

ACIDIFICATION THROUGH DRINKING WATER



Improving digestive health through
PROPORTIONAL DOSING OF ORGANIC ACIDS



DOSATRON®

Because life is powered by water®

Current developments in certain legislation concerning the prohibition of growth-promoting antibiotics in feed and the ban on preventive antibiotic treatments (prophylaxis) are leading livestock farmers to favour drinking water as the route of administration for curative treatments and preventive zootechnical additives.

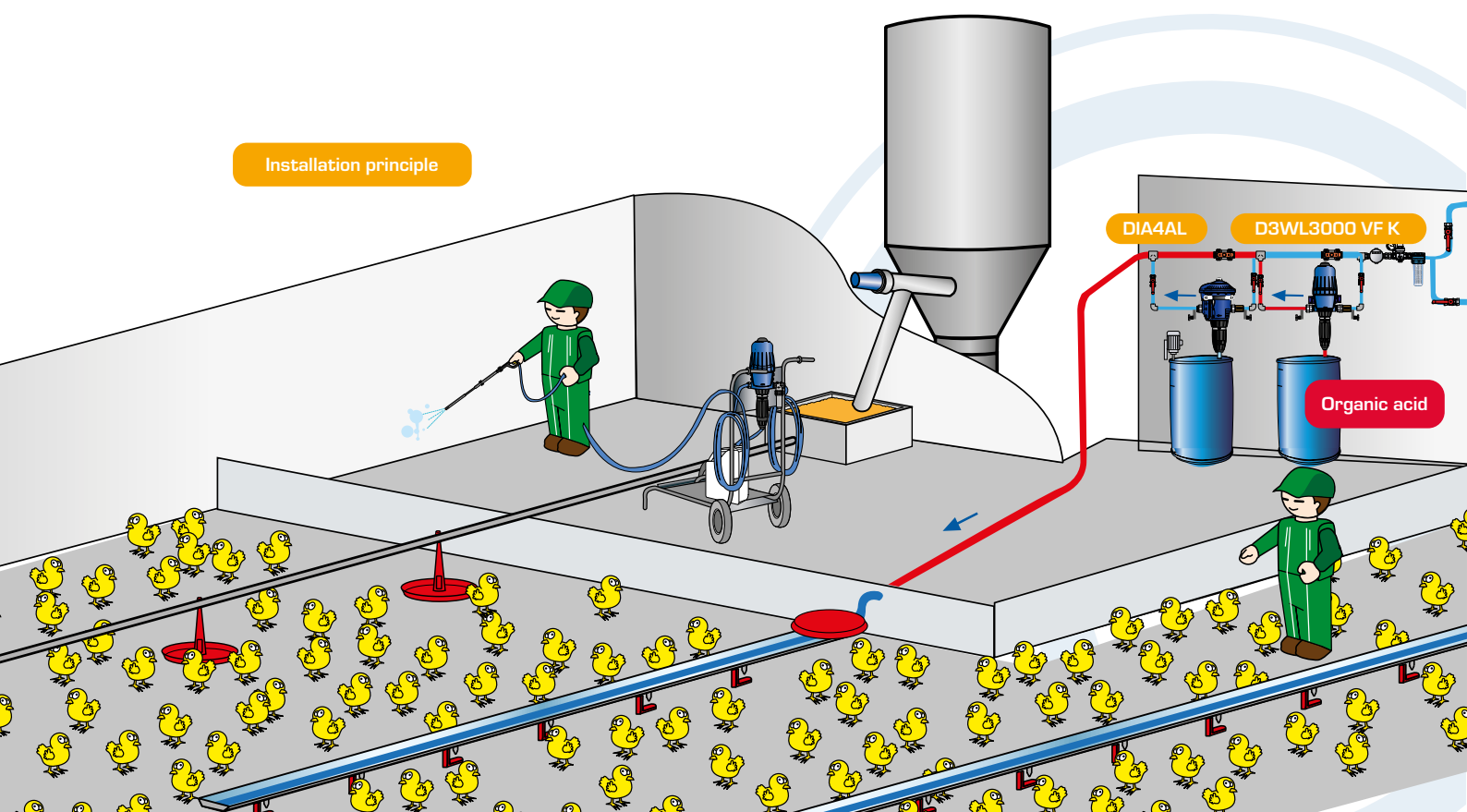
A number of organic acids and organic acid blends (formic, propionic, lactic, etc.) have been available on the market for some time now. Widely used in the poultry sector, these acids are said to improve digestive health and have an antibacterial effect on *E. coli*, *Salmonella* and *Clostridium* present in the gut, whilst also helping to reduce the use of certain antibiotics.

