

## Heavy Metal Cutting Tables

Inovatech, Güdel Boost Metal-Cutting Production by 400 Percent



### Industry

Structural and Architectural, Shipbuilding, Piping, Steel Plate Drilling



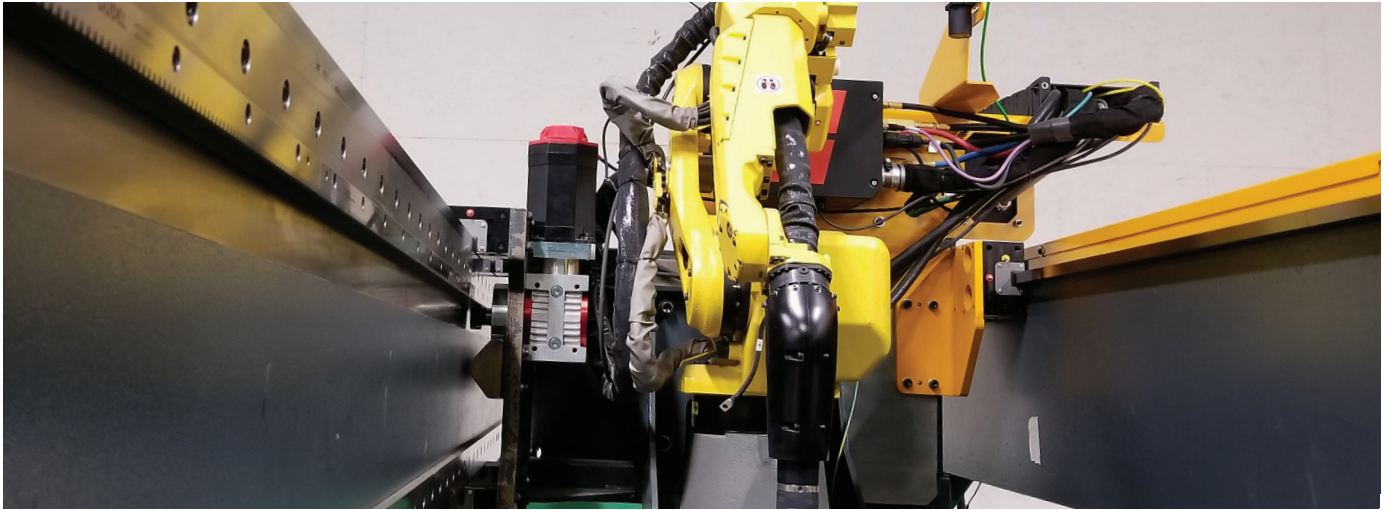
### Processes

Automated cutting and drilling of heavy steel, freeing up skilled tradespeople for nonrepetitive cutting and welding tasks



### Key Data

- Best-in-class components for challenging material handling and robot applications
- Proven 400 percent increase in steel-cutting throughput
- Linear tracks allow robot to cut four sides in compact work-cell design
- Güdel components enhance reliability of Inovatech equipment



Inovatech Engineering uses Güdel's Flat Rail Guideway, Helical Rack, Gear Box Assemblies and Roller Support Bearing to maneuver a Fanuc robot with plasma cutting torch as part of its line of SteelPRO heavy-metal cutting tables.



## When Miguel Clement looked at how metal fabricators cut the I beams, tubes and flats that are the hardened bones of skyscrapers and supertankers, he was more than a little surprised.

While most modern industries were widely adopting automation, heavy steel fabricators were not, which was particularly surprising considering the lack of skilled metal fabricators. And when fabricators did leverage automation, they usually relied on a cobbled-together solution that used the cheapest possible parts and guaranteed uptime until just past the warranty.

Inovatech Engineering Corp., maker of integrated robotic solutions for manufacturing, produces the industry's finest 2D and 3D metal-cutting tables as part of its SteelPRO line. "When it comes to cutting tables, most integrators have made them on the fly to meet specific customer requests, using the cheapest components available," said Clement, president of Inovatech. "But not us. Our SteelPRO line of 2D and 3D cutting tables uses FANUC machine vision-guided robots armed with the most powerful Hypertherm XPR300 plasma cutter, and the finest motion control systems from Güdel to provide the four-side, bevel-cut capability and more that comes with each SteelPRO unit."

