



NON-ELECTRIC WATER-DRIVEN DOSING PUMPS FOR  
**POULTRY HEALTH**

MEDICATION THROUGH DRINKING WATER

VACCINATION THROUGH DRINKING WATER

ACIDIFICATION THROUGH DRINKING WATER

DISINFECTION OF DRINKING WATER

HYGIENE & BIOSECURITY, FOGGING SYSTEMS, ...



**DOSATRON®**

*WATER POWERED DOSING TECHNOLOGY*

## Our mission

Dosatron provides high quality equipments for the treatment of fluids, service excellence, a high level of expertise and customer proximity worldwide. Our ambition is to offer simple, clear, reliable and sustainable solutions to help you meet your challenges of today and tomorrow.

## Our ambition

Our ambition is to offer simple, clear, reliable and sustainable solutions to help you meet your challenges of today and tomorrow.

## Our vision

We want to be an actor in your designs and projects and actively participate in the development of your knowledge and solutions.

The technical expertise and customer proximity are the cornerstones of our vision. DOSATRON is committed to guarantee a quick and entirely customized service to your special needs, and maintain a continuous dialogue based on trust, listening and recommendation.

An  
international  
presence in  
more than  
100 countries

## Environment

**Water consumption control:**

- ▶ 25% reduction in water consumption.

**Energy control:**

- ▶ 20% reduction in site energy consumption.

**Waste recovery/treatment:**

- ▶ more than 60% of waste produced is recycled.

## Quality

100% of products tested. Monitoring and traceability of all parts and products assembled during the manufacturing process. A close and mutually beneficial partnership with DOSATRON's suppliers so as to ensure higher quality of purchased components. Visual and synthetic methods for monitoring production problems (Delays, Quality, Maintenance of Equipment, Staff Competence, etc.) in real time.

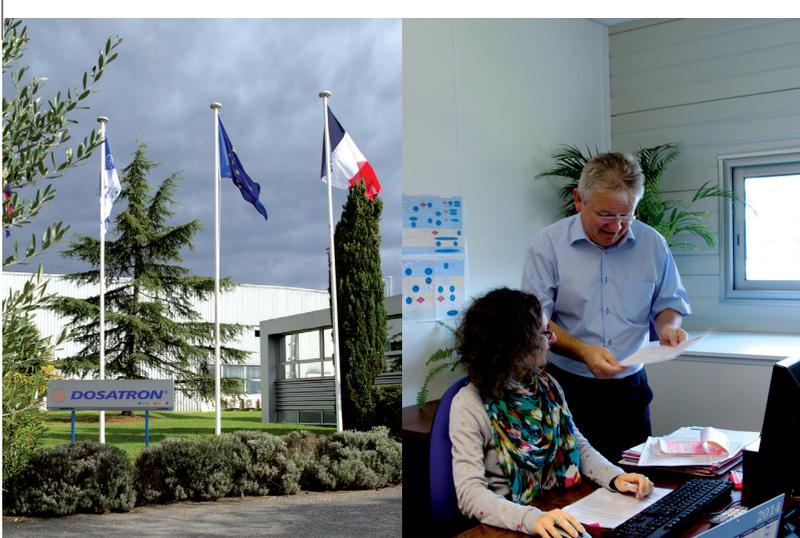


DOSATRON, INNOVATION BORN OUT OF EXPERIENCE



The company born of  
an invention

A universal spectrum  
of skills



# COMPANY

## ■ Safety

For DOSATRON, the safety of its staff and its partners is a high priority. Action taken by the company's Quality Safety Environment service is intended to **prevent and control all risks on site and for the associated activity.**

**All the company's employees, regardless of their occupation and role, are the driving force behind, and are involved in the process.**

By carrying out an ergonomic study of the current situation, DOSATRON has been able to design tailored tools and work stations, thereby reducing the severity of working conditions.

## ■ Ecodesign

By broadening the scope of its ISO 14001 certification and by integrating the activities of Design and development, DOSATRON can now pride itself on implementing a true Ecodesign process. This step has allowed the company to understand the entire life cycle of its product and thus to find solutions to limit the associated environmental impact.

Innovating for  
your development

Technological design is our hallmark  
The mains supply service is our solution

## DOSATRON Technology

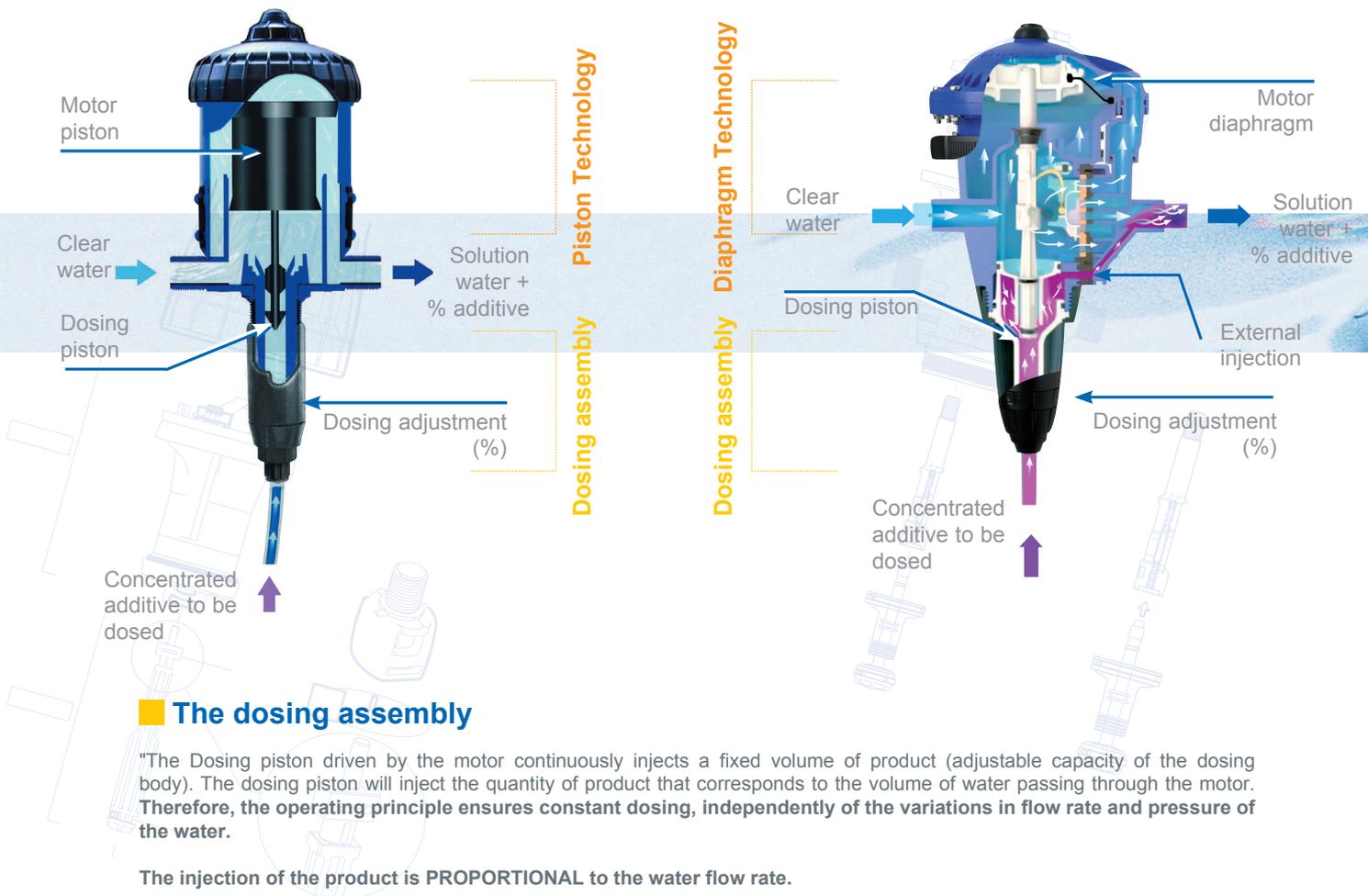
Dosatron technology is based on a **hydraulic motor pump activated only by the pressure and the flow of the water**. Installed directly on the water supply line, the Dosatron operates by using **the water flow as a source of energy**.

