



KROFTA ENGINEERING LIMITED

Technical collaboration with AJV Engineering Ky, Finland for EKOSEP® Belt Filter Press Long model

Belt Filter Press

Twin Wire Belt Filter Press (BFP-L)

The EKOSEP® BFP Long model was brought to India by Krofta Engineering Limited (KEL) with the help of a technical collaboration with AJV Engineering Ky, Finland in 2007.

It is a continuously operating double belt de-watering machine designed to de-water different kinds of sludge by means of compression between permeable belts. Typical concentration of sludge is 0.8% - 3.0% DS. The flow can go up to 40 m³ / hour per 1 m of belt width, depending on the concentration. The calculation of the capacity depends on the character and parameters of the sludge. The

liquid sludge is conditioned by adding a de-watering polymer in the inbuilt flocculation tank. Sludge flows on to the machine where it flows as an even mat to the gravity zone. Here the sludge is de-watered by the help of gravity and drains the largest amount of free water. It then passes through the low-pressure zone followed by the high-pressure zone. The squeezing of sludge continues through a series of rollers.

The final dry sludge is discharged from the belt by the help of two doctor blades. There are spray nozzles which operate automatically to help the cleaning of the belt. The Belt Filter Press Long model can be used for industrial applications to treat primary or chemical sludge, as well as for municipal applications to treat biological sludge.



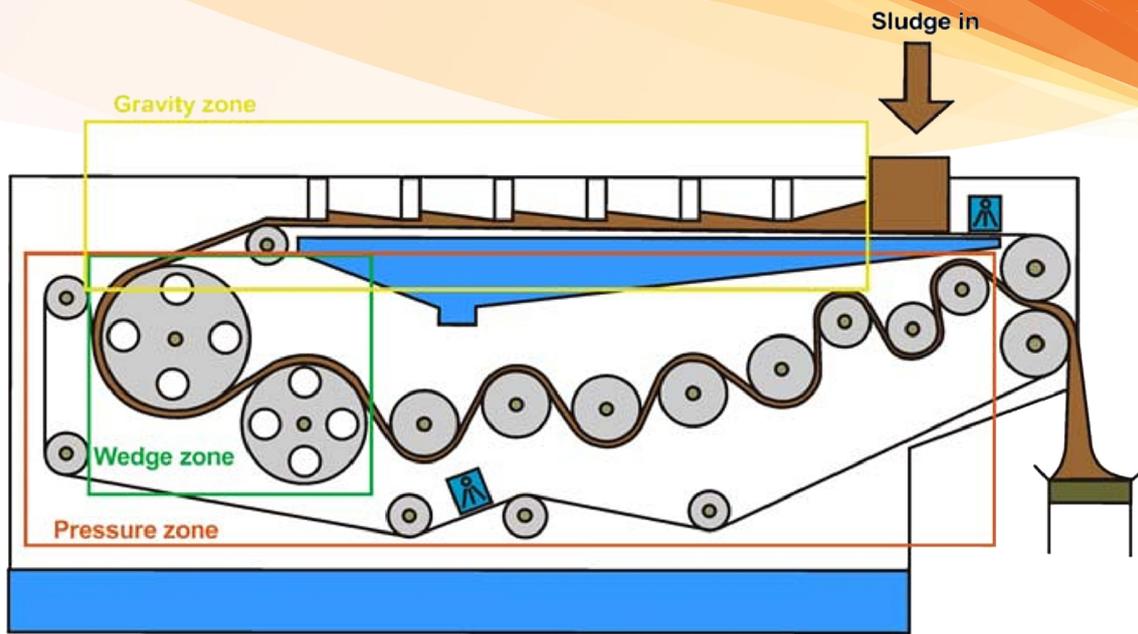
Applications of BFP-L

- Pulp & Paper Industry
- Petrochemical Refinery
- Municipal applications such as Sewage Treatment Plants (STPs)
- Desalination Plants
- Poultry and Slaughterhouses
- Dairy Industry
- Textiles and Tanneries

Advantages of BFP-L

- Inbuilt flocculation tank with an agitator to facilitate the mixing of the sludge and de-watering polymer
- Low energy consumption as compared to other de-watering machines such as centrifuges. Hence low machine downtimes
- Highly economical for handling high sludge volumes as compared to a centrifuge.
- Sludge outlet consistency over 30% for primary sludge and 20% for biological sludge.

Sludge De-Watering Diagram & Technical Information



Sludge De-Watering Diagram & Technical Information

BFP-L Model	BFP 0.5 L	BFP 1.1 L	BFP 1.6 L	BFP 2.1 L	BFP 2.6 L
Length (mm)	3750	3750	3750	3750	3750
Width (mm)	830	1550	2050	2550	3050
Height (mm)	1720	1720	1720	1720	1720
Weight (Kg)*	800	1100	1450	2100	3200
Belt Area (m ²)	9.75	21.4	31.2	41.0	50.7
Belt Speed (m/min)	2 – 10	2 – 10	2 – 10	2 – 10	2 – 10
Wash Water (m ³ /h)	2	6	8	11	14
Air Consumption (lit/min)	10 – 15	10 – 15	10 – 15	10 – 15	10 – 15
Motor Power (kW)	0.55	0.75	1.1	1.5	1.5

Table 1: BFP-L Technical Information, *All weights are approximate

Material of Construction and Other Options

MACHINE PART	MATERIAL USED	SPECIFICATION
Frame	Stainless Steel	AISI 304
Rollers	Stainless Steel	AISI 304
Perforated Rollers	Stainless Steel	AISI 304
Shafts	Stainless Steel	AISI 304
Trays	Stainless Steel	AISI 304
Motors, Pneumatic, Bearings	As per customer requirement	
Bearings	Plastic nest, Plastic brush	PE / PE Grease Free
Bearings	Plastic nest, Roller bearing	PE
Wash Water System	Nozzles with Brush	
Wash Water System	Automatic Nozzle	
Total Covering	Machine cover	AISI 304
Customizations	As per customer requirement	



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