger X-plore® 8000

Sets

Description	Part Number
Dräger X-plore® 8500 Application Set, Basic	R59545
Dräger X-plore® 8500 Dräger X-plore® 8500 Standard battery Dräger X-plore® 8000 Standard charger Dräger X-plore® 8000 Standard belt	
Dräger X-plore® 8500 Application Set, Premium	R59540
Dräger X-plore® 8500 Dräger X-plore® 8500 High capacity battery Dräger X-plore® 8000 Standard charger Dräger X-plore® 8000 Standard belt Dräger X-plore® 8000 Comfort pad	
Dräger X-plore® 8500 Application Set, Decon	R59570
Dräger X-plore® 8500 Dräger X-plore® 8500 Standard battery Dräger X-plore® 8000 Standard charger Dräger X-plore® 8000 Decon belt Dräger X-plore® 8000 Standard hose (tight fitting headpieces) Dräger X-plore® 6300 EPDM/PMMA Dräger X-plore® 8000 Filter P R SL	
Dräger X-plore® 8700 Application Set, Basic (EX)	R59990
Dräger X-plore® 8700 (EX) Dräger X-plore® 8700 Standard battery (EX) Dräger X-plore® 8000 Standard charger Dräger X-plore® 8000 Standard belt	
Dräger X-plore® 8700 Application Set, Premium (EX)	R59560
Dräger X-plore® 8700 (EX) Dräger X-plore® 8700 High capacity battery (EX) Dräger X-plore® 8000 Standard charger Dräger X-plore® 8000 Standard belt Dräger X-plore® 8000 Comfort pad	

Dräger X-plore® 8000 Hoods, helmets and visors

X-plore® 8000 helmets, hoods and visors are specially designed for the use with Dräger X-plore® 8500 powered air-purifying respirators as well as with the Dräger X-plore® 9300 compressed airline system. The headpieces Dräger X-plore® 8000 are characterized by a high degree of wearing comfort, a wide field of view and nearly draft-free work. A wide range of different head pieces, materials and protection levels offers the right solution for a variety of applications.

Dräger X-plore® 8000 Hoods

- The use of the hoods is recommended, if no additional face or head protection is required.
- Good, stable and comfortable fit even when user is moving due to optimized design/cut.
- The standard version is made of a very light weight material.
- The material of the Premium hoods is stronger, more resistant and also allows the cleaning and disinfection in the immersion bath.

TECHNICAL SPECIFICATIONS

Short hoods	Short hoods cover head and face, but leave ears uncovered for good communication. Extremely light and comfortable.
Long hoods	Long hoods cover and protect head, face and neck area and come with a double layer. The inner layer can be placed under the work clothes.

ORDER INFORMATION




Product Name	**Dräger X-plore® 8000**	**Dräger X-plore® 8000**	**Dräger X-plore® 8000**	**Dräger X-plore® 8000**
Description	Standard hood, short (S/M)	Standard hood, short (L/XL)	Premium hood, short (S/M)	Premium hood, short (L/XL)
Part Number	R59800	R59810	R 59 840	R59850




Product Name	**Dräger X-plore® 8000**	**Dräger X-plore® 8000**	**Dräger X-plore® 8000**	**Dräger X-plore® 8000**
Description	Standard hood, long (S/M)	Standard hood, long (L/XL)	Premium hood, long (S/M)	Premium hood, long (L/XL)
Part Number	R59820	R59830	R59860	R59870

Dräger X-plore® 8000 Hoods, helmets and visors




Product Name	Dräger X-plore® 8000	Dräger X-plore® 8000	Dräger X-plore® 8000	Dräger X-plore® 8000
Description	Protective visor Protective visor for the combination of breathing and face protection. Hinged PC visor with a wide field of vision. Face protection according to EN 166 1B 9 3.	Helmet with visor, black Protective helmet with visor for areas where additional head protection and helmet liability is required. Head protection according to EN 397. Face protection according to EN 166 1B 9 3.	Helmet with visor, white Protective helmet with visor for areas where additional head protection and helmet liability is required. Head protection according to EN 397. Face protection according to EN 166 1B 9 3.	The welding protection visor protects its wearer from sparks and splashes as well as from harmful light rays that occur during welding. Face protection according to EN 175 B (Visor) and EN 379 (ADF)
Part Number	R59900	R58325	R59910	R59940

Product Type	Description	Pack Size	Part Number
Protective lens covers	Protective lens covers for X-plore® 8000 Hood	10	R59863
	Protective lens covers for X-plore® 8000 Helmet with visor and Protective visor	10	R58328
Protective hood	Dräger X-plore® Tyvek* protective hood Can be worn under all Dräger X-plore® hoods, visors and helmets	1	R55354
Ear protection muffs	Ear Muffs for X-plore® 8000 Helmet with visor, pair	1	R58329
Helmet bag	Helmet protection bag	1	R79282
	Helmet carrying bag	1	R58555
Sweatbands	Sweatband for X-plore® 8000 Standard hood	10	R59826
	Sweatband for X-plore® 8000 Premium hood	10	R59862
	Sweatband for X-plore® 8000 Helmet with visor	10	R58330
	Sweatband for X-plore® 8000 Protective visor	10	R59904
	Sweatband for X-plore® 8000 Welding visor	10	R59941
Spare visors	Visor AC for X-plore® 8000 Helmet with visor	1	R58332
	Visor PC for X-plore® 8000 Helmet with visor	1	R58331
	Visor PC for X-plore® 8000 Protective visor	1	R59901
Face seal/Head cover	Face seal for X-plore® 8000 Helmet with visor	1	R58333
	Face seal for X-plore® 8000 Protective visor	1	R59902
	Head cover for X-plore® 8000 Protective visor	1	R59903
	Head cover for X-plore® 8000 Welding visor	1	R59927
Protective plates	Protective plate, inside for X-plore® 8000 Welding visor	10	R59942
	Protective plate, outside for X-plore® 8000 Welding visor	10	R59943
	ADF 5-13 for X-plore® 8000 Welding visor	1	R59944

Dräger X-plore® 8000

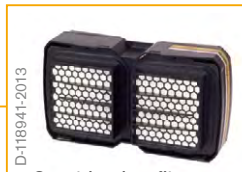
Filters


D-43811-2015
Odour filter


D-118951-2013
Particle filter


D-118954-2013
Prefilter


D-118942-2013
Gas filter


D-118941-2013
Combination filter

Batteries and chargers


D-118937-2013
Standard or multi-unit charger


D-119064-2013
Standard or high-capacity battery


D-119064-2013
Standard or high-capacity battery (Ex)


D-118978-2013
X-plore® 8500


D-617-2014
X-plore® 8700 (Ex)

Blower Unit


D-119048-2013/D-119053-2013
Standard belt and optional belt extension


D-119045-2013/D-119052-2013
Decon belt and optional belt extension


D-28619-2015
Welding belt


D-119051-2013
Comfort pad (optional)


D-43805-2015
Shoulder harness (optional)

Carrying systems

The system at a glance

Breathing hoses


D-119056-2013
Standard hose
(for hoods)


D-119058-2013
Flexible hose
(for hoods)


D-6582-2014
Standard hose
(for helmets and visors)


D-6581-2014
Flexible hose
(for helmets and visors)


D-119057-2013
Standard hose
(for tight-fitting headpieces)


D-119059-2013
Flexible hose
(for tight-fi tting headpieces)

Headpieces


D-119021-2013
Standard hood,
short


D-119008-2013
Premium hood,
short


D-119025-2013
Standard hood,
long 1


D-119018-2013
Premium hood,
long


D-119035-2013
Helmet with visor,
black


D-119042-2013
Helmet with visor,
white


D-119029-2013
Protective visor


D-4681-2017
Welding visor[1]


ST-1763-2005
X-plore® 4740
Half mask


ST-7497-2005
X-plore® 6000
Full-face mask 2


D-43186-2012
FPS® 7000
Full-face mask 2

1 The standard long hood and welding visor must not be used in potentially explosive atmospheres.
2 Look up all Dräger full-face masks that are approved for the Dräger X-plore® 8000 system in the following product information:
Dräger X-plore® 8000 hoods, helmets, visors und masks.

Chemical Protection Suits

Working with hazardous goods is highly stressful for people and materials alike. For more than 50 years, Dräger has made sure that the right equipment is available to you whenever and wherever you need it.

Features

THE RIGHT PROTECTION FOR ANY HAZARD

Whether taking pre entry measurements, transferring liquids, or responding to emergencies:

Dräger offers a large range of chemical protective suits

– Tailor-made for a large variety of application areas.

So that you get the exact protection you need for your specific use.

FIVE QUESTIONS TO FIND THE RIGHT PROTECTIVE SUIT:

1. To which hazardous substances are you exposed during your work?
   - If you know the hazardous substance, you can take tangible measures to protect yourself
   - If this is not the case, always assume the worst case scenario and select the highest level of protection

2. Do you have to wear a breathing apPARATus during your work?
   - If a breathing apPARATus is not required, a simple overall is sufficient
   - If you work with a filter apPARATus, it is best to use a suit equipped with integrated full-face mask or facial cuff
   - If you need a compressed air breathing apPARATus, make sure the equipment is comfortable to wear eit-her over or under your protective suit

3. What is your work environment like?
   - For example, a traffic accident requires you to reach in between or handle sharp-edged objects. A protective suit with a higher mechanical strength such as a reusable model is recommended when your work environment is unpredictable
   - If damage is unlikely, you can also use a limited-use suit
   - When working in confined spaces, such as tanks with manholes, it is best to select a close fitting suit and wear the compressed air apPARATus over the suit. This way you can strip off the SCBA when passing through especially narrow passages

4. How well can the pollution caused by the hazardous substance be removed again (decontamination)?
   - If the hazardous substance is difficult to remove from surfaces, you should wear a protective suit with the breathing apPARATus worn on the inside of the suit

5. What are the associated risks of working with the hazardous substances?
   - If it is a very cold hazardous substance such as liquefied gas, the material of the suit must not become brittle or break when being exposed to the cold
   - If the hazardous substance is flammable at ambient temperatures, the protective suit must be flame-resistant
   - If a risk of explosion exists in the area where the hazardous substance is leaking, the suit must have the corresponding electrostatic properties
   - If the hazardous substance is a toxic gas, only a gas-tight suit should be used, never a splash suit

Chemical Protection Suits

TECHNICAL SPECIFICATIONS

		Substance is known and situation is under control		Substance and situation are unknown (e.g. first site evaluation) or special hazards are to be expected				
Dräger protective suit	Breathing apparatus	Liquids/ Solids	Known gases*	Unknown gases*	Mechanical stress	Liquefied gases	Working in explosive zones	Arcthroughs/ Breakthroughs
CPS 7900	Inside: SCBA	•	•	•	•	•	•	•
WorkMaster pro-ET	Outside: F / SCBA	•	•	•	•			
CPS 5900	Inside: SCBA	•	•	•				
CPS 5800	Outside: F / SCBA	•	•	•				
TeamMaster Umex	Inside: SCBA	•	•			•		
WorkMaster Umex	Outside: F / SCBA	•	•			•		
WorkMaster Industry	Outside: F / SCBA	•	•					
SPC 3800	Outside: F / SCBA	•						
Protec Plus TF	Outside: WO / F / SCBA	•						
Protec Plus TC	Outside: WO / F / SCBA	•						
Workstar PVC	Outside: WO / F / SCBA	•						
Workstar Flexothane	Outside: WO / F / SCBA	•						

Main Approvals

EN 943-2:2002 Type 1a (ET); SOLAS (pending)
EN 943-2:2002 Type 1b (ET); SOLAS; etc.
EN 943-2:2002 Type 1a (ET); SOLAS (pending)
EN 943-2:2002 Type 1b (ET); SOLAS; etc.
EN 943-1:2002 Type 1a; SOLAS
EN 943-1:2002 Type 1b; SOLAS; etc.
EN 943-1:2002 Type 1b; SOLAS; etc.
EN 14605 Type 3 & 4; SOLAS; etc.
EN 1511 Type 3; EN 1512 Type 4; etc.
EN 1511 Type 3; EN 1512 Type 4;etc.
EN 466 Type 3; etc.
EN 465 Type 4; etc.