The pressure and flow of the water actuate the motor piston which drives a dosing piston. The additive is injected and mixed continuously with the water from the mains supply at the selected dosing rate % (rate of product/water incorporation). The dose of concentrated additive is directly proportional to the volume of water which passes through the Dosatron, independently of variations in the flow rate and pressure of the mains water supply.

### ■ The hydraulic motor: Piston Technology or Diaphragm Technology

The motor piston or diaphragm moves under the pressure of the water. A system of valves or a slider allows the movement to be reversed. Each piston or diaphragm cycle corresponds to a predetermined volume of water which passes through the pump (motor volume). The speed of the motor varies proportionally with the flow of water.

The dosing pump is called a **VOLUMETRIC pump**.



### ■ The dosing assembly

"The Dosing piston driven by the motor continuously injects a fixed volume of product (adjustable capacity of the dosing body). The dosing piston will inject the quantity of product that corresponds to the volume of water passing through the motor. Therefore, the operating principle ensures constant dosing, independently of the variations in flow rate and pressure of the water.

The injection of the product is **PROPORTIONAL** to the water flow rate.

## PROPORTIONAL DOSING WITHOUT ELECTRICITY



Dosatron technology is based on a hydraulic motor pump activated only by pressure and the flow of the water.



**DOSATRON®**

**2.5 m<sup>3</sup>/h – 1-5 %**

Dosage réglable de 1 à 5%  
(1:100 à 1:20)

Débit pratique de fonctionnement :  
10 l/h à 2.5 m<sup>3</sup>/h

Pression de fonctionnement :  
0.3 à 6 bar

Injection : Débit d'injection du produit  
concentré : 0.1 l/h à 125 l/h

Température maximum : 40°C

LE FABRICANT décline toute  
responsabilité en cas d'utilisation  
non conforme au manuel d'utilisation.

DOSATRON INTERNATIONAL S.A.  
16 - 33370 TRESSES (Bordeaux) FRANCE  
05 57 97 11 11 - Fax 33 (0)5 57 97 11 29  
dosatron.com - <http://www.dosatron.com>

**DOSATRON**

### ■ The perfect solution at your service...

- ▶ For metering the amount of additive.
- ▶ For a constant, proportional, accurate and homogeneous dosage.
- ▶ For facilities without electricity or in difficult or technical environments.
- ▶ For a reasonable cost, ease of installation, for a significant and immediate added value and productivity.

### ■ The universal solution

- ▶ Pure core business: "In-Line Dosing Solutions Specialists"
- ▶ Our core Market: **Livestock, Water Treatment, Hygiene, Environment, Industry...**



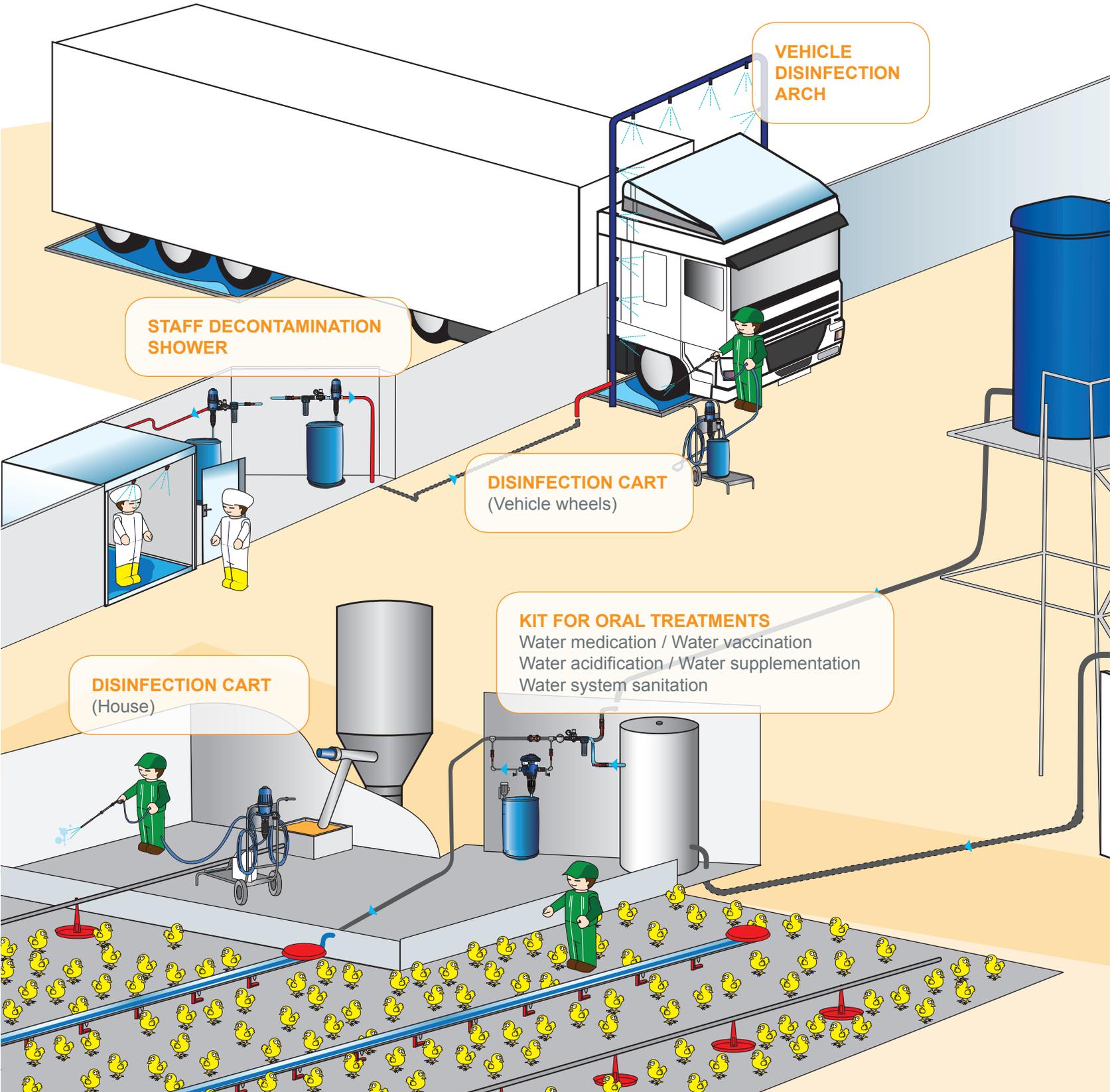
Dose any liquid  
or water-soluble  
product

Multiple applications,  
one solution



High precision  
& repeatability  
dosing

## DOSATRON answering different needs



TREATMENTS & VACCINATIONS THROUGH DRINKING WATER, WATER D



Ideal for medication in emergency situations (Curative & Metaphylactic)

The easiest way to administer live vaccines

### FOGGING SYSTEMS

Odor control (Essential Oils)  
Nozzle descaling (Mineral Acids)  
House pre-cleaning (Detergents)

### KIT FOR WATER DISINFECTION

(Chlorine, Peroxides,  
Peracetic Acids...)



## FOR DISINFECTION OR HYGIENE & BIOSECURITY

Easy to use

Special models available  
for high concentration  
organic acids

Precise &  
homogeneous  
dosing

Low flow &  
pressure  
capability



A SOLUTION FOR YOUR WATER MEDICATION NEEDS



Ideal for medication in emergency situations  
(Curative & Metaphylactic)

## DRINKING WATER MEDICATION

For many years now, drinking water medication has proved its efficiency and also flexibility allowing a fast implementation in emergency situations.

The current development of legislation and constant improvement of medication solubility are indicative of regained interest in the technique to use the right dose of medicine at the right time & only when necessary.