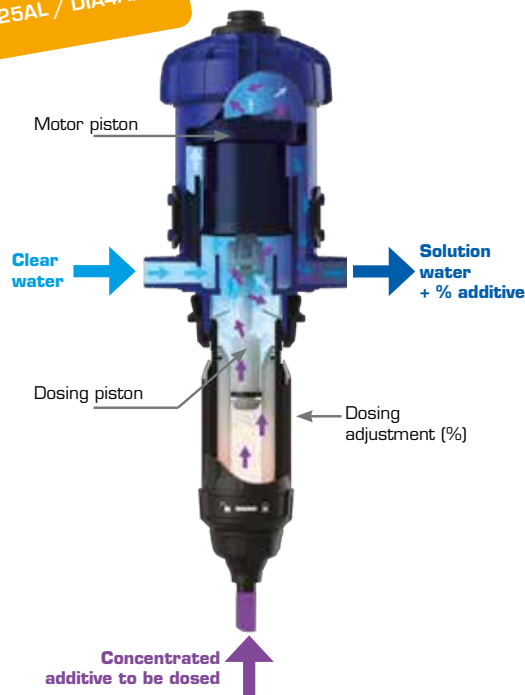
ADVANTAGES OF ACIDIFICATION USING DOSATRON

For broiler chickens, label chickens, laying hens, turkeys, ducks and rabbits.

For water flow rates from 4.5 l/h (~ 1 pipette) to 20 m³/h

- ✔ Safe and precise dosing across a wide range of flow rates and water pressures.
- ✔ Easy installation and use (non electric).
- ✔ Excellent consistency (even at low rates of water flow: small buildings or young animals).
- ✔ Safe for users and the environment: Dosatron technology poses no risk of overdosing or splashes from concentrated additives. The hose containing the concentrated additive to be dosed operates under negative pressure (suction), whereas other technologies inject the undiluted product under pressure (a 'pulsating' effect which can be dangerous in the event of a leak).
- ✔ The Dosatron can also be used to dose organic acids or emulsifiers during rehydration stages in food manufacturing processes (spraying a mixture of water and acid into the mixer). For information about the recommended models and installation methods, please contact Dosatron.
- ✔ Easy maintenance (small number of spare parts).

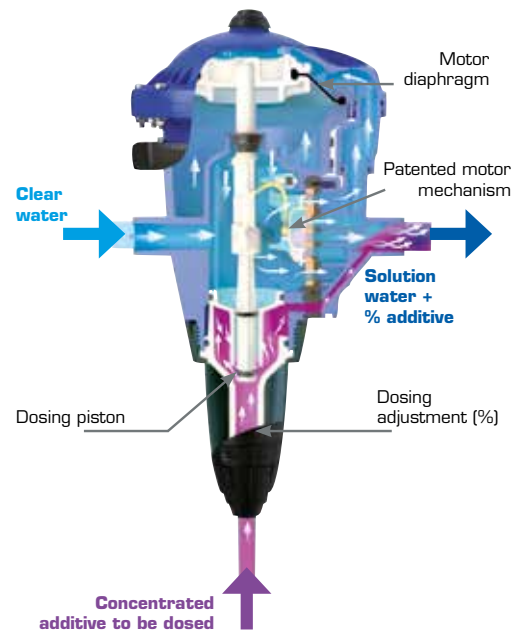




Piston Technology

The most widely used technology in livestock farming

Dosatron's piston technology allows high flow rates (up to 9,000 l/h and above), good in-line consistency and simplified, cheaper maintenance due to the limited number of spare parts.



