

## BELT FILTER-PRESS EFP-L

MODERN TECHNOLOGIES FOR WATER TREATMENT



**ecopolymer**  
MANUFACTURING AND TRADING  
COMPANY



## PURPOSE AND INTENDED USE

Belt filter-presses of EFP-L series are designed for continuous dewatering of sludge, suspensions and slimes by filtration under pressure through the filter belts. Filter-presses of EFP-L series are result of development of

Ecopolymer professionals based on innovative technologies and long operating experience of such equipment. In the design of the filter-press for kinematic scheme with the location of press rollers in a vertical plane taken as a basis.



## BELT FILTER-PRESS EFP-L BENEFITS



Press rollers are arranged in a plane close to the vertical, each roller is equipped with a separate drain tray, that eliminates the possibility of water ingress the previous and the subsequent rolls.



Rubber-coated rollers with spiral grooves compensate the rollers deflection under load. The spiral grooves on the surface of the rollers provide free water drainage.



Stainless steel tray under the entire area of the filter-press and the separate collection of filtrate and wash water eliminates the need for concrete tubs. The filtrate can be used for belt washing.



The adjustable feed unit distributes the sludge evenly over the working width of the filter belt regardless of the sludge viscosity.



Additional extraction system ensures stable high pressure of pressing, which allows to achieve the required degree of sludge dewatering.

## FUNCTIONAL DISCRIPTION

Sludge dosing pump 10 continuously feeds sludge into mixing tank 4, where sludge mixed with flocculant. Dosing pump 3 continuously feeds the flocculant solution from the preparation system 2 into the mixing tank 4. From mixing tank 4 sludge flows to the filter-press 1 (gravity zone) by gravity.

Special automatic feed unit distributes the sludge evenly over the working width of the filter belt. After the gravity zone sludge gets to the wedge zone and after that – to the shift-pressing zone, where gradual sludge wringing occurs.

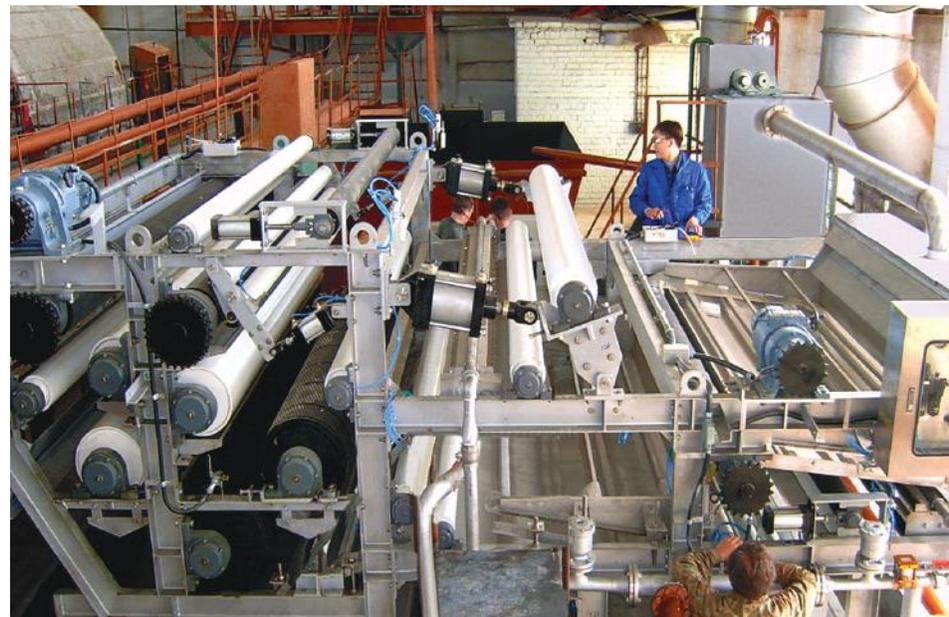
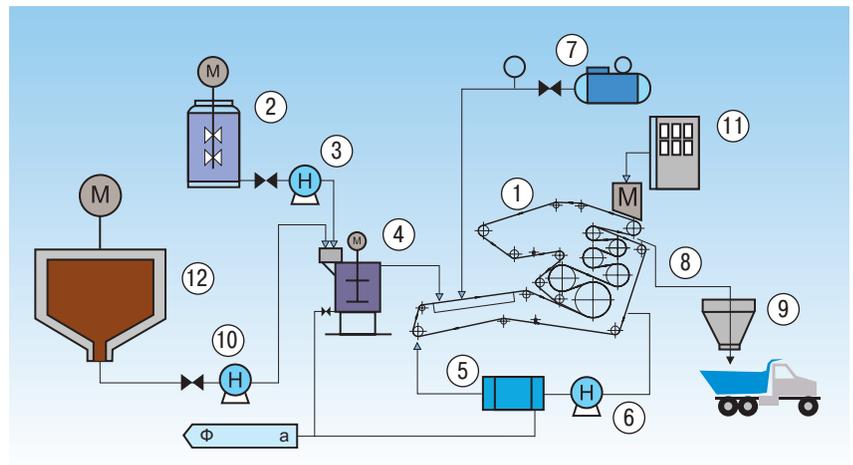
A further dewatering occurs on special unit forming additional pressure (additional pressure zone). The pressing pressure is variable. After dewatering sludge by conveyor

