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Because life is powered by water®



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CUSTOMER SERVICE DEPARTMENT

NORTH & CENTRAL AMERICA

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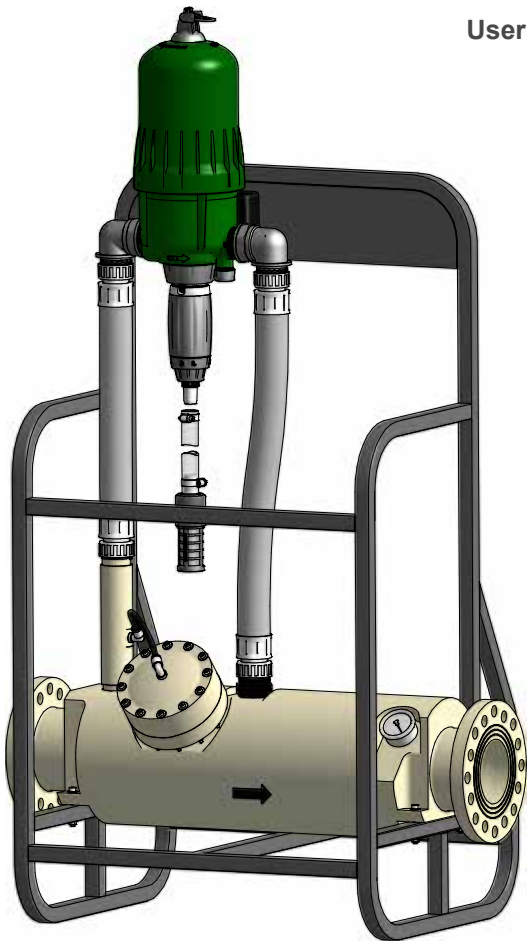
NTD90GL-12-20



DOSATRON®
Because life is powered by water®



User manual



D90 - GREEN LINE



The eco-design challenge

By extending the scope of its ISO 14001 certification and integrating design and development activities, DOSATRON is proud to adopt a genuine eco-design process.

The D90GL dosing pump is a product of this process and illustrates our desire to create innovative, eco-designed products:

- by reducing the number of parts.
- by developing a lighter product.
- by designing cardboard packaging made from 100% recycled materials.
- by working with local or national suppliers to limit transport distances.

In collaboration with APESA, all our teams have perfectly integrated the concepts and tools inherent to eco-design.*

More broadly, DOSATRON is committed to a global environmental approach by implementing concrete actions to reduce its environmental impact.

* Sources APESA - Global environmental impact - ecological scarcity method 2013.

English

This document does not form a contractual obligation and is for information only. DOSATRON INTERNATIONAL reserves the right to modify its appliances at any time.

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You have just acquired a DOSATRON water-powered dosing pump. Congratulations on your choice.

More than 40 years of experience have perfected the development of this model and our teams have placed the Dosatron series at the forefront of the technical development of water-powered dosing pumps. Over time, this Dosatron will prove to be a most faithful ally. A few regular maintenance operations will guarantee its operating reliability and banish the word "failure" forever.

**THEREFORE, PLEASE READ THIS MANUAL CAREFULLY
BEFORE USING THE DEVICE**

Important!

You will find your Dosatron's part number and serial number on the technical data label affixed to the pump body and the Dosatron regulator.

Please record these numbers in the space provided below for easy referral when contacting or requesting information from your vendor.

Ref.

Serial No.

Date of purchase:

NOTES

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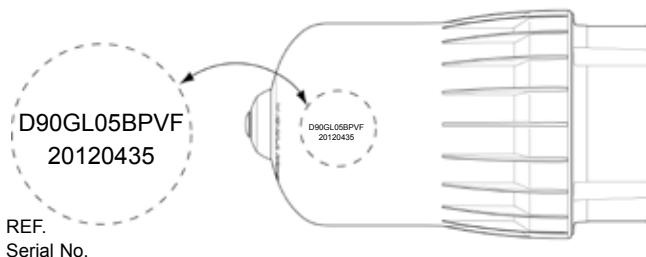
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Markings / Identification Specifications

Your dosing pump has 2 main marking zones which enable it to be identified in detail:

A 2-line engraving on the section of the top cover (see picture below), containing the exact part number for the appliance and the serial number.

A technical data label on each side of the dosing pump body stating the part number and the technical performance data for the appliance.



D90GL05BP	S/N 19220004
Débit de fonctionnement <i>Operating flow rate</i>	25 m³/h - 90 m³/h
Dosage <i>Injection rate</i>	0.1 - 0.5% [1:1000 - 1:200]
Débit d'injection <i>Injection flow rate</i>	25 - 450 l/h
Pression de fonctionnement <i>Operating pressure</i>	0.5 - 8 bar
Température maxi. <i>Maxi. temperature</i>	40°C

CE

DOSATRON INTERNATIONAL S.A.S Rue Pascal - B.P.6 - TRESSÉS - FRANCE
Tél. 33(0)5 57 97 11 11 - info@dosatron.com - www.dosatron.com
THE MANUFACTURER declines all responsibility in event of use not conforming with the owner's manual
LE FABRICANT décline toute responsabilité en cas d'utilisation non conforme au manuel d'utilisation

UNDERSTANDING THE PART NUMBER

REF:.....		Serial No.					
Example	D90	GL	05	BP	V•	VF	II
Dosatron range							
Product line GL: Green Line (fertigation)							
Maximum injection rate (% or ratio)							
BP: Integrated manual bypass							
V: Optional kit for Viscous Products (>400 cPs)							
Dosing seal type: AF = Alkaline Fluid pH 7-14 / VF = Acidic Fluid pH 1-7 / K = Strong acids (>15%)							
Other extensions (please specify)							

SPECIFICATIONS

D90GL05BPVF

Operating **flow rate**: **25 m³/h - 90 m³/h** [110 US gpm - 400 US gpm]

Max. operating temperature:**40°C** [104°F]

Operating pressure:

bar	0.5 - 8
psi	7.25 - 116

Dosing adjustable from the exterior:

