

ITEM : SPASCIANI SELF CONTAINED BREATHING APPARATUS



1. Panoramic Full Face Mask

The Full Face Mask is TOTAL VISION Panoramic, made of EPDM Elastomer, according to EN 136 : 2000. It is fitted with special red connector with double utility. Snap-in for positive pressure B.A. and with standard thread to EN 148-1 for Filter Cartridges & Airline connection from Compressor. It automatically connects the change over valves to adapt the opening pressure to the device connected to the mask. The mask has Wide visibility Visor made of hard coat polycarbonate covering the entire front portion of the Mask from the Forehead to Chin of wearer providing TOTAL field of vision enabling clear visibility near the feet.

2. Demand Valve

Has a demand valve that automatically turns the positive pressure on at the first breathing in. A rubber button in front of the demand valve should allow, if necessary, to manually activate positive pressure or to inject extra air into the mask.

3. Warning device at the Demand valve

Inside the Demand Valve, an Acoustic Warning with Every Inhalation accompanies when the remaining pressure in the cylinder drops below 60 bar which should terminate only when the air reserve is completely used up.

4. Backplate with harness :

- The *backplate* is made of moulded polypropylene/fibre anatomically shaped. having integral handles to allow the complete apparatus to be carried with one hand. with device to allow fitting cylinders of different diameters, from 110 to 170mm.
- The *harness* assembly is complete with shoulder pads and waist belt, fitted with special sliding buckles to ease adjustment.

5. Compensated pressure reducer

The reducer is a piston device with automatic compensator to enable to deliver a constant & steady pressure of 5.5 bar throughout the duration irrespective of the cylinder pressure which could be 300 bar. With the Cylinder pressure drop to 55 ± 5 bar, the outlet pressure should increase to 8.0 bar to actuates the audible warning in the demand valve.

The pressure reducer should be fitted with:

- High pressure connector.
- Special high pressure hose leading to the gauge
- Medium pressure hose leading to the demand valve
- Integral auxiliary outlet for second man or rescue.

6. Phosphorescent gauge

The System is provided with a special rubber jacketed pressure gauge scaled up to 450 bar and with contrasted warning zone from 60 to 0 bar.

7. Cylinders & Valve :

6 ltrs/ 200 bar with IS marking, Valve EN & IS marked.

8. Approvals :

The set is tested, approved and certified to EN 137 by a Notified Body according to the EU (European Union) directive 686/89 and must have CE Certification Mark. Cylinder IS marked, CCE approved, Valve EN & IS marked, CCE approved.

[Details explaining the Innovative Safety, Utility and Comfort Features in our set which makes it the better purchase than any contemporary brand.](#)

1 -- With PANORAMIC FULL FACE MASK

The Full Face Mask should be TOTAL VISION Panoramic, made of EPDM Elastomer, according to EN 136 : 2000. It should be **fitted with special red connector with double utility. Snap-in for positive pressure B.A. and with standard thread to EN 148-1 for Filter Cartridges & Airline connection from Compressor . It automatically corrects the charge on exhalation to adapt the opening pressure to the device connected to the mask. The mask has Wide visibility Visor made of hard coat polycarbonate covering the entire front portion of the Mask from the Forehead to Chin of wearer providing TOTAL field of vision enabling clear visibility near the feet.**

Fire & Rescue situation demands myriads of applications. At times, the purpose can be RESCUE/ SEARCH through contaminants like Smoke [due to Fire], Smoulder [after Fire], Chemical leakages in factories/ tankers, During Natural calamity which can involve Bio-medical hazard, Rescue from accidents be it Road accidents, drowning etc.

