

Sponge-Jet Replaces Coal Slag for Locomotive Restoration at National Railway Equipment Company

Project 872

Overview:

- National Railway Equipment Company (NREC); largest independent locomotive manufacturer, remanufacturer and repair company in the world
- Searching for a cleaner, faster, cheaper way to abrasive blast locomotives

Objective:

- Remove decals, paint and corrosion
- Profile and achieve blast cleanliness level to specification



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Size: 232m² (2,500ft²)

Substrate: Steel

Surface Condition: Rust, old worn labels and multiple layers of paint

Specified:

- Commercial Blast Cleaning NACE 3 / SSPC SP-6 / Sa2

Profile: 37.5micron(1.5mil)

Formerly Used:

- Coal slag

Used: 30 bags of Silver 80 Sponge Media™ abrasives, (2)100-HP Feed Unit™, (1) 35-E Sponge-Jet Recycler™

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Reasons for Using Sponge-Jet:

- Despite same blast time:
 - (1) saves 1-day of labor
 - (2) Sponge Media disposed in dumpster vs. dump-truck removal of coal slag

Coal Slag Process:

- Abrasive blast, move locomotive to new site; remove coal slag and dust
- Two workers, 1-day cleaning blast facility in preparation for next locomotive

• **Sponge-Jet Process:**

- Sponge blast, 1-hour removing Sponge Media from locomotive
- Two workers spend additional hour, preparing blast facility for next locomotive

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**REMOVAL RATE:
11-14m²/hour (120-150ft²/hour)**



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AFTER SPONGE-JET BLASTING



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**AFTER COAL SLAG BLASTING;
NOTE NECESSARY REWORK**

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- **Result:**
- Using Sponge Media abrasives decreased the total time in the blast facility by one day
- Holding production consistent with coal slag, blasters exceed the specification (from Commercial Blast Cleaning to Near-White Blast Cleaning)
- Reduction disposal cost
- **Outcome:** NREC has adopted the use of Sponge-Jet on all future locomotive repairs, remanufactures and new builds

