

Doselux ECO 25, ECO 50, ECO 100 and ECO 200

Systems for powder/liquid polyelectrolyte
(flocculant) preparation and dosing



We are supplying polyelectrolytes to industrial and municipal sector for more than 20 years. We are well aware of the problems encountered with polymer preparation and dosing. It's common for polymer costs to be reduced by 20-30 percent, simply by installing proper flocculant preparation & dosing equipment.

Doselux ECO

Preparation and dosing systems of powder/liquid polyelectrolyte

All devices of DOSELUX ECO range work on the principle of periodic operation: first of all polymer is well mixed with water and only then is pumped to another chamber. Product under preparation process doesn't have the direct contact with already prepared polymer solution. This prevents the unready polymer solution from entering to the process. Also, the batch operation system is less sensitive to unstable flow of preparation water. Unstable flow of preparation water is a common problem. In the case of Doselux ECO, when water flow decreases, the polymer preparation tank must still be filled to the set level. Only then, after stirring the solution for a certain time, it is pumped to another tank: this maintains a constant concentration of prepared polymer solution. The polymer solution is pumped from the preparation tank to the storage tank by a special transfer pump. This enables the system tanks to be placed at the same height, thus simplifying the filling of the concentrated polymer and the maintenance of the system.

Features

A special hopper with a heated spiral conveyor is used for the pouring of powder polymer. The drive of spiral conveyor is controlled by a frequency converter, so the speed of powder filling can be flexibly adjusted.

A vacuum conveyor can be mounted on the hopper, which enables the hopper to be filled autonomously. The hopper is equipped with a powder level detector that signals when the tank needs to be refilled.

Peristaltic pumps are used for the dosing the concentrated liquid polymer into the preparation tank. This type of pump has stable operation and fault resistance.

The prepared polymer solution is dosed by progressive cavity pump. The capacity of the pump is adjusted by frequency converter.

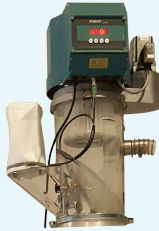
Automation & control

The entire device is controlled automatically by a programmable logic controller. The control cabinet has a touch screen that allows easily to adjust the device. The touch screen displays a logical menu-control system that allows the user to coordinate all device functions in manual or automatic mode.

Polymer preparation is fully automated on Doselux ECO system. Dose of polymer solution is adjusted from the control panel in the basic set of the system. The polymer solution pump can be turned ON/OFF in both ways: from the control panel or by an external signal.

Basic and optional components

The Doselux ECO system can be supplied in various configurations. The basic set consists of a polymer preparation system with one adjustable capacity polymer solution dosing pump. Additional equipment may include: powder vacuum conveyor, additional storage capacity for powder or liquid polymer, Ethernet environment, ready-to-use polymer dilution system, additional ready-to-use polymer dosing pumps, etc.



Stainless steel

High quality polypropylene

Attractive price - high quality

1 fig. The components of Doselux ECO equipment

Table 1. Technical specifications of Doselux ECO systems

		Doselux ECO 25		Doselux ECO 50		Doselux ECO 100		Doselux ECO 200	
		L	P	L	P	L	P	L	P
Width	mm	1000		1200		1200		1600	
Lenght	mm	2000		2300		3500		4700	
Height	mm	1950		2200		2200		2200	
Number of tanks	Vnt.	2		2		3		3	
Volume of one tank	L	600		1100		1100		2100	
Total working volume	L	1000		2000		3000		6000	
Weight (empty)	Kg	190	210	220	240	310	325	430	460
Electrical power	kW	1,75	1,9	2,3	2,5	4,1	4,3	7,1	7,3
Voltage	V	380							
Frequency	Hz	50							

Table 2. Maximum working parameters of Doselux ECO systems

		Max. capacity of concentrated polymer, kg/h	Max. concentration of polymer solution, %	Max. capacity of polymer solution, l/h	Max. required flow of preparation water, l/h
Doselux ECO 25	L	15	1	1500	3000
	P	2,5	0,5	500	2000
Doselux ECO 50	L	30	1	3000	6000
	P	5	0,5	1000	4000
Doselux ECO 100	L	30	1	3000	6000
	P	10	0,5	2000	4000
Doselux ECO 200	L	50	1	5000	8000
	P	20	0,5	4000	8000

Doselux ECO nomenclature:

ECO – economic system, working on the principal of periodical polymer preparation.

Letters – physical form of prepared polymer:

L – system for the preparation of a liquid polymer,

P – system for the preparation of a powder polymer,

LP – universal system suitable for preparing both liquid and powdered polymers.

Numbers – system capacity (amount of polymer prepared in one hour).



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