Chemical Protection Suits

			
Product Name	**Dräger CPS 7900**	**Dräger CPS 7800**	**Dräger CPS 5900**
Description	- Tailor-made for use under extreme conditions - Gastight, reusable protective suit - Excellent protection from industrial chemicals, chemical warfare agents and other toxic substances - Innovative material: Suitable for use with cryogenic substances down to -80°C and in explosive zones - Flame retardant and self-extinguishing	- Reusable, gas-tight protective suit; the breathing apparatus is worn over the suit - Highest possible protection for the wearer - High-grade D-MEX material: high chemical and mechanical resistance, excellent resistance to shooting flames - Permanently integrated mask or integrated facial cuff: (can be combined with different masks) - Highest protection in CSE areas - Available in blue and orange	- Gastight limited use protective suit - Specifically designed for less hazardous tasks such as pre entry measurements - Or transferring substances without - Explosion hazard - High protection against a variety of industrial chemicals and chemical - Warfare agents - Limited use: resistance to mechanical impacts and flames not as high as that of the CPS 7900
			
Product Name	**Dräger CPS 5800**	**Dräger CPS 6900**	**Dräger CPS 6800**
Description	- Perfect gastight disposable protection for less hazardous applications - Proven WorkMaster pro ET design with flexible facial cuff - Protects from a variety of industrial chemicals - Optimal protection for emergencies as well as maintenance and repair work - Limited use: resistant to mechanical impacts and flames (not the same protection level as the WorkMaster pro ET)	- Gastight protection from cryogenic hazardous substances and acids and alkaline substances in low concentrations - UMEX material: the highest degree of wearing comfort with very good mechanical strength and excellent flexibility	- Gastight even with cryogenic hazardous substances and acids and alkaline substances in low concentrations - Material remains flexible even at very low temperatures - Fits close to the body: Unrestricted manoeuvrability (advantage when working in restricted spaces) - Permanently integrated mask or integrated facial cuff: (can be combined with different masks)

Chemical Protection Suits

			
Product Name	**Dräger WorkMaster Industry**	**Dräger SPC 3800**	**Dräger Protec Plus TF**
Description	- Safe working even in the most difficult situations - Gastight and especially resistant to acids and alkaline solutions - SYMEX material: long lasting, high abrasion and chemical resistance - Easy to don and doff: close fitting design, soft materials, and vertical zipper on back	- Optimal for use with liquid chemicals - No additional sealing required: permanently attached gloves, integrated socks with drip cuffs and flexible facial cuff - Disposable protection for inspections, maintenance, and decontamination activities	- Light, impermeable to liquids, suitable for less hazardous tasks - Protection against very fine dusts and powders - Protection against many concentrated inorganic acids and alkaline solutions as well as a wide variety of organic chemicals
			
Product Name	**Dräger Protec Plus TC**	**Dräger SPC 2400 PVC**	**Dräger SPC 2400 Flexothane**
Description	- Light, impermeable to liquids, suitable for less hazardous tasks - Protection against ultra fine dusts and powders - High barrier to many inorganic acids and alkaline solutions as well as water-based saline solutions	- Reusable protective suit - Solid protection from liquids for rougher jobs such as cleaning with high pressure equipment or tank cleaning - Robust material: offers protection when using cleaning agents, low concentrations of acids and base, and inorganic salts	- High degree of wearing comfort: light material permeable by water vapour - Ideal for handling lubricants, oils,crude oil, machine oils, and petroleum - Material remains flexible even at very low temperatures

Dräger CPS 7900

Dräger CPS 7900

Tailor-made for use under extreme conditions: The Dräger CPS 7900 provides excellent protection against a wide range of hazardous substances. It is qualified equally well for work in explosive areas and for handling cryogenic substances.

A wide range of accessories is available to customize the Dräger CPS 7900 to meet your specific needs and requirements, thereby expanding your range of application options. Including pressure gauge holder, height adjustment, anti-fog visor and D-Connect, regulation valve PT 120l or Air-Connect.

Features

The suits are available in the following sizes:

- S: for body height from 150 cm up to 165 cm
- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 200 cm
- XXL: for body height from 195 cm up to 210 cm

Dräger CPS 7900 Olive, Beige

Dräger CPS 7900
Olive, Beige

Tailor-made for use under extreme conditions:

The Dräger CPS 7900 provides excellent protection against a wide range of hazardous substances, including chemical warfare agents. It is qualified equally well for civil defence operations, work in explosive areas, as well as for decontamination. The suit is available in olive and beige. A wide range of accessories is available to customize The Dräger CPS 7900 to meet the specific needs and requirements, thereby expanding the range of application options, including ventilation system, pressure gauge holder, height adjustment, anti-fog visor and D-Connect.

Features

The suits are available in the following sizes:

- S: for body height from 150 cm up to 165 cm
- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 200 cm
- XXL: for body height from 195 cm up to 210 cm

Dräger CPS 6900/7900 Training

Dräger CPS 6900/7900 Training

The Dräger CPS 6900/7900 Training is a training suit for the Dräger CPS 6900 and CPS 7900. It is not gas-tight and does not offer any kind of protection. The training suit is only suitable for training exercises without real hazardous materials.

A wide range of accessories is available to customize the CPS 6900/7900 Training to meet your specific needs and requirements. Including pressure gauge holder, height adjustment, anti-fog visor and D-Connect.

Features

The suits are available in the following sizes:

- S: for body height from 150 cm up to 165 cm
- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 200 cm
- XXL: for body height from 195 cm up to 210 cm

Dräger CPS 7800

Dräger CPS 7800

Gas-tight reusable Chemical Protective Suit type 1b with a breathable air supply that is independent of the ambient atmosphere and worn outside the suit, e.g. SCBA.

The Dräger CPS 7800 provides excellent protection against gaseous, liquid, aerosol and solid hazardous substances, even in explosive areas. Due to its innovative material and the new suit design it offers increased flexibility and comfort when entering confined spaces.

Features

The suits are available in the following sizes:

- S: for body height from 150 cm up to 165 cm
- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 200 cm
- XXL: for body height from 195 cm up to 210 cm

Dräger CPS 7800 Olive, Beige

Dräger CPS 7800
Olive drab, Beige

Be it unknown or hazardous chemical substances, you can rely on your gas-tight, reusable Dräger CPS 7800 during your operations. The innovative, 5-layer suit material, D-mex, is extremely resistant to industrial chemical substances and warfare agents. The great freedom of movement, easy donning and doffing of the suit, as well as the long service life of the CPS 7800 will add to your satisfaction. The suit can be configured according to your needs with face cuff, full-face mask, or ventilation system for more comfort. Dräger CPS 7800 ! Your protection suit for extreme conditions.

Features

The suits are available in the following sizes:
- S: for body height from 150 cm up to 165 cm
- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 195 cm
- XXL: for body height from 190 cm up to 205 cm

Dräger CPS 6800/7800 Training

Dräger CPS 6800/7800
Training

The Dräger CPS 6800/7800 Training is a training suit for the Dräger CPS 6800 and CPS 7800. The training suit is not gas-tight, the seams are not welded, so that the suit does not offer any protection. It is only suitable for training exercises without real hazardous substances. The suit is distinguishable from the Dräger CPS 6800 and CPS 7800 because of the other material (blue Umex) and it is clear marked as a training suit.

Features

The suits are available in the following sizes:
- S: for body height from 150 cm up to 165 cm
- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 195 cm
- XXL: for body height from 190 cm up to 205 cm

Dräger CPS 6900

Dräger CPS 6900

The CPS 6900 Umex is a fully encapsulating gastight chemical protective suit. It protects the wearer and his PPE from gaseous, liquid, aerosol and solid chemicals. The light and flexible Umex material makes it ideal for the application with cryogenic substances like e.g. liquified gases. It shows a good resistance against low concentrated acids and bases.
The suit can be configured according to customer specifications.

Features

The suits are available in the following sizes:
- S: for body height from 150 cm up to 165 cm
- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 200 cm
- XXL: for body height from 195 cm up to 210 cm

Dräger CPS 6800

Dräger CPS 6800

One-piece Chemical Protective Suit for protection against solids, liquids and gases. Gas-tight Chemical Protective Suit type 1b made of Umex with a breathable air supply that is independent of the ambient atmosphere and worn outside the suit, e.g. SCBA.

Features

The suits are available in the following sizes:
- S: for body height from 150 cm up to 165 cm
- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 195 cm
- XXL: for body height from 190 cm up to 205 cm

Dräger WorkMaster Industry (Symex)

Dräger WorkMaster Industry (Symex)

One-piece Chemical Protective Suit for protection against solids, liquids and gases. Gas-tight Chemical Protective Suit with a breathable air supply that is independent of the ambient atmosphere and worn outside the suit, e.g. SCBA.

Features

The suits are available in the following sizes:

- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 190 cm
- XXL: for body height from 190 cm up to 200 cm

Dräger CPS 5900 and CPS 5900 PT

Dräger CPS 5900

The Dräger CPS 5900 is the lightweight disposable gas-tight suit for hazmat incidents. If the pure protection against hazardous gases, liquids and particles has the highest priority it is the suit of choice. The new Dräger design offers improved ergonomics and optimized compatibility with various types of personal protective equipment including latest breathing apparatus, helmets and other PPE. Even working with two cylinders on your back or closed circuit breathing apparatus is possible.

The Dräger CPS 5900 PT is equipped with a Dräger Air-Connect. This enables the suit to be connected to an external air source. This way the wearer can be supplied with additional breathing air.

Features

The suits are available in the following sizes:

- S: for body height from 150 cm up to 165 cm
- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 200 cm
- XXL: for body height from 195 cm up to 210 cm

Features

- Breathing apparatus and helmet are worn under the suit.
- The protective suit comes with a fixed glove combination (Laminate and Butyl glove) and gas-tight socks.
- The user needs to wear additional safety boots over the socks.
- The suits' zipper and the double cover flap are situated on the left front side. It is closed at the top.

Dräger CPS 5800

Dräger CPS 5800

Gas-tight protective suit against solid, liquid and aerosol chemicals for limited use.

One-piece gas-tight protective suit with flexible Dräger face cuff. The mask is worn on the face cuff. The suit is equipped with a glove combination (Laminate- and Butyl-glove) and has attached socks with boot flaps.

The user has to wear additionally suitable protective boots. The zipper is placed on the front side and runs diagonally from the left shoulder to the right leg. The zipper closes downwards. The Pressure relief valve is positioned on the front side for discharging air.

The suit is designed to be worn together with a full face mask and filter, a compressed air breathing apparatus, a PAPR unit or external airline system.

Features

The suits are available in the following sizes:

- M: for body height from 160 cm up to 175 cm
- L: for body height from 170 cm up to 185 cm
- XL: for body height from 180 cm up to 190 cm
- XXL: for body height from 185 cm up to 200 cm

Dräger SPC 3800

Dräger SPC 3800

One-use overall for protection against solid and liquid chemicals.

One piece type overall with flexible Dräger face cuff, which can be worn on or under the mask. Furthermore, the overall is equipped with welded gloves, stitched socks with boot flaps and an elastic waist strap - for limited use. The overall is designed for use together with a full face mask and a BA-set, an outside airline system or a power assisted filtering devices.

Features

The suits are available in the following sizes:

- S: for body sizes from 162 cm up to 170 cm
- M: for body sizes from 168 cm up to 176 cm
- L: for body sizes from 174 cm up to 182 cm
- XL: for body sizes from 180 cm up to 188 cm
- XXL: for body sizes from 186 cm up to 194 cm
- XXXL: for body sizes from 192 cm up to 200 cm

Dräger SPC 3700

Dräger SPC 3700

The Dräger CVA 0700 and SPC 3700 are designed for industrial applications and provide comfortable and reliable respiratory and body protection.
With features such as the patented safe-flow reducer and auto-test function, wearers can enjoy greater operating convenience, safety and flexibility.
The limited use suit SPC 3700 is extremely light weight and provides protection against various liquids and dust hazards. The easy to use cooling vest CVA 0700 provides breathing air to the wearer whilst providing additional cooling air to the torso for ultimate comfort.
The system constantly ventilated protective suit with a compressed airline apparatus consists of different system components which must to be ordered separately.

A complete system consists of at least:
- protective suit SPC 3700
- cooling vest CVA 0700
- Air supply vest
- Air supply manifold and waistbelt
- Connecting hose

Optional additional system components are:
- PAS MAC compressors
- MAV 1200
- PAS Airline hoses
- PAS Filter (for use with customers own external air supply)

All versions are supplied as standard with the Dräger CEJN input connector.
Other input connectors are available on request.

