



FICEP
NEWS | 15/2020

www.ficepgroup.com

Ferrominio Diseño y Construcción Continúa to Invest in Automation



90 YEARS
ANNIVERSARY
1930 - 2020

In 1953 Mr. Jose Gonzalez, who was originally from the town of N. L. Linares, decided to start his new business which he called Ferrominio in the town of Culiacan.

At that time, he decided that his target market would be the design and construction of steel structures. He determined that in view of the growth that was transpiring in Mexico, he could capitalize on this if he focused on generating exceptional quality and competitive pricing for his clients.

When Mr. Jose Roberto Gonzalez and their current CEO came to the business in 1995, they understood that in order to achieve exceptional quality and competitive pricing it would require investment and a commitment to technology to achieve this goal.

CNC automation for steel fabrication and its related software became a logical step to accomplish this objective.



Kronos burn table



A 164 CNC Angle line



In 2017 Ferrominio approached lowering their fabrication cost and enhanced product quality with the investment in numerous FICEP CNC products for main member fabrication and the production of angle and plate detail elements.



Vanguard CNC Drilling Line



The current production facility consists of 30,000 square meters and has a typical monthly production of 2,600 tons.

In 2018 Ferrominio added to their investment in CNC fabrication with the purchase of the FICEP robotic plasma coper Model NOZOMI 1201 RAZ. This represented a significant addition to optimize the production capability of the facility.

One of the first significant jobs that were processed on the NOZOMI plasma robot was Plaza Ceiba which consisted of over 10,000 tons of structural steel.

Recently we had the opportunity to sit down with Jose Roberto Gonzalez to discuss his recent experience with the FICEP equipment and more specifically the NOZOMI thermal cutting robot.

He states, “We surrounded ourselves with the best suppliers of equipment and software to maximize the efficiency of the operation and to become a major player in the market.

At the Ferrominio facility, we are invested in the optimization of processes and equipment that delivers the best possible quality to our clients. These investments have enabled us to not only

double our production, but with the complete integration between the equipment and software, we have reached comprehensive production management.

We are now in total control of our production time and resources to maximize the efficiency of our operation.

Ferrominio Steel uses their FICEP NOZOMI for diverse operations currently in their fabrication of structural steel. The fact that it generates such diverse processes adds to how the system is presently employed in their operations.”



Mr. Jose Roberto Gonzales , CEO Ferrominio

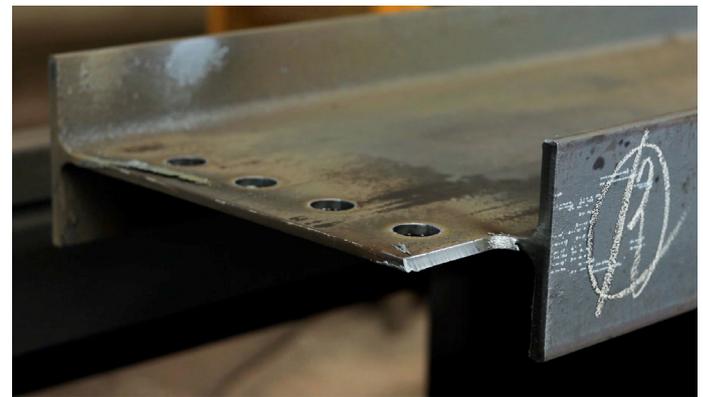


Ing. Laura Ayon explains, “We use the FICEP NOZOMI 1201 RAZ to perform copes, mechanical openings, castellations, the generation of bolt holes, web prep and the creation of part numbers and assembly information which gives us a CNC system that is extremely versatile. The speed and accuracy that it is able to generate these operations is amazing.



Once we used the NOZOMI for the generation of typical copes, bevels, layout and cut off the ability to also generate bolt holes in secondary beams is a real added bonus.

Hypertherm’s “True Hole” technology enables us to plasma cut bolt holes which eliminates the need to also pass the section through our FICEP VANGUARD drilling line.



Previously, these thermal cuts were all generated manually and were extremely time consuming. The generation of bevels for weld prep is a very common requirement in our operation and it was a nightmare. Depending upon the complexity of the section it would take between one and two hours to perform all the manual layout, thermal cutting and grinding per section.

Considering the complete range of sections from basic to complex we average producing 50 sections per 8-hour shift on the NOZOMI. This includes the generation of bolt holes, copes, bevels, mechanical openings, the generation of all the required layout information and cut off. Prior to the installation of the FICEP NOZOMI it would have taken 8 employees to generate the same 50 parts over 8 hours.

In summary, what took us 64 man-hours to generate we now produce in 8 man-hours with the FICEP NOZOMI.



We currently operate the NOZOMI over two shifts or 16 hours per day.

The reduction in manual labor and material handling has translated into a substantial increase in our productivity, but this is not the only benefit that we have realized.

The enhanced quality of the product and our ability to maintain the production schedule by eliminating the variables associated with the numerous manual operations have proven to be a great advantage.

All of the sections to be fabricated are downloaded from Steel Projects PLM which imports the parts from the TEKLA model and then nests them to optimize the thermal processes.

The required maintenance of the FICEP system has been essentially nonexistent. We change the plasma consumables as required and perform the annual preventative maintenance on the robot to insure reliable performance over the next year.

The FICEP NOZOMI has not only substantially changed the way we fabricate structural steel today, it has given us a productivity and quality advantage that is in line with our corporate goal.”

