



**OUR PRODUCTS**

***Spasciani***  
**YOUR SAFETY MAKER**





# SPASCIANI 1892

**In 1892 Riccardo Spasciani understands the importance of designing and creating equipment to prevent accidents at the workplace and establishes in a small laboratory in the heart of old Milan his company, which still bears his name.**

Thanks to the rapid and continuous growth throughout the XX century, the company moves first to Baranzate where it remained for 46 years, and then to Origgio in the modern factory, which is nowadays its headquarter with the administrative and commercial offices, the production and the R&S lab.

The “lab”, SPASCIANI source of pride, represents the essence and the identity of the company itself: here all products are developed and then checked according to rigorous procedures and thanks to sophisticated equipment. Here

SPASCIANI designed the military masks and goggles of first and second world war as well as those of colonial wars. And also dust masks for the XX century workers and the oxygen breathing apparatus for mine rescue and firefighting.

Thanks to its history filled with important achievements, SPASCIANI is nowadays recognized as one of the most dynamic and solid companies of its market with original and unique patents. Leader in Italy, SPASCIANI has a relevant position in the international market which makes it a Made In Italy excellence.

## THE RESEARCH

### **Passion for research and innovation.**

SPASCIANI design and creation focus in Origgio lab.

All products are tested in the laboratory, which certifies the quality and reliability according to the European rules and regulations, which govern the production and commercialization of PPE.

Each product is the result of a continuous and precise research, which never betrays company history and identity, and always finds new materials and innovative solutions.

The aim is just to create unique products through pioneer technologies in order to safeguard the human life.



**SPASCIANI offers not only a wide range of PPE products, but also a lot of services and support activities for each single need.**

## OUR SERVICES

**Every day SPASCIANI is involved in researching and planning innovative solutions to grant the best assistance for clients choosing its brand all over the world.**

- Training courses
- Ordinary and extraordinary maintenance plans
- Support for choosing the best suitable product
- Feasibility study for new products
- Chemical and physical tests in the laboratory

## APPLICATION AREAS



Firefighting



Asbestos  
removal



Agriculture  
and food  
industry



Chemical  
industry



Construction  
industry



Pharma  
industry



Wood  
industry



Mechanical  
industry



Marine  
MED



Refinery  
oil & gas



Sand blasting



Confined spaces



Painting

# OUR PRODUCTS

SPASCIANI covers with its filtering and isolating devices the whole RPD market.

## FILTERING DEVICES

Devices used in > 17% oxygen environments.

- p. 7 Filtering facepieces
- p. 9 Cartridge half masks and masks
- p. 15 Masks with threaded connector EN 148-1
- p. 23 Escape respirators series 220N
- p. 27 Power assisted respirators

## ISOLATING DEVICES

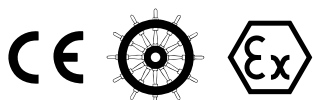
Independent from the surrounding atmosphere those devices are used if filtration is not possible.

- p. 33 Sandblasting and air line respirators
- p. 37 Fresh air respirators (DUCT)
- p. 41 Emergency escape breathing devices
- p. 48 SCBA FR Fire fighting
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## MODULES AND ACCESSORIES

- p. 65 Arac Test

## MARKING







# FILTERING FACEPIECES



Suitable for solid and water-based aerosols, these filtering facepieces provide good protection to operators working in dusty environments in the wood, cement, glass, textile and extractive industry. Its contoured shape design provides extra comfort and a good sealing around the face. It is also provided with head harness designed to allow easy donning and doffing. The harnesses are adjustable and hold the filtering half mask firmly and comfortably in position. They are available in a wide range of models to comply with almost every protection needs (FFP1, FFP2, FFP3).



SPC/32



SPC/11



SPC/21



SPC/22



SPC/32AS

Filtering facepieces	
100780000	Respirator SPC/11 - FFP1
100770000	Respirator SPC/21 - FFP2
100740000	Respirator SPC/22 - FFP2 valve
100750000	Respirator SPC/32 - FFP3 valve
100790000	Respirator SPC/32 AS - FFP3 valve, adjustable harness







# CARTRIDGE MASKS



Professional and durable to be used in combination with gas, particles or combined cartridges series 2000. These half masks are ideal for the handling of dangerous chemical substances, toxic gases, solvents and dusts. Suitable for use in chemical and pharmaceutical companies, agriculture, mining industry and for spray painting.

**DUETTA** is an economic and comfortable model with limited maintenance.

**DUO** is a professional, durable and decontaminable facepiece.

**DUPLA** is a full face mask to be used in combination with two gas or combined cartridges series 2000.

SPASCIANI cartridges are available in many versions and capacities with high performances.

They are the result of the fruitful Research & Development and of the technology improvement.

Consult the table “GUIDE TO FILTER SELECTION” at page 68.



Duetta



Duo

Cartridge masks and half masks	
102530000	Half mask DUETTA limited maintenance
102000000	Half mask DUO prolonged use
113090000	Mask TR 2002 “DUPLA”
Kit cartridge half masks	
103100000	DUETTA A1B1P2 + 50 prefilters BRICOLAGE
103110000	DUETTA + cartridges 2040 A2P2
102100000	Kit DUO + cartridges 2040 A2P3 R
102110000	Kit DUO + cartridges 2040 A2P2 R



Dupla



Kit Duetta

# DUETTA



**DUETTA** is the ideal facepiece for use during spray painting, crops spraying and in the handling of hazardous chemicals, toxic gases, solvents and dusts.

The soft edge comfortably seats on the face contour while a rigid shell holds the cartridges evenly distributing masses.

**DUETTA** shall be used together with filter cartridges SPASCIANI series 2000 produced in accordance with EN14387 & EN143.

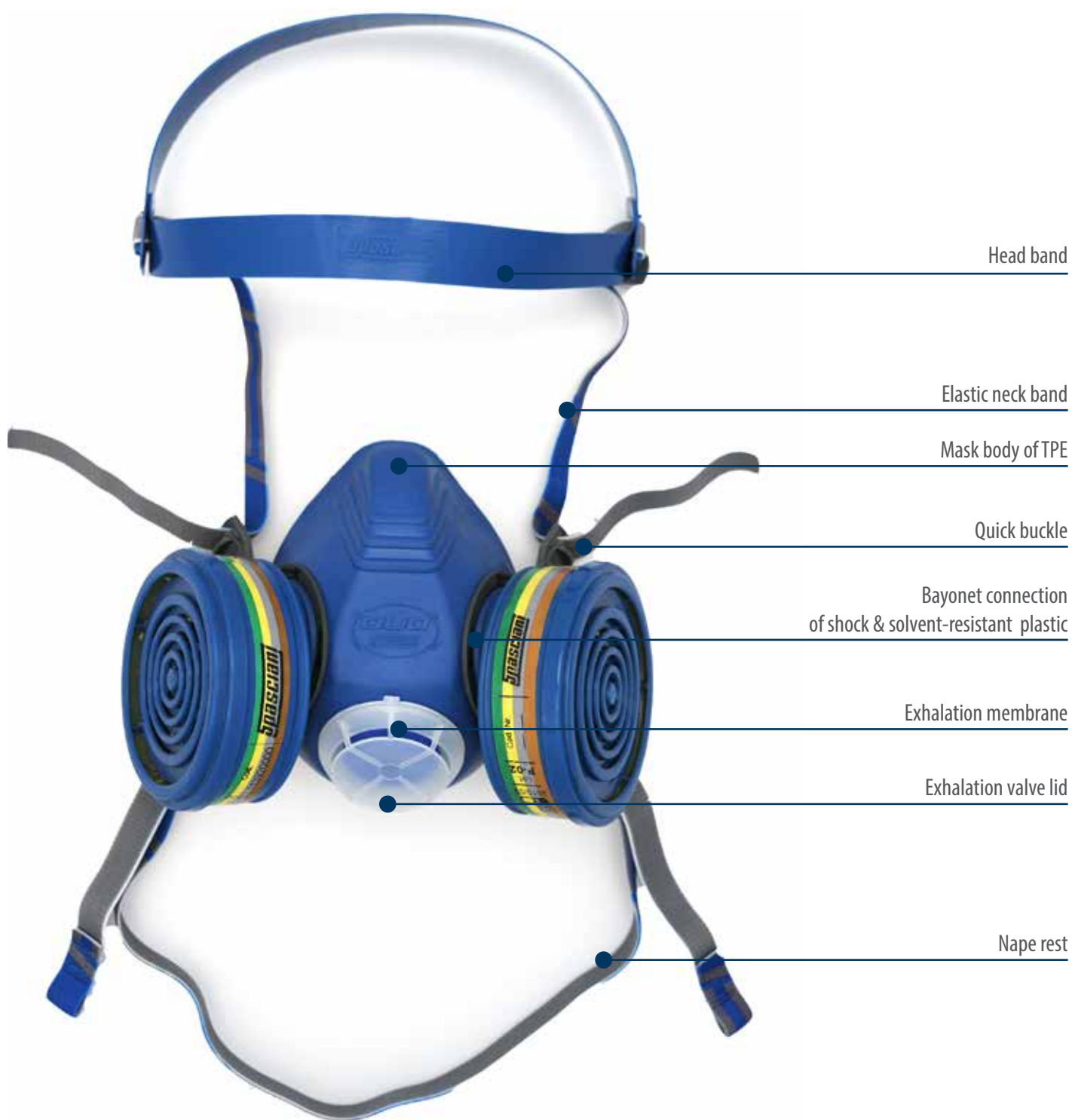
Filter cartridges can accept special prefilters which prevent the clogging of the particle filter in particularly dusty environments.



**KIT DUETTA** is composed of a DUETTA facepiece and a couple of filter cartridges selected from those compatible.



# DUO



**DUO** is a professional, durable, decontaminable facepiece ideal for use during the handling of hazardous chemicals, toxic gases, solvents, dusts and spray painting.

**DUO** shall be used together with filter cartridges SPASCIANI series 2000 produced in accordance with EN14387 & EN143. Filter cartridges can accept special prefilters which prevent the clogging of the particle filter in particularly dusty environments.



**KIT DUO** is composed of a professional DUO facepiece and a couple of filter cartridges selected from those compatible.



**DUPLA** is a negative pressure full face mask with threaded connector to EN148-1. DUPLA integrates a panoramic visor and can be used both with screw filters to EN 148-1 and special cartridges of the Spasciani 2000 series.

The face blank is normally made of TPE but it is also available in EPDM or SILICONE equipped with scratch and solvent resistant polycarbonate.



Dupla adapter

The **DUPLA adapter** made of nylon (p/n 15790000) allows the connection of two cartridges SPASCIANI series 2000 to the TR2002 mask.



# CARTRIDGES



Serie 2000

Cartridges			
113930000	2030 LD P3 R	114160000	2030 E1P2 NR
113900000	2030 A2	114050000	2040 E1P3 R
114000000	2040 A2P3 R	113960000	2030 A1B1E1
114170000	2040 A2P2 NR	114140000	2040 A1B1E1P2 NR
113970000	2030 B1	114030000	2040 A1B1E1P3 R
114150000	2030 B1P2 NR	113990000	2030 K1
114040000	2040 B1P3 R	114130000	2030 K1P2 NR
113880000	2030 A1B1	114060000	2040 K1P3 R
114110000	2030 A1B1P2 NR	113890000	2030 A1B1E1K1
114070000	2040 A1B1P3 R	114120000	2030 A1B1E1K1P2 NR
113980000	2030 E1	114080000	2040 A1B1E1K1P3 R
109190000	Pack of 50 Prefilters diam. 70 for cartridges	109160000	Pack of 6 Prefilter holders for cartridges

Consult the table “GUIDE TO FILTER SELECTION” at page 68  
fo further informations.







# MASKS WITH THREADED CONNECTOR



These masks are equipped with a standard thread connector EN148-1 and as such they can be used with all devices provided with the same connector (gas and particle filters, negative pressure BA, air line etc.). **ST 85** is a professional and durable half mask. It is ideal for chemical and pharmaceutical companies, agriculture and mining industry. **TR82** and **TR2002** are masks with wide visibility visor and speech device. These masks are available in TPE, EPDM or Silicone.

SPASCIANI filters are available in many versions and capacities with high performances. They are the result of the fruitful Research & Development and of the technology improvement. Consult the table "GUIDE TO FILTER SELECTION" at page 68.



TR82



TR 2002 CL3

Masks with threaded connector EN 148-1	
111200000	ST 85 half mask
113020000	TR 2002 CL2 full face mask
113030000	TR 2002 CL3 full face mask
113080000	TR 2002 CL3 full face mask yellow silicone
112190000	TR 82 full face mask
112240000	TR 82 full face mask hard coat visor
112170000	TR 82 full face mask yellow silicone
112220000	TR 82 full face mask safety glass
112250000	TR 82 full face mask safety glass silicone



ST85



TR2002 CL2



TR82 S



TR2002 CL3 S

# TR 2002 CL3

**TR 2002 CL3** is a mask fitted with a polycarbonate panoramic visor scratch and solvent resistant. It features two distinct areas to permit unaltered vision even downwards to see possible obstacles. The visor is Optical Class 2 (EN166).  
The seal on the face is obtained by a double revert flap made of EPDM

or Silicone. The head Harness with self-adjusting buckles is made of EPDM. The modern and endearing design allows a comfortable wear and an easy dismantling for cleaning and maintenance.  
The shape of the facepiece permits the use of safety caps and ear muffs. The mask is **Class 3**.