Features

The suits are available in the following sizes:
- S: for a body height from 162 cm up to 170 cm
- M: for a body height from 168 cm up to 176 cm
- L: for a body height from 174 cm up to 182 cm
- XL: for a body height from 180 cm up to 188 cm
- XXL: for a body height from 186 cm up to 194 cm
- XXXL: for a body height from 192 cm up to 200 cm

Dräger ProtecPlus

Dräger ProtecPlus

One-use overall for protection against solid and liquid chemicals.
The overall belongs to type 3. One piece overall with hood. Elastic ends on sleeves, hood, leg and waist for single use. The zip fastener is located on the front side vertical in the middle and is covered by a cover flap with tapes. In the chin area a cover flap seals the gap between suit and mask, e.g. Dräger Panorama® Nova, Dräger FPS® 7000, Dräger X-plore® 5500.

Features

The suits are available in the following sizes:

- M: for a body height from 168 cm up to 176 cm
- L: for a body height from 174 cm up to 182 cm
- XL: for a body height from 180 cm up to 188 cm
- XXL: for a body height from 186 cm up to 194 cm
- XXXL: for a body height from 192 cm up to 200 cm

Dräger SPC 2400

Dräger SPC 2400 - WorkStar Series

Reusable protection overalls against solid and liquid chemicals. The overalls are CE certified and classified as chemical protection types 3 and 4. One-piece splash-proof overall with hood and with elasticated ends and cuffs at the sleeves. The zip fastener runs vertically on the front of the overall and is protected by cover made of suit material.

The suits are available in the following sizes:

	Size	Body height	Chest measurement	Waist width
M	50-52	164-182	96-104	84-92
L	54-56	170-188	104-112	92-100
XL	58-60	170-188	112-120	100-108
XXL	62-64	176-194	120-128	108-116
XXXL	66-68	176-194	128-136	116-124

Dräger PAC® 6000

Single-Gas Detection Device

The disposable personal single gas detection device measures CO, H_2S, SO_2 or O_2 reliably & precisely, even in the toughest conditions. The robust design, quick sensor response times, and the powerful battery ensure maximum safety for up to 2 year with virtually no maintenance required.

ORDER INFORMATION

Description			Part Number
Dräger PAC® 6000 CO	0-2000ppm	30/60ppm	8326321
Dräger PAC® 6000 H_2S	0-100ppm	5/10ppm	8326320
Dräger PAC® 6000 O_2	0-25 vol. %	19/23 vol %	8326322
Dräger PAC® 6000 SO_2	0-100ppm	0.5/1ppm	8326323

Calibration Adapter	8318588
Dräger X-dock® 5300 PAC®	8321881
Bump Test Station for PAC® without gas cylinder	8317410
Bump Test Station for PAC® including 1 test gas cylinder (gas & concentration selectable)	8318586
Communication Module including USB cable	8318587
Battery	8326856
Sensor grid (Black)	8326853
Crocodile Clip Set	8319186

Dräger PAC® 6500

Single-Gas Detection Device

The robust personal single gas detection device measures CO, H_2S, SO_2 or O_2 reliably & precisely, even in the toughest conditions. The robust design, quick sensor response times.

ORDER INFORMATION

Description			Part Number
Dräger PAC® 6500 CO	0-2000ppm	30/60ppm	8326331
Dräger PAC® 6500 H_2S	0-100ppm	5/10ppm	8326330
Dräger PAC® 6500 O_2	0-25 vol. %	19/23 vol %	8326332
Dräger PAC® 6500 SO_2	0-100ppm	0.5/1ppm	8326333

Calibration Adapter	8318588
Dräger X-dock® 5300 PAC®	8321881
Bump Test Station for PAC® without gas cylinder	8317410
Bump Test Station for PAC® including 1 test gas cylinder (gas & concentration selectable)	8318586
Communication Module including USB cable	8318587
Battery	8326856
Sensor grid (Black)	8326853
Crocodile Clip Set	8319186

Dräger PAC® 8000

Single-Gas Detection Device

With the robust Dräger PAC® 8000, you'll be well equipped for tough conditions: this non-disposable single gas detection device is a reliable and precise instrument, which detects hazardous concentrations of 29 different gases, including special gases like NO_2, O_3 or $COCl_2$.

ORDER INFORMATION

Description			Part Number
Dräger PAC® 8000 NO	0-50 ppm	25/50 ppm	8326350
Dräger PAC® 8000 CO_2	0-5 vol %	0.5/1 vol %	8326351
Dräger PAC® 8000 Cl2	0-20 ppm	0.5/1 ppm	8326352
Dräger PAC® 8000 HCN	0-50 ppm	2.5/4.5 ppm	8328276
Dräger PAC® 8000 NH3	0-300 ppm	25/50ppm	8328277
Dräger PAC® 8000 PH3	0-20 ppm	0.1/0.2 ppm	8326355
Dräger PAC® 8000 OV	0-200 ppm	10/20 ppm	8326356
Dräger PAC® 8000 OV-A	0-200 ppm	10/20 ppm	8326357
Dräger PAC® 8000 NO2	0-50 ppm	2.5/5ppm	8328275
Dräger PAC® 8000 Ozone	0-10ppm	0.1/0.2 ppm	8326359
Dräger PAC® 8000 Phosgene	0-10ppm	0.1/0.2 ppm	8326360

Calibration Adapter	8318588
Dräger X-dock® 5300 PAC®	8321881
Bump Test Station for PAC® without gas cylinder	8317410
Bump Test Station for PAC® including 1 test gas cylinder (gas & concentration selectable)	8318586
Communication Module including USB cable	8318587
Battery	8326856
Sensor grid (Silver)	8326852
Crocodile Clip Set	8319186

Dräger FPS® 7000

Full Face Mask and Communications

Dräger FPS® 7000 offers highest safety for the user by an absolute leak tight fit & high wearing comfort. An almost natural field of vision with a good all around view is provided by the new design of the mask. The intelligent air circulation prevents fogging. The innovative Dräger Comms systems can be fully integrated into the mask. Available in S, M & L sizes. Compatible with all Rd40 filters.

ORDER INFORMATION

Description	Part Number
Dräger FPS® 7000 ESA-EPDM-M2-PC-EPDM	R56307
Dräger FPS® 7000 ESA-EPDM-M2-PCas-EPDM (Anti-Scratch Visor)	R57827
Dräger FPS® 7000 ESA-EPDM-S1-PC-EPDM	R56516
Dräger FPS® 7000 ESA-EPDM-L2-PC-EPDM	R56517

Dräger FPS® Comm 5000

Because there is no time for misunderstandings in an emergency the Dräger FPS® Comm 5000 communication unit has been specifically developed for the full face mask Dräger FPS® 7000 and ensures a clear communication through a voice amplifier unit or radio device even under extreme conditions.

ORDER INFORMATION

Description	Part Number
Dräger FPS® Comm 5000	R62700
Universal Cable (4 pole) compatible with over 350 different radios	R62744

*compatible cables for most radio manufacturer models available upon request

Dräger FPS® Comm 7000

The Dräger FPS® Comm 7000 provides hands free communication for all wearers of respiratory protection devices. Excellent voice quality is achieved by removing interfering noises.

ORDER INFORMATION

Description	Part Number
Dräger FPS® Comm 7000	R61100
Universal Cable (4 pole) compatible with over 350 different radios	R62744

*compatible cables for most radio manufacturer models available upon request

Dräger HPS® 3500 Safety Helmet

Specially designed for the demands of emergency teams in search & rescue missions, forest & bush fire fighting, road accidents, height rescue and any kind of technical support operations in emergency situations.

TECHNICAL SPECIFICATIONS

Approved according to standards:	EN 16471:2014 (wildland and bush fire fighting)
	EN 16473:2014 (technical rescue)
	EN 12492:2012 (height rescue)
	EN 1385:2012 (water rescue)

ORDER INFORMATION

Description	**Dräger HPS® 3500 Sets Premium Versions** Premium = painted helmet Set including safety goggles without reflective stripes (optional). Available in 8 different colours	**Dräger HPS® 3500 Helmets Premium Versions** Premium = painted helmet Helmet without safety goggles without reflective stripes (optional). Available in 8 different colours
Part Number	R62651 red (RAL 3020) R62652 white (RAL 9016) R62653 yellow (RAL 1021) R62654 black (RAL 9005) R62655 blue (RAL 5026) R62656 luminescent R62657 bright yellow (RAL 1026) R62658 bright orange (RAL 2008)	R62640 red (RAL 3020) R62641 white (RAL 9016) R62642 yellow (RAL 1021) R62643 black (RAL 9005) R62644 blue (RAL 5026) R62645 luminescent R62646 bright yellow (RAL 1026) R62647 bright orange (RAL 2008)

Dräger HPS® 3500

ORDER INFORMATION

Description	**Dräger HPS® 3500 Sets Basic Versions** basic = helmet not painted, but mass dyed Set including safety goggles without reflective stripes (optional). Available in 3 different colours	**Dräger HPS® 3500 Helmets Basic Versions** basic = helmet not painted, but mass dyed Helmet without safety goggles without reflective stripes (optional). Available in 3 different colours
Part Number	R62659 red R62660 white R62661 yellow	R62648 red R62649 white R 62650 yellow

Dräger PARAT® 3000 Escape Device

The filter escape devices are designed for 15 minutes of escape time with ABEK filter robust handy case and robust clip to enable the secure attachment of the unit to the wearer.

ORDER INFORMATION

Description	Part Number
Dräger PARAT® 3100 - Halfmask version	R57981
Dräger PARAT® 3200 - Mouthpiece and Noseclip version	R57982

Replacement Filters PARAT® 3000	
Replacement Filter PARAT 3100 / 3200	R57983
PARAT 3000 Security tag (50)	R56355

Dräger PARAT® NG Filter Escape Hood

Dräger PARAT® Escape Hoods were developed together with users – always with the focus on the fastest escape. PARAT® is exceptionally innovative and intuitive: On opening the packaging the filter plug is automatically released from the filter which is deployed into its operational position and the hood can be donned immediately.

The self adjusting internal head harness requires no additional adjustment. All you have to do is: Open the packaging, remove and don the hood and leave the danger zone.

Optimised operation and wearing, a robust housing and tested filters guarantee that the wearer of the Dräger PARAT® is protected against toxic industrial and fire-related gases, vapours and particles for at least 15 minutes. The PARAT® escape devices all fulfil the same vital task: to protect people when escaping from hazards into a safe environment.

Dräger PARAT® 4700 Industrial Escape Hood

Dräger PARAT® 4700 Industrial escape hood with ABEK P3 filter

For a safe escape from suddenly occurring industrial gases, vapours and particles. Approval: according to DIN 58647-7 for filtering escape devices; filter additionally tested in accordance with EN 14387:2004 for gas filters and combined filter(s)

ORDER INFORMATION

Description	Part Number
Dräger PARAT® 4720 Soft Pack Escape hood in robust soft pack (provides dust protection to IP5) with window to allow the user to check the expiration date and the device condition	R59421
Dräger PARAT® 4730 Hard Case Escape hood in robust soft pack (provides dust protection to IP5) with window to allow the user to check expiration date and the device condition	R59431
Replacement Filters	
E-filter Set for PARAT® 4700. Includes ABEK P3 filter and sealing tag	R59471

Dräger PARAT® 5500 Fire Escape Hood with CO P2 filter

For a safe escape from suddenly occurring toxic fire related gases, vapours and particles. Approval: according to EN 403:2004 for fire escape hoods, additionally tested for use against H_2S (at 2,500ppm) in accordance with DIN 58647-7 Escape hood with conventional, manual removal filter plugs packaged in compact cardboard box.

ORDER INFORMATION

Description	Part Number
Dräger PARAT® 5520 Soft Pack Escape hood in robust soft pack (provides dust protection to IP5) with window to allow the user to check expiration date and the device condition	R59425
Dräger PARAT® 5530 Hard Case Escape hood in robust hard pack (provides dust protection to IP5) with window to allow IP5) with window to allow the user to check expiration date and the device condition	R59435

Replacement Filters	
E-filter Set for PARAT® 5510. Includes CO P_2 filter with red pull strings and sealing label	R59474
E-filter Set for PARAT® 5520/30. Includes CO P_2 filter and sealing tag	R59475

Dräger PARAT® 5550 Fire Escape Hood

Dräger PARAT® 5550 Fire Escape Hood for Fire and Rescue Services

The Dräger PARAT® 5550 is stored in a compact flame-retardant holster specifically designed for the Fire & Rescue Service and complies with EN 137:2006. Removed from the holster and donned on a casualty in 5 seconds, it will protect the wearer from smoke, toxic fumes and other hazardous particles for 15 mins.

