



True Bevel™ technology – leads to significant productivity gains at Global Steel Service

Industry: Steel Service Center

Equipment: HPR400XD®, EDGE® Pro, Sensor™ THC and ProNest® nesting software

Solution: True Bevel technology

- With True Bevel technology, bevel job set up takes Global Steel Service now no longer than 30 minutes.
- With True Bevel technology bevel angles and part dimensions are accurate with no or minimal operator adjustments.
- True Bevel technology is available for mild steel for A, V and Top-Y bevel cuts.



Company profile

Global Steel Service, based in Riga in Latvia, is a Steel Service Center. But not a traditional Steel Service Center as we know them. By also offering value added services like job shops (manufacturing of customized parts), they have managed to grow their business fast since its incorporation only 5 years ago, now employing 45 people and now also having a sales office based in Poland.

Expanding services offered, improving their operation

Always looking to make improvements in their operations and expand the services offered, in 2013 Global Steel Service decided to purchase a new, additional plasma cutting machine with much more capability compared to the system they had had in operation till then. So far cutting holes had been a challenge, leading Global Steel Service to drill all holes with a hole diameter to plate thickness ratio of below 1.5 : 1 or simply turn those jobs down. And especially jobs with beveled angles had been providing major challenges. For those types of jobs in particular, Global Steel Service had been using an oxyfuel torch on a track burner, to then often grind the bevel angles further to get parts to meet tolerance requirements, both with regards to the angle of the bevel and the dimension of the finished parts. Especially on parts with long bevel cuts, this had been a major challenge. Production times were long, as cut speeds with oxyfuel are low. And secondary operations had been cumbersome and labor intensive. As a result, the margins on these parts had been low, while demand for parts with beveled angles had been steadily growing. So Global Steel Service had been faced with a significant dilemma.

Machine purchase

The Global Steel Service team went out to look for a solution that would meet all of their needs. Luckily, they found the local OEM IPT. IPT, or also known as Industrial Production Technologies, is also based in Riga, Latvia. IPT have been a Hypertherm partner for several years, offering Hypertherm's latest products, technologies and solutions on highly sophisticated cutting machines of their own design and manufacture. Global Steel Service, already having a Hypertherm HPR400XD plasma cutting system in use to their satisfaction, liked the fact that IPT offers Hypertherm products and solutions. What attracted Global Steel Service most to the solution offered by IPT, despite considering several other options and machines, was the fact that IPT also offered Hypertherm's True Bevel technology.

After long research and several considerations, Global Steel Service decided to purchase the IPT cutting machine, a True Bevel capable machine equipped with an ABXYZ style bevel cutting head from the American manufacturer AKS, a Hypertherm HPR400XD plasma, an EDGE Pro CNC, a Sensor THC height control and Hypertherm ProNest CAM software. Instead of doing bevel cutting jobs off-line with oxyfuel on a track burner or with manual grinders, the IPT machine now allows Global Steel Service to do all bevel cutting fully automatic with HyPerformance® Plasma.

Productivity gains through True Bevel

Hypertherm's True Bevel technology makes job set up for bevel cuts accurate, easy and fast. With True Bevel technology, bevel job set up takes no longer than 30 minutes, even for very long bevel cuts (up to 12 m).

"Where a single bevel cut of 12 meters took up to 10 hours with a manual grinder, up to 4 hours when cut with oxyfuel on



Mr. Armands Sakne, Director of IPT



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a track burner, this exact same job now takes Global Steel Service only 40 minutes to complete with the IPT machine with Hypertherm's True Bevel technology", commented Sergey Babinets, Global Steel Service's Technical Director. "You can imagine the increase in productivity and throughput Global Steel Service have managed to accomplish and benefit, since the successful installation of the IPT machine with True Bevel technology."

Other benefits

"In addition to the productivity gains, especially for bevel cutting jobs, an additional major advantage of the new IPT machine, is the fact that it is also True Hole® capable", Maxim Ludinovsky, Global Steel Service's General Director helped explain their choice for IPT. True Hole is another application specific solution from Hypertherm. True Hole makes bolt-ready hole quality possible with plasma, hole quality outperforming anything previously possible. With Hypertherm's ProNest CAM software, the EDGEPro CNC, the Sensor THC and the HPRXD plasma, the setup is automatic, making optimal hole quality operator independent, consistent and repeatable.

"Where Global Steel Service would previously drill all holes with a hole diameter to plate thickness ratio of below 1.5 : 1 or would simply turn down jobs with many holes, with the True Hole capable IPT machine, cutting bolt ready holes in mild steel up to 25 mm thickness and a hole diameter to plate thickness ratio of as low as even 1 : 1 is no longer a challenge to

Global Steel Service. This has helped us to further grow our business since the installation of the IPT cutting machine," Igor Treiel, Global Steel Service's Business Development Director highlighted.

ProNest advantage

The need for True Bevel as well as True Hole, led Global Steel Service to also implement Hypertherm's ProNest CAM software. IPT strongly recommends using Hypertherm's ProNest CAM software for programming all bevel jobs. In addition to the great nesting capability, the user friendliness of the interface and software overall and the work order process capability, the main advantage of ProNest for Global Steel Service is that both all True Bevel and True Hole cut charts and parameters are embedded, eliminating most operator settings for both bevel and hole cutting applications. So once Global Steel Service came to realize that, the choice to follow IPT's recommendation to also go with ProNest CAM software was easy. ProNest has made programming bevels and holes easy, fast and accurate, as parameters and settings are applied automatically. But where manual changes and tweaks are required or desired, those are easily made on the fly in the Advanced Edit module.

Conclusion

Global Steel Service has gained a lot of productivity, especially on bevel jobs. And Global Steel Service has been able to expand their services offering by adding previously complex hole cutting jobs, two important factors that have further fueled their business growth. Global Steel Service is happy and proud to be partnering with their local partner IPT (Industrial Production Technologies), who supplied them the first True Bevel and True Hole capable machine in Latvia, giving Global Steel Service that competitive edge they had been looking for.

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