

INSTRUCTIONS USE AND MAINTENANCE

PORTABLE FIRE EXTINGUISHERS WATER+ADDITIVE PERMANENT PRESSURE

Models:

9D-58-A (Class A)

9D-58-A (Classes A – F)

9D-58-AB

9D-34-A (Class A)

9D-34-A (Classes A – F)

9D-34-AB

INDEX

1. INSTALLATION.....	3
2. WORKING	3
3. USE AND WORKING	3
3.1. WARNINGS	3
3.2. INSTRUCTIONS FOR USE	4
4. INSPECTION MADE BY THE USER	4
5. MAINTENANCE MADE BY QUALIFIED OPERATOR	5
5.1. SCHEME OF THE FIRE EXTINGUISHERS	5
5.2. GENERAL INFORMATION	6
5.3. SAFETY PRECAUTIONS FOR MAINTENANCE OPERATOR	6
5.4. RECHARGE OF THE FIRE EXTINGUISHERS	6
5.5. TAG OF MAINTENANCE	7
5.6. REVISION	7
5.7. SERVICE LIFE OF A PORTABLE EXTINGUISHER	7
5.8. MAINTENANCE PROCEDURES	8
6. SAFETY PRECAUTIONS FOR THE USER	10
6.1. DURING THE SUPPRESSION OF THE FIRE	10
6.2. DURING THE OTHER STEPS OF SERVICE LIFE OF THE EXTINGUISHER	10
7. WARRANTY	12

1. INSTALLATION

This model, delivered ready for use, is designed to be installed on the wall bracket supplied. It can be used in vehicles and boats (optional). Its location must be reported in the manner prescribed by the current regulations.

2. WORKING

In standard conditions, the fire extinguisher is under pressure at about 15 bar at 20 ° C.

3. USE AND WORKING

3.1 WARNINGS

 **Caution:** the fire extinguisher is an equipment of first responders, designed to extinguish a small fire. Any different use is a risk of exposing the user and where the manufacturer SAE Srl can not be responsible in any circumstances.

Safety instructions: read carefully the following instructions, and before using it the first time to inform other potential users in particular regarding the risks in the event of misuse.

- Keep the fire extinguisher out from children.
- Install it in a visible place, protected from heat and falls and shocks. It should be easily accessible to the user. The extinguisher should not be a barrier to people and / or vehicles on the move.
- Identify his post with a sign in accordance with the current regulations.
- It can be used on electrical installation live less than 1000 V at a distance of 1 m. Avoid all contact with an electrical conductor.
- Avoid any type of forced intervention on the extinguisher and in particular on the security seal or any misuse that may affect the safety of the user and for the proper functioning of the extinguisher.
- Follow the instructions for use given in section 4.2 and on the label of the extinguisher.
- Use at a temperature not lower than 0 ° C and not higher than + 60 ° C (limit temperatures of use).
- On Class B fires, maintain a certain distance with the outbreaks (4.5 m) to avoid liquid splashes. Do not start from the center, but direct the spray from side to side to avoid the liquid to expand and cause them to restart.
- On Class F fires, maintain a certain distance from the fire (2/3 m) to avoid liquid splashes. Keep the fire extinguisher the most high as possible, start to discharge the extinguisher taking care not to create liquid spills. It contains a specially formulated wet chemical, which when applied to the burning liquid cools and emulsifies the oil, extinguishes the flame and seals the surface, preventing reignition.
- Ventilate the area after using the extinguisher.
- To clean extinguisher, do not use an aggressive product, but only a damp cloth.
- Do recharge the extinguisher after each use, even in part, by a qualified service company.
- Have your maintenance and replacement of the extinguisher according to the frequency and conditions established by current regulations. The service life of the extinguisher is related to its state of conservation and use according to current regulations.
- In case of damage or breakage, do not make changes by welding or by another method, replace the part or the fire extinguisher.
- Giving the extinguisher completely empty and without pressure to a company authorized disposal. Each discharge and disposal in the environment should be avoided.

