

● RESPIRATORY PROTECTION EQUIPMENT

Respiratory Protection Equipment help protect against environmental pollutants reducing their concentration, in the breathing area, at levels below occupational exposure limits.

The (RPG) protect against hazards arising from the inhalation of potentially harmful substances (gases, dusts, fibers, fumes, microorganisms, etc.) or oxygen-deficient atmospheres.

TYPES OF RESPIRATORY PROTECTION EQUIPMENT

Maintenance free filtering equipment: also called auto filtering. They are the ones that are entirely thrown away once they have reached the end of their useful life or filtering capacity. They do not require spare parts or special maintenance, as practically their entire surface is filtering. They can have exhalation and inhalation valves or none and they cover nose, mouth and chin.

Equipment with replaceable filters: unlike the previous ones, they are comprised of a face piece which incorporates two filters which are thrown away at the end of their useful life. As the face piece is reusable, on this type of equipment, it is necessary to perform regular cleaning and maintenance. The face pieces can be half mask or whole.

Insulating Equipment (Independent of the Environment): They are equipments that insulate the user from surroundings and provide clean air from an uncontaminated source. Therefore they provide protection as much for contaminated atmospheres as for oxygen deficiency. They are founded on the supply of a breathable uncontaminated gas.

EN 149

In this regulation, the minimum requirements to be complied with are summarized for filtering masks used as respiratory protection against particles, except those designed for escape situations.

Auto filtering masks against particles EN 149

Difference between mask, throwaway filters and reusable mask (for multiple shifts).

In order to identify the product classification, the following markings are used:

1. NR for single use.
2. 1.a: Conditions of preconditioning the climate alteration prior to testing;
3. 1.b: Retesting of the efficiency, an extension of the previous test in long term penetration.
4. 1.c: Optional test requirements related to the obstruction of the dolomite (classification and labeling of the product "D").

TEST/TYPE	FFP1	FFP2	FFP3
Total LEAKAGE TOWARDS THE OUTSIDE	< 22%	< 8%	< 2%
Penetration	S < 20% L < 20%	S < 6% L < 6%	S < 1% L < 1%
Carbon dioxide content of inhaled air (%)	< 1%	< 1%	< 1%
Resistance to inhalation 30 l/min (mbar)	< 0.6%	< 0,7%	< 1 mbar
Resistance to inhalation 95 l/min (mbar)	< 2,1 mbar	< 2.4 mbar	< 3 mbar
Resistance to inhalation 160 l/min (mbar)	< 3 mbar	< 3 mbar	< 3 mbar