



### a.b.s. s.r.l.

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#### **COMPANY**



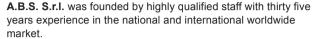












First in Italy to receive CE PED 97/23 across the range, and also the first ever to obtain the approval of fire extinguishers according to European regulations EN3.7 and EN 1866. Active in fire protection, gaining considerable success, offers to the clients a full range of products.

Is always attentive to new market and technological innovations, and its organizational structure enables best solutions to any requirement.

The range in which a.b.s. works varies from the fire extinguisher, cylinders CE mark PED and T-PED or HFC and foam bladder tanks, skid mounted units, fix installations, refilling machines, fire hoses and hose reels...

Very active in inert gas systems and HFC 227, UL Listed and

accepted by EPA extremely safe, without any environmental impact, and use unlimited in time, particularly suitable for the protection of CED, archives museums, etc.

In order to consolidate its market presence a.b.s. has focused on "quality" of their products and services. Top quality products are recognized from the market and a considerable share of the production is exported in most European countries as well Middle East, Asia, Africa, South America.

Owing a modern plant and machinery has the ability to produce on custom request from the smallest fire extinguisher to the large equipments and fix installations. To achieve these objectives we strictly follow directions of Quality System, certified by the RINA Italian Naval Register in according to EN ISO 9001 for manufacturing of all the range of products.

















Fire test on the class 233B with 6 kg powder fire extinguisher

Fire test on 34 A, with 8 minuti of preburning

















Tel. +39 039 8396321 +39 039 8396323 25 lines







### TERMS AND CONDITIONS OF TRADE

#### 1. PRICES and TERMS

The goods shall be purchased or quoted on these Terms and Conditions and at prices prevailing at the order date. These Terms and Conditions shall prevail unless varied in writing.

#### TERMS OF PAYMENT

- 1. Payment shall be either; by L/C irr and confirmed, ot TT in advance, unless prior written agreement. Deposit is requested for non standard materials. If payment is not received by the due date, then the Company may refuse
- delivery of further goods and stop further credit facilities.
- The Customer will pay all collection and legal costs actually incurred by the Company (including actual solicitor/client costs) that are related to the collection or recovery of any unpaid account.

Payments not made on due date may, at the Company's sole discretion, bear interest from the date of the invoice at the rate of 2% per month until paid (or at such rate as shall be in force at the date of purchase).

The Company may cancel orders in respect of any undelivered goods or may with hold delivery of future orders if the Customer's account exceeds the credit terms set by the Company.

#### 5. NON RECEIPT OR DAMAGE

All goods must be checked on receipt as to quantity and/or damage. Discrepancies on quantity, weight or damage must be reported by the Customer to both the Carrier and the Company within 3 days from the date of delivery, otherwise the claim may be rejected by the Company. The Company will replace goods covered by approved claims, and transport cost at same conditions of original order.

#### 6. RETURNED GOODS

No goods shall be returned for credit without the Company's prior written approval.

#### 7. CLAIMS

All claims regarding goods supplied or allegations regarding goods not having been supplied as per invoice/packing slip shall be made within 3 days of delivery of the goods and in the absence of any claim the Customer shall be deemed to have accepted the terms of the invoices as correct and accept that the goods specified are as delivered.

#### 8. CLAIMS RETURN POLICY

- Goods supplied in error are returnable for replacement or credit, providing
- the error is notified to the Company in writing within 3 days of delivery. No claim will be recognised unless the goods are returned with the original invoice/packing slip, or the number and date of the invoice/ packing slip are enclosed.
- No claim will be recognised unless the returned goods are in sealeable, undamaged and clean condition, and in the original packaging, complete with detachable accessories and instruction manuals.
- The Company may at its sole discretion accept the return of goods surplus to the requirements of the Customer in which event the credit may not exceed 75% of the original amount charged for those goods.

#### 9. RISK AND DELIVERY

Risk passes to the Customer on delivery of the goods. Delivery shall be deemed complete when the Company gives possession of the goods directly to the Customer, or possession of the goods is given to a carrier, courier, or other bailee for the purposes of transmission to the Customer.

- 1. Except as provided in the European Communities rules, and by the manufacturer's written warranty (if any) the Company makes no representation, condition, warranty or promise, express or implied, in respect of goods supplied to the Customer.
- Except as provided in the European Communities rules, the Company shall not be liable for any loss of any kind whatsoever suffered by the Customer as a result of a breach of any of the Company's obligations regarding the supply of goods or any negligence on the part of the Company, its servants, agents or contractors, nor shall the Company be liable for any loss damage or injury caused to the Customer's servants, agents, contractors, customers or other persons. The Customer will indemnify the Company against any claim by such persons.
- The liability of the Company arising from a breach of any of the Company's obligations regarding the supply of goods, or from any negligence on the Company's part, its servants, agents or contractors will be limited to damages which will not exceed the price of the goods supplied.
- Where the Customer purchases goods for a particular purpose, it is the Customer's sole responsibility to ensure that the goods will be suitable for the Customer's purpose, and the Company shall have no liability whatsoever in the event that the goods are not fit for the Customer's

purpose, notwithstanding any statements made to the Customer by the Company or its officers or employees.

#### 11. OWNERSHIP

- 1. Ownership reserved: It is expressly agreed that ownership is reserved and legal and equitable title to and property in all goods supplied by the Company is and remains vested in the Company until payment in full has been received by the Company.

  Recovery of Goods: The Company may at any time before sale of any
- goods by the Customer recover and take repossession of such goods and otherwise exercise in relation to those goods any of its rights where those rights are also covered by common law, contract, statute or in any other

#### 12. PRIVACY ACT

- The Customer authorises the Company:
   (a) To collect and retain and use personal information about the Customer (the information contained in this document) for the following:
- Assessing the Customer's credit worthiness.
- Administering the financing, whether directly or indirectly of the Customer contracts(s) and enforcing the Company's rights thereunder.
- (iii) Marketing goods and services provided by the Company. (b) To provide the information:
- (i) to any person for the foregoing purposes
- (ii) to employees and agents of the Company and any other person, in the ordinary course of business, for any of the foregoing purposes (iii) to credit agencies for the purpose of maintaining effective credit records.
- The Customer acknowledges:
- (a) that the information is held by the Company at the address specified in this document, notwithstanding that it may also be held elsewhere by the Company and other persons for the purposes described above.

  (b) that where information can be readily retrieved the Customer shall have
- access to it, the right to request correction and the right to be notified of action taken in response to any such request, subject to payment of any reasonable charge.
- (c) that the aforesaid authorisations are irrevocable.

#### 13. PERSONAL GUARANTEE OF COMPANY DIRECTORS OR TRUSTEES

If the Customer is a company or trust, the director(s) or trustee(s) signing this contract, in consideration of the Company agreeing to supply goods and grant credit to the Customer at their request, also sign this contract in their personal capacity and jointly and severally personally undertake as principal debtors to the Company the payment of any and all monies now or hereafter owed by the Customer to the Company and indemnify the Company against non-payment by the Customer. Any personal liability of a signatory hereto shall not exclude the Customer in any way whatsoever from the liabilities and obligations contained in this contract. The signatories and Customer shall be jointly and severally liable under the terms and conditions of this contract and for payment of all sums due hereunder.

#### 14. VALIDITY.

If a term or condition herein is held by a Court to be unenforceable then such term or condition shall be severed from all other terms and conditions without affecting the enforceability of those other terms and conditions.

#### 15 Jurisdction:

Any dispute concerning these conditions will be competent the court of Milan Italy

#### 16: Solve et repete

Buyer expressely waives the right to plead any exceptions to avoid or delay payment of the debit under these terms, untill full payment in full in favour of the supplier

The customer, declare to have carefully red and accepts the clauses in the above point 1 to 16 points.
Stamp, full address and signature:
VAT number

		accept the above Terms and Conditions of Trade points 1 to 16			
Name of Company or Account Name)					
Signed in agreement:		Witness Signature:			
Full Name:	. Date:	Full Name:	. Date:		

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Standpipe for hydrants Gate valves, flanges, bolts, etc

Binding tools for lay flat hoses

Test equipments for flow and pressure

Roller for fire hoses

## **Maintenance Portable fire extinguishers**

Maintenance: does not exist one standard valid on all european countries.

Italian Standard UNI 9994 is the most restrictive rule existing in Europe, requiring service every 6 months, while in most countries it is once or twice per year. Here below some good suggestions:

Survelliance: Visual inspection of correct position and installation: every day.

Maintenance: Must be made by an authorized technician. Series of control and

maintenance with purpose to ensure the correct functionality of the extinghuisher. Inspection of pressure, weight, integrity of all components.

Refilling: Must be made when the extinguisher has been used even partially. When the gauge shows low pressure, and needle is in the red area, or weight is less than recorded in the service card.

Disposal: must be made according to regulation in the own country.

CO2 carbon dioxide and Halogenated FOXER do NOT need to be changed, they never change their properties when stored in the fire extinguisher.

**Dry powder:** in some countries is **suggested** to change every 5 years. A good rule is check at least every 2 years. If the powder appears fine, with a good fluidity and smootness, without any cacking, that means its chemical and phisical properties are intact, and it is still good to be used.

Generally a good powder manufactured and approved according to EN615, keept in sealed fire extinguishers, within temperature -30°C + 60°C will not change its chemical and phisica

properties. Replace th powder it appears start of cacking and low fluidity. **Foam:** when it is a premixed solution is a good rule change and recharge with fresh solution every 3 / 5 years, better check the instructions of the manufacturer.

every 375 years, better check the instructions of the manufacturer.

When the foam compound is sealead in a plastic cartridges and not in contact with sunlight and water validity is at least 5 years, anyway follow the instructions of the manufacturer.

Test: Hydraulic test of cylinder, the rule valid in all Euope every 12 years for cylinders produced with CE PED mark. CO2 cilinders with CE PED or T-PED mark every 10 years.

#### Fire classes according to European standards.



Class A: fires of solid materials, generally of an organic origin such as, paper, wood, rubber and plastic, which combustion takes place with formation of embers.



Class B: fire involving flammable or combustible liquids, gasoline (petrol), grease, oils, paints, etc



Class C: fires involving flammable gases such as LPG, acetylene, methane, propane, ecc. No test requested by EN3 standards for powder or CO2



Class D: fires involving light slag processing metals that burn, such as lithium, magnesium, potassium, sodium, titanium, zirconium. No test requested by EN3 standards.

According to EN3 16.2, for water based extinguishers, label must show if passed or not electrical conductivity test as per EN3.7 appendix "C"

The simbol has become obsolete.not more in use. Electricity test not test requested by EN3 standards



Class F: fires involving deep fried oils and fats, generally in restaurant kitchens etc

for powder or CO2								
CLASS OF FIRES	A	B	SNC Star		F.			
	Wood Paper Plastic	Flammable liquids	Flammable gases	Light Metals potassium sodium ec.	Kitchens oils and fats			
WATER Pure water Lifewater	YES	NO	NO	NO	NO			
FOAM Water + additive Sealfire®	YES	YES	NO	NO	YES (2) Sealfire® F			
ABC	YES	YES	YES (6)	YES (3)	NO			
POWDER BC	NO	YES	YES (6)	with special powder	NO			
CARBON DIOXIDE (CO2)	Limited 5	YES	YES (6)	NO	NO			
HALOGENATD Foxer S® HFC	4 - 5	YES	YES (6)	NO	NO			

#### **NOTES**

- 1) When equiped with special spray nozzle
- 2) Potassium Sulphate foam
- 3) Special powder chlorine, boron, ec.,
- 4) Limited outdoor
- 5) Good for initial fires when no embers involved
- 6) After the use shut off the main supply gas valve to avoid explosion risks

Portable fire extinguishers with Sealfire® and Lifewater, It 2/3/6/9 have special spray nozzle, and may be used under live electricity till 1.000 volt. (standard EN3).

EN3 do not require electricity test for Dry powder and CO2. Suggested limited use at 1,000 Volt altough tetsed at 35,000 volt

#### Water

It has a cooling effect, best effect when used with spray nozzle enabling the use under live electricity. Special addittives (SEALFIRE A), gives higher efficiency on class A fire.

AFFF(Aqueous Film Forming Foam) extinguish the fire by taking away the heat, separate the oxygen element from flammable liquid, it creats a thin film that floats over the combustible. Sealfire is the best and stronger addittive, available in the market.

#### CO2

extinguish the fire by reducing the oxygen element of the fire triangle and by removing the heat with a very cold discharge. Non conductive of electricity. EN3 do not require test on class C althoug very efficient.

#### **Powder**

Ammonium Phosphate (MAP) is the most used having efficacy on fires class A,B, and C. Melt and flow at ~177°C creating a protective film on the class A wires embers. Extinguish the fire primarily by interrupting the chemical reaction of the fire triangle. It prevents the chemical reaction between heat, fuel and oxygen and halts the production of fire sustaining "free-radicals", thus extinguishing the fire.

Sodium bicarbonate, good efficiency only in Class B, C.

Potassium Bicarbonate, know as Purple K, twice efficient than Sodium Bicarbonate.

Monney, Urea Complex & Potassium bicarbonate, used on Class B and C fires. More effective than all other powders due to its ability to decrepitate (where the powder breaks up into smaller particles) in the flame zone creating a larger surface area for free radical inhibition.

WIDELY USED IN HIGH RISK AREA, REFINERY, CHEMICAL INDUSTRIES.

#### Foxer

It is a liquid gas when pressurized inside the extinguisher. It is an HFC. HFC stands for hydrofluorocarbon.

These gases contain a mixture of elements, with prominent amounts of carbon, hydrogen, and fluorine.

It prevents the chemical reaction between heat, fuel and oxygen and halts the production of fire sustaining "free-radicals", thus extinguishing the fire. It is clean, do not leave residue, not conductive, safe for humans. Based on blend of HFC227, HFC236, HFC134, do not harm Ozone layer, have no law restrictions in most countries on the world. Indispensable for fires against any electronic equipment, high value sites, musem, banks, etc. It is clean, do not leave residue, not conductive, safe for humans.

#### Choice and number of extinguishers

The choice of portable fire extinguishers should be determined according to class of fire and the level of risk in the workplace.

The number and capacity of portable fire extinguishers depends on the risk, and laws in force in respective countries. Generally risk can be: Low. Medium, High.

The chart beside is good rule, but depends also by law in force in the respective countries and therefore may be some time significantly different. Anyway: Install at least 1 fire extinguisher in each floor of the house. Always install in a visible position and easy to be used, fixed in a wall, with a sign on top. Distance between extinguishers never more than 30 mt.

Suface protected by 1 extinguisher							
Class		Risk type:					
of fires	Low	Medium	High				
13 A - 89 B	100 m <sup>2</sup>	-	-				
21 A - 113 B	150 m <sup>2</sup>	100 m <sup>2</sup>	-				
34 A - 144 B	200 m <sup>2</sup>	150 m <sup>2</sup>	100 m <sup>2</sup>				
55 A - 233 B	250 m <sup>2</sup>	200 m <sup>2</sup>	200 m <sup>2</sup>				

A good suggestion: only a very good trained operator can achieve the rate of the fire class shown in the extinguisher. It is suggested to buy always a bigger size, with higher quality row material.





Unless used simultaneously, by 2 operators, 2 extinguishers of 6 kg, have less result than 1 of 12 kg. When medium and specially high risk area, trolley and or foam mobile units, must be severly considered.

Maintenance

# **Dry chemical powder Stored pressure**



Best quality dry powder utilize a specially fluidized and siliconized mono ammonium phosphate dry chemical (MAP) certified EN615.

It chemically insulates Class A fires by melting at approximately 170°C and coats surface to which it is applied.

It smothers and breaks the chain reaction of Class B fires and will not conduct electricity back to the operator. Excellent on class C fires.







Standard wall bracket

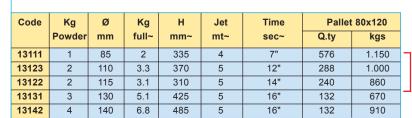
Suitable for hook on the brass valve.





1	21001
Optiona	l brackets
Suitable for cylin welded on the ba	
<b>20919</b> 6 k	(g
20919_1 9 k	a D
9	Latch closure + safety pin.
9	20907 6 Kg 20093 9 Kg 20908 12 Kg

From 3 kg to 12 kg.



standard supplied with wire steel bracket







13162 Kg 6

13169 Kg 6

13160 Kg 6

34 A 55 A 233BC 233BC

43 A 233BC

Cylinders available in stainless steel and as non magnetic assembly.



13192 Kg 9

13172 Kg 12

55 A 233BC

55 A 233BC

**Optionals** 

Plastic foot 21048 6 kg

21049 9 / 12 kg





Schroeder check valve + locked seal.

21162

110 Back hook, ensure better stability. Large capacity

20052 13163

Kg 6

233BC



Gauge bourdon 40 mm threadh npt unmovable.

Foot and bottom manufactured in single pressing process: Will never rust.



Pallet 80x120 Kg Code Ø Kg н Time Jet Powder mm full~ mm~ mt~ sec~ Q.tv 9.7 13160 6 160 530 18,5" 72 750 600 745 13162 160 10.2 18.5' 6 72 13163 6 160 10 610 18,5" 72 745 13169 6 160 10.1 570 7 18,5" 72 755 600 580 13191 9 190 14 18' 40 190 17.5 7 40 730 13172 12 660 24"

neck ring

cylinder (8.4 Lt) benefits for the longer jet and constant pressure, and foot without welding ensure

pressure to suffer corrosion.

insulation from ground avoiding bottom part under

21161

Safety valve preassembled. **Bursting disc** fast release.



# Dry chemical powder Internal cartridge



Extinguishers with internal CO2 cartridges allow better and professional maintenance.

Size M74 filling cap allows easier inspection of dry powder and weight checking of the CO2 cartridge.

More expensive compared with stored pressure, it is indicated when reliability in professional places is the priority.



13167 Kg 6

34 A 233BC



13194 Kg 9

55 A



13173

Kg 12

55 A 233BC

# Internal cartridge Portable fire extinguishers PURPLE K or MONNEX Powder



## 0

**Monnex**, is the most powerful dry powder against any kind of fuel and gas. Product for professional use in refineries and high risk industries.

MONNEX

13193

Kg 9

233BC

### Standard wall bracket

Hook is welded on the back of



#### **Optional brackets**





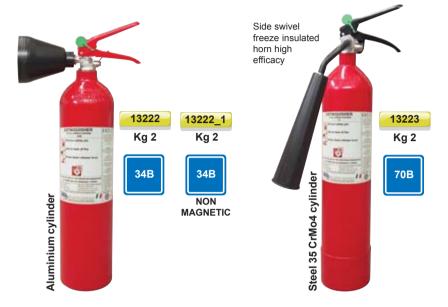
Code	Kg	Ø	Kg	Н	Jet	Time	Pallet 80x120	
	Powder	mm	full~	mm~	mm~	sec~	Q.ty	kgs
13167	6	160	10.7	470	7	18"	72	795
13168	6	160	10.7	470	7	18"	72	795
13193	9	190	16	605	7	19"	40	670
13194	9	190	16	545	7	19"	40	670
13173	12	190	18.5	605	7	19"	40	790



CO2 carbon dioxide, is excellent against fires involving flammable gases Class B. EN 3 standard do not require testing on Class C, and although excellent is suggested shut down the source of gas leakage.

Limited capacity on class A for initial fires when not embers involved. Not electric conductive.









# Standard wall brackets Suitable for hook on the brass valve. **21001** 5 kg 21009 2 kg



Code	Kg	Ø	Kg	н	Jet	Time	Pallet	80x120
	CO2	mm	full~	mm~	mt~	sec~	Q.ty	kgs
13221	2	105	6.5	560	3	8"	100	810
13222	2	111	5	535	3	8"	100	610
13223	2	105	6.5	560	3	10"	100	810
13251	5	136	14	735	3.5	12"	50	735
13252	5	152	12	720	3.5	12"	50	600
13253	5	136	15	690	3	14"	50	735

### 20061 2 kg steel 13221 20916 2 kg alum 5 kg steel 13251 5 kg alum

13252

# Foam Sealfire A.F.F.F Stored pressure



Ideal for public places, lodges, stores, airports, supermarkets, hotels, etc. etc.

The chemical dry powder does not allow good visibility during discharge and can create panic, foam instead is the opposite. Sealfire allows full visibility, it has longer discharge time, and the sealing effect protect against flash back.

Special spray nozzle, allows use under electricity limited at 1,000

13331

13 A

144B

SEALFIRE F, and

extending lance gives best performance against fires of oils and fat fires.

Lt 3

Volt without danger, while tested at 35,000 Volt according to EN3/7 European Standard.

- Longer time of discharge!
- Visibility the entire time of discharge
- Not dirty! Water 98% + 2% additive
- Ecological, biodegradable to 99,8%
- Easier use against flammable liquids, cooling and sealing effect, no flashback.



Official fire test, carried by professional fireman as EN3.7 233 B 6 It Sealfire® 1 minute preburning

900 °C terrific hot After only 5"seconds. Flames and heat already

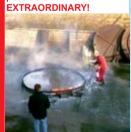


After only 10"seconds. Flames are almost down due to sealing effect.





After 15 second. Sealing effect is complete. Reignition is no more possible.



This model is ideal for homes, small restaurants, campings.



13320

Lt 2

8 A 55B



13365 Lt 6

13 A 113B



High design and style, stand

professional performances

foot, swivel valve, high volume of cylinder allow longer jet and

> Lt 6 34 A 233B

13366

Code	Lt	Ø	Kg	н	Jet	Time	Pallet 80x120	
	Sealfire	mm	full~	mm~	mm~	sec~	Q.ty	kgs
13320	2	110	3.75	405	3	12"	288	1.000
13331	3	130	5.2	425	4	16"	132	670
13361	6	160	10.3	570	5	30"	72	755
13365	6	160	10.5	570	5	45"	72	755
13366	6	160	10.3	600	5	30"	40	640
13391	9	190	15	635	7	38"	40	640

Optionals		Hose holder strap
Plastic foot	Metal hose holder ring	
The state of the s		<b>S</b>
21048 Lt 6	20015 Lt 6	
21049 Lt 9	<b>20015</b> Lt 9	20424

Part. 7,8 EN3

# Foam Sealfire A.F.F.F Internal cartridge

appliance hand portable fire extinguishers you can purchase. Both have been tested and approved for oils and fat fires of restaurant kitchen hazards.

Superb performances on flammable liquids fires as well on class A fires with strong cooling and sealing A.F.F.F effect. Passed Electricity conductivity test as EN3 requirements.

Foam Sealfire S extinguishers are the best restaurant kitchen These models with internal cartridges allow professional and easy maintenance.

> The Sealfire S additive is sealed in a small plastic cartridge which is released only at the moment of the activation.

> The superior fire fighting capability of the Sealfire S agent is placed exactly where you aim it with no chemical residue to clean up. Optional: antifreeze -30°C for cold environments zones. PLASTCOAT gives 10 year guarantee against internal corrosion







## Foam cartridge 33397 Sealfire S Used for the extinguisher 6 and 9 lt foam internal cartridge. Lifetime at least 5 years The diameter is 4,5 cm height 19 cm. The seal breaks when CO2 cartridge operated and it mix immediately with water

Code	Lt	Ø	Kg	Н	Jet	Time	Pallet 80x120	
	sealfire	mm	full~	mm~	mm~	sec~	Q.ty	kgs
13367	6	160	11.5	550	5	24	72	828
13394	9	190	15	550	5	35	40	600

### 9 Its LIFEWATER®

LIFEWATER is a special additive added to pure water which improves performances in fires of class A such us, paper, textiles, woods.

Typically used in schools, hotels, hospitals.

It is totally clean, without foam, 100% biodegradable and zero pollution.

Fully respect the environment.

The special nozzle discharges very fine drops of water, and has passed EN3 electricity conductivity test as EN3; suggest use until 1000 volt without any danger.

All fire extinguishers with Foam SEALFIRE or LIFEWATER, has the cylinder with internal coating PLASTCOAT which is guaranteed 10 years against corrosion.

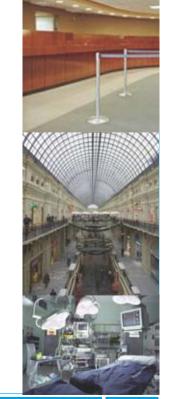
Optional: cylinder stainless steel, antifreeze, enabling its use at very low temperature till -30°C

no residues

**DIELECTRIC** non conductive **CLEAN** 

**LIFEWATER** only water + additive **Ø POLLUTION** 100 % biodegradable





Code	Lt	Ø	Kg	Н	Jet	Time	Palle	t 80x120
	water	mm	full~	mm~	mm~	sec~	Q.ty	kgs
13393	9	190	15.3	655	5	38"	40	640

# Clean Green, Clean Blue, Foxer S



Clean Agent, Cleangreen, and Foxer S® are extinguishant gases ecologic and clean. Main components is a blend of HFC236, HFC 227, HFC 134, recognized in the NFPA 2001 and accepted by EPA without limitations. They do not leave residue after the discharge. They are safe for the environments, do not damage the ozone layer and are safe for humans and live animals.

They are ideal replacements of banned BCF halon 1211.

They are not electrical conductive, do not leave any residues, do not creates thermal shocks and it is ideal and unique protection for electronic equipments.

Comparing with dry powder which leaves a lot of dirty residual, and comparing with foam that cannot be used on computers, become the unique ideal products.

These products are perfect protection for valuable places, were cleaness is essential such as, shops, museums, libraries, archives, banks, computer rooms, telecommunications facilities, switchboards. Due to rapid vaporization of the gas they are excellent for indoor fires, and have to be limited outdoor only for critical uses. Although not tested for class A fires, Foxer S is as excellent as the CleanBlue, having almost the same chemical compositions.

#### Fire test with Foxer portable fire extinguisher, clean, no residuals.









Fire test with Powder ABC portable fire extinguisher, dirty and residuals.











#### **ADVANTAGES**

Do not leave residues Safe for humans, animals. **Ecologic** 

No termal shockes on computers.

Do not have law limitations. Excellent for indoor use for any initial fire in offices involving paper, electronics equipments.

#### **ENVIRONMENTALLY ACCEPTABLE**

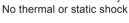
EPA approved as "Clean Agent" for Class A, B, use of HFC 236, HFC 227, HFC 134. Low GWP (Global Warming Potential) ZERO ODP (Ozone Depletion Potential) Short Atmospheric Lifetime

#### **CLEAN**

Leaves no residue

#### **USER FRIENDLY**

Maximum visibility during discharge No electrical conductivity back to the operator









13461	
Kg 6	
113B	

			_						
	Code	Kg	Ø	Kg	Н	Jet	Time	Pallet	80x120
			mm	full~	mm~	mm~	sec~	Q.ty	kgs
Ī	13420	2	130	4.1	425	5	14	576	1.150
	13461	6	160	9.7	530	5	24	132	910
ĺ	13410	1	85	2	335	2	10	576	1.150
	13440	4	140	6.8	485	3	25	132	910

Foxer S Foxer S Clean Blue Clean Green

# **Automatic fire extinguishers**



Its activation does not require any source of energy. It is equipped with a sprinkler head with a termosensible bulb. It is normally installed just up to the fire risk area. The working temperature normally is choosen nearly 30°C over the higher reacheable in the area risk. Tipically used in heater rooms, storage in Stainless steel of flammable liquids, unattended areas.





#### Powder

Is highly efficient however it need a deep cleaning of the room in case of activation

Code	Kg	Mq~	D mm	H mm	
15103	2	2	190	190	
15105	4	6	245	350	
15109	6	9	245	350	
15111	10	12	245	450	
15110	12	14	245	450	

#### Foam Sealfire®

Foam is specially used in fires of flammable liquids contained in flat containers.

The foam floats over the flammable liquids sealing the fire from reignition and flasback. Much more clean than powder.

Code	Lt	Mq~	D mm	H mm
15112	6	4	245	350
15113	10	8	245	450
15114	20	12	360	450

#### HFC 227 extinguisher

Is a clean gas, does not leave any residue, no need cleaning, the gas quicly knocks down the flames in seconds. Versus foam or powder is more expensive but the time saved for cleaning worth its cost ten times.

Code	Kg	D mm	H mm	M <sup>3</sup> *
15109H	6	245	350	10
15110H	12	245	450	20
15225H	24	360	450	40

\* Suggestions of choice must be given from the expertized technichian: As general rule in closed rooms:

12 kg is good for an area of 9/10 M2 or a volume of 25 M3 - Sealfire® Foam 20 Lt is good for an area of 15 Mg Gas HFC 227 24 KG is good for a volume of 40 M3. Use only indoor. The volume protected is less if room has small aperture.

### PYROKEY® KITCHEN FIRE SYSTEM

Heavy greases and sticky smokes, continuously accumulates inside the aspirating ducts, on filters and

on exhaust fan of kitchen hood, are a real potential fires hazard point. Any small sparks, caused by fans or if aspirated from the cooking top, could break out an unexpected fire inside the ducts; this fire is practically unreachable with standard and usual portable extinguishers that are also considered ineffective on such greased film extended inside the air

As before said, it is inconceivable to the use of portable powder, CO2 extinguishers due the inefficiency on these kind of extinguishants. Pyrokey is the special formulated product to be used in all kitchen fires. Our system is pre-engineered, automatic and it is equipped with a control panel powered 220V 50/60Hz and rechargeable battery 12V, with optical LED and sound bell.

Pyrokey is a water based product premixed with some chemical additives; it has a fast cooling effect on the burning area, the fat / grease material will be soaked by Pyrokey and its reactions forms a thick heat resistant foam layer that stops and prevents the combustion. After intervention, Pyrokey is easy to remove, washing the area using water only.

Pyrokey is the safe product adopted by major fast-food networks and hotels. In most countries all communities and restaurants is compulsory to protect their kitchen. Pyrokey unit has a guick installation and very simple maintenance. Foam mixture, a special formula for "class F" fires, must be replaced every 10 years only.

Pyrokey system can be activated manually or automatically. It stops automatically the main gas supplying LPG to the kitchen system.

#### PYROKEY® system thermostatic detection 15400

#### **PYROKEY®** system includes:

Cylinder loaded with Sealfire class F complete with valve

- Aluminium pipe for electric wire protection with couplings
- Antifire electric wire
- Detectors temperature set 141°C;
- Galvanized steel pipe with Couplings and brackets
- Spray nozzles
- Wall or floor bracket for the cylinder:
- Control panel with rechargeable battery 12V - 2Ah including voltage transformer (from 230V to 12V);



#### 15401 PYROKEY® system with fusible link no power supply

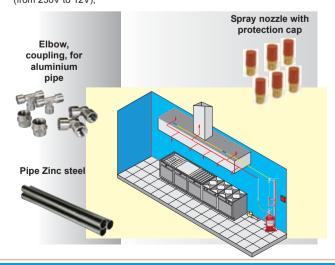
#### PYROKEY® system includes:

Cylinder loaded with Sealfire class F complete with valve;

Frame

- Fusible link set 138°C;
- Galvanized steel pipe with couplings and brackets:
- Spray nozzles with protection caps;
- Local manual actuator
- Remote actuator pull box
- Pulleys with wire steel
- Pressure switch;
- Electrovalve G1/2" -12V DC shut OFF for gas LPG





12 / 30 / 50 /100 Litres stainless steel cylinders

# WHEELED FIRE EXTINGUISHERS



The largest range of wheeled fire extinguishers available approved EN 1866-1

## Trolley fire extinguishers dry chemical powder

### STORED PRESSURE

#### N2 or CO2 CYLINDER OPERATED



### **Trolley fire extinguishers Foam A.F.F.F.**

# FOAM SEALFIRE A.F.F.F. Permanent stored pressure

# FOAM SEALFIRE A.F.F. N2 or CO2 Cartridge operated



### **Trolley fire extinguishers Carbon dioxide CO2**



1



# **KG 25**

Best quality German powder ABC multipurpose, Furex, or Total. Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent manouvrability.

#### Produced in 3 version:

Stored pressure. CO2 Cartridge N2 Cartridge

#### **Options:**

- Additional horn
- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.





Swivel coupling It allows easy unrolling of the hose avoiding twisting



On request available with N2 pressure reducer





Frame yellow for better visibility (on request red or black). No welding on the cylinder ensure better and higher safety.





The axe and carring handle are welded on he cylinder body, may cause easier corrosion, less safety.



#### Standard



18130 1

Optional









#### \* Stainless steel cylinder All types fire class approved A IVB

	Code	Type	Туре	Jet	Discharge	Std. pac	king dime	nsion for ti	ransport
	Most popular	of	of valve	length	time	Height	Width	Depth	Weight
	Most popular	frame	or cap	mt~	sec~	mm~	mm~	mm~	kg~
				STORED	PRESSURE				
	18130	Welded	2"	11	25"	1.020	430	535	55
	18130_1	Detachable	2"	11	25"	1.080	430	535	55
			CO2	EXTERN	AL CARTRI	OGE			
	18131	Welded	2"	11	25"	1.020	430	535	60
	18131_1	Welded	4"	11	25"	1.020	430	535	60
	18131_2	Detachable	4"	11	25"	1.020	430	535	60
*	18131_5	Detachable	2"	11	25"	1.020	430	535	60
	18131_7	Detachable	2"	11	25"	1.020	430	535	60
			NITROG	<b>EN EXTE</b>	RNAL CART	RIDGE			
	18131_10	Welded	2"	11	25"	1.020	430	535	60
	18131_11	Welded	4"	11	25"	1.020	430	535	60
	18131_12	Detachable	4"	11	25"	1.020	430	535	61
	18131_17	Detachable	2"	11	25"	1.020	430	535	61



**KG 50** 

Best quality German powder ABC multipurpose, **Furex**, **or Total**. Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent manouvrability.

#### Produced in 3 version:

Stored pressure. CO2 Cartridge N2 Cartridge

#### Options:

- Aluminium horn
- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.