Fire classes:



Fires from solid materials: materials of which combustion normally takes place with the formation of embers (wood, paper, fabrics, wood chips, skins, plastic and derivatives, straw, cotton, etc).



Fires from liquid or solid liquid: alcohols, ether, lacquers, solvents, oils and petrol etc.



Fires from cooking oil and fat as well as other kitchen cooking material, which are of the greasy kind.

3.2 INSTRUCTIONS FOR USE



1. Use upright pull out clip



2. Aim at base of fire



3. Press lever fully down

4. INSPECTION MADE BY THE USER

The user is the person responsible for planning and conduct of the inspection and maintenance of portable fire extinguishers.

It is recommended to the user or his representative to provide, at regular intervals, for inspection work in order to ensure that each extinguisher:

- is located where it is indicated with a visible sign;
- is available on the manner of use legible;
- It is not damaged;
- has the gauge needle in the green;
- does not have the security seal broken or missing.

In case of non-compliance, the user should implement appropriate corrective actions.

The frequency of the inspection should be at least quarterly and preferably monthly.

If circumstances require, carry out inspection more frequently.

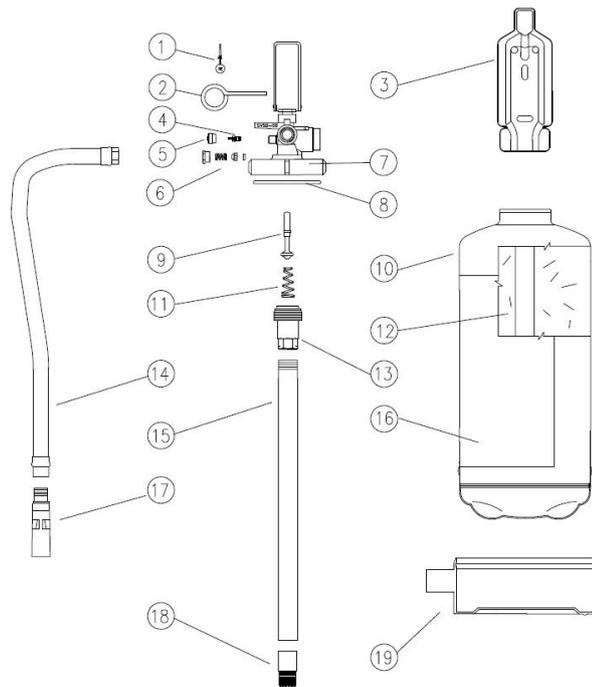
5. MAINTENANCE MADE BY QUALIFIED OPERATOR

5.1 SCHEME OF THE FIRE EXTINGUISHERS

Models : 9D-58-A (Class A) / 9D-58-A (Classes A F) / 9D-58-AB

N. Description

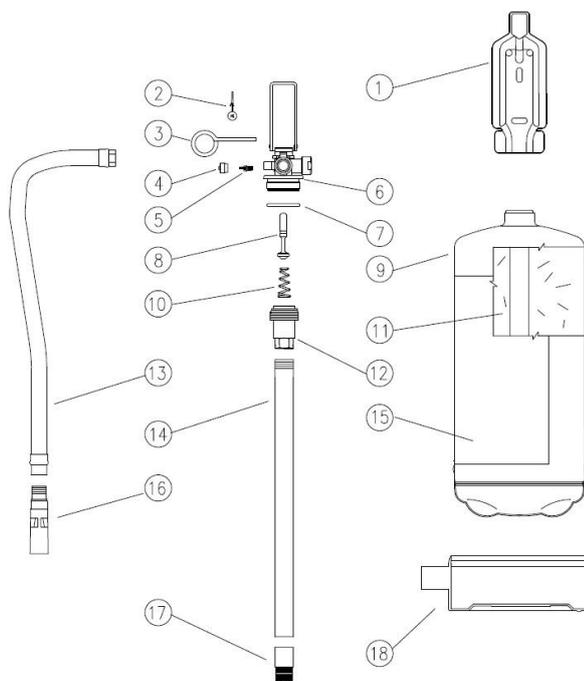
- 1 Safety seal
- 2 Safety pin
- 3 Wall bracket
- 4 Ceck valve
- 5 Plug ceck valve
- 6 Safety valve
- 7 Valve
- 8 O-ring
- 9 Valve stem assembly
- 10 Cylinder
- 11 Spring stem
- 12 Extinguishing agent
- 13 Tube holder
- 14 Hose
- 15 Dip tube
- 16 Label
- 17 Nozzle
- 18 Filter dip tube
- 19 Base



