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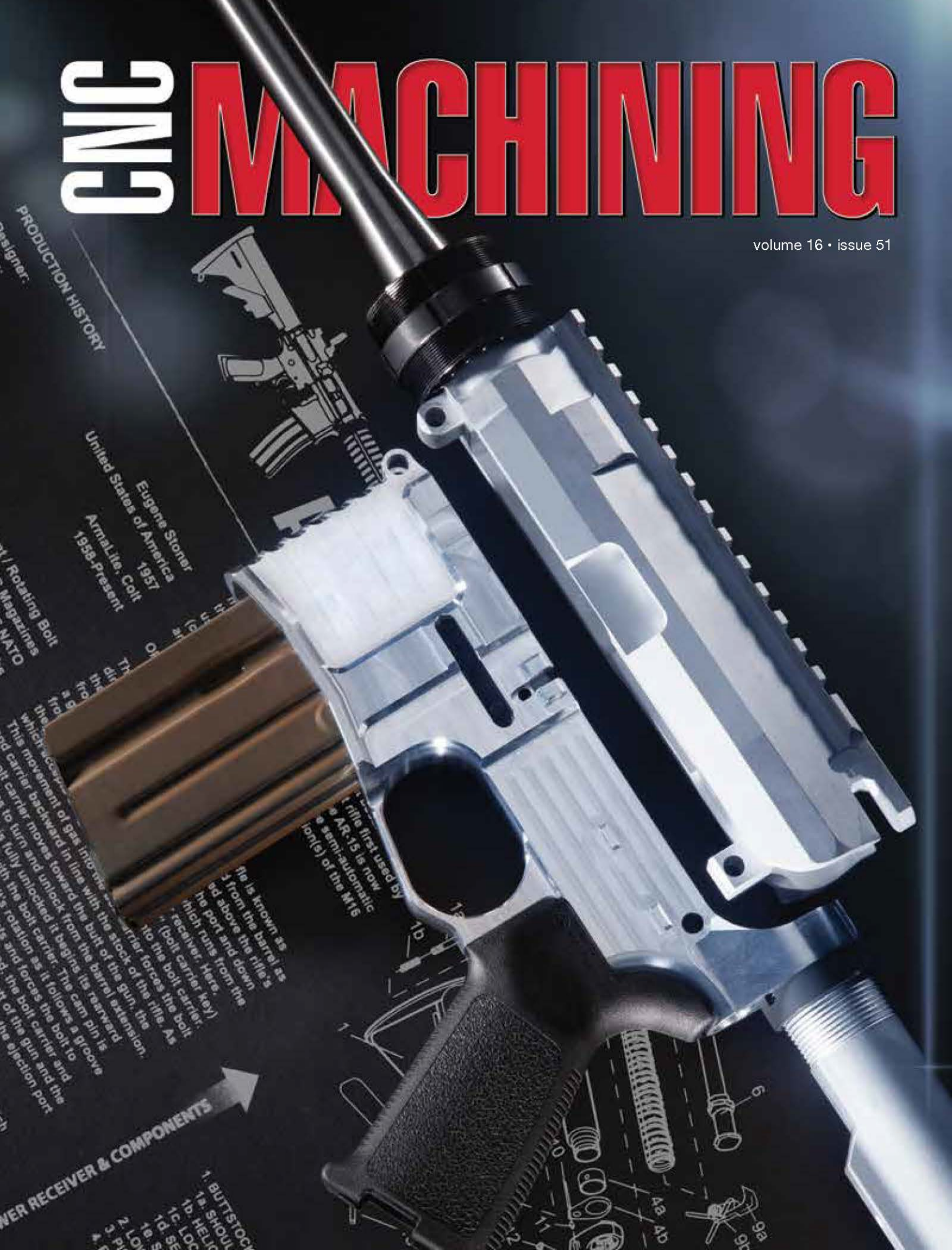


An Absolute Commitment to Quality.