Swivel coupling
It allows easy unrolling of the hose avoiding twisting



On request available with N2 pressure reducer



#### Standard



Optional



Stored pressure







#### \* Stainless steel cylinder All types fire class approved A IVB

	Code	Туре	Туре	Jet	Discharge	Std. pac	king dimer	nsion for t	ansport
		of	of valve	length	time	Height	Width	Depth	Weight
	Most popular	frame	or cap	mt~	sec~	mm~	mm~	mm~	kg~
STORED PRESSURE									
	18164	Welded	2"	11	43"	1.050	450	550	80
	18164_1	Detachable	2"	11	43"	1.120	450	550	80
			CO2	EXTERN	AL CARTRIE	OGE			
	18163	Welded	2"	11	41"	1.050	450	550	85
	18163_1	Welded	4"	11	41"	1.050	450	550	85
	18163_2	Detachable	4"	11	41"	1.050	450	550	85
*	18163_5	Detachable	2"	11	41"	1.050	450	550	85
	18163_7	Detachable	2"	11	41"	1.050	450	550	85
			NITROG	<b>EN EXTE</b>	RNAL CART	RIDGE			
	18163_10	Welded	2"	11	41"	1.050	450	550	85
	18163_11	Welded	4"	11	41"	1.050	450	550	85
	18163_12	Detachable	4"	11	41"	1.050	450	550	87
	18163_17	Detachable	2"	11	41"	1.050	450	550	87



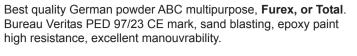
# **KG 100**

Produced in 3 version:

Stored pressure. CO2 Cartridge N2 Cartridge

#### Options:

- Aluminium horn
- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.









Swivel coupling
It allows easy unrolling of the hose avoiding twisting



On request available with N2 pressure reducer



Standard



Optional



Stored pressure







\* Stainless steel cylinder All types fire class approved A IVB

	Code	Type	Type	Wheels	Jet	Discharge	Std. pac	king dimer	nsion for t	ansport
	Most popul	ar of	of valve	diameter	length	time	Height	Width	Depth	Weight
		frame	or cap	mm~	mt~	sec~	mm~	mm~	mm~	kg~
				S1	ORED	PRESSURE				
	18181	Welded	2"	300	12	99"	1.290	540	700	155
	18181_1	Detachable	2"	400	12	99"	1290	540	700	155
	CO2 EXTERNAL CARTRIDGE									
	18166	Welded	2"	300	12	99"	1.290	540	700	85
	18166_1	Welded	4"	400	12	99"	1.290	540	700	166
	18166_2	Detachable	4"	300	12	99"	1.290	540	700	160
*	18166_5	Detachable	4"	400	12	99"	1.290	540	700	166
	18166_7	Detachable	2"	400	12	99"	1.290	540	700	166
			1	VITROGE	N EXTE	RNAL CART	RIDGE			
	18166_10	Welded	2"	300	12	99"	1.290	450	550	160
	18166_11	Welded	4"	300	12	99"	1.290	540	700	160
	18166_12	Detachable	4"	400	12	99"	1.296	540	700	166
	18166_17	Detachable	2"	400	12	99"	1.296	540	700	166



# Lt 25 & 50

Produced in 2 version, stored pressure: from 0 to 60°C and antifreeze up to -60°C.

#### Options:

- Hose from 5 up to 10 mt.
- Detachable frame may be colored, red, or black.
- Antifreeze up to -30°C

Top quality AFFF SEALFIRE, has the best sealing effect, specially developed for use in portables and trolleys extinguishers.

Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent maneuverability.

These trolleys are a must in high risk areas such us refinery, flammable storage, warehouse of textiles, papers, rubber.





Swivel coupling It allows easy unrolling of the hose avoiding twisting



#### Stored pressure



#### Replacement spare charge for foam

31303 It 50 31303\_1 It 100 **31303\_2** It 150

Ready to use, just mix with water. Instructions included.



#### All types fire class approved A IVB

STAINLESS STEEL cylinder or as alternative cheaper coated inside against corrosion Stainless steel (X) Painted inside Optional: Antifreeze up to -30°C

	Code	Туре	Туре	Jet	Discharge		king dimen		
	Most popular	of	of valve	length	time	Height	Width	Depth	Weight
		frame	or cap	mt~	sec~	mm~	mm~	mm~	kg~
			25 Lt	s STORE	D PRESSU	RE			
*	18225	Welded	2"	8	34"	1.020	390	535	60
*	18225_1	Detachable	2"	8	34"	1.020	390	535	61
X	18225_2	Welded	2"	8	34"	1.020	390	535	60
X	18225_3	Detachable	2"	8	34"	1.020	390	535	61
			50	Lts STO	DRED PRES	SURE			
*	18251	Welded	2"	8	45"	1.140	450	550	80
*	18251_1	Detachable	2"	8	45"	1.140	450	550	82
X	18251_2	Welded	2"	8	45"	1.140	450	550	80
X	18251_3	Detachable	2"	8	45"	1.140	450	550	82

1



# Foam Sealfire A.F.F.F CO2 or N2 cartridge

# Lt 50

Produced in 2 version:

CO2 Cartridge N2 Cartridge

Top quality AFFF SEALFIRE, has the best sealing effect, specially developed for use in portables and trolleys extinguishers.

Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent maneuverability.

These trolleys are a must in high risk areas such us refinery, flammable storage, warehouse of textiles, papers, rubber.

#### Options:

- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.
- Antifreeze up to -30°C





Swivel coupling It allows easy unrolling of the hose avoiding twisting



On request available with N2 pressure reducer



### Standard



Optional



2" valve.







#### All types fire class approved A IVB

STAINLESS STEEL cylinder or as alternative cheaper coated inside against corrosion Optional: Antifreeze up to -30°C Stainless steel (X) Painted inside

	Code	Туре	Type	Jet	Discharge	Std. pac	king dime	nsion for	transport
	Most popula	r of	of valve	length	time	Height	Width	Depth	Weight
		frame	or cap	mt~	sec~	mm~	mm~	mm~	kg~
			СО	2 EXTER	RNAL CART	RIDGE			
*	18260	Welded	2"	8	47"	1.145	455	550	85
*	18260_1	Welded	4"	8	47"	1.145	455	550	85
*	18260_2	Detachable	4"	8	47"	1.145	455	550	85
X	18260_3	Welded	2"	8	47"	1.145	455	550	85
X	18260_4	Welded	4"	8	47"	1.145	455	550	85
X	18260_5	Detachable	4"	8	47"	1.145	455	550	85
X	18260_6	Detachable	2"	8	47"	1.145	455	550	85
*	18260_7	Detachable	2"	8	47"	1.145	455	550	85
			NITRO	GEN EX	TERNAL CA	ARTRIDG	Ε		
*	18260_10	Welded	2"	8	47"	1.145	455	550	85
*	18260_11	Welded	4"	8	47"	1.145	455	550	85
*	18260_12	Detachable	4"	8	47"	1.145	455	550	85
X	18260_13	Welded	2"	8	47"	1.145	455	550	85
X	18260_14	Welded	4"	8	47"	1.145	455	550	85
X	18260_15	Detachable	4"	8	47"	1.145	455	550	85
X	18260_16	Detachable	2"	8	47"	1.145	455	550	85
*	18260_17	Detachable	2"	8	47"	1.145	455	550	85

# Lt 100

#### Produced in 3 version:

Stored pressure. CO2 Cartridge N2 Cartridge



Standard



Optional



Handwheel 2" valve.





Stored pressure Top quality AFFF SEALFIRE, has the best sealing effect, specially developed for use in portables and trolleys extinguishers.

Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent maneuverability.

These trolleys are a must in high risk areas such us refinery, flammable storage, warehouse of textiles, papers, rubber.

#### Options:

- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.
- Antifreeze up to -30°C





#### All types fire class approved A IVB

STAINLESS STEEL cylinder or as alternative cheaper coated inside against corrosion

	* Stainless	steel (	X) Painte	d inside	Option	nal: Antifi	eeze up	to -30°C	
	Code	Type	Туре	Jet	Discharge	Std. pacl	king dime	nsion for t	ransport
	Most popula	r of	of valve	length	time	Height	Width	Depth	Weight
		frame	or cap	mt~	sec~	mm~	mm~	mm~	kg~
				STORE	D PRESSU	RE			
*	18281	Welded	2"	8	99"	1.330	550	700	160
*	18281_1	Detachable	2"	8	99"	1.330	550	700	166
Х	18281_2	Welded	2"	8	99"	1.330	550	700	160
X	18281_3	Detachable	2"	8	99"	1.330	550	700	166
			СО	2 EXTER	RNAL CART	RIDGE			
*	18289	Welded	2"	8	99"	1.335	550	670	160
*	18289_1	Welded	4"	8	99"	1.335	550	670	160
*	18289_2	Detachable	4"	8	99"	1.335	550	670	166
X	18289_3	Welded	2"	8	99"	1.335	550	670	160
X	18289_4	Welded	4"	8	99"	1.335	550	670	166
X	18289_5	Detachable	4"	8	99"	1.335	550	670	166
X	18289_6	Detachable	2"	8	99"	1.335	550	670	166
*	18289_7	Detachable	2"	8	99"	1.335	550	670	160
			NITRO	<b>GEN EX</b>	TERNAL CA	ARTRIDG	E		
*	18289_10	Welded	2"	8	99"	1.335	550	670	160
*	18289_11	Welded	4"	8	99"	1.335	550	670	160
*	18289_12	Detachable	4"	8	99"	1.335	550	670	166
X	18289_13	Welded	2"	8	99"	1.335	550	670	160
X	18289_14	Welded	4"	8	99"	1.335	550	670	160
X	18289_15	Detachable	4"	8	99"	1.335	550	670	166
X	18289_16	Detachable	2"	8	99"	1.335	550	670	166
*	18289_17	Detachable	2"	8	99"	1.335	550	670	166



# Lt 150

Top quality AFFF SEALFIRE, has the best sealing effect, specially developed for use in portables and trolleys extinguishers.

Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent maneuverability.

These trolleys are a must in high risk areas such us refinery, flammable storage, warehouse of textiles, papers, rubber.

#### Produced in 2 version:

CO2 Cartridge N2 Cartridge

#### Options:

- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.
- Antifreeze up to -30°C





Swivel coupling It allows easy unrolling of the hose avoiding twisting



On request available with N2 pressure reducer



Optional: Antifreeze up o -30°C

Std. packing dimension for transport

Depth

mm~

900

900

900

900

900

900

900

Weight

kg~

230

230

234

230

230

234

234

#### All types fire class approved A IVB

Detachable

Stainless steel

18284\_6

STAINLESS STEEL cylinder or as alternative cheaper coated inside against corrosion

Type Jet Discharge

	Most popula	of frame			time sec~	Height mm~	Width mm~
			СО	2 EXTER	RNAL CART	RIDGE	
*	18284	Welded	2"	8	150"	1.380	700
*	18284_1	Welded	4"	8	150"	1.380	700
*	18284_2	Detachable	4"	8	150"	1.380	700
X	18284_3	Welded	2"	8	150"	1.380	700
X	18284_4	Welded	4"	8	150"	1.380	700
	1828/ 5	Dotachable	A"	Q	150"	1 390	700

(X) Painted inside

*	18284_7	Detachable	2"	8	150"	1.380	700	900	234
			NITRO	<b>GENEX</b>	TERNAL CA	RTRIDG	E		
*	18284_10	Welded	2"	8	150"	1.380	700	900	230
*	18284_11	Welded	4"	8	150"	1.380	700	900	230
*	18284_12	Detachable	4"	8	150"	1.380	700	900	234
X	18284_13	Welded	2"	8	150"	1.380	700	900	230
X	18284_14	Welded	4"	8	150"	1.380	700	900	230
X	18284_15	Detachable	4"	8	150"	1.380	700	900	234
X	18284_16	Detachable	2"	8	150"	1.380	700	900	234
*	1929/ 17	Dotachable	2"	Ω	150"	1 390	700	000	234

150"

1.380

700

Large cap 4", 1/4" safety valve, vent valve, gauge.





2" valve , 1/4" safety valve





# **CO2 Carbon Dioxide**

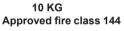


Extremely compact and easy to move and transport. Designed for use in industrial field. Suitable for use on live electrical equipment. It is used to extinguish fires of flammable liquids, switchboards, benzine, oils, varnishes, alcool, etc where needs one extinguishing that it does not have to leave trace of dirt.

Replace oxygen, necessary for the combustion, with inert gas. Good jet and excellent snow horn. Cooling quickly, snow of C02 flows at a temperature of -78°C. It is not advised to be used in small place, if presence of people. Avoid to breathe gas CO2 and after the discharge always leave the area if has been used in closed rooms. Interception valve. High efficient horn.

#### **OPTIONAL: HOSE UP 10 MT**















Code	Type	Cylinder	Туре	Wheels	Jet	Discharge	Std. packing dimensi		sion for transport		
	of	material	of valve	diameter	length	time	Height	Width	Depth	Weight	
	frame		or cap	mm~	mt~	sec~	mm~	mm~	mm~	kg~	
18311_2	10 kgs	154	25 E	300	4	17"	900	350	1.045	38	
18321	20 kgs	203	25 E	300	4	32"	1000	470	990	70	Ļ
18321_6	20 kgs	232	25 E	300	4	32"	970	400	600	70	st
18322	30 kgs	230	25 E / 1"	300	4	35"	1140	490	1.150	85	01
18352	50 kas	270	1"	400	4	52"	1435	650	1 400	156	١





standard vellow optional Red or Black

# **Twin Agents**

Code	Powder		Powder		Powder		Powder		Foam	Dimension cm	Weight	jet	Discharge
	Kg		Kg Lt		Kg ~	mt ~	time						
19001	50	+	50	122x104x127	190	8+8	30+30"						
19002	100	+	100	128x110x127	300	10+10	50+50"						



Twin Agents, consisting of a single frame mounting two cylinders, one with dry Powder and one with Foam. Wheels are mounted on roller bearings.

Easy manouvrability, designed for use by one person, allows to push the unit forward, or pulling. It can also be equipped with truck towing eye.

Dry powder may be Monnex, sodium bicarbonate, potassium bicarbonate Purple K, Potassium sulphate or ABC 90% of MAP. The combined action makes them unbeatable in the fight against the fire.

On large fires of flammable liquids, the action of the foam sealing effect Sealfire, creates a fast knock down of the flames and reduce the heat; if not totally extinguished the scene of fire can be approched easily, use dry powder and get the final positive result.

Twin agents are indicated and essential in airports, refineries, large deposits of liquid flammable dangerous goods stores and stacking flammable.

Unique system allow the pressurization in less than 10 seconds of bot cylinders, than a second cylinder with a pressure reducer garant the constant pressure discharging completely without internal residue.

The cylinder containing the foam is made of stainless steel.

Version with towing eye and bigger sizes on request.



Machine guns 2 lt / Kg per sec high flow. Hoses has swivelling connectors and both can be operated by one person.

# Trolley fire extinguisher special version for Airports



#### 100 kg version used in airport areas.

Loaded with versatile high efficiency dry powder multipurpose ABC 90% MAP.

The model can be easily manouvred by hand or car towed

Optional stainless steel cylinder

12153 100 KG

approx weight 250 Kg

# Trolley fire extinguisher from 250 to 500 kg

Description	code			
-	19003	19004		
Powder ABC	250	500		
Lenght mm	2.460	2.920		
Width mm	1.600	1.590		
Height mm	1.500	1.600		
Weight kg	500	1.250		

Special model on request

Car or truck towed, equiped with lights, flashing lights indicators, brake lights. Plug with repeating signals to the car.

The cylinder is made in according to PED 97/23 and "CE" marking. Complete with two boxes galvanized steel, hose mt 10 for powder discharge and complete with interception machine gun: discharge rate 2 kg/sec.

Unique system allow immediate pressurization and constant pressure for all discharge time with almost zero residual. Complete with valve for internal cleaning of dry powder hoses after use or in case of partial discharge. The trolley is made in zinc coated steel, with two wheels diameter 145 SR -10" or 6.70 - 14".





Standard hook







# Dry powder Approved MED, for marine use



Best quality dry powder utilize a specially fluidized and siliconized mono ammonium phosphate dry chemical (MAP) certified EN615.

It chemically insulates Class A fires by melting at approximately 170°C and coats surface to which it is applied. It smothers and breaks the chain reaction of Class B fires and will not conduct electricity back to the operator. Excellent on class C fires. Not conductive of electricity.

Cheap, efficacy, multipurpose.

Dirty, it require hard work for cleaning after use. Low visibility during discharge.

FOR ALL MARINE RANGE, ON REQUEST FOR OFFSHORE APPLICATIONS:

Zinc primer + Top coat -High thickness > 150 um Special treatment for highy corrosive salts environment











#### Pallet 80x120 Code Kg Ø Kg н Jet Time full~ Powder mt~ seckgs 85 576 1.150 2 335 14111 4 14121 110 3.3 370 5 12" 288 1.000 2 14122 2 115 3.1 310 5 14" 240 860 14132 3 130 5.1 425 5 16" 132 670 14142 4 140 6.8 485 5 16" 132 910 530 7 18,5' 750 14160 160

standard supplied with wire steel bracket

# Standard wall bracket

From 3 kg to 12 kg. Suitable for hook on the brass valve.

## Optional brackets

Suitable for cylinders with hook welded on the back.













14161

14160 Kg 6

14169 Kg 6

34 A 233BC

43 A 233BC

55 A 233BC

Cylinders available in stainless steel and as non magnetic assembly.



14191 Kg9

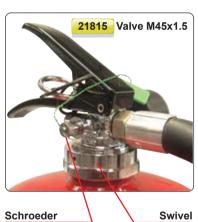
14172 Kg 12

233BC

55 A 233BC

20523 Gauge





Schroeder check valve + locked seal.

21162

Back hook, ensure better stability. Large capacity cylinder (8.4 Lt) benefits for the longer jet and constant pressure, and foot without welding ensure insulation from ground avoiding bottom part under pressure to suffer corrosion.

neck ring



Standard bracket back hook

20052

13163 Kg 6

34 A 233BC

Gauge bourdon 40 mm threadh npt unmovable.

Foot and bottom manufactured in single pressing process: Will never rust.



Code	Kg	Ø	Kg	н	Jet	Time	Time Pallet 80x	
	Powder	mm	full~	mm~	mt~	sec~	Q.ty	kgs
14161	6	160	9.7	500	7	18,5"	72	745
14162	6	160	10	610	7	18,5"	72	745
14169	6	160	10.1	570	7	18,5"	72	755
14169_1	6	160	10.1	570	7	18,5"	72	755
14191	9	190	14	600	7	18"	40	580
14172	12	190	17.5	660	7	24"	40	730

21161 Safety valve preassembled. **Bursting disc** 

fast release.



# Cartridge dry powder Approved MED, for marine use ( 1370 Directive







Extinguishers with internal CO2 cartridges allow better and professional maintenance. Big M74 big filling cap allows the inspection of dry powder and the checking of the weight of the CO2 cartridge. More expensive compared with stored pressure, it is indicated when reliability in professional sites is the priority.



14167 Kg 6 34 A 233BC



14194 Kg 9 55 A 233BC



14173 Kg 12

55 A 233BC

## Internal cartridge Portable fire extinguishers PURPLE K or MONNEX Powder





14168 Kg 6

233BC



MONNEX

14193 Kg 9

233BC

Standard wall bracket
Hook is welded on the back of cylinder.

Opti	onal brackets
20919	6 kg
20919_1	9 kg
Steel back wall holder a latch closure	



Code	Kg Powder	Ø mm	Kg full~	H mm~	Jet mt~	Time sec~	Pallet Q.ty	80x120 kgs
14167	6	160	10.7	470	7	18"	72	795
14168	6	160	10.7	470	7	18"	72	795
14193	9	190	16	605	7	19"	40	670
14194	9	190	16	545	7	19"	40	670
14173	12	190	18.5	605	7	19"	40	790

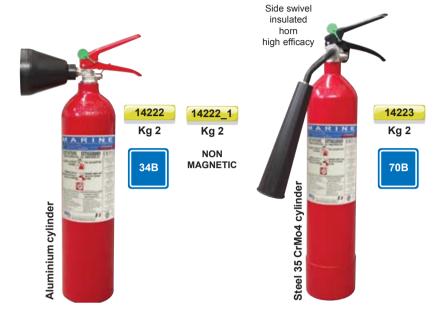




CO2 carbon dioxide, is excellent against fires involving flammable gases Class B. EN 3 standard do not require testing on Class C, and although excellent is suggested shut down the source of gas leakage.

Limited capacity on class A for initial fires when not embers involved. Not conductive of electricity.









Standard	wall brackets
Suitable for hoo	k on the brass valve.
<b>21009</b> 2 kg	<b>21001</b> 5 kg



Code	Kg	Ø	Kg	Н	Jet	Time	Pallet 80x120	
	CO2	mm	full~	mm~	mt~	sec~	Q.ty	kgs
14221	2	105	6.5	560	3	8"	100	810
14222	2	111	5	535	3	8"	100	610
14223	2	105	6.5	560	3	10"	100	810
14251	5	136	14	735	3.5	12"	50	735
14252	5	152	12	720	3.5	12"	50	600
14253	5	136	15	690	3	14"	50	735

Vehicle Brackets					
9	20061	2 kg steel 14221			
- 1	20916	2 kg alum 14222			
	20047	5 kg steel 14251			
	20915	5 kg alum 14252			

# Foam Sealfire A.F.F.F Approved MED, for marine use





Official fire test, carried by professional fireman as EN3.7 233 B 6 It Sealfire® 1 minute preburning 900 °C terrific hot After only 5"seconds.

Flames and heat already

5 seconds



Ideal for public places, lodges, stores, airports, supermarkets, hotels,

The powder does not allow good visibility during discharge and can create panic

Sealfire allows full visibility, it has longer discharge time, and the sealing effect protect against flash back.

Special spray nozzle, allows use under electricity limited at 1,000 Volt without danger, while tested at 35,000 Volt according to EN3/7

European Standard.

- Longer time of discharge!
- Visibility for the entire time of discharge
- Not dirty! Water 98% + 2% additive
- Ecological, biodegradable to 99,8%
- Easier use against flammable liquids, cooling and sealing effect, no flashback.





High design and style, stand

foot, swivel valve, high volume

of cylinder allow longer jet and

professional performances.

After only 10"seconds. Flames are almost down due to sealing effect.

#### 10 seconds





#### 15 seconds

After 15 second. Sealing effect is complete. Reignition is no more possible



This model is ideal for homes, small restaurants, campings,





Time

sec~

12"

16"

30"

45"

30"

38"

38"

SEALFIRE F, and

extending lance gives best performance against fires of oils and fat fires.





Pallet 80x

Q.ty

288

132

72

72

40

40

40



x120	
kgs	
1.000	
670	
755	
755	
640	
640	
640	

Optionals Plastic foot

Metal hose holder

	_
20015	Lt 6
20015	Lt 9



21049

21048

Lt 6

34 A



Code

14320

14331

14361

14365

14366

14391

Kg

Sealfire

2

3

6

6

6

9

Kg

full~

3.75

5.2

10.3

10.5

10.3

15

15

Н

mm-

405

425

570

570

600

635

635

Jet

mt~

3

4

5

5

5

7

7

mm

110

130

160

160

160

190

# Foam Sealfire A.F.F.F Approved MED, for marine use



Foam Sealfire S extinguishers are the best restaurant kitchen appliance hand portable fire extinguishers you can purchase. Both have been tested and approved for oils and fat fires of restaurant kitchen hazards.

Superb performances on flammable liquids fires as well on class A fires with strong cooling and sealing A.F.F.F effect. These models with internal cartridges allow professional and easy maintenance. The Sealfire S additive is sealed in a small plastic cartridge which is released only at the moment of the activation. The superior fire fighting capability of the Sealfire S ensure hih perormance, no chemical residue to clean up. Optional: antifreeze -30°C for cold environments zones. PLASTCOAT polithen inside, gives 10 year guarantee against internal corrosion.







Code	Lt	Ø	Kg	Н	Jet	Time	Pallet	80x120
	sealfire	mm	full~	mm~	mm~	sec~	Q.ty	kgs
14362	6	160	11.5	550	5 24 7		72	828
14392	9	190	15	550	5	35	40	600

### 9 Its LIFEWATER®

LIFEWATER is a special additive added to pure water which improves performances in fires of class A such us, paper, textiles, woods.

Typically used in schools, hotels, hospitals.

It is totally clean, without foam, 100% biodegradable and zero pollution.

Fully respect the environments.

The special nozzle discharges very fine drops of water, and can be used on fires involved with electricity until 1000 volt without any danger.

All fire extinguishers with Foam SEALFIRE or LIFEWATER, has the cylinder with internal coating PLASTCOAT which is guaranteed 10 years against corrosion.

Optionals: cylinder stainless steel, antifreeze, enabling its use at very low temperature till -30°C

**DIELECTRIC** non conductive

**CLEAN** no residues

**LIFEWATER** only water + additive Ø POLLUTION 100 % biodegradable









Code	Lt	Ø	Kg	Н	Jet	Time	Palle	t 80x120
	water	mm	full~	mm~	mm~	sec~	Q.ty	kgs
14393	9	190	15.3	655	5	38"	40	640

# Clean Green, Clean Blue Approved MED, for marine use







Clean Agent, Cleangreen, and Foxer S® are extinguishant gases ecologic and clean. Main components is a blend of HFC236, HFC 227. HFC 134, recognized in the NFPA 2001 and accepted by EPA without limitations. They do not leave residue after the discharge. They are safe for the environments, do not damage the ozone layer and are safe for humans and live animals.

They are ideal replacements of banned BCF halon 1211.

They are not electrical conductive, do not leave any residues, do not creates termal shocks and it are ideal and unique protection for electronic equipments.

Comparing with dry powder which leaves a lot of dirty residual, and comparing with foam that cannot be used on computers, become the unique ideal products.

These products are perfect protection for valuable places, were cleaness is essential such as, shops, museums, libraries, archives, banks, computer rooms, telecommunications facilities, switchboards. Due to rapid vaporization of the gas they are excellent for indoor fires, and have to be limited outdoor only for critical uses. Although not tested for class A fires, Foxer S is as excellent as the CleanBlue, having almost the same chemical compositions.

#### Fire test with Foxer portable fire extinguisher.









#### **ADVANTAGES**

Do not leave residues. Safe for humans, animals.

**Ecologic** 

No termal shockes on computers.

Do not have laws limitations.

Excellent for indoor use for any initial fire in offices involving paper, elctronics equipments.

Fire test with Powder ABC portable fire extinguisher.









#### **ENVIRONMENTALLY ACCEPTABLE**

EPA approved as "Clean Agent" for Class A, B, use of HFC 236, HFC 227,

Low GWP (Global Warming Potential) ZERO ODP (Ozone Depletion Potential)

Short Atmospheric Lifetime

#### **CLEAN**

Leaves no residue

#### **USER FRIENDLY**

Maximum visibility during discharge No electrical conductivity back to the operator

No thermal or static shock





	Code	Kg	Ø mm	Kg full~	H mm~	Jet mm~	Time sec~	Pallet Q.ty	kgs
	14410	1	85	2	335	2	10	576	1.150
14440		4	140	6.8	485	3	25	132	910

Clean Blue Clean Green



# WHEELED FIRE EXTINGUISHERS MED MARINE



The largest range of wheeled fire extinguishers available approved MED MED 96/98 EC, N° A.1/3.52 Certificate CSI 0497

## Trolley fire extinguishers dry chemical powder

#### STORED PRESSURE

#### **N2 or CO2 CARTRIDGE OPERATED**



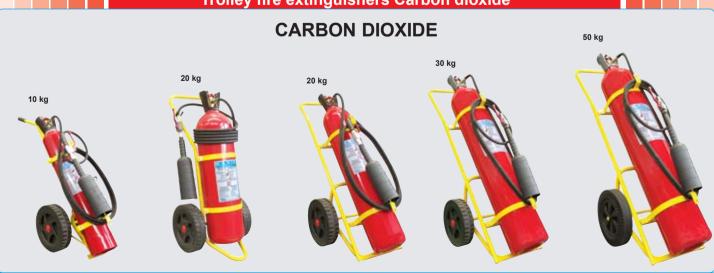
### Trolley fire extinguishers Foam A.F.F.F.

#### PERMANENT STORED PRESSURE

### **N2 or CO2 CARTRIDGE OPERATED**



# Trolley fire extinguishers Carbon dioxide



# Dry chemical powder Approved MED, marine use





# **KG 25**

Best quality German powder ABC multipurpose, Furex, or Total. Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent manouvrability.

Detachable frame

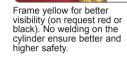
#### Produced in 3 version:

Stored pressure. CO2 Cartridge N2 Cartridge

#### **Options:**

- Additional horn
- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.





#### Welded frame.



The axe and carring handle are welded on he cylinder body, may cause easier corrosion, less safety.





Swivel coupling It allows easy unrolling of the hose avoiding twisting



On request available with N2 pressure reducer



### Standard



Optional









#### Stainless steel cylinder All types fire class approved A IVB

					• •				
	Code	Туре	Type	Jet	Discharge	Std. pac	king dimer	nsion for t	ansport
	Most popular	of	of valve	length	time	Height	Width	Depth	Weight
	moot popular	frame	or cap	mt~	sec~	mm~	mm~	mm~	kg~
			;	STORED	PRESSURE				
	14133	Welded	2"	11	25"	1.020	430	535	55
	14133_1	Detachable	2"	11	25"	1.080	430	535	55
			CO2	EXTERN.	AL CARTRIE	GE			
	14134	Welded	2"	11	25"	1.020	430	535	60
	14134_1	Welded	4"	11	25"	1.020	430	535	60
	14134_2	Detachable	4"	11	25"	1.020	430	535	60
*	14134_5	Detachable	2"	11	25"	1.020	430	535	60
	14134_7	Detachable	2"	11	25"	1.020	430	535	60
			NITROG	<b>EN EXTE</b>	RNAL CART	RIDGE			
	14134_10	Welded	2"	11	25"	1.020	430	535	60
	14134_11	Welded	4"	11	25"	1.020	430	535	60
	14134_12	Detachable	4"	11	25"	1.020	430	535	61
	14134_17	Detachable	2"	11	25"	1.020	430	535	61

# Dry chemical powder Approved MED, marine use



# **KG 50**

Best quality german powder ABC multipurpose, Furex, or Total. Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent manouvrability.

#### Produced in 3 version:

Stored pressure. CO2 Cartridge N2 Cartridge

#### **Options:**

- Aluminium horn
- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.







Swivel coupling It allows easy unrolling of the hose avoiding twisting



On request available with N2 pressure reducer



#### Stainless steel cylinder All types fire class approved A IVB













٠,									
	Code	Type	Type	Jet	Discharge	Std. pac	king dime	nsion for t	ransport
	Most popular	of	of valve	length	time	Height	Width	Depth	Weight
		frame	or cap	mt~	sec~	mm~	mm~	mm~	kg~
STORED PRESSURE									
	14164	Welded	2"	11	43"	1.050	450	550	80
	14164_1	Detachable	2"	11	43"	1.120	450	550	80
CO2 EXTERNAL CARTRIDGE									
	14163	Welded	2"	11	41"	1.050	450	550	85
	14163_1	Welded	4"	11	41"	1.050	450	550	85
	14163_2	Detachable	4"	11	41"	1.050	450	550	85
*	14163_5	Detachable	2"	11	41"	1.050	450	550	85
	14163_7	Detachable	2"	11	41"	1.050	450	550	85
			NITROG	<b>EN EXTE</b>	RNAL CART	RIDGE			
	14163_10	Welded	2"	11	41"	1.050	450	550	85
	14163_11	Welded	4"	11	41"	1.050	450	550	85
	14163_12	Detachable	4"	11	41"	1.050	450	550	87
	14163_17	Detachable	2"	11	41"	1.050	450	550	87



# Dry chemical powder Approved MED, marine use



# **KG 100**

Best quality german powder ABC multipurpose, Furex, or Total. Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent manouvrability.

#### Produced in 3 version:

Stored pressure. CO2 Cartridge N2 Cartridge

#### Options:

- Aluminium horn
- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.

# **Optional 21038\_2** Horn in aluminium, shock resistant for 50/100/150 kg.





Swivel coupling It allows easy unrolling of the hose avoiding twisting



On request available with N2 pressure reducer



#### Standard



Optional











#### Stainless steel cylinder All types fire class approved A IVB

				.71						
	Code	Type	Type	Wheels	Jet	Discharge	Std. pac	king dimer	nsion for t	ansport
	Most popul	ar of	of valve	diameter	length	time	Height	Width	Depth	Weight
		frame	or cap	mm~	mt~	sec~	mm~	mm~	mm~	kg~
				S1	ORED	PRESSURE				
	14181	Welded	2"	300	12	99"	1.290	540	700	155
	14181_1	Detachable	2"	400	12	99"	1290	540	700	155
				CO2 E	XTERN	AL CARTRI	OGE			
	14166	Welded	2"	300	12	99"	1.290	540	700	85
	14166_1	Welded	4"	400	12	99"	1.290	540	700	166
	14166_2	Detachable	4"	300	12	99"	1.290	540	700	160
*	14166_5	Detachable	4"	400	12	99"	1.290	540	700	166
	14166_7	Detachable	2"	400	12	99"	1.290	540	700	166
			1	VITROGE	N EXTE	RNAL CART	RIDGE			
	14166_10	Welded	2"	300	12	99"	1.290	450	550	160
	14166_11	Welded	4"	300	12	99"	1.290	540	700	160
	14166_12	Detachable	4"	400	12	99"	1.296	540	700	166
	14166_17	Detachable	2"	400	12	99"	1.296	540	700	166

# Foam Sealfire A.F.F.F Approved MED, marine use



# Lt 25 & 50

**Produced in 2 version, stored pressure:** from 0 to 60°C and antifreeze up to -60°C.

### • ...

- Hose from 5 up to 10 mt.
- Detachable frame may be colored, red, or black.
- Antifreeze up to -30°C

Top quality AFFF SEALFIRE, has the best sealing effect, specially developed for use in portable and trolley . Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent manouvrability.

