

JM Performance Products



JM Performance Products offers patented High Torque retention knobs designed to reduce or eliminate toolholder expansion. (Photos courtesy: JM Performance Products)

JM Performance Products has established itself as a model shop leader for manufacturing development and quality control of precision-turned parts.

By *Kenneth Carter*
Editor | *Gear Solutions*

JM Performance Products may be a small company, but the products and services it offers are anything but.

“We are a small company that manufactures with the traceability and quality standards gained from years working from a defense manufacturer’s standpoint,” said Plant Manager Craig Fischer. “We buy all U.S. steel. Our products are guaranteed not just for quality but performance as well. No other retention knob manufacturer has a guarantee like ours.”

JMPP offers patented High Torque knobs designed to reduce or eliminate toolholder expansion, a flaw in the tooling system that can create expensive issues from CNC milling, according to Fischer.

“By eliminating that expansion and adopting maintenance and procedural changes, manufacturers — especially those in the gear industry — will recognize improved finishes due to reduced chatter and vibration, hold tighter tolerances, and produce precision gears for a myriad of industries,” he said.

SPINDLE OPTIMIZATION SYSTEM PRODUCTS

JMPP’s Spindle Optimization System products are designed to maximize the contact between tapered toolholders and the spindle, Fischer said.

“Gears must have flawless edges and finishes in order to work precisely,” he said. “Chatter, vibration, and run-out affect the finishes, which result in lengthy

secondary processes and bench time to remove imperfections and finish and polish the parts.”

JMPP’s products increase toolholder-to-taper contact, which eliminates tool vibration and chatter, reduces run-out, increases tool rigidity, and improves the performance of every tool, according to Fischer. These enhancements improve the finish of the gears and significantly reduce those secondary processes and finishing-and-polishing times.

Being a small company allows JMPP to give its customers the attention they need, much of which can easily be done by phone.

“Our technical and engineering staff know what questions to ask,” Fischer said. “Once they determine the problem, we make suggestions to them that will help our customers resolve their issues. Sometimes we will have to send them to someone else, such as a spindle service company, but we always try to provide them with the tools to fix their problem. In rare occasions, we travel to a customer to see firsthand a specific issue they are having.”

JMPP also offers alternatives for cash-strapped customers, according to Fischer.

“We understand that not everyone is in a position to make the commitment to purchase our gages, so we have an easy and affordable rental program in place so that our customers can get the benefit of our gages without having to purchase them,” he said.

UNEXPECTED BENEFIT

JMPP’s High Torque knobs were originally designed to get rid of vibration and chatter caused by toolholder



JM Performance Products offers a variety of retention knobs.



In order to stay technologically ahead, JMPP continues to enhance and refine its technology, quality, and production methods through research, education, and advanced equipment.

expansion by the standard retention knob, but Fischer said the patented product had an unexpected benefit.

“We knew we could improve tool life at least a little,” he said. “We had no idea of how beneficial changing out standard knobs for High Torque knobs could be until our customers started calling and sending emails telling us about the enormous improvements they were seeing in their shops. We are still regularly surprised by what a huge impact our invention has had and the potential for the ever-changing requirements of CNC milling.”

In addition to High Torque knobs, JMPP has other products on the horizon designed to help the company’s customers even more, according to Fischer.

The taper toolholder cleaner and resurfacing unit will be able to resurface the taper and restore seating to a like-new condition.

“We realized that most customers were not addressing issues with the toolholder,” Fischer said. “Nicks, gouges, grit, and grime were causing the toolholder to not seat correctly in the spindle.”

The taper toolholder tightening fixture combo will allow large companies to reduce the number of steps to attain a correctly installed knob.

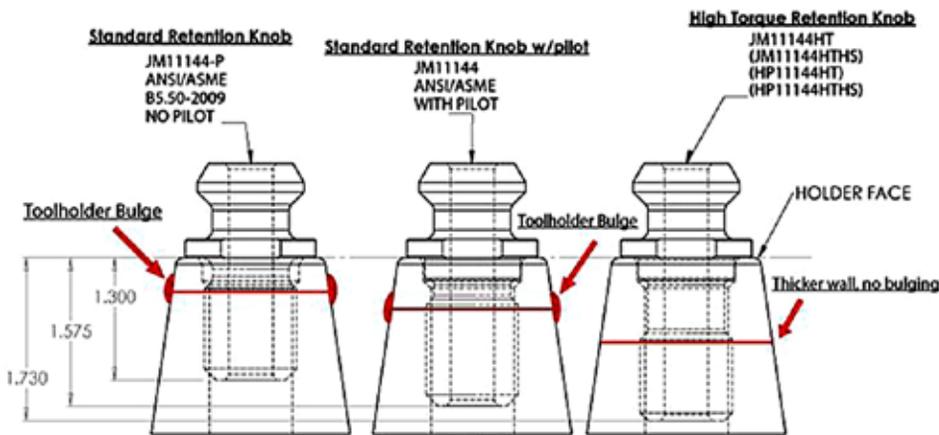
BUILDING A REPUTATION

JMPP has been manufacturing its own products exclusively since 2009, but the actual company began 56 years ago in the basement of company founder John Stoneback’s grandfather as J&M Machine.



JM Performance Products manufactures more than 400 different styles of retention knobs.

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High Torque retention knobs are longer than a traditional retention knob, but share the same head dimensions.

It was there that Stoneback gained a reputation for manufacturing precision parts quickly and correctly for the aerospace and defense sector, according to Fischer.

That reputation served as a catalyst that saw the business grow from its original location in Euclid, Ohio, to a second location across the street to meet the need for increased production.

In 1991, Stoneback bought six acres in Fairport Harbor, Ohio, where JMPP's current 18,000-square-foot facility now sits, providing the proper expansion for the growing business.

JMPP's facility is engineered to allow the interfacing of a computerized process environment, which will help the company become a paperless manufacturing plant. Computer technologies allow for traceability of the manufacturing pro-

cesses on a real-time basis. With JMPP's advanced scheduling system, production flow and process time can be determined and calculated to the minute. By artificially changing selected variables in the schedule, necessary requirements can be calculated to accommodate customer demands. This allows possible adverse effects to a future schedule change to be detected and corrected before they happen.

In order to stay technologically ahead in this field, JMPP continues to enhance and refine its technology, quality, and production methods through research, education, and advanced equipment. With its skilled, team-oriented craftspeople, state-of-the-art equipment, and innovations, JMPP's goals of satisfying its customers and becoming the "next generation" manufacturing company can be accomplished. 🏠

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