Models : 9D-34-A (Class A) / 9D-34-A (Classes A F) / 9D-34-AB

N. Descrizione

- 1 Wall bracket
- 2 Safety seal
- 3 Safety pin
- 4 Plug ceck valve
- 5 Ceck valve
- 6 Valve
- 7 O-ring
- 8 Valve stem assembly
- 9 Cylinder
- 10 Spring stem
- 11 Extinguishing agent
- 12 Tube holder
- 13 Hose
- 14 Dip tube
- 15 Label
- 16 Nozzle
- 17 Filter dip tube
- 18 Base



5.2 GENERAL INFORMATION

The user must always ensure that portable fire extinguishers are checked and maintained in the manner specified in paragraph 5.8.1.

The qualified maintenance operator must perform the work at the frequency established by the current regulations. This frequency may be increased because of environmental concerns, risks or specific regulatory requirements.

Each portable fire extinguisher, in part or whole, must be considered unusable by the operator when maintenance is estimated that:

- It would be dangerous to use it in the state;
- Its status can prevent it to function in a satisfactory manner, for example in case of loss of the contents or pressure higher than the established tolerances;
- The method of use are necessary for its proper use have become illegible.

In the absence of urgent action to remedy the problem, the maintenance worker must take the fire extinguisher separate reporting on the tag of maintenance or of a document under 'EXTINGUISHER UNUSABLE STATE ', waiting to remedy the problem.

The maintenance must also examine the support of the extinguisher and report any defect or damage visible to the user.

5.3 SAFETY PRECAUTIONS FOR MAINTENANCE OPERATOR

The service operator must be informed of the safety precautions to be taken during handling, management, treatment and provision of extinguishing agents disposal.

These operations must conform to the current regulations.

5.3.1 Fire safety during maintenance

The user must take into account the fact that the maintenance and charging procedures may temporarily reduce the effectiveness of preventive measures implemented at its headquarters, for fire protection. Therefore, you must observe the following points:

- a) according to the fire risk, it is generally good practice to take in a specific area, a limited number of portable fire extinguishers in the implementation of maintenance operations;
- b) where appropriate, place of the fire extinguishers in the area where parts have been picked up the fire extinguishers to be subjected to maintenance;
- c) more preventive measures against fire may be needed during the maintenance period.

5.3.2 Individual safety

To perform each operation of assembly and disassembly of the valve, always lock the body of the extinguisher in a vise and use a suitable protective equipment.

During the opening of each portable extinguisher:

- a) make sure there is no residual pressure in the cylinder and hose. Act on the needle of the pressure control valve to evacuate the residual pressure;
- b) slowly unscrew the valve until complete exit of the residual pressure. Do not continue loosening until the pressure has not been fully released.

Any sudden release of pressure may cause the projection of parts or contents of portable fire extinguisher.

5.4 RECHARGE OF THE FIRE EXTINGUISHERS

The user must define the methods to recharge or replace portable fire extinguishers that have been partially or completely discharged for any reason or whose inspection results indicate the need to reload.

The fire extinguisher must be completely emptied and the extinguishing agent is disposed.

On the tag of maintenance or document delivered to the user, the service operator will indicate the heading "REBUILT" and the date of the charge.

5.5 TAG OF MAINTENANCE

The maintenance data must be recorded on a tag that does not conceal any marking the manufacturer SAE.

The tag contains the following data:

- Verified / audited;
- The recharge date specifying the nature of the extinguisher if necessary;
- The date of additional maintenance and thorough;
- The name and address of the specialized and enabled maintenance;
- The signature of the service operator who has done the maintenance;
- The date of execution of maintenance or inspection;
- The date of revision.

