



# DOSATRON®

*Because life is powered by water®*



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## CUSTOMER SERVICE

### NORTH & CENTRAL AMERICA

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NTD40-07-20



# **DOSATRON®**

*Because life is powered by water®*



**Owner's manual**

**D40**

## NOTES

A series of 25 horizontal dotted lines for writing notes.

# English

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**You have just acquired a DOSATRON water-powered dosing pump. Congratulations on your choice. This model was produced using over 40 years of experience.**

**Our engineers have placed the DOSATRON series at the forefront of technical development in the field of DOSATRON water-powered metering pumps.**

**Over time this DOSATRON will prove itself to be a most faithful ally. A few regular maintenance operations will guarantee operation in which the word “breakdown” will no longer be heard.**

**THEREFORE, PLEASE, READ THIS MANUAL CAREFULLY  
BEFORE PUTTING THE APPLIANCE INTO SERVICE.**

**Important!**

**The complete reference and serial number of your DOSATRON is shown on the pump body.**

**Please record these numbers in the space below and refer to them when contacting your retailer or asking for information.**

**Ref.: .....**

**Serial No.: .....**

**Purchase Date: .....**

## NOTES

A series of 25 horizontal dotted lines for writing notes.

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## **TROUBLESHOOTING** .....

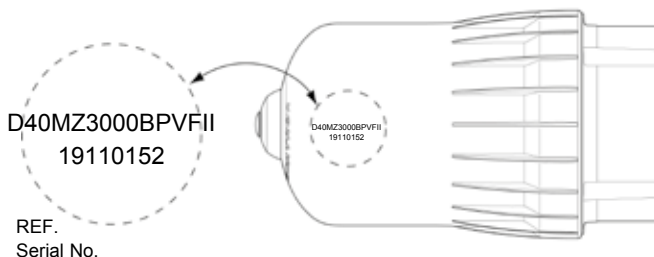
## **LIMITED WARRANTY** .....

# Marking/Identification Characteristics

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

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

A technical label on each side of the dosing pump body indicating the technical performances of the appliance.



## CODIFICATION OF THE REFERENCE

REF. : .....		Serial No.: .....				
Example	D40	MZ	3000	BP	VF	K
Dosatron Range						
MZ : Adjustable						
Dosing (ratio or %)						
BP : Manual By-Pass option						
Dosing Seals VF: Acid additive - AF: Alkaline additive						
K : Kalrez Diver Seal option for concentrated acid additive						



## CHARACTERISTICS

	D40MZ3000	D40MZ2	D40MZ5
<b>Operating flow:</b> 2.2 - 40 US gpm [500 l/h min. 9 m <sup>3</sup> /h max.]			
<b>Max. operating temperature:</b> ..... 104 °F [40 °C]			
<b>Operating pressure:</b>			
<b>psi</b>	<b>4.35 - 116</b>	<b>4.3 - 116</b>	<b>7.25 - 116</b>
<b>bars</b>	0,3 - 8	0,3 - 8	0,5 - 8
<b>Dosing adjustable from the exterior:</b>			
<b>Ratio</b>	<b>1:3 000 - 1:500</b>	<b>1/500 - 1/50</b>	<b>1/100 - 1/20</b>
<b>%</b>	0,03 - 0,2	0,2 - 2	1 - 5
<b>Concentrated product injection flow:</b>			
<b>US Fl. oz/min - MIN.</b>	<b>0.08</b>	<b>0.56</b>	<b>2.82</b>
<b>US Fl. oz/min - MAX.</b>	<b>10.14</b>	<b>101.45</b>	<b>253.62</b>
<b>Min. l/h - Max. l/h</b>	0,15 - 18	1 - 180	5 - 450
<b>Connections (NPT/BSP male gas fittings):</b> ..... 1 1/2" [Ø 40x49 mm].			
<b>Hydraulic motor capacity</b> (every two clicks of the piston): approx. <b>0.449 US Gallons</b> [1,7 l]			

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

## DIMENSIONS

<b>Diameter:</b> " [cm]	<b>6 9/10</b> [17,55]	<b>6 9/10</b> [17,55]	<b>6 9/10</b> [17,55]
<b>Total height:</b> " [cm]	<b>26 11/16</b> [67,82]	<b>26 11/16</b> [67,82]	<b>26 19/16</b> [70,15]
<b>Overall width:</b> " [cm]	<b>8 1/2</b> [21,8]	<b>8 1/2</b> [21,8]	<b>8 1/2</b> [21,8]
<b>Weight: lbs</b> [± kg]	<b>7.3</b> [3,3]	<b>7.3</b> [3,3]	<b>7.3</b> [3,3]

**PARCEL COMPOSITION:** 1 DOSATRON/1 mounting bracket for  
DOSATRON/1 suction hose for concentrate/1 strainer/  
1 quick start guide

### PACKAGING DIMENSIONS:

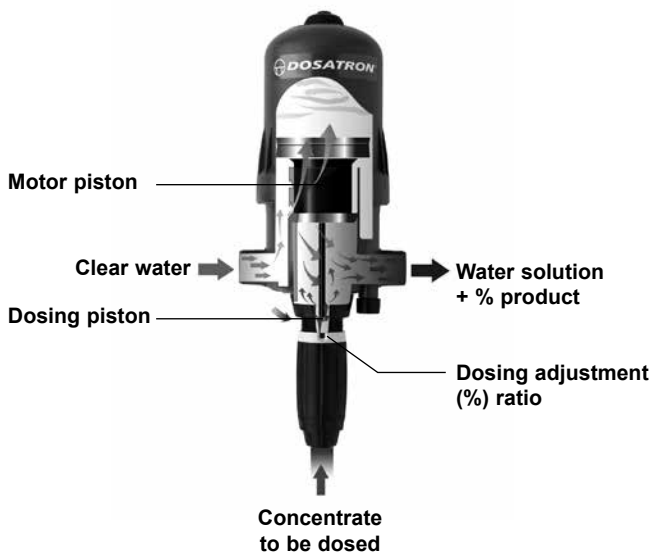
26 3/8" x 8 7/8" x 8 1/16" [67 x 22,5 x 20,5 cm]

**PARCEL WEIGHT:** ~ 12.1 US lbs [5,5 kg approx.]

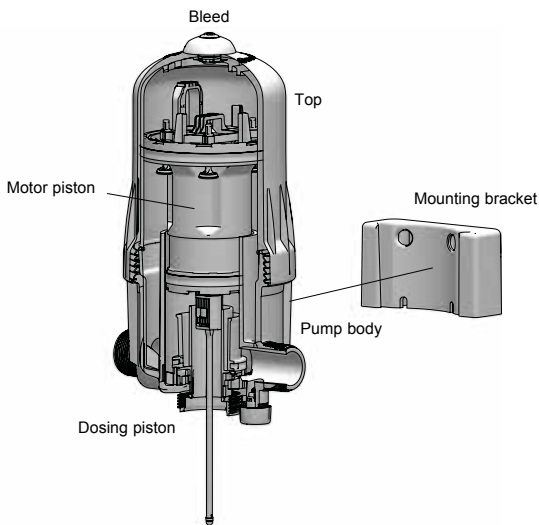
# DOSATRON Technology

A unique technology associating all dosing functions

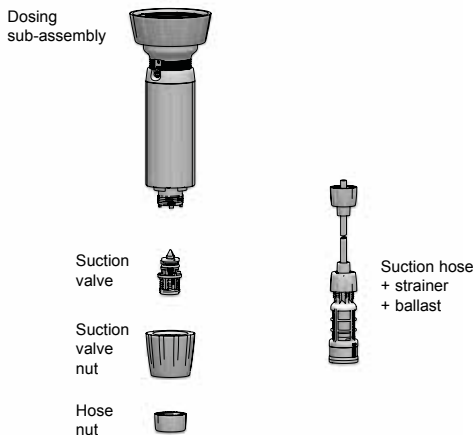
Installed on the water supply line, the Dosatron uses water pressure as the only power source. Thus activated, it takes up the required percentage dose of concentrate and then mixes it with the moving water. The solution produced is then propelled downstream. The dose of injected product is always proportional to the volume of water passing through the Dosatron, regardless of variations in flow or pressure in the water supply line.



