

## RESPIRATORY PROTECTIVE

BREATH"



### MFA LS-3700 Half Face Gas Mask **General Information**

The MFA LS-3700 Series Reusable Half Masks are designed to use of approved MFA filter and filter system. These products which are available in two sizes meet the requirements of EN 140:1998+AC:1999 re-usable half masks. For respiratory protection masks have MFA bayonet connection system both on the right and left side of the mask must be installed with the appropriate MFA filter by risks in your environment. The Half Masks protect the user from gas, particles, aerosols, industrial chemicals and many other pollutants by selecting a suitable filter.

#### **APPLICATIONS**

The LS-3700 series respirators can be used with a variety of differrent filter options;

Gas and Vapours ; The 6110 series filters which generally protect against either single or multiple contaminant types, fits directly onto the LS-3700.

Particles: The 6100 series particle filters may be used with FH70 retainer.

The 1003 directly fits onto the respirator which are encapsulated P3R filters.

#### PREPARATION FOR USE UNPACKING

Inspect the package contents for damage caused any reason and ensure all components are present. Check apparatus is complete, undamaged and correctly assembled. Any damaged or defective parts must be replaced with original MFA spare parts before use.





### **LS-3700**



PROTECTIVE DISPOSABLE RESPIRATORS

# LS SERIES

## When connected to a proper respirator, the filter provides protection against the following.

A : Organic gases and vapours and solvents -boiling point >  $65^{\circ}C$  - such as petrol, kerosene, diesel, mineral turpentine, ethylenglycol, methyl isobutyl ketone, isobuthanol, etc

B: İnorganic gases and vapours, e.g. fluorine, chlorine, hydrogen sulphide, hydrogen cyanide, hydrogen bromide, hydrogen chloride, hydrogen peroxide.

E: Acid gases and vapours, e.g. carbon dioxide, sulphuric acid, hydrochloric acid, formic acid, hydrogen fluoride.

K: Ammonia and some amines, e.g. methylamine, ethylamine, dimethylamine.

AX: Organic gases and vapours -boiling point<65°C e.g, acetone, acetaldehyde, acrylaldehyde, butane, butadiene, diethyl ether, dichloro ether, dichloromethane, ethylene oxide, methanol, trichloromethane, vinyl chloride.

The number that referred on filter type (1,2,3) represents the maximum concentration of hazardous substance in the ambient air.

Concentration of hazardous substance in the ambient air should not exceed;

1000 ppm for filter marked with number 1,

5000 ppm for filter marked with number 2,

10000 ppm for filter marked with number 3.

#### Gas and vapour filters:

FILTER	IMAGE	STANDARD	CLASS	HAZARD
6111		EN14387:2021	ABEK1	Organic gases (b.pt>65°C), Inorganic,acid gases and amonia
6112	The second second	EN14387:2021	ABEK2	Organic gases (b.pt>65°C), Inorganic,acid gases and amonia
6113		EN14387:2021	A1	Organic gases (b.pt>65°C)
6114		EN14387:2021	ABE1	Organic gases (b.pt>65°C) ), Inorganic,acid gases
6115	Eta maili emit	EN14387:2021	A1+Formaldehyde	Organic gases (b.pt>65°C)+Formaldehyde
6116		EN14387:2021	АХ	Organic gases(b.pt<65°C)

**FFP2**: Provides protection against solid and liquid-based aerosols which are toxic at low level. Maximum Protection Level 10 x OEL. Nominal Protection Factor 12 x OEL.

**FFP3 :** Provides protection against toxic solid and liquid-based aerosols. Maximum Protection Level 20 x OEL. Nominal Protection Factor 50 x OEL.

The 6100 series particle filters can be used with 6110 series gas and vapours filters using FH70 retainers.

The 1003 directly fits onto the respirator which are encapsulated P3R filters.

The filter 1003 which can be re-used more than one shift is referred with R mark.

#### Inspection

The following inspection procedure is recommended before use:

1.Check the facepiece forcracks, tears and dirt. Be certain the facepiece, especially the face seal area, is not distorted. The material must be pliable-not stiff.

2.Examine the inhalation valves for cracks or tears. Lift valves and inspect valve seat for dirt or cracks.

3.Ensure that the head straps are intact and have good elasticity.

4.Examine all plastic parts for signs of cracks or fatigue.

5. Make sure all gaskets are properly seated.

#### **Particle Filters:**

FILTER	IMAGE STANDARD		CLASS	HAZARD	
6102/6103	mjanistin	EN143:2021	P2R/P3R	Particulates (Fine Dusts&Mists)	
1003	and the second	EN143:2021	P3R	Particulates (Fine Dusts&Mists)	

**WARNING!** Maximum operating temperature: +50 °C. Care should be taken when using the equipment at low temperatures as excessive moisture may cause the valves to freeze.



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## **MASK FITTING INSTRUCTIONS**

To ensure a comfortable and secure fit of the mask onto the face please do the following:

1.Adjust head cradle size as needed to fit comfortably on head.

