

Breathe the future, protect people, produce innovation, 100% made in Europe. For 50 years we have dedicated ourselves to only one thing: your breath.

# Feel free to breathe.

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# **BLS MANIFESTO**



We are specialists in respiratory protection, investing all our energies in the business. We were born in Italy in 1970 and we developed in Spain; today we are one of the largest producers in Europe and our goal is to become market leaders at international level. We promote synergies with partners in the industry who share our attention for innovation, for

the use of BLS technology, who have implemented a vertical integration of production and distribution processes and believe in absolute transparency. We don't compromise on quality, because we know that to breathe is to live.

Protecting people is our core value. Our ethical commitment and our strict compliance of safety rules steer our work in every detail of the production and distribution chain. We believe that customers should be our constant object of attention and their voice is the first we want to listen to, in order to constantly improve our products. People are the foundation of our company: ideas and products emanate from their creativity and their experience constantly advances our know-how.

We offer solutions for respiratory protection for industrial, medical, military and urban environments. We generate in-

novation by engineering our own production machines. We are a *boutique* of the fourth industrial revolution based on technological culture, collaboration with universities, production automation and quality of relationships. We want each of our products to exceed customer expectations: we design and manufacture them according to top safety and ergonomics standards; we want them to be accurate and unique in every detail. We are a reliable, innovative and enthusiastic partner, because doing a great job is the best thing to offer.



# BLS THE CHALLENGE



forever and we want to be actors in this change.

"As a company for professionals, we found ourselves at the centre of the market: producers of essential goods for all people."

We were actors in the most critical phase of the emergency. During the first months of the pandemic, we tripled our production, doubled the number of employees and invested in new production lines in Italy and Spain. We donated over 40,000 masks, supplied over 100 European hospitals and gave technological support to the Italian Ministry of Defense to set

up new production lines. We worked alongside the Civil Protection and the major Italian and European institutions for the supply of FFP2 and FFP3 masks.

There are years that change lives of people and also of companies. For BLS, 2020 was one of those exceptional moments. The pandemic touched the heart of our work: the quality of breathing. It has sharpened its perception and amplified its echo: things have changed

"In three months we achieved the growth we had planned in three years, thanks to the research and automation that we had behind us."

We want to be actors in the future and to protect people's breath and air quality. Our products have found themselves at the centre of people's interest and this makes us aware of the value of our work and the responsibility we have as a company. We want to be actors in our business by bringing product quality, innovation and research to our professional supply chain, but also by expanding the offer to a wider and increasingly aware audience.

"Our people felt they were at the forefront and their work was helping to save lives."

We want to be actors of this cultural change by putting our skills at the disposal of institutions and communities to protect health and by helping to spread personal attitudes that are more attentive to the quality of one's breath.

"In three months we have achieved the growth we had planned in three years, thanks to the research and automation that we had behind us".

# ABOUT US BORN IN ITALY

# **MILAN, A CITY OF PRODUCERS**

The business was established in 1970 in Milan, in the Bovisa district. Once an exclusively industrial area, today an urban fabric where sustainable construction, production laboratories, university campuses and cultural spaces mixed together. The Politecnico di Milano University, with which we collaborate in the research and creation of start-ups, is now based here. Here we started our production - initially disposable cup-shaped masks - and we have grown, always focusing on quality. As soon as the CE mark was introduced, in 1996, we were among the first manufacturers to obtain certification for our products.

# **BIG-HEARTED ENTREPRENEURS**

At the beginning of the new millennium, in 2003, we broaden our offer to reusable respiratory devices: thanks to the acquisition of Tecnopro, an Italian manufacturer of full and half masks with 20 years of experience in the sector. In 2010 we acquired a facility in Barcelona, specialised in the production of high performance filters, completing our product offer: BLS Iberia was born.

In 2012 we crossed the ocean and landed in Brazil. In order to follow and develop the South American market we established BLS do Brasil in Curitiba. In 2017 we launched BLS NorthWest division in Rotterdam to follow the growing market of BeNeLux, UK and Ireland, to offer better service to our customers and to strengthen our commercial presence in the Northern European market.

In 2021 our group expanded to include BLS France and BLS Germany.

# AN ENGINEER'S BRAIN

In 2014 we inaugurated the new Headquarter in Milan, with a touch of Milanese design and lots of technology. 5000 sqm. that allowed us to expand and optimize the production lines: the heart of our difference, which is based on internal

Operating in Milan since 1970, BLS is highly specialized in the production of negative pressure respiratory protection devices.



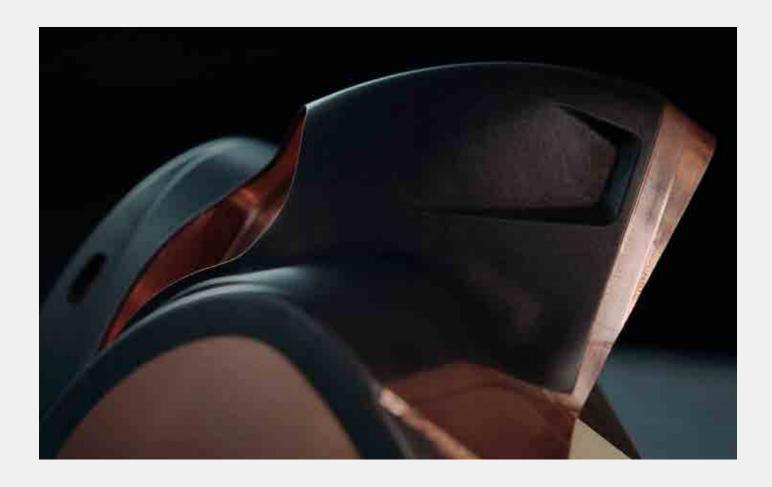
research and continuous innovation of production processes. It is a business model that has made us what we are today: a *boutique* of the fourth industrial revolution based on technological culture, collaboration with the university, automation of production and enhancement of human asset to offer a product that goes beyond customer expectations.



# A NEW RESPONSABILITY

We have grown in Italy and in the global market by offering products of the highest quality, certified and continuously innovated, for respiratory protection in the industrial, military and medical sectors. Today a new challenge arises. Respiratory protection, which previously involved only a few professional segments, is now at the centre of everyone's attention. This makes our work even more important and our social responsibility even more relevant. To this we dedicate all our energies.

