

POTABILISATION



Chlorine dosing in a
DRINKING
WATER supply



The Dosatron solution

Drinking water supply network



Producing drinking water for small communities requires reliable equipment that is adapted to the sometimes extreme conditions of certain rural areas. These facilities must comply with current health standards and provide a continuous supply of drinking water to the local population. Our unique water-powered, non-electric proportional dosing pump, developed in 1974, comes with a Certificate of Sanitary Conformity (Attestation de Conformité Sanitaire - ACS) and is NSF 61 certified.

It is the ideal alternative to chlorine gas and electrochlorination, and complements UV disinfection by providing long-lasting disinfection.

Dosatron's Water Line has been awarded the "Solar Impulse Efficient Solution" label, which recognises cost-effective solutions that help protect the environment.

- ① Water supply from an impoundment or catchment facility
- ② Borehole water supply
- ③ In-line water chlorination
- ④ In-line rechlorination
- ⑤ Pipeline disinfection - building and construction
- ⑥ Chlorination for residential / private use
- ⑦ Chlorination for recreational use
- ⑧ Membrane post-treatment
- ⑨ pH adjustment

Configuration



Choosing the right dosing pump

1 • Filling the drinking water storage tank

Your tank can be fed by gravity or by a solar or non-solar motorised pump unit. The buffer tank volume ensures the required contact time for disinfection (30-45 minutes).

Tip: If a 25 litre container fills up in one minute, the requirement is 1,500 l/h.

The minimum flow rate corresponds to the minimum operating flow rate of the dosing pump:

10l/h means you can use a D3 dosing pump, 500l/h means you can use D3 or D8, 1m³ means you can use D3, D8, D20 and 8m³ means you can use D20 or D30

The design flow rate:

This lies between the minimum motor flow rate and the maximum motor flow rate.

It is important to take into account the number of operating hours.

Please refer to the model table

2 • The minimum and maximum main line pressure

Do not exceed the operating pressure indicated on the dosing pump - install a pressure relief valve if necessary

3 • The expected level of chlorination

Chlorination should be adapted to the nature of the water and its chlorine consumption.

The injection percentage determines the amount of chlorine added. Commercial solutions must be pre-diluted.

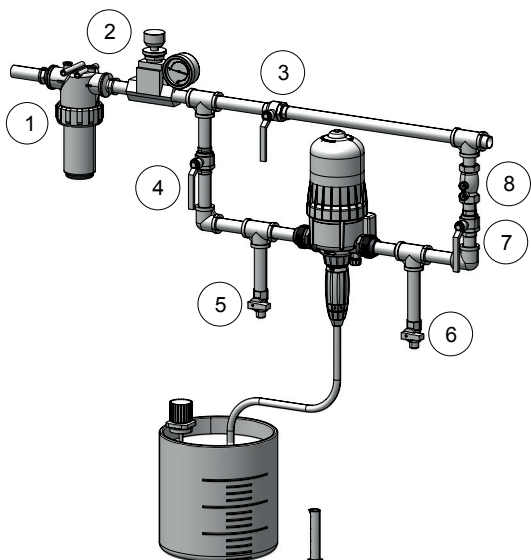
Special feature: Dosatron pumps operate using the proportional volumetric dosing principle.

4 • Hardness and calcium build-up

The External Injection (IE) option significantly reduces calcium deposits in the pump when used in hard water.

Please contact us to discuss its limitations of use

Full by-pass and partial by-pass installations



Item number	Description
1	Filter
2	Pressure Reducer
3	By-pass valve (If the valve is closed, install a full by-pass system, if the valve is partially open, install a partial by-pass system)
4,7	Isolation valves
5	Clear water / stock solution valve
6	Fast priming / flushing / Dosatron test / sampling valve
8	Non-return valve

For information on the dimensioning factors for a partial bypass installation, please contact us.