story by **Brad Branham**
photos by **Scott Rathburn & Brad Branham**

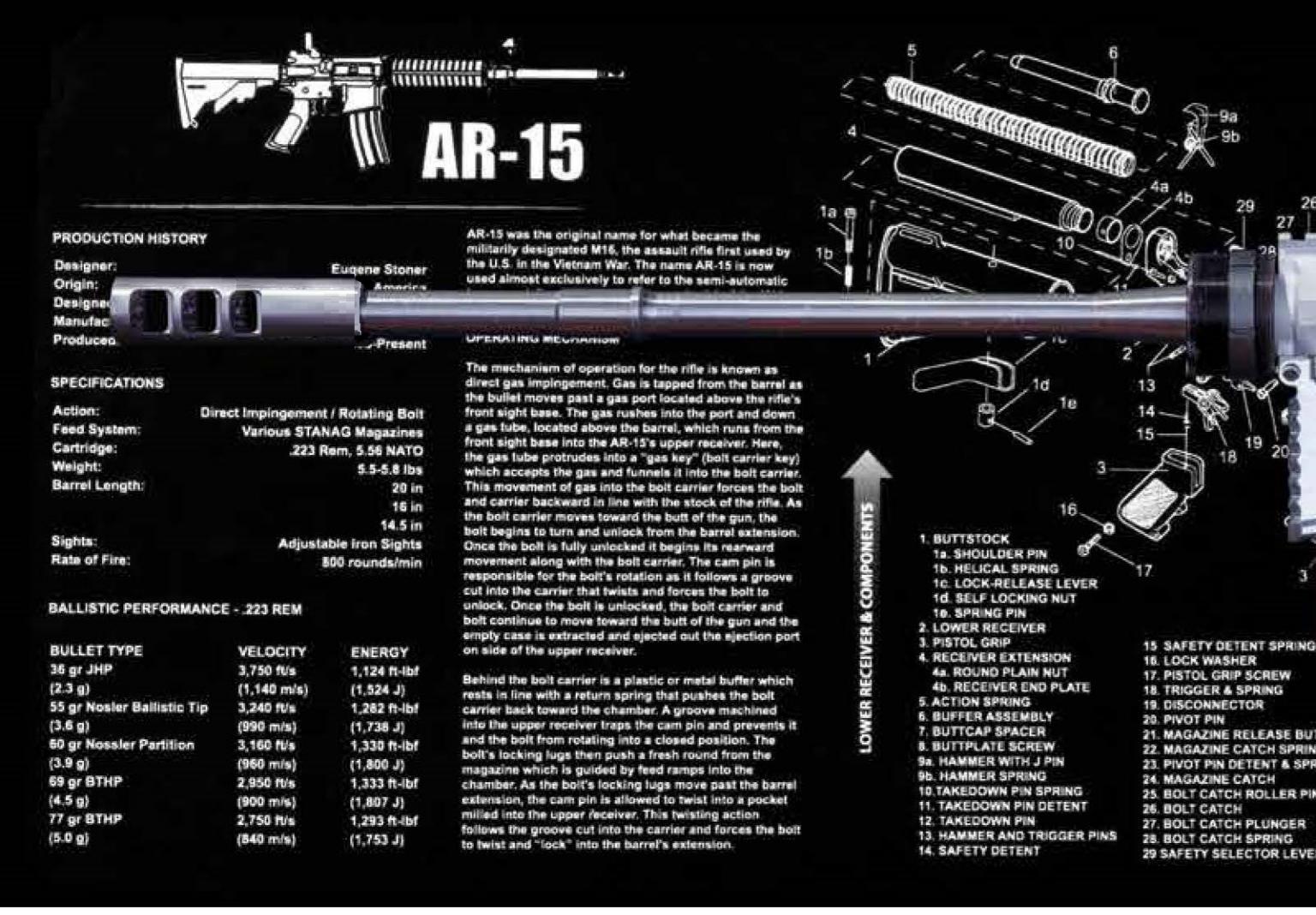
Uli Buschold, a veteran tool-and-die-maker from West Germany, was plying his trade in sunny Southern California in the mid 1980s, when he decided it was time to go out on his own. Relying on his extensive experience, enterprising spirit, and hard work, Uli opened Buschold Automation Tool and Die, a contract machine shop in Camarillo, California, specializing in building automated machinery and progressive stamping dies.

Buschold Automation Tool and Die (later renamed West Coast Automation Tool and Die) prospered, and soon developed a loyal base of local and not-so-local clients. After years of growth and success, Uli decided to sell the company to one of his primary customers – who promptly moved it to Mexico, leaving behind numerous customers without their local source of high-quality parts. It wasn't long before Buschold's former clients began contacting him, looking for a dependable supplier.

In 2009, Uli and his son, Brandon, created IDP – a new shop in the nearby coastal town of Oxnard, California – to serve the needs of their former clientele. Although started at a time of economic uncertainty, IDP nevertheless found success, and now is enjoying impressive business growth. Ironically, the company that moved to Mexico is now one of IDP's customers.

"It wasn't a very friendly time to start a machine shop," recalls Brandon Buschold. "It was the beginning of the economic downturn, and sales slumped everywhere. We knew that it would be a tough time to start a business, but we had a lot of customers who believed in us, and were willing to stick with us. So, we started up – and committed the company to producing the highest quality in everything we make.