MOTOR SECTION



DOSING PART



# Installation

## PRECAUTIONS

### 1-GENERAL POINTS

- When connecting a DOSATRON either to the public water supply line or to its own water source, it is essential to adhere to the standards concerning protection and disconnection. DOSATRON recommends a disconnecter to prevent contamination of the water supply.
  - When connecting the DOSATRON to the water supply line, ensure that the water flows in the direction of the arrows shown on your appliance.
  - In the case where upstream or downstream water circuits are higher than the Dosatron, there is a possible risk of water and concentrate flowing backwards. Installing a non-return valve downstream from the appliance is therefore recommended.
  - Placing 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 aggressive product. Move the can away and protect it from possible product fumes with a cover.
  - Store the DOSATRON away from excessive heat sources and in winter away from frost.
  - Do not install the DOSATRON on the water pump suction circuit (risk of siphoning).
- It is the responsibility of the user to replace the dosing part seals annually to ensure accurate dosing.
  - The adjustment of the Dosatron's dosing is the sole responsibility of the user. The user must adhere strictly to the recommendations of the manufacturer of the chemicals.

### WARNING

**When installing, operating, and maintaining the DOSATRON water-powered dosing pump, as a priority observe the safety instructions. Use suitable tools, protective clothing, and safety glasses when working on the equipment and install it with a view to ensuring risk-free operation.**

**Follow the instructions in this manual and take safety measures appropriate to the nature of the suctioned liquid and the water temperature. Be extremely careful in the presence of hazardous substances (corrosives, toxic substances, solvents, acids, caustics, flammable substances, etc.).**

## PRECAUTIONS (cont...)

- For dosing these substances, please consult your distributor before use to confirm compatibility with the dosing pump.

**⚠ IMPORTANT! The personnel in charge of the installation, use and maintenance of this equipment must have perfect knowledge of the content of this manual.**

the content of this manual.

- Ensure that the water flow and pressure of the installation are compliant with the DOSATRON characteristics.

- Adjustment of the dosing must be made unpressurised. Turn off the water supply and allow the pressure to drop to zero.

- It is the sole responsibility of the user to select the DOSATRON adjustments to obtain the desired dosing.

- An airtightness problem, an impurity or a chemical attack on the seal can interrupt the dosing operation. Periodic checking that the concentrate to be dosed is being correctly drawn into the DOSATRON is recommended.

- Change the DOSATRON suction hose as soon as it seems damaged by the concentrate being dosed.

- Release the pressure after use (advised).

- Rinsing of the DOSATRON is essential:

- whenever the product is changed
- before handling the DOSATRON, to avoid any contact with aggressive

products.

- All assembly and tightening should be done manually without tools (outside tightening torque recommendations).

### 2-WATER WITH HIGH PARTICLE CONTENT

- If the water has a high abrasive particle content which could cause premature wear of the Dosatron, it is essential to install an upstream filter (e.g. 120 mesh - 130 microns or finer).

### 3-WATER-HAMMER/OVERFLOW

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

- For automated installations, it is preferable to use slow opening and slow closing solenoid valves.

- In the case where a DOSATRON serves several sectors, activate the solenoid valves simultaneously (closure of one sector and opening of another sector at the same time).

### 4-INSTALLATION LOCATION

- The DOSATRON and the product to be dosed should be accessible.

- Their installation must under no circumstances present a pollution or contamination risk.

- It is recommended that all water pipes are marked showing that the water contains additives and with the wording: "CAUTION! Non-potable water".

## **5-MAINTENANCE**

- After use, the aspiration of clear water is recommended.
- Annual maintenance will optimise the life of your DOSATRON. Annually replace the dosing part seals and the product suction hose.

## **6-SERVICE**

- This DOSATRON was tested prior to packaging.
- Repair sub-assemblies and sachets of seals are available.
- Do not hesitate to call your distributor or DOSATRON for any after-sales services.

# INSTALLATION OF THE DOSATRON

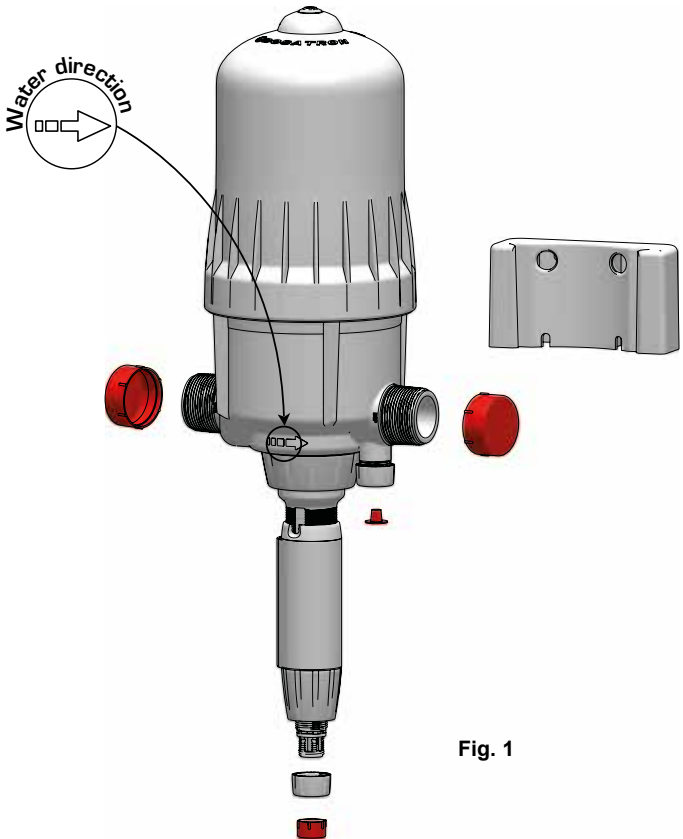


Fig. 1

## THE INSTALLATION ASSEMBLY SHOULD BE CARRIED OUT WITHOUT TOOLS

The DOSATRON is delivered with:

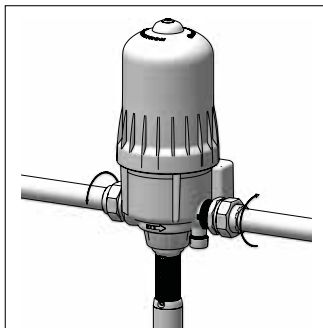
- a mounting bracket,
- a suction hose with a strainer.

The bracket enables the DOSATRON to be mounted on a wall.

Engage the DOSATRON dovetails into the mounting bracket.

