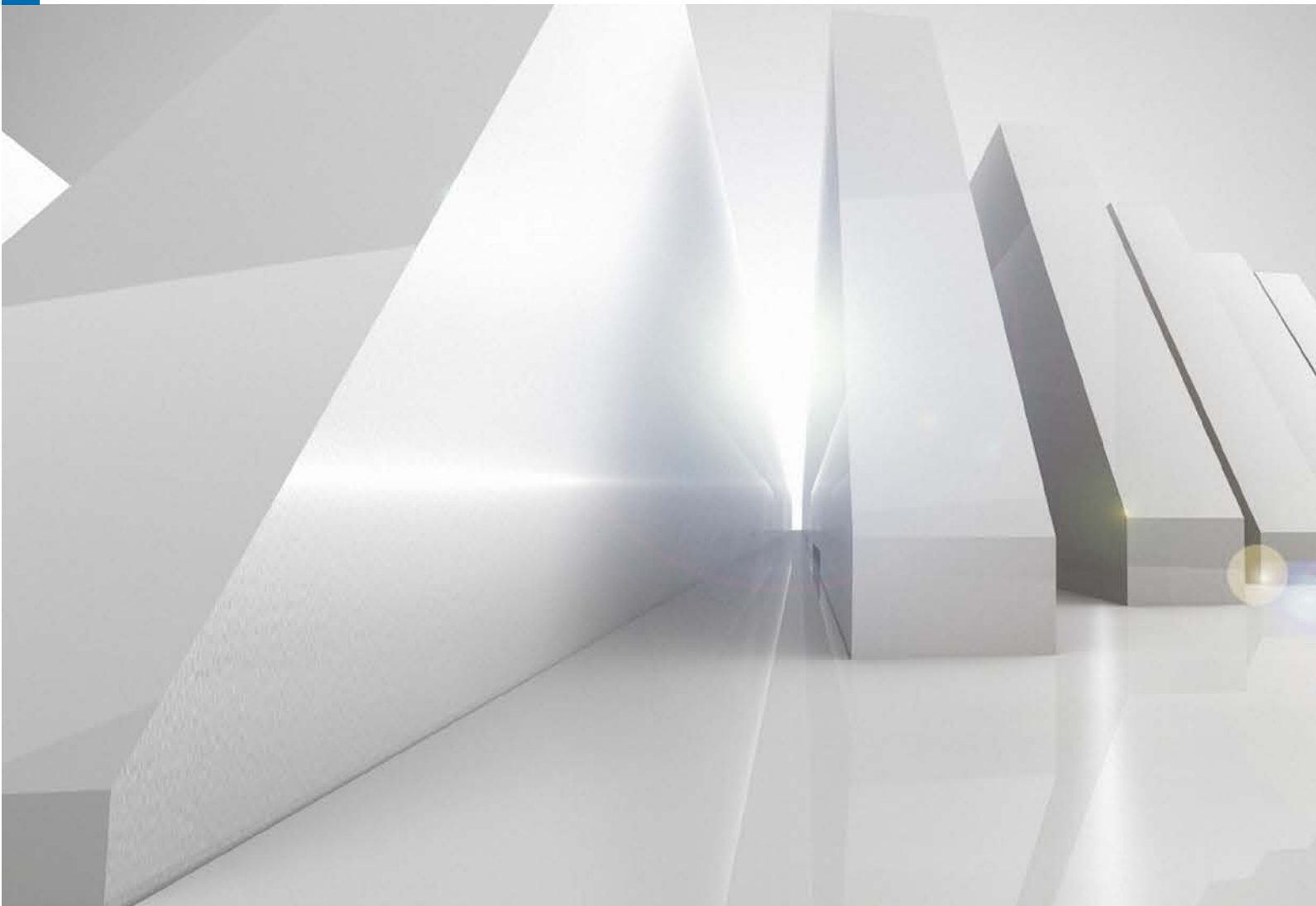


Durabond and Durabond Light –

Raising the bar in refiner plate technology



The challenge

For any new production method of refiner plates to be worthy of consideration, the capabilities of current production methods must be exceeded by delivering improvements

- Tightly controlled, highly consistent bar height
- Highest bar height to bar width ratios for long service life especially for narrow bar and groove designs
- Use of new materials achieving highest toughness and wear resistance combinations
- Smooth groove surfaces
- Safe and easy installation of refiner plates through new minimum weight design concepts
- Maximum balance quality due to minimum weight differences between segments

The idea

We disassociate the materials for the bars from the rest of the segment. This allows the use of new materials (i.e. work hardened steel) and new construction methods to compose a final product of minimum weight, highest toughness, and precision.

