

ANAF Fire Protection

TECHNICAL VERIFICATION AND REFILLING – PS1-X TOP

This document is a maintenance guide intended for competent, trained and qualified personnel, in accordance with the regulations in force in the country concerned.

It will not be able to cover all the cases that may arise during an inspection or verification operation but will provide information on the most common cases. The competent personnel must know the standards and regulations in force in the country, must, in the exercise of their duties, respect the applicable safety and hygiene rules and comply with the instructions provided by the manufacturer.

1. TOOLS

The tools and equipment listed below are necessary for servicing this type of fire extinguisher:

- Use individual protection measures.
- A source of nitrogen under a pressure of 15 bar max. (dehumidified air is not recommended by the manufacturer);
- Pressure adapter code ANAF 99.002Z.0076.00 ;
- Tightening wrench code ANAF 99.002Z.0652.00
- A hose, equipped on one side of a rapid connection for “Schrader valve”;
- Torque wrench from 0 Nm to 60Nm;
- Control pressure gauge M10x1;
- Mechanical bench vise with a diameter of 90 mm and a clamping force not higher than 60Nm.

It is better to film the surfaces in contact with the fire extinguisher with protection made up of a semi-hard caoutchou of 2 -3 mm of thickness.

2. SPARE PARTS

Description	Code
Assembled valve without pressure gauge	00.652A.8505.01
Pressure gauge	00.652A.4900.10K0
o-ring for valve	00.652A.5010.00
Complete Spindle	00.652A.6050.00K0
Safety pin	00.652A.5020.00K0
Seal	00.652A.5030.VEK0
Dip tube	00.250A.5950.00
Plastic bracket	00.652A.2910.00

As far as the extinguishing powder is concerned, select the type as per § 4 of this document. Our extinguishing powders are available in different packaging.

Details available on www.anaf.eu in section “Products” or on the following [link](#).

N.B.

In case it becomes necessary to replace any components of the fire extinguisher during maintenance service, the operator is **UNDER THE OBLIGATION** to use **ONLY** and **EXCLUSIVELY** products and spare parts conforming to the certified equipment.

Failure to comply with the above shall release the manufacturer from any liability for damage to persons and/or property.

The fire extinguisher is under pressure.

Before opening the valve, check the absence of pressure (even residual) by pressing on the lever, in particular if the safety pin and the seal are absent.

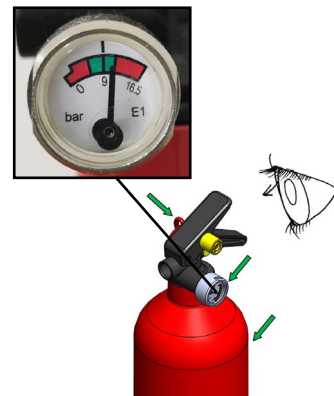
Recharge after complete or partial use.



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3. VISUAL INSPECTION

Check the indication of the pressure gauge. The needle has to be in the green zone if the temperature of the body is between +30 et +60 °C. Visually inspect the fire extinguisher body, also the loss of painting. Ensure that the manufacturer's extinguisher labelling is in good condition. Check that the safety pin/clip and tamper seal are in place (the color of the seal may be different, after annual inspection).



3.1 SERVICING AFTER VISUAL INSPECTION

If the pressure gauge needle is not in the green zone (incorrect position), unscrew the pressure gauge.

- If the needle does not return to 0, replace the pressure gauge.
- If the needle returns to 0, and after reassembly, the needle is in one of the 2 red zones, restore or remove pressure in the extinguisher according to the values in Table 1.

(tableau 1)

Temperature °C	Pressure (Mpa)	Pressure (Bar)
-30	0,6	6
+20	0,9	9
+60	1,1	11

To pressurise, fit the control manometer, break the tamper seal by withdrawing the safety pin/clip and fit the pressurization adapter to the valve.

Open the regulator on the nitrogen bottle to a maximum pressure of 15 bar and pressurise by pressing the lever until the required pressure (Mpa/bar) is reached, depending on the ambient temperature. (table 1).

Replace the valve if :

- It is damaged
- The thread is damaged.
- The extinguisher has been used.

However, we recommend replacing the valve every 5 years (from the production date shown on the tank).

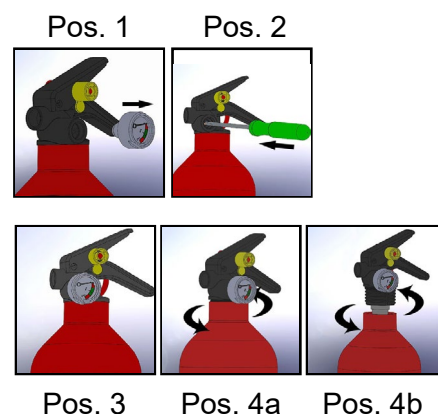
If the pressure gauge is not damaged, you can reuse it when replacing the valve.

4. RECHARGE

Carry out the following operations after having put the fire extinguisher in a mechanical bench vise - cfr. § 1 Tools.

