

PowerDrain

Gravity belt thickener for efficient sludge treatment



The PowerDrain belt thickener is a highly efficient and economical solution for sludge thickening. It is engineered and delivered by ANDRITZ SEPARATION, a company with decades of experience in sludge treatment. The PowerDrain is a heavy-duty unit that operates in a size range of 5-20 m² drainage area. The large open area, special feeder, and adjustable ploughs optimize

the drainage effect. There is easy access for maintenance and cleaning. ANDRITZ SEPARATION has the expertise and experience to customize the PowerDrain and its auxiliaries for any sludge treatment application.

Main benefits

- Modular design for ease of configuration and installation

- Quick and easy installation leads to fast start-up
- Rugged and reliable construction
- Uniform feed and flow for trouble-free performance
- Flexible operation (variable-speed drive)

PowerDrain

Various models



PowerDrain M

Throughput up to 40 m³/h. Works well in combination with PowerPress G and PowerPress E type dewatering belt presses.



PowerDrain L

Throughput up to 60 m³/h.



PowerDrain XL

Throughput up to 180 m³/h. One of the highest residence times for any belt thickener.

Operation

After the sludge is flocculated in the feeding pipe, it enters the gravity zone where most of the liquids and solids are separated. A spreader plate ensures uniform distribution over the working width of the belt. PowerDrain units can be equipped with two to four rows of ploughs which compact, rearrange, and deflect the

sludge. The thickened sludge is scraped from the belt. The filtrate is discharged on the drive side. A washing chamber with flat jet nozzles cleans the belt. As an option, the spray bar can be equipped with a self-cleaning device. The thickened sludge is now ready to be processed by dewatering equipment.

Main applications

- Thickening before a filter press
- Thickening of municipal or industrial wastewater sludge
- Thickening in small wastewater treatment plants
- Thickening before anaerobic digestion
- Dewatering (when combined with PowerPress)

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