

## ANDRITZ Sludge & Reject

News



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This ANDRITZ Sludge & Reject Newsletter has the following topics for you:

- Sediment separation with <u>ANDRITZ ReSed-H</u>
- ANDRITZ Rotary Shear UC coarse shredding of pulp and paper rejects
- <u>Pyrolysis of rejects</u> a contribution towards closing the recycling loops
- PowerPress S a belt press perfectly suited to biological sludge





**ReSed-H with shaftless screw** 

### ANDRITZ Sediment Separator ReSed-H

The ANDRITZ ReSed-H is a robust sediment separator for drainage of heavy rejects with high volume flows created by pulper junk traps and the like. The entire volume coming from discontinuous junk traps is fed into the vat all at once. The water is drained off efficiently, and heavy rejects are removed by a shaftless screw and brought to a container for further treatment or disposal.

Due to the generous vat design in combination with a shaftless screw, blockages caused by bulky material are reduced to provide continuous operation with maximum availability. Because it is a pulling screw, no sealings are required at the dirty end. For the covers, the main focus lays on good visibility and easy access to the screw to facilitate fast removal of very large debris.

Take a look at more <u>ANDRITZ reject</u> equipment.



Cutting unit of the ANDRITZ Rotary Shear UC

### ANDRITZ Rotary Shear UC – Coarse shredding of pulp and paper rejects ReSed-H

In the ANDRITZ Sludge & Reject Newsletter no. 3, we introduced our Granulator UG, a single-shaft fine shredder. Its stronger brother – the Rotary Shear UC – is a slow-running, double shaft coarse shredder. Just like the Granulator, it originates from ANDRITZ MeWa and has dozens of references in recycling applications, from electronic scrap to used tires. It might be of special interest to you in the recycling of pulper rags.

The low operating speed of less than 20 rpm and the rigidity of the machine make it thoroughly resistant to impurities and thus perfectly suitable for rejects from drum pulping or the processing of rags. The strong and robust machine is designed for difficult-to-handle materials, and the high torque forces ensure that pretty much anything can be fed to the Rotary Shear. If solid items that not even the UC can cut enter the shear, the machine can reverse its operating direction and eject those impurities through a flap. This ensures smooth operations and protects the downstream equipment. An optional hydraulic pusher - similar to the one used in the fine shredder – ensures highest throughputs. even for light and bulky materials.

A reliable and efficient coarse shredder is an absolute necessity for any reject system that has to deal with problematic, bulky material. The ANDRITZ UC performs this task satisfactorily. In the past few months, several Rotary Shear UC units have been sold – mainly for the treatment of rags.

More about the ANDRITZ Rotary Shear.



Pyrolysis reactor: The plastic turns into a hot gas that is cooled and becomes pyrolysis gas or oil, and the remaining metals can be recycled in the metals industry.

# Innovative and environmentally friendly pyrolysis of plastic rejects

Both end consumers and industry worldwide generate ever increasing amounts of waste that contains plastic, which is still mostly dumped or burned instead of being recycled. ANDRITZ has combined its fiber and reject treatment know-how from pulp and paper applications with pyrolysis technology from Alucha, one of the leading developers worldwide of innovative pyrolysis processes for industrial applications.

The aim of this cooperation is to supply new technologies and equipment for pyrolysis of rejects generated in the processing of LBP (Liquid Packaging Board) or UBC (Used Beverage Cartons), as well as other rejects containing plastic that occur in pulp and paper applications. Pyrolysis of rejects reduces the operating costs of a paper mill by substituting pyrolysis products for primary energy, and thus makes a substantial contribution towards protecting the environment. Read more about <u>pyrolysis of rejects</u>.





**PowerPress S belt press** 

#### PowerPress S: Perfect for biological sludge

In previous issues of the ANDRITZ Sludge & Reject News, we presented our latest generation of sludge belt presses, type CPF Rhino and CPF Hippo. While the aforementioned heavy-duty presses are preferably assigned to dewatering sludges with medium to high fiber content, the PowerPress S is a belt press type that is selected preferably to dewater purely biological sludge or mixed sludge containing no or only very few fibers.

The PowerPress with its integrated tower mixer and large gravity zone provides optimum conditions for flocculation and pre-thickening of sludge. The very long wedge and S-roll zone, equipped with up to 11 rolls, ensure a very smooth and gentle pressure build-up, which is essential for these types of sludges. As such sludges allow only limited pressure application, a light-weight but nevertheless sturdy frame structure has proven very successful. This provides a budget-friendly solution that yields an excellent price/performance ratio. The PowerPress S can be combined with any pre-thickening stage, such as the ANDRITZ Gravity Table GT. It is made entirely of stainless steel and available in five sizes, ranging from 1 to 3 meters belt width.

Find out more about <u>ANDRITZ power</u> press technology.

If you have any questions on ANDRITZ's capabilities in sludge and reject handling, please <u>contact us</u>.

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