

# CONTENT

<b>HEADTOPS</b>	
CA-1	4
CA-2	6
CA-10	8
UniMask	10
CA-3	14
CA-4	16
GX02	18
CF02	20
CleanAIR® Ultimate	22
<b>PAPR</b>	
Chemical 2F	26
Chemical 2F Ex	30
Chemical 3F	32
D-Bug	34
Pressure	36
Pressure For Mask	38
<b>ASBESTOS</b>	
Chemical 2F Asbest	40
Asbest	44
CleanAIR® Ultimate	48
<b>FILTRES, ACCESSORIES</b>	
Filtres	52
Accessories	54
Compatibility table	58
Parts & accessories	60

## ABOUT US

The company **MALINA – Safety s.r.o.** specializes in the design, development and production of the complete range of personal respiratory protection systems CleanAIR®. Our products are designed with emphasis on the user's safety and comfort and are fully approved according to the relevant standards. Personal respiratory protection systems CleanAIR® are exported to more than 40 countries worldwide and represent a significant part of the respiratory protection market.

The long-term experience in the health and safety sector (since 1993) together with our own research and development team guarantee our ability to offer innovative and unique solutions even for special applications. The high quality of our products is ensured by our own production facilities located in the Czech Republic and process management meeting standards ISO 9001 and AQAP 2110.

Our powered air purifying respirators for personal protection offer a solution to the environments with diverse demands on the level of respiratory protection and are widely used in the manufacturing industry, chemical, pharmaceutical, food processing industry and agriculture.

## THE IMPORTANCE OF RESPIRATORY PROTECTION IN OCCUPATIONAL SAFETY

The risk of respiratory illnesses and a potential impact on human health is an important problem in the workplace that should be taken into consideration by both employees and employers. If human lungs are exposed to the high concentrations of dust, smoke, welding smoke, aerosols or toxic gases or vapours, their capacity can be decreased or they can be damaged. Some particularly dangerous substances can cause severe harm to the other human organs. This risk can be effectively prevented with the use of personal respiratory protection equipment.

## CLEANAIR® – POWERED AIR PURIFYING RESPIRATORY SYSTEMS

CleanAIR® is a complete system of personal respiratory protection based on the principle of overpressure of the filtered air in the breathing zone. The system consists of a powered air respirator which is installed on the wearer's belt and filtrates the air taken from the surrounding environment through the efficient particle, gas or combined filters. The purified air is delivered through the breathing tube into a protective mask or hood.

The overpressure inside the system prevents the hazardous substances from entering the breathing zone. This mild overpressure at the same time ensures the wearer's comfort, even with long-term use, as the wearer is not forced to overcome the breathing resistance of the filter.

## HOW TO SELECT PROPER RESPIRATORY PROTECTIVE EQUIPMENT?

(based on knowledge of Nominal Protection Factor)

### 1. You need to know the concentration of the hazardous substance in a workplace

### 2. You need to know assigned Workplace Exposure Limit (WEL)

The list of the most typical contaminants and relevant WEL's can be found in our "Filter Guide" where the information were taken from HSE publication EH40/2005 Workplace Exposure Limits, or you can source it from local authorities.

WEL's are occupational exposure limits [concentrations] of a specific airborne substance averaged over a reference period, to which workers may be exposed without experiencing significant adverse health effects. There are two reference periods for which the WELs may be set: 8-hour Time Weighted Average (TWA) and 15-minute Short Term Exposure Limit (STEL).

### TWA [Time Weighted Average] – 8 hours [long term]

TWAs are set to help preventing health effects which require prolonged or accumulated exposure.

### STEL [Short Term Exposure Limit] – 15 minutes [short term]

STELs are set to help prevent health effects which may be seen after short exposure (e.g. eye irritation that could occur after a few minutes) The absence of a substance from the list of WELs does not indicate that it is safe. For these substances, exposure should be controlled to a level to which nearly all the working population could be exposed, day after day at work, without any adverse effects on health.

### 3. You need to determine the needed minimum protection factor of RPE

For example: Powered air purifying respirator incorporating a hood classified as TH3 according to EN 12 941 has a maximum inward leakage of 0,2 %.  
Therefore NPF = 100 [%] : 0,2 [%]= 500.

## MPEL:

CONTAMINANT	ACETIC ANHYDRIDE [gas protection needed]
Concentration at the workplace	100 mg / m <sup>3</sup>
WEL	2,5 mg / m <sup>3</sup>

$$\text{Minimum protection factor} = \frac{\text{Concentration at the workplace}}{\text{WEL}} = \frac{100}{2,5} = 40$$

## EXANOMINAL PROTECTION FACTOR (NPF)

Theoretical level of protection of Respiratory Protective Equipment calculated using performance data measured in the laboratory. It indicates the mathematically calculated maximum breathing protection performance. Calculated by dividing 100 by the total value of maximum inward leakage as specified in the relevant standard.

### Nominal protection factors (NPF) and assigned protection factors in different countries

DESCRIPTION / DEVICE	CLASS	NPF	ASSIGNED PROTECTION FACTORS (USED IN SOME COUNTRIES)				
			FIN	D	I	S	UK
PAPR with helmet or hood EN 12941	TH1	10	5	5	5	5	5
	TH2	50	20	20	20	20	20
	TH3	500	200	100	200	200	40
PAPR with half or full face mask EN 12942	TM1	20	10	10	10	10	10
	TM2	200	100	100	100	100	20
	TM3	2000	1000	500	400	1000	40
Continuous flow compressed airline breathing apparatus EN 14594	1A/1B	10	-	-	-	-	-
	2A/2B	50	-	-	-	-	-
	3A/3B	200	-	-	-	-	-
	4A/4B	2000	-	-	-	-	-

## WHAT IS THE MAXIMUM CONCENTRATION OF THE CONTAMINANT FOR WHICH I CAN USE RESPIRATORY PROTECTION?

You can determine the maximum permissible concentration by multiplying the nominal protection factor [as found in the NPF table] by the Workplace Exposure Limit

## CAUTION!

In the case where the contaminants are present in both particle and gas form, the necessary NPF must be established for each one separately and the higher protection factor must be applied.

**CA-1****Ultralight hood with superior breathing protection**

This short light hood is an optimal solution for respiratory protection and face protection in dusty and light chemical environments where no further mechanical protection is required. In combination with PAPR or airline systems CleanAIR® it reaches the highest level of respiratory protection.

It perfectly fits to various head types due to adjustable headgear and comfortable elastic rubber band. The distance of the visor can be set individually, as well as the perimeter of the headgear. The light nylon fabric and spacy cut makes it pleasant to wear even for long time work. The wide panoramic visor with antifog coating ensures undisturbed view and provides basic mechanical protection of the eyes.

PRODUCT DESCRIPTION	PRODUCT CODE
Short protective hood CA-1, orange	72 01 02
Short protective hood CA1, blue	72 01 02B

**TECHNICAL DATA**

PARAMETERS	SPECIFICATION
Weight	180 g
Material	hood – nylon visor – cellulose propionate
Protection factor (NPF)	500
Hose connection	QuickLOCK™
Certification	EN 12941 TH3 EN 14594 3A EN 166 1SF

**APPROVED COMBINATIONS****FEATURES AND BENEFITS**

- Superior breathing protection
- Wide visor with antifog coating
- Individual headgear settings – adjustable perimeter and distance from the visor
- Pleasant to wear due to the spacy cut and light weight durable material
- Basic mechanical protection of the eyes
- Practical reflective tab on the top

**AREAS OF APPLICATION**

The hood is suitable for use for work in dusty and light chemical environments in pharmaceutical and chemical industries.





PRODUCT DESCRIPTION	PRODUCT CODE
Long protective hood CA-2, orange	72 02 03
Long protective hood CA-2, blue	72 02 03B

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	240 g
Material	hood – nylon visor – cellulose propionate
Colour	orange, blue
Protection factor (NPF)	500
Hose connection	QuickLOCK™
Certification	EN 12941 TH3 EN 14594 3A EN 166 1SF

APPROVED COMBINATIONS		
CleanAIR® Chemical 2F	CleanAIR® Chemical 3F	CleanAIR® Pressure Flow Master

## FEATURES AND BENEFITS

- Superior respiratory protection
- Wide visor with antifog coating
- Individual headgear settings – adjustable perimeter and distance from the visor
- Pleasant to wear due to the spacy cut and light weight durable material
- Basic mechanical protection of the eyes
- Practical reflective tab on the top
- Protection of the upper part of the body

## AREAS OF APPLICATION

The hood can be used in dusty or light chemical environments. It is suitable for spraying and painting operations as well as for use in the laboratories and pharmaceutical industry.





PRODUCT DESCRIPTION	PRODUCT CODE
Long protective hood CA-10, chemically resistant	72 10 03

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	220 g
Material	hood – polyethylene laminated visor - cellulose propionate
Colour	yellow
Protection factor (NPF)	500
Hose connection	QuickLOCK™
Certification	EN 12941 TH3 EN 14594 3A EN 166 1SF





## UniMask

### Light universal face shield providing the highest comfort and safety

The highest level of breathing protection with enhanced inner airflow regulation and a visor with excellent optical and mechanical features make this universal light face shield a true leader of its class. UniMask is light (just 380 g) and offers excellent user's comfort – the inner airflow regulation allows the user to set direction and intensity of the air to be delivered to the face or directly into the breathing zone. The users can opt for a soft textile or a neoprene face seal according to their preferences. The visor provides clear and undisturbed view of the highest quality (class 1 according to EN 166), high mechanical resistance and the anti-fog coating. UniMask is easy to use and all spare parts are quickly and easily removable which enables fast and simple maintenance.

