



# **CRIQUET**

## **High pressure nozzle PN40**

MOP\_LAM\_01286\_EN RevA - 01/08/2014

FIELD	VALUE
Type of product	Fire nozzle
Product	<ul style="list-style-type: none"> <li>• Criquet high pressure nozzle with Magikador selectable gallonage tip - PN 40 - 100 l/min -</li> </ul>
Product reference	Ref. : 30825 Images created with reference : 30825 and 30495
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<b>IDENTIFICATION</b> .....	2
<b>SUMMARY</b> .....	3
<b>INFORMATION</b> .....	4
• Introduction.....	4
• Dismantling and warranty .....	4
• Usage .....	5
• Usage limits.....	5
<b>PRESENTATION</b> .....	6
MAIN VIEW .....	6
CHARACTERISTICS .....	7
• Construction .....	7
• Hydraulic Characteristics .....	7
• Mechanical Characteristics .....	7
NOZZLE OVERALL DIMENSIONS.....	8
TIP OVERALL DIMENSIONS .....	9
STANDARD DATASHEET .....	10
1 - General data .....	10
2 - Flow chart - Cricket and Magikador 100.....	10
3 - Mechanical System.....	10
4 - Prescriptions .....	11
<b>USAGE MANUEL</b> .....	12
USE .....	12
• Putting the equipment under service .....	12
• Lock the handle in the open position .....	12
• Adjust flow rate with Magikador tip .....	12
• Adjust stream pattern with Magikador tip.....	13
<b>MAINTENANCE</b> .....	14
• Checkings and maintenance procedure .....	14
• The inlet coupling leaks or does not swivel freely .....	14
• The trigger or the rear cap leaks.....	14
• The flow or stream patterns rings doesn't turn .....	14
• Spare parts.....	15
• Storage conditions .....	15
• Cleaning.....	15
<b>BILL OF MATERIALS</b> .....	16
NOZZLE EXPLODED VIEW .....	16
NOZZLE PARTS LIST.....	17
TIP EXPLODED VIEW .....	18
TIP PARTS LIST .....	19
<b>NOTE</b> .....	20

## • Introduction

Please read this manual before using the equipment.

Use, maintenance, or any other operation of the equipment must be done by staff trained for the use of this equipment and aware of any safety rules.

While using the fire nozzle (use, maintenance, installation, ...) it is important to wear personal protective equipment.

## • Dismantling and warranty

This equipment has a warranty of 1 year for any fabrication default, except where covered by special written agreement.

The exploded view and bill of materials are not a dismantling manual.

Any dismantling or maintenance operation of the device must be done with water supply turned off.

Dismantling and/or modification of the equipment outside POK SAS factory is allowed only in compliance with procedures described in this manual, and therefore does not affect the warranty.

If the equipment is repaired, the spare parts must be supplied by POK SAS. If not, technical characteristics listed in this document won't be valid, the warranty will void and POK SAS responsibility will not apply.

If maintenance operation damage parts, the warranty may not apply if the procedure has not been carried out properly in accordance with this manual.

Although this is not explicitly stated in instructions, use and wear of protective equipment are obligatory during maintenance operation. POK SAS cannot be responsible of any damage or accident which may occur during the dismantling. If this obligation is not met, please refer to the tools instructions guides for more details.

Only POK SAS can ensure proper and safe functioning of the equipment. Therefore POK SAS will not be liable for any damage or accident caused by dismantling of the equipment outside its workshop.

Do not modify the equipment, it may not be working or be dangerous for use. Any modification not approved by POK will void the warranty.

## • Usage

Please respect the technical limits of the equipment.

The apparatus can not be used if any part is missing or damaged.

Disrespect of safety instructions and use of the fire nozzle over the recommended pressure can be dangerous and even cause death.

It is important to be informed of the any safety regulations relating to your environment before using the equipment.

In case of fire that occurs near or caused by electrical installations, it is imperative to:

- 1) Cut of power supply as soon as possible
- 2) Maintain a safety distance as far as possible.
- 3) To use a spray with a minimum 30° angle.