# A EUROPEAN STORY



Our products go a long way before they get to you. They are born from research, they go through the development phase, they pass the quality and comfort tests, they make a leap into the University, they stimulate us to invent and engineer new processes. Even when they arrive at their destination, we do not leave them alone: we are always there, by your side.

# RESEARCH AND DEVELOPMENT

Innovating is a process that leads to explore new materials, new forms of aggregation, to experiment their use and find effective technological solutions to create the best possible products. Those who work using our products must feel safe and comfortable.

BLS' long industrial tradition has always been synonymous of the ability to innovate, the quality of our products and the strength of the brand. All these elements have made the company one of the leading global operators in the sector, with an experience of over 50 years in respiratory protection. The R&D philosophy adopted by BLS allows its products to achieve very high performance in terms of safety and comfort.

# **INDUSTRY AND UNIVERSITY**

BLS has always firmly believed in the collaboration between the academic world and the productive world.

The relationship between the company and the universities triggers virtuous pro-

cesses for the benefit of education and economic growth. To make its most innovative projects concrete and to improve its products, BLS has created a dense network of collaborations with numerous university departments, including the Politecnico di Milano and the University of Rome, which represent excellence at international level.

# PROTECTION AND COMFORT

BLS products aim to provide maximum protection without sacrificing comfort.







Each of our products is designed to provide, in addition to absolute safety in line with all the most stringent regulations in force, absolute comfort. The design of the shape, the ergonomics, the research of materials are essential concepts of BLS quality.

# **QUALITY AND TEST LAB**

BLS, thanks to sophisticated equipment, constantly monitors the quality of its products, from raw materials to the final product, respecting the requirements established by the new EU Regulation 2016/425.

# **ENGINEERING**

BLS designs, develops and produces all its products internally, taking care of the entire production process, from concept to shipment. Thanks to a high specialisation of the internal technical personnel, it also differs in the design and proprietary production of the machinery, thus being able to count on highly automated and controlled production lines.

# PRODUCTION AND AUTOMATION

Strong investments in process automation and careful selection of raw materials make the Barcelona plant, BLS group second production site, an innovation laboratory. Here, as in the other factories, automation allows you to optimize production flows, guaranteeing excellence in production and the control of the entire process.

# **OUR SERVICES**

Thanks to completely European production, BLS has obtained the EUR1 certificate for its entire product range, both disposable and reusable.





# **CONSULTING**

We help you choosing the most suitable mask for your job

Consultancy service to support customers in choosing the most suitable protection device based on the activity performed and the contaminant they come into contact with.

BLS responds to customer requests in a professional, precise and timely manner in 6 languages. BLS exports its products in over 60 countries.

# **FIT TEST**

Test your mask to check its compatibility with your face

Validation service through quantitative fit test of PPE for respiratory protection. The quantitative fit test is used to evaluate the degree of compatibility between a specific protection device and the user's face. The test is carried out with a particle counter which allows to obtain the numerical value corresponding to the seal factor of the used PPE. On request, a qualitative fit test service is also available.

# **TRAINING**

Learn about PPE and you will increase the safety of your company

The course responds to what is required in terms of training on the correct use of PPE for the protection of the respiratory tract. Classroom activity can be integrated with specific training through fit test done in "live" mode on each course participant.

At the end of the course a certificate of attendance will be issued for each participant.





**MAINTENANCE** 

A well-fitted mask increases your safety

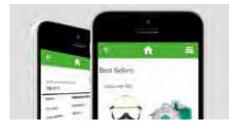
Training course on the maintenance of BLS full face masks. The course provides complete training on the operations necessary for the revision, disassembly, replacement and reassembly of the components. At the end of the course a certificate of attendance will be issued for each participant.



# **SOCIAL**

Where to always find the latest updates and videos of our products

Our social channels are also an information and training tool. In addition to the latest updates of the group's activities, you will find product videos, explanatory maintenance and donning instructions videos, full videos of our webinars and much more. Follow us on all platforms.



# **WEB APP**

To always have any information about our products with you

A further support, not to be used as the sole guide for the selection of protection devices, but also as a database of the main contaminants and relative protections required, is the new "BLS Genius" app. The app can be downloaded for both iOS and Android.

# Dust, mists and fumes: quality can be seen here.

In all types of protection we always work to be first in class.

# PROTECTION FROM

# DUST, MISTS AND FUMES

**DUSTS** are formed when a solid material is decomposed into tiny fragments.

**MISTS** are tiny droplets that are formed from liquid materials through condensation and atomization processes.

**FUMES** are formed when a solid material (e.g.: a metal) is vaporized through high temperature. The vapour cools quickly and condenses into extremely fine particles.

The term **PARTICULATE** commonly identifies the collection of these solid particles in the air.

There are two families of products for protection against particulates:

A) FILTERING FACEPIECES, indicated with "FFP"; EN 149 standard.

**B)** FILTERS (for half or full face masks), indicated with "P" (associated with the color white); EN 143 and EN 14387 standard.

In reference to the protection from particulates, the legislation confers an increased protection with the increase of the filtering efficiency: FFP1, FFP2, FFP3 / P1, P2, P3.

EN 149	9	EN	143	
FFP1	80%	P1	80%	
FFP2	94%	P2	94%	
FFP3	99%	P3	99,95%	ó

# **CLASS OF PROTECTION**

The European Standard EN 529:2005 shows how to select the correct breathing apparatus based on the risk assessment. An important distinction concerns the **nominal protection factor (NPF)** and the **assigned protection factor (APF)**.

The nominal protection factor (NPF) is a number derived from the maximum percentage of total loss (towards the inside of the breathing apparatus) allowed by European standards. The assigned protection factor (APF) is the level of respiratory protection that one can realistically expect in the workplace by 95% of the PPE users.

Furthermore, an important reference for choosing the breathing apparatus is the **threshold limit value (TLV)**, or rather the "exposure limit value", which indicates the environmental concentrations of airborne chemicals below which most workers can remain repeatedly exposed to day after day for their working life without any negative effect on their health.

FILTE	FILTERING FACEPIECES		HALF MASK WITH FILTERS			FULL FAC	E MASK WIT	H FILTERS
CLASS	NPF	MAX CONC.	FILTER CLASS	NPF	MAX CONC.	CLASS	NPF	MAX CONC.
FFP1	4	4xTLV	P1	4	4xTLV	P1	5	5xTLV
FFP2	12	12xTLV	P2	12	12xTLV	P2	16	16xTLV
FFP3	50	50xTLV	P3	48	48xTLV	P3	1000	1000xTLV

If the concentration of the pollutant in the workplace is unknown, the first rule for selecting the minimum level of protection can be provided by the following table:

PROTECTION LEVEL	P1	P2	P3
POLLUTANT TLV / MINIMUM EFFICIENCY	≥ 10mg/m <sup>3</sup>	0,1<>10mg/m <sup>3</sup>	≤ 0.1mg/m <sup>3</sup>

# GASES AND VAPOURS

For protection against this type of contaminant it requires a carbon layer filter suitably treated to selectively absorb different substances.

