Wear linings

Wear lining solutions for any need

Keep material flow up and maintenance down
Mining and aggregates sites process rocks and other abrasive ore that wear out equipment and parts. Wear linings are protective materials installed in areas subjected to wear.

Wear linings protect your assets

Installed in chutes, spouts, hoppers, transfer points and other applications subjected to wear, wear linings protect the assets and provide sufficient wear and chemical resistance to keep maintenance down and material flow up. When used in the correct application, long-lasting and robust wear linings make a substantial difference in improving process flow, machine uptime and safety.

1 | Loading and hauling
- Truck body
- Truck liners
2 | Crushing
- Feed chute liners
- Mainframe liners
- Vault liners
3 | Grinding
- Mill feed chute liners
- Rubber backing
- Discharge chute liners
4 | Classification
- Screen feed box liners
- Screen feed chute liners
- Undersize chute liners
- Oversize chute liners
5 | Conveying
- Transfer chutes and liners
- Skirting
6 | Flotation
- Magnetic separator liners
- Flotation tank liners
7 | Bulk material handling
- Feeder chutes and liners
- Stacker and reclaimers chutes and liners
- Transfer chutes and liners
- Bins and liners
- Tubs and liners
8 | Other
- Mobile equipment liners
- Concrete mixer liners
- Debarking drum liners
- Scrubber/washing drum liners
- Balling drum/pelletizing drum liners

Wear linings have an important function in most process stages. Replacing standard linings with Metso optimized solutions gives the maximum protection needed.
Reaching your targets

Our customers strive to increase uptime, maximize throughput, reduce costs and improve safety while also managing sustainable business operations.

This can be challenging since mining and aggregate production is tough on equipment – and that can make it even tougher on budgets. Plenty of maintenance is often required and working conditions can sometimes be risky.

Protecting the equipment from wear is essential to avoid machine failure and expensive stops.

The right solution for you

Working with Metso means you get access to the market’s widest range of optimized wear protection solutions, tools and services to minimize wear and improve safety while also maximizing productivity and profit.

### #1 Wear linings

<table>
<thead>
<tr>
<th></th>
<th>Rubber</th>
<th>Metallic</th>
<th>Ceramic</th>
<th>Polyurethane</th>
<th>Polyethylene</th>
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<tbody>
<tr>
<td>Trellex® wear plates</td>
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<td>Microledge</td>
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<td>Trellex® Poly-Car</td>
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<td>Rockbox</td>
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<td>Xledge™</td>
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### #2 Complete solutions

- Chutes
- Bins
- Tubs
- Conveyor skirting system
- Cyclone underflow boxes
- Impact plates

### #3 Services and tools

- Lifting and cutting tools
- Value-added services

Sheetings and coatings

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<table>
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<tbody>
<tr>
<td>Xresist™ epoxy system</td>
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</tbody>
</table>

Increased uptime
Maximized throughput
Improved health and safety

#1 Wear linings

#2 Complete solutions

#3 Services and tools
Optimized wear linings of all types and materials

Rubber, metallic, ceramic, polyurethane and polyethylene all have their strengths. In an optimal operation, each material is used where it performs the best.

By having all options available to choose from, we can select the ideal material for your operating conditions. Sometimes the best results can be achieved by combining several materials in the same application.

Materials
Wear linings

Our comprehensive portfolio in combination with deep technical knowledge means we can offer exactly the right solution to help you reach your targets.

Trellex® wear plates
Our wear plates minimize wear and reduce noise while increasing service life. The offering includes a wide range of products designed to best support customers’ needs in keeping the total cost per ton down.

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A complete chute, bin or transfer point solution

Sometimes choosing an improved wear lining option is not enough. To get the maximum benefit for your process, a complete chute, bin or tub replacement could be required.

Metso designs, manufactures and installs not only wear linings but also a wide range of chutes, bins, tubs and other bulk material handling structures. The solution comes with optimized wear linings.

Our chutes, bins and tubs are designed to:
- Improve safety
- Control material flow
- Eliminate spillage
- Reduce abrasive wear
- Protect outgoing conveyors

Structures

The structures and the wear lining are designed together in a seamless process. We use DEM simulations to validate and compare different options so you can be confident that the selected solution is the right one.
Value-added services and tools

By choosing Metso wear lining solutions, you get much more than parts.

Combining the right parts with optimized installation methods, tools and services makes all the difference in your results and the safety of your people.

DEM simulations
Our simulation software allows us to predict the performance of the customized solution extremely accurately, which ensures that we deliver the gains we promise.

Pre-study/audit*
Our thorough pre-study sets the groundwork for optimization and ensures that the proposed solution is the best match for your ore and process.

Customized design/selection*
Our wide portfolio, long experience and unique simulation software allow us to select the ideal solution for you.

Installation supervision and complete installations*
Our experienced engineers oversee and guide you on how to safely and quickly install parts – or can do the full installation for you using efficient installation methods and following the most stringent safety standards.