PRODUCT DESCRIPTION	PRODUCT CODE
Protective face shield UniMask, grey	72 03 00.01
Protective face shield UniMask, blue	72 03 00.02
Protective face shield UniMask, orange	72 03 00.03
Protective face shield UniMask, red	72 03 00.04
Protective face shield UniMask, neoprene	72 03 00.08

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	380 g
Material	shield body – polyamide faceseal - neoprene or 3D polyamide knit visor - polycarbonate
Protection factor (NPF)	500
Hose connection	QuickLOCK™
Certification	EN 12941 TH3 EN 14594 3B EN 166 1BT

APPROVED COMBINATIONS		
CleanAIR® Chemical 2F	CleanAIR® Chemical 3F	CleanAIR® Pressure Flow Master

### FEATURES AND BENEFITS

- The highest class of breathing protection TH3
- Enhanced inner airflow regulation
- Light weight – only 380 g
- Excellent optical quality EN 166 class 1
- High mechanical resistance of the visor
- Anti-fog coating
- Safety helmet compatible
- Neoprene or textile face seal option
- Easy to use and adjust
- Fast and simple maintenance

### AREAS OF APPLICATION

UniMask can be used for spray painting or surface finishing operations in the environments with low demands on chemical resistance, typically in chemical and pharmaceutical industry and laboratories.



## EASY AND QUICK CHANGING OF THE VISOR

In case the visor has to be replaced or separately cleaned, it can be easily removed and attached back to the hood using two simple locking knobs.



## TORIC VISOR WITH AN EXCELLENT OPTICAL QUALITY

UniMask is the only universal faceshield of its class on the market with a toric visor which offers the best class of optical quality (EN 166 class 1). The visor with anti-fog / anti-scratch coating guarantees excellent field of vision and increased durability. It provides protection against high-speed particles with medium energy even in high temperatures.

Spare protective visor UniMask, clear	72 03 30
Spare protective visor UniMask, yellow	72 03 30.01
Spare protective visor UniMask, shade 3	72 03 30.02
Spare protective visor UniMask, shade 5	72 03 30.03



## INNER AIRFLOW REGULATION



## QUICKLY EXCHANGEABLE FACE SEAL WITH EASY MAINTENANCE

The face seal ensures secure and comfortable fit for the wearer. Thanks to a fast click-in system the face seal can be easily and quickly removed and attached back. The face seals can be washed in a washing machine and even dried in the dryer.



## FACE SEAL MATERIAL AND COLOUR OPTIONS

The face seals for UniMask are available in two material options to better suit various user's preferences.

**Soft textile face seal** ensures perfect absorption of the sweat and is available in four colour options.

Face seal UniMask, grey	72 03 50.01
Face seal UniMask, blue	72 03 50.02
Face seal UniMask, orange	72 03 50.03
Face seal UniMask, red	72 03 50.04

**Neoprene face seal** is more convenient to the higher concentrations of dust thanks to easier cleaning.

Face seal UniMask, neoprene	72 03 50.08
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## SAFETY HELMET COMPATIBLE

UniMASK can be used with a wide range of industrial safety helmets to provide a handy solution of head protection combined with protection of the face and breathing.





## CA-3

### Spacy shield with an unlimited view

This popular light protective shield with a wide acetate visor provides face and respiratory protection against splash of chemicals. The visor offers a broad and clear field of vision, high chemical resistance and protection against liquid spraying. Changing the visor is easy and does not require any special skills. The wearers appreciate its spaciousness and comfort due to the soft sweatband and adjustable headgear. Attention! Acetate visor is not recommended for grinding operations!

PRODUCT DESCRIPTION	PRODUCT CODE
Protective shield CA-3 (acetate)	71 03 01

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	520 g
Material	shield body – polyamide [Zytel] headgear – polyamide visor – acetate
Protection factor (NPF)	50
Hose connection	QuickLOCK™
Certification	EN 12941 TH2 EN 14594 2A EN 166 FT

APPROVED COMBINATIONS		
CleanAIR® Chemical 2F		CleanAIR® Chemical 3F
CleanAIR® Pressure Flow Master		

## FEATURES AND BENEFITS

- Light and spacious helmet
- Broad field of vision
- High chemical resistance
- Easily exchangeable visor
- Comfortable adjustable headgear
- Soft headband

## AREAS OF APPLICATION

CA-3 finds application in many sectors like environments with high chemical resistance requirements, chemical industry, laboratories and spray painting.





## CA-4

### Lightweight industrial safety helmet with air distribution

CA-4 safety helmet combines respiratory protection with protection of the head, face and ears and can be modified according to the wearer's needs. The helmet can be equipped with further safety elements: an additional flip-up acetate visor (transparent or green DIN 5), earmuffs or a long cape for protection of the neck against splash of liquids. The wide panoramic visor with an anti-fog coating enables good orientation. The helmet fits well thanks to adjustable headgear and is provided with a sweatband.

PRODUCT DESCRIPTION	PRODUCT CODE
Safety helmet CA-4 (orange face seal)	71 04 01*
Safety helmet CA-4 with long protective hood (orange face seal)	71 04 00V
* If blue face seal is required, please, add "B" to the end of the product code	

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	850 g
Material	inner visor - cellulose propionate flip-up visor - acetate / polycarbonate hard hat - polyethylene head harness - textile frame - polyester with PVC coating
Protection factor (NPF)	50
Hose connection	QuickLOCK™
Certification	EN 12941 TH2 EN 14594 3A EN 166 1B9 EN 397

APPROVED COMBINATIONS		
CleanAIR® Chemical 2F	CleanAIR® Chemical 3F	CleanAIR® Flow Master

### FEATURES AND BENEFITS

- Combined respiratory protection and protection of the head, face and ears
- Wide field of vision
- Anti-fog coating
- Can be equipped with additional safety elements
- Comfortable adjustable headgear

### AREAS OF APPLICATION

The helmet can be used in chemical industry and laboratories as well as for chemical spraying.





## GX02

### High-end full face mask with advanced ergonomic design

The full face mask Shigematsu GX02 offers the highest level of respiratory protection in highly contaminated environments. The mask can be used with a wide range of standard canister filters and powered air purifying systems CleanAIR®. The mask body is made of a high quality silicone which ensures extensive chemical resistance and a long operation life. Its double seal flange maintains maximal seal while keeping the high level of comfort for the wearer supported by two exhalation valves reducing the breathing resistance and keeping the mask cool and dry. The six point head harness ensures secure and easy fit. The wide panoramic visor provides a broad visual field. The visor is equipped with antiscratch coating that guarantees high mechanical resistance which can be further increased by a protection foil. The visor is exchangeable. The mask is equipped with a speech diaphragm which facilitates communication.

PRODUCT DESCRIPTION	PRODUCT CODE
Full face mask GX02, size S	71 06 00S
Full face mask GX02, size M	71 06 00M
Full face mask GX02, size L	71 06 00L

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	660 g [size S] 673 g [size M] 700 g [size L]
Available sizes	S, M, L
Material	material mask body – silicone rubber visor – polycarbonate head harness – natural rubber
Protection factor (NPF)	2000
Hose/filter connection	RD40x1/7"
Certification	EN 12942 TM3 EN 136 CL3

APPROVED COMBINATIONS				
CleanAIR® Chemical 2F	CleanAIR® Chemical 3F	CleanAIR® Asbest	CleanAIR® D-Bug	CleanAIR® For Mask

### FEATURES AND BENEFITS

- Double seal flange for maximum protection and comfort
- High chemical resistance
- Exchangable wide panoramic visor
- Anti scratch coating
- Six point head harness
- Two exhalation valves ensure a low breathing resistance
- Speech diaphragm
- Visor protection foil available

### AREAS OF APPLICATION

The mask is suitable for use in the environments with heavy chemical or biological contamination and meets the highest demands on respiratory protection. Besides chemical industry it can be used in pharmaceutical industry, laboratories, spraying facilities and by remediation operations.





## CF02

### Lightweight full face mask with a superior visor

CF02 is a lightweight full face mask suitable to the demanding chemical conditions. The mask can be used with a wide range of standard canister filters and powered air purifying systems CleanAIR®. The mask has a superior spherical visor which is minimizing the distance between the eyes and the visor. This design feature eliminates distortion and provides clear and broad field of vision. The visor is equipped with anti-scratch coating that guarantees high mechanical resistance which can be further increased by a protection foil. The mask body is made of high quality Styrene TPE which guarantees high chemical resistance and a long operation life. The six point head harness ensures secure and easy fit. Its non-sticky surface prevents from hair entanglement.

