ANAF Fire Protection

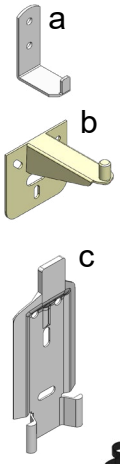
FS9-LH XF MAINTENANCE GUIDE

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

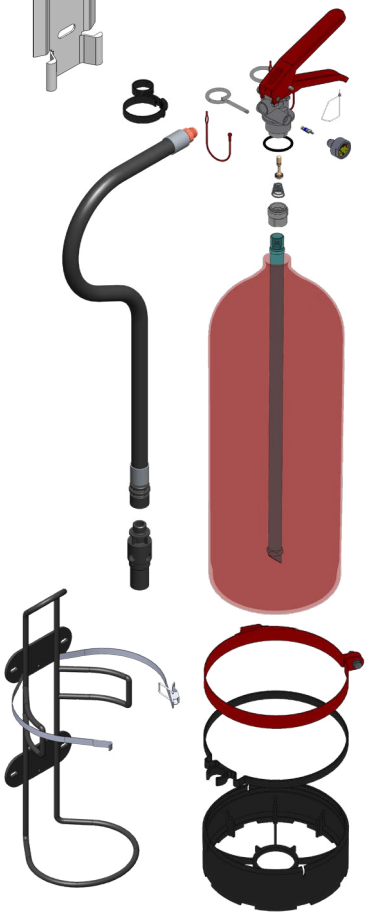
The tools and equipment listed below are necessary for servicing this type of fire extinguisher:
- Use individual protection measures.
- A source of nitrogen under a pression of 18 bar max. (dehumidified air is not recommended by the manufacturer);
- Pressure adapter code ANAF 99.002Z.0074.00 ;
- Tightening wrench code ANAF 99.002Z.0886.00
- 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 de 200 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	00.886E.8090.00K0
Pressure gauge	00.860E.4950.00K0
o-ring for valve	00.033E.1100.01K0
Schrader valve	00.886E.5100.00K0
Spindle	00.241E.6100.00K0
Spring	00.886E.5200.00K0
Dip tube adapter	00.886E.5810.00K0
Dip tube	00.886F.5900.00K0
Hose holder	00.800F.2800.00K0
Nozzle	00.861F.2010.10K0
Safety latch	00.886E.6290.00K0
Seal	00.005A.3220.00K0
Safety pin	00.886E.5020.00K0
Hose assembly without nozzle	00.861F.2390.00K0
Metal safety latch	00.850F.2970.00K0
Plastic base Ø180 with hose bracket	00.030E.7120.00K0
Wall bracket a	00.752B.2900.10K0
Bracket b	00.005E.2900.00K0
Galvanized wall bracket c	00.005E.2950.00K0
Hose bracket	00.850E.2960.01K0
Transport bracket	00.241E.2900.00K0



N.B.
If, during maintenance, it becomes necessary to replace any components of the fire extinguisher, 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’.

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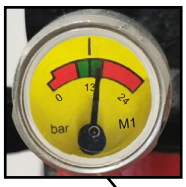
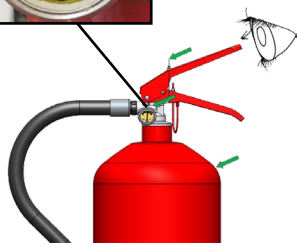
The fire extinguisher is under pressure.
Before opening the valve, check the absence of pressure (even residual) by pressing on the lever, in particular if the safety pin and the seal are absent.
Recharge after complete or partial use.

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 +5 et +60 ºC. 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

Remove the discharge hose from the extinguisher head cap.
Check the hose and nozzle for damage and ensure that the hose is clear from obstruction (Pass the air through the hose, the air should come out.). Replace the hose: tighten moderately with a spanner. Tightening torque: 5 Nm +/- 0.5 Nm and fit a new seal.
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.

(table 1)

Temperature °C	Pressure (Mpa)	Pressure (Bar)
+5	1,0	10
+20	1,3	13
+60	1,6	16

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

Open the regulator on the nitrogen bottle to a maximum pressure of 18 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.

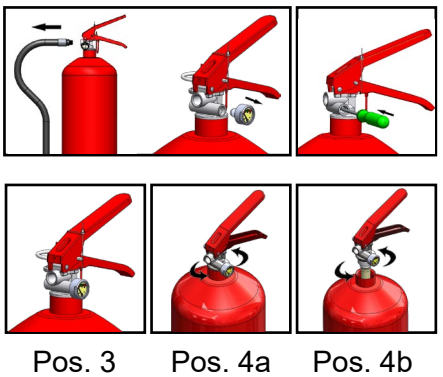
However, we recommend replacing the valve every 5 years (from the production date shown on the tank).

