



Water / Waste Water Applications and Customers

- **Fugitive emissions greatly reduced compared to conventional abrasives!**
- **Reduce downtime accelerating surface preparation and painting operations**
- **Eliminate damage to bearings, rotating machinery or other process equipment**
- **12x faster than power tools**
- **Dramatically improved coating performance compared to power tools**
- **Remove tough surface contaminants, rust and industrial coatings**
- **Blast without damage to adjacent surfaces and surrounding coatings**
- **Profile steel 0-125+ microns (0-5+mils) or existing coatings (for recoating)**
- **Allow other trades to work nearby during blasting**
- **Clean and decontaminate without harmful chemicals or liquid detergents**
- **Reduce costs compared to conventional surface preparation**
- **Precisely blast and depaint on sensitive substrates**
- **Selectively strip coatings and remove contaminants**
- **Extend the serviceable life of tanks, basins and highly corrosive areas**



Surface Preparation Solutions for Maintaining Water and Waste Water Treatment Plants

Sponge-Jet's low dust and low rebound abrasive blasting technology is widely used in public utilities around the world. Among the many benefits of the Sponge-Jet technology is its ability to drastically reduce shutdown time associated with blasting and painting operations.

Sponge-Jet System Users...

The Department of Water Resource's California Aqueduct
Department of Environmental Protection's Bowery Bay Waste Water Treatment Plant
Western Racine Waste Water Plant
Moberly Waste Water Treatment Plant
Racine Waste Water Plant
Racine Water Department
Fox River Water Reclamation District
Madison Metro Waste Water Plant
Fon du Lac Water Treatment Facility
Green Bay Water District
Lake Geneva Water Department

Sponge-Jet Applications...

- Exterior and interior tanks
- Walls, ceilings and structural steel
- Clarifier tanks, wiers, racks and cat walks
- Digester Covers
- Pretreatment, secondary and primary treatment areas
- Pump stations and piping
- Interior walls, tanks
- Presedimentation and sedimentation basins
- Aeration basins
- Filter trains
- Cleaning basins (e.g. flocculation, sand, aeration, presedimentation and sedimentation)
- Lead paint abatement
- Water channels
- Biological reactors

Blast Where You Want.

To learn more visit Sponge-Jet, Inc. at www.Spongejet.com; call **603-610-7950**

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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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to learn more about the
Sponge Blasting System

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.



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.

ABRASIVE BLASTING APPLICATION:

**ANOTHER PROJECT
DONE BEST
WITH THE SPONGE-JET®**



Removal of Radioactive Oxide Build-up From Reactor Coolant Piping

Problem: Nearly 9m² (100 ft²) of highly radioactive oxide build-up (measuring 8,000 to 12,000 millirem) on stainless steel reactor coolant piping in an eastern U.S. nuclear power plant needed to be removed. Utility representatives request-

Goals:

- Low dust generation
- Clean, dry process
- Low waste generation
- Cost competitive

ed that no appreciable loss of the stainless steel substrate occur and specified an overall surface profile of less than 60 micron (2.5 mils). **AEA Technology Engineering Services**, an international nuclear services organization, was contracted to remove the oxide layer with minimal substrate damage and safely decontaminate the pipe below 100,000 dpm smearable so other outage maintenance could be conducted.

Alternatives considered:

- Hand tooling
- Chemical stripping
- CO₂ pellet blasting

Contractor's choice:

Sponge-Jet Sponge Blasting System™
Silver Sponge Media™

Contractor:

AEA Technology Engineering Services
Jim Flaherty
Marketing Manager
Pittsburgh, PA
412-655-1200

“What a process! It amazes me how Sponge-Jet Silver Sponge Media contains the contaminated particles...it's also compressible for waste management purposes.”

Brad Fasel, Process Engineer

PRODUCT

Sponge-Jet® Silver Sponge Media™ featuring MICROCONTAINMENT™ technology

APPLICATIONS

Mildly aggressive. Used for a wide range of commercial, industrial, marine and military coatings removal projects.

PROFILE

<25 micron (<1mil)

ABRASIVE

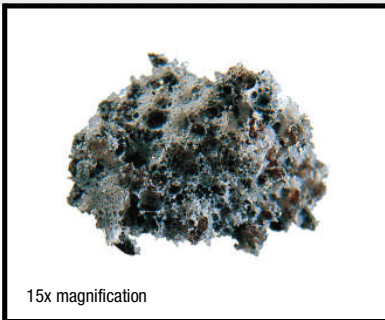
Aluminum Oxide

CLEANING RATE

6-11 m²/hr (1-2ft²/min)

AVERAGE RECYCLES

7



15x magnification

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