ORDER INFORMATION

Description	Part Number
PARAT® 5550	R59445
PARAT® 5550h in flame retardant holster	370073
PARAT® 5550/5550h replacement hood	R59475

Dräger PARAT® 7500 Combined fire and industrial escape hood

Includes ABEK CO P3 filter for a safe escape from suddenly occurring toxic industrial gases, vapours, particles and fire-related gases. Approval: according to EN 403:2004 for fire escape hoods; According to DIN 58647-7 for filtering escape devices; filter additionally tested in accordance with EN 14387:2004 for gas filter(s) and combined filter(s)

ORDER INFORMATION

Description	Part Number
Dräger PARAT® 7520 Soft Pack Escape hood in robust soft pack (provides dust protection to IP5) with window to allow the user to check the expiration date and the device condition	R59427
Dräger PARAT® 7530 Hard Case Escape hood in robust hard pack (provides dust protection to and the device condition	R59437
Replacement Filters	
E-filter Set for PARAT® 7500 E-filter. Includes ABEKCO P3 filter and sealing tag	R59477

Dräger PARAT® Training Hoods

PARAT® Training hood are supplied for training in the donning process and include an empty filter dummy

ORDER INFORMATION

Description	Part Number
PARAT® Training Hood Single Pack	R59410
PARAT® Training Hood Soft Pack	R59420
PARAT® Training Hood Hard Case	R59430
Accessories for PARAT® Training Hood	
Training Filter	R59479
Filter Plug Straps (20)	R59482

Accessories for PARAT® 4700, 5500 and 7500

When on duty, the user can carry the escape hood on a belt or a shoulder strap, a grip clip or a belt clip. The PARAT Hard Case can also be wall mounted using a wallholder.

ORDER INFORMATION

Description	Part Number
Belt (plastic)	R53026
Belt (textile)	6733934
Shoulder Harness	R59461
Grip Clip	R59455
Belt Clip	R59456
Adapter Plate for PARAT Soft Pack. For attaching a grip or belt clip to the soft Pack	R58472
D-Ring for PARAT® Hard Case	R59457
Wallholder for PARAT® Hard Case	R59451

Dräger Comfort Vest CVP 5220

The Dräger comfort vest CVP 5220 helps to absorb excess body heat and offers comfort for the wearer when working in high temperature surrounding or performing tasks that are physical enough to cause perspiration. It can be worn underneath all forms of protective clothing. Its cooling action is derived from 20 PCM elements (Phase Change Material) integrated into the cool vest.

The CVP 5220 comfort vest can be used in a wide range of applications, it is particularly effective for use underneath Gas Tight Chemical Protective Suits or in industrial applications, Firefighting, Shipping. Mining or Blast Furnace works.

Includes 20 large and 2 small PCM elements
Vest sizes:
S/M: Chest sizes 84cm - 100cm
L/XL: Chest sizes 100cm - 116cm
XXL/XXXL: Chest sizes 116cm - 132cm
XXXXL/XXXXXL: Chest sizes 132cm - 148cm

ORDER INFORMATION

Description	Part Number
Dräger Comfort Vest CVP5220, S/M	R58762
Dräger Comfort Vest CVP 5220 L-XL	R58763
Dräger Comfort Vest CVP5220, XXL/XXXL	R58764
Dräger Comfort Vest CVP5220 ,XXXXL/XXXXXL	R58761

Accessories	
PCM Element	R45104
Transportation Bag	R53373

Filter Selection Guide

This section will give you a brief over view of the most important factorstoconsiderwhenchoosing filtering respiratory protection devices. This information can help you protect yourself against harmful substances in the air by selecting the appropriate masks and filters.

1. WHAT MUST I CONSIDER WHEN CHOOSING A RESPIRATOR?

The hazards in your environment must be known, as well as the work requirements and the external conditions. Additionally you must take into consideration the protection level required by your respirator – as well as the type and protection level of the necessary filter.

2. PLEASE CHECK THE FOLLOWING BEFORE USING FILTERING RESPIRATORY PROTECTION:

- Is there enough oxygen in the ambient air? (see your local legislative requirements – in Germany a minimum of 17 vol. % is required)
- What contaminants are in the ambient air?
- What are the concentrations of the contaminants?
- Are the contaminants in gas, particle, or vapour form? Or are they a mixture?
- Do the contaminants have adequate warning properties (e.g. smell or taste?)
- What are the applicable Occupational Exposure Limits (OEL)?
- In addition to respiratory protection, is other personal protection equipment (e.g. eye or ear protection) required?

3. WHICH RESPIRATOR SHOULD I CHOOSE?

It is necessary to answer all of the above questions (in 2.) to determine the needed protection factor. Table 1 gives you a brief overview of the nominal protection factors (NFP) for respiratory protective devices. The NFP is the highest permissible leakage level according to the approval requirements of the respective device. It indicates the mathematically calculated maximum protection performance. To evaluate the minimum required protection factor – you will need to know the concentration of the hazardous substance you are dealing with as well as the assigned Occupational Exposure Limit (OEL) of the substance. An OEL (like AGW) is the concentration of a specific airborne substance – averaged over a reference period, which shows no evidence to be threatening to ones health if exposed to it, at that concentration, on a daily basis.

TABLE 1: LIST OF RESPIRATORY PROTECTIVE DEVICES

DEVICE	MARKING	NOMINAL PROTECTION FACTOR [1)]
PARTICLE FILTERING DEVICES		
Filtering facepiece	FFP1	4
	FFP2	12
	FFP3	50
Quarter / Half mask with filter	P1	4
	P2	12
	P3	48
Full face mask with filter	P1	5
	P2	16
	P3	1000
PAPR with helmet or hood	TH1P	10
	TH2P	50
	TH3P	500
PAPR with quarter / half or full face mask (power on)	TM1P	20
	TM2P	200
	TM3P	2000
GAS FILTERING DEVICES		
Quarter / half mask with filter		50
Full face mask with filter		2000

1) Values have been taken from the EN 529:2005 and BGR 190 Additional national and local regulations must be followed. Keep in mind that the performance indicated by the nominal protection factor can only be achieved when the respiratory protective device is worn correctly and has been properly maintained. Make sure you choose the size that fits best for your face. Also, a respirator should only be worn on cleanly shaven faces, as facial hair in the sealing area causes leakage.

EXAMPLE: DETERMINING THE NEEDED PROTECTION FACTOR OF YOUR RESPIRATOR

Contaminant:	Lead dust (particle protection is needed)
Concentration at the work place:	3 mg/m3
OEL (Occupational Exposure Limit):	0.1 mg/m3
Minimum protection factor =	

$$\frac{\text{concentration of hazardous substance}}{\text{OEL}} = \frac{3}{0.1} = 30$$

You can see in table 1 that with a needed minimum protection factor of 30 for lead dust, you will need to use a P3-filter or together with a half mask, a full face mask, or PAPR. In the case where the contaminants are pre-sent in both particle and gas form, the nominal protection factor must be established for each one separately. For the selection of filtering devices, the higher protection factor must

Filter Selection Guide

be applied. The concentration of gases is measured in ppm (parts per million= volume of the substance within 1 m3 of air) or mg/m3 (= weight of the substance within 1 m3 of air) and the concentration of particles (dust) only in mg/m3. While mg/m3 deals with weight and ppm with volume, there is no direct calculation for mg/m3 to ppm. Higher concentrations are often indicated in % by volume, 10,000 ppm = 1 vol. %.

4. WHAT IS THE MAXIMUM CONCENTRATION OF THE CONTAMINANT FOR WHICH I CAN USE RESPIRATORY PROTECTION?

You can determine the maximum permissible concentration by multiplying the nominal protection factor (as found in table 1) by the Occupational Exposure Limit (OEL).

$$\text{Maximum permissible concentration} = \text{nominal protection factor} \times \text{OEL}$$

EXAMPLE: DETERMINING THE MAXIMUM PERMISSIBLE CONCENTRATION[2)]

Contaminant: Chlorine dioxide 0.1 ppm (Occupational Exposure Limit)
OEL: Respirator: Full face mask with combination filter B P2

Nominal protection factor x OEL = Maximum permissible concentration

Nominal protection factor of full face mask with gas filter: 2000
2000 x 0.1 = 200 ppm Chlorine dioxide

Nominal protection factor of full face mask with particle filter P2: 16
16 x 0.1 = 1.6 ppm Chlorine dioxide

When using a combination filter, which is the case in the above illustration, both of the maximum permissible concentrations need to be calculated, i.e. the value for the gas filter and the value for the particle filter. The lower of the two values should be taken as the maximum permissible concentration for this combination filter. For the example above therefore, the maximum permissible concentration for chlorine dioxide when using a full face mask with a B P2 combination filter is 1.6 ppm of Chlorine Dioxide

2) Values and terms of calculation have been taken from the EN529:2005 and BGR 190. Additional national and local regulations must be followed. Values of OEL based on AGW according to German regulations and there of time-weighted average values over a reference period and not any short term exposure limits.

5. HOW TO SELECT THE RIGHT FILTER?

Contaminants come in different forms – generally: aerosols (solids/particles) and gases (gases, vapours). You can choose between the filter types to protect against one of these forms or a combination of both of them.

Solids / particles: Dusts, fibres, fumes, microorganisms (e.g. viruses, bacteria, fungi, spores) and mists Gases and vapours

Gaseous substances: Gases and vapours

The following table shows you the colour coding of filters according to EN14387 – which helps you to determine which filter-type is needed for the contaminants you are dealing with.

TABLE 2: COLOUR-CODING FOR FILTERS

COLOUR CODE	FILTER TYPE	CONTAMINANTS PRESENT
	AX[3)]	Gases and vapours of organic compounds with boiling point ≤ 65 °C
	A	Gases and vapours of organic compounds with boiling point > 65 °C
	B	Inorganic gases and vapours, e.g. chlorine, hydrogen sulphide, hydrogen cyanide
	E	Sulphur dioxide, hydrogen chloride
	K	Ammonia and organic Ammonia derivates
	CO[4)]	Carbon monoxide
	Hg[5)]	Mercury vapour
	NO[6)]	Nitrous gases including nitrogen monoxide
	Reactor[7)]	Radioactive iodine including radioactive methyl iodide
	P	Particles

3) AX filters may only be used as supplied from factory. Reuse and use against gas compounds is absolutely impermissible.

4) CO filters for one time use only. Must be disposed after use. Special guidelines according to local regulations apply.

5) Hg Filters can only be used for a maximum of 50 hours according to EN 14387.

6) NO filters for one time use only. Must be disposed after use.

7) Reactor filters: special guidelines according to local regulations apply.

DIFFERENTIATION OF FILTER TYPES

Filters are split in different classes according to their capacity (gas filters) or their efficiency (particle filters), see table 3. Gas filters of class 2 may be used at higher concentrations or for a longer time than class 1 filters. The class of a particle filter indicates how efficient the filter is in filtering out particles.
(class 1: 80%, class 2: 94%, class 3: 99.95%).

Filter Selection Guide

TABLE 3: DIFFERENTIATION OF FILTER TYPES

FILTER TYPE	FILTER CLASS	PROTECTION AGAINST	MAXIMUM PERMISSIBLE CONCENTRATION OF TOXIC SUBSTANCE
Gas filter		Gases and vapours Capacity:	50 times the OEL with half masks / 2000 times the OEL with full face masks, but maximal:
	1	Small	0.1 vol. % (1000 ppm)8)
	2	Medium	0.5 vol. % (5000 ppm)8)
	3	Large	1.0 vol. % (10000 ppm)8)
Particle filter		Particles Efficiency (separation ability):	
	1	Small	4 times the OEL with half masks / 5 times the OEL with full face masks9)
	2	Medium	12 times the OEL with half masks / 16 times the OEL with full face masks9)
	3	Large	48 times the OEL with half masks / 1000 times the OEL with full face masks9)
Combined filter		Gases, vapours and particles	
	1-P2 2-P2 1-P3 2-P3	Appropriate combination of gas and particle filters	Appropriate combined levels

8) Values taken from the European Norm EN 14387
9) Values taken from the European Norm EN 529:2005

Additional national and local regulations must be followed.