%	0.1 - 0.5
Ratio	1/1 000 - 1/200

Concentrated product injection flow:

Min. l/h - Max. l/h	25 - 450
US gpm - MIN.	0.11
US gpm - MAX.	1.98

Connection:Flange DN 100 EN PN16 - DN 4" ASME B16.5

Hydraulic motor capacity (every two clicks of the piston):
around **1.7 l** [0.449 US Gallons]

IMPORTANT! The DOSATRON is not pre-set, please refer to the paragraph on ADJUSTING THE DOSING

DIMENSIONS

Length: cm ["]	120 [47"1/4]
Total height: cm ["]	80 [31"1/2]
Overall width: cm ["]	53 [20"3/4]
Weight: ± kg [lbs]	50 [110.2]

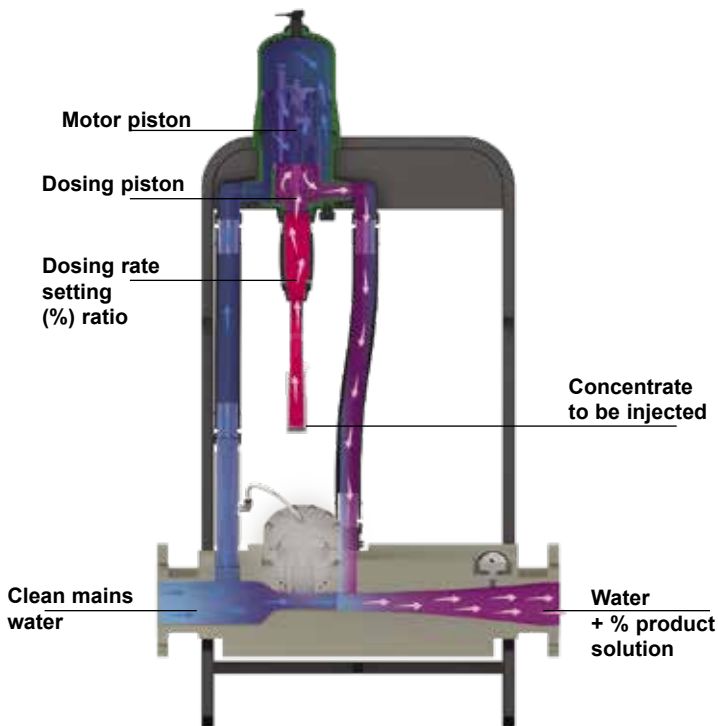
PACKAGE COMPOSITION: 1 Dosatron / 1 Dosatron Regulator /
1 Suction hose for concentrate / 1 Suction strainer / 1 Quick-start guide.

PACKAGE WEIGHT: Approx. 50 kg [~ 110.2 US lbs]

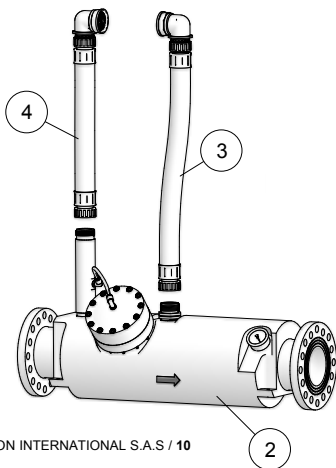
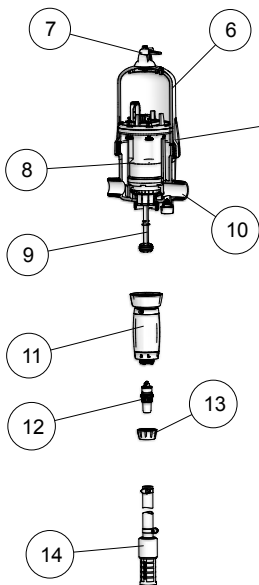
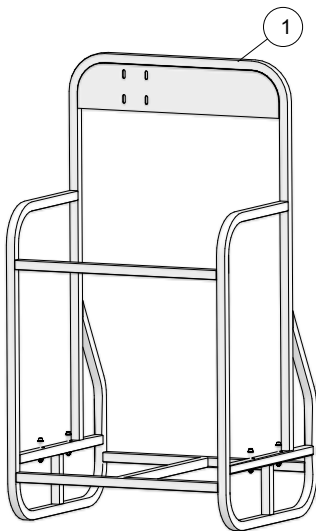
Dosatron TECHNOLOGY

Unique technology incorporating all dosing functions.

DOSATRON is fitted directly to the water supply system and uses water pressure as its power source. When activated in this way, it takes up the required dose of concentrate and then mixes it with the motive water. The solution produced is then propelled downstream. The dose of injected product is always proportional to the volume of water passing through the Dosatron, regardless of variations in flow or pressure in the water supply line.



- ① D90 frame
- ② Fully equipped D90 regulator assembly
- ③ 612 mm long pipe sub-assembly, equipped with seals
- ④ 433 mm long pipe sub-assembly, equipped with seals
- ⑤ Mounting bracket
- ⑥ GREEN LINE D9 bell-housing
- ⑦ Complete bypass sub-assembly
- ⑧ Motor piston
- ⑨ Dosing piston sub-assembly
- ⑩ 1½" GREEN LINE body sub-assembly
- ⑪ D90GL05 injection assembly
- ⑫ Suction valve sub-assembly
- ⑬ Valve nut
- ⑭ 20 x 27 suction assembly, 4-meter hose



Installation

PRECAUTIONS

1-GENERAL

- When connecting a Dosatron either to the public water supply line or to its own water source, it is essential to conform to the standards concerning protection and disconnection for the country in which the appliance is installed. Dosatron recommends fitting a backflow preventer to avoid contaminating the water supply.

- When connecting the Dosatron to the water supply system, ensure that the water flows in the direction of the arrows shown on your appliance.

- If the system is located at a higher level than the Dosatron itself, there is a possible risk of water and concentrate flowing back into the Dosatron. Installing a non-return valve downstream of the appliance is therefore recommended.

- Fitting an anti-siphoning valve downstream of the dosing pump is recommended in installations where there is a risk of siphoning.

