



# DOSATRON®

WATER POWERED DOSING TECHNOLOGY

# HU1 system

## Hygiene Unit HU1

D 25 F  
D 25 F 1  
D 25 F 0.2  
D 25 F 2  
D 25 RE 1500  
D 25 RE 09  
D 25 RE 2  
D 25 RE 5  
D 25 RE 10

owner's manual

EN





# DOSATRON®

*WATER POWERED DOSING TECHNOLOGY*

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You have just become the owner of a HU1 Hygiene Unit, equipped with a DOSATRON proportional dosing pump and we congratulate you on your choice. The development of this model is the result of over 30 years experience. Our engineers have placed the DOSATRON series at the forefront of technical development in the field of non-electric proportional dosing pumps. The choice of materials used in manufacture was most meticulous in order to resist chemical attack from the great majority of injectable products on the market. This DOSATRON will, as time goes by, prove itself to be a most faithful ally. A little care and attention, regularly spent, will guarantee you an operation in which the word breakdown has no place.

This manual is a common part concerning all HU1 Hygiene Units. For instructions of use and maintenance of the Dosatron, please refer to the owner's manual of the corresponding dosing pump which is also enclosed to this parcel.

**PLEASE, THEREFORE, READ THIS MANUAL CAREFULLY  
BEFORE PUTTING THE DOSATRON INTO OPERATION.**

### **Important !**

The complete model reference and the serial number of your HU1 DOSATRON is stamped **on the pump body**. Please record this number in the space below and refer to it when you call your distributor for information, parts, and service.

**Ref. #** .....

**Serial #** .....

**Purchase Date** .....

.....

## SPECIFICATIONS

HU1 equipped with dosing pumps from the D25 range	D 25 F / D 25 F 1	D 25 F 0.2	D 25 F 2
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Water flow range\*: .....

Operating pressure: 1 - 6 bar [14.5 - 85 PSI] depending on model

Externally adjustable injection rate or fixed:

%	0.8 / 1	0.2	2
ratio mini	1:128 / 1:100	1: 500	1:50
ratio maxi			

Maximum operating water temperature: 104 ° F [40 ° C]

Inlet/outlet Connections: 1/2" M: BSP Ø 15 x 21 mm

**ATTENTION ! The DOSATRON is not preset,**

## UNIT SIZE

Diameter: 7" 15/16 [20,2 cm]

Total height: 19" 1/4 [48,9 cm]

Width: 20" 7/16 [51,9 cm]

PARCEL DIMENSIONS: 59 x 55 x 20 cm

Weight: 7 kg

D 25 RE 1500	D 25 RE 09	D 25 RE 2	D 25 RE 5	D 25 RE 10
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4.4 - 9 US GPM [100 l/h mini - 2 m<sup>3</sup> maxi]

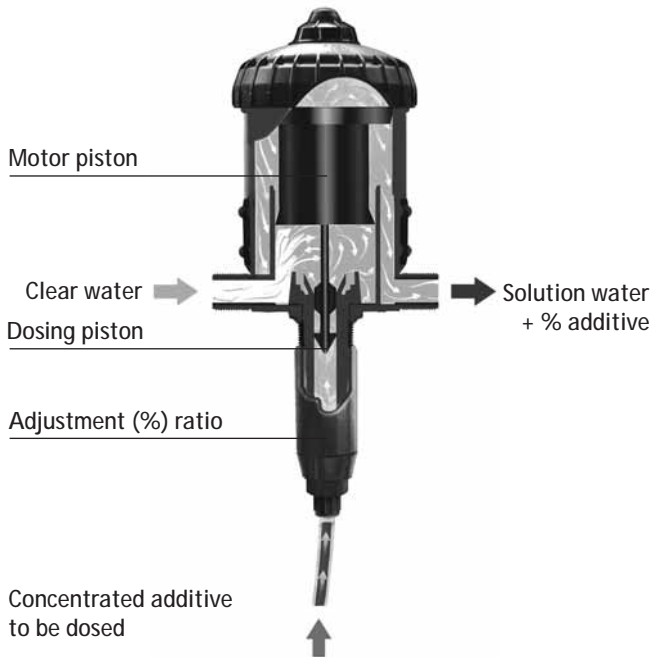
0.07 - 0.2	0.1 - 0.9	0.2 - 2	1 - 5	3 - 10
1:1500	1:1000	1:500	1:100	1:33
1:500	1:112	1:50	1:20	1:10

see chapter **ADJUSTING THE INJECTION RATE.**

PARCEL CONTENTS : 1 non-electric proportional Dosatron / 1 ABS wall case / 1 shut-off valve / 1 anti-pollution disconnection, BA type (NORM EN 1717) / 1 stainless steel support for 2 drums of 5 litres or 1 drum of 10 litres / 1 transparent suction hose [L. 175 cm (69")- Ø 6 X 9 mm (1/4" id x 3/8" od)/ 1 using and maintenance manual / 1 protection cap for drum / 1 filling kit composed of hose [180 cm (70") + anti-drop nozzle

# Precise, simple and reliable

Installed directly in the water supply line, the Dosatron operates by using the flow of water as the power source. The water activates the Dosatron, which takes up the required percentage of concentrate directly from the container and injects it into the water. Inside the Dosatron, the concentrate is mixed with the water, and the water pressure forces the solution downstream. The dose of concentrate will be directly proportional to the volume of water entering the Dosatron, regardless of variations in flow or pressure, which may occur in the main line.



