



Best choice.

Niederönz, October 23, 2018

Bystronic's highlights at EuroBLECH 2018

Right on time for the most important sheet metal processing industry event, Bystronic is presenting comprehensive innovations for all aspects relating to cutting, bending, and automation. In the future, networked manufacturing processes, integrated automation, and digital service solutions will help customers to profoundly optimize the manufacturing of sheet metal products.

In time for EuroBLECH 2018, Bystronic is systematically refining the vision of "World Class Manufacturing". This is based on a comprehensive range of new technologies and services with which Bystronic is gearing its users' process landscape towards networked production. In this way, Bystronic accompanies customers step by step on their path towards the smart factory.

World Class Manufacturing goes far beyond the conventional idea of a machine tool. The focus lies on digitally networked production, which combines the individual processes related to laser cutting and bending to form a network of intelligent components. Users thus achieve a higher degree of flexibility and transparency in their production environment.

Both are important prerequisites in order to manufacture products faster, more cost-effectively, and more intelligently than ever before.

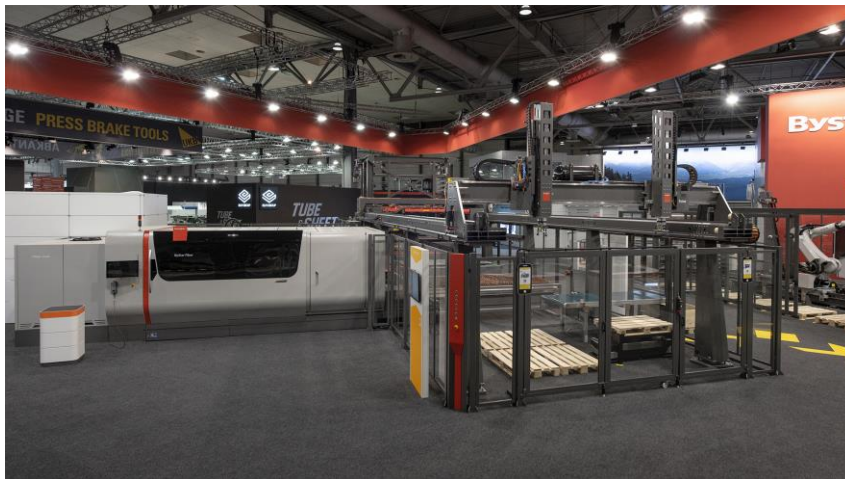
Production Line: Fully automated laser cutting

With the Production Line, Bystronic presents its highlight in terms of laser cutting automation. Within this fully automated manufacturing solution, sheet metal parts are pre-processed, cut, transported, and sorted according to orders. The heart of the Production Line is the ByStar Fiber laser cutting system. Powered by a 10 kilowatt aggregate, this is where the speed of the entire production process originates.

The ByTrans Cross and BySort loading and unloading automation is connected directly to the fiber laser. It handles the entire material flow between the laser and the integrated storage system. The storage system supplies all the raw metal sheets required for the cutting jobs: steel, stainless steel, aluminum, and non-ferrous metal sheets in thicknesses ranging from 0.8 to 25 millimeters with a maximum overall capacity of 24 tons. It also returns finished cut parts and residual sheets to storage.

Bystronic will present a showcase at EuroBLECH to demonstrate a solution that will enable the Production Line to be expanded in the near future.

ByFlex, an additional integrated system, drills holes and cuts threads into sheet metal parts prior to the laser cutting process. In addition, a labeling function marks the parts that are to be cut with a code. This allows all the information about the sheet metal parts that are being produced to be scanned in at the downstream processing stations.



The Production Line is a fully automated manufacturing solution for the cutting, transporting, sorting, and storing of sheet metal parts. Solutions for the pre-processing of sheet metal parts can also be integrated.

Bending Cell: The fully automated bending center

The Bending Cell automatically bends the cut sheet metal parts. For this, Bystronic expands the high-end Xpert Pro press brake with an agile robotics system. A 7-axis robot picks up the sheet metal parts that are to be bent, places them with high precision on the Xpert Pro for bending, and subsequently sorts them according to jobs. The Bending Cell can handle sheet metal parts up to 270 kilograms.