EXAMPLE FILTER TYPES:
A2B2 P3

A FILTER WITH THE ABOVE MENTIONED COLOUR CODE IS SUITABLE FOR THE FOLLOWING CONTAMINANTS:

A gases and vapours of organic compounds with a boiling point beyond 65 °C up to concentrations covered by filter class 2 and
B inorganic gases and vapours, e.g. chlorine, hydro gen sulphide, hydrogen cyanide, up to concentrations covered by filter class 2 and
P particles up to concentrations covered by filter class 3.

6. WHEN USING FILTERING RESPIRATORY PROTECTION, ALWAYS KEEP THE FOLLOWING IN MIND:

Never use any kind of filtering respiratory protection device . . .
- in oxygen deficient atmospheres (see local legislation for further guidelines e.g. Germany less than 17 vol. % O_2)
- in poorly ventilated areas or confined spaces, such as tanks, small rooms, tunnels, or vessels
- in atmospheres where the concentrations of the toxic contaminants are unknown
- when the concentration of a contaminant is higher than the maximum permissible concentration and /or the filter class capacity
- when the contaminant has poor or no warning properties (smell, taste or irritation), such as aniline, benzene, carbon monoxide, and ozone

Immediately leave the area if . . .
- breathing resistance increases noticeably
- you began to feel dizzy
- you smell, taste, or become irritated by the contaminant
- your respirator is damaged

Make sure that . . .
- the selected respirator fits properly
- if both gases and particles are present, that you use a combination filter, to filter out both gases and particles

7. HOW LONG DOES A FILTER LAST?

The service life of a respiratory filter depends on its size and on the conditions of use.

Factors affecting service life:
- concentration of the contaminants
- combination of the contaminants
- air humidity
- temperature
- duration of use
- breathing rate of the user

Since the service life is influenced by many factors, it is not possible to give an estimated service life. Important is:
- local / company regulations

The end of service life is generally recognizable by:
- in gas filters by a noticeable taste or smell of the contaminant
- in particle filters by an increased breathing resistance
- in combination filters a noticeable taste or smell and/or an increased breathing resistance

TABLE 4: EXAMPLES OF CONTAMINANTS, THEIR OELS (HERE: AGWS, VALID IN GERMANY) AND FILTER RECOMMENDATIONS

This is only a small choice of contaminants as example. For more information and a wider choice of contaminants please try our Dräger VOICE database of hazardous sub-stances on the internet (www.draeger.com/voice).

Filter Selection Guide

Contaminants	OEL mg/m3		Filter type	Colour code
A				
Acetaldehyde	50	91	AX (P3)	
Acetamide	–	–	A P3	
Acetic Acid	10	25	B [E] (P2)	
Acetic anhydride	5	21	A (P2)	
Acetone	500	1,200	AX (P3)	
Acetoncyanohydrine	–	–	A (P2)	
Acetonitrile	20	34	A (P3)	
Acetyl chloride	–	–	B P2	
Acrolein	0.1	0.25	AX (P3)	
Acrylamide	–	–	A P3	
Acrylic acid	10	30	A (P2)	
Acrylnitrile	carcinogen	(cat. 2)	A (P3)	
Aldrin	–	0.25 E	A P3	
Allyl chloride	carcinogen	(cat. 3B)	AX (P3)	
1-Allyloxy-2,	–	–	A (P2)	
3-epoxypropane				
Allylpropyldisulfide	2	12	B (P2)	
Aluminium	–	3	P2	
(respirable dust)				
Aluminium hydroxide	–	3	P2	
Aluminium oxide	–	3	P2	
(respirable dust)				
Aluminium oxide (fume)	–	3	P2	
o-Aminoazotoluol	–	–	A (P3)	
1-Aminobutane	2	6.1	A (P2)	
2-Aminobutane	2	6.1	AX (P2)	
4-Aminodiphenyl	–	–	A (P3)	
3-Amino-9-ethylcarbazol	–	–	A (P3)	
2-Amino-	–	–	AX (P3)	
2-methylpropane				
1-Aminopropane	–	–	K(P2)	
2-Aminopropane	5	12	K (P2)	
2-Aminopyridine	–	–	A P3	
Amitrole	–	0.2 E	A (P2)	
Ammonia	20	14	K (P3)	
Ammonia in water	–	–	K (P2)	
Ammonia-solution 25 %	20	14	K (P2)	
Ammonium nitrate	–	–	NO P3	
Aniline	2	7.7	A (P3)	
Anthracene	–	–	A P3	
9,10-Anthraquinone	–	–	A (P2)	
Antimony	–	–	P2	
Antimony penta chlorid			B P2	
Antimony trioxide	carcinogen	(cat. 2)	P3	
Antimony hydrogen	–	0.3	B (P3)	
ANTU	–	0.3 E	B P3	
Arsenic acid	carcinogen	(cat. 1)	P3	
Arsenic pentoxide	carcinogen	(cat. 1)	P3	
Arsenic acid	carcinogen	(cat. 1)	P3	
Arsenic trioxide	carcinogen	(cat. 1)	P3	
Arsenic hydrogen	0.005	0.016	B (P3)	
Asbestos	carcinogen	(cat. 1)	P3	

Contaminants	OEL mg/m3		Filter type	Colour code
Auramine	–	–	A P3	
Aziridine	carcinogen	(cat. 2)	K (P3)	
Azo colorant	–	–	A (P3)	
B				
Barium chloride	–	0.5 E	P2	
Beechwood dust	–	5	P3	
Benzaldehyde	–	–	A (P2)	
Benzidine and its salts	–	–	A (P3)	
Benzene	1	3.2	A (P3)	
Benzene in water	–	–	A (P3)	
Benzine in water	–	–	A (P2)	
Benzo[a]pyrene	carcinogen	(cat. 2)	A (P3)	
p-Benzochinone	carcinogen	(cat. 3B)	A P3	
Benzo[e]pyrene	–	–	A (P3)	
Benzylamine	–	–	A (P2)	
Beryllium	carcinogen	(cat. 1)	P3	
Biphenyl	carcinogen	(cat. 3B)	A P2	
Bis(tributylzinn)oxide	0.002	0.05	B P3	
Bitumen	–	–	A P3	
Borax	–	–	P2	
Boroxide	–	–	P2	
Boric acid	–	0.5	B P2	
Boron trifluoride	0.35	1	B (P3)	
2-Brombutane	–	–	A (P2)	
Bromine	–	0.7	B (P2)	
Bromobenzene	–	–	A (P2)	
Bromochloromethane	carcinogen	(cat. 3B)	A (P2)	
2-Bromo-2-chloro-1,	5	41	AX (P3)	
1,1-trifluorethane				
Bromoform	–	–	A (P3)	
2-Bromopentane	–	–	A (P2)	
Brown coal tars	–	–	A P3	
1,3-Butadiene	carcinogen	(cat. 1)	AX (P3)	
n-Butane	1,000	2,400	AX (P3)	
n-Butanal	–	–	A (P2)	
1-Butanol	100	310	A (P2)	
2-Butanol	–	–	A (P2)	
2-Butanone peroxide	–	–	B (P2)	
1,4-Butane sultone	–	–	A (P3)	
2,4-Butane sultone	–	–	A (P3)	
2-Butenal (trans)	–	–	A (P3)	
1-n-Butoxy-2,	–	–	A (P3)	
3-epoxypropane				
1-tert-Butoxy-2,	–	–	A (P3)	
3-epoxypropane				
2-Butoxyethanol	20	98	A (P2)	
2-Butoxyethylacetone	20	130	A (P2)	
1-Butyl acetate	200	950	A (P2)	
2-Butyl acetate	200	950	A (P2)	
tert-Butyl acetate	200	950	A (P2)	
n-Butyl acrylate	2	11	A (P2)	

Filter Selection Guide

Contaminants	OEL mg/m3		Filter type	Colour code
Butyl formiate	–	–	A (P2)	
tert-Butyl hydroperoxide	–	–	B (P2)	
1-Butyl mercaptan	0.5	1.9	B (P2)	
n-Butyl methacrylate	–	–	A (P2)	
tert-Butyl peracetate	–	–	B (P2)	
p-tert-Butyl phenol	0.08	0.5	A P2	
Butyl stearate	–	–	A (P2)	
p-tert-Butyltoluol	–	–	A (P3)	
C				
Cadmium	–	–	P3	
Cadmium chloride	–	–	P3	
Cadmium oxide	–	–	P3	
Cadmium sulfate	–	–	P3	
Calcium arsenate	–	–	P3	
Calcium bisulfide	–	–	E P2	
solution				
Calcium chromate	–	–	P3	
Calcium cyanamide	–	1 E	P2	
Calcium hydroxide	–	–	P2	
Calcium oxide	–	–	P2	
Camphor	2	13	A P2	
E-Caprolactam	–	5 E	A P2	
Carbaryl	–	5 E	B (P2)	
Carbon disulfide	5	16	B (P3)	
Carbon monoxide	30	35	CO	
Carbon tetrachloride	0.5	3.2	A (P3)	
Carbon tetrachloride	–	–	A (P3)	
in water				
Causticpotash(> 5 %)	–	–	P2	
Caustic soda	–	–	P2	
p-Chloraniline	–	–	A P3	
Chlorbenzene	10	47	A (P2)	
2-Chloro-1-	–	–	A (P3)	
bromoethane				
Chlordane	–	0.5	A (P3)	
Chlordecone	–	–	A (P3)	
Chlorine	0.5	1.5	B (P3)	
Chlorine dioxide	0.1	0.28	B (P2)	
Chloroacetic acid	1	4	A P3	
Chloroacetic acid	1	5	A (P2)	
ethyl esther				
Chloroethane	40	110	AX (P3)	
2-Chloroethanol	1	3.3	A (P3)	
N-Chloroformylmorpholin	–	–	A (P3)	
Chlorienated biphenyls	0.1	1.1	A (P3)	
(chlorine content 42 %)				
Chlorienated biphenyls	0.05	0.7	A (P3)	
(chlorine content 54 %)				
Chlorienated camphene	carcinogen	(cat. 2)	A P2	
(chlorine content 60 %)				
3-Chloro-2-methyl-	–	–	A (P2)	

Contaminants	OEL mg/m3		Filter type	Colour code
1-propene				
1-Chloronaphthaline	–	–	A (P2)	
1-Chloro-1-nitropropane	–	–	A NO P3	
Chloroform	0.5	2.5	AX (P3)	
Chloroform in water	–	–	AX (P3)	
2-Chloroprene	carcinogen	(cat. 2)	AX (P3)	
4-Chlor-o-toluidine	–	–	A P3	
5-Chlor-o-toluidine	–	–	A P3	
1-Chlorpentane	–	–	A (P2)	
1-Chlorpropane	–	–	AX (P2)	
2-Chlorpropene	–	–	AX (P2)	
Chlortrifluoride	–	–	B (P2)	
Chromium carbonyl	–	–	CO (P3)	
Chromium oxychloride	carcinogen	(cat. 2)	B (P3)	
Chromic acid anhydrid	carcinogen	(cat. 2)	P3	
Citric acid	–	–	P2	
Coal tar	–	–	A P3	
Cobalt	carcinogen	(cat. 2)	P3	
Cobalt acetate	–	–	P2	
tetrahydrate				
Coconut oil	–	–	P2	
Copper	–	0.1	P2	
Copper chloride	–	0.1	P2	
(solution)				
Copper sulfate	–	0.1	P2	
(solution)				
Cotton dust	–	1.5 E	P2	
Cristobalite	carcinogen	(cat. 1)	P2	
(respirable dust)				
Cumene	20	100	A (P2)	
Cyanoacrylatemethyl	2	9.2	B (P2)	
ester				
Cyanogen bromide	–	–	B P3	
Cyanogen chloride	–	–	B (P3)	
Cyanuric chloride	–	–	B P2	
Cyanuric chloride	–	–	B P2	
(suspension in water)				
Cyclohexane	200	700	A (P2)	
Cyclohexanol	50	210	A P2	
Cyclohexanone	20	80	A (P2)	
Cyclohexene	–	–	A (P2)	
Cyclohexylamine	2	8.2	A (P2)	
1,3-Cyclopentadiene	–	–	AX (P3)	
Cyclopentanone	–	–	A (P2)	
D				
DDT	–	1	A (P3)	
Decaborane	0.05	0.25	B P2	
n-Decane	–	–	A (P2)	
n-Decanol	–	–	A (P2)	
Demeton	0.01	0.1	A B (P3)	
Demeton methyl	0.5	4.8	A B (P3)	