# Summary

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## PRECAUTIONS

### 1 - GENERALITES

Prior to each first use or new putting into service : The respect of hygiene protocols to which Dosatron's hygiene units will contribute, are under the sole responsibility of the user. Before each installation, Dosatron recommends to disinfect the hygiene unit and its environment, by strictly respecting the instructions for use and maintenance from the hygiene personnel and the manufacturer of the disinfectants.

- When connecting a DOSATRON either to the public water supply or to its own water source, you must respect the regulations in force concerning protection of the source i.e. backflow prevention, etc.

- When connecting the DOSATRON to the water supply, ensure that the water flows in the direction of the arrows on the unit.

- In a case where the downstream water installation is higher than the DOSATRON itself, there is a possible risk of water and concentrate flowing back through the DOSATRON. In this case, installing a check valve downstream is recommended.

- It is recommended that you should place an anti-siphon valve on the downstream side of the dosing pump in installations in which there is a risk of siphoning.

- Do not install the DOSATRON just above an acid container, (risk of acid fumes attacking the DOSATRON) and protect it from possible contact with corrosive products.

- Protect the DOSATRON from freezing temperatures by draining it and store it away from sources of excessive heat.

- Do not install the DOSATRON on the

suction side of the supply pump (risk of siphoning).

- **IMPORTANT !** Use no tool or metallic utensils.

- During any intervention the operator must stay in front of the DOSATRON and wear protective eyewear and gloves.

- It is the responsibility of the owner/operator to replace the injection seals annually to ensure precise injection.

- The setting of the Dosatron's dosing rate is the sole responsibility of the user. The user has to respect the recommendations given by the manufacturer of the chemical product.

- It is the responsibility of the owner/operator to check that the flow and pressure of the installation do not exceed the DOSATRON characteristics.

- Adjustment must be made when there is no pressure in the Dosatron. Turn off the water supply and allow the pressure to drop to zero.

- It is the responsibility of the owner/operator of the DOSATRON, to determine the correct amount of solution and injection ratio to obtain the desired result.

- An air inlet, an impurity or a chemical attack on a seal can interrupt the dosing function. It is recommended to periodically check that the solution is being correctly drawn up into the DOSATRON.

- Change the suction tube as soon as it seems damaged by the chemical.

- Relieve the pressure after use (advised).

- Rinsing of the DOSATRON is required :

- . when changing chemicals,

- . before handling the DOSATRON, to avoid any contact with the chemical.

## PRECAUTIONS (cont...)

### 1 - GENERAL REMARKS (cont...)

- Before applying any aggressive chemicals, please consult your distributor to confirm compatibility with the dosing pump.

- All assembly should be done without tools, hand tighten only.

### 2 - WATER WITH HIGH PARTICLE CONTENT

- A (ex.: 300 mesh - 60 microns depending on your water quality) water filter must be installed upstream from the DOSATRON (see accessories), if a filter is not installed abrasive substances will cause the DOSATRON to deteriorate prematurely.

### 3 - WATER-HAMMER / EXCESSIVE FLOW

- For installations subject to water hammer a protection device such as a check valve or union ball check must be fitted (pressure/flow control system).

- For automatic installations, slow opening and closing solenoid valves are preferable.

- In an installation where a DOSATRON serves several sectors, the closing of one sector and the opening of another sector must be done at the same time (simultaneous operation of the solenoid valves).

### 4 - INSTALLATION LOCATION

- The location of the DOSATRON and concentrate container should be accessible, but should never present a risk of pollution or contamination.

- It is recommended to label all water lines with a warning about the injected solution i.e. Not For Human Consumption.

### 5 - MAINTENANCE

- Rinse the injection areas after using the DOSATRON. To do this, insert suction tube into a container of clean water and inject about 1/4 liter [8 1/2 US Fl.oz].

- Routine maintenance once a year will add to the life of your DOSATRON. Replace the dosing seals as well as the suction tube annually to ensure proper injection.