While laser technology sets the standard in reproducibility and accuracy, the application of low temperature bonding techniques ensures that commonly encountered distortions like warp and twist are kept to a minimum. The use of proprietary bonding

agents permits safe plate applications also in elevated temperature applications (i.e. TMP post refining). The modular construction method ensures highest sturdiness and strength.



▲ Highest toughness and precision

The solution

Durabond and Durabond Light – the intelligent merging of laser precision and innovative bonding technology



▲ Durabond Light (30"-54" rotor)



▲ Durabond Light Signature Series (30"-54" rotor)

Bonding technology

Innovative bonding is currently revolutionizing the application of materials on a global scale, and ANDRITZ has incorporated this technology into the production of refiner plates in pursuit of perfection.

Two years of intensive development effort yielded our newest development in refiner plate technology: Durabond and Durabond Light. High precision laser cut bars of work-hardened stainless steel are inserted into a base plate.

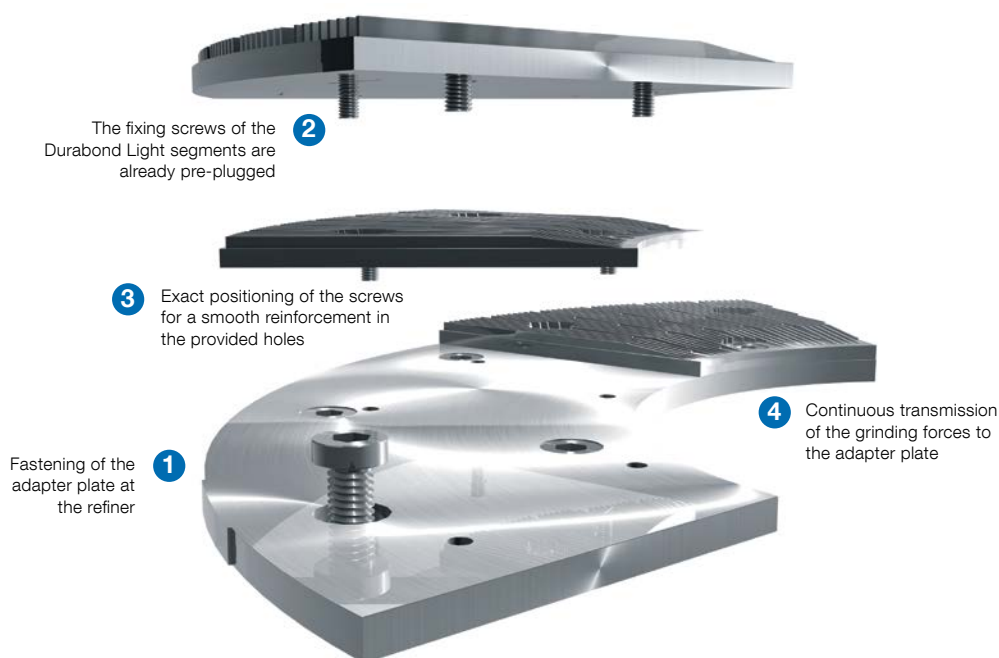
This allows the production of products exceeding the quality and precision of conventional manufacturing methods.



▲ Durabond technology sets standard in reproducibility and accuracy

Durabond Light (30"– 54" rotor)

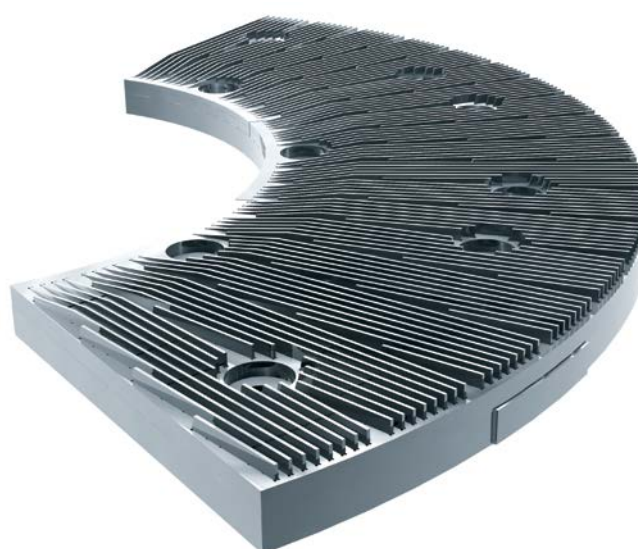
Highest bar height to bar width ratios for extra large refiners and easy handling



Refining segments for refiners of sizes bigger than 26" increase in size and weight, and make plate installation increasingly demanding and difficult.

