

# Entry-level fibre laser cutting machine

A new, flatbed, laser cutting machine has been introduced by Swiss manufacturer, Bystronic, aimed at sheet metal processing companies wishing to exploit the high productivity of fibre technology and its broad range of applications. The competitively priced BySmart Fiber can be supplied with a laser source of 2, 3, 4, or 6 kW and optional automated material handling solutions to allow the full potential of the machine to be utilised.

Available in UK and Ireland through subsidiary Bystronic UK, Coventry, the new machine platform achieves same rapid, top quality cutting for which the Swiss manufacturer's fibre laser equipment is well-known. The 6 kW source enables users to achieve the maximum increase in cutting speed, for example by up to 70 percent compared to a 4 kW fibre laser when cutting 3 mm stainless steel. The advantage is even more pronounced in comparison to a 6 kW CO<sub>2</sub> laser, as productivity is trebled.

Fibre lasers can process a wide range of materials from steel and stainless steel to aluminium, copper and brass with operating costs and maintenance requirements that are relatively low. For manufacturers whose applications lie in the thin to medium sheet thickness range, it means faster cutting, lower costs, and higher profit per part. Additionally, Bystronic offers its Power Cut Fiber function to extend the range of



The new BySmart Fiber laser cutting machine from Bystronic

applications to thicker sheet, delivering high quality cuts in material up to 30 mm.

The fibre laser's powerful output must be optimally integrated into the cutting process and to achieve this, Bystronic equips the BySmart Fiber with the latest generation cutting head, which can be adapted to maximise quality when profiling different metals. Users choose between two focal points of the laser beam depending on sheet thickness and material type.

In addition, Bystronic equips the 6 kW version of the BySmart Fiber with the Cut Control function, which monitors the entire process. If a tear occurs, laser cutting is automatically stopped, reducing the risk of miscuts and rejected parts.



The Power Cut Fiber option enables high quality cuts in materials up to 30 mm thick

Operators control the BySmart via a 22-inch touchscreen. With the ByVision Cutting user interface, the process is controlled with a few swipes of the finger. The control accesses an extensive database that includes the parameters for all common types of sheet metal. Taking the material, sheet thickness, and part geometry into account, it generates the ideal cutting process. During operation, all processes on the machine are tracked and the most important data appear on-screen, including the current cutting plan, the position of the cutting head and the machine status.

Bystronic's extensive loading and unloading solutions and third-party automation equipment can be integrated. Depending on the order situation, the system organises material flow fully- or semi-automatically while also offering flexibility at the laser cutting machine to process smaller orders manually.

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The cutting process is controlled via a 22-inch touch screen

## New fibre laser cutting machine opens up for Mayflower

As a result of installing the latest TRUMPF Trulaser 3060 fibre laser cutting machine, Sheffield-based Mayflower Engineering is pleased to announce that it can now offer a laser cutting service. Complementing its other HD Plasma cutting, machining, forming and fabrication services, the new machine will allow Mayflower to open business opportunities in many markets.

The TRUMPF Trulaser 3060 can cut mild steel, stainless steel, Hardox wear resistant, Domex high strength steel and aluminum up to 25 mm thick and copper up to 10 mm. It has a large 6 m x 2.5 m cutting bed, which enables it to process up to 3,000 kg of large workpieces or multiple batches of smaller components at high speed allowing Mayflower to offer its customers faster delivery times and competitive prices.

The Trulaser can cut complex shapes without the need for tooling, producing high quality contamination free, high precision items with excellent edge definition and free of scratches and marks.

CNC driven, sheet utilisation is optimised to reduce component costs and due to its

large format cutting bed it can process, smaller batches of components from different materials and thicknesses, reducing the cost per part for low volumes.

Darren Bradley, Mayflower Engineering's director & general manager enthuses: "Our TRUMPF laser cutting machine is already proving to be a tremendous asset. We can now cut components from a wide range of materials, rapidly and precisely at least cost. Believed to be the first of its type in the UK, it is a perfect complement to our other engineering services and means we can now tender for more varied and demanding contracts."

Mayflower Engineering provides a full turnkey engineering service from concept to installation. Its range of services includes design, manufacture, assembly, installation



and commissioning. In house manufacturing processes include laser and plasma cutting, bending, forming, machining, painting, welding, finishing and testing.

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