**GASES** are substances which at ambient temperature and pressure are in a gaseous state (e.g.: oxygen, nitrogen, carbon dioxide). **VAPOURS** are substances which at ambient temperature and pressure are in a liquid or solid state and pass to a gaseous state through boiling or evaporation processes (e.g.: acetone, toluene, hexane).

The EN 14387: 2004+A1:2008 Standard defines protection against gases and vapours according to the following table:

TYPE	COLOUR	PROTECTION
A	BROWN	Organic gases and vapours with a boiling point higher than 65°C
В	GREY	Inorganic gases and vapours
E	YELLOW	Acid gases
K	GREEN	Ammonia and derivates
AX	BROWN	Organic gases and vapours with a boiling point lower than 65°C
Hg	RED	Mercury vapour
NO	SKY BLUE	Nitrous gases
СО	BLACK	Carbon oxide
Reaktor	ORANGE	Radioactive iodine, including radioactive iodomethane

# **CLASS OF PROTECTION**

To select the right protection, it is necessary to know the chemical nature of the pollutant making sure that the oxygen level is higher than 17%. Regulations provide three filter capacity classes: low (class 1), medium (class 2), high (class 3); the duration of filter increases with the increase of the capacity.

For protection against gases and vapours, the nominal protection factor is determined by the type of mask (half mask or full-face mask) and not by the filter used.

CLASS	1	2	3
CAPACITY	LOW	MEDIUM	HIGH
EXPOSURE LIMIT	1000 ppm	5000 ppm	10000 ppm

	ı	HALF MASK	FULL FACE MASK		
	FPN	MAX CONCENTRATION	FPN	MAX CONCENTRATION	
GAS	50	12xTLV	2000	2000xTLV	
GAS P3	48	48xTLV	1000	1000xTLV	

# **COMBINED FILTERS**

In the presence of both gases/vapours as well as particulates, protection with combined filters is required. These filters combine a gas filter with a dust filter. **BLS offers its customers a complete range of filters**.

# FFP1, FFP2, FFP3: daily comfort.

They protect from particulates, facilitate breathing and adhere without tightening and forcing.

# SOME BASICS ON

# DISPOSABLE PRODUCTS

The duration of the product is for one or more work shifts. They can only protect from particles. There are three classes of devices divided according to filtering and fitting efficiency (FFP1, FFP2, FFP3).

# **Features**



The Eolo technology of BLS valves drastically reduces breathing resistance and allows an air passage 30% higher than classic valves, concentrating it in two points of maximum opening.



**ARMOR** 

It's an external layer that ensures the protection of the filtering material from dirt, dust and liquids extending and preserving filtering efficiency and making the device safer.



**NOSE CLIP** 

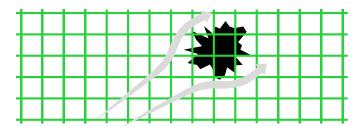
Along with the face seal it secures the fit of the filtering facepiece to the most critical part of the face, the upper part of the nose, and it improves performance in the fit test phase.



**FACE SEAL** 

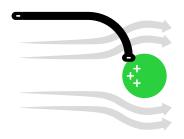
A foamy strip placed around the respirator is essential to guarantee maximum protection avoiding air flows passing through unsealed borders. It can be partial (sealing the upper part of the device) or complete.

# Filtration principles



**MECHANICAL** 

If inhaled, nanoparticles (between 1 and 100 nanometers wide), can pass through cellular membranes reaching internal organs and potentially cause severe harm to the body being very difficult to dispose. Specific tests have helped us to develop a filtering medium able to successfully block the access of such substances.



**ELECTROSTATIC** 

Smaller particles are subject to a further filtration by the electrostatically charged filtering material. Therefore, smaller the particulate is, the stronger is the electrostatic attraction.



**ACTIVATED CARBONS** 

A layer impregnated with activated carbons could be added to the filtering material enhancing the protection and comfort of the product in presence of nuisance odours.

# To each their own protection:

anatomical comfort, adjustability of the elastic straps, breathable fabrics, different fits.

Protection standards tailored to your size.

# **BLS ZERO SERIES**

# **Features**

# (01)

# **ANATOMIC**

The pre-formed cup and elastic support makes an easier and reliable fit, perfectly adapting to different physiognomies and ensuring an excellent hold. It offers an excellent visual field and a great compatibility with glasses.

# (02) N

# WELDED OR ADJUSTABLE ELASTICS

The elastics, ultrasonically welded to eliminate the exposed metal parts, are made of hypoallergenic material without latex, while the adjustable ones, thanks also to the innovative drop-off system, facilitate the correct positioning of the facepiece on the user's face.



# AVAILABLE WITH ACTIVATED CARBONS

Activated carbons protect from acid and organic gases-vapours and ozone below the Threshold Limit Value (TLV), specific for every substance.



# **PROTECTION**

Better than a FFP3



# BREATHING RESISTANCE

Better than a FFP1



# **BLS ZERO SERIES**

# BLS Zer0 30 or BLS Zer0 31/32

















# Features

(04)

# **GASKET**

Made with a new soft technical foam, which allows an excellent fit on any face and guarantees a high comfort on contact with the skin.

05

# **EXTERNAL PROTECTIVE LAYER**

It is an external protective layer that ensures the protection of the filtering material from dirt, dust and liquids extending and preserving filtering efficiency and making the device safer.

(06)

# IT BREATHES!

The ratio of transmission of water vapour through the material is 4500 g/sqm\*24hrs. A value that defines materials of a high transpiration range making it ideal for hard physical work.

07

# **INTERNAL NOSE CLIP**

The nose clip, placed internally between the layers of filtering material, adapts optimally to the profile of the nose and eyes, ensuring good visibility and maximum compatibility with glasses.

