

Breathing Apparatus RN MK2



Firefighter returning from an intervention donning a RN MK2 Type 2



BREATHING APPARATUS RN MK2

A breathing apparatus is an equipment whose key characteristics have to be its reliability, safety and strength as on them depends the life of the operator. Spasciani, for 120 years leader in industrial safety, offers SCBAs with these features.

Breathing apparatus isolate the operator from the surrounding environment allowing to work under extreme conditions. SPASCIANI proposes products studied for facing up to every emergency or routine intervention in full safety. There are many features which make the SPASCIANI SCBA unique, comparing to what the market offers, such as the warning device placed within the demand and audible in any circumstances, the longer autonomy, the possibility of walking away from the cylinder whilst keeping the warning device with you, a full face mask that can be used either with a demand valve and or filter. Those characteristics, among others, define the breathing apparatus **RN MK2** of SPASCIANI as a technology advanced product.



Breathing apparatus RN MK2 Type 1
used in confined spaces

3 MINUTES MORE

SPASCIANI extends your life.

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 an exclusive system of acoustic alarm integrated in the demand valve that, not wasting any air and using the operator inhalation, warns that the air in the cylinder is finishing up.

A system **safe and protected** from external agents that **extends up to 30%** the time available to quit, in all safety, from the operation area.



Alarm inside

6 GOOD REASONS



1. No air loss: the warning device, using for its activation the air that the operator inhales, increases the amount of air available for escaping.



2. Sealed warning device: the alarm system is always protected from the surrounding environment making it much safer than the traditional whistle. The system cannot be blocked by sand, mud, foam and other agents that are typically present where the SCBAs are used.



3. Self-test: since the alarm is based on the operator's breathing, one can immediately understand which SCBA is in exhaustion even when there are several **RN MK2** in operation.



4. Alarm audible in any circumstances: as the alarm is located in the demand valve not only is it closer to the ears than traditional alarm systems but also, as it transmits sound waves through the inhaled air, its tone is more penetrating and has a more distinctive pitch.

5. Alarm at any distance: the **RN MK2** technology exploits the medium pressure to transmit the alarm signal. This allows the operator to walk away from the cylinder/reducer/gauge group while being able to receive the warning signal in any circumstances.

6. Second operator alarm: exploiting the medium pressure, the alarm is audible at every demand valve connected to the same reducer.



INDUSTRIAL

Confined spaces, inspections of tanks and cisterns, fires and environment with lack of oxygen: the breathing apparatus RN MK2 is the gear that lets face any risk in complete safety.

The breathing apparatus **RN MK2** thanks to its versatility is the ideal equipment for the personal who has to work in routine intervention in chemical plants facing dangerous concentrations of toxic gases. It is widely used also for intervention in case of natural disasters and calamities.

The wide range of components and accessories can create many settings for the SCBA which satisfy the different needs of every single client: padded harnesses and kidney belts to enhance comfort, fullface mask BN for using either the SCBA or filters, cylinders of different volumes to enhance autonomy and different material to reduce weight. Accessories as carrying cases, sleeves for cylinders, 4-way valves, etc complete the set.



Operator wearing RN MK2 Type 1
with 6 l 300 bar steel cylinder in
industrial environment



RN-MK2 Type 1 are certified in accordance to EN 137:2006 and conform to the directives 89/686/EEC (PPE) and 97/23/EC (PED) and 96/98/EC (MED)

SYSTEM MODULES



TR 2002

Fullface mask available in EPDM, silicon and TPE features a modern design and its extremely broad visor ensures a wide field of vision. The mask has a BN version, with quick connection to the demand valve. In this model an automatic device sets the mask in positive or negative pressure depending on what it is connected to it, filter or demand valve. The **TR 2002** is available both in class 2 and class 3 EN 136:2000.



Steel alloy cylinders

RN MK2 series can be equipped with steel cylinders of different volume and pressure capacity. SPASCIANI can offer 3l 300 bar, 7l 200 bar, 6l 300 bar cylinders.



Demand valve A

Demand valve with standard connection M45x3, easy to screw onto the mask even with gloved hands, activates at the first inhalation and withholds the unique warning signal of the series **RN MK2**. The length of the medium pressure hose grants freedom of movement to the head of the operator and the central position of the demand valve balances its weight on the face. The demand valve keeps a positive pressure within the mask of some 3,5 mbar.



Reducer

Piston brass reducer maintains a constant medium pressure during the usage of the apparatus. It automatically modifies its setting and changes the operating pressure from 5,5 bar to 7,5 bar when the air in the cylinder is below 55 +/- 5 bar. Equipped with a standard connection EN 144 is able to work with cylinders at 200 and 300 bar.



Kidney belt

Available on request adds ease to the apparatus for prolonged usage. It makes the wearing of the set more comfortable by reducing the effect of weight on the operator's back during long lasting interventions.

TR 82

Classic design mask with screen with wide field of vision. Featured by a great speech device is manufactured in EPDM and certified EN 136:2006 Cl 3. It connects to demand valves through a standard screw connector M45x3, of easy maintenance and extremely resistant.



