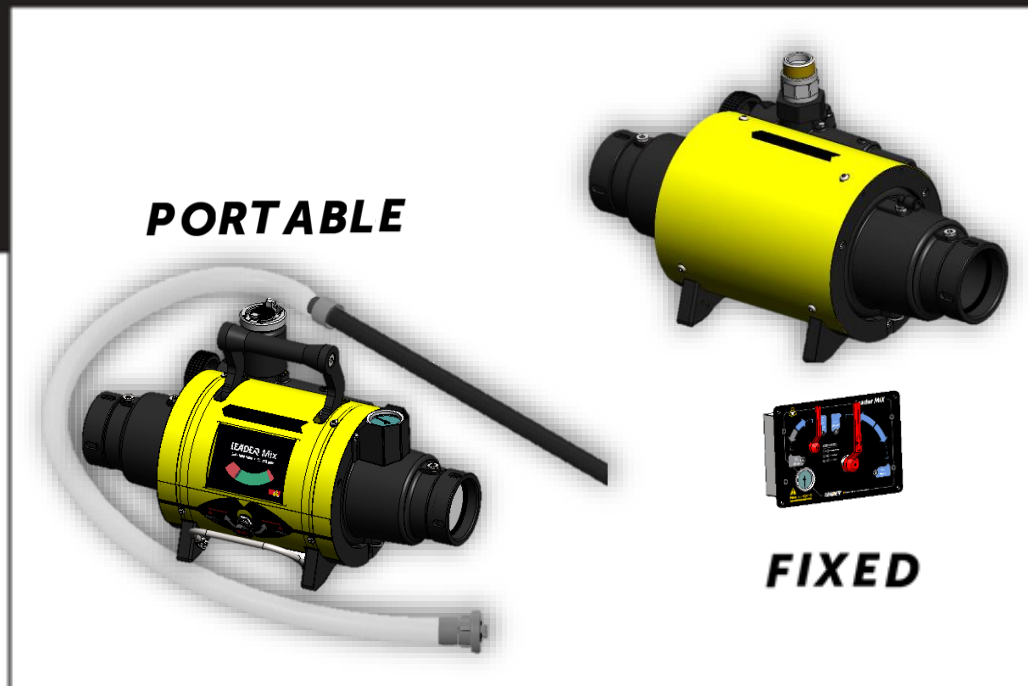


User manual



Leader MIX **CLASSE B/AR & CLASSE A** **200-1000 L/MIN**



EN

Read this manual carefully, before the first use

Reference product

| Reference | Product |
|-------------------|---|
| I40.90.110 | Leader-MIX CLASSE B/AR & CLASSE A 200-1000 lpm 2.5'' BSP F/F Modèle Portable |
| I40.90.112 | Leader-MIX CLASSE B/AR & CLASSE A 200-1000 lpm 2.5'' BSP F/F Modèle Fixe (Avec pupitre de commande à installer sur véhicule ou en installation fixe) |
| I40.90.118 | Leader-MIX CLASSE B/AR & CLASSE A 50-275 gpm 2.5'' NH F/M Portable Model |
| I40.90.119 | Leader-MIX CLASSE B/AR & CLASSE A 50-275 gpm 2.5'' NH F/M Fixed Model Fixe (With control panel to install on vehicle or in fixed installation) |

Contents



| | |
|---|-----------|
| 1 INTRODUCTION | 4 |
| 2 PRESENTATION | 5 |
| 3 SAFETY INSTRUCTIONS | 6 |
| 4 USAGE PRECAUTIONS | 6 |
| 5 GENERAL FEATURES | 7 |
| 6 COMMISSIONING INSTRUCTIONS | 8 |
| 7 SETUP | 8 |
| 7.1 Portable Model | 8 |
| 7.2 Fixed Model | 10 |
| 7.2.1 Body | 10 |
| 7.2.2 Remote controle console | 12 |
| 7.2.3 Typical example of a fixed installation | 13 |
| 7.2.4 Use | 13 |
| 8 MAINTENANCE OPERATIONS | 15 |
| 8.1 Portable Model | 15 |
| 8.2 Fixed Model | 16 |
| 9 IDENTIFICATION | 17 |
| 10 TROUBLESHOOTING | 17 |
| 11 SPARE PARTS | 17 |
| 12 WARRANTY | 18 |

1 INTRODUCTION

The **Leader MIX CLASSE B/AR & CLASSE A 200-1000 l/min** (50-275 gpm) is a variable flow dosing system which can be used to inject foam concentrate into a pressurised water network.

There is a remote console for the Fixed model.

The **Leader MIX CLASSE B/AR & CLASSE A 200-1000 l/min** (50-275 gpm) automatically adapts to the network flow.

The Portable model is equipped with a pressure meter and a suction indicator.

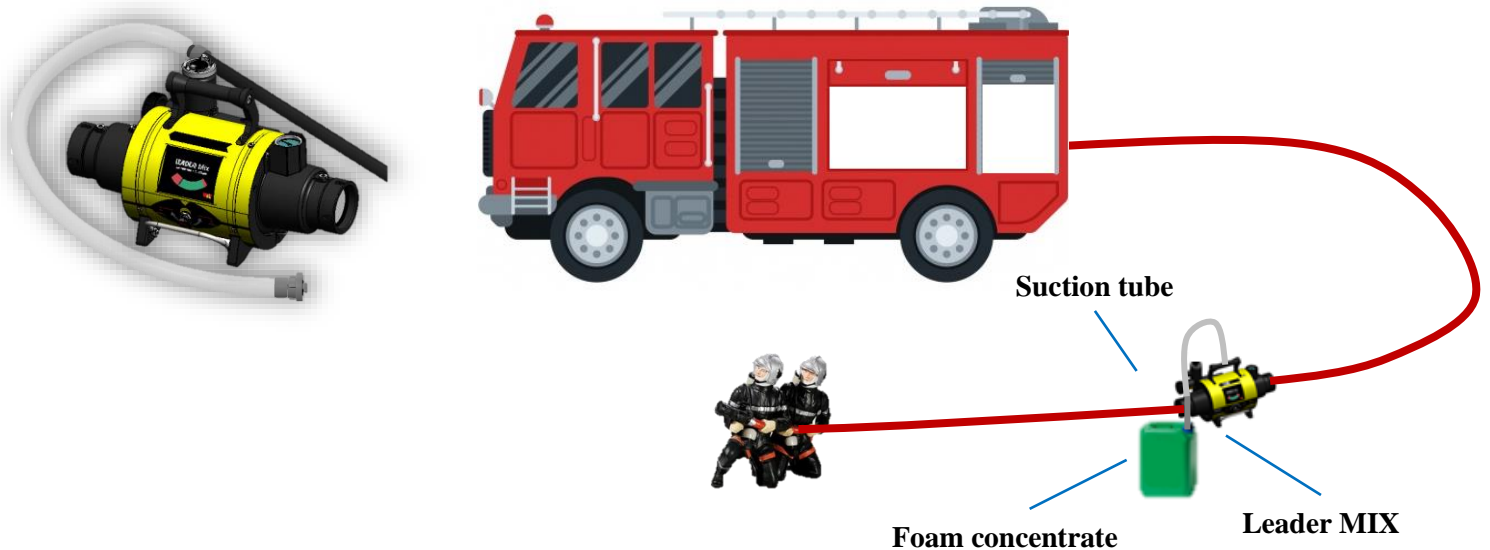
The Fixed model is equipped with a remote console.