### 6 - SERVICE

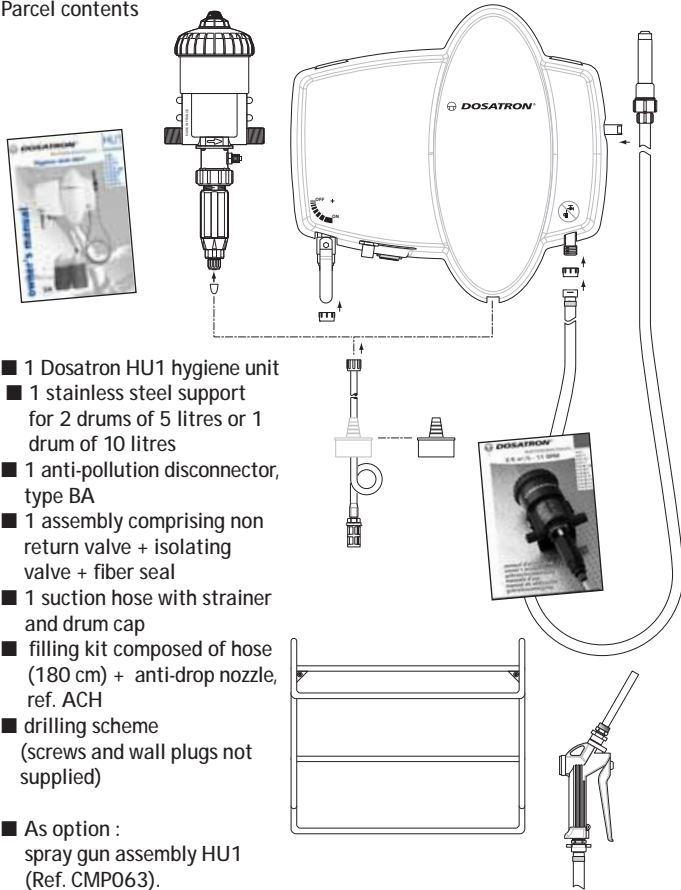
- This DOSATRON was tested prior to packaging.

- Complete maintenance and seal kits are available.

- Call your DOSATRON distributor for service or parts.

## SHIPPING CONTENTS

Parcel contents



- 1 Dosatron HU1 hygiene unit
- 1 stainless steel support for 2 drums of 5 litres or 1 drum of 10 litres
- 1 anti-pollution disconnecter, type BA
- 1 assembly comprising non return valve + isolating valve + fiber seal
- 1 suction hose with strainer and drum cap
- filling kit composed of hose (180 cm) + anti-drop nozzle, ref. ACH
- drilling scheme (screws and wall plugs not supplied)
- As option : spray gun assembly HU1 (Ref. CMO63).

## DISCONNEXION

All our HU1 hygiene units are delivered with a BA-disconnector.  
The user must respect the corresponding legislation in force.  
**Note:** with each closing of the isolating valve the disconnecter will also close and discharge a small quantity of water (approx. one table spoon).

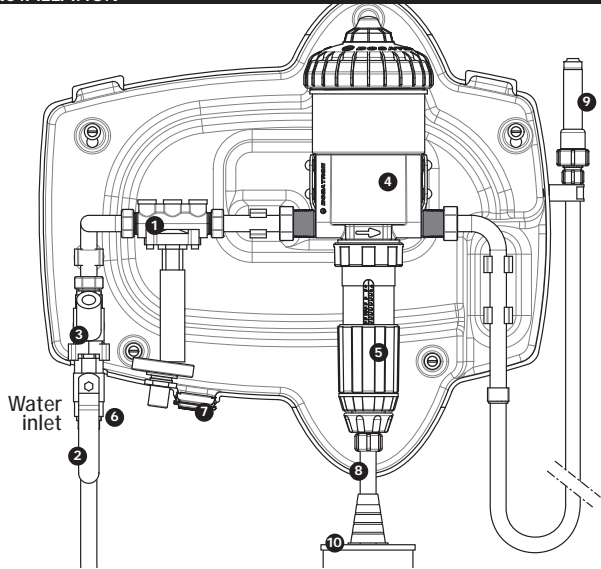
**Disconnecter type BA:** disconnecter with reduced pressure zones which can be monitored (compulsory annual control).

## ATS CERTIFICATION

Our HU1 hygiene units are ATS-labelled (French Technical Commission for Health matters), and are appropriated for connections to drinking water networks in France.



## INSTALLATION

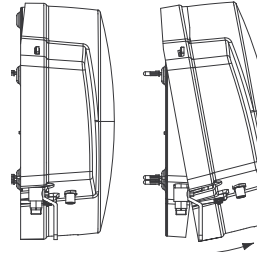


This system complies with highest protection standards .