These trolleys are a must in high risk areas such us refinery, flammable storage, warehouse of textiles, papers, rubber.





Swivel coupling
It allows easy unrolling of
the hose avoiding twisting



#### Stored



#### All types fire class approved A IVB

STAINLESS STEEL cylinder or as alternative cheaper coated inside against corrosion

\* Stainless steel

(X) Painted inside

Optional: Antifreeze up to -30°C

	Code	Туре	Туре	Jet	Discharge	Std. packing dimension for transport		ansport	
	Most popular	of	of valve	length	time	Height	Width	Depth	Weight
		frame	or cap	mm~	sec~	mm~	mm~	mm~	kg~
			25 L	ts STORE	D PRESSUR	E			
*	14225	Welded	2"	8	34"	1.020	390	535	60
*	14225_1	Detachable	2"	8	34"	1.020	390	535	61
X	14225_2	Welded	2"	8	34"	1.020	390	535	60
X	14225_3	Detachable	2"	8	34"	1.020	390	535	61
				50 Lts ST	ORED PRESS	URE			
*	14254	Welded	2"	8	45"	1.140	450	550	80
*	14254_1	Detachable	2"	8	45"	1.140	450	550	82
X	14254_2	Welded	2"	8	45"	1.140	450	550	80
X	14254_3	Detachable	2"	8	45"	1.140	450	550	82

#### Replacement spare charge foam Sealfire

31303 It 50 31303\_1 It 100 31303\_2 It 150



Ready to use, just mix with water. Instructions included.

# Foam Sealfire A.F.F.F Approved MED, marine use



# Lt 50

Top quality AFFF SEALFIRE, has the best sealing effect, specially developped for use in portable and trolley .

Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent manouvrability.

These trolleys are a must in high risk areas such us refinery, flammable storage, warehouse of textiles, papers, rubber.

Produced in 2 versions:.

CO2 Cartridge N2 Cartridge Options:

- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.
- Antifreeze up to -30°C





Swivel coupling
It allows easy unrolling of the hose avoiding twisting



On request available with N2 pressure reducer



#### Standard



Optional





2" valve.





X X

#### All types fire class approved A IVB

STAINLESS STEEL cylinder or as alternative cheaper coated inside against corrosion

Stainless steel (X) Painted inside Optional: Antifreeze up to -30°C

Otalille 3.	3 31001 (	X) I allite	a ilisiae	Optional: Antimeeze up to -50 0							
Code	Туре	Туре	Jet	Discharge	Std. pac	king dime	nsion for	transport			
Most popula	of	of valve	length	time	Height	Width	Depth	Weight			
	frame	or cap	mt~	sec~	mm~	mm~	mm~	kg~			
CO2 EXTERNAL CARTRIDGE											
14260	Welded	2"	8	47"	1.145	455	550	85			
14260_1	Welded	4"	8	47"	1.145	455	550	85			
14260_2	Detachable	4"	8	47"	1.145	455	550	85			
14260_3	Welded	2"	8	47"	1.145	455	550	85			
14260_4	Welded	4"	8	47"	1.145	455	550	85			
14260_5	Detachable	4"	8	47"	1.145	455	550	85			
14260_6	Detachable	2"	8	47"	1.145	455	550	85			
14260_7	Detachable	2"	8	47"	1.145	455	550	85			
		NITRO	GEN EX	TERNAL CA	ARTRIDG	E					
14260_10	Welded	2"	8	47"	1.145	455	550	85			
14260_11	Welded	4"	8	47"	1.145	455	550	85			
14260_12	Detachable	4"	8	47"	1.145	455	550	85			
14260_13	Welded	2"	8	47"	1.145	455	550	85			
14260_14	Welded	4"	8	47"	1.145	455	550	85			
14260_15	Detachable	4"	8	47"	1.145	455	550	85			
14260_16	Detachable	2"	8	47"	1.145	455	550	85			
14260 17	Detachable	2"	8	47"	1.145	455	550	85			

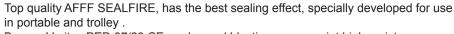
### Foam Sealfire A.F.F.F Approved MED, marine use



# Lt 100

Produced in 3 version:

Stored pressure. CO2 Cartridge N2 Cartridge



Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent manouvrability.

These trolleys are a must in high risk areas such us refinery, flammable storage, warehouse of textiles, papers, rubber.

#### Options:

- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.
- Antifreeze up to -30°C



14289\_4

All types fire class approved A IVB

Swivel coupling It allows easy unrolling of the hose avoiding twisting On request available with N2 pressure reducer 14289 17

2" valve.



Cap 4", large 1" safety valve, vent valve, gauge.



Handwheel 2" valve.



Stored pressure







STAINLESS STEEL cylinder or as alternative cheaper coated inside against corrosion \* Stainless steel (X) Painted inside Optional: Antifreeze up to -30°C

	Stairness steer		(A) Fairited inside		Optional. Antineeze up to -50 C						
	Code	Type	Туре	Jet	Discharge	Std. pac	king dime	nsion for t	ransport		
	Most popula	r of	of valve	length	time	Height	Width	Depth	Weight		
		frame	or cap	mt~	sec~	mm~	mm~	mm~	kg~		
	STORED PRESSURE										
ŀ	14281	Welded	2"	8	99"	1.330	550	700	160		
t	14281_1	Detachable	2"	8	99"	1.330	550	700	166		
(	14281_2	Welded	2"	8	99"	1.330	550	700	160		
(	14281_3	Detachable	2"	8	99"	1.330	550	700	166		
	CO2 EXTERNAL CARTRIDGE										
ŀ	14289	Welded	2"	8	99"	1.335	550	670	160		
t	14289_1	Welded	4"	8	99"	1.335	550	670	160		
t	14289_2	Detachable	4"	8	99"	1.335	550	670	166		
(	14289_3	Welded	2"	8	99"	1.335	550	670	160		
(	14289_4	Welded	4"	8	99"	1.335	550	670	166		
(	14289_5	Detachable	4"	8	99"	1.335	550	670	166		
(	14289_6	Detachable	2"	8	99"	1.335	550	670	166		
ŀ	14289_7	Detachable	2"	8	99"	1.335	550	670	160		
			NITR	OGEN EX	TERNAL CA	RTRIDGE					
t	14289_10	Welded	2"	8	99"	1.335	550	670	160		
t	14289_11	Welded	4"	8	99"	1.335	550	670	160		
t	14289_12	Detachable	4"	8	99"	1.335	550	670	166		
(	14289_13	Welded	2"	8	99"	1.335	550	670	160		
(	14289_14	Welded	4"	8	99"	1.335	550	670	160		
(	14289_15	Detachable	4"	8	99"	1.335	550	670	166		
(	14289_16	Detachable	2"	8	99"	1.335	550	670	166		
t	14289_17	Detachable	2"	8	99"	1.335	550	670	166		

## Foam Sealfire A.F.F.F Approved MED, marine use



# Lt 150

Produced in 2 version:

CO2 Cartridge N2 Cartridge

Top quality AFFF SEALFIRE, has the best sealing effect, specially developed for use in portable and trolley.

Bureau Veritas PED 97/23 CE mark, sand blasting, epoxy paint high resistance, excellent manouvrability.

These trolleys are a must in high risk areas such us refinery, flammable storage, warehouse of textiles, papers, rubber.

#### Options:

- Hose from 5 up to 10 mt.
- Cap 4" with CE safety valve 1", check valve, inspection gauge.
- Detachable frame may be colored, red, or black.
- Antifreeze up to -30°C





Swivel coupling It allows easy unrolling of the hose avoiding twisting



On request available with N2 pressure reducer



#### All types fire class approved A IVB

STAINLESS STEEL cylinder or as alternative cheaper coated inside against corrosion

•	* Stainless steel		X) Painte	d inside	Option	ptional: Antifreeze up to -30°C				
	Code Type		Type Jet	Jet	t Discharge	Std. pac	Std. packing dimension for transport			
	Most popula		of valve	length	time	Height	Width	Depth	Weight	
		frame	or cap	mt~	sec~	mm~	mm~	mm~	kg~	
			С	O2 EXTE	RNAL CARTE	RIDGE				
*	14284	Welded	2"	8	150"	1.380	700	900	230	
*	14284_1	Welded	4"	8	150"	1.380	700	900	230	
*	14284_2	Detachable	4"	8	150"	1.380	700	900	234	
X	14284_3	Welded	2"	8	150"	1.380	700	900	230	
X	14284_4	Welded	4"	8	150"	1.380	700	900	230	
X	14284_5	Detachable	4"	8	150"	1.380	700	900	234	
X	14284_6	Detachable	2"	8	150"	1.380	700	900	234	
*	14284_7	Detachable	2"	8	150"	1.380	700	900	234	
			NITR	OGEN EX	TERNAL CA	RTRIDGE				
*	14284_10	Welded	2"	8	150"	1.380	700	900	230	
*	14284_11	Welded	4"	8	150"	1.380	700	900	230	
*	14284_12	Detachable	4"	8	150"	1.380	700	900	234	
X	14284_13	Welded	2"	8	150"	1.380	700	900	230	
X	14284_14	Welded	4"	8	150"	1.380	700	900	230	
X	14284_15	Detachable	4"	8	150"	1.380	700	900	234	

150°

8

1.380

1.380

700

900

234

234

Cap 4", large 1/4" safety valve, check valve, gauge.











Detachable

Detachable

14284\_16

14284\_17

# CO2 Carbon Dioxide Approved MED, marine use



Extremely compact and easy to move and transport. Designed for use in industrial field. Suitable for use on live electrical equipment.

It is used to extinguish fires of flammable liquids, switchboards, benzine, oils, varnishes, alcool, etc where needs one extinguishing that it does not have to leave trace of dirt.

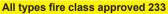
Replace oxygen, necessary for the combustion, with inert gas. Good jet and excellent snow horn. Cooling quickly, snow of C02 flows at a temperature of -78°C. It is not advised to be used in small place, if presence of people. Avoid to breathe gas CO2 and after the discharge always leave the area if has been used in closed rooms. Interception valve. High efficient horn.













Code	Type	Cylinder	Type	Wheels	Jet Discharge	Std. packing dimension for trans		ransport		
	of	material	of valve	diameter	length	time	Height	Width	Depth	Weight
	frame		or cap	mm~	mt~	sec~	mm~	mm~	mm~	kg~
14311	10 kgs	154	25 E	300	4	17"	900	350	1.045	38
14321	20 kgs	203	25 E	300	4	32"	1000	470	990	70
14321_6	20 kgs	232	25 E	300	4	32"	970	400	600	70
14322	30 kgs	230	32 E	300	4	35"	1140	490	1.150	85
14352	50 kgs	270	32 E	400	4	52"	1435	650	1.400	156





optional Red or Black



# Easyfire Marine approved RINA ISO 9094







### Easyfire®: automatic fire extinguishing system

It is an efficient and economical extinguishing system specially designed for boats and yachts. It is filled with the ECO CLEAN GAS OZONE FRIENDLY, HFC 227 better known as FM200®. It is conform to NFPA 2001, accepted by EPA. It fully respects the Ozone layer because its ODP is ZERO. Its use is admitted in rooms with presence of people.

The gas is recognized as a clean agent and it fully respects the environment.

In case of fire, the boat's engine room is immediately safe in less than 10 sec.

The gas is transparent, absolutely clean, it does not leave residues, it does not damage the engine. and it is safe for the living person and animals. The fire is extinguished immediately upon the gas HFC 227 is released.

It works automatically when the temperature in the

engine room reaches 93°C.

The unit fully charged ready to use includes a strong wall bracket

A pressure gauge signs in a green area the functionality of the units.



Manufactured under survelliance of Bureau Veritas and marked CE Tested, approved and certified ISO 9094 by RINA Marine authority worldwide.

Code	Charge Kg	Diam mm	H mm	M3 Room
15230	1	110	380	1,7
15231	3	130	400	5
15232	6	160	475	10
15233	12	190	600	20

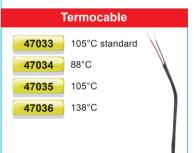
#### It protects max 20 m3

\* HFC 227 known as FM 200®,

#### **OZONE FRIENDLY ENVIRONMENTAL RESPECTS.**

CLEAN, do not damages computer equipments, not harmful for humans and animals.

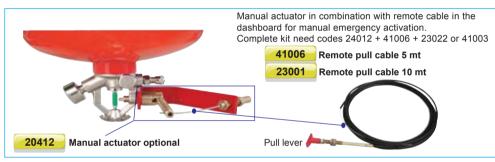
#### Optional Accessories suitable for Easyfire® and Firekill



Termocable act as a temperature fire detector.

With fire. It melts and the short circuit act as switch activating the electric actuator 43001.

The control box 23023 control the integrity of the cable, its failure and indicates the immediate discharge. Standard suggested is 105°C.





It works with any source of DC or AC electricity, from 3 up to 220 Volt. Usually connected to the main battery at 12 Volt DC, it needs only 0,3

Can be connected :

MANUALLY: with a safety push button 23022.

#### AUTOMATICALLY:

Joined with a termocable fire detector and with our Control Box 23023. The Control Box it stops the fuel and fans, actuate visual and sound alarm and may send alarm with mobile phones

#### Box pull cable

Boxes to house the pull lever cable



41003

Aluminium red paint Dimension: 90x60

23022 2

Stainless steel Silver plated, box pull cable.

These unit may hold the pull lever of the remote cable to activate manually, without electrical energy the systems Easyfire or the Firekill.



Warns for low pressure, it actuates alarms, other safety device. 23009 1 Switch is N.O. and when low pressure or activation due to fire, will close the

Instead 23009 Switch is N.C. and open the contact when pressure is low. Contacts support max 220 Volt 10A



Pressure switch N.O.

23009

Pressure switch N.C.

Electronic control box

Includes a circuit to check, integrity, failure, discharge. Green led indicates good operating, while red indicates trouble or discharge. Emergency push button for manual discharge. Seal ensure that children may activate the system.







Picture in open





## Firekill Marine approved RINA ISO 9094

#### Nozzle fixed on the top of the motor engine

Firekill® is a pressurized cylinder filled with clean gas HFC227, or ABC powder.

It is automatic with manual remote control. It is equipped with one thermosensitive bulb, at 93°C (or on request at 68°, and 141°C). Firekill® has a versatile valve, completely automatic without use of any source of energy. It has a manual remote control pull cable and on request an electric actuator.

Moreover it is possible to connect a control box that controls thermocable or smoke detectors. Firekill® unique valve has two outlets, diam. 3/8" pipes, a maximum of 4 nozzles.

Its great advantage is that it may distribute the jet with precision in the effective point of the fire risk.

Assembly without necessity to thread tubes, extremely easy and quick.

Suitable also to protect mixers of varnishes, garages, flammable liquids storage, etc. The gas is clean, do not leave residues, it is safe

per humans and animals, and fully ecological with the environment.



Powder FIREKILL®								
Pro	tecte	d Vol.	D	Н	Pipe			
Code	kg	М3	mm	mm	mt			
15241	1	1.7	110	390	2			
15227	3	5.1	140	410	4			
15228	6	10	160	485	5			
15229	12	20	190	610	8			

HFC 227 FIREKILL®									
Pro	tecte	d Vol.	D	Н	Pipe				
Code	kg	M3	mm	mm	mt				
15237	1	1.7	110	390	2				
15238	3	5.1	140	410	4				
15239	6	10	160	485	5				
15240	12	20	190	610	8				

#### It protects max 20 m3

\* HFC 227 known as FM 200®. **OZONE FRIENDLY ENVIRONMENTAL RESPECTS**, CLEAN, do not damages computer equipments, not harmful for humans and animals.

#### 23023

#### Marine control Box for Firekill & Easyfire

#### **CHASSIS IN ABS, IP 65**

Strong plastic housing, for best protection. It ensures an excellent heat dissipation which allows long periods of operation even at highest climate conditions.

#### Maximum connection distance

- With double insulated cable 60 mt;
- With shielded twisted pair cable 150 mt.
- Maximum ease of use
- Large backlit LCD 16X2

#### Dashboard unit.

Simple, small, safe, it controls all the functions, integrity, failures, and for emergency discharge.

100% waterproof and sea climate environment resistant. Special circuit protects against accidental discharge, or children tampering.

#### Remote CPU

2 nozzles

Programmable with its 3 buttons in most European languages.

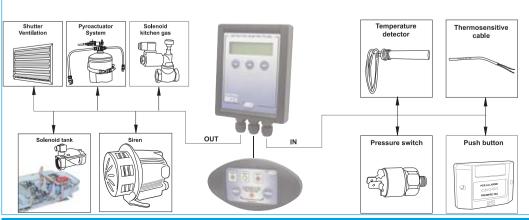
Upon system discharge, it shutdown engine, forced ventilation, fans, electrical system, actuate sound and visual alarm.

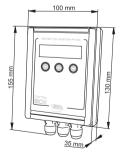


#### **Technical specifications**

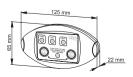
Power supply : 12Vdc Output relay Max 3A Signal input 12mA/12Vdc Microcontroller: Advanced RISC 8bit Comunication: RS485 half duplex

- Backlit LCD Display 16x2
- Acoustic and optical signal with led.
- Programming by buttons.





CPU weight: 230 gr



Dashboard weight: 57 gr

### kg 6/9 Fire extinguisher cabinet model BASIC polyethylene

For use inside or outside, resistant from -30° to +70°C. Weatherproof, shockproof, anti-aging.

26302 For kg 6 and 9 fire extinguisher, cheaper, total protection.



**Dust seal** 



Cheap, universal, for use inside or outside, protecting from dust and tampering.



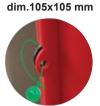
Double clousure, safety pin, seal.



Nylon strap with locking steel



91016
Aluminium label adhesive fire extinguisher



Additional seal

In fiber glass see page 74

### Fire extinguisher cabinet for trucks ADR STRONG polyethylene

Heavy for trucks, buses, for internal and external use, resistant from -30 ° to +70 ° C, vibration, weather, shockproof, anti-aging.









locking steel

Aluminium label adhesive fire extinguisher dim.120x80 mm



Double clousure, safety pin, seal.

#### Polyethylene fire extinguisher cabinet for truck

Quick cover release. Window to control the gauge. High resistance against vibration extinguisher. Latch galvanized.

**26321** KGS 6 Red/Black, 250 x 600 x 300 mm **26322** KGS 9/12 Red/Black, 300 x 750 x 350 mm





Quick fastener Galvanized steel and may be padlocked







#### Cabinets plastic for fire extinguisher



**26307** kg 6 Dim 313 x 618 x 220

**26301** kg 9 /12 / 5 CO2 Dim 370 x 835 x 245

Strong plastic ABS, shine finishing. Suitable for 6 kg powder. Includes two sides latch locked with safety pin and seal. Excellent quality and price.

#### **Accessories for cabinets**



Upper bracket with clips for 6 kg Ø 160 ~ 162 mm



26307 Bottom bracket for 6 kg Ø 160 ~ 162 mm



Permit fixing of extinguisher inside cabinets avoiding its overturning.



**26310** kg 6 dim 313 x 618 x 220

26304 kg 9 /12 / 5 CO2 dim 370 x 835 x 245

Strong plastic ABS, shine finishing. Suitable for 6 kg powder. Includes two sides latch locked with safety pin and seal. Transparent cover anti U.V.

#### **EUROPE** model ADR

Very strong plastic ABS, excellent design and finishing. Includes two sides latch, transparent window, hard rubber bracket



26308

Dim 313 x 618 x 220 - kg 6

26323

Dim 370 x 835 x 245 - kg 9





#### Fiberglass cabinet



61132 kg 6 30x56x22 cm 61137 kg 12 30x75x22 cm

For areas of extreme aggressiveness, chemical or marine environments. Withstand all weather conditions and environmental toxic fumes. Stainless steel lock.

> other see page 74

#### Plastic cabinet

**61134** Very strong and hard plastic. Suitable to store 2 extinguishers 12 kg, or 2 fire hoses, nozzles, breathing apparatus, safety equipments.



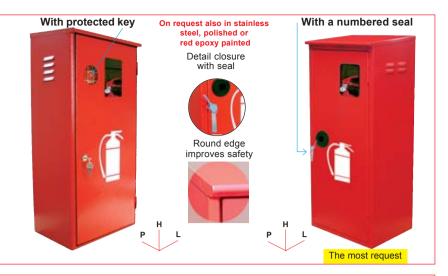


OR



Dim. 54x72x27cm

Red epoxy paint resistant to any climate. Suitable for outdoor but also indoor, elegant finish. GALVANIZED STEEL, long resistance to corrosion, almost maintenance-free, in two models: with a key protected by a small plate with safety lock, or with a seal number. Viewing window. Rounded corners to meet the most demanding in quality, safety against accidental cuts.



#### Steel cabinet with plastic glass CABINET **PLASTIC GLASS** Code Kg LxHxP NOFLAMES EASY BREAK cm 60033\_1 60033 26202 6 30x65x20 25x54 26201 12 30x78x25 60021\_1 60021 25x71 26101 6 30x65x20 60018 1 60018 25x54 26103 30x65x28 60017 1 60017 21x51 26102 12 30x79x28 60020 1 60020 22x67 Epoxy paint, complete with

**NOFLAMES** transparent sheet.

The plate unbreakable, non-flammable, protects against accidental breakage

Closure with anti tamper green seal.



Elegant finishing aluminium door frame or stainless steel



Steel painted

Steel painted

#### Plastic glasses

Stainless steel





Fire extinguishers cabinets are equipped with plastic glasses.

**NOFLAMES**, is a transparent plastic, elegant, shining dark glass like, it permits a discrete view of inside.

**EASYBREAK**: is a pale yellow pleasant colored plastic glass. It has some rows enabling easily to break it just hitting with an object or hands gloved.

Both protects the extinguisher from UV X'rays, and on request may be purchased on big size 2 x 1 mt so that may be cutted on custom need, or supplied on custom size.

#### Fire extinguisher steel cabinet kg 6 / 9 / 12 and CO2 kg 5 For indoor and outdoor shockproof epoxy painted closure with

handle and tamper seal protection.

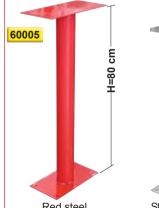




Green seal

26104 kgs 6, steel frame with seal. Cm: 32x60x27





Foot stand for cabinet

Fire extinguisher cabinet

Cm: 32x80x27

## Fire extinguishers floor stand

The floor stand, avoids drilling walls to fix bracket. Made with steel tubular frame, epoxy polyester painted or chrome. Optional colors: black.

Available with hook "V" fix on the valve or "C" for cylinders having the back hook welded on the body.

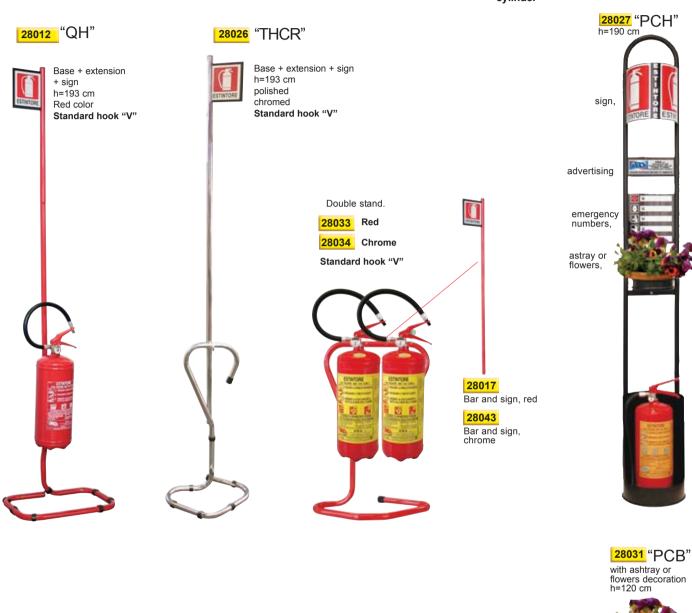
On order specify valve hook "V" or "C"

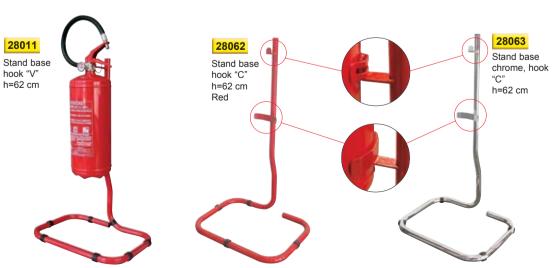






"C" - hook on the cylinder





Floor stand



astray or flowers,

#### Brackets for cars, trucks, marine use

Bracket for cylinders with back hook type "C". Metal latch and safety.

**20919** 6 kg diam 160

20919\_1 9/12 kg diam 190







Code	Tipo	diam
20907	kg 6	160/162
20093	kg 9/12	190
20907_1	Lt 6	160/162
20918	kg 4	140
Code	Tipo	diam

Code	Tipo	diam
20061	kg 2 CO2	104 steel
20916	kg 2 CO2	<b>111</b> alum
20915	kg 5 CO2	<b>152</b> alum
20047	kg 5 CO2	136 steel

#### Wire brackets



#### Brackets for racing cars

**21150** 4 kg diam 140

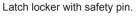
Accepted in all races requested by F.I.A.



ON REQUEST OTHER SIZE

Hard steel brackets

#### Stainless steel. Corrosion free



Strong steel, latch, safety pin, horizontally or vertically.



Type	diam
kg 6	160
kg 9/12	190
kg 5 CO2	136
	kg 6 kg 9/12

#### **Brackets for Easyfire**

With latch for extinguisher with sprinkler in the bottom



### Hard steel.

Rubber antivibration. Safety pin lockable. Very strong steel plate.

For trucks and heavy machines.

**21138** 6 kg **21138\_9** 9/12 kg



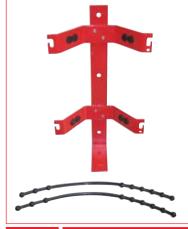
#### **Marine brackets**



#### **American bracket**

#### 20920

Universal bracket from up to 200 mm diam Strong steel structure, 2 hard durable rubber latches





#### **Brackets for cabinets**

20906



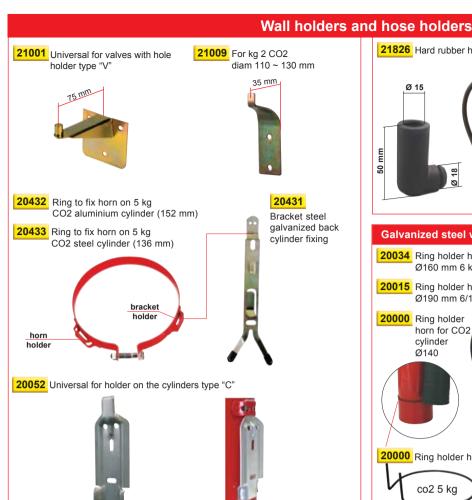
26302 Upper bracket with clips for 6 kg Ø 160 ~ 162 mm



26307 Bottom bracket for 6 kg Ø 160 ~ 162 mm



Permit fixing of extinguisher inside cabinets avoiding its overturning.





6 kg

21826 Hard rubber hook hose holder.

20098 Plastic clips for

ka 6-12

#### **RAIN DUST COVERS**

With white imprint. Made of fabrics and reinforced vinyl with velcro closures. They protect from rain, dust, corrosion.

#### FOR PORTABLE FIRE EXTINGUISHERS

**91008** for 6 kg Dimension: H: 64 cm - L: 34 cm Window 16x10 cm

91009 for 9 kg Dimension: H: 73 cm - L: 39 cm

Window 16x10 cm **91011** for 12 kg or CO2 5 Kg

Dimension: H: 82 cm - L: 40 cm Window 16x10 cm



#### **POWDER OR FOAM**

co2 5 kg

**91010** for 30-50 kg Dimension: H: 140 cm - L: 90 cm

FOR TROLLEY FIRE EXTINGUISHERS

91012 for 100 kg

Dimension: H: 160 cm - L: 90 cm

#### **CARBON DIOXIDE**

**91030** for 10 kg

Dimension: H: 100 cm - L: 46 cm

91032 for 20 kg

Dimension: H: 115 cm - L: 70 cm

91031 for 30 kg Dimension: H: 140 cm - L: 70 cm



9/12 kg

#### FOR FOAM MOBILE UNIT

91013 Rain dust cover for foam mobile unit 200 It Dimension:

H: 125 cm - L: 60 cm W: 95 cm



# 91014

Rain dust cover for Twin Agent 50+50 Dimension: H: 150 cm - L: 90 cm W: 90 cm

Available on custom size and printing request.



#### Manometer M10x1 with O-ring



21521

20515

21522

Ø 27 mm spring

Ø 23 mm membrane

Ø 27 mm membrane

Ø 27 mm membrane

Mpa 1,15-1,4-1,7

Mpa 1,2-1,4-1,6

Mpa 1-1,4-1,7



#### 20521

Ø 23 mm membrane bar 7-10-18





21511

Ø 23 mm spring Mpa 1-1,4-1,7



20532

Ø 35 mm membrane Mpa 1-1,4-1,7







21531

Ø 36 mm spring Mpa 1-1 4-1 7



american style



Ø 42 mm Bourdon bar 12,5-1,4-17,5 **BEST QUALITY** 

har 10-13-17 Membrane gauges are indicated for foam or halon Foxer





npt1/16" for

Manometer without O-ring

**20519** spring

Ø 23 mm bar 10-14-17

20518

Ø 23 mm

membrane

20533

Ø 35 mm spring,

Mpa 1-1.4-1.7

20523

Ø 42 mm Bourdon

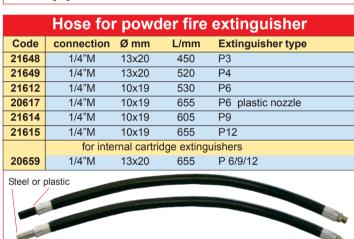
QUALITY

Bar 10-14-17 npt 1/16" BEST

bar 7-10-16

20520 membrane

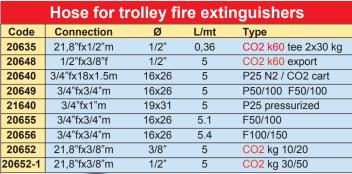
Membrane gauges are indicated for foam or halon Foxer



Synthetic rubber. Burst > 55 bar. couplings steel galvanized



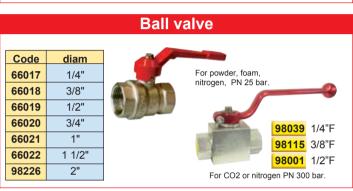








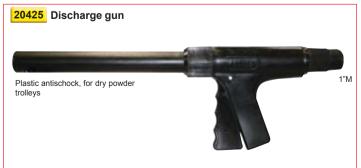
#### Co2 Discharge horn 21015 Horn big size, pipe+ ball valve 1/2" high pressure trolleys CO<sub>2</sub> Horn Ø 100mm, pipe+ ball valve 3/8" high pressure 20017 trolleys CO2 Swivel horn 21,8 for CO2, 2 Kg side out M10x1 20025 Horn 10x1 for 5 kg CO2 20025 1 Horn insulated 10x1 for 2 kg CO2











### Valve for portable and trolley fire extinguishers

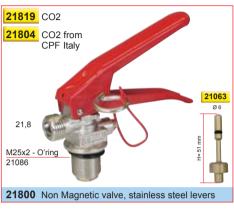


2



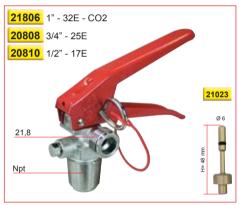














M10x1

21818\_1

W24,32 X 1/14"

**Bursting disc** 250 bar is not

compulsory but

increase safety

DIN 477 male

thread

21083







3/4" npt 25E

NITROGEN N2





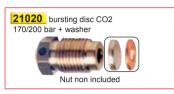




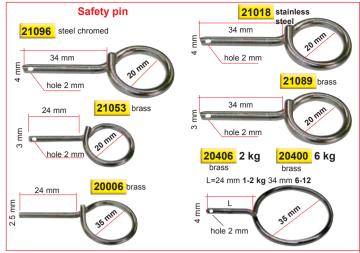




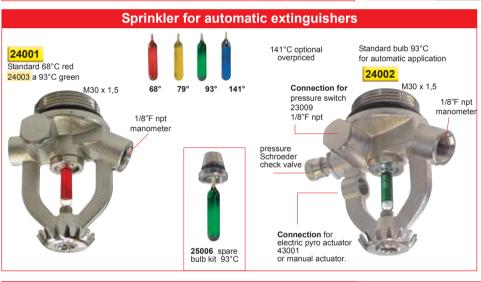














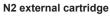


#### Nitrogen and Co<sub>2</sub> trolleys external cartridge

N2 external cartridge max pressure 200

outlet female W 21,8 valve 21818

Code	Volume	<b>Pressure</b>	Cylinder	Outlet
	It	bar	mm	thread
41213	2	105	104	W 21,8
41213_1	2	140	104	W 21,8
41198	3	140	104	W 21,8
41198_1	3	155	104	W 21,8
41198_2	3	160	104	W 21,8
41198_4	3	180	104	W 21,8
41198_3	3	190	104	W 21.8
41214_1	7,5	115	140	W 21,8
41214_2	7,5	135	140	W 21,8
41214	7,5	90	140	W 21,8



max pressure 200 outlet male W 24,32 valve 21818\_1



Code	Volume	Pressure	Cylinder	Outlet
	lt	bar	mm	thread
41231	2	105	104	W 24,32
41230	3	140	104	W 24,32
41230_1	3	155	104	W 24,32
41230_2	3	160	104	W 24,32
41232	7,5	90	140	W 24,32

Seals

Service card holder. Box of 1.000 pcs



CO2 external cartridge valve 21802



Code	Charge gr/kg	Cylinder mm	Outlet thread
41199_1	1,3 kg	105	W 21,8
41199	2 kg	105	W 21,8
41236	4 kg	136	W 21,8
41219	3,2 kg	136	W 21,8

#### 28019 Colored seals

Anti tamper seal for fire extinguishers valves.