# MEDICATION THROUGH DRINKING WATER



## DOSATRON meets your needs

- For oral powders or liquid medicines ◀
- For broilers, layers, breeders, turkeys, ducks, rabbits ◀
- For poultry houses up 160 000 birds ◀
- For water flows from 4.5 l/h (1 nipple) to 20 m<sup>3</sup>/h ◀
- For water pressures from 0.15 bar (1.5 m height) to 10 bar ◀

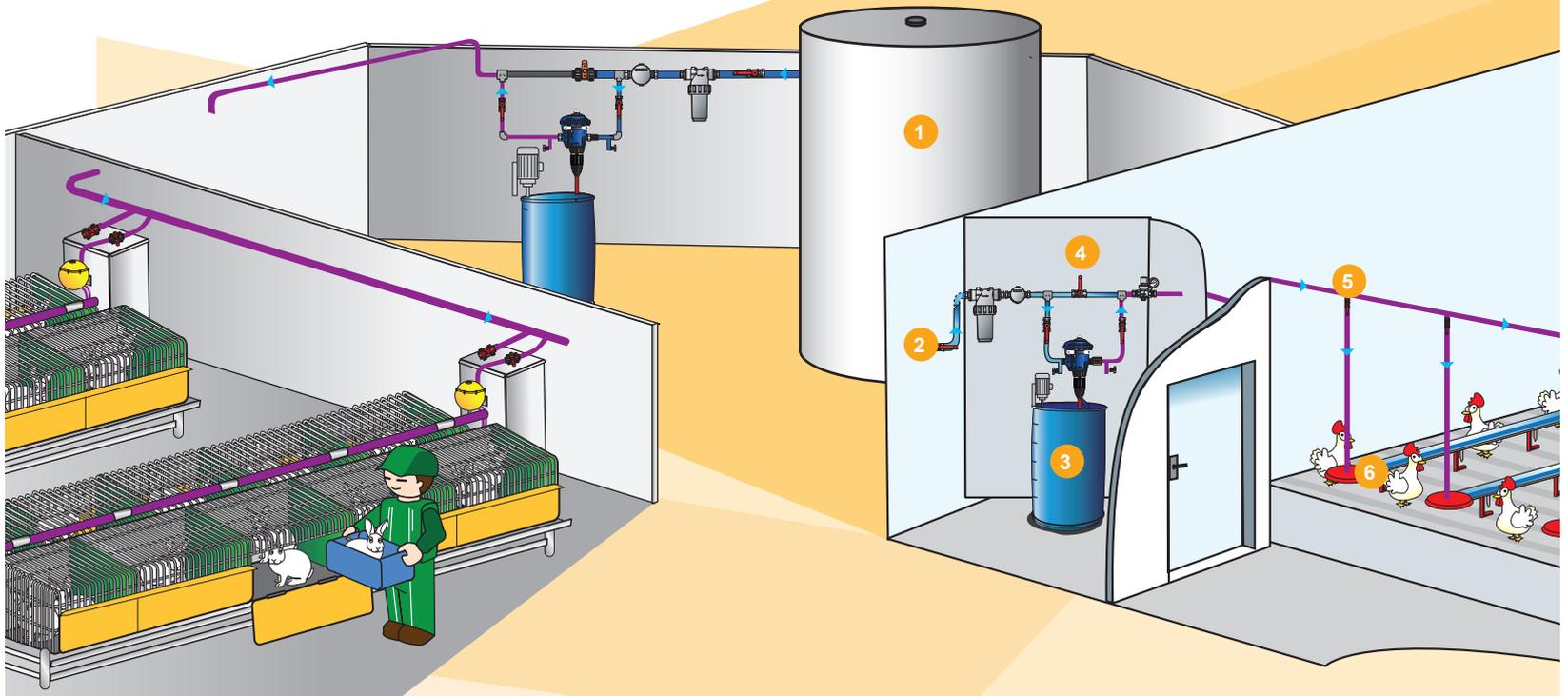
Sick animals generally drink more than they eat

Fast & Flexible medicine administration

Reduces cross contamination risk

## Principle of installation

- 1 Pressure tank
- 2 Clear water
- 3 Stock solution tank
- 4 Bypass valve (x3)
- 5 Medicated water
- 6 Nipples



### Advantages of medication through drinking water

- ▶ In general, **sick animals or animals under stress continue to drink to compensate for hyperthermia and dehydration.**
- ▶ Compared to the feed, **drinking water guarantees quick action and assimilation of treatment** before irreversible lesions appear, also minimizing the spread of infection.
- ▶ **It offers flexibility** (adjustment of the dose or the duration, changes/associations of treatment under veterinary control).
- ▶ **Treatment is more homogeneous** and the doses more regular.
- ▶ **There are fewer risks of cross contamination with antibiotic residues.**
- ▶ **There is no interference between treatment and other additives in the feed and a better stability than with pelleted feed** (steam, high temperature, pressure).

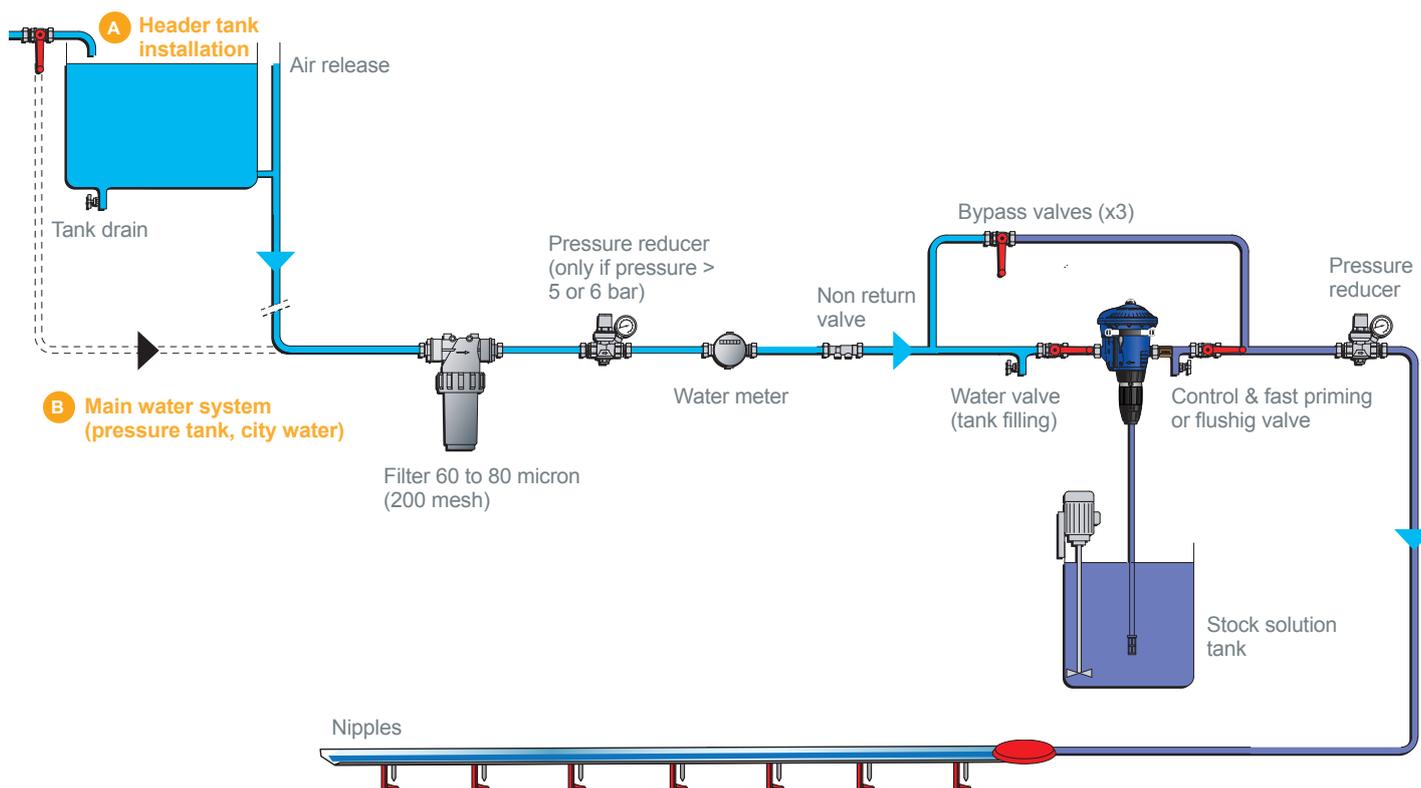
AN SOLUTION FOR YOUR WATER MEDICATION NEEDS



Ideal for medication in emergency situations  
(Curative & Metaphylactic)