(08)

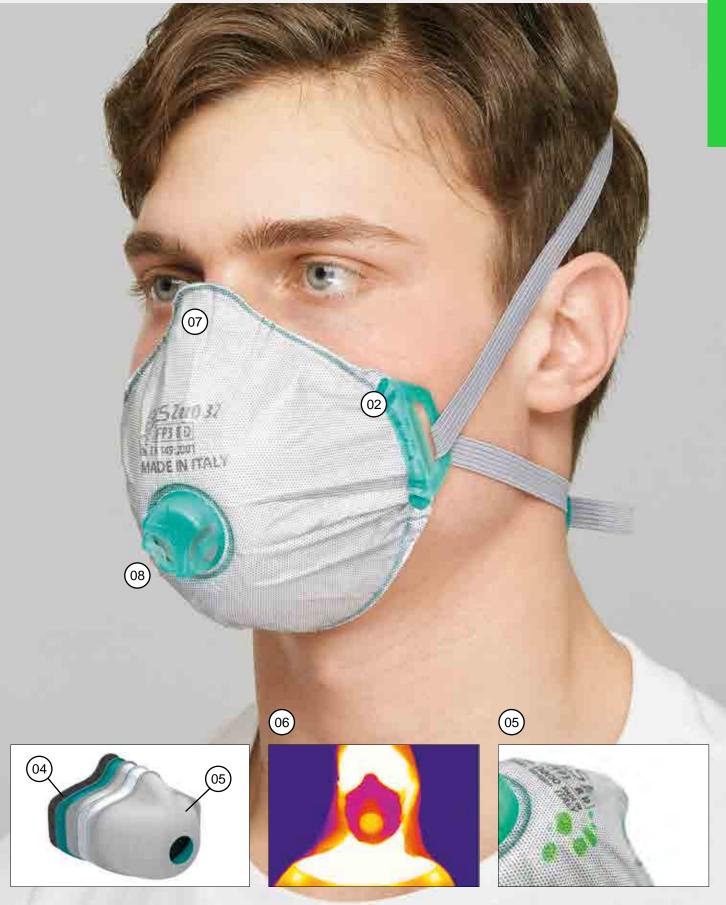
# HIGH EFFICIENCY EOLO VALVE

Eolo Technology is our system for fixing the valve's membrane on three points instead of one, which allows an air passage in exhalation 30% higher than traditional valves, concentrating it in two points of maximum opening.

CODE	CODE for SINGLE PACKED	PRODUCT	PROTECTION	EXHALATION VALVE	ELASTICS	CARBON LAYER	GASKET
8006334	8006339	BLS ZerO 30 NV	FFP3 R D		WELDED		PARTIAL
8006332	8006337	BLS ZerO 30	FFP3 R D	•	WELDED		PARTIAL
8006335	8006340	BLS ZerO 31	FFP3 R D	•	WELDED		COMPLETE
8006333	8006338	BLS ZerO 30 C	FFP3 R D	•	WELDED	<b>V</b>	PARTIAL
8006336	8006341	BLS ZerO 31 C	FFP3 R D	•	WELDED	<b>V</b>	COMPLETE
8006398	8006305	BLS ZerO 32	FFP3 R D	•	ADJUSTABLE		COMPLETE
8006300	8006307	BLS ZerO 32 C	FFP3 R D	•	ADJUSTABLE	<b>V</b>	COMPLETE
8006342	8006343	BLS ZerO 32 C flame retardant	FFP3 R D	•	ADJUSTABLE	<b>V</b>	COMPLETE







# **BLS CLASSIC SERIES**

# **CLASSIC SERIES**

Wide range of protection factors and features to accommodate any specific need.



# **Features**

O1 FACEPIECE

The shape of the device offers a reduced breathing resistance.

O2 INTERNAL NOSE CLIP

The nose clip, placed internally between the layers of filtering material, adapts optimally to the profile of the nose and eyes, ensuring good visibility and maximum compatibility with glasses.

AVAILABLE WITH ACTIVATED CARBONS

Activated carbons protect from acid and organic gases-vapours and ozone below the Threshold Limit Value (TLV), specific for every substance.

WELDED OR TEXTILES ELASTICS

Ultrasonically welded elastics, are designed to eliminate the exposed metal parts. BLS classic series' disposable masks with activated carbon, on the other hand, have a resistant and performing textile elastic.

AVAILABLE WITH EXHALATION VALVE

Low respiratory resistance exhalation valve, which allows hot humid exhaled air to escape more easily and ensures high comfort for the user, making the filtering facepiece suitable for hot humid work environments.

CODE	CODE for SINGLE PACKED	PRODUCT	PROTECTION	EXHALATION VALVE	ELASTICS	CARBON LAYER	GASKET
8006186		BLS 120BW	FFP1 NR D		WELDED		PARTIAL
8006187		BLS 122BW	FFP1 NR D	<b>V</b>	WELDED		PARTIAL
8006188	8006214	BLS 128BW	FFP2 R D		WELDED		PARTIAL
8006184	8006211	BLS 129BW	FFP2 R D	<b>V</b>	WELDED		PARTIAL
8006154	8006037	BLS 226B	FFP2 NR D	<b>V</b>	STAPLED	<b>V</b>	PARTIAL



# DISPOSABLE PRODUCTS / FOLDABLE FILTERING FACEPIECES

# BLS 800 Flickit SERIES

# ONE SIZE FITS ALL













# **Features**

(01)

# **FOLDABLE AND POCKET-SIZED**

The facial folds allow the product to be pocket-sized and distributed through alternative channels such as vending machines.



# FIT

The large surface guarantees less breathing resistance and an excellent fit.



# **HYGIENIC**

Very well preserved by the single package on all models and by the possibility to unfold the device without touching the inner mask in direct contact with the face.



# HIGH EFFICIENCY EOLO VALVE

Eolo Technology is our system for fixing the valve's membrane on three points instead of one, which allows an air passage in exhalation 30% higher than traditional valves, concentrating it in two points of maximum opening.



# **INTERNAL NOSE CLIP**

The nose clip, placed internally between the layers of filtering material, adapts optimally to the profile of the nose and eyes, ensuring good visibility and maximum compatibility with glasses.

# Single packed & pocket-sized



CODE	PRODUCT	PROTECTION	EXHALATION VALVE	SINGLE PACKED	ELASTICS
8006172	BLS 828	FFP2 NR D		<b>V</b>	WELDED
8006173	BLS 829	FFP2 NR D	<b>V</b>	<b>V</b>	WELDED
8006174	BLS 860	FFP3 R D	<b>V</b>	<b>V</b>	WELDED





# DISPOSABLE PRODUCTS / FLAT FILTERING FACEPIECES

# SERIE BLS 700

# ONE SIZE FITS ALL













# **Features**

# **3-PANEL FLAT DESIGN**

The filtering facepiece adapts to different types of faces with different sizes and shapes, is comfortable to wear and easy to store when not in use.

