

Fire Damage Restoration

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intro

Dry Ice Blasting for Fire Damage Remediation:

This cutting-edge cleaning approach has multiple advantages for fire damage restoration. Let's look at what dry ice cleaning is, how it works, and how it can help in restoring fire damaged property.



What is it?

Dry ice blasting, also known as dry ice cleaning or CO2 blasting, is a non-abrasive and environmentally friendly cleaning process that uses high-velocity streams of dry ice pellets accelerated by compressed air to remove contaminants from surfaces. The process combines thermal shock, kinetic energy, and gas expansion to effectively remove dirt, grime, grease, paint, adhesives, and other substances without leaving residues or damaging the surface. The benefits of dry ice blasting include its non-toxic and non-abrasive nature, reduced cleaning time and equipment disassembly, improved worker safety, minimal environmental impact, and versatility across various industries and applications.

<u>Kinetic Effect</u>: When dry ice pellets strike the surface, they transfer kinetic energy, causing the contaminants to crack and loosen.

<u>Thermal Effect</u>: The extremely cold temperature of dry ice (-78.5°C or -109.3°F) causes the contaminants to contract and become brittle, making them easier to remove.

<u>Sublimation Effect:</u> Dry ice pellets convert into CO2 gas upon impact, rapidly expanding and creating tiny explosions, lifting the contaminants away from the surface.

Benefits of Dry Ice Blasting in Fire Damage Restoration

Non-abrasive cleaning:

Dry ice blasting uses pellets of solid carbon dioxide (dry ice) accelerated at high speeds to clean surfaces. It is a non-abrasive method, meaning it does not damage the underlying materials. This is crucial during fire restoration, as it allows for the removal of soot, smoke residues, and other contaminants without causing additional harm to the surfaces being cleaned.

· Environmentally friendly:

Environmentally friendly: Dry ice blasting is an environmentally friendly cleaning method. The dry ice pellets sublimate upon contact, meaning they convert directly from a solid to a gas, leaving no secondary waste. Unlike traditional cleaning methods that may involve solvents or chemicals, dry ice blasting does not introduce any harmful substances into the environment or leave behind residue that needs to be disposed of.

• Effective soot and smoke residue removal:

Dry ice blasting effectively removes soot and smoke residues from various surfaces. The pressurized dry ice pellets dislodge and lift off contaminants from walls, ceilings, floors, and other affected areas. The cold temperature of the dry ice also helps to break down and remove odors associated with fire damage.

· Versatile cleaning capabilities:

Dry ice blasting can be used on a wide range of materials and surfaces, including wood, metal, concrete, brick, and more. It is effective for cleaning walls, ceilings, equipment, machinery, and even delicate objects like electronics or artwork. This versatility makes it suitable for addressing fire damage in different areas of a building.

• Time and cost efficiency:

Dry ice blasting can help expedite the fire restoration process. It is a fast and efficient cleaning method that can save time compared to traditional cleaning techniques. As there is no need for disassembly or drying time, it minimizes downtime and allows for a quicker return to normal operations. Additionally, the reduced labor and disposal costs associated with dry ice blasting can contribute to overall cost savings.

• Minimises health risks:

Fire residues can contain harmful substances such as toxins, carcinogens, and allergens. Dry ice blasting is a safe method that helps minimize health risks for both restoration workers and occupants. It does not generate airborne contaminants or introduce chemicals into the environment, providing a healthier and safer work environment during the restoration process.



What can we do for you?

Soot and smoke residue removal: Dry ice blasting effectively removes soot, smoke residue, and other contaminants from surfaces affected by fire. The high-velocity dry ice pellets dislodge and lift away the particles without leaving any additional residue.

Charred wood removal: Dry ice cleaning is highly effective in removing the charred remains from damaged wooden structures such as roof trusses and internal walls.

Odour removal: Dry Ice cleaning can help in the removal of odours resulting from fire, smoke and water damage.

Helps determine what can be saved: Typically, it is difficult to determine the extent of damage and so expensive structures may be needlessly replaced or rebuilt. By using dry ice blasting to remove surface damage to timbers and brickwork, it is easier to determine which structures can be saved and reused.

Easier access to difficult to reach areas: The equipment and process used make it much easier to reach areas that would be very difficult to clean with traditional methods.

Faster clean up times: This means a saving in labour costs and a faster turnaround time.

Surface Preparation: `The process helps prepare the cleaned surfaces for future treatment. Charred wood is removed leaving the surface ready for painting or staining.

Our Process

- **Initial Assessment:** We will conduct an initial assessment of the site to determine the scope of the project. Then evaluate the type and extent of the damage, as well as the surfaces involved.
- **Project Planning**: Based on the assessment, we will develop a comprehensive project plan that outlines the specific steps and timeline for cleaning the damaged areas. This includes determining the equipment, materials, and resources needed for the job.
- **Preparation:** We will prepare the site for the cleaning process. This may involve covering or protecting surrounding areas, setting up containment measures, and ensuring proper ventilation.
- **Dry Ice Blasting:** The core service provided by BBS is the dry ice blasting process itself. Using specialised equipment, we will blast dry ice pellets at high velocity onto the damaged areas removing the charring and soot deposits.
- Clean-up and Waste Disposal: After the dry ice blasting process, we will handle the clean-up. We will employ methods such as vacuuming or sweeping to collect and remove waste from the site. Proper waste disposal practices will be followed to ensure compliance with environmental regulations.
- **Post-Cleaning Inspection:** The company will conduct a thorough post-cleaning inspection. We visually inspect the surfaces and address any remaining areas that require further cleaning or touch-up.
- **Documentation and Reporting:** BBS will provide documentation and reporting services, including project documentation, before and after photographs, and a detailed report of the work performed. This helps ensure transparency and provides a record of the cleaning process.

Summary

Soot, smoke residue, and other impurities are easily removed using dry ice blasting, allowing for a complete cleaning and repair of fire-damaged surfaces.

The procedure does not use abrasives, therefore it can be used on fragile materials without risk of further deterioration. Because dry ice doesn't conduct electricity, it's safe to use around electronics as well.

Dry ice is safe for the environment since it sublimates on impact, eliminating any chemical residue. It makes cleaning much safer and less hazardous by doing away with the need for toxic chemicals.

Dry ice cleaning is a fast and effective process, cutting down on the time and money needed for cleaning and restoration. Saving time spent scrubbing by hand also helps keep prices down.

Dry ice blasting is versatile because it may be used to clean a wide variety of surfaces after a fire, including wood, metal, glass, and electrical components.

When it comes to cleaning up after a fire, dry ice cleaning is a powerful and efficient option because it eliminates residue effectively while also being safe, eco-friendly, and fast.

Contact information



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