Five arm head harness moulded in rubber and fitted with quick adjusting buckles

Outer facepiece moulded in rubber or silicone

Wide visibility visor moulded in coated polycarbonate scratch and solvent resistant

Inner half mask made of TPE fitted with two check valves for air circulation to prevent the visor to steam-up

Connector Group which unites: exhalation valve, speech diaphragm, inhalation valve holding gasket and threaded connector EN148-1 (40 x 1/7")

DUPLA adapter (optional)

Strap around the neck for carrying the mask during rests



TR2002 CL3 S  
113080000

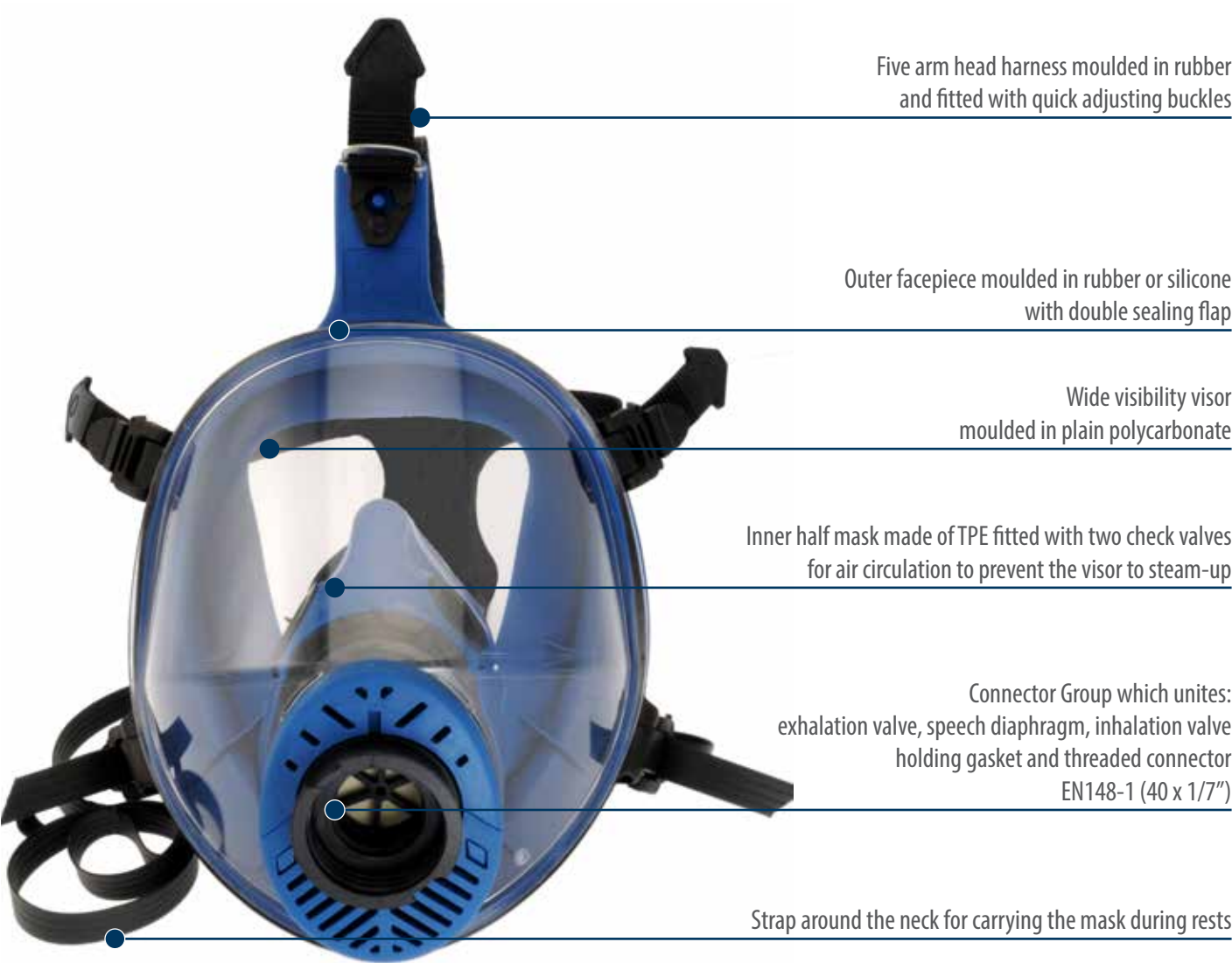
Maschere raccordo a vite EN 148-1	
113080000	Mask TR 2002 CL3 in silicone
113030000	Mask TR 2002 CL3 scratch resistant visor



# TR 2002 CL2

**TR 2002 CL2** keeps the major characteristics of a modern and endearing design, comfortable wear and easiness of dismantling for maintenance and cleaning of the version in Class 3.  
The main differences in respect to the better performing model are in the double revert seal facepiece which is made of TPE.

Moreover the ample panoramic visor is made of natural polycarbonate, it keeps the feature of avoiding vision distortion as all TR 2002.  
This mask is **Class 2**. More precisely it is suitable to all activities where resistance to radiant heath is not required.



Mask TR 2002 CL2	
1130200000	Mask TR 2002 CL2

# TR 82

**TR 82** is a mask fitted with natural polycarbonate visor giving a wide field of vision. The seal on the face is obtained by a double revert flap made of EPDM or Silicone. The head Harness with self-adjusting buckles is made of EPDM. The classic design allows a comfortable wear particularly to thin or female faces. The maintenance is very simple and it is possible to easily replace the visor. This mask is **Class 3**.

Masks with threaded connector	
112190000	Mask TR 82
112240000	Mask TR 82 Solvent and Scratch resistant visor
112170000	Mask TR 82 Yellow Silicone
112220000	Mask TR 82 Safety Glass
112250000	Mask TR 82 Safety Glass Visor Silicone



Five arm head harness moulded in rubber and fitted with quick adjusting buckles

Outer facepiece moulded in rubber or silicone

Wide visibility visor moulded in coated polycarbonate scratch and solvent resistant or Safety Glass

Inner half mask made of TPE fitted with two check valves for air circulation to prevent the visor to steam-up

Connector Group which unites:

- exhalation valve
- speech diaphragm
- inhalation valve
- holding gasket and threaded connector

Strap around the neck for carrying the mask during rests



# TR 82 E

This mask is specifically designed to hook to the helmets of firefighters, the Police and Civil Protection. It meets DIN 58610. The unique anchorage system is complete with small levers which permit to adjust the tension of holding straps. This gives a perfect adherence to the face and a stable and solid helmet/mask combination. The **TR 82 E** is fitted with scratch and solvent resistant polycarbonate visor giving a wide field of vision. The seal on the face is obtained by a double revert flap made of soft EPDM. The maintenance is very simple and it is possible to easily replace the visor. This mask is **Class 3**.

Outer facepiece moulded in EPDM rubber

Wide visibility visor moulded in coated polycarbonate scratch and solvent resistant

Two anchorages to connect the mask to the helmet

Strap around the neck or carrying the mask during rests



Mask TR 82 E	
112100000	Mask TR 82 E



# ST 85

**ST85** is a half facepiece made of EPDM, anatomically shaped it adapts itself to the user's face contour. The four pivoting rapid buckles allow a fine adjustment of the tension of the straps for the maximum comfort.

The **ST 85** is durable and decontaminable, in fact it can be disassembled in all its components which snap into the elastic facepiece body. **ST 85** is suitable for the handling of noxious chemicals, toxic gases, solvents and dusts and for general use in chemical industries.



Head harness with four anchorages and elastic band, nape of the neck rest moulded in polyethylene and four quick adjusting buckles

Anatomic half facepiece moulded in rubber

Two exhalation valves with rubber membrane protected by a pre-chamber cover

A standard EN 148- connector for use with filters up to a maximum weight of 300 g

Halfmask ST 85	
111200000	Halfmask ST 85

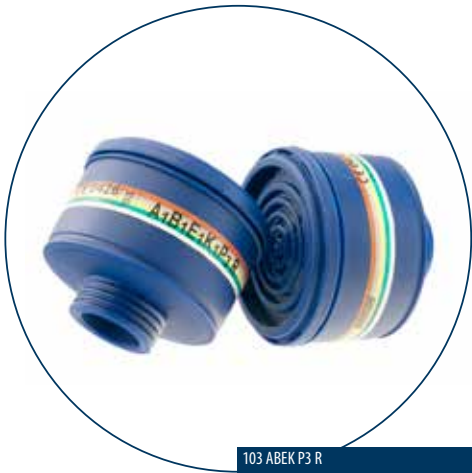
# FILTERS AND ACCESSORIES

**Filters** are identified by a colour and a letter in conformity with the protection given as specified in **EN 14387:2004+A2:2008** (gas and combined), **EN 143:2000/A1: 2006** (particle),

**EN 12491:1998 +A2:2008** (particle and combined filters for PAPR) and **DIN 58620:2006** for CO.

Consult the table “GUIDE TO FILTER SELECTION” at page 68 for further information and details.

Filters	
12415LD00	100 LD P3 R
124200000	200 A2
124220000	200 LBR A2
123100000	201 B2
123110000	201 E2
124210000	100 K2
123200000	201 A2B2
123220000	201 A2B2E2
124410000	202 A2B2E2K2
124430000	202 AX
124550000	203 AXP3 NR D
124420000	202 A2P3 R D
123300000	202 B2P3 R D
123310000	202 E2P3 R D
124320000	201 K2P3 R D
123320000	202 A2B2P3 R D
123350000	202 A2B2E2P3 R D
124530000	203 A2B2E2K2P3 R D
124540000	203 A2B2E2K2HGP3 R D
124600000	203 UP3
114180000	103 A1P3 R
114190000	103 A1B1E1K1P3 R
124720000	205 A2B2E2K1 P3 R D Formaldehyde
124730000	205 A2B2E2K1 P3 R D Reactor
124740000	205 A2 P3 R D Reactor







# ESCAPE RESPIRATORS



Escape respirators **SPASCIANI M 900** are devices provided with gas filters **ABEK15** (Gases) or **ABEKP15** (gases and particles). These innovative products yield the memory of the silicone to reduce their bulk to a minimum.

Thanks to their ergonomic and robust polypropylene high visibility housing they are compact and easy to carry devices.

The ergonomic design with skid-proof surfaces permit the safe and easy handling of the devices.



M 900 Housing



M 900 P3



M 900 ABEK P15

Escape respirators	
117050000	Respirator M 900 P3
117060000	Escape respirator M 900 ABEK15
117070000	Escape respirator M 900 ABEK P15

# M 900

The escape respirator **SPASCIANI M 900** is provided with gas filter **ABEK15** (Gases) or **ABEKP15** (gases and particles).

This innovative product yields the memory of the silicone to reduce its bulk to a minimum.

The silicone of the facepiece makes the mask very comfortable and eases the leak tightness on the user's face. All that minimizes donning time.

The **ABEK15** filter gives a low breathing resistance and gives protection from a number of toxic gases for at least 15 minutes. The headband, soft and stable has two anchorage points. The halfmask has a perfect tightness on the face and the honeycomb design of the front of filter grants a low breathing resistance.

**SPASCIANI M 900** is a comfortable product and easy to use and don even with gloved hands. Its minimum size does not interfere with the escape pace.



## Characteristics and advantages

- Light and compact
- Quick and easy to don
- Easy to carry along in the pockets or at the waist belt
- Big handles for gloved hands

## Option:

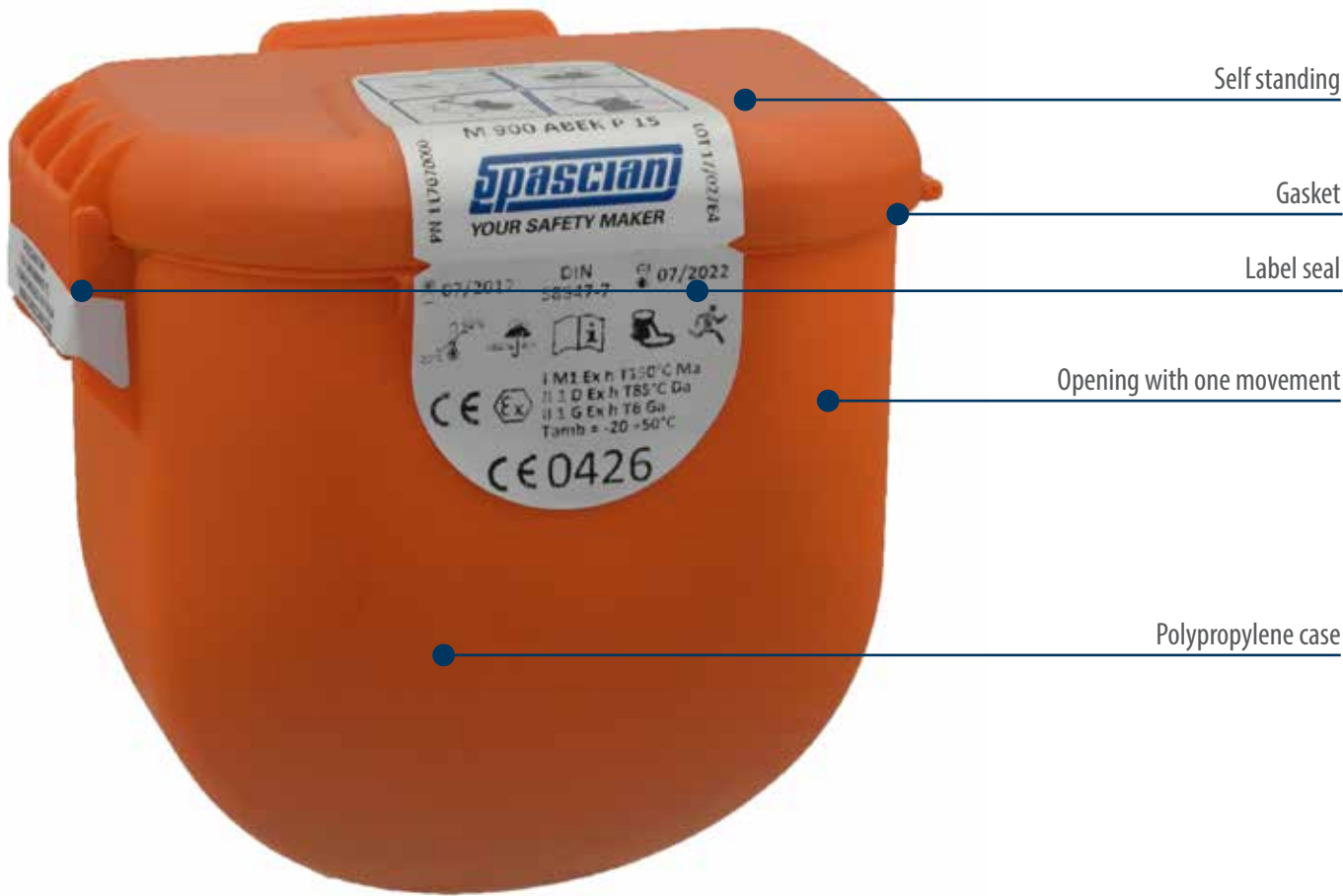
REFURBISHING KIT: M900 after 5 years can be refurbished