Remove the protective caps which block the openings in your DOSATRON, before connecting it to the water supply line. (Fig. 1)

## RECOMMENDATIONS



**Tightening torque 30 N.m**  
**i.e. 3 kg.m**  
(reminder: 1 N.m = 0.1 DaN.m)

The DOSATRON can be connected to the water supply line by means of 40 mm interior diameter flexible pipes fixed with swivel fittings 1 1/2" [Ø 40 x 49 mm]. Ensure that the water flows in the direction of the arrows (water direction) on the appliance.

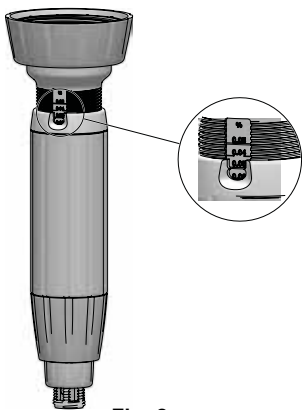
Whenever possible, install the Dosatron high enough for easy reading and adjusting of the dosing on the graduated scale in % or ratio.



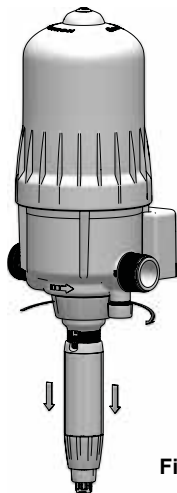
## CHANGING THE DOSING SCALE

The DOSATRON dosing rate can be adjusted according to two scales: percentages and ratios. These scales are positioned on either side of the dosing part (**Fig. 2**).

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

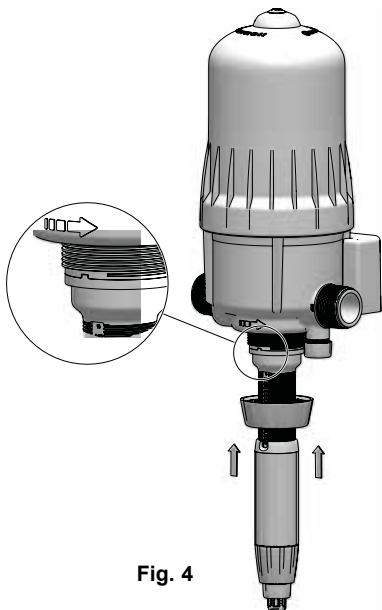


**Fig. 2**



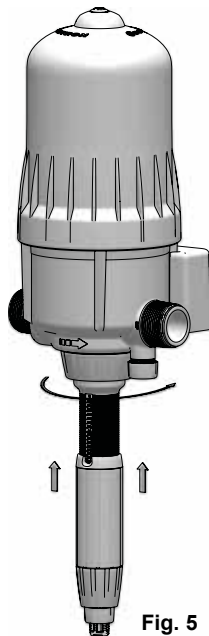
**Fig. 3**

- Unscrew the fixing nut on the dosing part by hand to release it by pulling downwards and rotating half a turn to see the correct dosing adjustment scale (**Fig. 3**).



**Fig. 4**

- If necessary, to see the pins better, unscrew the dosing adjustment sleeve as far as the middle of its travel. (Fig. 4)



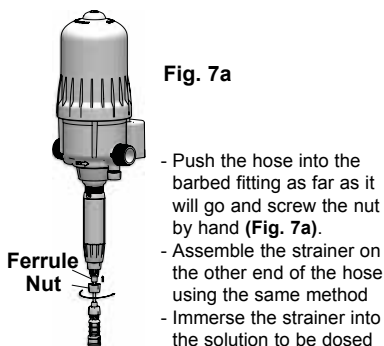
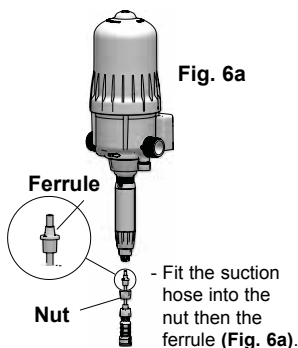
**Fig. 5**

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

## CONNECTING THE SUCTION HOSE D40MZ3000 MODEL

The DOSATRON is delivered with a suction hose (to be adjusted as necessary) enabling its use with a large capacity container. This hose must be fitted with the strainer and ballast.

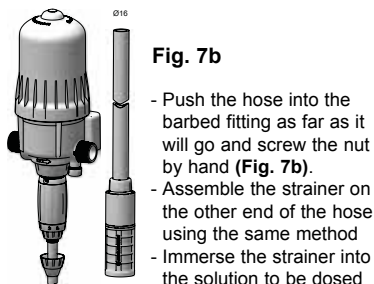
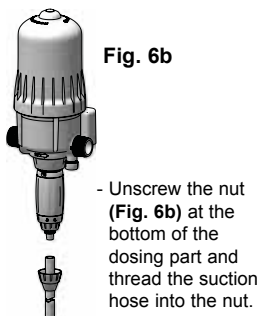
NOTE: The maximum suction height is 4 metres [13 ft].



## CONNECTING THE SUCTION HOSE D40MZ2/5 MODEL

The DOSATRON is delivered with a suction hose (to be adjusted as necessary) enabling its use with a large capacity container. This hose must be fitted with the strainer and ballast.

NOTE: The maximum suction height is 4 metres [13 ft].



## INSTALLATION TIPS

The DOSATRON must be assembled in by-pass as shown below (Fig. 8). For installations using header tanks, make sure the minimum water pressure is available for correct operation of the Dosatron (the lowest water level height in relation to the drinking troughs).

If your flow is above DOSATRON limits, see the § OVERFLOW. To prolong the service life of the DOSATRON, it is advisable to fit an upstream filter (e.g. 300 microns - 60 mesh depending on your water quality). This precaution is essential if the water contains impurities or particles, especially if the water comes from a well or it is surface water.

**The filter is recommended and necessary for the warranty to be valid.**

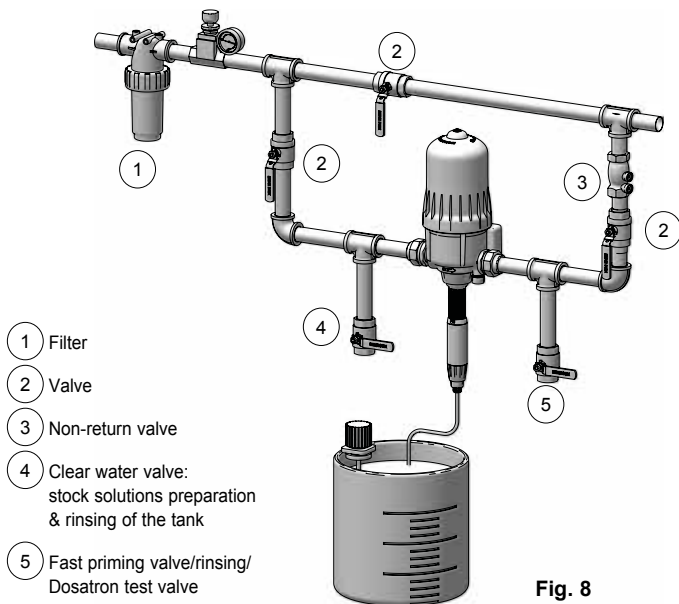


Fig. 8

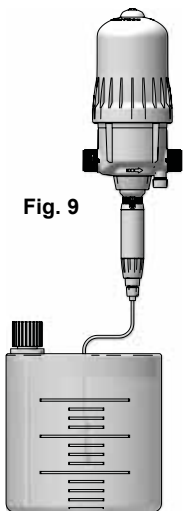
## INSTALLATION TIPS (continued)

For any installation on the drinking water supply line, respect the standards and regulations in force in the country.

