



Dry ice blasting works great for removing paint, asphalt, grease and other unwanted grime, says Steve Rositski, who operates a dry ice blasting business.

Dry Ice Blasting Beats Sand

Steve Rositski says dry ice blasting is ideal for removing asphalt, grease and oil. It also removes concrete overspill and welding spatter. Rositski has even used it to prepare an antique tractor for restoration.

"The owner of the tractor didn't want to use sand or soda as they are more aggressive and can get into the engine and other areas," says Rositski. "In a couple of hours we had the block and other parts cleaned up. Paint that had broken down from contact with fuel over the years peeled away, too. If it had been enamel paint, we could have blasted tar off without compromising it."

He points out that sandblasting tin can produce warping from the friction and heat. Dry ice by its nature doesn't produce heat and can easily be adjusted for less aggressive blasting by dialing down the air pressure.

After blasting heavy asphalt or grease off equipment, sand has to be disposed of. And if you use liquid solvents to clean up a machine, you have to contain the hazardous materials. Dry ice avoids both problems as it simply evaporates.

"It isn't as hard on equipment as sand or even soda blasting is," he says. "The dry ice particles get into and behind the material and pulverize it. And then you just sweep up the material."

Rositski operates one of half a dozen dry ice blasters in Wisconsin. He does a lot of work cleaning up black topping machines for road crews. Until the mid 1990's, dry ice blasting required two large flatbeds for transport. Today a portable machine is about the size of a dishwasher.

Dry ice blasting machines can rent for as much as \$1,500 a week, not counting an air compressor and a supply of dry ice. He uses a



Rositski uses a 550-lb. ice chest to hold enough dry ice for one days blasting.

4-cylinder Deere diesel-powered compressor that puts out 185 cu. ft. per min. with 120 psi at the nozzle.

"I have a 550-lb. ice chest that holds enough for about a day," he says. "I use about 60 lbs. per hour on the low end, but if I turn up volume and pressure, I get more coverage, freezing the surface quicker. The grease comes off easier."

He suggests contacting dry ice suppliers to find an operator or to find where a machine can be rented. Rositski charges customers from \$150 to \$200 per hour, depending on travel time from his home.

"Some contractors charge up to \$300 per hour," he says. "It can be done year round, but it's most efficient in the fall and winter. Cooler weather makes a big difference."

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Finger Wrench Helps Hold Small Nuts, Bolts

Out new product "scout" Andy Sewell over in England recently sent information on these new finger wrenches that help hold onto nuts and bolts when working in tight spots.

The little wrenches are made from hardened spring steel and are designed to be worn on your index finger. The inserted bolt or nut sets flat against your finger, giving you some feel as you try to get it started turning.

The open spring-loaded design accommodates different-sized fingers. For real small fingers, a rubber insert is provided.

Five-piece sets of finger wrenches are available in conventional or metric. They sell for about \$26 U.S. plus S&H.

Contact: FARM SHOW Followup, Carolyne Brennan, Hexhold Ltd., Units 9-11 Brooke Trading Est, Romford, Essex, England RM1 2AT (ph 011 44 1708 736640; info@hexhold.com; www.hexhold.com).



Finger wrench fits on your index finger, with the inserted bolt or nut resting flat against finger. It's sold in 5-piece sets.



"Waterless" Coolant Extends Engine Life, Saves Fuel

Forget about overheating your cooling system if you use Evans waterless coolant. With a boiling point of 375 degrees and a freezing point of -40 degrees, your engine operates more efficiently and reduces the cooling load on radiator and fan, says Mark Stone, Evans Cooling Systems, Inc.

"Water-based coolants run at or near their boiling point, while ours has a reserve capacity to cool the engine even on the hottest day of the year," says Stone. "Cooling goes from high pressure to low pressure with our waterless coolant. You don't have pressure on radiator caps, seals or gaskets. Life expectancy of the cooling system is extended, and our coolant is not toxic."

Stone points out that 6,500 kids end up in the hospital each year, and 650 die due to poisoning from antifreeze-treated coolant.

He adds that water-based cooling systems also contribute to pump and cylinder liner cavitation and corrosion, as well as hot spots that can damage engines. Cavitation alone can require an engine rebuild. When Deere tested Evans no-water coolant along with multiple water-based coolants, the results were impressive.

"Deere used their most cavitation prone engine and ran it for 250 hrs. before tearing it down and examining the liners for pits," explains Stone. "A passing score was 200 pits, and ours was 21. We were 75 percent better than the best water-based coolant."

He points out that a high boiling point can be important in heavy equipment running in dusty, dirty conditions. "Field conditions can clog a radiator and cause a water-based

cooling system to overheat," says Stone. "With ours, you have time to get back to a maintenance area where you can clean the radiator out."

The combination of running at a higher temperature than possible with water-based systems and less need for energy draining fans also saves fuel. Independent evaluations on heavy trucks have shown fuels savings of as much as 7.2 percent due to reduced fan time when fan temperature is raised to 230 degrees. Testing at Auburn University eliminated the fan time variable and still produced a 3 percent improvement in fuel efficiency.

Evans offers HDTC, a heavy-duty formulation with special additives for heavy diesel engines. It's recommended for large tractors, combines and heavy trucks. It's priced at \$42.95/gal. NPG+ is designed for diesel and gas engines, such as cars, pickups and smaller tractors. It's priced at \$39.95 per gal. However, a flush product is recommended before refilling smaller cooling systems with the waterless coolant.

"While the price for our waterless engine coolant may seem high, it quickly pays for itself in reduced engine wear and fuel," says Stone. "Plus, it's a lifetime coolant. It doesn't become contaminated, and future replacement and disposal costs are eliminated. It stays stable and in suspension during storage as well as use."

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Roger Gutschmidt converted this 100-year-old mechanical shears to hydraulic power. He uses it to cut junk steel into pieces he can sell as "prepared" scrap iron.

Powerful Mechanical Shears Converted To Hydraulic

Roger Gutschmidt converted a 100-year-old mechanical shears to hydraulic power so he could use it to cut steel into pieces sold as "prepared" scrap iron.

"Edwards Shears were widely used in blacksmith shops and factories," he explains. "It works like a giant scissors to cut heavy flats, shafts and plates."

Gutschmidt built some heavy brackets on which to mount a 3-in. dia. by 8-in. stroke hydraulic cylinder.

The unit is capable of shearing a piece of steel that's 5 in. wide by 1/2 in. thick.

"It's quite impressive how effortless it cuts this steel," he says. "I plan to mount it on a trailer and haul it to sites where I'll chop up old equipment. Prepared scrap iron consists of 18 by 36-in. pieces and usually sells for about \$50/ton more than unprepared stuff."

Gutschmidt notes that cutting up scrap with an oxy-acetylene torch works great, too, but says the gas costs a fortune at today's gas prices. He also points out that cutting with shears eliminates the dangers of sparks and hot iron.

Edwards Manufacturing Co. of Albert Lea, Minn., is still in the shear making business, but nowadays they're called "Ironworkers," Gutschmidt says.

"I own a 55-ton Edwards Ironworker. They make models up to 100 tons," he says. "I also have another antique unit that's in its original condition."

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