02

The large surface guarantees less breathing resistance and an excellent fit.

# **HYGIENIC**

The single hygienic package protects the filtering facepiece from any contamination before use, allowing it to be stored in a practical way and distributed in the work environment.

# **AVAILABLE WITH EXHALATION VALVE**

Low respiratory resistance exhalation valve, which allows hot humid exhaled air to escape more easily and ensures high comfort for the user, making the filtering facepiece suitable for hot humid work environments.

# **INTERNAL NOSE CLIP**

The nose clip, placed internally between the layers of filtering material, adapts optimally to the profile of the nose and eyes, ensuring good visibility and maximum compatibility with glasses.



FFP1 models available upon request

CODE	PRODUCT	PROTECTION	EXHALATION VALVE	SINGLE PACKED	ELASTICS
8006261	BLS 728	FFP2 NR D		<b>&gt;</b>	STAPLED
8006225	BLS 729	FFP2 NR D	<b>V</b>	<b>V</b>	STAPLED
8006244	BLS 760	FFP3 R D	<b>V</b>	<b>V</b>	STAPLED



# DISPOSABLE PRODUCTS / VERTICAL FILTERING FACEPIECES

# **BLS 510-520 SERIES**

# ONE SIZE FITS ALL











# Features

(01)

# 2-PANEL VERTICAL DESIGN

The filtering facepiece adapts to different types of faces with different sizes and shapes, is comfortable to wear and easy to store when not in use.

(02)

# **INTERNAL NOSE CLIP**

The nose clip, placed internally between the layers of filtering material, adapts optimally to the profile of the nose and eyes, ensuring good visibility and maximum compatibility with glasses.

(03)

# **AVAILABLE WITH EXHALATION VALVE**

Low respiratory resistance exhalation valve, which allows hot humid exhaled air to escape more easily and ensures high comfort for the user, making the filtering facepiece suitable for hot humid work environments.

04

# SLIDING OR WELDED RUBBER HEAD ELASTICS

Realized in rubber, they facilitate the correct positioning of the disposable facepiece on the user's face for optimal stability and comfort.

(05)

# **SINGLE PACKED**

The single hygienic package protects the filtering facepiece from any contamination before use, allowing it to be stored in a practical way and distributed in the work environment.

CODE	PRODUCT	PROTECTION	EXHALATION VALVE	ELASTICS
8101004	BLS 512	FFP2 NR		SLIDING
8101005	BLS 512V	FFP2 NR	<b>V</b>	SLIDING
8101013	BLS 513	FFP3 NR		SLIDING
8101014	BLS 513V	FFP3 NR	<b>V</b>	SLIDING
8101015	BLS 522	FFP2 NR		WELDED
8101016	BLS 522V	FFP2 NR	<b>V</b>	WELDED
8101017	BLS 523	FFP3 NR		WELDED
8101018	BLS 523V	FFP3 NR	<b>V</b>	WELDED





# **BLS 500 SERIES**

# ONE SIZE FITS ALL









# **Features**

(01)

# 2-PANEL DUCK SHAPED DESIGN

The mask adapts to all kinds of faces with different sizes and shapes, it is comfortable to wear and easy to store when not worn.

(02)

# **INTERNAL NOSE CLIP**

The nose clip, placed internally between the layers of filtering material, adapts optimally to the profile of the nose and eyes, ensuring good visibility and maximum compatibility with glasses.

03

# **HIGH BREATHABILITY**

The breathing resistance is comparable to that of a surgical mask, making breathing very comfortable.

(04)

# **TEXTILE ELASTICS**

BLS 500 disposable filtering facepieces have a resistant and performing textile elastics welded to eliminate all exposed metal parts.

05

# SINGLE PACK

The single hygienic pack protects the device from any contamination before use, allowing practical storage and distribution in the workplace.

CODE	PRODUCT	PROTECTION	ELASTICS	
8101006 BLS 502		FFP2 NR	WELDED	
8101003 BLS 503		FFP3 NR	WELDED	





# **BLS 100 SERIES**

# SIMPLE AND SAFE













# **Features**

(01)

# **FACEPIECE**

The shape of the device offers a reduced breathing resistance.

(02)

# **NOSE CLIP**

It is externally positioned and adapts perfectly to the profile of the nose and eyes ensuring good visibility and great compatibility with glasses.

(03)

# **AVAILABLE WITH EXHALATION VALVE**

Low respiratory resistance exhalation valve, which allows hot humid exhaled air to escape more easily and ensures high comfort for the user, making the filtering facepiece suitable for hot humid work environments.

CODE	PRODUCT	PROTECTION	EXHALATION VALVE	ELASTICS
8006180	BLS 102	FFP2 NR D		STAPLED
8006181	BLS 102V	FFP2 NR D	<b>V</b>	STAPLED
8006182	BLS 103V	FFP3 NR D	<b>V</b>	STAPLED





# When the games get tough, the tough ones get to breathe.

At the top of standards, with attention to every detail and for any profession that requires high respiratory protection with a full or half mask.

# SOME BASICS ON

# REUSABLE DEVICES

# In EN 136 Standard, full face masks are classified according to the type of application:

- 1) Light use (use with small capacity filters)
- 2) General use (for heavier uses, they have higher resistance to flammability)
- 3) Special use (they offer greater resistance to radiant heat and flame. They can be used for firefighting) \*

# The filters differ according to the type of filtration:

- 1) Carbon filters for gases and vapours, which include 3 classes, each with different duration, weight and protection (low class 1, medium class 2, high class 3)
- 2) Dust filters, which provide 3 protection classes based on filtering efficiency (P1, P2, P3)
- 3) Combined filters (combination of the above)

# **Products**



# HALF MASKS

They protect the nose and mouth and can be used if protection for the eyes is not required or in combination with safety goggles. However, it is essential to analyse each risk and determine the correct protection needed.



# **FULL FACE MASKS**

They protect the entire face and ensure a greater protection factor. They can be used in combination with supplied-air products or PAPR.



\* Source: EN 529:2005

# **FILTERS**

They are connected to the mask. They can protect from both particulates, gases and vapours, or from the combination of the two. The same filter can sometimes be used in both half or full face mask, depending on its features.