Composite cylinders

Next to the steel cylinders, the breathing apparatus **RN MK 2** 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 9l 300 bar.



Demand Valve BN

Demand valve with quick connector easily clickable also with gloved hands. It is activated at the first inhalation and features two simple buttons to disconnect. Certified in accordance to DIN 58600. The demand valve keeps a positive pressure within the mask of some 3,5 mbar.



Harness

The breathing apparatus **RN MK2 Type 1** is available with two sets of harnesses depending on the client needs. The model **T1** features a lightened version of the harnesses which makes it suitable for usage in emergency conditions, while the regular model is more comfortable for long routine operations.



FIREFIGHTING

Fire, flames, toxic gases these and many other risks are to be faced by firefighters and rescue teams. SPASCIANI offers with the RN MK 2 a tool that allow to safely meet any situation.

The breathing apparatus **RN MK2** is an equipment able to withstand extremely high temperatures as well as direct contact with flames. Every single component has been studied to face the toughest conditions. Soundness, reliability and safety are the characteristics of this SPASCIANI SCBA for firefighters.

The wide range of components and accessories can create many settings for the SCBA which satisfy the different needs of every single client: fullface mask BN for using either the SCBA or filters, cylinders of different volumes to enhance autonomy and different material to reduce weight.

Accessories as carrying cases, sleeves for cylinders, 4-way valves, etc complete the set.



Two firefighter wear the RN MK2 type 2 with 6 l 300 bar composite cylinders and protective sleeve, during an intervention

A Panoramic mask in overpressure with broad field of vision manufactured to withstand high temperatures Class 3+ EN 137 and En 136



B Demand valve with integrated acoustic patented warning device

C Medium pressure hose covered in para-aramidic material for protecting from flames and cuts

D Adjustable and padded harness in para-aramidic material resistant to high temperatures and direct flames contact

E Ergonomic back-plate allows a comfortable distribution of the weights keeping the SCBA stable on the back of the operator

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

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

RN-MK2 Type 2 are certified in accordance to EN 137:2006 and conform to directives 89/686/EEC (PPE), 97/23/EC (PED) and 96/98/EC (MED)

FR SYSTEM MODULES



TR 2002

Fullface mask in EPDM features a modern design and its extremely broad visor grants a wide field of vision. The mask has a BN version, with quick connection to the demand valve. In this model an automatic device sets the mask in positive or negative pressure depending on what it is connected to it, filter or demand valve. The neck strap is in paraaramidic material. The **TR 2002** is certified class 3+ EN 136:2006 and EN 137:2000.



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Demand valve with standard connection M45x3, easy to screw onto the mask even with gloved hands, activates at the first inhalation and withholds the unique warning signal of the series **RN MK2**. The length of the medium pressure hose grants freedom of movement to the head of the operator and it is covered in flame-resistant and cut-resistant material. The central position of the demand valve balances its weight on the face. The demand valve keeps a positive pressure within the mask of some 3,5 mbar.



Reducer

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Classic design mask with screen with wide field of vision. Featured by a great speech device is manufactured in EPDM and certified Classe 3+ EN 136 and EN 137. It connects to demand valves through a standard screw connector M45x3, of easy maintenance and extremely resistant.



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Second man

Medium pressure hose with female quick connector takes advantage of the second outlet in the **RN MK2** reducer. This connection can be used to link a second respiratory system and allow two operators to exploit the same reservoir of air. The hose is covered in flame-resistant and cut-resistant material.



Twin cylinders

The system **RN MK2** can operate with two cylinders to extend the autonomy of the set. A simple T connector allows the operator to equip with two cylinders of 6,8 l or 9 l in composite.



4-WAY VALVE

The Automatic connector, or 4-way valve, links SPASCIANI breathing apparatus to compressed air networks.

The 4-way valve is an automatic connector provided with two medium pressure inlets with male quick connector and two medium pressure outlets with female quick connectors. The two inlets can be connected to two different supplies of air in medium pressure while the two outlets can be connected to two operators through demand valves and masks. To the inlets it is possible to connect a compressed air line (inlet name LINE) and a breathing apparatus **RN MK2** or **BVF** (second inlet). The 4-way valve will switch automatically from the line supply to the breathing apparatus one when the air flow from the compressed air line is interrupted by accident or simply due to the disconnection by the operator.

The 4-way valve is available with SPASCIANI quick connectors (standard version) or on request with quick connectors compatible with the ones more commonly used for breathable air compressed lines.



4-way valve

CERTIFICATION

Certified for the usage with breathing apparatus type 1 and 2 in accordance to EN 137:2006 and with air line respirators in accordance with EN 14593-1:2005.

MASK BN

The mask TR2002 BN can be used either with a breathing apparatus or with a filter, as it automatically switches from negative to positive pressure settings.

The fullface 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 **TR2002 BN** can be used with breathing apparatus SPASCIANI with demand valve BN with bayonet quick connector in accordance to the norm 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).