NOTE if the regulation of the country requires it, they are given the month and year of the next service.

In addition, information concerning the details of the non-compliances identified and corrective action taken or to be taken to restore the proper functioning of each fire extinguisher and / or its support should be given in a document (registration, inspection report etc.).

5.6 REVISION

The service company verifies that portable fire extinguishers and restores their operation must have specific equipment and drop user, statements relating to the tasks performed. The service people should be qualified to do such operations.

Normally, such a company should implement a quality system and be empowered to conduct the interventions reviewed in accordance with the requirements of the current regulation.

5.6.1 Frequency of revision:

The maintenance program is designed to make sure that portable fire extinguishers are always in working during the entire period of use.

All extinguishers must be subject to a revision in a specialized and enabled second intervals the frequency of which shall not be less than that established by current regulations. To make this possible to be implemented, the maintenance man reset every year an appropriate percentage of each type of portable fire extinguisher.

The company specializes enabled and must comply with national regulations the protection of the environment with regard to the disposal of extinguishing agents.

5.6.2 Method of revision:

When a portable fire extinguisher must be subject to review, the procedure must be followed as described in the table in paragraph 5.8.3 and recharging must be performed in accordance with paragraph 5.4.

5.6.3 Precautions in case of hydraulic test:

In the event that water is used during the hydraulic test, the cylinders must be thoroughly dried before being recharged.

NOTE The national regulatory or European Union on pressure vessels may be applicable for maintenance and testing of fire extinguishers and hydraulic cylinders, in particular, carbon dioxide and gas cartridges.

5.7 SERVICE LIFE OF A PORTABLE EXTINGUISHER

The expected service life for a portable fire extinguisher is established by current regulations.

It is the responsibility of the service operator, report in a written report to the user of the extinguisher, which to his opinion, a fire extinguisher must be eliminated.

5.8 MAINTENANCE PROCEDURES

These procedures are the responsibility of maintenance operator or company authorized to conduct any revision.

CAUTION: according to the current regulations in the country where they are used fire extinguishers, some maintenance procedures may not be applicable.

5.8.1 Details of maintenance procedures adopted in accordance with the regulations in force

n.	Phase or element checked	Istructions
1	Check the seal and the safety pin	Check if the seal and the safety pin have been removed.
2	Check the pressure gauge	Check the suitability of the pressure gauge. If it does not work freely or if it indicates a pressure outside tolerances, check the value of the pressure inside the extinguisher with a control manometer pressure fitted with a grease fitting. If the pressure is too low, set aside the fire extinguisher and check further in the workshop to identify the cause.
3	Inspect the exterior of the extinguisher	Check for signs of corrosion, shock, scratches or deterioration that could prevent the proper operation of the extinguisher.
4	Check the hose	Check the suitability of the hose and make sure it is level, or obstructed, fissured, worn or damaged. Blow if necessary with compressed air. Replace if necessary.
5	Check the way to use the extinguisher	Verify the accuracy and readability of the mode of use indicated on the label of the extinguisher.
6	Open a portable fire extinguisher	Extinguishers permanent pressure must be opened only in case of partial use, loss of pressure or weight control and possible replacement of the extinguishing agent. Open the portable fire extinguisher conforming to the safety precautions described in paragraph 5.3.2, to remove the valve from the cylinder.
7	To empty a portable fire extinguisher	Pour the initial charge into a clean container and check whether the charge can be reused. If there is debris, replace it. Check the filter status of the float. If it is defective, replace the float.
8	Verify proper operation and the suitability of all items	Clean if necessary and pass air through the other parts, paying particular attention to the valve orifice. Verify that the safety valve (if there is) and other parts are not blocked. Replace defective parts. N.B. when the pressure gauge is defective, replace the valve. Verify that the organ functioning and discharge control operate freely. Clean, perform the repair or replacement of defective parts if necessary. Protect moving parts and threads against corrosion with a silicone-based lubricant grease.
9	Check the seals	Replace the seals. Lubricate the new seals with silicone grease before installation.
10	Examine the inside of the cylinder	Check the inside of the cylinder with a light. Verify the absence of corrosion and / or deterioration of inner liner.
11	Check the expiration date of the hydraulic test and replace the portable fire extinguisher	Check whether the hydraulic test came to an end. In this case, run the test in accordance with the procedures of paragraph 5.8.3, before refilling the extinguisher with the extinguishing agent (water and additives) or previously checked with the new extinguishing agent. Replace the valve cleaned and checked with the float and the new seals lubricated on the cylinder, taking care to position them. Screw the valve with a force torque as indicated in the following note. Pressurize the extinguisher with nitrogen at 15 bar (± 1 bar at 20° C). Insert the safety pin and lock it with the new security seal. Check the seal of the valve with a spray leak detection. Screw the hose with the tightening torque 15-20 Nm.