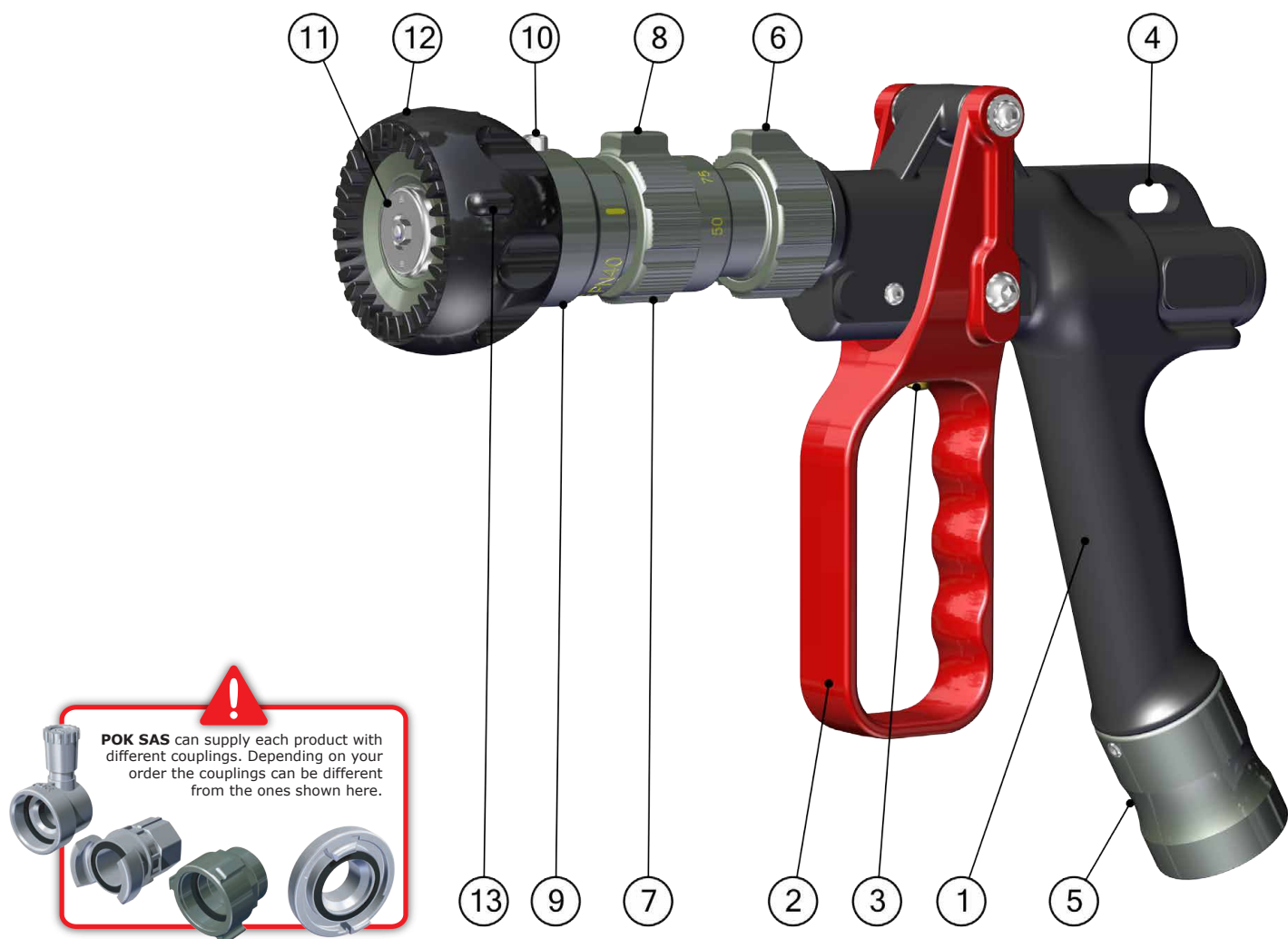
Before placing the nozzle in service, check :

- 1) No part is damaged, broken or missing.
- 2) That the couplings are properly connected to the hose.
- 3) The swivel joint rotates freely.
- 4) That the nozzle handle opens and closes.
- 5) That the flow rate selector works properly.
- 6) That the flow pattern selector works properly.

POK SAS can not be held responsible for any accidents involving the use of the equipment if safety and usage instructions are not followed.

## • Usage limits

Our nozzles are guaranteed for a maximum operating pressure of PN 40. Our nozzles are guaranteed to resist a maximum of 60 bar in a closed position. Apart from a special written approval from POK, our guarantee does not cover pressure rates above those listed.



MARK	DESIGNATION
1	Body
2	Shutoff handle
3	Shutoff locking system
4	Hanging ring
5	Swivel inlet female thread 1" BSP <b>Note :</b> A different coupling is available upon request. See our catalogue for more information on couplings.
6	Tip coupling female thread 1" NST <b>Note :</b> A different coupling is available upon request. See our catalogue for more information on couplings.
7	Flow adjustment ring
8	Flow adjustment tactile indicator
9	Stream pattern selection ring
10	Stream pattern tactile indicator
11	Stem
12	Bumper guard with molded teeth
13	Stream pattern tactile indicator

