

# AMERICAN MACHINIST



# 10 BEST MACHINE SHOPS

AND THE STORIES BEHIND THEIR SUCCESS

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## ■ ALLIED SPECIALTY PRECISION INC.

# Technology and people lead to twice the sales

*Aerospace shop prospers on reinvestment.*

BY BRUCE VERNYI | EDITOR-IN-CHIEF

- Allied Specialty Precision Inc.
- Mishawaka, IN
- [www.aspi-nc.com](http://www.aspi-nc.com)
- Number of employees — 74
- 2008 sales — \$8-10 million
- Market served — Aerospace, oil & gas, medical

Investing in technology and maintaining a high-quality workforce has helped Allied Specialty

Precision, Inc. (ASPI) to double its sales in the past three years. The company prides itself on its workforce and technology.

ASPI specializes in producing precision hydraulic, fuel control and braking system components for the aerospace industry in materials such as aluminum, high-strength and high-alloy steels, Inconel and titanium alloys. In addition to bar

stock, they also machine castings and forgings.

Pam Rubenstein, ASPI's owner and chief executive officer, bought the 54-year-old company in 2005 and has realigned it to make it more cost driven and competitive.

ASPI holds ISO 9001:2000 and AS9100:01 certifications for aerospace quality and reliability. In addition, it is accredited under Nadcap standards AS7110 and AS7116, which are sponsored and maintained by The Society of Automotive Engineers (SAE) specifically



Pam Rubenstein, CEO and owner of Allied Specialty Precision, flanked by her president Eric Kurzhal (left) and vice president Larry DeLater (right).

for aircraft and aero-engines manufacturing.

ASPI is also a Certified Woman-Owned Small Business, making it quite special among contract manufacturers serving industry. Rubenstein takes this certification as seriously as all the others because it helps open doors for her company in both the corporate and government sectors. It is not a simple thing to achieve Woman Business Enterprise (WBE) certified status as Rubenstein and her core management group learned from full immersion three years ago. The process involves an extensive questionnaire about the financial control and, more important, the operational control of the enterprise. After reporting volumes of numbers, the certifying organization visits for one-on-one interviews with all levels of personnel to ensure that the owner is in full control of the day-to-day business, not just its shares. Financial control alone does not qualify for WBE status, and the certification must be confirmed annually.

Allied Specialty Precision began business as Allied Screw Products, Inc. to serve the Bendix Corp. Bendix became part of Honeywell Inc., and Honeywell is still among the company's primary customers. The shop's name was changed — it was re-branded about five years ago — to better reflect the work that it does now. No longer a screw machine shop, ASPI now runs 23 CNC machine tools, a number of manual machine tools and two coordinate measuring machines (CMMs) in a 26,000-sq-ft. facility. Looking toward the future, ASPI is striving to diversify both its customer base as well as the industries it serves.

Rubenstein said her shop is committed to keeping up with technology. It runs several Mazak CNC machines, including an Integrex 200 mill-turn with a gantry and two five-axis mills. It has a QTN

## Turning inventories

**W**hile many machine shops focus on faster inventory turns as part of their lean manufacturing processes, Allied Specialty Precision takes a different approach based on its long-term experience

with specific parts and its determination to provide fast deliveries to its customers.

The shop has found it beneficial to maintain a strategic inventory of materials and semi-finished products.

Those inventories allow ASPI to have the product on hand

to meet surges in customer demand.

"We do a lot of strategic inventory control. It's an educated leap of faith. If you have a long-term contract and you know you're going to sell those parts, you will have them on hand when the customer needs them," Rubenstein said.

200 MSY lathe due on the floor later this year and an Integrex 100 mill-turn that is due to be installed in February.

In the last 3 years, the company has invested more than \$2 million in new technology, including these machines. This new equipment is moving the shop further away from its screw machine roots and from its remaining manual machines to the "done-in-one" technology Mazak advocates.

"These new technologies require stronger engineering personnel and more highly trained operators. The return is that this modern technology may allow us to eliminate some queue time and certain secondary operations," Eric Kurzhal, president of ASPI, said.

