### **USE OF THE DRINKING SYSTEM**

The drinking system can only be used with a bottle equipped with a special valve or with CamelBak hydration systems. Connect the suction valve to the bottle or a CamelBak hydration system after removing its cover. Turn the bottle upside down and turn the drinking system valve 90° on the facepiece and start to drink. Drinking system capacity is approximately 200 ml per minute. When finished drinking, turn the drinking system valve back. Disconnect the bottle, cover the suction valve and fix it on the facepiece.

#### MAINTENANCE

Dry the inside of the mask with a clean cloth after every use. The mask must be dry before being stored in the carrying bag. Allow the mask to air dry without exposure to direct sunlight or radiant heat. If the mask was previously worn by another user, disinfection with a 2% chloramine solution is recommended. Allow it to air dry before further use.

After extended use, wash the mask with water and soap, bicarbonate or a detergent solution. Rinse with clean water and allow it to air dry.

All maintenance and cleaning must be performed without a filter attached. Do *not* use any organic solvents (petrol, toluene, etc.) on the mask. Check all valve chamber parts and clean as needed after use in a dusty environment. Removable parts can be exchanged according to the following instructions.

#### **EXHALATION VALVE REPLACEMENT**

- 1. Turn the exhalation chamber cover 90° and remove it.
- Pull out the exhalation valve to remove it.
- Clean the valve and exhalation chamber with lukewarm water and allow to air dry. Take special care to clean the valve and valve contact line.
- 4. Insert the spindle of the cleaned or new valve into the exhalation chamber aperture and gently press it into the correct position.
- Replace the exhalation chamber cover.
- 6. Perform a mask tightness test.

# STORAGE

CM-7M masks must be stored in a cool, dark and dust-free place at 15–77°F without sudden temperature fluctuations. The storage room should be ventilated regularly and relative humidity kept below 80%. Do not expose stored masks to radiant heat or sunshine. Fuels, solvents, lubricants and other inflammable substances, including chemicals, must not be stored with masks. Moreover, do not store with any electrical machines or appliances that produce sparks or discharges during operation (ozone creation). Avoid deformation of the rubber facepiece and internal mask during storage. Wax blooms that may naturally occur on the surface of the face part and the interior of the mask are normal. The wax protects the mask from the effects of ozone.



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# **CM-7M PROTECTIVE MASK**

# **DIRECTIONS FOR USE**

**The CM-7M protective mask**, when combined with a suitable filter or breathing apparatus provides effective protection for the eyes, face and lungs from the effects of toxic substances, radioactive materials and biological warfare agents, including gases, vapors and aerosols. Functional reliability is guaranteed within a temperature range of -30°C to +70°C. The protective mask can be used with a filter if the ambient atmosphere contains at least 17% oxygen, otherwise a breathing apparatus must be used. The protective mask cannot be used in oxygen atmosphere or in environments with enriched oxygen.

Components of the protective mask:

- 1 rubber face cover
- 2 two visors
- 3 strapping system
- 4 speaker body + insert
- 5 exhalation chamber
- 6 two inhalation chambers
- 7 fluid intake system
- 8 plastic bottle with special stopper



#### **TECHNICAL SPECIFICATIONS**

The facepiece is made of a harmless rubber with high-level resistance to TIC/CWA penetration. The inner mask is made from a special hypoallergenic compound that ensures excellent tightness and avoids exhaled air contact with the visor to prevent fogging. It also reduces the  $CO_2$  content inside the mask, which along with its favorable inhalation/exhalation breathing resistance decreases the physiological burden on the user.

The speech diaphragm ensures at least 95% intelligibility of talk. The mask is equipped with a five-point rubber-textile head harness.

The CM-7M mask is produced in three sizes: Size 1 is the smallest and size three is the largest. For proper functioning, the user's face should be smooth and free of facial hair or other hindrances where the gasket seals against the skin. The mask allows the use of dioptric glasses via spectacle insertion in a rubber slip in the facepiece (above the visor). Spectacles must be ordered separately (not a standard part of the mask).

