## **BF Type Fully Automatic Filter Press**

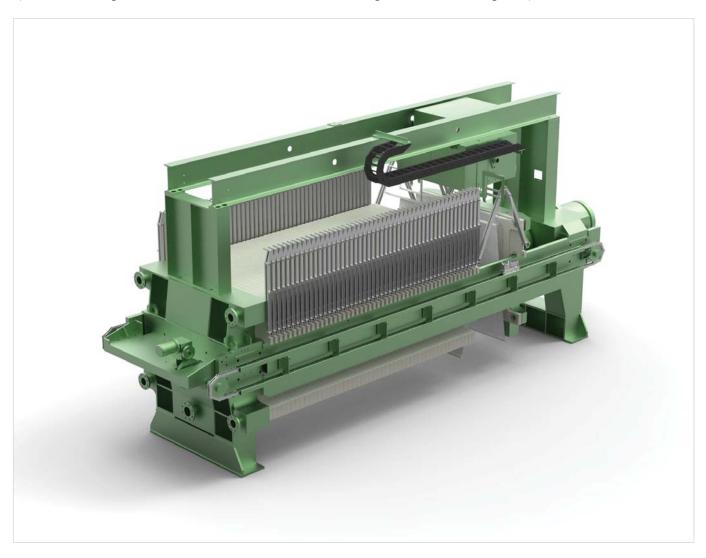
Bottom Feeding Filter Press





# YUCHEON ENGINEERING Filter Press Fully Automatic Filter Press

The Bottom Feeding Filter Press (Fully Automatic Filter Press: BF TYPE) of YUCHEON ENGINEERING is a fully automatic driving system. We could offer equipment optimized for your specific requirements according to your industry characteristics, individual specifications, usage, and etc. such as customized solutions for sludge treatment and sludge dehydration.

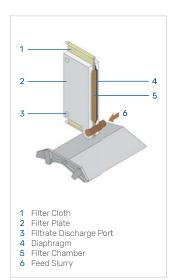


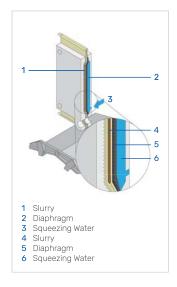
## Features of BF Type - Bottom Feeding Filter Press

- Fully automatic operation.
- 100% cake removal from bottom feeding system.
- Cake is generated from each space between plates and the chamber is cleaned by filter cloth vibration(or Air).
- Cleaning process is done one by one space when plates open.
- Sludge feed is located at the bottom.
- Low level of water content(solidification) from high pressure (20-25kg/cm²).
- Injecting water between a plate and diaphragm gives additional pressure on cake, minimizing water content of cake.
- Automatic cleaning system makes cloth maintenance easier, prevents clogging, and extends cloth life.
- Open-structure enable simple and easy maintenance.
- Dehydration efficiency is increased with high efficiency and stable operation.

## **How It Works**

#### **Mechanism**









#### **Filtering**

With start switch activated, the hydraulic cylinder moves to the hydraulic pump. The hydraulic cylinder clamps the filter plate to form a filter chamber. Then, slurry is fed through the feed port at the bottom of the filter plate. The solid materials of the feed are accumulated as cake and the filtrate is discharged through the filtrate port.

#### Compression

Upon completion of the feeding process, diaphragm is inflated by water and compresses the accumulated materials in the filter chamber.

#### Cake Discharge

After compression process, discharge process begins. As plates open one by one, most cake between plates come off and drop to the conveyor. Then filter cloth up-down vibration bar removes the rest of cake from plates.

#### Cloth Wash

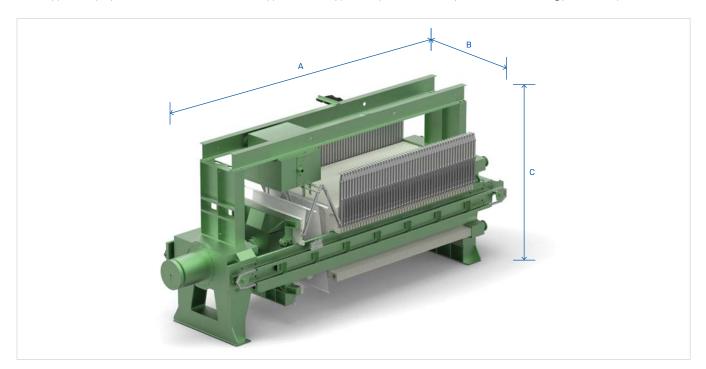
Washing(water or air) pipe moves up and down between open plates to completely get rid of remaining

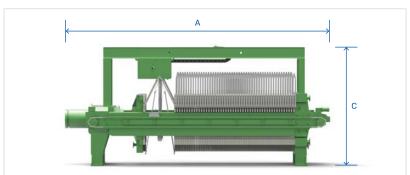
## **YUCHEON's Fully Automatic Filter Press and Control Device**