- Do not install the Dosatron above a container of acid or any aggressive products. Place the container to the side and cover it to avoid any product fumes.

- Keep the Dosatron away from excessive heat sources, and protect it from frost in winter.

- Do not install the Dosatron on the suction side of the motive water pump (risk of siphoning).

The user has sole responsibility for replacing the dosing assembly seals on an annual basis to ensure accurate dosing.

The user has sole responsibility for the adjustment of the Dosatron's dosing rate. The user must adhere strictly to the recommendations of the manufacturer of the chemicals used.

WARNING

During the installation, operation and maintenance of the Dosatron water-powered dosing pump, the following safety instructions must be observed: use suitable tools, protective clothing and safety goggles when working on the equipment and install it in such a way as to ensure risk-free operation.

Follow the instructions in this manual and take safety measures appropriate to the nature of the liquid additives and the water temperature. Be extremely cautious in the presence of dangerous substances (corrosive, toxic, dissolving, acids, caustic substances, inflammable substances, etc.).

PRECAUTIONS (continued)

- Before injecting these substances, please consult your distributor to confirm their compatibility with the dosing pump.

IMPORTANT! The personnel in charge of installing, operating and maintaining this equipment must be fully acquainted with the contents of this manual.

Ensure that the water flow and pressure of the installation are compliant with the Dosatron's specifications.

- The dosing adjustment must be carried out with no pressure in the system. Turn off the water supply and allow the pressure to drop to zero.
- The user has sole responsibility for choosing the correct Dosatron settings to obtain the desired dosing rate.
- Problems with airtightness, impurities or chemical aggression of the seal can disrupt the dosing operation. You are therefore advised to check periodically that the concentrate to be dosed is being correctly drawn into the Dosatron.
- Change the Dosatron suction hose as soon as it seems damaged by the concentrate being dosed.
- Release the pressure in the system after use (recommended).
- Rinsing of the Dosatron is essential:
 - . whenever the product is changed

. before each intervention on the Dosatron, to avoid any contact with aggressive products.

- All assembly and tightening operations should be carried out using the appropriate tools, or manually without tools (unless there are specific recommended tightening torques).

2-PARTICLE-LADEN WATER

- In the case of heavily particle-laden water, a filter (e.g. 200 to 120 mesh - 80 to 130 microns depending on the quality of your water) MUST be installed upstream of the Dosatron. If this filter is not installed, abrasive particles will cause premature wear in the Dosatron.

3-WATER HAMMER / EXCESS FLOW

For installations subject to water hammer, a water-hammer arrestor must be fitted (pressure/flow control system).

For automated installations, it is preferable to use slow-opening and slow-closing solenoid valves. If a Dosatron serves several sectors, activate the solenoid valves simultaneously (closure of one sector and opening of another sector at the same time).

4-LOCATION OF THE INSTALLATION

- The Dosatron and the dosing additive must be accessible at all times. Their installation must not, under any circumstances, pose a pollution or contamination risk. The marking of all water pipes with notices bearing the statement "CAUTION! Non-potable water" is recommended, to indicate that the water contains additives.

5-MAINTENANCE

- After use, the aspiration of clean mains water through the system is recommended.
- Annual maintenance will optimise the service life of your Dosatron. Replace the dosing assembly seals and the product suction hose on an annual basis.

6-SERVICE

- This Dosatron was tested prior to packaging.
- Replacement sub-assemblies and packs of seals are available upon request.
- Do not hesitate to call your distributor or Dosatron for any after-sales service requirements.

INSTALLING THE DOSATRON

INSTALLATION MUST BE CARRIED OUT USING THE APPROPRIATE TOOLS.

The Dosatron is supplied with:

One regulator with double-bore flange holes according to EN (Europe) and ASME (USA) standards, dimensions: DN 100 EN PN16 / DN4" ASME B 16.5.

One D9D90 GL dosing pump pre-equipped with elbow fittings.

Two supply tubes (one short upstream / one long downstream).

One 4-meter suction hose and strainer.

A user manual.

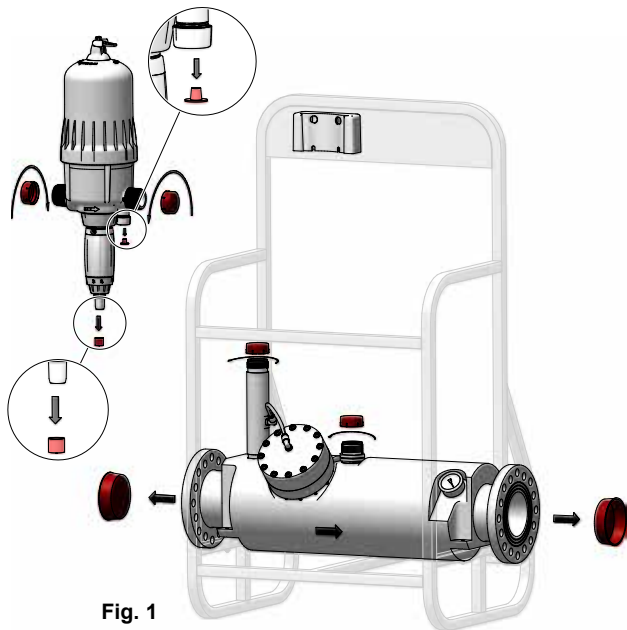


Fig. 1

Remove the plugs and protective caps (**Fig.1**) covering the ports of your dosing pump before connecting it to the water system.

1 - Direction of water flow

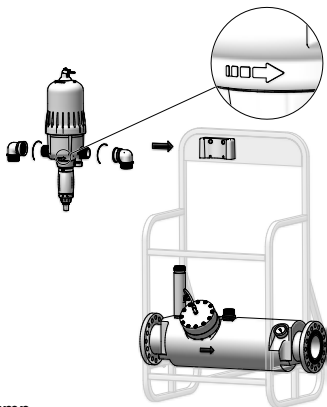
- Verify the direction in which the appliance is fitted and the direction of the water flow.

