



Long-term Wear Protection with Devcon® Wear Guard™ 300RTC

Problem

Pump Box with Baffles in potash mine undergoes high-temperature wear, erosion and corrosion. This wear is caused due to continuous exposure to high temperature saline processing solution. As a result, the equipment needs to be pulled offline, cleaned and recoated frequently to repair the damage. In addition, the current process and coating requires the equipment to be moved offsite for a post bake cure, further increasing downtime and maintenance cost.

Process Conditions

- Wet slurry with a consistency of 60% solids
- High salinity concentration
- Temperatures that may reach up to 225°F / 107°C
- Continuous erosive & corrosive wear conditions

Solution

To achieve the desired results, three products including Devcon Wear Guard 300RTC were trialed:

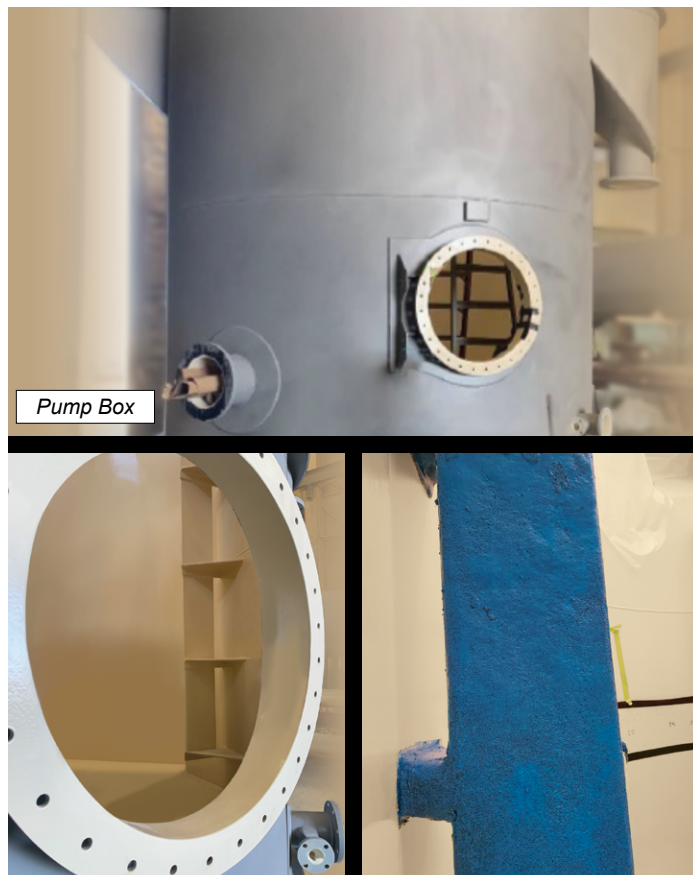
- Competitor A's product was applied to the baffles of the Pump Box. The product initially adhered to the baffles but suffered catastrophic bond failure within a few weeks of application.
- Competitor B's product was applied to the interior walls of the Pump Box. The product adhered to the walls but had begun to wear in several spots.
- Devcon Wear Guard 300RTC coating was applied to the baffles of the Pump Box. The coating adhered to the pump box baffles and after 3 months of service had not shown any signs of wear.

The Pump Box was inspected at 6 months:

- Competitor B's product had worn off in numerous spots.
- Devcon Wear Guard 300RTC coating was still adhering to and protecting the baffles.

At 9 months:

- Devcon Wear Guard 300RTC coating showed almost no wear and strong adhesion to the baffles, resulting in superior wear resistant properties.



Devcon Wear Guard 300RTC Mixed Material



Result

Devcon Wear Guard 300RTC provides long-lasting protection significantly outlasting competition:

Highly durable coating – 3X longer vs competition

- Equipment is in service longer, increasing uptime and Overall Equipment Effectiveness
- Reduced maintenance and reapplication costs

Cost-effective solution

- Room temperature cure eliminates the need to transport equipment, tenting, portable heaters, and delays due to long cure times

Easy to Apply

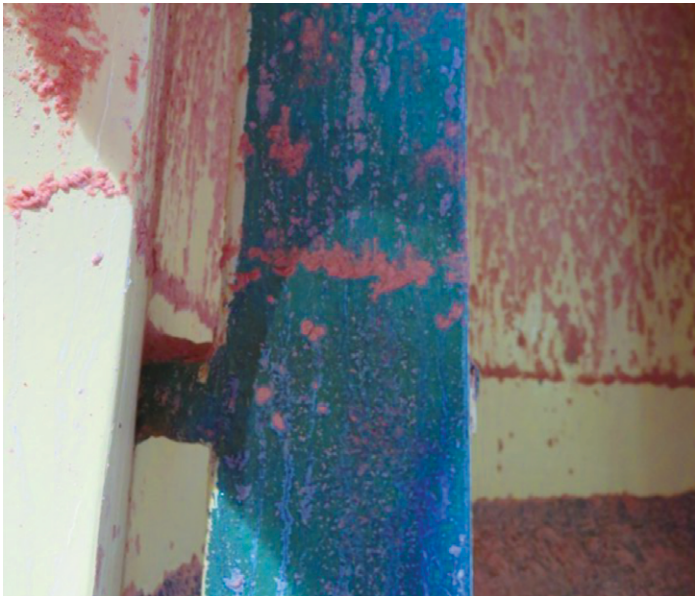
- Product is creamy and easy to mix
- Smooth surface finish is achieved by water vs using dry or chemical abrasives
- Sag free application ideal for vertical surfaces

Quick Inspection

- Distinct blue color results in quick assessment of worn-out areas
- Superior protection in harsh environments including high temperature, high corrosion, and caustic environment



Devcon Wear Guard 300RTC Application Day 1



Devcon Wear Guard 300RTC Application Day 60

Annual Maintenance Expenditure	
Competitive coating:	\$18,000
Devcon Wear Guard 300RTC:.....	\$4,500
Annual Savings:.....	\$13,500

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