Wear and performance monitoring*
One of the surest ways to ensure you have exactly the right parts when you need them is to closely follow the wear rate. This can be done manually or with the more advanced 3D scanning.

Design and material optimization*
The more we learn about your process and closely follow the wear rates, the better we can support you. We constantly do material and design improvements to optimize your solution.

Technical support*
Buying from us gives you access to the unmatched experience and knowledge of our local teams as well as our global experts.

Development meetings and collaborative R&D
Regular meetings with Metso’s experts ensure that development stays on track. We review the results and findings together, identify issues, as well as set new development and performance targets. We also do joint R&D projects with our customers.

Customer training
To stay ahead of the game, it is important to keep up to date on the latest technologies and understand how to best utilize your equipment. We offer customer training.

Lifting tools
Working with Metso, you get access to lifting tools that ensure safe and fast installations as well as tools to safely cut rubber sheeting.

Financing solutions
We have a wide range of financing solutions available for you, including consignment stock, leasing and other payment options.

Environmental initiatives
Sustainable operations, suppliers and solutions, recycling take-back programs.

* Part of Metso’s process of optimization, the complete life cycle from site audit to monitor and improvement.

Always included
Optional and/or can be included in long-term contracts
Some options are only available in selected markets.
The process of optimization is at the heart of how we do business and operate. Not only do we perform a thorough Audit and Review of your operation, we also carefully simulate and Compare different options to ensure the solution selected is the right one. Excellent results can often be achieved by combining materials—such as metals, rubber, polyurethane, and ceramics—and taking full advantage of the best features of each.

Our products are produced using state-of-the-art technology and quickly installed using safe tools and methods. And when the parts are in operation, we Monitor closely and make improvements if needed. This way we get better each time, making it possible for you to maximize plant efficiency, minimize downtime and ensure measurable cost savings.

With Metso, you don’t just get wear parts, you get continuous performance Improvement.

Metso’s process of optimization

Your process changes and we change along with it

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Change is the only constant. For us, continuous optimization means working closely with you, truly understanding your process and making improvements accordingly.
How does our solution improve uptime?
- Long wear life means fewer stops
- Faster installations using Metso’s tools and installation methods
- Liner design optimized for quick installation and removal

How does our solution improve safety?
- Increased uptime means fewer hours of risky maintenance
- Light-weight products and easy change-outs mean safer and shorter maintenance stops
- Minimized manual handling
- Less exposure to confined spaces

How does our solution improve throughput?
- Long-lasting and reliable solutions keep materials flowing
- Optimized change-outs mean more production

How does our solution reduce costs?
- Superior design, materials and solution mean lower cost per ton
- Safer and faster installations
- Less maintenance

We help you to achieve your strategic objectives by finding solutions that increase the efficiency of your operation.

By selecting a responsible partner and optimized wear linings, you not only get more out of your process, you also take part in creating a more sustainable future.

Metso is committed to delivering solutions that are more sustainable, efficient and safer for the environment and people.

How we deliver results:
Metso wear lining solutions are designed with one thing in mind – to maximize the availability and productivity of your equipment, while reducing your costs for service and maintenance.

The market’s most complete wear lining offering means we can select exactly the right material and design for your operating conditions.

Ability to not only optimize the wear lining, but to also design and offer complete chutes, bins and other transfer points.

Continued optimization delivers the best performance – even as the process parameters change.

Access to experienced resources and value-added services.

You set the performance target. Our job is to exceed it.
Maximized plant availability during maintenance shutdown

Case: Newcrest Cadia East, Australia

Challenge
Design and deliver eleven transfer chutes for the Cadia East project to provide exceptional performance and deliver the results expected by a world’s best practice mining operation.

Solution
- Metso designed custom transfer chutes with the chute as a focus and the transfer station designed to suit.
- The chutes were fully rotatable with only two chute sections to remove and replace.
- Wearback™ design creates rock-on-rock wear to minimize chute wear and maximize ore control.

Results
- Improved uptime – the sections were replaced during a 10-12 hour outage, most chutes changed within 6 hours.
- Increased throughput – from 850,000 to 6,000,000 tonnes between maintenance.
- Increased safety – custom cradles allowed maintenance to be completed outside of shutdown periods.

Metso Wearback™ transfer chutes help maximize plant availability and reduce workloads during maintenance shutdowns.

Wearback™ features
- Control ore flow – speed and direction
- Protects both the chute and the belt
- Centralized belt loading
- Reduced skirt wear
- Reduced operating noise
- Increased liner performance
- Reduced liner mass
- Rotatable chute upgrades
- Xledge™ liner design to maximize utilization
- Minimized liner stock holdings
Together, towards continuous improvements.

Metso is the market’s most comprehensive supplier of wear linings. Allow us to review your process and identify areas of potential improvement. Together, we will find a solution to keep your equipment well protected.

Contact us to find out more about how we can help you increase your profitability: metso.com/WearLining