PRODUCT DESCRIPTION	PRODUCT CODE
Full face mask CF02, size M	72 06 00M
Full face mask CF02, size L	72 06 00L

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	435 g (both sizes)
Available sizes	M, L
Material	mask body – thermoplastic elastomer TPE visor – polycarbonate head harness – polybutylene terephthalate TPU
Protection factor (NPF)	2 000
Hose/filter connection	RD40x1/7"
Certification	EN 12942 TM3 EN 136 CL3

APPROVED COMBINATIONS				
CleanAIR® Chemical 2F	CleanAIR® Chemical 3F	CleanAIR® Asbest	CleanAIR® D-Bug	CleanAIR® For Mask

### FEATURES AND BENEFITS

- Lightweight – 435 g
- High chemical resistance
- Superior spherical visor
- Anti-scratch coating
- Six point head harness
- Can be used with a wide range of canister filters
- Two exhalation valves – low breathing resistance
- Protection foil available

### AREAS OF APPLICATION

The mask is suitable for use in the chemical or biological conditions and meets the highest demands on respiratory protection. Besides in the challenging chemical industry it can be used in pharmaceutical industry, laboratories, spraying facilities and by remediation operations.





## CleanAIR® Ultimate

**A revolutionary concept of an overpressured protective suit for highly contaminated environments.**

The system uniquely combines the highest protection level of the full face mask with all the benefits of the ventilated protective coverall.

The CleanAIR® Ultimate coverall is designed solely for use in combination with the headtop CleanAIR Ultimate GX and the powered air purifying respirator CleanAIR® Chemical 2F.

PRODUCT DESCRIPTION	PRODUCT CODE
CleanAIR® Ultimate 2500 Protective Coverall - size S/M/L/XL, pack of 20 pcs	90 25 00*/20
CleanAIR® Ultimate GX, size S/M/L, incl. clamp frame, grommets 2pcs	73 06 01**
CleanAIR® Chemical 2F Asbest – incl. Li-Ion battery, decontaminable hypalon belt, charger, flow indicator	51 00 00ASD

\* Add S/M/L/XL for the required size

\*\* Add S/M/L for the required size

### TECHNICAL DATA

PARAMETERS	SPECIFICATION
Weight	960 g (including standard battery)
Dimension	240 mm / 110 mm / 120 mm
Airflow	adjustable 160 -235 lpm
Alarm	audio, visual
Operation* / charging time	< 10 / < 3 h standard battery < 20 / < 5,5 h Heavy Duty battery
Battery	Li-Ion 14,4 V / 2,6 Ah (standard) Li-Ion 14,4 V / 5,2 Ah (Heavy Duty)
Hose connection	CA40x1/7"
Certification	EN 12941 TH3 EN 12942 TM3 EN10731 class 5 (NPF 50.000) Ingress protection IP64/IP65/IP68

\* at 160 lpm with brand new P R SL filters and fully charged battery

AVAILABLE FILTER TYPE		
PARTICLES	COMBINED - Class 1	COMBINED - Class 2
	N/A	

### FEATURES AND BENEFITS

- Easy to wear system
- Continuous respiratory protection even during doffing the suit
- The PAPR and filters are completely sheltered by the coverall
- High level of airflow for greater comfort
- Advantageous economical operation

### AREAS OF APPLICATION

- Remediation operations, laboratories, pharmaceutical industry
- First responders and emergency teams
- Biological protection





## HOW IT WORKS?

The filtered air is driven through the air hose right into the face mask, while the surplus and the exhaled air goes into the coverall and creates overpressure. The PAPR including filters stays sheltered under the coverall. The connection between the suit and the filters is built up by special **garment grommets**. This design solution allows continuous respiratory protection even during the procedure of doffing the suit.



## ULTIMATE GX

The face piece Ultimate GX offers all the benefits of panoramic full face mask Shigematsu GX02 and at the same time it ensures a simple connection to the built-in blower unit. The secure connection of the hood with the full face mask Ultimate GX is provided by a unique clamp frame.

CleanAIR® Ultimate GX, size S, incl. clamp frame, grommets 2pcs	73 06 01S
CleanAIR® Ultimate GX, size M, incl. clamp frame, grommets 2pcs	73 06 01M
CleanAIR® Ultimate GX, size L, incl. clamp frame, grommets 2pcs	73 06 01L
Clamp frame Ultimate	73 06 10



## ULTIMATE 2500 COVERALL

Delivers maximum strength and liquid and particle barrier properties. Special emphasis was placed on intuitive and easy donning and doffing.

Elasticated face opening allows easy attachment to the Ultimate GX face piece. The coverall is supplied with elasticated wrists, ankles and waist and incorporates a two way front zipper and extended storm flaps.

CleanAIR® Ultimate 2500 coverall is designed solely for use in combination with CleanAIR® Ultimate GX mask and the powered air respiratory system CleanAIR® Chemical 2F.

The complete system CleanAIR Ultimate provides respiratory, face and body protection from solid and liquid aerosols, particulate radioactive contamination or infective agents.

CleanAIR® Ultimate 2500 Protective Coverall - size S/M/L/XL, pack of 20 pcs 90 25 00\*\*/20

\*\* Add S/M/L/XL for the required size



## THE SYSTEM IS POWERED BY CLEANAIR® CHEMICAL 2F

For a more detailed information please refer to page 28 of this catalogue.

CleanAIR® Chemical 2F with activated „Asbestos“ mode incl. decontaminable Hypalon belt, Li-Ion battery, charger, flow indicator (w/o hose)	51 00 00ASD
CleanAIR® Chemical 2F with activated „Asbestos“ mode incl. decontaminable rubber belt, Li-Ion battery, charger, flow indicator (w/o hose)	51 00 00ASR
Rubber hose CA40x1/7" – CA40x1/7"	70 00 86CA
Rubber hose CA40x1/7" – CA40x1/7", extended (900mm)	70 00 86L





## Chemical 2F

**Compact, lightweight yet powerful.... Meet the most versatile and durable respirator on the market.**

Despite its compact design and low weight, Chemical 2F is characterized by outstanding durability, chemical resistance and increased ingress protection. The thought-out design with a smooth surface allows easy decontamination by shower or even full immersion. The unique automatic closing system prevents unwanted contamination while the filters are being changed. The smart Flow Control system maintains the airflow on the constant level regardless filter clogging or low battery charge. Audiovisual alarm indicates when the battery charge and/or filter replacement is required. Adjustable airflow from 120 up to 235 lpm is available during the whole shift no matter of the type of the filter thanks to optional Heavy Duty battery.

PRODUCT DESCRIPTION	PRODUCT CODE
CleanAIR® Chemical 2F incl. comfort belt, Li-Ion battery, charger, flow indicator (w/o hose)	51 00 00FCA
CleanAIR® Chemical 2F incl. decontaminable belt, Li-Ion battery, charger, flow indicator (w/o hose)	51 00 00FDA
CleanAIR® Chemical 2F with activated „Garment“ mode incl. comfort belt, Li-Ion battery, charger, air hose, locking nut, flow indicator	MIC51 00 00FC
CleanAIR® Chemical 2F with activated „Garment“ mode incl. comfort belt, Li-Ion battery, charger, air hose, locking nut, flow indicator	MIC51 00 00FD

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	960 g (including standard battery)
Dimension	240 mm / 110 mm / 120 mm
Airflow	adjustable 120 - 235 lpm
Alarm	audio, visual
Operation* / charging time	< 10 / < 3 h standard battery < 20 / < 5,5 h Heavy Duty battery
Battery	Li-Ion 14,4 V / 2,6 Ah (standard battery) Li-Ion 14,4 V / 5,2 Ah (Heavy Duty battery)
Hose connection	CA40x1/7"
Certification	EN 12941 TH3 EN 12942 TM3 Ingress protection IP64/IP65/IP68

\* at 160 lpm with brand new P R SL filters and fully charged battery

AVAILABLE FILTER TYPE		
PARTICLES	COMBINED - Class 1	COMBINED - Class 2

\* for all available filter configurations (gas, combined) please refer to the "Spare parts" of the catalogue

## FEATURES AND BENEFITS

- Compact design and low weight
- Compatible with a hood, mask or ventilated protective suit
- High mechanical and chemical resistance
- Increased ingress protection allows decontamination by shower or even full immersion (IP64/IP65/IP68)
- Full colour display clearly shows all the relevant information - filter clogging, battery charge, airflow
- Flow Control system maintains constant airflow regardless of the level of filter clogging or battery charge
- Operation time up to 16 hours with Heavy Duty battery, or up to 10 hours with standard battery
- Short battery recharging time < 3 hours (standard battery)
- Audiovisual alarm
- Multilingual user interface
- Back harness available for increased comfort

## AREAS OF APPLICATION

- Heavy industrial environments including chemical and pharmaceutical industry
- Remediation operations, laboratories
- First responders and emergency teams
- Biological protection



## FULL COLOUR DISPLAY

Full colour display clearly shows all the relevant information – airflow, battery charge, filter clogging.



## FILTER TIMER

Just set the filter timer according to your needs and the system will trigger the alarm when filter replacement is required.

## COMPATIBLE WITH MICROGARD/ MICROCHEM PAPR PROTECTIVE SUITS

Ventilated suits with filtered air (powered by CleanAIR® Chemical 2F) and MICROGARD® / MICROCHEM® technology provide respiratory, face and body protection from various hazardous substances including but not limited to solid and liquid aerosols, asbestos, paint, oil, grease, viruses and blood borne pathogens.