"We work to everyday tolerances of 0.0002 in. The process is everything," Larry DeLater, vice president, said. "It's important to hold the part as few times as possible.

With the done-in-one concept, we can manufacture many parts that require multiple processes, including milling, drilling and tapping, on our Integrex or 5-axis mills in one setup. Multiple operations and fixtures introduce a lot of variability to the process, and these machines take that problem away. It's very similar to when the first CNC machines were introduced. Once you have one, you

can't figure out how you operated without it. Only the creativity of the operators and programmers limit what you can do with the equipment available today." In addition, DeLater said Mazak provides technology updates and training that fits with Allied Specialty Precision's own training programs.

The shop has several levels of training programs, including hands-on training at the machines and continual software training. Engineers, programmers, operators and support staff are regularly sent to classes and user groups offered by Mazak, Unigraphics, ProfitKey International and other suppliers.

ASPI also has a Department of Labor-registered apprenticeship program. It had its first graduate in May and expects its second graduate to complete the program in December. The shop also regularly has summer interns. Last summer, it had 5 students from the Purdue School of Technology.

ASPI is one of the most vertically integrated job shops you will see. The only things it doesn't do are part coating and NDT. Its culture is very entrepreneurial. As Rubenstein said, "We want our customer's problem parts." <<

## Profiles of great machine shops

**W**e present in this issue our 10 Best Machine Shops for 2008.

This annual job is always a great one for us, the editors at American Machinist, because we get to see some of the best work being done in shops across the country.

This is our third annual look at the shops that are performing, competing and profiting better than most, and this year's cream-of-the-crop shops once again present a broad cross-section of U.S. manufacturing.

Although this year's best-in-class lean heavily toward the aerospace market, collectively they provide work, products and services to a wide variety of industries from the automotive industry (which may surprise some) to consumer goods and electrical products.

As in previous years, the shops are spread geographically over a wide range. It may be no surprise that the Midwest is strongly represented by six shops — two in Ohio, one each in Indiana and western Pennsylvania (which is close enough to the Midwest), and one each in Oklahoma and Kansas. But there also are two shops from California — one central, one southern; a shop from central Massachusetts and a shop from New York's Long Island.

And, this year's 10 Best Machine Shops includes two that are owned and operated by women — proving that machining isn't just a man's world any longer.

As we have in previous years, we selected the winners based on hard data provided in our annual Survey of American Machine Shops. Their status was confirmed by site-visits to each shop by American Machinist editors.

They are self-defined as shops that have developed detailed plans that lead to success; that passionately follow those plans; and that confirm their progress by measuring where they were, where they are and where they intend to be.

We started to look for such world-class performers for two reasons:

First, to recognize the efforts of the shop owners and managers and the people who work for them. They all are true American Machinists, and they are surviving, competing and prospering in a business that faces some of the toughest competition anywhere in the world.

And, for the most part, they are competing with a "Bring It On" attitude, ready to stand tough in their knowledge that they can meet any challenge put in front of them and that they can match any competitor against them.

Second, we hold these shops up as models to others.

Sometimes — when the markets are down, or you've just lost a customer, or you've been underbid by an anonymous outfit in another country — it can be hard to maintain that no-whining attitude that seems to define winners in even the toughest environment.

By providing examples of shops that succeed at the highest level, we hope we're helping others to seek and find solutions to whatever problems they face. We hope the stories about these best shops — how they learned about technologies and techniques and put them to strategic use to really make a difference — will encourage others to learn more easily and advance more quickly.

With this issue we will have presented 30 shops — 10 this year and 20 others in the past two years — for which we have empirical data that allows us to say "These shops represent the best in American manufacturing."

We are thankful to the owners and managers of these shops — and all of the fine people who work with and for them. They have shown us that American manufacturing is alive and well. And every day, they show us why.

### **Bruce Vernyi**

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*This year's 10 Best Shop awards banquet at the American Machinist's Machine Shop Workshop (Nov. 12-14) is sponsored by IMTS.*