A Firefighter wears a TR2002 BN connected to a positive pressure device

ACCESSORIES



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 cylinders or spare cylinder). Its high visibility orange color is ideal for emergency situations.



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.



Metal cabinet

Wall container with metal holder for the cylinder, 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.



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.



Cylinder sleeve

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



Firefighters wear
RN MK2 Type2 during
an intervention

ARAC TEST

Checking the breathing apparatus is a essential operation to always have an efficient and safe equipment. SPASCIANI, thanks to its experience in manufacturing SCBAs, developed a testing bench able to make sure that the breathing apparatus perform as required by the EN 137.

ARAC TEST ST1 is a test bench able to run at ease all the static tests required during the checking of a breathing apparatus and its mask, through its inflatable head.

This equipment is based on a pneumatic section managed by an integrated processor. A pre-installed firmware allows to run the pneumatic following specific test routines and an internal memory keeps record of a vast number of SCBA checked.

The bench can be upgraded depending on the needs of the client. The add-ons, such as software manager, dynamic modules etc., can be added at a later stage.

The ARAC TEST has been studied for testing the **RN MK2** and specifically the effectiveness of the warning device in the demand valve, nonetheless it can be used for the testing of any SCBA certified in accordance to EN 137.



ARAC TEST

SPASCIANI technician during a routine
checking on a RN MK2 Type 2



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autorespiratori

breathing apparatus



Spascian



SISTEMA MK2

THE MK2 SYSTEM

Gli autorespiratori **MK2** sono apparecchi di respirazione a riserva d'aria per la protezione delle vie respiratorie nei casi di deficienza d'ossigeno oppure in ambienti altamente inquinati. Per la loro versatilità d'impiego e semplicità d'uso costituiscono l'equipaggiamento ideale per il personale destinato alla lotta antincendio e per gli addetti agli interventi in casi di calamità. Essi sono anche indicati, secondo il modello, per gli interventi di routine negli impianti chimici e/o per la fuga da tutti i luoghi in cui il personale può essere esposto a concentrazioni pericolose di sostanze tossiche.

Gli autorespiratori **MK2** sono prodotti nelle versioni **RN**, **BVF**, **RC** ed **RL** che si differenziano essenzialmente per l'autonomia di lavoro.

Gli autorespiratori **MK2**, sono prodotti secondo le più aggiornate tecniche di fabbricazione CAD-CAM e superano largamente le prestazioni prescritte dalla norma **EN 137**. Copie delle dichiarazioni di conformità sono disponibili a richiesta.

Gli autorespiratori della serie **MK2** portano la maratura CE, come richiesto dalla direttiva UE 686/89 (DM 475/92) per i dispositivi di protezione individuale. Alcuni modelli inoltre sono marcati **MED** e soddisfano alle prescrizioni **SOLAS** per la salvaguardia della vita umana in mare.

ELEMENTI FONDAMENTALI DEL SISTEMA MK2

DOSATORE AD INSERIMENTO AUTOMATICO DELLA SOVRAPRESSIONE

Gli autorespiratori **MK2** sono equipaggiati con un dosatore automatico in cui alla prima respirazione, uno speciale dispositivo attiva il funzionamento in sovrappressione. Un pulsante di gomma posto frontalmente permette, in caso di necessità, d'attivare manualmente il funzionamento in sovrappressione o d'immettere più aria nella maschera. All'interno della maschera è mantenuta una pressione positiva in qualsiasi fase respiratoria. Ciò evita ogni possibile riflusso d'aria esterna nella maschera e quindi isola totalmente l'utilizzatore dell'ambiente contaminato.

MASCHERA PANORAMICA A GRANDE CAMPO VISIVO

La maschera è del tipo panoramico con speciali valvole precaricate per mantenere la sovrappressione interna. Tutti i modelli descritti sono certificati CE secondo la norma EN136:98 come maschere di classe 3.

Modelli disponibili:

- Maschera **TR82 A** o **TR2002 A**: collegata al dosatore mediante raccordo filettato unificato **M45x3 (EN148-3)**.
- Maschera **TR2002 B/N**: collegata al dosatore mediante raccordo speciale ad innesto rapido secondo **DIN 58600**.

The **MK2** are self-contained compressed air b.a. to be used in case of oxygen deficiency or in highly contaminated environments.

Owing to the versatility of use and easy operation they are the basic equipment for fire-fighters and rescue teams.

They are also suitable for routine interventions in chemical plants and to evacuate premises wherever the staff may be exposed to dangerous toxics.

MK2 B.A. come in the **RN**, **BVF**, **RC** and **RL** versions that mainly differ in the duration.

They are manufactured with the latest CAD-CAM technology and they largely exceed the international standards and particularly **EN 137**.

Copies of the declaration of conformity are available on request.

The **B.A.** of the **MK2** series are CE-marked as per the EU directive 686/89 on P.P.E.

Some models are marked **MED** and comply with **SOLAS** prescriptions for the safeguard of human life at sea.