It is possible to mark your logo for minimum quantity of 10,000

Box of 1.000 units



#### 28022 Plastic seal numbered

Anti tamper seal, with serial number. It permits recording the number during periodical maintenance.

20004



Anti tamper seal nylon. Box of 1.000 pcs



28015 Plastic seal red short. Box of 1.000 pcs



28045 Roll of wire to use

with lead seals.







20005	Safety pin holder or service label.
	Box of 200 pz
D	

		Who	eels '	for tr	olleys
Code	Ø	M	F	Kg ma	x Notes
20911	100			70	swivel
20912	150			150	swivel
20913	300	70	20	200	galvanized steel disc
20941	350	80	25	200	plastic / rubber
20942	350	80	25	200	like 20913 + ball bearing
20943	410	80	25	300	like 20913 + ball bearing
20944	400	80	25	300	like 20913 + ball bearing
21921	200	47	20	120	plastic / rubber
21931	300	57	20	150	plastic / rubber
21941	400	85	25	180	plastic / rubber

100 and 150 mm swivel















Ca	arryng	cylind	lers
Code	Model	diam	wheels
20087	x 2 kg 30	203	

Code	Model	diam v	wheels
20087	x 2 kg 30	203	400
20045	x 1 kg 45	273	300
21014	x 1 kg 30	227	300

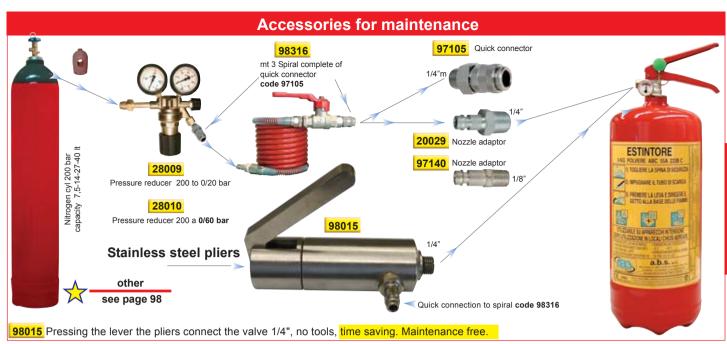
Tubular frame for transporting cylinders of compressed gases. Complete with wheels and chains holders

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Code	Ø tube	L/mm	Туре
21700	16x12x1,5	260	P kg 1
21734	16x12x1,5	295	P kg 2
21733	16x12x1,5	307	P kg 3
21738	16x12x1,5	380	P kg 4
21736	16x12x1,5	420	P kg 6
21713	16x12x1,5	390	P kg 6
21714	16x12x1,5	465	P Kg 9
21709	16x12x1,5	525	P Kg 12
21711	3/4"x21	760	P kg 30
21715	3/4"x21	860	P kg 50
21708	3/4"x27	1080	P kg 100

Code	Ø tube	L/mm	Туре
20728	M8x1x6	300	PI6 int cart
21701	14x10x1,5	440	CO2 kg 2 alum
21703	14x10x1,5	590	CO2 kg 5 alum
21704	3/8"x13	990	CO2 kg 20 alum
21705	3/8"x13	1190	CO2 kg 30 alum
21733	16x12x1,5	307	foam It 3
21720	16x12x1,5	460	foam It 6
21706	27x21x3/4"	830	foam It 50
21722	16x12x1,5	285	Firekill 3 kg
21723	16x12x1,5	355	Firekill 6 kg
21724	16x12x1,5	553	Firekill 12 kg















21131 Hole punching for tag of maintenance



21132 Hole punching for tag of maintenance labels





21124 Hole punching for tag of maintenance labels



Weighing scale







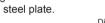
Precision: 50gr Dimension: 180x90x30 mm Uses 1 battery type: CR2032 Battery life: > 400 Hours.





### 94004 Load cells, strong and reliable double display. Precision 10 grams! Max

weight 30 Kg, very light, small high precision. Rechargeable battery included, just plug 220 volt to recharge. Stainless steel plate.





94004

30 Kg

60 Kg

94001

#### 94005 Scale with display programmable.

Easily connectable with refilling CO2 or powder units enabling automatic stop when desired filling weight is reached. Rechargeable battery included, just plug 220 volt to regharge. Precision 10 grams!, Max weight 60 Kg. Solid metal frame, Stainless steel plate 30x40



#### 94002 Workshop type

Stainless steel cm 30x40 Max Weight kg 60 Precision 20 gr Powered 220 Volt Large display Hard solid frame Load cells



Fixed at floor level

#### **Trolley scale**

#### 94006

#### **PROFESSIONAL**

Stainless plate 60x80 cm Proper weight kg 54 Precision 100 gr 220 Volt power siupply recharger, includes batteries. Extra strong metal framedisplay programmable.

Easily connectable with refilling Co2 or powder units enabling automatic stop when desired



Stainless plate 50x70cm Proper weight kg 30 Precision 100 gr 220 Volt power supply recharger, includes batteries. Load cells. Ideal for trolleys

94005



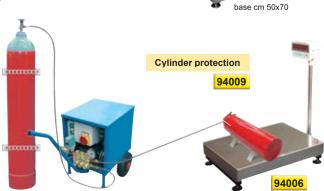




filling weight is reached.



Optional: electric board to join with programmable display. It stops CO2 pump automatically.



#### Fire service cabinet book recorder

Useful to store the book recording all the periodical maintenance operation. Useful to store other important documents such as, maintenance of heaters, medical, chemicals. Locker with 2 keys. Can be fixed on wall.

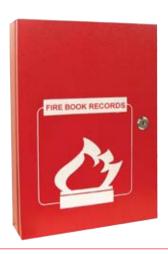
Label available in different languages.

**91007** Plastic box for maintenance register for fire fighting equipments





60062 Metal box for maintenance register for fire fighting equipments





#### Key guard

Necessary for the preservation security key for boiler rooms, fire pumps, keys lift, counters, etc...

60064 In plastic. Break glass.



Economical, corrosion free.



60051 In metal, locker, Key lock





60001 Made in plastic ABS, Easybreak glass





#### Fiberglass blanket

Resist to high temperature. Protects from heat and flames. Useful to suffucate flames of kitchen pans, restaurants, home, cars mobile homes, garages, laboratories, offices....Weight approx 420 gr/mq, thickness approx 0,40 mm. In elegant watreproof custody, fixed with Velcro for rapid use. Holes to fix in the wall or hang inside a safety cabinet. Just pull the velcro and blanket is ready to use. Useful to abandone the fire scene in case of unexpected accident.

### Flat custody





92003 180x180 cm **FIRE BLANKET** 

### Rigid box



**Certifyed EN1869** 

92018 90x120 cm 92021 180x120 cm

### **CARES refilling powder unit 98200**

Powder flows through a filter that prevent dirty or

It refill cylinder of kg 6 in less than one minute. .

Dry powder is aspirated from the sac and poured

objects to go inside extinguisher.

inside cylinder.

Electrical motor 220 V. 50 Hz, 1.000 W.

#### 98200

### Suitable to refill and also to empty mobiles and trolleys.

Strong and compact steel structure.
Two wheel allow easy movements.
Inspection transparent plexiglas sleeve.
Filter easy to mantein. Ideal start-up to refill with speed, ease, and very clean way.

Dimension cm: 61x83x200 Weight: 110 kgs

Standard supply includes: Adaptor for M 30x1 Cylinders Adaptor for M74 and trolley 2". Suction pipe cm 90 x 18 mm. Suction pipe cm 120 x 22 mm





Exausted dry powder



98285 Drum for powder exausted



### CARFILL, refilling powder unit 98200\_1

#### 98200\_1 Refilling powder unit

Perfect and ideal for service extinguishers and trolleys directly to the customers sites.

Small compact, fast, efficient. Special version for car service van.

Dimension cm: 50x75x160

Weight: 110 kgs

Standard supply includes:
Adaptor for M 30x1 Cylinders

Adaptor for M74 and trolley 2".

Suction pipe cm 90 x 18 mm.





#### **IMPACT TEST**

This unit can perform the impact test of portable extinguishers as requested by EN 3.7 point 5. The extinguisher shall be held in the vertical position in the compation test machine and dropped vertically 500 times, from a height of 15 mm, at a frequency of 1 hz, onto a rigid horizontaly steel plate.

Voltage : 380 V 50/60 Hz IP 55 Dimensions : 560 x 800 x 400







Fix the belt and discharge directly into a waste disposable plastic bag Use with Cares, Carfill Exxar.

### EXXAR, refilling powder unit 98201

#### 98201

EXXAR refilling machines is equipped with an external powerfull high flow pump which creates the vacuum and a faster refilling of dry powder extinguisher.

A large filter plus a secondary security filter external protects the motor.

This unit is faster than the similar CARES in previous page. Ideal for workshops with volume of 200 / 300 extinguishers per day.

Easy and faster refilling of trolleys



#### Secondary security filter



High power vacuum pump



Electrical motor 380V 60 Hz 3 Hp Flow of powder: ~ 15 kg/min Refill 6 kg in almost 30" Dimension: 500x750x1600 Weight: 110 kgs Standard supply includes: Adaptors M 30x1 and M 74 for cylinders Cylinders and trolley 2".

Suction pipe L= 1200 D. 22 mm.

#### Spare part accessories for CARES, CARFILL, and EXXAR refilling units.



#### **TROLLEY FILLING KIT**

#### 98200 3

Adaptor in special rubber cone suitable to refill any trolley with filling neck ring from 50 mm to 130 mm; just place it over and start a quick refill.

#### 98200 4

Adaptor that connect directly the unit with a swivel screw 2". Suitable for trolleys stored pressure or cartridge with neclk ring 2"





#### 98200\_4 Direct flex trolley adaptor 2"



#### "98250 MULTIPLA" AUTOMATIC REFILLING DRY POWDER

#### Description:

Automatically can transfer any kind of dry chemical powder from a big bag of 1.000 kg to any kind of portable and trolley fire extinguisher.

This machine can fill powder up to 25 kg/min.

Absolutely clean, no dust at all.

A special filter keeps it absolutely clean avoiding the leakage of the minimum part of powder from it.

The high quality filter doesn't need any special maintenance;

The display of balance can be programmable from 1 to 200 kg. Fully respects the tolerances of EN3 standards. It stops automatically when weight set is reached.

#### Technical characteristics:

Vacuum pump: 220 Volt - 0,75 Kw Scale 40x60 cm, precision 10 gr.



Vacuum pump till 2 Kw optional for higher performance



#### **Consolle dimension:**

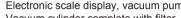
:100 cm Height Width :50 cm ·40 cm Depth

#### Work-bench dimensions:

Height :75 cm :90 cm Width Depth :90 cm

#### Filling speed

~10 sec 6 kg: - 12 kg: ~15/20 sec



Console is painted with epoxy-polyester powder Blue

The automatic refilling machine is complete with:

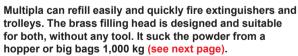
- Electronic scale display, vacuum pump, check control panel.
- Vacuum cylinder complete with filter, inspection transparent powder pipe;
- Cylinder powder recycle capacity 12 kgs;

Vacuum filter stop impurity

- Electronic scale with platform in stainless steel programmable.
- Work-bench.

Professional, absolutely clean, refills a 6 kg fire extinguishers in 10". Do not need any tool, just lean the brass head on the cylinder, press start button, and filling is a snap. Absolutely precise and clean. It is a professional unit suitable for high volume refilling up to 150 units of 6 kg











#### " 98252 " HOPPER and " 98253 " big bag holder

#### 98252 500 kg Hopper

The hopper can hold 500 kg of dry powder. It can be filled manually with bags of 25 kg or with a big bags of 1,000 kg. Different models on request.



#### 98253

Additional structure to hold a big bag of 1.000 Ka. It keeps free the fork lifty for other uses.





#### Powder disposal unit Big Bag "98150"

#### 98150 Powder disposal unit into a Big Bag

This unit solve the problem to empty exausted extinguisher and recover the powder for correct disposal respecting the environment.

The unit consist in very large filter connected to a 1,000 kg big bag.

The pallet below holds the big bag fixed to the filter easily with fast belts and metal structure.

The structure is supplied with 4 wheels for easy movement.

The structure is easy assembled with bolts. enabling the shipment with a very small volume obstruction.



Just connect a hose of pressurized extinguisher or trolley any size and discharge it in few seconds. Absolutely clean, dust free, no electricity needed. Maintenance almost free, just a flow of low pressure compressed air to clean the large filter.

: Blue Color Weight : 200 kgs

Dimensions: 260 x 160 x 160 cm

#### <u>"98603"</u> Compressor 20 bar with dryer dehumidifier

#### 98603 Air Compressor 20 bar complete with side dryer dehumidifier.

Any standard compressor produce compressed air but with high humidity contents, dangerous if in contact with dry powder as may cause easily its cacking. This unit solve the problem, and cuts high cost of nytrogen cylinders and their expensive managment.

PROFESSIONAL air copmpressor, produce dryed and 99,98 % dehumidified air, equivalent to nytrogen. Standard working pressure 20 bar. 98603 includes compressor and dryer.



#### Compressor

Air flow : 400 l/min

: 0,32 kw 220 one phase Max electric power 530 x 510 x 300 mm **Dimensions** 

Weight : 36 kgs



Small, compact trolley mounted, easy movement.

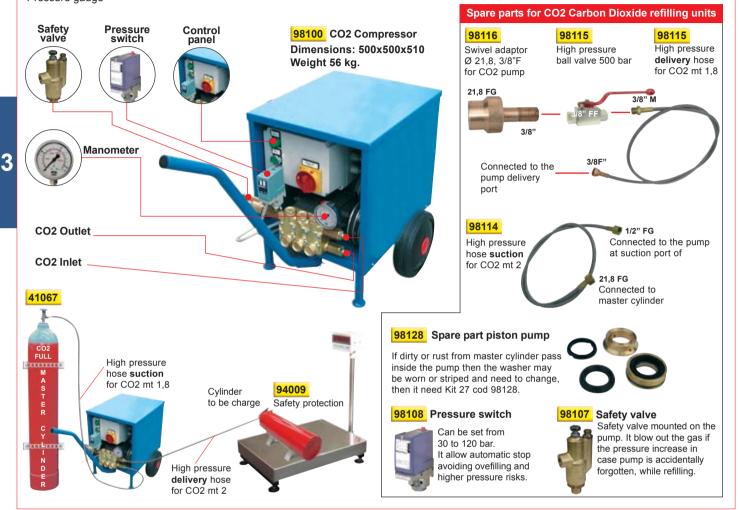
It works also with low pressure tanks where CO2 is stored at -20°C. It is equipped with:

- High pressure compressor,
- High pressure suction and delivery hoses
- Pressure switch
- Safety valve
- Control board
- Pressure gauge

- Swivel connection with CO2 standard thread 28,8.

Motor: 220 V 50 Hz 2HP monophase. **Highly suggested 3 phase.** Flow charge rate: 4 kg / min. ( higher on request) Combined with an electronic scale with display 94005/94006 it is able to charge and stop automatically with safe and precision.



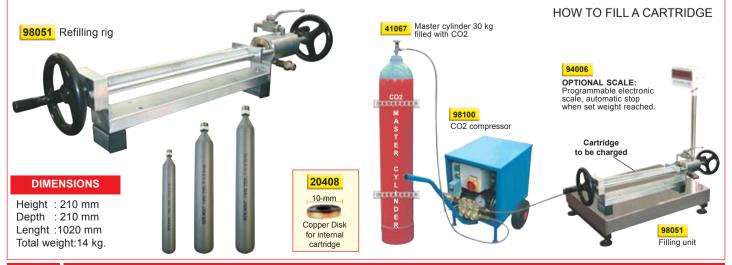


#### "98051" CO2 Internal Cartridge Filling Unit

Steel made, small dimensions for easy movement and transport; the easy handling and its small size permit the installation of this unit everywhere without any problem, i.e. it can be easily loaded on a small truck or van for recharge at customer's premises.

The unit is equipped with a steel made filling head and many different spanner keys which can be changed inside the filling head and permit in this way the refilling most kind of internal Co2 cartridge in the market.

On request the unit can be supplied with a precise weighing scale in order to reach the exact required charge, and, in addition to this with an electric switch on the weighing scale which stops automatically the CO2 pump at the required weight.



# "98400" Refilling unit CO2 with clamp 98400 O T R O G C С N D **INDE** Ε R Dimension: 135x140x60 cm

The unit it's composed by:

CO2 CHARGER UNIT: These unit permit to fill CO2 extinguishers from a master cylinder any syze to an empty cylinder any size.

HALOGENATES GAS CHARGER UNIT: These unit permit to fill from a master cylinder and pressurize with nytrogen.

PRESSURIZATION UNIT: With a master cylinder nitrogen, any size of stored pressure fire extinghuisher.

COMPRESSED AIR UNIT: These unit produce compressed air used to cleaning operations and operate the pneumatic clamp vice.

PNEUMATIC CLAMP VICE UNIT: These vice is used to clamp extinguishers cylinders till 300 mm diameter for mounting valves.

#### **TECNICALS CHARACTERISTICS**

Maximum air pressure :16 bar (232 psi) Flow rate of CO2 :8 kg/min, max 100 bar

Power of pump motor :1.5 Kw

Power of compressor motor :1.5 Kw

Power supply :220 V 50 Hz - (380 V 3pahses on request)

Weight :180 Kg

Optional

94002 Electronic scale manual 94005 Electronic scale automatic

#### "98400 Maxi" Refilling unit CO2 with clamp

98400 MAXI is a multipurpose machine recommended in any workshop for the maintenance of all kind of extinguishers. It is a unit featuring combined operation: filling CO2 extinguishers, filling halogenated extinguishers, pressurizing extinguisher with nitrogen, producing compressed air for clamping cylinders, hydropneumatic pump to test cylinders till 250 bar.

It is possible to complete the machine with some integrated optionals.



The MAXI refilling unit is equipped with:

- CO2 Refilling unit, 98100
- · Pressurizing extinguisher with nitrogen, fill extinguishers with. halogenated Foxer, HFC227, FM200.
- Air compressor up to 17 bar, for control panel and to clean valve.
- Pneumatic clamp for cylinder up to 67 litres, 300 mm diam, 98500.
- Refilling powder machine CARES, 98200.
- Hydropneumatic test for cylinder up to 250 bar, 98300.
- Refilling CO2 internal cartridge, 98051.
- Electronic scale up to 30 kg, 94004.

#### "97300" Valving devalving unit

Allows mechanical valving and devalving on cylinders and extinguishers. Provide with a precise regular torque setting; absence of physical effort reducing accident probability.

97300 Valving unit

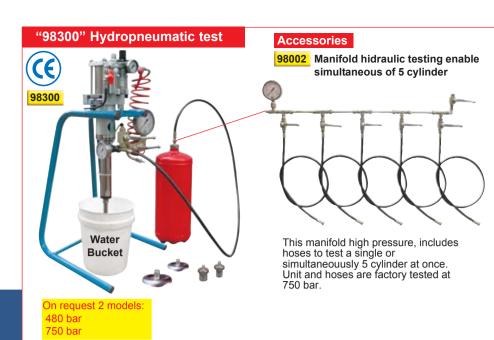
Electrical geared motor.

Vertically adjustable shaft for easy use with any size of high pressure cylinder.

Automatic stop at preset torque force.

Cyl diam 70 / 320 mm Torque force 100 / 300 Nm Main switchboard 24V. Electrical motor 220 V 1,5 Kw Dim: 140 x 42 x 400 cm.





It can test hydraulically one or more cylinders at a time, max 250 bar.
The cylinder is filled with water, the hydropneumatic pump compress the water inside it aspirating clean water contained in a bucket below pump head.

The unit is supplied with adaptors for extinguishers and trolleys M30 x1,5, M74x2, 2", 3/4 " 25E for CO2, 2" Storz for Hoses. Max pressure of the pump is 250 bar. No electricity is needed.

It use air to drive the pump from 0,1 up to max 8,5 bar and it multiplies the pressure with a ratio 1:30.

Fully in stainless steel and maintenance free. A high precise pressure reducer allow to supply air at very small steps enabling to set desired hydraulic pressure.

It can be use also to make a burst a cylinder; normally dry powder cylinder blasts at range from 60 to 90 bar.

It can be used to test also flat fire hoses, rubber high pressure hoses, hose reels.

#### "98901" Hydraulic test and dryer machine

The hydraulic test and dry machine 5 place can be fill, test and dry cylinder.



Indicated for hydraulic test of extinguishers cylinders.

The unit can make 3 differents operations with 3 integrated units:

- 1) Pump for filling cylinders with water.
- 2) Hydraulic test of cylinders till 80 bar. (available 250 bar)
- 3) Blower for drying tanks. The unit can test 5 cylinders at once. Standard configuration:
- Chassis in painted steel sheet;
- Air/water manifold;
- Main electric panel with manual and automatics controls;
- Filling and test fast fittings;
- Water tank in stainless steel complete with filter.
- Continuous pressure set, increase step of 1 bar.

The water is recycled, no waste in drainage.

#### Specifications:

#### Filling pump:

- Maximum pressure: 4 bar
- Power supply: 220-240 Vac 50 Hz 1 Kw
- Test pump:
- Maximum pressure: 80 bar
- Power supply: 220-240 Vac 50 Hz 1,5 Kw Blower:
- Power supply: 220-240 Vac 50 Hz 1,1 Kw

Dim: 176 x 190 x 60 cm. Weight ~ 250 kg.

#### "98804" Drying machine 5 units

This product has the advantages of rapid drying, no dust, no pollution, convenient operation, safety and reliability.

Equipped with a temperature and timer, adjuster.

Auto shut down at preset timer.

Voltage : 220 V

3

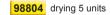
- Power : Air Blower 250 W

: Heater case: 3000 W

Approx drying time 2 / 5 min, it depends from residual water inside cylinders.

- Adjusting heating timer.
- Digital temperature adjuster.
- Power indicator lamp.
- Power switch.
- Buzzer.
- Heating indicator lamp.

Dim:37x68x120 cm - Weight  $\sim$  kg 80





#### **Drying machine 2 units**

Dryer blowing machine for extinguishers tanks.
Permit to dry 2 tanks at once

manually on/off. Very light and small, indicated in

small workshops or inside a service car van.

Voltage: 220 Volt 1,5 Kw



Dim: 36x55x45 cm - Weight kg 35



Diameter from 70 to 300 mm The slips is adjustable to fix in confortable height the cylinders.

The strong structure made of steel is design to be fixed to wall or floor.

Clamps pliers are with protection in special rubber in order to avoid scratches to the paint of the cylinder or

Double activation push-button: need two fingers to avoid accidents.

Emergency stop and open red push-button.

Include the pressure reducer and filter with lubrificator. Pneumatic cylinder with push force up to 800 Kg for a perfect fastening also for a larger CO2 bottles.



#### Manual clamp release

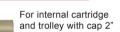
98013 Manual clamp, useful anywhere. Dimensions: 45 x 20 x 20 cm



Adjustable range 40/200 Nm Factory set at 130 Nn for CO2 valves CH 30 mm







9 mm For powder extinguishers from 1 to 12 kgs



#### Trolley multipurpose for fire extinguishers

Revolving vice makes possible to rotate the extinguisher completely throughly shake the powder.

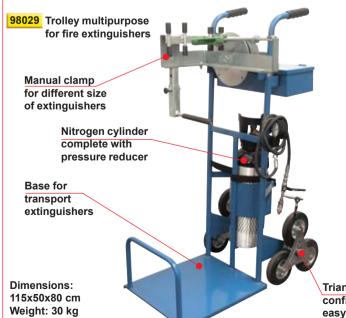
The 4 position (0°, 90°, 180° and 270°) enable the whole extinguisher to

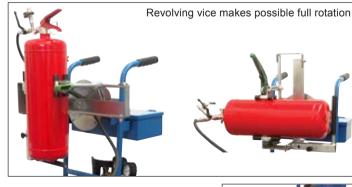
be checked and serviced.

Includes a toolbox for the necessary accessories.

The special configuration of the three-wheeled trollev allows the unit to be moved up and down stairs easily.

The lower part of the trolley allows extinguishers to be moved easily when work must be carried out in different location.





Triangular wheel configuration for easy moving on stairs



#### Platform scale

#### 94001\_1 Digital 4 cells platform scales

This platform with very low height profile, is ideal to measure the weight of trolleys, pallets, packing. Large display may be fixed on wall or with a stand pole. Precision 200 gr. Load cell electronic. Cable 6 mt.





**94004** Electronic balance. Load cells LIGHT, COMPACT, PRECISE.

Large display, stainless steel scale-pan.

Maximum weight capacity : 30 Kg

Weight precision : 10 gr

Scale-pan dimensions : 25x25xH15cm

Power supply : 220 Vac + battery charger included

94005 Electronic balance. Load cells, Programmable electronic display. At desidered pre-set weight will stop engine. Can be used in combination with CO2 and podwer filling machine for automatic and safe filling process. Stainless steel scale-pan. Maximum weight capacity: 60 Kg Weight precision: 10 gr

Scale-pan dimensions : 30x40 cm Power supply : 220 Vac + battery charger

included



**94002** Electronic balance. Load cells Electronic display over metallic pole and stainless steel scale-pan.

Maximum weight capacity: 60 Kg Weight precision: 10 gr Scale-pan dimensions: 30 x 40 cm

Large display

Power supply: 220 Vac - 50 Hz



#### Multi use scale

**94001** Electronic scale. Load cells. For portable and wheeled extinguishers, with electronic display over metallic pole and stainless steel

stainless steel
scale-pan.
Rechargeables batteries
Includes battery charger
220 Vac - 50 Hz

Maximum weight capacity: 300 Kg Weight precision : 100 gr Dim: : 60 x 80 cm **94006** Electronic balance. Portable and trolley. Load cells,

Programmable electronic display. At desidered pre-set weight will stop engine. Can be used in combination with CO2 and powder filing machine for automatic and safe filling process.

2 mt cable. Stainless steel scale-pan.
Rechargeables batteries Includes battery charger 220 Vac - 50 Hz

Maximum weight capacity: 200 Kg Weight precision: 100 gr

Dim: 80 x 60 cm







## BRA Compressors breathing apparatus air H.P. 300 bar from 80 to 215 ltm

COBRA is a range of quality production of high pressure compressors and scuba diving equipment for breathable air and technical gases like Nitrox, Trimix, Helium, Nitrogen, Hydrogen and Methane.

A.b.s. kept on evolving in the mechanical area continuously updating planning and designing equipment and producing ever-improving reliable products.

A.b.s. have taken up the challenge of the technological evolution and export their products all over the world also thanks to a widespread distribution network offering qualified service & repair. A.b.s. produce portable compressors and arge-sized recharge stations. This catalogue shows the recharge station product line: with single-phase and

three-phase electric motor.

A.b.s. compressors guarantee the divers quality breathable air and a versatile equipment. From the firefighters who need to rely on the equipment even in the most extreme conditions to the keen Paintball players, everybody is enthusiastic about a.b.s. products which embody passion and accuracy.

98060 Automatic drain, 400V 50Hz 3 phase.

98060 1 Automatic drain, 440V 60Hz 3 phase.

#### **Technical characteristics**

: 215 l/min - 13 m3/h Charging rate

Filling time cylinder at 300 bar: 3 It cylinder : < 3 min 15 It cylinder · 14 min Working pressure : 315 bar Rpm pumping unit 1350

Driven by : Three-phase electric motor Power : 4.8 Kw (440/480V - 60Hz)

Dimension

Height : 0.84 m (33") Width : 0.89 m (35") Depth : 0.60 m (23") : 71,9 dB ISO 3746 Noise : 177 kg (390 lbs) Dry weight

: DIN 3188 EN 12021 CGA E Breathing air

#### **Optional accessories**

- Remote filling panel
- Extra filling hose BC valve (1,2 m) max two pieces
- 300 bar version

#### Complete with

- Start stop switch
- Pressure switch for automatic stop
- Hourmeter
- Manual drain
- Automatic condensate drain with timer
- Oil level.
- Automatic condensate drain
- Autostop
- Electronic switchboard with hourmeter.

#### Filling station for air cylinder 100 l/min

#### **WITH FRAME**



98062 100 lt/min, 400V 50Hz 3 phase

#### **Technical characteristics**

Charging rate : 100 l/min - 4.8 m3/h

Filling time cylinder at 300 bar: 3 It cylinder < 6 min 37 min 15 It cylinder Working pressure 315 bar Rpm pumping unit 2800

Driven by Three-phase electric motor

: 3 Kw - 4 HP Power

Dimension

Length : 0.84 m (33") Height : 0.89 m (35") Width 0.60 m (23" Noise 83 dB ISO 3746 Dry weight 56,7 kg (125 lbs)

; DIN 3188 EN 12021 CGA E Breathing air

#### Optional accessories

- 1,2 m extra filling hose
- Stainless steel frame
- Filter cartridge with CO2 catalys

#### Filling station for air cylinder 80/100 l/min



98067 80 lt/min, 230V 50Hz mono phase

98064 100 lt/min, 400V 50Hz 3 phase

98064\_1 100 lt/min, 440V 60Hz 3 phase

98068

#### Filling station for air cylinder 215 l/min

#### Complete with

Pressure gauge, overpressure valve, maxi filter and manual condensate drain



#### Optional accessories

- Automatic condensate drain
- Autostop
- Complete automatic switchboard

98063 Semi automatic 400V 50Hz 3 phase 98063 1 Semi automatic 440V 60Hz 3 phase

### **Technical characteristics**

: 215 l/min - 13 m3/h Charging rate

Filling time cylinder at 300 bar: 3 It cylinder < 3 min 15 It cylinder 14 min Working pressure 315 bar Rpm pumping unit

Driven by : Three-phase electric motor Power : 4.8 Kw (440/480V - 60Hz)

Dimension

Height : 0.84 m (33") Width : 0.89 m (35") Depth 0.60 m (23") Noise 71.9 dB ISO 3746 177 kg ( 390 lbs) Dry weight Breathing air DIN 3188 EN 12021 CGA E

Filling panel complete with pressure regulator.



Filling panel 98066

#### **ACCESSORIES**

Glicerine stainless steel pressure gauge 0-400 bar for testing breathing apparatus valves. DIN 300 & DIN 200

Filling device 300F/200M bar DIN With safety valve 225 bar



98066

2 Outlet at 200 bar

Pag. 64



# **Chemical Powder**



All powders are manufactured according to European standard EN 615 and ISO 7202 exceding all criterias for humidity, particle size, flow and level hygroscopic.

Most used dry powder are based on monoammonium phosphate and ammonium sulphates known as multipurpose as able to extinguish fires of class A / B / and C. Other types are based on sodium bicarbonate, potassium bicarbonate, urea complex and inorganic salts. Silicon additives are added to avoid chemical reaction with moisture and checking. The action of extinguishing powder is produced by decomposition of the at high temperatures reached in the fire,

giving rise to chemical effects on the flame and the production of carbon dioxide and water vapor.

The products of combustion of the powder thus separated from fuel combustion, cools the fuel and inhibit the combustion process

The dry powder used in our fire extinguishers is produced by the largest European companies and experienced leader. Dry powder are tested an approved as EN 615/1995.









DRY POWDER HAVE PASSEDTHE DIELECTRIC TEST LIP TO 35 000 V FOR HANDHELD AND TROLEY IS RECOMENDED THE USE UP TO 1.000 Volt AT 1 mt DISTANCE

Big brands like FUREX and TOTAL, CRODA KERR are European manufacturer over a century of experience.

Perfect mixing of chemical components, experience, severe quality control ensure the necessary physical properties of the product, such as perfect water proofness, smoothness, particle size, stability.

Durability is at least 5 years if properly stored below 60°C and dry conditions.

As a good role, checking an extinguisher, even after many years if the powder appears fine, dry, flow able, without any checking principle it proves that not physical or chemical changes happened and may be considered as good as in the origin.

Dry powder is considered the cheapest and most efficient extinguishing agent to be used with portable and trollevs fire extinguishers.

According to law in force in the country should be disposed by authorized companies carefully to avoid pollution caused by reaction of water with chemical salts.





Fire test on class 233B (155 lts of heptane) with a 6 kg powder fire extinguisher

8 minutes of preburning action of a class fire type 34 A ( Length of the test fire 3,4 m )

The powder ABC 30 and ABC 40 are normally supplied BLUE color. On request can be supplied yellow, or white

### Dry Powder ABC / BC / D

Code	Class	MAP	in bags of 25 kg
31130	ABC	30%	Total or Furex
31140	ABC	40%	Total or Furex
31150	ABC	50%	Total or Furex
31170	ABC	70%	Total or Furex
31190	ABC	90%	Total or Furex
31100	D	for metal in pail of	20 kg
31101	ВС	MONNEX CRODA KERF	R pail of 25 kg
31102	ВС	Purple K, BC Potassium	bicarbonate
31111	BC F	Potassium chloride 30% (a	available at 90%)

Code	Class	(*) MAP Bags of 1.000 kg	
31230	ABC	30%	Total or Furex
31240	ABC	40%	Total or Furex
31290	ABC	90%	Total or Furex
31210	ВС	30% Potassium chloride	

ABC powder are known as multipurpose and MAP contents distinguish the efficiency. Purple K potassium bicarbonate, is high efficient on B and C fire only. Monnex composed of potassium bicarbonate, and urea complex, is the best in B and C fires widely used in refineries. Class D fires is a special composed by salt efficient only for fires involving metals such us aluminium, zirconium, etc.