2 - Preparation of the dosing pump

- Attach the dosing pump mounting bracket onto the left-hand side of the frame

3 - Regulator position

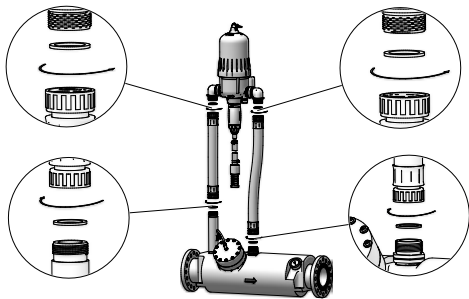
- Your regulator is factory-fitted on the frame.



4 - Assembly of the D9D90 dosing pump

Refer to the diagram below

- Take the D9D90 dosing device pre-equipped with its two elbow fittings and fix it to its mounting bracket.
- Take the short hose and screw it onto the left-hand side of the regulator, with a seal inserted between the two parts.
- Take the long hose and screw it onto the right-hand side of the regulator, with a flat seal inserted between the two parts.
- Screw the ends of the hoses onto the dosing pump: the short hose to the 'inlet' elbow fitting on the dosing pump, and the long hose to the 'outlet' elbow fitting on the dosing pump, with a flat seal inserted between the two parts on each occasion.



CHANGING THE DOSING SCALE VIEW

The Dosatron's dosing rate can be adjusted according to two scales: percentage- and ratio-based. These scales are positioned on either side of the dosing assembly (**Fig.2**).

Depending on the direction of flow in the hydraulic system and the direction in which the dosing pump is mounted on its bracket, it may be necessary to change the orientation of this scale.

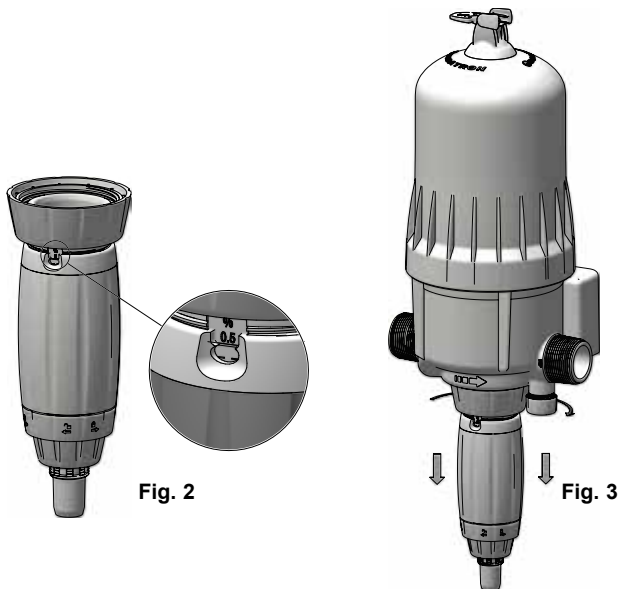


Fig. 2

Fig. 3

- Completely unscrew the fixing nut on the dosing assembly
- Pull downwards and rotate half a turn to release the dosing assembly and view the correct dosing adjustment scale (**Fig.3**).

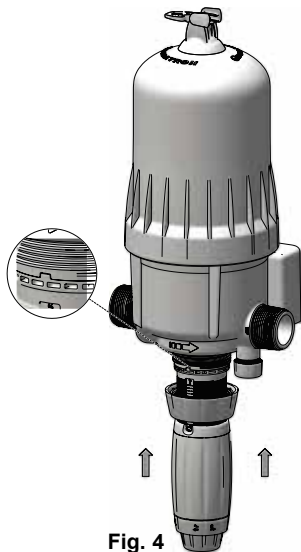


Fig. 4

Insert the dosing body into the pump body, taking care to align the centring pins (**Fig.4**). If necessary, to obtain a clearer view of the pins, unscrew the dosing adjustment nut as far as the middle of its travel.

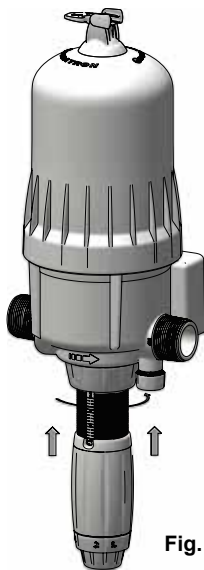


Fig. 5

- Manually retighten the fixing nut on the dosing assembly (**Fig.5**).

CONNECTING THE SUCTION HOSE

The Dosatron is supplied with a suction hose (to be shortened as necessary), which enables it to be used with a large-capacity container. This hose must be equipped with the strainer and ballast.

N.B. The maximum suction head is 4 metres [13 ft].

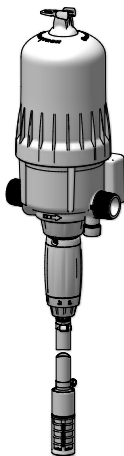


Fig. 6



Fig. 7

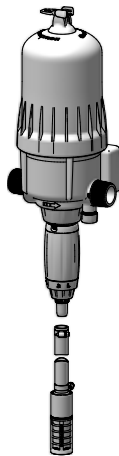


Fig. 8

- Push the suction hose onto the suction valve stem and secure the hose using the hose clamp supplied (**Fig.6**)

- Fit the strainer on the other end of the hose using the same method and secure it using the other hose clamp (**Fig. 7 & 8**).

INSTALLATION ADVICE

The Dosatron should be installed in a full hydraulic bypass.

An in-line installation is possible but not recommended because it does not enable the dosing pump to be easily isolated for maintenance (the water supply must be turned off).

A by-pass installation enables the system to be supplied with clean mains water when the Dosatron is not operating and enables it to be easily dismantled.

If your flow rate is above the specified limits for the Dosatron, see § EXCESS FLOW.

To prolong the Dosatron's service life, it should be fitted with an upstream filter (e.g. 200 to 120 mesh - 80 to 130 microns, depending on the quality of your water).

This precaution is essential if the water contains impurities or particles, especially if the water comes from a well or if it is surface water.