### • Construction

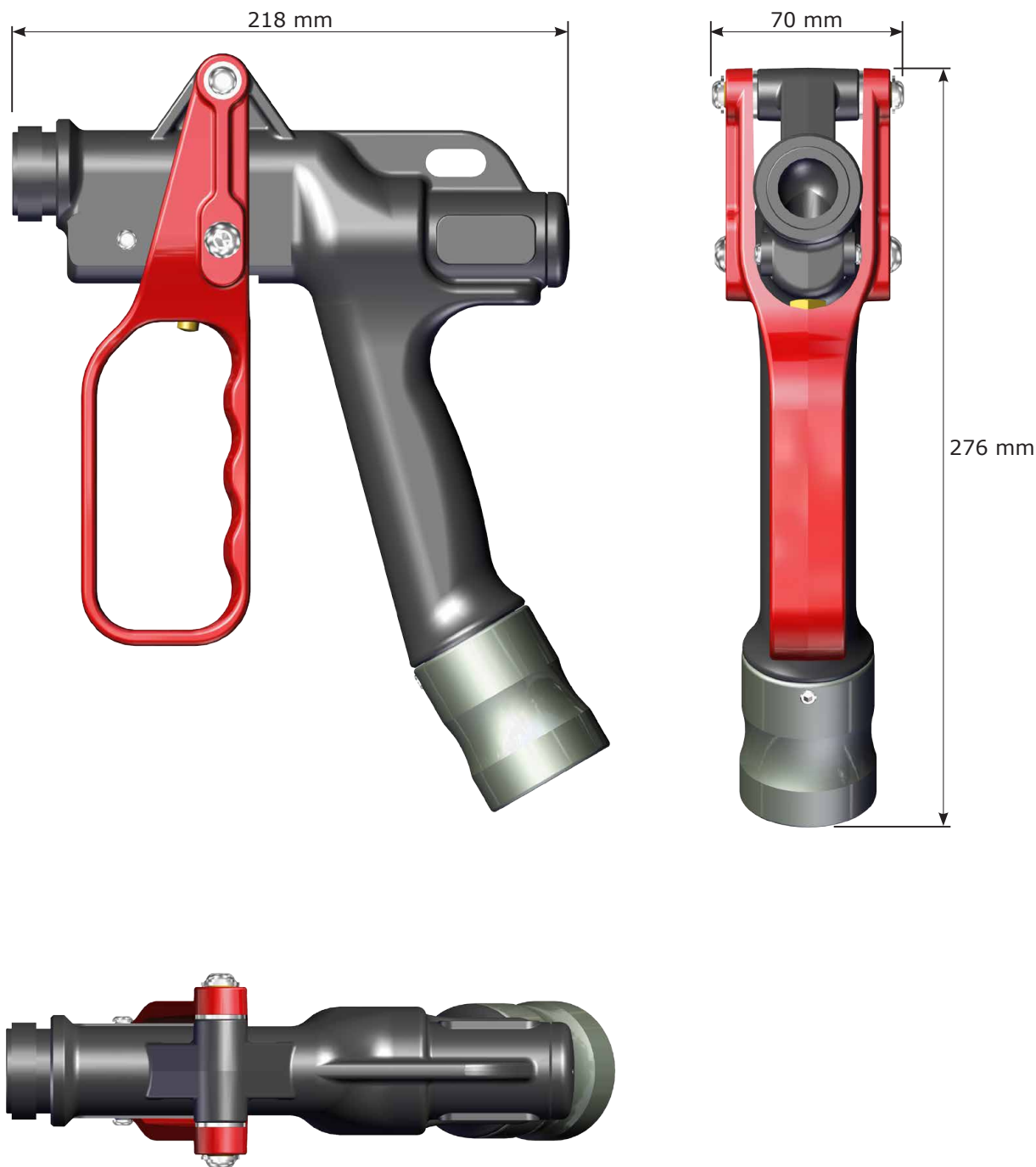
DESIGNATION	VALUE
Nozzle body	<ul style="list-style-type: none"> <li>Aluminium alloy.</li> <li>50µ impregnated anodisation.</li> </ul>
Shutoff handle	<ul style="list-style-type: none"> <li>Aluminium alloy</li> <li>Polyester paint coated</li> </ul>
Tip body	<ul style="list-style-type: none"> <li>Aluminium alloy.</li> <li>50µ impregnated anodisation.</li> </ul>
Head bumper guard	<ul style="list-style-type: none"> <li>Polyurethane.</li> </ul>
Axis and screws	<ul style="list-style-type: none"> <li>Stainless steel.</li> </ul>

