



CastoCasting

Impact Wear and Heat Resistant Steel

Pioneering Industrial Sustainability

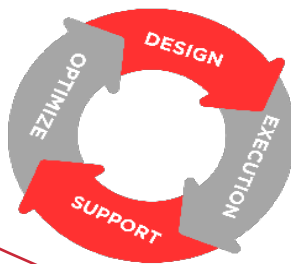
www.castolin.com

www.eutectic.com

Performance Mindset With Castolin Eutectic!

Critical industrial equipment is subject to extreme wear, with planned and unplanned shutdowns increasing your maintenance and operational costs. Areas that are difficult to access, such as those at high elevations, pose an even greater risk to employee safety and your bottom line. In this type of environment, superior wear-resistant materials are vital for covering wear-prone areas and serve as a way for companies to improve performance and reduce costs.

As a strong global player in wear management and performance, Castolin Eutectic is committed to delivering “the optimum solution” to improve your operational and maintenance KPIs, such as:



- Mean time between failures (MTBF)
- Maintenance man-hours (MMH)
- Mean downtime (MDT)
- Cost per ton mined (CPTM)

Your bottom-line matters to us!

Our wear experts are dedicated to helping you achieve the lowest cost per ton possible using our wear management solutions. From mobile and fixed equipment to complete backfill piping systems, our global teams offer field and benchmark performance testing, along with mine-specific baseline analysis, to determine your total cost of ownership. Schedule a service call with one of our industry specialists today!

For over 100 years, Castolin Eutectic has been at the forefront of supplying the market with value-added surface protection products and solutions.

Castolin Eutectic strives to improve the existing life cycle of plant assets to provide optimum operational performance against the effects of high-wear abrasion, high impact, gouging, and other wear-related maintenance failures.



**Improved
Operational
Efficiency**



**Minimized
Unplanned
Shutdown**



**Efficient
Maintenance
Strategy**

Global Presence & Local Outreach

Our UAE Service Centers provide a local presence, while our expertise spans the globe. Our international teams pool resources to solve difficult industrial wear problems in a cost-effective way.

Pioneering Industrial Sustainability



Mining



Power



Steel



Cement



Agriculture



Pulp & Paper



Oil & Refinery



Heavy Machinery



1538

Employees



10

Supply centers



20



31

Market centers

Wear Management Specialists

Castolin Eutectic's wear management specialists offer technically advanced solutions that redefine equipment life cycles across service centers, regardless of the wear mechanism.



Description

Castolin Eutectic specializes in providing a comprehensive range of services and products specifically tailored to the mining sector. We offer advanced steels and alloys that excel in breaking up and pulverizing rocks and minerals within mines.

We take pride in offering a wide selection of our meticulously chosen steels, engineered to be highly resistant to wear, impact, and abrasion.



Our featured steels include:

High Chromium: Renowned for its exceptional hardness and durability.

Chrome-Molybdenum Steels: Available in pearlitic and martensitic varieties, delivering superior performance.

Manganese Steels: Our products play a crucial role in the mining processes of breaking, pulverizing, and refining materials.

Applications:

Milling Process: Liners and grate plates specifically designed for SAG mills, AG mills, ball mills, rod mills, inlet and outlet bend chute liners, and more.

Crushing Process: Components crafted for crushers, such as hammers, blow bars, and wear plates, optimizing crushing efficiency.



Mill liners

Metallic liners for all kind of SAG mills, AG, ball mills and rod mills present in the grinding processes of minerals.

Liners profile design upon clients drawing, and collaboration in design towards improvement of the liner performance.