With high precision, the robot also automatically sets up the press brake with the appropriate tools. To achieve this, Bystronic has integrated a tool magazine into the Bending Cell that keeps a range of required bending tools on standby. Thanks to a maximum press capacity of 320 tons, the

bending automation solution can process a wide range of sheet metal products. The Bending Cell is ideally suited both for the efficient processing of high-volume repetitive jobs and for changing lists of jobs with small batch sizes.



Fully automatic Bending Cell: The Bending Cell is as ideally suited for the processing of long job lists as for changing orders – from small batch sizes right through to large series.

Bystronic MES: Transparency from the incoming order to the finished part

The Bystronic MES is the navigation system for sheet metal processing. An intelligent software solution that helps users manufacture and ship sheet metal products with precisely defined costs and deadlines. The Bystronic MES determines the ideal path on which sheet metal products are guided through the processing stations for cutting and bending. This optimizes throughput times and costs in the sheet metal production chain. And it helps users to perfectly attune all the process steps, machine systems, and workstations within their production environment.



Digital networking of all the process steps: With the Bystronic MES, users plan, monitor, and control their production from the incoming order right through to the completed product.

Shop Floor Control System: The digital guidance system for production lines

In the future, how will users control and monitor production lines in which automated production cells and individual machine systems are networked? With the Shop Floor Control System, Bystronic is showcasing a newly developed software solution at EuroBLECH. Networked with sheet metal processing stations, the Shop Floor Control System assumes the centralized control function and helps users to always maintain an optimal production flow. The system also provides information about potential bottlenecks or downtimes within the production line. This enables scheduled production times and delivery deadlines to be adhered with a high degree of reliability.

ByStar Fiber: Laser cutting with 12 kilowatts

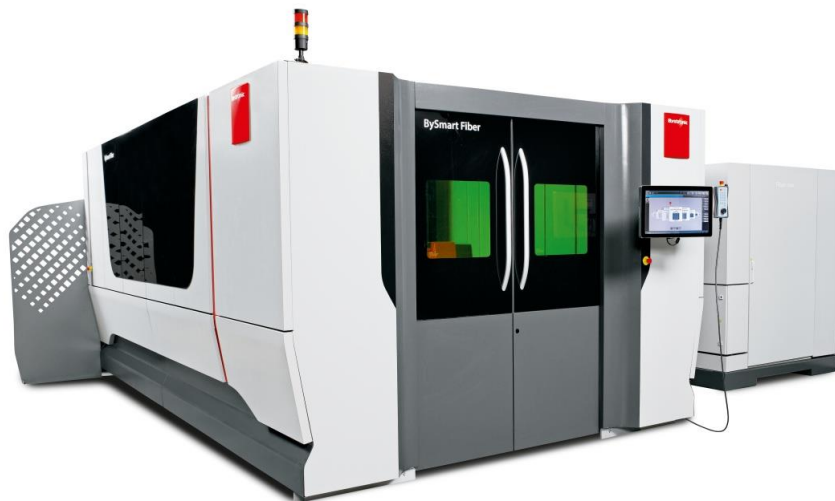
Bystronic projects promising prospects for fiber laser cutting: With 12 kilowatts, the high-end ByStar Fiber laser cutting system will soon feature a new performance level. This will boost the profitability and speed of the cutting process right up to sheet thicknesses as high as 30 millimeters. This will provide customers with an almost unbeatable competitive edge in the competition for jobs. In order to optimally integrate the higher laser power into the cutting process, Bystronic has rigorously enhanced the design of the ByStar Fiber's cutting head. Thus, users always achieve outstanding cutting results in a wide range of materials.



Latest fiber laser technology: With 12 kilowatts, the high-end ByStar Fiber laser cutting system will soon feature a new performance level.

BySmart Fiber: The fiber laser for a flying start

The new generation of BySmart Fiber is already available now. Bystronic has fundamentally redesigned the entry-level solution for fiber laser cutting and expanded it with numerous features. The result is a versatile cutting system with up to 6 kilowatts of laser power and matching automation solutions. Thus, Bystronic is opening up the full potential of fiber laser technology to users in growth industries: high parts output, a broad spectrum of applications, and automation for optimized material handling.



