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NEWS LETTER

NEW TOOL FOR CLEANING OF HT MOTORS, ALTERNATORS, DIFFERENT EQUIPMENTS AT SITU WITHOUT MUCH DISMANTLING THE PARTS OF THE EQUIPMENT

Dry ice blasting is a form of carbon dioxide cleaning, where dry ice, the solid form of carbon dioxide, is accelerated in a pressurized air stream and directed at a surface in order to clean it.

The method is similar to other forms of media blasting such as sand blasting, plastic bead blasting, or soda blasting in that it cleans surfaces using a media accelerated in a pressurized air stream, but dry ice blasting uses dry ice as the blasting medium. Dry ice blasting is nonabrasive, non-conductive, non flammable, and non-toxic.

Dry ice blasting is an environmentally responsible cleaning method. Dry ice is made of reclaimed carbon dioxide that is produced from other industrial processes, does not add additional greenhouse gases to the atmosphere, and is an approved media by the EPA, FDA and USDA. It also reduces or eliminates employee exposure to the use of chemical cleaning agents. Compared to other media blasting methods, dry ice blasting does not create secondary waste or chemical residues as dry ice sublimates, or converts back to a gaseous state, when it hits the surface that is being cleaned.

Dry ice blasting does not require clean-up of a blasting medium. The waste products, which includes just the dislodged media, can be swept up, vacuumed or washed away depending on the containment.

ADVANTAGE :

- Shut down time for the equipment is extremely reduced
- Does not require much dismantling of parts of equipment
- Cleaning is very effective.

METHOD: DRY ICE BLASTING ILLUSTRATION

Dry ice blasting involves propelling pellets at extremely high speeds. The actual dry ice pellets are quite soft, and much less dense than other media used in blast-cleaning (i.e. sand or plastic pellets). Upon impact, the pellet sublimates almost immediately, transferring minimal kinetic energy to the surface on impact and producing minimal abrasion.

P.C.:https://www.linkedin.com/pulse/dry non conductive ice blasting 10 key benefits part prestidge

P.C. : https://www.starrco2.com/what is dry ice blasting co2 cleaning

The sublimation process absorbs a large volume of heat from the surface, producing shear stresses due to thermal shock.[3] This is assumed to improve cleaning as the top layer of dirt or contaminant is expected to transfer more heat than the underlying substrate and flake off more easily. The efficiency and effectiveness of this process depends on the thermal conductivity of the substrate and contaminant. The rapid change in state from solid to gas also causes microscopic shock waves, which are also thought to assist in removing the contaminant.

EQUIPMENT

The dry ice used can be in solid pellet form or shaved from a larger block of ice. The shaved ice block produces a less dense ice medium and is more delicate than the solid pellet system. In addition, pellets may be made by either compressing dry ice snow, or using tanks of liquid CO_2 to form solid pellets.[4] Dry ice made with compressed snow breaks apart more easily and is not as aggressive for cleaning.

Dry ice blasting technology can trace its roots to conventional abrasive blasting. The differences between an abrasive-blasting machine and a dry ice blasting machine are in how they handle the blast media. Unlike sand or other media, dry ice is generally used at its sublimation temperature. Other differences include systems for preventing the ice from forming snowball-like jams, and different materials to allow operation at very low temperatures.

There are two methods of dry ice blasting, two-hose and single hose. The single hose system is more aggressive for cleaning, since the particles are accelerated to faster speeds.

USES OF DRY ICE BLASTING USED TO CLEAN BAKERY EQUIPMENT

Dry ice blasting is utilized in many different types of industries. The unique properties of dry ice make it an ideal cleaning solution in many commercial and manufacturing settings.

Dry ice blasting can clean numerous objects with differing, complex geometries at once, which is why cleaning plastic and rubber molds is a main application for the technology.[7] Dry ice replaces traditional cleaning methods that rely on manual scrubbing and the use of chemical cleaning agents. Dry ice blasting cleans the molds in-place at operating temperature, which eliminates the need to shut production down for cleaning.[8]

Dry ice blasting is also used to deburr and deflash parts[20] and surface preparation prior to painting. The undersigned had already directly executed the 2500 KW HT motor Cleaning in 2005 . Motor cleaning done at situ without dismantling Any part of the motor. After cleaning its winding showed as good as new as purchased on 2000.

Safety

Carbon dioxide is increasingly toxic starting at concentrations above 1%,[21] and can also displace oxygen resulting in asphyxia if equipment is not used in a ventilated area. In addition, because carbon dioxide is heavier than air, exhaust vents are required to be at or near ground level to efficiently remove the gas. At normal pressure dry ice is −78 °C (−108 °F) and must be handled with insulated gloves. Eye and ear protection are required to safely use dry ice cleaning equipment.

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