



# POWER GENERATION

"No Wear Comes Close"®

# ABOUT TRIMAY®

Trimay® is a manufacturer of advanced wear materials that are designed to significantly increase wear life on equipment components in the power industry. These Patented alloys provide exponential increases in equipment wear life and significant reductions in repair costs resulting in increased maintenance ROI.

Trimay Advanced Wear Materials are supplied as Wear Plate, Wear Pipe, Elbows, Transitions and Bends.



## THERMAL POWER GENERATION APPLICATIONS

Coal Handling Equipment

Ash Handling Equipment

Fuel Transfer Pipe

Classifier Cones

Crusher Rolls

Roll Journal Assembly Trunnions

Boiler Tubes

Burner Buckets

Chute and Hopper Liners

Fan Blades and Scroll Liners

Door Liners

Conveyor Slats and Floors

Grinding Zone Archway



## CASE STUDY 1 - Roller Journal Assembly

### PROBLEM

Fine particulate abrasion on the roller journal assembly trunnions in the grinding zone. The coal fines are eroding the trunnions causing critical loss of structural integrity at less than 12000 hours of service.

### SOLUTION

Cladding the new trunnions with Trimay® advanced wear CrC overlay to increase wear life and maintain structural integrity.

### RESULT

Wear life of the trunnions is increased to a minimum of 24000 hours. Potential critical component failure is eliminated. Trunnions are rotated out and easily repaired with minimal cost reducing the requirement to purchase new trunnions and significantly reducing maintenance cost.

Before



After



## CASE STUDY 2 - Boiler Tube

### PROBLEM

In April 2012, Trimay entered into a field trial where a section of boiler tube was installed at a thermal coal fired power plant during a scheduled outage.

### SOLUTION

The field trial boiler tube section was installed in the soot blower lane near the top of the boiler. The tube had forty thousandths of a Trimay T171 series alloy applied using HVOF spray weld to the outside. The tube was installed 24 inches from the blower. The operating temperature was reported as 2100F.

During the 2014 scheduled outage, the Trimay trial boiler tube was blasted, cleaned and measured for wear.

The results showed that the tube showed no wear. The outside dimension of the tube was measured before installation and after 2 years of service the OD of the tube was the same as the initial measurement.



Boiler tube prior to installation



Boiler Tube After 2 Years Service



Boiler Tube After 2 Years Service

# WHY TRIMAY®

## QUALITY

Tightly controlled manufacturing process

Commitment to continuous improvement through Research and Development.

- Recently Trimay has developed two new alloy blends. One achieves abrasion resistance approaching Tungsten Carbide at one quarter the cost. The other achieves the same wear with the impact resistance of Manganese.

## TRACEABILITY

All products manufactured by Trimay can be traced back to source. Information on each component, alloy applied and testing performed is readily available to the client.

## RELIABILITY

Trimay Products are submitted to rigorous, random testing to ensure consistency and high standards.

Decades of repeat business and successful field applications show the confidence our clients have in Trimay Wear Materials.



## TRIMAY WEAR PLATE AND WEAR PIPE ALLOYS

All Trimay alloys are proprietary and blended in-house. They are available as cladded plate in 3mm to 17mm overlay thickness and 9mm to 50mm total thickness. They are also available in cladded pipe from 3"-48" diameter and as consumables in wire and electrode.

### T138, T156 AND T157

T138, T156 and T157 are Chromium Carbide alloys in an iron-based steel overlay deposit. Each of the Alloy blends provide unique combinations of wear resistance, impact resistance and co-efficient of friction. T157 is our best-selling product with decades of blind wear tests showing that it is the best CrC Wear Plate available on the market.

### T171

T171 is a patented Boron Carbide iron based steel overlay wear solution with a near nanoscale (submicron) microstructure. T171 is well suited for the toughest jobs in the most extreme service environments. T171 is developed by Trimay® Wear Plate Ltd.

### T168I

T168i is a revolutionary new material specifically designed as a chromium free and heat-treatable material. It provides the best performance in aggressive environments where severe impact and abrasive wear are critical sources of material failure.

### T170

T170 is a Tungsten Carbide alloy in a nickel based steel overlay wear solution with a unique proprietary composition designed to withstand heavy impact and severe wear environments.



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