## AUTOMATIC CLOSING SYSTEM

The unique automatic closing system prevents unwanted contamination while the filters are being changed.



## HEAVY DUTY BATTERY

The high capacity battery doubles the operation time. No more necessary changing or charging the battery during a long shift even when using gas and combined filters.

Battery Li-Ion Heavy Duty, Li-Ion 14,4V / 5,2Ah

51 00 20



## BACK HARNESSES FOR INCREASED BACK SUPPORT AND HIGHER COMFORT

Comfort padded harness

Decontaminable harness

52 00 441

51 00 42



## MAXIMIZED WATER INGRESS PROTECTION IP68

The thought-out design with a smooth surface allows easy decontamination by the shower or even full immersion.

**IP64** Shower decontamination<sup>1</sup> – full protection from splash of liquids from any angle

**IP65** Shower decontamination<sup>2</sup> – full protection from water jets from any angle.

**IP68** Immersion disinfection<sup>3</sup> – full protection from continuous submersion in water/disinfection solution. Disinfection of CleanAIR® Chemical 2F is feasible e.g. with sodium hypochlorite solution and peroxyacetic solution (Persteril).

<sup>1</sup> When the system is ON, fitted with CleanAIR® filters

<sup>2</sup> When the system is ON, fitted with CleanAIR® filters incorporating pre-filter holder and spark arresters

<sup>3</sup> When the system is OFF, fitted with decontamination plugs





## Chemical 2F Ex

**The most versatile and durable respirator is newly available in ATEX version which can be used in potentially explosive atmospheres.**

Despite its compact design and low weight, Chemical 2F is characterized by outstanding durability, chemical resistance and increased ingress protection. The thought-out design with smooth surface allows easy decontamination by shower or even full immersion. The unique automatic closing system prevents unwanted contamination while the filters are being changed. The smart Flow Control system maintains the airflow constant regardless filter clogging or low battery charge. Audiovisual alarm indicate when the battery charge and/or filter replacement is required. Airflow is individually adjustable from 120 lpm up to 235 lpm.

PRODUCT DESCRIPTION	PRODUCT CODE
CleanAIR® Chemical 2F Ex - incl. comfort belt Ex, Li-Ion battery, charger, light flexi hose QuickLOCK™, flow indicator	51 EO 00FC
Short hood CA-1 Ex, orange, uni size	72 E1 02
Short hood CA-1 Ex, blue, uni size	72 E1 02B
Long hood CA-2 Ex, orange, uni size	72 E2 02
Long hood CA-2 Ex, blue, uni size	72 E2 02B
Comfort padded belt for Chemical 2F Ex	71 EO 92

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	960 g (including battery)
Dimension	240 mm / 110 mm / 120 mm
Airflow	adjustable 120 -235 lpm
Alarm	audio, visual
Operation* / charging time	< 10 / < 3 h
Battery	Li-ion 14.4 V / 2,6 Ah [standard]
Hose connection	CA40x1/7"
Certification	EN 12941 TH3 EN 12942 TM3
ATEX classification	Ingress protection IP64/IP65/IP68 II 3 G IIB T4 Gc II 3 D IIIC 135°C Dc

\* at 160 lpm with brand new P R SL filters and fully charged battery

AVAILABLE FILTER TYPE		
PARTICLES	COMBINED - Class 1	COMBINED - Class 2

\* for all available filter configurations (gas, combined) please refer to the "Spare parts" of the catalogue

## FEATURES AND BENEFITS

- Compact design and low weight
- Specially adapted for use in potentially explosive atmospheres – approved to Zone 2
- Compatible with a hood, mask or ventilated protective suit
- High mechanical and chemical resistance
- Increased ingress protection allows decontamination by shower or even full immersion (IP64/ IP65/IP68)
- Full colour display clearly shows all the relevant information - filter clogging, battery charge, airflow
- Flow Control system maintains constant airflow regardless of the level of filter clogging or battery charge
- Short battery recharging time < 3 hours
- Audiovisual alarm
- Multilingual user interface

## AREAS OF APPLICATION

- Potentially explosive atmospheres – approved to Zone 2
- Heavy industrial environments including chemical and pharmaceutical industry
- Remediation operations, laboratories
- First responders and emergency teams
- Biological protection





## Chemical 3F

### Powerful and durable respirator for the most demanding industrial applications

High level of performance, mechanical and chemical resistance, UV resistance and ingress protection IP64 guarantee the sufficient protection of the wearer even in heavy industrial environments, the chemical industry, laboratories and pharmaceutical industry. Airflow can be individually set according to the user's needs. The outstanding performance makes the system very suitable especially for highly contaminated workplaces.

PRODUCT DESCRIPTION	PRODUCT CODE
CleanAIR® Chemical 3F incl. comfort belt, Li-Ion battery, charger, flow indicator (w/o hose)	52 00 00FCA
CleanAIR® Chemical 3F incl. decontaminable belt, Li-Ion battery, charger, flow indicator (w/o hose)	52 00 00FDA

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	1100 g (including standard battery)
Dimension	320 mm / 200 mm / 150 mm
Airflow	adjustable 120 – 235 lpm
Alarm	audio and visual
Operation* / charging time	< 10 / < 3 h
Battery	Li-Ion 14,4 V / 2,6 Ah
Hose connection	CA40x1/7"
Certification	EN 12941 TH3 EN 12942 TM3 Ingress protection IP64

\* at 160 lpm with brand new P R SL filters and fully charged battery

AVAILABLE FILTER TYPE		
PARTICLES	COMBINED - Class 1	COMBINED - Class 2

\* for all available filter configurations (gas, combined) please refer to the "Spare parts" of the catalogue

### FEATURES AND BENEFITS

- High mechanical and chemical resistance
- Airflow adjustable from 120 up to 235 lpm
- Decontaminable by shower – IP64
- Full colour display clearly shows all the relevant information - filter clogging, battery charge, airflow
- Flow Control system maintains constant airflow regardless of the level of filter clogging or battery charge
- Li-Ion battery and quick battery charger (charging time < 3 h)
- Audiovisual alarm
- Multilingual user interface
- Back harness available for increased comfort

### AREAS OF APPLICATION

- Heavy industrial environments including chemical and pharmaceutical industry
- Remediation operations, laboratories
- First responders and emergency teams





## D-Bug

### Exceptionally light powered air purifying respirator with a versatile use

CleanAIR® D-BUG offers its users a choice of particle or combined filters on a lightweight powered air purifying respirator mountable directly on the full face mask. This solution offers respiratory and face protection against harmful particles, gases or vapours. The system offers two options of wearing: for maximal freedom of movement it can be attached directly to the full face mask or for minimal weight carried on the head it can be placed on the belt using a hose and a special adaptor supplied with the respirator.

The complete system with a full face mask Shigematsu and a highly effective filter guarantees a high nominal protection factor (NPF 2000) and a sufficient airflow. The respirator is equipped with a new brushless motor that maintains its speed on a constant level and with a low battery indication. Special emphasis was placed on the low weight, simple operation and a long operation life of the system. The respirator can be decontaminated by a shower.

PRODUCT DESCRIPTION	PRODUCT CODE
CleanAIR® D-Bug including accessories (battery, 2x filter ABEP, hose 350mm, charger, belt and flow indicator – without mask!)	49 00 02

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	210 g (excl. filter and battery)
Airflow	200 l/min with P R SL particle filter 100 l/min with A1B1E1P R SL combined filter
Filter type	particle P R SL combined A1B1E1P R SL
Battery	Li-Ion 7,2 V / 2,6 Ah
Operation time	460 min with P R SL filter 510 min with combined A1B1E1P R SL filter
Protection factor (NPF)	2 000
Certification	EN 12942 TM3

AVAILABLE FILTER TYPE		
PARTICLES	COMBINED - Class 1	COMBINED - Class 2
		N/A

### FEATURES AND BENEFITS

- Can be used with particle or combined filters
- Compact design and light weight
- Simple operation
- Low battery indication
- Mountable directly to the mask or on the belt
- Decontaminable by a shower
- Operation time can exceed 7 h depending on airflow and filters used
- Compatible with CleanAIR® full face masks GX02 or CF02
- High nominal protection factor NPF 2000

### AREAS OF APPLICATION

The system is suitable for use in the environments with particulate or chemical contamination such as in the building industry, agriculture, public maintenance services, for remediation operations, pest control.





## Pressure

### Solutions for compressed air

Systems CleanAIR® Pressure/Pressure Flow Master are constant flow supplied air respirators suitable for a long term work in the heaviest industrial environments. The regulator on the belt unit can adjust the amount of air coming from the central compressed air distribution system or a compressor and keeps it at a constant level without regard to the changes of inlet pressure.