It works similarly to in-line venturi injectors, it replaces 3 traditional injectors: **200, 400 and 800 L/min** (50, 100 and 200 gpm).

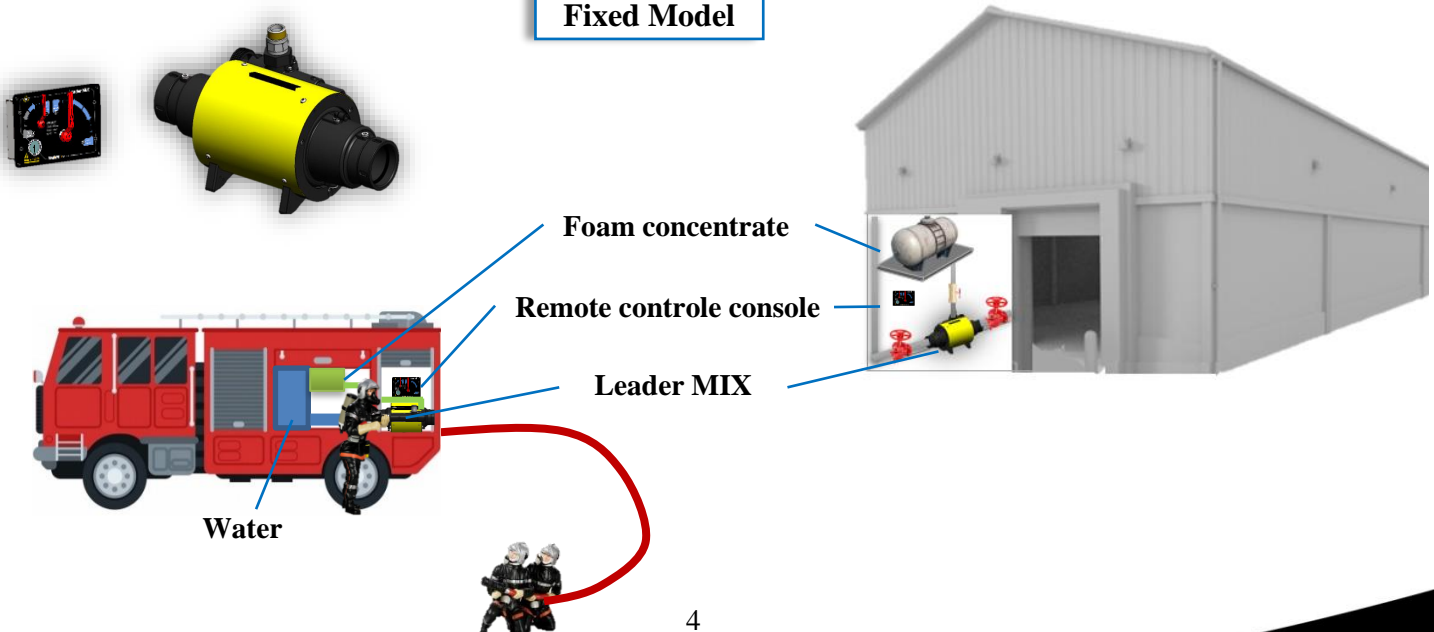
It does not require a power supply or specific maintenance (just rinse and purge the system after use).

There are 2 models: Portable or Fixed.

Portable model



Fixed Model

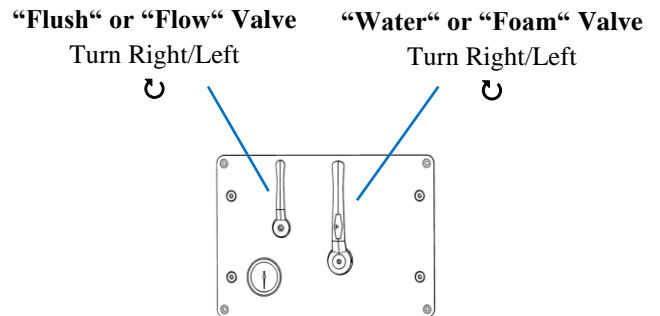
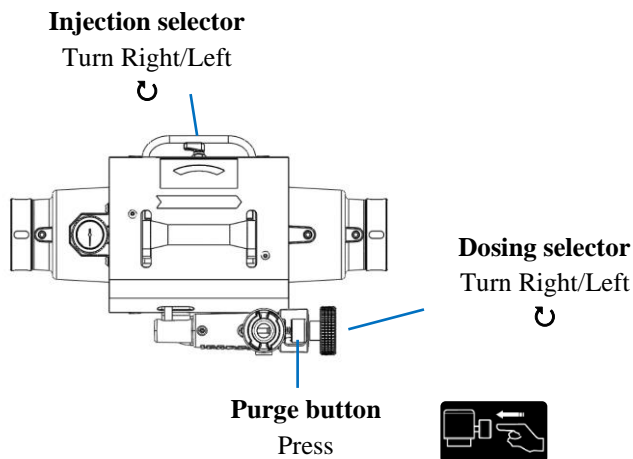


2 PRESENTATION

The different actions are performed by moving the dials as follows:

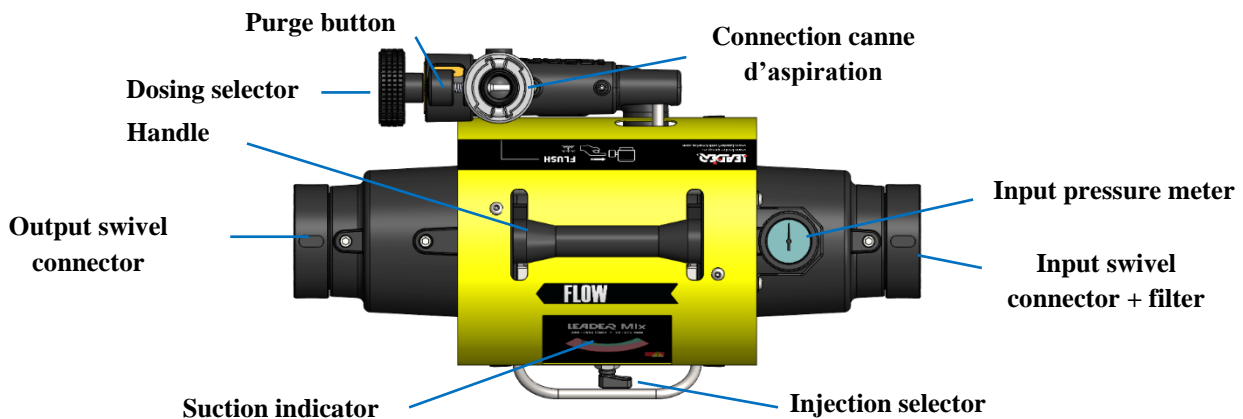
- Injection selector
- Dosing selector
- Purge button (Portable model only)

- Injection selector: “Water” or “Foam”
- Purge : “Flush” or “Flow”

