



PRODUCT LINE CATALOGUE
RESPIRATORY PROTECTIVE
EQUIPMENT



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Respira

Respiratory half mask with combined inhalation and exhalation valve

Halfmask

The RESPIRA protective respiratory half mask created by NANOLOGIX is the next generation of half masks. Key development goals were reliable functionality combined with a high level of user comfort. The basic requirement for the correct functionality of any respiratory half mask is to ensure perfect tightness between the elastic part of the half mask and the face. This tightness has been achieved through a process of gradual developmental and design steps, which mainly involved the optimisation of the shape of each individual part of the mask. The individual dimensions are based on an anthropometric study of the human face, primarily focused on the European population, and represent the average values of the morphometric dimensions of a human adult face. Maximum flexibility and the ability to perfectly fit the human face are achieved by the geometry of the facepiece – the half mask fitting tightly to the user's face, and the highly flexible nature of the selected material. The flexibility of RESPIRA halfmask is based on a special type of silicone for the elastic part which was developed and introduced specifically for use in healthcare and therefore meets the most stringent requirements. The maximum flexibility of the silicone allows uniform distribution of the pressure which the facepiece exerts on the face, thus achieving perfect tightness while ensuring high levels of comfort during periods of prolonged use. In addition, the silicone is characterised by very high resistance to chemicals, ensuring there is no risk of damage to the half mask even when in contact with a wide range of chemicals. Another significant advantage of this material is its minimal tendency to permanent deformations, which is beneficial from the storing point of view. The halfmasks can be stored folded in small packages for long time period without and any negative impacts. After unpacking, the half mask returns to its original shape and is ready for immediate use. Furthermore, thanks to its extreme resistance to ageing, the silicone does not lose its flexibility and characteristics, which ensures a significantly longer service life. The rigid part of the half mask, which serves to attach the filter, is made of a high-performance thermoplastic polymer, which is reinforced with a fibrous filler to increase its strength. The material adheres perfectly to the silicone part, which is essential to ensure a reliable seal. The bond of the silicone with the rigid part is so strong that it is able to withstand a considerable mechanical load.



Respira NANO-PERFECTION

Respira PERFECTION

Filtr

The RESPIRA protective respiratory half mask is equipped with a circular filter, which is attached to the facepiece by a threaded connection. The design of the connection makes the replacement of the filter simple and intuitive, without the need to remove the facepiece from the face. This system, featuring a circular thread, allows for very quick filter change using only one hand. This design feature results from user's needs in emergency situations, where the speed and simplicity of replacing the filter often has a significant impact on the level of health protection provided. Tightness at the connection between the solid part of the half mask and the filter is provided by a silicone sealing ring, which is anchored to the filter body. Thanks to its design, this ring ensures reliable sealing throughout the service life of filter as it does not deform or lose elasticity. The circular filter itself is designed to suit a wide range of filter materials. In terms of breathability, the minimum normatively determined filter area is 150cm², this is safely met and can be greatly increased by increasing the density of the composition of the filter material. The filter insert is fixed inside the filter using a special adhesive. This provides not only strength to the joint at the connection of the filter insert with the solid parts of the filter but also perfect tightness. The filters of the protective respiratory half mask are equipped with

a variety of filter materials that are recommended for each type of environment at protection levels P1 to P3. The uniqueness of the RESPIRA filters is based on the fact that we have used, as the first and only manufacturer, filter material manufactured purely from nanofibrous materials and we have placed the exhalation valve on a circular filter. The intentional utilisation of an exhalation valve in P3 filters provides unique comfort to wearers during use. In addition, the filter is designed in such a way that the pressure of the exhaled air can be used to regenerate the filter insert. This unique system extends the service life of the filter in a contaminated environment because the exhaled air partially purifies the filter insert from captured particles. The capture values we have achieved are 99.99%.



This product, combined with an appropriate half mask, meets the basic safety requirements of:

EN 1827+A1:2009 FM P3 R D,
EN 1827+A1:2009 FM P2 R D,
EN 1827+A1:2009 FM P1 R D
and

EN 143:2000/A1:2006 P3 R,
EN 143:2000/A1:2006 P2 R,
EN 143:2000/A1:2006 P1 R

and is marked with the CE1024 symbol.

RESPIRA NANO-PERFECTION

FILTER CLASS P2

- dust, coarse impurities, viruses, bacteria and hazardous solid and liquid particles



RESPIRA PERFECTION

FILTER CLASS P3

- dust, coarse impurities, toxic liquid and solid aerosols, bacteria, viruses



Half mask

+ Light tactical / ballistic goggles

The combination of the RESPIRA half mask with protective goggles represents a smooth transition between respiratory protection by means of a half mask and comprehensive protection including of the mucous membranes of the eyes by means of a full-face mask. The use of combined protection through the half mask and protective goggles is recommended both in extreme situations, e.g. in environments filled heavily with smoke and environments contaminated by aerosols, and in environments with a heightened risk of eye injury (grinding, cutting etc.).

NANOLOGIX supplies several types of protective goggles which are fully compatible with the RESPIRA COMPACT half mask and so can be utilised for the combined protection of respiratory organs and eyes. Both types of protective goggles are fitted with a special seal that ensures perfect adhesion to the face, which guarantees not only maximum protection but also a high level of comfort.

Compatibility with the RESPIRA half mask is achieved by means of a specially modelled nose bridge on the goggles which follows the shape of the nose section of the half mask. The combination of the RESPIRA half mask with protective goggles provides the user with great comfort thanks to their exceptionally low weight and maximum protection. The RESPIRA half mask with protective goggles can be used over long periods and causes significantly less discomfort to the user compared to a full-face mask.