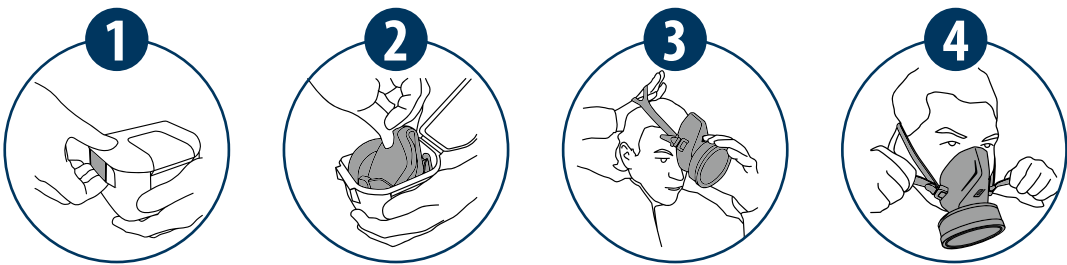
**M 900** high visibility cases are compact and resistant, a built-in clip allows for portability. Very robust they protect from atmospheric agents and shocks and are provided with a sealing label and a OR gasket that ensures airtightness. The loop for the belt is 50 mm wide thus making it easy to hang the case to it or to the work garments granting great stability.



Detail of the holder



## QUICK DONNING







# POWER ASSISTED RESPIRATORS



**TURBINE** is a range of Powered Air Purifying Respirators (PAPR) for breathing protection fed by a fan. They are provided with rechargeable battery and used with two dust or combined filters. They replace the traditional filtering devices made of face piece and filter in heavy and prolonged works, because the continuous air flow reduces the respiratory effort.

They are suitable for tasks such as asbestos removal, work in dusty environments or in crop spraying. Besides **TURBINE TM 1702** (full face mask), which has been on the market for sometime, the range has been widened with three new models: **TURBINE CFU** (helmet with visor), **TURBINE FU** (lightweight hood with visor) e **TURBINE H** (Tyvek F<sup>®</sup> lightweight hood).

- TURBINE PAPR** are designed to protect the operator granting high comfort, achieved by:
- supplying the mask, the helmet or the hood, with the ideal flow rate to reduce the breathing effort to a minimum without a disturbing flow on the face.
  - the ergonomic waist belt provided with soft pad.
  - the very low weight compared to the autonomy offered.

They are designed to withstand decontamination showers.



Turbine CFU



Turbine FU



Turbine H



Turbine TM

Power assisted respirators	
130810000	Set Turbine TM 1702 2
130860000	Set Turbine CFU helmet with visor
130870000	Set Turbine FU light weight hood with visor
130880000	Set Turbine H Tyvek F light weight hood
Accessories	
136610000	Battery charger 1000 mAh - Turbine 170
124150000	Filter 100 P3
123320000	Filter 202 A2B2P3 R
123350000	Filter 202 A2B2E2P3 R
911060000	PVC belt



# TURBINE TM 1702

**Turbine** is a range of respiratory protection equipment fed by a motor fan. They are fitted with a rechargeable battery and have to be used with two particle or combined filters. They replace the traditional RPDs made of a facepiece and filter in heavy duty and prolonged works because the respiratory effort is reduced by the injected air flow. Depending on the filter used, they are suitable for activities such as asbestos removal, dusty products handling and crops spraying.



Panoramic visor  
in transparent  
polycarbonate

## TR 2002 CL3 / CL2

Full face mask, featuring  
an ample visor offering an  
extended field of vision.  
The mask is available in Class  
2 (TPE) or Class 3 (EPDM).  
A version in Silicone is also  
available.

Polyurethane  
corrugated hose

Plastic  
material  
fittings

Belt, padding  
and self-extinguishing  
webbing with nylon buckles

## Motor fan

On the top there is the on/off  
button which also permits the  
selection of the desired airflow. The  
four luminous LEDs indicate low  
battery, insufficient air flow, below  
120 l/min, air flow set at 130 l/min  
and airflow set at 170 l/min.  
The unit features an acoustic alarm  
which triggers when the airflow  
drops below 120 l/min due to  
either clogging of particle filters or  
chocking of the corrugated hose.





# TURBINE TM 1708

Turbine 1708 are specifically suited to asbestos removal and handling



TR 82  
Easy to seal beneath the disposable use overall thanks to its five-arm harness



PVC BELT  
Easily decontaminable under the shower



FILTRO LD P3 R  
Filter efficiency 99,99%  
High level performances (170 l/min)



# H/FU/CFU MODELS

## Hood Turbine H

Certified EN 166  
Protection Class TH2

*Applications: pharma industry,  
chemical treatments, building,  
scrapings.*



Lightness

Optimal air flow distribution  
and noise attenuation

Increased field of vision  
(both sideways and downwards).  
Reduced reflection and deformation

## Light visor Turbine FU

Certified EN 166.  
Protection Class TH2

*Applications: All cases where protection  
of eyes and face are required  
(building, foundries, welding)*

Hood fitted with an elasticated cover  
made of PU-coated Nylon fabric

Flip-up visor  
made of polycarbonate  
which protects from impact  
(according to EN 166)

Light  
and well balanced

Adjustable  
head band



Highly versatile rigid cap  
(Certified EN 397- Head Protection)

Light and well balanced

Wide visor giving best field of vision



## Helmet Turbine CFU

Certified EN 166 and EN 397 (head protection). Protection Class TH2

*Applications: grinding, building and scraping, chemical treatments, foundry, agriculture.*

# ACCESSORIES

Accessories	
136610000	Battery Charger 1000 mAh -Turbine 170
124150000	Filter 100 P3
123320000	Filter 202 A2B2P3 R D
123350000	Filter 202 A2B2E2P3 R D
911060000	PVC waist belt

TM1702	
130810000	Set Turbine TM 1702 TR 2002 CL2 TPE
130820000	Set Turbine TM 1702 TR 2002 CL3 EPDM
130820005	Set Turbine TM 1702 TR 2002 S CL3 Silicone

TM1708	
130830000	Set Turbine TM 1708 TR 82 EPDM
130840000	Set Turbine TM 1708 TR 82 safety glass EPDM
130850000	Set Turbine TM 1708 TR 82 scratch resistant visor EPDM
130830005	Set Turbine TM 1708 TR 82 S Silicone
130840005	Set Turbine TM 1708 TR 82 S vetro sicurezza Silicone

Turbine H / FU / CFU	
130860000	Set Turbine CFU Helmet with visor
130870000	Set Turbine FU Light visor
130880000	Set Turbine H Tyvek F® Hood

## CORRUGATED HOSE



Art. 118430000 for mask



Art. 118420000 for hoods

The hoses used for the entire range of SPASCIANI products take advantage of a new technology of the highest quality now available. This allows to reduce the dimensions of connectors and as a consequence they make the product more practical and handy.

Hoses are much lighter which eases the wearer's activity. Moreover, hoses have highly rigid rings while keeping the best flexibility and extensibility due to the plastic material they are made of. They can extend twice their length to make wearer's movements more comfortable.

## Combined filters for 130 l/m available with Turbine



Filter 202 A2B2E2P3 R D



Filter 202 A2B2P3 R D







# SANDBLASTING AND AIR LINE RESPIRATORS



**RC4** is a filter respirator with hood. In combination with a P3 filter, it protects face and respiratory system from splinters, fumes, dusts and can be conveniently used for light duty sandblasting works. **ACS 951** and **ACS 952** are constant flow air line respirators. They protect both the respiratory tracts and the parts of the body more exposed to abrasive blasts. **ACS 951** is provided with mask and hood, while **ACS 952** with ABS helmet and waistcoat.

Air line constant flow breathing apparatus is ideal for use in chemical plants and in every industrial workplace. They protect breathing pathways from the dangerous effects of the handled chemicals. **SET AC190** is provided with mask TR82 or TR2002, while **SET ACM 952** with helmet in ABS and waistcoat.



RC4

AC 190 TR82



ACS 952

AC 190 TR2002

Sandblasting respirators	
103000000	RC4 respirator half mask with hood
1310200CJ	SET ACS 951 full face mask with compressed air line hood
1315100CJ	SET ACS 952 compressed air line hood
Air line respirators	
1300000EC	SET AC 190 TR82 full face mask with flow regulator
1300100CJ	Set AC 190 TR2002 full face mask with flow regulator
1306100CJ	Set ACM 952 hood with flow regulator
Accessories	
1393000CJ	Hose cut 8 x 17 10m with couplings
1393100CJ	Hose cut 8 x17 20m with couplings
1393300CJ	Hose cut 8 x 17 30m with couplings
1393200CJ	Hose cut 8 x 17 50m with couplings
1512400EC	Filter unit for compressed air for one operator
1512500EC	Filter unit for compressed air for two operators
1512600EC	Filter unit for compressed air up to three operators
151240100	Coalescent cartridge for one operator
151240200	Carbon cartridge for one operator
151250100	Coalescent cartridge for two operators
151250200	Carbon cartridge for two operators



ACS 951

ACM 952



# SANDBLASTING AND AIR LINE RESPIRATORS

## Flow regulator AC 95

The regulator **AC 95** delivers to the wearer a continuous flow of air which can be varied by acting on the special knob. It is fitted with universal quick couplings to connect to the feeding hose. An alarm activates if the flow drops below a preset minimum. The regulator is mounted on a supporting plate complete with waist belt.

The **AC 95** is also fitted with a thread to lodge the filter silencer EOD 55 which beside dampening the noise generated by the airflow filters possible pollutants that may still be present in the hoses. The limited weight, considering the materials used, and the compact design offer an easy and effective use.

The **AC 95** can be used in combination with masks fitted with EN 148-1 connectors and with hoods in chemical protection or sandblasting.



## ACM 952



Compressed air hood,  
wide field of vision,  
with protective mantle.  
Suitable for  
chemical works

## RC 4



High durability hood  
Half mask  
with hood  
for sand blasting



## ACS 951

**ACS 951** is an isolating respirator fed with a continuous flow of compressed air complete with a hood and protective waistcoat which make it an effective means to protect both the breathing pathways and the parts of the body more exposed to the abrasive blast.

The facepiece is made of a mask integral with the waistcoat which adapt itself to any face contour without any annoying pressure. Its compact design allows interventions even in awkward spaces.

The mask/hood is complete with two exhalation valves protected by a special cover and features two built-in ducts which lead the air flow to skim over the lenses to avoid steaming up.

The head harness is outside and attached to the facepiece by means of self-adjusting buckles which permit a quick and easy donning. The hood is sewn to the mask and protects the body down to the waist.



## ACS 952

**ACS 952** is an isolating respirator fed with a continuous flow of compressed air complete with a helmet and protective waistcoat which make it an effective means to protect both the breathing pathways and the parts of the body more exposed to the abrasive blast.

The helmet is made of a shock-resistant material and fitted with adjustable head harness from size 55 to 61.

In the helmet, a duct leads the airflow to skim over the visor to avoid steaming up. The helmet is fitted with elasticated chin-strap adjustable by means of a sliding buckle, this keeps the helmet in place during any movement or position; two exhale valves protected by a special lid, a double visor, inside polycarbonate, outside glass, easily replaceable when worn out.

The waistcoat, made of a strong plasticized fabric, is sewn to the rubber gasket which connects it to the helmet.







# FRESH AIR RESPIRATORS (DUCT)



**DUCT** is a range of Isolating Fresh Air Respirators with full face mask designed to be used in oxygen deficient environments and narrow spaces such as tanks, silos, wells, sewer systems, etc., all confined spaces with a lack of oxygen and where the poor ventilation can suddenly modify the ambient concentration of toxics. For the use of this device it shall be possible to get uncontaminated air from outside the working environment.