"We owe much of our success to my relationship with my father," says Brandon. "He has been a successful business owner for many years, and has a good handle on how a business should be run. I focus more on the machining, engineering, and the technological aspects. We make a very good team: He runs the business end, and I make the customers' parts happen!



"We found that our customers generally need a higher-quality product than most machine shops provide," Brandon says, "and they need consistency. We give them what they want, and they come back to us."

IDP's focus on holding tight tolerances and producing high-quality parts is the foundation of their success. "IDP depends on Haas machines," Brandon points out. "We work in tenths [of a thousandth of an inch], and we cut all kinds of aluminum, steel, stainless, composites, plastics, copper, brass, bronze alloys, and some titanium. We've cut Inconel® and Kovar®, and our Haas machines hold the tolerances we need with no problem."

The IDP shop is clean and organized, and busy with operators verifying just-finished parts, setting up machines, and checking runs in process. On a Haas VF-3SSYT, a slide for a 9mm pistol is being machined under a stream of coolant in one of the three setups on the machine's table. A quick look around reveals multiple setups in every machine that will accommodate them.

"We use multiple setups to eliminate downtime," Brandon explains. "They reduce cycle times through reduced tool changes, and it helps eliminate operator error."

The professional atmosphere and well-organized workflow are exactly what you expect from a highly efficient, AS9100-compliant operation. IDP's 23 employees work three shifts, five days a week, and all operators run two or more machines. The company's numerous repeat orders from satisfied customers are what Brandon calls the "proof of the pudding."

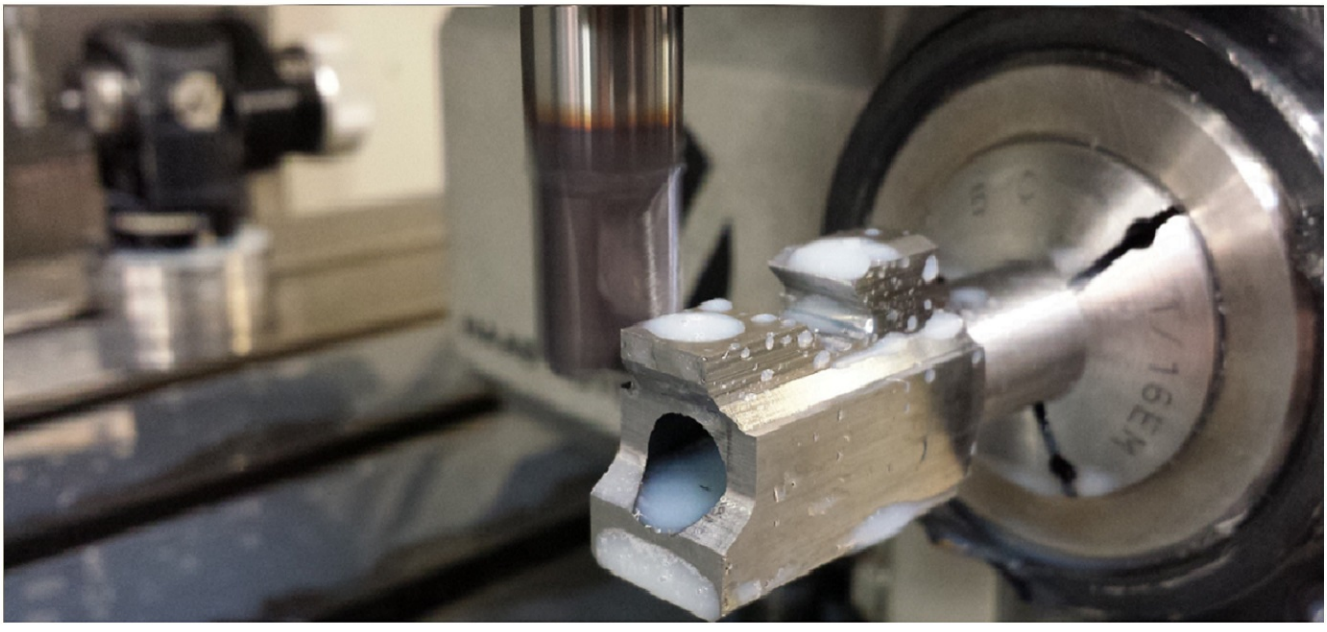
"Our customers know what we can do," he stresses. "And we don't do it just one time,

we do it every time. When we have the job again, customers get exactly the same part; we do not just start over again. In our system, we save the programs, we save the files, and we even save the tools. We save everything together, so we can resume producing identical parts immediately.

