

Use and Maintenance Technical manual



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23020-7 : 2 Kg Portable CO2 Fire Extinguisher



OPTIONAL



- **CYLINDER**
Alloy steel, epoxypolyestere powder painting, Red Ral 3000.
- **EXTINGUISHING AGENT**
Carbon Dioxide 99,99%
- **VALVE**
CPF M. 25x2, brass body, levers with red painting Ral 3000.
- **USE**
B fire rating (flammable liquids)

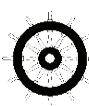
Note: image is for illustrative purpose only, the product purchased can have some differences

2 Kg CO2 fire extinguisher, temperature range from -30°C to +60°C, manufactured in accordance to UNI EN 3-7 (D.M. 7.1.2005), 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 mt

APPROVED\CERTIFIED FIRE EXTINGUISHER:



FIRE RATING :



34

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File name	Type of document	Fire Extinguisher Model	Date	Rele.	Check	Rev.	Pag.
23020-7_Technical manual	Use and Maintenance technical manual	23020-7	28/06/2021	M.R		1	1 di 7

23020-7 : 2 Kg Portable CO2 Fire Extinguisher

TECHNICAL SPECIFICATIONS

FIRE RATING	34 B
EXTINGUISHING AGENT	Carbon Dioxide 99,99 % CO ₂
TEMPERATURE RANGE	-30°C / +60°C
NOMINAL CHARGE	2 Kg
FULL WEIGHT	~ 7,2 Kg
DIMENSIONS	Height (base - valve) 570 +/- 10 mm Diameter (cylinder) 104 +/- 2 mm
DISCHARGE TIME	~ 7,7 seconds
VALVE TIGHTENING TORQUE	Minimum 95 Nm, Maximum 130 Nm
CYLINDER PRESSURE TEST	PT 250 bar
CYLINDER VOLUME	3 L.
SAFETY DEVICE	Set at 195 +15/-23 bar
CYLINDER MATERIAL	Alloy steel
EXTERNAL\INTERNAL TREATMENT	Sandblast and epoxy polyester powder painting, Red Ral 3000 colour.

PACKAGING

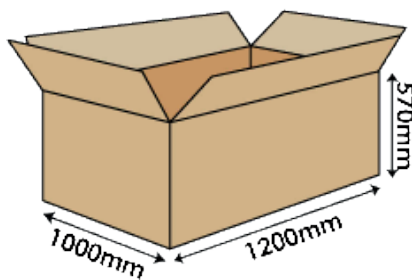
(Note: the packaging quantities and measurements are indicative and can be subject at changes)

STANDARD

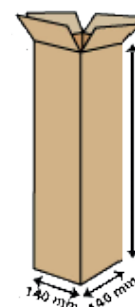
STANDARD : maximum 100 pieces for pallet

(100 pieces for box, max 1 box for pallet)

Pallet dimensions 100x120x75(h) cm



SINGLE PACKAGING ON REQUEST



TRANSPORT PROVISIONS

Land transport : Exemption for the purposes of ADR disposal 594

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

File name	Type of document	Fire Extinguisher Model	Date	Rele.	Check	Rev.	Pag.
23020-7_ Technical manual	Use and Maintenance technical manual	23020-7	28/06/2021	M.R		1	2 di 7