Fit a filter to the mask by screwing it to the left or right inhalation chamber. The unused chamber (without filter) is sealed with an inhalation chamber plug. It is necessary to ensure the plug is properly screwed on and tightened. Inhalation chambers of the CM-7M mask are fitted with RD 40x1/7" thread according to the EN 148-1 standard.

Before use, the user must verify whether the filter thread (or breathing apparatus type) is compatible with the inhalation chamber thread.

Selection of a suitable filter depends on the type and concentration of the toxic agent. The CM-7M mask equipped with a filter is only suitable for use in an environment containing at least 17% oxygen. If oxygen content is lower, a breathing apparatus must be used instead of a filter. Review filter user guides for principles of filter selection and application.

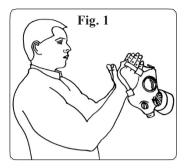
The CM-7M mask meets all requirements of class 3 of the EN 136 standard.

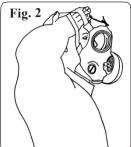
TECHNICAL DATA	
Weight	500 g
Available sizes	sizes 1, 2 and 3
General field of vision	min. 70%
Binocular field of vision	min. 20%
Intelligibility of talk	95%
Facepiece material	bromine-butyl rubber
Visor material	silicate glass
Filter connection thread	RD 40 x 1/7"
Breathing resistance at 30 l/min. air flow:	
- inhalation resistance	max. 30 Pa
- exhalation resistance	max. 60 Pa

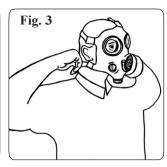
## **DONNING PROCEDURE**

Take the mask out of the package and release each fastening strap as much as possible. Insert your hands into the mask and stretch the bottom and side fastening straps aside (Fig. 1). Put your chin into the mask and pull the harness over your head (Fig. 2). Make sure that the harness net is placed on the back of your head. Tighten the mask by symmetrically tightening the straps (Fig. 3). Begin by tightening the bottom straps, then the middle ones and finish with the one on top. When the mask is well positioned, its pressure on your face is soft and regular.

When using the spectacle insertion piece, insert the ends of the spectacle holder into the apertures in the facepiece's upper internal rubber ledge. The apertures enable positioning of the spectacles in two vertical positions. Test for correct positioning of the spectacle insertion piece before use. Lenses are not provided with the mask.







#### **MASK TIGHTNESS TEST**

After donning the mask, perform a tightness test. Seal the inhalation chamber aperture (filter connection aperture) with your palm and inhale deeply. If the mask is tight and well positioned, under-pressure will occur under the facepiece. Potential leakage is indicated by suction of the ambient air into the facepiece and a decrease of under-pressure inside the mask. If this happens, check and tighten the harness straps. Repeat the test two or three times until an appropriate seal is achieved.

A mask tightness check must be performed after every cleaning or exhalation valve replacement.

#### CONNECTING THE FILTER

Remove the mask's upper closing lid and the bottom cover of the filter. Screw the filter to the inhalation chamber and gently tighten so that the front of the filter thread fastens to the surface of the sealing ring in the inhalation chamber. Inhale and check whether air flows easily through the filter. Verify the filter/inhalation chamber connection is tight. Exhale, then cover the filter input aperture with the bottom cover or your palm and try to inhale. Inhalation is not possible if the connection is tight. Release the filter input aperture after finishing the test, and the mask is ready for use. If the filter is not in use close the filter input aperture with the bottom cover and the output aperture with the lid.

When using a breathing apparatus follow the breathing apparatus instructions.

## **DOFFING PROCEDURE**

Release harness straps by pulling the fastening buckles away from your head. Take the exhalation chamber of the mask (Fig. 4) and pull the mask up over your head (Fig. 5).