MAP= Acronym of Mono Ammonium Phosphate. Highest is the percentage of MAP better is the performance on ABC fires







# Foam extinguishant

Code	Canister of 25 Kg
33110	AFFF 3% UL LISTED on request
33124	AFFF 6% UL LISTED on request
33117	AFFF - AR 6% alcool resistant
33125	FFFP fluoroproteinic
33126	Fluoroproteinic 6%
33112	Proteinic 3%
33127	Proteinic 6%
33128	Synthetic 6%
33130	Universal Univex 6%
33129	AFFF 6% CRODA



33313 AFFF 3% film forming foam 33326 AFFF 6% film forming foam 33327 FFFP fluoroproteinic film+blanket 33328 Fluoroproteinic 6%	Code
33327 FFFP fluoroproteinic film+blanket 33328 Fluoroproteinic 6%	33313
33328 Fluoroproteinic 6%	33326
· ideroproteinio o/o	33327
	33328
33329 Proteinic 6% general A and B fires	33329
33330 Synthetic 6% medium/high expansion 1:8	33330
33392 Universal Univex 6%	33392
33398 Premixed -30°C Sealfire AB	33398



#### Replacement spare charges for powder and foam extinguishers Marine MED

For	powder extinguisher MED
Code	Extinguisher type MED
31300	14161 Stored pressure kg 6
31300_1	14169 Stored pressure kg 6
31300_2	14167 Internal cartridge kg 6
31300_3	14160 Stored pressure kg 6
31301	14191 Stored pressure kg 9
31301_1	14194 Internal cartridge kg 9
31304	14172 Stored pressure kg 12
31304_1	14173 Internal cartridge kg 12



Stored pressure Marine spare parts includes a

- O-ring
- Sac of dry powder 6 / 9 /12 kg
- Seals



- O-ring Sac of dry powder 6 / 9 / 12 kg
- CO2 cartridge - strip, anti tamper seal

#### For Foam extinguisher MED Code **Extinguisher type MED** 31303 14254 stored pressure It 50 31303 1 14289 external cartridge It 100 **31303\_2 14345** Stored pressure It 150 31303 3 14361 Stored pressure It 6 31303\_4 14362 Internal cartridge It 6 31303\_5 14391 Stored pressure It 9 **31303 6 14392** Internal cartridge It 9 31303\_7 14360 (0°) stored pressure It 6 31303 8 14360 (-30°) stored pressure It 6



Sealfire AFFF foam supercompound, Orings, seal



Sealfire AFFF foam

supercompound Co2 cartridge, Orings, seal, pin, filter washers.

#### Sealfire AFFF super compund cartridge

33397 Sealfire S AFFF cartridge 90 ml

Sealed cartridge for fire extinghuisher 6 / 9 It with internal CO2 cartridge

The super compound SEALFIRE S sealed guarantee long life, unchanged performance for at least 5 years. The pressure of CO2 cartridge, when operated, breaks the seal enabling its mixing with water.

It is compatible with water premixed with Inilam and antifreeze agents.

#### Sealfire MED with cartridge



Sealfire AFFF foam supercompound cartridge , Saelfire A class A addittive, Co2 cartridge, Orings, seal, pin, washers.

#### Guide to the foam extinguishant



Box

Foam compound is used to fight fires class A and B solids and flammable liquids.

It is used with special equipments, said mixers from 1 to 6% with remaining 99 / 94% of water.

It is supplied in plastic drums of 200 kg or portable 25 kg of plastic canister.

It is indispensable to fight big fires, in industrial and petroleum fields and refineries.

A choice of various type of foam can be made form followings basic informations:

AFFF: Abbreviation of Acqueous Film Forming Foam, creates a thin floating film on top of fuel surface. It is self-sealing, therefore extremely efficient. When fire is knocked down, reignition is pratically almost impossible, being the fuel under the protective AFFF floating film.

It ca be used also with spray nozzle. Ratio 1:10

SEALFIRE: It is a special A.F.F.F. superconcentrate 1% / 3% specially developed for extinguishers. It has a great stability, It creates a floating high resistant film over burning liquids.

Fluoroproteinic: For low expansion. Available at 3% and 6% concentration. Great heat stability. Suitable for long-preburn-time fires. For petroleum products process and storage areas - Aircraft hangars - Ideal for subsurface injection systems. It creates a resistant blanket resisting to high °C

Proteinic: Foaming liquid mixable in water at 3% or 6%. Indicated for quickly intervention on Hydrocarbons fires, and others non polar substances. Used for generate low expansion

F.F.F.P. Fluoroproteinic: Combines the advantages of filming with those of fluoroproteinic.

Synthetic: Synthetic foaming liquid mixable in water at 1% to 6%. Indicated for quickly intervention on Hydrocarbons fires, others non polar class A. Used for generate medium and high expansion foams.

#### Universal:

Universal alchool resistant, foaming liquid mixable in water at 1% to 6%. Indicated for massive intervention on Hydrocarbons fires and others polar substances. Used for generate low and medium expansion foams

#### Sealfire bottles spare part

	Code	<b>Description</b> Supercompound		
1333	21134	for 9 lt - 270 gr		
9	21135	for 6 lt - 180 gr		
Ė	21170	for 50 lt - 1 kg		
3	21171	for 100 lt - 2 kg		
S	21172	for 150 lt - 3 kg		

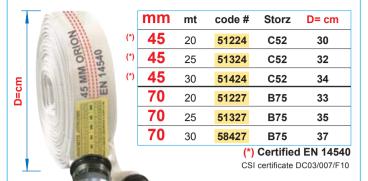
#### Sealfire and premixed foam



33395 Sealfire Supercompound mix with 97~98 part of water

Premixed in plastic containers 5 or 25 Kg

Code	Description
33396	Sealfire "A" premix improves class "A"
33399	Lifewater premix -30°C class A only
33398	Sealfire "AB" - 30°C premix class A-B
33393	Sealfire "F" premix kitchen fat fires.
33108	Antifreeze, mix 50% with water to -30°C



mm 45 mm 70 Weight gr/mt of hose 140 250 Working pressure bar 12 12 Bursting pressure bar-

#### CRYSTAL GOLD

Polyester lining, high quality, internally coated with EPDM. Excellent aging and mould resistance. Good for outdoor cabinets.



mm 45

mm 70

200 370 Weight gr/mt of hose ~ Working pressure bar 12 12 42 Bursting pressure bar~ 45

#### STAR RED

Double coating, polyester lining, inside and outside with poliuretan, good acid resistant, easy wash, do not need dry after usage. Reinforced anti abrasion. Mould aging resistant. **EXCELLENT PRICE / QUALITY** 



Weight gr/mt of hose ~

Working pressure bar

Bursting pressure bar~

mt	code#	Storz	D= cm
20	58225	C52	32
25	on request	C52	34
30	on request	C52	36
20	51427	B75	35
25	on request	B75	37
30	on request	B75	39
	20 25 30 20 25	20 <b>58225</b> 25 on request 30 on request 20 <b>51427</b> 25 on request	20 <b>58225 C52</b> 25 on request <b>C52</b> 30 on request <b>C52</b> 20 <b>51427 B75</b> 25 on request <b>B75</b>

Conform to EN 14540

Reinforcement anti abrasior Yarn polyeste

Yarn polyeste



#### CHAMPION GOMEL

Polyester high quality, lined with Gomel PVC, Thoni quality, known and appreciated by over 30 years. anti aging, anti mould.



mm	mt	code#	Storz	D= cm
45	20	50224	C52	32
45	25	50324	C52	34
45	30	50424	C52	36
70	20	50227	B75	35
70	25	50327	B75	37
70	30	50427	B75	39
			Certified	I EN 14540

mm 45 mm 70

370

12

42

继 **ino**ni

Weight gr/mt of hose ~	200
Working pressure bar	12
Bursting pressure bar~	45

#### CHAMPION SUPER

Polyester high resistance, internally coated with, Thoni quality, superb in the market appreciated by 30 years. Anti aging, anti mould

600

12

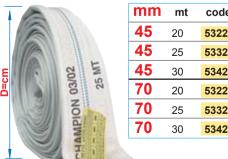
42

mm 45 mm 70

350

12

45



mm	mt	code #	Storz	D= cm
45	20	53224	C52	32
45	25	53324	C52	34
45	30	53424	C52	36
70	20	53227	B75	35
70	25	53327	B75	37
70	30	53427	B75	39
			0 4:5:	. =

Certified EN 14540

mm 45 mm 70

400 200 Weight gr/mt of hose ~ Working pressure bar 12 12 Bursting pressure bar~ 42 45

### ARINE MED SOLAS Polyester high resistance, internally coated with EPDM. Approved MED SOLAS. Anti aging, anti mould.



mH14545mHN1770 Weight gr/mt of hose ~ 220 410 Working pressure bar Bursting pressure bar~ 12 12 45 42

\* thôni

#### **HERCULES**

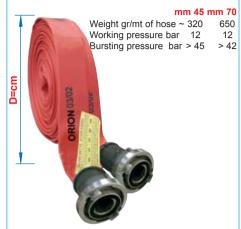
Extruded fire hose embedding the high tenacity Polyester weaving into a Nitrile PVC compound, provides the best rubber-to-textile adhesion modern technology can achieve. Is unaffected by low/high temperatures and seawater. No drying required, mildew resistant, rot and vermin proof, flexible and very easy to maintain. Fully conform to EN 14540. Mould aging resistant.



mm	mt	code#	Storz	D= cm
45	20	on request	56225	38
45	25	on request	on request	40
45	30	on request	on request	42
70	20	on request	56228	41
70	25	on request	on request	43
70	30	on request	on request	45

#### ORION RED

Used by fire brigades, industries, and for irrigation purposes. Requires a minimum of maintenance. Very flexible, mould UV-light/ozone resistant and virtually unaffected by climatic conditions, hot or cold. Made from high tenacity Red Polyester filament yarn, woven on circular looms and EPDM inner lined.



(*)	45	20	52224	C52	38
(*)	45	25	52324	C52	40
(*)	45	30	52424	C52	42
	70	20	52227	B75	41
	70	25	52327	B75	43
	70	30	52427	B75	45
				O 4161 1	EN 44540

code #

Certified EN 14540

Storz

D = cm

#### ORION + BSS

Indicated mainly for indoor applications, condominium, factories, warehouses. Polyester lining, internally coated with PVC.

50428 mt 20, 63 mm, 2 1/2"



#### **BSS 336 Instantaneous**

n	nm 45	mm 70
Weight gr/mt of hose ~	140	250
Working pressure bar	12	12
Bursting pressure bar	> 45	≥ 42

#### Hose for reel mm 25 - EN 14540:2006 - EN 694:2005

Hose flat for reel

53222 mt 20, 25, 30 diameter 25 mm

> 25 mm polyester and EPDM lined flat hose. WP 12 bar, Burst Pressure >45 bar

#### **SEMIRIGID HOSE EN 694**

54221 20 mt DN 25 54321 25 mt DN 25

mm

mt

54421 30 mt DN 25

Polyester, EPDM lined, nylon spiral, light weight, Working pressure 12 bar, burst >45 bar, couplings 1' on request. Indoor light hose reel applications



#### **RUBBER HOSE EN 694**

EN 694:2005 54413 20 mt DN 25, red

Working pressure 12 bar, burst >45 bar, high resistance to the abrasion. Outdoor and indoor professional hose reel application



### Branchpipe for reel EN 671-1

64009









GOOD

Fire hose mm 45 and m 70 - Hose reel







64016

Available with storz or other connection on request

DN 25 o 1"f K=80 Ø=12 Q=160

SUPERB

#### WATER NOZZLES, BRANCHPIPE, EN 671-2

#### K=Coefficient -

Ø=Nozzle Diameter - Q=Flow Lt/min -

P=Pressure in Mpa

Branchpipe High PRESSURE

#### "VARIO" flow nozzIE

Robust but light weight, variable jet, angle max 125°, easy rotating gear shut off, full jet or spray. Rubber coating, light alloy. Couplings Storz, other types on request.

Jet length about 25 mt.



62046

Nozzle 2 High flow, light alloy

Storz C52



#### 62048

Nozzle 2 1/2" High flow, light alloy

Storz B75

### 64001 Nozzle gun 40 bar, 1" 180lt/min Typically used in forest firest fires with pumps

high pressure.

Special design prevents the back hammer



#### 64002 Nozzle gun 20 bar

Nozzle produce full or spray jet and shut off. Light alloy body, couplings all type available. Typically used by fire brigades.







#### water curtain, protects fireman shut off- full jet - spray jet K=79 Ø=12 Q=135 P=0,3 + shield Ø 12 mm Additional ring, produce a protective water shield. E 120 Strong, aluminium in light alloy 64223 Storz C52





#### **AMERICA**

Brass made, variable jet, angle max, easy rotating gear shut off, full jet or spray. Couplings all types on request. For professionals. Jet length about 25 mt.

K=110 Ø=15 Q=190 P=0,3



1 1/2" 64252

#### VARIO SHORT

Shut off- full jet - spray jet made in plastic. Basic use. Couplings all types available



1 1/2" 64021

### VARIO LONG Shut off- full jet - spray jet made in plastic. Basic use. Couplings all types available K=200 Ø=17 Q=360 Ø=13 Q=156 P=0,3 P=0,3 1 1/2" 2" 1/2 64007 64012

On request with couplings BSS English, NST American, Afnor French, UNI Italy, others...

#### TURBO EASY

Turbo models, produce full or spray jet, variable angle and flow. ilt can produce very fine spray jet enabling use under electricity. Water curtain protects the fireman. Ergonomic handle and shut off valve. All types of couplings available.



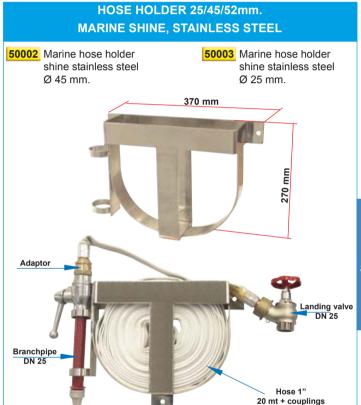
### Fire hose, branchpipe nozzle RINA MED SOLAS Approved



#### Hose manufactured according to EN 14540 Certified MED according to directive 96/98 EC

The Crystal fire hose is made with woven in polyester with high resistance, inner waterproofed with EPDM. Great resistance to the UV X-ray and to the ageing test. Mould-prevention. Light. Available in diameters of, mm 38, 45, 52, 63, 75.









On request with couplings BSS English, NST American, Afnor French , UNI Italy, others...

### Hose systems with lay flat hoses CE EN 671-2

#### Specifications:.

Certified CE EN 671-2, directive 89/106/CEE.

Cabinets in 4 versions:

- a) Epoxy paint Red Ral 3000.
- b) Zinc plate + Epoxy paint Red Ral 3000.
- c) Stainless steel AISI 304, no paint.
- d) Stainless stee AISI 304 + Epoxy paint Red Ral 3000

#### Standard supply includes:

- 1) Landing valve brass PN16.
- 2) Hose Crystal Gold 1" 1/2 certified EN 14540 couplings Storz C52, binding, protective sleeves.
- 3) Light alloy nozzles 3 position, shut off, full, spray jet.
- 4) Hose holder, CE marking.
- 5) Seal (on request with key).

Special version or for high corrosion climate condition may be produced with marine paint treatment.

Cabinets in 4 versions:

INDUSTRY ROUND EDGE "BT"









### Accessories on request

All the cabinets may be with:

- 1 steel metal blind door
- 2 visible easy and safe breakable plastic sheet
- 3 visible unbreakable plastic sheet

**EASYBREAK**, is yellow transparent plastic anti UV. It is preformatted, and easy breakable, with a simple knock.

**NOFLAMES**, is unbreakable it is fine and elegant smoked transparent.

To open the door, it need breaking the seal at the pull the frame.

Sheet in plastic easy breakable and unbreakable are use in cabinets with aluminium or brass frames.

EASYBREAK NOFLAMES

Cabinet	spare part sheet #			
	Breakable NOFLAMES			
61242	60008	60008_1		
62143	60009	60009_1		
61144	60010	60010_1		
61145	60011	60011_1		
61172	60012	60012_1		
61271	60013	60013_1		
61272	60014	60014_1		
61175	60015	60015_1		
61176	60016	60016_1		
61142	60038	60038_1		





Unbreckable

#### **MODEL INDUSTRY "626" CE**

Pleasant design, great care to avoid accidental skin damages . Tamper seal. Plastic windows..



#### **Painted**

**Epoxy painted**, shock and scratches resistant Great care to safety.

"626"	mt		
Industriy			
62126_0120	15		
62126_0220	20		
62126_0520	25		
62126_0320	30		

#### STAINLESS STEEL

Not painted. Maintenance free. Stainless steel cabinets may have additionals red colour Ral 3000 on request

•		
"626"	mt	
Industry		
62126_1120	15	
62126_1220	20	
62126_1520	25	
62126_1320	30	



Zinc plate + additional epoxy paint red.

10 years guarantee

, 0	
"626"	mt
Industry	
62126_2120	15
62126_2220	20
62126_2520	25
62126_2320	30



AISI 304 + additional paint epoxy red. Maintenance free. AVAILABLE aisi 316 L for very high corrosion sites.

"626"	mt
Industry	
62126_3120	15
62126_3220	20
62126_3520	25
62126_3320	30

Cabinet dimension 38x63x18 cm

On request with couplings BSS English, NST American, Afnor French , UNI Italy, others...

#### Model "ESS" outdoor EN 671

Inclined roof, aeration slits. **EASYBREAK** sheet. Tamper seal.



On request **NOFLAMES** 



#### Painted

Epoxy paint Ral 3000.

"ESS"	mt
62110_0120	15
62110_0220	20
62110_0520	25
62110_0320	30

## Painted Zinc plate

Zinc plaited shhet + additional paint Red Ral 3000 10 years quarantee.

"ESS"	mt
62110_2120	15 mt
62110_2220	20 mt
62110_2520	25 mt
62110_2320	30 mt

## Stainless steel

Not painted Maintenance free.

"ESS"	mt
62110_1120	15
62110_1220	20
62110 <u>1520</u>	25
62110_1320	30

## + Painted Stainless steel

Additional paint Ral 3000. Maintenance free.

"ESS"	mt
62110_3120	15 mt
62110_3220	20 mt
62110_3520	25 mt
62110_3320	30 mt

#### 37x61x18 cm

#### Model "BT" in and oudoor EN 671

In or outdoor. **EASYBREAK** sheet. Tamper seal.



On request **NOFLAMES** 



#### **Painted**

Epoxy paint Ral 3000. Round egde, better safety.

"BT"	mt
62514_0120	15
62514_0220	20
62514_0520	25
62514_0320	30

#### **Stainless**

AISI 304 not painted Maintenance free.

"BT"	mt
62514_1120	15
62514_1220	20
62514_1520	25
62514_1320	30

### Painted

Zinc plaited steel + additional paint Red Ral 3000 10 years guarantee.

"BT"	mt
62514_2120	15
62514_2220	20
62514_2520	25
62514_2320	30

### Painted STAINLESS

Additional paint Ral 3000. Maintenance free.

"BT"	mt
62514_3120	15
62514_3220	20
62514_3520	25
62514_3320	30

#### Model "IPG" indoor or recessed EN 671

Wall indoor or recessed, grey primer, EASYBREAK sheet. Tamper seal.



On request **NOFLAMES** 



Aluminium frame. Grey primer.

Tamper seal



"IPG"	mt	
tamper seal		
62615_0120	15	
62615_02 <mark>20</mark>	20	
62615_0520	25	
62615_0320	30	

## "TM" aluminium frame gold Code 62615\_0420 mt 20



On request with couplings BSS English, NST American, Afnor French , UNI Italy, others...

#### **HOSE REELS Certified CE EN 671**

#### SPECIFICATIONS:

Certified CE EN 671 Directive 89/106/CEE

#### 4 main versions:

- Wall fixed, blind door.
- **EASYBREAK** plastic transparent or unbreakable. h)
- c) Recessed, with easy break plastic.
- Recessed, with blind steel door. d)

#### Standard supply includes:

- Reel swinging 180°. 1)
- Nozzle 1" En 671-2. 2)
- 3) Rubber hose, certified EN 694.
- Brass shut off valve 1", with gauge 4)
- 5) Tamper seal.

# Wall blind



Visible



**EASYBREAK** glass



**Blind recessed** 





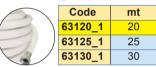
#### Reel with blind door, EN 671



Standard rubber hose

Code mt 63120 20 63125 25 63130 30

Semirigid "Optional"



#### Reel with glass, EN 671

The sheet is unbreakable, elegant smoked transparent, frame in metal, optional

see page 43

Recessed hose reel "TM" EN 671

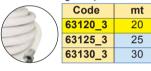


Rubber hose "Standard" Code 63120 2

On request easy breakable sheet see page 43

20 63125 2 25 63130 2 30

Semirigid "Optional"



Blind door.

#### Reel blind door + extinguisher, EN 671



On request with easy breakable or Noflames sheet. see page 43

Frame aluminium, unbreakable glass.

NOFLAMES 🂢



68x68x23 cm

mt

20

25

30



60v60v22 om	

68x68x23 cm

Rubber hose

Code

63120\_6

63125\_6

63130\_6

Semirigid hose

Code	mt
63120_7	20
63125_7	25
62420 7	20

Rubber hose

Code	mt	Code	mt	
63120_8	20	63120_9	20	
63125_8	25	63125_9	25	
63130_8	30	63130_9	30	

ode mt **120\_9** 20 **125\_9** 25

30

Semirigid hose

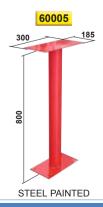
	Code	mt
	63120_4	20
) )	63125_4	25
	63130 4	30

	Code	mt
١	63120_5	20
	63125_5	25
	63130 5	30

Semirigid "Optional"

#### Standing foot, for hose reel and cabinet









Special version manufactured on customer specification and design.

Fire fightings equipments

#### **HOSE CABINETS**

#### Model wall type

Aluminium frame, **EASYBREAK** sheet, tamper seal





On request **NOFLAMES** see page 43

61243 37x60x17 cm for 2" hose 20 mt

61272 45x69x23 cm for 2" 1/2 hose 20 mt

#### Model Industrial "626"

Indoor or outdoor, tamper seal

Available in stainless steel steel shine or painted





61148 38x63x18 cm

61149 37x60x20 cm

61177 45x66x23 cm 61178 50x68x25 cm

#### Stainless steel AISI 304

EASYBREAK plastic glass.





NOFLAMES see page 43

61144 37x61x17 cm

61175 45x70x23 cm

#### **Model recessed**

Grey primer, Aluminium frame, EASYBREAK sheet, tamper seal.





60008\_1 DN 45 60013\_1 DN 70 Unbreakable glass spare

61242 36x56x16 cm 61271 45x66x23 cm

#### **Model outdoor**

Steel frame, EASYBREAK sheet, tamper seal, inclined roof.



**NOFLAMES** 60038\_1 DN 45 60012\_1 DN 70

61142 37x61x18 cm 45x69x23 cm

#### Plastic

Extremely strong and climate resistance.



It can hold 2 hoses or 2 extinguishers 12 kg

61134 54x72x27 cm

#### Fiberglass cabinets

#### FIBERGLASS

Fire extinguisher





61136 56x56x22 cm

61132 6 Kg 30x56x22 cm 61137 12 kg 30x75x22 cm

#### Wall frames

It can be used to replace existings frames for recessed base cabinets. Easy fixing in the wall.

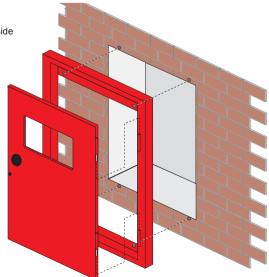
# Made in steel

Transparent windows allow easy view of inside equipment. Tamper seal.



61141 41x65x2 cm

61143 49x72x2 cm



Available stainless steel shine

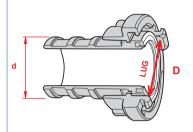
#### Hose coupling Italy UNI **Standard** Heavy **DN 70 DN 70 DN 45** DN 45 DN 25 DN Code Code DN 45 65451 65251 25 65701 70 65452 45 65100 100 65702 70 65125 125



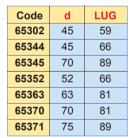


#### **Coupling Storz German Din standards**

Used in Germany, in most nord and east european countries. For correct identification specify the hose "d" and LUG space "D" distance between two internal thets.









#### **Adaptors Storz German Din standards**

Used in Germania, in most nord and east european countries. For correct identification specify the hose "d" and LUG space "D" distance between two internal thets.





Code	d	LUG	thread
65300	52C	66	2" f
65300_1	52C	66	2" f
65303	75B	89	2 1/2" f

Adaptor with thread for hydrants DIN

Code

65310

65311



)	IN 40	5			
	d	LUG	thread	thread	
	52C	66	2"m	50x1/6"	
	65C	81	2 1/2"f	60x1/6"	

Code	LUG	LUG
65305	66	31
65307	81	66
65308	89	81





Code	d	LUG	thread
65304	52C	66	50x1/6"
65306	65C	81	60x1/6"
65309	75B	89	65x1/6"





#### Pillar Hydrant EN 14384:2006



#### Type AD simple

	Type AD Simple			
	Code	DN	Outlet	B/A
	69101	50	2x2"	50/65
	69202	70	2x2"1/2	50/65
	69204	70	2x2"1/2+4"	50/65
	69301	80	2x2"1/2	50/65
	69303	80	2x2"1/2+4"	50/65
	69401	100	2x2"1/2	50/65
	69403	100	2x2"1/2+4"	50/65
	69503	150	2x2"1/2+4"	50/68
	69307	80	2x2"1/2	96/65
	69308	80	2x2"1/2+4"	96/68
	69407	100	2x2"1/2	70/65
I	69408	100	2x2"1/2+4"	70/65
ĺ	69505	150	2x2"1/2+4"	98/68

#### Type ADR with pre-set break

Code	DN	Outlet DN	B/A
69206	70	2x2"1/2	50/65
69207	70	2x2"1/2+4"	50/65
69305	80	2x2"1/2	50/65
69306	80	2x2"1/2+4"	50/65
69405	100	2x2"1/2	50/65
69406	100	2x2"1/2+4"	50/65
69504	150	2x2"1/2+4"	50/68
69309	80	2x2"1/2	96/65
69310	80	2x2"1/2+4"	96/62
69409	100	2x2"1/2	70/65
69410	100	2x2"1/2+4"	70/65
69506	150	2x2"1/2+4"	98/68

Working pressures up to 16 bar.

Tested while open to 24 bar, closed to 21 bar.

It is equipped with an anti-freeze drain that enables the hydrant to be emptied after use.

All the internal components are easy to dismantle and

Epoxy powder painted in red RAL 3000.

Hydrant outlets Storz Din German Standard (other on request).

Inlet flange as customer request

#### Pillar hydrant 90° Elbow

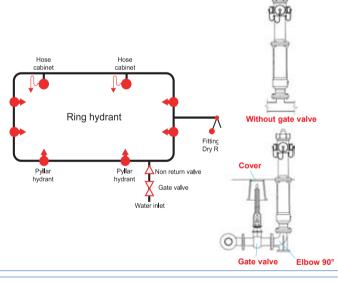
90° elbow, cast iron with foot stand.



Code	DN	A cm	B cm
69006	50	13	24
69007	70	15	25
69008	80	18	27
69009	100	18	30
69035	150	21	33

#### TYPE ADR with pre-set break elbow 90 ° included

Type ADR with pre-set break off point and automatic shut-off in case of breakage to prevent water escape. Above ground section 360° rotational after fitting. Opening against pressure that guarantees an improved seal when the hydrant is closed due to the pressure interaction



Typically used in High risk area where does not exist freezing risk.

Manufactured in various solution from 4 up to 8" and multiple

Main gate valve may be fixed for each outlet or 1 underground.

The hydrant can be supplied with 2 x 2 1/2" and 2 x 4" outlets also with gate valve.

The hydrant is manufactured in cast iron G22, in cast iron with 3% nickel or in spheroidal cast iron GS 400/15.

The hydrant is equipped with a top flange which make it suitable for the possible application of monitors.



Pentagonal hydrant key with cap which locks onto the hydrant body to prevent tampering. Axial coupling onto the water mains.

- Surface hydrant in cast iron G 20 ISO 185 for pressures up to 16 bar.
- It is equipped with an anti-freeze drain that enables the hydrant to be emptied after use.
- All the internal components are easy to dismantle and maintain.
- Epoxy powder painted in red RAL 3000. Hydrants outlets Storz german Din Standard (other on request)
- Hydrant tested while open to 24 bar, closed to 21 bar.



BSS 336

## 69001

For hydrant, coupling and foam mobile unit.

Code	DN	Outlet	B/A
69301_1	80	2x2"1/2	50/65
69303_1	80	2x2"1/2+4"	50/65
69401_1	100	2x2"1/2	50/65
69403_1	100	2x2"1/2+4"	50/65
69503_1	150	2x2"1/2+4"	50/68

On request with couplings BSS English, NST American, Afnor French, UNI Italy, others...





Code	DN
69050	50
69051	65
69052	80
69053	100
69054	150

#### Standpipe for underground hydrant



Can be equipped with all types of couplings, Storz, BSS, UNI, Afnor, etc...

Code	DN	Outlet	H mm
	With gat	e valve	
69012	45	1 x 2"	755
69013	70	1 x 2"1/2	870
69014	45	2 x 2"	755
69015	70	2 x 2"1/2	870
	Nithout g	ate valve	
69016	45	1 x 2"	630
69017	70	1 x 2"1/2	755
69018	45	2 x 2"	630
69019	70	2 x 2"1/2	755

#### **Underground hydrant and cover**

Manufactured in cast iron, suitable for water till 80°C. Also on request DN 80 and 100 EN 14339:2006.



69004 DN 50 dim 490 x 257 69005 DN 65 dim 470 x 306 Cover for hydrant or gate valve



69010 DN 45 240 x 390 x 310 **69011** DN 70 240 x 430 x 335

#### Gasket

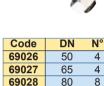
#### Flange PN 16

#### **Nut and screws**









8

Code	DN	N° Thread			Code	D
	hole				69026	5
69020	50	4	M 16		69027	6
69021	65	4	-		69028	8
69022	80	8	M 16		69029	10
69023	100	8	M 16		69030	1:
69025	150	8	M 20			

#### **SPANNER FOR PILLAR HYDRANTS AND HOSES**

69001 For pillar hydrants, hose couplings, foam drums.

69000 Universal spanner for couplings.



69002 Spanner for pillar hydrants.



69033 Spanner for pillar hydrants.





#### RISERS, BREECHINGS CONNECTIONS

68636 Clapped siamese connections

68327 Not clapped siamese connections inlet B75 Storz or 2 1/2" bsp



out 2xC52 storz or 2 1/2" bsp

all types of couplings available



out 2xC52 storz or 2 1/2" bsp

68328 Connection with ball valve

68325 Connection with ball valve





or 2 1/2" bsp

## **Risers cabinets**



Suitable to store the risers and protect them against improper use or vandalism.

Code	type	Dimensions cm
61301	2"	60 x 50 x 30
61302	3"	80 x 50 x 30
61306	4"	100 x 50 x 47

5

#### Hose roller

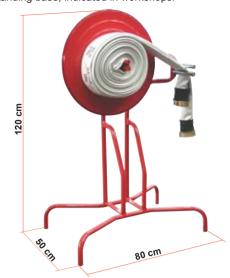
According to EN 671-3, hose should be tested periodically.

This unit enable quick rolling of the flat hose and discharge of the inner water after its use in case of dire or for testing purpose.

98014 On wheels, indicated for car service on site.



With standing base, indicated in workshops.



#### Manual binding unit

98058 Easy to use, small and compact, can make binding of any kind of hose and couplings. It need to be fixed in a clamp





#### Fire hose testing units EN 671-3

#### 98010

Compressed air

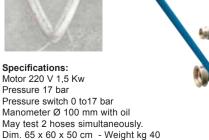


Small portable mini air compressor, developed to be carried easily by hand having an advantage of of small clutter.

The standard EN 671-3 consider the test every 5 years at 12 bar. This units reach 17 bar, it has a pressure switch to set desired pressure. Connection on customer request, Storz, BSS, Afnor, UNI,eccc.







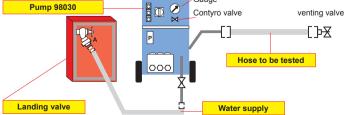


#### 98030 Water

Œ

This pump can test all kind of fire hose with water. It is very fast and efficient. EN 671-3 require the test every 5 years at 12 bar. Mounted on trolley for easy transport. Connected to a water supply, it fill the hose quickly ant the test is done in few seconds. The pressure test can be set by rotating the control valve slowly to any desired pressure value.





#### Kit for water supply flow test



Indispensable for technicians that have to test a water pipe network. Can check and record static and dinamic pressure.

Nozzles has calibrated bore so that can read with a gauge the dynamic pressure of the water flow and compare with a table and the graphic showing the correct value needed. In case the pipe network or a pillar hydrant, or a landing valve has an obstruction can easily discovered as a result of anomalous pressure drop. A gauge 100 mm diam with oil absorbs the back hammer effect and guarantee a correct read.

#### Complete with:

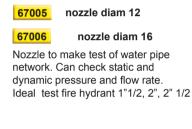
- Nozzle calibrated Ø 16
- Nozzle calibrated Ø 12
- Ball valve
- adaptors
- Blank cap to read static pressure
- Spanner for couplings
- Manual
- Graphic chart and flow rate chart
- Conformity declaration.

#### 67002



Dimensions 500 x 255 x170 mm Standard Couplings are Storz, other avalaible

#### Water flow test nozzles



- Nozzles 12 16 mm.
- Manual
- Charts, flow and pressure
- Conformity declaration.



Cap DN 45 With gauge

Blank cap, gauge, drain valve. It permits to test the static pressure of landing valves and pillar hydrants..



60028 UNI 45

Standard Couplings are Storz, other avalaible

Suitable to test hose reel flow rate.

#### Pitot tube.

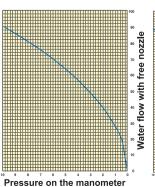
It is a device than can check the dynamic pressure and floow speed of water, enabling to know exact flow rate. Standard Couplings are Storz, other available



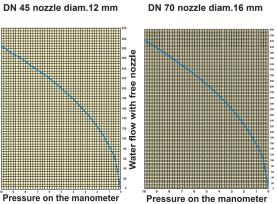
## For professional technicians.