**DUCT** is available in two versions:

- **DUCT ECO**, runassisted fresh air respirator, for breathing the lung power only is necessary.
- **DUCT ECO A**, assisted fresh air respirator. The respiration is facilitated by an electric fan. It can be used by two operators simultaneously.



Cassa di trasporto in ABS

Fresh Air Respirators	
14000Eco0	Fresh air respirator DUCT ECO (without mask)
14001Eco0	Fresh air respirator DUCT A ECO (without mask)
Accessories	
113020000	TR 2002 CL2 full face mask
112190000	TR 82 full face mask
14017EC00	Feeding hose - cut 10m
118750000	Corrugated hose TUR TM 2090 V0
911200000	Harness for DUCT
14010EC00	Manifold with plug for DUCT ECO
14011EC00	Manifold with valve for DUCT A ECO
46068EC00	Electric fan DUCT ECO
14016EC00	Kit 2 <sup>nd</sup> operator DUCT ECO



DUCT



# RESPIRATOR DUCT ECO / A ECO

**DUCT** is a range of Isolating Fresh Air Respirators with full face mask designed to be used in oxygen deficient environments and narrow spaces such as tanks, silos, wells, sewer systems, etc., all confined spaces with a lack of oxygen and where the poor ventilation can suddenly modify the ambient concentration of toxics.

For the use of this device it shall be possible to get uncontaminated air from outside the working environment.

**DUCT** is available in two versions:

**DUCT ECO** and **DUCT A ECO**

The **DUCT** comes with a 10 m long coiled PVC air supply hose.

It is possible to connect together several hoses to obtain different total lengths:

- 20 m for the non-assisted version
- 60 m for the assisted version if used by only one operator
- 30 m for the assisted version if used by two operators

## Fresh Air Respirators

14000Eco0	Respirator DUCT ECO (without mask)
14001Eco0	Respirator DUCT A ECO (without mask)

## DUCT ECO

Unassisted fresh air respirator.

Only the lung power is necessary for breathing.



SPASCIANI fullface masks - certified EN 136:1998 - designed for **DUCT**



## DUCT A ECO

**DUCT A ECO** is the “assisted” version; it has an electric blower attached to the end of the air supply hose which pumps fresh air to the operator, increasing comfort and decreasing difficulty in respiration.

Moreover, this system has an outflow valve which is useful for the release of possible excess air. The electric blower can supply two operators at the same time.

The **DUCT A ECO** is designed in such a way that in case the electric blower is turned off, the operator can continue to breathe, even if with a higher effort, and may safely move away from the contaminated area.



## CORRUGATED HOSE

The corrugated hoses used for the entire range of SPASCIANI products are made with a new technology which reaches the highest quality level available.

The corrugated hose for the DUCT is moulded with a special additive that makes it flame resistant.

This technology allows shorter connections and as a consequence to get a more handy and manageable product.



Art. 118430000









# EEBD - EMERGENCY ESCAPE BREATHING DEVICE



**SK1203** is a breathing apparatus with open circuit with hood. Designed for use in emergency escape situations and in all the environments potentially dangerous because of the presence of fumes or low level of oxygen. It releases a constant air flow for 15 minutes.

**FUGE** is a Self Contained Breathing Apparatus designed for escape (Emergency Escape Breathing Device) that in case of emergency supplies, on demand, delivers an air flow for a minimum guaranteed time of 15 minutes. It is meant to be used in all environments where dangerous situations may occur due to fire fumes or lack of oxygen.



SK1203



FUGE

## Emergency escape breathing device

403010000	SK 1203
40301000C	SK 1203C Composite
403030000	Fuge TR 2002 BN CL3
403050000	Fuge Rescue TR 2002 BN CL3
403020000	Fuge Tail TR 2002 BN CL3
40303000C	Fuge C TR 2002 BN CL3 Composite
40305000C	Fuge Rescue C TR 2002 BN CL3 Composite
40302000C	Fuge Tail C TR 2002 BN CL3 Composite



FUGE Tail



FUGE Rescue

# SK1203

**SK1203** is a compressed air open circuit breathing apparatus with hood for escape, from all environments potentially dangerous because of the presence of fumes or lack of oxygen. It is designed to create a constant air flow of 15 minutes thanks to a 2 l 300 bar cylinder which is directly connected to the valve/reducer that is provided with a gauge which continuously indicates the pressure inside the cylinder.

Exclusive automatic activation system of the air flow to extraction hood.  
This allows not to waste air but to benefit of a constant flow of breathable air for 15 minutes.

Emergency escape breathing device SK	
403010000	SK 1203
40301000C	SK 1203C Composite

**SK1203** SK 1203 is made of a cylinder (steel or composite), a valve / pressure reducer, a breathing tube, a hood and a carrying bag. Set complete with fully charge steel cylinder weights 6 Kg approx. Set complete with fully charge composite cylinder weights 4 Kg approx.



# FUGE

**FUGE** is a Self Contained Breathing Apparatus designed for escape that in case of emergency supplies, on demand, an air flow for a minimum guaranteed time of 15 minutes with a 2 l/300 bar cylinder. It has great wearability and it's totally hermetic. It is meant to be used by specialized operators in all environments where dangerous situations may occur due to fire fumes or lack of oxygen. Set complete with fully charged steel cylinder weights 6.5 Kg approx. Set complete with fully charged composite cylinder weights 4.2 Kg.

Emergency escape breathing device - FUGE	
403030000	Fuge TR 2002 BN CL3
403050000	Fuge Rescue TR 2002 BN CL3
403020000	Fuge Tail TR 2002 BN CL3
40303000C	Fuge C TR 2002 BN CL3 Composite
40305000C	Fuge Rescue C TR 2002 BN CL3 Composite
40302000C	Fuge Tail C TR 2002 BN CL3 Composite





# FUGE RESCUE E FUGE TAIL

Fuge Rescue and Fuge Tail are provided with a supporting harnesses to keep the cylinder in position on the thigh. This allow the a comfortable wear while enabling the wearer to adjust it according to his needs. This solution allows free movement even in ackward spaces.

**FUGE RESCUE** complete with fully charged steel cylinder weighs 6.7 Kg approx., with fully charged composite cylinder 4.4 Kg..

**FUGE TAIL** is provided with a 3 way valve with switch over device, and acts as a "back-up" to the compressed air systems fed from the line, thus granting, in case of blackout or disconnection from the line, a constant feeding of breathable air. Set complete with fully charge steel cylinder weights 7,1 Kg approx. Set complete with fully charge composite cylinder weights 4,8 Kg and for this reason it is usable for a whole shift.

## AIS Technology

is an exclusive system of acoustic alarm, developed and patented by Spasciani, which is integrated in the demand valve and warn of the imminent exhaustion of the air reserve without air waste.



Fuge Rescue



Fuge Tail

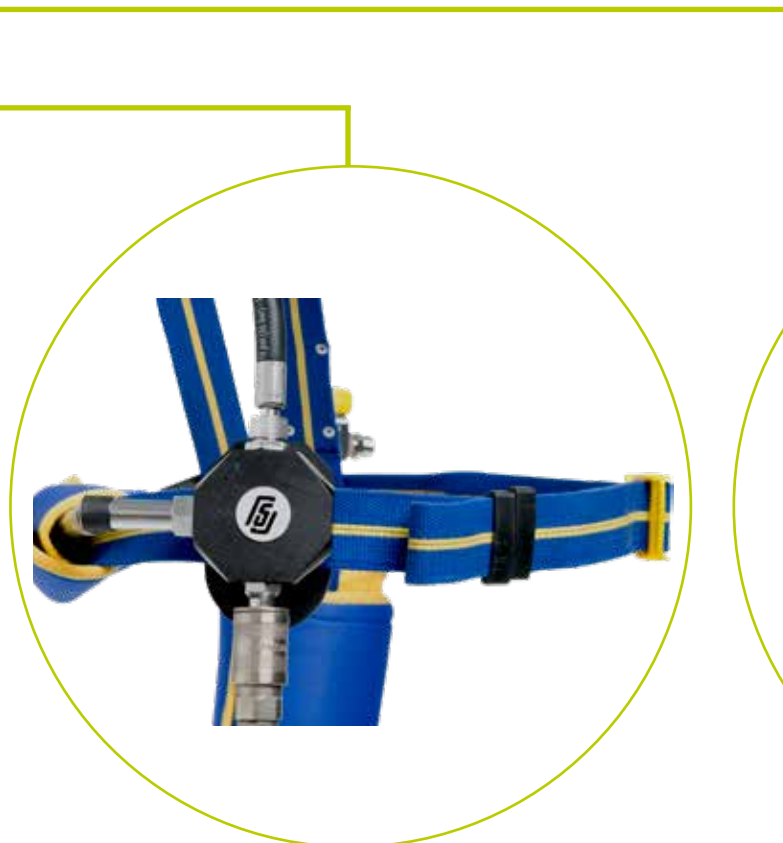
## 3 WAY VALVE

The **3 way valve** is placed between the reducer, the demand valve and the feeding line.

In case the air supply is cut off accidentally or intentionally, the 3 way valve switches automatically to the cylinder. In such a condition the warning, which is built into the demand valve, is activated. The signal originates from a sounding vibration caused by every inhalation. In this way the full capacity of cylinder is made available to the user for breathing. The acoustic warning is related to the respiratory frequency of the user and allows the user to distinguish his own signal from that emitted by nearby fellows or noise (Self Test Function).

The location of the warning device protects it from frost or dirt.

This system makes use of the **AIS Technology**, the acoustic alarm system integrated in the demand valve.

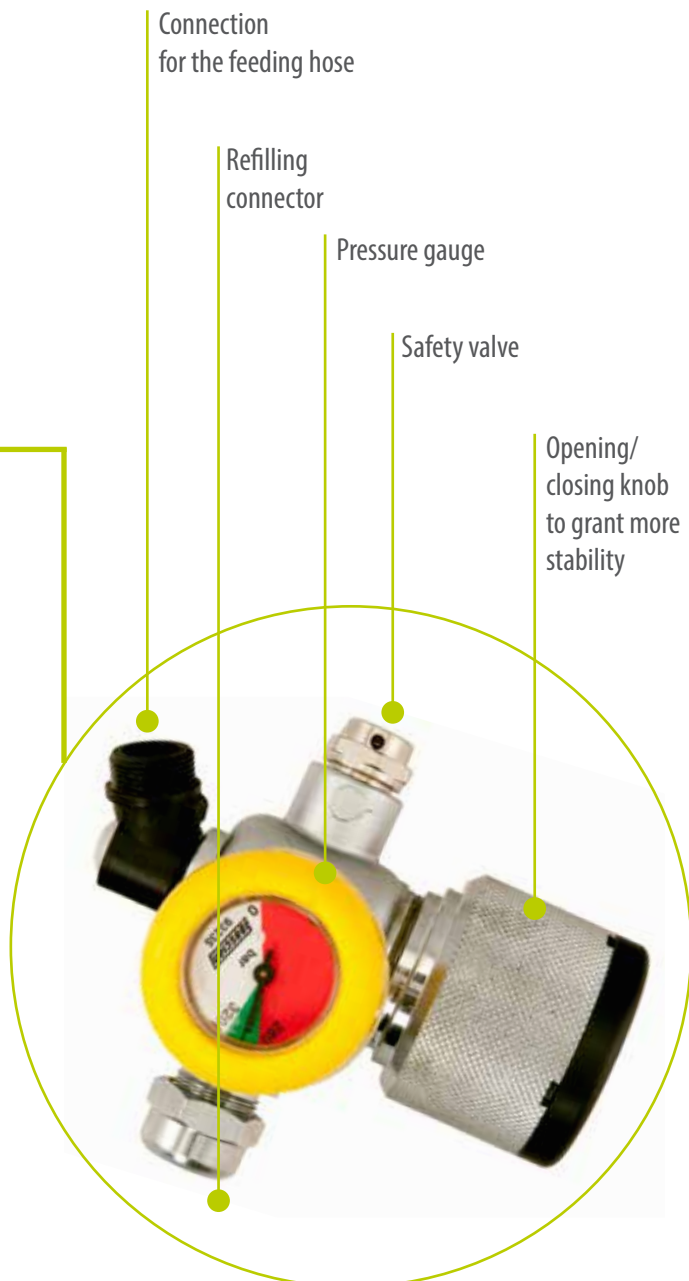


Black anodized aluminium 3 way valve

## REDUCER

The **pressure reducer** and the cylinder valve are integrated and provided with gauge indicating the pressure inside the cylinder. The pressure reducer keeps the outlet pressure steady throughout the emptying of the cylinder.

The opening/closing knob is anti-slip and easily allows to open/close the air supply.



Brass alloy nickel plated pressure reducer







# Exclusive AIS Technology

**3 minutes more of air** are extremely important when one works in critical conditions, during firefighting or in rescuing.

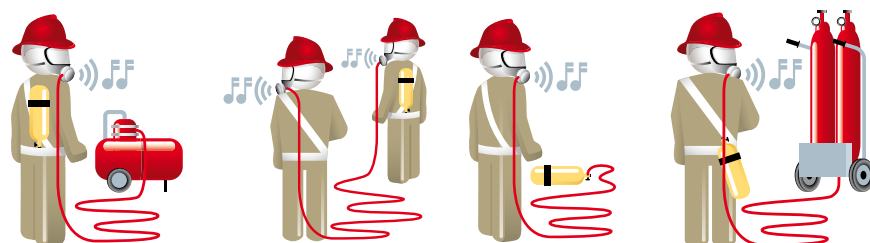
For this reason SPASCIANI developed and patented AIS Technology, a unique acoustic alarm integrated in the demand valve, which warns when the air in the cylinder is running out and activated by the wearer's inhalation without air waste.