## Water system installation

In case of direct supply from a well pump, install pressure tank upstream



Allow minimum height between tank and highest point of the drinking line in order to ensure minimum pressure\* for correct operation of Dosatron pump and nipples. \*note: 1 meter = 0.1 bar - Min. pressure D25 range = 0.3 bar - Min. pressure DIA range= 0.15 bar



## Dosatron advantages over traditional medication tanks

- ▶ Fast to implement in case of emergency.
- ▶ Doses and treatment can be modified at any time (dosing scale easy to adjust / small stock solution tank easy to handle and to clean).
- ▶ Limitation of sedimentation, deposits and contamination (rising temperature) in the header tanks (improved hygiene conditions).
- ▶ Avoiding the risk of over-dilution of the treatment in the medication tank (operated with float valve) or non-supply of water after medication (when the Dosatron small stock solution tank is empty, fresh water keeps going through Dosatron to the drinkers).
- ▶ Dosatron also allows the sanitation of water pipes and drinking troughs to eliminate treatment residues & bio-films (Dosatron dosing rates up to 3% or more are often required).
- ▶ Limits risks by simplifying powder handling compared to medication header tanks: moisture, weight, transport.
- ▶ No heavy task of filling medication header tanks, sometimes several times per day (un-adapted tank size).
- ▶ Less dosing errors when preparing the treatment.
- ▶ Self-priming of the Dosatron when animals start drinking.
- ▶ Precise dosing, regardless of variations in water flow (animal consumption) or water pressure, which may occur in the main line.
- ▶ Fits easily into existing watering systems.

Sick animals generally drink more than they eat

Fast & Flexible medicine administration

Reduces cross contamination risk

## Medication calculation based on posology

### \*Estimated daily water consumption

Three methods for establishing your consumption :

- 1 Consumption statistics based on age/weight (relatively inaccurate).
- 2 Check of water meter or your water monitoring system over 24-hour period (or less for dose dependence medications) before medication.
- 3 Use Dosatron, for instance at 1% (injecting water) and check injected water volume for a period of 24 h. This gives the exact stock solution volume (water + medicine) to be prepared for one day's treatment.

### Medication procedure

- ▶ If possible, pre-dilute the medicine with tepid water (30 to 40°C) to improve powder solubility, adding powder to water (and not the other way around).
- ▶ If necessary, first add a compatible solubilizing agent (respect veterinary prescription regarding compatibility & quantity / e.g. : citric acid with tetracyclines).
- ▶ Increase Dosatron ratio to get a higher dilution rate in the stock solution. All dosing pumps should be able to dose up to 4 or 5%, sometimes even 10% dosing may be required to ensure a good solubility" of specific medicines.
- ▶ Use a plastic dilution tank with an electric mixer and wait 30 to 45 min. before treating.
- ▶ Open the bypass valve feeding the Dosatron and close the bypass valve on the main water pipe.
- ▶ Use the fast priming valve located downstream to prime the Dosatron quickly. Close once priming is done and medication may begin (the strainer on the suction hose must be a few centimeters above the bottom of the tank).
- ▶ After treatment, systematically rinse out the tank filling it with water and let the Dosatron run and inject clear water for 24 h.
- ▶ Then close the Dosatron bypass valves while opening the main pipe valve.

#### \*\*Solubility (acid-base classification)

Amoxicillin / Ampicillin / Quinolons / Flumequine / Sulfadimerazine / Sulfadimethoxin / Sulfadiazine / Vitamin C / Aspirin.

#### Weak bases

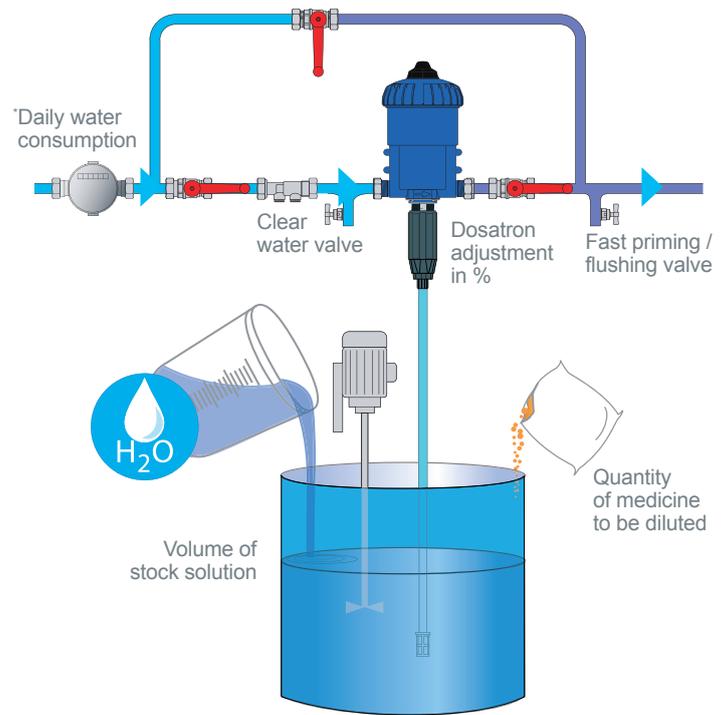
Colistine (strong base) / Erythromycin / Neomycin / Spiramycin / TMP / Macrolids Colistine (strong base) / Erythromycin / Neomycin / Spiramycin / TMP / Macrolids / Oxytetracyclin / Bromhexin / Tiamutin.

#### Weak acids

Acid medicine is more soluble in alkaline water.  
Alkaline medicine is more soluble in acid water.

These are just given as an indication. Please refer to recent local legislation on authorized medicines and always respect veterinary prescriptions.

Note : systematically consult the pharmaceutical companies to check the solubility of the medicine and if necessary the compatible solubilizing agents (e.g. : Citric acid for Tetracyclines).



### Quantity of Medicine "Q" to be diluted for 1 day max.

N : Number of animals to be treated (e.g.: 20,000 broilers).

P : Average body weight in g (e.g.: 1000 g).

Po : Medicine posology in mg/ml per kg of body weight (e.g.: 10 mg/kg).

Cm : Medicine active ingredient concentration (in %) (e.g.: 10%).

$$Q = N \times P \times P_o \times 100/C_m \text{ (in \%)}$$

$$Q = 20\,000 \times 1\,000 \text{ g} \times 10 \text{ mg} \times (100/10)$$

$$Q = 2\,000\,000 \text{ mg} = 2\,000 \text{ g}$$

### Volume of stock solution "V" for 1 day

C : Daily water consumption in liters (e.g.: 2,000 l)\*

R : Dosatron adjustment in % (e.g.: 4%)

V : Volume of stock solution (medicine+ water) for 1 day (in liters)

$$V = C \times R \text{ (in \%)} / 100$$

$$V = 2\,000 \times 4 / 100$$

$$V = 80 \text{ liters}$$

### Conclusion

1. Prepare 2 kg of medicine (Q)
2. Mix medicine with tepid water, up to 80 liters (V).  
(Check the solubility limits)\*\*
3. Adjust the Dosatron at 4%

This example of calculation is for information only and Dosatron cannot be held responsible for any direct or indirect damage resulting from its use. In particular DOSATRON INTERNATIONAL SAS does not guarantee the correctness and completeness of this information. The information is given in its present state and without any guarantee. For more information, please contact us.