PRODUCT DESCRIPTION	PRODUCT CODE
CleanAIR® Pressure including accessories (belt and flow indicator)	63 00 00
CleanAIR® Flow Master including accessories (comfort belt and flow indicator)	67 00 00
CleanAIR® Pressure Conditioner with stand	61 00 50

TECHNICAL DATA			
PARAMETERS	SPECIFICATION	Pressure Flow Master	Pressure Conditioner
Airflow	160–250 lpm	160–400 lpm	160–400 lpm
Inlet pressure	400–1 000 kPa	300–1 000 kPa	300–1 000 kPa
Weight	280 g	250 g	6,80 kg
Inlet connection	compatible with RECTUS 25, 26 and CEJN 320		2x outlet compatible with RECTUS 25, 26 and CEJN 320
Outlet connection	CA40×1/7"	CA40×1/7"	CA40×1/7"
Certification	EN 14594, class 3B	EN 14594, class 2A	-

AVAILABLE FILTER TYPE	
COMBINED Pressure Conditioner filter	

CleanAIR® Conditioner contains the high capacity combined filter that removes solid particles, oil mist and unpleasant odours. It ensures that the quality of the compressed air in the distribution system complies with the requirements of regulation EN 12021.

## FEATURES AND BENEFITS

- Low weight
- Economical operation
- High levels of airflow
- Warning low pressure system (Pressure Flow Master)
- Option of filtration of supplied air with CleanAIR® Conditioner
- Compatible with a wide range of CleanAIR® headtops

## AREAS OF APPLICATION

Suitable to the heavy industrial environments, laboratories and to the chemical industry.

CleanAIR® Pressure  
Basic regulator



CleanAIR® Pressure Flow Master  
Regulator with low pressure warning  
system and manometer





## Pressure For Mask

### The highest level of protection for particularly toxic environments

The CleanAIR® Pressure for Mask is comfortable and versatile, highly effective constant flow airline system for use with the Shigematsu GX02 mask. The unique filter back up feature allows the user to keep breathing normally through the passive particle or combined filter in case of sudden failure of the air supply and provides breathing protection in case of emergency evacuation. The system allows the user to adjust the airflow from 170 lpm up to 250 lpm and keeps it at constant level regardless to changes of inlet pressure. In addition to the airflow regulation [170 - 250 lpm] the system is equipped with a warning whistle. It warns the user if the inlet pressure drops below the bottom limit of operating pressure [350 kPa]. CleanAIR® Pressure for Mask was especially designed for long wearing periods or for workplaces where the contaminants are highly toxic and have poor warning properties. It is decontaminable by shower and it provides the maximum nominal protection factor of 2000 in accordance with EN 14594:05 (class 4B).

PRODUCT DESCRIPTION	PRODUCT CODE
Pressure for Mask incl. P3 filter and comfort belt	65 00 00PC
Pressure for Mask incl. P3 filter and decontaminable belt	65 00 00PD

TECHNICAL DATA	
PARAMETERS	SPECIFICATION
Weight	280 g [without air hose and filter]
Airflow	170–250 lpm
Filter type	50 02 48 – Filter P3 with two threads RD40x1/7" 50 02 68 – Filter A2B2E2K2P3 with two threads RD40x1/7"
Inlet pressure	400–1 000 kPa
Inlet connection	compatible with RECTUS 25,26 and CEJN 320
Outlet connection	MINI DIN 5 – compatible with RECTUS 21 serie
Protection factor (NPF)	2 000
Certification	EN 14594, class 4B

AVAILABLE FILTER TYPE		
PARTICLES	COMBINED - Class 1	COMBINED - Class 2
	N/A	

### FEATURES AND BENEFITS

- Lightweight and comfortable
- High levels of airflow 160–250 lpm
- Nominal protection factor 2000
- Backup filter feature
- Compatible with particle and combined filters
- Decontaminable by shower
- Low pressure warning signal

### AREAS OF APPLICATION

Long time work in industrial environments with highly toxic contaminants, constructions and food processing industry, closed tanks, tunnels.





## GX02/CF02 & Chemical 2F Asbest

**The high performance respiratory protection system for environments contaminated by asbestos fibres.**

The combination of the powered air respirator Chemical 2F and the high quality full face masks GX02/CF02 characterizes excellent durability and the highest level of respiratory protection. The smart Flow Control system ensures a constant air flow, regardless of whether the filter is clogged or the battery is running low. The audiovisual alarm indicates when the battery needs to be charged or the filter needs to be replaced. With the two options available for full-face masks, users can choose the perfect mask for comfort and a secure fit based on their individual needs.

PRODUCT DESCRIPTION	PRODUCT CODE
CleanAIR Chemical 2F Asbest incl. decontaminable Hypalon belt, Li-Ion battery, charger, flow indicator [w/o hose]	51 00 00ASD
CleanAIR Chemical 2F Asbest incl. decontaminable rubber belt, Li-Ion battery, charger, flow indicator [w/o hose]	51 00 00ASR
Full face mask Shigematsu GX02, size S	71 06 00S
Full face mask Shigematsu GX02, size M	71 06 00M
Full face mask Shigematsu GX02, size L	71 06 00L
Full face mask Shigematsu CF02, size M	72 06 00M
Full face mask Shigematsu CF02, size L	72 06 00L

### TECHNICAL DATA

PARAMETERS	SPECIFICATION
Weight	960 g [including standard battery]
Dimension	240 mm / 110 mm / 120 mm
Airflow	adjustable 160 -235 lpm
Alarm	audio, visual
Operation* / charging time	< 10 / < 3 h standard battery < 20 / < 5,5 h Heavy Duty battery
Battery	Li-Ion 14,4 V / 2,6 Ah [standard] Li-Ion 14,4 V / 5,2 Ah [Heavy Duty]
Hose connection	CA40x1/7"
Certification	EN 12941 TH3 EN 12942 TM3 Ingress protection IP64/IP65/IP68

\* at 160 lpm with brand new P R SL filters and fully charged battery

### FEATURES AND BENEFITS

- Compact design and low weight
- High mechanical and chemical resistance
- Increased ingress protection allows decontamination by shower or even full immersion [IP64/IP65/IP68]
- Full colour display clearly shows all the relevant information - filter clogging, battery charge, airflow
- Flow Control system maintains constant airflow regardless of the level of filter clogging or battery charge
- Operation time up to 16 hours with Heavy Duty battery, or up to 10 hours with standard battery
- Audiovisual alarm
- Multilingual user interface
- Back harness available for increased comfort

### AREAS OF APPLICATION

Remediation operations, building&construction.



## FULL COLOUR DISPLAY

Full colour display clearly shows all the relevant information  
– airflow, battery charge, filter clogging



## FILTER TIMER

Just set the filter timer according to your needs and the system will trigger the alarm when the filter replacement is required.

## COMPACT DESIGN AND LOW WEIGHT

The thought-out design with smooth surface allows easy decontamination by shower or even full immersion.



## HEAVY DUTY BATTERY

The high capacity battery doubles the operation time.  
No more necessary to change or recharge the battery during long shift including combination/  
even if using the system with gas and vapour filters.  
Battery Li-Ion Heavy Duty, Li-Ion 14,4V / 5,2Ah 51 00 20



## AUTOMATIC CLOSING SYSTEM

The unique automatic closing system prevents unwanted contamination while the filters are being changed.



## MAXIMIZED WATER INGRESS PROTECTION IP68

The thought-out design with a smooth surface allows easy decontamination by the shower or even full immersion.  
**IP64** Shower decontamination<sup>1</sup> – full protection from splash of liquids from any angle.  
**IP65** Shower decontamination<sup>2</sup> – full protection from water jets from any angle.  
**IP68** Immersion disinfection<sup>3</sup> – full protection from continuous submersion in water/disinfection solution. Feasible disinfection with sodium hypochlorite solution and peroxyacetic solution [Persteril].

<sup>1</sup> When the system is ON, fitted with CleanAIR® filters

<sup>2</sup> When the system is ON, fitted with CleanAIR® filters incorporating pre-filter holder and spark arresters

<sup>3</sup> When the system is OFF, fitted with decontamination plugs



## WSHIGEMATSU GX02

High-end full face mask with advanced ergonomic design

### FEATURES AND BENEFITS

- Double seal flange for maximum protection and comfort
- High chemical resistance
- Exchangable wide panoramic visor
- Anti scratch coating
- Six point head harness
- Two exhalation valves ensure a low breathing resistance
- Speech diaphragm
- Visor protection foil available



## SHIGEMATSU CF02

Lightweight full face mask with a superior visor

### FEATURES AND BENEFITS

- Lightweight – 435 g
- High chemical resistance
- Superior spherical visor
- Anti-scratch coating
- Six point head harness
- Can be used with a wide range of canister filters
- Two exhalation valves – low breathing resistance
- Protection foil available





## GX02/CF02 & CleanAIR® Asbest

### Simple operation, maximum versatility...

The powered air respirator CleanAIR® Asbest and the high quality full face masks GX02/CF02 offer an exceptionally light and compact combination with excellent durability and the highest level of respiratory protection.

The complete combination of CleanAIR® Asbest with a full face mask Shigematsu and a highly effective filter against particles guarantees high nominal protection factor [NPF 2000], sufficient airflow and simple decontamination. The system is designed for active respiratory and face protection during remediation of asbestos-containing materials and can be mounted directly on the mask or connected to the mask with a hose and worn on a belt. Special emphasis has been placed on the low weight and simple operation.

