

WASTE WATER TREATMENT



Polymer dosing IN WASTE WATER



DOSATRON®
Because life is powered by water®

The Dosatron Solution

Waste water treatment

During waste water treatment, the aeration of the effluent in waste water treatment plants enables the development of microorganisms that break down carbon and nitrogen pollution, as well as some phosphorus pollution.

These microorganisms form what is known as activated sludge. To avoid excess sludge, some of it must be evacuated and treated by separating the liquid and solid phases.

This separation is usually achieved by injecting polymers, which reduces the volume of sludge to be treated.

Treating waste water for small communities requires reliable, energy-efficient equipment.



- ① Drying beds
- ② Drainage bed
- ③ Polymer injection before the filter press
- ④ Screw press
- ⑤ Harbour/port dredging
- ⑥ Depollution
- ⑦ Geotube storage

Configuration



Choosing the right dosing pump

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

for 10 l/h you can use a D25 dosing pump, and for 500 l/h you can use a D9 dosing pump.

Operating flow range:

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.

1 • The minimum and maximum main line pressure

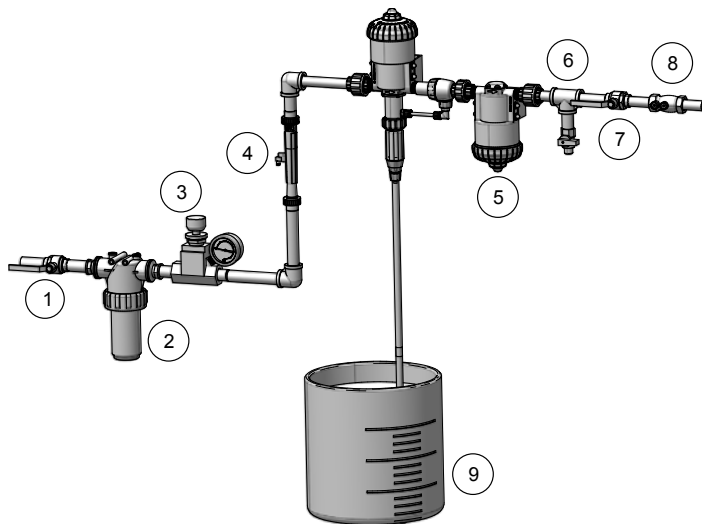
Do not exceed the operating pressure indicated on the dosing pump - install a pressure relief valve if necessary.

2 • The expected level of polymer injection

The polymer solution should be adapted to the nature of the water. The injection percentage determines the amount of polymer added. Please note that the dosing rate is proportional due to the design of the pump. This is known as volumetric dosing.

Please contact us if you would like to find out more about its limitations of use.

Full flow installation



Item number	Description
1	Isolation valve
2	Filter
3	Pressure reducer
4	Ludion flow meter
5	Dynamic mixer D Mix
6	Fast priming / flushing / Dosatron test / sampling valve
7	Isolation valve
8	Non-return valve
9	Polymer solution

The models



Our non-electric proportional dosing technology has been awarded the "Solar Impulse Efficient Solution" label

Model	Operating flow range				Operating pressure			Injection rate			Injection flow rate	
		l/h	m³/h	gpm		bar	PSI		%	1:	l/h	gpm
D25WL2IEPO	Min	10	0.01	0.33	Min	0.3	4.3	Min	0.2	1:5000	Min	0.02
	Max	2500	2.5	11	Max	6	85	Max	2	1:50	Max	28
PU1 D25WL2IEPO	Min	10	0.01	0.33	Min	0.3	4.3	Min	0.2	1:5000	Min	0.02
	Max	2500	2.5	11	Max	6	85	Max	2	1:50	Max	28
D9WL2	Min	500	0.5	2.2	Min	0.3	4.3	Min	0.2	1:500	Min	1
	Max	9000	9	40	Max	8	116	Max	2	1:50	Max	180
D9WL5	Min	500	0.5	2.2	Min	0.5	7.2	Min	1	1:100	Min	5
	Max	9000	9	40	Max	8	116	Max	5	1:20	Max	450

The amount of additive injected is proportional to the amount of water that passes through the dosing pump. A setting of 1% will give a solution of 1 part 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 acid additives



Suction start (on)/stop (off) system



PVDF housing for highly concentrated acids

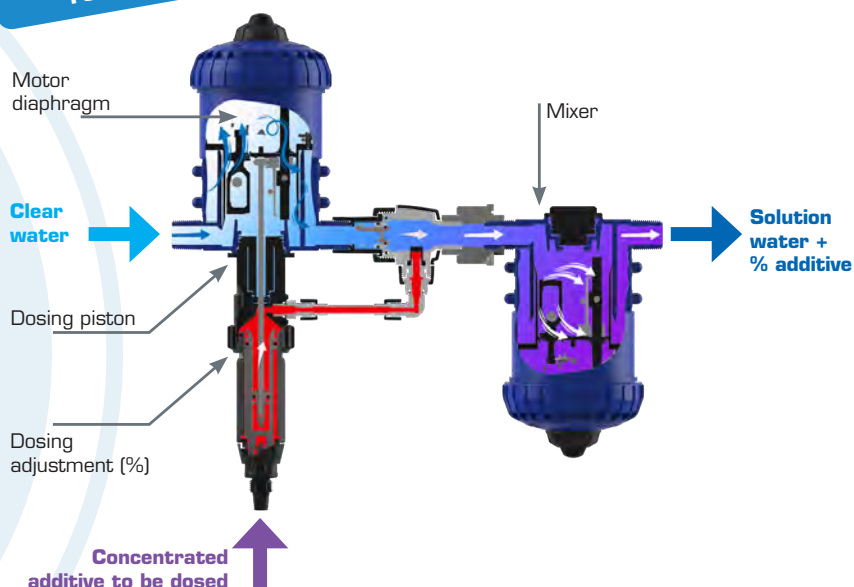


Viscous additive kit, recommended for viscosities above 400 cPs



External Injection

DOSATRON Technology



THE ADVANTAGES OF DOSATRON

Operates without electricity

Not affected by pressure variations

Proportional dosing

Easy to install and operate

Model		VF	PVC	Bleed valve	B.P	IE	Feet	Mixer D MIX
D25WL2IEPO	As standard	X		X		X		
	Optional		X		X			X
PU1 D25WL2IEPO	As standard	X		X		X		X
	Optional		X		X			
D9WL2	As standard	X		X				
	Optional				X		X	
D9WL5	As standard	X		X				
	Optional				X		X	

ACCESSORIES

- Filters
- Pipeline kit
- Dosing pump case
- Pressure Reducer



Case studies



Installation recommendations

- Ask the polymer manufacturer to carry out a decantation test to determine its effectiveness and dosing rate.
- You must comply with the standards and regulations in force in the country of installation.
- Install a 300 micron [50 mesh] filter upstream of the dosing pump.
- The level in the additive container must never be higher than the dosing pump inlet and outlet (risk of siphoning).

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