### OVERFLOW (as an indication)

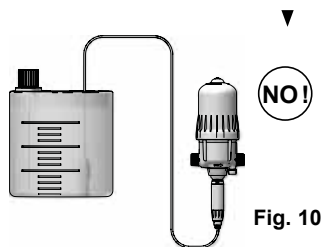
If your DOSATRON clacks more than **44 times in 15 seconds**, (i.e. 22 cycles) you are at the upper flow capacity limit. Beyond this select a DOSATRON with a higher water flow capacity.

**IMPORTANT!** Leave the strainer about 4" [10 cm] from the bottom of the container of solution in order to prevent insoluble particles from being aspirated. They may damage the dosing pump body. The strainer must not rest on the bottom of the container.



### ◀ WHAT YOU SHOULD DO

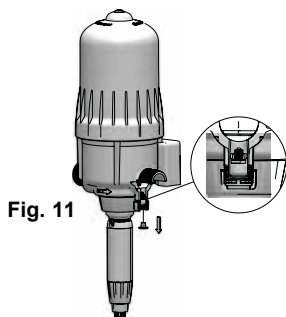
### WHAT YOU MUST NOT DO



Under no circumstances should the solution level be above the water inlet on the DOSATRON (to prevent any siphoning) (Fig.10).

## AUTOMATIC DEVICE TO PREVENT SIPHONING OF THE PRODUCT

- It restores atmospheric pressure in the installation automatically if there is accidental depressurisation\* (Fig. 11).
- To put it into service, remove the red wrapper.



\*example: case where the dosing pump outlet is lower than the inlet

# Putting the DOSATRON into service

## PUTTING INTO SERVICE FOR THE FIRST TIME

- Partially open the water inlet.
- Press the bleed button on the top cap.
- When a constant flow of water is seen coming from around the bleed button (no “spitting” of air), release the button.
- Slowly open the Dosatron By-pass valves and close the main valve
- Slowly open the fast priming valve situated downstream of the Dosatron.
- Operate the DOSATRON until the product to be dosed rises in the dosing part (the product is visible through the plastic hose), then close the fast priming valve.
- The DOSATRON makes a characteristic “click-clack” noise when working.

**NOTE:** The time required to prime the dosed solution depends on the flow, the dosing adjustment and the length of the product suction hose.

To accelerate priming, set dosing to maximum.

Once priming has been carried out, drop the pressure to zero and adjust the dosing to the desired value (see § ADJUSTING THE DOSING).

## USE

The device is designed to operate with fluids the temperature of which must not exceed 104°F [40°C] (engine fluid, additive, mixture engine fluid/additive). If the installation is subject to operating at temperatures lower than 41°F [5°C], protect the installation from frost (see precautions in the instructions). The dosing pumps are designed for use at up to 116 psi (8 bars). The installation must be protected against any overpressure risk. The installation must also be sized to avoid any hydraulic oscillatory phenomenon (water hammer). If necessary, a water hammer protection device should be fitted.

## ADJUSTING THE DOSING (unpressurised)

**IMPORTANT!** Do not use tools

Dosing adjustment must be carried out unpressurised

- Turn off the water inlet and allow the pressure to drop to zero.
- Unscrew the dosing locking nut (**Fig. 12**).
- Screw or unscrew the dosing adjustment sleeve so that the 2 display eyelet dots are facing the desired dosing marker (**Fig. 13**).
- Retighten the dosing locking nut (**Fig. 14**).

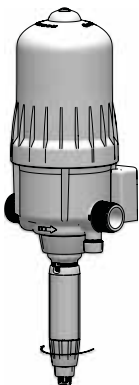


Fig. 12

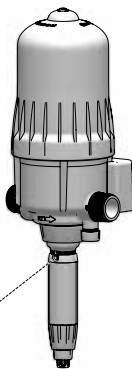
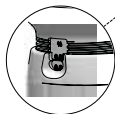


Fig. 13

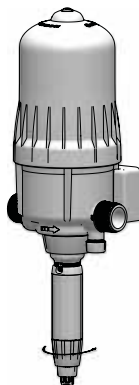


Fig. 14



## DOSING PRINCIPLE

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

## BY-PASS OPTION

The DOSATRON may be fitted in its upper part with the function by-pass (optional equipment) :

- By-pass in ON, the DOSATRON works and the concentrate is drawn up.
- By-pass in OFF, the DOSATRON is stopped and does not draw up the product.

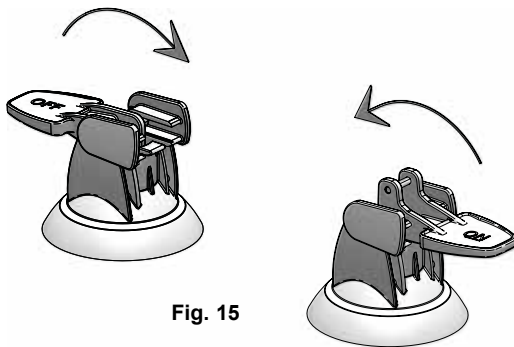
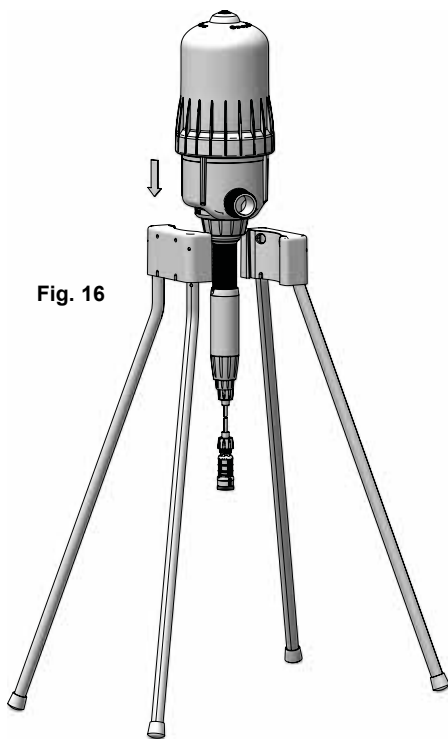


Fig. 15

## FEET OPTIONS

If necessary, or if a wall installation is impossible, the D9 series Dosatron may be installed on feet using Kit 8EQ001 (**Fig.16**) :

- Insert each foot in the corresponding holes on the bracket supplied with the dosing pump and the bracket included in the kit
- Secure each foot using the 4 screws supplied.
- Engage the DOSATRON dovetails into each bracket fitted with 2 feet.



**Fig. 16**

# Maintenance

Before any maintenance on the DOSATRON, it is essential to refer to the § PRECAUTIONS.

## RECOMMENDATIONS

1 - When using soluble products dissolved in stock solutions, contact manufacturers/distributors to verify the real solubility level of oral powders. It is preferable to use a Dosatron with a high dosing rate to guarantee a sufficient pre-dilution rate for powders. After use, routinely rinse the dosing pump by injecting clear water. Open the rinsing/ fast priming valve situated downstream of the Dosatron for a high-flow energetic rinsing/ cleaning. Consider removing the suction valve located at the bottom of the dosing part and rinsing it occasionally (refer to: § CLEANING THE SUCTION VALVE) in order to prevent possible leaks and backflows in the tank due to clogging of the valve. When refitting the dosing part, lubricate the located seal beforehand with a silicone grease (Fig. 17).

