

Dräger NBC Master 8x90 and 9x90

When offering protection in civil and catastrophe situations, as well as during decontaminations, it is not rare for action forces to put themselves in direct danger. Only if the equipment is tailored to meet their special requirements and offers comprehensive protection can they concentrate fully on the task in hand.



THE DRÄGER NBC MASTER 8X90 AND 9X90

The Dräger NBC Master series are gas-tight chemical protection suits, specially tailored to the requirements of civil and catastrophe protection teams, protecting against solid, liquid and gaseous chemicals, as well as NBC warfare agents.

In the NBC Master 8x90 the compressed air breathing apparatus is worn outside the suit, whereas in the NBC Master 9x90 the compressed air breathing apparatus and the complete personal protection equipment is worn protected inside the suit.

The NBC Master protection suits meet the requirements of EN 943 part 1 & 2, as well as the currently applicable vfdb directive 08/02:2002-11. They are further approved in accordance with EN 1073 part 2 (protection against contamination from radioactive particles) and EN 14126 (protection against infectious agents) and were tested by TNO NL.

The suit material consists of the high-grade substrate HIMEX® M, which excels in particular through its high mechanical and chemical resistance, together with an excellent resistance to darting flames.

HIMEX® M also offers proven protection against chemical warfare agents.

All NBC Master protection suits can be adapted to the individual customer requirements using a modular system. This allows maximum wearing comfort in various mission scenarios.

Four different suit sizes are available in olive green color. For the use of compressed air breathing apparatus with multiple cylinder packages, all NBC Master 9x90 sizes are also available with a wide cut. The suits feature a gas-tight zipper system with integrated barrier layer film and external chain, as well as a portable radio pocket and a loop for a push-to-talk button.

The safety gloves and safety boots are attached to the suit in a gas-tight design, and can be replaced easily. As an alternative to permanently attached safety boots, the suit can also be equipped with gas-tight socks.

The NBC Master 8x90 is equipped with a special facial cuff that seals gas-tight in combination with various full-face masks. Upon request, the suit can also be delivered with a permanent, integrated full-face mask.



ST-5700-2004

Dräger NBC Master 9x90



ST-4098-2005

Dräger NBC Master 8x90

The visor in the NBC Master 9x90 is made from a special PVC and can be combined with anti-fog and add-on protection visors. The optional ventilation system RV PT

allows you to significantly improve wearing comfort. It reduces humidity in the suit and cools the body. In addition, the regulating valve makes it possible to keep the action

forces constantly supplied with breathing air via an external connection. This increases possible operating times, such as for cautious decontamination.

HIMEX® CHEMICAL TESTS

Chemical	Permeation time (min) ¹⁾	Chemical	Permeation time (min) ²⁾
Acetone ²⁾³⁾	> 120	n-Heptane ²⁾	> 480
Acetonitrile ²⁾³⁾	> 480	n-Hexane ²⁾	> 480
Ammonia ²⁾³⁾	> 480	Methanol ²⁾³⁾	> 480
1,3-Butadiene ³⁾	> 480	Methyl chloride ³⁾	> 480
Chlorine ²⁾³⁾	> 480	Caustic soda (40%)	> 480
Hydrogen chloride ²⁾³⁾	> 480	Nitrobenzene ²⁾	> 480
Dichloromethane ²⁾³⁾	> 60	Carbon disulphide ²⁾	> 480
Diethylamine ²⁾³⁾	> 480	Sulfuric acid (96%) ²⁾	> 480
N,N-Dimethylformamide	> 480	Tetrachlorethylene ³⁾	> 480
Ethylacetate ²⁾³⁾	> 480	Tetrahydrofuran ²⁾³⁾	> 480
Ethylene oxide ²⁾	> 480	Toluol ²⁾³⁾	> 480

Further resistance data can be found in the Internet at www.draeger.com/voice

¹⁾ Time according to DIN EN ISO 6529:2003-01 until the permeation rate reaches 1.0 µg/cm²/min

²⁾ Test chemical of EN 943-2:2002 and of the vdfb directives 08/02/2002-11(03)

³⁾ Test chemical of NFPA 1991:2000 (National Fire Protection Association)

HIMEX M® CHEMICAL TESTS

Chemical	Permeation time (min) ¹⁾	Chemical	Permeation time (min)
Mustard gas ¹⁾	> 2880	Soman	> 2880
Sarin ¹⁾	> 2880	VX ¹⁾	> 2880
Tabun ¹⁾	> 2880	Lewisite ¹⁾	> 2880
Phosgene ²⁾	> 480	Arsine ²⁾	> 480
Chlorzyan ²⁾	> 480	Hydrogen cyanide ²⁾	> 480

