# Semiconductor Equipment Manufacturing, and Now More, Make Up Business at GPR, Inc.

Back in 1979, three brothers – George, Paul and Rick Verhoest – saw the potential in servicing the semiconductor industry. They had a history that informed their vision, since their father had his own machining business where the brothers, who later became partners, learned the basics of running a production operation.

That was the beginning of GPR, Inc., located in Fairfield, N.J. Today, the company — celebrating 25 years in business — employs 45 people and creates and ships to semiconductor equipment manufacturers not only throughout North America, but from around the world, including those in Japan and China.



GPR, Inc.'s seminconductor chamber.

NJTMA-member company GPR builds and works with process chambers, what are called ion beam deposition systems, according to GPR's vice president of sales, Gary Horman. "These deposit the film, the materials, onto the wafer, or etch into the deposited layer," he said. "That's how they lay out the pathways."

A particular job GPR is proud of is the creation of a test chamber built in stages for a high profile semiconductor industry client. "We used to test different stages outside the chamber, but given that all processing on wafers or integrated circuits is done in a vacuum, where there is no atmosphere, the customer wanted to replicate that environment," Horman said.

This was GPR's entry into fully built-up chambers, as opposed to process chambers only. "These have pumpings, vacuum pumps, controls – everything on them," Horman said. For the first time, GPR's customers could see what these positioning systems actually do and how they react in a genuine vacuum environment, that is, when they are actually being used.

## The Industry at Large

The U.S. semiconductor industry still leads the world, although other nations are quickly catching up. The advancements in this industry through companies like GPR keep the world's electronics and computer systems running, yet GPR has also seen the need to diversify.

About 70 percent of GPR's business is in equipment contract manufacturing for the semiconductor industry; the company supplies the second-tier suppliers to the world's semiconductor markets. The remaining 30 percent – much of it lately -- has been in precision machining for components, mainly for the telecommunications and defense industries. Recently, for example, GPR had contracts to pro-





duce housings for mounting on towers that improve cell phone quality and for components going into flight data recorders for military aircraft.

Gary Horman, who has been with GPR less than three years, has successfully begun to expand the company's business into these other industries. "The semiconductor industry is very cyclical – and not in a gradual way either; it's not a mild up and down cycle, but more like a light switch that can go on or off," Horman said. "That's why we have diversified."

The company has seen a re-charge in business since the second quarter of last year, although like many, it suffered through 2000 and much of 2001. Business has been fairly consistent once passed the recent lull, Horman said.

### The Equipment

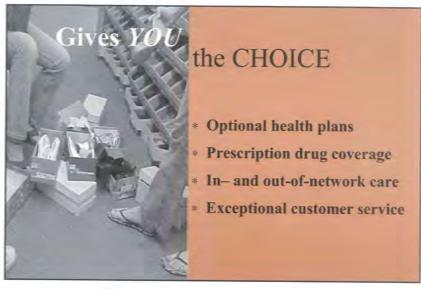
GPR is largely a Mazak machining shops, with most of its equipment – some 40 machines altogether -- in milling and some in turning. Among them is a robotic Mazak machine that auto-feeds pallets into GPR's machining center 24/7 if necessary, and unmanned.

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For manufacturing vacuum chambers, GPR has a Haas HS3 Horizontal 160-inch x 60-inch, with a table load capacity of 10,000 pounds. Other machines, also with high size and weight capacities, are in the shop for chambers that can be anywhere from 6 to 4 feet in size.

A long time resident of Fairfield, N.J., GPR, Inc. owns its own building and is known to be among the leading semiconductor manufacturing suppliers to the industry as a whole. Its foray into other industries, with Gary Horman at the helm, has helped the company survive the "off-switch" in the industry in which it specializes, while introducing new areas of business for which GPR is now also developing a reputation for excellence. Learn more about this NJTMAmember company by visiting www.gprco. com on the Internet.

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