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BENCH TALK™

News, Views and Tech-Tips from
Brownells.



Meeting Our Suppliers; Dave Manson's Precision Reamers

The first industry professional that I spoke with concerning chambering reamers was Dave Manson. Back then he was with Clymer, Inc., Dave's knowledge of chambering reamers, what they could do and which one I needed, was amazing. It was not until many years later that I had the distinct pleasure of meeting him and speaking to him face to face at a SHOT Show in Dallas. He was just as pleasant and helpful in person as he was on the phone.

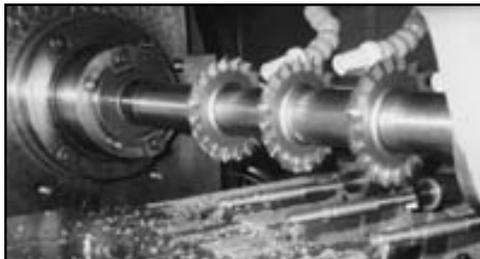


Dave Manson inspecting a reamer with an Optical Comparator

Dave runs his own company now, Dave Manson's Precision Reamers, but the "Reamer Wizard" is still available to help solve your reamer problems and supply high-quality reamers that work just the way they were intended to. Recently, Dave took time out from his busy schedule to answer a few questions about his reamer business and himself.

Not many companies make chambering reamers, since it's such a specialized field. How did you get into it?

Max Clymer must be credited with introducing me to manufacturing chambering reamers - as well as other gunsmithing tools. I had been in manufacturing for years, had left to sell machinery, and met Max when trying to persuade him that a machine I represented would be a benefit in his operations. We got along well and he asked me to come to work for him. I knew a little about firearms and cutting tools, and was anxious to return to manufacturing, so I accepted. Incidentally, years later we bought the machine I tried to sell him, that was our first CNC cutter grinder.



Milling Flutes in turned blanks

You mentioned CNC cutter grinding - something that we think of as “high-tech”. How were chambering reamers made in the old days?

There was a lot more hand work in the reamers than there is today. Also, since there wasn't as large a market, production lot sizes were smaller and the processes weren't as efficient. Some of the newer manufacturing methods work well with our type of product, some don't. Anyone who has worked with CNC will tell you it definitely is not just a matter of pushing a few buttons. You need to understand the subtleties of your product, and how its intended use relates to the complete firearm, in order to know what to tell the machine to do. Because the crew here is familiar with both types of manufacturing, we're able to select the best method for each tool we make.

Much is made of the steel from which chambering reamers are made. What kind of steel should be used, and why?

Any good reamer, chambering or otherwise, will be made from high speed steel - not “tool steel” or “high carbon steel”. Tool steel, water, oil or air-hardening, is fine for (headspace) gauges or similar, non-abrasive uses. High speed steel takes a higher hardness for wear resistance and is much better suited for cutting tools. As you would imagine, there are different types of high speed steels. These are usually designated with an “M” prefix, such as M-2, or M-42. This signifies that molybdenum is used as the primary alloying agent to achieve the desired qualities in the steel. M-2 is the “standard” high speed steel used by most cutting tool makers. Premium reamers or end mills are usually made from M-42 or M-7, with higher prices charged for each of these premium steels. Being only 50 miles from Detroit, we get the benefit of supplier competition for the auto industry's business - M-7 is actually priced slightly below standard M-2. Because of this, we're able to provide chambering reamers with approximately 20% better wear resistance to our customers without having to go to a more expensive steel. M-42 is less expensive in our area as well, though still more costly than M-7. M-42's only advantage over M-7 is its ability to retain its temperatures which would make the tool glow dull red.



Turning a blank for the new 300 Rem. Ultra Mag

What about the future of Dave Mansons Precision Reamers? Where do you go from here?

Even though there are many years of experience amongst our crew, we're still getting our feet on the ground in terms of the production process. All of us are avid shooters and reloaders. This is good and bad, because while we're able to communicate with our customers, we spend a lot of time talking guns and gun projects! We all relate better to the individual gunsmith or small manufacturer than we do large companies, so this is the customer base we're aiming for.

We have our eye on new and better equipment that will enable us to hold our standards more easily and, at the same time, respond more quickly to customers' demands. I personally want to get to the point where we're able to deliver 90% + of standard tools within 24 hours and special-order tools within two weeks of the customer's order.



Finish grinding reamer shanks in O.D. grinder

All our customers, have been very supportive in our new venture. Five years from now, I want to look back at the products we've introduced, the customers we've helped and the new relationships we've made and know that we did as well as we were able and made high-quality tools.