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

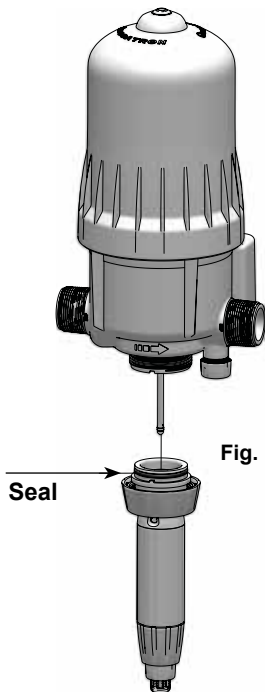
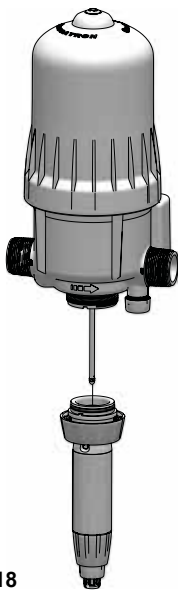


Fig. 17

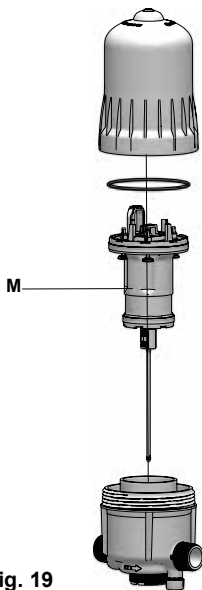
## **DRAINING THE DOSATRON (in the context of keeping it frost-free)**

For complete maintenance of the DOSATRON, or to protect it from frost, draining may be necessary.

- Turn off the water inlet and allow the pressure to drop to zero.
- Remove the dosing part (**Fig.18**) (§ DISMANTLING/REFITTING THE DOSING PART).
- Unscrew the top and take out the motor (**Fig.19**)
- Disconnect the connections at the water inlet and outlet.
- Empty the main body after having removed it from the mounting bracket.
- Refit, having first cleaned the motor cover seal.



**Fig. 18**



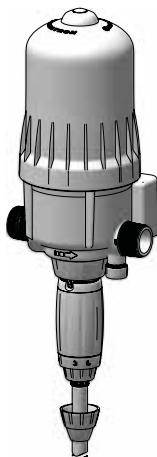
**Fig. 19**

## DISMANTLING THE SUCTION HOSE

Before any maintenance on the DOSATRON, it is essential to refer to the § PRECAUTIONS. Before dismantling, and to avoid any contact with the dosed products, operate the DOSATRON by aspirating clear water to rinse the hose and the dosing part.

- Unscrew the nut at the bottom of the dosing part (**Fig. 20**)
- Pull downwards to remove the hose from the suction valve head.
- Reassemble in the reverse order. If necessary, consult § CONNECTING THE SUCTION HOSE.

**Fig. 20**



## DISMANTLING/REFITTING THE DOSING PART

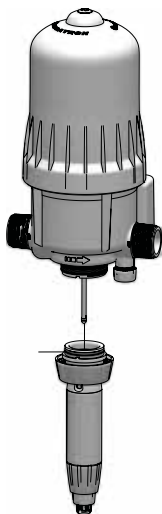


Fig. 21

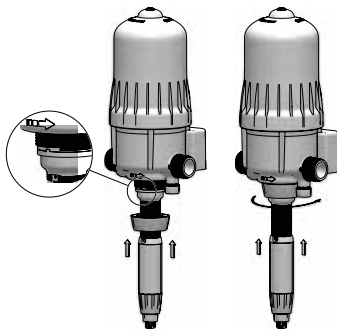


Fig. 22

Before any maintenance on the DOSATRON, it is essential to refer to the § PRECAUTIONS. Before dismantling, and to avoid any contact with the products dosed, operate the DOSATRON by aspirating clear water to rinse the dosing part.

- Turn off the water inlet 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 part
- Pull downwards to remove the dosing part (Fig. 21).

- Before refitting, position the dosing part depending on the desired scale (percentage or ratio)
- Insert the dosing body into the pump body taking care to align the centring pins (Fig. 22). If necessary, to see the pins better, unscrew the dosing adjustment sleeve as far as the middle of its travel.
- Manually retighten the fixing nut on the dosing part

## CHANGING THE DOSING PART SEALS D40MZ3000 MODEL

Frequency: at least once per year.

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

For dismantling the dosing part, follow the instructions in the §  
DISMANTLING/REFITTING THE DOSING PART.

**IMPORTANT!** Do not use tools or metal utensils.

Replace the suction valve (**Fig 23a**):

- Unscrew the suction valve locking nut
- Release the suction valve by pulling it into the axis of the dosing part  
(The suction valve is made up of two parts: barbed fitting + valve)

Replace the O-ring of the dosing pump body :

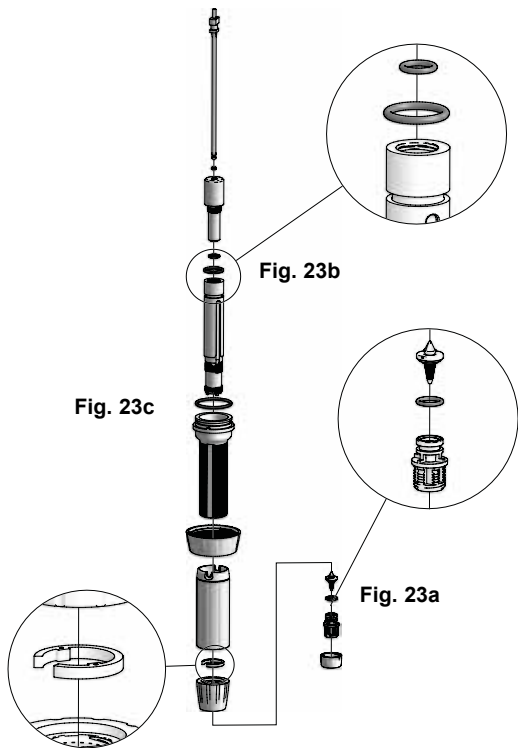
- Retighten the dosing locking nut completely
- Release the snap ring by spreading the ears.
- Extract the dosing pump body by pushing it through the dosing body
- Unscrew the upper part of the dosing pump body
- Take out the O-ring from the lower part of the dosing pump body and replace it (**Fig. 23b**).
- Hand screw the upper part of the dosing pump body back on tightly.
- Between finger and thumb, pinch the component and the seal; push it towards the other side to distort the seal.
- Increase the distortion to grip the part of the seal which overlaps and then pull it out of its groove (**Fig. 23b**).
- Refit the dosing pump body in the dosing body using the centring pins (**Fig. 23e**)
- Refit the snap ring so that it is positioned in the groove provided for this. (**Fig 23f**).
- Retighten the dosing locking nut completely.
- Finish by refitting the suction valve (ensure it is fitted the right way up) and its locking nut.

Replace the dosing body O-ring (**Fig.23c**):

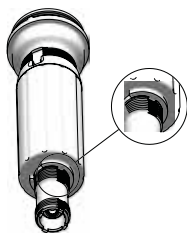
- Apply the method explained above.

Replace the O-ring of the dosing piston (**Fig 23d**):

- Using a 6mm spanner, turn the plunger piston by a quarter turn to release it from the motor.
- Fit the new plunger piston along with its O-ring into it place on the motor and tighten with a quarter turn using a 6mm spanner.



