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Spotless strategy

High-tech cleaning business in I.F. hopes to clean up in sales

By PAUL MENSER

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Nitrocision utilizes pressurized liquid nitrogen for cutting and cleaning.

When a company can offer NASA the means to do in two days what used to take two weeks, you'd think the sky's the limit.

But Nitrocision, an Idaho Falls company that markets technology originally developed at the Idaho National Laboratory, isn't focusing solely on the space agency.

In 2008, its high-pressure, liquid nitrogen technology may be used to clean up everything from space shuttle rocket boosters to waste tanks caked with plutonium oxide to methamphetamine labs.

Company president Ron Warnecke said business has more than tripled in 2007, with 10 units (average cost: \$700,000) projected to be sold by the end of the month. In 2006, the company sold three.

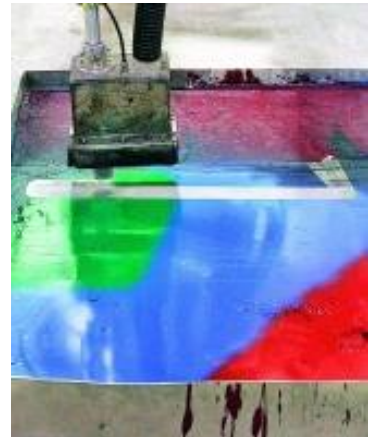
To deal with the growth, Nitrocision has moved its operations into a new building at 891 Pancheri Drive that has three times the space as its former location.

Founded in 2002, the company has 13 people working for it -- in Idaho, Colorado, Florida and Luxembourg.

Nitrocision's equipment uses highly pressurized liquid nitrogen for cutting and cleaning. It's like a pressure washer, but the difference is that liquid nitrogen vaporizes almost instantly, making the waste stream a lot more manageable.

When they started the company, Warnecke and his investors obtained three patents from the lab, which collects a 4 percent royalty on all nongovernment jobs. They have since filed four patents of their own.

Although they believed at the outset they had a winning technology, a lot of work has had to be done developing commercial applications, Warnecke said.



Aaron Rosenblatt / Post Register - A robotic device engineered by Nitrocision demonstrates an industrial-strength clean cut on dried paint at Nitrocision's Idaho Falls facility Thursday. Nitrocision, which has been hired to remove plutonic waste, among other things, uses pressurized liquid nitrogen for cutting and cleaning.

The unit developed at the lab was as big as an entire trailer. As a stationary unit it worked fine, but most customers wanted the machinery brought to them. The Nitrocision team spent close to two years reverse engineering the product until they had a unit about one-third the size of the original.

"That is the key," Warnecke said. "The lab's really good at getting it to the conceptual stage, but it's not nearly ready at that point."

About half of the company's business now is service -- to NASA, power plants, mines and refineries, blasting away insulation and cleaning out pipes. Still, there are other unique applications. Topps Knives, an Idaho Falls company, uses the NitroJet to cut blanks for its knives and handles.

Of all the potential uses for liquid nitrogen, meth lab cleanup might be the most promising.

Nitrocision has entered into an agreement with Meth Lab Cleanup, a Post Falls company, to develop a portable unit that will clean up residue in meth labs, limiting the use of ethylene cleaning solutions, water and detergents.

Meth Lab Cleanup had jobs in 33 states this year and has 26 jobs pending. The Nitrocision technology could be useful in a number of ways, said Joe Mazzuca, the company's operations manager.

What Nitrocision hopes to have by mid-2008 is a machine that will fit into a one-ton van that can be taken to cleanup sites.

In many cases, meth lab residue -- chemicals such as red phosphorous and iodine -- has been painted over, making it necessary to remove drywall. Mold and other biological contamination are also serious considerations. A technology that can remove paint and residue will make cleanup much less expensive.

"What we're looking at is one piece of equipment to be used in five different hazardous waste situations," Mazzuca said.

The linkup with Nitrocision occurred randomly in 2006 at an international marketing conference in Boise, when Mazzuca sat down to lunch next to John Rigby, one of the company's investors.

"We put a lot of thought into it before we got back to them," Mazzuca said. "We're hoping to have them placed all over the United States."

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Aaron Rosenblatt / Post Register - Ron Warnecke, president and CEO of Nitrocision, shows off some of the equipment in a facility designed to house industrial-strength cutting at the company's Idaho Falls plant Thursday. Nitrocision uses an enclosed room to reduce mess and enable easy cleanup.