- approved BA disconnecter in order to avoid any risk of product backflow into the public water network ①
- operating valve : 2 positions of the lever with 1 function each :  
Dosing (water + product) / Stop (stopping the system) ②
- non-return valve ③
- Dosatron water powered proportional dosing unit ④
- injection rate adjusting ring ⑤
- water supply, connection 1/2» male thread ⑥
- protection cover ⑦
- transparent suction hose for concentrate equipped with strainer / weight ⑧
- stainless steel support
- filling kit (ACH) ⑨
- protection cap for drum opening ⑩

## INSTALLATION (cont...)

### Instructions for wall fixing



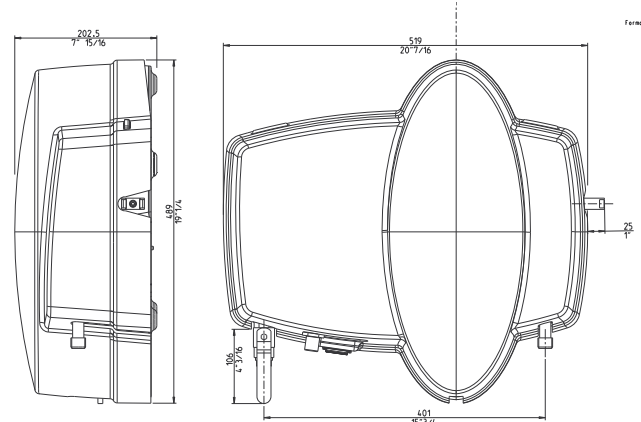
It is imperative to securely fix a pipe-collar onto the wall, as close as possible to the operating valve, in order to maintain the water supply.

Note : The concentrate drum can be positioned on the right or on the left of the hygiene unit, or even at some distance (4m max. [13 ft]).

- opening / closing of the cover
- connection of the suction hose (see page 15)

**For easier fixing : a drilling scheme is supplied with our hygiene unit.**

Make sure there is enough space for drum support and drum (or any other concentrate recipient) under the HU1.



## INSTALLATION (Cont...)

Take off the protection caps from the HU1's inlet and outlet (see page 10) before connecting to the water supply, then install the filling kit (ACH) or the spray gun assembly (CMPO63 delivered as an option).

The connection of the unit to the water network may be done with flexible hoses or rotary unions  $\varnothing 15 \times 21 \text{ mm}$  [1/2"]. Make sure the water is flowing through the Dosatron according to the direction of the arrow.

The Dosatron HU1 dosing unit is delivered with a suction hose (may be cut according to your needs) which is adapted to big recipients. This hose must imperatively be equipped with its drum cap, its strainer and weight. Concerning the connection of this hose, please refer to the corresponding chapter.

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

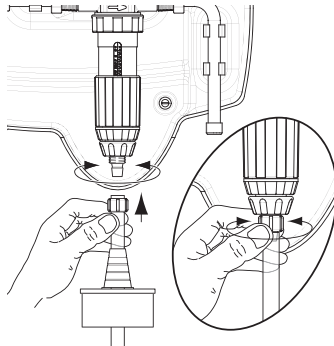
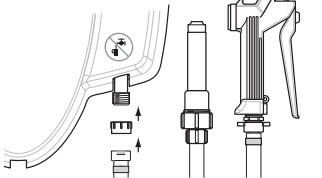
Connect the hose with strainer and weight and put it into the solution to be dosed.

Install the HU1 in a place protected from frost.

## CONNECTION THE SUCTION HOSE

If the connection is done on a DOSATRON which has already been used, imperatively refer to the chapter PRECAUTIONS.

- Unscrew the nut at the bottom of the injection part and slip the nut on the hose.
- Fit the drum cap.
- Push the hose as far as it will go onto the lower connection and fasten the nut by hand.



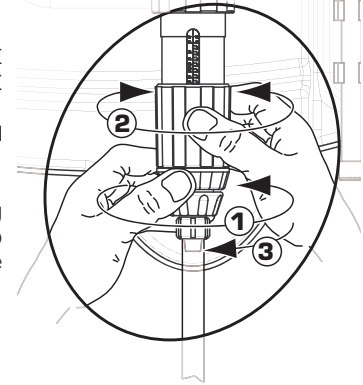
Connect the filling kit or the spray gun assembly (option).

## ADJUSTING THE INJECTION RATE (with pressure off) FOR THE ADJUSTABLE MODELS

**!** IMPORTANT ! Use no tools

**ADJUSTMENT MUST BE MADE WHEN THERE IS NO PRESSURE IN THE DOSATON.**

- Turn off the water supply and allow the pressure to drop to zero.
- Unscrew the blocking ring (1).
- Screw or unscrew the adjusting sleeve (2) so as to bring the top of the sleeve into line with the desired injection rate.
- Tighten the blocking ring(3).



## INTERNATIONAL CONVERSIONS

Principle : Setting at 1%  $1/100 = 1$  part of concentrate for 100 parts of water.

Ex. : Setting at 2%  $2/100 = 2$  parts of concentrate for 100 parts of water.