**Fig. 23d**



**Fig. 23e**



**Fig. 23f**



## CHANGING THE DOSING PART SEALS D40MZZ/5 MODEL

Frequency: at least once per year.

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

For dismantling the dosing part, follow the instructions in the §  
DISMANTLING/REFITTING THE DOSING PART.

**IMPORTANT!** Do not use tools or metal utensils.

Replace the suction valve (**Fig 24a**):

- Unscrew the suction valve locking nut
- Release the suction valve by pulling it into the axis of the dosing part

Replace the O-ring of the dosing pump body :

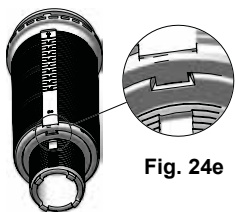
- Retighten the dosing locking nut completely
- Release the snap ring by spreading the ears.
- Extract the dosing pump body by pushing it through the dosing body
- Between finger and thumb, pinch the component and the seal; push it towards the other side to distort the seal.
- Increase the distortion to grip the part of the seal which overlaps and then pull it out of its groove (**Fig. 24b**).
- Refit the dosing pump body in the dosing body using the centring pins (**Fig. 24e**)
- Refit the snap ring so that it is positioned in the groove provided for this. (**Fig 24f**).
- Retighten the dosing locking nut completely.
- Finish by refitting the suction valve and its locking nut.

Replace the dosing body O-ring (**Fig.24c**):

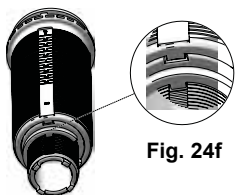
- Apply the method explained above.

Replace the O-ring of the dosing piston (**Fig 24d**):

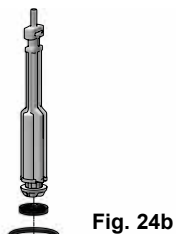
- Using a 6mm spanner, turn the plunger piston by a quarter turn to release it from the motor.
- Fit the new plunger piston along with its O-ring into its place on the motor and tighten with a quarter turn using a 6mm spanner.



**Fig. 24e**



**Fig. 24f**



**Fig. 24b**

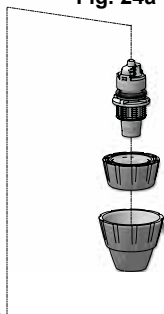


**Fig. 24c**

**Fig. 24d**



**Fig. 24a**



## DISMANTLING/REFITTING THE DOSING PISTON D40MZ3000 MODEL

Before any maintenance on the DOSATRON, it is essential to refer to the § PRECAUTIONS.

Before dismantling, and to avoid any contact with the products dosed, operate the DOSATRON by aspirating clear water to rinse the dosing part.

- Turn off the water inlet and allow the pressure to drop to zero.
- For dismantling the dosing part, follow the instructions in the § DISMANTLING/REFITTING THE DOSING PART.
- Using a 6mm spanner, turn the dosing piston through a quarter turn anticlockwise to unlock it and release it from the piston motor. **(Fig.25)**
- Refit in the reverse order.

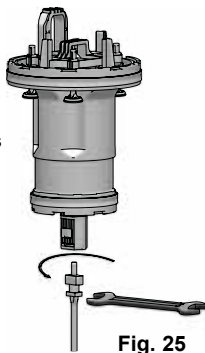


Fig. 25

## DISMANTLING/REFITTING THE DOSING PISTON D40MZ2/5 MODEL

Before any maintenance on the DOSATRON, it is essential to refer to the § PRECAUTIONS.

Before dismantling, and to avoid any contact with the products dosed, operate the DOSATRON by aspirating clear water to rinse the dosing part.

- Turn off the water inlet and allow the pressure to drop to zero.
- For dismantling the dosing part, follow the instructions in the § DISMANTLING/REFITTING THE DOSING PART.
- Turn the dosing piston through a quarter turn anticlockwise to unlock it and release it from the piston motor. **(Fig.26)**
- Refit in the reverse order.

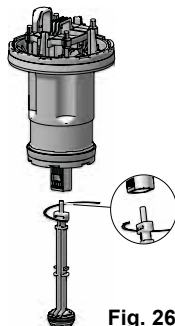


Fig. 26

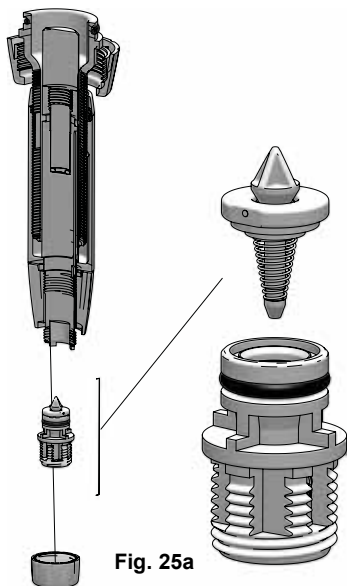
## CLEANING AND REFITTING THE SUCTION VALVE

Before any maintenance on the DOSATRON, it is essential to refer to the § PRECAUTIONS.

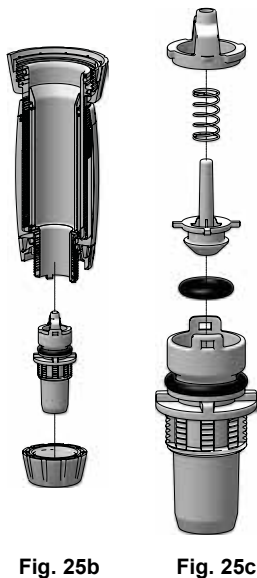
Before dismantling, and to avoid any contact with the products dosed, operate the DOSATRON by aspirating clear water to rinse the dosing part.

- Turn off the water inlet and allow the pressure to drop to zero.
- Remove the suction hose (see § DISMANTLING THE SUCTION HOSE)
- Unscrew the suction valve locking nut (Fig. 25a, b, c)
- Release the suction valve by pulling it into the axis of the dosing part
- Thoroughly rinse the various parts of the valve using clear water.
- Refit following the order and position in the diagram

D40MZ3000



D40MZ2 / D40MZ5



## CHANGING THE MOTOR PISTON (unpressurised)

Before any maintenance on the DOSATRON, it is essential to refer to the § PRECAUTIONS.

Before dismantling, and to avoid any contact with the products dosed, operate the DOSATRON by aspirating clear water to rinse the dosing part.

- Turn off the water inlet 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 upwards.
- Change and refit the assembly in the reverse order to dismantling.
- Refit the cover taking care not to damage its seal and screw it manually.



**Fig. 27**



# Troubleshooting

SYMPTOM	CAUSE	SOLUTION
<b>Motor piston</b>		
DOSATRON does not start or stops.	Motor piston blocked.	Restart the motor piston by hand.
	Presence of air in the DOSATRON.	Bleed air by purging.
	Overflow.	1. Reduce flow, restart. 2. Check there are motor valve seals.
	Motor piston is broken.	Return the DOSATRON to your distributor.
<b>Dosing</b>		
Water flowing back into the product tank.	Suction valve or valve seal dirty, worn or absent.	To be cleaned or replaced.
No suction of product.	The motor piston has stopped working.	See <b>Troubleshooting Motor piston</b> .
	Air tightness problem in the suction hose.	Check the suction hose and the tightening of its nuts.
	Suction hose obstructed or strainer blocked.	Clean or replace them.
	Suction valve seal worn, wrongly fitted or clogged.	Clean it or replace it.
	Plunger seal wrongly fitted, clogged or swollen.	Clean it or replace it.
	Dosing pump body scratched.	Replace it.