Consequently ANDRITZ developed a concept applying the Durabond production method to a multiple segment solution – Durabond Light. In order to make plate installation safe and fast we reduced segment weight below 20 pounds.

ANDRITZ Durabond Light segments are mounted on a base plate delivered with the first installation. In order to further speed up installation, Durabond Light segments come with pre-installed bolts and a special tool – never has changing plates been easier and safer.



▲ Durabond Light for a safe and fast plate installation

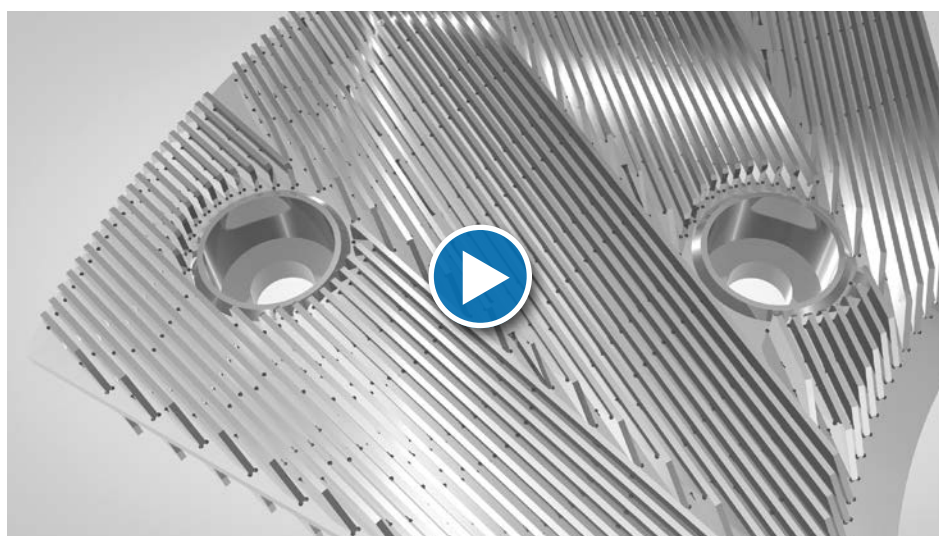
Durabond (12"– 26" rotor)

Highest bar height to bar width ratios for long service life



▲ Durabond – Refiner plates in pursuit of perfection

For disc refiners from 12" to 26" rotor size, ANDRITZ offers refining segments produced in their regular shape, because segments for refiners of this size are comparatively small and light.



▲ For those who want to learn more about how a Durabond is made

**Learn more about
Durabond technology:**

www.andritz.com/Durabond



Push your process beyond current capabilities

And benefit from the cost savings calculator MAGNUS



Actual cost savings example

Contract Revenue for Andritz	\$ 77.888
Current plate expenses	\$ 89.871
Mill Plate Expense Savings	\$ 11.983
Plate Change Savings	\$ 1.600
Energy Savings Contract Period	\$ 305.760
Annual Total Cost of Ownership Reduction	\$ 318.343

I can personally vouch for that.

Peter Heustetter

We designed these products to push refiner plate manufacturing technology above and beyond the capabilities of currently available methods in order to complete

- highest precision
- longest life for highest operational safety
- high & narrow bar designs
- smooth and pluggage resistant surfaces
- safe and easy installation
- all-out balance quality due to minimal segment weight variation

ANDRITZ's industry leading cast plate offering on the high end. Special attention was paid to operational safety via design and construction. We have raised the bar.

MAGNUS savings calculator: Take advantage of rich and profound data.

We set up the extensive and unique MAGNUS simulation platform and database by using practical process analysis.

With MAGNUS we can simulate and optimize your system, calculate energy savings or project fiber quality improvements.

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