Ratio 1/50.



## USING FOR THE FIRST TIME

Prior to each first use or new putting into service:

The respect of hygiene protocols to which Dosatron's hygiene units will contribute, are under the sole responsibility of the user. Before each installation, Dosatron recommends to disinfect the hygiene unit and its environment, by strictly respecting the instructions for use and maintenance from the hygiene personnel and the manufacturer of the disinfectants.

## PERFORMANCE

Using for the first time

Immerse the suction hose with its strainer into the concentrate drum. The strainer must be on the very bottom in order to completely empty the drum (except if the product to be dosed has a deposit which could clog the strainer).

Place the protection cap on the drum opening. Connect the filling kit or the spray gun assembly.

2 positions of the lever with 1 function each:  
DOSING (water + product) > position ON  
STOP (stopping the system) > position OFF

Operate the unit by positioning the operating lever on position « ON » (open the spray gun if the HU1 connected to the spray gun assembly) until the product to be dosed has been sucked up and filled the injection part (visual control of the suction hose). The dosing unit is self-priming, you can hear the characteristic clicking of the motor when functioning.

To stop the unit, turn the lever to position « OFF ».

## MAINTENANCE

Before carrying out any maintenance operation, turn the operating valve to position «OFF». Close the water supply and let the pressure drop to zero.

**Never use metallic tools. All parts are assembled by hand. Never use excessive force.**

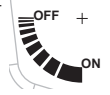
It is recommended to regularly rinse the dosing unit. Each time the concentrate drum is changed, we advise to put the suction hose and its strainer into a bucket of clear water and to operate the dosing unit for 5 to 6 minutes (position « ON »).

After rinsing, put the suction hose into the new drum and operate it until the product in the suction hose has reached the dosing unit. This rinsing procedure is absolutely necessary when the product type or brand is changed.

Before any intervention, rinse the dosing unit in order to remove any residues of the chemical concentrates.

If the unit is not used for a longer time, it should be rinsed and not left under pressure.

**Recommendation : one annual maintenance at least will optimize the longevity of your Dosatron. Change its seals at least once a year, depending on its use.**

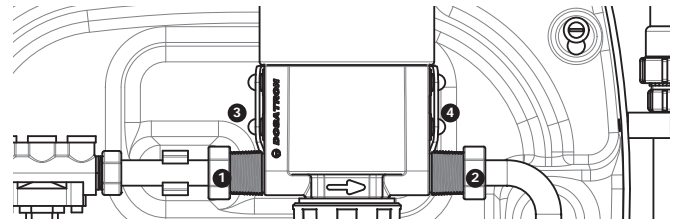


## DISASSEMBLY / ASSEMBLY OF DOSATRON

Unscrew the 2 pipe fixing rings (1 and 2).

Remove the dosing unit from its support by spreading its arms in order to disengage the 4 lugs on the pump body from the holes in the support (3 and 4).

Follow the instructions regarding the Dosatron pointed out in the owner's operating manual enclosed to this parcel.

