# M 95 RESPIRATOR

FOR DEFENCE FORCES AND LAW ENFORCEMENT





### **IN THE FACE OF HAZARD** M 95 NBC RESPIRATOR OUTPERFORMS STANDARDS FOR NBC PROTECTION



 The Scott M 95 respirator presents the highest standard in modern CBRN protection providing unrivalled reliability, safety and userfriendliness. Designed to meet the most critical hazards and stresses encountered in combat situations, the M 95 gas mask is user preferred.

The M 95 is in service worldwide, e.g. by the National Defence Forces of Finland and several other military forces, first responder teams, law enforcement personnel, national guards, naval forces and marines.

#### OUTSTANDING PROTECTION & SAFETY

Precise fit and user comfort are the result of advanced computer aided design. Anatomical accuracy is based on a wealth of facial form data.

- The superior protection of the halo-butyl elastomer facepiece has been proven with live agent testing; it is impermeable to chemical agents such as sarin and mustard gas.
- Available in two sizes for optimum fit and safety for 100% matching of the population.
- The respirator is easy and rapid to don and doff in only 10 seconds.
- Scott's extensive range of NBC filters provides protection against all known chemical, biological, radiological and nuclear agents and hazardous particles, like microorganisms. (See pages 6-7.)

#### SUPERIOR USER COMFORT

The Scott M 95 mask is comfortable to wear, even over long periods, thanks to its extremely low breathing resistance.

- Light in weight: the mask weighs only 460 g or 720 g with the filter.
- The special small-size silicone inner mask reduces the CO2content to a minimum (< 4,5%), thereby eliminating fatigue.
- Moisture drainage is effective due to the practical downward positioning of the exhalation channel.
- Protected speech-diaphragm for optimal telecommunication.
- Polyester webbing band harness enhances wearer comfort and rapid donning.
- Integral drinking tube for the hygienic and convenient intake of liquids, double-threaded connector is compatible with a special M 95 bottle or a PET bottle.

#### PRACTICAL CONSTRUCTION

- Filter connections on both sides of the facepiece facilitate left- or right-handed operation.
- The six-point head-harness ensures tight fit of the facepiece.
- Collision-proof construction of the mask and connector prevents accidental facial injuries.
- Spectacle frames for prescription lenses are easily secured to the anchor point in the inner mask and remain stable in hostile environments.
- Circulating the inhalation airflow across the inside of the lenses effectively prevents fogging.
- The dual lenses combined with the close-fitting profile of the mask offer an excellent downward and horizontal field of vision over 80%.
- The two-lens construction means that the mask can be folded in half longitudinally for compact stowage in a mask pouch.

### M 95 FULL FACE RESPIRATOR

#### **HEAVY-DUTY MATERIALS**

The Scott M 95 gas mask features heavy-duty materials for use in extreme situations and to withstand harsh decontamination methods.

- The specially engineered halo-butyl elastomer of the faceblank enhances resistance to known chemical, biological, nuclear and radiological agents.
- The Scott M 95 mask is resistant to high temperatures, steam and ozone; it also provides excellent resistance to a multitude of hazardous chemicals.
- The silicone inner mask provides non-allergic contact with the skin.
- Distortion-free and durable polyamide lenses feature high solidity as well as excellent light transmission.

#### HIGH LEVEL COMPATIBILITY

Thanks to its low-profile design, the Scott M'95 respirator is compatible with tactical equipment used in field operations, e.g. firing and armed systems, target finder optics, optical systems and communication devices, CWA protective clothing, all military helmets on the market and riot shields. Compatibility with NATOused 40 mm threaded NBC filter canisters.

#### **EASY MAINTENANCE**

Maintenance of the M 95 mask is very user-friendly; the exhalation valve is easy to dismantle and reassemble. Valve inspection and replacement can be carried out without tools. Replacement parts are colour-coded to highlight vital components, for smart service and training. The mask is also designed for easy decontamination..



M 95 TECHNICAL DATA		
Materials		
Faceblank	Halo-butyl elastomer	
Inner Mask	Silicone	
Valve Discs	Silicone	
Lenses	Polyamide	
Head harness and support net	Polyester (PES) covered elastane (20 yarn Lycra) elastic, latex free (can be autoclaved). Polyamide (PA) webbing.	
Spectacle Frame	Polyamide (PA)	
Bottle	HDPE, protection against NBC Agents >48h	
Protection Factor	>10 000	
Protection against CBRN agents	>48h	
Breathing Resistance		
Inhalation at 30 l/min	<0.45 mbar	
Inhalation at 95 I/min	<1.0 mbar	
Exhalation at 160 l/min	<1.2 mbar	
Carbon Dioxide Content	<0.45%	
Field of Vision	>80%	
Intake of liquid	250ml/min	
Temperature Range	from -30 C to +70 C	
Storage Life	20 years	
Filter Connection	Thread NATO (STANAG 4155/ EN148) diamater 40mm	
Weight		
Mask	460g	
With Filter	760g with CBRN22 Filter	

### M 95 ACCESSORIES

Easy-to-use accessories: carrying bag, plastic case, drinking bottle, spectacle kit and leakage testing equipment.