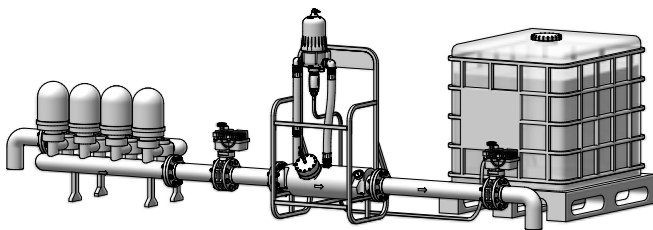


Fig. 9

EXCESS FLOW (for information)

If your Dosatron clicks more than **44 times in 15 seconds**, (i.e. 22 cycles) you are beyond the upper flow-capacity limit.

INSTALLATION ADVICE (continued)

IMPORTANT! Leave the strainer suspended about 10 cm [4"] from the bottom of the container of solution to prevent the aspiration of insoluble particles which may damage the dosing pump. The strainer must not sit on the bottom of the container.

AUTOMATIC PRODUCT ANTI-SIPHONING DEVICE

- Automatically restores atmospheric pressure within the installation in case of accidental depressurisation downstream of the dosing pump*. Uncontrolled suction of product is prevented. To activate this device, remove the red cap.

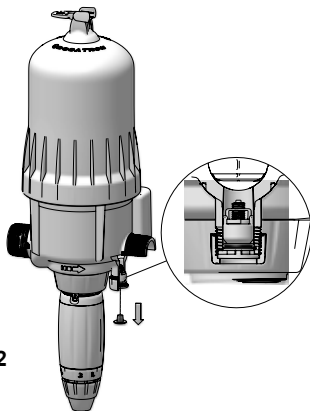


Fig. 12

* Example: if the system downstream is lower than the level in the concentrate tank.

Commissioning the DOSATRON

USING FOR THE FIRST TIME

The Dosatron is equipped with a by-pass function as standard:

- By-pass set to ON, the Dosatron operates and the concentrate is drawn up.
- By-pass set to OFF, the Dosatron is shut down and does not draw up the product.

Clean mains water flows through the system without the product being injected.

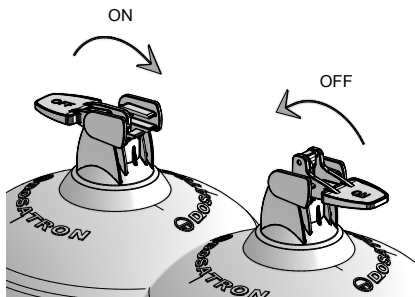


Fig. 13

Switch the by-pass to ON.

Slowly open the water intake; the Dosatron primes itself.

Operate the Dosatron until the product to be injected rises up into the dosing assembly (the product is visible through the transparent hose).

The Dosatron makes a characteristic “clicking” noise when operating (**Fig.13**).

N.B. The time required to prime the dosed solution depends on the flow rate, the dosing setting and the length of the product-suction hose.

To accelerate the priming, set the dosing rate to maximum. Once the Dosatron is primed, drop the pressure to zero and set the required dosing rate (see § ADJUSTING THE DOSING RATE).

USE

The appliance is designed to operate with fluids whose temperature must not exceed **40°C** or 104°F (motor fluid, additive, fluid/additive motor mixture). Protect installations from frost if they are likely to operate at temperatures below 5°C (41°F) (see § PRECAUTIONS). These dosing pumps are designed for use at pressures of up to **8 bar** [116 psi]. The installation must be protected against any risk of overpressure. The installation must also be dimensioned to prevent any oscillatory hydraulic phenomena (water hammer). If necessary, a water-hammer arrestor has to be fitted.

ADJUSTING THE DOSING RATE (unpressurised)

IMPORTANT! No tools should be used.

The dosing adjustment must be carried out with no pressure in the system.

- Turn off the water supply and allow the pressure to drop to zero.
- Unscrew the dosing locking nut (**Fig. 14**)
- Turn the dosing adjustment sleeve clockwise or anticlockwise until the 2 precision indicators of the eyelet show the desired dose rate. (**Fig. 15**).
- Retighten the dosing locking nut (**Fig. 16**).

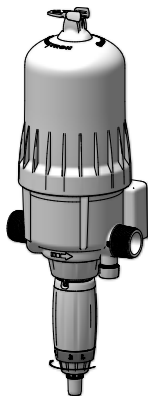


Fig. 14

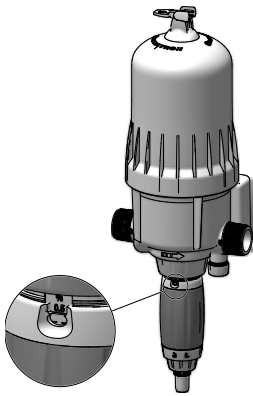


Fig. 15

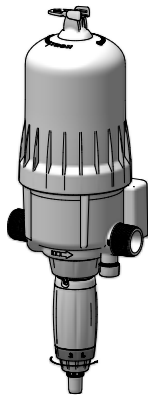


Fig. 16

DOSING PRINCIPLE

Principle: Setting at 1% - $1/100 = 1$ volume of concentrate to 100 volumes of water.

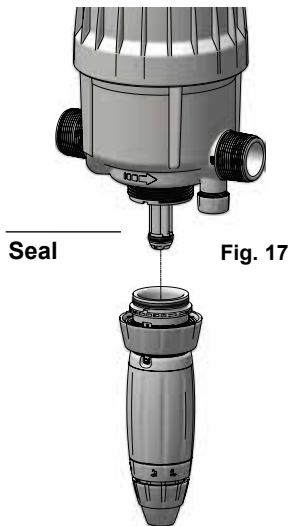
Maintenance

Before performing any maintenance on the Dosatron, it is essential to read the § PRECAUTIONS.

RECOMMENDATIONS

1 - When using soluble products in solution, periodic dismantling of the entire dosing assembly is recommended (refer to: § CLEANING THE SUCTION VALVE, § REPLACING THE DOSING SEALS). Rinse the parts of the dosing assembly thoroughly with clean mains water and reassemble them, after previously lubricating the plunger seal with a silicone-based lubricant (Fig.17).