2.Place the respirator over the nose and mouth, fitting it comfortably on the bridge of the nose, then pull the head harness ever the crown of the head. (Figure 1)

3. Take a bottom strap in each hand, place the straps at the back of the neck and hook the straps together. (Figure 2)

4.Tighten the top head harness first by pulling on the ends of the straps to achieve a comfortable and secure fit. Tighten the bottom straps in a similar manner. (Figure 3)



#### **FIT CHECK**

#### Positive Pressure User Seal Check (all filters 6111/1003)

Place palm of hand over exhalation valve cover and exhale gently. (Figure 5) If the facepiece bulges slightly and no air leaks are detected between the face and the facepiece, a proper seal has been obtained. If an air leak is detected, reposition the respirator on the face and/or re-adjust the tension of the elastic strap to eliminate the leakage.

#### Negative Pressure User Seal Check (only 6111 or combined with particle 6102/6103)

Press and cover filter body inhale gently. (Figure 4) If the facepiece collapses slightly a proper fit has been achieved. If an air leak is detected, reposition the respirator on the face and/or re-adjust the tension of the elastic strap to eliminate the leakage. Repeat the above fit check.

If you can not achieve a proper fit do not enter the hazardous area.

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#### **CLEANING AND DISINFECTION**

Respirator should be cleaned after each day's use or more frequently if necessary. If the respirator is to be used for more than one shift it should be cleaned at the end of each shift and stored in the original packaging or a sealed container. Never immerse the mask completely in the water. Wipe the part of the mask that touches the face with a soapy cloth moistened with warm water, then wipe it off with a second soap-free cloth, moistened with warm water.



#### PROTECTIVE DISPOSABLE RESPIRATORS



#### MAINTENANCE

Never modify or alter this product. Use only MFA replacement parts for MFA respirators. Maintenance, servicing and repair must only be carried out by properly trained personnel. Dissassemble by removing the cartridge or filter, headband, inhalation valve and the exhalation valve.

Note: Respirator components, especially exhalation and inhalation valves should be discarded and replaced with new parts when damaged.

#### STORAGE AND TRANSPORTATION

These products should be stored in the packaging provided in dry, clean conditions away from petrol, solvent vapours and sources of high temperature. The original packaging is suitable for transporting the product throughout the European Union. When stored as stated on the package, the maximum life (shelf life plus in-use life) is 5 years from date of manufacture.

#### **APPROVALS**

These products meet the requirements of the European Community Directive 89/686/EEC (Personal Protective Equipment Directive) and are thus CE marked. HM 5100 has

#### WARNINGS !

Always be sure that the complete product is:

- Suitable for the applications without any damage;
- Fitted correctly as the manufacturer indicated;
- Worn during all periods of exposure;
- Replaced when necessary.

• Proper selection, training, use and appropriate maintenance are essential in order for the product to help protect the wearer from certain airborne contaminants. Failure to follow all instructions on the use of these respiratory protection products and/or failure to properly wear the complete product during all periods of exposure may adversely affect the wearer's healthi lead to severe or life threatening illness or permanent disability.

• MFA half-face mask is not for use in oxygen deficent ( below % 19 Volume ), oxygen enriched (above %25 Volume ), or explosive atmospheres. MFA half-face masks and filters are not designed for use in cases where fire fighting, flame handling or sparks are exposed, where the filters are damaged, molten metals can cause toxic fumes.

#### Figure 6

been examined and certified in accordance to EN140:1998 by BSI, Say Building, John M. Keynesplein 9, 1066 EP Amsterdam, The Netherlands, Notified Body of the European Community (Number 2797).

#### **STANDARDS**

These products have been tested and certified in compliance with;

LS-3700 Series Half Masks to EN140:1998+AC:1999.

6111 Series Gas and Vapour filters to EN14387:2021

6100 Series and 1000 series particle filters to EN143:2021

• The beard will reduce the sealing performance by preventing contact between the face and the product, the users should be without beard and mustache.

#### Leave the contaminated area immediately if:

a) Breathing becomes difficult or increased breathing resistance occurs.

- b) Dizziness or other distress occurs.
- c) You smell or taste contaminants or irritation occurs.
- d) Airflow to the facepiece decreases or stops.
- e) Any part of the system becomes damaged.
- Never modify or alter this product. Replace parts only with original MFA spare parts.
- Materials which may come into contact with the wearer's skin are known to not cause allergic reactions.
- These products do not contain components made from natural rubber latex.

#### **TECHNICAL SPECIFICATION**

Respirator Protection EN140:1998+AC:1999- for use with MFA approved filters to EN 14387:2021 or EN 143:2021 When used with the following MFA equipment, this respirator can be used in concentrations of contaminant up to:

MFA Re-usable Half Mask with	Maximum Use Concentration
P1 Particulate Filters	4 x WEL
P2 Particulate Filters	10 x WEL
P3 Particulate Filters	20 x WEL
Class 1 Gas and Vapour Filters	10 x WEL or 1000 ppm (whichever is lower)
Class 2 Gas and Vapour Filters	10 x WEL or 5000 ppm (whichever is lower)

#### WEL:

Workplace Exposure Limit

NOTE:

For other filter combinations please contact the manufacturer.