n.	Phase or element checked	Istructions
12	Fill in the tag maintenance extinguisher	Fill in the tag maintenance, as it appears in paragraph 5.5.
<p>NOTE: Only use wrenches certified.</p> <p>The safety valve is screwed with the force torque of 12/17 Nm.</p> <p>The valve with thread M34 is screwed with the force torque of 20/70 Nm.</p> <p>The valve with thread M58 is screwed with the force torque of 50/70 Nm.</p> <p>The hose is screwed with the force torque of 15/20 Nm.</p> <p>The dip-tube and nozzle of the hose They are screwed manually.</p>		

5.8.2 Details of the procedures for additional maintenance and thorough established according to existing regulations

	The procedures of the table in paragraph 5.8.1 are carried along with the procedures of this table
1	Check the correct operation of the portable extinguishers permanent pressure and the pressure according to the instructions in Table 5.8.1
2	To empty all portable extinguishers.
3	Examine the extinguishing agent in accordance with the instructions given in Table 5.8.1. and NOTES 1 of this table and NOTES 2 of table 5.8.3.
4	Examine in detail: the valve, the pressure gauge and the hose in order to verify the absence of corrosion, impact and scratching.
5	Examining in detail the inside of the cylinder with a light source and a mirror in order to verify the absence of corrosion, impacts, nicks and scuffs. In case of doubt on the welds, replace the cylinder.
6	Examine and verify the good condition of the threads and the absence of deformation.
7	Restore the operation of the extinguisher. Recharging and replace the portable fire extinguisher in accordance with the instructions of the table in paragraph 5. 8.1.
8	Insert a new plug and a new safety seal and fill the tag maintenance extinguisher.
<p>NOTE 1 The extinguishing agent (foam) must be replaced at the frequency established by the current regulations. P.S. In the normal storage conditions indicated on the label of the packaging of the additives used for the model of extinguisher certificate, starting on the date of production, the storage life is:</p> <ul style="list-style-type: none"> - 8 years in original and 6 years in solution for BSX 233 - 6 years in original thank and in solution for ASX - 6 years for the SAE-Aplus 	

5.8.3 Details of audit procedures stability according to the current regulation

	The procedures of the tables in paragraph 5. 8.1 and 5.8.2 are implemented along with the procedures of this table
1	Disassemble completely all elements of the extinguisher. Remove and replace damaged components.
2	Subjecting the cylinder in hydraulic test, without exceeding the initial test pressure (PT) engraved on the shell. It must not be found or leaking, or deformation or rupture.
3	Subject the valve hydraulic test, without exceeding the initial test pressure (PT). Replace defective parts.
4	Replace the safety pin each time you perform a hydrostatic test.
5	Recharge and replace the portable fire extinguisher. Fill in the tag maintenance extinguisher.
<p>NOTE 2 The extinguishing agent (foam) must be replaced at the frequency established by the current regulations. P.S. In the normal storage conditions indicated on the label of the packaging of the additives used for the model of extinguisher certificate, starting on the date of production, the storage life is:</p> <ul style="list-style-type: none"> - 8 years in original and 6 years in solution for BSX 233 - 6 years in original thank and in solution for ASX - 6 years for the SAE-Aplus 	