It's a system **safe and protected** from external agents, such as frost or dirt, that **extends up to 30%** the time available to quit, in all safety, from the operation area.

# 3 minutes more



## 6 GOOD REASONS



1. No air loss
2. Sealed warning device
3. Self-test
4. Alarm audible in any circumstances
5. Alarm at distance
6. Second operator alarm

# SCBA SERIES INDUSTRIAL

They are self contained breathing apparatus whose duration depends on the cylinder mounted: 3 or 6 liter 300 bar steel or 6,8 or 9 liter 300 bar composite cylinders. **RN** can be supplied with mask and demand valve type A (EN148-3) or with mask and demand valve type BN (snap in connector and threaded connector EN148-1 for filters; the masks automatically sets itself correctly for the negative pressure when used with filters). This breathing apparatus is ideal for maintenance interventions in chemical plants, to work in very polluted environments or in oxygen deficiency.

Back plates	
158730000	RN T1
158750000	RN
1587100EC	RN BIBO
158250000	BVF
158290000	BVF BU
158320000	RN MINI
Masks	
11230000	TR 82 A
11231000	TR 82
11300000	TR 2002 A CL3
11306000	TR 2002 S A CL3
11301000	TR 2002 BN CL3
11307000	TR 2002 S BN CL3
Demand valves	
1588500CJ	A
1579100CJ	BN
Cylinders	
923030000	Cylinder 3 L 300 Bar
92303000C	Cylinder 3 L 300 Bar - Composite
924630000	Cylinder 6 L 300 Bar
92446000C	Cylinder 6,8 L 300 Bar - Composite
92449000C	Cylinder 9 L 300 Bar - Composite
92426000C	Cylinder 6,8 L 300 Bar - Composite PTFE unlimited life
92427000C	Cylinder 7,2 L 300 Bar - Composite PTFE unlimited life
92428000C	Cylinder 8,4 L 300 Bar - Composite PTFE unlimited life
Accessories	
926900000	Flame resistant sleeve for cylinder (6 L/6,8 L)
926910000	Flameproof sleeve for cylinder made of Nomex®
9324400CJ	4Way valve
151530000	Supplementary warning device
936010000	Excess flow valve
7799500CJ	Rescue hood
EATEX0000	ATEX certification



Confined spaces and oxygen deficient environments, tanks and plants inspections: RN breathing apparatus is the right product to face any risk safely.

Panoramic mask in overpressure with broad field of vision

Demand valve with integrated acoustic patented warning device

Adjustable and padded harness which improves comfort and allows prolonged use of the set

Ergonomic back-plate comfortably distributing the weight and keeping the SCBA stable on the operator's back

Cylinder anchorage with new locking device and retro-reflecting strap

Photoluminescent gauge with scale also in PSI, up to 360 bar and with colored exhaustion area between 50 and 0 bar

Piston pressure reducer whose outlet pressure stays constant while the cylinder pressure decreases





# RN MINI

## A self contained breathing apparatus (SCBA) that uses an open-circuit breathing system, not depending from the environment.

The **RN MINI** are lightweight apparatus – the set weighs 10,5 Kg, complete with mask and 3 l 300 bar fully charged steel cylinder and 7,5 Kg with mask and fully charged 3 l 300 bar composite cylinder - intended for short interventions and equipped with a small and compact back-plate carrying system to allow operators to easily access confined spaces. SPASCIANI **RN MINI** self-contained breathing apparatus are classified as

Type 1 (device for industrial use) available just with 3 l cylinders. SPASCIANI **RN MINI** self-contained breathing apparatus are optionally provided with the Automatic 4-way valve, an accessory that allows to feed a second operator who will then be equipped with an individual warning device signal at his mask; with this accessory it is also possible to connect the self-contained breathing apparatus to an alternative source of air to prolong its autonomy and/or to ensure a safe escape whenever the main feeding source has suffered an accidental interruption. SPASCIANI **RN MINI** self-contained breathing apparatus are certified with all Spasciani fullface masks.

Mask selected among Spasciani models

Demand valve with AIS technology

Shoulder straps with paddings to improve comfort

3l 300 bar composite or steel cylinder

Small and compact back plate

Possible use with 4way valve

Photoluminescent pressure gauge scaled, also in PSI, up to 360 bar and colored exhaustion area between 50 and 0 bar

Piston reducer whose outlet pressure remains constant while cylinder pressure decreases



# BVF

## Self contained breathing apparatus provided with 3 liter 300 bar steel cylinder.

BVF is ideal for use in fast interventions in chemical plants or for the escape from dangerous areas.

The BU system allows to set the apparatus so that the alarm is immediately activated in case of a failure of the main air supply (compressor or cylinder). BVF adds the highest degree of safety and comfort to the efficiency, versatility and simple use of the RN System, as well as the astonishing field of vision of the SPASCIANI TR 2002 A mask.



## SYSTEM MODULES



### TR 2002 CL3 / CL2

Full face mask in EPDM, it features a modern design and its extremely broad visor grants a wide field of vision. The mask is available in two different versions: A and BN, both in class 2 and in class 3, according to EN 136:1998. They are also available in silicone.



### TR 82 A / TR 82 B

These full face masks can be used with the breathing apparatus RN. They are made of a face blank manufactured in EPDM and a panoramic visor offering wide visibility. They meet the requirements EN 136:1998 Class 3. They are also available in silicone.



### Demand valve BN

Demand valve with quick connector to DIN 58600 activates at the first inhalation with two easy buttons to release the valve.



### Demand valve A

Demand valve with standard connection to EN 148-3 (M45x3), easy to screw onto the mask even with gloved hands.





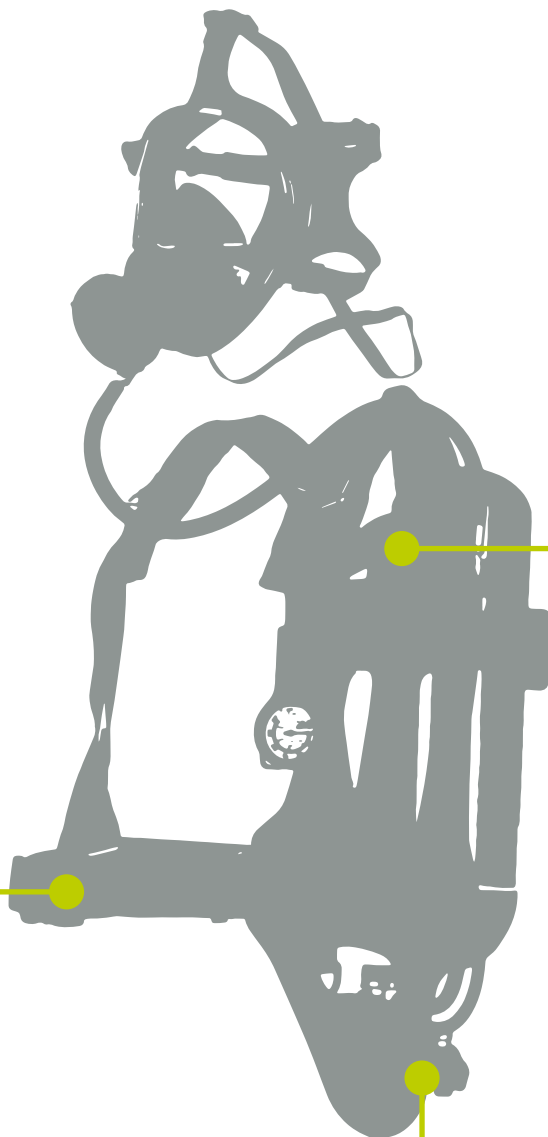
### Soft belt

This soft belt in the hips area improves portability of the breathing apparatus, increasing comfort when used for long periods of time.



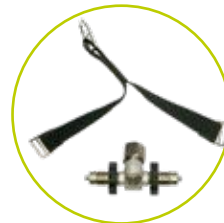
### Supplementary warning device

The accessory "supplementary warning device" can be mounted, on request, onto the reducer. This alarm gives the possibility to add a continuous whistle to the intermittent alarm signal built into the demand valve.



### Excess Flow Valve EFV

The EFV, fitted onto SPASCIANI Self Contained Breathing Apparatus, limits the uncontrolled exit of compressed air from a high pressure cylinder in case of breaking of the valve or in case of unintentional and sudden opening.



### Twin cylinders

The system RN can operate with two cylinders to extend the autonomy of the set. Simple T connectors allow the operator to equip with two composite cylinders of 6,8 l or 9 l.



### Composite cylinders

The breathing apparatus RN can be outfitted with composite cylinders which lighten the set and grant more agility to the operator. The capacity of these cylinders can be 6,8 l 300 bar or 9 l 300 bar.



### Steel cylinders

RN series can be equipped with steel cylinders of different volume and pressure capacity. SPASCIANI can offer 3 l 300 bar, 7 l 200 bar, 6 l 300 bar cylinders.

# SCBA SERIES FR FIRE FIGHTING

They are self contained breathing apparatus specifically designed for fire fighting, whose duration depends on the cylinder mounted: 3 or 6 liter 300 bar steel or 6,8 or 9 liter 300 bar composite cylinders.

**RN FR** can be supplied with mask and demand valve type A (EN148/3) or with mask and demand valve type BN (snap-in connector and threaded connector EN148/1 for filters).

The breathing apparatus is ideal for fire brigades and rescue teams for fire fighting and activities in extremely polluted environments or in oxygen deficiency.

Back plates	
15875FR00	RN FR
15871FREC	RN FR BIBO
Masks	
11230FR00	TR 82 A CL3+
112110000	TR 82 A E CL3+
11231FR00	TR 82 B CL3+
112120000	TR 82 B E CL3+
11300FR00	TR 2002 A CL3+
11301FR00	TR 2002 BN CL3+
Demand valves	
1588500CJ	A
1579100CJ	BN
Cylinders	
923030000	Cylinder 3 L 300 Bar
92303000C	Cylinder 3 L 300 Bar - Composito
924630000	Cylinder 6 L 300 Bar
92446000C	Cylinder 6,8 L 300 Bar - Composito
92449000C	Cylinder 9 L 300 Bar - Composito
92426000C	Cylinder 6,8 L 300 Bar - Composito PTFE unlimited life
92427000C	Cylinder 7,2 L 300 Bar - Composito PTFE unlimited life
92428000C	Cylinder 8,4 L 300 Bar - Composito PTFE unlimited life
Accessories	
926900000	Flame resistant sleeve for cylinder (6 L/6,8 L)
926910000	Flameproof sleeve for cylinder made of Nomex®
9324400CJ	4Way valve
151530000	Supplementary warning device
936010000	Excess flow valve
7799500CJ	Rescue hood
EATEX0000	ATEX certification





Fire, flames, toxic gases: these and many other risks have to be faced by firefighters and rescue teams. SPASCIANI offers with the RN FR a tool that allow to safely meet any situation.

Panoramic mask in overpressure with broad field of vision

Demand valve with integrated acoustic patented warning device

Adjustable and padded harness which improves comfort and allows prolonged use of the set

Cylinder anchorage with new locking device and retro-reflecting strap

Ergonomic back-plate comfortably distributing the weight and keeping the SCBA stable on the operator's back

The kidney belt makes the wearing of the set more comfortable by reducing the effect of weight on the operator's back during long lasting interventions

Photoluminescent gauge with scale also in PSI, up to 360 bar and with colored exhaustion area between 50 and 0 bar

Piston pressure reducer whose outlet pressure stays constant while the cylinder pressure decreases

Optional connection for 2nd operator

Valve grip preventing accidental opening or closing of the cylinder





# SYSTEM MODULES



## TR 82 A / TR 82 E A TR 82 B / TR 82 E B TR 82 N

These full face masks can be used with RN FR SCBA. They are made of a EPDM face blank and a panoramic visor offering wide visibility.

In the E version they are equipped with a special system of metal brackets to fit to the slots of Fire Brigades and Police helmets. The system assures a great stability and tightness of the mask on the face. TR 82 A models are positive pressure full face masks with threaded connector to EN 148-3 (M45x3) while the TR 82 B are positive pressure full face masks with bayonet fitting connector. The full face mask TR82 N models grant a high comfort and a great wearability under the firefighters helmet.

All of them can be used with positive pressure SBCA and meet the requirements EN 136:1998 Class 3+ / EN 137.



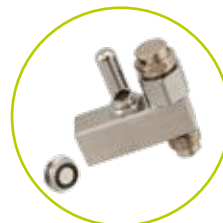
### Demand valve BN

Demand valve with quick connector to DIN 58600 activates at the first inhalation with two easy buttons to release the valve.



### Demand valve A

Demand valve with standard connection to EN 148-3 (M45x3), easy to screw onto the mask even with gloved hands.



### Supplementary warning device

The accessory "supplementary warning device" can be mounted, on request, onto the reducer. This alarm gives the possibility to add a continuous whistle to the intermittent alarm signal built into the demand valve.



### Second man air outlet

This medium pressure hose ending with a female quick connector allows the connection of a second man to the special outlet provided by the reducer RN FR. This connection can be used either by a full face mask with demand valve or a rescue hood, easier to fit to the casualty being rescued.



