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Out with the mold, in with the new technology

Dry Ice Blasting for mold removal a powerful success
By Tina Moore and Gary Gilman

Dry Ice Blasting is rapidly increasing the amount of mold remediation projects a firm can perform, due to a 60 – 80 percent time and manpower reduction, as well as the technology’s ability to thoroughly remove mold spores from wood. Add to that the ability to reach tight, confined areas, the significant lack of sanding, scraping and secondary waste streams, and dry ice blasting technology is a business-building opportunity that has come of age.



It’s a natural

Mold is an organic decomposer found everywhere in nature. However, health problems and damage to structure can arise when mold is allowed to multiply indoors – basically any place that moist air can condense on a cold surface. If unattended for as little as 48 hours, mold is likely to grow. And while some porous materials, such as dry wall, carpet and insulation must be removed, semi-porous materials like concrete and wood can be cleaned without damaging the structure.

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How Dry Ice blasting works

The process is non-toxic, non-corrosive, non-abrasive and non-conductive – using thermal shock to clean in most applications. However, it uses kinetic energy when blasting on wood. As the dry ice (-78.5 C) blasts against the mold infested wood, it removes the top 1/16 inch of wood, and the mold along with it.

Other methods leave a lot

Chemical biocides don’t always eliminate the allergens (called metabolites) which are responsible for the allergic reactions associated with the mold. Also, biocides are typically harmful to those using them (they are not recommended for routine use by EPA or OSHA). Sandblasting is too abrasive to the underlying surface. Water and steam blasting do no provide a thorough clean and there is a greater chance of mold regeneration due to moisture. And while soda blasting provides an effective clean, it leaves behind a rather messy secondary waste stream (an issue that doesn’t come up with dry ice sublimation).

Clean across the country

Tom Monacelli of Advanced Indoor Air, New Jersey, uses the Cold Jet dry ice blasting system, reducing cleaning time typically by at least 60%. “Before, crews would spend about six days cleaning a mold-infested attic in a 1,500 square foot home by manually crawling into the space to sand and scrape the moldy wood. Then we’d apply a biocide and an anti-microbial coating to seal it.



Courtesy of SteamMaster ©2005

Before

With dry ice blasting, we can clean the same size attic in two days with half the amount of manpower. And no need for the biocide or the



After

encapsulation...our work consistently passes the Industrial Hygienist's post remediation verification tests," explains Mr. Monacelli.

SteamMaster, in Vail, CO began utilizing dry ice blasting in their mold remediation division two years ago. Since they purchased their Cold Jet dry ice blasting system, the firm has been successful in passing every post remediation verification test. They are able to completely remove the mold from the surface of wood, a task they were unable to do as effectively and consistently with the traditional methods.

The system is particularly effective where engineered roof or floor joists and decking are impregnated with mold spores. In a single pass, their crews can effectively and efficiently remove mold from multiple right-angled surfaces – historically, a back-breaking and time consuming process. The dry ice blasting system also provides remediation crews with access to tight areas that may otherwise be unreachable, such as three to four inch gaps in framing and rim joists above concrete-stem walls.

The choice method

Dry Ice blasting's ability to clean mold-infested surfaces thoroughly and efficiently is becoming the method of choice for mold remediator around the county – equipment costs being mitigated with the increased amount of mold remediation projects a firm can perform. Or, to quote a satisfied customer, "I couldn't be happier." Very cool.

Since 1986, Cold Jet, LLC (www.coldjet.com) has been the pioneer of dry ice blasting technology development, continuously improving on the efficiency and effectiveness of this environmentally safe cleaning method. Today, Cold Jet remains the world leader in the dry ice blasting industry, manufacturing a proprietary line of dry ice production and blasting equipment, as well as providing rental services to industrial and commercial customers worldwide.

For more information please visit our website at www.coldjet.com, email us at tmoore@coldjet.com or call us at 1-800-337-9423 (for North America)

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