A one-inch thick stainless steel plate is lowered onto the machine’s table, secured in position as the cutting tank is flooded with water, submerging the soon to be sliced steel. The waterjet machining commander is the CNC controller, and the machine rumbles to life. Lacking the blades of a traditional saw, the abrasive waterjet cutter uses 55,000 psi of water and abrasive expelled at nearly 2,000 mph to precisely cut a programmed shape. This pin-sized stream, focused through a tungsten carbide cutting nozzle the size of a pencil, is computer guided by prepared CAD/CAM data.

As the cutting process completes, the operator lowers the water level, revealing the finished product – a perfectly shaped part with beautifully cut edges. It might be a motor mount bracket, a pipe flange, a sprayer or an unrecognizable component of a machine for an equipment builder. A pleased Shawn Ayers looks on. Ayers opened his shop in 2007, and in only a few short years, his company, AyersTech LLC., has become Wisconsin’s premier waterjet machine shop.

Located in Chetek, Wis., the business utilizes three waterjet machines – plus equipment necessary for handling materials up to 10,000 pounds – to create virtually any two-dimensional shape from a list of materials ranging from hardened tool steel, stainless and aluminum, to glass, granite, rubber and many other materials.

The company employs CNC machining and fabrication equipment for secondary processing as well. This versatility has enabled AyersTech to complete orders for customers in a wide range of industries such as food, oil and gas processing to printing, automation and military. Typical clients include machine shops, fabrication shops, original equipment builders and production automation and military. Typical clients include machine shops, fabrication shops, original equipment builders and production facilities.

“Recognizing a need in Northwestern Wisconsin for waterjet cutting services,” says Ayers, a 1991 high honor graduate from WITC-Rice Lake’s mechanical design technology program. “Local companies looked downstream or out of state for this service. After becoming familiar with the waterjet cutting process, I knew having a waterjet job shop was a perfect fit for me.”

With broad interests, schooling and job-learned skill sets ranging from mechanical engineering, CAD design, architecture, prototyping, fabrication, CNC and manual machining, Ayers felt confident in handling the challenges of running his own business.

“The WITC mechanical design technology program allowed me to establish a solid footing on which to build my career,” says Ayers. “After graduation I accepted an entry level position in the field and quickly grew from there. Every class has helped me in some way over the last 20 years.”

The success of his company has not gone without notice. AyersTech LLC was recognized in 2011 as a Model Startup Business in Barron County.

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