# Filter types



# **PARTICULATES**

Particles filtration is ensured by a pleated medium. The pleating of the material ensures a higher filtering surface and reduces breathing fatigue.



# **GASES & VAPOURS**

Gases and vapours are adsorbed by activated carbons grains. This material is characterized by a high porosity structure that traps gases and vapours in its surface. They can be treated to adsorb selectively one or more groups of specific substances.



# **COMBINED**

Combined filters are built with two sections, the first one with a pleated medium for particles filtration, the second one with activated carbons, for gases and vapours protection.

# FILTERS TECHNOLOGY FOR

# REUSABLE DEVICES

IN ADDITION TO THE UNIVERSAL CONNECTION (EN 148-1), BLS DEVELOPED A SIMPLIFIED BAYONET CONNECTION TO MEET THE HIGHEST PERFORMANCES AND SECURITY STANDARDS.

# **BAYONET CONNECTION**

This connection is highly intuitive, allowing a quick and safe hold on the mask. It has a locking feedback allowing the user to know if the filter has been properly placed. The double filter offers better weight distribution on the mask and a wider field of vision.



# **UNIVERSAL CONNECTION EN 148-1**

Standard thread connection according to EN 148-1, universal among all respiratory protection devices.



# **ACTIVATED CARBONS**

The quality of the activated carbons used by BLS for the filtration of gases and vapours meets high standards of safety ensuring excellent filtration performances. They are produced without toxic additives such as Hexavalent Chromium (Cr VI).



# **BLS TECHNOLOGY FOR**

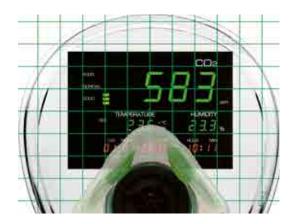
# **FULL FACE MASKS**

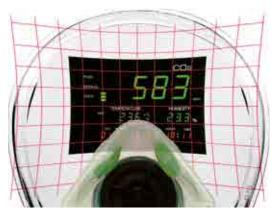
# **LIVE VISOR**

In BLS 5000 series masks, the screen protection in optical class 1\* (EN 166) allows a panoramic visual field without optical distortions. A vitrification treatment on its surface makes it scratch resistant.



\* Eye protectors with no corrective effects are categorized in 3 classes depending on their spherical, astigmatic and prismatic optical imperfections (EN 166). Class 1 is the best quality class attainable.





VISOR
Optical class 1

**VISOR**Lower optical class

# **K-OMFORT**

BLS 5000 series masks' harness is fixed on 6 attachment points directly to the rigid frame so as not to deform the face seal. It allows to distribute the weight of the device evenly without leaving face marks.









# **ANTI-FOG**

Designed to avoid visor fogging through the control of the cold and hot air flows inside the mask without perishable surface treatments.



# REUSABLE DEVICES / HALF MASK

# BLS 8000 next SERIES

# READY TO USE AND MAINTENANCE FREE

BLS 8000next series bi-filter thermoplastic rubber half masks are ready to use, with no need for maintenance of filters replacement. Once the filtering capacity of the device is exhausted, it is completely replaced.



**SIMPLICITY** of disposable product



**PROTECTION** of reusable product



# Available products

CODE	PRODUCT	FACEPIECE	PROTECTION
8116006	BLS 8100next	Thermoplastic rubber	A1P2 R D
8116005	BLS 8400next	Thermoplastic rubber	ABEK1P3 R D
8116004	BLS 8600next	Thermoplastic rubber	A2P3 R D

# **Features**

# O1 SIMPLE LIKE A DISPOSABLE PROTECTING LIKE A REUSABLE

This mask combines the simplicity of disposable products with the protection of the reusable ranges offering an easy-to-implement and certified protection against both particles and gases.

# ACTIVATED CARBONS

The quality of the activated carbons used by BLS for the filtration of gases and vapours meets high standards of safety ensuring excellent filtration performances.

They are produced without toxic additives such as Hexavalent Chromium (Cr VI).

# \ FACIAL

Made with a high quality thermoplastic elastomer: non-deformable and durable.

# **DESIGN AND VISUAL FIELD**

The shape of the half mask offers a perfect seal without any unpleasant pressure on the nose or mouth of the user. It also allows high visibility and low interference with the visual field thanks to the lower positioning of the filters and to its compact size.

# FILTER PROTECTIVE LAYER

External layer that ensures the protection of the filtering material from dirt, dust and liquids as well as the normal mechanical stress due to prolonged use thus extending and preserving filtering efficiency and making the device safer.

# **NEW DROP-OFF SYSTEM**

Quick attachment/release system and sliding elastics, which allow you to remove and lower the half mask without removing the head harness.

REUSABLE DEVICES / HALF MASKS



### REUSABLE DEVICES / HALF MASK

# BLS 4000 next SERIES

#### SIZES AND MATERIALS AVAILABLE











# DROP-OFF PROCEDURE









# Available products

CODE	PRODUCT	FACEPIECE	SIZE
8002111	BLS 4000 next R	Thermoplastic rubber	S/M
8002112	BLS 4000 next R	Thermoplastic rubber	M/L
8002113	BLS 4000 next S	Silicone rubber	S/M
8002114	BLS 4000 next S	Silicone rubber	M/L

#### **Features**

(1) EASY AND FAST MAINTENANCE

It can be disassembled in less than a minute making cleaning and maintenance much easier.

25% LIGHTER FACEPIECE

Reducing the thickness of the facepiece enabled the weight of the half mask to be reduced by 25%, making it one of the lightest on the market.

HEAD HARNESS
Thin and light design with quick adjustment, allowing excellent compatibility with other PPE.

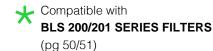
DROP-OFF

New front mask with quick attachment/release system and sliding elastics, which allow you to remove and lower

the half mask without removing the head harness.

BAYONET CONNECTION

This connection is highly intuitive, allowing a quick and safe hold on the mask. It has a locking feedback allowing the user to know if the filter has been properly placed. The double filter offers better weight distribution on the mask and a wider field of vision.