8 gets to the discharge container 9. Further sludge is loaded into dump trucks, carts, etc. and transported to the landfill. Filter belt are washed by pressurized water through the self-cleaning nozzles. Washing pump 6 feeds the water for washing system. Filtrate and water after washing collected in a stainless steel tray.

The possibility of separate collection of filtrate and water after filter belts washing is provided.

Sludge dewatering process is controlled from the single control cabinet 11, containing the controls, alarms and indicators.

Typical flow diagram of mechanical sludge dewatering



Filer belts washing system with self-cleaning nozzles which automatically remove and return to the working position.

A filter-press became a result of the «Ecopolymer» professionals development. Its design combines the most advanced technical and technological solutions, as well as long traditions of quality. This allows the filter press series EFP-L combine the best prices and quality.



## TECHNICAL SPECIFICATIONS

Filter-presses EFP-L are available in a few modifications and dimension types:

- C: Standard (Without integrated additional gravity unit)
- O: Standard with additional pressing unit
- T: With additional gravity thickening unit
- A: With additional pressing and gravity thickening units.

The choice of a specific model EFP-L is due to the properties of the original sludge and requirements to the dewatered end product.

EFP-L Dimension types (by filter belt width): 1000, 1500, 2000, 3000 mm.

The of dimension type is due to the required capacity. All filter-press models can be supplied with stainless steel collecting tray for filtrate and water after washing. In this case Filter-press should be installed on the collecting tray frame. Collecting tray height is 450-510 mm (depends on filter-press dimension type)



Filter belt width (mm)	Type	Net weight* (kg)	Overall dimensions (mm)		
			Length	Width**	Height*
1000	EFP-LC	3240	4650	1600	2556
	EFP-LO	3420			
	EFP-LT	3520			
	EFP-LA	3700			
1500	EFP-LC	4300		2150	
	EFP-LO	4530			
	EFP-LT	4735			
	EFP-LA	4965			
2000	EFP-LC	5560		2750	
	EFP-LO	5840			
	EFP-LT	6060			
	EFP-LA	6340			
3000	EFP-LC	8200	3860		
	EFP-LO	8550			
	EFP-LT	8880			
	EFP-LA	9230			

\* - Without collecting tray (optional)

\*\* - at the safety covers

Technological line of sludge dewatering contains a number of auxiliary equipment. Our specialists will choose and supply whole complex of process equipment for mechanical sludge dewatering.

In sludge dewatering technological line a separate belt or drum thickeners can be included. The use of thickeners can increase the capacity of whole complex especially in processing of low-concentration sludges (5 - 20 kg of dry matter per cubic meter of sludge).

## SERVICES

- **Develop an investment feasibility studies.**
- **Produce and supply the equipment.**
- **Perform an installation works.**
- **Perform commissioning and stuff training.**
- **Provide warranty and post-warranty service.**

## MANUFACTURING AND TRADING COMPANY «ECOPOLYMER»

115054, Moscow, Bolshoy Strochenovskiy lane 7, 8 floor.

Tel.: +7 (495) 710-86-22, 710-99-70, 989-85-04

E-mail: tpp@ecopolymer.com

www.ecopolymer.com

