



Blasting Really Can Be Green!

Our customers have always been keenly interested in energy and media efficiency as media and compressed air are major cost factors in any blasting operation. That interest has been heightened even further in recent years, especially on the part of larger companies, as American industry becomes more focused on reducing its carbon footprint.

Toward that end, more companies are being attracted to recycling programs offered by some media suppliers. And that is also why Clemco works with customers to achieve the most efficient use of compressed air in the blasting process as well as the most cost effective media reclaim options.

—Herb Tobben

Got a question about shot peening, abrasive blasting, or sample processing? Clemco can help.

Call Herb Tobben at 636 239-8172 or submit your request online at www.clemcoindustries.com

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The Problem:

From day one, in the interest of progress, man has been harming the planet. We are polluting the air, the water, and the land. Unfortunately, it has taken us a long while to realize and accept the wrongs we are committing. We debate about the causes and the fixes for global warming, air and water quality, pollution control, and waste management.

The Solution:

The first step toward the solution is acknowledging the problem; and since everyone is part of the problem, we all must be part of the solution. It was not until 1970 that we formed the EPA to be our watchdog. It's certainly not the be-all and end-all of the solution. We, in industry, have to take the ball and run with it and do our part. I think we are moving in the right direction. But it is a continuous process that takes great effort.

From the perspective of one whose life is devoted to an industrial process, air blasting, I know first-hand that it can be a dirty business. Without following the proper steps, blasting can definitely pollute the air, and the land, and also the water, depending upon waste disposal methods. However, with appropriate engineering controls in place, blasting need not offend in any category.

As a manufacturer, we respond to market needs, which are driven by people who respond to others, the EPA, the various air quality boards, and a host of others. Aside from our marketing responsibilities, we want to be good planet citizens as well. So, we engineer our products to help our customers be good planet citizens.

You wonder how this is so. Well, the blasting industry has many environmentally-friendly facets. Some examples follow.

- Blasting with plastic media came about in response to a need of the United States Air Force to eliminate or at least substantially reduce the use of caustic chemicals as stripping agents to remove paint from aircraft. Using plastic or other lightweight media indirectly reduces pollution by reducing the amount of waste that is stored in landfills or

ends up in a waterway. Other lightweight media can be organic, such as starch, corn-cob, walnut shells, rice hulls, fruit pits or ground corn. These media decompose, further reducing landfill waste. Over the past 25 years, many thousands of aircraft have been stripped with plastic media.

- Dust collection protects air quality and helps prevent air pollution. Common to our industry is reverse-pulse dust collection, which when combined with HEPA (High Efficiency Particulate Air) filtration does an admirable job of reducing air pollution. HEPA filters can remove at least 99.97% airborne particles 0.3 micrometers (μm) in diameter.
- Blast rooms protect the environment by providing an enclosure for the blasting activity. Such enclosures are generally equipped with recovery systems that capture the media and contaminants removed from the object being blasted. Sophisticated recovery and cleaning equipment separates the dust and contamination from reusable media, allowing the media to be recycled sometimes hundreds of times. Recycling media conserves energy by reducing the media consumed. Less media means less fuel used to transport it.
- In blast cabinets or rooms, aluminum oxide media is used for industry or artistry for etching glass as an alternative to chemical etching methods. Glass bead media is used to blast medical parts, eliminating the need for toxic chemicals required for the passivation process.
- Shot peening improves fuel efficiency by reducing friction and increasing oil retention. It is used to improve permissible stress levels of components and therefore prolongs service life of automotive parts. Peening to strengthen parts can reduce vehicle weight, thereby reducing fuel consumption.

I'm sure I could go on and on with all the applications I have seen. I can only hope, however, that we can inspire one another to think twice about how we do work and the methods we use to stay on track toward being environmentally-responsible and saving the planet. ●