23020-7 : 2 Kg Portable CO2 Fire Extinguisher

COMPONENTS AND SPARE PARTS

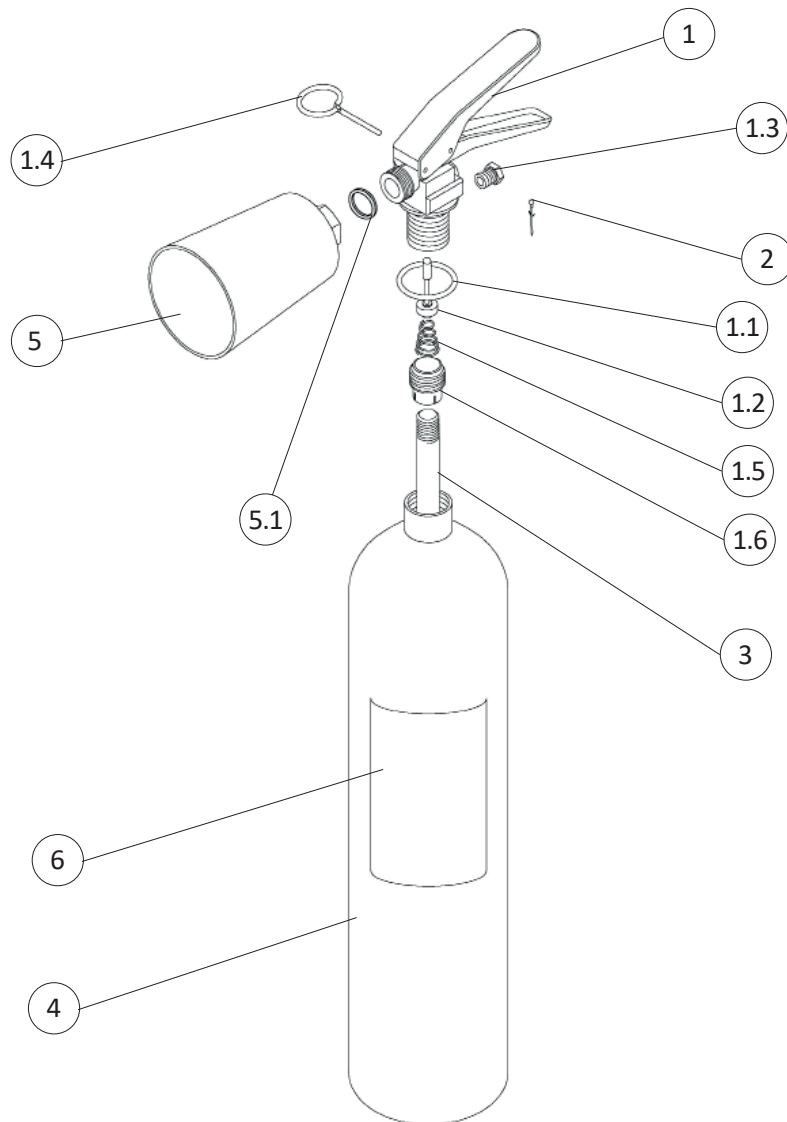


Table 1

NUM.	DESCRIPTION	CODE	NUM.	DESCRIPTION	CODE
1	Valve M. 25x2	0213C-1	3	PVC dip tube	0157-1
1.1	O-ring	0202	4	Cylinder	1884
1.2	Valve spindle	0243C	5	Horn	0331-1
1.3	Safety device	0262C	5.1	Plastic seal	0204
1.4	Safety pin	0284	6	Label	2252-1
1.5	Valve spring	n.a.	OPTIONAL	Iron ring wall-mounted, red painting, Europe model	1907-1
1.6	Syphon tube adaptor	n.a.	OPTIONAL	Iron marine bracket red painting	1238-1
2	Safety pin holder (green)	0285			

Spare component/valve at nr.1 includes more that one number of components indicated 1.1 a 1.6

Spare component at nr. 5, includes spare component nr. 5.1

"n.a." mean that the component is not available as single spare part

File name	Type of document	Fire Extinguisher Model	Date	Rele.	Check	Rev.	Pag.
23020-7_ Technical manual	Use and Maintenance technical manual	23020-7	28/06/2021	M.R		0	3 di 7

23020-7 : 2 Kg Portable CO2 Fire Extinguisher

Maintenance periods for efficiency guarantee, methods and subjects accredited for maintenance

1) GENERAL REQUIREMENTS

All Fire Fighting Fire Extinguishers produced by Emme Antincendio must be installed, inspected and maintained in accordance with the following manual and with the rules in force in the country of destination.

All fire extinguishers must be recharged after partial use with original spare parts.

Every ordinary / extraordinary maintenance operation must be carried out using original spare parts and compliant with the declared certified prototype. The described below maintenance operations must be carried out by recognized personnel qualified by the company Emme Antincendio.

Fire extinguishers are classified into two categories that provide for specific construction standards:

- portable fire extinguishers: fire extinguishers designed to be transported and operated by hand, with a mass not exceeding 20 kg under operating conditions. Reference standard: EN 3-7
- wheeled fire extinguishers: wheel fire extinguishers designed to be transported and operated by hand, with a mass greater than 20 kg. Reference standards: EN 1866-1

Moreover, in relation to the extinguishing agent contained in them, they are identified in:

- water based fire extinguishers including foam extinguishers;
- powder fire extinguishers;
- carbon dioxide fire extinguishers;
- clean agent extinguishers

2) REFERENCE RULES

Fire Extinguishers produced by Emme Antincendio are manufactured in compliance with the following rules:

- EN 3-7: 2008 Portable fire extinguishers;
- EN 1866-1: 2008 Wheeled fire extinguishers;
- PED Directive 2014/68/EU pressure equipment;
- MED Directive 2014/90/EU devices for marine use (only for products bearing the relative MED certification mark, see pag 1 of this document)

3) INSTALLATION

- 1) Install the fire extinguisher with the appropriate bracket, with the handle at a maximum recommended height of 110 cm.
- 2) When installed in a vehicle the fire extinguisher must be held in a specific truck bracket.
- 3) Do not expose the fire extinguisher to the atmospheric agents or chemicals agents.
(Note: in these cases protect the fire extinguisher with a special cabinet or protective cover.)
- 4) Do not expose the fire extinguisher to the direct sunlight.
- 5) Verify that the gauge pressure indicator is inside the green area.
- 6) Keep children away from fire extinguisher.
- 7) For Marine equipment or outdoor installation we recommend use of cover or cabinet.

