Push your process beyond current capabilities.

We designed these products to push refiner plate manufacturing technology above and beyond the capabilities of currently available methods in order to complete ANDRITZ’s industry leading cast plate of ferriing 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.

- 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

Durabond Light (30” – 54” rotor)

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.

Fastening of the adapter plate at the refiner

The fixing screws of the Durabond Light segments are already pre-plugged.

Exact positioning of the screws for a smooth reinforcement in the provided holes.

Continuous transmission of the grinding forces to the adapter plate.

1
2
3
4

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

And benefit from the cost savings calculator MAGNUS Durabond Light for a safe and fast plate installation.

I can personally vouch for that.

Actual cost savings example

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The solution

Durabond (12”–26” rotor)

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.

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.

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

Highest bar height to bar width ratios for long service life

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

Durabond Light (30”–54” rotor)

Durabond technology sets standard in reproducibility and accuracy

Durabond Light Signature Series (30”–54” rotor) 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.

Learn more about Durabond technology:

www.andritz.com/Durabond

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

While laser technology sets the standards 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.
The solution
Durabond and Durabond Light – the intelligent merging of laser precision and innovative bonding technology

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 Light (30”– 54” rotor)

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

Refining segments for refiners of sizes larger than 30” 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.
The solution
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.

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.

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

The challenge
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 strength.

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.

Highest toughness and precision
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

Durabond (12" – 26" rotor)

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.

Learn more about Durabond technology:
www.andritz.com/Durabond
We accept the challenge! We designed these products to push refiner plate manufacturing technology above and beyond the capabilities of currently available methods in order to complete the following:

- 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 as design and construction. We have raised the bar.

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.

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**Actual cost savings example**

<table>
<thead>
<tr>
<th>Current fixed expenses</th>
<th>$1,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Plate Change Costs</td>
<td>$450</td>
</tr>
<tr>
<td>Spare Change Costs</td>
<td>$300</td>
</tr>
<tr>
<td>Annual Total Cost of Ownership Reduction</td>
<td>$5,450</td>
</tr>
</tbody>
</table>

I can personally vouch for that.

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Push your process beyond current capabilities

And benefit from the cost savings calculator MAGNUS.

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