Diaphragm Technology

A technology offering unrivalled performance

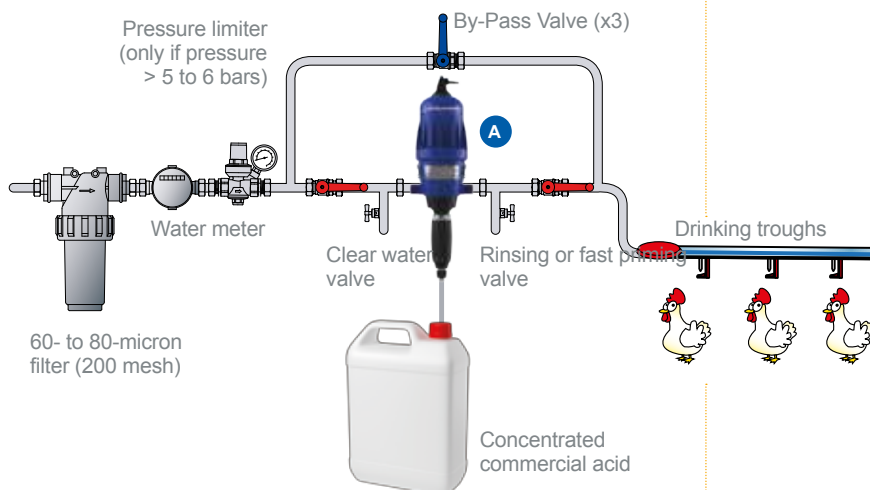
Ideal for low rates of water flow (treatment from the very first days up to 2,500 l/h) and low water pressures (header tanks from 1.5m in height). Ideal for difficult waters with a high mineral content (iron, manganese, calcium, etc.). (Long-lasting motor - low maintenance costs).

Installation recommendations

- Installation and utilisation in a drinking water circuit demands compliance with national regulations in force. (The system must incorporate a disconnecter / non-return system upstream of the injection system to avoid any risk of pollution of the water source.)
- A water filtration system must be installed upstream of the dosing pump, with a maximum filtration level of 60 to 80 microns [200 mesh].

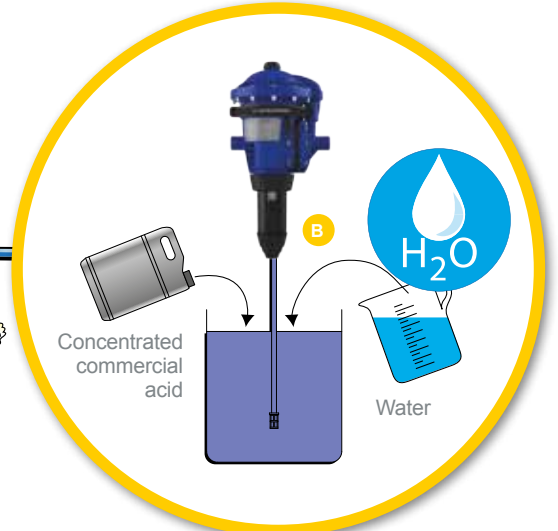
A Dosatron D3WL3000 VFK

(Low-dose dosing pump designed for non-pre-diluted organic acids and acidic biocides in water potabilisation)



B Dosatron DIA4AL or D25AL

(Animal Health Dosing Pump for multiple purposes including for dosing commercial acids pre-diluted by a minimum of 5 in the pump's tank)



Always add acid to water, never water to acid!

**Example of pre-dilution by 5 in the tank: to achieve an acid concentration of 2 ml per litre of drinking water, pre-dilute 1 litre of concentrated acid in 4 litres of water (pre-dilution by 5) and set the Dosatron to 1% (1% / 5 = 0.2% i.e. 2 ml per litre). Always follow the safety rules for the storage and handling of acids.*

Dosatron choice criteria

- ⊕ **Max. water flow rate in l/h:** depends on the maximum number of animals to be treated.
- ⊕ **Min. water flow rate in l/h:** important for treating young animals, which account for 70% of treatments, vaccines, organic acids, etc.
- ⊕ **Pressure:** a minimum height must be respected for header tanks (very low pressure)
- ⊕ **Non-pre-diluted organic acid dosing:** we recommend models D3WL3000VFK & D9WL3000VFK for dosing pure (non-pre-diluted) organic acids and acidic biocides used in water potabilisation.
- ⊕ **Water quality:** mineral content (iron, manganese, calcium, sand, etc.) causing corrosion and wear on equipment (water meters, pumps, drinking water circuits).