MAIN COMPONENT PARTS OF THE MK2 SYSTEM

DEMAND VALVE WITH AUTOMATIC INSERTION OF THE POSITIVE PRESSURE

MK2 B.A. are equipped with a demand valve that automatically turns the positive pressure on at the first breathing in. Rubber button in front of the demand valve allows, if necessary, to manually activate positive pressure or to inject extra air into the mask.

A positive pressure is kept within the mask cavity in any moment of the breathing cycle.

This avoids the inward leakage of polluted air and isolates the user from the surrounding atmosphere.

PANORAMIC FULL FACEMASK

The mask is a panoramic full facepiece, fitted with pre-loaded exhale valves, in order to maintain a positive pressure within the mask cavity.

All masks are CE certified according to EN136:98 as class 3.

Available models:

- **TR82 A** or **TR2002 A** mask: connected to the demand valve by means of a standard **M45x3** connector (**EN148-3**).
- **TR2002 B/N** mask: connected to the demand valve by means of a special quick connector to **DIN 58600**.

Questa maschera può inoltre essere collegata con i filtri antigas o con gli autorespiratori funzionanti in depressione, grazie al raccordo **EN 148-1** di cui è dotata.

Uno speciale meccanismo brevettato adegua automaticamente il carico della valvola al tipo di dispositivo applicato alla maschera.

Le maschere **TR 2002 A** e **TR 2002 B/N** sono disponibili sia nella versione con facciale stampato in **EPDM** che nella versione con facciale stampato in silicone. In questo secondo caso le maschere vengono denominate **TR 2002 S A** e **TR 2002 S B/N**.



▲ TR2002 B/N: uso con filtri.
TR2002 B/N: use with filters.



◀ TR2002 A: uso con autorespiratori.
TR2002 A: use with B.A.

*This mask can also be used in conjunction with gas canisters or negative pressure breathing apparatus, being also fitted with a standard **EN 148-1** connector.*

A unique patented system automatically adapts the valve load to the type of apparatus connected to the mask.

TR 2002 A and **TR 2002 B/N** full facemasks are available in two versions, with faceblank moulded in **EPDM** rubber or in silicone.

The masks moulded in silicone are named **TR 2002 S A** and **TR 2002 S B/N**.



TR2002 B/N: uso con autorespiratori.
TR2002 B/N: use with B.A.

ESCLUSIVO SEGNALATORE DI ALLARME ALLA MASCHERA BREVETTATO

Quando la pressione residua nella bombola scende sotto i 60 Bar (per il tipo RC 35 Bar), uno speciale dispositivo all'interno del dosatore automatico attiva il sistema acustico d'allarme.

Ad ogni inspirazione è emessa una forte vibrazione sonora che cessa solo al completo esaurimento della riserva d'aria.

I vantaggi di questo esclusivo sistema sono:

- Nessuna perdita d'aria dovuta al segnale acustico: autonomia più lunga.
- Vicinanza all'orecchio e segnale ripetuto: massima udibilità.
- Protezione del segnalatore dalla formazione di ghiaccio e dal depositarsi di sporcizia: funzionamento garantito in tutte le circostanze.
- Funzionamento con tubo-prolunga anche a grande distanza dalle bombole: udibilità garantita per l'utilizzatore.

UNIQUE PATENTED WARNING DEVICE AT THE MASK

When the remaining pressure in the cylinder drops below 60 Bar (35 Bar for model RC), a special device inside the demand valve actuates the acoustic warning.

A loud vibration is made with every inhalation and terminates only when the air reserve is completely used up.

The advantages of such a system are:

- No air loss due to the warning whistle: longer duration.
- Closeness to the ear and repeated warning: best audibility.
- Warning device protected from frost and dirt deposition: function granted under all circumstances.
- Warning device working with extension hose even at a long distance from cylinders: granted audibility to the user.

RIDUTTORE COMPENSATO

Il riduttore **MK2** è di tipo a pistone con compensatore automatico. Ciò significa che la pressione d'uscita rimane costante al variare di quella nella bombola. Il riduttore è progettato per l'uso con bombole a 300 Bar ed è dotato di raccordo secondo **EN 144**.

ATTACCHI RAPIDI ANTISGANCIAMENTO

Il dosatore è collegato al riduttore di pressione mediante speciali attacchi rapidi di sicurezza, per il cui sganciamento sono necessarie entrambe le mani. I raccordi rapidi sono di speciale disegno per evitare che i componenti possano venir inavvertitamente collegati a sistemi di altre marche.

MANOMETRO FOSFORESCENTE

La pressione nella bombola può essere costantemente controllata mediante l'apposito manometro fosforescente con scala fino a 450 Bar e zona colorata d'esaurimento tra 60 e 0 Bar.

MANUTENZIONE SEMPLIFICATA

Il libretto d'istruzione che accompagna ciascun auto-respiratore indica come provvedere ad una corretta manutenzione prima e dopo l'uso.

La SPASCIANI si avvale di una vasta rete di officine Autorizzate che permette un servizio rapido di controllo e manutenzione alla clientela. La lista delle officine Autorizzate è disponibile a richiesta.