### • Hydraulic Characteristics

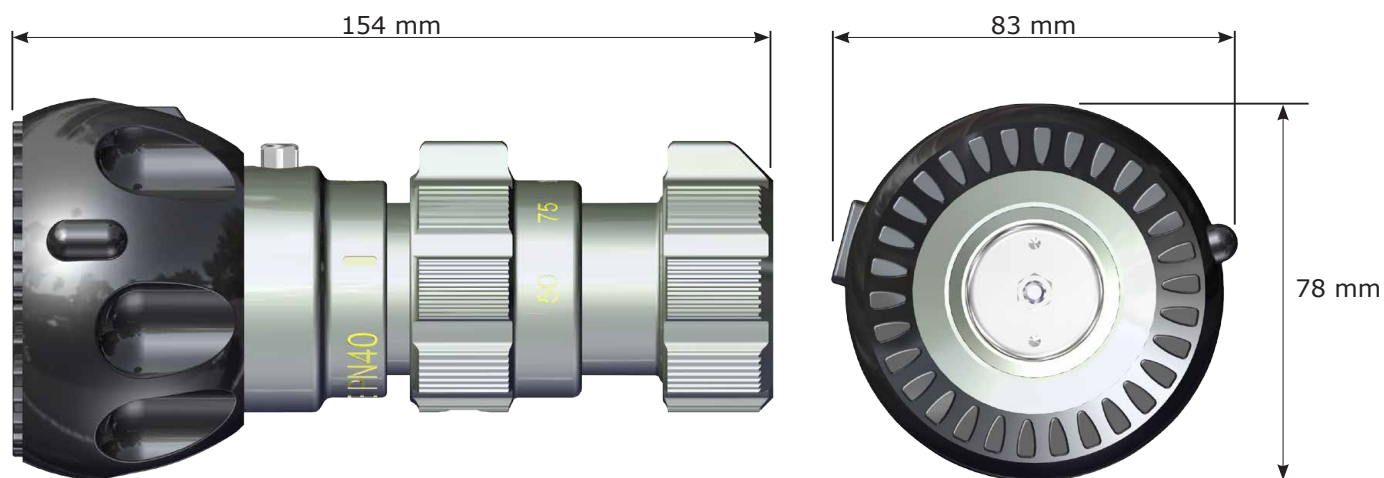
DESIGNATION	VALUE
Flow rate	<ul style="list-style-type: none"> <li>50 l/min (13 GPM)- position 1</li> <li>75 l/min (20 GPM)- position 2</li> <li>100 l/min (25 GPM)- position 3</li> <li>FLUSH - position 4</li> </ul>
Flow rate selection	<ul style="list-style-type: none"> <li>By rotation of flow rate ring</li> </ul>
Working pressure	<ul style="list-style-type: none"> <li>40 bar / 580 PSI</li> </ul>
Test pressure	<ul style="list-style-type: none"> <li>60 bar / 870 PSI</li> </ul>
Shutoff locking system	<ul style="list-style-type: none"> <li>Placed on the shutoff handle, lock only the «open» position</li> </ul>
Type of diffusion	<ul style="list-style-type: none"> <li>Full cone diffusion</li> </ul>
Stream pattern selection	<ul style="list-style-type: none"> <li>By rotation of the head ring</li> <li>Straight stream, narrow spray (35°) or full fog diffusion (130°)</li> </ul>

### • Mechanical Characteristics

DESIGNATION	VALUE
Inlet	<ul style="list-style-type: none"> <li>Swivel coupling female thread 1"BSP</li> </ul> <p><b>Note :</b> A different coupling is available upon request. See our catalogue for more information on couplings.</p>
Tip coupling	<ul style="list-style-type: none"> <li>1" NST</li> </ul>
Flush	<ul style="list-style-type: none"> <li>By rotation of the flow rate selection ring</li> </ul>
Nozzle weight	<ul style="list-style-type: none"> <li>1,61 Kg</li> </ul>
Tip weight	<ul style="list-style-type: none"> <li>0,67 Kg</li> </ul>



**Weight : 1,61 Kg**

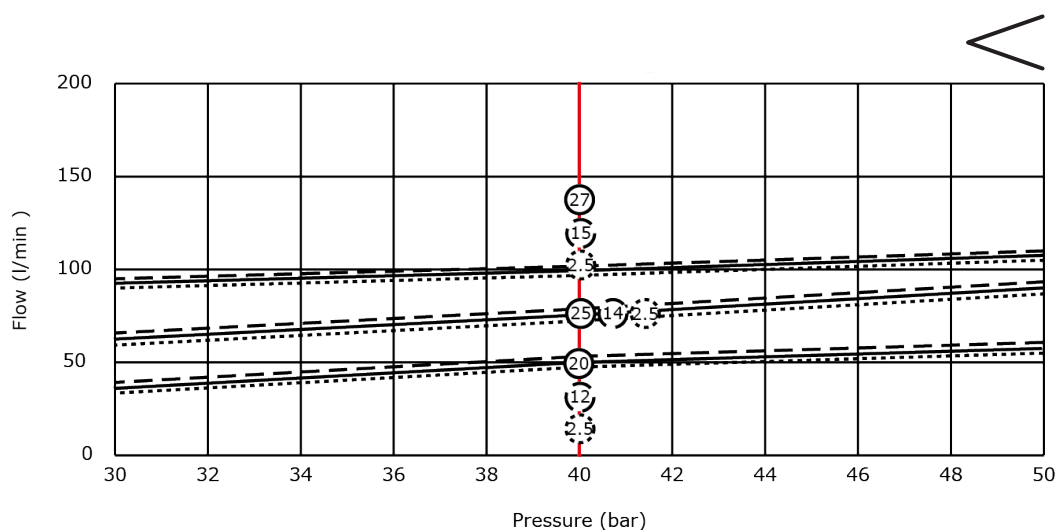



**Weight : 0,67 Kg**

### 1 - General data


1.1 - Manufacturer	POK
1.2 - Type	Criquet + Magikador 100 GPM
1.3 - Type as per annex A of EN 15182-4	-
1.4 - Flow rate at $P_R$	100 l/min @ 6 bar (25 GPM @ 87 PSI)
1.5 - Flow rate settings	50 - 75 - 100 l/min
1.6 - Type of pattern	Full cone stream

