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Choosing an Industrial Cleaning Method

A practical way to compare dry ice, abrasive blasting, water, chemicals and manual cleaning.

- Define the result the asset needs
- Compare each method's full work window
- Test the best candidates before choosing

FOR PLANT MANAGERS, MAINTENANCE LEADERS AND PROCUREMENT TEAMS

Mobile service in New Jersey, New York, Pennsylvania and Delaware. Precision Dry Ice Cleaning operates under Tri-State Laser Cleaning LLC.



Start with the required result

A good method depends on the deposit, surface and finish required. Dry ice turns into gas after blasting, so it does not leave spent blast grit. Detached paint, dust, grease and other material remain and need collection [1, 2]. Other methods bring different needs for water, chemistry, dust control or surface profiling.

COMPARE THE WHOLE JOB

Use the same endpoint for every quote. Include access, isolation, utilities, containment, cleaning, debris removal, inspection and return to service.

Describe the job before requesting prices

- **Deposit.** What is present and is its composition known?
- **Surface.** What material, coating, seal, finish and tolerance must be protected?
- **Endpoint.** Is the goal a cleaner appearance, inspection access, full coating removal or a specified profile for adhesion?
- **Site limits.** How much moisture, dust, noise and interruption can the area allow? What waste handling is required?

What each method brings to the work

These are screening questions, not a ranking. Test the method on the actual deposit and surface before committing to a large scope.

Method	Consider when	Plan or verify
Dry ice	Accessible residue on a compatible surface.	Air and ice supply, ventilation, noise and debris collection [1-3].
Abrasive blast	Heavy deposits or a measured surface profile.	Blast media, dust, containment and profile checks [2, 4].
Water wash	Water and drainage are acceptable.	Runoff, drying and electrical isolation.
Chemical	An approved product fits deposit and substrate.	Safety data sheet, compatibility, rinsing and spent product.
Manual	Small areas or follow-up work.	Reach, labor and possible wear from tools.

Three claims to check carefully

- **“No blast-media waste” does not mean “no waste.”** Removed paint, scale and rust remain after dry ice blasting [2]. The removed material determines waste planning [5].
- **“Non-abrasive” does not mean “safe for every finish.”** Test fragile edges, coatings and nearby components, then inspect them.
- **“In place” does not mean “while running.”** A mounted asset may still need isolation under site procedures and applicable energy-control rules [6].

Rule out a poor match early

- Need a measured roughness for coating adhesion? Ask for a method that can make and verify that profile.
- Removing an unknown coating? Identify it and agree on collection and disposal first.
- Considering water near electrical parts? Plan isolation, drainage and drying.
- Working on a delicate finish or close tolerance? Test every candidate on a representative area.

Ask every bidder the same six questions

Ask for	Comparable answer
Boundaries	Exact assets and surfaces, plus exclusions.
Acceptance	Test result, inspection method and signoff owner.
Site needs	Air, power, water, ventilation, access and hours.
Controls	Isolation, barriers and exposure assessment as needed.
Debris	Who collects, assesses and documents removed material.
Total window	Mobilization through accepted result and restart handoff.

Choose a small trial first

For a required surface profile, begin with methods that can create it. For residue on a sensitive installed component, include dry ice in the trial. When water is acceptable, consider a wet process. Test any proposed chemical for both cleaning and surface compatibility. Mixed deposits may need more than one method.

RECORD THE DECISION

Save the tested methods, surface result, controls, debris plan, total time and reason for selection. This makes a future quote easier to compare.

Compare cost after acceptance

Add contractor cost, site labor, access equipment, shutdown time, materials, cleanup, waste handling, inspection and rework. Keep outage cost separate from labor already included in that estimate to avoid double counting.

ILLUSTRATIVE TIMING ONLY

Method A takes 2 hours to clean and 5 more hours for setup, cleanup and restart, or 7 hours total. Method B takes 3 hours to clean and 2 more hours for the other steps, or 5 hours total. These invented figures show why cleaning time alone is a poor comparison.

Close with an inspection record

Have the site owner accept the surface result and list any area deferred because of access or compatibility. Keep the record with the asset's history.

Sources and scope

Sources checked September 23, 2026. Equipment-maker examples show possible applications, not results for an untested asset. The checklists and calculations are planning tools; they are not measured savings.

[1] Cold Jet, Dry Ice Blasting Solutions

[2] OSHA, Abrasive Blasting Hazards in Shipyard Employment

[3] NIOSH, Pocket Guide to Chemical Hazards: Carbon dioxide

[4] OSHA, Protecting Workers from the Hazards of Abrasive Blasting

[5] U.S. EPA, Frequent Questions About Hazardous Waste Identification

[6] OSHA, 29 CFR 1910.147: The control of hazardous energy

Next step Request a project review. Send equipment photos, the deposit, ZIP code and maintenance window. You can also email support@precisiondryicecleaning.com or call **917-695-9595**.