#### SPECTACLE KIT

Optical insert for prescription lenses made from durable polyamide.

#### **CARRYING BAG**

Tactical carrying bag for gas mask and 1-2 fi Iters. Size (h x d x b)  $26 \times 14 \times 20$  cm. The bag is made from polyurethane (PU) coated polyamide (PA) cloth. Velcro fastening tapes. Polyamide texture carrying strap. Can be carried either as a shoulder bag at the waist as a belt bag.





#### LEAKAGE TESTING EQUIPMENT

The Protester leak test device provides a simple and reliable means of testing the leak tightness of full face masks. Negative pressure builds up when the face piece is closely mounted on the test head.

#### **DRINKING BOTTLE**

The drinking bottle has 1 litre capacity Made from CBWA-resistant HD polyethylene. The bottle cap has a suspension strap to the bottle; it is also equipped with a hook catch for belt mounting.

#### PLASTIC CASE

The drinking bottle has 1 litre capacity.Polyethylene (HDPE) stowage box forMade from CBWA-resistant HDmask and filter. Size 25 x 14 x 17,5 cm.polyethylene. The bottle cap has aCotton strap.

### **NBC FILTERS** SCOTT FILTERS FOR NBC PROTECTION

An extensive range of Scott NBC, civil defence and industrial filter canisters is available for use with the M 95. The filters, which are approved to EN, NIOSH or NATO standards, feature high chemisorption and physisorption capacity and low breathing resistance. Scott 40 mm CBRN canisters are designed to protect in Non-IDLH and oxygen-deficient conditions against known threat agents as well as a multitude of other hazardous gases, vapours and particulates.

#### Scott NBC filters protect against:

All known chemical and biological warfare agents like mustard gas, cyanogen, arsine and phosgene; sarin and other nerve gases; riot control gases like CN, CS, radioactive and highly toxic particles; aerosols and microorganisms; bacteria and viruses; as well as many toxic industrial gases and vapours, e.g. organic gases and vapours, such as chlorine, hydrogen cyanide, hydrogen sulphide, sulphur dioxide and other acidic gases and vapours.

#### 5045156 - CFR22 CBRN A2B2E1K1-P3 RD

protects against gases and vapours from organic compounds with a boiling point above 65°C, inorganic gases and vapours, e.g. chlorine, hydrogen sulphide, hydrogen cyanide, acid gases and vapours e.g. sulphur dioxide, ammonia and organic ammonia derivatives (EN 14387), other gases and vapours tested: chloropicrin, cyanogen chloride, sarin, hydrogen cyanide, mustard gas and phosphine as well as CS and CN, Arsine, DMMP, particulates: solid and liquid toxic and radioactive particles and micro-organisms, e.g. bacteria and viruses.

#### 5543699 - CFR32 A2B2E2K2-P3 CBRN

protects against Gases and vapours from organic compounds with a boiling point above 65°C, Inorganic gases and vapours, e.g. Chlorine, Hydrogen Sulphide and Hydrogen Cyanide, Acid gases and vapours, e.g. Sulphur Dioxide, Ammonia and organic ammonia derivatives, Other gases and vapours: Phosphine, Formaldehyde, CN, CS, Cyanogen Chloride and Chloropicrin and Solid and liquid toxic and radioactive particulates and micro-organisms, e.g. bacteria and viruses.

Certified to EN 14387:2004 and 143. CE 0121. Filters certified to NIOSH/USA standards available.

### NBC 2200 POLICE CN/CS FILTER



Protects against riot control agents, e.g. tear gas, CN, CS; against organic, inorganic and acid gases and vapours; ammonia and organic ammonia derivatives; highly toxic and radioactive solid and liquid particles, bacteria and viruses. Ideal for RIOT Control & SWAT operations as well as Domestic Preparedness operations, the NBC 2200 makes sense in today's changing world.

