

ABATEMENT CONTRACTORS OF MONTANA, LLC.

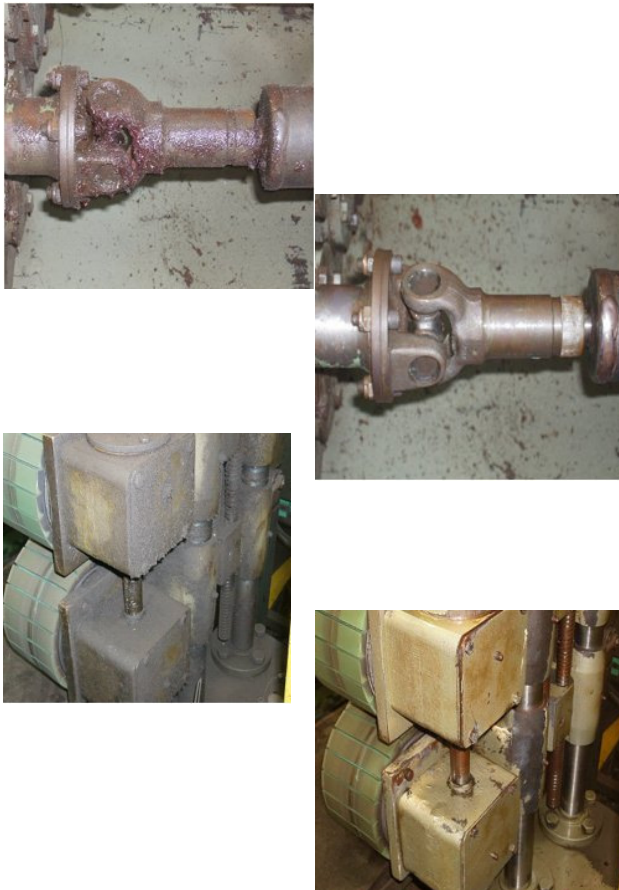
*Asbestos & Lead Removal Specialists -
Remediation & Restoration Services*

Dry Ice Blasting



Tel: (406) 549 - 8489

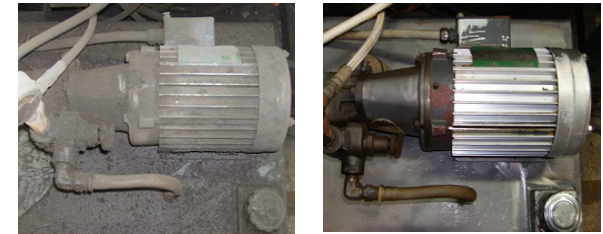
Examples of Dry Ice Results



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Electric Motor Before

After Dry Ice Blasting

Dry Ice Blasting

ADVANTAGES

- Non-Abrasive, Non-Flammable and Non-Conductive.
- Can be used without damaging active electrical or mechanical parts or creating fire hazards.
- No exposure to chemicals or grit media.
- Removes oils, paints, contaminants and residues.
- Stops growth of Mold, Mildew, Bacteria and other Fungi by eliminating the bacterial host environment.
- Minimizes cleaning time and labor hours resulting in a more cost effective project.

APPLICATIONS

- Fire Restoration
- Mold Remediation
- Historic Restoration
- Graffiti & Gum Removal
- Adhesives, Tar & Coating
- Motors, Starters & Engines
- Cement & Asphalt Cleaning
- Building and Façade Cleaning



Fire Damage Before



After Dry Ice Blasting

Dry Ice Blasting: The Perfect Cleaning and Paint Removal Solution



The Cleaning Challenges

The traditional methods of removing, chipping and loosening paint from various surfaces before repainting have included techniques such as sandblasting, scraping and waterjetting. Sandblasting, for one, provides a good all-purpose removal technique. However, each of the techniques has serious drawbacks. They include:

- **Labor Intensive:** Typically, items need to be taken off-line and cleaned. Then, if scraping is required, the process can be very slow to completely prepare a surface for painting. Sandblasting and waterjetting can create a tremendous mess requiring more time for waste cleanup.
- **Downtime:** Frequently, equipment needs to be taken off-line and cleaned. The extensive time required to effectively disassemble, clean and then reassemble results in costly production losses. With the use of sandblasting or water, surfaces to be repainted are often either too rough or wet too long to permit a quick repainting.
- **Surface wear/Equipment damage:** Sandblasting can etch or wear down surfaces and also cause mechanical damage. Scraping can also wear down surfaces.
- **Water/Grit entrapment:** Sand and water can become entrapped in mechanical or electrical parts.
- **Cost:** Sandblasting can generate significant waste disposal costs.

The Dry Ice Blasting Process

Dry ice blasting is a relatively new cleaning process using solid CO₂ pellets (known as dry ice). It is primarily used for industrial use in a variety of applications. The pellets sublimate or convert directly from a solid blast pellet to CO₂ gas leaving no residue.



The process involves propelling dry ice particles from a blasting gun at a hyper-velocity to impact and clean a surface. The particles are accelerated by compressed air, similar to other blasting systems.

The micro-thermal shock (caused by the dry ice temperature of -79°C), the kinetic energy of dry ice pellets and the air pressure break the bond between the coating and the substrate. The dry ice sublimates to a CO₂ gas and expands 400 times its original volume. The coating then pops off from inside out and the air stream removing it from the surface yet creating no secondary waste stream. Dry ice blasting is a far better alternative to traditional cleaning methods.

Dry Ice Blasting: Benefits

Dry ice blasting addresses each of the major issues regarding removal of loose and chipping paint. The benefits include:

- **Benefit #1 Reduced Labor Hours:** The dynamics of cleaning with dry ice can dramatically reduce time requirements. The actual cleaning is faster. There is no need

for disassembly/reassembly of equipment. The time required to collect the waste is lessened.

- **Benefit #2 Reduced downtime through cleaning in place.** Any cleaning labor for scrubbing and scouring is eliminated. Further, there are no repainting delays due to moisture as when waterjetting is used.
- **Benefit #3 Reduced equipment damage.** Dry ice pellets do not chisel away contaminants as sand blasting does. Instead, CO₂ pellets penetrate the contaminant, fracture into small particles when they impact the base material and instantly sublimate. The loosely bonded paint is removed in a lift and flush action.
- **Benefit #4 Elimination of grit entrapment.** Since the dry ice pellets return to a vapor upon contact, there is no cleaning material that could be entrapped in the equipment.
- **Benefit #5 Reduced Costs.** Dry ice sublimates eliminating a secondary waste stream minimizing waste disposal costs.

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