

Hypertherm®

HyPerformance® Plasma HPRXD® and ProNest® nesting software enables ship yard to consistently produce high quality bevel parts.

Industry: Ship repair yard

Equipment: HPR400XD, EDGE Pro®, ProNest

The company and products

Tandanor is one of the largest ship repair yards in South America, with over 100 years experience in repair and ship conversion.

The problem

Tandanor has been cutting with oxyfuel for several years, using a 4 torch system to cut parts and secondary operations to “K Cut” bevel parts that are then welded and assembled. Low process efficiency and the high secondary costs involved made Tandanor consider a new lower cost/high efficiency solution.

The solution

After learning about HyPerformance Plasma bevel applications through a local cutting machine manufacturer, Tandanor saw the potential to improve the way they produce parts and decided to learn more about the process. After their investigations and financial analysis Tandanor were able to confidently invest in a new plasma bevel cutting system incorporating Hypertherm’s HPR400XD, EDGE Pro controller, and ProNest nesting software. From their pre-purchase research Tandanor observed how easy it is to use ProNest, allowing bevel cut programs to be prepared in less than a minute; regardless of programmer experience.

The benefits

Tandanor experienced numerous immediate benefits from the machine investment.

- A significant improvement in cut speed (up to 9 times faster), cut quality and a reduction in secondary part clean-up, resulting from the transition to HPRXD plasma from oxyfuel.

- A noticeable reduction in programming time using ProNest nesting software, even while creating complex bevel jobs. ProNest’s integrated bevel cut charts, with built-in Hypertherm HPRXD bevel cutting parameters, means there is no need to insert data manually, making it possible for even a novice programmer to create optimized bevel programs. According to Nicolas Cappi, Production Manager of Tandanor: “We reduced time by the simple way to create bevels” and in addition “the grinding edge preparation was eliminated between beveling and welding”.
- A reduction in the number of programming errors due to ProNest’s automated programming functions. For example, embedding bill of materials information (i.e. material type, thickness, class, quantity and even the bevel angle for specific entities of each part) directly to the layer information of the CAD/drawing file, making sure all of the information is automatically inserted to the part list with a single step. “Currently we have both shifts working with the same and we consistently reduced failure parts” relates Nicolas Cappi.
- Improved part accuracy resulting from automated sample arc voltage management during cutting, ensuring torch height is maintained at the optimal distance from the part at all times, including bevel angle changes.
- Fast job setup using the CNCs Phoenix® CutPro® Wizard. When the ProNest job is opened, align the machine and its ready to cut!

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