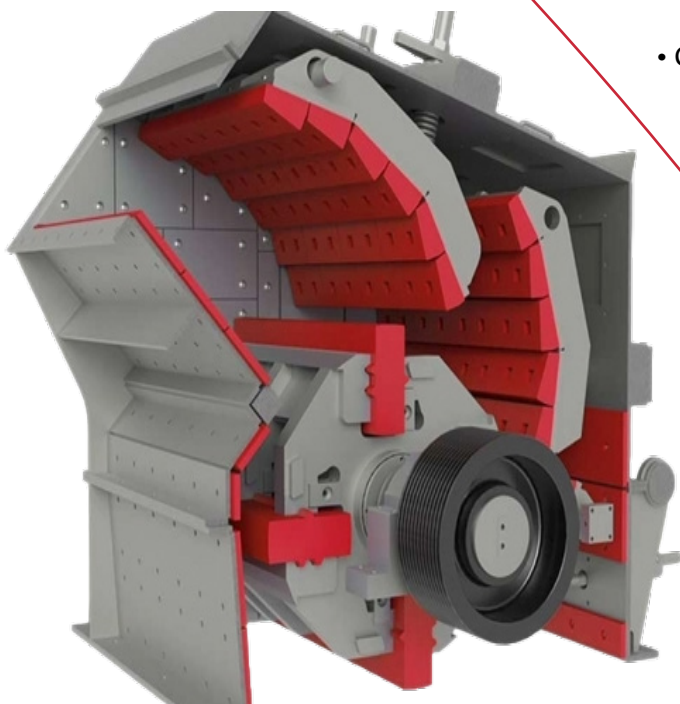
- **Mill inlet/outlet plates:** Metallic inlet/outlet grate plates for all kind of SAG mills, AG, ball mills and rod mills present in the grinding processes of minerals. Design upon client's drawing, and collaboration in design towards improvement of the plate performance.
- **Parts and components for crushers:** Parts resistant to impact and wear, casted or machined finished, for crushers.
- **Hammers and blowbars:** Castolin Eutectic offers hammers and blowbars on steel alloys with austenite structure meant to absorb strong impacts, assuring good properties of hardness and wear resistance.

Application in primary and secondary crushing.

Benefits for the production process:

- Optimization and efficiency of the crushing process
- Longer lifespan of hammers and blow bars
- Reduction of production costs

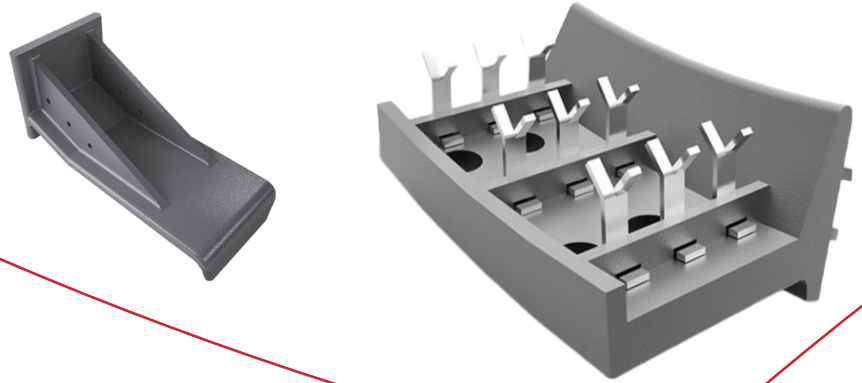
Castolin Eutectic offers hammers and blow bars in manganese, medium-alloyed, and high-chromium steel.



Heat-Resistant Casting for Kiln Areas

Castolin Eutectic offers steel alloy components for rotary kilns used in the calcination of raw cement, including inlet segments and nose ring segments. The efficient operation of the kiln relies on well-maintained inlet segments at the kiln mouth and nose ring segments at the outlet. These metal segments secure the refractory brick rings inside the kiln.

Castolin Eutectic provides tailor-made solutions, adjusting material designs to meet customer requirements. The steel specifications feature heat-resistant alloys with chromium (Cr) content of 20-30% and nickel (Ni) content of 3-27%, ensuring durability and performance in demanding kiln environments.



Coolers

Castolin Eutectic specializes in providing technological steels for cooling cement clinker in **planetary coolers and grate coolers**.

Planetary coolers

We excel in designing planetary or satellite coolers for efficient clinker cooling.

Our expertise includes:

- Precise cooling zone distribution in planetary tubes (from zone 1 to zones 5 and 6).
- Tailor-made steel parts for each zone and clinker type.
- Carefully chosen materials ensuring exceptional reliability and safety.

Trust Castolin Eutectic for optimal cooling solutions in cement production.

