



BLIZZARD BLASTING SOLUTIONS

For the coolest, quickest clean



Food and Drink Industry



Food Industry

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Dry Ice Blasting in the Food and Drink Industry:

Welcome to BBS's information pack for the food and drink preparation industry. This cutting-edge cleaning approach has multiple advantages for maintaining cleanliness and efficiency in food preparation processes. Let's look at what dry ice cleaning is, how it works, and how it can benefit you and your business.



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.

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

Thermal Effect: 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.

Sublimation Effect: 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 the Food and Drink Industry

Non-Toxic and Food-Safe: Dry ice blasting is a non-toxic cleaning method that is safe for use in the food and drink industry. It does not leave behind any chemical residues, ensuring the integrity and safety of food products. This makes it suitable for cleaning equipment, surfaces, and production areas without the risk of contamination.

Effective Cleaning: Dry ice blasting effectively removes stubborn contaminants such as grease, oil, carbon deposits, and food residues. The high-velocity dry ice pellets dislodge the contaminants without causing damage to the underlying surfaces. It reaches into tight spaces and intricate machinery, ensuring a thorough and efficient cleaning process.

Reduced Downtime and Disassembly: Dry ice blasting minimizes downtime in the food and drink industry. It eliminates the need for time-consuming disassembly of equipment since the cleaning process can be performed in place. This reduces production interruptions, resulting in improved operational efficiency and increased productivity.

Waterless Cleaning: Dry ice blasting is a dry cleaning method that uses solid carbon dioxide (dry ice) pellets. As a result, it eliminates the use of water, reducing water consumption and waste. This is especially beneficial in areas where water usage needs to be minimized, such as during the cleaning of electrical components or sensitive machinery.

Environmentally Friendly: Dry ice blasting is an environmentally friendly cleaning option. The dry ice pellets sublime into carbon dioxide gas upon impact, leaving no secondary waste or residue behind. It reduces the need for chemical cleaning agents, making it a sustainable and eco-conscious choice for the food and drink industry.

Safe for Equipment: Dry ice blasting is a non-abrasive cleaning method that is gentle on equipment surfaces. It does not cause damage or wear to delicate machinery, ensuring the longevity and performance of equipment in the food and drink industry.

What can we do for you?

Equipment Cleaning: Dry ice blasting effectively cleans a wide range of food and drink production equipment, such as mixers, conveyors, ovens, tanks, and pipes. It removes grease, oil, food residues, and other contaminants, ensuring optimal equipment performance and preventing cross-contamination between different food products.

Surface Sanitization: Dry ice blasting sanitizes surfaces in food and drink processing areas. It eliminates bacteria, mold, and fungi, creating a hygienic environment and reducing the risk of foodborne illnesses. The process reaches into crevices and hard-to-reach areas, ensuring a thorough sanitization of all surfaces.

Electrical Equipment Cleaning: Dry ice blasting can safely clean electrical components and machinery in the food and drink industry. It removes dust, debris, and carbon build-up from electrical panels, motors, switches, and control systems, improving their efficiency and reducing the risk of electrical failures or malfunctions.

Mold and Mildew Remediation: Dry ice blasting is effective in removing mold and mildew from surfaces in food storage areas, cold rooms, and refrigeration units. It eliminates these microbial contaminants without the use of chemicals, preventing their growth and maintaining a safe environment for food storage.

Cleaning Conveyor Belts and Packaging Equipment: Dry ice blasting efficiently cleans conveyor belts and packaging equipment, ensuring the removal of food residues, glues, adhesives, and oils. It helps maintain smooth operations, prevents contamination, and ensures the quality and safety of packaged food products.

Environmentally Friendly Grease and Oil Removal: Dry ice blasting effectively removes grease, oil, and carbon build-up from cooking surfaces, grills, and exhaust hoods. It eliminates these residues without the use of chemicals, reducing the environmental impact and improving air quality in food preparation areas.

Our process

Assessment and Consultation: The company starts by figuring out what the client needs in terms of cleaning. Once we gain a thorough understanding of your specific requirements. We then proceed to identify the surfaces and equipment that need attention. Additionally, we conduct a meticulous assessment of any safety or environmental factors that may impact the project. We discuss thoroughly with you the customer to find out what you want done specifically, find out what surfaces or tools they want to clean, and consider any safety or environmental issues.

Planning and Preparation: BBS makes a thorough plan for the cleaning process based on the assessment. This includes choosing the right dry ice blasting equipment, choosing the right type and size of dry ice pellets, and thinking about any extra safety measures or equipment that might be needed for the job.

Surface Preparation: Before using dry ice to clean, we make sure that the surfaces or equipment that needs to be cleaned are prepped and precautions have been taken to insure everyone's safety. This could mean cleaning up any loose trash, covering up sensitive areas, and taking any other steps needed to protect nearby parts or buildings.

Dry Ice Blasting: Setting up the dry ice blasting tools is the first step in the dry ice cleaning process. The equipment is usually run by trained employees of the company. It consists of a blasting gun linked to a high-pressure air supply and a dry ice pellet feeder. The technicians aim the stream of compressed air and dry ice pellets at the surfaces they want to clean. The mix of kinetic energy and thermal shock effectively removes contaminants.

Quality Control and Inspection: A priority of BBS is quality control all the way through the dry ice cleaning process. We check the cleaned surfaces to make sure that all the dirt has been removed and that the level of cleanliness that was wanted has been reached. Any touch-ups or extra cleaning steps that are needed are done as required.

Waste Management: The waste from the dry ice cleaning process is taken care of by us by following the right waste management steps. When dry ice pellets hit something, they turn into carbon dioxide gas and the waste they remove is left behind. The company makes sure that this trash is collected, stored, and thrown away in a safe way that follows environmental laws and rules.

Project Completion and Documentation: Once the dry ice cleaning process is done, we provide a summary of the work done, which will include pictures and videos of the before and after. We also suggest ways to keep up with maintenance clean in the future.

By following these operational processes, We can make sure that cleaning in many different industries is fast, effective, and safe. Throughout the whole process, we customer happiness first, keep quality standards high, and follow all environmental and safety rules.

Summary

In summary, dry ice cleaning has a significant positive impact on the food and drink industry. It offers a safe and efficient cleaning solution that meets the specific needs of this industry. Dry ice blasting effectively eliminates contaminants from equipment, surfaces, and manufacturing areas while leaving no chemical residues behind, ensuring food safety and quality. The method is delicate but effective, reaching into tiny crevices and intricate gears to provide full cleaning results.

Dry ice blasting also reduces downtime by allowing cleaning to be performed in place, minimizing production interruptions and improving operational efficiency. Furthermore, the waterless aspect of dry ice cleaning saves water use and waste, which aligns with industry sustainability goals. With its ability to sanitize surfaces, remove mold and mildew, clean electrical equipment, and eliminate grease and oil build-up, dry ice cleaning contributes to maintaining a hygienic environment, complying with regulations, and enhancing overall productivity and quality in the food and drink industry.

Request a Quote today

Contact information



07803 267356



info@blizzardblasting.co.uk