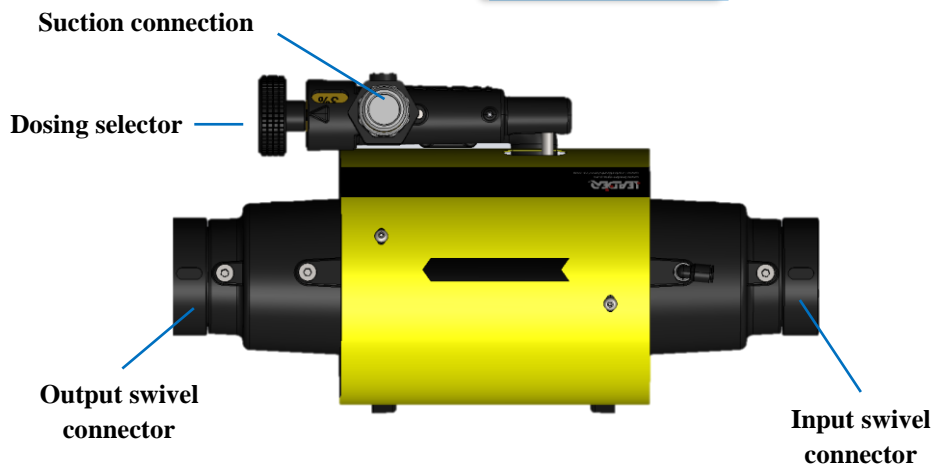


Description :

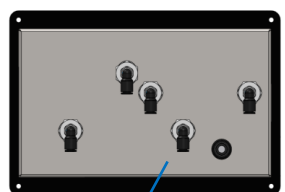
Portable Model



Fixed Model



Front Remote console (Control)



Front Remote console (Connection)

3 SAFETY INSTRUCTIONS



- This equipment has been manufactured in accordance with **CE** directives. Its use is restricted to firefighting professionals.
- Please read this manual in full as well as the instructions for use before commissioning and using the equipment.
- Do not exceed **16 bars** input pressure.
- Only qualified and trained personnel should operate or repair this device.
- Do not use it if you can see any damage.
- Always replace a defective part with an original part provided by **LEADER**.
- The device should not be disassembled when pressurised.
- Never allow a person to use the device without having provided them with the necessary instructions.
- Do not leave water inside the system if the temperature falls below **0°C** (risk of freezing).

4 USAGE PRECAUTIONS

Note: The **Leader MIX CLASSE B/AR & CLASSE A 200-1000 l/min** (50-275 gpm) is a device used for injecting foam concentrate. Suction of any other product is strongly discouraged and invalidates the warranty if there are any problems.



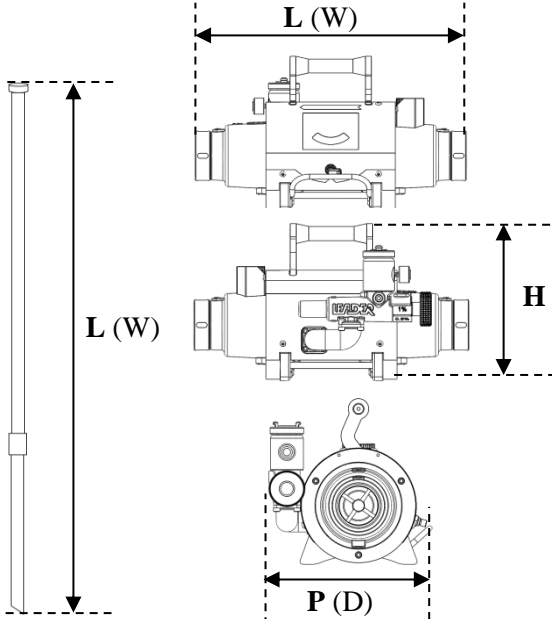
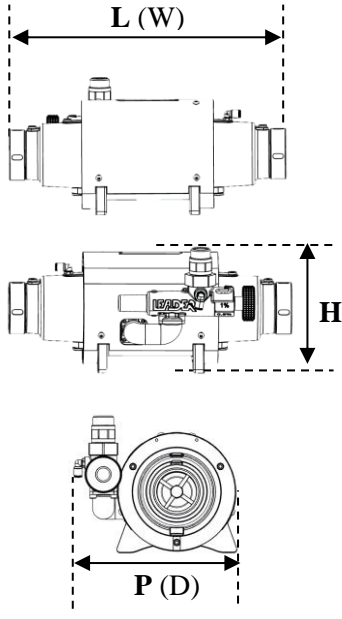
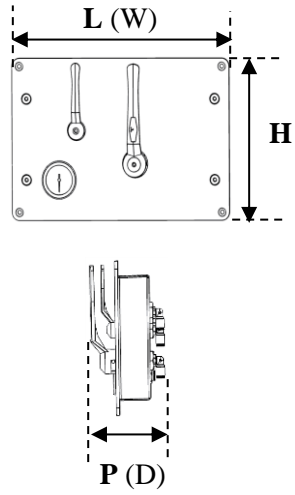
This device is designed and made in FRANCE, in accordance with CE directives.

Use of this device is restricted to firefighting professionals.

The instructions for use and safety guidelines must be followed in order to prevent any accident. Any disassembly or repair must be performed by LEADER or an approved dealer.

Always rinse and purge the device after use.