Further resistance data can be found in the Internet at www.draeger.com/voice

¹⁾ Tested in accordance with the method Finabel 0.7.C, part A, 15.03.2000

²⁾ Time, in accordance with DIN EN ISO 6529:2003-01, until permeation rate reaches 1.0 µg/cm²/min

TECHNICAL DATA

Approvals	EN 943-1:2002 Type 1a resp. 1b EN 943-2:2002, Type 1a-ET resp. 1b-ET vdfb directive 08/1:2002-11 EN 1073-2 EN 14126	Industrial application Application in emergency services directive of the german vdfb Protection against contamination from radioactive particles Protection against infectious agents
Temperature range	During use -40 °C to 60 °C During storage -5 °C to 25 °C	
Weight	NBC Master 8x90 approx. 6.5kg (with face cuff, without ventilation system) NBC Master 9x90 approx. 8kg (without ventilation system)	
Visor material	NBC Master 9x90: Special polyvinyl chloride	
Facial cuff	NBC Master 8x90: black, gas-tight in accordance with DIN EN 943-1 and -2	
Suit material	HIMEX® M	
Color:	olive green	
Sizes of the basic suit (according to EN 340)	M from 155 cm – 180 cm L from 160 cm – 185 cm XL from 180 cm – 200 cm XXL from 190 cm – 215 cm	

All sizes for the NBC Master 9x90 are also available in loose fit.

ORDER INFORMATION

Dräger NBC Master	Part No.
Dräger NBC Master 8x90, olive green , basic suit in respective size, including backpack padding and blue carry bag	R 29 402 ¹⁾
Dräger NBC Master 9x90, olive green , basic suit in respective size, including backpack padding and blue carry bag	R 29 440 ¹⁾

REQUIRED EQUIPMENT**Fastening system NBC Master 9x90**

Single flap velcro fastening	
Dual flap velcro fastening	
Dual flap snap fastener	
Zipper with external chain - direction of fastening optionally upwards or downwards	

Zipper system for NBC Master 8x90

Zipper (fastening upwards or downwards) with external chain and cover flap with velcro fastener	
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Safety boots with polymer sole, polymer cap and textile lining (according to FPA CR and EN 344/345)

Nitril-P, size 43	R 56 863 ²⁾
Nitril-P, size 44	R 56 864 ²⁾
Nitril-P, size 45	R 56 865 ²⁾
Nitril-P, size 46/47	R 56 866 ²⁾
Nitril-P, size 48	R 56 867 ²⁾
Nitril-P, size 49/50	R 56 868 ²⁾

Gas-tight socks – to be worn with separate safety boots (according to EN 345, class S5)

VITON® / Butyl, size 41-44	
VITON® / Butyl, size 44-47	
VITON® / Butyl, size 46-49	

Chemical-resistant protective gloves (according to EN 374)

VITON® / Butyl, size 9	R 55 762 ²⁾
VITON® / Butyl, size 10	R 55 531 ²⁾
VITON® / Butyl, size 11	R 55 761 ²⁾

Facial connection – only for NBC Master 8x90 (permanently installed, mask material: Butyl compound)

Black, gas-tight facial cuff	
Mask: Panorama Nova P-Triplex (positive pressure – standard plug connection)	
Mask: Panorama Nova P-Triplex (normal pressure – screw connection, Rd40)	
Mask: Panorama Nova PE-Triplex (standard connection M 45x3)	
Mask: Panorama Nova ESA-Triplex (positive pressure – standard plug connection)	

OPTIONAL EQUIPMENT**Overgloves – chemical-resistant (according to EN 374) and cutting-resistant (according to EN 388)**

TRICOTRIL® (EN374 & EN388), size 10	R 55 968 ²⁾
TRICOTRIL® (EN374 & EN388), size 11	R 55 966 ²⁾
K-MEX® Gigant (EN388), size 14	R 55 969 ²⁾

Ventilation system for NBC Master 9x90 – with or without external air supply option:

RV PT 120L variant A1	R 56 520 ²⁾
RV PT 120L variant A2 (1000mm)	R 56 522 ²⁾
RV PT 120L variant A2 (500 mm)	R 56 523 ²⁾
RV PT 120L variant A3 incl. Y (1000mm)	R 56 524 ²⁾
RV PT 120L variant A3 incl. Y (500mm)	R 56 525 ²⁾

¹⁾ Partnumber to order the basic suit in a modular system incl. the required equipment such as fastening system, boots / socks, gloves and the optional equipment like ventilation system etc.

