



Industry Overview

Low Dust, Easily Contained Abrasive Blasting for the Pulp & Paper Industry

For the cleaning and preparation of any surface without the dust and equipment damage associated with conventional abrasives.

The Sponge-Jet® abrasive blasting system removes caustic deposits, acid residues, dried pulp fiber and the toughest coatings to any surface finish or profile needed.



Sponge-Jet abrasive blasting system is used to:

- Abrasive blast to any profile specified on structural steel frames, screens, overhead cranes, head boxes, tanks, washers, bearing boxes and ceilings
- Spot clean parts, edges and bolt heads
- Remove caustic deposits, acid residue, dried pulp fiber, and/or tough coatings in one step
- Assure equipment reliability; protect rolls, bearings, motors & intricate machinery during surface preparation
- Blast over or near operating machinery without shut down
- Extend coating life with high-quality surface preparation

**CONTAINS NO
THERMAL PLASTIC**

■ Safety & Reliability

- Less injuries and worker fatigue
- Protect sensitive equipment with low media rebound and airborne dust

■ High Quality

- Enhanced visibility prevents over-blasting and the need to reblast
- Inspection can be conducted during blasting, not after

■ High Productivity

- Reduce plant downtime requirements
- Low media rebound and dust allow surrounding trades to work safely without interruption
- Efficient process allows for quick setup and clean-up

■ Cost Effectiveness

- Reduce consumption, transportation and disposal costs, by reusing Sponge Media abrasives up to ten times



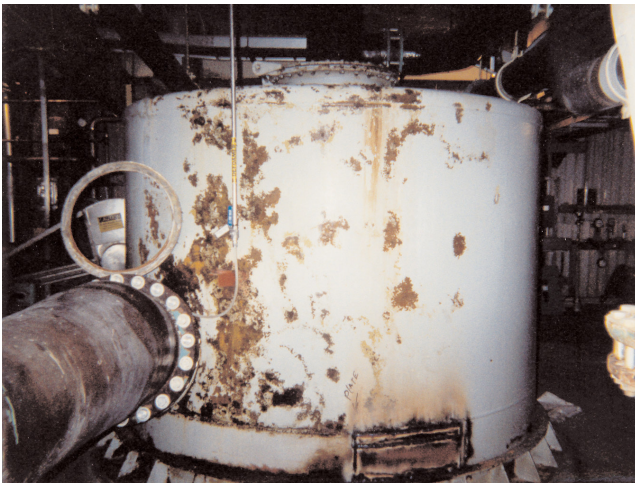
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or call **603-610-7950**
to learn more about the
Sponge Blasting System



Case History

Surface Preparation on Chlorine Tanks in Paper Mill

Canadian contractor uses Sponge-Jet® abrasive blasting system and Sponge Media™ abrasives to clean and prepare chlorine tanks for repainting



During a three-day shutdown, chlorine tanks in the bleach plant of a southeast Canadian paper mill were scheduled for repainting. Mill maintenance chose a local contractor who could minimize the time to strip and repaint the tanks, without interruption to other surrounding trades.

The contractor chose to Sponge-Jet abrasive blast the five chlorine tanks with Silver Sponge Media™ abrasives which would remove failing epoxy coating and achieve the specified NACE No.4 (SSPC SP-7) Brush-off Blast finish. The choice to use Sponge Media abrasives was based on the following process characteristics:

■ **Easily Contained** - There were other surrounding trades working near the chlorine tanks as well as sensitive electronic controls and process equipment. These required a low dust and low rebound abrasive that would be easier to contain than other abrasives.

■ **Fast Setup & Cleanup** - Due to the number of other activities and the short shutdown time, the process had to be quick to set up, operate and cleanup. The reusable, low dust and low rebound attributes of Sponge-Jet Sponge Blasting allow for simple containment, less media handling and quick cleanup.



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The contractor stripped the failing epoxy paint from the five chlorine tanks as specified, blasting at 40m²/hr (7ft²/minute). The maintenance supervisor and plant personnel were pleased that adjacent equipment and surrounding trades were able to continue uninterrupted.



Case History

Surface Prep in Cotton Mill Brown Stock Washer Tanks

The Sponge-Jet® abrasive blasting system and Sponge Media™ abrasives were used to strip caustic deposits and failed coating from Black Liquor Tank



One of many activities during a 48-hour maintenance shutdown in the purification tower of a cotton fiber plant entailed cleaning, stripping and recoating a brown stock washer tank. The coating system in the tank, typically subjected to temperatures of 93°C (200°F), was failing and the carbon steel substrate had corrosive pitting. Industrial Materials & Services, Inc. (IMS), specializing in cotton and paper mill maintenance, was hired to strip and recoat. Facility engineers specified removal of the coating, a Near White, NACE No.2 (SSPC SP-10) surface cleanliness and a 75-125 micron (3-5mil) profile.