# Ready to use kit - BLS 4000next silicone half masks + Filters

CODE	KIT	SIZE	FILTERS	PROTECTION	DESCRIPTION
8002115 8002116	BLS 4100 next	S/M M/L	+ BLS 211 + BLS 301 (prefilters)	A2P2 NR	Organic gases and vapours (bp > 65°C) and dust
8002117 8002118	BLS 4400 next	S/M M/L	+ BLS 222	ABEK1P3 R	Organic, inorganic and acid gases and vapours and ammonia, dust
8002119 8002123	BLS 4500 next	S/M M/L	+ BLS 202	P3 R	Dust
8002120 8002124	BLS 4600 next	S/M M/L	+ BLS 221	A2P3 R	Organic gases and vapours (bp > 65°C) and dust
8002121	BLS 4100next R*	S/M	+ BLS 221 + BLS 301 (prefilters)	A2P2 NR	Organic gases and vapours (bp > 65°C) and dust

<sup>\*</sup> with BLS 4000next R (thermoplastic rubber facepiece).

# REUSABLE DEVICES / HALF MASK

# BLS SGE46

### **OPTIMAL FIT**





### **Features**



#### **FACEPIECE**

The facepiece made of silicone rubber is designed to universally adapt to all face sizes giving a better comfort and perfect fit.



#### **HARNESS**

Fixed on 2 points directly on the rigid body of the mask allowing to distribute the weight of the respirator evenly without leaving face marks.



#### **UNIVERSAL CONNECTION**

Standard thread connection according to EN 148-1, universal among all respiratory protection devices.

# Available products

CODE	PRODUCT	FACEPIECE	SIZE
8002059	SGE46	Silicone rubber	U



Compatible with

**BLS 400 SERIES FILTERS** 

(pg 52)





## REUSABLE DEVICES / FULL FACE MASK

# **BLS 5000 SERIES**

#### HIGH RESISTANCE



#### HOOD

Anti-acid hood covers head, shoulders and upper torso, eliminating any contaminated penetration. 98.5% permeation resistant to Sulphuric Acid.



#### **Features**



#### **FACE SEAL**

Available in soft thermoplastic rubber (BLS 5600) or silicone rubber (BLS 5700) both with FDA certification for a higher safety.



#### **BAYONET CONNECTION**

This connection is highly intuitive, allowing a quick and safe hold on the mask. It has a locking feedback allowing the user to know if the filter has been properly placed. The double filter offers better weight distribution on the mask and a wider field of vision.



#### **FACEPIECE IN SILICONE**

Guarantees better performances and duration.



#### **ANTI-FOG**

Designed to avoid visor fogging through the control of the cold and hot air flows inside the mask without perishable surface treatments.



#### SCRATCH RESISTANT VISOR, OPTICAL CLASS 1 (EN 166)

The screen allows a panoramic visual field without optical distortions. A vitrification treatment on its surface makes it scratch resistant.



#### **HARNESS**

Fixed on 6 points directly on the rigid body of the mask allowing to distribute the weight of the respirator evenly without leaving face marks.

# Available products

CODE	PRODUCT	CLASS	FACIAL GASKET	VISOR	HOOD
8001083	BLS 5600	2	Thermoplastic rubber	Live Visor	
8001036	BLS 5700	2	Silicone rubber	Live Visor	
8001097	BLS 5700/C	2	Silicone rubber	Live Visor	<



Compatible with

BLS 200/201 SERIES FILTERS

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# REUSABLE DEVICES / FULL FACE MASK

# **BLS 5000 SERIES**

#### EASY REMOVAL







# Available products

CODE	PRODUCT	CLASS	FACE SEAL	VISOR
8001035	BLS 5150	3	Thermoplastic rubber	Live Visor
8001039	BLS 5400	3	Silicone rubber	Live Visor

### **Features**

101 FACE SEAL

Available in soft thermoplastic rubber (BLS 5150) or silicone rubber (BLS 5400) both with FDA certification for a higher safety.

O2 UNIVERSAL CONNECTION

Standard thread connection according to EN 148-1, universal among all respiratory protection devices.

FACEPIECE IN SILICONE
Guarantees better performances and duration.

ANTI-FOG

Designed to avoid visor fogging through the control of the cold and hot air flows inside the mask without perishable surface treatments.

O5 SCRATCH RESISTANT VISOR, OPTICAL CLASS 1\* (EN 166)

The screen allows a panoramic visual field without optical distortions. A vitrification treatment on its surface makes it scratch resistant.

ARNESS

Fixed on 6 points directly on the rigid body of the mask allowing to distribute the weight of the respirator evenly without leaving face marks.

CLASS 3

The masks classified in class 3 offer greater resistance to radiant heat and flame. They can be used for firefighting.











Watch the video





# REUSABLE DEVICES / FULL FACE MASK

# BLS 3000 SERIES

### **GLASS VISOR**



#### **Features**

# (01

#### **UNIVERSAL CONNECTION**

Standard thread connection according to EN 148-1, universal among all respiratory protection devices.



#### **ANTI-FOG**

Designed to avoid visor fogging through the control of the cold and hot air flows inside the mask without perishable surface treatments.



#### **GLASS VISOR**

To guarantee maximum protection of use, the glass is composed of three layers of anti-fragmentation film and guarantees high resistance against chemical agents.

# Available products

CODE	PRODUCT	CLASS	FACE SEAL	VISOR
8001064	BLS 3150	2	EPDM	polycarbonate
8001066	BLS 3150V	2	EPDM	glass



Compatibile with

**BLS 400 SERIES FILTERS** 

(pg 52)







# REUSABLE DEVICES / PAPR

# BLS 2600ne xt

## POWERED AIR PURIFYING RESPIRATOR WITH DUST FILTER





#### Features

#### **AUTOMATIC FLOW ADJUSTMENT**

Thanks to the automatic flow adjustment, BLS 2600next guarantees a flow of 160 l/min even when the filter is clogged.



#### **BATTERY**

The performing and light battery guarantees a duration of more than 10h in maximum comfort. For the charging phase, the BLS 2600next is equipped with a sturdy and ergonomic connector, while the status of charge is returned both by the LEDs on the motor unit and by the LED on the battery charger.



#### INTUITIVE MANAGEMENT OF ALARMS

The innovative management system provides the operator with the following feedbacks via the 3 coloured LEDs: battery charge status, low battery alarm, flow block alarm, filter clogging alarm, recharging status. All alarms are also signalled by a sound and a vibration.



#### **FILTER**

The TMP3 dust filter provides high filtration for long periods. It is protected by an easily removable ring nut. A practical anti-water cap protects the filter during the decontamination shower phase.



#### **COMFORT**

The PVC belt with adjustment buckles guarantees an optimal hold around the waist, while the padded support provides maximum comfort and perfect decontamination thanks to the quick release system.



