

Supersonic spray opens doors

Russian innovation brings diversity to Centerline offshoot

Dave Hall

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Armed with Russian technology, a Windsor company is making inroads into the manufacture, repair and restoration of military vehicles, spacecraft, refrigerator doors, lighting systems and classic automobiles.

Established in 2003, Supersonic Spray Technologies, which is a division of Centerline Ltd., is using technology which propels fine metal particles such as copper, aluminum or zinc at a metal surface. The process coats, repairs or restores the metal finish.

Cold-spray technology fires the particles at more than 1,770 km/h, which causes them to mechanically bond to a surface which can then be machined, drilled or tapped with no drying time required.

Michael Beneteau, CEO of Centerline, said the company is finding more applications for the technology every day -- including the repair of moulds, dies, cylinder heads, driveline components and metal castings.

"This has the potential to be huge in non-automotive areas which have traditionally been our company's main emphasis over the years," said Beneteau, whose father Don established the company with Fred Wigle 50 years ago.

"We can no longer survive on our traditional business and this new technology is critical," said Beneteau. "That's why we committed to it and made a sizeable investment four years ago.

"We are now getting some traction and getting known throughout a number of industries for having this expertise."

Paul Kovosi, senior account manager for the company's SST division, said the technology was introduced to Centerline by Roman Maev, a University of Windsor physics professor whose Tessonics ultrasonic welding company shares space at SST's west-side factory.

Kovosi said Maev helped put Centerline together with the patent-holders in Russia. "They were looking for a company which could commercialize the technology and take it to market across North America," he said.

Last year, Centerline signed a 10-year exclusive licensing agreement for North America. It will provide equipment, training and raw materials to a variety of clients across the continent.



CREDIT: Dan Janisse, Windsor Star

CUTTING EDGE FOR SURE: Alex Cameron, project manager at Centerline division Supersonic Spray Technologies, uses a unique high-speed spraying technology based on Russian engineering.

"We're taking this technology to market in as many different industries as possible, which is critical to the success of our company as we attempt to diversify our customer base," Kosovi said.

Beneteau said the U.S. military is using the technology to repair dents in the leading edge of aircraft wings and nicks in landing gear components and NASA is using it to repair blast shields on space shuttles.

It's also being used to repair antenna towers damaged by salt spray and to apply heat bars to the outer edges of refrigerator doors in grocery stores which allows them to be heated.

An agreement with Detroit Diesel uses the technology to repair and restore aluminum and cast-iron turbocharger housings and cylinder blocks.

A typical job takes two applications -- the first one of sand or grit to clean out debris and the second of metal particles to complete the repair.

"Our technology is faster and cheaper for any number of applications and that makes it extremely attractive," Beneteau said.

"In today's economy, companies such as ours have lost our financial competitive advantage, largely because of the strength of the dollar. We compete today through technology such as this which makes what we do cheaper and faster," said Beneteau, who runs the company with brothers David and Chris.

In addition to manufacturing the machinery, SST also operates a job shop at its Ambassador Drive plant for customers to bring in parts which need restoring, repairing or coating.

Once the shop is fully operational, manufacturing of the SST machinery will be moved back to Centerline's Morton Drive plant, which has 350 employees.

dhall@thestar.canwest.com or 519-255-5777, ext. 408.