## DOSATRON SELECTION CRITERIA



**Max water flow in l/h:** depending on max. number of animals to be treated.

**Min water flow in l/h:** important for treatments the very first days and for small groups.

**Min water pressure:** header tanks height.

## Stock solution calculator software for medication

For Personal Computers



For Smartphones & Tablets



Available in 15 languages

Calculate your Medication Stock solution with your Phone.

Send all results via Email or SMS

Identify your Dosatron Pump via the QR code scan (for 2014 Dosatron models) or via the Dosatron serial number to get maintenance or distributor information.

## The Dosatron Diaphragm Technology

Ideal for very low water flow (treatments from the very first days) and water pressure (header tanks), for water with minerals contents (long lasting motor).



### DIA

Water flow: 4.5 to 2500 l/h  
 Operating pressure: 0.15 to 4 bar  
 Dosage: 1 to 4 %

**DIA4RE**

## The Dosatron Piston Technology

**A safe bet** (The most widely used technology in livestock):  
 The Dosatron Piston technology range has higher water flow possibility (up to 8000 l/h and more), a higher homogeneity & a simpler maintenance thanks to a lower number of spare parts.



### D25

Water flow: 10 to 2500 l/h  
 Operating pressure: 0.3 to 6 bar  
 Dosage: 0.2 to 2 %  
 1 to 5 %

**D25RE2**

**D25RE5**

Water flow: 10 to 2000 l/h  
 Operating pressure: 0.3 to 4 bar  
 Dosage: 3 to 10 %

**D25RE 10**



### D8

Water flow: 500 to 8000 l/h  
 Operating pressure: 0.15 to 8 bar  
 Dosage: 0.2 to 2 %

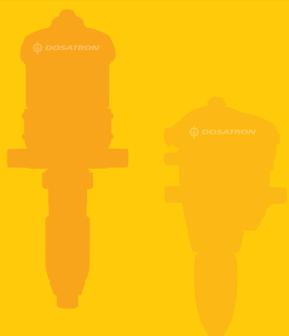
**D8RE2**

**Max dosing rate in %:** Dosage up to 4 or 5% is highly recommended when using oral powders and for the pipe sanitation.

**Water quality:** mineral contents (iron, calcium, sand..) leading to wearing & corrosion of equipments (water meters, pumps, drinking systems).



## A SOLUTION FOR YOUR WATER VACCINATION NEEDS



The easiest way to  
administer live vaccines

Safer than through  
header tanks

## DRINKING WATER VACCINATION

For a long time now, drinking water vaccination has proved to be the easiest and most common way to administrate some live vaccines. However, there are basic rules that should be respected to ensure effectiveness.

# VACCINATION THROUGH DRINKING WATER



**DOSATRON meets your needs**

**For breeders, broilers, layers, turkeys ◀**

**For poultry houses up 160 000 birds ◀**

**For water flows from 4,5 l/h (1 nipple) to 8 m<sup>3</sup>/h & more ◀**

**For water pressures from 0.15 bar (1.5 m height) to 8 bar ◀**

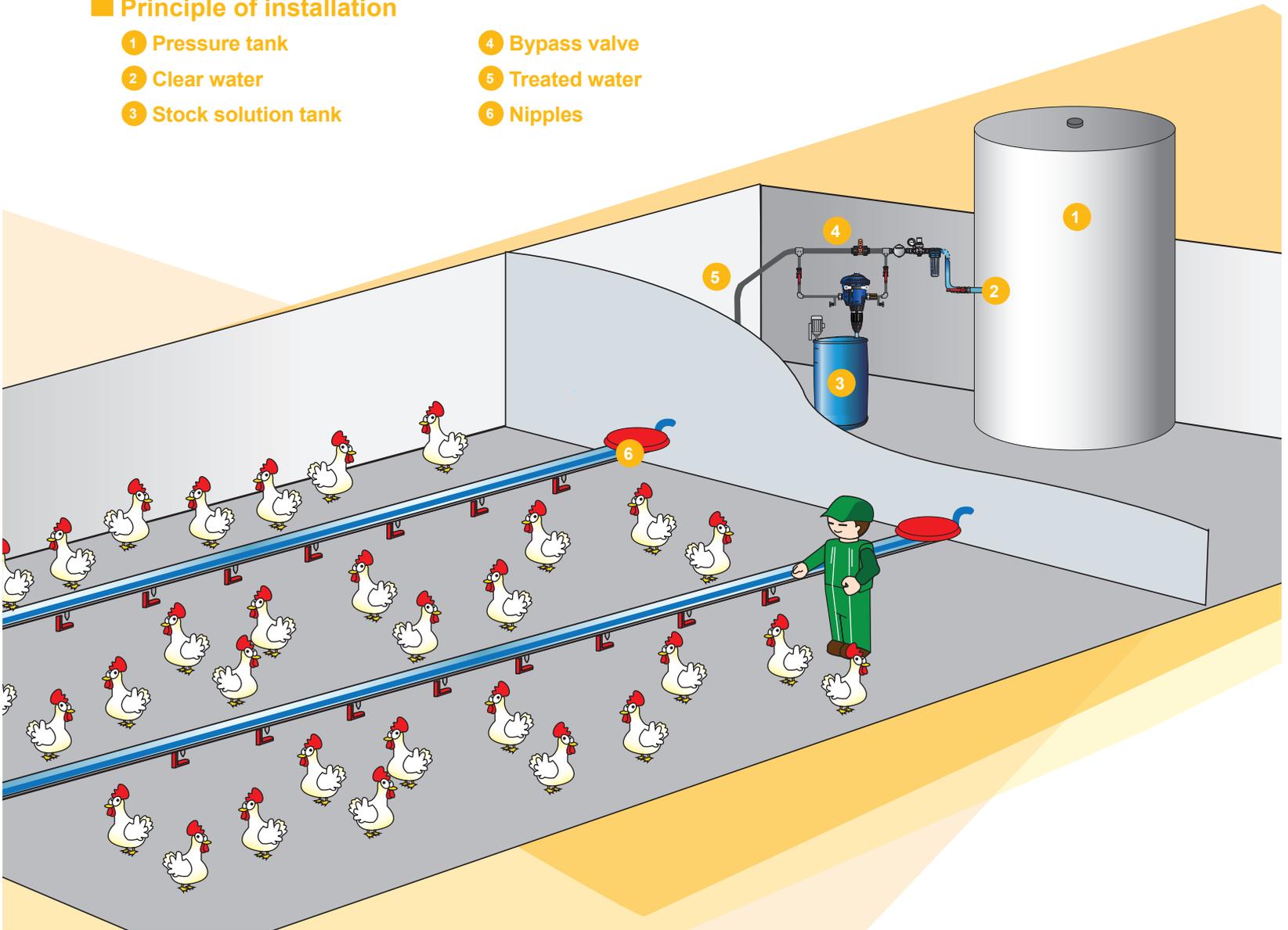
Less labour required

Less stress for birds

Precise &  
homogeneous  
dosing

## Principle of installation

- 1 Pressure tank
- 2 Clear water
- 3 Stock solution tank
- 4 Bypass valve
- 5 Treated water
- 6 Nipples



### Advantages of vaccination through drinking water (when drinking water is recommended)

- ▶ The easiest way to administer live vaccines.
- ▶ Better protection of the vaccine titre than with header tank.
- ▶ Less labour cost required compared to other methods.
- ▶ Less stress for birds and lower cross contamination risk.