VALVOLA A QUATTRO VIE

Fornita a richiesta, inserita tra riduttore e dosatore, permette d'alimentare un secondo operatore o collegare l'autorespiratore ad una linea esterna d'alimentazione. L'alimentazione è automaticamente trasferita dalla bombola alla linea (o viceversa) al momento del collegamento (o sganciamento). Un'applicazione particolarmente interessante è l'utilizzo con **RC** e **BVF**. In questo caso l'uso del **BVF** garantisce, in caso d'interruzione accidentale della linea d'alimentazione, un'ulteriore autonomia di circa venti minuti, per ritirarsi dal luogo d'intervento.

È possibile, su richiesta del cliente e mediante una taratura specifica del riduttore, far sì che l'allarme acustico alla maschera sia immediatamente attivato in caso d'interruzione dell'alimentazione.



COMPENSATED PRESSURE REDUCER

The **MK2** reducer is a piston device with automatic compensator.

This means that the outlet pressure is steady throughout the duration, no matter what the cylinder pressure.

The reducer is designed for use with 300 Bar cylinders and fitted with **EN 144** high pressure connectors.

SAFETY QUICK CONNECTORS

The demand valve is connected to the pressure reducer by means of special quick connectors that can only be separated with both hands.

Quick connectors are of a special design to avoid inadvertent connection to other brands' systems.

PHOSPHORESCENT GAUGE

The pressure in the cylinder can be checked at any time by means of the special gauge scaled up to 450 Bar and with contrasted warning zone from 60 to 0 Bar.

SIMPLIFIED MAINTENANCE

The information booklet that comes with every B.A., gives a schedule for the correct maintenance of the set. SPASCIANI offers a wide network of authorised workshops to ensure a rapid and reliable service.

FOUR WAY VALVE

Supplied on request, interposed between the demand valve and the pressure reducer, allows feeding a second man or connecting the b.a. to an air line.

The air feeding is automatically switched from cylinder to airline (or vice versa) when connecting (or disconnecting). A very interesting application is the use with **RC** and **BVF**. In this case the use of **BVF** ensures that even in case of failure of the main air supply the user can count on a further autonomy of some twenty minutes to escape from the polluted area.

It is also possible, on demand, to set the reducer so that the warning at the mask is immediately activated in case of failure of the main air supply.



Autorespiratore autonomo portatile autonomia variabile in funzione della capacità della(e) bombola(e) collegata(e).

Può essere utilizzato per la lotta antincendio, gli interventi di manutenzione in impianti chimici, gli interventi di soccorso in caso di gravi calamità o comunque in ambienti gravemente inquinati o con assenza d'ossigeno.

SCHIENALE ANATOMICO

Lo schienale è in polipropilene termoformato ed anatomicamente modellato per consentire una confortevole ripartizione dei pesi e restare ben fermo sul dorso dell'operatore anche durante piegamenti e flessioni. Speciali maniglie permettono un facile trasporto. Una speciale imbottitura nella zona renale aumenta il comfort dei modelli bibombola. Gli autorespiratori monobombola possono essere equipaggiati di fascia renale ordinabile separatamente.

AUTONOMIA VARIABILE

Lo schienale è progettato per accogliere, senza alcun accessorio, una bombola di diametro variabile da 110 a 170 mm. Con l'utilizzo invece di un distanziale a cuneo ed un raccordo a T per alta pressione, è possibile applicare allo schienale due bombole di diametro 110 mm. Per i modelli bibombola di maggiore dimensione è invece prevista una speciale cinghiatura ininfiammabile per il bloccaggio delle bombole. Ciò permette di variare l'autonomia per soddisfare qualsiasi necessità. Per le autonomie fornite dai vari tipi di bombola vedi tabella.

PRESA ARIA MEDIA PRESSIONE

SUPPLEMENTARE

Una speciale presa d'aria a media pressione, normalmente tappata, permette d'alimentare una seconda utenza.

UTILIZZAZIONE A DISTANZA

Con l'interposizione di un tubo di prolunga l'utilizzatore può allontanarsi dalle bombole fino a 50 m e penetrare luoghi angusti sempre avendo l'avvertitore acustico d'esaurimento alla maschera.

VALIGIA - ARMADIO DI CUSTODIA

Una robusta valigia in ABS, fornita a richiesta, permette un facile trasporto e la migliore conservazione degli autorespiratori. In alternativa, esiste anche un armadio per la conservazione dell'autorespiratore in condizioni di pronto all'uso.

Self contained breathing apparatus with a variable duration depending on volume of cylinder(s) fitted.

For use in fire-fighting, in maintenance operation of chemical plants, in rescue interventions in case of catastrophes or in any case of severely contaminated or oxygen deficient environments.

ANATOMICALLY SHAPED BACKPLATE

The backplate, in blow-moulded polypropylene, is anatomically shaped to give a comfortable distribution of masses and remain steady on the user's back even when crouching or crawling.