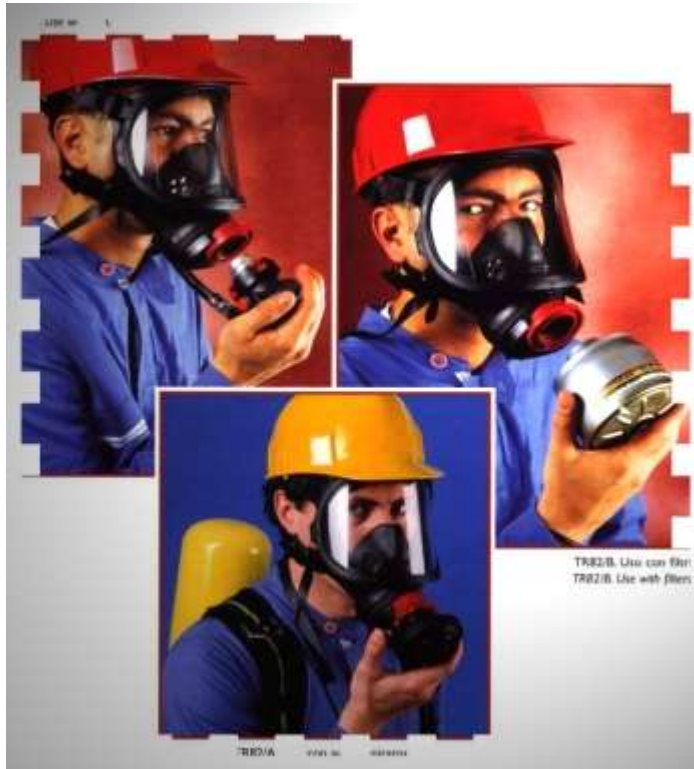
Similarly the Fire fighting application can vary from Direct fire fighting to providing tools, tackles, carrying victims etc which may require Higher degree of mobility etc.

(a) Usefulness of Multiutility Feature of the Face Mask to the Fireman

In all such applications encountered by a Fireman, a Multiutility device is of immense advantage as No two Disaster is of similar nature and Nothing in the Disaster can be predicted. Thus, this Mask has the provision to be useful in ANY respiratory Protection situations.:

- a. With a Quick On Connection Demand Valve can be fitted which provides Air on demand from a Self Contained Cylinder source for a minimum period of **45 minutes** with 6 ltr / 300 bar cylinder.
- b. With a Screw in Connection a COMBINED Filter Cartridge for ALL GASES/ DUSTS/ MISTS/ BIO-MEDICAL CONTAMINANTS / RADIONUCLEOIDS etc can be fitted on the same Mask to combat the medium and low order hazard occurring in open atmosphere for long duration. with enhanced mobility .
- c. With Screw in Connection, an Airline System can be used which can draw Air from a NORMAL Compressor and can be used for indefinite time for carrying out various functions with restricted mobility or mobility within a specific / designated place.
- d. **This feature thus helps in the judicious and sparing use of the Cylinder air which in turn helps in retaining cylinder air to combat the hazards of the high order. The medium and low order hazard can be conveniently addressed with the help of Full Face Mask fitted with All Gases Filter Cartridge. This even eliminates the frequent filling of cylinder air.**

These unique added features enables the optimum utilisation of the Capital equipment SCBA ensuring effective readiness even while cylinder is out of breathable air.



[In the Standard Set, the fitting provision for all the devices shall be provided including Demand Valve, Backplate and Self Contained Cylinder.
However the Filter Cartridge and Airline system are Optional extra]

(b) Total Vision Visor on the Full Mask:

This is another innovation adding to the Safety of the user in your case Fire personnel.

The Entire front of the Mask has a Visor covering from the Forehead to Chin which enables unobstructed, wide TOTAL field of Vision enabling complete & clear visibility near the feet.

The complete and clear visibility close to the feet is an added safety feature helps in avoiding accidental striking against objects near the feet and thus eliminating uncalled for toppling , tilting, twisting or felling down.

Such a total view is not possible through the regular panoramic mask.

2 With WARNING DEVICE AT THE DEMAND VALVE:

Inside the Demand Valve, an Acoustic Warning sounds with Every Inhalation when the remaining pressure in the cylinder drops below 60 +/- 5 bar which gets terminated only when the air reserve is completely used up.