2 - Before putting the Dosatron back into service, remove the motor piston and soak it in lukewarm water ($< 40^{\circ}\text{C}$) [$< 104^{\circ}\text{F}$] for several hours. This helps to remove any deposits which may have dried onto the motor piston.



DRAINING THE DOSATRON (to protect it from frost)

To carry out a complete service of the Dosatron, or to protect it from frost, it may be necessary to drain it.

- Turn off the water supply and allow the pressure to drop to zero.
- Remove the dosing assembly (§ DISMANTLING/REASSEMBLING THE DOSING ASSEMBLY). **(Fig.18)**
- Unscrew the top cover and take out the motor **(Fig.19)**.
- Disconnect the fittings at the water intake and outlet
- Drain the main body after removing it from the mounting bracket.
- Reassemble the parts, after cleaning the bell-housing seal.



Fig. 18

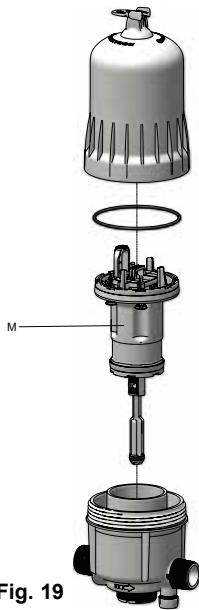


Fig. 19

DISMANTLING THE SUCTION HOSE

Before performing any maintenance on the Dosatron, it is essential to read the § PRECAUTIONS.

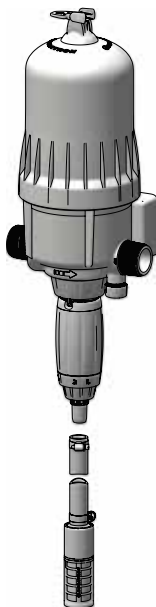
Before dismantling, and to avoid any contact with the injected products, turn on the Dosatron and allow it to draw in clean mains water in order to rinse the dosing assembly.

- Unscrew the hose clamp from the dosing assembly and hose
(Fig. 20)

- Pull downwards to remove the hose from the suction valve stem.

- To reassemble the parts, repeat these steps in reverse order. If necessary, read § CONNECTING THE SUCTION HOSE.

Fig. 20



DISMANTLING/REASSEMBLING THE DOSING ASSEMBLY



Fig. 21

Before performing any maintenance on the Dosatron, it is essential to read the § PRECAUTIONS. Before dismantling, and to avoid any contact with the injected products, turn on the Dosatron and allow it to draw in clean mains water in order to rinse the dosing assembly.

- Turn off the water supply and allow the pressure to drop to zero.
- Remove the suction hose (see § DISMANTLING THE SUCTION HOSE).

- Completely unscrew the fixing nut on the dosing assembly.
- Pull downwards to remove the dosing assembly.

(Fig. 21).



Fig. 22

Before reassembling the parts, position the dosing assembly according to the desired scale (percentage or ratio). (see § CHANGING THE DOSING SCALE)

- Insert the dosing body into the pump body, taking care to align the centering pins (Fig.22). If necessary, to obtain a clearer view of the pins, unscrew the dosing adjustment nut as far as the middle of its travel.

- Manually retighten the fixing nut on the dosing assembly.

CHANGING THE SEALS IN THE DOSING ASSEMBLY

Frequency: at least once a year.

Contact DOSATRON or a dealer to select the appropriate seal kit for your dosing pump.

Dismantle the dosing assembly in accordance with the instructions in § DISMANTLING/REASSEMBLING THE DOSING ASSEMBLY.

IMPORTANT! Only use appropriate tools; do not use any metal implements.

Replace the dosing piston seal:

Pinch the seal between your thumb and finger; push it sideways to distort the seal.

- Increase the distortion in order to take hold of the protruding part of the seal and then pull it out of its groove.

- Clean the seal seat without using any tools.

- Reassembly must be carried out manually. It is very important to avoid any twisting of the seal once it is in place as this would impair its watertightness.

- Replace the O-ring on the dosing body (**Fig. 23a**).

- Implement the method explained above.

- Replace the suction valve:

- Unscrew the suction valve locking nut (**Fig. 23c**)

- Remove the suction valve by pulling it in the line of the dosing assembly.

- Replace the O-ring on the dosing pump body (**Fig. 23d**)

- Completely unscrew the dosing locking nut (**Fig. 23b**)

- Release the snap ring by spreading the lugs.

- Slide out the dosing pump body by pushing it up through the sleeve

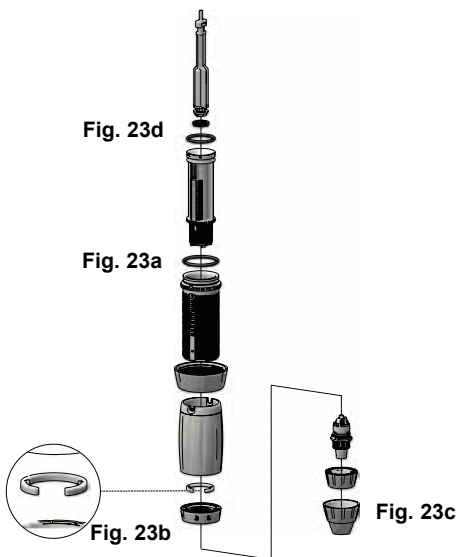
- Replace the dosing pump body O-ring following the method described above.

- Replace the dosing pump body inside the sleeve using the guide groove and lug.

- Replace the snap ring, ensuring that it is positioned in the groove intended for it.

- Fully retighten the dosing locking nut.

- Finish by refitting the suction valve and its locking nut.



DISMANTLING/REASSEMBLING THE DOSING PISTON

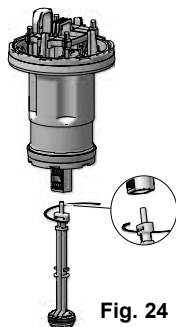
Before performing any maintenance on the Dosatron, it is essential to read the § PRECAUTIONS.

Before dismantling, and to avoid any contact with the injected products, turn on the Dosatron and allow it to draw in clean mains water in order to rinse the dosing assembly.