²⁾ Partnumbers if components ordered separately w/o suit

TECHNICAL DATA

RV PT 120L variant A3 excl. ASV (1000mm)	R 56 526 ¹⁾
RV PT 120L variant A3 excl. ASV (500mm)	R 56 527 ¹⁾
RV PT 120L Variante A4	R 56 521 ¹⁾
Valve cover for vfdb for variant A3 excl. ASV	R 55 464 ¹⁾ (blue) / R 55 679 ¹⁾ (orange)
Automatic reversing valve (ASV) for variant A3 (PSS 7000)	33 57 007 ¹⁾
Automatic reversing valve (ASV) for variant A3 (other BA sets)	33 54 568 ¹⁾
Ventilation system for NBC Master 8x90 – with or without external air supply option	
Ventilation and fastening flap set	R 54 544 ¹⁾
RV PT 120L variant B1	R 56 510 ¹⁾
RV PT 120L variant B2	R 56 512 ¹⁾
RV PT 120L variant B3 excl. ASV	R 56 513 ¹⁾
RV PT 120L variant B4	R 56 511 ¹⁾
Automatic reversing valve (ASV) for variant B3	33 54 568 ¹⁾
Additional accessories – NBC Master 8x90 and 9x90	
Cotton gloves	R 50 972 ¹⁾
Gas-tight arm cuffs	R 52 648 ¹⁾
Talcum bag	R 51 005 ¹⁾
Grease pencils (2x) for fastening system	R 27 494 ¹⁾
Protective bag	R 53 693 ¹⁾
Carry box	T 51 525 ¹⁾
Carry bag	R 53 373 ¹⁾
CSA hanger, T-shape	R 54 746 ¹⁾
Cleaning agents and disinfectants: Eltra, Incidur, Sekusept	
Test Equipment: Porta Control / Testor / Quaestor III / Quaestor automatic	
Testing accessories	(on request)
Customer-specific labeling of the NBC Master	(see separate brochure, Dräger no. 90 46 022) (on request)
Additional accessories – NBC Master 9x90 only	
Additional visors (set of 10)	R 53 388 ¹⁾
Anti-fog visor	R 54 142 ¹⁾
2 fastening flaps near the crotch for crotch strap or leg length adjustment	R 53 386 ¹⁾
Guide and orientation line adapter	R 55 540 ¹⁾
CSA hanger, bell shape	R 33 299 ¹⁾

¹⁾ Partnumbers if components ordered separately w/o suit

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K-MEX® is a registered trademark of Kächele-Cama Latex GmbH

HEADQUARTERS:

Dräger Safety AG & Co. KGaA
Revalstrasse 1
23560 Lübeck, Germany

www.draeger.com

SUBSIDIARIES:

AUSTRALIA

Draeger Safety Pacific Pty. Ltd.
Axxess Corporate Park
Unit 99, 45 Gilby Road
Mt. Waverley. Vic 3149
Tel +61 3 92 65 50 00
Fax +61 3 92 65 50 95

P. R. CHINA

Beijing Fortune Draeger
Safety Equipment Co., Ltd.
Yu An Lu A 22, B Area
Beijing Tianzhu Airport
Industrial Zone
Houshayu Shunyi District
Beijing 101300
Tel +86 10 80 49 80 00
Fax +86 10 80 49 80-05

FRANCE

Dräger Safety France SAS
3c route de la Fédération,
BP 80141
67025 Strasbourg Cedex 5
Tel +33 3 88 40 59 29
Fax +33 3 88 40 76 67

NETHERLANDS

Dräger Safety Nederland
B.V.
Edisonstraat 53
2700 AH Zoetermeer
Tel +31 79 344 46 66
Fax +31 79 344 47 90

REP. OF SOUTH AFRICA

Dräger South Africa (Pty) Ltd.
P.O.Box 68601
Bryanston 2021
Tel +27 11 465 99 59
Fax +27 11 465 69 53

SINGAPORE

Draeger Safety Asia Pte. Ltd.
67 Ayer Rajah Crescent # 06
03
139950 Singapore
Tel +65 68 72 92 88
Fax +65 67 73 20 33

SPAIN

Draeger Safety Hispania S.A.
Calle Xaudaró 5
28034 Madrid
Tel +34 91 728 34 00
Fax +34 91 729 48 99

UNITED KINGDOM

Draeger Safety UK Ltd.
Blyth Riverside Business Park
Blyth, Northumberland
NE24 4RG
Tel +44 1670 352 891
Fax +44 1670 356 266