When replacing the valve, if the pressure gauge is not damaged, you can reuse it.

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:

- Remove the discharge hose from the extinguisher head cap (Pos. 1).
- 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:**
  - 8,37 l water
  - Kit de recharge Anaf - Cod 77.860F.9001.01
  Extinguishing agent: 9 l +0 -5% (cfr photo pag. 3).



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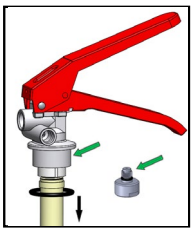
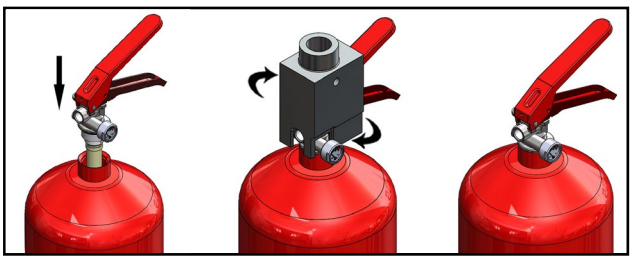
- Keep the valve, the pressure gauge and the cylinder clean.
- Replace the o-ring of the valve.
- Screw the pressure gauge.
- Sligtly lubricate the o-ring of the valve and of the pressure gauge (Pos.5).
- Put the valve in its place and tighten at 43 ± 2 Nm using an ANAF tightening wrench and a suitable torque wrench (Pos.6).
- 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.

Pos. 5



Pos. 6



ATTENTION

Open the source of nitrogen with a pressure of 18 bar max.
The pression of the pressurizing gas has to be controlled, start with a pressure from 4 to 5 bar and wait for the requested pression - cfr. table 1.

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

ATTENTION

DO NOT USE EITHER OTHER TYPES OF EXTINGUISHING AGENT

ATTENTION

DO NOT WASH THE TANK WITH SOLVENTS

ATTENTION

COUPLE TIGHTENING TORQUE FOR VALVE 43±2 Nm

ATTENTION

REFILL THE BOTTLE WITH 9l +0 -5% OF EXTINGUISHING AGENT

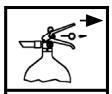
Use only the extinguishing agent mentioned in Part 4 of the label (check the following example)

Example of marking of an extinguisher according to EN3-7:2008 to highlight the references of the extinguishing agent on the label

EXTINGUISHER

9L WATER + ADDITIVES

27A 183B



HOLD UPRIGHT WITHDRAW SAFETY CLIP

SQUEEZE LEVER TO OPERATE, RELEASE TO INTERRUPT

AIM JET AT BASE OF FIRE

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

FIRE EXTINGUISHER

EXTINGUISHING AGENT : Water 8,37 l + 5% FFX Booster A: 0,45 l + 2% FFX Compact: 0,18 l
PROPELLANT : NITROGEN OR NITROGEN + 3% HELIUM, 13 bar at 20°C
CERTIFICATION : ---------- TYPE : FS9-LH XF
TEMPERATURES RANGE : +5°C to + 60°C PS : 15,38 bar
CERTIFIED WITH ITS TRANSPORT BRACKET.
RECHARGE AFTER COMPLETE OR PARTIAL USE.
CHECK EXTINGUISHER PERIODICALLY FOR OPERATIONAL CAPACITY.
USE ONLY APPROVED SPARE PARTS WHEN RECHARGING OR SERVICING.

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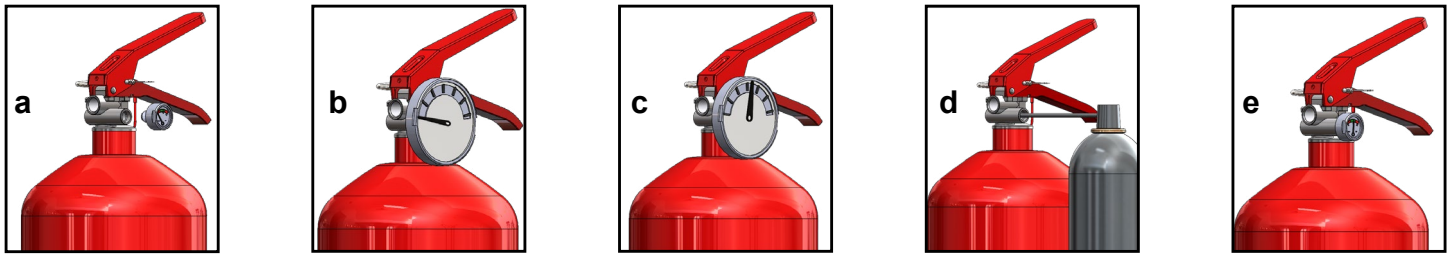
5. TEN-YEARLY INSPECTION

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 presented in this document are indicative and may be modified without prior notice.