



Key Industry Program

# Waste & Recycling

Stronger... with Castolin Eutectic





## We are

Castolin Eutectic is a worldwide leader of application solutions in maintenance, repair and wear protection. More than 100 years of experience in welding, brazing and thermal spraying technologies stand for professional and innovative wprotection, repair and joining solutions.

We employ more than 1,500 people worldwide in over 100 countries. Our motto is: Quality, Service and Technical Leadership = Customer Value Added.

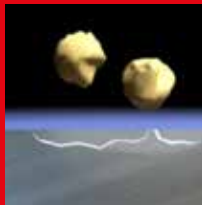


More than 700 application specialists care for you all over the world. Their tasks: helping you to improve the lifetime of machinery and equipment, to save resources, and to provide solutions for your needs.

*Erosion*



*Impact*



*Heat & Corrosion*



*Abrasion*



## Wear protection expert

Wear phenomena costs money, especially in lost production downtime, replacement parts, repair and ongoing maintenance. At Castolin Eutectic, we take the time to study industry specific wear phenomena because only when the nature of the wear is fully understood, can the correct solution be proposed. We have proved for over a century that preventive maintenance coating programs can extend the life of vital machine parts by as much as 500%.

Classical wear phenomena that occur in industry are :

- Abrasion
- Impact
- Heat
- Cavitation
- Erosion
- Friction
- Corrosion

## Global Industry Team

A century at the forefront of protective materials technology has positioned Castolin Eutectic as the world's premier industrial partner. Our comprehensive know-how is unrivalled, and our industry partnerships continue to thrive.



We provide solutions to all of the major companies operating in industry with global industrial programs for steel, cement, automotive, power, oil, waste & recycling, etc.

# CastoLab® Services Workshops

Our mission is to develop applications and solve customer problems. CastoLab® Services can develop advanced procedures to transfer complete solutions to our customers. We offer a complete and comprehensive service for the maintenance of machine parts and major components subject to extensive service wear or needing repair. Work can either be undertaken in our workshops or alternatively on site. Often the parts being repaired or protected need to be produced on a regular basis, and here “specialist prepared parts” can be produced in our specialist workshops, from 10’s to 100,000 of parts per year. Based upon hundreds of successful applications approved by our customers across the globe, the CastoLab® Services can provide optimized solutions to combat specific wear and corrosion in your specific boiler.



# Documented Knowledge

The unique applications database of Castolin Eutectic



## Terolink®

The technical details of Castolin Eutectic’s worldwide casebook are available in most industrial locations where Castolin Eutectic is present, with more than 9,000 fully documented applications for immediate call-up in our multilingual Terolink® system.

The case studies include photographs, technical data, detailed descriptions of the adopted solutions and how they were applied, plus considered alternatives and cost-saving analyses where appropriate.



# Our applications

Based upon hundreds of successful applications approved by our clients across the globe, Castolin Eutectic can provide optimized solutions with a wide range of products and technologies to combat wear in the Waste & Recycling industry. Castolin Eutectic has a detailed understanding of the Mining industry, of every major wear problem and can provide industry-tested application solutions.

From the extreme cold of Canada to the heat of Chile and Australia, we have a deep knowledge of application solutions for the wear problems in this industry: Extrusion Screw, Crusher Shaft, Crusher Hammer, Screws, Grating Bars, Cradle for Chute, Recycling Shredder.



*Extrusion Screw*

*Crusher Shaft*



*Crusher Hammer*

*Screws*



*Recycling Shredder*

*Cradle for Chute*



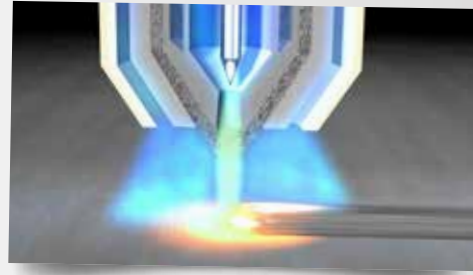
*Grating Bars*



# Our innovations

Castolin Eutectic has invested in Research & Development in many specific solutions to wear problems. This includes areas such as carbide selection, carbide size, carbide distributions, matrix compositions, application procedures and process equipment.

Skills and knowledge of Castolin Eutectic experts have enabled us to create a range of overlay materials combating the widest combination of wear types. This range is continually growing, as we harness new materials to provide better solutions to existing problems as well as answers to new challenges. The results of this extensive work are demonstrated by the hundreds of patents registered by Castolin Eutectic in the areas of wear protection and fusion technologies during its 100 year history.



*PTA process 3D modelling*



*Fusion of Eutalloy Coating*



*High Quality Wear Tubes: CastoTubes*



*EnDOtec cored alloy Wire Welding Process*

*Castolin specialist developing new technologies*



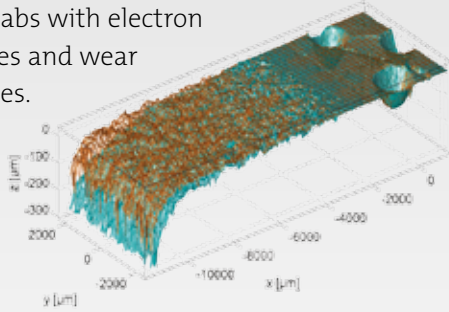
*CDP® Wearplate*



*CDP® Producing machine*

## Wear analysis

The latest state-of-the-art testing machines and facilities are essential to accurately measure and understand the complex relationship between chemistry, process and application. We work with world experts in Technical Universities for testing and modeling in addition to having fully equipped labs with electron microscopes and wear test facilities.



Mapping of wear surface

Wear simulation test machine



## Training

To increase customer know-how in wear technology and repair techniques, we have developed a full line of seminars and training programs, teaching all relevant personnel from welders and engineers to sales teams and managing directors.



Castolin Eutectic has trained thousands of technicians from all over the world and training centres have been established in most countries with training programmes offered in a wide variety of languages. We offer a wide range of courses starting from one-day welding courses to full-week maintenance seminars.

## R&D Laboratory

Research and Development is an important part of our process to deliver the best wear and corrosion protection solutions to our customers' problems. We protect with coatings and ultimately with microstructures. To create real understanding of wear and corrosion and coating performance you need a microscopic level with experts and scientific equipment. Castolin has the complete range of advanced microstructural and analytical equipment in house and trained, dedicated staff to run them. Optimised coatings for high performance are the result of optimised materials, optimised processes and the right solution for a problem that is understood. All elements are understood and controlled through sound R&D.

Scanning Electron Microscope





[www.castolin.com/contact](http://www.castolin.com/contact)

## Contact Adresses



## Manufacturing

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## Product Range

The Castolin Eutectic has been a pioneer in developing solutions for maintenance and repair to OEM - Original Equipment Manufacturer - and we have a wide range of processes available to our customers.

Our product range combines quality with high performance and is easy to use. We offer 5 different technology solutions:

- Welding: wires and coated consumables
- Brazing: consumables with tungsten carbide base
- Coating: equipment and consumables for metallization
- Wear Plates: ready for use and specifically designed plates
- Welding Equipment: Inverters, Rectifiers, TIG, MIG / MAG and Plasma Cutting.

*Product Range - Widest in the Industry*





# Stronger... with Castolin Eutectic

Wear & Fusion Technology



[www.castolin.com](http://www.castolin.com)

Ask for a demonstration from our  
Application Specialists.