<b>SYMPTOM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
<b>Dosing</b>		
Under-dosing	Airtightness problem.	<ol style="list-style-type: none"> <li>1. Check the tightness of the dosing part nuts.</li> <li>2. Check the condition of the suction hose.</li> </ol>
	Suction valve seal worn or dirty.	Clean it or replace it.
	Overflow (cavitation)	Reduce flow
	Plunger seal worn	Replace it
	Dosing pump body scratched	Replace it
<b>Leaks</b>		
Leaks close to the fixing nut under the pump body.	Dosing body seal damaged, wrongly positioned or absent.	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 absent.	Position it correctly or replace it.
Leaks between the body and the top.	Top seal damaged, fitted incorrectly or absent	Position it correctly, clean the seal groove or replace it.

**DOSATRON INTERNATIONAL  
DECLINES ALL RESPONSIBILITY IN THE EVENT  
OF USE THAT IS NOT COMPLIANT WITH THE  
INSTRUCTIONS FOR USE.**



# Limited Warranty

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

To obtain the replacement under the warranty, the appliance or spare part must be returned with proof of initial purchase to the manufacturer or authorized distributor.

It may be recognised as defective after examination by the technical services of the manufacturer or distributor.

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

The purpose of operations carried out under the warranty may not be to extend the lifetime.

This warranty applies only to manufacturing defects.

This warranty does not cover defects found to be due to abnormal installation of the appliance, inappropriate use of tools, lack of maintenance or defective

installation or environmental accidents or corrosion by foreign bodies and liquids found within or in proximity to the appliance.

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

The seals (wearing parts) are not covered under warranty, nor is damage caused by water impurities such as sand.

A filter (e.g. 120 mesh - 130 microns depending on your water quality) must be installed upstream of the appliance to be valid.

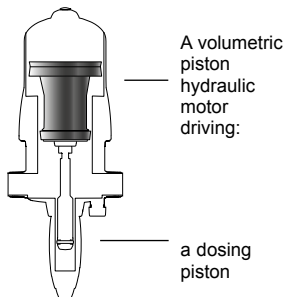
DOSATRON INTERNATIONAL S.A.S. declines any responsibility if the appliance is not used in compliance with the recommendations and tolerances in the owner's manual.

There is no explicit or implicit guarantee relating to other products or accessories used with DOSATRON INTERNATIONAL S.A.S appliances.

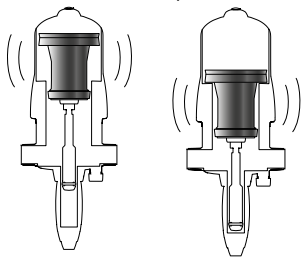
## KNOW YOUR FLOW

### A SIMPLE METHOD

THE DOSATRON IS COMPOSED OF:



In its backwards and forwards movement, the motor piston clacks:



2 clacks = 1 motor cycle  
cycle = 1 motor capacity



Once in the top position

Once in the bottom position

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

#### ■ Calculation of water flow in litres/hour =

$$\frac{\text{Number of clacks in 15 seconds} \times 4 \times 60 \times 1.7}{2}$$

*Calculation for 1 minute* (pointing to 4)  
*Calculation for 1 hour* (pointing to 60)  
*Motor capacity in litres* (pointing to 1.7)  
*2 clacks = 1 cycle* (pointing to 2)

#### ■ Calculation of water flow in gallons/minute =

$$\frac{\text{Number of clacks in 15 seconds} \times 4 \times 1.7 \times 3.8}{2}$$

*Calculation for 1 minute* (pointing to 4)  
*Motor capacity in litres* (pointing to 1.7)  
*Conversion litres to gallons* (pointing to 3.8)  
*2 clacks = 1 cycle* (pointing to 2)