Filter Selection Guide

Contaminants	OEL mg/m3		Filter type	Colour code
Diacetyl peroxide	–	–	B P3	
2,4-Diaminoanisole	–	–	A (P3)	
3,3‘-Diaminobenzidine	–	–	A (P3)	
3,3‘-Diaminobenzidine-tetrahydrochloride	–	–	A (P3)	
4,4‘-Diamino diphenyl methane	carcinogen	(cat. 2)	A (P3)	
1,2-Diaminoethane	–	–	A (P2)	
2,4-Diaminotoluene	–	–	A P3	
Diatomaceous earth, calcinated	–	0.3 A	P2	
Diatomaceous earth, uncalcinated	–	4 E	P2	
Diazinon	–	0.1 E	A (P2)	
Diazomethane	–	–	B (P3)	
Dibenzoyl peroxide	–	5 E	B P2	
Dibenzylamine	–	–	A (P2)	
Dibenzylether	–	–	A (P2)	
Diborane	–	–	B (P2)	
1,2-Dibromo-3-chlorpropane	–	–	A (P3)	
1,2-Dibroomethane	carcinogen	(cat. 2)	A (P3)	
Dibutyl ether	–	–	A (P2)	
Dibutyl phthalate	–	–	A (P2)	
3,3‘-Dichlorbenzidine	carcinogen	(cat. 2)	A (P3)	
1,2-Dichlorbenzene	10	61	A (P2)	
1,3-Dichlorbenzene	3	20	A (P2)	
1,4-Dichlorbenzene	20	120	A P2	
1,4-Dichloro-2-butene	–	–	A (P3)	
2,2‘-Dichloro diethyl ether	10	58	A (P3)	
2,2‘-Dichloro diethyl sulfide		–	–	B (P3)
Dichloro diisopropyl ether	–	–	A (P2)	
Dichloro dimethyl ether	–	–	A (P3)	
1,1-Dichloroethane	100	410	AX (P3)	
1,2-Dichloroethane	–	–	A (P3)	
1,1-Dichloroethene	2	8	AX (P3)	
1,2-Dichloroethene (cis)	200	800	AX (P3)	
1,2-Dichloroethene (trans)	200	800	AX (P3)	
Dichlormethane	75	260	AX (P3)	
Dichlormethane in water	–	–	AX (P3)	
1,2-Dichloro methoxyethane		–	–	A (P3)
1,1-Dichloro-1-nitroethane	–	–	A NO P3	
2,4-Dichloro phenoxy aceatic acid	–	1	A (P2)	
1,2-Dichloropropane	carcinogen	(cat. 3B)	A (P2)	
1,3-Dichloro-2-propanol	–	–	A (P3)	
1,3-Dichloro propene (cis- und trans)	–	–	A (P3)	
2,2-Dichloro propionic acid		–	–	A (P2)
1,2-Dichloro-1,	1,000	7,100	AX (P3)	

Contaminants	OEL mg/m3		Filter type	Colour code
1,2,2-tetrafluoroethano				
2,4-Dichlortoluene	5	30	A (P2)	
Dichlorvos	0.11	1	A (P3)	
Dicyclohexylmethane-4,4‘-diisocyanate	–	–	AB P3	
Dicyclohexyl peroxide	–	–	B P3	
Dicyclopentadiene	0.5	2.7	A P2	
Dieldrin	–	0.25 E	A (P3)	
Diesel in water	–	–	A (P2)	
Dieselfuel	–	–	A (P2)	
Diethanolamine	–	–	A P2	
Diethylamine	5	15	AX (P3)	
2-Diethylaminoethanol	5	24	A (P2)	
Diethylcarbamid acid chloride	–	–	B (P3)	
Diethyl carbonate	–	–	A (P2)	
Diethyleneglycole	10	44	A (P2)	
Diethylentriamine	–	–	A (P2)	
Diethylether	400	1,200	AX (P3)	
N,N-Diethyl hydroxylamine	–	–	A (P2)	
Diethyl oxalate	–	–	A (P2)	
Diethyl phtalate	–	–	A (P2)	
Diethyl sebacate	–	–	A (P2)	
Diethyl sulfate	carcinogen	(cat. 2)	A (P3)	
Diethyl sulfide	–	–	B (P2)	
Difluorobromomethane	–	–	AX (P3)	
Difluorodibromomethane	–	–	AX (P3)	
Diglycidyl ether	carcinogen	(cat. 3B)	A (P3)	
1,2-Dihydroxybenzene	–	–	A P2	
1,3-Dihydroxybenzene	4	20 E	A P2	
1,4-Dihydroxybenzene	carcinogen	(cat. 2)	A P2	
Diisobutylketone	–	–	A (P2)	
Diisopropylamine	–	–	A B (P2)	
Diisopropylether	200	850	A (P2)	
Dilauroyl peroxide	–	–	B (P2)	
3,3‘-Dimethoxy-benzidine	–	–	A (P3)	
1,1-Dimethoxyethane	–	–	AX (P3)	
1,2-Dimethoxyethane	–	–	A (P2)	
Dimethoxymethan	1,000	3,200	AX (P3)	
N,N-Dimethyl acetamide	10	36	A (P2)	
Dimethylamine	2	3.7	K (P2)	
1-(Dimethylamino)-2-propanol	–	–	A (P2)	
N,N-Dimethylaniline	5	25	A (P3)	
3,3‘-Dimethyl-benzidine	–	–	A (P3)	
_,_-Dimethylbenzyl-hydroperoxide	–	–	B P2	
2,2-Dimethylbutane	200	720	AX (P3)	
2,3-Dimethylbutane	200	720	AX (P3)	
1,3-Dimethylbutyl acetate	–	–	A (P2)	
Dimethyl carbamics acid chloride	–	–	B (P3)	
N,N-Dimethylcyclo-	–	–	A (P2)	

Filter Selection Guide

Contaminants	OEL mg/m3		Filter type	Colour code
hexylamine				
3,3'-Dimethyl-4,4'	–	–	A (P3)	
-diaminodiphenylmethane				
Dimethyl disulfide	–	–	B (P3)	
N,N-Dimethyl-	–	–	A (P2)	
ethanolamine				
Dimethyl ether	1,000	1,900	AX (P3)	
N,N-Dimethylethylamine	2	6.1	K (P2)	
N,N-Dimethylformamide	10	30	A (P2)	
1,1-Dimethylhydrazine	–	–	K (P3)	
1,2-Dimethylhydrazine	–	–	K (P3)	
Dimethyl-	–	–	A (P2)	
hydrogenphosphite				
Dimethyliso-propylamine	1	3.6	B (P2)	
2,2-Dimethyl propane	1,000	3,000	AX (P2)	
Dimethylsulfate	carcinogen	(cat. 2)	A (P3)	
Dimethylsulfide	–	–	B (P3)	
1,2-Dinitrobenzene	–	–	A NO P3	
1,3-Dinitrobenzene	–	–	A NO P3	
1,4-Dinitrobenzene	–	–	A NO P3	
1,5-Dinitronaphthalene	–	–	A NO P3	
2,6-Dinitronaphthalene	–	–	A NO P3	
4,6-Dinitro-o-kresole	–	–	A NO P3	
2,3-Dinitrotoluene	–	–	A NO P3	
2,4-Dinitrotoluene	–	–	A NO P3	
2,5-Dinitrotoluene	–	–	A NO P3	
2,6-Dinitrotoluene	carcinogen	(cat. 2)	A NO P3	
3,4-Dinitrotoluene	carcinogen	(cat. 2)	A NO P3	
3,5-Dinitrotoluene	–	–	A NO P3	
1,4-Dioxane	20	73	A (P3)	
1,3-Dioxolan	100	310	A (P2)	
Dipentene	20	110	A (P2)	
Diphenyl ether	1	7.1	A P2	
Diphenyl ether/	–	–	A P2	
biphenylcompound				
Diphenylmethan-4,	–	0.05	AB P3	
4'-diisocyanate				
Diphenylmethan-4,	–	–	AB P3	
4'-diisocyanate,				
liquid (50 °C)				
Diphosphorus-	–	1	P2	
pentasulfide				
Dipropylamine	–	–	A B (P2)	
Dipropylene-	–	–	A (P2)	
glycolmethyl ether				
Dipropyl ether	–	–	A (P2)	
Disulfur dichloride	–	–	B (P2)	
Di-sec-octyl phthalate	–	10	A (P2)	
Disulfiram	–	2 E	B (P2)	
Di-tert-butylperoxide	–	–	B (P2)	
1,2-Divinylbenzene	–	–	A (P2)	
1,3-Divinylbenzene	–	–	A (P2)	
Dodecylbenzenel	–	–	A (P2)	

Contaminants	OEL mg/m3		Filter type	Colour code
E				
Endrin	–	0.1 E	A (P3)	
Enflurane	20	150	AX (P3)	
EPN	–	0.5	A (P3)	
1,2-Epoxybutane	–	–	AX (P3)	
1,2-Epoxypropane	carcinogen	(cat. 2)	AX (P3)	
Ethanol	500	960	A (P2)	
Ethanolamine	1	2,5	A (P2)	
2-Ethoxyethanol	5	19	A (P2)	
Ethyl acetate	400	1,500	A (P2)	
Ethyl acrylate	5	21	A (P2)	
Ethylamine	5	9.4	K (P2)	
Ethylbenzene	100	440	A (P2)	
Ethyl carbamate	–	–	A P3	
Ethylene glycol	10	26	A (P2)	
Ethylene glykol-	5	22	A (P2)	
monoisopropyl ether				
Ethylene oxide	carcinogen	(cat. 2)	AX (P3)	
Ethyl formate	100	310	AX (P3)	
2-Ethyl-1-hexanol	20	110	A (P2)	
2-Ethylhexylamine	–	–	A (P2)	
Ethyl mercaptan	0.5	1.3	AX (P3)	
Ethyl propionate	–	–	A (P2)	
F				
Fenthion	–	0.2 E	A P3	
Ferbam	–	–	A (P2)	
Ferrovanadium (dust)	–	–	P2	
Fibers (inorg.)	–	–	P2	
Fluoride	1	1.6	B (P3)	
Fluorobenzene	–	–	A (P2)	
Formaldehyde	0.3	0.37	B (P3)	
Formamide	–	–	A (P2)	
Formic acid	5	9.5	B [E] (P2)	
Furan	–	–	AX (P2)	
Furfurol	carcinogen	(cat. 3B)	A (P3)	
Furfurylalcohol	10	41	A (P2)	
G				
Premium gasoline	–	–	A (P2)	
Regular gasoline, lead free	–	–	A (P2)	
Gelatine	–	–	P2	
Glutaraldehyde	0.05	0.21	A (P2)	
Glycerine	–	50	A (P2)	
Glycidol	carcinogen	(Kat. 2)	A (P3)	
Glyoxal	–	–	AX (P2)	
Graphite	–	3	P2	
Graphite, dust compounds	–	–	P2	
(> 1 % quarz)				