PRODUCT DESCRIPTION	PRODUCT CODE
CleanAIR® Asbest including accessories [battery, filter, hose with holder, charger, belt and flow indicator – without mask!]	59 00 02
CleanAIR® Asbest including accessories [two batteries, filter, hose with holder, charger, belt and flow indicator – without mask!]	59 00 02T
Full face mask Shigematsu GX02, size S	71 06 00S
Full face mask Shigematsu GX02, size M	71 06 00M
Full face mask Shigematsu GX02, size L	71 06 00L
Full face mask Shigematsu CF02, size M	72 06 00M
Full face mask Shigematsu CF02, size L	72 06 00L

### TECHNICAL DATA

PARAMETERS	SPECIFICATION
Weight	385 g [including battery and filter]
Airflow	160 lpm
Filter type	Particle P R SL
Battery	Li-Ion 7,2 V / 2,6 Ah
Operation time	5 h
Protection factor	[NPF] 2 000
Certification	EN 12942 TM3

AVAILABLE FILTER TYPE		
PARTICLES	COMBINED - Class 1	COMBINED - Class 2
	N/A	N/A

\* for all available filter configurations (gas, combined) please refer to the "Spare parts" of the catalogue

### FEATURES AND BENEFITS

- Compact design and light weight – 385 g
- Simple operation
- Mountable directly to the mask or on the belt
- Decontaminable by a shower
- Operation time up to 5 h
- High nominal protection factor NPF 2000
- Low battery indication

### AREAS OF APPLICATION

The system is suitable for use in the environments with particulate contamination, especially for asbestos remediation operations or in the building industry.



## TWO WEARING OPTIONS

The blower unit can be mounted directly on the full face mask or connected to the mask with a hose and worn on a belt.



Wearing the blower on the belt minimizes the weight carried on the user's head.

## EXCEPTIONALLY LIGHT AND COMPACT RESPIRATOR

Special emphasis was placed on the low weight and simple operation. The exchangeable Li-Ion battery is seamlessly integrated into the unit body. When placed directly on the mask, there are no cables or hoses that would limit your movement.



## TWO MASK OPTION

### SHIGEMATSU GX02

High-end full face mask with advanced ergonomic design



#### FEATURES AND BENEFITS

- Double seal flange for maximum protection and comfort
- High chemical resistance
- Exchangable wide panoramic visor
- Anti scratch coating
- Six point head harness
- Two exhalation valves ensure a low breathing resistance
- Speech diaphragm
- Visor protection foil available

### SHIGEMATSU CF02

Lightweight full face mask with a superior visor



#### FEATURES AND BENEFITS

- Lightweight – 435 g
- High chemical resistance
- Superior spherical visor
- Anti-scratch coating
- Six point head harness
- Can be used with a wide range of canister filters
- Two exhalation valves – low breathing resistance
- Protection foil available



## CleanAIR® Ultimate

A revolutionary concept of overpressed protective suit for highly contaminated environments.

The system uniquely combines the highest protection level of the full face mask with all the benefits of the ventilated protective coverall.

The CleanAIR® Ultimate coverall is designed solely for use in combination with the CleanAIR® Ultimate GX and the powered air purifying respirator CleanAIR® Chemical 2F.

PRODUCT DESCRIPTION	PRODUCT CODE
CleanAIR® Ultimate GX, size S/M/L, incl. clamp frame, grommets 2pcs	73 06 01*
CleanAIR® Ultimate 2500 Protective Coverall - size S/M/L/XL, pack of 20 pcs	90 25 00**/20
CleanAIR® Chemical 2F Asbest – incl. Li-Ion battery, decontaminable hypalon belt, charger, flow indicator	51 00 00ASD
* Add S/M/L for the required size	
** Add S/M/L/XL for the required size	

### TECHNICAL DATA

PARAMETERS	SPECIFICATION
Weight	960 g (including standard battery)
Dimension	240 mm / 110 mm / 120 mm
Airflow	adjustable 160 -235 lpm
Alarm	audio, visual
Operation* / charging time	< 10 / < 3 h standard battery < 20 / < 5,5 h Heavy Duty battery
Battery	Li-Ion 14,4 V / 2,6 Ah (standard) Li-Ion 14,4 V / 5,2 Ah (Heavy Duty)
Hose connection	CA40x1/7"
Certification	EN 12941 TH3 EN 12942 TM3 EN10731 class 5 (NPF 50.000) Ingress protection IP64/IP65/IP68

\* at 160 lpm with brand new P R SL filters and fully charged battery

AVAILABLE FILTER TYPE		
PARTICLES	COMBINED - Class 1	COMBINED - Class 2
	N/A	

### FEATURES AND BENEFITS

- Easy to wear system
- Continuous respiratory protection even while doffing the suit
- The PAPR and filters are sheltered by the coverall
- High level of airflow for greater comfort
- Advantageous economical operation

### AREAS OF APPLICATION

- Remediation operations, laboratories, pharmaceutical industry
- First responders and emergency teams
- Biological protection





## HOW IT WORKS?

The filtered air is driven through an air hose right into the face mask, while the surplus and the exhaled air goes into the coverall and creates overpressure. The PAPR including filters stays covered under the coverall. The connection between the suit and the filters is built up by **special garment grommets**. This design solution allows continuous respiratory protection even during the procedure of doffing the suit.



## ULTIMATE GX

The face piece Ultimate GX offers all the benefits of panoramic full face mask Shigematsu GX02 and at the same time it ensures a simple connection to the built-in blower unit. The secure connection of the hood with the full face mask Ultimate GX is provided by a special clamp frame.

CleanAIR® Ultimate GX, size S, incl. clamp frame, grommets 2pcs	73 06 01S
CleanAIR® Ultimate GX, size M, incl. clamp frame, grommets 2pcs	73 06 01M
CleanAIR® Ultimate GX, size L, incl. clamp frame, grommets 2pcs	73 06 01L
Clamp frame Ultimate	73 06 10



## ULTIMATE 2500 COVERALL

Delivers maximum strength and liquid and particle barrier properties. Special emphasis has been placed on intuitive and easy donning and doffing.

Elasticated face opening allows easy attachment to the Ultimate GX face piece. Coverall is supplied with elasticated wrists, ankles and waist and incorporates a two way front zipper and extended storm flaps.

The CleanAIR® Ultimate 2500 coverall is designed solely for use in combination with the CleanAIR® Ultimate GX mask and the powered air respiratory system CleanAIR® Chemical 2F.

The Ultimate 2500 incorporating the Ultimate GX face piece and powered by CleanAIR® Chemical 2F provides respiratory, face and body protection from solid and liquid aerosols, particulate radioactive contamination, infective agents.

CleanAIR® Ultimate 2500 Protective Coverall - size S/M/L/XL, pack of 20 pcs 90 25 00\*\*/20

\*\* Add S/M/L/XL for the required size



## THE SYSTEM IS POWERED BY CLEANAIR® CHEMICAL 2F

For a more detailed information please refer to page 32 of this catalogue.

CleanAIR® Chemical 2F with activated „Asbestos“ mode incl. decontaminable Hypalon belt, Li-Ion battery, charger, flow indicator (w/o hose)	51 00 00ASD
CleanAIR® Chemical 2F with activated „Asbestos“ mode incl. decontaminable rubber belt, Li-Ion battery, charger, flow indicator (w/o hose)	51 00 00ASR
Rubber hose CA40x1/7" – CA40x1/7"	70 00 86CA
Rubber hose CA40x1/7" – CA40x1/7", extended (900mm)	70 00 86L





## Filters

The complete range of CleanAIR® canister filters offers a wide selection of filters for most industrial applications, pharmaceutical industry, laboratories and agriculture. The filters are supplied with a standard connection thread RD40x1/7" according to EN 148-1.

**Particle filters** catch a wide range of solid particles in the form of liquid and solid aerosols such as dust, smoke, fibres, bacteria, viruses and radioactive particles.

**Gas filters** provide protection against contaminants in the form of gases and vapours.

**Combined filters** provide protection against a combination of contaminants in the form of gases, vapours and solid particles.

Product code: 50 01 57  
Type: A2P3

Product code: 50 03 57  
Type: A1P3

Product code: 50 01 67  
Type: A2B2P3

Product code: 50 01 66  
Type: A2B2E2K2HgP3

Product code: 50 03 64  
Type: A1B1E1P3

Product code: 50 01 64  
Type: A2B2E2P3

Product code: 50 01 68  
Type: A2B2E2K2P3

Product code: 50 02 68  
Type: A2B2E2K2P - ZERO

Product code: 50 00 48  
Type: P3

Product code: 50 00 49  
Type: P - ZERO

Product code: 50 40 49  
Type: P - ZERO

Product code: 50 02 49  
Type: P - ZERO



**COMFORT BELTS**

Broad padded back part (available as well in increased height of the back part) and solid belt stripe efficiently spread the of the unit. Easy-to-click buckle, washable.

Comfort padded belt 2F	71 00 92
Comfort padded belt 3F	52 00 43.1
Comfort padded harness for 2F/3F	52 00 44.1

**DECONTAMINABLE BELT AND HARNESS**

Made of synthetic rubber "Hypalon" with smooth surface without edges for easy decontamination.

Decontaminable belt	51 00 41
Decontaminable harness	51 00 42

**DECONTAMINATION SET FOR CHEMICAL 2F/3F**

Set of plugs for easy and thorough decontamination of respiratory units Chemical 2F/3F – ensuring ingress protection IP68.