### **GAS FILTERS**

IMAGE	FILTER	STANDARD	CLASS	HAZARD	CONNECTION	COMAPTIBLE WITH
A State of the state	6111	EN14387:2021	ABEK1	Organic gases (b.pt>65°C), Inorganic,acid gases and amonia	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700
	6112	EN14387:2021	ABEK2	Organic gases (b.pt>65°C), Inorganic,acid gases and amonia	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700
	6113	EN14387:2021	A1	Organic gases (b.pt>65°C)	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700
Rammer	6114	EN14387:2021	ABE1	Organic gases (b.pt>65°C) ), Inorganic,acid gases	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700
	6115	EN14387:2021	A1+Formaldehyde	Organic gases (b.pt>65°C)+Formaldehyde	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700
	6116	EN14387:2021	AX	Organic gases(b.pt<65°C)	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700
	5111	EN14387:2021	ABEK1	Organic gases (b.pt>65°C), Inorganic,acid gases and amonia	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700, HM-5100
mfa ABERI	5112	EN14387:2021	ABEK2	Organic gases (b.pt>65°C), Inorganic,acid gases and amonia	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700, HM-5100
Em/a Auto	5113	EN14387:2021	A1	Organic gases (b.pt>65°C	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700, HM-5100
	5114	EN14387:2021	ABE1	Organic gases (b.pt>65°C)), Inorganic,acid gases	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700, HM-5100
	FX-7760	EN14387:2021	A2 P3R	Organik gases(b.pt>65°C) + Particles	RD-40 Thread	FM-7700 RD-40 Thread connection
	FX-7761	EN14387:2021	ABEK1 P3R	Organic gases (b.pt>65°C), Inorganic,acid gases and amonia + Particles	RD-40 Thread	FM-7700 RD-40 Thread connection
	FX-7762	EN14387:2021	ABEK2 P3R	Organic gases (b.pt>65°C), Inorganic,acid gases and amonia + Particles	RD-40 Thread	FM-7700 RD-40 Thread connection
	FX-7763	EN14387:2021	ABEK2Hg P3R	Organic gases (b.pt>65°C), Inorganic,acid gases, amonia and mercury + Particles	RD-40 Thread	FM-7700 RD-40 Thread connection

### **PARTICLE FILTERS**

IMAGE	PRODUCT CODE	STANDARD	CLASS	HAZARD	CONNECTION	COMAPTIBLE WITH
mjantitit	6102/6103	EN143:2021	P2R/P3R	Particulates (Fine Dusts&Mists)	Can be used with 6110 series gas and vapours filters using FH70 retainers	FM 7700-Bayonet Connection LS-3700
and the star	1003	EN143:2021	P3R	Particulates (Fine Dusts&Mists)	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700
	5102	EN143:2021	P2R	Particulates (Fine Dusts&Mists)	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700, HM-5100
mjay	5103	EN143:2021	P3NR	Particulates (Fine Dusts&Mists)	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700, HM-5100
ma	5122	EN143:2021	P2NR AC	Particulates (Fine Dusts&Mists) + Gas vapours	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700, HM-5100
	5123	EN143:2021	P3NR AC	Particulates (Fine Dusts&Mists) + Gas vapours	MFA Bayonet Connection	FM 7700-Bayonet Connection LS-3700, HM-5100

### When connected to a proper respirator, gas filters provides protection against the following.

A : Organic gases and vapours and solvents -boiling point >  $65^{\circ}C$  - such as petrol, kerosene, diesel, mineral turpentine, ethylenglycol, methyl isobutyl ketone, isobuthanol, etc

B: İnorganic gases and vapours, e.g. fluorine, chlorine, hydrogen sulphide, hydrogen cyanide, hydrogen bromide, hydrogen chloride, hydrogen peroxide.

E: Acid gases and vapours, e.g. carbon dioxide, sulphuric acid, hydrochloric acid, formic acid, hydrogen fluoride.

K: Ammonia and some amines, e.g. methylamine, ethylamine, dimethylamine

AX: Organic gases and vapours -boiling point<65°C e.g, acetone, acetaldehyde, acrylaldehyde, butane, butadiene, diethyl ether, dichloro ether, dichloromethane, ethylene oxide, methanol, trichloromethane, vinyl chloride. The number that referred on filter type (1,2,3) represents the maximum concentration of hazardous substance in the ambient air.

Concentration of hazardous substance in the ambient air should not exceed;

1000 ppm for filter marked with 1,

5000 ppm for filter marked with 2,

10000 ppm for filter marked with 3.

Particle filters connected with the appropriate respiration device provides protection against: Solid and liquid particles.

FFP2 : Provides protection against solid and liquid-based aerosols which are toxic at low level. Maximum Protection Level 10 x OEL. Nominal Protection Factor 12 x OEL.

FFP3 : Provides protection against toxic solid and liquid-based aerosols. Maximum Protection Level 20 x OEL. Nominal Protection Factor 50 x OEL.

Particle filters with activated carbon layer such as 5122/5123 when connected with proper respirator device ensure protection against any kind of gas odors such as organic and inorganic gases.