### 2 - Flow chart - Cricket and Magikador 100



 Full jet : Throw (m)

 Narrow spray jet : Throw (m)

 Maximum spray jet : Throw (m)

### 3 - Mechanical System

3.1 - Coupling system	Swivelling
3.2 - Gripping device	Pistol grip
3.3 - Open / Shutoff device	Trigger
3.4 - Straight stream / Fog stream	By rotation
3.5 - Flow rate adjustment system	By rotation

### 4 - Prescriptions

Sections of the standard EN 15182	DESCRIPTION	Test results
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CONTROL and HANDLING	- 2 / § 4.2.1	<b>Dimensions (mm)</b>	357x83x276
	- 2 / § 4.2.1	<b>Weight (kg)</b>	2,28
	- 2 / § 4.2.2.1	<b>Torques</b> needed for moving operating elements (N.m)	
	- 2 / § 4.2.2.1	Lever	-
	- 2 / § 4.2.2.1	Trigger	12
	- 2 / § 4.2.2.1	Selective flow rate ring	4,5
	- 2 / § 4.2.2.1	Selective flow pattern ring	3
	- 2 / § 4.2.2.1	Inlet swivel coupling	2
	- 2 / § 4.2.3	<b>Flow rate selection</b> Rotation from minimum to maximum	90°
	- 2 / § 4.2.4	<b>Stream pattern adjustment</b> Rotation from straight stream to full fog with a minimum spray angle of 100°	150°

PERFORMANCES	- 2 / § 4.3.3	<b>Effective throw (m)</b>	25
		<b>Spray</b>	
	- 2 / § 4.3.4	Full fog : angle	130°
	- 2 / § 4.3.5	Narrow spray : angle	35°

PHYSICS	- 1 / § 7.2.2	<b>Cold resistance (°C)</b>	-17°C
	- 1 / § 7.2.1	<b>Heat resistance (°C)</b>	+80°C
	- 1 / § 6.3.1	<b>Non-obstruction test (mm)</b>	-
	- 2 / § 4.3.5	<b>Brust pressure (bar)</b>	>60

## • Putting the equipment under service

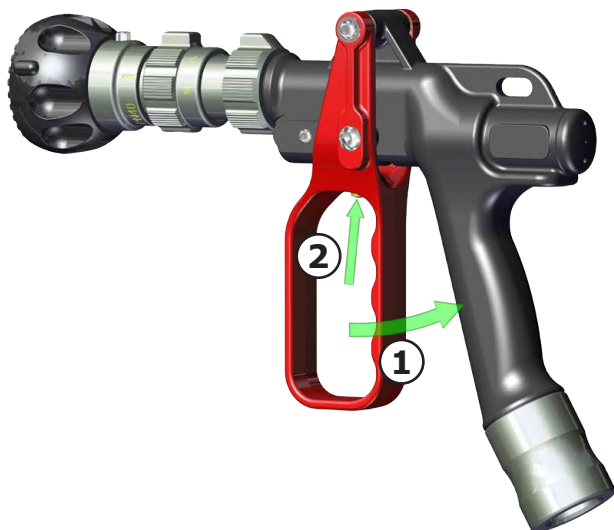
- **1** - Check that no parts are damaged or missing.
- **2** - Make sure the components move as they should (jet adjustment ring, flow adjustment ring, shutoff handle, adjustment coupling).
- **3** - Connect a water way to the shutoff inlet (1" or 1,5" depending on your model).
- **4** - Make sure your hose are correctly connected and that there is no hose misplacement.
- **5** - Put the equipment under water and pressure.

**/!\ Depending on your pressure of use, special characteristics may be require on your hose. Be careful to the hose force when it is put under water and pressure. /!\**

**Note :** To obtain optimal performance, respect the following limits:

- Maximum Flow rate : 100 l/min
- Usage Pressure : 40 bar or 580 PSI

## • Lock the handle in the open position



While using the nozzle, you can lock the handle in the open position.

- 1** - Pull the shutoff and maintain it in full open position.
- 2** - Push the lock button.
- 3** - Release the shutoff handle, it should move a bit and then be blocked.
- 4** - To unlock simply use the shutoff handle as if you were trying to use the open position, the locking system will be released.

## • Adjust flow rate with Magikador tip



During operation, you can adjust the flow rate.