Flow diagrams DN 25 - 45 - 70, used with nozzles calibrated Ø8 - 12 - 16 mm

DN 25 nozzle diam.8 mm



DN 45 nozzle diam.12 mm



#### Box complete of: PITOT Pipe stainless steel Gauge 0/10bar 0-10 bar Gauge 0/25 bar0-25 bar

67008 UNI 45 Instructions, flow charts, conformity certificates'

Various products can replace Halon 1301 forbidden as severly damages

Most known is FM200® Identified as HFC227 from the international standards as agent tor total flooding applications.

The product is safe for humans, ecologic, without restrictions being compatible with the ozone layer.

In facts, its ODP = 0 and NFPA classify it as safe for total flooding application even in presence of humans when used in the proper concentation suggested by the standards NFPA 2001 and further updates

Concentration normally requested is 8%, means 633 gr/mc at 20°C. Do not leaves residue, ideal to protect high value equipments such as museum, banks, EDP computer servers, switching rooms, archives,

EPA, Environments Protection Agency and NFPA recognize it as one of most efficient substitute of halon 1301 available.

It is chemically very stable, and having a low ALT of 36 years it is accepted all over the world.

#### ADVANTAGES versus INERT GASES.

After discharge in a total flooding application oxigen concentration remain high, close to 19% enabling easy breathing also to persons with respiration chronic disease, comparing with inert gases which drop to 12%, which may cause serious breathing problems.

The extinguishing time it is less than 10 seconds, comparing to more than 1 minute of inert gases. Lower pressure at 42 bar comparing with 300 bar.

Lower number of cylinder.

Rechargeable on site.

More service points can make a fast refilling



#### Comparization to protect 1.000 m3 Extinguishant Discharge Extinguish Quantity Number Total Agent time time needed of cyl weight sec' sec" Κg HFC 227 (best known as FM200®(2)) > 10 633 5 da 120 1 230 Halon 1301 (out of market) 10 <del>> 10</del> 331 3 of120 715 HFC 125 10 > 10 502 5 of 120 1.142 HFC 23 (known as PF23® o FE 13®) (2) 10 > 10 644 7 of 120 1.540 IG-01 (100% argon) 60 > 60 514 m<sup>3</sup> 12 of 140 3.073 IG-55 (50% argon 50% nitrogen) 60 > 60 439m<sup>3</sup> 11 of 140 2.702 IG-100 (100% nitrogen) 60 > 60 486 m<sup>3</sup> 13 of 140 3.151 IG-541 (1) 60 > 60 587 m<sup>3</sup> 21 of 80 4.275 Sources: (1) INERGEN Tyco/Wormald - FM 200® Great Lakes - (2) (3) PF23® FE13® Dupont

#### Concentration %

Design concentration\* % for class risk Class "A "e "B" according to NFPA

Product	volume (%)" A"	gr/mc " A" *	volume (%)"B"	gr/mc "B"**	esposure persons min'
HFC 227ea	8	633 - <del>331</del> -	8 - <del>5.0</del> -	<b>725</b> - <del>33</del> 1-	5' 5'
Halon 1301§ - HFC 125	— <del>5,0</del> — <b>9</b>	502	10,44	589	5'
HFC 23/FE13	18	644	14,4	493	5'

- Test with" woodpile " + 20% safety factor
  Test " cup-burner ", hepthan +20% of safety factor
- Halon 1301 out of the market. NOT ADMITTED

#### **Pysical properties**

Chemical formula:	CF3CHFCF3
Chemical name:	Heptafluoropropane
Molecolar weight:	170
Boiling point a 1,013 bar	16,4 °C
Freezeing point	127 °C
Critical Temperature	101,7 °C
Critical Pressure	29.26 bar
Critical volume	274 cm3/mol
Critical Density	573 kg/m3
Vapour Pressure 20 °C	3.90 bar
Liquid density at 20 °C	1410 kg/m3
Saturated vapor density at 2	0 °C 31,035 kg/m3
Specific volume of heated si	team
at 1,013 bar and 20 °C	0,1374 m3/kg

#### Filled cylinders with HFC 227

Cylinders 85 and 125 litres are approved CE-TPED, certified and inspected by Bureau Veritas, tested at 85 bar, working pressure 42 bar, directly manufactured in our factory. This is an example for preliminary analisys of cost purpose. Diameters of pipes and nozzles bore, must be performed by computer software calculation according to NFPA.

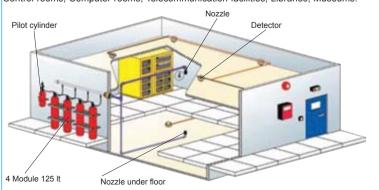
cylinder	It	HF0 max	harge 227 max	Kg charge HFC 125 max min		Diam. mm	Height with valve. mm	Cylinder Connect.	Valve Outlet connect.
43034	7,5	3.5	7.5	6.5	4.8	140	745	3/4"	3/4"
43035	14	7	13	13	8	176	890	3/4"	3/4"
47027	27	13.5	25	25	15	229	1500	3/4"	3/4"
43047	40	20	31	37	22	229	1550	1"	3/4"
43038	60	30	60	55	33	229	1900	2 1/2"	1 1/2"
43039	85	42.5	67	74	44	269	1825	2 1/2"	1 1/2"
43041	125	62.5	95	111	66	356	1640	2 1/2"	1 1/2"

#### Flow rate Kg/sec

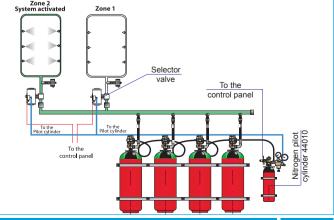
	_	
Pipe	Min	Max
diameter		
1/2"	0.454	1.361
3/4"	0.907	2.495
1"	1.588	3.855
1 1/4"	2.722	5.67
1 1/2"	4.082	9.072
2"	6.35	13.61
2 1/2"	9.072	24.95
3"	13.61	40.82
4"	24.95	56.7

#### HFC 227 gas extinguishing system

Application Area Control rooms, Computer rooms, Telecommunication facilities, Libraries, Museums.



#### HFC 227 gas extinguishing system with selector valve

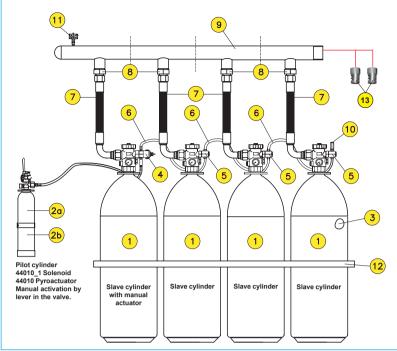


The pilot cylinder 44010 through the automatic fire detection and the control panel activate all the other slaves cylinders simultaneously.

#### **Example calculation**

Archive room mt 20x20x3 = 1200 Mc at 42 bar WP Necessary gas: 0,633 kg/m3 = Kg 760 = 8 module 125 lt Diameter pipe and nozzle hole determinated by computer software of Hughes Association U.S.A.

N°	Description	Code	Pos
8	Module with valve 125 lt, 42 bar	43041	1
1	Pilot cylinder (Solenoid 24 Vdc act.)	44010_1	2a-2b
750	kgs gas FM200	43141	3
1	Manual and pneumatic actuator	41184	4
7	Pneumatic actuator	41188	5
7	Hose between cylinders 1/4"mgo	44011	6
8	Duck bend	43037	7
8	Non return valve	43069	8
1	Manifold 8 places 6"	42007_1	9
1	Vent valve	41054	10
1	Pressure switch on manifold	41014	11
8	Wall bracket 8 unit of 41092	41092	12
12	1 1/2" Nozzle at 360°	44091	13
	<u> </u>		





mm

356

356

800

1200

42.5

62.5

43039

43041

85

125



manifolds,			
Code must be veri	ied and confirr Diam	hed by comput	
	mm	kg	125 Lt
42007	2 1/2"	250	3
42007_1	3"	375	4
42007_2	4"	500	5
42007_3	5"	625	6
42007_4	6"	760	8

#### Discharge nozzle

Supplied with a calibrated hole according to the computing calculation.

> 2 version 180° and 360° On request other angle

(13)



		Flow I	Kg/sec
Code	diam	min	max
44007	1/2"	0.45	1.36
43026	3/4"	0.97	2.45
49008	1"	1.59	3.85
44090	1 1/4"	2.72	5.67
44091	1 1/2"	4.08	9.07
44092	2"	6.35	13.61

#### Wall bracket kit

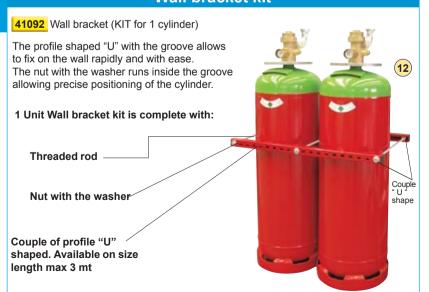
67

95

kg~

64

85



#### **Pressure switch**

#### 41014 Pressure switch

The flow of the gas it close an electrical contact to turn off fans, doors, send an additional alarms etc.

Has a contact nc-no 10 A.

On request double contact.

Minimum pressure actuation just 2 bar.

On request **Pressure switch EEx** 

41018 Pressure switch Version with 2 contacts1+1



## Valves and actuators for gases HFC



#### Pilot cylinder with solenoid or pyroactuator

44010 Lt 3, with pyroactuator max 200 bar **44010\_1** Lt 3, with solenoid max 50 bar

It is used to actuate a bank of multiple cylinders

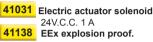
It is equipped with pressure gauge, hand manual actuator lever, delivery hose 1.5 mt non return valve.

Solenoid valve may be on request explosion proof.

The standard pilot cylinder of 3 Lt is sufficient to actuate a bank of 12 cylinders, when the cylinders are located very close.

When it need to actuate more than 12 cylinders, or system with selector valves, then a bigger capacity of pilot cylinder is







Usually used in a single cylinder

41184 Manual and pneumatic actuator Manual port inlet reset

2 1/2" f

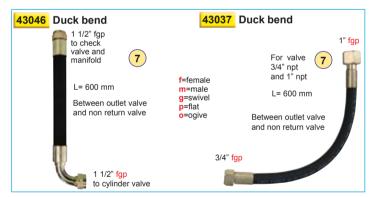
25.4x14 tpi 1" f

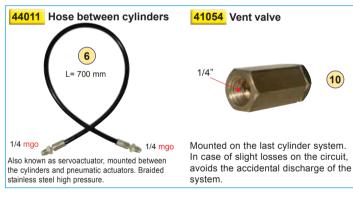




41188 Pneumatic actuator



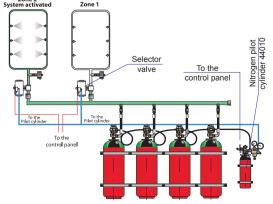


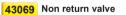


44022 Selector valve PN 300 With electropneumatic servo-control at 24 Vcc



CE marked. The solenoid valve, make it possible the passage of the gas from the pneumatic activation line (pilot bottle) to the pneumatic activator of the valve (maximum pressure 8-10 bar).





Mounted between manifold and cylinder. Prevents the return of the gas from the manifold to the



(10)

6

# NYTRARGON®



Used for "total flooding" application. It is a mixture of gases present in the atmosphere, 50% "A" Argon and 50% "N2" Nitrogen. It is classified in the international standard with the trade name Ig-55. Being natural gases in the earth atmosphere, never will be restrictions on its use. In fact its impact in the pollution is zero. Dimensioning is realized If allowing NFPA 2001, or ISO 14520-14, with respective concentration min. 38% - 42%. No thermal shock to computers. The pure mixture gas does not stratify, permit an optimal visibility during the discharge and uniform saturation in the protected area.

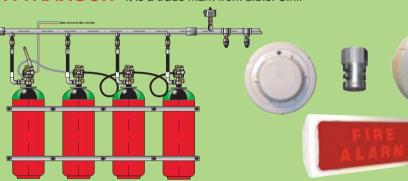
NYTRARGON® has zero environmental impact (ALT, GWP, and ODP=zero)
NYTRARGON® extinguishes the fire reducing the oxygen concentration in the
protected volume; it is, therefore, necessary ensure good tightening of doors and
windows before discharge. For this reason after installation is performed the **Door**Fan Test, which discover eventual leakage of closures.

Is efficacious against all the types of fire, and is particularly used in to protect great values, where others extinguishing like water, powder, or foam cannot be used because they would cause damages.

Typical employee in a computer rooms, museums, telecommunication centres, banks, etc.... Normally used in closed areas, it is calculated to reduce the percentage of oxygen at 12-13% arresting the combustion after the discharge in approximately 60 sec. The system previews an acoustic/optical pre-alarm before the discharge.

Presence of people in the area during and after the discharge is not a danger. They can breathe for a wide time without danger, and the visibility does not come reduced. No toxic gases are generated from the combustion in contact with NYTRARGON<sup>®</sup>. Accepted from standards NFPA and EPA. It demands an accurate computer calculation in order to avoid that concentrations lower than 12% may cause an excessive breathing problems.

NYTRARGON® it is a trade mark from a.b.s. S.r.I.



47039 Control panel EN 54-2/4 EN12094-1



For system cross zone with cross zone detector. EN 54-2/4 EN 12094-1 Certified.

Professional

### NFPA 2001 Table

Characteristics

Chemical composition Nitrogen 50%+ Argon 50% purezza 99,99%

GWP, ODP, ALT 0 (zero)

Dielectric rigidity at 1 atm-mmHg at +25°C (N2=1,0) 1,01

Design concentration according to ...... NFPA or ISO 14250-14

Protection area for a cylinder 80/140 Lt..... a 300 bar M³ 43 / 75

Cylinder capacity......80/140 LT charged at 300 bar

Nytrargon quantity on the cylinder 80/140 Lt ...... at 300 bar Nmc 22,1 / 39

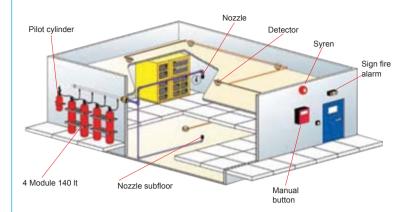
Application (CED - warehose - archive)

Also with presence of people in a room

The percentage of OXIGEN at 12/13% allows a sufficient respiration

**Nytrargon System** 

6

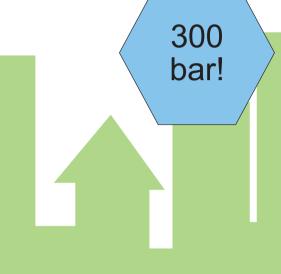


# Example of total flooding application ISO 14250-14:2005 (E).

Design concentration 40,3 % for a class A fire (table 4 of the current norm) at 20°C, 0,729 Kg/mc.

	One cylinder it protects:							
Code	Cylinder Capacity It	Fill pressure bar	Protection room mc	Charge kg	mc gas on the cylinder			
44080	80	200	30,5	22.22	15.73			
44084	80	300	42,8	31.18	22.08			
44140	140	200	53,6	39.04	27.65			
44145	140	300	75,5	55	38.95			

For more information contact the our technical office.

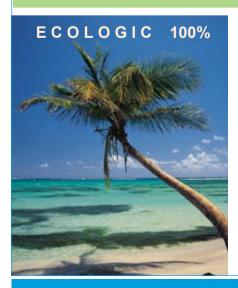






## **Advantages and benefits**

- · It dose not leave residual
  - Sure for the people
  - Low cost of recharge
- Electrically not conductive
- Environmental respect with ODP, ALT, e GWP = 0 6
- Advantage to place the cylinder at distance from the protection room



ALT atmosphere life time

GWP global warming potential

ODP ozone depletion

potential = Zero

The nitrogen and argon are gas present in the air, pure, cleaned and dielectric, when they have a contact with flames, do not have reaction, they are not harmful products, non corrosive and return in the atmosphere without damage the environmental.

NYTRARGON® safeguards the people and

protect with effective safe way the delicate materials.

NYTRARGON® system uses cylinder of large-capacity 80 and 140 liters tested and approved CE TPED and the inspection test is ten-yearly.

The initial high pressure on the manifold through a special "ORIFICE" is reduced at 40-60

bar enabling remarkable savings costs on the installation pipes. The NYTRARGON® cylinder can be placed to great distance and, with the use of directional valves, it guarantees flexibility and convenience to protect with one bank of cylinders multiple areas.

Engineering, design, computerized software calculation, installation, service.

The pilot cylinder activated by the control panel or manually through the hoses allows to simultaneous activation of all the other slave cylinders.

or or pilot cylinder 44010\_1, connect to control pane

Dalla cartuccia alla centrale

Separate pilot cylinder is needed to open selector valves used to switch the discharge in different area tto be protected with a single bank of cylinders.

#### **Example calculation:**

CED room dimension 16x10x3 = 480 Mc Number of cylinder at 300 bar: 5 of 140 Lt.

Note: The VT valve at 300 bar is complete with pneumatic actuation.

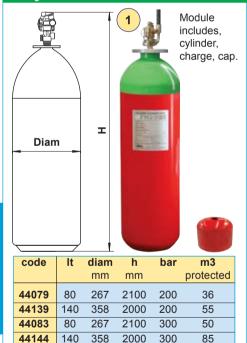
. The diameter pipe and of the nozzle are determinated from the computerized calculation

	Val	determinated from the computerized calculation.		
5 9	N°	Description	Code	Pos
	5	140 It Module charged at 300 bar	44145	1
10	275	kgs gas IG 55 included in 5 modules		2
	5	VT valve at 300 bar	44082	3
	1	Tee for pilot cylinder	41164	4
	3	Hose between cylinders	44014	5
	5	Non return valve	43075	6
	1	Pyroactuator 41133 or pilot cilinder 44	1010	7
Slave Slave Slave	1	Hose pilot cylinders	44015	8
	5	Duck bend	44061	9
1 1 1	1	Vent valve	41054	10
	1	Manifold 5 places 1 1/4"	44046	11
<del>                                    </del>	1	Pressure switch	41014	12
	1	Orifice calibrated	44006	13
Slave cylinders	5	Wall bracket 5 unit of 41092	41092	14
Slave Cyllinder's		Nozzle according to calculation	49008	15

#### Cylinder module at 300 bar

Master 1

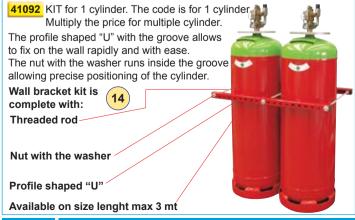
Pilot cylinder





VT valve at 200 or 300 bar. CE PED

#### Wall bracket kit



#### **Pressure switch**

**41014** 1 contact 10 A **41018** 2 contacts 10 A

The pressure switch, placed on the discharge manifold. One contact NA and NC. Through the passage of the Nytrargon® in the manifold, it sends alarms sounds, it disconnects the electrical circuit, stops fan ventilation, shut the doors, etc...



#### Pilot cylinder with solenoid or pyroactuator

44010 Lt 3, with pyroactuator max 200 bar Pyroactuator use universal voltage, 0,5 Amp

44010\_1 Lt 3, with solenoid max 50 bar 24 VDC 1A

It is used to actuate a bank of multiple cylinders.

It is equipped with pressure gauge, hand manual actuator lever, delivery hose 1.5 mt non return valve.

Solenoid valve may be on request explosion proof.

The standard pylot cylinder of 3 Lt is sufficient to actuate a bank of 12 cylinders, when the cylinders are located very close.

When it need to actuate more than 12 cylinders, or system with selector valves, then a bigger capacity of pilot cylinder is request.



(E)

#### Manifold preassembled at 300 bar

44062 H.P. pipe type XXS diam. 2" and welded coupling. Steel pipe schedule 160 & XXS, coupling ASA 6000. Tested and certified CE PED 97/23. Test 750 bar



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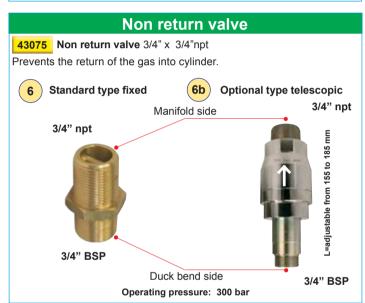
3/4" f 400 mm

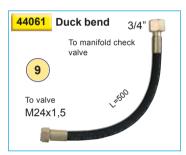
Number of Cylinders in manifold

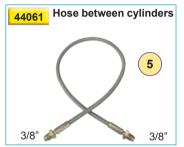
Number of Cylinders in marillold						
Diam	N° cylinder	pipe				
1"	4	sch 160				
1 1/4"	8	sch 160				
2"	14	XXS				
2 1/2"	20	XXS				
3"	34	XXS				
4"	60	VVC				

On stock available manifolds

Cod	diam	Cylinder
44043	1"	2 place
44045	1"	4 place
44046	1 1/4"	5 place
44047	1 1/4"	6 place
44048	1 1/4"	7 place





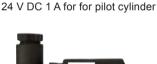


## 41133 Pyroactuator

For for pilot cylinder. Drive in a few milliseconds.

Possibility of monitoring the curre 7 on the panel. Universal voltage, 0,5A

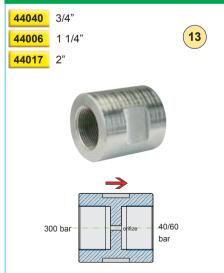




41150 Solenoid actuator



#### Orifice calibrated for manifold



Necessary to reduce the gas pressure during the discharge from the manifold to the distribution lines, from 300 bar of the cylinder to 40 ÷ 60 bar after the orifice. Orifice size is determined by computing.

#### Discharge nozzle

In aluminium, supplied with a calibrated hole in according to the computing calculation. Flaps at 360° used far from walls,180° the walls. 90° angle available.



Flow Kg/sec

Code	diam	min	max
44007	1/2"	3,51	20,96
43026	3/4"	6,34	37,86
49008	1"	10,54	62,89
49090	1" 1/4	18,75	112
49091	1" 1/2	25,93	154,7
49092	2"	43,85	261,7

#### Pressure reducer

28009 0/20 bar to activate the selector valve Used to active the selector valve, requiring the maximum pressure of 8 bar.

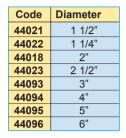


28010 0/60 bar high flow. For powder system Also used to pressurize halogenated fire extinguishers or modules up to 42 bar.

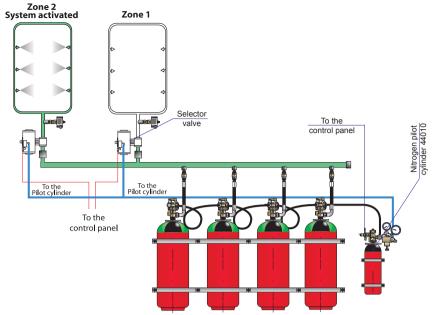
#### Typical system with high pressure selector valve

#### 44022 Selector valves

With electropneumatic actuator at 24 Vdc max 8 bar CE marked. The system control panel permits opening of alarmed fire zone and discharge the gas in single zone. They are useful to protect with a single bank of cylinders more than one zone under fire risk enabling a considerable saving.







#### 44032 Door Fan Test

It is an essential test according to NFPA and ISO 14520. The fan is fitted in a door and blow air int the room creating a temporary over pressure not less than 25 Pa ( $\bf Pa=$ air density) (1,205 at 20 °C e 1,013 bar) (in kg/m3).

Then, one hand held computer can detect eventual leakages in the room protected.

By measuring the air flow through the fan and its effect on the air pressure in the home or office, the blower door system measures the air tightness of the entire building envelope.

Additional infrared camera may be used to determine the air infiltration points to help with a more accurate evaluating indoor air leakages.







#### Spare parts and accessories for LPG valves

#### Pilot multiple actuator

44041 Suitable for LPG valve or other type of valve with connection M30x1.5



6

Manual activation Pyroactuator, connection 1/4" m for pyroactuator code 41133 Pneumatic from 8 to 300 bar.

Connection 1/4"f for pyroactuator or for pneumatic actuator from 8 to 300 bar.

#### 41133 Pyroactuator

Universal voltage, 0,6 A.

Gun powder creates a high pressure enabling valve activation Includes protective tube; threaded both sides 1/4"m x 1/4"m Safer than solenoid which instead need critical voltage and current.



#### **Pneumatic actuator**

#### 44027 Pneumatic actuator



**Nytrargon system** 

Valve LPG compatible.
Works with only 12 bars.
Allows battery operation of the cylinders. Has two incoming and outgoing connections 1 / 4 "to connect the hoses between the cylinder 44014.

M 30 x 1,5

#### Pilot solenoid valve

43042 Solenoid at 24V cc 1A

Solenoid actuator Valve LPG Connecting with nut M36x1 Compatible with valves that have the same diameter.



#### Great effectiveness of extinction

- Activation less than 10 seconds
- ABC powder, or MONNEX.

#### EN 12416-2

Cylinder made of carbon steel, working pressure 12 bars tested and approved CE -TPED Bureau Veritas.

The main valve is activated when the tank is pressurized.

#### Unique technology pressurize the tank in less than 10 seconds.

All accessories are preassembled on skid.

Equipped with high pressure nitrogen bottles, rapid discharge valve, pressure reducer, actuator electrical, pneumatic and manual. Each skid have 2 extra outlet standard to connect optionally 2 manual hose reel with machine gun nozzle flow 2 kg/sec.

Almost zero residual after discharge.

#### IFP POWDER SKID SYSTEM

Preassembled skids, ready to instal.

Complete with filing cap 100 mm, safety valve, pneumatic high flow ball valve, nitrogen cylinders. Optional cylinder in stainless steel and also foam version.

On request explosion proof EEXD actuator.



Code	Capacity	N° Cylinders	Valve
	kg	Lt N2	Outlet
40030	30	1 x 3	1"
40050	50	1 x 7,5	1"
40100	100	1 x 3 + 1 x 14	1"
40250	250	1 x 14 + 1 x 27	3"
40500	500	1 x 27 + 1 x 40	3"
40	1000	3 x 40 lt	4"





Characterized by great efficiency. Emploied in risks sites in presence of flammable liquids and gases, as in the industries of paints, oil platforms, warehouses, booths and paint lines, etc. Dry powder knock down the flames very rapidly.

Manufactured in various solution upon customer request





#### Selector valve

Electropneumatic 24 V DC 1 Ah



6

Code	Diameter
40016	1"
40010	1 1/2"
40020	2"
40013	2 1/2"
40006	3"



Used when with a single IFP skid protect more than one risk. Activation is controlled by the control panel fire detectors

#### 40014 Discharge nozzle



Brass open nozzle 1/2" , aluminium diffuser horn. Enable soft drop of powder for max efficiency.

Numbers of nozzle and piping diameters are determined by a computer software calculation.

Pag. 88

The sprinkler is an automatic thermo sensible valve.

A small glass bulb encloses a liquid sensible to the temperature that in case of fire it expands, brokes the bulb and leaves a rain water on the surface.

A single sprinkler it protects "approximately 10 mq, if placed at 3 meters height".

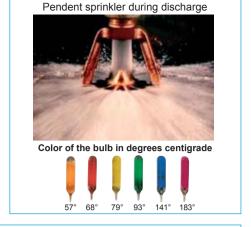
In case the fire extends, others sprinkler take part exclusively in the zone assaulted from the fire. For the greater part of the risks the standard 3 bar waterworks pressure is sufficient, other times need to install an electric pump, and an automatic power pumps in case the demanded pressure is insufficient or there is risk of electric power lack.

The sprinkler systems are most diffused fire installation to protect, supermarkets, hotel, garages, etc. The bulb is a fast response, thin just 5 millimetres.

Strong reductions on the insurance policy, render a sprinkler system an economic and amortizable investment in few years.

Our tech department can assist in the engineering, computer pipe dimensioning, installation and final test complying with the regulation in force.

This page shows the main, all range available in a separate catalogue



#### Conventional

Conventional sprinkler direct the jet also on the bearing structures of the ceiling and assure a good cooling of beams and pillar. The deflector can be mounted on the one or the other side.

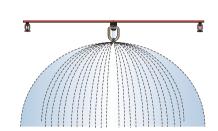


Code	Description
45110	1/2" brass export 68°C
45111	1/2" chrome export 68°C
45113	1/2" LPC 68°C
45117	1/2" LPC - FM 68°C

#### **Pendent**

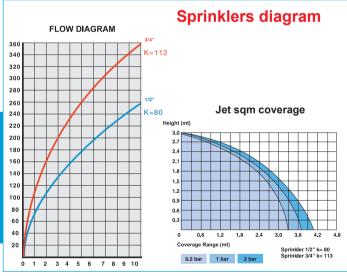
The deflector can be mounted only on the bottom side.

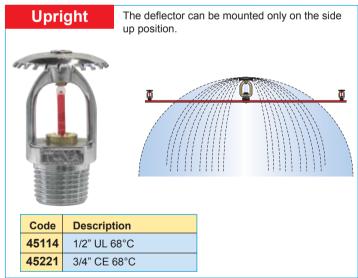




Code	Description
45112	1/2" UL 68°C
45220	3/4" CE 68°C

45113 1/2" CE mark

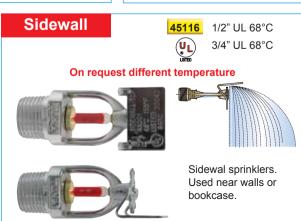






Installed indoor of false ceilings and are invisible for aesthetic reasons.

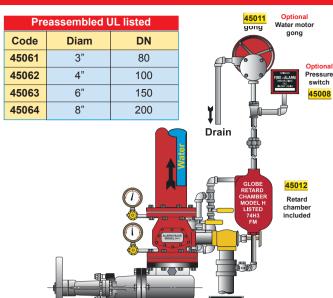
The retainer is adjustable for imperfections of false ceiling and in case of fire come down allowing the flow rain.





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#### SPRINKLER WET VALVE PREASSEMBLED UL. listed / CE Mark



45062 4" Preassembled includes: Body 45814, trim 45043, retard chamber 45012, preassembled 99998 packing in wood

Optional gate valve **45005**, pressure switch **45008**, water motor gong **45011** 

This valve must be used in areas with no risk of freezina.

The pipe are always full of water. In case of fire the automatic sprinkler open, the

The pressure switch active the pumps and other equipment.

hydraulic alarm bell set in action.

Wet body valve UL listed			
Code	Diam	DN	
45832	3"	80	
45814	4"	100	
45816	6"	150	
45818	8"	200	

Body valve made in cast iron flanged UL listed.



Body valve made in cast iron flanged UL listed.

Trim wet valve		
Code	Description	
<b>45043</b> Universal trim 3" - 8"		
Trim and necessary accessories to complete a body valve:		

manometers, valves, check valve, pipes,

coupling.



#### SPRINKLER DRY VALVE PREASSEMBLED UL listed CE Mark



Body valve **45914**, trim **45016**, air accelerator 45009, trim air accelerator 45010, packing in wood box.

Optional gate valve 45005, pressure switch 45008, motor gong 45011. This valve is particularly recommended in areas or plants where the danger of freezing is high and therefore the system must be pressurized with compressed air.

The system can also be equipped with an accelerator (optional ) which release the air very quickly in case of fire, even if only one single sprinkler head has opened.

	45011	gong
45008 optional pressure switch  45009  45009  AFRICAL APPROVED  AF		
Optional Gate valve UL  45000 3" 45001 4" 45002 6" 45003 8"	rain	

Dry body valve UL. FM.		
Diam	DN	
4"	100	
6"	150	
8"	200	
	Diam 4" 6"	

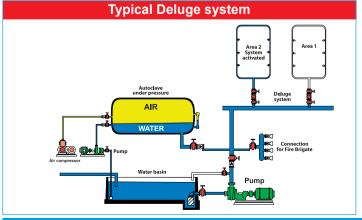
Body valve made in cast iron flanged UL listed

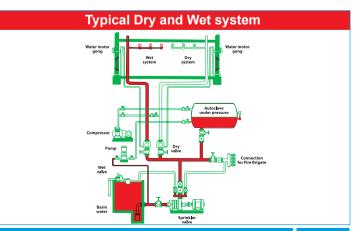


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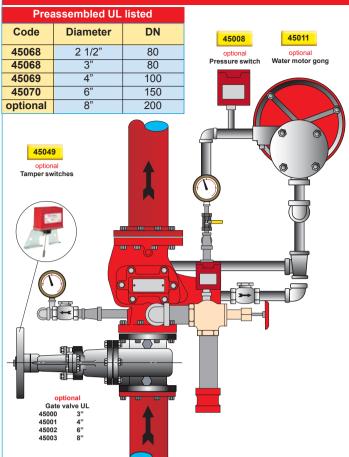


45016 Trim and necessary accessories to complete a body valve: manometers, valves, check valve, pipes, coupling,









#### 45069 4" Preassembled Deluge valve includes:

Body valve **46104**, trim **46000**, shipped in packing wood box.

Optional

Gate valve 45005, pressure switch 45008, water motor gong 45011, tamper switches 45049

"DELUGE" is a pipe network of open sprinklers, which protect a determined area under fire risk, The valve once activated through the fire detectors it open and the area is simultaneously flooded DELUGE system is used in areas where the risk of fire is high and cannot be controlled with bulb sprinkler which open one by one on demand of increasing the fire.

One single open sprinkler misure an area coverage of approx 9 sqm.Pipe and flow calculations are performed and computerized with an appropriate software.

DELUGE system requires usually large quantity of water. Being empty, galvanized pipes and fittings must be used.

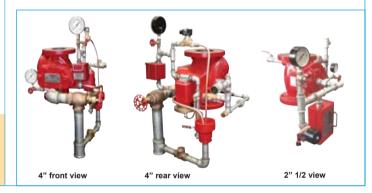
Body valve UL listed		
Code	Diam	DN
46003	2 1/2"	70
46125	3"	80
46104	4"	100
46106	6"	150
46107	8"	200



Trim for body valve			
Code	Description		
46000	valves 4" 6" 8"		
46005	valves 2" 1/2 - 3"		



Trim and necessary accessories to complete a body valve: manometers, test and drain gate and ball valves, gate, check valve, pipes, coupling.