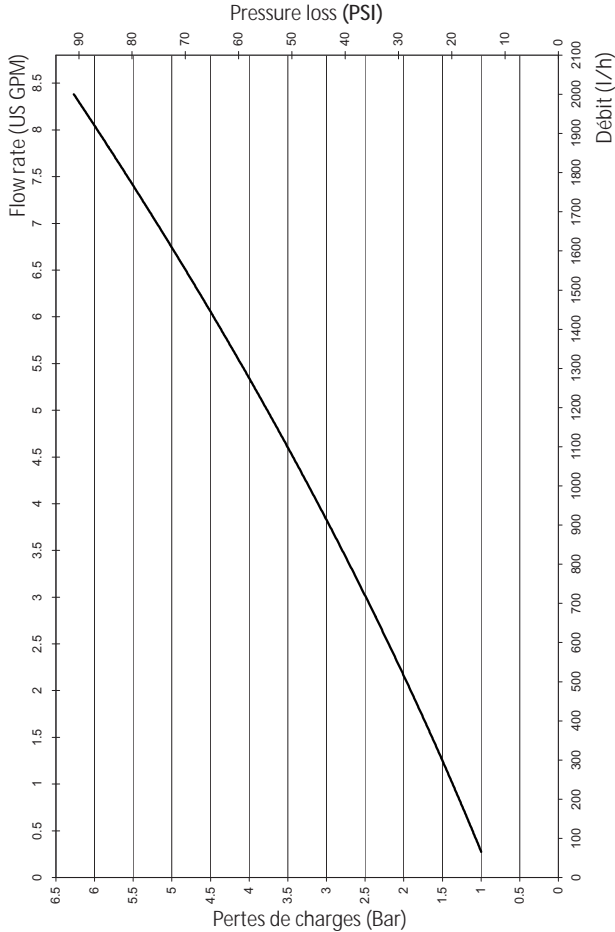


# Troubleshooting

SYMPTOM	CAUSE	SOLUTION
<b>Motor piston</b>		
DOSATRON does not start or stops	Piston stalled	Reset piston, by hand
	Air has not been bled from unit	Bleed air from unit, by bleed button
	Maximum flow exceeded.	1. Reduce flow, restart unit 2. Unscrew the bell. Take off the piston and check piston valves seals to ensure correct position
	Motor piston is damaged	Return unit to your service center for repair
<b>Injection</b>		
Water flowing back into concentrate container	Contaminated, worn, or missing check valve parts	Clean or replace it
No suction of concentrate	The motor piston has stopped	See Motor piston section above
	Air leak (inlet) in the suction tube	Check the tightness between nut and suction hose
	Blocked suction tube or clogged strainer	Clean or replace it
	Missing or worn suction check valve seal	Clean or replace it
	Missing or worn plunger seal	Clean or replace it
	Worn injection stem	Replace it

SYMPTOM	CAUSE	SOLUTION
<b>Injection</b>		
Under injection	Suction of air	1. Check the tightness of the nuts in the injection area 2. Check suction tube
	Dirty or worn check valve seal	Clean or replace it.
	Maximum flow exceeded (cavitation)	Reduce flow
	Worn plunger seal	Replace it
	Worn injection stem	Replace it
<b>Leaks</b>		
Leaks in the vicinity of the fixing ring under the body housing	Injector sleeve seal is damaged or positioned incorrectly	Replace it
Leaks between the setting sleeve and the blocking ring	Injector stem seal damaged, positioned incorrectly or missing	Replace it
Leaks between the body and bell	Pump body seal is damaged, positioned incorrectly or missing	Unscrew the bell, clean the seal seating, replace or change the seal. Position correctly the bell.
<b>Disconnection</b>		
Disconnector	Continuous leaking of the disconnector	Disconnector must be repaired or replaced

**THE MANUFACTURER  
DECLINES ALL RESPONSIBILITY IF THE DOSATRON  
IS USED IN CONDITIONS THAT DO NOT CORRESPOND  
TO THE OPERATING INSTRUCTIONS AS INDICATED  
IN THIS MANUAL**



# Limited warranty

DOSATRON INTERNATIONAL S.A.S. will provide for replacement of all parts shown to be defective in material or workmanship during a period of twelve months from the date of purchase by the original purchaser.

To obtain warranty replacement of a part, the DOSATRON must be returned with original proof of purchase receipt to the manufacturer or authorized distributor and thereafter recognized as defective after examination by the technical services of the manufacturer or distributor.

The DOSATRON must be flushed of any chemical and sent to the manufacturer or distributor prepaid, but will be returned free of charge once repairs are made if found to be covered by the warranty. Any repairs made under warranty will not extend the initial warranty period.

This warranty only covers circumstances where the part has failed due to defects caused by the manufacturing process.

This warranty is invalid if the defects are found to be due to the product's misuse, 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 DOSATRON.

Before using any aggressive chemicals, please consult your distributor to confirm compatibility with the dosing pump.

The seals and "o-rings" are not covered under warranty, nor is damage to the

DOSATRON caused by water impurities such as sand. A filter (ex.: 300 mesh - 60 microns depending on your water quality) must be used in front of the DOSATRON for the warranty to be valid. DOSATRON INTERNATIONAL S.A.S. declines any responsibility if the DOSATRON is not used in compliance with the operating instructions and tolerances as indicated in this owner's manual.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

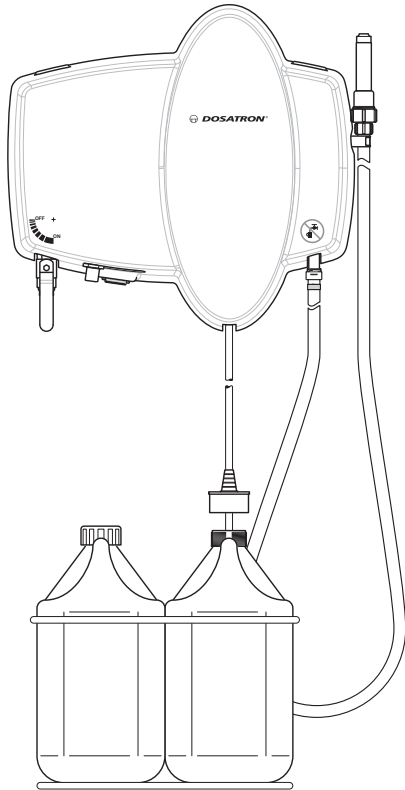
But any implied warranty or merchantability or fitness for a particular purpose applicable to this product is limited in duration to the time period of this written warranty or any implied warranty.