## HEADER TANK OR MAIN WATER SYSTEM INSTALLATION

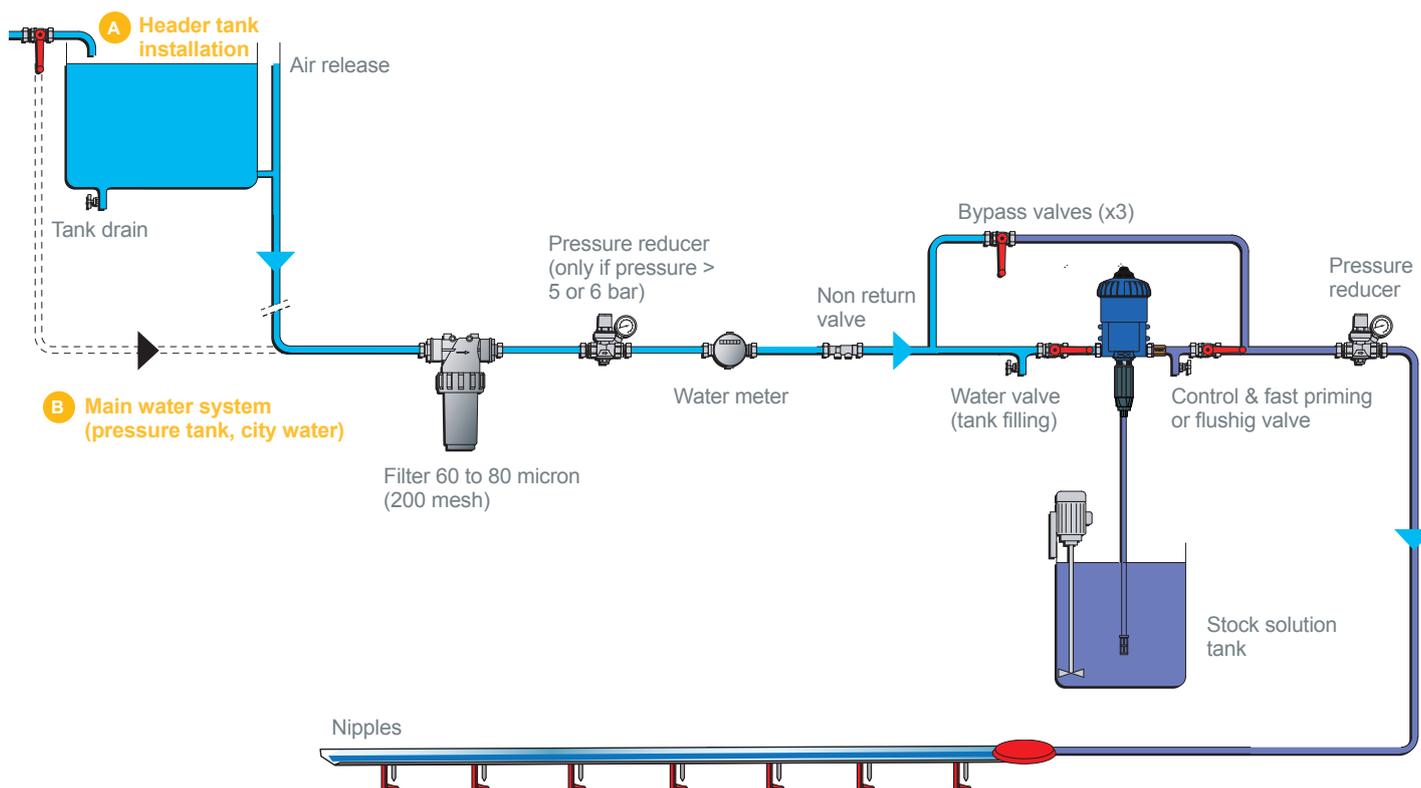


The easiest way to  
administer live vaccines

Better protection of the  
vaccine titre than with  
header tank

## Water system installation

In case of direct supply from a well pump, install pressure tank upstream



Allow minimum height between tank and highest point of the drinking line in order to ensure minimum pressure\* for correct operation of Dosatron pump and nipples. \*note: 1 meter = 0.1 bar - Min. pressure D25 range = 0.3 bar - Min. pressure DIA range= 0.15 bar



## Dosatron advantages over traditional header tanks

In header tanks, water temperature & quality, antibiotic or disinfectant residues, bacteria & biofilms, iron & other metallic ions can inactivate live vaccines (vaccine titre strongly reduced). **With Dosatron the vaccines will be diluted first in safety conditions, with low temperature water, into a specific plastic tank used only for vaccination.**

- ▶ Less risk of handling and dosing mistakes when filling the traditional header tanks.
- ▶ No risk of drinking water shortage after vaccination: when the vaccine stock solution will be finished, Dosatron will inject a small air amount into the water line but birds will still be supplied with water.
- ▶ No over dilution risk of vaccine solution because of automatic filling of the header tanks still open during vaccination.
- ▶ Self priming.
- ▶ Good homogeneity even at low water flow (very first days).
- ▶ Precise dosing regardless of variations in flow or pressure which may occur in the main line.
- ▶ Fits easily into existing watering systems.

Less labour required

Less stress for birds

Precise &  
homogeneous  
dosing

## Vaccination through drinking water

### Water consumption estimate for vaccination

1 Water consumption statistics (based on 2 - 2.5 hours vaccination at 24 °C and 35 °C)

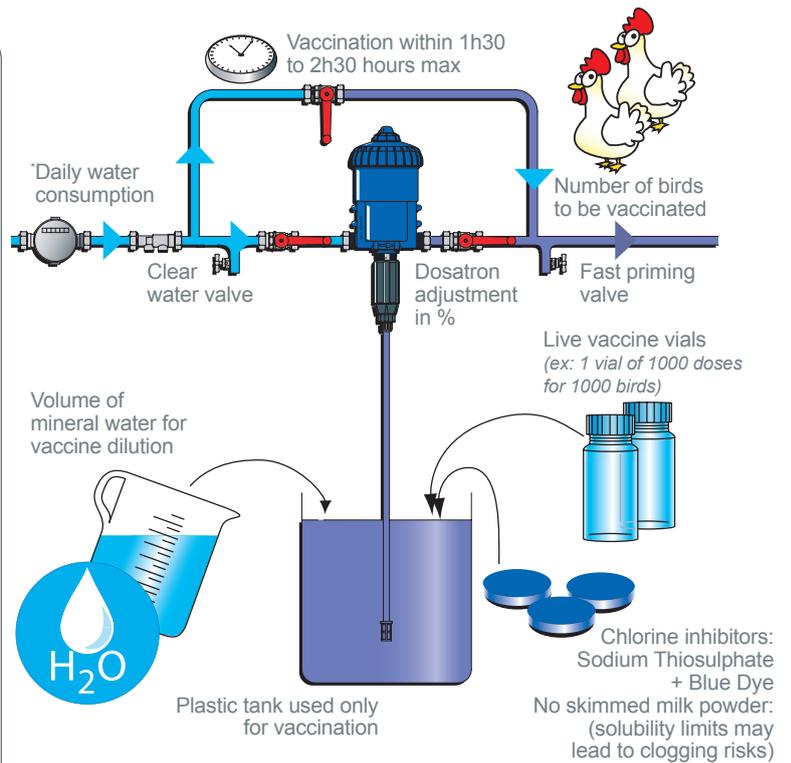
Broilers 1 000 birds		
Age	Min. Quantity 24°C	Max. Quantity 35°C
14 days	15 l	25 l
21 days	21 l	35 l
28 days	28 l	40 l

Layers 1 000 birds		
Age	Min. Quantity 24°C	Max. Quantity 35°C
21 days	10 l	20 l
28 days	12 l	25 l
8 to 18 weeks	25 l	35 l
> 30 weeks	40 l	60 l

(source : CEVA 2001)

- 2 Consider the water consumption will be from 20 % to 30 % of usual daily consumption.
- 3 Make a blind vaccination (most reliable method) using the Dosatron adjusted at the maximum % (injecting only water).