#### Flow switch UL listed



Code	Diameter
45035	2"
45036	2 1/2"
45037	3"
45038	4"
45039	6"

The waterflow detector is a device that slides in the pipe and close an electrical contact useful for alarms.

#### Air accelerator UL listed





The air accelerator is used in the dry systems. It accelerate the air exausting quickly from the pipes, allowing water to arrive timely to the sprinkler activated by the fire.

45008

#### **Retarding chamber UL listed**



It serves primarily as an hydraulic time delay to prevent most false alarms associated with fluctuation of water supply pressure. In situation where excessive water pressure surges occur, the retard chamber is needed.

#### Water motor gong UL listed

45011

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It produce a strong alarm sound when a sprinkler is activated by a fire. It no need any electrical energy. The sound continue as long as the water flows through the sprinkler network pipes.

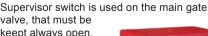
#### Pressure switch UL listed



Pressure switch

N.C. and N.O. contacts support 10A. When water flows through the pipes, gives alarm, stop fan and other servicices.

#### Tamper switches



keept always open. In case of tampering of the valve it marks an alarm to the control panel. Contact Max 10A

Contact Max 10A UL listed

45049



**Sprinkler system** 

### Sprinkler Headguards

45041



The sprinkler headguard are used to protect the bulb if it is at risk of accidental impact.

#### **Escutcheons**

45060 adjustable 20 mm





**45047** 3/4"

Large choice plastic or chrome.

#### Sprinklers cabinet UL - FM

Code	N° Pcs	Diam
48003	12	1/2"
48004	24	1/2"
48005	12	3/4"
48006	24	3/4"
48007	36	1/2"
48008	36	3/4"

Complete sprinklers

Only empty cabinet

48002 x 12 **48001** x 24



#### **UL. Listed Gate Valve**



Code	Diam	. DN
45004	3"	80
45005	4"	100
45006	6"	150
45007	8"	200

#### **UL. Butterfly wafer valve**



#### **UL Flow meter**

4" DN 100 da 800 a 3.200 Lt/min mod K 450 6" DN 150 da 2.300 a 9.000 Lt/min mod K 1250

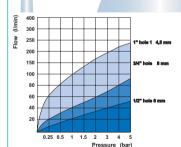
#### 45048



#### Water curtain nozzle

Code	diam	Ltm	Angle
	"	3 bar	
45050	1/2"	40	150°
45051	3/4"	70	150°
45052	1"	235	150°

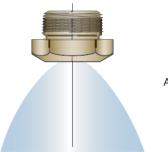




Water curtain nozzle provide a jet at 180° relatively flat

They are generally used to provide a water curtain over a glass window or apertures to prevent fire/heat penetration, and to cool oil tanks, steel columns to give more resistance to the structures.

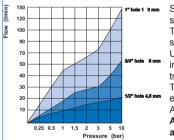
#### Spray nozzle



Code	diam "	Ltm 3bar	Angle
45053	1/2"	18	60°
45054	3/4"	30	60°
45055	1"	80	60°

Available with filter and various angles





Spray nozzle are generally used in a deluge systems

They provide a jet of 60° relatively of fine spray drops pattern.

Used in industries for multiple purpose and in fire fightings specially to protect transformers, oil containers.

The fine drops are not conductive of electricity.

Ask the technical data sheet. Available in a different diameters, flow and angle jet.

#### High Velocity Water Spray Nozzle UL



The minimum pressure (50 psi).

High Velocity Water Spray Nozzles are internal swirl plate type open nozzles designed for use in fixed water spray or deluge system for the fire protection application.

These nozzles produce solid uniform and dense core of high velocity water spray to effect fire control. Are normally used to cool the surface as well as for extinguishment. Typically used for Deluge protection of special hazards such as oil filled transformers, switch-gear, chemical process equipments, conveyor system and flammable liquid storage areas.

#### Medium Velocity Water Spray Nozzle UL



Medium velocity water spray nozzle has an external deflector, which discharges water in a directional cone shaped pattern of small droplet size.

The water is uniformly distributed over the surface to be protected.

The nozzle is used in deluge water spray system for special hazard fire protection application.

#### Water curtain UL



Nozzle distributes water in a flat curtain extending all the way to the ground.

When mounted in pendent position acts as a window spray nozzle to protect interior walls, windows and other opening of

the building which are affected by fire.

When mounted in horizontal position with flow towards ground, a flat water curtain is produced to segregate the area which is under fire.

Water Curtain Nozzles are available in Brass and Stainless Steel construction with different flow rate.

UL USTED

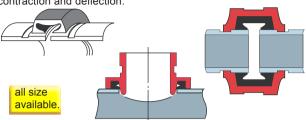
#### Grooved coupling U.L. F.M. ( available separate complete detailed catalogue)

The grooved end method provides piping systems, the most versatile, economical and reliable type of connection.

The following table shows the advantages of grooved products compared to other pipe joint methods.

Both rigid and flexible couplings are available for the grooved piping system.

With the housing held into the groove, the rigid coupling is designed to achieve straight runs of pipe without any flex at the joint, whilst the flexible coupling accommodates expansion / contraction and deflection.



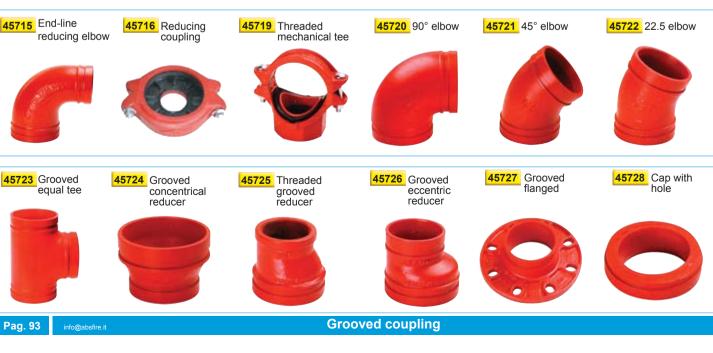
Comparative Advantages	Threaded	Flanged	Welded	Grooved
Allows angular deflection-misalignment				х
Expansion, Contraction or, no need for expansion joint				х
Reclaimable, no need for union		х		х
Allows fast connection with valves				х
Allows rotation of pipe for alignment		х		х
No Special skills required	х			х
No welding slags	х			х
No weakening of pipe at joints		х	х	х
No fire hazard during installation	х	х		х
Quick installation	х			х
Easy to maintain				х
Allows prefabrication	х	х		х
Low installation cost	х			х











# CAPACITY Pipe Diameter (mm) : 2"-12' Max. Wall-thickness (mm): 10 Output RPM (r/min) . 23

Single-phase Motor

: 110-240 Voltage (V) Power (W) : 1100 Frequency (Hz) : 50-60 Net weight (Kg) : 129 Dimension (mm) : 920x460x960

#### Three-phase Motor

Voltage (V) 110-460 Power (W) : 750 Frequency (Hz) : 50-60 Net weight (Kg) 123

Dimension (mm): 860x460x860

#### **Grooving machine type 1-4**

This machine is applicable for channeling of zinc-plated pipes, seamless pipes, stainless steel pipes and plastic-lined pipes of various sizes ranging from 1" to 4".



Pipe Diameter (mm) Max. Wall-thickness (mm): 5 Output RPM (r/min) : 23





#### Single-phase Motor

: 110-240 Voltage (V) Power (W) : 750 Frequency (Hz) : 50-60 Net weight (Kg) . 98

Dimension (mm): 690x580x1080

#### Three-phase Motor

: 110-460 Voltage (V) Power (W) : 550 : 50-60 Frequency (Hz) Net weight (Kg) . 92

Dimension (mm) : 650x580x1080

#### Hole cutting machine

The whole construction allows quick change of cutting disc. The cutting disc while using supporting roller on cam holder: 2 1/2" - 6". The cutting disc while using supporting roller on main unit: 8" - 12".

#### CAPACITY



#### Single-phase Motor

Voltage (V) : 110-240 Power (W) : 750 : 50-60 Frequency (Hz) Net weight (Kg) : 120 Dimension (mm): 660x710x960

#### **Three-phase Motor**

: 110-460 Voltage (V) Power (W) : 750 : 50-60 Frequency (Hz) Net weight (Kg) : 120

Dimension (mm): 660x710x960 Pipe machinery

#### Pipe cutting machine

Stable feeding mechanism with the support of dovetail guide. Three-phase motor, contributes to high efficiency.

#### CAPACITY

: 4" Max. tapping Diameter (mm) Max. tapping Wall-thickness (mm) : 10 RPM (r/min) : 120







#### Single-phase Motor

: 110-240 Voltage (V) 550 Power (W) Frequency (Hz) : 50-60 Net weight (Kg) 24

Dimension (mm): 340x340x620

#### Three-phase Motor

Voltage (V) : 110-460 Power (W) 550 Frequency (Hz) : 50-60 Net weight (Kg) : 24

Dimension (mm) : 340x340x620

Pag. 94

Manifold tested 250 bar

as per CE PED 97/23

**Example of cost calculations** 

Description

kg 45 cylinder

Pyroactuator

Hose between cylinders

Manifold 5 place 1 1/2"

Kit wall bracket (x 5)

Hose pilot cylinder

Duck bend 1"

Check valve 1' Pressure switch 10 A

Discharge horn

Pilot adaptor

CO2 Bell

Vent valve

Code

41149

41133

41054

41022

41023

43036

41004

41014

41058

41026

41009

41092

41172

Pos Q.ty

5

5

1

3

1

1

6 5

7 5

8 1

9 1

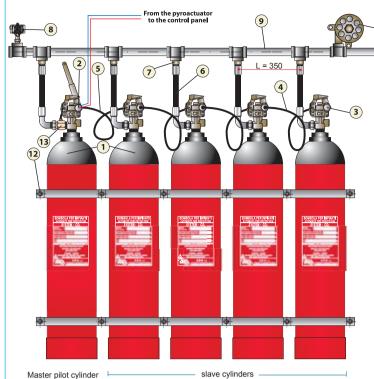
10

12 10

13 1

They guarantee high flow, easy maintenance, leakage free.

#### System with 5 cylinder charged with 45 kg complete with VTI valve



#### diam Code 41148 30 40 227 41149 45 67 273 41171 54 273 Protection cap 1

Cylinder, charged with CO2 VT valve and cap





Nozzle numbers and piping calculation must be performed with computer calculation by our technical department.

#### CO2 system with rapid discharge valve VFR

This system use the traditional valves known as VFR, VFR is a old but consolidated technology. This system may use pneumatic detector that not need electricity for actuation.

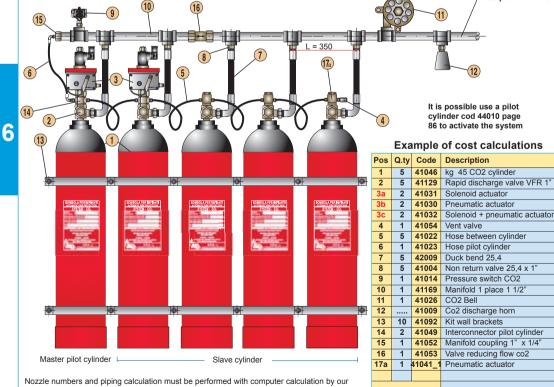
#### Also available system CO2 RINA approved

Therefore useful where installations protect high risk explosion proof areas or where electricity is not present and usually needed to refill

Manifold tested 250 bar

as per CE PED 97/23

#### System with 5 cylinder charged with 45 kg complete with VFR valve



#### Cylinder, charged with CO2 VFR valve and cap

Code	kg	Lt	diam
41044	20	27	3/4"
41045	30	40	3/4"
41046	45	67	1"
41143	45	60	1"
41173	54	80	1"



With the implementation of European legislation PED 97/23, manifolds must be tested and certified.

All equipment shall be subjected to hydraulic test pressure and the manifold must be marked with a CE label with all their data and issued a certificate from the manufacturer

ABS made manifolds according to the laws and shall issue the necessary certification. We provide piping and nozzle calculation with a specific computer software according to EN / NFPA.

Pag. 95

CO2 system

#### CO2 system with VT valve, modern and reliable

Setting nut

Inlet and outlet pneumatic actuator,

or pyroactuator 41133,

or solenoid actuator 44150

3/8'

**ADVANTAGES AND DISADVANTAGES** 

#### Simple and efficacious

- 1 Easy to recharge
- 2 Built-in pneumatic actuator (in and out).
- 3 The sealing pad resists dozens of actuation before being replaced and its cost is negligible.
- 4 Incorporates the pneumatic actuator.
- 5 For CO2, nitrogen and other gases.
- 5 W.P 250 bar and 300 bar for inert gases.
- 6 Safety pin prevents accidental discharge during maintenance.
- 7 After activation remain open open. and need manual reset.

**41110** 3/4" npt

41134 1" npt



#### Traditional, very popular.

- 1 Refilling is more difficult, it need skilled tech: it need a delicate accuracy of sealing nuts small and large (41064)
- 2 It need a separate pneumatic pressure.
- 3 It need on every recharge to replace the two nuts (41064)
- 4 It need to adjust with extreme accuracy the copper ring 41084
- 5 The pneumatic actuator need a constant pressure during the total time of discharge. 6 Can use detectors type 41038 in critical application were is not available electricity or in high risk of explosion.



solenoid



41030



**41128** 3/4" npt

41129 1" npt

41084 Copper ring





41064

Valve in open position.

Remote control with steel cables (page 99) 40312 Manual actuator.

Pneumatic actuator 20 / 200 bar The valve remain open after the actuation.

41133 Pyroactuator

Wires protected with rubber pipe. Possibility of monitoring integrity with loop

Universal voltage, 0,3A. Milliseconds, extren fast reaction. resistor in the control panel.

**41109** 3/4" npt

This model is without pneumatic actuator. Used with mobile extinguishers or small stationary with manual activation, or by remote pull cable.



44081 3/4" npt for nitrogen 200 bar

Complete with manometer, used for pilot cylinder.



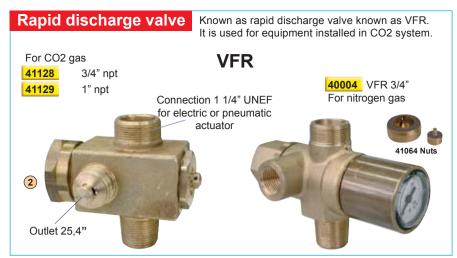
40312

**OPTIONAL** Manual lever activation

Complete with manometer, used for pilot cylinder.

6

CO2 system



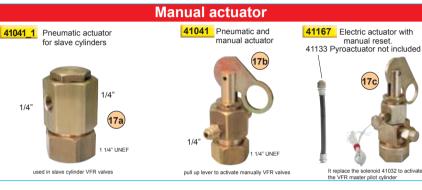
#### **Retarding valve**

Is used to delay the discharge of the SYSTEM and is used primarily for boats.

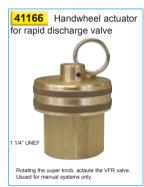
It is request compulsory from RINA.

Once the system is activated delays the discharge for 1 minute enabling persons to abandon the area before CO2 gas flooding.









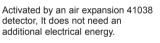


Active the pilot cylinder.

6



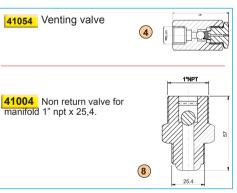
41030 Pneumatic actuator

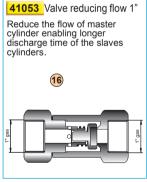




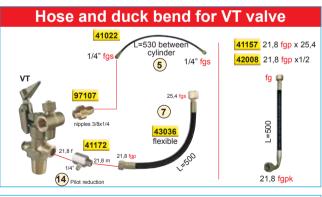
V.c.c.1 A.

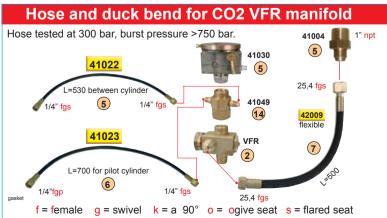






**3b** 







CO2 system

f=female

g=swivel m=male

p=flat

o=ogive k=at 90° o=ogive s=flared

Code	diam.	L=mm	n° max cylinder
41060	1"	300	4
41063	1 1/2"	300	8
41112	2"	300	12



## Tee forged steel coupling

4

8

12



1 1/2

Code

41056

41057

41058

41059

Available in ASA 6000 for inert
gas manifold at 300 bar

Code	Description	
41062	1 1/2" x 1" x 1 1/2"	ASA 3000
41051	1"	ASA 3000
41071	2" x 1" x 2"	ASA 3000
44049	1 1/4" x 1 1/4" x 1 1/4"	ASA 3000
44028	1 1/4" x 1" x 1 1/4"	ASA 3000

Schedule 80 Asa 3000

T-Ped Tested at 250 bar.

350 mm

other sizes biggher than 2" available

#### Pneumatic switch

41014 1 contact 10 A 41018 2 contacts 10 A

Activated by the pressure of the co2 gas. Can be used in all type of systems. It switch off electricity, stop fans, shut doors, remote alarms etc..





41064 2 Nuts, highly suggested to be replaced before recharging an VFR valve.

Manifold CO2 preassembled

diam. Places n° max cyl

3

4

5







**41084** 0,5 mm **41186** 1 mm

Copper rings ensure correct tightening to be placed between VFR valve and any actuator.

#### 41220 CO2 Mechanical weighing scale

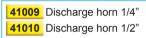
CO2 Mechanical weighing scale counterbalance system. The switch send an alarm to control panel if loss weight is more than 10%.



#### 41039 Scale for cylinder

Is mounted below each cylinder for added security. In case of loss of CO2 gas weight, the switch sends a signal to the control panel for an audible or visual alarm, if loss weight is more than 10%.







Discharge CO2 horn, made of aluminium, nozzle with hole determinated by a computerized calculation.



The CO2 bell is powered only with the flow of CO2 gas when system is activated. Do not need electrical energy,



It is used to turn the steel wire used with manual remote control. Angle adjustable 45° up to 160°.



When the gas is released it allows pending windows to shut down avoiding exit of the gas in the atmosphere.

Emp	(E) t-ped			
Code	Lt	Kg	Ø	Thread
20146	67	45	273	1"
20147	60	45	229	1"
20148	80	54	273	1"
21329	27	20	203	3/4"
21330_1	27	20	232	3/4"
21341	40	30	227	3/4"
21342	40	30	203	3/4"

RINA cylinder					
Code	Lt	Kg	Thread		
20109	3	2	3/4"		
21210	7,5	5	3/4"		
20101	14	10	3/4"		
21328	27	20	3/4"		
21340	40	30	1"		
			t-ped		

Rina certified

165

Nitr	hfc FM200			
Code	Lt	Ø	Thread	Silver Colonia
20102	2	110	3/4"	•
20108	3	110	3/4"	
20107	7,5	140	3/4"	nitrogen
20127	27	203	3/4"	-
20114	14	170	3/4"	
20140	40	203	3/4"	

Nitr	hfc FM200					
Code	Lt	Ø	Thread	Con train		
20102	2	110	3/4"	•		
20108	3	110	3/4"			
20107	7,5	140	3/4"	nitroger		
20127	27	203	3/4"	-		
20114	14	170	3/4"			
<b>20140</b> 40 203 3/4"						
ped -or -t-ped						

00	HFC cylinder					
1	Code	Lt	Ø	Thread		
	43054	14	170	3/4"		
	21330_1	27	229	3/4"		
en	20216	40	229	1"		
	43056	60	267	1"		
	43079	85	356	2"1/2		
	43078	125	356	2"1/2		

(€) t-ped

6

## Protection cap for valve

Code	Description						
21017	Plastic						
41027	For valve big sizes neck ring + cap.						
41065	Steel (side blow)	Steel (side blow)					
44086	Steel for VT valves (open top)						
4106	44086 21017						
	130						

## Full CO2 cylinder with handwheel valve

Code	Lt	Kg	Øcc	nnection
41119	14	10	170	3/4"
41066	27	20	203	3/4"
41067	40	30	227	1"
41118	67	45	273	1"







Suitable for small system with manual activation or refilling maintenance purpose. With rapid discharge valve see page 93.

#### CO2 system with air expansion detector

This model allow to install a completely automatic system without energy source, electric power, neither of batteries. The operation is based on the physical principle when the temperature increase, the pressure inside expands (41038) and create a small pressure activating the pneumatic detector (41030)

The 41037 capillary pipe diam 3x2 transmit the pressure of the air chamber to the pneumatic detector (41030).

Installed to ceiling, if the temperature increase rapidly in terms of rate of rise detectors, the pressure is sufficient to activate the discharge. If the tetemperature rise slowly then the pneumatic actuator has a vent valve to avoid accidental discharge.

#### 41038 Air expansion detector



The heat of the fire, warms the air that is expanded increasing the pressure transmitted with a thin capillary copper tube to the pneumatic control, (41030). It does not need no energy.



#### 41037 Copper pipe 3 x 2 mm



Connect the expansion detector between them to the pneumatic actuator (41030).

#### Adaptors for copper pipe 3x2 mm pipe and air expansion detector



End connector

for copper pipe

thread M6x0.75



Nipple threaded for copper pipe thread M6x0.75

41033

41035

3 inlet for copper pipe thread M6x0.75



4 inlet for copper pipe thread M6x0.75





Designed to create a correct flaring of the copper pipe 3x2 to join perfectly the adaptors threaded M 6x0.75

## Accessories for remote actuator 23022\_2 Stainless steel Silver plated, box pull cable.

These unit may hold the pull lever of the remote cable to activate manually, without electrical energy the systems Easyfire or the Firekill, or CO2 actuators.



#### Wall brackets for multiple cylinders

Detail to the wall, sliding nut and threaded rod.





This code 41092 includes all necessaries accessories shown to fix one cyl. Specify the number of the cylinders when placing the order.

The profile shaped "U" with the groove allows to fix on the wall rapidly and with ease. The nut with the washer runs inside the groove allowing precise positioning of the cylinder.

#### Wall bracket for single cylinder

Code	Cylinder	Diam mm
43003	40 / 60 It	227
43004	14 lt	170
43005	27 / 40 lt	203
43006	40/60 It	227
43008	67 It	273
43007	27/40 It	203



Use to fix a single cylinder on the wall.

For a system with more then 1 cylinder use the kit 41092

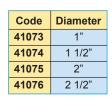
Typical system with selector valve

#### CO2 Selector valve

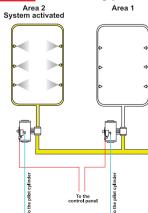
41031, 41032,41042

# Code Diameter 44018 2" 44021 1 1/2" 44022 1 1/4"

Plastic cap







The selector valves are used with a centralized system for extinguishing more zones alternately. Activated at 24 VDC sent from the control and gas pressure cylinder pilot 44010.



## 6

#### 41114 Hose reel mt 20

The reel can be wall or floor fixed. Includes 20 mt high pressure hose, high pressure interception valve and high efficiency and high flow snow horn, 2 mt hose to connect to the one or more CO2 cylinders bank. Typical use in manual applications such as plate rolling mill, painting boots, oils temper process......

(Cylinder co2 not included)







#### Gas liquid level indicator

CO2 Hose reel

#### 98059 Ultrasonic liquid level

The 98059 is an ultrasound apparatus used to measure the level of liquid compressed gases into bottles of fire fighting systems.

Easy to use and transportable. For CO2 cylinders is suggested to be used with temperature below 25°C.



## RINA APPROVED



Ultrasonic probe



Battery charge connector



Control panel



Complete with bags, instruction of use and warranty



## 98048 Digital liquid level indicator for CO2, HALON, NOVEC, FM200

The PORTALEVEL is a liquid level indicator for level location and contents verification of all gaseous fire extinguishants stored in liquid state in cylinders. The Portalevel is designed for use on CO2, Halon, FM200™ and other liquid Halon replacements stored in all commonly used cylinder types. It is not designed to work on fire extinguishants that are not stored as liquid. Good result lower than 25°C

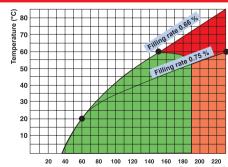
#### RINA APPROVED



## 98049 Extension rod for digital liquid level indicator



#### Diagram of the pressure variation in function of the temperature and the percentage of fill density in the CO2 cylinder.



The pressure in the cylinder charged with CO2 changes in function with the fill density and the temperature.

The graphic show how 1 liter cylinder charged with 750 grams of gas at 20 °C has a pressure of 57 bar approximately.

If the temperature of the cylinder reach at  $60\,^{\circ}$ C the pressure increases approximately 4 times at 235 bar taking part the safety valve if set (normally between 170 and 200 bar) or carrying the cylinder to a dangerous pressures.

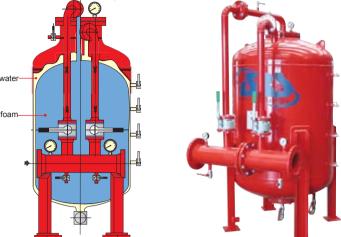
In tropical and hot countries, It is advisable not to exceed the charge 2/3 with totals capacity that is 667 grams per liter.

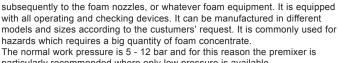
Avoid exposure under direct sun x'rays that risk to pass a temperature of 60°C.

CO2 system

#### **FOAM FIRE SYSTEMS**

It consist, in a cylinder with a rubber diaphragm bladder inside containing the foam concentrate. The water put in pressure by a pump flows through the Venturi mixer. Part of it goes into the hollow space between tank and diaphragm and forces the foam through the calibrated hole into the Venturi mixer and

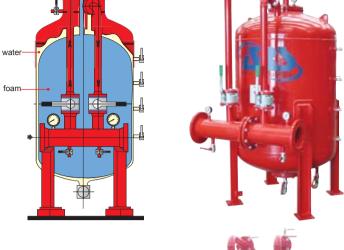




particularly recommended where only low pressure is available. Mixer average pressure loss: ~ 1 bar.

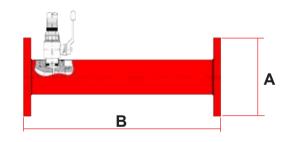
	Vertical bladder tank							
Code	Capacity It.	Diameter mm	Height mm	Depth mm	Weight Kg			
83207	300	600	1100	1000	150			
83208	600	800	2055	1050	1160			
83209	1.000	1000	2165	1250	1715			
83210	1.500	1000	2755	1250	2410			
83211	2.000	1100	3010	1400	3340			
83215	3.000	1270	3310	1500	4740			
83216	4.000	1450	3420	1680	6270			
83217	5.000	1600	3465	1850	7640			
83218	6.000	1750	3580	2025	9000			
83219	7.000	1850	3690	2575	10080			
83220	8.000	1960	3780	2180	11680			
83221	9.000	2100	3750	2350	13400			
83222	10.000	2200	3835	2450	14760			

	Horizontal bladder tank								
Code	Capacity It.	Diameter mm	Width mm	Height mm	Depth mm	Weight Kg			
83209_1	1.000	1000	1670	700	1250	1810			
83210_1	1.500	1000	2260	1100	1250	2510			
83211_1	2.000	1100	2540	1250	1350	3360			
83215_1	3.000	1270	2840	1400	1495	4780			
83216_1	4.000	1450	2950	1450	1700	6370			
83217_1	5.000	1600	3025	1500	1850	7745			
83218_1	6.000	1750	3110	1500	2025	9120			
83219_1	7.000	1850	3170	1500	2125	10475			
83220_1	8.000	1960	3225	1500	2230	11830			
83221_1	9.000	2100	3305	1500	2350	13650			
83222_1	10.000	2200	3365	1500	2450	15035			





#### Self suction mixer



Body: Carbon steel Nozzle: Brass / aluminium

Pick-up Pipe: PVC with reinforced spiral

Connections: Flanged

Manufactured at custom requirements and

system calculations.

Code	Flow rate lt/1'-5bar	Mixing ratio %	Working pressure range applicable	Pressure loss %	Weight kg	A DN	B mm
83200	1000	3 - 6	4 - 12	37	15	80	500
83200_1	2000	3 - 6	4 - 12	33	15	100	500
83200_2	3600	3 - 6	4 - 12	33	25	150	500

#### High expansion generator

Used to flood in very short time environments such as large storage warehouses, airport hangars, tunnels.

Foam creates a barrier to oxygen, because its big bubbles incorporates a large volume of air, preventing the oxigen to be involved

in the combustion, and preventing the expansion of the fire.

The foam is lightweight, non-toxic and does not constitute any danger for people who can breathe in case accidentally trapped in a site wher foam is flooded. In optimal conditions one liter of water can produce from 600 to 800 liters of foam

Code	DN Foam		
	mm	Ltm	M3/min
83213	40	200	150
83214	65	400	300

Example for a warehouse: Dim 50x50x5 = 12.500 cub/mt10 generators 300 M3/min = 3000 mc Time in minutes 12500 / 3000 = 4',16 Water used: 400x10x4,16 = 16,64 cub/mt Foam used 16,64x3% = 500 Lt



Expansion ratio from 1:600 to 800. Foam used: Synthetic 97% water and 3% foam Made in galvanized steel. Optiona Stainless

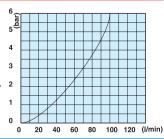
#### Foam nozzle



#### 1/2" **42001**

Spray jet Low expansion 1:8 Body made in bronze On request in stainless steel.

More information see technical data sheet.



#### Foam spray nozzle



Low expansion 1:8 Body made in bronze and stainless steel. Low profile, small footprint, high efficiency, produce an excellent spray foam. Suitable for deluge system.

#### PRE ENGINEERED HIGH EXPANSION FOAM GENERATOR

The high expansion foam generator use a solution of 97 % water and 3% foam

compound, in order to produce great quantity of foam.

The foam is very light, it occupy easily the volume of the protected zone imprisoning the oxigen in its big bubble and preventing the combustion. Expansion ratio is 1:400. Specific weight ~ (2,2 kg to m3).

> Stainless steel foam generator, Wall fixed, with 100 Lt foam. Drum of 200 Lt available.

Stainless steel foam generator. Can be used also as a portable



83200 200 lt/min 550x550x550 mm 83204 400 lt/min 700x700x700 mm



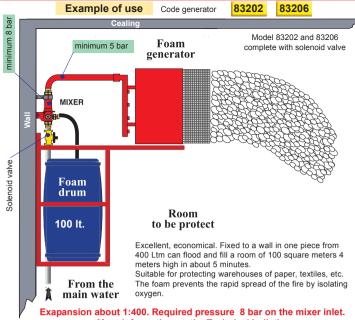
code	Flow	Discharge	Foam	Data at 8 bar
	Lt/min	min'	m3/min'	diam
83200	200	30	80	2" only generator
83201*	200	30	80	2" + mixer
83202*	200	30	80	2" + mixer + cylin.+ solenoid
83204	400	15	160	2 1/2" only generator
83205*	400	15	160	2 1/2" + mixer
83206*	400	15	160	2 1/2" mixer + cylin.+ solenoid

Models 83200 and 83204, must be feed from a solution foam coming from a mixer, or bladder tank.

Models 83201 and 83205, have the incorporated mixer, they inhale the foam compound directly from 100 lt foam drum.

Models 83202 and 83206 in addition to mixer and the foam cylinder have also a solenoid valve that allow automatic discharge through a control panel and fire detectors. All the models are made in stainless steel, with filter to protect the nozzle against the impurity.

\* Complete with a steel frame to be fixed on the wall and a 100 Lt Foam synthetic drum.



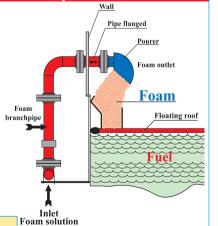
More information on the Technical bulletin. Example of use 83200 Bladder tank, has a pressure drop of only 0.5 - 1 bar max

#### Oil tank foam pourer

Used to protect oil or flammable liquids tanks.

The pourer drops gently the foam inside the tank or in the edges of the floating roof. Made in steel, painted red Ral 3000 after a deep shot sand blasting.

On request hot-dip galvanized or stainless steel AISI 304 / 316. branchpip



	i laligea pipe							
Diam.	Pressure	Flow at 5 bar						
	bar	Lt/min						
2" x 3"	5 ÷ 16	200 ÷ 600						
3" x 4"	5 ÷ 16	800 ÷ 1200						
4" x 6"	5 ÷ 16	1600 ÷ 2000						
6" x 8"	5 ÷ 16	2400 ÷ 3200						

Flangod nino

Foam branchpipe						
Diam.	Pressure	Flow at 5 bar				
	bar	Lt/min				
2" x 3"	5 ÷ 16	200 ÷ 400				
3" x 4"	5 ÷ 16	800				
4" x 6"	5 ÷ 16	1600 ÷ 2000				
5" x 8"	5 ÷ 16	2400 ÷3200				

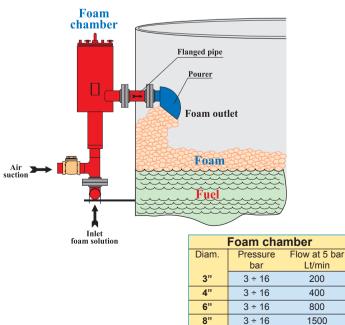
Pourer							
Diam.	Pressure	Flow at 5 bar					
	bar	Lt/min					
3"	5 ÷ 16	200					
4"	5 ÷ 16	400					
6"	5 ÷ 16	800					
8"	5 ÷ 16	1600					

#### Foam chamber

Used to protect flammable liquids tanks with fixed roof.

The device is equipped with a seal to avoid that vapors on the tank may return back on the pipe line.

Made in steel, painted red Ral 3000 after a deep shot sand blasting. On request galvanized or stainless steel AISI 304 / 316.



#### Foam mobile unit



Indispensable in sites where are stored great quantities of materials such us wood, paper, fabrics, plastic, rubber, oils.

It is connected with a fire hore to a landing valve or a pillar hydrant. The foam mixer works with a venturi principle so that the flow creates a vacuum and the foam is inducted and mixed with the water.

The percentages of the foam compound is 3% or 6% and remaining 97% or 94% is water.

It is a very powerful unit.