Versatile performance package: The new BySmart Fiber enables the fast entry into fiber laser cutting.

Xpert Pro: Bending technology for the highest demands

With the new Xpert Pro press brake, Bystronic is taking the successful Xpert product line a step further. The Xpert Pro supports demanding users with maximum flexibility and performance for the bending process. A variety of configurations are available for a wide spectrum of bending applications.

Features such as dynamic crowning and the patented pressure reference technology ensure consistently high bending quality on the Xpert Pro. On top of this, the Xpert Pro boasts intelligent assistance functions, such as the material curve generator and the LAMS angle measuring system.

These enable users to achieve maximum precision from the very first bent part.

FL 170 3D: Versatile tube and profile processing

Concentrated technology for tube and profile cutting: The FL 170 3D laser cutting system combines the unique benefits of fiber laser technology with the versatility of 3D cutting. With the trade fair participation of the Bystronic subsidiary TTM Laser, visitors to the exhibition can experience the latest addition to Bystronic's technology portfolio live at EuroBLECH.

For the processing of tubes and profiles, the FL 170 3D cutting system impresses above all with its high cutting speeds for workpieces up to 12.5 meters in length. In addition to straight cutting edges, the integrated 3D technology also enables bevel cuts of up to 45 degrees. This wide range of cutting processes eliminates the need for costly milling, drilling, or sawing processes.



FL 170 3D: Wide spectrum of applications for the cutting of steel, stainless steel, aluminum, and non-ferrous metals in diameters from 12 to 168 millimeters and workpiece lengths up to 12.5 meters.

ByCockpit: Big data on a screen

With the ByCockpit, Bystronic has developed a monitoring app that analyzes and visualizes process data from sheet metal parts production. This functions live on Bystronic's EuroBLECH booth and of course in every sheet metal processing environment. The ByCockpit makes the quality, times, and cost of all production processes transparent and optimizable.

For example, users can use the ByCockpit to call up the following information about connected Bystronic cutting and bending systems in real time: Are their production processes progressing according to schedule? Are all the integrated systems running at optimum capacity? When will the raw material warehouse require restocking?



Fully transparent sheet metal parts production: The ByCockpit provides selected key indicators on the quality, times, and costs of production processes.

ByFinances: Flexible entry into new technologies

For many customers and visitors to the trade fair, the decisive question is: How can I finance my entry into new technologies or the enhancement of my existing manufacturing systems? Bystronic provides answers to questions like this in the form of flexible financing options that are tailored to the customers' individual situations. The range of financing solutions includes, amongst others: leasing, credit models, and now also pay-per-use solutions.



The suitable financing solutions provide access to new technologies and advanced manufacturing solutions.

RSA app: Online support in real time

In the sheet metal processing business, unscheduled machine downtimes can rapidly result in high costs. Upstream and downstream processes come to a standstill and delivery deadlines are not met. In future, thanks to the RSA app, Bystronic's service will be just a click away. In the event of issues with a machine, customers simply connect to Bystronic's hotline operators using mobile devices such as laptops or tablet computers. Bystronic immediately assists in troubleshooting using video chat and remote data analysis. In addition, the app provides access to operating manuals and video tutorials. This allows customers to quickly solve many problems themselves. Bystronic will showcase the new RSA app at EuroBLECH.

About Bystronic

Bystronic is a leading global provider of high-quality solutions for the sheet metal processing industry. The focus is on the automation of the complete material and data flow of the cutting and bending process chain. Bystronic's portfolio includes laser cutting systems, press brakes, and associated automation and software solutions. Comprehensive customer services round off the portfolio. The company headquarters are located in Niederönz (Switzerland). Three additional development and production locations are located in Gotha (Germany), in Tianjin (China), and in Shenzhen (China). Bystronic is actively represented by its sales and service subsidiaries in more than 30 countries and has agents in numerous other countries.

As a reliable partner, Bystronic stands for high-performance innovations, local competence, and service excellence. Since 1994 Bystronic has been a part of the Swiss industrial holding company Conzzeta. In 2017, with more than 2400 employees, Bystronic achieved a revenue of 774 million euro.

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