*This example of calculation is for information only and Dosatron cannot be held responsible for any direct or indirect damage resulting from its use. In particular DOSATRON INTERNATIONAL SAS does not guarantee the correctness and completeness of this information. The information is given in its present state and without any guarantee. For more information, please contact us.*



**Vaccine stock solution estimate example:**  
 water consumption = 200 L,  
 Dosatron % = 5 %

► vaccine stock solution volume =  
 5 % of 200 L = 10 L

*\*Around 20 % to 30% of daily water consumption. Non chlorinated water without disinfectant & metallic ions (iron...)*

### Recommendations

#### A – Preparation before vaccination

1. Follow recommendations from the veterinary organization responsible for vaccination programmes.
2. Vaccinate only healthy birds.
3. Ideally stop chlorination 2 to 3 days before vaccination or eventually install a carbon filter when using chlorinated city water.
4. Clean the drinking line 2 to 3 days before vaccination. Use an organic acid based chemical (ex. citric acid > drinkable for birds).
5. Withdrawl period: lift the nipple line and remove water from inside, then make the birds thirsty on a 1 to 2 hours period. (1hour or less in high T ° conditions).
6. Water has to be free of chlorine, disinfectant, acids, antibiotics & metallic ions to prevent from vaccine inactivation (Use plastic tank and tools).
7. Water PH recommended : 5.5 < PH < 7.5.

## DOSATRON SELECTION CRITERIA



**Max water flow in l/h:** depending on max. number of animals to be vaccinated.

**Min water flow in l/h:** important for treatments the very first days and for small groups.

**Min water pressure:** header tanks height.

### B – Vaccine solution preparation (premix)

1. Vaccines should be stored at a temperature between 2 & 8°C.
2. Wash your hands and prepare the vaccine in a clean room.
3. Dilute the vaccine solution with mineral water after adding a chlorine inhibitor (to protect the vaccine) such as :

▶ **Sodium Thiosulphate**

(16 mg for 1l of drinking water)

Example with dosing pump at 1% :

Sodium Thiosulphate

Stock Solution Concentration =  $100 \times 16 \text{ mg/l} = 1.6 \text{ g/l}$

▶ **Skimmed milk**

(2L/100L of drinking water)

4. Make the chlorine inhibitor soluble first and wait 10 minutes (don't use any electric mixer).
5. Open the vaccine vials under the water level of the mixing tank or use a syringe to reconstitute the vaccine into the vial and then transfer it into the mixing tank.  
*Note : Don't use less vaccine doses if the number of birds to be vaccinated doesn't correspond to the number of vials. It is better to overestimate the doses since under doses may lead to ineffective vaccination.*
6. Prime Dosatron suction pipe by opening the priming valve downstream.

### C – Vaccination timing

1. Run the vaccination at the cooler time of the day within 1.5 to 2.5 hours (ideally in the morning).
2. Check if the vaccine solution is coming at the end of the drinker lines. The chlorine inhibitors color or added colorants will confirm drinker lines priming (blue dye).
3. Walk inside the building along the walls to stimulate the birds and make them go to the drinkers.
4. When finished, still run the drinking line with non-chlorinated water to push out the remaining vaccine solution in order to avoid any interference risk with chlorinated water.
5. At the same time, flush the Dosatron and the line injecting non chlorinated water.
6. Start again the chlorination from 12 to 24 hours after vaccination.
7. Destroy the empty vaccine vials, caps, unused vaccines and flush the equipments.

## The Dosatron Diaphragm Technology

Ideal for very low water flow (treatments from the very first days) and water pressure (header tanks), for water with minerals contents (long lasting motor).



### DIA

Water flow: 4.5 to 2500 l/h

Operating pressure: 0.15 to 4 bar

Dosage: 1 to 4 %

**DIA4RE**

## The Dosatron Piston Technology

**A safe bet** (*The most widely used technology in livestock*):

The Dosatron Piston technology range has higher water flow possibility (up to 8000 l/h and more), a higher homogeneity & a simpler maintenance thanks to a lower number of spare parts.



### D25

Water flow: 10 to 2500 l/h

Operating pressure: 0.3 to 6 bar

Dosage: 0.2 to 2 %

**D25RE2**

1 to 5 %

**D25RE5**

Water flow: 10 to 2000 l/h

Operating pressure: 0.3 to 4 bar

Dosage: 3 to 10 %

**D25RE10**



### D8

Water flow: 500 to 8000 l/h

Operating pressure: 0.15 to 8 bar

Dosage: 0.2 to 2 %

**D8RE2**

**Max dosing rate in %:** Dosage up to 4 or 5% is highly recommended to optimize volume of vaccination stock solution.

**Water quality:** mineral contents (iron, calcium, sand..) leading to wearing & corrosion of equipments (water meters, pumps, drinking systems).



A SOLUTION FOR ACIDIFICATION THROUGH DRINKING WATER



Improved digestibility

Anti-bacterial effect

## DRINKING WATER ACIDIFICATION

The current evolution of some local legislation which prohibit the use of Antibiotic Growth Promoters (AGP) in feed, leads poultry producers to use drinking water more frequently to administer preventive treatments.

Numerous acids or combinations of organic acids (formic, propionic, lactic, etc.) have appeared on the market over a period of time. Used in the poultry sector, they should improve digestibility and guarantee an anti-bacterial effect on the E.Coli, salmonella and clostridium present in the intestine.