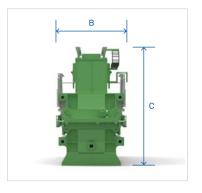
- Select among TF Type, BF Type, and CF Type according to the usage.
- Hydraulic pump unit compresses, opens, and closes filter press.
- Slurry pressurized pump presses(4-15kg/cm²) of slurry for solid-liquid separation into the filter press.
- Compression pump further lowers moisture content of slurry in the press after the solid-liquid separation. (Air compression for lower than 9kg/cm² of compression pressure and water compression for over 10kg/cm²)
- Air compressor/chamber tank cleans the liquid supply hole, compresses air and control the air-operating valve of Air Blow.
- Cake Discharge system discharges dehydrated results out of filter press using the belt conveyor.
- Filter cloth cleaning pump: Automatic cleaning system in the filter press cleans filter cloth with high-pressure water to prevent clogging.
- Automatic control panel for automation of the entire system.

## **Detailed Description of BF Type**

BF Type filter press boasts 100% cleaning of cake as the slurry feed is located at the bottom. It has enhanced performance of cake discharge as it has strengths of both fixed type and travelling type filter press. It has an extremely simple structure of fixed cloth type. Easy operation from features of TF Type and CF Type. Fully automated system to save energy and manpower.







A Max. Length B Max. Width C Max. Height

BF Frame Size Number of Chamber				Filtration Area		A(Max, Length) Filter Press		B(Max, Width) Filter Press		C(Max, Height) Filter Press		Filter Press Weight Empty	
BF 2000	BF 1500	BF 1000	BF 800	m²	ft²	mm	ft	mm	ft	mm	ft	kg	lbs
			10	4.0	43.1	3,500	11.5	1,500	4.9	2,075	6.8	3,000	6,613.9
			20	8.0	86.1	4,200	13.8	1,500	4.9	2,075	6.8	3,500	7,716.2
			30	12.0	129.2	4,800	15.7	1,500	4.9	2,075	6.8	4,000	8,818.5
			40	16.0	172.2	5,500	18.0	1,500	4.9	2,075	6.8	4,500	9,920.8
		30		50.1	539.3	4,000	13.1	2,200	7.2	3,100	10.2	9,000	19,841.6
		40		66.8	719.0	6,400	21.0	2,200	7.2	3,100	10.2	11,000	24,250.8
		50		83.5	898.8	7,100	23.3	2,200	7.2	3,100	10.2	12,500	27,557.8
		60		100.2	1,078.5	7,800	25.6	2,200	7.2	3,100	10.2	14,000	30,864.7
	40			140.0	1,506.9	8,800	28.9	2,500	8.2	3,515	11.5	37,000	81,571.0
	60			210.0	2,260.4	11,000	36.1	2,500	8.2	3,515	11.5	43,000	94,798.8
	80			280.0	3,013.9	12,000	39.4	2,500	8.2	3,515	11.5	50,000	110,231.1
	100			350.0	3,767.4	14,000	46.0	2,500	8.2	3,515	11.5	58,000	127,868.1
60				384.0	4,133.3	15,000	49.2	3,300	10.8	4,050	13.3	80,000	176,369.8
80				512.0	5,511.1	16,000	52.5	3,300	10.8	4,050	13.3	100,000	220,462.3
100				640.0	6,888.9	18,000	59.1	3,300	10.8	4,050	13.3	120,000	264,554.7
120				768.0	8,266.7	20,000	65.1	3,300	10.8	4,050	13.3	140,000	308,647.2

## **High Efficiency**

## **Higher Performance, Lower Cost!**

YUCHEON's Filter Press maintains the stable and continuous dehydration, production and waste management in a wide range of areas such as sewage, water purification, activated sludge, beverage manufacturing factory, mining, mineral, chemistry, and other application areas.

We add decades of expertise to BF Type filter press and offer a superior product to our competitors with excellent throughput, lowest cost and the lowest level of residual moisture required.

## **Advantages of Operation**

- Very simple to operate
- Fully automatic operation
- Modular design and easy to access and maintain
- Minimal employee required

#### **Economy**

- Saving on final disposal costs
- Low maintenance costs
- Reduced labor costs
- Low energy consumption

## **Application**

- Sewage treatment
- Activated sludge
- Harbour sludge
- Sludge in food and beverage manufacturing plant
- Contaminated soil
- Dredging
- Residue from quarries
- Various industrial sludges
- (Cement, Coal, Mineral, Concentrates, Copper, Zinc, Iron, Nikel, Silver, Gold Etc.)

## **Pilot Testing**

Sludge test can be done to decide the right model of filter press and expect the best output of water content from all different types of sludge. Please send us your sludge sample if necessary as we offer sludge test service using our pilot machine at out site.

