

# Metso:Outotec

Mill lining solutions

## Poly-Met mill linings



Application

SAG mills, AG mills, ball mills, FGD mills, rod mills, scrubbers and washing drum

Skega Poly-Met™ mill linings from Metso Outotec are carefully designed to maximize the availability of your mill and keep your costs to a minimum.

### Targeting increased uptime

Mining operations aim to reduce downtime of equipment so that production time can be maximized. This is crucial as production lost due to downtime represents significant financial loss. To improve mill availability and safety, it's critical to find products and partners that you can rely on.

### Ready to take on any challenge

Every mill is unique and Metso Outotec can, from the world's widest range of products, find exactly the right solution for your application.

Metso Outotec Poly-Met mill linings combine the most desirable properties of rubber and steel to maximum advantage. This combination allows the use of more wear resistant alloys of iron and steel than can be used in a conventional metallic lining, as the rubber substantially dampens the impact forces and also results in a lower lining weight. This makes Poly-Met an outstanding solution, particularly in heavy applications. The rubber imparts flexibility, facilitating ease of maintenance, and in combination with extremely hard metallic inserts maintains an efficient profile over the entire lining life.



### The optimal solution for your mill

Metso Outotec offers a complete Poly-Met solution including lifter bars, plates and grates. Alloys and profiles are selected based on your specific application and operating conditions. Different lining materials such as rubber, metallic and Poly-Met can be combined in the same mill to achieve optimal performance.

Design and material selection is executed using High Fidelity Simulation (HFS) and experience from thousands of real-world cases.

Metso Outotec invented the Poly-Met concept over 30 years ago, and our linings are still the world's most widely-used today. The reason is simple, we offer our customers solutions that improve grinding efficiency and lead to increased profitability.

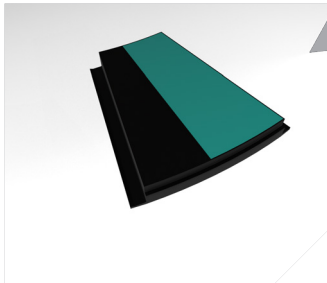
Read more at  
[mogroup.com/polymetliners](http://mogroup.com/polymetliners)

### Benefits

- Low lining weight
- Long wear life and increased availability
- Continuous design improvement
- Engineering capabilities to enable liner customization
- Fast and safe installation
- No leakage or peening
- No pegging of rubber or Poly-Met grates
- Retain an adequate profile
- Produced close to our customers
- Worldwide service network

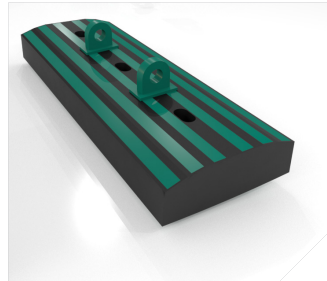
# One product, many fields of applications

Its low weight in combination with long and predictable wear life makes Poly-Met beneficial in most applications. Poly-Met is a versatile product that can solve various problems due to its unique characteristics.



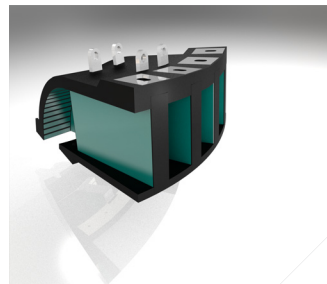
**Feed end head plates - Balance the wear life**  
It can be a challenge to minimize downtime by reaching a balanced wear life between different mill lining components, such as head plates and lifters or inner and outer rings of liners.

**Solution:** Poly-Met head linings are designed to use a minimum amount of the metallic component, placed in strategic locations. This results in a light-weight, highly predictable system requiring a minimum number of maintenance stoppages.



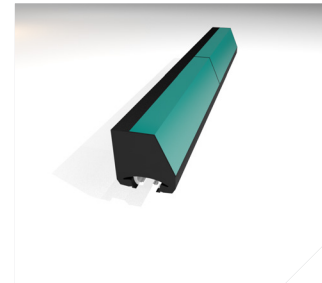
**Shell plates - Avoid cracking**  
Cracking and breakage is a common problem that results in big losses.

**Solution:** Poly-Met shell plates can withstand high impact as they are made of highly resistant alloys in combination with rubber. This results in less cracking and thereby fewer unplanned stops.



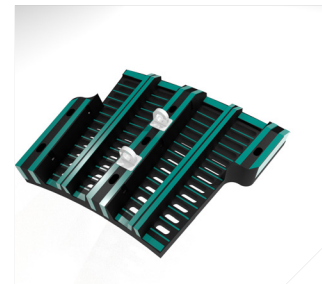
**Discharge - Save weight and predict wear life**  
Discharge systems, including pulp lifters and discharge cones are arguably the most difficult and time-consuming assemblies of any grate discharge mill to replace.

**Solution:** Light-weight components crafted from steel-reinforced rubber are easily installed, and provide long service life. By reducing system mass, it is often possible to increase mill charge volume without risk of mill structural overload.



**Lifter bars - Keep the profile**  
Many mines struggle to reduce overall lining mass while aiming to avoid frequent maintenance stops. Compounding this problem, a lining must retain an adequate profile to maintain efficiency throughout the liner life.

**Solution:** The use of Poly-Met in combination with other Metso Outotec mill lining offerings provides a balanced solution, whereby it is often possible to execute a complete lining renewal in a single maintenance stop. Combine this with efficiency of operation and long service life, and you have a proven solution to improve your bottom line.



**Grate plates - Eliminate pegging problems**  
Some mill operators struggle with pegging problems and grate breakage, resulting in production disruption.

**Solution:** The strong yet flexible materials used in Poly-Met and rubber grates make it possible to reduce or totally eliminate pegging problems and maintain aperture sizing, which stabilizes your product size distribution and circuit capacity.

Metso Outotec Poly-Met™ is a true problem-solver that can be used in any part of the mill

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