5.8.4 Filling tolerances

Foam	Relative tolerance
	%
	0
	-5

Models: 9D-58-AB; 9D-34-AB

ASX= 1,35 L; BSX233=0,09 L; water=7,56L

Models: 9D-58-A (class A); 9D-34-A (class A)

SAE-Aplus= 9 L

Models: 9D-58-A (class A F); 9D-34-A (class A F)

SAE-Aplus= 8,91 L; BSX233=0,09 L

6. SAFETY PRECAUTIONS FOR THE USER

6.1 During the suppression of the fire

Individual precautions, protective equipment and emergency procedures

- Use individual protective equipment: respiratory protection, protective clothing appropriate, gloves and rubber boots

Precautions to protect the environment

- Do not discharge the contents of the extinguisher into the environment in surface water and / or sewage system.
- Hold the extinguishing agent liquefied with an inert absorbent material and collect it in a waste container for disposal ventilated.
- Deliver waste to authorized disposal company.

6.2 During the other phases of the life time of a fire extinguisher

PHASE	EVENT	RISK	PREVENTIVE MEASURES	CORRECTIVE ACTIONS
TRANSPORT AND INSTALLATION	Extinguisher damaged (deformations due to impacts)	RELEASE OF CONTENTS	Carry fire extinguishers in original packaging. Handle with care the extinguisher at installation.	Contact your dealer and / or the service company to check if the extinguisher is compliant for use, before using it.
ISPECTION	Pressure gauge in the red zone Safety seal broken or missing	PRESSURE LOSS AND USE THEREOF IN ORDER TO SHUT DOWN A FIRE POSSIBLE LOSS OF PLUG IF EXTINGUISHER IS MANIPULATED; THIS MAKES IT ACCIDENTALLY READY	Increase the frequency of inspection.	Contact the service company to check the state of operation of the extinguisher.
USE	Accidental contact with the water outflow which can be electrically	ELECTRIC	Make sure the fire extinguisher is used only by a person who has a minimum of strength and practice.	To vacate the bumpy circuit without putting himself in danger. Depending on the severity of the accident electrical,

PHASE	EVENT	RISK	PREVENTIVE MEASURES	CORRECTIVE ACTIONS
	<p>conductive</p> <p>Accidental contact with the extinguishing agent</p>	<p>INHALATION</p> <p>SKIN CONTACT</p> <p>EYE CONTACT</p> <p>INGESTIONE</p>	<p>Please observe the instructions of use given in section 3.1, and in particular:</p> <ul style="list-style-type: none"> - Keep the hose provided with the spear to a distance of at least 1 m from electrical contacts, - Avoid all contact with water runoff, - Bring a personal protective equipment for fire-fighting (waterproof overalls, masks, gloves and rubber boot) 	<p>consult a doctor or a hospital.</p> <p>After inhalation In case of difficulty breathing, give oxygen. Keep the rugged under medical supervision for at least 48 hours. Show the safety data sheet to the doctor.</p> <p>It should not be practiced rescue breathing with mouth to mouth or the mouth to nose. Use proper tools.</p> <p>After contact with skin Wash promptly and thoroughly with hot water and soap. Immediately remove contaminated clothing and shoes. Wash contaminated clothing and shoes before reuse.</p> <p>After contact with eyes In case of contact with eyes, rinse promptly and thoroughly with water and seek medical advice.</p> <p>After swallowing Remove victim from exposure. If you feel unwell, seek medical advice immediately and show him the label of the additives. It should not be practiced rescue breathing with mouth to mouth or the mouth to nose. Use proper tools. Do not induce vomiting without medical advice. Never swallow anything to a person who has lost consciousness.</p>

7. WARRANTY

The fire extinguisher is guaranteed for 24 months from the date of delivery, only for manufacturing defects. The guarantee includes the repair or replacement of defective parts that have to be shipped from the manufacturer, at the expense of the sender.

The warranty is voided by action taken by the client, the following maintenance performed by unqualified personnel and / or following the use of extinguishing agents and propellants and replacement parts are not original. For the maintenance of fire extinguishers, only use extinguishing agents and propellants and replacement parts conform to the model of certificate extinguisher.