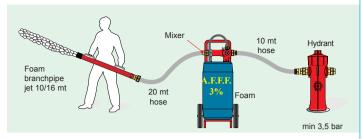
With a 200 lt of foam compound can have almost 30 min of discharge time covering high risk.

It is an equivalent of more than 120 trolley fire extinguisher of 50 Lt capacity.

Best performance achieved with W.P 8 bar. Works at minum W.P. 3,5 bar.



Powerful, up to 400 cubic meters of foam in 30 minutes! the unit of 200 Lt it cover an area of 4000 square meters producing a blanket of 10 cm medium expansion foam.



Foam floats over flammable liquids, it insulate the burning surface with air.

Foam AFFF creates a thin film over the flammable liquids preventing the contanct with the air and therefore preventing reignition after the

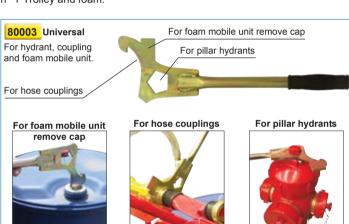
Low expansion branchpipe has a expansion ratio 1:8 and a long jet,

useful if fire is strong and operator need better protection in his action.

Medium expansion branchpipe has a reduced jet but it has an expansion ratio of 1: 70 and is used with synthetic foam to fight fires in distance 5 / mt in very short time.

#### The unit is supplied with:

- n° 1 10 mt hose connection between hydrant and mixer
- n° 1 20 mt hose connection between mixer and foam branchpipe
- n° 1 Mixer ( Venturi effect)
- n° 1 Stainless steel foam branchpipe
- n° 1 Trolley and foam.



Code	UNI	Litres	Type	type branch	3% / 6%	3% / 6%	Jet mt
		drum	foam	Expansion	Min'	M3 foam	5 / 8 bar
80111	1" /1/2	100	AFFF	Low	16' / 8'	24 / 12	10 / 16
80121	1" /1/2	200	AFFF	Low	30' / 15'	48 / 24	10 / 16
80114	2"	100	AFFF	Low	8' / 4'	12 / 6	10 / 16
80126	2"	200	AFFF	Low	16' / 8'	24 / 12	10 / 16
80112	1" /1/2	100	Proteinic	Low	no / 8'	no / 12	10 / 16
80122	1" /1/2	200	Proteinic	Low	no / 16'	no / 24	10 / 16
80115	2"	100	Proteinic	Low	no / 4'	no / 6	10 /16
80124	2"	200	Proteinic	Low	no / 8'	no / 12	10 / 16
80211	1" /1/2	100	Synthetic	Medium	16' / 8'/	200 / 100	5/8
80221	1" /1/2	200	Synthetic	Medium	30' / 15	400 / 200	5/8
80212	2"	100	Synthetic	Low	8' / 4'	200 / 100	10 / 16
80222	2"	200	Synthetic	Medium	16' / 8'	400 / 200	5/8
80213	1" /1/2	100	Synthetic	Low	16' / 8'	24 / 12	10 / 16
80223	1" /1/2	200	Synthetic	Low	30' / 15'	48 / 24	10 / 16
80113	1" /1/2	100	Universal	Low/Medium	16' / 8'	24 / 12	10 / 16
80117	2"	100	Fluoroprot	Low	8' / 4'	12 / 6	10 / 16
80116	1" /1/2	100	Fluoroprot	Low	16' / 8'	24 / 12	10 / 16
80123	1" /1/2	200	Universal	Low/Medium	30' / 15'	48 / 24	10 / 16
80125	2"	200	Universal	Low/Medium	16' / 8'	24 / 12	10 / 16



Essential in activities with high-risk.

Has the same characteristics of the mobile foam.

The set foam is mounted in a fixed location on the wall and is quick to intervene.

Foam compound autonomy is 6 minutes.

#### Complete with:

- n° 1 Box in steel painted with epoxy powder Red Ral 3000.
- n° 1 200 lt/min low expansion foam branchpipe 1" 1/2
- n° 1 200 lt/min medium expansion foam branchpipe 1" 1/2
- n° 1 Water branchpipe 3 effects 1" 1/2
- n° 1 Mixer 1" 1/2 complete with coupling
- n° 1 20 mt hose 1" 1/2

Couplings Storz C52 (other types on request)

n° 2 Drum of 25 Lt synthetic foam

Flow rate 200 Ltm 5 bar



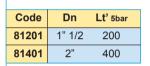
#### Foam mixer "Venturi"

The minimum working pressure is 3,5 max 12 bar, best 8 bar supplied with Storz, or BSS coupling

Code	Dn	Lt' 5bar
81101	1" 1/2	200
81301	2"	400

**Suction** factory set 3% Supplied complete with suction pipe 81012

Available on request high flow rate up to 800 lt/min (see page 101)



Adjustable foam mixer from 1% to 6% Necessary if use different types of foam with concentrations 1%, 3%, 6%.



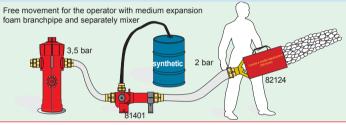
Made in aluminium.

The mixers work on the Venturi principle.

Suitable for use with branchpipe and foam generator at both low and medium and high expansion.

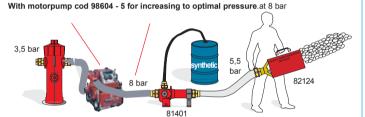
The flow produces suction and mixing effect "Venturi"
The minimum operating pressure is 3.5 bar, best 8 bar,
while the drop loss and about 30% of supply pressure of the water. The
brass model allows adjustment of from 1% to 6% and is

brass model allows adjustment of foam from 1% to 6% and is recommended only for professionals when need both synthetic and protein use that have different concentrations 1%, 3%. 6%.



Suction pipe 1,2 mt with stainless steel filter

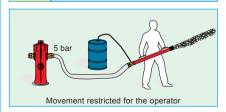




#### Foam branchpipe in stainless steel



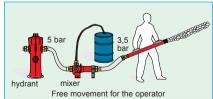
Code	w	ith foam mi	xer
	Dn	Lt' 5bar	Jet mt
82112	1" 1/2	200	10 - 16
82114	2"	400	10 - 16



Low expansion, foam ratio 1:8.



Code	without mixer				
	Dn	Lt' 3,5bar	Jet mt		
82212	1" 1/2	200	10 - 16		
82214	2"	400	10 - 16		
		$\sim$			



Medium expansion, foam ratio 1:70



	Code	with	with or without mixer				
		Dn	Dn Lt' 3,5bar				
	82122	1" 1/2	200	5 - 8			
	82124	2" 400		5 - 8			
Г	-82222	1"1/2	200	5 - 8			
H	-82224	2"	400	5 - 8			
L	\A/ith	out miver	\A/i4	h miyar			

With 200 liters of solution 194 liters of water and 6 lt of foam (3%) in 1 minute we produces 14 mc of foam.

Made in stainless steel couplings Storz or BSS 336 or others.

Epoxy paint finish in yellow polyurethane.

Low expansion foam branchpipe have the advantage of a jet longer and may be used with any type of foam.

Medium expansion foam branchpipe can produce expansion ratio 1:70 only with synthetic foam.

Both may have built the mixer, economical alternative.

Mixer separated offers greater freedom of movement.

All are individually tested carefully.

The mixer and the foam branchpipe works only if they have the same flow rate.

Pag. 104

6

#### Adjustable monitor

Monitors are made with two swivel joints that allow continuous 360° horizontal rotation and vertically from -75° to +85°

They are suitable for mounting on vehicles, boats, fixed locations. Can be equipped with water branchpipe, foam branchpipe, or with special spray nozzles. The branchpipe is not included.

For more information see technical data sheet.

#### 82500 Water branchpipe for monitor 2 1/2" made in aluminium

in aluminium L = mm 1.000

#### WATER BRANCHPIPE FOR MONITOR

Nozzle	Flo	Flow=lt/min			Jet mt		
mm	bar 8	10	12	8	10	12	
25	1150	1300	1400	40	43	46	
30	1700	1840	2040	45	49	53	
35	2280	2480	2730	50	54	58	
40	3000	3250	3600	56	60	63	

#### 82225 Foam branchpipe 1600 It with mixer

Stainless steel mm 1.200 ~ 1500

#### FOAM BRANCHPIPE FOR MONITOR

Nozzle	Flow=lt/min			Jet mt		
mm	bar 8	10	12	8	10	12
L5	800	900	1000	32	36	42
L10	1150	1300	1400	40	44	48
L20	2100	2350	2600	46	49	52
L30	3200	3450	3700	49	53	56

#### 82050 ADJUSTABLE NOZZLE

Full jet or o spray fog adjustable. Flow up to 3.000 Litres/min. Suitable for water and spray foam. Made in brass, on request in aluminium or stainless steel.



On request special version up to 8" remote.

#### Monitor foam / water

82012 Carbon steel 82034 Stainless steel Mobile available with 2 inlet DN 70

4" Flanged , (3" on request)

### 2 1/2" water monitor

-75 +85° vertical

0 - 360° horizontal Inlet 2 1/2" female.

Supplied with water branchpipe DN 70 L1

L1 and L2 only for water.

LS1 and LS2 suitable for foam complete with mixer On request mobile available with 1 inlet DN 70

Nozzle	Flow=It/min			Jet / mt		
mm	bar 3	8	10	8	10	12
L1	800	900	1000	32	36	42
L2	1150	1300	1400	36	40	43
LS1		800	900	26	30	35
LS2		1200	1200	30	35	40



#### Mobile foam monitor



# Pre-assembled skid pump and motor pump







Assembled in skid ready to install in pump fire station.

According to NFPA 20
Skid includes:
Jokey pump to maintain pressure.
Primary fire pump.
Diesel motor pump.
Start and stop pressure switch.
Automatically control panel.
Batteries controlled, automatic power supply.
Automatic starting of the motor pump in case of failure of primary pump or lack of electricity.
Manual emergency or for maintenance purpose.

The horsepower and flow rate depends on the the hydraulic software calculation.

Possibility to operate both pumps in parallel.

#### Motorpump

Variuos versions: Standard models 800 or 1800 Ltm 8 bar



#### Portable motorpumps

Cod.	Ltm	bar	Нр	Kgs
98604	270	5	4	25
98605	400	7,5	5,5	28

Useful to increase the water pressure in order to be able to supply foam branchpipe or to increase the jet for the water branchpipe. Are self-priming. Honda engine, easy start. Gasoline powered

Rigid suction pipe see page 51

#### On request other version



98604 DN 45 x DN 45



98605 DN 70 x DN 70



429 cm 280

#### Control panel 1 extinguishing chanel 3 detection zone

Three zones. Programmable as cross zone 2 or 3 alarms before discharge. Usually used 2 cross zone + 1 for manual push button alarm switch.

32 detectors per zone

Kev tamper switch

On-off key

Includes a protected manual switch for extinguishing gas release 7 buttons for activation, test, stop alarm and stop discharge

Connections for repeaters

Relais output for remote alarms or stop fans, electricity.....

Automatic power supply, recharge batteries

Batteries: 2x12 Volt 7 A.

Ideal to pilot the extingushing gas systems as EN 12094-1

Elegant, easy programmable, status local display

#### 47039 Certified EN 54-2 EN 54-4 EN12094-1



#### Microprocessor control panel extinguishing and detection



47010

4 detection zone

2 extinguishing zone with module 47011

Fully programmable.

Versatile and complete.

Accepts smoke, temperature detectors, manual push button alarm.

Connectors for remote alarms.

2 batteries 12 V 7,2A.

Certified En 54-2

Dimension: 37x27x11

#### 47011 Optional card 2 gas system

4 zones used as cross zone detector,

allow discharge of 2 different bank of cylinders of FM200 or inert gases.



Certified EN 54-2 EN 54-4

#### Control panel extinguishing and detection S 300 Certified EN 54-2 EN 54-4



Series 300 is built with easy add in expandable modules. Professional, realized with very high quality electronics. Strong durable structure, more than 100 severe test carried before shipping. Can hold any type of fire detectors. Basic cabinet manufactured in 4 models, 4, 11, 23, 35 zones painted grey RAL 7032.

Includes local sound alarm, additional key switch for emergency gas release, all additional switches for remote alarms, fans, etc..

Can use cross zone for extinguishing gas release; led signal 220Vca, 24Vcc, failure, short circuit, battery charger, pre-alarm, fire, switch manual/automatic, led test, stop alarms, exclusion zone, discharge, low pressure cylinders Conform EN 50081-1 EN 50082-2 N 453-453/99 Dimension basic model 4 detection: 40x50x25

47015 4 detection + 2 extinguishing

#### Rechargable battery

47000 12v 1,9A single 47001 24v 1,9A (2 x 12 volt) 47002 12v 7,2A single 47003 24v 7,2A (2 x 12 )



#### Optical smoke detector approved EN 54-7



#### 47012 Optical smoke detector

Optical detector with the same features of 47013 model and improved by temperature sensor rate-of-rise detector. ASIC internal circuit, process signal from the two sensor with independent algorithm and value results. purposely studied to improve velocity response and stability system, keeping high immunity from false alarms.

Certified EN-54.2000 (par 5 and part 7). Simple installation on standard base unit. Standard output for remote indicator.

#### Thermal detector



#### 47013 Thermal detector

Use a circuit with double thermistor for high performance and reliability, but temperature sensor rate-of-rise with static element regulated at 57°C. In this way detector will give a fast response with sudden and high increase of temperature.



Certified EN-54.2000 (par 5 and part 7). Simple installation on standard base unit. Standard output for remote indicator.

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**Detection system** 



#### Gas detector



47027 Gas detector



Available with 2 different semicinductor heads:

- Type TGS 813 for combustibles gas methane, LGP. etc.
- Type TGS 800 for carbon monoxide (CO) Detection calibration: from 50 ppm to 300 ppm. Current supply: 12/30 Vcc 45mA

#### Linear smoke detector





47029 Linear smoke detector

Linear infrared smoke detector composed by an emitter and a receiver that if the infrared signal is interrupted from the smoke presence, it send an alarm signal to the main control panel. Maximum distance between emitter and receiver: 50 mt

Current supply: 24 Vcc Dimensions: 103x103x63 mm

Certified EN54 parte 12

47019 Temperature detector

47038 Temperature detector adjustable

Sensor is housed in a stainless steel tube Standard supplied at 68°C. Adjustable temperature till 300°C on order request. Used in painting boots, ovens

available not adjustable.
UL Listed 89°C



47020 Temperature detector adpe Fixed calibration from 59°C to 300°C

Like 47019 model, but explosion proof.ATEX Certifified

Celling

Detector

47032



# Flame detector UV

47030 Flame detector UV 185-260 nm 24 Vdc 250mA Detection angle cone 120°. H=70 mm Diam 100 mm.



### Extending bar to test smoke detector

47037 Extending bar mt 4,50

Extensible fiberglass bar, it sprays a gas simulating smoke and cleaning inside from dust.









This telescopic bar can perform maintenance of smoke detectors. Allows you to spray through the spray jet that activates the detector and cleans the dust. Available extension bar from 1 mt to reach higher heights.

# Thermosensible cable

47033 Thermosensible cable 105°C

Cable U.L./F.M. calibrated at 88°C 47034

47035 Cable F.M. calibrated at 105°C 47036

Cable U.L./F.M. calibrated at 137,8°C

The temperature it melts the insulation and creates a short circuit, giving the alarm to control panel. (Minimum order 50 mt)

### Alarm buttons, discharge and inhibition under glass.

47050 Push button box 1contact

with plastic cover



47006 Push button break glass alarm. 2 contacts n.o. and n.c. 10 A



#### Optical acoustic indicator

47040 Red siren for premises evacuation.





Electronic siren for rooms evacuation, color Double tone alarm, optical xeno light signal.

Current supply: 230 Vac Protection grade: IP 44

Acoustic power: 104 dB(A) at 3 mt. Temperature range: -25°C/+55°C Battery (not included): 12 Vcc 2,1 Ah Dimensions: 265 x 210 x 65 mm

Weight: 2,1 Kg.

#### **Electric bell**

#### 47004 Electric bell

Steel, epoxy painted. Current supply: 24 Vcc 80 mA Dimensions: Ø 160 mm, depth 62 mm Sound powerness:

97 dB at 1 mt Weight: 700 gr.



# Solenoid valve for GPL

#### 47018

Used to shut off LPG gas supply 12 Vcc 1 A. Size 1/2"

Available: 1" 2" 3" 4"



6

### Electric bell 12/24 Vcc

### 47041 Electronic bell 12/24 Vcc

Electronic siren for rooms evacuation

4 differents tones. Power supply: 12/24 Vcc.



### Local alarm signal device

### 47007

- Lamps 24 Vcc

- Buzzer 24 Vcc Dim: 31 x 12 x 6 cm



# **FIRE DOORS REI 120**

Certified fire resistance for 2 hours REI 120 . Avalable 1 hour REI 60 and 3 hours REI 180 Reversible for right or left open with a threshold removable sheet 'completely galvanized steel.

Epoxy polyester powder coating.

Can be supplied in differrent colours and with anti panic bars, and other various accessories.





- Reversible doors LX or RX
- Immediate delivery from stock
- Fix with anchors or expansion screws
- Adjustable hinges
- With or without bottom frame
- Preassembled



Hing with self-closing spring.



Ball-bearing hinge with screw for the vertical adjustment.



fixing with expansion



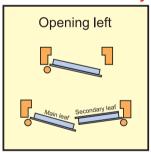
Safety handle

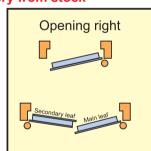


Bottom-part frame.



Immediately delivery from stock





#### **STANDARD DOORS REI 120**

approved fire resistant 120 minutes

	Wall opening mm		clea pass	sage mm	external size mm	
Code	width	height	width	height	width	height
72820	800	2050	726	2010	832	2042
72920	900	2050	826	2010	932	2042
72120	1000	2050	926	2010	1032	2042
72921	900	2150	826	2110	932	2142
72121	1000	2150	926	2110	1032	2142





antipanic bar reversible DX e SX





79013 Lock complete with handle and cylinder for fire door.











79004 Fusible at 72°C Approved UL

Pag. 109

Fire doors

This control includes all indicators and swith to control electromagnets, and smoke or temperature detectors.

It must be mounted over the door.

In presence of smoke or heat it releases the electromagnet which keeps the door open, and the door will shut off automatically.

#### **Technical Characteristics**

Power Supply recharger: Battery (not included): Smoke detector: Heat detector: Optical alarm: Acoustical alarm: Work temperature: Timer to shut door Controlled magnet max

230 Vac. 50/60 Hz 12 Vdc 1,2 Ah Tyndal optical effect Alarm temp. 70°C Red blinks on both sides Buzzer -10 to + 80°C

0 to 15 sec. 4 pcs

#### **Light indicators**

Fire alarm Power on Battery failure General failure Detectors failure Push button failure Siren faiure Magnet power on

## 47012 Optical smoke detector





Dimension: 240x48x150 mm

Optical detector with the same features of 47013 model and improved by temperature sensor rate-of-rise detector.ASIC internal circuit, process signal from the two sensor with independent algorithm and value results. purposely studied to improve velocity response and stability system, keeping high immunity from false alarms.

Certified EN-54.2000 (par 5 and part 7). Simple installation on standard base unit. Standard output for remote indicator.

#### 47013 Thermal detector





Use a circuit with double thermistor for high performance and reliability, but temperature sensor rate-of-rise with static element regulated at 57°C. In this way detector will give a fast response with sudden and high increase of temperature

Certified EN-54.2000 (par 5 and part 7). Simple installation on standard base unit. Standard output for remote indicator.

#### 47041 Electronic bell 12/24 Vcc





47050 Push button box 1contact with plastic cover



### Alarm signal and bells for fire doors remote controls



Code 47004 Description Bell 24 Vcc

24V V - 50/60 Hz - IP 30 - Weight 0.53 kg Dimensions Diameter=152 mm



Code 47009

Description Electronic siren 24 Vcc

220 V - 50/60 Hz - IP 30 - Weight 0.53 kg Dimensions H= 87mm-L=94mm - P=94mm 47040 Red siren for premises evacuation.



Electronic siren for rooms evacuation, color Double tone alarm, optical xeno light signal.

Current supply: 230 Vac Protection grade: IP 44

Acoustic power: 104 dB(A) at 3 mt. Temperature range: -25°C/+55°C Battery (not included): 12 Vcc 2,1 Ah Dimensions: 265 x 210 x 65 mm

Weight: 2,1 Kg.

79003 Electromagnete No release button

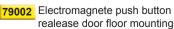




The electromagnetic work at 24 Vcc 50mA. Coupling force 50 kg. The magnete must be mounted on the wall, while the disk on the door that is always open . The electromagnete release the door in case of fire alarm.

Dimensions Magnete: mm 90x55x48 Dimensions Disk: mm 55x55x60









79006 Push button

Breack glass and press for emergency door release



# Fire testing training pan with GPL LPG



**Stainless** steel

detail thermoelectric valve

Fire simulator for fire fighting training composed by:

Stainless steel basin with adjustables feet, burner in copper pipe, valve with pressure reducer for LPG gas cylinder, Automatic valve of gas shut off with the rostat and 10 Mt for gas LPG rubber hose.

Dimensions: 1160 x 1160 x 250 mm

Weight: 40 Kg

TRAINING AND EDUCATION

Lightweight, portable, ideal for training in customers company. It weighs only 40 kg.



Particular GPL cylinder with pressure regulator and safety valve





98707 Gas burner with bar N. 2 cartridge included



Piezo electric portable burner of new generation. Practic, powerfull, safe,

ecologic and without risk for people and animals. Gas supply in cartridge with 7/16 valve included.

98708 Cartridge spare part for burner 330g

# 98709 Professional fog maker machines 1.000 W

The fog machine FOG F1 it's a machine for creation of high density fog courtains, ideal to produce suggestion atmosphere, ideal for clubs,

discotheques, concerts and spectacular events

The liquid used for creation of the fog it's absolutely non toxic, in accordance with CEE standards.



Power supply: 220/240 Vac - 1 Kw

Smoke launch: 12 Mt. Ignition time: 3/5 minutes

Liquid tank: 2 Lt

Remote control and thermical protection included.

Fog generator liquid (code 98710) not included.

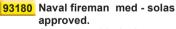
TRAINING AND EDUCATION





98710 Liquid spare charge 5lt for professional **FOG-MAKER** 

# Fire suite MED Approved



Complete with: jacket,trousers, gloves, helmet, boots, bags.

93181 Jacket and trousers in Rayon MED Approved

93183 Safety rubber boots with steel cap MED Approved (Height 38 cm)

93187 Helmet for Naval Fireman MED Approved

93182 Protective gloves MED Approved

Nape detail in the helmet



93101 Complete firesuite approach



93101 Full immersion suit with hood



# Safety equipments cabinets

60025 Red epoxy paint, 3 shelves, lockable 2 doors with EASYBREACK sheets included.



60042 Red epoxy paint, 3 shelves, lockable with key 1 door with Safecrash sheet included.



60043 as 64002 but stainless steel



60045 Stainless steel 1 shelve complete with EASYBREACK sheet.



60047 Red epoxy paint, 3 shelves, lockable with key 1 door.



60046 4 adjustable shelves, key lock. Made of sheet steel certified FE42 with suitable reinforcing ribs, top lever, red epoxy paint. Windows inspections in EASYBREAK



Version with 4 shelves + full side compartment for shovels, hang clothing. Safecrash sheet included.



Foot stand for cabinet 60002 Foot stand cabinet in stainless steel 300 800 185 300 800 60005 Steel red epoxy painted RAL 3000 Suitable for: 60042 - 60043 - 60044

# Fire Cabinets, modular assembly kit

ASSEMBLY cabinets are quick and easy assembly, supported by detailed manual of instruction.

SPECIAL PACKING Packing resistant, compact, strapped on a pallet size for easy handling and a significant reduction for the transport costs.

#### 60073 Fire cabinet 2 doors



Fireproof safe, epoxy coated red RAL3000, rounded edges prevents skin accidents, locker, blind doors, 4 shelves.



60074 2 windows doors with EASYBREAK

Dimension.185hx107x50 cm

60076 Fire cabinet 1 door



Fireproof safe, epoxy coated red RAL3000, sheet with rounded corners, sheet, rounded edges prevents skin accidents, locker, blind door, 3 shelves.



60075 Fire cabinet 1door with EASYBREAK

Dimension.185hx57x50 cm

#### 60077 Fire cabinet 2 doors

Fireproof safe, epoxy coated red RAL3000, rounded edges prevents skin accidents, locker, 2 blind doors, 2 shelves.



#### 60078 Fire cabinet 2 doors with EASYBREACK

Fireproof safe, epoxy coated red RAL3000, rounded edges prevents skin accidents, locker, 2 windws doors, 2 shelves.



Dimension.110hx107x50 cm

# 60079 Fire cabinet 1door

Fireproof safe, epoxy coated red RAL3000, rounded edges prevents skin accidents, locker, 2 blind doors, 2 shelves.



Dimension.110hx57x50 cm

#### 60080 Fire cabinet 1 door with safecrash

Fireproof safe, epoxy coated red RAL3000, rounded edges prevents skin accidents, locker, 2 windows doors, 2 shelves



Dimension.110hx57x50 cm

# 60081 Fire cabinet 1 door EASYBREACK

Fireproof safe, epoxy coated red RAL3000, rounded edges prevents skin accidents, locker, 1 windows door, 1 shelves.



Dimension. 60hx42x30 cm

# Safety cabinet according to EN 14470-1

60069 1 door

optional Easyfire 60070 2 doors





Dimension L x H x P (mm) External about. 600 x 1970 x 600 Internal about. 530 x 1650 x 505 Weight: about. 200 kg



Dimension L x H x P (mm) External about. 1200 X1970 x 600 Internal about. 1130 x 1650 x 505 Weight: about. 280 kg

#### Safety cabinets

- Resistance to fire from 30 to 90 minutes according to EN 14470-1 (Type 30)
- GS approved, CE compliant
- Labelling according to standard EN 14470-1

#### Fixed shelf

- Adjustable shelves height (32 mm each)
- Shelves unmovable
- Load (distributed in uniform): approx. 75 kg
- Bottom recipient recover leakages Bottom easy removable to clean
- Maximum safety in case of fire!

#### **OPTIONALS**:

- Lock the door with automatic opening device integrated thermal release (Connection with fuse), closure automatic door.
- EASYFIRE 3 KG SYSTEM, SEE PAGES 39 FOR AUTOMATIC EXTINGUISHING.

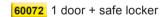
# Cabinet according to EN 14470-1

### Efficient storage and disposal of hazardous substances

The fire resistant cabinets are suitable in laboratories. Useful to store dangerous materilas in hospital, chemical la, industries. Fire resistant 90 minutes

Fire resistant for 90 minutes according to EN 14470-1, GS Approved CE compliant. Color RAL 7035, perforated metal sheet, collection tank bottom, sheet steel, plastic laminate and base height 30 mm.

60071 2 doors + safe locker





Dimension L x H x P (mm) External about. 1400 x 600 x 570 Internal about. 470 x 500 x 450 Weight about. 165 kg





Dimension L x H x P (mm) External about. 590 x 600 x 570 Internal about. 470 x 500 x 450 Weight about. 90 kg



# Individual protection













# 93042 Handbag for ADR accessories (EMPTY)

Protection for drivers supplied in sturdy waterproof nylon bag, 1 side pocket with zipper closures, handles and shoulder strap for transport.



# 93042\_1 ADR bag kit complete with accessories class 1, Explosive

Contents:

- 2 Orange signalling lamps fringes
- 4 Batteries for lamps
- 4 Reflecting cones H.52 cms
- 2 Fluorescent waistcoats approved EN 471
- 2 Aluminium antispark pocket lamps at intrinsic security



# 93042\_2 ADR bag kit complete with accessories class 2, compressed gas not flamable

Contents:

- 1 Full-face gas mask
- 1 Mask filter A2 B2 E2 K2
- 2 Orange signalling lamps fringes
- 4 Batteries for lamps
- 1 PVC boots
- 1 Antiacid and anti-cut latex gloves as per EN 374
- 4 Reflecting cones H.52 cms
- 1 Fluorescent waistcoat approved EN 471
- 1 Aluminium antispark pocket lamp at intrinsic security
- 1 Protection glass
- 1 Antiacid, impermeable overalls

#### Compressed air breathing apparatus

93030 Breathing apparatus SOLAS/MED 6 It cylinder filled at 300 bar mask included



Proven technology for 200- and 300 bar. Unisize carrying plate of sturdy heat resistant plastic.

Carrying harness of non-flammable Modacrylic-Aramide fibres.

Comfortable hip-pad for equal weight distribution.

Self-luminescent pressure gauge, or alternatively Integrated Control Unit ICU. The compressed air breathing apparatus offers a choice of options for all

	Cylinder		Air breathing			
Capacity	Pressure	Ø	Dimension mm	Weight	Endurance	Alarm
Litres	Bar	mm	lxhxd	Kgs	min.	calibration
6	300	140	310x660x220	15,6	55	55+/-5

requirements, like the warning signal near the ear, Quick-Fill or second connection.

The cylinder holder with variable strap permits accomadation of one or two air cylinders with 4 to 6.8 liters.

# Approvals and Standards EN 137 and MED 96/98/EC

Wherever sudden outbreaks of hazardous gases and oxygen deficiency are to be expected, in particular in industry and merchant marine, the compact is ready to immediately provide breathing air.

Other size and type available on request.

# 60091 Wall cabinet for autobreath



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#### 93200 Rechargeble halogen spotlight

Super bright beam bulb (12 W) 2 hours of continuous light after a complete charge Waterproof

AC230 V and DC 12 v car/boat plug Useful industry, electricians use, home use, hobby, camping and all outdoor activities Sizes: 215x125 mm

Batteries: Bulbs Pb6V4Ah 24455 6V-12W



#### 93199 Atex rechargable vulcan lantern

Rechargeable lantern light with powerful long range use. APPROVED ATEX EX II 3G EEx ALIIC T4ATEX FTZU 2004 0180 EX II 3G EEx

ALIIC T2 SPECIAL FEATURES LED displays battery status. Dual power

supply 12 and 220 Volt



#### 93201 Lamp rechargeableportable anti black-out 230V led



230 V rechargeable lantern Power fall are tight 30 LED's high brightness Operating time: 30 hours with 6 LED's, 10 hours with 24 LED's integrated power supply cord housing 12 V charger included Sizes: 160x285x100mm Batteries: Pb6V 4 Ah



#### 93195 Portable torce **EEX** waterproof

Powered by 2 "AA" alkaline batteries Xenon gas-filled bi-pin bulb, many times brighter than conventional flashlights Up to 4,500 peak beam candlepower (9 lumens) Runs up to 4 continuous hrs. Waterproof/IPX7 Features a wrist lanvard connection and pocket clip 15 cm / 100g



#### 93196 Portable torce **EEX** waterproof

A powerful and incredibly handy flashlight that features a momentary blink or constant on tailcap switch. Powered by 3 "C" alkaline batteries 3.7 volt. 785 mA xenon gas-filled module Up to 16,000 peak beam candlepower (50 lumens) Runs up to 5.5 continuous

21.7cm / 400g Waterproof/Dustproof IP65 Wrist lanyard connection and a spring-loaded clip













93002 Fire beating showel with a









sheath, tubular handle and rubber antiskid handgrip. Weight gr. 1100 L.33 cm

# FOG FIRE FOREST BLOWER

#### 93192 Fog fire forest blower

Model 93192 is provided with:

- Diaphragm carburettor and specific fitting-out to prevent accidental fuel leaks (the fuel tank cap has an airtight closure);
- Air blower pipe in aluminium;

- · All plastic materials endure heating;
- Shoulder straps in fireproof material with fast safety release;
- Accelerator, stop and liquid cock controls are situated on the safety handle on the air exit pipe;
- "Instructions and Maintenance" manual with safety procedures (drawn up by fire figthing qualified people).



Technical Characteristics				
Engine	Single cylinder, two stroke, air cooled			
Maximum power	3,6 Kw (5HP)			
Fuel	Mixture of leaded or unleaded gasoline and oil			
	for two stroke engine			
Electric system	Electronic ignition			
Starting	with recoil starter			
Air volume	20 m³/min			
Air speed	125 m/sec			
Liquid maximum range	hor. 17 m, vert. 15 m			
Autonomy at max al max speed	70 min			
Weight	11,6 kg (SS02 Model)			
Peak load's weight	25 kg for women, 30 kg for men (SS02 Model)			
Fuel tank capacity	1,9 L			
Liquids tank capacity	17 L (13,5 L of maximum filling)			
Shoulder straps	In fireproof material, with fast safety release			
Standard supplies	Spanners bag for the common maintenance			
	instructions manual			
Packing	Carton box cm 75x50x39			
	Pipes are supplied separately			

# FOG FIRE FOREST BLOWER TO CARRY ON THE BACK

# 93193 Fog fire forest blower to carry on the back

Model 93193 is provided with:

- Diaphragm carburettor and specific fitting-out to prevent accidental fuel leaks;
- Fuel tank in safety position with airtight closure cap;
- Blower pipe and spreader in aluminium reinforced with a steel ring;
- All plastic materials endure heating;
- Shoulder straps in fireproof material with fast safety release;
- Accelerator, stop and liquid cock controls are situated on the safety handle on the air exit pipe;
- "Instructions and Maintenance" manuals with safety procedures (drawn up by fire figthing qualified people).



Technical Characteristics			
Engine	Single cylinder, two stroke, air cooled		
Maximum power	3,6 Kw (5 HP)		
Fuel	Mixture of leaded or unleaded gasoline and oil for two		
	stroke engine		
Electric system	Electronic ignition		
Starting	with recoil starter		
Air volume	20 m³/min		
Weight when empty	9,9 kg.		
Fuel tank capacity	1,9 L		
Shoulder straps	In fireproof material with fast safety release		
Standard supplies	Spanners bag for the common maintenance, extension		
	pipes, air exit spreader and instructions manual		
Packing Carton box cm 51 x 49 x 39			

NOTE





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