

Technical Data

The Latest Generation CBRN Military Mask

The FM50™ has been designed to be compliant with the latest US and NATO military CBRN requirements. The following data gives a good indication of its performance.

FM50™ Mask Performance

CBRN Agent Resistance	FM50™ Performance	
Mustard (H) Sarin (GB) Soman (GD) (VX)	Greater than 36 Hrs	
Laboratory protection factor performance (sodium chloride)	Greater than 10,000	
Re-breathed CO ₂	0.8%	
Inhalation Resistance (mm WG) at:	Mask only	Mask & Primary
30 L/Min	12 mm WG	10 mm WG
95 L/Min	18 mm WG	30 min WG
160 L/Min	12 mm WG	64 mm WG
Exhalation Resistance		
85 L/Min	7 mm WG	
160 L/min	12 mm WG	
Mask weight including twin filters	840 gram	
Field of view (Visual Field Score – NIOSH standard)	96	

FM50™ Filter Performance

The FM50™ filter canister protects the face, eyes and gastro-intestinal tract of the wearer against chemical and biological agents in aerosol, liquid and vapour form including:

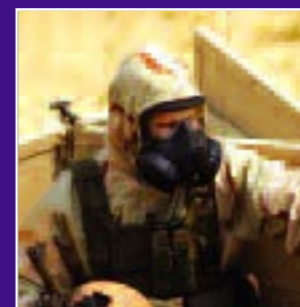
Nerve agents
"G" series
"V" series
Any thickened form of agent
Blister agents
Mustard
Lewisite
Any thickened form of agent
Blood agents
Hydrogen Cyanide
Cyanogen Chloride
Chloropicrin
Riot Control agents
CS
CN
OC (pepper spray)

Typical filter performance measured against NIOSH CBRN Cap 1 requirement

Primary Filter

Test Representative Agent	NIOSH CBRN Cap 1 Requirement	Typical Performance (Primary Filter)
Cyclohexane	15 mins	>20 mins
Hydrogen Cyanide (AC)	15 mins	>45 mins
Cyanogen Chloride (CK)	15 mins	>45 mins
Phosgene	15 mins	>100 mins

The filter canister protection against particulate aerosols in accordance with NATO A/C 225 (Panel VII) D/103 para IV.4, using a salt aerosol method will be less than 1 in 10⁵ for the particulate filter, and typically as low as 1 in 10⁶ (the canister is designed to achieve no greater than 0.003% penetration of dioctylphthalate aerosol when challenged at 85 L/min airflow rate).



The FM50™ is the latest generation CBRN full face mask specifically designed to meet the latest NATO forces military mask requirements. Developed to counter the multiple CBRN threats encountered in modern war fighting, anti-terrorist and peace-keeping operations, the FM50™ brings a whole new dimension to respirator design, comfort and protection.

For further information on the FM50™ Respirator please contact:

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Distributor Information





Unique Visor Technology

- Unique polyurethane visor is highly flexible plus scratch and impact resistant
- Optically correct for distortion free vision
- Panoramic visor design gives maximum field of vision and wearer recognition whilst greatly enhancing compatibility with weapon sights
- The Vision Correction System allows prescription lenses to be mounted inside the mask
- Sunlight outserts for high intensity light situations, clear outserts for extreme environments and laser outserts for laser protection



Communication

- Sealed Electronic Communication Port (ECP) allows ancillary equipment and Voice Projection Unit (VPU) to be connected to an internal microphone without risk of contamination
- Additional external communication systems can be attached via this ECP using an appropriate lead



User Comfort and Integration

- Close contour brow and extended chin flap improve integration with CBRN uniforms and helmets
- Unique blend of silicone and butyl rubber for flexibility and comfort
- The new flatter harness design provides comfortable integration with combat helmets and communication headsets
- The mask profile provides an effective interface for hooded CBRN garments (such as JSLIST)
- Self Seal valve seals filter port during filter change
- High flow fail safe drinking device allows connection to either a canteen or bladder type system
- Low profile design and close fitting conformal filters offer improved integration with individual and crew-served weapons and other equipment



Accessories and Spares

- Operator replaceable spare parts available, easy to maintain with access to key components such as valves
- A wide range of fully compatible accessories such as hydration canteens, vision correction system, clear and sunlight outsert lenses and a range of storage and carry bags

Filters and Air Flow Management

- Unique twin conformal filter canisters significantly reduce breathing resistance and improve weight distribution
- Bayonet fit providing quick and efficient filter attachment
- Heat build up minimised
- Low re-breathed carbon dioxide
- Excellent anti-fog properties