**NOTE :** This method of calculation cannot replace a flow meter. It is given only as an approximate guide.





# Annexes

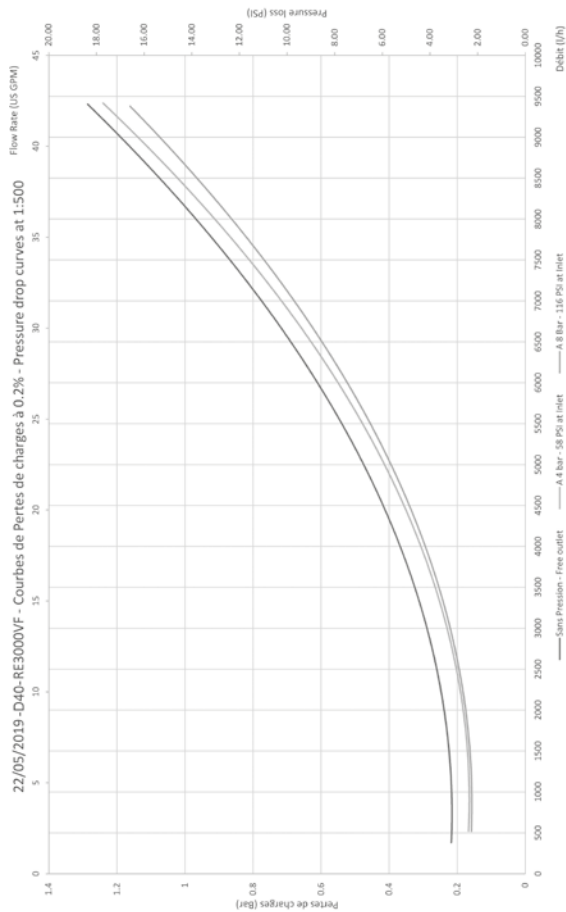
## Curves

8  
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# Pressure losses

D40MZ3000

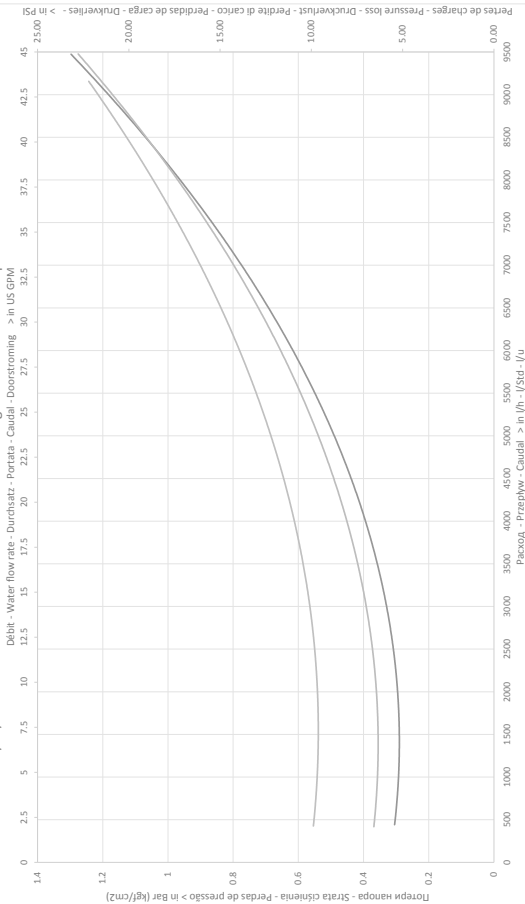


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# D40MZ2

## 11/12/2018 -D40-0.2 - 2% - Courbes de Pertes de charges à 2% - Pressure drop curves at 1:50

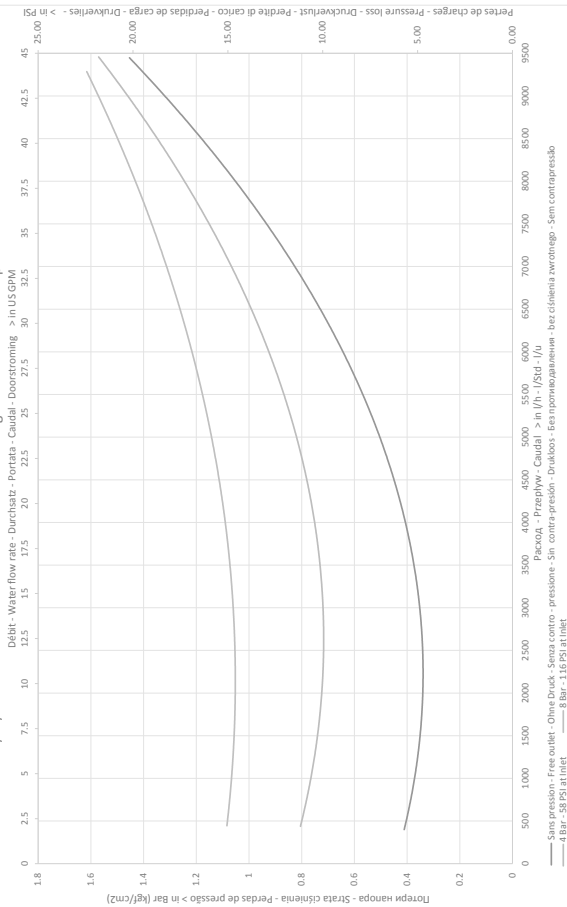


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# D40MZ5

## 13/12/2018-D40-1 - 5% - Courbes de Pertes de charges à 5% - Pressure drop curves at 1:20



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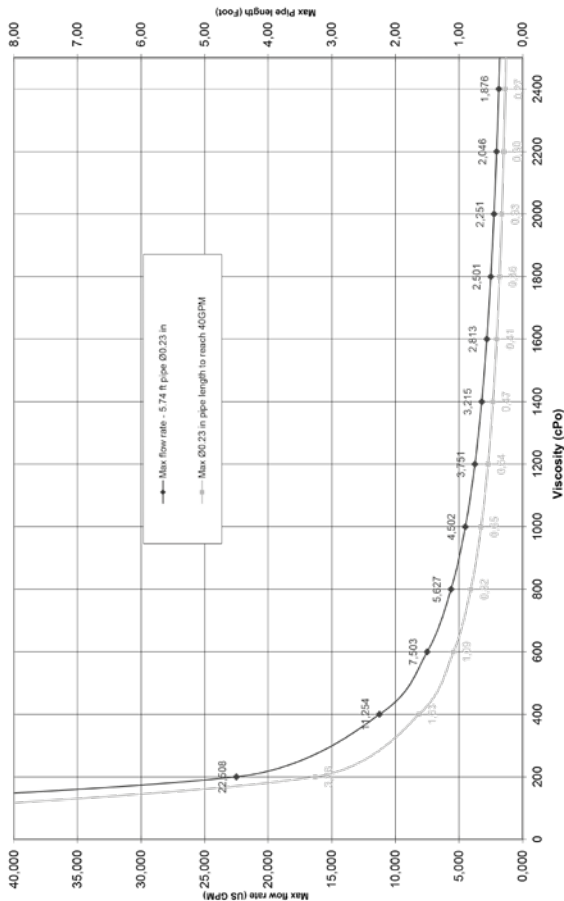
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# Viscosity limit

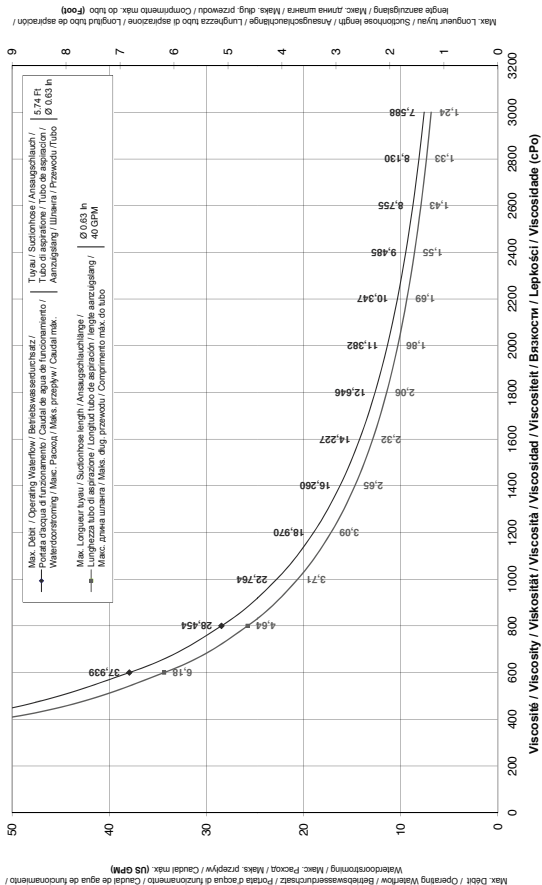
## D40MZ3000

Viscosity limits- D40MZ3000 - Inner diameter pipe  $\varnothing$  0.23 in



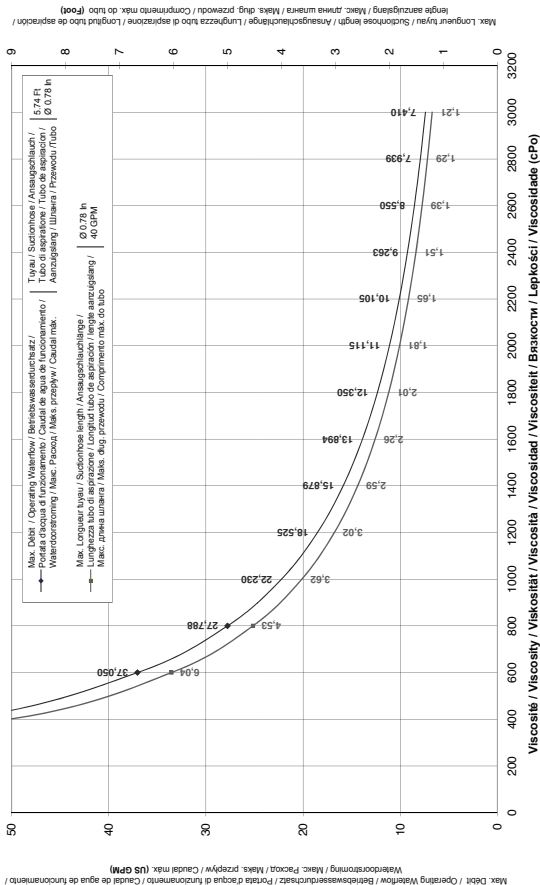


## Limits viscosity / Viscosity curves - D40 - 0.2 - 2% (Tuyau / Suctionhose / Ansaugschlauch / Tubo di aspirazione / Aanzugslang / Шланга / Przewodu / Tubo)



# D40MZ5

## Limites viscosité / Viscosity curves - D40 - 1 - 5% (Tuyau / Suctionhose / Ansaugschlauch / Tubo de aspiración / Aanzuigslang / Шланга / Przewodu / Tubo) Ø 0,78 in





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**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).**