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PAGE 10

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PAGE 87

THE IMPORTANCE OF STRENGTHENING THE AEROSPACE INDUSTRY



PRINCIPAL MANUFACTURING CORP.

www.principalmfg.com / Revenues: \$50 million / HQ: Broadview, Ill. / Employees: 365 / Specialty: Fineblanking, metal stamping and insert molding / Dave Millunchick, corporate manager: "We've grown through vertical integration and offering different capabilities on site."



PROJECTION WELDING MACHINES ARE ONE COMPONENT OF PRINCIPAL MANUFACTURING'S PRODUCTION LINE.

PRINCIPAL PRECISION

PRINCIPAL MANUFACTURING IS A SINGLE-SOURCE SUPPLIER FOR MANY AUTOMOTIVE CUSTOMERS. BY JIM HARRIS

Principal Manufacturing Corp. draws on years of experience as a fine-blanker and metal stamper to help its customers meet their needs for quality products delivered quickly.

The Broadview, Ill.-based manufacturer prides itself on a diverse set of capabilities including insert molding, double disk grinding, welding, CNC machining, broaching, assembly and a fully staffed onsite toolroom. Principal produces products for the automotive and other industries including heavy

truck, boating, motorcycle, hand tools and HVAC system parts. The parts range from transmission, seating and engine components to ratchets, mailboxes and guitars.

"Our ability to perform multiple functions under one roof instead of having to outsource them allows our customers to have a single supplier for many of their intricate parts and assemblies," Corporate Manager Dave Millunchick says.

Many of Principal's parts are shipped

already assembled and ready-to-use, allowing its customers the ability to rapidly incorporate them into cars, motorcycles, boats or other machines. "I'm most proud of our ability to offer speed to market," he adds. "If our customer has a need, we do what we can to fill it quickly."

The company was founded in 1939 and started offering fineblanking services in 1966. Much of the company's growth since the 1990s is attributed to its work producing parts for auto manufacturers, though its customer base has since diversified. The company is ISO/TS16949 certified.

"We've grown through vertical integration and offering different capabilities on site," Millunchick says.

"We're set up to run a lot of different parts. One of the ways we handle a challenging economy is to diversify what we do - there are 30 different automotive platforms we produce parts for, not just one or two types of cars."

Principal's relationship with our customers is also key to its success.

"We offer a diverse set of skills that they can use to reduce their lead times for new projects, and we offer up-front review of designs to try to reduce cost and improve manufacturability," Millunchick explains. "Our customers respect our knowledge and experience to improve the designs and assemblies; this creates the win-win affect for both of us."

In addition to serving customers throughout North America, Principal also ships parts to overseas customers including Mexico, Czech Republic, Italy, Korea and Japan.

"Our customers expect products 100 percent on time and 100 percent high quality - parts done right and delivered on time when they order them, no exceptions," he adds.

KEY INVESTMENTS

Principal Manufacturing produces parts from a 160,000-square-foot manufacturing campus capable of fine-

blanking up to 630 tons of metal, precision metal stamping up to 600 tons and insert molding up to 200 tons.

Through fineblanking, the company is able to produce tighter tolerance parts with cleanly sheared edges and more uniformity than conventional stamping, casting or forging techniques, it says.

The company's production lines are set up to handle multiple products and changeovers. Principal Manufacturing utilizes technologies including CNC Systems to run its machines, and is adding automation to several of its processes to improve its throughput, Millunchick says.

In addition to automating its systems, other recent company investments include adding to its grinding and CNC machining capabilities and investing in a new material require-

“WE OFFER A DIVERSE SET OF SKILLS THAT [CLIENTS] CAN USE TO REDUCE LEAD TIMES, AND WE OFFER REVIEW OF DESIGNS TO TRY TO REDUCE COST.”

ments planning (MRP) system, Millunchick adds.

The MRP system is one of several ways the company works to control its costs. Millunchick says Principal believes strongly in lean manufacturing ideas including 5S, and works closely with suppliers to ensure stable pricing. “We’re always focusing on costs and ways we can maximize our efficiency machine and personnel-wise,” he adds.

Principal Manufacturing also be-

lieves in regularly investing in its highly skilled manufacturing work force to improve throughput and productivity.

“We need to keep our people sharp,” he explains. “They need to know industry trends and the type of the equipment that is out there that can make us better.”

“Toolroom staff is one of the strengths of Principal Manufacturing,” he adds. “Their in-depth knowledge of the fineblanking, stamping tools and manufacturing process allows PMC the ability to make the tooling on-site needed to meet customer’s critical needs.” Manufacturing employees also work closely with management to set goals. Managers conduct daily “walkabout” tours of the facility to track productivity. During these tours, employees have an opportunity to offer feedback and suggestions. **mt**

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