



## KROFTA ENGINEERING LIMITED

# Triple Wire Belt Filter Press

### Gravity Table & Belt Filter Press Combo-Unit

The Krofta Triple Wire Belt Filter Press (BFP-T) is the first of its kind machine launched in India. It is a combo unit of a gravity drain table and a belt filter press. It bypasses the need for a traditional thickener and can accommodate low consistency sludge directly at the inlet, as low as 0.8%.

It is a continuously operating belt de-watering machine. The presses are sized for de-watering larger volumes of sludge even at low consistencies, first in the gravity zone followed by compression between two permeable belts. The belts are of an optimal mesh size to accommodate maximum drainage.



The liquid sludge is conditioned by adding a de-watering polymer which is mixed with the sludge in the in-built flocculation tank with an agitator. The addition of polymer increases the ability of the sludge to be de-watered. There is a wash water requirement for the back wash nozzles which continuously clean the belts for most efficient performance. The drained water or filtrate is collected through a series of pipes in a tray at the bottom of the machine, this filtrate is of a high quality and can be used in the back wash nozzles or can be taken back to a previous step in an effluent treatment plant.

For primary sludge the BFP-T can easily achieve an outlet consistency of over 35%, and for biological sludge an outlet of consistency 20% if operated at the terms mentioned by KEL.



## Applications of BFP-T

- Pulp & Paper Industry
- Petrochemical Refinery
- Municipal applications such as Sewage Treatment Plants (STPs), biological sludge handling
- Desalination Plants
- Poultry and Slaughterhouses
- Textiles and Tanneries
- 60% less power consumption as compared to a conventional centrifuge of a similar capacity, and less maintenance, hence lower OPEX

## Advantages of BFP-T

- Inbuilt flocculation tank for polymer mixing to enhance de-watering efficiency
- Sludge outlet consistency over 35% for primary sludge and 20% for biological sludge
- Efficient and high-quality filtrate collection system, can be re-used in belt wash nozzles
- 60% less power consumption as compared to a conventional centrifuge of a similar capacity, and less maintenance, hence lower OPEX

## BFP-T Technical Information



BFP-T Model	BFP 1.1 T	BFP 1.6 T	BFP 2.1 T	BFP 2.6 T
Length (mm)	3500	3500	3500	3500
Width (mm)	1430	1930	2430	2930
Height (mm)	2200	2200	2200	2200
Machine Weight (Kg)*	2500	3300	4100	5000
Belt Area (m <sup>2</sup> )	21.5	31.5	41.0	50.7
Belt Speed (m/min)	2 – 10	2 – 10	2 – 10	2 – 10
Wash Water (m <sup>3</sup> /h)	8.5	13	16	21
Air Consumption (m <sup>3</sup> /h)	1.0	1.0	1.0	1.0
Motor Power (kW)	0.75 + 0.55	1.1 + 0.75	1.1 + 1.1	1.1 + 1.5

Table 1: Krofta BFP-T Technical Information, \*All weights are approximate

## Material Used

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	



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