Güdel's engineers regularly work with customers to choose the perfect

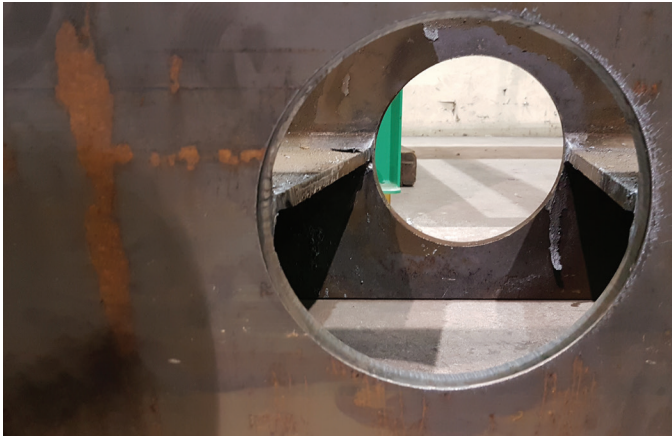
gearbox, rack and pinion from their extensive catalog of precision mechanical components for motion control and power conversion. The perfect matched component set for cutting applications, for example, translates to minimal maintenance, maximum uptime and throughput, and best-in-class performance, while simplifying spare part stocks. With Güdel's global reach, engineering support and replacement parts are never far away.

"Inovatech's key to success was dependent on choosing channel partners and suppliers from the beginning," said Clement. "Güdel has been a key part of our success because of the constant quality of the linear motion components and more importantly the support that Inovatech receives from the engineering and management team at Güdel." When modern production lines can lose \$10,000 a minute, using the best components available just makes sense, Clement added. But what he didn't fully realize was how SteelPRO's use of modern automation tools would boost a fabricator's production.

For example, because of machine vision — industrial cameras connected to PCs running specialized image processing

## Güdel Technology

- Heavy-Payload Flat Rail Guideway
- Helical Rack, Gear Box Assemblies
- Roller Support Bearing



With SteelPRO and Güdel, one machine can make five or six holes in 15 minutes.

software — and other software improvements, Inovatech's Async control software program is 40 percent faster today than it was during its introduction just a few years ago. And while that's significant, the benefits of using an automated cutting table made of today's finest automation components translates to 400 percent more productivity for Inovatech's customers.

"At our first install, it took an experienced technician 6.2 hours to cut one ton of material," said Clement. "After the install, the one ton of steel took 1.6 hours, for a 400 percent throughput improvement." Another small fabricator was billing \$2 million in contracts per year, Clement added. After installing a SteelPRO 1000, the company invoiced \$6.4 million in nine months.

Inovatech plans to release its newest addition to the SteelPRO line, the SteelPRO 700, at this year's NASCC: The Steel Conference, taking place April 11–13 in Baltimore. Using the same best-in-class components as

the SteelPRO 600, 900 and 1000 3D steel-cutting machines, the SteelPRO 700 will bring the same high-quality, high-throughput processing to the 2D cutting-table market that Inovatech used to remake the 3D cutting-table market.

"We're proud to build machines that continually improve — as shown by our latest update, the Async control program for the SteelPRO line," concluded Clement. "The 2D table line represents a 2,000 percent larger market than the 3D cutting table markets that we've served in recent years. We're looking forward to showing off the new system to a market that's ready for innovation. With the SteelPRO systems, fabricators can task their most skilled tradespeople on the hardest projects, confident that our solutions can handle the through cuts, bevels and plate processing that doesn't demand the highest cutting skill set."



## About Güdel Inc.

Güdel Inc. is the US subsidiary of Güdel Group, a global manufacturer of robotic automation products, systems and services. Güdel supplies linear-motion modules, robot track motion units, gantry robots and components to OEMs, systems integrators and machine builders serving the automotive, aerospace, logistics, heavy industrial and power generation industries. Güdel Inc. is located in Ann Arbor, Michigan, in a dedicated 45,000-square-foot facility, providing North American customers with engineering, design, production and customer service support.

Güdel Group was founded in 1954. Headquartered in Langenthal, Switzerland, today Güdel operates in more than 30 locations worldwide.

## Contact

Güdel Inc.  
4881 Runway Blvd.  
Ann Arbor, Michigan  
48108 USA  
Phone: +1 734 214 0000  
Fax: +1 734 214 9000  
info@us.gudel.com | gudel.com/us