Specially built-in handles make it easy to carry the B.A. when not in use.

A special pad increases the comfort in twin cylinder models. Single cylinder B.A. can be equipped with special pad to be ordered separately.

VARIABLE DURATION

The backplate is designed to accept, without any special adapter, one cylinder having a diameter ranging from 110 to 170 mm.

With the help of a special buffer and a high pressure T manifold, one can fit two 110 mm cylinders (twin set). For twin sets of bigger capacity a special flame resistant strap is necessary to hold cylinders.

This allows choosing the best duration to satisfy anyone's need. The duration can vary, according to the cylinder capacity as shown in the table.

SPECIAL MEDIUM PRESSURE OUTLET

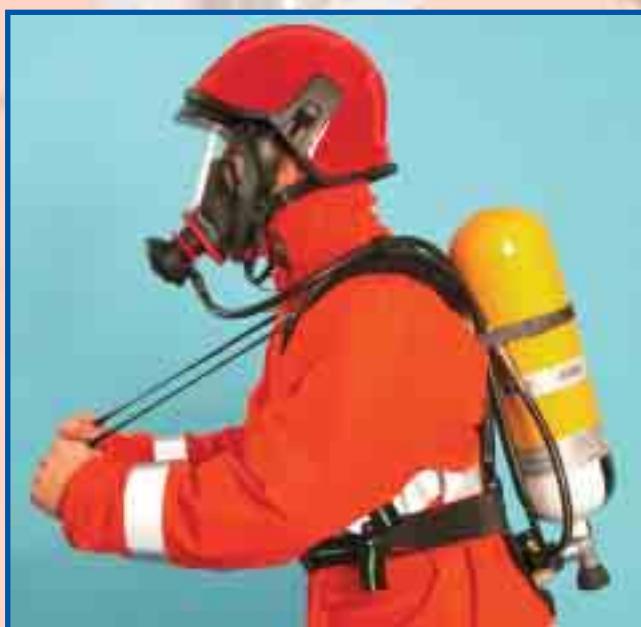
A special medium pressure outlet, normally plugged, allows feeding a second mask.

USE WITH EXTENSION TUBE

By interposing an extension tube the wearer can walk up to 50 m away from the cylinder, entering awkward places while keeping the acoustic warning at the mask.

CARRYING CASE - WALL CABINET

On request RN MK2 B.A. can be delivered in a robust ABS case for transport and storage. As an alternative, there is also a cabinet for the storage of the set in the "ready for use" condition.



BVF MK2

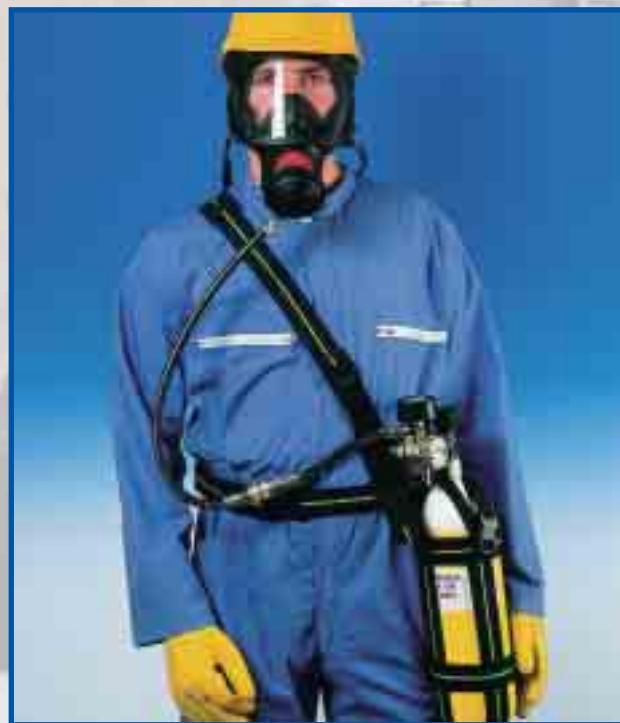
Autorespiratore autonomo portatile adatto per brevi interventi su impianti chimici o per la fuga da zone pericolose. Può essere utilizzato come ulteriore dispositivo di sicurezza con gli autorespiratori carrellati RC o con dispositivi "Air Line" collegato mediante una valvola a quattro vie.

BARDATURA

Costituita da una tracolla con cintura in forte nastro di tessuto ignifugo.

AUTONOMIA

L'autorespiratore è dotato di una bombola da tre litri a 300 Bar per un'autonomia di circa 30 minuti.



RC

I respiratori RC possono alimentare uno o due operatori secondo la dotazione complementare richiesta. Adatti per lunghi interventi in luoghi angusti ove l'ingombro delle bombole portate a spalla impedisce l'accesso o il movimento. Il sistema d'allarme MK2 alla maschera permette d'avvisare direttamente l'utilizzatore dell'imminente esaurimento della riserva d'aria evitando che debba per ciò intervenire un assistente dall'esterno. Un secondo allarme ripete il segnale presso le bombole per avvertire anche l'assistente.