### TR 2002

Full face mask in EPDM, it features a modern design and its extremely broad visor grants a wide field of vision. The mask is available in two different versions: A and BN according to EN 136:1998 / EN 137.



### Twin cylinders

The system RN FR can operate with two cylinders to extend the autonomy of the set. Simple T connectors allow the operator to equip with two composite cylinders of 6,8 l or 9 l.



### Composite cylinders

The breathing apparatus RN FR can be outfitted with composite cylinders which lighten the set and grant more agility to the operator. The capacity of these cylinders can be 6,8 l 300 bar or 9 l 300 bar.



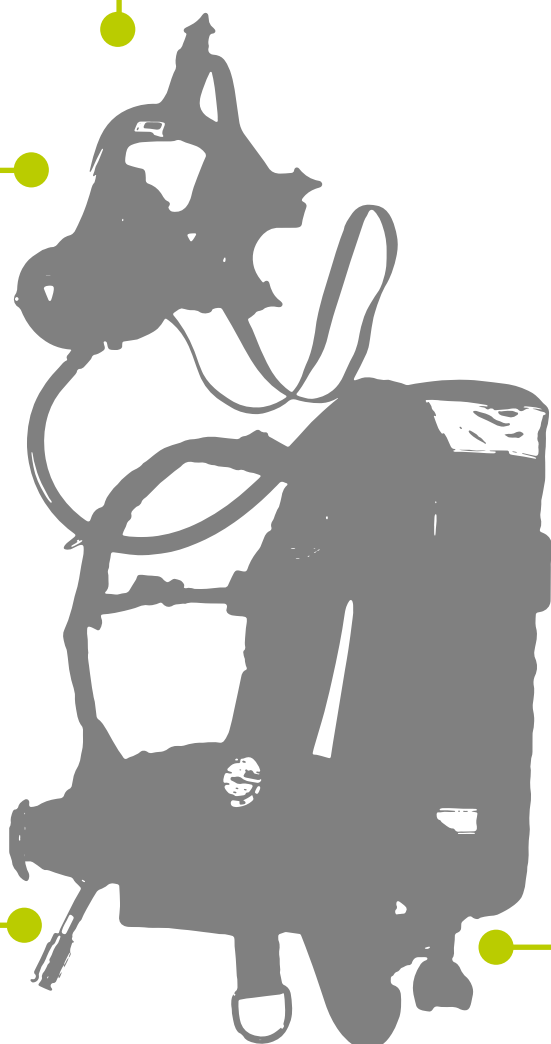
### Steel cylinders

RN FR series can be equipped with steel cylinders of different volume and pressure capacity. SPASCIANI can offer 3 l 300 bar, 7 l 200 bar, 6 l 300 bar cylinders.



### Excess Flow Valve EFV

The EFV, fitted onto SPASCIANI Self Contained Breathing Apparatus, limits the uncontrolled exit of compressed air from a high pressure cylinder in case of breaking of the valve or in case of unintentional and sudden opening.



# ACCESSORIES FOR SCBA SERIES



## SCBA carrying case

Light ABS carrying case, is useful for the transport and protection of the breathing apparatus; it is available for one or two cylinders (for the twin-cylinder SCBA or spare cylinder). Its high visibility orange color is ideal for emergency situations.



## Prescription lenses frame

Easy to use and extremely stable thanks to the strong sucker to be applied to the visor. This frame allows those that normally wear glasses to use a full face mask in total safety.



## Wall mounted container in ABS

Wall installation with metal holder for the cylinder; it grants extremely quick donning time. The transparent cover makes the breathing apparatus always visible whilst protecting it from UV rays.



## Cylinder sleeve

In flameproof material protects cylinders of different dimension, this protection helps maintaining in optimal conditions cylinders also when used in extreme conditions.



## Metal cabinet

Wall container with metal holder, ideal for fixed and outdoor installations. Protects the breathing apparatus from the environment and grants an easy donning.



## High pressure test group

The tester is used to check the pressure in the cylinders. With a connection EN 144 both male and female this item can be used also as double checking for the breathing apparatus gauge accuracy.

## 4 way valve

**The 4-way valve is a connector that links the RN to a compressed air line.**

The **4-way valve** is an automatic device with two medium pressure inlets provided with male quick connectors and two medium pressure outlet provided with female quick connectors.

The device is mounted on an holder with two slits for the connection to the support belt of RN or BVF breathing apparatus or to the supporting belt used for holding the medium pressure hose of the RC or RL systems.

Two feeding sources at medium pressure can simultaneously be connected to the inlets, two operators can be fed by connecting their demand valves to the outlets.

The feeding sources that can be connected to the inlets are the main feeding from an air line system set at 5-6 bar (LINE inlet) and a breathing apparatus RN or BVF.

The **4-way valve** is automatic and it switches the feeding from air line to the isolating breathing device if the line is interrupted for any reason (accidentally or done on purpose by the user).





## Rescue hood

**The Rescue hood is a constant flow hood, used in case of emergency to help people in need.**

It is extremely easy to use and can be worn by anybody regardless their face shape and size. The Rescue hood can be used with every SPASCIANI respirator connected to the second air outlet. The hood is **rapidly and easily** activated by connecting it to the second man air outlet, placing it on the casualty's head, tightening the hood's string.

The kit is held in a fire-resistant bag that can be hung to the waist belt, owing to velcro loops. It includes Rescue hood and 1200 mm breathing hose.

The Rescue hood has been tested and approved according to EN 137:2006.



## Maschera BN

**The mask TR 2002 BN “Multi-Purpose” can be used either with a breathing apparatus or with a filter, as it automatically switches from negative to positive pressure settings.**

The full face mask is able to work both in **negative** and in **positive pressure** thanks to its special device, unique and patented, that recognizes automatically the system connected and pre-charges the mask valve when it is used with a positive pressure apparatus.

The mask is composed by a panoramic visor with wide visibility and face blank with double revert seal.

The TR 2002 BN can be used with breathing apparatus SPASCIANI with demand valve BN with bayonet quick connector according to DIN 58600. The mask can also be used with filters, e.g. like the SPASCIANI series 200, or negative pressure respiratory devices with standard screw connector (EN 148-1).

The full mask TR82 N guarantees a high comfort and a great wearability under the firefighters helmet









# MOBILE FEEDING UNITS



## Mobile feeding units for airlines

With duration from 120 min to 15 hours approximately. Available with one or two 50 l cylinders 300 bar or 2 or 4 steel cylinders 6 l 300 bar. They can feed one or two men via hose cuts of 10, 20, 30 or 50 m.

In the **BUSS** version it is possible to connect the trolley to an airline so that it can act as a back-up. Should the air from the main supply be interrupted, the trolley automatically switches to the cylinder pack, thus ensuring continuity of operation.

All mobile units can be used with simple **kits RL**, full face mask - demand valve - waist belt or connected to any Spasciani breathing apparatus equipped with 4Way valve.

Mobile feeding units RC	
1513300CJ	RC 2603 Twin Cylinder trolley 2x6l 300 bar, duration 2 hours approx.
1514100CJ	RC 4603 Single Cylinder Trolley 4x6l 300 bar cylinders, dur. 4 hours approx.
1513700EC	RC 15002 Single Cylinder Trolley EN 144 w/o cylinder
1513800CJ	RC 25002 Twin Cylinder Trolley EN 144 w/o cylinders
932620000	RB Pressure reducer
Mobile feeding units for RL	
1513600CJ	Cylinder and filter unit - 2x6l 300 bar (BUSS)
1513900CJ	Cylinder and filter unit - 4x6 l 300 bar (BUSS)
1513500EC	Filter unit - 2x50 l 200 bar (BUSS) EN144*
4049900KT	BVF/A BU 1303 breathing apparatus
	Cascade system
*w/o cylinders	
Kit RL for one operator	
4058000KT	Kit TR 2002 A, demand valve, waist belt
4058200KT	Kit TR 2002 BN, demand valve, waist belt
Accessories	
1393000CJ	10 m 8 x 17 hose cut with connectors
1393100CJ	20 m 8 x17 hose cut with connectors
1393300CJ	30 m 8 x 17 hose cut with connectors
1393200CJ	50 m 8 x 17 hose cut with connectors
148130000	Holding belt
1588500CJ	Demand valve A
11300000	Mask TR 2002 A



RC 2603



RC 25002



BUSS 4603



## RC 2603

The mobile feeding unit **RC 2603** is fitted with two cylinders 6 l 300 bar which ensure an autonomy of approx. 120 min to one user. The trolley is fitted with release and check valves which permit the replacement of cylinder in use to extend autonomy. The reducer group is simple to operate and allows monitoring both the high and intermediate pressure. A whistle activates when the air reserve is going to finish.

## RC 25002

The mobile feeding unit **RC 25002** can hold two cylinders 50 l 200 or 300 bar which ensure with the latter an autonomy of approx. 120 min to one user.

This unit is designed to get maximum autonomy while keeping the system movable and handy. It can be displaced by one man only. The toolbox can hold all the accessories that make up the airline.



## BUSS 4603

The mobile unit **BUSS 4603** is a backup system for airlines. It can be used independently with the same performances of a feeding unit or it can be connected to an airline through a filter group. In this configuration, should the air from the main supply be interrupted, the trolley automatically switches to the cylinder pack, thus ensuring continuity of operation. When the main air source is restored it switches back to normal operation. It is also possible to replace bottles during use to extend duration.







# ARAC TEST

## TEST AND MAINTENANCE

The periodic check of the respiratory protection device is an essential operation to have at any time an efficient and safe product ready for use.

SPASCIANI has realized a range of specific instruments for the check of the breathing protection devices to ensure that the performances of the reference standards are met. By means of these instruments specifically trained personnel can perform the scheduled maintenance.

Accessories	
169050000	ARAC MINI
169040000	ARAC MINI plus
169000000	ARAC TEST ST1
	ARAC 2

**ARAC MINI** e **ARAC MINI Plus** are designed to carry out checks on the field in any environment of masks and breathing apparatus. The instruments are contained in a small case and is easily transportable. Completely analogic it does not require electricity nor compressed air.



# ARAC ST 1 - ARAC 2

**ARAC ST 1** is a test bench which can easily perform with the aid of its inflatable head, all the tests that have to be carried out to check the functionality of Masks and SCBA. The equipment consists of a pneumatic section controlled by an internal CPU.

The pre-installed software governs the electro-pneumatic valves and prepares the bench for testing according to specific routines. A solid-state memory can record a great number of tests together with the serials of the tested devices and components.



## ARAC 2

The new generation of SPASCIANI test benches for the check of respiratory protection devices. The new bench, beside the flexible software and tests as well as the rigid and inflatable head, features a series of automatic routines to make controls easier and quicker. The Data Base access and the management of data were highly improved and strengthened thus making **ARAC 2** ideal for maintenance stations.

**ARAC 2** is managed by an on-board PC fitted with a touch screen, it is possible, though, to connect peripherals such as mouse, keyboard, bar code scanner to enhance data entry. It is also possible to connect the machine to the internet for remote assistance and software updates.



# GAS AND DUST FILTERS

When choosing a filter, it is necessary to consider a series of factors which cannot be defined beforehand but they come only from a proper and careful risk analysis.

The type of application, the pollutant(s), the concentration, the temperature, the relative humidity, the smell threshold, the individual characteristics of the user are only some of the factors to be consider for a correct selection of a filter.

Filtering respirators protect from gases and/or vapours and/or dusts, fumes, mists because the filters retain by a chemical/physical action the airborne pollutants.

Depending on the protection given filters are divided into Gas, Particle and Combined filters, the latter being a combination of the previous two.

The standard EN 14387 gives the minimum requirements, the test methods and the marking for gas and combined filters. The standard EN 143 gives the same for Particle filters.

In the standards above, gas filters are divided in types A, B, E, K plus some other special filter as NO and Hg depending on the chemicals they protect from.

They are also classified 1, 2, 3 according to their absorption capacity. Particle filters are indicated by the letter P followed by the number 1 or 2 or 3 according to their efficiency.

Each filter type is then given a specific colour code.

Beside the main types, the so called multi-purpose filters offer at the same time the protection given by more filter types, e.g. AB, BK, ABEK.

SPASCIANI filters are produced in the series 100 and 200 with polypropylene housing, all fitted with standard connection EN 148-1. Filter respirators can only be used in environments where the Oxygen concentration in the air is at least 17% in volume.

When this condition is not granted the use of filtering devices is contraindicated. In such cases one shall resort to isolating breathing apparatus or to fresh air respirators.


It is not possible to state beforehand the duration of gas filters, this depending on the concentration of the pollutant but also on many more factors such as the humidity of air, the temperature, the breathing rate etc.

