



# INSTRUCTIONS FOR USE

## PM1 HALF MASK



## DESCRIPTION

### 1.1 Structure

Half-mask made from bromine butyl rubber and plastic spare parts, with a standard thread connector according EN 148/1, is named PM-1.

Half-mask PM-1 connected with a filter gives respiratory protection device (respiratory protection equipment).

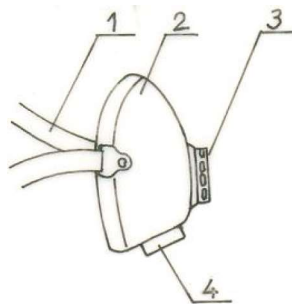
### 1.2 Operating principles

The half-mask encloses the mouth, nose and chin. The face seal passes over the outline of the nose, around the cheeks and chin.

The inhaled air flows through the filter and the inhalation valve to the inside of the half-mask. The exhaled air is expelled to the outside through the exhalation valve.

### 1.3 Components

Half-mask PM-1 weights approx. 160 g and is made up of the following components:



1. Harness
2. Rubber face blank
3. Exhalation valve assembly
4. Connector for filter

## 1.4 Marking

The PM-1 half mask is marked as follows (complying with EN140 norm):

TRAYAL = Manufacturer's identification (logo).

Y = Year of manufacture: Face blank  
(on the inside)

CE = CE marking

1024 = Identification number of testing  
authority which controls the production.

xxxxxx = Marking of detail with same structural  
characteristics (example).  
Alphanumeric code from 5 to 6 positions.

## 2. FIELD APPLICATION

### 2.1 Applicable standards

The half-mask conforms to EN 140 European norm and bears the CE marking in compliance with Regulation 425/2016 for PPE.

EU certificate type examination conducted by the Notified Body 1024.

The Declaration of Conformity for PPE can be found on the website [www.trajal.rs](http://www.trajal.rs), section certificates.

### 2.2 Approved filters and applications

Half-mask PM-1, equipped with standard thread connector, allows connection following series of filters:

Gas filters comply EN 14387 (class 1 or 2).

Particle filters in a compliance with EN 143 (class P2 or P3).

Combined filters in a compliance with EN 14387 protect against gases (class 1 or 2) and particles (class P2 or P3).

The field of application and the protection limits are indicated in the instructions for use of gas and particle filters.

PM-1 with adequate filter can be used for respiratory protection against limited concentration of gases and aerosols, individually or together.

### 2.3 Limitation for use

PM-1 must only be used for protection of the respiratory tract under conditions specified in point 2.2.

PM-1 must not be used:

- in the type and concentrations of the pollutants are unknown;
- if the oxygen concentration in the ambient atmosphere is below 17 % per volume;
- in confined spaces such as cisterns, conduits, underground area, etc.

### 2.4 Cautions and warnings

Before each use, it is necessary to check that PM-1 perfectly adhere onto the face. PM-1 must be use by:

- personnel in good health and trained in the use of respiratory protection devices;
- operators must be beardless and without sideburns or moustaches as these interfere with the edge of the half -mask seal, thus impeding adequate seal tightness on the face.

Do not use PM-1 with gas or combined filters in an oxygen-enriched atmosphere. Ensure that the restrictions indicated in 2.3 do not apply to the composition of the air in the environment where PM-1 is to be used.

### **3. INSTRUCTION FOR USE**

#### **3.1 Inspections of mask and filter prior to use**

Before using the half-mask check if it is both clean and in perfect condition. Specially pay attention on the exhalation valve and the gasket inside the connector. After choosing the appropriate filter (see related instruction for use), check that is new and conforms to the model chosen. Ensure that the gasket is correctly positioned in the connector fitting and screw the filter down tightly into the connector.

#### **3.2 Application**

PM-1 must be put on outside the polluted environment. Place the central, divided section of the harness high up at the back of the neck. Fit the respirator onto face and fasten the two buckles at the end of the harness straps at the base of the neck. Adjust the tension of the straps by slipping them through the end buckles, if necessary. The respirator must tightly cover chin, mouth and nose. The harness must be taut but not extremely so, since this reduces comfort in wearing and can also affect the efficacy of the seal. Ensure that the respirator is securely positioned on the face by moving the head sideways and up and down.

#### **3.3. Tightness test**

Put the half-mask, which is connected and tightened appropriate filter, on the face and tight it. Do not remove smaller plug from the filter but press down around the edge with one hand. During inhalation, the half-mask must be sucked in against the face. If the seal leaks, check that the respirator has been correctly assembled and donned.