Benefits of the goggles

- Top quality workmanship
- Perfect tightness
- Great comfort – do not cause pressure sores
- Lightweight
- Extraordinary resistance – flexible frame, ballistic resistance of glasses
- Scratch resistance
- Inner anti-fog coating
- Changeable visors

Technical parameters

- Material: polycarbonate (PC)
- UV protection: 100 % UV-A, UV-B and UV-C
- Certified under: EN 166, EN 170 and EN 17
- Conforms to standards: ANSI Z87.1-2010
MIL-PRF-32432 (GL)

LIGHT BALLISTIC GOGGLES

Protection class B – dust, particles with a kinetic energy of up to 120 m/s (resistance B), even under extreme temperatures

Ballistic goggles



Half mask

TACTICAL GOGGLES

Protection class A – dust, particles with a kinetic energy of up to 190 m/s (resistance A), even under extreme





OUR PRODUCTS ARE USED

- IN HEALTH CARE
- BY THE ARMED FORCES
- BY THE EMERGENCY SERVICES





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Box contain half mask, filter,
gloves and accessories



BOX CONTENTS

FILTER CLASS P3
- dust, coarse impurities, bacteria and hazardous solid and liquid particles



Protective full-face mask **CM-6M**

CM-6M protective full-face mask

Compared to CM-6, this mask includes the built-in ability to connect a drinking bottle (the bottle is a separate accessory) and represents a new type of full-face mask.

The CM-6 mask fully conforms to the requirements of EN 136, Class 3. Combined with a suitable filter or breathing apparatus, it provides protection of the face, eyes and respiratory organs against the effects of toxic gases, vapours and aerosols, biological pollutants, radioactive dust etc.

The mask is intended for use in industrial, chemical and nuclear fields, agriculture, mining, civil defence units, fire brigades, police units etc. The CM-6 mask performs a reliable protective function in a temperature range of -30°C to $+70^{\circ}\text{C}$. The large panoramic polycarbonate visor provides excellent spatial orientation with minimal distortion during normal activities. The design of the facepiece of the CM-6 mask and its low resistance to breathing provide the user with a comfortable fit and the possibility of use over long periods of time. The facepiece is made of bromine-butyl rubber, which is harmless to health. The inhaled airflow is directed by means of the internal mask, which prevents the visor from fogging up. Users with dioptric defects can make use of a special insert for glasses.

The five-point rubber-textile fastening system allows for easy handling when putting the mask on and taking it off. The filter can be attached to the facepiece either on the right or left side.

Parameters

- Average weight: 560 g
- Number of sizes: 1 General field of vision: min. 70%
- Binocular field of vision: min. 80%
- Speech clarity: 95%
- Facepiece material: bromine-butyl rubber
- Visor material: polycarbonate
- Filter connection thread: Rd 40 × 1/7"
- Breathing resistance at air flow rate of 30 l/min.:
 - inhalation resistance: max. 25 Pa
 - exhalation resistance: max. 60 Pa



FILTER CLASS P3 - dust, coarse impurities, toxic liquid and solid aerosols, bacteria, viruses

Masks

surgical

NANOLOGIX surgical masks significantly reduce the risk of the spread of pandemic viral diseases and represent a basic level of respiratory protection for users. A NANOLOGIX surgical mask is made of hypo-allergenic materials with a long service life and a high degree of bacterial capture (more than 99% – tested under EN 14683). The filtration material is composed of an efficient, multilayer non-woven polypropylene textile. In addition, the mask is fitted with an aluminium strip, by means of which its shape can be adapted to fit the nose area. Thanks to low inhalation resistance of the used material (less than 21 Pa – tested under EN 14683) and comfortable fit, the masks are suitable for all-day use, even during physically demanding activities.

Technical parameters

- *Material: polypropylene, polyurethane*
- *Nose clip: aluminium (10 cm)*
- *Pressure drop: 21 Pa (tested under EN 14683)*
- *Bacterial filtration efficiency: >99% (tested under EN 14683)*



Face masks

cotton

Two-layer cotton textile face masks with a pocket for the possible use of filter inserts.

The mask's protective function can be significantly enhanced by using a filter insert made by NANOLOGIX, consisting of nanofibrous filtration materials with a certified viral filtration efficiency of more than 99%.



Technical parameters

- Material: 100% cotton

References

- Ministry of the Interior of the Czech Republic – Police
- Integrated emergency services – Czech Republic
- Municipal Police – Czech Republic
- Customs Administration of the Czech Republic
- Revital Agro PLC. – Czech Republic
- ART-G Ltd. – Bangkok
- Innovative Catalytic Systems Limited – Hong Kong
- Promex s.r.o. – EU
- Alawour Medical Company – Saudi Arabia
- Vivep CZ – Czech Republic
- Pacifica Trends, LLC – USA
- Army of the Czech Republic
- Police – Vietnam, Hanoi
- Viet Safety Technology Equipment CO., LTD – Qatar
- Václav Havel Airport Prague
- Prague Castle Administration
- Presidential Office in Belize
- Presidential Office of Mongolia



Hood

A light universal hood also provides a high level of eye protection and, combined with a RESPIRA half mask, creates a very efficient protective system for both the eyes and respiratory tract.

The hood is equipped with an internal headband for individual adjustment based on the user's head circumference and height, a wide panoramic visor and a sealing line around the neck.

In addition, the visor has a surface finish protecting it against fogging. The hood's size is adapted for use with a RESPIRA half mask. Thanks to its low weight, the hood can also be used for prolonged periods in dusty environments, laboratories, paint shops and in the pharmaceutical industry.





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