The models

Model	Operating flow range			Operating pressure		Injection range		Injection flow rate	
	l/h	m³/h	gpm	bar	PSI	%	1:	l/h	gpm
D3WL3000IE	Min.	10	0.01	Min.	0.5	7.3	Min.	0.03	1:3000
	Max.	3000	3	Max.	6	85	Max.	0.3	1:333
D3WL3000	Min.	10	0.01	Min.	0.3	4.3	Min.	0.03	1:3000
	Max.	3000	3	Max.	6	85	Max.	0.3	1:333
D3WL2	Min.	10	0.01	Min.	0.3	4.3	Min.	0.2	1:500
	Max.	3000	3	Max.	6	85	Max.	2	1:50
D8WL3000IE	Min.	500	0.5	Min.	0.35	5.1	Min.	0.03	1:3000
	Max.	8000	8	Max.	8	110	Max.	0.125	1:800
D8WL3000	Min.	500	0.5	Min.	0.15	2.2	Min.	0.03	1:3000
	Max.	8000	8	Max.	8	110	Max.	0.125	1:800
D8WL2	Min.	500	0.5	Min.	0.15	2.2	Min.	0.2	1:500
	Max.	8000	8	Max.	8	110	Max.	2	1:50
D20WL2	Min.	1000	1	Min.	0.12	2	Min.	0.2	500
	Max.	20000	20	Max.	10	120	Max.	2	50
D30WL30000IE	Min.	8000	8	Min.	0.5	7	Min.	0.003	1:30000
	Max.	30000	30	Max.	6	87	Max.	0.03	1:3000
D30WL30000	Min.	8000	8	Min.	0.5	7	Min.	0.003	1:30000
	Max.	30000	30	Max.	8	116	Max.	0.03	1:3000
D30WL5000	Min.	8000	8	Min.	0.5	7	Min.	0.02	1:5000
	Max.	30000	30	Max.	8	116	Max.	0.2	1:500

The quantity of additive injected is proportional to the quantity of water passing through the dosing pump. A 1% setting gives a solution of 1 parts additive to 100 parts water. *Please use the calculation tool available in the Dosatron app*

Options : A wide range of dosing pumps and an equally wide choice of options (high flow rates, micro-dosing, high chemical resistance materials, etc.) enable us to meet your needs.



Seals for acids, oils, odour-control concentrates...



Seals for alkaline concentrates



Seals for highly concentrated acids (> 15 %) PVDF - we recommend a PVDF body for concentrations



System for starting (on) and stopping (off) the suction



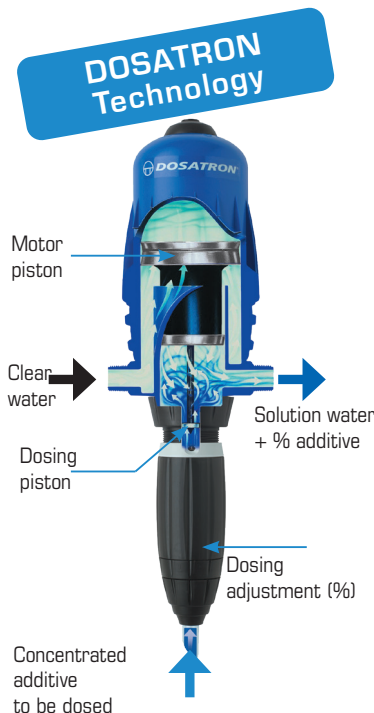
PVDF housing for highly concentrated acids



Viscous additive kit, recommended for viscosities above 400 cPs



External Injection



ADVANTAGES OF DOSATRON

Operates without electricity

Unaffected by pressure variations

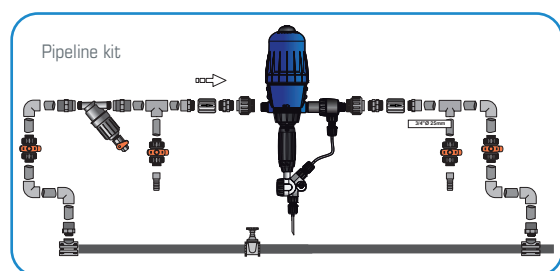
Proportional dosing

Easy to install and operate

Model		VF	AF	K	ULC	Bleed	BP	IE	Intelligent flow divider	Connection flange	Feet	ACS	NSF
D3WL3000IE	Standard		X			X		X					
	Optional						X					X	X
D3WL3000	Standard	X	X			X							
	Optional			X	X		X	X				X	X
D3WL2	Standard	X	X			X							
	Optional			X	X		X					X	X
D8WL3000IE	Standard		X			X		X					
	Optional						X				X	X	X
D8WL3000	Standard	X	X			X							
	Optional			X			X	X			X	X	X
D8WL2	Standard	X	X			X							
	Optional						X				X	X	X
D20WL2	Standard		X				X				X		
	Optional												
D30WL30000IE	Standard		X			X		X	X	X			
	Optional	X					X					X	
D30WL30000	Standard		X			X			X	X			
	Optional	X		X			X	X				X	
D30WL5000	Standard		X			X			X	X			
	Optional	X		X			X					X	

ACCESSORIES

- Filters
- Pipeline kit
- Stock solution preparation tank
- Pressure Reducer



Case studies



Installation recommendations

- You must comply with the standards and regulations in force in the country of installation. ACS, NSF or other certifications may be required.
- Install a 300 micron [50 mesh] filter upstream of the dosing pump.
- The level in the dosing product container must never be higher than the dosing pump (risk of siphoning).
- Ensure sufficient chlorine contact time and check that the expected active chlorine level is achieved.

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