

CUSTOMER: **Solid Design Enterprises** □ 17705 S Placita De Laton □ Sahuarita, AZ □ www.sde-cnc.com

Adding In-House Manufacturing - SDE Gets an Upgrade

Every CNC machine purchase begins with a need and the inspiration to grow. Recognizing the value in his ability to design and manufacture customer products in-house, Clint Caldwell of Solid Design Enterprises LLC (SDE), wanted to put his extensive manufacturing background to work and move beyond his origins of a “design only” business. Starting out with a Haas CM1 in 2019 and then adding a DATRON neo in 2022 has allowed SDE to take on a wider variety of projects and better serve their customers.

Over the past 25 years, Clint Caldwell has worked as a production manager, manufacturing engineer, manufacturing process designer, and prototype machinist & programmer across a variety of industries, including optics, defense, and space. His passion for design and manufacturing led to him forming Solid Design Enterprises LLC in 2009 to provide mechanical design services. Early on, SDE worked with small companies and individuals who were developing their own products, but soon his growing customer base began asking him to manufacture the parts he had designed.

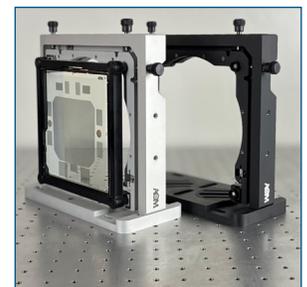


Solid Design Enterprises home business for mechanical design and in-house manufacturing in Sahuarita, AZ.



The Challenge

Clint was faced with several challenges in order to add in-house manufacturing. As a home-based business, he would need to accomplish design, inspection, and manufacturing...all within a 12' x 20' shop space. The initial concern was finding a CNC milling machine that would fit. Since SDE did not make large parts, using a smaller machine was possible, but it would need to run on single-phase power due to residential power restrictions. As SDE's first machine purchase, this would represent a significant financial commitment, so cost would also be a major factor. Despite these challenges, he didn't want to buy a hobbyist machine since it would limit speed, quality, and long-term growth as a cutting-edge manufacturer.



Finally, after months of intense research, he narrowed down the list of possibilities to three machines: Tormach, Haas, and DATRON.

Tormach's price and capabilities were good, but they were not what SDE needed for the type of results Clint was looking for.

Haas was American made with a large selection and a proven record for getting the job done. Most machine shops in America had one, so most CNC machinists could run a Haas control. The price and quality were good for what you got.

DATRON featured German design with outstanding quality and shockingly good features. It was easy to use and the next control© was unique in the machine tool industry. However, like most top-of-the-line brands, it was an expensive piece of technology. Caldwell says *"The next control, camera probing system, vacuum technology, and machine build quality of the DATRON neo is top tier."*



DATRON neo series2 touch-probe.

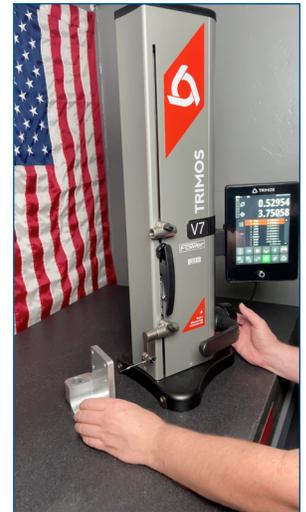
The final choice came down to the DATRON neo or the Haas CM1.

Both were great machines, and although Clint's first choice was the DATRON neo, cost was the overriding factor at that stage in the companies' finances. Clint opted to start with the Haas CM1 and continue to grow Solid Design Enterprises until he could invest in a DATRON neo.

The Solution

Running the Haas CM1 for 3 years was a good experience for SDE, but not great. Fortunately, SDE's growing success with in-house manufacturing had put them in the position to add another CNC machining center. This time Clint was able to upgrade to his first choice. The vacuum workholding, probing, high-speed capabilities, compact footprint, intuitive next control©, and single-phase option all made the DATRON neo a perfect fit for SDE's needs.