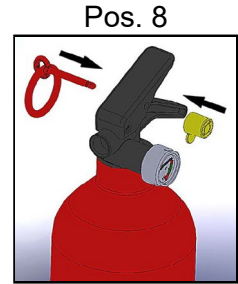
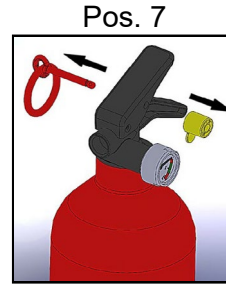
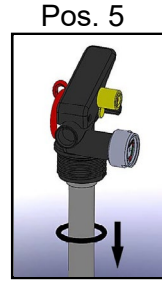
To refill the fire extinguisher, proceed in the following way:

- Unscrew the pressure gauge (Pos. 1).
- To depressurize, push the Schrader valve and let the gaz go out (Pos. 2).
- Replace the pressure gauge to check the absence of pressure inside the extinguisher (Pos. 3).
- Unscrew the valve from 1 to 1½ turns and, if no gaz can be heard, unscrew completely the valve (Pos. 4a-4b).
- Empty the content of the fire extinguisher in a specific container, according to the regulations on the country in which the fire extinguisher is used.
- Blow the interior of the bottle, the valve, the dip tube with dry air.
- **Refill the bottle with:**
1000g ±5% extinguishing powder as mentioned in part 4 of the label (cfr image page 3).



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- Keep the valve, the pressure gauge and the cylinder clean.
- Replace the o-ring of the valve.
- Screw the pressure gauge.
- Slightly lubricate the o-ring of the valve and of the pressure gauge (Pos.5).
- Put the valve in its place and **tighten at 17 ± 2 Nm** using an ANAF tightening wrench and a suitable torque wrench (Pos.6).
- Remove the safety pin (Pos. 7).
- Put the adapter on the opening.
- Connect the hose on the pressure adapter and begin the re-pressurization.
- Remove the hose and the pressure adapter.

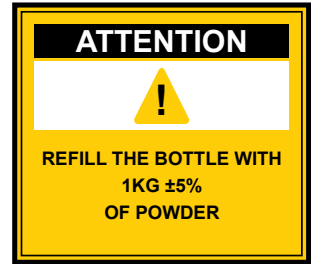


ATTENTION



Open the source of nitrogen with a pressure of 15 bar max.
The pressure of the pressurizing gas has to be controlled, start with a pressure from 4 to 5 bar and wait for the requested pressure - cfr. table 1.

- Refit/replace the safety pin/clip and then secure in place with a tamper seal (Pos.8).
- Wipe down the extinguisher exterior with a cloth and put the fire extinguisher in the foreseen place.



As extinguishing agent, use only the extinguishing powder mentioned in Part 4 of the label (cfr following image).

Example of a fire extinguishing marking to EN3-7:2008 norm to underline the extinguishing agent reference on the label.

• CERTIFIED WITH HIS TRANSPORT BRACKET.

• RECHARGE AFTER COMPLETE OR PARTIAL USE.

• CHECK EXTINGUISHER PERIODICALLY FOR OPERATIONAL CAPACITY.

• USE ONLY APPROVED SPARE PARTS WHEN RECHARGING OR SERVICING.

EXTINGUISHER

1 kg POWDER ABC

5A 34B C

**1. HOLD UPRIGHT
WITHDRAW SAFETY CLIP**

**2. AIM JET AT BASE OF FIRE
AND SQUEEZE LEVER**

A

B

C

SUITABLE FOR USE ON FIRE INVOLVING VOLTAGES OF UP TO 1000 VOLTS AT NOT LESS THAN 1 METER DISTANCE

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EXTINGUISHING AGENT : 1 kg Powder A32/ABC

• PROPPELLANT : 9 bar at 20°C NITROGEN / NITROGEN + 5% HELIUM

• CERTIFICATION APRAGAZ: EN3-7:2008

• TYPE: PS1 - X ABC

• TEMPERATURES RANGE : -30°C to + 60°C

• PS: 13,98 bar

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5. TEN-YEARLY INSPECTION

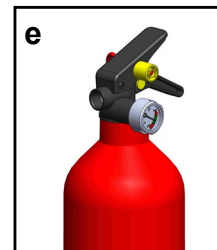
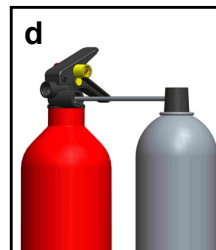
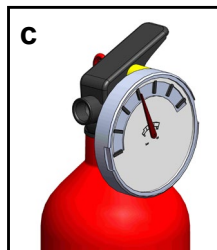
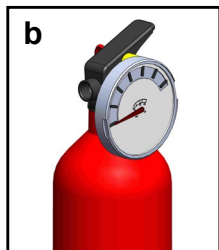
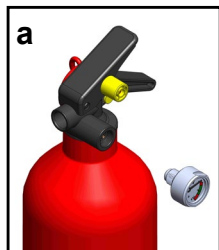
In accordance with the Directives and Standards in force, the extinguisher requires hydrostatic testing: the item has to be subject to a pressure test without exceeding the test pressure (PT) engraved on the tank.

The body must not leak or be deformed. Replace defective parts.

6. CONTROL OF THE PRESSURE GAUGE

Proceed in the following way:

- Unscrew the pressure gauge from its position (a);
- Check that the needle of the pressure gauge returns to zero (b);
- Place a control manometer and check the pressure (c);
- Before replacing the pressure gauge, slightly lubricate the o-ring using silicone grease(d);
- Check that the indication of the pressure gauge is the same as the one detected by the control manometer (e).



The images shown in this document are indicative only and may be modified without prior notice.