- Turn off the water supply and allow the pressure to drop to zero.
- Dismantle the dosing assembly while following the instructions in § DISMANTLING/REASSEMBLING THE DOSING ASSEMBLY.

Turn the dosing piston a quarter-turn anti-clockwise to unlock it and release it from the motor piston.

- Reassemble by following these steps in reverse order.



CLEANING AND REASSEMBLY OF THE SUCTION VALVE

Before performing any maintenance on the Dosatron, it is essential to read the § PRECAUTIONS.

Before dismantling, and to avoid any contact with the injected products, turn on the Dosatron and allow it to draw in clean mains water in order to rinse the dosing assembly.

- Turn off the water supply and allow the pressure to drop to zero.
- Remove the suction hose (see § DISMANTLING THE SUCTION HOSE).
- Unscrew the suction valve locking nut (**Fig. 25**)
- Remove the suction valve by pulling it in the line of the dosing assembly.
- Rinse the various parts of the valve thoroughly, using clean mains water.
- Reassemble the parts following the order and positions shown in the diagram (**Fig. 26**).

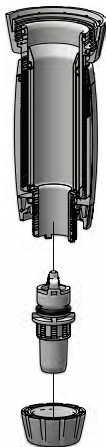


Fig. 25

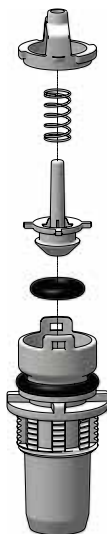


Fig. 26

CHANGING THE MOTOR PISTON (unpressurised)

Before performing any maintenance on the Dosatron, it is essential to read the § PRECAUTIONS. Before dismantling, and to avoid any contact with the injected products, turn on the Dosatron and allow it to draw in clean mains water in order to rinse the dosing assembly.

- Turn off the water supply and allow the pressure to drop to zero.
- Unscrew the cover manually (**Fig. 27**) and remove it.
- Remove the motor piston assembly by pulling upwards.
- The rod and plunger piston follow the motor piston as it is pulled upwards.
- Change and reassemble all parts in the reverse order to the dismantling process.
- Refit the bell-housing, taking care not to damage its seal, and tighten it by hand.
- You may apply some silicone-based lubricant to the threads of the bell housing or body to facilitate reassembly.

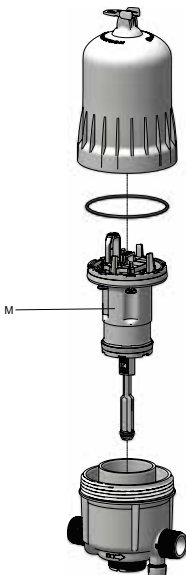


Fig. 27

Troubleshooting

SYMPTOM	CAUSE	SOLUTION
Motor piston		
Your Dosatron does not start, or it stops working.	Motor piston has seized.	Restart the motor piston by hand.
	Excess flow.	1. Reduce the flow rate; restart. 2. Check that the motor valve seals are fitted.
	Motor piston is broken.	Return the Dosatron to your distributor.
Dosing		
Water flowing back into the product tank.	Suction valve or valve seal dirty, worn or missing.	Clean or replace.
No suction of product.	The motor piston has stopped working.	See Troubleshooting - Motor piston .
	Air tightness problem in the suction hose.	Check the suction hose and the tightness of hose clamps.
	Suction hose blocked or strainer clogged.	Clean or replace them.
	Suction valve seal worn, wrongly fitted or dirty.	Clean or replace it.
	Plunger seal wrongly fitted, dirty or swollen.	Clean or replace it.
	Dosing pump body scratched.	Replace it.

SYMPTOM	CAUSE	SOLUTION
Dosing		
Under-dosing	Airtightness problem.	<ol style="list-style-type: none"> 1. Check the tightness of the hose clamps on the dosing assembly. 2. Check the condition of the suction hose.
	Suction valve seal worn or dirty.	Clean or replace it.
	Excess flow (cavitation)	Reduce the flow rate
	Worn plunger seal	Replace it
	Scratched dosing pump body	Replace it
Leaks		
Leaks near the fixing nut under the pump body.	Dosing body seal damaged, wrongly positioned or missing.	Position it correctly or replace it.
Leaks between the dosing adjustment sleeve and the dosing locking nut.	Dosing pump body seal damaged, wrongly positioned or missing.	Position it correctly or replace it.
Leaks between the body and top cover.	Top cover seal damaged, incorrectly fitted or missing	Position it correctly, clean the seal seat or replace the seal.

**DOSATRON INTERNATIONAL
DECLINES ANY LIABILITY FOR ANY DAMAGE
RESULTING FROM IMPROPER USE.**

Warranty

DOSATRON INTERNATIONAL S.A.S. agrees to replace any part recognised as defective when new for a period of twelve months from the date of purchase by the initial purchaser.

To obtain a replacement under warranty, the appliance or spare part must be returned to the manufacturer or authorised distributor along with the original proof of purchase. The said appliance or part may be recognised as defective following an inspection carried out by the manufacturer or distributor.

The appliance must be rinsed to remove any trace of chemicals and sent postage paid to the manufacturer or to the distributor. It will then be returned free of charge after repair if it is covered by the warranty.

Interventions cannot be carried out under warranty for the purpose of extending the term of this warranty.

This warranty only applies to manufacturing defects.

This warranty does not cover any defects resulting from abnormal installation, the use of inappropriate

tools, incorrect installation, improper maintenance, environmental accidents, or corrosion caused by foreign objects or liquids found in or near the appliance.

For the dosing of aggressive products, please consult your vendor before any use in order to confirm their compatibility with the dosing pump.

This warranty does not cover seals (wearing parts) or any damage caused by water-borne impurities, such as sand and biofilm.

To validate this warranty, a filter (e.g. 120 mesh - 130 microns, depending on your water quality) must be installed upstream of the appliance.

