

CBS Band Filter System



CBS – Wastewater Treatment Systems use CTECH's **PolyClay** technology to clarify spent solutions, emulsions and industrial effluent. The CBS treatment system provides batch treatment process to meet specific waste removal needs, reduce labour cost, and minimise space needed for placement. Standard systems have a throughput capacity of up to 3 m³ per hour, with treatment tank sizes ranging from 350 litres to 1500 litres for optimum efficiency and economy. CBS systems are manufactured in Stainless Steel and Polyethylene. The CBS system can be provided as a manual or automated system.

TREATMENT TANK

Treatment tanks are of conical-shape design with decant connections located on the bottom side of the tank. Mixers are installed in the tanks, mounted on a support bridge.

POLYCLAY DOSING FEEDER

Feeders are available with a 45 litre hopper for manual filling using 25 kg bags of **PolyClay**.

MIXERS

On all CBS systems, mixers have been selected to provide optimum mixing during the addition of **PolyClay** chemicals and during the treatment process.

BANDFILTER UNIT

A trough shaped bandfilter of stainless steel wire mesh that permits dewatering of sludge from

the treatment tank.

The band filter is driven by a geared electric motor regulated by a level control switch.

COLLECTION TANK

Located beneath the band filter and equipped with a 2½" discharge line for gravity feed to the sewer.

CONTROL PANEL

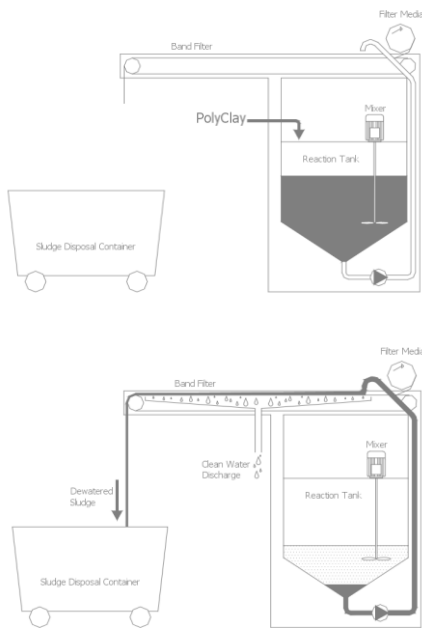
The CBS system can be operated in manual or manual/automatic mode, control panels to meet specific site requirements can also be supplied. Manual control panels are supplied with pushbuttons and manually set timers. Automatic/Manual control panels are supplied with a manual/automatic selector switch push buttons. In the automatic mode the treatment process is automatically executed.

CBS SYSTEM KEY FACTS

The CBS system is a skid mounted system, pre-wired and tested for trouble-free operation from day one. The key features are:

- Up to 1500 liter per batch treatment capacity.
- Materials used for the equipment are chosen for its durability: HDPE or Stainless Steel for the tank and Stainless Steel for the band filter.
- Treated water and sludge is run through a band filter assembly for maximum quality.
- System produces 20 to 35 percent dry solids cake on average.
- Optional automation of the batch via PLC.
- All controls are centrally located for ease of operation. Complete manual overrides.
- Easy to operate, no highly skilled operators required.

Typical Treatment Process with PolyClay and CBS Treatment System



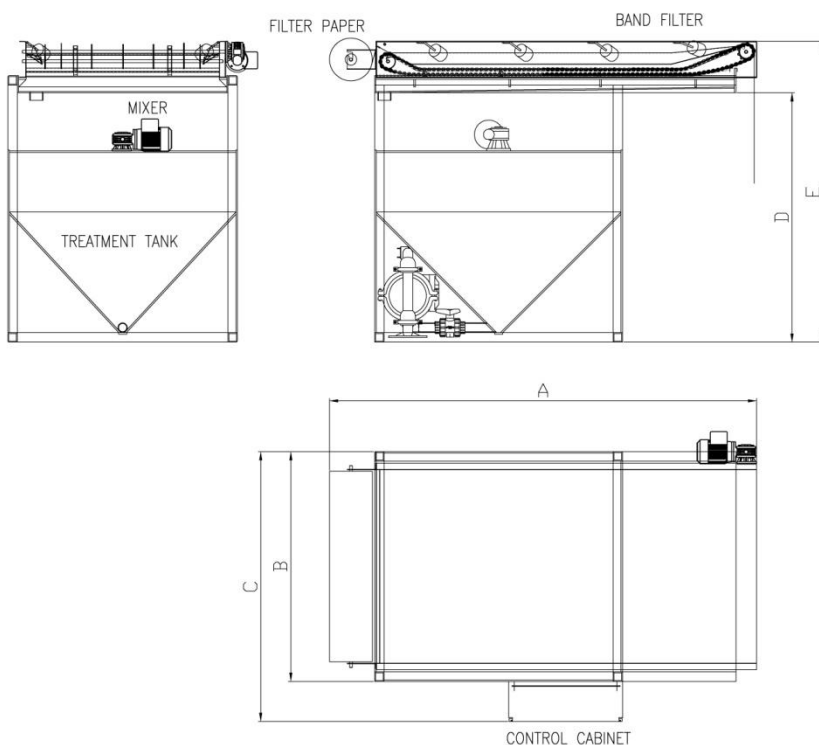
1. The reaction vessel is filled with wastewater. After filling, the mixer is started and the PolyClay Reactive separating agent is added to the mixing wastewater. During this time, a large floc can be observed forming in the water. The mixing continues for 5 - 10 minutes. The mixer is then stopped, and the floc is allowed to settle. After 5 minutes of settling, the mixer is turned on again shortly. The treatment process is then finished.

2. The treated, clean water and the sludge is then pumped onto the filter media where it dewateres by gravity. A level detection determines when the sludge builds up too high on the filter media and automatically advances the filter media to ensure even dewatering. The sludge and filter media then fall into a disposal container.

Standard models available :

Model	Batch size	Standard band filter dimension (length x width)	Maximum capacity per hour (depending on type of sludge)
CBS 350	350 litres	2000 x 700 mm	350 - 700 litres
CBS 750	750 litres	2000 x 1000 mm	750 - 1500 litres
CBS 1500	1500 litres	3000 x 1500 mm	1500 - 3000 litres

Dimensions:



	CBS 350	CBS 750	CBS 1500
A	2010	2245	3245
B	910	1210	1580
C	1120	1420	1795
D	1190	1310	1630
E	1460	1580	1925

All dimensions in mm.

Designs and specifications are subject to change without prior notice or obligation.
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