Corrosion is the Enemy... Not an Industry

“The most important single factor influencing the life of a paint is the proper preparation of the metal surface”

Uhlig and Revie’s Corrosion & Corrosion Control
Even when blasted to a white metal standard, microscopic contaminants and microbial waste still remain on the surface.

Remaining sulfides, chlorides and resulting flash oxidation
These contaminants have a very strong affinity for water molecules and pull them to the surface even in arid environments.

The non-visible contaminants combine with moisture to create flash rusting which can be non-visible to the naked eye.
Contaminants trapped beneath the coating on the substrate initiate and accelerate coating failure.

Coatings begin to age prematurely as moisture permeates the coating film.
The corrosion process accelerates as moisture vapor increases.

Pressure increases from moisture vapor and initiates premature coating failure.
Delamination is now present and the coating system has failed.

The key is **NOT** coating over microscopic contaminants.
Properly decontaminated surfaces exceed, and are cleaned far beyond, conventional white metal standards.
Coating systems adhere more effectively and last longer when applied over properly decontaminated surfaces.

CorrLine Anti-Corrosion Surface Preparation Technology

- Updates entire coating application process
- Eliminates corrosion mechanism at the substrate
- Reduces total cost of ownership
- Reduces asset downtime and liability
- Reduces common project delays
- Reduces safety and environmental risk
CorrLine™ REVOLUTION

- Film-Former
- Coating
- Coating Specific
- Product

Visual indication of non-visible, aggregated contaminants
Steel Plate Blasted to the Standard of NACE No. 1 / SSPC-SP 5

Five Hours Later
(A: Decontaminated with CorrX B: No treatment)

CorrX Cleaned

Remaining sulfides, chlorides and resulting flash oxidation
Incomplete visual indication of non-visible, aggregated contaminants
Incomplete visual indication of non-visible, aggregated contaminants

 Discover Piece

Complete reaction

Incomplete visual indication of non-visible, aggregated contaminants
Corrosion Cell

Osmotic pressure greatly exceeds the adhesion of the coating.

CorrX 2-Step Process

Blast the Entire Project

Step 1
CorrX™ PREP

Step 2
CorrX™ WASH

Apply Coatings
**Traditional Methods**

- **Blast**
  - Require favorable conditions
  - Vulnerable to failed inspections
  - Require same-day application
  - Require dehumidification during blasting
  - Doesn’t remove nonvisible contaminants

**Blast Entire Projects in a Single Phase**

- Increase daily blast production
- Pass inspections the first time
- Streamline projects and finish on schedule
- Reduce total costs and asset downtime
- Reduce exposure, risk, and liability
- No dehumidification required
- Coatings can be applied at a later date
**CorrLine™ Method vs. Traditional**

**CorrLine Reduces Project Delays by at Least 40%**

29 Days  
52 Days

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**Traditional Method**

**Daily Blast & Coat Production Curve**

To complete 36,000 sq. ft. @ 800 sq. ft. blasted and coated per day

52 days
Coating-Edge Technology™

- Safety Setup Permitting
- Inspection Cleanup
- Blasting
- (10 hour work day)
- 7am 5pm

To complete 36,000 sq. ft. @ 1,350 (avg) sq. ft. per day

29 days

Uninterrupted Blasting for 21 Days

Prep, Wash and Coat for 8 Days

Environmentally Friendly

- Reduces environmental impacts
- Non-toxic
- Biodegradable
- <1 µg/L VOC’s
“…A poor paint system on a properly prepared metal surface usually outperforms a better paint system on a poorly prepared surface”

*Uhlig and Revie’s Corrosion & Corrosion Control*

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**Brine Pit Piping Maintenance Project**

Completed in October 1995; Coated with a standard epoxy coating; Photos taken 10+ years later

- No additional coating or maintenance
- No corrosion even on the bolt threads
- Two similar sites, completed at the same time using traditional surface preparation methods, were retreated 4 times in 11 years
**Brine Pit Piping Maintenance Project**

**CHALLENGE:** Retard aggressive corrosion on 12” pipe and drums adjacent to four brine pits going into water with a salt concentration of 300,000 parts per million.