The Warning device inside the Demand Valve has following advantages :

a. Saving of critical cylinder air - as the air which blows the whistle is breathed in.

The Warning Whistle in Our Offered System is located inside the Demand Valve and do not function by consuming any of the cylinder air. Thus there is a clear saving of breathable air during critical moments.

In all the CONTEMPORARY Sets, the Breathable Air inside the Cylinder is used to actuate and blow the Whistle through the membrane which is exposed to the environment. This consumes precious cylinder air of around 1-2 minutes out of the last 10 minutes of remaining air, thus consuming nearing 10 % to 20 % of the critical air.

b. **The Whistle intensity is constant and intermittent.**

In panic situation the Intensity, the pitch and type of sound of Whistle is very important to distinguish it and not to confuse with the ambient noises / sound.

In all CONTEMPORARY Sets the Whistle gives a Wailing sound like that of sound signifying Shift End coming from factories and that too with diminishing intensity as the pressure further falls from 60 bar to 0 bar.

In OUR device, the Sound is with every Inhalation and has a Ripple Frequency totally different from any surrounding sound and is constant with NO fall in Intensity or pitch. The Warning very close to ear leaves no chance of missing out even in panic situation.

c. **The Whistle is FAIL SAFE & FALL SAFE and is virtually Maintenance Free.**

In OUR offered set, the Whistle system being totally enclosed within the DV is thus virtually Maintenance free and is Fail Safe & Fall Safe and thus have NO CHANCE of FAILURE..

Evidently, the Warning device is the most important part of the SCBA on which the life of the Rescuer depends.

In all CONTEMPORARY Sets the Warning Whistle operates by air blowing out of an orifice or through a thin membrane which are necessarily exposed out. Thus these systems are prone to get non functional due to the exposure to aggressive chemicals, rains, sand storms, frosts and the weather vagaries . Thus it is essential that these devices would require regular checking, testing and maintenance . Even after this there are chances of failing of the warning system during actual working with in heavy rains and while rescuing persons / salvaging property from under water viz. Ponds, Wells. Tanks etc. – which is a normal application with the Fire Brigades.

Also, in some sets it is attached with the Pressure Gauge , dangling on the shoulder having every chance of breakage during Fall . It is interesting to note that the Pressure Gauge is protected by a rubber shroud to make it fall safe while the attached whistle system cannot be protected likewise for functional reasons.

d. **Our device enables a person to work safely with the SCBA without carrying the Heavy Cylinder on the back, just the Mask and Demand Valve with Warning device with extendable Hose upto 95 metres.**

Fire Brigades do regularly come across emergency situations demanding entry inside narrow or awkward opening where carrying Cylinder on the back is an impediment . To work in such situations the Cylinder mounted on the Back Frame is kept outside and the Rescuer / Fireman enters within the opening equipped with Full Face Mask duly fitted with Demand valve WHICH HAS THE INBUILT WARNING DEVICE fed with cylinder air through extended hose .

Working independently with TOTAL SAFETY is ONLY possible with OUR set . A hose up to 95 meters can be interposed between the Demand Valve and Pressure Reducer , the Fireman / Rescuer enters the opening by just wearing the Mask fitted with the Demand Valve containing the WARNING DEVICE WITHIN THE

DEMAND VALVE. The Rescuer inside can perform the job / operation with complete piece of mind and Full confidence and Total Safety as he has the Warning Signal on his person within the DV .

Such a confident working is not possible with any of the contemporary sets , since the warning whistle with them rests outside with the cylinder mounted on the back frame. Here another person is required to be deployed to alarm the Rescuer / Operator off blowing of the Warning Whistle. Thus these systems have every chance of Human error.



3. With **DOUBLE LOCK QUICK FIX CONNECTION**

The system is designed not to get opened while the air is passing through the medium pressure hose.