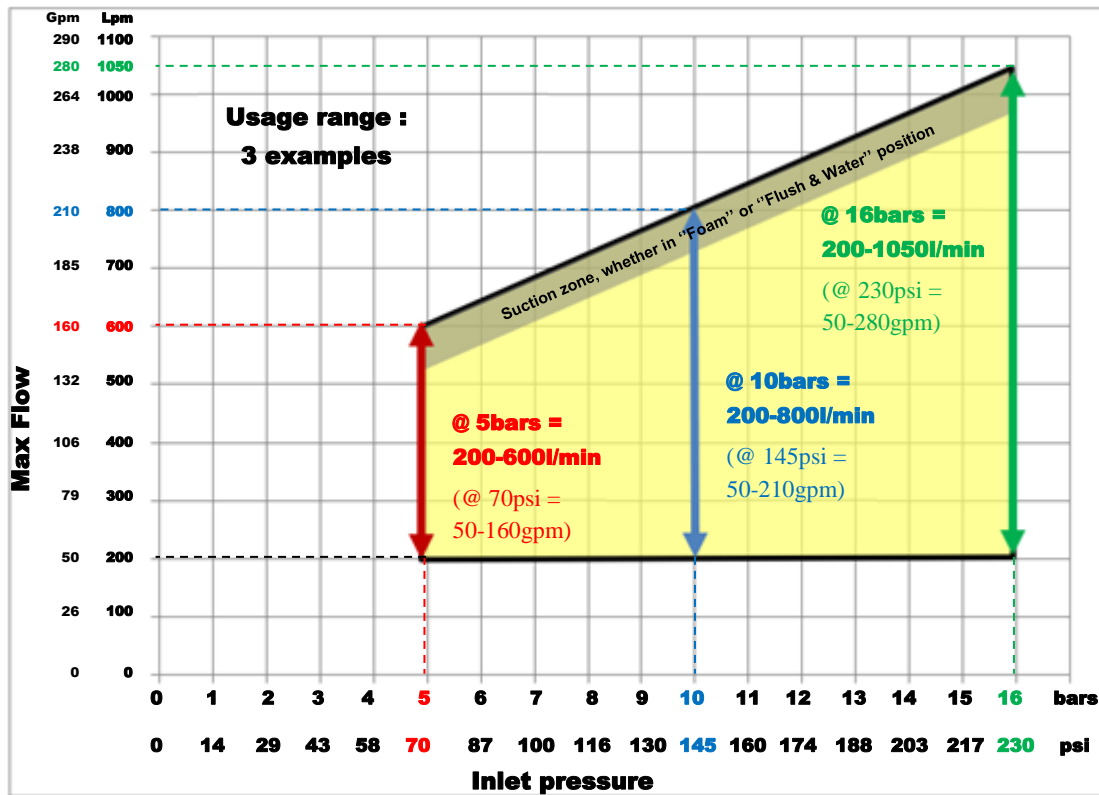
5 GENERAL FEATURES

| Portable Model | Fixed Model | Remote console |
|---|--|---|
|  <p>Weight: 1.5Kg +/-0.5Kg L: 250 Ø1'' +/-5mm W: 0.82 Ø1'' +/-0.016ft</p> <p>Weight: 14Kg +/-0.5Kg L: 486 H: 237 P: 274 +/-5mm W: 1.6 H: 0.8 D: 0.9 +/-0.016ft</p> |  <p>Weight: 12.5Kg +/-0.5Kg L: 486 H: 220 P: 274 +/-5mm W: 1.6 H: 0.72 D: 0.9 +/-0.016ft</p> |  <p>Weight: 3.5Kg +/-0.5Kg L: 300 H: 200 P: 119 +/-5mm W: 0.99 H: 0.65 D: 0.4 +/-0.019ft</p> |


| | Portable Model | Fixed Model |
|---------------------------------------|--|--|
| Usage flow | 200 à 800 l/min at 10 bars (50 to 200 gpm) to 145 psi 200 à 1050 l/min at 16 bars (50 to 280 gpm) to 230 psi | |
| Usage pressure | 5 at 16 bars (70 to 230 psi) | |
| Dosing | 0.3% 0.5% 1% 3% 3%V → For viscous foam concentrates type AR (Resistant alcohol) 6% → Dosing 6% of 50 to 130 gpm | |
| Input and output connection | Swivel connection | |
| Input and output thread | 2.5''BSP female (2.5'' NH F/M) | |
| Storage temperature | -20°C at +60°C (-4°F to 140°F) | |
| Usage temperature | Above freezing to +50°C (122 °F) | |
| Pressure loss | 35% | |
| Flow indicator | Yes | No |
| Input pressure meter | Yes | Yes (On the remote control console) |
| Handle | Yes | No |
| Suction tube | Storz D connection | No |
| Check valve on foam concentrate input | Yes | Yes |
| Purge button | Yes | Yes (Remote control console valve) |
| Input filter | Yes | No |
| Control console | No | Yes |

The Leader Mix CLASSE B/AR & CLASSE A 200-1000 l/min (50-275 gpm) is equipped with a suction indicator.

The Leader Mix CLASSE B/AR & CLASSE A 200-1000 l/min (50-275 gpm) usage flow range varies depending on the supply pressure. The table below can be used to assess the flow range depending on available pressure.



6 COMMISSIONING INSTRUCTIONS

 On delivery, visually inspect **Leader MIX** and its accessories to ensure there was no damage during transport.

 **Do not try to use Leader MIX if you can see any damage, inform LEADER immediately.**

Ensure that each person responsible for the device/using this device has read the user instructions and safety guidelines.

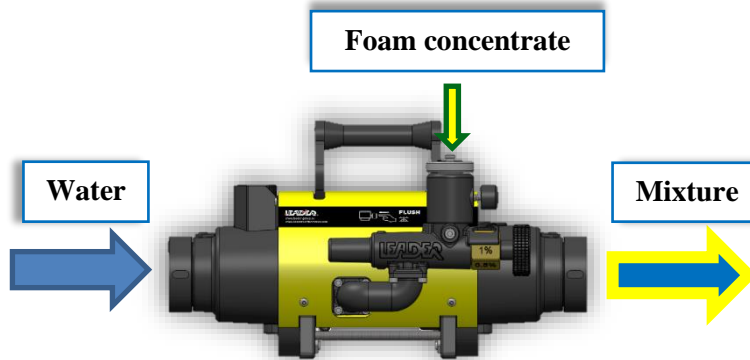
7 SETUP

7.1 Portable Model

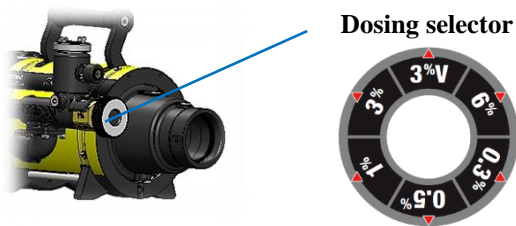
- 1) Place the **Leader Mix CLASSE B/AR & CLASSE A 200-1000 l/min** (50-275 gpm) on the ground, ensuring that no stones, sand, debris or other objects are pushed inside.



2) Connect the device in accordance with the water direction.



3) Select the desired dose by turning the dosing selector to the desired percentage.



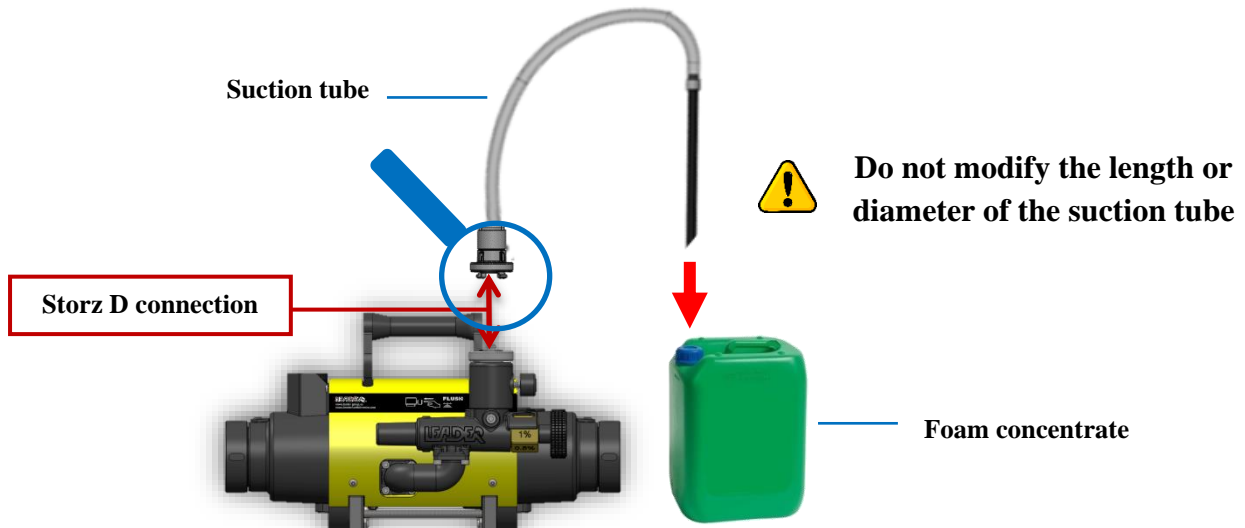
4) Prime the hydraulic network.

Regularly check on the input pressure meter and the operating indicator that the usage range is correct.
(See graph on page 8)

Minimum 5bars à 200 L /min (70psi to 50gpm), Maximum 16bars 1050 L /min (230psi to 280gpm).



