



**Lower energy.
Higher performance.
Lower CO₂ emissions.**

Innovative liner solutions that turn
grinding efficiency into operational
and environmental value.

Ascend 
Magotteaux cement
innovative lifting liners

Ascend

There was a time when improving one performance factor meant compromising another. For example, a longer tube mill liner lifetime came at the expense of productivity, with higher energy consumption and lower effective volume.

That time is over. **Ascend**  Magotteaux cement innovative lifting liners are designed to deliver greater grinding efficiency, helping reduce energy consumption and CO₂ emissions while maintaining productivity and extending liner lifetime.

At the same time, they raise performance across maintenance, production, HSE, logistics, sustainability and supply chain.

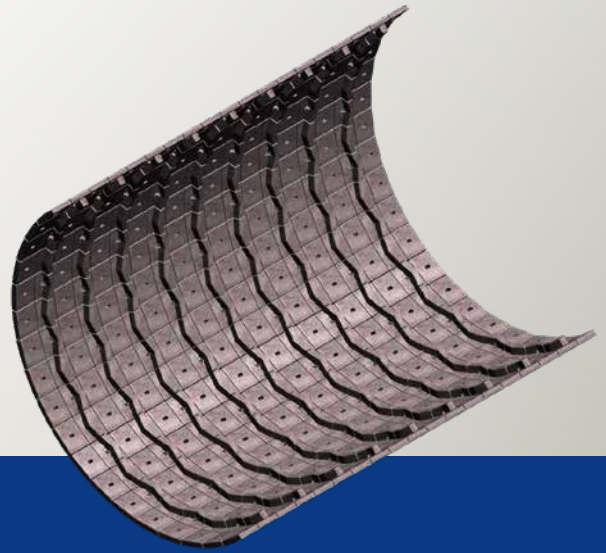
The innovative and patented solution combines base plates with lifting rings deployed in a zigzag design to optimize grinding performance and deliver greater operational and environmental value.

What it means for you:

- **Consistent grinding efficiency**, throughout the entire liner lifetime. The lifting performance stays stable, so does the throughput.
- **Less downtime and easier maintenance.** Only the lifting rings are replaced, not the entire liner.
- **Energy savings you can measure.** Optimized media trajectory means increased grinding efficiency, fewer kWh/t and lower CO₂ emissions.
- **Longer lifetime and lighter inventories.** Durable base plates combined with replaceable lifters ensure constant lifting action during the wear life of the liner.

How it's possible:

A patented design with long-lasting base plates and interchangeable lifting rings maintains lifting action constant during the wear life of the liner.



Advantages that drive results



Energy savings and improved grinding efficiency – **up to 10% gains**, thanks to stable lifting and controlled ball motion.



Reduced ball wear rate through more consistent ball lifting.



Lightweight design option
For example: base plate **under 400 kg/m²** with variable base plate thickness.



Long lifetime – over 60,000 hours for base plates in standard cement applications.



Quick and easy lifter replacement with **standard liner elements as light as 15-30 kg**



Enhanced safety – fully bolted lining system.

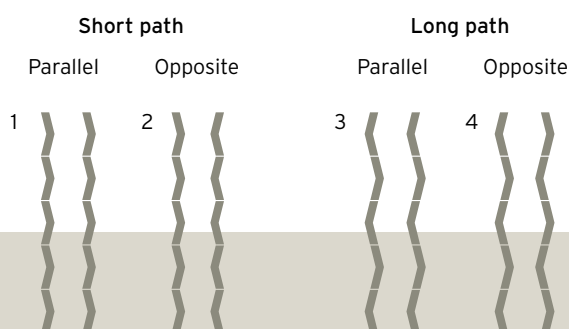
Optimizing efficiency with controlled projection

Our innovative lateral lift design maximizes lifting effect while minimizing throwing.

With reduced impacts, the grinding process achieves superior efficiency. Additionally, this design allows for the potential utilization of a harder base plate alloy, further optimizing durability and performance.

ZigZag design for constant lifting performance

4 different designs of lifting rings to answer most of the applications.



Parallel configurations offer smoother grinding, while opposite configurations provide increased lifting.

We offer the possibility to choose liners ranging from lightweight to heavy-duty, with variable lifetimes depending on your needs.

We offer the following combinations:

From **50 to 75 mm** base plate thickness

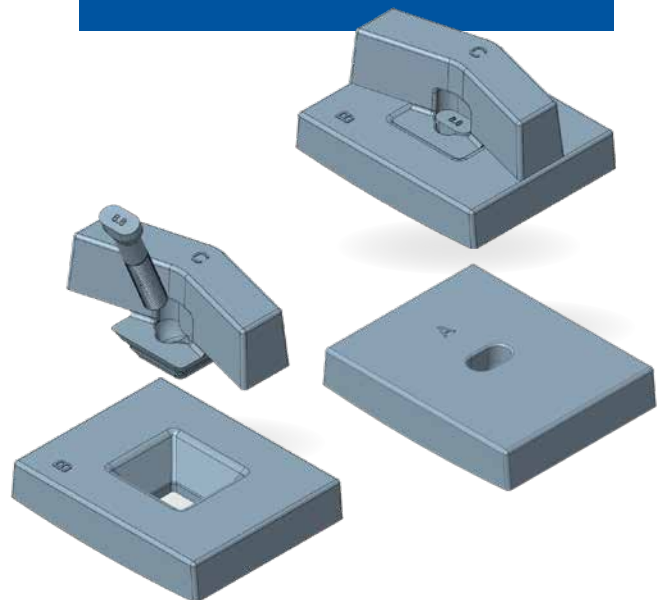
From **75 to 85 mm** deflector width

From **80 to 100 mm** deflector height



"From installation to performance, the Ascend liner made a real difference—quicker to install than a traditional step liner and delivering immediate gains in both output and energy efficiency."

*South American Customer,
Cement industry*



From the first to the second chamber, Magotteaux keeps innovating for your tube mill efficiency:

In addition to **Ascend**  Magotteaux cement innovative lifting liner, watch out for **Motion**  Magotteaux cement innovative classifying liner, supporting efficient performance and optimized grinding results.

A patented solution already trusted by leading cement groups with installation across the World.





Global coverage with local production

+ 100 years of innovation experience

22 production units across **12** countries

+150 countries covered through our
sales network

+800K tons of products capacity

+3000 employees around the
world

Part of **Sigdo Koppers Group**,
listed in Santiago (Chile)



Process optimization services
and products for abrasive
and impact applications.

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Magotteaux, a global leader with more than 100 years of expertise standing by your side.

At Magotteaux, we know it's an increasingly challenging world and any difference we can make to reduce the overall running cost of your operations will have a positive impact on your bottom line. We are committed to make your business as successful as possible while contributing to lower your environmental footprint.

Magotteaux is much more than just a supplier! As a true innovator, we invest continuously in innovation and develop strong and close relationships to understand your challenges and define the best possible solution prior to engineering and delivering the promised quality. We use innovative and modern monitoring tools to prove our promise and optimize your operations.

We are born recyclers, as more than 80% of our raw materials come from recycled goods. We invest in energy efficiency and renewable energy along with an active strategy to reduce, reuse and recycle. Circular economy is important for us. With multiple production units around the world, we are uniquely placed to offer an attractive scrap buy-back program.

The information and data in this data sheet are accurate to the best of our knowledge. They are intended for general information only. Applications as suggested are described only to help readers make their own assessment. They are neither guarantees nor to be construed as express or implied warranties of suitability for these or other applications.