# ACIDIFICATION THROUGH DRINKING WATER



**DOSATRON meets your needs**

**For breeders, broilers, layers, turkeys ◀**

**For poultry houses up 160 000 birds ◀**

**For water flows from 4,5 l/h (1 nipple) to 8 m<sup>3</sup>/h ◀**

**For water pressures from 0.15 bar (1.5 m height) to 8 bar ◀**

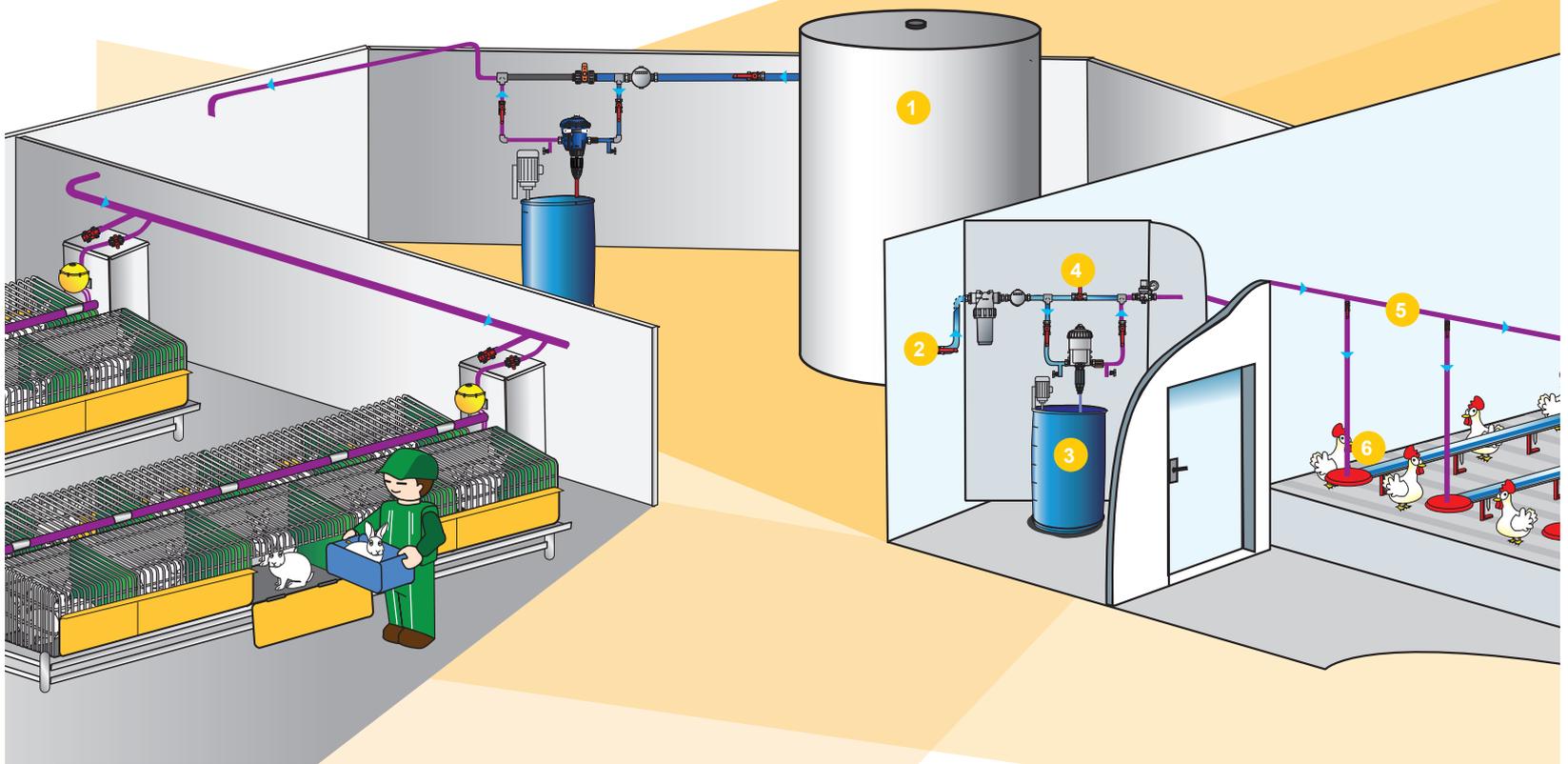
No residues in  
carcasses or faeces

Safe & Precise dosing

Easy to use

## Principle of installation

- 1 Pressure tank
- 2 Clear water
- 3 Acid
- 4 Bypass valve
- 5 Acidified water
- 6 Nipples



### Advantages of acidification

- ▶ Safe and precise dosing with broad ranges in terms of water flow and pressure.
- ▶ Easy installation and use (without electricity).
- ▶ Excellent homogeneity (even at low water flow: small poultry houses or young animals).
- ▶ Security for user and environment: Dosatron's technology does not present any risk of over-dosing, splashing or loss of chemical. The suction hose containing the concentrated chemical works by depression (suction) while other technologies inject the chemical under pressure ("pulsatory" effect, being a risk in case of leaks).
- ▶ Dosatron can also be used for such organic acids in feed manufacturing process during rehydration: water+acid spraying in the mixer. Please, contact Dosatron for any information about recommended models & installations.
- ▶ Easy maintenance (only 35 spare parts compared to more than 100 parts in certain competitors' pumps).

## DOSATRON SELECTION CRITERIA



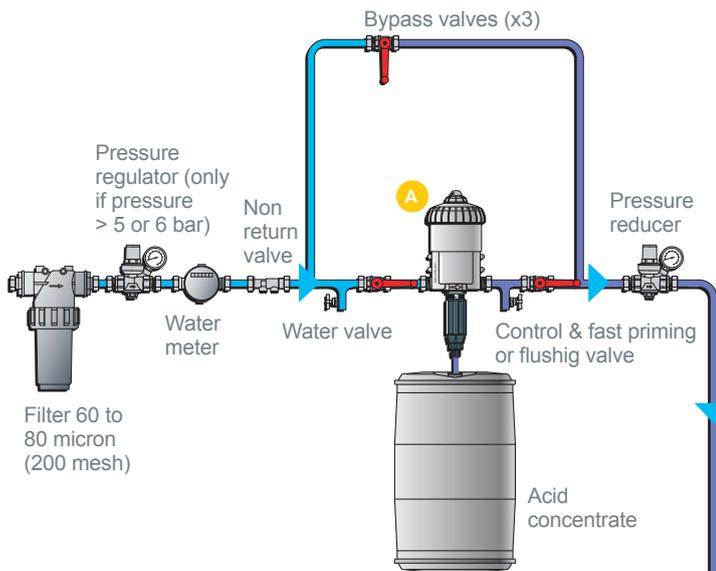
**Max water flow in l/h:** depending on max. number of animals to be treated.

**Min water flow in l/h:** important for treatments the very first days and for small groups.

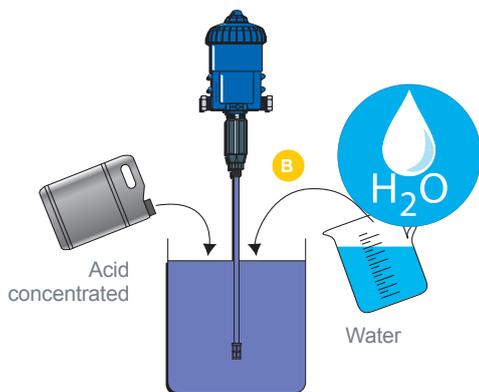
**Min water pressure:** header tanks height.

## Use of the Dosatron

### A D25 AO Special Acids Range (for non diluted acids)



### B Standard Dosatron (for dosing pre-diluted acids\*)



**Always add acid into water, never water into acid !**

\*Example for pre-dilution by 5: for a dosage of 2 ml per litre of drinking water, pre-dilute 1 litre of acid with 4 litres of water (pre-dilution by 5) and set the Dosatron at 1% ( $1\% / 5 = 0.2\%$  or 2 ml per litre).  
Respect the safety regulations with regard to stocking and handling the acids!

Nipples

## Evolution of the concentrations

Higher concentrated acids undoubtedly represents an economic and practical response to current requirements, provided that safety requirements are respected and that dosing devices adapted to these acids' aggressiveness are used.

## The Dosatron Diaphragm Technology

Ideal for very low water flow and water pressure, for water with minerals contents. External injection (*the acid is injected at the outlet of the dosing pump*) is protecting the motor part.

### DIA (For pre-diluted acids)

Water flow: 4.5 to 2500 l/h  
Operating pressure: 0.15 to 4 bar  
Dosage: 1 to 4 %

**DIA4RE**



## The Dosatron Piston Technology

**A safe bet** (*The most widely used technology in livestock*): The Dosatron Piston technology range has higher water flow possibility (up to 8000 l/h and more), a higher homogeneity & a simpler maintenance thanks to a lower number of spare parts.

### D25 AO Organic Acid Range

(For non diluted acids)

Water flow: 10 to 2500 l/h  
Operating pressure: 0.3 to 6 bar  
Dosage: 0.1 to 0.9 %  
0.2 to 2 %

**D25RE09AO**

**D25RE2AO**



### D25 (For pre-diluted acids)

Water flow: 10 to 2500 l/h  
Operating pressure: 0.3 to 6 bar  
Dosage: 0.2 to 2 %  
1 to 5 %

**D25RE2**

**D25RE5**



Water flow: 10 to 2000 l/h

Operating pressure: 0.3 to 4 bar

Dosage: 3 to 10 %

**D25RE10**

### D8 (For pre-diluted acids)

Water flow: 500 to 8000 l/h  
Operating pressure: 0.15 to 8 bar  
Dosage: 0.2 to 2 %

**D8RE2**



## Dosing rate in %:

(organic acid dosage & concentration);  
We recommend D25 AO ideal for pure or high concentration acid.

**Water quality:** mineral contents (iron, calcium, sand..) leading to wearing & corrosion of equipments (water meters, pumps, drinking systems).



- Water Medication
- Water Vaccination
- Water Acidification
- Water Supplementation
- Water System Sanitation
- Water Disinfection
- Hygiene & Biosecurity
- Fogging System

To download  
**DOSATRON**  
app for free



or

Available on the iPhone  
**App Store**

AVAILABLE ON THE iPhone  
**Google play**



**DOSATRON INTERNATIONAL S.A.S.**

Rue Pascal - B.P. 6 - 33370 TRESSES (BORDEAUX) - FRANCE  
**Tel. 33 (0)5 57 97 11 11 - Fax. 33 (0)5 57 97 11 29 / 33 (0)5 57 97 10 85**  
**e.mail : [info@dosatron.com](mailto:info@dosatron.com) - <http://www.dosatron.com>**

This document does not constitute a contractual obligation and is for information purposes only. DOSATRON INTERNATIONAL reserves the right to make changes to its products at any time. © DOSATRON INTERNATIONAL S.A.S. 2014