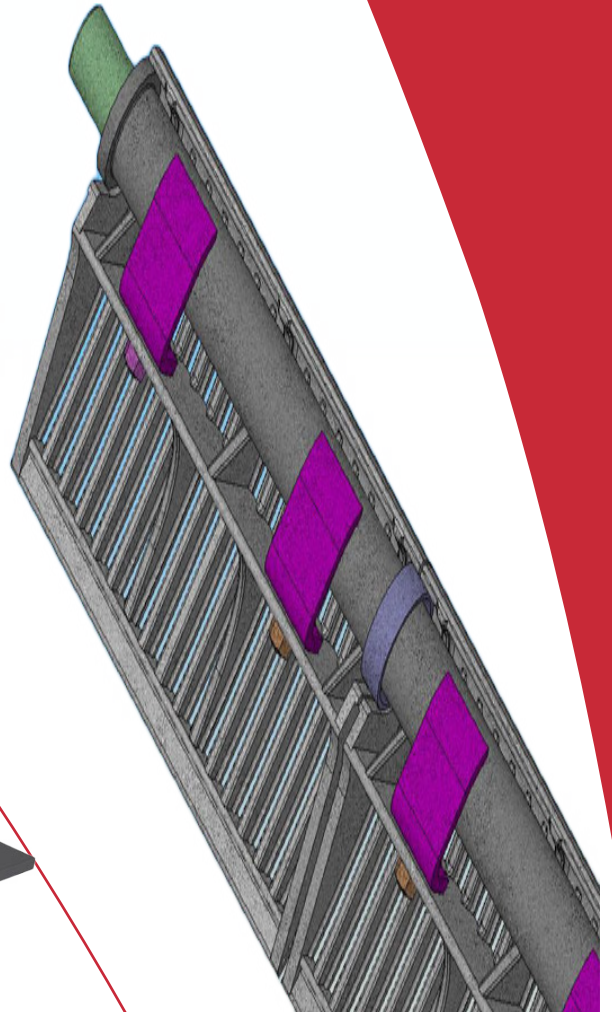
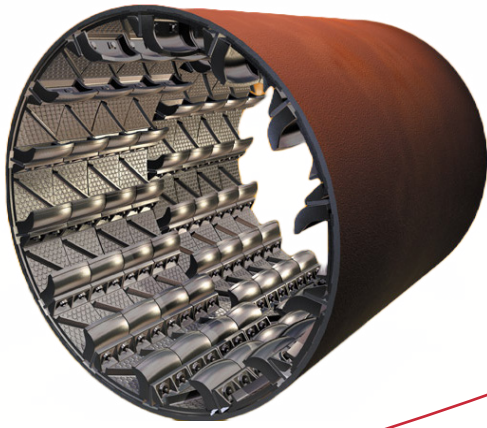


Grate coolers

With a rich history of 30 years, Castolin Eutectic has been at the forefront of manufacturing plates for grate coolers.

Leveraging this extensive experience and expertise, the company has introduced numerous innovations in metallurgy, materials, and grate design.

These advancements aim to enhance plate longevity and performance significantly. Count on Castolin Eutectic's continuous commitment to improving grate cooler efficiency and durability, backed by their deep understanding of the industry's evolving needs.



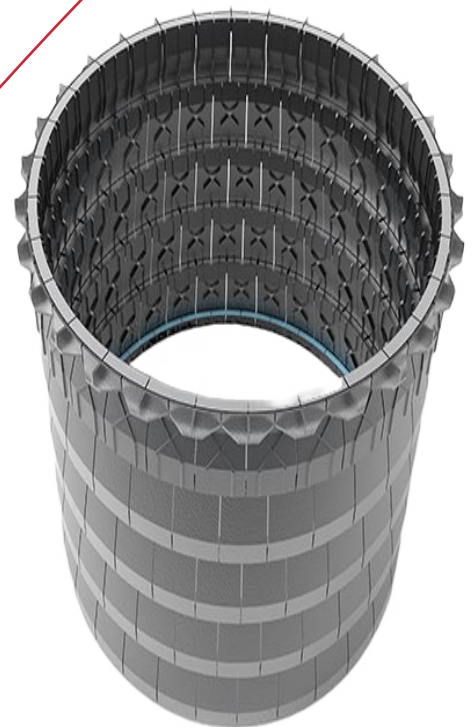
Castolin Eutectic specializes in providing high-quality steel components for pipes and cyclones used in preheaters of raw cement plants. Our range includes dipping tubes and tipping valves, essential for optimizing the preheating process.

Dip tube

In the cyclones, the raw cement gradually descends towards the rotary kiln's inlet sleeve, absorbing heat from the hot outlet gases of the calciner kiln.

Circular rings composed of segments (dip tubes) protect the cyclone tubes, ensuring efficient operation under high temperatures, oxidation, and thermal shock.

Castolin Eutectic dip tubes are engineered from heat-resistant steel alloys with chromium (Cr) content of 20-30% and nickel (Ni) content of 3-27%, providing exceptional performance and durability in demanding cyclone conditions.