The flow rate and flush is adjusted by rotating the flow rate adjustment ring. The available flow rates are engraved on the flow rate adjustment ring. By rotating the ring to the desired setting, the flow rate will be set to this value at the reference pressure.

A tactile indicator permits the user to know the flow setting even in total darkness and while wearing firefighting gloves (conform to EN 659).

This ring also has a position marked PURGE or FLUSH which permits the removal of particles which could interfere with the proper hydraulic operation of the nozzle.

## • Adjust stream pattern with Magikador tip

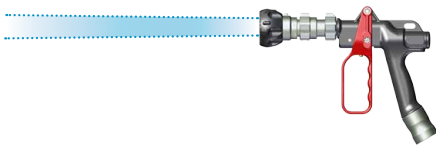
During operation, you can adjust the stream pattern.



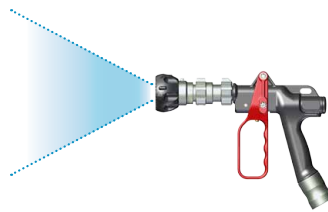
Selectable stream pattern: a continuous rotation of the head ring allows the user to progress from a straight stream to a narrow spray "Flash Over", to a full fog diffusion cone of 130° forming a wall of water.

Tactile and visual indicators permit the user to know the type of stream even in total darkness and while wearing firefighting gloves.

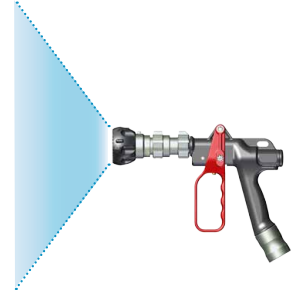
**STRAIGHT STREAM**



**NARROW SPRAY**



**FULL FOG DIFFUSION**



**/!\ While using the equipment, please respects the following rules /!\**

**Do not target someone with the jet.**

**Make sure you're complying with the security rules in your operating environnement.**

**Be carful to the reaction force.**

**/!\ WARNING /!\**

**With a nozzle set to work at 40 bar (580 PSI), the valve must not be damaged, pay a special attention to this while using, cleaning or stocking it. Any damage may change the shape of the jet and have a negative effect on performances.**

**Under pressure and especially high pressure any missing parts may make the nozzle dangerous at use.**

## ● Checkings and maintenance procedure

Before and after each use, check that:

- 1) No visible damage is found and no part is missing
- 2) The inlet coupling swivels freely
- 3) The shutoff trigger and blocking device operates normally
- 4) The selective flow ring functions normally
- 5) The selective flow pattern ring functions normally.

## ● The inlet coupling leaks or does not swivel freely

- Remove the screw mark 24
- Remove all ball bearings mark 23 while turning the coupling mark 21
- Remove the inlet coupling mark 21
- Replace inlet gasket mark 38 by a new one. Apply grease (Loctite 8106) on the gasket before replacing.
- Clean and apply grease ( Loctite 8106) to the ball bearing seat mark 1 and 21
- Install inlet coupling mark 21 on body mark 1
- Insert all ball bearings mark 23
- Glue (Loctite 243) and screw mark 24
- Ensure that the inlet coupling turns freely

## ● The trigger or the rear cap leaks

Ensure that no foreign body prevents the shutoff from closing. If there is not any, return us the nozzle.

## ● The flow or stream patterns rings doesn't turn

Ensure that no foreign body prevents the ring from turning. If there is not any, return us the nozzle.

## • Spare parts

Some parts such as gaskets are likely to be changed more or less often depending on the frequency of use, conditions of use or storage.

Please contact our sales department for the prices and after sales conditions.

## • Storage conditions

Store the equipment in a clean environment, mud, sand or other element could impede operation of the equipment, and in rare cases damage it.

## • Cleaning

It is recommended to clean the nozzle with clear water inside and outside after each use (manoeuvres have to be carried under intermediate level pressure).

- Rotate the flow adjustment ring to «Flush» and let the nozzle working with clear water. This operation will clean up inside the nozzle and evacuate the remaining particles. This operation is much more important if you do not use clear water at use.

- Clean the exterior of the nozzle with clear water.