Decontamination set 2F - 2x plug with external thread, 1x cap with internal thread	51 00 46
Decontamination set 3F - 3x plug with external thread, 1x cap with internal thread	52 00 46

**DECONTAMINATION FILTER COVER**

Protects the filter against water during decontamination process – ensuring ingress protection IP65.

Decontamination filter cover	58 00 13
Hose cover chemical resistant	70 00 62C

**CHEMICALLY RESISTANT HOSE COVER**

Chemically resistant protective sleeve is made from Tychem-F that prevents the light hose from damage caused by splash of chemicals.

Hose cover chemical resistant	70 00 62C
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**PRESSURE HOSES**

The wide choice of standard or antistatic hoses of different lengths for use with air line systems CleanAIR® Pressure.

Standard pressure hose for CA Pressure – 10 m	61 00 30
Standard pressure hose for CA Pressure – 25 m	61 00 38
Standard pressure hose for CA Pressure – 50 m	61 00 39
Antistatic pressure hose for CA Pressure – 10 m	61 00 31
Antistatic pressure hose for CA Pressure – 25 m	61 00 33
Antistatic pressure hose for CA Pressure – 50 m	61 00 34
Spiral pressure hose for CA Pressure – 10 m	61 00 46

**HOSES**

Light flexible hoses with QuickLOCK™ locking system for safe and fast connection of the full range of CleanAIR® headtops except of masks.

Light flexi hose [QuickLOCK™ - CA40x1/7"]	71 00 60
Light flexi hose [QuickLOCK™ - CA40x1/7" extended]	71 00 60L
Rubber hose [QuickLOCK™ - CA40x1/7"]	71 00 86
Rubber hose [QuickLOCK™ - CA40x1/7" extended]	71 00 86L
Mask only compatible hoses:	
Light flexi hose CA40x1/7"- CA40x1/7"	70 00 60
Rubber hose CA40x1/7"- CA40x1/7"	70 00 86CA
Rubber hose CA40x1/7"- CA40x1/7" extended	70 00 86L
Rubber hose CA40x1/7"- CA40x1/7" 90°	70 00 86R
Rubber hose CA40x1/7"- CA40x1/7" 90° extended	70 00 86RL

**VISOR MAINTENANCE**

For care about all CleanAIR® visors. Is safe for use with all optical glasses, masks, visors and optics made of glass and plastic – even those with sensitive or coated surfaces. Cleaning, antifog and antistatic effect.

CleanAIR® Klar-pilot Fluid Super Plus 100 ml	01 11 00
CleanAIR® Klar-pilot Comfort 17 ml	01 10 17

**SAFE TRANSPORT AND STORAGE**

High quality materials and reinforced bottom for greater durability. Adjustable padded shoulder strap. Roomy main zippered compartment and large front pocket. Lightweight and versatile carrying bag.

Dimensions: 250×250×520 mm	
CleanAIR® duffel bag	70 00 07



**Light hoods**

CA-1



CA-2



CA-10

**Face shields**

UniMask



CA-4



CA-3

**ATEX**CA-1EX  
CA-2EX**Half mask**

CA-5

**Full-face masks**

GX02



CF02

**Coverall**

GX02



Ultimate®

**Coverall**

Microgard®

**QuickLock™ hoses compatible**

Chemical 2F



Chemical 3F

Pressure FM  
Pressure

Chemical 2F



Chemical 3F



Chemical 2F EX



Chemical 2F



Chemical 3F



Chemical 2F



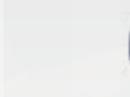
Chemical 3F



Pressure for Mask



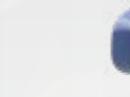
Chemical 2F



51 00 00ASD



Chemical 2F



MIC51 00 00FC



# Parts & accessories

## CleanAIR® Asbest

### CleanAIR® Asbest - complete sets

CleanAIR® Asbest including battery, filter, hose with holder, charger – without mask	59 00 02
CleanAIR® Asbest including two batteries, filter, hose with holder, charger – without mask	59 00 02T
CleanAIR® Asbest + mask GX02 size S including two batteries, filter, hose with holder, charger and belt	59 16 00S
CleanAIR® Asbest + mask GX02 size M including two batteries, filter, hose with holder, charger and belt	59 16 00M
CleanAIR® Asbest + mask GX02 size L including two batteries, filter, hose with holder, charger and belt	59 16 00L
CleanAIR® Asbest + mask CF02 size M including two batteries, filter, hose with holder, charger and belt	59 26 00M
CleanAIR® Asbest + mask CF02 size L including two batteries, filter, hose with holder, charger and belt	59 26 00L

### CleanAIR® Asbest - spare parts / accessories

Rubber belt incl. hose with holder	56 00 20
Battery Li-Ion 7,2 V / 2,2 Ah	59 00 13
Battery charger [EURO plug]	59 00 30
Battery charger [UK plug]	59 00 30U
CleanAIR® Asbest without battery and filter	59 00 00
Light flexi hose for CleanAIR® Asbest	70 00 87CA
Belt for CA Asbest	70 00 97

### CleanAIR® Asbest - compatible filters

Filter P R SL for CleanAIR® Asbest	56 00 10
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## CleanAIR® D-Bug

### CleanAIR® D-Bug - complete sets

CleanAIR® D-Bug incl. battery, filter ABEP 2x, hose 350mm, charger	49 00 02
<b>CleanAIR® D-Bug - spare parts / accessories</b>	
Particle filter P R SL (pack of 2 pairs)	30 00 10/2
Prefilter CleanAIR® (set of 10 pcs)	30 00 15
Combined filter AIP R SL (set of 2 pcs)	30 03 57
Combined filter A1B1E1P R SL (set of 2 pcs)	30 03 64
Hose with a holder and a rubber belt for CleanAIR® D-Bug	56 00 20
CleanAIR® exchangeable battery Li-Ion 7,2 V / 2,2 Ah	59 00 13
CleanAIR® Li-Ion battery charger	59 00 30
Light flexi hose	70 00 87CA
CleanAIR® D-Bug rubber belt	70 00 97

### CleanAIR® D-Bug - compatible filters

Particle filter P R SL TR-110 thread (pack of 2 pairs)	30 00 10/2
Prefilter for TR-110 thread filters (set of 10 pcs)	30 00 15
Combined filter AIP R SL TR-110 thread (set of 2 pcs)	30 03 57
Combined filter A1B1E1P R SL TR-110 thread (set of 2 pcs)	30 03 64

## CleanAIR® Chemical 2F Plus

### CleanAIR® Chemical 2F Plus - complete sets

CleanAIR® Chemical 2F including comfort belt, charger and battery	51 00 00FCA
CleanAIR® Chemical 2F including decontaminable belt, charger and battery	51 00 00FDA

### CleanAIR® Chemical 2F Plus - spare parts / accessories

Decontaminable belt	51 00 41
Decontaminable harness	51 00 42
Primary Li-Ion battery	51 00 11
Power adaptor 230 V for the main socket	51 00 15.1
Power adaptor 12 - 24 V - car power socket	51 00 15.2
Battery Li-Ion Standard 14,4 V / 2,6 Ah	51 00 10
Battery Li-Ion Heavy Duty 14,4 V / 5,2 Ah	51 00 20
Battery charger	51 00 30EUR
Battery charger UK plug	51 00 30UK
Set of decontamination plugs - 2F	51 00 46
Comfort padded harness	52 00 44.1
Rubber hose QuickLOCK™ - CA40x1/7"	71 00 86
Light flexi hose QuickLOCK™ - CA40x1/7"	71 00 60
Comfort padded belt 2F	71 00 92

### CleanAIR® Chemical 2F Plus - compatible filters

Compatible with all the CleanAIR® particle and combined filters with RD40x1/7" thread

## CleanAIR® Chemical 2F Ex

### CleanAIR® Chemical 2F Ex - complete sets

CleanAIR® Chemical 2F Ex - incl. flexi hose QuickLOCK™, comfort belt Ex, charger	51 EO 00FC
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### CleanAIR® Chemical 2F Ex - spare parts

Standard battery, Li-Ion [14,4 V / 2,6 Ah]	51 00 10
Charger Li-Ion 14,4 V - EURO plug	51 00 30EUR
Power adaptor 230 V for the main socket	51 00 15.1
Power adaptor 12 - 24 V - car power socket	51 00 15.2
Light flexi hose QuickLOCK™ - CA40x1/7"	71 00 60
Rubber hose QuickLOCK™ - CA40x1/7"	71 00 86

### CleanAIR® Chemical 2F Ex - compatible filters

Compatible with all the CleanAIR® particle and combined filters with RD40x1/7" thread

## CleanAIR® Chemical 2F Asbest

### CleanAIR® Chemical 2F Asbest - complete sets

CleanAIR® Chemical 2F with activated "Asbestos" profile, including battery, charger and decontaminable Hypalon belt	51 00 00ASD
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### CleanAIR® Chemical 2F Asbest - spare parts / accessories

Light flexi hose QuickLOCK™ - CA40x1/7"	71 00 60
Rubber hose QuickLOCK™ - CA40x1/7"	71 00 86