Flap valves

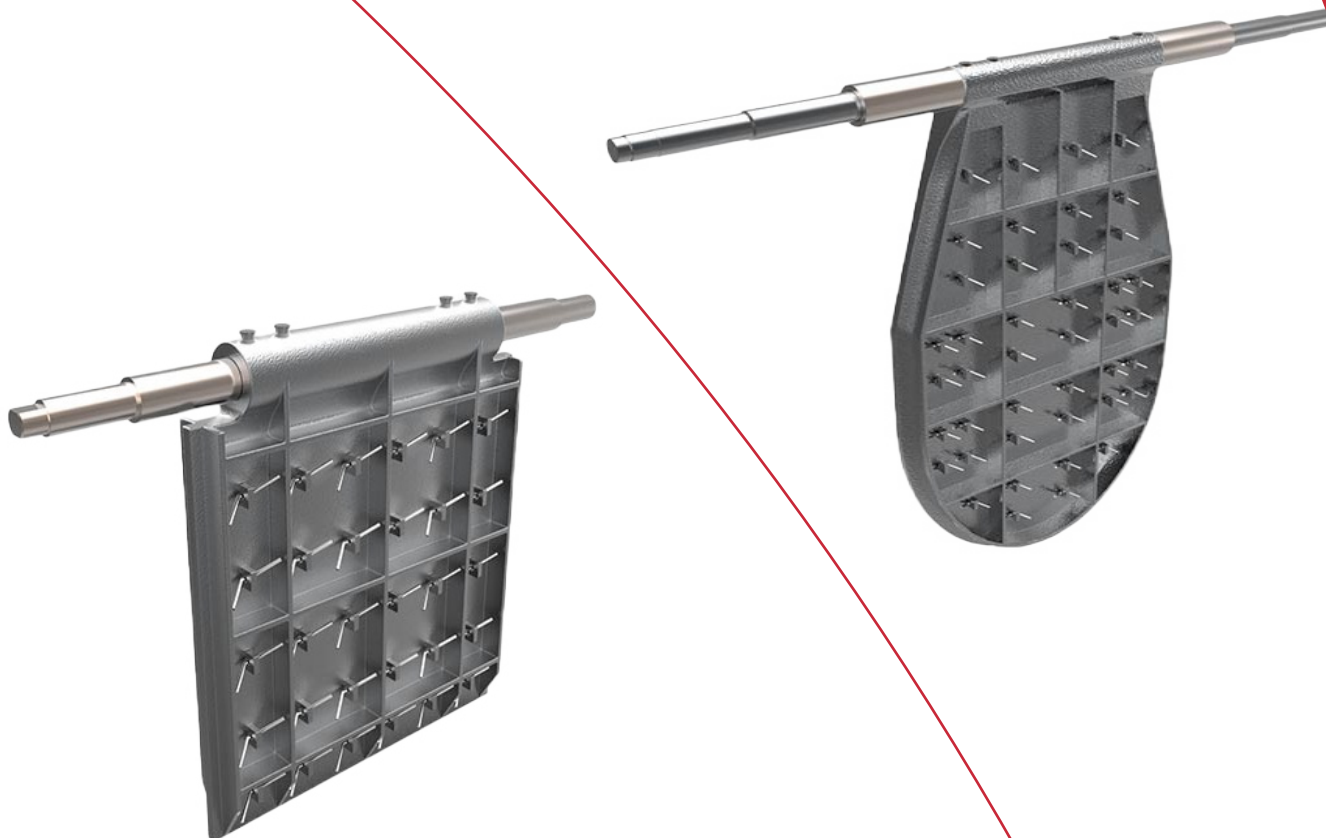
Castolin Eutectic excels in manufacturing and designing tipping valves, as well as simple and double flap valves, specifically for preheaters utilizing cyclone technology.

Crafted from high-performance steel alloys, these valves are available in various sizes to suit different applications.

Their user-friendly design allows for easy installation and replacement on-site, ensuring a secure and dependable response in operation.

The steel specifications for these valves include heat-resistant alloys with chromium (Cr) content ranging from 18% to 27% and nickel (Ni) content ranging from 3% to 27%.

This ensures exceptional durability and performance, making them ideal for the demanding conditions of cyclone-based preheaters.



Global Wear Management Network with Local Support

Our service centers offer local technical support, while our expertise extends globally.

Our global key industry network combines resources to solve difficult wear challenges, and our local teams implement the most cost-effective and sustainable solutions.