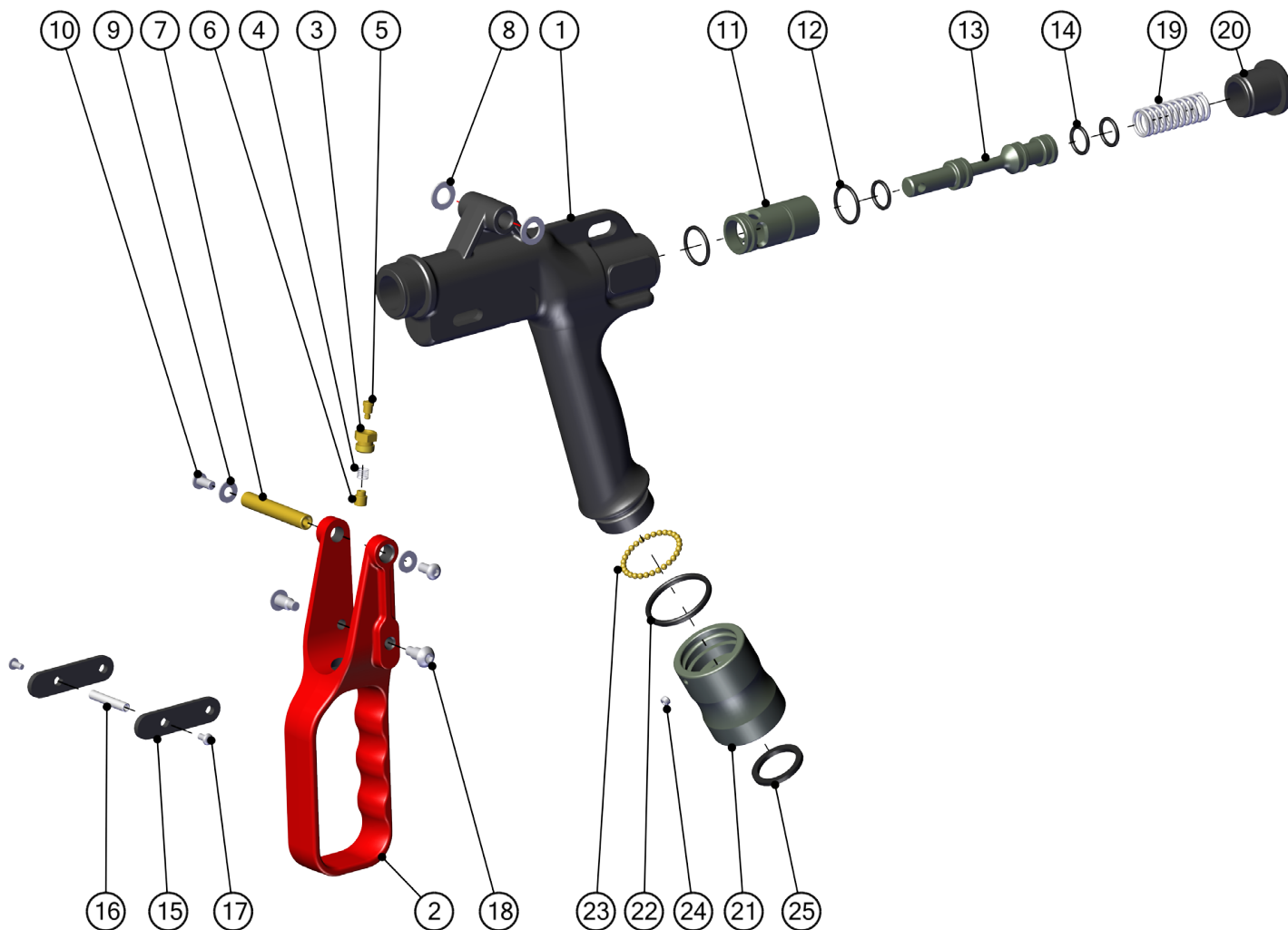
**Note :** Do not use corrosive products, this would damage gaskets with consequences of leakage and malfunction.

- Make sure no parts are missing or damaged. In this case do everything necessary to replace it as soon as possible and do not use the nozzle while it's not repaired.

