

Press Release:

Bystronic's ByStar fiber laser and ByTrans loader from First Cut offers warp-speed productivity combination

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The developments of sheet metal cutting technology over the past 30 years have been remarkable. The latest developments in fiber laser technology are taking sheet steel component production to even higher output and quality levels.

Bystronic – a world-leading provider of cutting and bending solutions – offers the steel industry the ultimate in productivity solutions. By linking its flagship ByStar 10kW fiber laser to a ByTrans loader, it is now possible to automate production to a far greater level than was possible previously.

In South Africa, First Cut, a foremost South African distributor of a range of cutting consumables and capital equipment, represents Bystronic exclusively, and has done for many years.

Bystronic's 10kW ByStar Fiber laser, introduced at Euroblech in 2016, is to date Bystronic's most powerful laser on the market. The ByStar Fiber's new cutting head will deliver the highest part output through the full spectrum of sheet thicknesses, from thin gauge up to 30mm with an impressive part accuracy. It will also cut other 'exotic' materials such as aluminium, brass and copper without the need for deburring. In terms of productivity, the ByStar Fiber is up to five times faster than a 4kW CO₂ laser.

Even compared to a 6kW fibre laser, the time to complete a job on 6mm steel could be cut in half and the cost per part reduced by as much as 35%.

As the ByStar was designed from the ground up to be the most productive fiber laser on the market, it incorporates a number of other groundbreaking design features. A newly developed ultra-fast bridge frame which is more torsionally rigid, gives greater accuracy and better edge quality. Bystronic's detection eye technology identifies the edge of the sheet in six seconds, allowing cutting right up to the edge of the sheet with great accuracy. This significantly reduces a fabricator's scrap rate.

However, the ByStar's remarkable new levels of productivity could be diluted if the loading and unloading of the machine are not able to match its superior production rate. To maximise the ByStar's productivity potential, Bystronic therefore developed a range of loading and unloading automation solutions. Notable among these, the ByTrans Extended loaders are linked to the ByStar and will

automatically load sheets onto the laser's shuttle table. After the cutting cycle is completed, they are able to unload finished parts and residual sheets.

The ByTrans requires only 60 seconds in which to carry out the complete loading and unloading cycle. This means that the automation system is always faster than the cutting plan that is being processed. For fabricators or manufacturers, this means that the laser can cut uninterrupted for an extensive period of time. While the ByTrans loads one shuttle table, the fiber laser is cutting components from the raw material on an alternate table.

The ByTrans and the ByTrans Extended are operated using the ByVision touch screen. Bystronic has seamlessly integrated the control of the two automation systems into the laser's operating software, which enables users to perform all the operating steps on a single touch screen.

The development of these automation technologies is part of Bystronic's overarching aim to provide its customers with unsurpassed productivity solutions, ultimately leading to greater profitability.

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Note to Editors

About FIRST CUT

With 62 years of industry experience, First Cut is a leading South African distributor of a range of cutting consumables and capital equipment.

Since producing its first band saw blade in 1960, First Cut has grown its offering substantially over the years, and is able to meet the needs of a vast range of industries through the supply of band saw blades, circular saw blades, hacksaw blades, and other cutting consumables.

First Cut's merger with Alexander and Poole in 2002, an exclusive agent for the Starrett range of cutting tools, was a significant milestone in the company's history, as was its acquisition in 2008 of Band Sawing Services, which meant that the company could expand its services into capital equipment.

Since then, First Cut's capital equipment division has grown exponentially, thanks to its partnerships with some of the best-known brands globally. The company's capital equipment division specialises in metal cutting, sheet metal processing, structural (such as CNC bending and punching), and tube and pipe processing. First Cut has also invested substantially in its service programme enabling the

company to provide repairs and maintenance services for a wide range of equipment's, from entry level band saws to state-of-the-art CNC controlled drilling and cutting lines.

Employing 240 people, First Cut is based in Benrose, Gauteng but has a national footprint and distribution facilities across South Africa.

Quality is at the top of the agenda at First Cut and the company has achieved the ISO 9001:2008 certification and adheres to strict quality and safety regulations.

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