### CleanAIR® Chemical 2F - complete sets

Comfort padded belt 2F	71 00 92
Decontaminable belt	51 00 41

### CleanAIR® Chemical 2F - spare parts / accessories

Decontaminable harness	51 00 42
Power adaptor 230 V for the main socket	51 00 15.1
Power adaptor 12 - 24 V - car power socket	51 00 15.2
Battery Li-Ion Standard 14,4 V / 2,6 Ah	51 00 10
Battery Li-Ion Heavy Duty 14,4 V / 5,2 Ah	51 00 20
Battery charger	51 00 30EUR
Battery charger UK plug	51 00 30UK
Set of decontamination plugs - 2F	51 00 46
Comfort padded harness	52 00 44.1

### CleanAIR® Chemical 2F Asbest - compatible filters

Particle filter P3	50 00 48
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## CleanAIR® Chemical 3F

### CleanAIR® Chemical 3F - complete sets

CleanAIR® Chemical 3F including comfort belt, charger and battery	52 00 00FCA
CleanAIR® Chemical 3F including decontaminable belt, charger and battery	52 00 00FDA

### CleanAIR® Chemical 3F - spare parts / accessories

Decontaminable belt	51 00 41
Decontaminable harness	51 00 42
Battery charger	51 00 30EUR
Battery charger UK plug	51 00 30UK
Battery Li-Ion 14,4 V / 2,6 Ah	52 00 10

### CleanAIR® Chemical 2F Ex - compatible filters

Comfort padded belt 3F	52 00 43.1
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### CleanAIR® Chemical 3F - compatible filters

Set of decontamination plugs - 3F	52 00 46
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### CleanAIR® Chemical 3F - compatible filters

Light flexi hose QuickLOCK™ - CA40x1/7"	71 00 60
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### CleanAIR® Chemical 3F - compatible filters

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<b>CleanAIR® CA-1, CA-2 &amp; CA-10 - spare parts / accessories</b>	
Sweatband for light hoods - pack of 5 pcs	16 70 03/5
Protection foil – 10 pcs	70 01 20/10
Headgear for light hoods CleanAIR®, adjustable	72 00 01
<b>CleanAIR® CA-3</b>	
<b>CleanAIR® CA-3 - complete sets</b>	
Protective shield CA-3 [acrylate]	70 03 01
<b>CleanAIR® CA-3 - spare parts / accessories</b>	
Sweatband	16 70 01
Face seal for welding hoods - universal	70 21 53
CA-3 Hood shell	71 03 10
Velcro fastening	71 03 98
CA-3 Spare visor acetate	71 03 33
CA-3 Headband	71 03 41
Airduct	71 04 50CA
<b>CleanAIR® CA-4</b>	
<b>CleanAIR® CA-4 - complete sets</b>	
Safety helmet CA-4	71 04 01*
Safety helmet CA-4 including additional protective flip-up visor and earmuffs	71 04 03*
<b>CleanAIR® CA-4 - spare parts / accessories</b>	
Sweatband CleanAIR® (pack of 10 pcs)	16 70 01/10
Protection film (pack of 10 pcs)	70 01 20/10
Protection film (pack of 10 pcs)	70 01 20/10
Holder of the flip-up visor	70 04 37
Flip-up visor Surefit – polycarbonate	70 04 42
Face seal including visor – orange	71 04 61*
Earmuffs including adaptors for safety helmet	70 04 40.2
<b>CleanAIR® UniMask</b>	
<b>CleanAIR® UniMask - complete sets</b>	
Protective face shield UniMask, grey	72 03 00.01
Protective face shield UniMask, blue	72 03 00.02
Protective face shield UniMask, orange	72 03 00.03
Protective face shield UniMask, red	72 03 00.04
Protective face shield UniMask, neoprene	72 03 00.08
<b>CleanAIR® UniMask - spare parts / accessories</b>	
Protection film UniMask, pack of 10 pcs	72 03 20/10
Spare protective visor UniMask, clear	72 03 30
Spare protective visor UniMask, yellow	72 03 30.01
Spare protective visor UniMask, shade 3	72 03 30.02
Spare protective visor UniMask, shade 5	72 03 30.03
Head band UniMask	72 03 40
Face seal UniMask, grey	72 03 50.01
Face seal UniMask, blue	72 03 50.02

Face seal UniMask, orange	72 03 50.03
Face seal UniMask, red	72 03 50.04
Face seal UniMask, neoprene	72 03 50.08
<b>Shigematsu GX02</b>	
<b>Shigematsu GX02 - complete sets</b>	
Full face mask GX02 [Put S/M/L instead of *]	71 06 00*
<b>Shigematsu GX02 - spare parts / accessories</b>	
Head harness	71 06 80
Inner mask including inner valves for GX02 [Put S/M/L instead of *]	71 06 90*
Inhalationl valve set [5 membranes + 1 gasket]	71 06 95
Exhalation valve set [5 membranes + 1 valve cover]	71 06 96
<b>Shigematsu GX02 - compatible filters</b>	
Compatible with all the CleanAIR® particle, gas and combined filters with RD40x1/7" thread	
<b>Shigematsu CFO2</b>	
<b>Shigematsu CFO2 - complete sets</b>	
Full face mask Shigematsu CFO2, size M	72 06 00M
Full face mask Shigematsu CFO2, size L	72 06 00L
<b>Shigematsu CFO2 - spare parts / accessories</b>	
Exhalation valve cover and exhalation valve	72 06 96
Inhalation valve seat and inhalation valve	72 06 95
Inner mask M (with inner valve and inner valve seat)	72 06 90M
Inner mask L (with inner valve and inner valve seat)	72 06 90L
Head harness	72 06 80
<b>Shigematsu CFO2 - compatible filters</b>	
Compatible with all the CleanAIR® particle, gas and combined filters with RD40x1/7" thread	
<b>CleanAIR® Ultimate</b>	
<b>CleanAIR® Ultimate - complete sets</b>	
Mask CleanAIR® Ultimate GX [Put S/M/L instead of *]	73 06 01*
Coverall CleanAIR® Ultimate 2500 [Put S/M/L/XL instead of *]	90 25 00*
<b>CleanAIR® Ultimate GX - spare parts / accessories</b>	
Filter ZERO lite, thread 2x RD40x1/7"	50 42 49
Garment grommet	70 00 55
Visor protection film	71 06 20
Inner mask size „S“	71 06 90S
Inner mask size „M“	71 06 90M
Inner mask size „L“	71 06 90L
Inhalation valve [5 pcs]	71 06 91
Head harness	71 06 80
Sealing sticker [5 stickers]	71 06 97.1
Clamp frame	73 06 10
Exhalation valve [2 pcs]	73 06 50
<b>Common - spare parts / accessories</b>	
CleanAIR® Klar-pilot Fluid Super Plus 100 ml	01 11 00

CleanAIR® Klar-pilot Comfort 17 ml	01 10 17
Flow indicator CA40x1/7"	52 00 90
Decontamination filter cover	58 00 13
Standard pressure hose for CA Pressure – 10 m	61 00 30
Standard pressure hose for CA Pressure – 25 m	61 00 38
Standard pressure hose for CA Pressure – 50 m	61 00 39
Antistatic pressure hose for CA Pressure – 10 m	61 00 31
Antistatic pressure hose for CA Pressure – 25 m	61 00 33
Antistatic pressure hose for CA Pressure – 50 m	61 00 34
Spiral pressure hose 6,5x10 mm for CAP, mechanically resistant - 10 m	61 00 46
Hose cover chemical resistant	70 00 62C
CleanAIR® Duffel Bag	70 00 07
Comfort padded belt Standard	71 00 93
Comfort belt Standard - prolonged + 25cm	71 00 93L
Comfort padded belt Super	71 00 92
QuickLOCK™ - rubber hose, extended	71 00 86L
QuickLOCK™ - rubber hose	71 00 86
QuickLOCK™ - light flexi hose, extended	71 00 60L
QuickLOCK™ - light flexi hose	71 00 60
<b>Filters</b>	
Filter P3, thread RD40x1/7"	500048
Filter A2, thread RD40x1/7"	500156
Filter A2P3, thread RD40x1/7"	500157
Filter A2B2, thread RD40x1/7"	500158
Filter K2, thread RD40x1/7"	500159
Filter K2P3, thread RD40x1/7"	500160
Filter B2, thread RD40x1/7"	500161
Filter B2P3, thread RD40x1/7"	500162
Filter A2B2E2, thread RD40x1/7"	500163
Filter A2B2E2P3, thread RD40x1/7"	500164
Filter A2B2E2K2HgP3, thread RD40x1/7"	500166
Filter A2B2P3, thread RD40x1/7"	500167
Filter A2B2E2K2P3, thread RD40x1/7"	500168
Filter A2B2E2K2, thread RD40x1/7"	500169
Filter P3 with two threads RD40x1/7"	500248
Filter P3 with two threads RD40x1/7"	500248
Filter A2P3 – with two threads RD40x1/7"	500257
Filter A2B2E2K2P3 – with two threads RD40x1/7"	500268
Filter A1P3, thread RD40x1/7"	500357
Filter A1B1E1P3, thread RD40x1/7"	500364
Filter ZERO lite, 2x RD40x1/7"	504249
Filter P R SL for CleanAIR® Asbest	560010
Filter for CleanAIR® Pressure Conditioner	610010
Filter P R SL, for CA Asbest, bulk package of 50pcs	560010/50

## NOTES