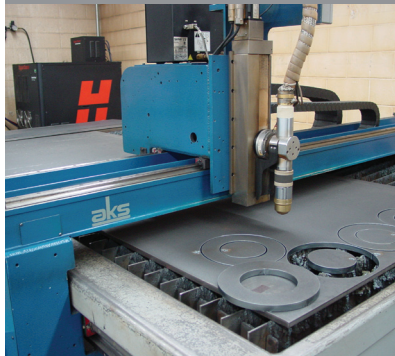


Applications for Plasma Cutting Technology

Industry: Metal Fabricator

Equipment: HPR260® upgraded to XD® technology with True Hole™



HPRXD upgrade with ProNest® 2010 enables precision manufacturer to expand product line with True Hole technology

- Improved bolt hole and slot quality expands product line.



- Cut quality has improved to minimize drilling and secondary operations.
- ProNest 2010 reduces programming time, improves ease of use, and produces quality holes every time.
- Payback timeframe for XD technology upgrade in as little as three or four months.

The company and products

T & J Manufacturing is a second-generation full-service welding, machining and fabrication shop in business since 1982, specializing in burial vault lowering devices, thin gauge hydraulic tanks, shroud work and fenders. With nine employees in the shop, and four in the office, all plasma cutting and production is completed in one shift. Driven by regular customers with weekly orders that dictate the production cycle, the company had advanced from oxyfuel cutting to plasma cutting a few years ago.

The problem

T & J Manufacturing is focused on continually improving the quality of their products to generate happier customers and generate business growth by referrals and word-of-mouth. "We make the best products we can, to make customers as happy as they can be," said Production Manager Jeremy Gilmore. After realizing the benefits of upgrading their metal cutting processes from oxyfuel to Hypertherm plasma, CNC and THC, while still utilizing punching and drilling, it was time to learn more about the next level of cutting precision. Could plasma-cut bolt hole quality be improved so that material handling and secondary operations could be reduced?

The solution

After learning about True Hole technology for mild steel during a visit to the Hypertherm booth at the FabTech trade show, T & J worked with their table manufacturer to learn more about what investment the XD upgrade and True Hole technology would require in terms of time, money and training, and how the upgrade would benefit their cutting process and finished products. Most important, was learning how they could use it to improve the quality of their plasma cut holes.

It took a few months to make the decision to invest in the technology upgrade that required the purchase and installation of the XD upgrade kit with new torch and leads, as well as updating

their software to ProNest 2010. Working with their table manufacturer, it was determined that installing the upgrade would be most cost effective if performed during a previously scheduled preventative maintenance visit. Jeremy noted, "The upgrade looked like something we could do ourselves, but it made sense to us to have our OEM do it during their yearly PM visit so they could check everything on the table and then train us on the changes."

The benefits

A significant improvement in bolt hole quality was the first benefit T & J realized from their investment. "There is a subtle change visually, for those who notice differences in the holes. For example, 1/2" holes in 1/4" mild steel don't look a lot different, but a bolt fits in them nicely and True Hole makes it automatic. I used to have to program bigger holes; .520 for 1/2", but ProNest 2010 takes the guesswork out of it." In addition to the bolt-ready holes, Jeremy has also seen an improvement in slots. "It wasn't something we were expecting when we chose to upgrade, but the better slots have led us to other uses, like cutting 3" tall letters in 1/4" plate, something new for us and it did a nice job." The new True Hole capability has increased business with customers drawn to the quality, and Jeremy anticipates that the technology upgrade, including ProNest 2010, will pay for itself in as little as three or four months. "True Hole improves the look and quality of our products, and ProNest makes it easy."

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