AUTONOMIA VARIABILE

I carrelli sono progettati per accogliere una o due bombole da 50 litri 200 Bar o due bombole da 6 litri 300 Bar. Ciò permette di variare l'autonomia per soddisfare qualsiasi necessità. La durata varia da 55 minuti (modello 2603 con due operatori) a oltre 11 ore (modello 25002 con un solo operatore).

CARRELLO

Il carrello comprende:

- Riduttore di pressione RB con attacchi alta pressione EN 144.
- Manometri d'alta e media pressione.
- Nastro avvolgitore per 50 metri di tubo 8x17.
- Raccordi rapidi femmina per i tubi d'alimentazione.
- Cassetta per le dotazioni personali (non disponibile per RC 2603).
- Ruote gommate per un facile trasporto.
- Segnalatore acustico d'allarme per richiamare l'assistente.

Self contained breathing apparatus especially designed for short interventions, for escape or as an extra safety feature in air line systems or RC B.A. when combined with a four way valve.

HARNESS

Made of a shoulder strap and a waist-belt of strong flame-resistant fabric.

DURATION

The b.a. is fitted with one 3 litres cylinder at 300 Bar for a duration of 30 mins.

The RC respirator can feed one or two men depending on the auxiliary outfits chosen.

Suitable for long duration interventions or where the encumbrance of cylinder backplate impedes the access or movement.

The MK2 warning system at the mask advises directly, the users of the imminent air exhaustion avoiding the need of an external attendant.

A special device, placed by the cylinder, repeats the warning to catch the assistant's attention.

VARIABLE DURATION

Trolleys can be fitted with one or two cylinders of 50 liters 200 bar or two cylinders of 6 liters 300 Bar. This allows choosing the best duration to satisfy anyone's need.

The duration can vary from 55 minutes (model 2603 with two operators) to 11 hours (model 25002 with one operator).

TROLLEY

The trolley is made of the following items:

- Pressure reducer RB with EN 144 connectors
- High and medium pressure gauges.
- Reel for up to 50 m 8x17 hose.
- Female quick couplings for the hoses.
- Case for the personal outfits (not available in RC 2603).
- Wheels for easy movement.
- Acoustic warning to catch the assistant's attention.

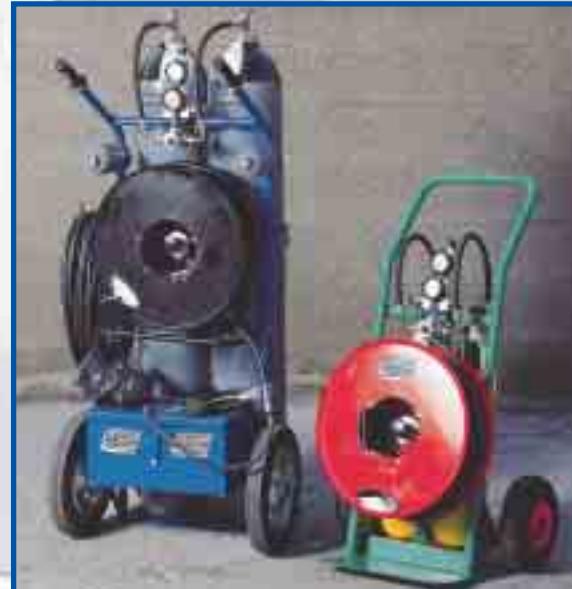
DOTAZIONI COMPLEMENTARI

- Dosatore MK2 con dispositivo di allarme incorporato e Maschera TR2002 A.
(Vedi descrizione sistema MK2).
- Dosatore MK2 con dispositivo di allarme incorporato e Maschera TR2002 B/N.
(Vedi descrizione sistema MK2).
- Cintura di sostegno per tubetto d'alimentazione.
- Tubetto d'alimentazione con raccordi rapidi, disponibile in spezzoni da 10 m - 20 m - 30 m - 50 m.
I tubetti sono di gomma alimentare atossica.
I raccordi di sicurezza sono aggraffati in modo speciale per evitare l'accidentale sfilamento dal tubo.
- Bombola/e (vedi tabella dei modelli disponibili).



AUXILIARY PARTS

- MK2 Demand valve with TR2002 A mask with built-in warning device.
(See description MK2 system).
- MK2 Demand valve with TR2002 B/N mask with built-in warning device.
(See description MK2 system).
- Waistbelt to hold feeding hose.
- Feeding hose with quick couplings, cuts of 10, 20, 30, 50 metres.
Hose is made of food quality rubber.
Couplings are specially clamped to avoid accidental slipping off.
- Cylinder/s (see models available in the table).



RL

Il modello **RL** è un respiratore ad adduzione d'aria compressa alimentato dalla linea e come tale la sua autonomia dipende dalla fonte di alimentazione. Può essere collegato ad un compressore o ad un parco bombole con una pressione in uscita di 5.5 bar. Se l'alimentazione avviene attraverso un compressore non si ha allarme. Per ottenere un sistema dotato di allarme acustico bisogna preparare un parco bombole ad alta pressione ed alimentare la linea tramite il riduttore **RB** (vedere descrizione **RC**).

