Protective Coatings for Industrial Screws

Wear Management Solutions

Typical Industries Served using Eutectic Solutions...

- Power Generation
- Steel
- Mining
- Cement

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS

Eutectic Corporation
N94 W14355 Garwin Mace Drive
Menomonee Falls, WI 53051 USA
P 800-558-8524 • F 262-255-5542
www.eutectic.com

CastoLab Services Workshop
12300 Carmen Avenue
Milwaukee, WI 53222 USA
P 800-558-8524 • F 262-255-5542

Whertec Technology Center
5409 Highway Avenue
Jacksonville, FL 32254 USA
P 866-207-6503 • F 904-213-8126
www.whertec.com

On-Site Services: The Reliability Experts

Whertec is the on-site service division of Castolin Eutectic. The division offers a highly organized inspection, mobilization, welding and thermal spray service covering a wide range of industrial applications. Every job is covered by a pre- and post-project report that can be used to assess future preventative maintenance requirements and evaluate in-service performance of key component parts. Whertec operates with stringent health and safety standards and has established a reputation for efficiency and reliability.

The combination of Castolin Eutectic’s product and application expertise with a world-class class mobilization team offers customers the best possible solution for on-site projects — test the reliability experts with your demanding repair or material conservation projects.

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 fitness for a particular purpose. Each process and application must be fully evaluated by the user in all respects, including possibility of infringement and requirement of all rights of others, and Eutectic Corporation and its affiliates shall have no liability or responsible.

• Advanced technologies for abrasion, erosion and corrosion wear
• Reduce maintenance costs
• Extend service life of valuable transport screws
• Increase productivity and save money
• Repairs and OEM manufacturing
Eutectic Solutions for Transport Screw Wear

Transport screws are widely recognized as one of the most efficient systems for material handling. In addition to conveying of solid, semi-solid, wet and sticky materials, they are also used in production processes for drying, cooling and mixing. These processes cause extensive wear damage to the screw/auger flights and the shafts. Equipment fails, causing loss in productivity and expensive repairs or the need for replacement parts.

Protected transport equipment saves you time and money

- Eutectic wear experts repair and protect screws and augers to extend service life
- Thermal Spray coatings, specialty hardfacing alloys or CDP wear plate
- Multiple coatings applied to provide the best solution to combinations of wear
- Fully equipped Eutectic Services workshops with the latest technology

Wear Plate
(CastoDur® Diamond Plate)

Electrode and MIG Wire Hardfacing
(TeroMatec®, EnDOtec® and EutecTrode®)

Brazing
(TeroCote®)

Eutectic Services Workshop Case Studies

**Feeding Screw - Cement Industry**

**PART:** Ball Mill Feeding Screw

**WEAR PROBLEM:** Heavy wear occurs on the inside walls of the cylinder and on the spirals.

**PREVIOUS SOLUTION:** Replace part.

**EUTECTIC SOLUTION:** Fabricate cylinder and spirals from CDP wear plate and coat spiral passages with an abrasion resistant alloy.

**RESULTS:** Tripled the service life!

**Mixing Screw – Pulp & Paper Industry**

**PART:** Mixing Screw

**WEAR PROBLEM:** Wood pulp and chemical additives used in the paper making process cause severe abrasive and corrosive wear on the Paper Machine Mixing Screws.

**PREVIOUS SOLUTION:** The uncoated screws made of unalloyed steel lasted only 12 months.

**EUTECTIC SOLUTION:** To increase service life, Eutectic recommended using a cold spray process to coat the screw flights with an abrasion resistant tungsten carbide alloy.

**RESULTS:** No noticeable wear after 36 months!

Critical equipment, that’s subjected to extreme conditions, needs the best hardfacing solution!

World Leader in Advanced Alloy Development Now Offers Turn-Key Solutions

- Wide range of wearfacing alloys from the experts
- World leader in Wear & Fusion technologies
- Broadest product and process range in the industry
- Recommendations based on a deep understanding of applied metallurgy

Strong international R&D facilities
Lab testing to define wear resistance
Development of new, cutting edge technologies

Do These Pictures Look Familiar?

Extensive on-site wear analysis

Increase Service Life with Superior Wearfacing Technologies

Thermal Spray Processes
(Arc Spray, TeroDyn®, CastoDyn®, SuperJet® and HVOF)

Eutectic Solutions for Transport Screw Wear

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