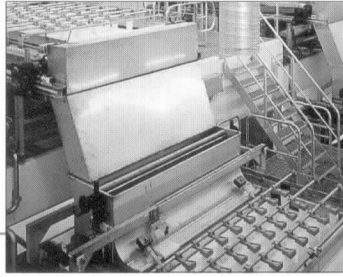


# BELLMER CASCADE S

## Winklepress and Turbodrain combined



### Cascade S

The modular design of the Turbodrain TDC and the Winklepress WPN provide an ideal opportunity to combine the thickening process (TDC) and the subsequent dewatering process (WPN).

With the combination of the Turbodrain and the Winklepress even slurries with very low solid contents can be treated, resulting in the following advantages:

#### 1.) Higher efficiency

The high belt speed and the low filtration time required of the Turbodrain TDC enable the plant to handle high feed variations which would not be possible by the Winklepress only. The Bellmer Spreader Box serves the transfer of the highly-concentrated sludge from the Turbodrain TDC to

the Winklepress for further efficient dewatering.

#### 2.) Minimized cost of equipment

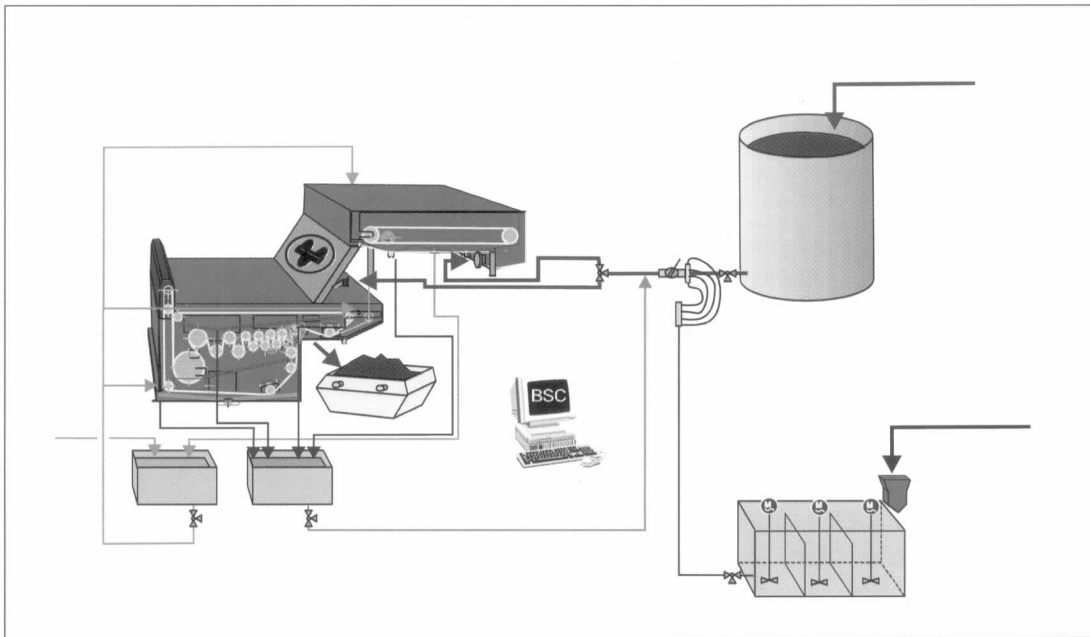
Due to the direct sludge transfer from the Turbodrain TDC to the Winklepress via the Spreader Box no additional equipment e.g. storage tank is required.

#### 3.) Low costs of operation

Only one addition of flocculant is necessary for the dewatering process.

#### 4.) Improved capture rates

With the **BELLMER Recycling System BRS** the filtrate of the Turbodrain TDC is utilized for cleaning the belts of the Turbodrain and the Winklepress which is leading to higher solids capture rates.



### Typical results Cascade S

Application	Municipal sewage plant Digested sludge	Waste paper Deinking sludge	Chipboard production Waste-activated sludge	Granitic stone processing Disposal	Tissue production Mech./biolog. sewage plant
Direct combination	3 TD size 3 3 WP size 3	TD size 3 WP size 3	TD size 3 WP size 2	2 TD size. 3 2 WP size 08	2 TD size 2 2 WP size 2
Feed DS	2 %	1.5 - 2.5 %	0.8 %	0.2 - 0.6 %	1.8 %
DS after Turbodrain	12 %	25 - 30 %	8 - 10 %	40 %	10 - 15 %
DS after Winklepress	35 %	56 - 58 %	20 - 22 %	70 - 80 %	45 - 50 %
Flocculant addition g/kg DS	1.8 - 2.5	1 - 3	14*	0.5 - 1.5	1 - 2
Throughput m <sup>3</sup> /hr	each 70 - 100	130 - 180	60 - 70	each 120	each 80

DS = dry solids content

\*with the earlier non-Bellmer system: 50 - 60 g/kg DS.