I respiratori **RL** sono costituiti da:

- Maschera respiratoria **TR2002 A** o **TR2002 B/N**.
- Erogatore automatico con segnalatore acustico, quest'ultimo funziona solo nel caso in cui l'alimentazione avviene tramite un parco bombole e riduttore **RB**.
- Cintura di sostegno per tubetto di alimentazione
- Tubetto di media pressione con raccordi rapidi.

Per la descrizione degli elementi costitutivi riferirsi al modello **RC**.

The **RL** is a compressed air line breathing apparatus, therefore the autonomy depends on the air source. It can be connected to a compressor or to a cylinder pack with an outlet pressure of 5.5 bar. If the air is delivered from a compressor, the audible warning cannot operate.

To set up a system with audible alarm it is necessary to have a high pressure cylinder pack and feed the line by means of a pressure reducer type **RB** (see **RC** description).

The **RL** respirators are made of:

- Full face mask **TR2002 A** or **TR2002 B/N**
- Demand valve with audible warning device, this works only when fed from a cylinder pack fitted with RB pressure reducer.
- Supporting waist belt
- Medium pressure hose with quick safety couplings.

For the description of the components see model **RC**.

N.B.: Le approvazioni CE mantengono la loro validità solo se i respiratori sono usati completi di tutti i componenti originali omologati.

N.B.: The use of non original parts voids the validity of CE approval.

Alcune possibilità di impiego

Some possible uses



Alimentazione della linea
Feeding from air line



Alimentazione secondo operatore
Feeding a second man



Carrellato RC in uso con BVF
Wheeled RC in use with BVF



Uso a distanza
Use at a distance

Alcuni modelli disponibili:

Some models available

(note: for some markets, P/N may differ from those in the table):

Modello/Model	Maschera/Mask	Bombola(e)/Cylinder (s)	Autonomia Nominale Nominal Autonomy*	Marcatura/Marking	Codice/PN
RN 1303	TR 2002 A o TR2002 B/N	1x3 l 300 Bar Acciaio	30 min.	CE	400890000 400900000
RN 1603	TR 2002 A o TR2002 B/N	1x6 l 300 Bar Acciaio	60 min.	CE-MED	400920000 400930000
RN 2903C	TR 2002 A o TR2002 B/N	2x9 l 300 Bar Composito	180 min.	CE	402060000C 402070000C
RN 1683C	TR 2002 A o TR2002 B/N	1x6,8 l 300 Bar Composito	68 min.	CE-MED	402000000C 402010000C
RN 1903C	TR 2002 A o TR2002 B/N	1x9 l 300 Bar Composito	90 min.	CE	402020000C 402030000C
RN 2683C	TR 2002 A o TR2002 B/N	2x6,8 l 300 Bar Composito	136 min.	CE	402040000C 402050000C
BVF 1303	TR 2002 A o TR2002 B/N	1x3 l 300 Bar Acciaio	30 min.	CE	401350000 401360000
BVF 1303C	TR 2002 A o TR2002 B/N	1x3 l 300 Bar Composito	30 min.	CE	401350000C 401360000C

Modello/Model	Bombola(e)/Cylinder (s)	Autonomia Nominale Nominal Autonomy*	Marcatura/Marking	Codice/PN
RC 15002	1x50 l 200 Bar	> 5½ ore	CE	151300000
RC 25002	2x50 l 200 Bar	> 11 ore	CE	151310000
RC 2603	2x6 l 300 Bar	2 ore	CE	151330000

* L'autonomia è espressa in minuti e dipende dal volume d'aria richiesto dall'utilizzatore che le norme stabiliscono convenzionalmente pari a 30 lt/min.

NOTA: per semplificare il calcolo dell'autonomia non si è tenuto conto del fattore di compressibilità che riduce di 8% l'aria disponibile all'interno della bombola quando quest'ultima è caricata a 300 bar.

* The autonomy is expressed in minutes and depends on the air volume consumed by the user that European standards set conventionally equal to 30 lt/min.

NOTE: to simplify the calculation for the nominal autonomy we did not consider the compressibility factor that reduces of 8% the air available in the cylinder when it is charged at 300 Bars.

RICAMBI E OPTIONAL / SPARE PARTS AND OPTIONAL

Descrizione	Description	Codice/PN
Valvola a quattro vie	Four way valve	9324400
Tubo di prolunga da 10 m	Extension hose 10 m	1393000
Tubo di prolunga da 20 m	Extension hose 20 m	1393100
Tubo di prolunga da 30 m	Extension hose 30 m	1393300
Tubo di prolunga da 50 m	Extension hose 50 m	1393200
Cintura di sostegno	Supporting belt	1481300
Valigia di custodia per autorespiratore RN	ABS case for B.A. RN	1584500
Armadio metallico per autorespiratore RN	Metal cabinet for B.A. RN	1585000



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