5) Connect the suction tube pipe to the **Leader Mix CLASSE B/AR & CLASSE A 200-1000 l/min (50-275 gpm)** and place the pipe in the foam concentrate tank.



6) Position the injection selector valve to “FOAM”.



Selection on

FOAM

The device drains a small amount of water downwards.

7) Using position “Water”.

! This position significantly reduces pressure loss in the system if the flow is below 800 l/min.



Selection on

& FLUSH
WATER

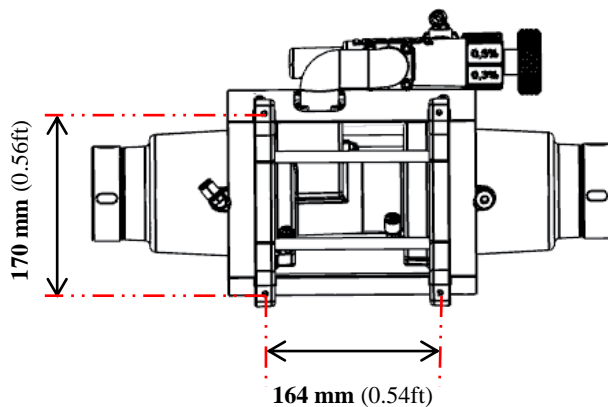
7.2 Fixed Model

7.2.1 Body

The **Leader Mix CLASSE B/AR & CLASSE A 200-1000 l/min** (50-275 gpm) will be mounted on the vehicle or fixed installation so the user is able to select the desired concentration on the dosing selector valve.

Leader MIX Dimensions :

- It will be fastened to the vehicle using 4 x M6 screws (not supplied).



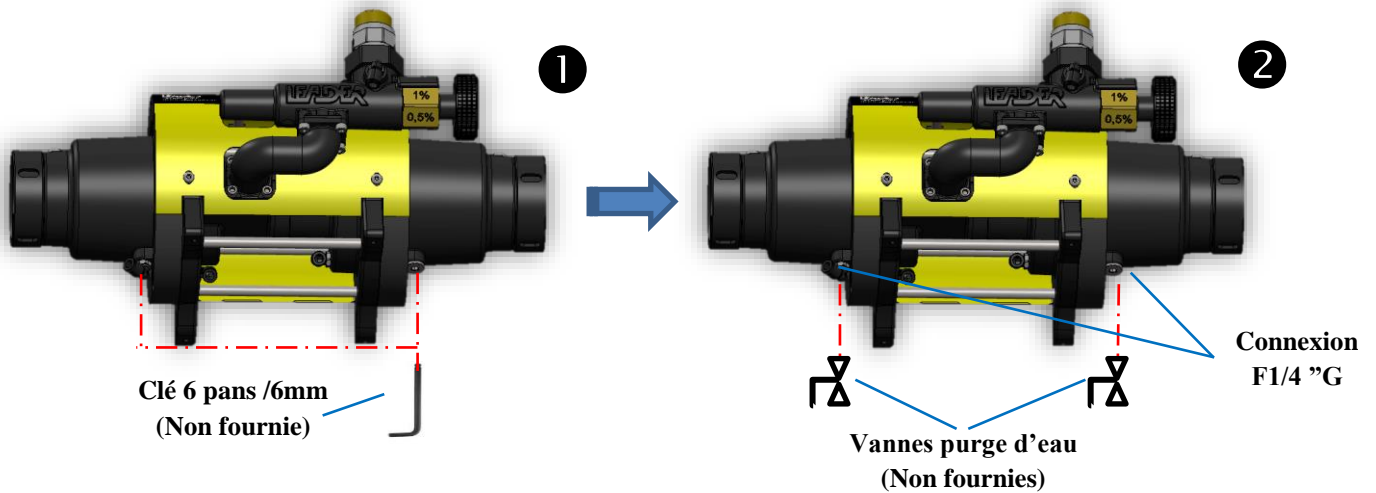
M6 (0.02ft) screw (x4 not supplied)
Length to be determined by the installer



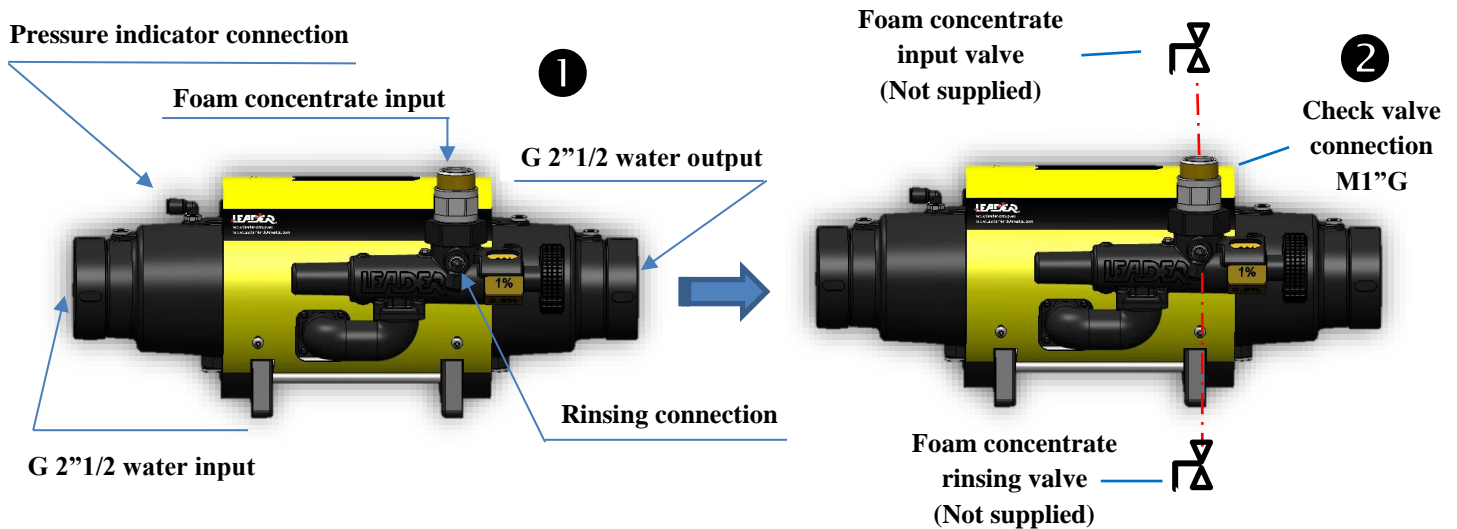
Connection :

➤ Purge valves (responsibility of installer)

- valves will need to be installed for “**Female 1/4” G**” connections intended for rinsing and purging water input and output and foam concentrate rinsing, as well as for the “**Male 1” G**” foam concentrate input.
- Remove the water input/output caps using a hex wrench/6 mm (0.02ft) and foam concentrate rinsing using a hex wrench/5 mm (0.016ft) (**fig 1**), then mount the valves (**fig 2**) and ensure that they are sealed correctly.



➤ Foam concentrate input and foam concentrate rinsing valves



⚠ Before use, close the water input/output purge valves and the foam concentrate rinsing valve and open the foam concentrate input valve.

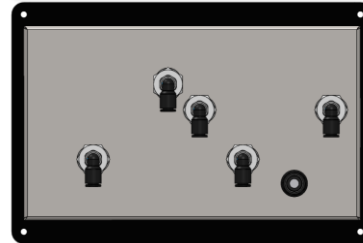
7.2.2 Remote controle console

For the Fixed Model, all **Leader MIX CLASSE B/AR & CLASSE A 200-1000 l/min** (50-275 gpm) functionalities can be made remote via a console, which is very easy to connect.