There is no warranty express or implied relating in any way to products used in conjunction with DOSATRON INTERNATIONAL S.A.S. products.

The manufacturer or authorized distributor shall not be liable for incidental or consequential damage, such as any economic loss, resulting from breach of this written warranty or any implied warranty. There are no warranties, express or implied, which extend beyond those described above.

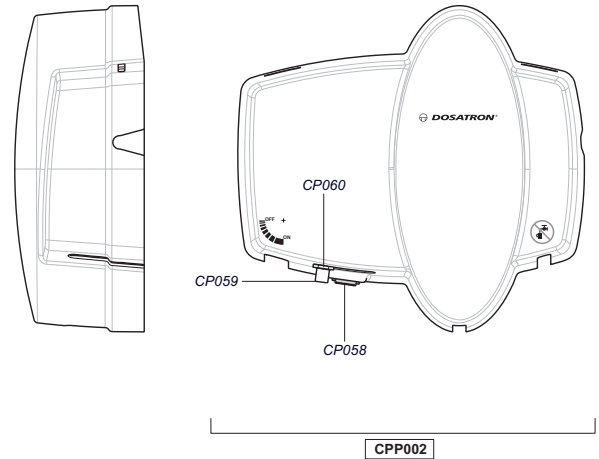
HU1

2 m<sup>3</sup>/h  
9 GPM  
1 - 6 bar  
14,5 - 85 psi



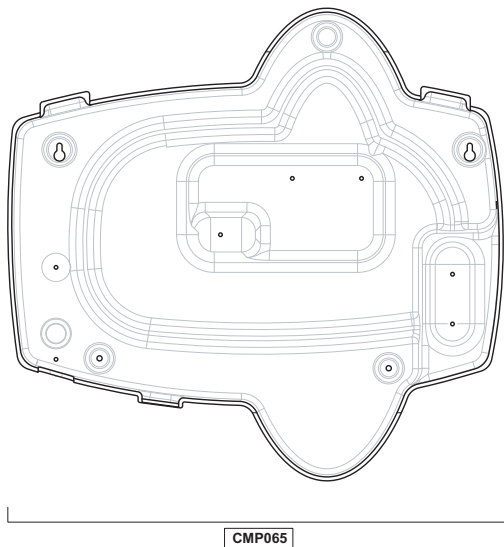
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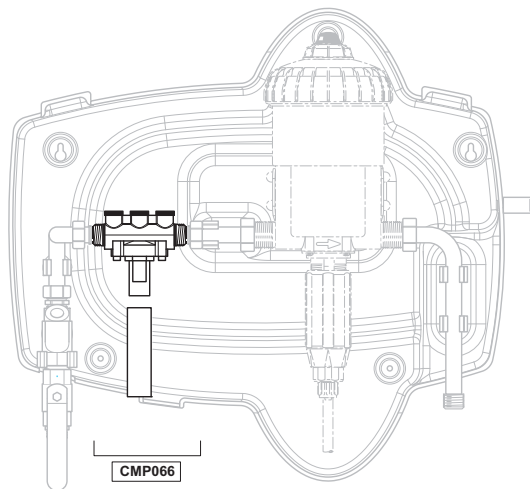
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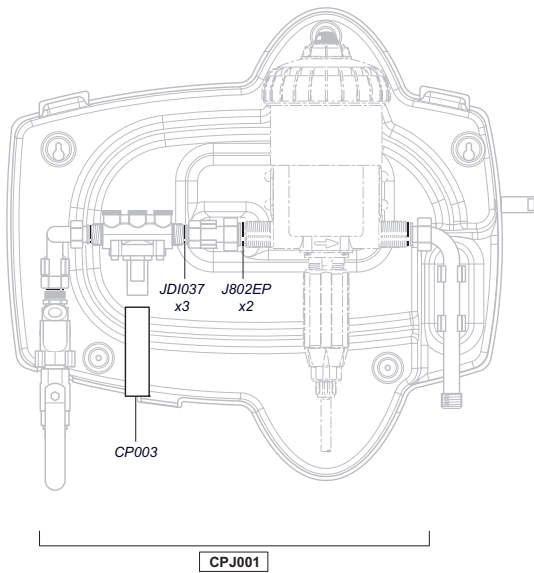
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**PARTS DIAGRAM (Cont...)**

