

LimeLine solutions for your pulp mill
Ecologically sound, economically efficient



The challenge: producing high quality white liquor that is energy-efficient and environmentally safe

ANDRITZ PULP & PAPER continues to innovate technologies which minimize discharges by internal recycling of process effluents, rather than more costly end-of-pipe solutions.

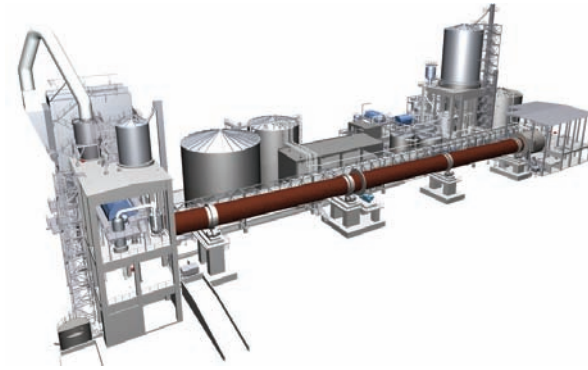
This is particularly evident in the recausticizing, kiln, and cooking liquor processes – of which we are a leading global supplier.

Our portfolio and scope include process solutions, equipment, and on-going services for the production of cooking liquors and other modified delignification liquors for kraft pulping. We have delivered over 70 new recausticizing plants (more than 200 modernizations) and 100 new lime kilns (30 modernizations), and several plants for white liquor oxidation or modified white liquors.

Our LimeLine products are designed to excel as standalone units – and to offer superior performance when integrated together into a modern, energy-efficient and environmentally safe production line.

The result? Reduced and cleaner air emissions, excellent energy efficiency, reduced loads to the landfill, and very high white liquor quality – even with the closed-cycle process loops.

The ANDRITZ solution: integrated LimeLine technologies for the white liquor plant



Ecological and economical solutions for:

- Recausticizing
- Lime reburning
- White liquor production and modification

LimeGreen

Falling film, cross-flow, green liquor filtration

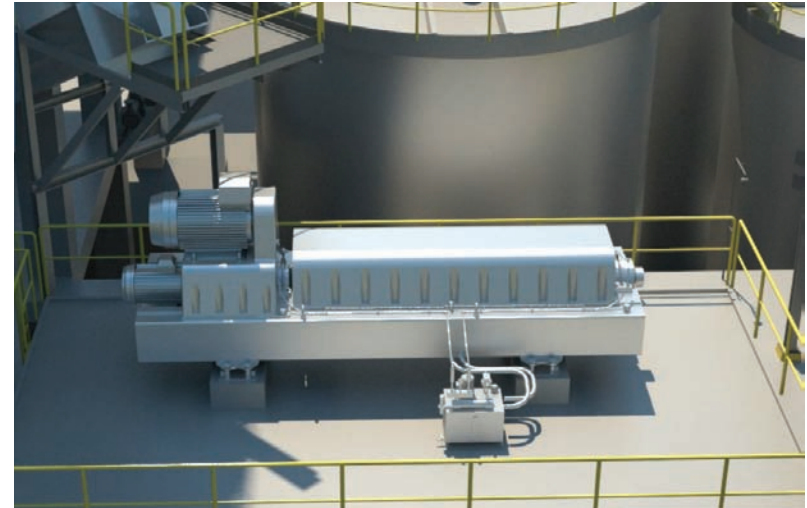
- Efficient separation of impurities
- High availability
- Less make-up lime for total process
- No need for lime mud precoat
- Long filter cloth lifetime
- Better operation in recausticizing and lime kiln
- Stable operation efficiency in digester and evaporation



LimeFree

Lime mud free dregs handling solutions

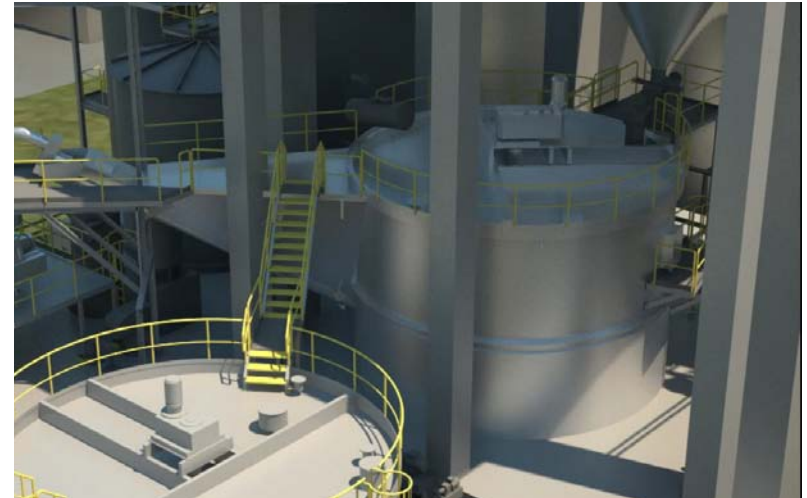
- Proven technology
- No lime mud needed – minimizes the amount of waste to landfill
- Optimized lime purging – efficient P removal
- ESP dust used commercially as fertilizer
- Flexible to use – possible to expand production
- Small footprint for installation



LimeSlake

Multi-compartment lime slaker

- Big lime mud particles
- Improved separation of white liquor – alkali savings
- Improved filtration of lime mud – alkali savings
- Higher dry solids in lime mud
- Self-cleaning system
- Effective scrubber
- Energy savings in lime kiln
- Clean working environment



LimeMilk

LimeMilk: one- to three-compartment causticizers

- 1-3 chambers
- Optimal sizing
- Carefully agitated
- No lubrication water
- No bottom bearing
- Insulated roof



LimeWhite

For white liquor filtration

- Continuous operation - precoat change during operation
- Clean and hot white liquor
- Fully automated control – capacity adjusts itself according to green liquor flow to slaker
- Higher white liquor yield from green liquor
- Reduces water circulation
- Less white liquor dilution



LimeKiln

For efficient and reliable lime reburning

- Complete lime circulation knowledge in-house
- Low fuel consumption with two-layer brick lining
- Low emissions
- Standard kiln design with LimeFlash and LimeCool
- Carrying and thrust roller sets
- Low NO_x technology
- Control of flue gas temperature
- Easy and fast start-up
- No internals needed
- Seamless welding of retained blocks



Our experts ready to help you

Construction professionals from EP to EPC



Tero Koskinen
Design Engineer,
Mechanics

In-house standardized engineering with BAT technology



Matti Mantsinen
Design Engineer

Optimal integration of lime kiln and recaustization



Henrik Grönqvist
Manager,
Project Engineering

Reliable solutions and runnability is the goal



Pija Parviainen
Process Engineer

Optimized plant engineering solutions



Petteri Ahtainen
Chief Engineer,
Mill Planning

Smooth commissioning and start-up ensured



Johanna Heikkinen
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