



Quality Means Getting the Right CNC Centerless Grinder

While Hank Matousek Sr. was perfectly content in his position as quality control manager at a bearing company during the late 1960s and early '70s, he had no idea that his employer's growing financial woes and a pending layoff would become his surprise catalysts to found Grind All. Not surprising, though, was that Matousek's background as a quality leader would lead him to place value and excellence above all in his new enterprise. From Hank's one-man shop with one used grinder in a central Ohio basement, to today's 45-machine, 52-employee, Brunswick-based Grind All Inc., the Matousek family still places quality above all else. Hank's "Do it right and make your product better" creed has been the cornerstone of Grind All's operations since the company was founded in 1972. "Do the best you can and people will come back. Do jobs better than anyone," says Grind All president Henry Matousek Jr., quoting his father.

That's why, while other manufacturing companies are tossing around "quality" buzzwords, Grind All is busy applying real time and resources toward meeting its ongoing quality goals. As a result of that focus, Grind All has had ISO 9001:2008 certification since 2011.

Over the course of Grind All's nearly 45 years, its customer base has grown to include many companies in the aerospace and defense industries. That's why obtaining an additional certification to AS 9100C was the logical move for quality-obsessed Grind All. The AS 9100C certification, issued by SAI Global, is the highest of global standards for quality assurance in the aircraft, space and defense (AS&D) industries. The AS 9100C certification, along with its ISO 9001:2008 certification and ITAR registration, would make Grind All uniquely qualified to offer a complete range of services to even the most quality-conscious customers.

Obtaining AS 9100C certification is no easy task for any company—not even one like Grind All. Critical factors in the AS 9100C certification are the processes, characteristics, parts and software that have a significant effect on product realization and on the use of the product. As Grind All began the certification process by evaluating their inventory of production machine tools (centerless grinders, OD grinders, ID grinders, surface grinders, honing machines and flat lapping machines), it became clear that the company's antiquated Cincinnati 220-8 centerless infeed grinder would not make the cut. Although it had been successfully rebuilt over the years and was working, it did not provide the reliability and precision required by AS 9100C regulations. Grind All saw two options: Either invest a significant amount of money to patch up the 220-8, or find an outside source for centerless grinding work. Neither option was acceptable. As the Cincinnati centerless became even more unreliable, Henry Matousek Jr. turned to [Total Grinding Solutions](#) for advice.

President Dan Geddes and company partner Joe Giacalone, founders of [Total Grinding Solutions](#) of Warren, Michigan, are the brains behind the development of the [TGS machine](#). With a combined 75 years of grinding experience, Geddes and Giacalone made it their goal to design and build a robust [centerless grinder](#) that would be precise and would boast the technological innovations of the best machines on the market. The key was to engineer this machine with the latest [state-of-the-art features](#),



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but to sell it at a very moderate cost. “We applied our hands-on grinding experience with our in-depth knowledge of grinders and set out to design a quality [centerless grinder](#) that could handle even highest-volume production runs with extreme accuracy and consistency,” says Giacalone. “We were looking to produce a more economical, more precision-based solution. We know what works, and we were determined to ‘build a better mousetrap,’” adds Geddes.

After several iterations, the [TGS-CL-6020 CNC centerless grinder](#) was launched at an open house in August 2014 at the company’s Warren, Michigan location. That’s where Matousek and his team saw the machine for the first time. While Matousek appreciated the grinder’s modern design, he was especially pleased to learn that the tooling from his ailing Cincinnati 220-8 centerless could cross over to the [TGS-CL-6020](#). This meant that he wouldn’t have to spend precious resources on pricey tooling.

As Grind All compared offerings from TGS and several other suppliers, the TGS [CNC centerless grinding machine](#) stood out for several reasons. The TGS CL-6020’s flexibility would accommodate Grind All’s requirement that the machine be able to run a variety of parts and, most likely, two or three different parts and materials per day. The [controls on the TGS-CL-6020](#) had to be user-friendly to minimize training time and shorten the learning curve. As a job shop, albeit a very successful one, Grind All did not have an unlimited budget, and price was a consideration. Luckily for Grind All, the TGS-CL-6020 had been priced to meet the needs of the middle market, whose options previously were low-cost basic machines or expensive high-end machines. After a series of test grinds, analyses and consultations, Grind All management selected the TGS-CL-6020 to replace its old Cincinnati.

To further accommodate the client’s needs, TGS modified the machine controls to mimic what was already in place at Grind All.

With its new TGS machine, Grind All met its AS 9100C criteria.

“The machine’s FANUC controls are great. They’ve always been great. It’s nice to be able to call TGS or FANUC for assistance rather than being tied in to some company’s proprietary software,” says Matousek. “The TGS is everything we would want in a machine. Once our new centerless got going, it’s proven itself as a solid machine that will carry us into the future. It will be around for a long time.”