Filter Selection Guide

Contaminants	OEL mg/m3		Filter type	Colour code
H				
Hafnium	–	–	P2	
Heptachlor	–	0.5 E	A P3	
n-Heptane	500	2,100	A (P2)	
2-Heptanone	–	238	A (P2)	
3-Heptanone	10	47	A (P2)	
4-Heptanone	–	–	A (P2)	
Hexachlorobenzene	–	–	A (P2)	
Hexachloroethane	1	9.8	A P2	
Hexamethylendiamin	–	–	A P2	
1,6-Hexa-methylene diisocyanate	0.005	0.035	AB P3	
Hexamethylene-tetramin	–	–	B K (P2)	
Hexamethyl-phosphoric triamide	–	–	A (P3)	
n-Hexane	50	180	A (P2)	
n-Hexanol	50	210	A (P2)	
2-Hexanone	5	21	A (P3)	
1-Hexen	–	–	AX (P2)	
2-Hexen (cis- and trans isomers)	–	–	A (P2)	
Hexylamin	–	–	A (P2)	
Hexylenglycol	10	49	A (P2)	
Hydrazine	carcinogen	(cat. 2)	K (P3)	
Hydrazoic acid	0.1	0.18	B (P2)	
Hydrochloric acid 32 %	2	3	B [E] P2	
Hydrochloric acid fuming 37 %	–	–	B [E] P2	
Hydrogen bromide	2	6.7	B [E] (P2)	
Hydrogen chloride	2	3	B [E] P2	
Hydrogen cyanide	1.9	2.1	B (P3)	
Hydrogen cyanide in water	–	–	B (P3)	
Hydrogen fluoride	1	0.83	B [E] (P3)	
Hydrogen peroxide	0.5	0.71	CO [NO] P3	
Hydrogen selenide	–	0.05 E	B (P3)	
Hydrogen sulfide	5	7.1	B (P3)	
Hydroxylamine	–	–	B [K] (P2)	
4-Hydroxy-4-methyl pentan-2-on	20	96	A (P2)	
I				
Iod	–	–	B P2	
Iodmethane	–	–	AX (P3)	
Iron chloride	–	–	B (P2)	
Iron oxide	–	3	P2	
Iron pentacarbonyl	0.1	0.81	CO (P3)	
Iron sulfate	–	–	P2	
Isobutyl acetate	100	480	A (P2)	
Isobutylamine	2	6.1	A (P2)	
Isobutylformate	–	–	A (P2)	
Isobutyraldehyde	–	–	AX (P3)	
Isoflurane	–	–	AX (P3)	
Isooctane	500	2,400	A (P2)	
Isophoron di-isocyanate	0.005	0.046	AB P3	
Isopropyl acetate	100	420	A (P2)	
Isopropyl chloride	–	–	AX (P2)	
Isopropyl nitrate	–	–	A NO P2	
Isopropyl oil	–	–	A (P3)	
J				
Jet fuel F34	–	–	A (P2)	
K				
Kerosene	–	–	A (P2)	
Kerosene in water	–	–	A (P2)	
L				
Lactic acid	–	–	P2	
Lead	–	0.15	P2	
Lead (II) acetate-Trihydrat	–	–	P2	
Lead arsenate	–	–	P3	
Lead chromate	–	–	P3	
Lead nitrate	–	0.15	NO P3	
Linseed oil	–	–	P2	
Lindane	–	0.1	A P3	
Lithium hydride	–	0.025 E	P3	
M				
Magnesiumchloride (solution)	–	–	P2	
Magnesiumhydroxide (solution)	–	–	P2	
Magnesiumoxide	–	3	P2	
Magnesiumsulfate	–	–	P2	
Malathion	–	15 E	A (P2)	
Maleic acid	–	–	A P2	
Maleic acid anhydride	0.1	0.41	A P2	
Manganese	–	0.5 E	P2	
Mercapto-acetic acid	–	–	B (P3)	
2-Mercaptoethanol	–	–	B (P3)	
Mercury	–	0.1	Hg P3	
Mercury chloride (solution)		–	0.1 E	P3
Methacrylonitrile	–	–	A (P3)	
Methacrylic acid	5	18	A (P2)	
Methanol	200	270	AX (P3)	
Methoxychlor	–	15 E	A (P2)	
2-Methoxyethanol	5	16	A (P2)	
2-Methoxyethyl acetate	5	25	A (P2)	

Filter Selection Guide

Contaminants	OEL mg/m3		Filter type	Colour code
1-Methoxy-2-propanol	100	370	A (P2)	
2-Methoxy-1-propanol	5	19	A (P2)	
1-Methoxy-2-propylacetate	50	270	A (P2)	
2-Methoxy-1-propylacetate	5	28	A (P2)	
Methyl acetate	200	610	AX (P3)	
Methyl acrylate	5	18	A (P2)	
Methylamine	10	13	K (P2)	
N-Methylaniline	0.5	2.2	A (P3)	
Methyl bromide	–	–	AX (P3)	
2-Methylbutane	1,000	3,000	AX (P3)	
Methylcyclohexane	200	810	A (P2)	
Methylcyclohexanol	6	28	A (P2)	
4,4'-Methylene-bis	–	0.02	A (P3)	
(2-chloranilin)				
4,4'-Methylene-bis	–	0.1 E	A (P3)	
(N,N-dimethylanilin)				
Methyl ethyl ketone	200	600	A (P2)	
Methylformate	50	120	AX (P3)	
N-Methyl hydrazine	–	–	B (P3)	
Methyl isobutyl ketone	20	83	A (P2)	
Methyl isocyanate	0.01	0.024	AB P3	
Methyl mercaptan	0.5	1	B (P2)	
Methyl methacrylate	50	210	A (P2)	
N-Methyl-2,4,6-	carcinogen	(cat. 3B)	A NO P3	
N-tetranitroanilin				
2-Methylpentan	200	720	AX (P2)	
3-Methylpentan	200	720	AX (P2)	
4-Methylpentan-2-ol	20	85	A (P2)	
4-Methylpent-3-en-2-on	5	20	A (P2)	
2-Methyl-1-propanol	100	310	A B (P2)	
2-Methyl-2-propanthiol	–	–	AX B (P2)	
Methylpropionate	–	–	A (P2)	
Methylpropylketone	–	–	A (P2)	
N-Methyl-2-pyrrolidone	20	82	A (P2)	
(vapor)				
Methyl mercury	carcinogen	(cat. 3B)	Hg (P3)	
Methylstyrene	100	490	A (P2)	
Methyl-tert.-butylether	50	180	AX (P3)	
Mevinphos	0.01	0.093	A P3	
Michler's Ketone	–	–	A (P3)	
Mineral fiber	–	–	P3	
Monochlorodimethyl ether	–	–	AX (P3)	
Morpholine	10	36	A (P2)	
Motor oils, used	–	–	A P3	
N				
Naled	–	1 E	A P2	
Naphta	–	–	A (P2)	
Naphthalene	carcinogen	(cat. 2)	A P2	
1-Naphthylamine	0.17	1 E	A P3	
2-Naphthylamine	carcinogen	(cat. 1)	A P3	
1,5-Naphthylene-	–	0.05	AB P3	

Contaminants	OEL mg/m3		Filter type	Colour code
diisocyanate				
Nickel	carcinogen	(cat. 1)	P3	
Nickel, sulfidic ores	carcinogen	(cat. 1)	P3	
Nickel carbonate	carcinogen	(cat. 1)	P3	
Nickel(II)-chloride	carcinogen	(cat. 1)	P2	
Nickel oxide	carcinogen	(cat. 1)	P3	
Nickel compounds in the	carcinogen	(cat. 1)	P3	
form of respirable droplets				
Nickel sulfide	carcinogen	(cat. 1)	P3	
Nickel tetracarbonyl	–	–	CO P3	
Nicotine	–	0.5	A (P3)	
Nitric acid, fuming	1	2.6	B NO P3	
Nitric acid 10-25	1	2.6	E [B] P2	
Nitric acid 25-70	1	2.6	[B] NO P3	
5-Nitroacenaphthene	–	–	A NO P3	
2-Nitro-4-aminophenol	–	–	A NO P3	
4-Nitroaniline	carcinogen	(cat. 3A)	A NO P3	
Nitrobenzene	–	1	A NO P3	
4-Nitrobiphenyl	–	–	A NO P3	
Nitroethane	100	310	A NO P3	
Nitrogen dioxide	carcinogen	(cat. 3B)	NO P3	
Nitrogen monoxide	–	–	NO P3	
Nitroglycerine	carcinogen	(cat. 3B)	A NO P3	
Nitroglycol	0.05	0.32	A NO P3	
Nitromethane	carcinogen	(cat. 3B)	A NO P3	
1-Nitronaphthalene	–	–	A NO P3	
2-Nitronaphthalene	carcinogen	(cat. 2)	A NO P3	
5-Nitro-o-toluidine	–	–	A NO P3	
2-Nitro-p-phenylendiamine	–	–	A NO P3	
1-Nitropropane	25	92	A NO P3	
2-Nitropropane	carcinogen	(cat. 2)	A NO P3	
Nitropyrene	–	–	A NO P3	
(Mono,Di,Tri,Tetra)				
Nitrogen gases	–	–	NO P3	
N-Nitrosodiethanolamin	–	–	A NO P3	
N-Nitrosodiethylamine	–	–	A NO P3	
N-Nitrosodi-i-propylamine	–	–	A NO P3	
N-Nitrosodimethylamine	–	–	A NO P3	
N-Nitrosodi-n-butylamine	–	–	A NO P3	
N-Nitrosodi-n-propylamine	–	–	A NO P3	
N-Nitrosoethyl-	–	–	A NO P3	
phenylamine				
N-Nitrosomethyl-	–	–	A NO P3	
ethylamine				
N-Nitrosomethyl-	–	–	A NO P3	
phenylamine				
N-Nitrosomorpholine	–	–	A NO P3	
N-Nitrosopiperidine	–	–	A NO P3	
N-Nitrosopyrrolidine	–	–	A NO P3	
2-Nitrotoluene	carcinogen	(cat. 2)	A NO P3	
3-Nitrotoluene	carcinogen	(cat. 3B)	A NO P3	
4-Nitrotoluene	carcinogen	(cat. 3B)	A NO P3	
n-Nonane	–	–	A (P2)	

Filter Selection Guide

Contaminants	OEL mg/m3		Filter type	Colour code
O				
Oakwood dust	–	5	P3	
n-Octane	500	2,400	A (P2)	
n-Octanol	20	106	A (P2)	
1-Octen	–	–	A (P2)	
Oil	–	–	P2	
Osmium tetraoxide	–	–	A P3	
Oxalic acid dinitrile	5	11	B (P3)	
4,4'-Oxydianilene	–	–	A (P3)	
Ozone	carcinogen	(cat. 3B)	NO P3	
P				
Palmitic acid	–	–	P2	
Paraldehyd	–	–	A (P2)	
Paraquat dichloride	–	0.1 E	A (P3)	
PARAThion (-ethyl)	–	0.1 E	A (P3)	
Pentaborene	0.005	0.013	B P3	
Pentachloroethane	5	42	A (P3)	
Pentachloronaphthaline	–	–	A P2	
Pentachlorophenol	–	–	A P3	
n-Pentane	1,000	3,000	AX (P3)	
n-Pentanol	20	73	A (P2)	
n-Pentylacetate	50	270	A (P2)	
Perchloroethylene	carcinogen	(cat. 3B)	A (P3)	
Perchloroethylene in water	–	–	A (P3)	
Peracetic acid	–	–	B (P2)	
Permethrin	–	–	A (P2)	
Petrol	–	–	A (P2)	
Phenol	2	7.8	A P3	
Phenolphthalein dissolved in ethyl alcohol	–	–	A (P2)	
Phenyl acetate	–	–	A (P2)	
p-Phenylendiamine	–	0.1 E	A (P3)	
Phenylhydrazine	carcinogen	(cat. 3B)	A (P3)	
Phenyl isocyanate	0.01	0.05	AB P3	
N-Phenyl-2-naphthylamine	–	–	A P3	
Phosgene	0.02	0.082	B (P3)	
Phosphorous oxychloride	0.2	1.3	B (P2)	
Phosphorous pentachloride	–	1 E	B P2	
Phosphorous pentoxide	–	2 E	P2	
Phosphorous acid	–	2	P2	
Phosphorous trichloride	0.5	2.8	B (P2)	
Hydrogen phosphide	0.1	0.14	B (P3)	
Phthalic anhydride	–	–	A P2	
Polyviny lchloride	–	3	P2	
Potassium chloride	–	–	P2	
Potassium chromate	carcinogen	(cat. 2)	P2	
Potassium cyanide	–	–	B P3	
Potassium hydroxide (anhydrous)	–	–	P2	
Potassium sulfate	–	–	P2	
Propanal	–	–	AX (P2)	
2-Propanol	200	500	A (P2)	
n-Propanol	–	–	A (P2)	
1,3-Propane sultone	–	–	A P3	
2-Propanthiol	–	–	AX B (P2)	
Propargyl alcohol	2	4.7	A (P3)	
2-Propen-1-ol	2	4.8	A (P3)	
iso-Propenyl-benzene	50	250	A (P2)	
ε-Propiolactone	–	–	A (P3)	
Propionic acid	10	31	B (P2)	
Propoxur	–	2 E	B (P3)	
n-Propyl acetate	100	420	A (P2)	
1,2-Propylene-glycoldinitrate	0.05	0.34	A NO P3	
Propylene imine	–	–	AX (P3)	
n-Propyl formiate	–	–	A (P2)	
Propyl mercaptan	–	–	B (P2)	
Pyrethrum	–	1 E	A (P2)	
Pyridine	carcinogen	(cat. 3B)	A (P2)	
Q				
Quarz	carcinogen	(cat. 1)	P2	
Fused quartz	–	0.3 A	A P2	
R				
Rotenone (standard)	–	–	A (P3)	
S				
Salicylic acid	–	–	A (P2)	
Sodium azide	–	0.2	P3	
Sodium benzoate	–	–	P2	
Sodium chlorate	–	–	P2	
Sodium chloride	–	–	P2	
Sodium chromate	carcinogen	(cat. 2)	P3	
Sodium cyanide	–	3.8	B P3	
Sodium fluoroacetate	–	0.05 E	B (P3)	
Sodium hydrogen carbonate	–	–	P2	
Sodium hydroxide (anhydrous)	–	–	P2	
Sodiumsilicatesolution	–	–	P2	
Sodium sulfate	–	–	P2	
Sodium thiosulfate	–	–	P2	
Sulphur dichloride	–	–	B P2	
Sulphur dioxide	0.5	1.3	E (P3)	
Sulphur pentafluoride	–	–	B (P2)	
Sulphuric acid	–	0.1	[B] P2	
Sulphuric acid fuming	–	–	B P2	