Front Remote console



Rear Remote console

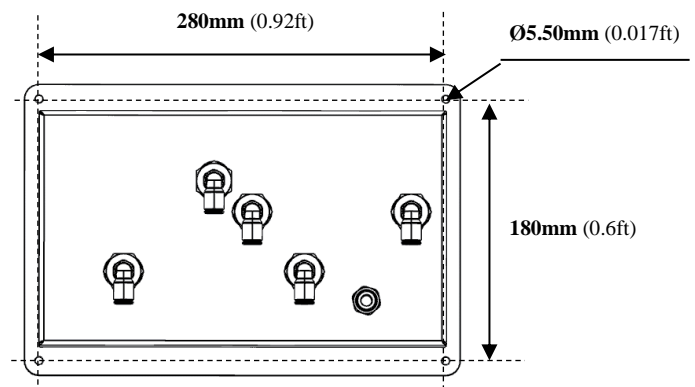


The console allows you to:

- Show the pressure at the entrance of the **Leader MIX**.
- Select Water or Foam positions.
- Rinse the system.

Fixing points :

M5 (0.016ft) screw (x4 not supplied).
Length to be determined by the installer.



Connection:

The length of hose will depend on the distance between **Leader MIX CLASSE B/AR & CLASSE A 200-1000 l/min** (50-275 gpm) and control panel.

To connect control panel to **Leader MIX CLASSE B/AR & CLASSE A 200-1000 l/min** (50-275 gpm), 8mm (0.026ft) 24 bars (350psi) pneumatic hose is recommended. **LEADER** can supply (optional) this hose. Item number is **2009779** and it is sold on reel of 30m (9.85ft).

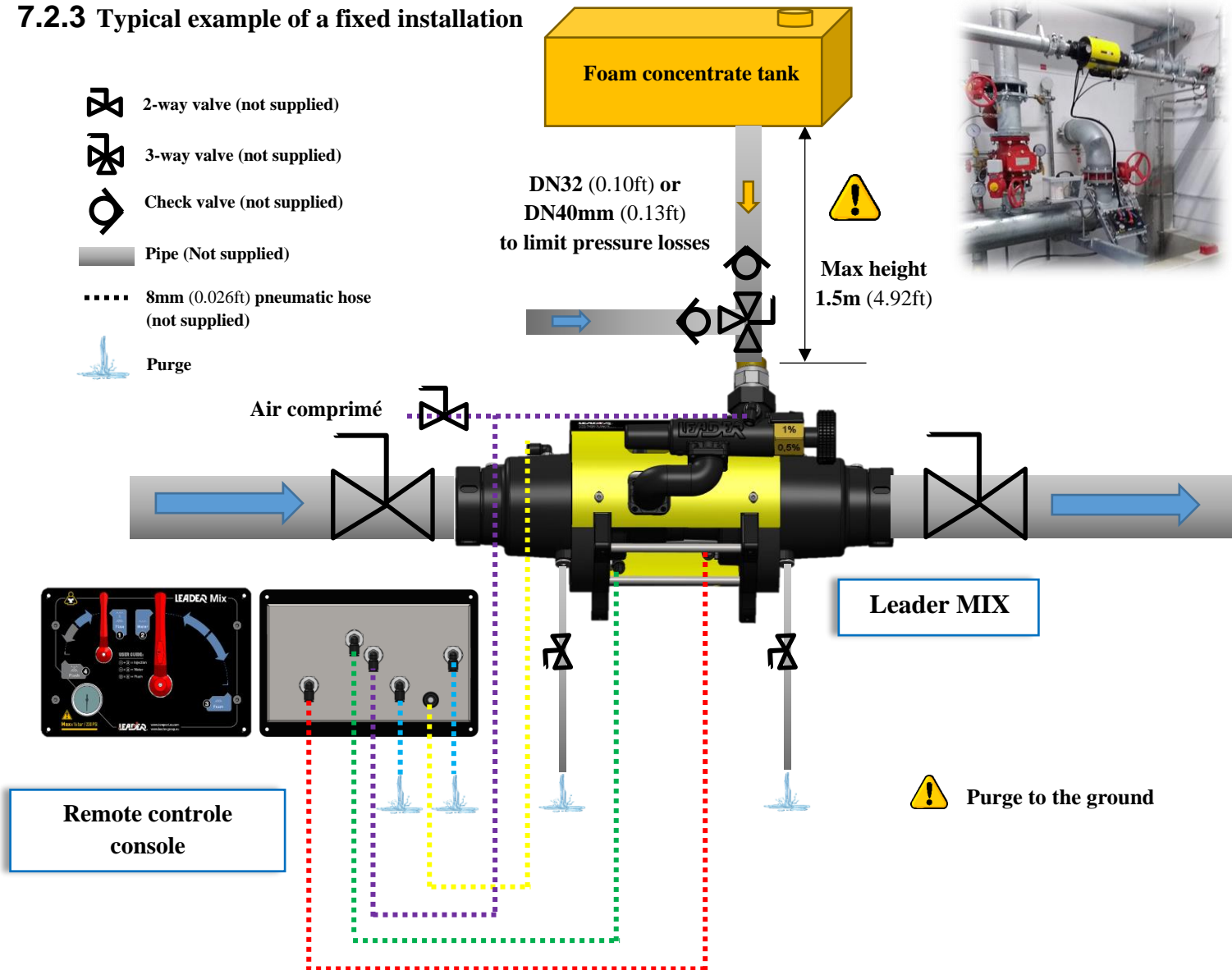
Pressure indicator connection



Rinsing connection

⚠ After each disconnecting of hose it is mandatory to cut the end of the hose before reconnecting it. Otherwise the connection might fail due to expansion

7.2.3 Typical example of a fixed installation

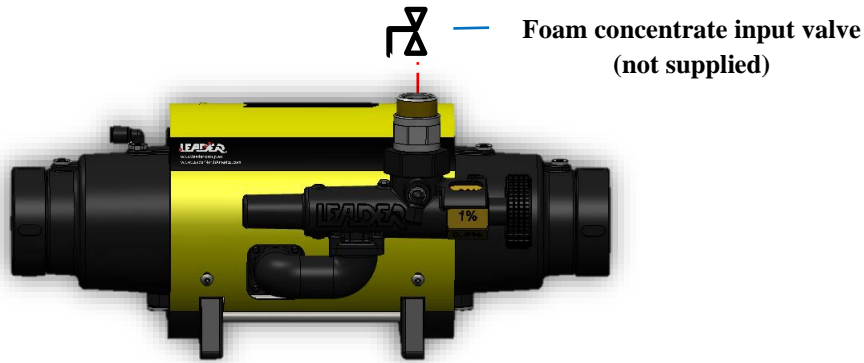


7.2.4 Use

1) Select the desired dose by turning the dial to the desired percentage.



2) Open the foam concentrate input valve.



