

# Robots help drive auto industry

*Zimny and Promotion Engineering have been in the forefront of change in manufacturing sector*

By Rich Letkeman

"Welcome to the one-off world of robotics," says Mark Zimny, "where every robot is the world's only, and your customer might take out a patent on it - and don't expect revenue-rich maintenance contracts."

Zimny built his entrepreneurial savvy in Poland as a 12-year-old, designing and building seven motorcycles and a host of other things, into an \$11-million-a-year automation developer in Mississauga known as Promotion Engineering.

He grew it with contracts to install robotics on assembly lines at Honda, Toyota and the Big Three, and with contracts to replace the fuel-rod channels in aging CANDU reactors. His gadgets are on the premises of 100 or more automotive supply companies in the Mississauga area.

"But every machine or gadget we build is a new model of what you could refer to as an obsolete one, and that's the nature of the robotics business," he said. "Every day is entirely a new day."

Zimny's \$4 million worth of export business has all but died and Promotion's staff of 70 or so is busy with the domestic auto market and with the CANDU rebuild functions.

"But no matter what we do, or screw up, which is rather easy in this business," he says, "we keep on growing."

Zimny was amazed to discover, as an older child, how many talents people credited him with. He loved to build machines, had good sales skills and a strong technical sense of logic when it came to making machines do things. He sensed his own tremendous drive as an entrepreneur and inventor.

Naturally he took a mechanical



Mark Zimny of Promotion Engineering in Mississauga.

engineering degree, then took a tour of duty during Poland's state of war in the early '80s, then flew to California in 1985 to visit his sister. Very much in the flavour of Arnold Schwarzenegger, Zimny had come to earn enough money in one year to buy a Harley and travel across the continent, but he ended up working two years as a full-fledged engineer without recalling whether anyone inspected his credentials.

"I was appreciated, and I realized what a great education they had given me in Poland. I wasn't really a robotics engineer yet, but a machinery builder. I came to Mississauga basically without money, ran into the consulate and said I wanted to start a business."

He worked toward that, double-shifting in

machinery plants to earn enough money over a period of eight years or so, and building relationships with employers and managers in the automation business.

Zimny loves to teach within his unique robotics field. "You'll see that when you come to visit the plant. But this country has turned me into a team player, and that's something I never learned back in Poland because I didn't bother with team sports such as soccer and that kind of thing."

He had his moments, such as when he insulted the local union, and again when he apologized to them and gained a lasting friendship.

When Zimny launched Promotion in 1995 he didn't really know how to make money.

His previous inventions were more in the realm of hobbies. And his work experience in Europe had been mostly as an illegal alien in France and Germany.

But 10 years of work experience in North America - now we're back to 1995 - delivered up enough "Zimny courage" for the business launch. His initial big order was for a \$100,000 foam-folder - a machine that would fold a big foam mattress flat enough to be stuffed into a plastic bag. He developed jigs and fixtures for automotive manufacturers including Honda in Alliston. One of them was an automatic suspension aligner that originally was intended merely to improve ergonomics for the alignment technician in the pit, but in the design phase he removed the technician from the pit.

"Always, I guaranteed the quality of the robots and their output consistency," says Zimny, "and productivity exceeded expectations. But our price for the aligner robot was \$200,000, which was \$200,000 too cheap."

On the upswing of the loonie and downswing of the Tier-1 automotive export sector, Promotion landed an \$11 million AECL contract to re-tube the fuel-channel systems in CANDU reactors - part of a program that spends \$2 billion on refurbishment rather than \$20 billion on reactor replacement.

"Re-tuber robots are new to AECL, who has spent money designing them," says Zimny. "We've built three of eleven and delivered the first one last fall, and we're happy that our automation design will eliminate radiation exposure for technicians in this part of the program. We're also happy that we'll reduce the million-dollar-per-day cost factor involved in shutting down a reactor for maintenance."

The forte of Promotion and some other robot designer-builders is quick and ingenious engineering solutions utilizing existing technologies. "We're hopping from job to job, really, and hustling for projects in a field that's linked directly with the future."

## CME tells Ottawa: Help us compete internationally

By Rich Letkeman

Mississauga's major manufacturing sector is feeling the stress from Canada's loonie attack and is looking for innovative ways of competing globally.

"It's killed our U.S. business, but we're really happy we can rely on domestic customers like Honda and Toyota," says Mark Zimny, president of Promotion Engineering Ltd., who until last year was delivering about \$4 million worth of automation equipment annually, mainly to the Big Three automakers in North America.

Producers across the country say they need fresh strategies from governments to

support business and manufacturing.

Recent announcements of tax cuts and industrial incentives are worth about a dime, according to Bryan Dawson of Aircraft Appliances and Equipment Ltd. "I was surprised how little was said about Ontario's economic trauma before last fall's election. Our economic condition is worse than it seems because of performance figures being buoyed by Alberta's."

"The deepening U.S. recession is a bigger issue, and a lot of Canadian companies right now are running scared."

The 2007 federal tax cuts will pay back about \$13 billion per year - about 5.6 per cent of its overall budget - to taxpayers until

2012. Corporate income tax has been reduced by one percentage point and will fall to 15 per cent by 2012. For small businesses, tax on income drops to 11 per cent as part of a five-year, 33 per cent cut. In addition to tax breaks for consumers and industry, Finance minister Jim Flaherty's announcement of a five per cent GST is estimated to be \$6 billion worth of spending power.

Jayson Myers, president of the Mississauga-based Canadian Manufacturers and Exporters (CME), said programs like the federal SRED [Scientific Research and Experimental Development] are needed, "but why not make access to SRED easier

for small companies instead of confronting them with red tape? And why not reimburse companies in real cash instead of giving them virtually intangible tax credits? SREDS are useless to companies not earning healthy margins."

CME is pushing the government to make SRED tax credits refundable and introduce employee-training tax credits, since it is felt that both measures are needed to boost innovation and survival potential.

Manufacturers also want a longer window for the government's two-year write-off program on machinery investments. They feel it's an important incentive given the economic challenges and cash-flow pressures now facing the sector. Most manufacturers expect this window to be extended sometime soon.

In his letter to Canada's premiers and Prime Minister Harper in mid-January, Myers introduced a seven point program of remedies for manufacturers' woes in Canada:

- Build a better tax environment for investment and innovation
- Encourage new production assets and technologies
- Harmonize regulations to streamline compliance efforts
- Coordinate infrastructure investments to streamline flows of goods through North America and abroad
- Address serious skills shortages across Canada
- Invest in innovation and education for economic goals
- Boost the supply of reliable and efficient energy for Canadian industry

In a recent survey by Grant Thornton LLC, 30 per cent of manufacturers reported flat performance in 2007 and 38 per cent expect this to continue into 2008 especially if the U.S. recession materializes. More than 20 per cent are reporting declining performance for 2007, and 9 per cent expect worse performance this year. Eight per cent of them expect less production volume this year and 15 per cent expect reduced profit margins. More than a third of manufacturers surveyed had "flat" profit margins in 2007 and expect similar conditions in 2008.

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