Filter Selection Guide

Contaminants	OEL mg/m3		Filter type	Colour code
65 % SO_2				
Sulphur trioxide	–	–	B P2	
Soap solution	–	–	P2	
Selenium, amorphous	–	0.05 E	P3	
Silver	–	0.1 E	P3	
Silver nitrate solution	–	0.01 E	P2	
Fused silica	–	0.3 A	P2	
Silica fume	–	0.3	P2	
Silica acids, colloidal amorphous	–	4 E	P2	
Silicone carbide (fibre-free)		–	3	P2
Stearic acid	–	–	A (P2)	
Strontiumchromate	–	–	P3	
Strychnine	–	–	A (P3)	
Styrene	20	86	A (P2)	
Sulfotep	0.0075	0.1	A (P3)	
Sulfuryl chloride	–	10	B P2	
T				
Talc (free of asbestos fibers)	carcinogen	(cat. 3B)	P2	
Tannic Acid	–	–	P2	
Tantalum	–	3	P2	
Tar fumes	–	–	A P3	
Tartaric acid	–	–	P2	
Tellurium and compounds	–	–	P3	
TEPP	0.005	0.06	A (P3)	
Tetra ethyl lead	–	0.05	A (P3)	
Turpentine oil	carcinogen	(cat. 3A)	A (P2)	
1,1,2,2-Tetra-bromoethane	–	–	A (P3)	
2,3,7,8-Tetrachloro-dibenzo-p-dioxine	–	–	A (P3)	
1,1,1,2-Tetrachloro-2,2-difluoroethane	200	1,700	A P2	
1,1,2,2-Tetrachloro-1,2-difluorethan	200	1,700	A P2	
1,1,2,2-Tetra-chloroethane	1	7	A (P3)	
Tetraethyl silicate	10	86	A (P2)	
Tetrahydrofuran	50	150	A (P2)	
Tetrahydrothiophene	50	180	B (P2)	
1,2,4,5-Tetra-methylbenzene	–	–	A (P2)	
Tetramethyl succinnitrile	–	1	A P2	
Tetranitromethane	carcinogen	(cat. 2)	NO P3	
Tetraphosphorus	–	0.01	P3	
4,4'-Thiodianiline	–	–	B (P3)	
Thiourea	–	–	B (P3)	
Thionyl chloride	–	–	B (P2)	

Contaminants	OEL mg/m3		Filter type	Colour code
Thiram	–	1 E	B (P2)	
Tin(IV) chloride	–	2 E	B P2	
Titanium dioxide	–	3	P2	
o-Toluidine	–	–	A (P3)	
p-Toluidine	–	–	A P3	
Toluene	50	190	A (P2)	
Toluoene in water	–	–	A (P2)	
2,4-Toluylen diisocyanate	0.005	0.035	AB P3	
2,6-Toluylen diisocyanate	0.005	0.035	AB P3	
Tributylphosphate	1	11	A (P2)	
Tributyltin benzoate	0.002	0.05	B P3	
Tributyltin chloride	0.002	0.05	B P3	
Tributyltin fluoride	0.002	0.05	B P3	
Tributyltin linoleate	0.002	0.05	B P2	
Tributyltin methacrylate	0.002	0.05	B P3	
Tributyltin naphthenate	0.002	0.05	B P2	
1,2,4-Trichlorobenzene	0.5	3.8	A (P2)	
2,3,4-Trichloro-1-butene	–	–	A (P3)	
1,1,1-Trichloroethane	200	1,100	A (P2)	
1,1,2-Trichloroethane	10	55	A (P3)	
1,1,1-Trichloroethane in water	–	–	A (P2)	
Trichloroethylene	carcinogen	(cat. 1)	A (P3)	
Trichloroethylene in water	–	–	A (P3)	
Trichloronaphthalene	–	–	A P2	
Trichloronitromethane	0.1	0.68	A NO P3	
2,4,5-Trichloro phenoxyacetic acid	–	10	B (P2)	
1,2,3-Trichloropropane	carcinogen	(cat. 2)	A (P2)	
α,α,α-Trichlorotoluene	carcinogen	(cat. 2)	B (P3)	
Tridymite	carcinogen	(cat. 1)	P2	
Triethanolamine	–	–	A (P2)	
Triethylamine	1	4.2	A (P2)	
Triethylentetramine	–	–	A (P2)	
Trimanganese tetroxide	–	0.5	P2	
Trimellitic anhydride (fume)	–	0.04	A (P3)	
Trimethylamine	2	4.9	B (P2)	
2,4,5-Trimethylaniline	–	–	A P3	
1,2,3-Trimethylbenzene	20	100	A (P2)	
1,2,4-Trimethylbenzene	20	100	A (P2)	
1,3,5-Trimethylbenzene	20	100	A (P2)	
3,5,5-Trimethyl-2-cyclohexen-1-one	2	11	A (P2)	
2,4,4-Trimethyl-1-pentene	–	–	A (P2)	
Trimethyl phosphate	–	–	A (P3)	
2,4,7-Trinitrofluorenone	–	–	A NO P3	
2,4,6-Trinitrophenol	–	0.1 E	A NO P3	
2,4,6-Trinitrotoluene	0.011	0.1	A NO P3	
Tri-p-cresyl phosphate	–	–	A (P2)	

Filter Selection Guide

Contaminants	OEL mg/m3		Filter type	Colour code
U				
n-Undecane	–	–	A (P2)	
V				
Vanadium pentoxide	–	0.05	A P3	
Vinyl acetate	5	18	A (P2)	
Vinyl bromide	–	–	AX (P3)	
Vinyl chloride	3	7.77	AX (P3)	
4-Vinyl-1,2-cyclohexendiepoxid	–	–	A (P3)	
W				
Warfarin	–	0.5	A P3	
White spirit	500	960	A (P2)	
Wood oil	–	–	P2	
Wood dust (except for beech and oak dust)	–	–	P3	
X				
Xylenol	–	–	A P3	
Xylidine	carcinogen	(Kat. 3A)	A P3	
Xyloene	100	440	A (P2)	
Xylene in water	–	–	A (P2)	
Y				
Yttrium	–	–	P2	
Z				
Zinc chromate	–	–	P3	
Zinc sulfate	–	–	P2	
Zinc oxide fume	–	1	P2	

OEL indication E: with reference to the inhalable fraction
OEL indication A: with reference to the alveolar fraction

Recommended filter type:
e.g. A (P2): Gas filter is required (e.g. A); if the substance is also present in particulate matter or particles occur, a combined filter is required (e.g. A P2) e.g. B [E] P2: B P2 filter is required; alternatively, an E filter can be used instead of the B filter

No responsibility is taken for the correctness of this information.

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Filter Selection Guide

FILTER SELECTION

Contaminants come in different forms – generally: aerosols (solids/particles) and gases (gases, vapours).
You can choose between the filter types to protect against one of these forms or a combination of both of them.

Solids / particles:	Dusts, fibres, fumes, microorganisms (e.g. viruses, bacteria, fungi, spores) and mists
Gaseous substances:	Gases and vapours

The following table shows you the colour coding of filters according to EN 14387 – which helps you to determine which filter-type is needed for the contaminants you are dealing with.

COLOUR CODE	FILTER TYPE	CONTAMINANTS PRESENT
	AX[3)]	Gases and vapours of organic compounds with boiling point ≤ 65 °C
	A	Gases and vapours of organic compounds with boiling point > 65 °C
	B	Inorganic gases and vapours, e.g. chlorine, hydrogen sulphide, hydrogen cyanide
	E	Sulphur dioxide, hydrogen chloride
	K	Ammonia and organic Ammonia derivates
	CO[4)]	Carbon monoxide
	Hg[5)]	Mercury vapour
	NO[6)]	Nitrous gases including nitrogen monoxide
	Reactor[7)]	Radioactive iodine including radioactive methyl iodide
	P	Particles

EXAMPLE:

A2B2-P3
A filter with the above mentioned colour code is suitable for the following contaminants:

A gases and vapours of organic compounds with a boiling point > 65°C up to concentrations covered by filter class 2 (max. 5000 ppm) and
B inorganic gases and vapours, e.g. chlorine, hydrogen sulphide, hydrogen cyanide, up to concentrations covered by filter class 2 (max. 5000 ppm) and
P particles up to concentrations covered by filter class 3

DIFFERENTIATION OF FILTER TYPES

Filters are split in different classes according to their capacity (gas filters) or their efficiency (particle filters). The class of a particle filter indicates how efficient the filter is in filtering out particles: class 1: 80%, class 2: 94%, class 3: 99,95%

FILTER TYPE	FILTER CLASS	PROTECTION AGAINST	MAXIMUM PERMISSIBLE CONCENTRATION OF TOXIC SUBSTANCE
Gas filter		Gases and vapours Capacity:	50 times the OEL with half masks / 2000 times the OEL with full face masks, but maximal:
	1	Small	0,1 vol. % (1000 ppm)
	2	Medium	0,5 vol. % (5000 ppm)
	3	Large	1,0 vol. % (10000 ppm)
Particle filter		Particle filter Efficiency (separation ability):	
	1	Small	4 times the OEL with half masks / 5 times the OEL with full face masks
	2	Medium	12 times the OEL with half masks / 16 times the OEL with full face masks
	3	Large	48 times the OEL with half masks / 1000 times the OEL with full face masks
Combined filter	1-P2 2-P2 1-P3 2-P3	Appropriate combined gas and particulate combined levels	Appropriate combined levels

Values are the Nominal Protection Factors, taken from the CEN Report 529.
Additional national and local regulations must be followed.

ACCORDING TO EN143:2006/A1 PARTICLE FILTERS HAVE TO BE MARKED REGARDING REUSABILITY:

- NR (Non Reusable) if the filter is limited to single shift only
- R (Reusable) if the filter is re-usable

WARNING:

Never use any kind of filtering respiratory protection device:
- in oxygen deficient atmosphere (see local legislation for further guidelines e.g. UK less than 19 vol. % O_2)
- in poorly ventilated areas or confined spaces, such as tanks, small rooms, tunnels, or vessels.
- in atmospheres where the concentrations of the toxic contaminants are unknown or are immediately dangerous to life or health (IDLH).
- when the concentration of a contaminant is higher than the maximum permissible concentration and/or the filter class capacity.

Not all products, features, or services are for sale in all countries.

CORPORATE HEADQUARTERS
Drägerwerk AG & Co. KGaA
Moislinger Allee 53–55
23558 Lübeck, Germany

www.draeger.com

Locate your Regional Sales Representative at:
www.draeger.com/contact

UNITED KINGDOM
Draeger Safety UK Ltd.
Ullswater Close,
Blyth Riverside Business Park,
Blyth, NE24 4RG
Tel +44 (0) 1670 352 891
Fax +44 (0) 1670 356 266
marketing.uk@draeger.com

Draeger Safety UK Ltd.
Units 1 & 2 Tern Place
Bridge of Don
Aberdeen, AB23 8JX
Tel +44 (0) 1224 701 569
Fax +44 (0) 1224 707 395
aberdeensales.uk@draeger.com

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