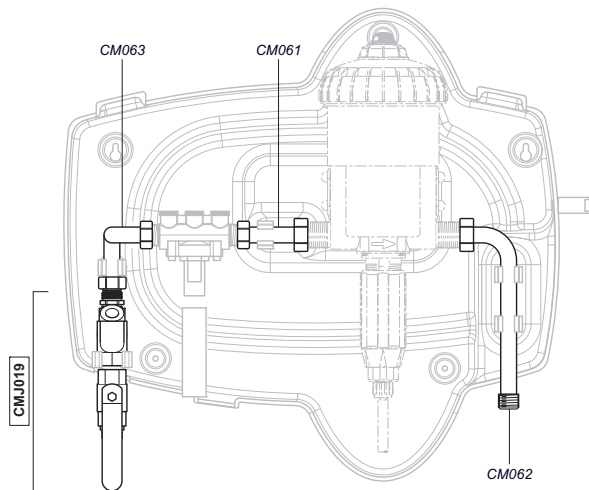
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**HU1**

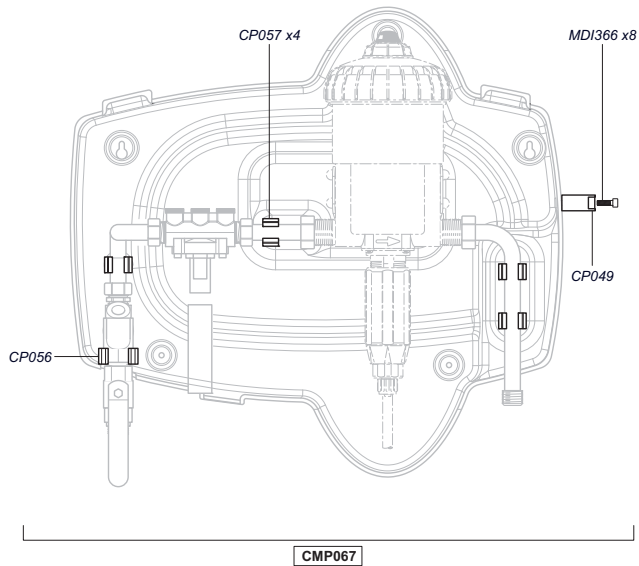
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**PARTS DIAGRAM (Cont...)**

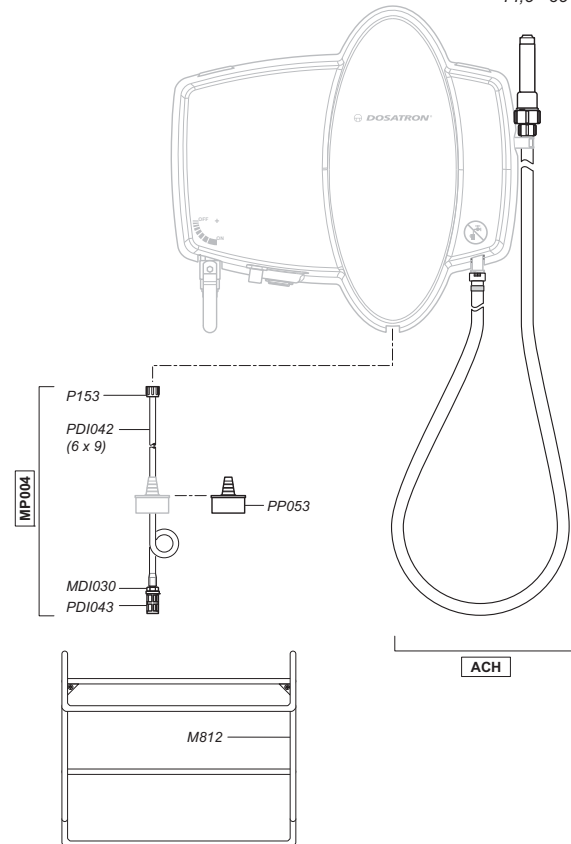
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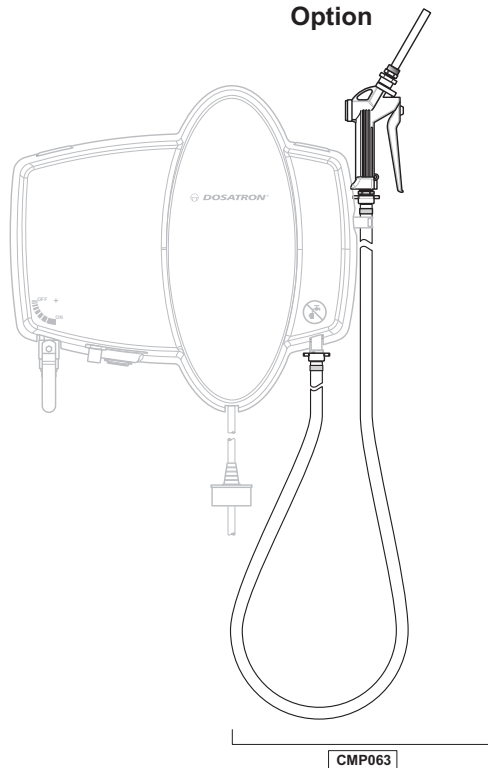
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HU1

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14,5 - 85 psi



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# **DOSATRON®**

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