The contractor, who was given ten hours to blast and coat the tank, chose to use Sponge Media™ abrasive over conventional abrasives due to the following process characteristics:

■ **Protect Sensitive Equipment -**

Mill management feared abrasive dust could migrate to surrounding equipment, causing potential failure. Sponge Media abrasives reduce dust as much 99%* by entrapping contaminants before they become airborne.

■ **Fast Setup & Cleanup -** Other trades continuing to work nearby, along with the critical time constraint, meant blast setup and cleanup had to be quick and easy. The low dust and rebound characteristics of Sponge Media abrasives allowed the tank to be easily covered and sealed for containment, which simplified cleanup.

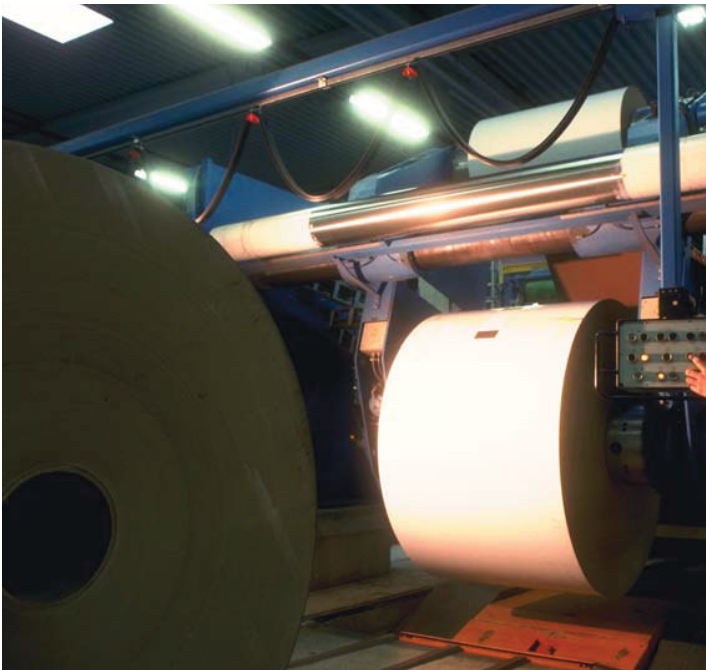


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IMS, Inc. blasted and coated the 65m² (700ft²) tank overnight. By blasting with Silver Sponge Media™ abrasives in the purification tower with other trades working below uninterrupted, the plant remained “dust free.” The project supervisor was thrilled with the quality and timeliness of the project.

Surface Prep on Crane Beam over Paper Machine Wet-end

Contractor uses Sponge-Jet® abrasive blasting system to strip dried pulp fiber, acid residue and failing paint from crane beam over the wet-end of paper machine



Nearly 560m² (6,000 ft²) of an overhead crane and its support beam was scheduled for cleaning, stripping and repainting in a Canadian paper mill. The crane's substrate had failing paint, dried pulp fiber and corrosive chemical deposits, which needed removal. Maintenance engineers specified a Near White, NACE No.2 (SSPC SP-10) surface cleanliness and a 75-micron (3-mil) profile.

During this 48-hour period, other trades were also scheduled to perform repairs and upgrades. The contractor was able to complete the stripping process in-line with the paper machine running. The decision to blast over the paper machine while it was in operation, was based a few process characteristics:

■ **Low Dust** - As porous Sponge Media abrasives flatten on impact against the substrate, they trap surface contaminants that normally become airborne dust. This dust-suppressing quality of Sponge Media particles allows blasting in close proximity to sensitive equipment. Tarps were successfully used to keep the paper machine free from removed paper fiber, coating chips and blasted abrasive media (the paper machine was able to continue operation).

■ **Operator and Workplace Safe** - The pliant nature of Sponge Media abrasive absorbs potential rebound energy, lowering media ricochet. Combined with Sponge Media abrasive's low dust attribute, the process causes less injuries and nearby trades can work uninterrupted (surrounding maintenance teams were able to continue their upgrades and equipment maintenance).

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The repainting of the crane parts was concluded within the scheduled 48-hour period. The plant supervisor was pleased with the result and how non-invasive the abrasive blasting process was. The contractor continues using Sponge-Jet abrasive blasting systems in this plant as well as other pulp and paper mills.