4) MODALITY AND PRECAUTIONS FOR THE USE

- 1) Follow the operating Instructions printed on the main fire extinguisher label



1) REMOVE SAFETY PIN



2) SQUEEZE GRIP LEVER



3) AIM THE JET AT BASE OF FIRE

File name	Type of document	Fire Extinguisher Model	Date	Rel.	Check	Rev.	Pag.
23020-7_Technical manual	Use and Maintenance technical manual	23020-7	28/06/2021	M.R		0	4 di 7

23020-7 : 2 Kg Portable CO2 Fire Extinguisher

- 2) Do not through the fire extinguisher on to the fire.
- 3) This fire extinguisher is a pressurized vessel and must not be pierced, dented or subjected to external damage.
- 4) Do not direct the extinguishing agent at another person.

5) STEPS AND FREQUENCY RELATED TO MAINTENANCE OPERATIONS

Note: The user have to complies to the national or international rules, if they are more restrictive of the below table

Table 2

Ref.	Periodicity	Steps	Operations
5.1	12 Months	Inspection	Check the nominal charge by weighing the extinguisher.
5.2	10 Years	Hydrotest tank	Check the conservation status and perform the hydraulic test of the cylinder with suitable tool. Is recommended the replacement of the dispensing valve. N.B.: This procedure must be carried out by specialised staff, in certified laboratories.
5.3	*20 Years		Is recommended the replacement of the fire extinguisher.

*If it located in particular environments the timing can be reduced.
(it is recommended to reduce to 10 years)

N.B. : All the operations must be calculated from the date of placing on the market.

For the hydraulic test refer to the date stamped on the tank.







5.1) Inspection steps

1	Remove the fire extinguisher from the bracket and check the fixing stability. Check the marking label and replace it if damaged.
2	Remove the hose and check the correct internal passage with compressed air.
3	Check safety pin and safety seal.
4	Check the nominal charge by weighing the extinguisher. Before doing this, remove the accessories from the extinguisher (hose, horn etc.). Then use as references: – the tare weight indicated on the marking on the body of the extinguisher - the weight indicated in the body of the dispensing valve.
5	Reinstall the accessories (hose, horn etc...)
6	Record the inspection activity on the maintenance tag and on the fire protection register.

File name	Type of document	Fire Extinguisher Model	Date	Rele.	Check	Rev.	Pag.
23020-7_ Technical manual	Use and Maintenance technical manual	23020-7	28/06/2021	M.R		0	5 di 7

23020-7 : 2 Kg Portable CO2 Fire Extinguisher

Executive details Inspection steps, Maintenance, Hydraulic test

	<p>1 - Remove the fire extinguisher from the bracket; check stability of the bracket, cleaning, general conditions check marking label and replace them if damaged.</p>		<p>2 - Remove the hose and unload completely the fire extinguisher with suitable tool.</p>
	<p>3 - Check the conditions of safety pin and safety seal. Replace them if damaged.</p>		<p>4 - Check the nominal charge by weighing the extinguisher. Before doing this, remove the accessories from the extinguisher (hose, horn etc.) Then use as references: – the tare weight indicated on the marking on the body of the extinguisher - the weight indicated in the body of the dispensing valve</p>
	<p>5 - Reinstall the accessories (hose, horn ecc...) At this stage check the plastic seals positioned in the fittings of the horn/hose and replace them if necessary.</p>		<p>6 - Record the inspection activity on the maintenance tag and on the fire protection register.</p>

Note: images are for illustrative purpose only.

File name	Type of document	Fire Extinguisher Model	Date	Rele.	Check	Rev.	Pag.
23020-7_Technical manual	Use and Maintenance technical manual	23020-7	28/06/2021	M.R		0	6 di 7

23020-7 : 2 Kg Portable CO2 Fire Extinguisher

5.2) Hydraulic test

At least every 10 years from the production date the fire extinguisher must be overhauled by a hydraulic pressure test in accordance with the pressure values "PT" stamped on the cylinder.

N.B.: This procedure must be carried out by specialised staff, in certified laboratories.

It is recommended the replacement of dispensing valve.

5.3) Twenty-year control

End-of-life fire extinguishers must be disposed in accordance with local waste management rules.

Before disposal or disassembly, the fire extinguisher MUST BE DEPRESSURIZED by a competent person.

Fire extinguishers should always be disposed of through an approved disposal company and in accordance with applicable local and national codes.

(see table 2 at point 5.3).

6) SPARE PARTS LIST AND MAINTENANCE TOOLS

6.1) Spare parts list

For the spare parts list see the table 1 at pag 3.

For more details see web site www.emme-italia.com

6.2) Inspection\Maintenance Tools

For a complete list of recommended tools see web site www.emme-italia.com.

It is recommended to use instruments with controlled calibration and periodically verified (at least every 12 months) with certified sample instrument.

File name	Type of document	Fire Extinguisher Model	Date	Rele.	Check	Rev.	Pag.
23020-7_ Technical manual	Use and Maintenance technical manual	23020-7	28/06/2021	M.R		0	7 di 7