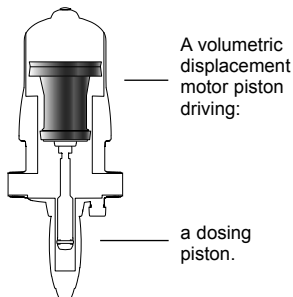
DOSATRON INTERNATIONAL S.A.S. declines any liability if the device is used in conditions that do not comply with the requirements and tolerances specified in the user manual.

There is no express or implied warranty with respect to other products or accessories used in conjunction with DOSATRON INTERNATIONAL S.A.S. appliances.

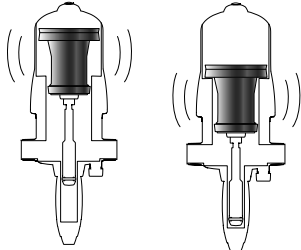
KNOW YOUR FLOW

A SIMPLE METHOD

THE DOSATRON IS
COMPOSED OF:



As it moves up and down, the motor piston **clicks**:



2 clicks = 1 cycle
= 1 displacement

Once in the
up position

Once in the
down position

The speed of the motor is proportional to the flow of water passing through the appliance.

■ Calculation of the water flow rate in litres per hour =

$$\frac{\text{Number of clicks in 15 seconds} \times 4 \times 60 \times 1.7 \times 10}{2 \text{ clicks} = 1 \text{ cycle}}$$

calculation for 1 minute (pointing to 60)
displacement of the motor in litres (pointing to 1.7)
calculation for 1 hour (pointing to 60)

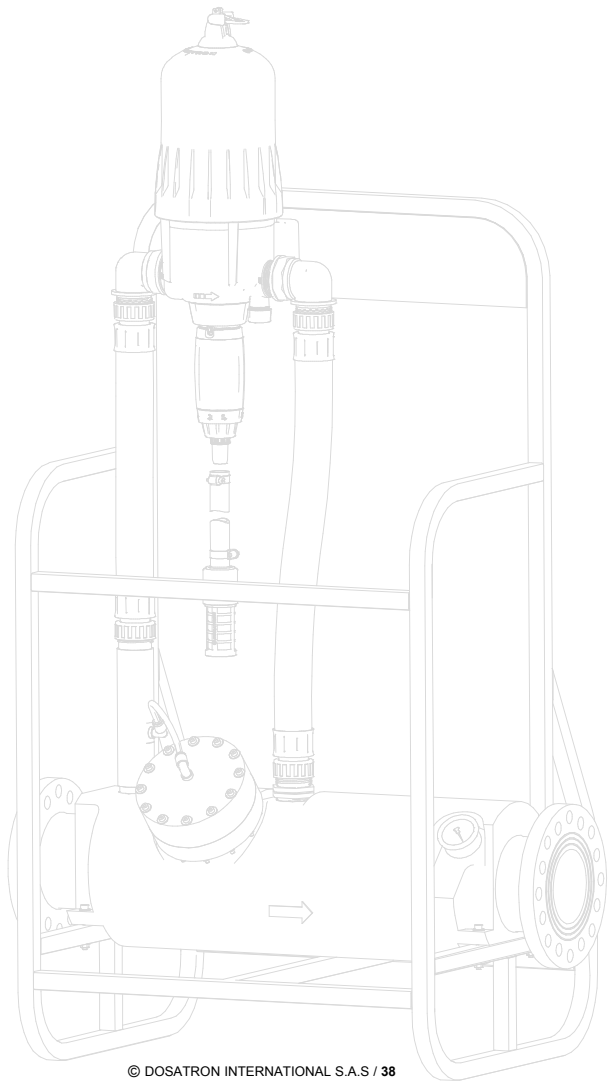
■ Calculation of the water flow rate in gallons per minute =

$$\frac{\text{Number of clicks in 15 seconds} \times 4 \times 1.7 \times 3.8 \times 10}{2 \text{ clicks} = 1 \text{ cycle}}$$

calculation for 1 minute (pointing to 60)
conversion litres to gallons (pointing to 3.8)
displacement of the motor in litres (pointing to 1.7)

N.B. This method of calculation is not intended as an alternative to the use of a flow meter.

It is given for information only.

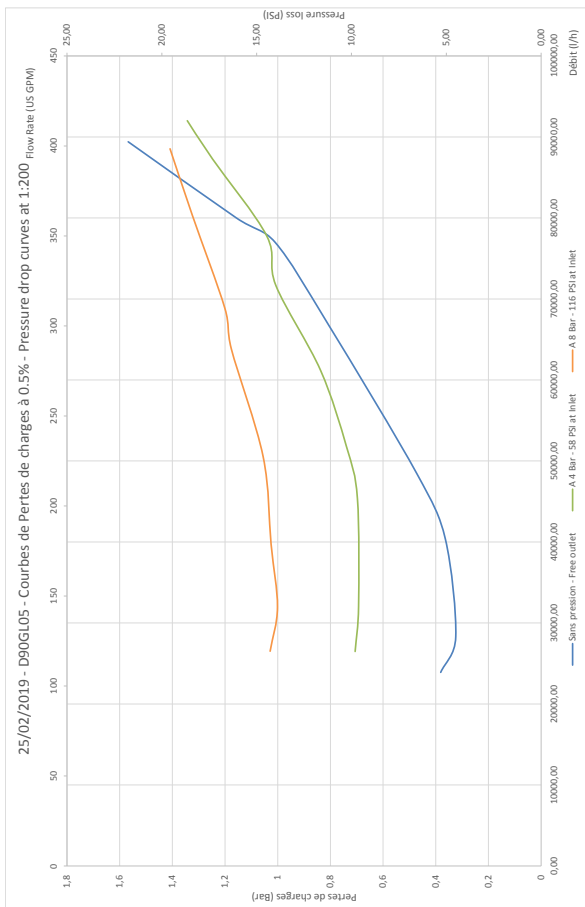


Annexes

Pressure drop

Curves

D90



This document does not constitute a contractual commitment and is provided for information only. DOSATRON INTERNATIONAL reserves the right to modify its appliances at any time.

CE Conformity Statement

Document N° DOCE06050103

This Dosatron is in compliance with the European Directive 2006/42/CE. This declaration is only valid for countries of the European Community (CE).