#### ANTI-CONTAMINATION STORAGE KIT

Possibility of storage in maximum safety thanks to the DIN cap for the motor unit, the filter cap, the hose that can be closed on itself and the practical and sturdy container box, equipped with four handles, gasket and arrangement for the padlock.

# Available products

CODE	PRODUCT	DESCRIPTION
8103001	BLS 2600next	Powered air respirator



Compatibile with

BLS 5400 - BLS 5150 **FULL FACE MASK** 

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# They are called accessories but they are often indispensable.

Bags, frames, protective films, containers, multipurpose disinfectants: treat well those who make you breathe well.

# REUSABLE DEVICES

# **ACCESSORIES**



C43 Washable bag for half mask and filters.



C41
Washable bag with shoulder belt for full face masks and filters.



**C22**Frame for prescription lenses for BLS 5000 series full face masks.



**C90**Wall mounted container for full face mask and filters.



**Q409**150 ml disinfectant spray bottle.



**Q530**Multi-purpose disinfectant wipes in non-woven fabric for half masks and full face masks.



**K15**Polycarbonate visor cover for BLS 5000 series full face masks. Applications: in sandblasting and in presence of abrasive substances.



K19 / K16

Acetate for BLS 5000 series (K19) and BLS 3000 series (K16) full face masks.

Applications: Industrial painting and in presence of chemical splashes.



C10
Textile harness for full face mask more comfortable especially with long hair.

# FILTERS / BAYONET CONNECTION BLS 200 SERIES







Compatible with

HALF MASKS BLS 4000 next SERIES

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**FULL FACE MASKS BLS 5000 SERIES (5600, 5700, 5700/C)** 

(pg 40/41)



# Available products

CODE	PRODUCT	PROTECTION	COLOUR CODE
8011118	202 P3 R	Dust	0
8011109	211 A2	Organic gases and vapours, class 2	•
8011205	212 AX	Organic gases and vapours with a boiling point ≤ 65° C	•
8011110	213 ABE1	Organic, inorganic and acid gases and vapours, class 1	• • •
8011111	214 ABEK1	Organic, inorganic and acid gases, vapours, ammonia and derivatives, class 1	• • • •
8011112	221 A2P3 R	Organic gases and vapours, class 2 and dust	•0
8011113	222 ABEK1P3 R (2)	Organic, inorganic and acid gases and vapours and ammonia and derivatives, class 1 and dust	••••
8011206	225 AXP3 NR	Organic gases and vapours with a boiling point ≤ 65°C and dust	•0
8011145	226 ABE1P3 R	Organic, inorganic and acid gases and vapours, class 1 and dust	•••
8011133	242 ABE2 (3)	Organic, inorganic and acid gases and vapours, class 2	• • •
8011114	243 ABEK2 (3)	Organic, inorganic and acid gases, vapours, ammonia and derivatives, class 2	• • • •
8011134	244 K2	Ammonia and derivatives, class 2	•
8011140	253 ABE2P3 R (1)	Organic, inorganic and acid gases and vapours, class 2 and dust	•••
8011141	254 ABEK2P3 R <sup>(1)</sup>	Organic, inorganic and acid gases and vapours and ammonia and derivatives, class 2 and dust	••••
8011042	301 P2 NR <sup>(4)</sup>	Dust	0

- (1) these filters cannot be used with half masks because their weight is greater than 300g
- (2) these filters are tested against hydrogen fluoride
- (3) these filters are tested against formaldehyde
- (4) dust prefilter mounted on BLS 200 series gas filters

# FILTERS / BAYONET CONNECTION

# BLS 201 SERIES





★ Compatible with

HALF MASKS BLS 4000 next SERIES

FULL FACE MASKS BLS 5000 SERIES (5600, 5700, 5700/C)

(pg 40/41)



# Available products

CODE	PRODUCT	PROTECTION	CARBON LAYER
8011218	BLS 201-3 P3 R	Dust	
8011219	BLS 201-3C P3 R	Dust and nuisance odours	<b>V</b>

# FILTERS / UNIVERSAL CONNECTION EN 148-1

# **BLS 400 SERIES**







Compatible with

HALF MASK BLS SGE46

(pg 38/39)

**FULL FACE MASKS BLS 5000 SERIES (5150, 5400)** 

(pg 42/43)

**FULL FACE MASKS BLS 3000 SERIES** 

(pg 44/45)



# Available products

CODE	PRODUCT	PROTECTION	COLOUR CODE
8011013	401 P3 R	Dust	0
8011002	411 A2	Organic gases and vapours, class 2	•
8011023	412 AX	Organic gases and vapours with a boiling point lower than 65° C	•
8011005	413 K2	Ammonia and derivatives, class 2	•
8011016	414 ABE2	Organic, inorganic and acid gases and vapours, class 2	• • •
8011007	415 ABEK2	Organic, inorganic and acid gases and vapours and ammonia and derivatives, class 2	•••
8011008	421 A2P3 R	Organic gases and vapours, class 2 and dust	•0
8011024	422 AXP3 NR	Organic gases and vapours with a boiling point lower than 65°C and dust	•0
8011017	423 ABE2P3 R (1)	Organic, inorganic and acid gases and vapours, class 2 and dust	•••0
8011022	424 ABEK1P3 R	GOrganic, inorganic and acid gases and vapours, ammonia, class 1 and dust	••••
8011012	425 ABEK2P3 R (1)	Organic, inorganic and acid gases and vapours, ammonia, class 2 and dust	••••
8011014	430 ABEK2HgP3 R (1)	Organic, inorganic and acid gases and vapours and ammonia and derivatives class 2 mercury vapours and dust	••••
8117004	441 ABEK2HgN0C0P3 R	Organic, inorganic, acid gases and vapors, ammonia and derivatives, mercury vapor, sulfur dioxide, nitrous gases, carbon monoxide, and dust	•••••
8117005	442 P3 Reaktor R D	Dust, radioactive iodine, including radioactive iodomethane	•0

<sup>(1)</sup> these filters cannot be used with half masks because their weight is greater than 300g

# BLS is a manufacturer specialized in respiratory protection devices.

Always with you, while doing the most important thing: breathing.

# OVERVIEW

# BLS PRODUCTS



















# OVERVIEW

# BLS PRODUCTS



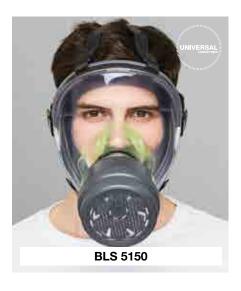
















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