1538
Employees



10
Supply centers



20
Service centers



31

CUSTOMER SATISFACTION IS KEY

CUSTOMER FOCUS

- Global Sales Presence: With sales engineers, product managers, and key account managers.
- Focus on Customer Needs: Providing a single point of contact for customers.
- Partnership and Long-Term Relationships: Building shared competitive advantages.

GLOBAL INFRASTRUCTURE

- Multiple manufacturing and service sites, as well as warehouse and logistics capabilities, in the Americas, Europe, AME (Africa, Middle East), and Japan/Asia.

TECHNOLOGY LEADER

- Broad Technology Range: Covering all wear and joining applications.
- Solutions Based on Expertise: Combining service expertise, quality consumables, and world-class equipment.
- Complete Application Development: From product design to manufacturing



...OUR SOLUTIONS
...OUR EQUIPMENT
...OUR CONSUMABLES

WELDING



- Electrodes
- TIG
- Solid and cored wires

- MMA
- MIG/MAG
- TIG
- PTA
- Plasma cutting

COATING

- Laser Cladding
- PTA
- Arc Spray
- HVOF
- Flame Spray



BRAZING

- Fluxes
- Pastes
- Rods
- Torches
- Water-based oxyfuel stations

Pioneering Industrial Sustainability

www.castolin.com www.eutectic.com

Sustainable development based on increasing efficiency and reducing costs

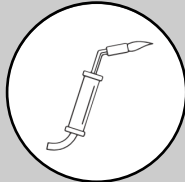
For over 100 years, our company has been a pioneer in the development and implementation of innovative solutions to industrial wear. Our technologies help customers extend service life, minimize inventory, reduce unplanned downtime, and increase efficiency.



Services



Welding



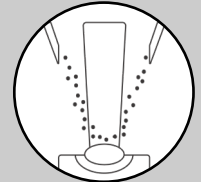
Brazing



Coating



Equipment



LaserCladding

We have transitioned from being a family-owned business into **a global company** while maintaining our industry expertise, people focus, and our deep-rooted belief in **SUSTAINABILITY**.

SUSTAINABILITY / CARBON FOOTPRINT

SUSTAINABILITY/ CO₂ FOOTPRINT

By giving a second life to worn-out, damaged industrial components, we contribute to the circular economy and reduce the carbon footprint.



ENERGY SAVING/ COST SAVING

Our surface protection technologies prolong component lifespan, leading to significant cost savings as replacement parts don't need to be purchased or stored. Critical industrial components functioning optimally consume less energy.



PRODUCT INNOVATION

We launch products and services with limited environmental impact and increased safety for operators, such as brazing flames without carbon and UV emissions, non-CMR brazing fluxes, and chrome-free welding wires.



OUR COMPANY CULTURE

We will continuously act **ethically** and in a manner that fulfills the expectations of our **environment, customers, employees, and shareholders**.



Innovation



Trust and Safety



Friendly Working Environment

Pioneering Industrial Sustainability



Singapore

CASTOLIN EUTECTIC (SEA) Pte Ltd
50 Tuas Avenue 11, #01-04 Tuas Lot
Singapore -639107
Phone: +65 6862 6008
Email: Salesadmin.sg@eutectic.com

HQ-Germany

CASTOLIN EUTECTIC GMBH
Gutenbergstraße 10, 65830
Kriftel, Germany
Phone: +49 6192 4030
Email: AME@castolin.com

Dubai-UAI

CASTOLIN EUTECTIC ME FZE
P.O.Box: 18656,
Jebel Ali Freezone Extension
Dubai United Arab Emirates
Phone: +971 (0) 4 880 6884

Saudi Arabia

CASTOLIN EUTECTIC SAUDI ARABIA
Building no.7092, Prince Saad Street
Al Khobar Al Shamliyah,
Al Khobar-34427, Saudi Arabia
Phone: +966 13 811 4489
Email: Cesa@castolin.com

Your resource for protection, repair and joining solutions

Statement of Liability: Due to variations inherent in specific applications, the technical information contained herein, including any information as to suggested product applications or results, is presented without representation or warranty, expressed or implied. Without limitation, there are no warranties of merchantability or of fitness for a particular purpose. Each process and application must be fully evaluated by the user in all respects, including suitability, compliance with applicable law and non-infringement of the rights of others, and Castolin Eutectic and its affiliates shall have no liability in respect thereof.

www.castolin.com

www.eutectic.com