"That really makes us unique," Brandon observes. "When we get a repeat order, we don't use just any half-inch endmill. We use the specific half-inch endmills [brand, type, coating, etc.] that were previously used for that job, and proven to produce excellent results – the same results as the preceding job. We've realized through experience, that not every endmill is the same, or cuts the same. With our system, we get the same tolerances, cycle times, finishes . . . everything is identical. We start repeat jobs with known quantities, and we get proven results."

And good results require good equipment. IDP is exclusively a Haas shop, with four DT-1 Drill/Tap machines, a Super Mini Mill 2, two VF-2SS vertical machining centers, two VF-2SSYTs, and a VF-3SSYT. An SL-20 lathe with 5000-rpm spindle and an ST-20SS handle the turning requirements. IDP also uses Haas rotaries to cut cycle times, including two HA5C2 indexers with live centers, an HA5C indexer with a manual tailstock, an HRT160SS, and a new HRC210.

"We chose Haas machines because of their great pricing and support," Brandon recalls. "If we have any issue with a Haas, they send someone out almost immediately; and they're always willing to help with applications. Haas support has been phenomenal, and



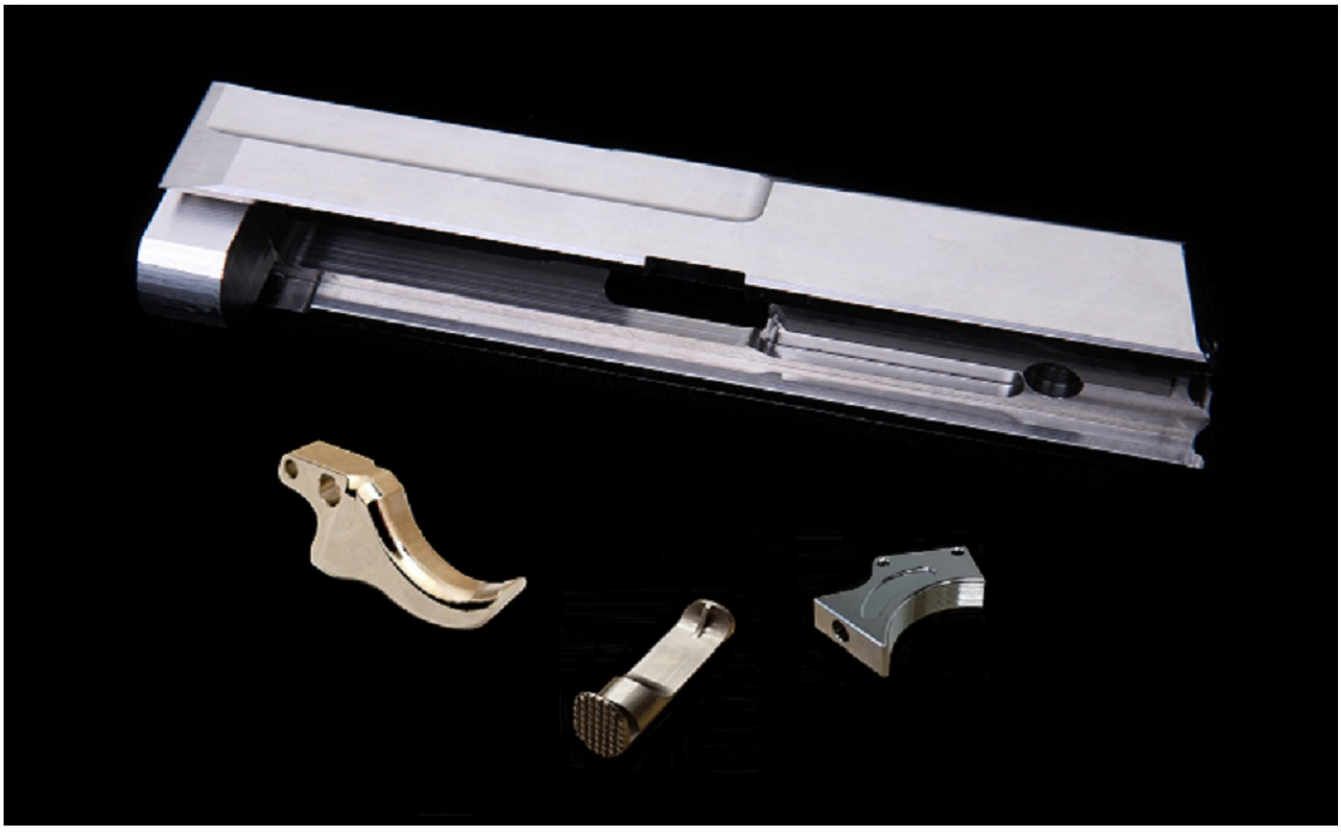
their quality is outstanding. The control is very easy for employees to understand and use. They are very good, solid machines."