The NBC 2200 Police Canister is chromium free and meets unique USA specifications designed for first responders concerned with Riot control, Toxic chemicals, Chemical Warfare Agents and Nuclear hazards





CFR22 CBRN A2B2E1K1-P3 R D

TECHNICAL SPECIFICATIONS TEST REPORT 200821311/2120 OF 2008-05-14	4 - BGIA SANKT AUGUSTIN	
Test	CFR22 CBRN A2B2E1K1-P3 R D	EN14387 Requirement
Breathing resistance @ airflow		
@ 30l/min	1.3 mbar	max 202 mbar
@95l/min	4.1 mbar	max 8.2 mbar
Filter Performance		
Particle Filter Efficiency @ 95I/min airflow (EN143)		
Sodium Chloride NaCl	Meets the requirement	Max 0.5%
Paraffin Oil	Meets the requirement	Max 0.5%
Gas Filter Capacity with test gas @ 30l/min airflow:		
Cyclohexane C6H12 (0.5 vol -%)	47 min	min 35 min
Chlorine Cl <sub>2</sub> (0.5 vol%)	24 min	min 20 min
Hydrogen Sulphide $H_2S$ (0.5 vol%)	88 min	min 40 min
Hydrogen Cyanide HCN (0.5 vol%)	40 min	min 25 min
Sulphur Dioxide $SO_2$ (0.5 vol%)	110 min	min 20 min
Ammonia NH3 (0.1 vol%)	64 min	min 50 min
Dimensions		
Weight	Net weight approx. 290g w/o cap & plug and packaging	max 500g with full face mask
Height	90mm	
Diameter	110mm	
Volume	220 ml	
Connector thread	40mm	
Opening diameter	50mm	EN148-1
Material		
Casing material	Polyamide reinforced	
Storage and Maintenance		
Storage time	10 years (factory sealed)	
Storage temperature	-10°C +50°C (factory sealed)	



## SELECTION OF PROTECTION

Choosing the proper type of respiratory protection depends on the conditions under which it is to be used and is strictly specified by local authorities, whose directions must be followed.







There are three main types of respiratory protection used in the face of different hazards:

#### SELF-CONTAINED BREATHING APPARATUS

SCBA supplies clean air to the user independent from the surrounding atmosphere. Breathing Apparatus is needed when the nature of the hazard has not been quantified (agent type, concentration) or the air is oxygendeficient.

Scott breathing apparatus are designed for extreme operations in fire fighting, first-responder and SWAT operations. Scott self-contained breathing apparatus constitute leading-edge protection against the threats of today's world.

#### **NEGATIVE PRESSURE RESPIRATORS**

Gas mask with a CBRN filter can be used when the type and atmospheric concentrations of substances have been identified and the oxygen content of the air is sufficient (18-23 vol%).

Scott M'95 and M'98 are protective masks for the armed services, law enforcement and civil defence authorities for protection against CBRN agents.

#### **POWERED RESPIRATORS**

Other filtering devices, like a powered respirator with a full hood, offer a reliable solution to respiratory protection for rescue teams during decontamination and cleansing operations when contaminants have been identified and measured; this type of respirator is appropriate to remove the contaminants.

Scott Proflow SC and Tornado T-Power powered air-purifying respirators make sense for civil defence by providing cool air through a fanning effect, extending user wear times.





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### SPECIFICATIONS & ORDERING INFORMATION

#### M 95 RESPIRATOR

M 95 RESPIRATOR		
Part Number	Description	
5012581	NBC Mask M 95 M, standard size, with drinking device	
5012585	NBC Mask M 95 S, small size, with drinking device	
5012584	NBC Mask M 95 M/L, standard size, with speech diaphragm, drinking device and bottle	
5012583	MASK NBC 95 RIOT M, Standard size, without drinking port	

Please note that delivery of M 95 masks is subject to approval of the end user by the Finnish Ministry of Defence. An end-user certificate is needed from the final user of the equipment.

M 95 ACCESSORIES		
Part Number	Description	
5012551	Spectacle kit	
5012549	Drinking device lid on the mask	
5012547	Mouth piece of drinking device	
5012593	Bottle complete with cap	
5012561	Bottle cap (bottle not included)	
5012565	Speech diaphragm	
5510185	Hard plastic carrying case	
5012595	Green carrying bag for mask and filter	
5141080	Protester leak test apparatus	

FILTERS	
Part Number	Description
5543699	CFR 32 A2B2E2K2-P3 with cap and plug in plastic bag (20)
5543689	CFR 32 A2B2E2K2-P3 FOLIO with cap and plug in aluminum foil bag (10)
5045155	CFR32 CBRN ABEK2P3 R with cap and plug in aluminum foil bag (10)
5045156	CFR22 CBRN A2B2E1K1-P3 R with cap and plug in aluminum foil bag (10)
5045125	CF 22 NBC 2200 Police filter with cap and plug in plastic bag (20)

Approvals:

Approvals: NIOSH TC-84A-3847. Also tested to EN 136 and NATO standards.

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