

Technical Manual



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19508-15 : Wheeled Fire Extinguisher, 50 L Foam

TESTED SUCCESSFULLY ON LITHIUM BATTERY WITH CAPACITY

25,9 V **5076 Wh** 196 Ah



DISPENSING PISTOL WITH ROTATING CONNECTION

- **CYLINDER**
Stainless steel AISI 304, powder painting, Red Ral 3000.
- **EXTINGUISHING AGENT**
Lith-M 2. Water based foam.
- **PROPELLANT**
Dehumidified air or Nitrogen (N₂).
- **VALVE**
2"-F , brass body, lever with green painting Ral 6029.
- **USE**
Class A Fires (solid materials)
Class B Fires (flammable liquids)
Lithium-ion batteries.
- **BRACKET**
Chassis on wheels, welded at the cylinder, red painting Ral 3000.
- **DISPENSING PISTOL**
Body in plastic material.
The rotating connection allow an easy unroll of hose.

REPRODUCTION IS PROHIBITED

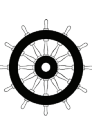
Note: image is for illustrative purpose only, the product purchased can have some differences

50 L foam wheeled fire extinguisher, temperature range from +5°C to +60°C, manufactured in accordance to **UNI EN 1866-1 (D.M. 6.3.92)**, approved Marine Equipment Directive **MED 2014/90/EU**, certified according to the directive for pressure equipment **PED 2014/68/EU**.

Quality Product certification guaranteed by Bureau Veritas Italia.

Suitable for use on fire involving electrical voltages up to 1'000 V, at a distance of 1 meter.

APPROVED\CERTIFIED FIRE EXTINGUISHER:



FIRE RATING :



IV 5076 Wh

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- **INSTALLATION**
- **USE**
- **MAINTENANCE**

The installation and the control and/or recovery operations of fire extinguisher must be performed by qualified technician and in accordance to current regulations on the matter.

The technician will carry out annual inspection for check the internal pressure and after all other steps planned during the fire extinguisher useful life.

Any tampering or operation performed by unqualified technician, void the product warranty.

If possible, is recommended to place fire extinguisher in a dry place, protected from atmospheric agents.

For installation, use and maintenance follow as indicated in file : CSP_1-B_ENG

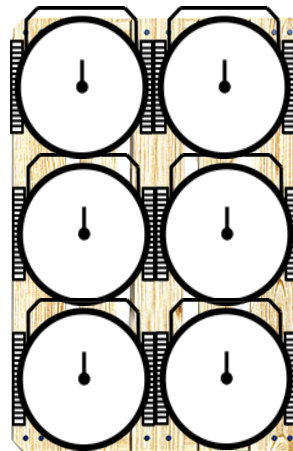
TECHNICAL SPECIFICATIONS

FIRE RATING	A IV B
EXTINGUISHING AGENT	Lith-M 2 - Water based foam
PROPELLANT	Dehumidified air or Nitrogen (N ₂), 15 Bar at 20°C
TEMPERATURE RANGE	+5°C / +60°C
NOMINAL CHARGE	50 Liters
FULL WEIGHT	~ 75,5 Kg
DIMENSIONS	Height 1100 +/- 10 mm ; Width 490 +/- 10 mm Depth 500 +/- 15 mm
DISCHARGE TIME	~ 253,5 seconds
CYLINDER PRESSURE TEST	PT 30 bar
CYLINDER VOLUME	62 L
SAFETY DEVICE	Set between 21 and 26 bar
CYLINDER MATERIAL	Stainless steel AISI 304
TREATMENT	Outside: Sandblast and powder painting Ral 3000

PACKAGING

(Note: the packaging quantities and measurements are indicative and can be subject at changes)