3) Use of the remote controle console

(I) Injection mode

“Flow“ ① + “Foam“ ③



(II) Bypass mode

“Flow“ ① + “Water“ ②

(Stops injection and reduces pressure drops below 800 l / min (211.4gpm))



(III) “flush“ mode

“Flush“ ④ + “Water“ ②

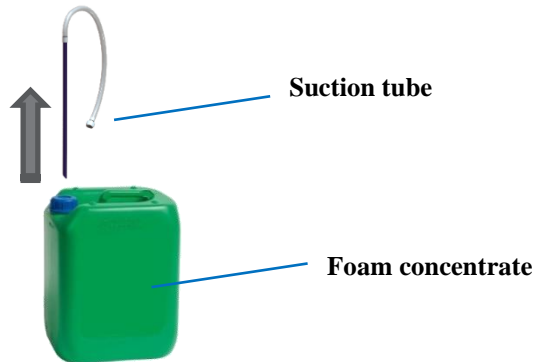


8 MAINTENANCE OPERATIONS

8.1 Portable Model

! Always rinse and purge the device after use.

1) Remove the suction tube from the foam concentrate tank by holding the tube on the **Leader MIX**.

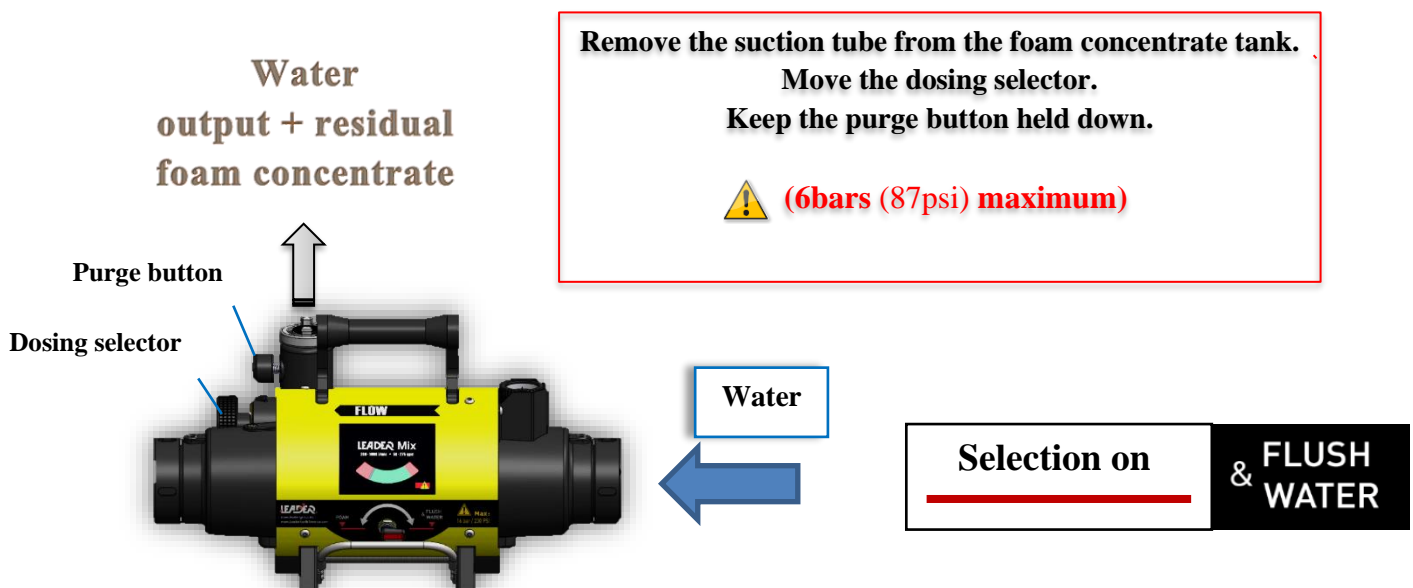


2) Position the injection selector to “FLUSH” & “WATER”.



Selection on **FLUSH & WATER**

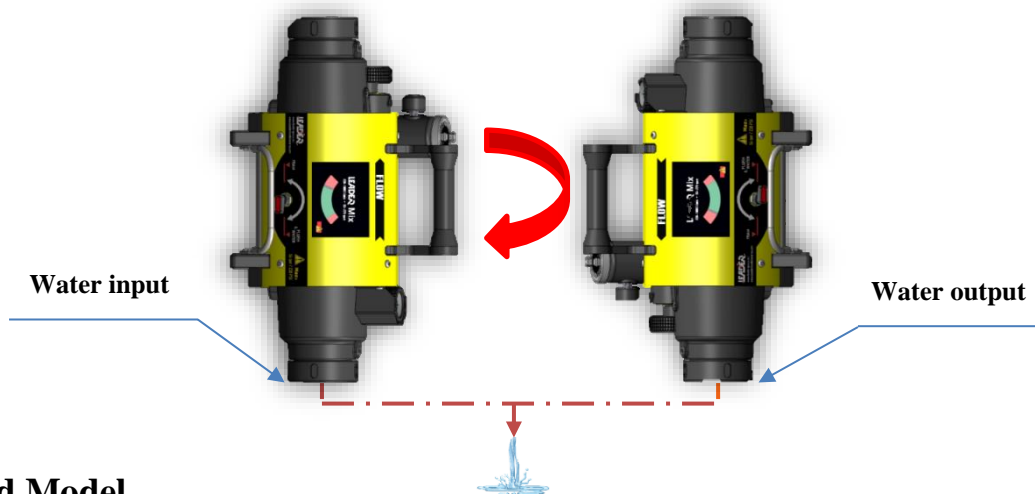
3) Leave the water network pressurised (**6 bars (87psi) maximum**) and turn the dosing selector dial round twice whilst pressing and holding the purge button. Water will then be directed through the foam concentrate circuit to clean it, and then discharged through the suction tube pipe.



- 4) Position the injection selector to “FOAM”.



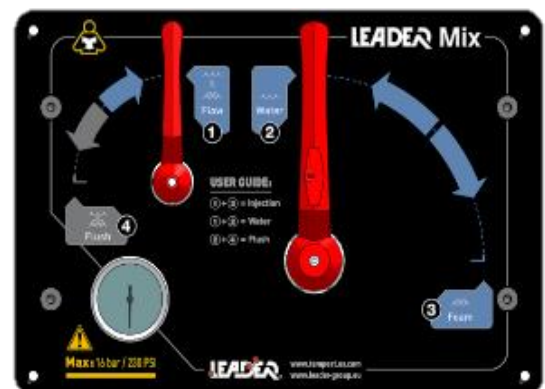
- 5) Cut off the water supply and disconnect the **Leader MIX** from the water pipes.
 Drain any residual water inside the **Leader MIX** through the system inputs and outputs.



