

Case Study- DEVCON Protective coating

Devcon Protective Coating System Safeguards Structural Steel in Harsh Industrial Environment

Problem:

Critical support structures within a leading steel plant in the steel industry were experiencing frequent corrosion due to exposure to gas cleaning emissions and slag handling operations. Existing coatings failed within 3 months, leading to costly reapplication, maintenance downtime, and surface degradation. A long-lasting, industrial-grade solution was required for heavily corroded steel substrates under demanding field conditions.

Solution:

Devcon proposed a complete corrosion mitigation Protective coating system consisting of:

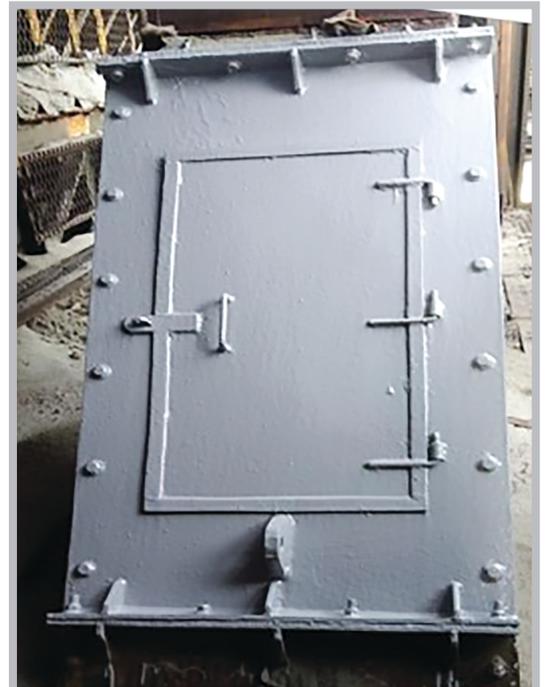
- **Devcon Cleaner Blend Aqua100** – Water-based cleaner that prevents flash rust and prepares the surface.
- **Devcon Corrosion Primer CP10** – Rust neutralizer and sealer forming a stable black chelate layer.
- **Devcon Primer Pro 1030 AR** – Epoxy primer with high bond strength and abrasion resistance.
- **Devcon Epoxy Coat 5045 AR** – Final acid and chemical-resistant top coat.

The trial was conducted at three sites:

1. **Gas Cleaning Plant – Tank Support Pillars**
2. **INBA Slag Handling System – Chute Inspection Window**
3. **INBA Slag Handling System – Motor Base**

Application Procedure:

Each surface was first cleaned using **Devcon Cleaner Aqua100** to remove oil, dirt, and flash rust. This was followed by the application of **Devcon Corrosion Primer CP-10** to neutralize existing rust and seal the surface. Once dry, **Primer Pro 1030 AR** was applied as a bonding layer, followed by the **Epoxy Coat 5045 AR** topcoat ensuring uniform coverage and adequate dry film thickness across all test sites.





Project Outcome:

Long-Term Corrosion Protection & Minimal Maintenance

Over 12 months of observation revealed:

- **Tank Support Pillars:** No corrosion or coating failure through April 2025.
- **Chute Window:** Minor edge corrosion caused by flange leakage. Coating remained intact in 95%+ area.
- **Motor Base:** Minor debonding at sharp edges due to low DFT; no underlying corrosion observed.

The Devcon system doubled the conventional service life and exhibited excellent adhesion, mechanical durability, and resistance to industrial contaminants. Even in areas with mechanical damage or edge exposure, no deep corrosion was found beneath the coating.

Key Benefits:

- 12-month protection in severe corrosion zones
- Compatible with or without blasting
- No debonding or blistering in major surfaces
- Minimal site disruption during application
- Extended asset life and reduced rework cycles

Devcon Protective Coating System provided a proven, cost-effective solution for long-term industrial corrosion protection under challenging field conditions.

Contact

ITW India Private Limited

Plot no: 34 to 37, Phase-2, IDA, TSIC, Pashamlaram,
Sangareddy District, Telangana - 502307, India.

tel: +91 9000031515, mail: chemininfo@itwchemin.com,
or visit www.itwchemin.com