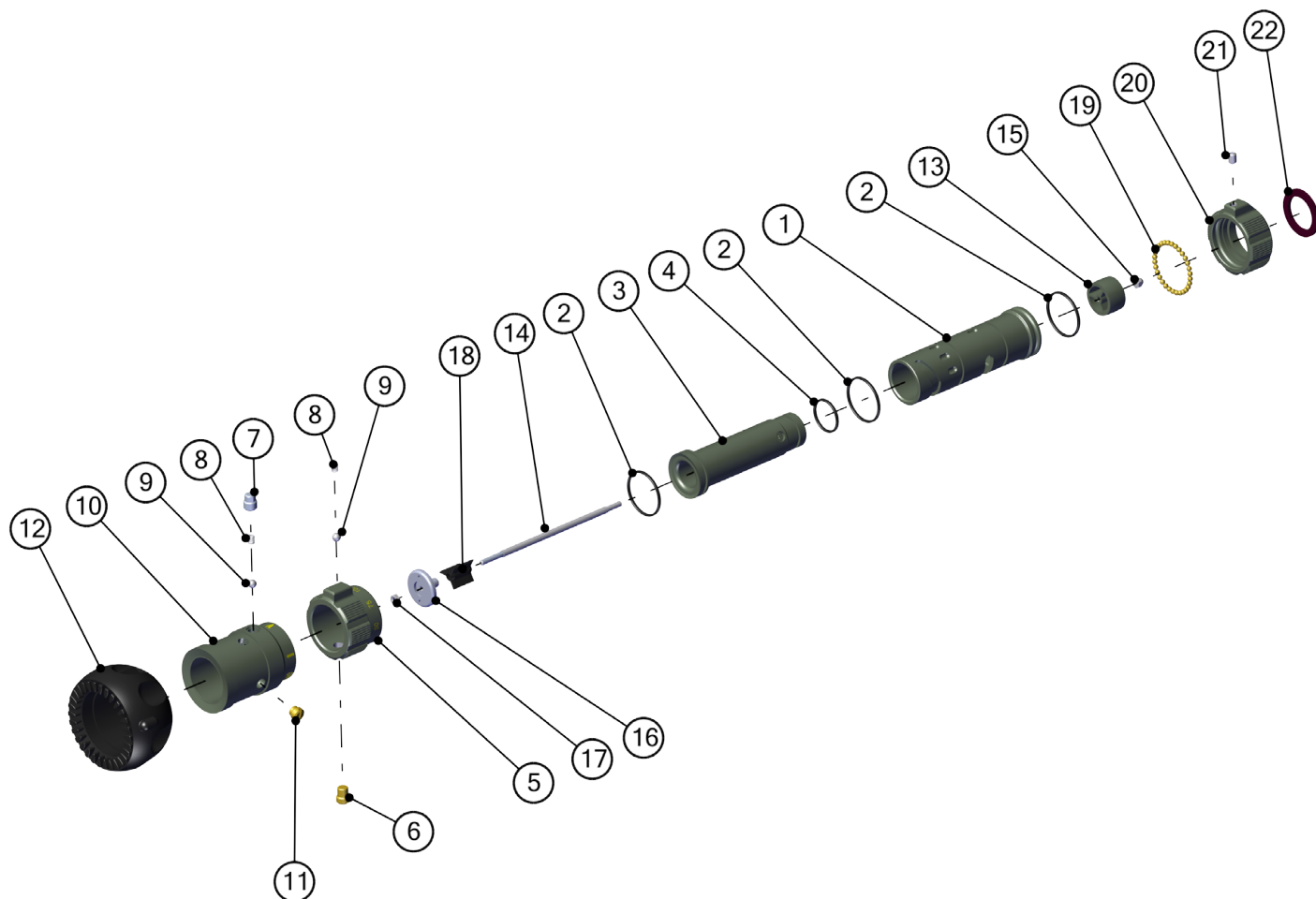
**Note :** Under pressure and especially high pressure any missing parts may make the nozzle dangerous at use.

- Make sure every parts move as they should move, the adjustments rings must rotate without be block or hard to move (an indexing system is present to lock the current position, but nothing should be harder that this point). The handle should move without particular effort, and the locking system should work properly. The inlet coupling must swivels properly.

It is recommended to dis-assemble the nozzle once a year if the nozzle is used continuously with salt or brackish water. Clean and dry all components, gaskets, O rings and grease them as per POK Procedure provided with the spare parts kit available on order. This service can be provided by our workshop, please contact us for pricing.



MARK	QTY	DESIGNATION	REF
1	1	Body	30829
2	1	Trigger	30831
3	1	Locking device body	28283
4	1	Locking device spring	12379
5	1	Screw for locking device pin	12378
6	1	Locking device pin	12333
7	1	Trigger axis	30832
8	2	Nylon M10 washer	-
9	2	M6 washer	-
10	2	Screw CBHC M6-12	-
11	1	Jacket	30833
12	2	Gasket Ø20,29 x Ø2,62 - 90 Shores	-
13	1	Piston	30834
14	3	Gasket Ø13,94 x Ø2,62 - 90 Shores	-
15	2	Connecting rod	30835
16	1	Piston axis	30836
17	2	Screw CBHC M4-8	-
18	2	Connecting rod screw	30837
19	1	Spring	30838
20	1	Cap	30839
21	1	Swiveling inlet female thread 1" BSP	07977
22	1	O'ring N°27	-
23	29	Balls	-
24	1	Screw STHC PL M6-4	-
25	1	Flat gasket 1" BSP	-



MARK	QTY	DESIGNATION	REF
1	1	Sleeve	30498
2	3	Gasket Ø30 x Ø3	-
3	1	Bore	23165
4	1	Gasket Ø22 x Ø2	-
5	1	Flow rate adjustment ring	30501
6	1	Index knob for flow rate	23168
7	1	Cap for Ø6,35 ball	27204
8	2	Spring	08019
9	2	Ball Ø 6,35	-
10	1	Head spring	30499
11	1	Stream index	23170
12	1	Head bumper	23999
13	1	Rear cross piece	23171
14	1	Axis for stem	23172
15	1	Nut	-
16	1	Stem	08116
17	1	Nut H M4	-
18	1	Front cross piece	24873
19	30	Balls Ø4	-
20	1	Swiveling inlet 1" NST	34551
21	1	Screw STHC PL M 6-8	-
22	1	Flat gasket 1" NST	-

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