TYPE	COLOR	PROTECTION
AX		Organic Vapours, b.p. <65 °C
		Organic Vapours, b.p. <65 °C + dusts, fumes, mists
A		Organic Vapours, b.p. >65 °C
		Organic Vapours, b.p. >65 °C + dusts, fumes, mists
B		Inorganic Gases
		Inorganic Gases + dusts, fumes, mists
E		Sulphur Dioxide and Acids
		Sulphur Dioxide and Acids + dusts, fumes, mists
K		Ammonia and basic vapours
		Ammonia and basic vapours + dusts, fumes, mists
P		Dusts, fumes, mists
Hg		Mercury vapours + dusts, fumes, mists
NO		Nitrous vapours + dusts, fumes, mists
Reactor		CH <sub>3</sub> I + radioactive dusts, fumes, mists
UP3		All gases and vapours + dusts, fumes, mists



# GUIDE TO FILTER SELECTION

CHEMICAL NAME	CAS N°	FORMULA	B.P. °C	FILTER	COLOR	ODOUR THRESHOLD mg/m <sup>3</sup>	TLV ppm	TLV mg/m <sup>3</sup>	PHYSIOLOGICAL EFFECTS
Acetaldehyde	75-07-0	CH <sub>3</sub> CHO	28,8	AX	Brown	0,0002	25C	45C	Irritates nose, eyes ,cough headache
Acetic acid	64-19-7	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	118	A	Brown	2,5	10	25	Caustic, irritating, causes dermatitis
Acetic ether	-	-	-	A	Brown	-	-	-	Irritating: mucous membranes, narcotic, anemia, leukocytosis
Acetone	67-64-1	C <sub>3</sub> H <sub>6</sub> O	56,6	AX	Brown	47,5	500	1188	Irritating: skin, mucous membranes, respiratory tract
Acetonitrile	75-05-8	C <sub>2</sub> H <sub>3</sub> N	1,1	A	Brown	70	40	67	Highly toxic, headache, convulsions, dizziness
Acetylene	74-86-2	C <sub>2</sub> H <sub>2</sub>	-84	**		657,2	nn	nn	Asphyxiating
Acetylene tetrachloride	79-34-5	C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	146,3	A	Brown	21	1	6,9	Nausea, vomiting, headache, gastrointestinal disorders
Acrolein	107-02-8	C <sub>3</sub> H <sub>4</sub> O	52,5	A	Brown	0,05	0,1 C	0,23 C	Irritating eyes and respiratory tract
Acrylonitrile	107-13-1	C <sub>3</sub> H <sub>3</sub> N	77,3	A B	Brown Grey	8,1	2	4,3	Highly toxic, headache, convulsions, dizziness, suspect carcinogen
Acrylonitrile	107-13-1	C <sub>3</sub> H <sub>3</sub> N	77	A	Brown	8,1	2	4,3	Highly toxic, headache, convulsions, dizziness, carcinogenicity
Allyl chloride	107-05-1	C <sub>3</sub> H <sub>5</sub> Cl	44,6	AX	Brown	1,41	1	3	Mucous irritants, liver and kidney damage
Ammonia	7664-41-7	NH <sub>3</sub>	-33,3	K	Green	0,026	25	17	Irritating eyes and respiratory tract, bronchitis edema
Aniline	62-53-3	C <sub>6</sub> H <sub>7</sub> N	184,4	A	Brown	-	2	7,6	Harmful central nervous system, eye disorders, tumors
Arsenic	7440-38-2	As <sub>4</sub>	-	P3	White	-	-	0,01	Highly toxic, carcinogen
Arsenic trioxide	1327-53-3	As <sub>2</sub> O <sub>3</sub>	460	BP3	Grey White	-	-	0,01	Carcinogen
Arsine	7784-42-1	AsH <sub>3</sub>	-55	B	Grey	0,84	0,05	0,16	Headache, gastric disorders
Asbestos	1332-21-4	-	-	P3	White	-	0,2	-	Carcinogen
Benzene	71-43-2	C <sub>6</sub> H <sub>6</sub>	80	A	Brown	4,5	0,5	1,6	Toxic, irritating, carcinogen
Benzyl bromide	100-39-0	C <sub>7</sub> H <sub>7</sub> Br	198	A	Brown	-	-	-	Tear gas and toxic
Benzyl chloride	100-44-7	C <sub>7</sub> H <sub>7</sub> Cl	179	A	Brown	0,235	1	5,2	It irritates the mucous membranes strongly carcinogenic
Beryllium	7440-41-7	Be	2970	P3	White	-	-	0,002	Lung diseases. Carcinogenic suspicion
Bis (2-chloro-ethyl) sulfide	505-60-2	C <sub>4</sub> H <sub>8</sub> Cl <sub>2</sub> S	228	B	Grey	-	-	-	Strong irritant. Vomiting, headache
Bromine	7726-95-6	Br <sub>2</sub>	58,73	B	Grey	0,329	0,1	0,66	Irritates respiratory system burns on the skin
Bromoacetic acid methyl ester	96-32-2	C <sub>5</sub> H <sub>6</sub> OBr	136	A	Brown	-	-	-	Tear gas, toxic
Bromoform	75-25-2	CHBr <sub>3</sub>	149,5	A	Brown	5300	0,5	5,2	Irritates the mucous membranes. At high doses it is deadly
Bromomethane	74-83-9	CH <sub>3</sub> Br	3,56	AX	Brown	80	1	9	Irritating nerve and vascular disorders
Bromotoluene	95-46-5	C <sub>7</sub> H <sub>7</sub> Br	183,7	A	Brown	-	-	-	Irritating
Bromotrifluoroethylene	598-73-2	C <sub>2</sub> BrF <sub>3</sub>	-2,5	AX	Brown	-	-	-	Toxic damage the kidneys, liver. Cause of nausea


CHEMICAL NAME	CAS N°	FORMULA	B.P. °C	FILTER	COLOR		ODOUR THRESHOLD mg/m³	TLV ppm	TLV mg/m³	PHYSIOLOGICAL EFFECTS	
Butyl alcohol (n-)	71-36-3	C4H10O	117,5	A	Brown		0,36	50 C	152 C	Narcotic, dermatitis, liver damage and eyes	
Butyl alcohol (ter)	75-65-0	C4H10O	99,5	A	Brown		219	100	303	Narcotic, dermatitis, liver damage and eyes	
Carbon dioxide	124-38-9	CO2	-	**			-	5000	9000	Asphyxiating	
Carbon disulfide	75-15-0	CS2	46,5	AX	Brown		0,024	10	31	Headache, dizziness, delirium, vomiting	
Carbon monoxide	630-08-0	CO	-191	CO	Black		-	25	29	Strongly toxic, nausea, headache, dizziness	
Carbon tetrachloride	56-23-5	CCl4	76,8	A	Brown		60	5	31	Headache, vomiting, dizziness, liver disorders	
Carbonyl chloride	75-44-5	COCl2	8,3	B	Grey		2	0,1	0,4	Irritating. Pulmonary edema. Very toxic	
Chlorine	7782-50-5	Cl2	-34,5	B	Grey		0,03	0,5	1,5	Toxic, corrosive. Irritating the skin. Pulmonary edema	
Chlorine dioxide	10049-04-4	ClO2	9,9	B	Grey		0,3	0,1	0,28	Irritating the mucous membranes. Stomatitis, pharyngitis edema.	
Chloro Bromomethane	74-97-5	BrCH2Cl	67,8	A	Brown		2100	200	1060	Irritating and narcotic	
1-Chloro-1nitro propane	600-25-9	C3H6ClNO2	134	A	Brown		-	2	10	Irritating	
3-Chloro-1-propyne	624-65-7	C3H3Cl	31,6	AX	Brown		2000	5	20	Dizziness, anesthetic action, carcinogen	
Chloroacetone	78-95-5	C3H5ClO	119	AP3	Brown	White	-	1 C	3,8C	Tear gas	
Chloroacetophenone (CAF)	99-91-2	C8H7ClO	237	AP3	Brown	White	0,102	0,05	0,32	Strong tear gas	
Chlorobenzene	108-90-7	C6H5Cl	131,7	A	Brown		0,98	10	46	Toxic to the central nervous system, spasms headache	
Chloroethane	75-00-3	C2H5Cl	12,3	AX	Brown		21	100	264	Drowsiness, apathy, visual disturbances, tremor	
Chloroform	67-66-3	CHCl3	61,26	AX	Brown		250	10	49	Narcotic, irritates mucous membranes, unconsciousness. Carcinogenic suspicion	
Chloropicrin	76-06-2	CCl3NO2	112	AP3	Brown		5,4	0,1	0,67	Irritating, tear gas. Gastric disorders, vomiting	
Chloroprene	126-99-8	C4H5Cl	59,4	AX	Brown		-	10	36	Toxic central nervous system	
Chlorosulfonic acid	7790-94-5	HSO3Cl	151	BP3	Grey	White	-	-	-	Lacrimogen, sneezing	
Cresol	1319-77-3	C7H8O	200	A	Brown		0,001	5	22	Ulcerates skin, causes conjunctivitis	
CS	-	-	-	ABEP3	Brown	Grey	Yellow	White	-	-	Lachrymatory
Cyanogen	57-12-5	CN-	-21	B	Grey		500	10	21	Irritating mucous membranes, headache, nausea. Mortal	
Cyanogen chloride	506-77-4	CNCl	13,1	B	Brown		2	0,3C	0,75 C	Loss and leukemia	
Cyclohexane	110-82-7	C6H12	80,7	A	Brown		1,43	300	1030	Irritating to the skin	
Cyclohexanol	108-93-0	C6H12O	161,5	A	Brown		400	50	206	Narcotic. It damages kidneys, liver, blood vessels	
Cyclohexanone	108-94-1	C6H10O	155,6	A	Brown		0,48	25	100	Poor narcotic, irritant	

CHEMICAL NAME	CAS N°	FORMULA	B.P. °C	FILTER	COLOR		ODOUR THRESHOLD mg/m <sup>3</sup>	TLV ppm	TLV mg/m <sup>3</sup>	PHYSIOLOGICAL EFFECTS
DDT	50-29-3	C <sub>14</sub> H <sub>9</sub> Cl <sub>5</sub>	-	AP3	Brown	White	5,07	-	1	Action on the central nervous system
Dichloro ethane	75-34-3	C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	83,5	A	Brown		445	100	405	Irritating
Dichloro ethylene	75-35-4	C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	59	AX	Brown		0,336	200	793	Irritating and narcotic
Dichloroethyl ether	111-44-4	C <sub>4</sub> H <sub>8</sub> Cl <sub>2</sub> O	178,5	A	Brown		90	5	29	Irritating to mucous membranes. Eddema lung
Dichloro-methane	75-09-2	CH <sub>2</sub> Cl <sub>2</sub>	39,8	AX	Brown		540	50	174	It hurts the eyes, narcotic. Headache, nausea. Carcinogenic suspicion
Dichloropropane	26638-19-7	C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub>	96,8	A	Brown		-	75	347	Dermatitis, liver damage, congestion
Dichloropropene	26952-23-8	C <sub>3</sub> H <sub>4</sub> Cl <sub>2</sub>	75	A	Brown		-	1	4,5	Strong irritant
Diethylamine	109-89-7	C <sub>4</sub> H <sub>11</sub> N	55,5	A K	Brown	Green	0,085	5	15	Dangerous for the eyes
Dimethyl formamide	68-12-2	C <sub>3</sub> H <sub>7</sub> N <sub>2</sub> O	152,8	A	Brown		300	10	30	Irritating, liver damage
Dimethyl hydrazine	57-14-7	C <sub>2</sub> H <sub>8</sub> N <sub>2</sub>	63,3	K	Green		12	0,01	0,025	Irritating, suspicious carcinogen
Dimethyl sulfate	77-78-1	C <sub>2</sub> H <sub>6</sub> O <sub>4</sub> S	37,5	AX	Brown		-	0,1	0,52	Skin burns, conjunctivitis, paralysis. Carcinogenic suspicion
Dioxane	505-22-6	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	101	A	Brown		0,018	25	90	Irritating to the mucous membranes. Liver problems
Ethane	74-84-0	C <sub>2</sub> H <sub>6</sub>	-172	**			-	-	-	Asphyxiant
Ethane trichloride	79-00-5	C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub>	74,1	A	Brown		542,8	350	1910	Narcotic, irritating
Ethanol	64-17-5	C <sub>2</sub> H <sub>6</sub> O	78,3	A	Brown		0,34	1000	1880	Irritating eyes and respiratory tract
Ethanolamine	141-43-5	C <sub>2</sub> H <sub>7</sub> N <sub>2</sub> O	170,5	A K	Brown		5,333	3	7,5	Irritating
Ethyl acetate	141-78-6	CH <sub>3</sub> COOC <sub>2</sub> H <sub>5</sub>	77,15	A	Brown		0,02	1440	400	Irritates mucous membranes, narcotic, anemia, leukocytosis
Ethyl bromide	74-96-4	C <sub>2</sub> H <sub>5</sub> Br	38,4	AX	Brown		890	5	22	Toxic narcotic. Causal conjunctivitis. Carcinogenic suspicion
Ethyl Ether	60-29-7	C <sub>4</sub> H <sub>10</sub> O	34,6	AX	Brown		0,99	400	1210	Unconsciousness, paralysis, lack of appetite. Irritating
Ethyl methyl ketone	78-93-3	C <sub>4</sub> H <sub>8</sub> O	79,5	A	Brown		0,738	200	590	Narcotic irritant
Ethylbenzene	100-41-4	C <sub>8</sub> H <sub>10</sub>	-	A	Brown		8,7	100	434	Irritating to mucous membranes
Ethylene	74-85-1	C <sub>2</sub> H <sub>4</sub>	-104	**			299	-	-	Asphyxiant
Ethylene diamine	107-15-3	C <sub>2</sub> H <sub>8</sub> N <sub>2</sub>	117,2	AK	Brown	Green	0,48	10	25	Caustic
Ethylene oxide	75-21-8	C <sub>2</sub> H <sub>4</sub> O	10,7	AX	Brown		520	1	1,8	Strongly toxic, nausea, respiratory disturbances
Fire Fume -CO	-	-	-	BP3	Grey	White	-	-	-	-
Fire Fume + CO	-	-	-	COP3	Black	White	-	-	-	-
Formaldehyde	50-00-0	CH <sub>2</sub> O	-19,5	AX	Brown		1,47	C 0,3	C0,37	Irritating, pulmonary edema. Carcinogenic
Formic acid	64-18-6	CH <sub>2</sub> O <sub>2</sub>	100,8	A	Brown		0,005	5	9,4	Corrosive, ulcerative, irritant: mucous membranes
Freon	-	-	-	**			-	-	-	Asphyxiating, narcotic
Fumes	-	-	-	P3	White		-	-	-	-
Furfural	98-00-0	C <sub>5</sub> H <sub>6</sub> O <sub>2</sub>	161,7	A	Brown		0,24	2	7,9	Irritating. Damage to the eyes
Furfuryl alcohol	98-00-0	C <sub>5</sub> H <sub>6</sub> O <sub>2</sub>	171	A	Brown		32	10	40	Poison, high toxicity
Hexachloro cyclohexane	319-86-8	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	-	AP3	Brown	White	-	-	0,5	Irritating acts on the central nervous system, convulsions, edema