STANDARD
Maximum nr. 6 pieces for pallet
Pallet dimensions 100x120x135(h) cm



TRANSPORT DISPOSAL

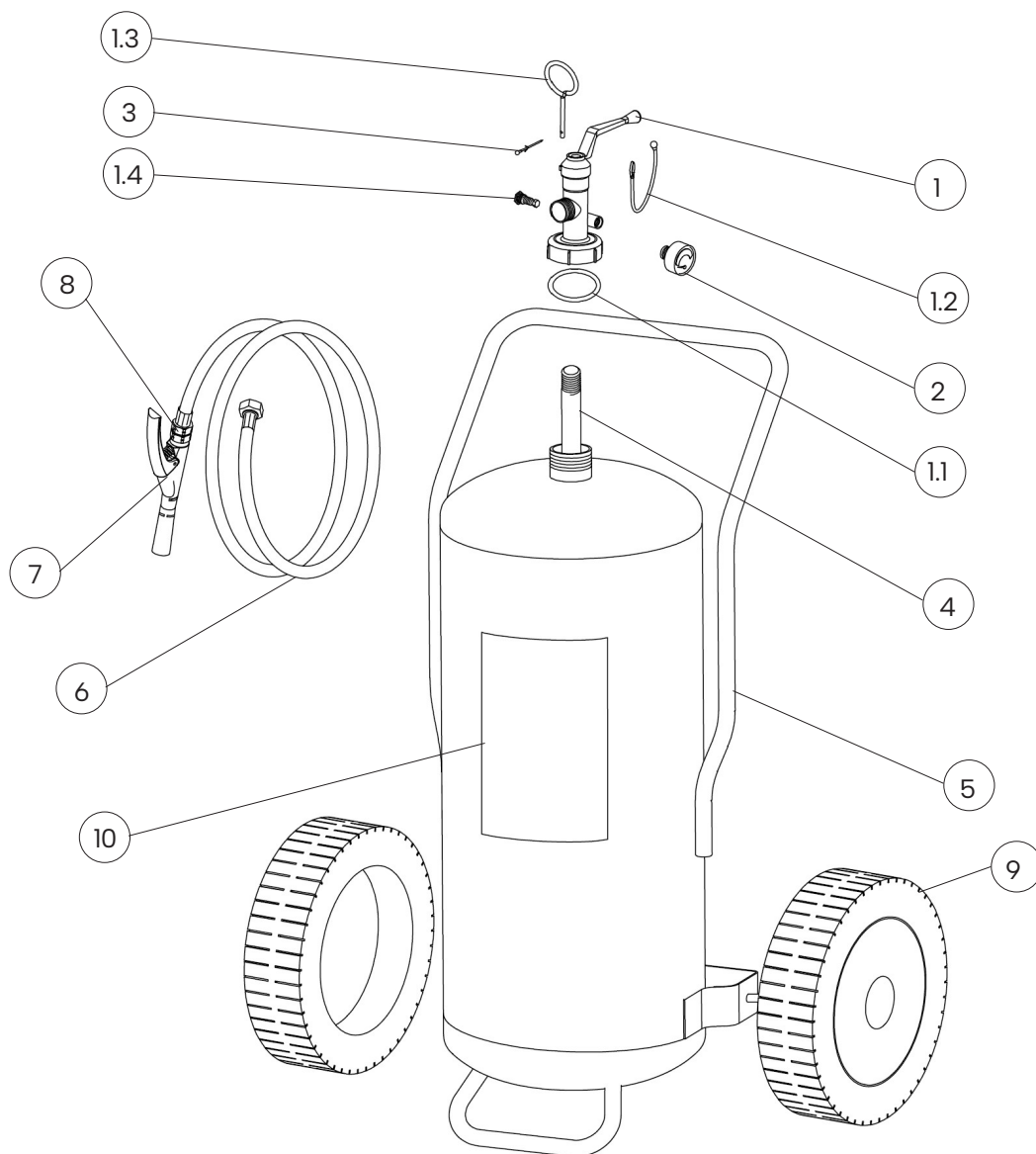
Land transport : Exemption for the purposes of ADR disposal 594

Ship Transport : IMDG Code - UN 1044 class 2.2 Fire Extinguishers

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COMPONENTS AND SPARE PARTS LIST



NUM.	DESCRIPTION	CODE
1	Valve 2"-F	0214RV
1.1	O-ring valve	0203
1.2	Tamper seal	0286N
1.3	Safety pin	0283R
1.4	Safety device	0263R
2	Pressure gauge	1576
3	Safety pin seal	0285
4	PVC dip tube	0162
5	Cylinder	18323

NUM.	DESCRIPTION	CODE
6	Hose	18421
7	Dispensing pistol with nozzle	2181-6
8	Adapter fitting for hose-pistol	2293
9	Wheel + wheel stop (diam. 300mm)	0124V
10	Label	1958-15
	Foam for refill (Bottle 25 L , ready to use)	1624-1L (x2)

The spare part at number 1 , includes already others components from 1.1 to 1.4

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Prerequisite when using the fire extinguisher on lithium batteries

According to tests executed with this fire extinguisher, it's possible to stop the combustion of a lithium-ion battery with a water based fire extinguisher with foam additives. It has been verified that the use of the fire extinguisher allows to lower the temperature and control any re-ignitions of the cells present inside the battery (generated by the chain reaction of the same and due to their shape inside the battery pack). The battery tested has a voltage of 25,9 V with a capacity of 196 Ah and an energy value of 5076 Wh. The fire extinguisher tested is therefore effective in containing the flames emanated from a battery with same or inferior characteristics compared to the one tested.

**NOTE: the test was executed on a new battery and so at full efficiency.*

SAFETY WARNING



The combustion of lithium-ion batteries releases very harmful gases and fumes. Direct exposure to high concentrations of gases emanating from the combustion of lithium-ion batteries can cause serious damage to health. Lithium-ion batteries can have unpredictable phenomena during fire, such as explosive reactions caused by the pressure of the cells inside the battery pack. It's advisable to use appropriate safety devices. The use of fire extinguisher is recommended for professional and expert staff. The use of fire extinguisher by uninformed people can lead to lower results and cause damage to involved people.

DISCLAIMER

The result of the tests performed refers exclusively to the fire extinguisher model used during the tests themselves. The fast development of lithium-ion batteries and fire extinguishers means that the performance achieved during the test phase is not guaranteed when using lithium-ion batteries or shutdown techniques other than those tested. It is not possible to understand where and to what extent these fire extinguishers can be installed due to the outer casing of the lithium-ion battery pack. The fire extinguishers tested are intended to help contain the principle of fire resulting from the triggering of a lithium-ion battery.

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