Water Line

Specially designed for non-pre-diluted organic acids & acidic biocides used in water potabilisation ⁽¹⁾



D3WL3000VFK
Water Line Dosing Pump for low doses designed specifically for undiluted organic acids & acidic biocides used in water potabilisation *

Injection range:
0.03 - 0.3% [1:3 000 - 1:333]
Operating water flow rate:
10 - 3,000 l/h [0.04 - 14 US gpm]
Operating water pressure:
0.3 - 6 bar [4.3 - 87 psi]

Series:



D9WL3000VFK
Water Line Dosing Pump for low doses designed specifically for undiluted organic acids & acidic biocides used in water potabilisation *

Injection range:
0.03 - 0.2% [1:3 000 - 1:500]
Operating water flow rate:
500 - 9,000 l/h [2.2 - 40 US gpm]
Operating water pressure:
0.3 - 8 bar [4.3 - 116 psi]

Series:

Options: A wide range of dosing pumps and an equally extensive choice of options to meet diverse needs (very low flow rates, high flow rates, low pressures for header tanks, difficult waters with a high mineral content, 24/7 intense use, micro-dosing, materials with high chemical resistance, food safe certification, drinking water certification, etc.)

⁽¹⁾ Replaces the Dosatron dosing pumps in the Expert D25AO range.

* The Safety Data Sheet (SDS) for the additive being dosed must be referred to to verify the chemical compatibility of the seals and materials used in Dosatron dosing pumps.



PVDF: Housing for highly concentrated acids and aggressive additives



VF: Seals for acidic additives up to pH 9



K: Seals for highly concentrated acids (Concentration > 15%)



BP: Manual By-Pass – system for activation (on) and stoppage (off) of suction

Animal Health Line



DIA4L
Animal Health Dosing Pump for multiple uses including for dosing organic acids pre-diluted by a minimum of 5 in the tank

Injection range:
1 - 4% [1:100 - 1:25]
Operating water flow rate:
4.5 - 2,500 l/h [0.02 - 11 US gpm]
Operating water pressure:
0.15 - 4 bar [2.2 - 58 psi]

Series:

D25AL5 N & D25AL2 N

Animal Health Dosing Pump for multiple uses including for dosing organic acids pre-diluted by a minimum of 5 in the tank

Injection range:
1 - 5% [1:100 - 1:20]
0.2 - 2% [1:500 - 1:50]
Operating water flow rate:
10 - 2,500 l/h [0.044 - 11 US gpm]
Operating water pressure:
0.3 - 6 bar [4.3 - 87 psi]

Series:



D6AL2

Animal Health Dosing Pump for multiple uses including for dosing organic acids pre-diluted by a minimum of 5 in the tank

Injection range:
0.2 - 2% [1:500 - 1:50]
Operating water flow rate:
100 - 6,000 l/h [0.44 - 26.4 US gpm]
Operating water pressure:
0.3 - 8 bar [4.3 - 116 psi]

Series:

D9AL2

Animal Health Dosing Pump for multiple uses including for dosing organic acids pre-diluted by a minimum of 5 in the tank

Injection range:
0.2 - 2% [1:500 - 1:50]
Operating water flow rate:
500 - 9,000 l/h [2.2 - 40 US gpm]
Operating water pressure:
0.3 - 8 bar [4.3 - 116 psi]

Series:



DOSATRON INTERNATIONAL S.A.S

Rue Pascal - BP 6 - 33370 TRESSSES (Bordeaux) - FRANCE

Tel. 33 (0)5 57 97 11 11

info@dosatron.com - www.dosatron.com

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