CHEMICAL NAME	CAS N°	FORMULA	B.P. °C	FILTER	COLOR	ODOUR THRESHOLD mg/m <sup>3</sup>	TLV ppm	TLV mg/m <sup>3</sup>	PHYSIOLOGICAL EFFECTS
Hydrazine	302-01-2	N <sub>2</sub> H <sub>4</sub>	113,5	K	Green	3	0,01	0,013	Systemic poisoning, carcinogenic suspect
Hydrocarbons	-	-	>65	A	Brown	-	-	-	-
Hydrogen bromide	10035-10-6	HBr	126	B	Grey	6,66	3 C	9,9 C	Highly toxic, depression, skin rash
Hydrogen chloride	7647-01-0	HCl	-84,8	B E	Grey Green	7	5C	7,5C	Caustic, irritating, causes dermatitis
Hydrogen cyanide	74-90-8	HCN	25,7	B	Grey	0,9	4,7 C	5 C	Highly toxic, headache, convulsions, dizziness
Hydrogen fluoride	7664-39-3	HF	19,4	B	Grey	0,033	3C	2,3C	Toxic, corrosive, causes burns, inflammatory
Hydrogen iodide	10034-85-2	HI	-35,3	B	Grey	-	-	-	Irritating the mucous membranes. Stomatitis, pharyngitis edema.
Hydrogen phosphide	7803-51-2	PH <sub>3</sub>	-87	B	Grey	0,028	0,3	0,42	Irritating. Anemia, appetite, bone fragility
Hydrogen sulfide	7783-06-4	H <sub>2</sub> S	-60,4	B	Grey	0,0004	10	14	Irritating, headache, cough very toxic
Insecticides	-	-	-	AP3	Brown White	-	-	-	-
Iodide 131 methyl	74-88-4	CH <sub>3</sub> I	-	Reactor P3	Orange White	-	-	-	-
Iodine	7553-56-2	I <sub>2</sub>	184	B	Grey	-	0,1C	1C	It irritates the mucose. Stomatitis, pharyngitis, edema.
Iodine 131	7553-56-2	I <sub>2</sub> 131	-	Reactor P3	Orange White	-	-	-	-
Iron pentacarbonyl	13463-40-6	C <sub>5</sub> FeO <sub>5</sub>	103	COP3	Black White	-	0,1	0,23	Nausea, vomiting, unconsciousness. Toxic
Isoamyl alcohol	137-32-6	C <sub>5</sub> H <sub>12</sub> O	116	A	Brown	25,2	100	361	Irritating eyes and respiratory tract
Isobutylene	115-11-7	C <sub>4</sub> H <sub>8</sub>	-6,9	AX	Brown	54,96	-	-	Toxic corrosive. Irritating the skin. Pulmonary edema
Isocyanates	-	-	-	AP3	Brown White	-	-	-	-
Isopropyl alcohol	67-63-0	C <sub>3</sub> H <sub>8</sub> O	80,3	A	Brown	7,84	400	983	Irritating , eyes damages, narcotic
Ketene	463-51-4	C <sub>2</sub> H <sub>2</sub> O	-56	AX	Brown	-	0,5	0,86	Irritating, pulmonary edema
Lindane	58-89-9	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	-	**		-	-	-	Irritating, acts as a central nervous system
Maleic anhydride	108-31-6	C <sub>4</sub> H <sub>2</sub> O <sub>3</sub>	202	A	Brown	1,84	0,25	1	Burns skin and eyes, pulmonary edema
Mercury vapors	502-39-6	Hg	356,9	HgP3	Red White	-	-	0,025	Inflammation of the mucous membranes, gingivitis, tremors
Methane	74-82-8	CH <sub>4</sub>	-161,5	**		-	-	-	Asphyxiant
2-Methoxy-ethanol	109-86-4	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	156,4	A	Brown White	0,288	5	24	Irritating to occurring, kidney injury.
Methyl alcohol	67-56-1	CH <sub>4</sub> O	64,5	AX	Brown	13,11	200	262	Harmful nervous system, optic nerve, liver. Dermatitis, nausea
Methyl Chloride	74-87-3	CH <sub>3</sub> Cl	-23,7	**		-	50	103	Narcotic, it destroys eyes, liver, heart and central nervous system
Methyl formate	107-31-3	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	32	AX	Brown	500	100	246	Narcotic, irritating to the eyes and respiratory tract
Methyl iodide	74-88-4	CH <sub>3</sub> I	42,5	AX	Brown	-	2	12	Carcinogenic suspicion
Methylene chloride	75-09-2	CH <sub>2</sub> Cl <sub>2</sub>	39,8	AX	Brown	540	50	174	It hurts the eyes, narcotic. Headache, nausea. Carcinogenic suspicion

CHEMICAL NAME	CAS N°	FORMULA	B.P. °C	FILTER	COLOR		ODOUR THRESHOLD mg/m³	TLV ppm	TLV mg/m³	PHYSIOLOGICAL EFFECTS
Methylethyl ketone (MEK)	78-93-3	C4H8O	79,5	A	Brown		0,738	200	590	Narcotic irritant
Mist (in general)	-	-	-	P3	White		-	-	-	-
n-Amil acetate	628-63-7	CH3COOC5H11	149	A	Brown		0,026	713	150	Irritates eyes, nose, throat. Nausea, cough, migraine
n-Butyl acetate	123-86-4	CH3COO(CH2)3CH3	126	A	Brown		0,009	730	150	Irritates eyes, nose, throat. Nausea,cough, migraine
Nickel carbonyl	13463-39-3	Ni(CO)4	43	COP3	Black	White	0,21	0,05	0,12	Dizziness, gastric disorders, haemorrhage, carcinogenicity
Nitric acid	7697-37-2	HNO3	86	BP3	Grey	White	0,75	2	5,2	Toxic, corrosive, pulmonary edema
Nitrobenzene	98-95-3	C6H5NO2	210,9	A	Brown		0,024	1	5	Cyanosis, headache, dizziness, nausea
Nitrogen Oxide	10102-44-0	NO2	21	NO P3	Blue	White	2	3	5,6	Respiratory irritation, coughing, dyspnoea, pulmonary edema
Nitroglycerin	55-63-0	C3H5N3O9	-	A	Brown		-	0,05	0,46	Headache, dizziness, cirrhosis, tremors
NOx	-	-	-	NO P3	Blue	White	-	-	-	Respiratory irritation, coughing, dyspnoea, pulmonary edema
Petrol (vapour)			-	A	Brown		-	300	890	Eye disorders, carcinogen
Phosphorus pentachloride	10026-13-8	PCl5	166,8	B	Grey		-	0,1	0,85	Eye damage. Irritating
Phosphorus trichloride	7719-12-2	PCl3	74,2	B	Grey		-	0,2	1,1	Irritating to eyes, nose, throat
Phosphoryl trichloride	10025-87-3	POCl3	105	B	Grey		-	0,1	0,63	Eye damage. Irritating
Phthalic anhydride	85-44-9	C8H4O3	295	AP3	Brown	White	-	1	6,1	Irritating mucous membranes and cornea
Powders	-	-	-	P3	White		-	-	-	-
Propane	74-98-6	C3H8	-41	**	/ / / / / / / /		1800	-	-	Anesthetic, asphyxiating
Pyridine	110-86-1	C5H5N	115,3	A	Brown		0,009	5	16	Narcotic, irritating, headache, eczema
Sodium hydroxide	1310-73-2	NaOH	-	P3	White		-	-	2C	Corrosive, irritant
Spray paint	-	-	-	AP2	Brown	White	-	-	-	
Styrene	100-42-5	C8H8	146	A	Brown		0,43	20	85	Mystique, fissure, narcotic irritation
Sulfur Chloride	10025-67-9	S2Cl2	138	BP3	Grey	White	-	1C	5,5 c	It irritates the mucous membranes of the eyes and the respiratory tract.
Sulfur dioxide	7446-09-5	SO2	-10	E	Yellow		1,17	2	5,2	Harmfull for eyes and respiratory tract, bronchitis edema
Sulfur trioxide	7446-11-9	SO3	44,8	EP3	Yellow	White	-	-	-	Harmfull for eyes and respiratory tract, bronchitis edema
Sulfuric acid	7664-93-9	H2SO4	330	EP3	Yellow	White	1	-	-	Caustic, destroys tissues, loss of knowledge
TDI	584-84-9	C9H6N2O2	-	A	Brown		0,14	0,001	-	Bronchitis spasms dermatitis
Tetrachloro-ethane	79-34-5	C2H2Cl4	146	A	Brown		0,2	1	-	Headache gastritis and soreness
Tetraethyl lead	78-00-2	C8H20Pb	198	AP3	Brown	White	-	-	0,1	Insomnia, hypothermia, tremitis, headache, nausea
Toluene	95-53-4	C7H9N	110,4	A	Brown		17,55	50	188	Toxic, irritating. Carcinogenic suspicion
Toluene diisocyanate	91-64-5	C9H6O2	118	A	Brown		3,2	0,005	0,036	Bronchitis spasms dermatitis

CHEMICAL NAME	CAS N°	FORMULA	B.P. °C	FILTER	COLOR	ODOUR THRESHOLD mg/m <sup>3</sup>	TLV ppm	TLV mg/m <sup>3</sup>	PHYSIOLOGICAL EFFECTS
<b>Trichloroethylene</b>	79-01-6	C <sub>2</sub> HCl <sub>3</sub>	87,1	A	Brown	1,134	50	269	Headache gastritis and soreness
<b>Trifluoromethane</b>	75-46-7	CHF <sub>3</sub>	-82	**		-	1000C	5600C	Gastric disorders, headache, and soreness
<b>Turpentine oil</b>	8006-64-2	-	160	A	Brown	560	100	55,6	Visual headache, irritating headache
<b>Vinyl acetate</b>	108-05-4	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	73	A	Brown	0,36	10	35	Irritating skin, narcotic
<b>Vinyl chloride</b>	75-01-4	C <sub>2</sub> HCl <sub>3</sub>	-13,4	AX	Brown	-	5	13	Dizziness, anesthetic action, carcinogen
<b>Xylene, mixture of isomers</b>	1330-20-7	C <sub>8</sub> H <sub>10</sub>	144,4	A	Brown	0,348	100	434	Toxic, irritating. Carcinogenic suspicion

## Legend

### B.P. (Boiling Point)

Very important for Organic Chemicals as 65°C is the limit of filterability of those substances by a filter type A. Chemicals with lower b.p. can be retained by Type AX filters only. For some substances, it is recommended the use of compressed air breathing apparatus instead.

### Filter

It indicates the filter(s) type(s) recommended for the chemical shown.

Two \*\* indicate that the chemical is not filterable and it is therefore necessary to use compressed air or fresh air respirators

### Odour Threshold

It shows the minimum concentration detectable by humans' nose.

It is a mere indication and is taken from studies in the specialised literature.

### TLV ppm (Threshold Limit Value)

The table shows the values the TLV-TWA published by the American Conference of Governmental Industrial Hygienists. They correspond to the concentration to which a worker can be exposed 8 hours a day for his entire working life without effect on his health. When the C appears, it means that it is a Ceiling Value, meaning that that concentration shall not be overpassed at any time. TLV-TWA are also commonly used when testing the breakthrough time of gas filters, i.e. the contaminant concentration in the effluent air which is considered to correspond to the exhaustion of the filter.

### Physiological effects

It indicates very briefly the symptoms of chronic or acute intoxication of the concerned chemical. Sometimes reference is made to other entries either because they have similar effects or they are the same chemical referred to with different commercial or chemical names.



# MERCHANDISING



## Samples Kit made of:

- TR 82
- TR 2002 CL 3
- DUPLA
- 220N ABEK 15
- DUETTA
- DUO
- ST 85
- Corrugated hose 11481
- Flow regulator
- AC 190 Overflow valve
- EOD Filter
- Turbine
- Corrugated hose for Turbine
- 1 Filter ABEK
- 1 Filter UP3
- 2 Filters P3 for Turbine
- 2 Cartridges P3
- 2 Cartridges ABEK
- 2 Cartridges A2P3
- Holding bag



SCBA display



Ground display



Counter display



T-Shirt



Shopping bag



Block Notes

Tablet pen

Disinfecting wet wipes





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