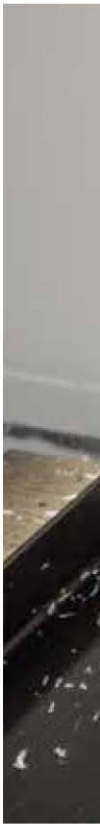
When asked about any special processes or tricks used at IDP, Brandon is very frank. "We find ways to do each task faster to optimize our overall cycle times. We use technology, like wireless probing and tool presetting, in our machines. Also, we work multiple setups, if possible, in each machine; and all of our Haas verticals have factory-installed 4th- and 5th-axis capability, so we can move our rotary tables or trunnions to different machines.

"The Haas DT-1s are very fast," he continues. "All our turning centers and vertical machining centers are 'super speed' models, and most of our verticals have extended travels. All these options improve speed, reduce handling, and cut cycle times. For a busy shop, the extra cost for a high-speed option is returned very quickly.

"The DT-1s are really no-brainers," Brandon goes on. "We use them as CNC milling machines, because they can handle 80 percent of the standard load we put on a regular VF machine. We tailor our programs for lighter, faster cuts, though – a high-speed machining approach – and the machines will cut cycle times up to 30 percent with no problem. There just are no replacements for the fast rapids and quick tool changes of those machines.

"And you'd think extended travels were only good for bigger parts," he points out. "But sometimes that extra travel can save machining time, as well. With the extended Y travel, we can easily fit rotary tables and strap down larger double vises. We get more operations done with double vises than with single-sided vises, which take up almost the same amount of room. The combination of more usable space per square inch and more





product coming off the machine increases your efficiencies as a production-machining house. Here at IDP, we always talk about machining philosophies. Efficiency is priority number one on our shop floor; and recognizing that there is always room for improvement is key to a continually efficient running business.

"We adapt our methods and routines to our machine capability," Brandon notes. "It is our normal way of working – and that produces a higher standard of quality than our customers demand.

"Of course, every shop has special proprietary methods and practices they develop, but can't reveal," Brandon observes. "I *can* say that we design the process so the operator handles the parts the least amount of time possible. That is the key to consistent, really tight tolerances."

The company's well-equipped QC department confirms that IDP's parts are typically made to better-than-print specs. In addition to the standard calipers, micrometers, gauges, scales, and indicators, IDP uses a Brown & Sharpe Global Classic® CMM, and a Micro-Vu® comparator with digital readout to ensure that customers receive high-quality, high-precision parts.

"Another aspect of our success is our commitment to on-time delivery," Brandon reports. "Quality and purchase-order requirements are both very important, so we make great efforts to meet our quoted lead times, and to not promise what we cannot provide. Sometimes, a customer asks for a delivery date that is unreasonable, and we must refuse. We will not take the job just to get the job."

Close contact with customers is also very important, Brandon believes. "We concentrate on building and maintaining good relationships with our customers and buyers. We communicate with them quite often, and keep them up-to-date on what is going on here.

We let our customers know when we increase our capabilities, or find a faster, better way of doing things.

"Whether we have a new piece of equipment or a new procedure, it is important to give customers more options," Brandon continues. "It can save them money. And I think our customers appreciate that our door is always open for them to come by and see their product running in a clean, efficient, and controlled environment. After seeing our shop, many of our customers buy support and measurement equipment based on the way we do things. An open relationship with engineers, purchasers, and buyers builds trust, and that results in repeat orders.

"Our expertise is in the microwave, aerospace, and firearms industries," he explains. "Our growth with the same customers in these industries has increased every year by 30 percent. We have been known to take difficult jobs that no one else wants, and we get the job done right the first time. Our manufacturing recipe is tailored to industries requiring precision machining – from prototype through production – and repeatability across multiple orders. We believe IDP sells itself with quality, repeatability, professionalism, and proficiency. The combination is priceless.

"I can't share our unique manufacturing methods," Brandon concludes. "But I can say that IDP invests in state-of-the-art workholding, tooling, and Haas machines. Staying up-to-date with the latest technology keeps us ahead of the pack, and always gives us an advantage. But our experience, our methodology, our commitment to the highest standards – the heart of IDPs operational success – make us who we are."

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