The DATRON Dynamics team was so responsive and helpful that Clint was able to purchase the DATRON neo without ever having to travel. In fact, when Clint had requested a quote from DATRON Dynamics for that first machine purchase in 2019, JD Wogoman (Regional Sales Manager) drove all the way from Phoenix to Sahuarita, Arizona so that he could meet Clint in person and better understand the needs of his small, one-man shop. Clint never forgot that.



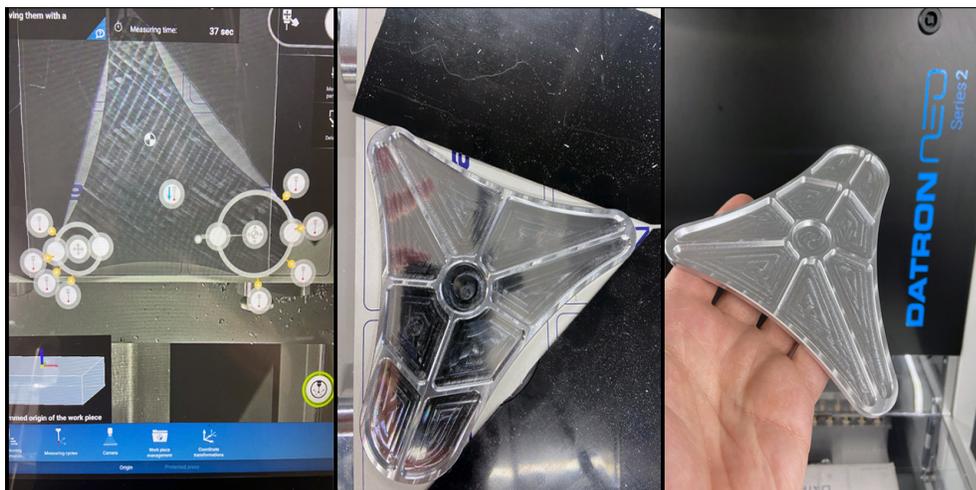
Fast forward to 2022. Clint reached out to JD again to discuss the DATRON neo and learn more about financing. JD promptly returned Clint's call, walked him through the current financing options, and got him a quote that same day. Once SDE was ready to move forward, JD connected Clint with a trusted lender and helped him through the financing process. With the loan approved, Customer Service Logistics Specialist Sarina Hasler-Diamond started working with Clint on the pre-install requirements for his machine. Clint was impressed by the support he received from the entire DATRON Dynamics team. The whole process was smooth, easy, and well organized, with all of his questions receiving prompt answers.

When the machine was delivered, Clint asked the riggers to off-load the machine right in his driveway. The documentation for uncrating was so thorough and easy to follow that he had it unboxed and placed in less than an hour, all by himself.

A few weeks later, a DATRON Dynamics Application Engineer, Antonio, arrived to power up and configure the machine. He took the time to answer all of Clint's questions about the machine and explained what he was doing during each step of the setup process. The next two days were spent training Clint on the next control© and machine functions. By day three, Clint could successfully set up a reasonably difficult part despite being a brand new DATRON user.

Purchasing the DATRON neo turned out to be a very different experience than his first machine. This time Clint felt like he was getting more than just a great CNC milling machine, he was also getting an amazing CNC support team.

"I consider DATRON Dynamics' customer care to be the best in the industry."



Second test part run successfully. Clint says, "I went from zero to running this new control in just 3 days!"



The Results

Clint continues to be impressed by the entire workflow and technology design of the neo. He has discovered that the next control© is so smart that even if parts are loaded crooked, they still come out flawless. He's found the vacuum workholding to be perfect for high-density part nesting and being able to break through the vacuum card for some parts comes in handy.

Clint says, *"It's a major productivity boost to have the 3D probe and such fast changeovers between vacuum and fixtures jobs."*

Even the DATRON 4-in-1 tools have earned his stamp of approval for roughing and finishing metal and plastic parts. Running both the Haas CM1 and the new DATRON neo will ensure many more years of manufacturing success for Solid Design Enterprises LLC.



Clint Caldwell of Solid Design Enterprises running parts on his DATRON neo.