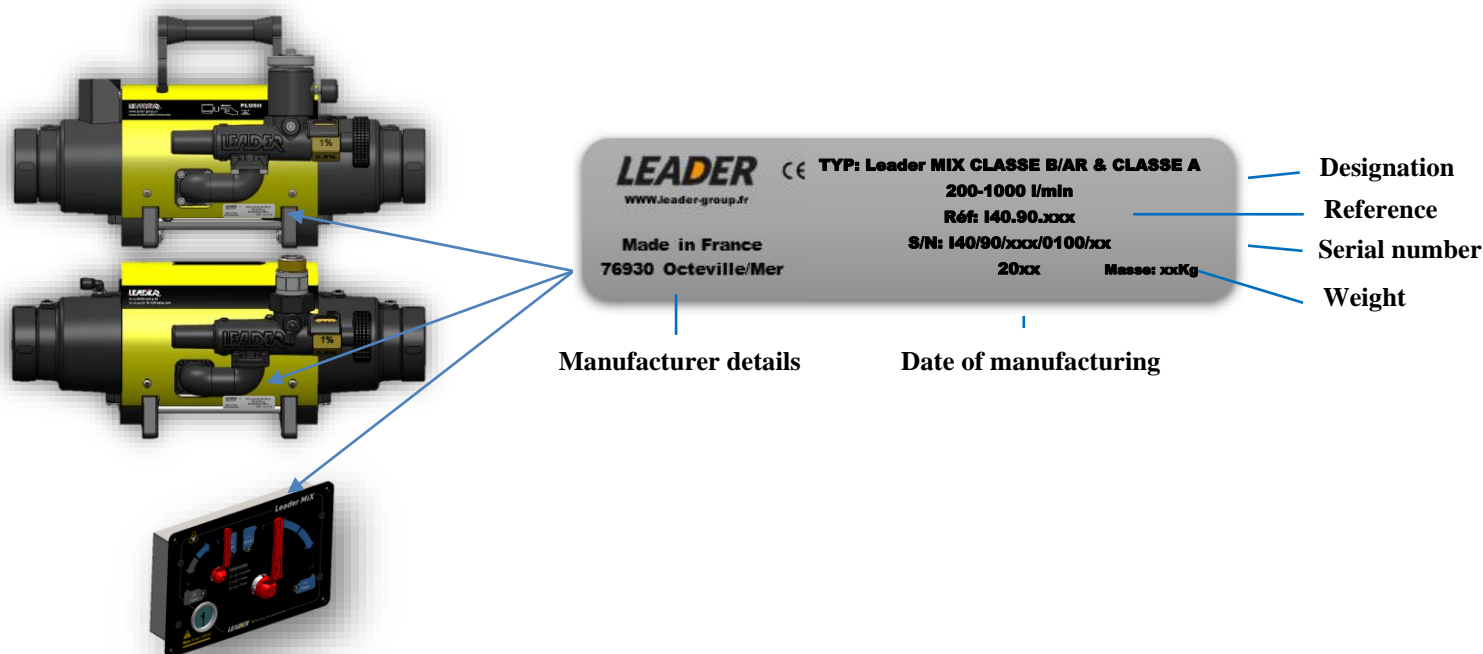
8.2 Fixed Model

 In order to fully empty the Leader MIX for frost protection, please proceed as follows.

- 1) Finish using the product
- 2) Rinse.
 - Close the **Leader MIX** downstream water outlet + shut off the foaming agent inlet.
 - Position one console valve to “Water“ **②**.
 - Position the other console valve to “Flush“ **④** (several seconds) whilst completing several full turns of the dosing selector.
 - Position the console valve back to “Flow“ **①**.
- 3) Drain. (See Fixed installation diagram on page 13)
 - Shut off the **Leader MIX** upstream water inlet.
 - Drain the fixed installation hydraulic network.
 - Close the fixed installation hydraulic network drains.
 - Open the **Leader MIX** drains.
 - Inject the compressed air via a 2-way valve (not supplied) to be positioned on the purple line in the diagram below (See **Page 13**).
 - Switch the console valve from the “Water“ **②** position to “Foam“ **③** then from “Foam“ **③** to “Water“ **②** (Repeat 2-3 times).
 - Shut off the compressed air inlet + close the **Leader MIX** drains.



9 IDENTIFICATION



10 TROUBLESHOOTING

| Problem | What to do |
|---------------------------------|---|
| Incorrect dosing or no dosing | <ul style="list-style-type: none"> • Check that the injection selector is on “Foam” • Check the foam concentrate input suction • Check the position of the % dosing selector • Check that there is foam concentrate left • Check that the suction tube is not capped (Portable Model) • Check the flow range and pressure • Check that the suction tube has not been modified in length or diameter • Check there are no impurities or debris (sand, stones...) at the injector input. If there are impurities or debris (stones, sand...) inside the injector, turn to “Water” position: 5mm debris can be removed • Check the water pressure: it must be above 5 bars (72psi) (P8 usage range) • Check the water flow: it must be above 200 l/min (50gpm) (P8 usage range) • Check the foam concentrate status • Check that the injector is not clogged due to insufficient rinsing |
| Incorrect rinsing or no rinsing | <ul style="list-style-type: none"> • Check that the injection selector is on “Flush & Water” • Turn the dosing selector round twice • Keep the purge button held down when using (Portable Model) • Check that the network is pressurised. |

11 SPARE PARTS

To locate and identify the parts of your **Leader MIX CLASS B / AR & CLASS A 200-1000 l / min (50-275 gpm)**, please contact us.. info@groupe-leader.fr

12 WARRANTY



LEADER equipment benefits from a limited contractual warranty from the date of the purchase, 2 years parts and labour (excluding shipping and travelling fees). Normal wear parts are excluded from this warranty.

This warranty is specifically limited to replacing or repairing the equipment (or its parts) which after examination proves to be defective for causes attributable to **LEADER**.

To claim under a warranty, the user (with **LEADER'S** approval) will need to return the equipment to **LEADER**, ZI des Hautes Vallées, Chemin n° 34, CS 20014, 76930 Octeville Sur Mer, France as soon as possible following the discovery of the defect.

After reviewing the equipment:

- If the defect is attributable to **LEADER**, it will repair it and assume the costs (excluding shipping and travelling fees),
- If the defect is not attributable to **LEADER**, see the procedures laid down in the out-of-warranty Defect paragraph.

This warranty does not commit **LEADER** in the following cases: failures resulting from improper handling, improper use of the equipment, no maintenance or incorrect maintenance, incident affecting the hardware, repair or modification by another company or non-authorised personnel.

OUT-OF-WARRANTY DEFECT OR EQUIPMENT NO LONGER COVERED BY THE WARRANTY

A complete diagnostic will be conducted on your defective equipment, at the end of which a detailed estimate will be sent to you for the necessary repairs.

For failures and repairs no longer covered by the warranty, a diagnostic flat rate will be applied regardless of the acceptance of the repair quote.

LEADER®

● *Fighting for performance*

SIEGE SOCIAL

LEADER S.A.S

ZI des Hautes-Vallées-2 Chemin n°34-CS20014-76930

Octeville sur Mer-France

FILIALE

www.leader-group.company

LEADER®
● *Fighting for performance*

TEMPEST

LEADER GmbH

Tempest Technology Corp.

Zur Fabrik 10-66271 Kleinblittersdorf

4708 N. Blythe Ave. Fresno. CA 93722

Allemagne

USA

Tel : +49 (0) 6805/60067 -0

Tel : +1 559.277.7577

Fax : +49 (0) 6805/60067 -10

Fax : +1 559.277.7579

info@leader-gmbh.de

response@tempest.us.com

AGENCE

ESPAGNE / PORTUGAL / AMERIQUE LATINE

CHINE / HONG KONG / MACAO

spain.portugal.latinamerica@leader-group.eu

china@leader-group.eu

LEADER GROUP

*Our policy is to constantly
seek to improve our products.
We therefore reserve the
right to change their technical
specifications at any time
and without prior manual. No
contractual images.*



PLEASE RECYCLE

Translation of original user's

Package leaflet code: Leader MIX CLASSE B/AR & CLASSE A 200-1000 l/min.ZN5.2.EN.0