

# Cryogenic/Dry Ice Blasting

## (CO<sub>2</sub>) Services

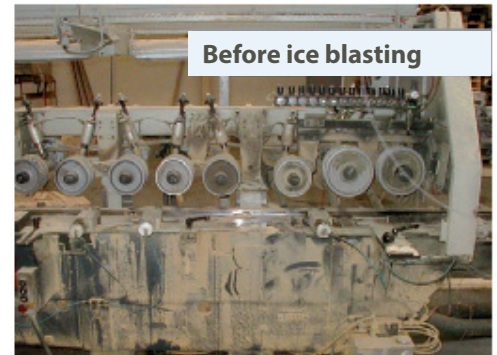


### What is Dry Ice Blasting?

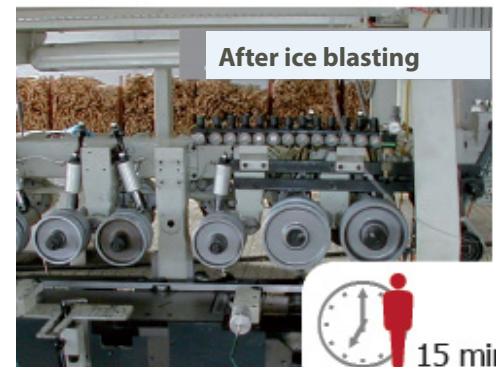
Dry ice blasting is similar to sand blasting, plastic bead blasting, or soda blasting where a medium is accelerated in a pressurized air stream to impact a surface to be cleaned or prepared. But that's where the similarity ends. Instead of using hard abrasive media to grind on a surface (and damage it), dry ice blasting uses soft dry ice, accelerated at supersonic speeds, and creates mini-explosions on the surface to lift the undesirable item off the underlying substrate.

**Dry ice blasting has many unique and superior benefits over traditional blasting media.**

- **Non-abrasive, nonflammable & nonconductive**
- **Environmentally-friendly** and contains no secondary contaminants such as solvents or grit media
- **Clean and approved for use in the food industry**
- Allows most items to be cleaned in place (**no disassembly**)
- **Safe for operating machinery** - does not create fire hazards
- **Highly effective** - Removes production residues, release agents, contaminants, paints, oils and biofilms
- **Custom cleaning** - can be as gentle as dusting smoke damage from books or as aggressive as removing weld slag from tooling or other general cleaning applications



Before ice blasting



After ice blasting



### Ideal For:

- Pharmaceuticals
- Agriculture
- Food & beverage
- Power
- Pulp & Paper
- Alloy
- Steel
- Plastics
- Automotive

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## How it works

Thompson's dry ice blasting technique uses compressed air to accelerate frozen carbon dioxide (CO<sub>2</sub>) "dry ice" pellets to a high velocity. A compressed air supply is used in this process. Dry ice pellets are typically brought to the job or can be made on-site if justifiably necessary. Pellets are made from food grade carbon dioxide that has been specifically approved by the FDA, the EPA and the USDA.

## Dry Ice Blasting is Clean and Safe

- Approved by the EPA, FDA, and USDA - safe for food processing
- No harmful gases or secondary waste generation
- Safe and non-toxic (once pellets impact the surface they dissipate into the atmosphere)
- Reduces or eliminates employee exposure to (and corporate liability from) the use of dangerous chemical cleaning agents
- Dry ice is obtained as a byproduct of other industrial processes - it is made from reclaimed CO<sub>2</sub>. It does not produce CO<sub>2</sub> or add CO<sub>2</sub> to the atmosphere (It does not contribute to the greenhouse effect).

## Other Cleaning Methods Can Be Toxic

- Sand, soda, or water blasting can leave toxic secondary waste to be cleaned up in addition to the toxic substrate
- Sand, soda, or water blasting can create downstream contamination that effects surrounding installations
- Soda blasting can kill surrounding vegetation
- Chemical & solvent methods may be toxic/create toxic waste - PLUS Workers are exposed to potentially harmful substances



Before ice blasting



After ice blasting

### Additional Services:

Hydroblasting 12K, 20K, 40K PSI

In-Situ SCR Catalyst Cleaning

High-Volume Hydroblasting

Chemical Cleaning

Hydro-cutting of Steel & Concrete

Pneumatic & Hydro Vacuum Excavation

Wet & Dry Vacuuming

Combustible Dust Remediation

FINFOAM<sup>®</sup> Air-cooled Heat Exchanger Cleaning