### 3.4 Usage

After checking that the seal is tight, the user may enter the polluted environment and breaths normally. Consult point 2.3 regarding the nature and the concentration of pollutants and leave the polluted environment before the filters are used up (see related instructions for use) or immediately after the following are apprehended:

- odor or taste of pollutants;
- excessive increase in respiratory resistance;
- Other breathing difficulties and or feeling discomfort..

If it is necessary to continue the operation, remove to an unpolluted environment and replace the filter with a new, identical one and repeat the tightness test procedures (3.3). While in use, make sure the filter or the half masks do not knock against any object which may move the respirator or damage it, affecting its protective capacity.

### 3.5 Preservation of the mask

After use, unscrew the filter from PM-1 and clean and /or disinfect the half-mask (see 4). If the filter is still usable (i.e. far from being used up and not dirty on the outside), it can be screwed back on half mask. Store the respirator in a polythene bag with the fastener or other sealed container,

protected from strong light, heat, intense cold, humidity or other substances or radiations which could damage it.

If the container is not rigid do not place other objects on it as these could deform or damage the respirator.

### 3.6 Cautions

If a PM-1 half-mask is to be used by a person other than the previous user, it must be disinfected (see 4.2). It is advisable to replace the filter (gas or combined filter) before use if the respirator has been left in the open for some days, i.e. not stored in a sealed container (see 3.5).

## **4. MAINTENANCE AND STORAGE**

### 4.1. Cleaning

The respirator must be cleaned after each use. After detaching the filter element, remove dust with a compressed air jet and clean of dirt with a damp cloth. After disassembling the component parts, wash them thoroughly, if necessary, with tepid water containing a mild detergent (never use solvents). The exhalation and inhalation valves must be cleaned with special care.

Rinse under running water and leave to dry in the open air or in a mask drying cupboard. Avoid exposure to heat from the sun or artificial sources. Dry rubber components at the temperature below 50°C. When dry, reassemble correctly all the component parts.

### 4.2 Disinfection

First clean the half-mask thoroughly before disinfecting it. When the half-mask is particularly dirty or is to be used by another person, it should be disinfected with an appropriate agent which does not damage the rubber or plastic components. Finally rinse under running water and dry following the instructions described in 4.1.

### 4.3 Disassembling and reassembling

Remove the inhalation valve, remove the cover from the exhalation valve, remove exhalation valve and remove the harness.

After cleaning the component parts, make a visual check and reassemble the half-mask carefully, handling the very delicate rubber valves with care. Ensure that all the component parts are correctly reassembled.

### 4.4 Inspections and periodic maintenance

In order to ensure that the PM-1 half mask always functions safely, the following maintenance procedures should be undertaken:

OPERATION	FREQUENCY					
	Before release for use	Before each use	After use	Every 6 months	Every 2 years	Every 4 years
Cleaning and disinfection			x	x1		
Practical use and tightness test	x			x1	x	
Replacement of the valve (inhalation and exhalation)					x	x2
Replacement of the harness					x	x2
Check undertaken by user		x	x			

The numbers which have been used in the above table (point 4.4) have the following meaning:

1. Carry out sample testing only if the device is hermetically



stored.

## 2. Spare parts

The mask which is regularly used must be cleaned and disinfected. The respirator must be cleaned after each use because the sweat and saliva depositing on the valve may affect its safe functioning. Moreover, the half mask must be disinfected before used by another person.

If unused for a long time, PM-1 half mask must be submitted to inspection, cleaning and disinfection procedures. In general, after five years, the half mask must be eliminated in order to prevent further use.

## 4.5 Storage

It is advisable to keep unused PM-1 half mask in its original packaging. PM-1 half mask which has already been used must be kept in a storehouse and placed in a closed protective container. Do not place other objects over the respirators as these could damage or deform them. Always store at normal temperature and protect from heat, intense cold, dampness, dust or other substances or radiations which could damage the component materials.

## 2. **WARNING**

PM-1 half mask complies with applicable standards in force and should be used and handled according to the instructions for use. The manufacturer does not accept any responsibility for damages caused by improper use, alteration, use of spare parts other than those approved or, in general, to disregard of these instructions for use.

Reference standards

- EN 133, Classification of the respiratory protection devices;
- EN 140, Respiratory protection devices, half masks, quarter masks;
- EN 143, Particle filters;
- EN 14387, Gas and combined filters.

Certified by: VUBP  
 NB 1024  
 Jeruzalemska 1283/9. 110 00 Praha 1

## 6. REFERENCE NUMBERS

6.1 Half-mask PM-1 430546

Spare parts and accessories

Harness	465757
Exhalation valve	101477
Inhalation valve	101485

- Min.order 10 pcs.

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