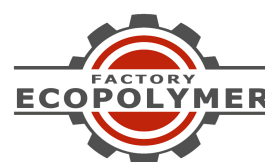




## SHAFTLESS SCREW CONVEYOR AND SCREENINGS PRESS

MODERN EQUIPMENT FOR WATER TREATMENT TECHNOLOGIES





# SCREW CONVEYOR

The shaftless screw conveyor ESC (Ecopolymer Screw Conveyor) is designed for transportation waste from screens at an inclination of up to 35°. Screw can transport waste with content of DS from 20 to 70%, particulate or granular waste (0.5-6 mm) or small parts of some cargo (6-80 mm). The screw conveyor can be operated as part of any production lines, where transportation of such products is required.



The shaftless screw conveyor is made of high-quality wear-resistant steel S355JR (EN10027-1) with a thickness of 12 mm. Other parts contacting with the product being transported are made of corrosion-resistant materials like stainless steels AISI 304, AISI 321 and polymeric materials (inwall of high-polymeric polyethylene PE-1000).

The delivery set of the conveyor includes a control cabinet and remote control panel. The conveyor can work in manual and automatic mode. In automatic (periodic) mode, the conveyor operates from a signal coming from other equipment that is a part of production line.

Depending on application, conveyor can have two design solutions: with a pulling or pushing screw, as well as one or more filling hoppers.

The conveyor is manufactured in two standard versions: **ESC 200** (with a screw diameter of 200 mm) and **ESC 300** (with a screw diameter of 300 mm) and climatic category (design for cold climate – 3rd category according to GOST 15150-69).

## TECHNICAL SPECIFICATION OF CONVEYOR

Parameter	Unit	EVK 200	EVK 300
Capacity	m <sup>3</sup> /h	2	3...9
Screw diameter, D	mm	200	300
Speed of the screw	rpm	21...23	11...26
Drive power	kW	1.5...5.5	2.2...5.5
Length of conveyor	m	2...30	2...15
Width	mm	567	667
Loading height (from the floor to the hopper)	mm	750...1100	
Angle to the horizon at inclined transportation	grad.	not more than 35	

Conveyors with other technical characteristics are produced according to Customer's specification.



# SCREENING PRESS

The screening press ESP (Ecopolymer Screening Press) is designed for transportation, thickening and washing of waste from screens or conveyor. A screw transports the waste into the wash zone where they are exposed to powerful wash water. The washing achieves perfect separation of organic particles and thus effective screenings washing. The washing intensity and cycles further conveyed in the rising pipe to the press zone where they are pressed and dewatered by the compacting screw to a high DS content. The wash water after compaction which is rich in carbon is discharged back into the waste water stream. The washed and compacted waste is finally transported through the conical discharge pipe into a skip. Volume of waste is reduced up to 10 times. The screening press usually operated as part of processing line of mechanical sewage treatment at wastewater treatment plants.



All parts of press contacting with the waste and water are made of corrosion-resistant materials like stainless steels AISI 304, AISI 321. The delivery set of the screening press includes a control cabinet and remote control panel. The press can work in manual and automatic mode. In automatic (periodic) mode, the press operates from a signal coming from other equipment that is a part of production line.

The press is manufactured in two standard versions: **ESP 2.200.500** and **ESP 2.200.1000** (and climatic category (design for cold climate – 3rd category according to GOST 15150-69).

## TECHNICAL SPECIFICATION OF SCREENING PRESS

Parameter		Unit	2.220.500	2.220.1000
Capacity		m³/h	2	
Screw speed		rpm	9.4	
Drive power		kW	2,2	
Screw diameter, D		mm	220	
Service water pressure		bar	3–5	
Weight		kg	325	365
Dimensions (Fig. 1)	Length, L	mm	3050*	3550*
	Width, B	mm	490	
	Height, H	mm	1660 ... 5310	
	Feed window length, L1	mm	500...1000	1000...1500
	Feed window width, B1	mm	240...500	
	Load height, h1	mm	min 470	
	Dump height, h2	mm	1350...5000	
*standard dump height is 1350 mm.				

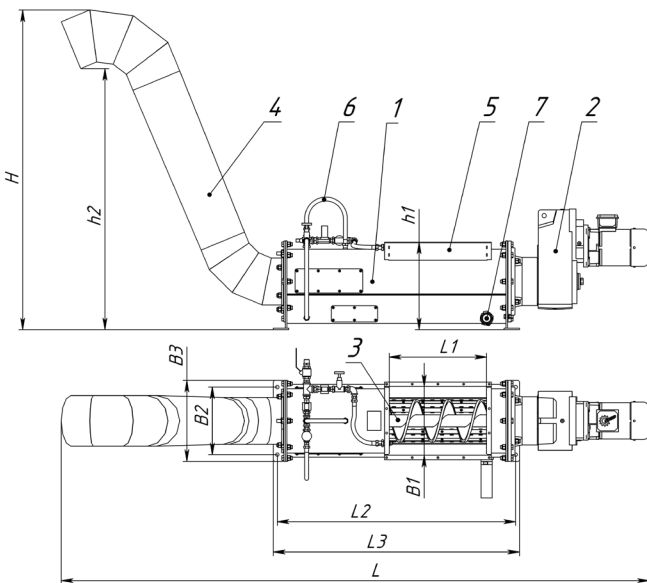


Figure 1. Screening press ESP

Presses with other technical characteristics are produced according to Customer's specification.

### Screening press design

The press consists of the following main parts: body (1), drive (2), screw (3) and discharge pipe (4). Waste is transporting to the screw (3) of the press through the filling window (5). The screw is rotated by the drive (2) and move waste into the pressing zone, where waste is compressed between screw turns due to its variable step width. The pressing zone is limit by a sieve, waste stay inside the sieve, precipitate filtrate enters the press pallet through a sieve.

The automatic washing system (6) washing out waste during pressing and make periodic washing of the of the sieve and the pallet. Compacted and washed waste is fed to the discharge pipe (4), and then to a collection tank. Filtrate is removed from the press through the drain pipe (7).

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- When Customer choose our equipment it provides RELIABILITY AND COST-EFFECTIVENESS operation of treatment plant;
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