



Best choice.

Niederönz, October 23, 2018

The bending center for fully automatic sheet metal processing

Bystronic has enhanced the Xpert press brake to create a fully automatic bending solution. The Bending Cell enables varying order situations to be mastered efficiently and without errors.

The sheet metal processing industry is under pressure: The production costs must be kept low without affecting quality. Simultaneously, the increasing variability of shapes, dimensions, and batch sizes demand an ever higher degree of flexibility. Companies that want to remain competitive have to increase the flexibility of their processes and above all, they also have to automate. Bystronic's Bending Cell achieves both at the same time.

The fully automatic Bending Cell offers a maximum degree of efficiency and flexibility for both small and large manufacturing companies. The Bending Cell is just as ideally suited for the processing of long job lists as for changing orders – from small batches right through to large series. In combination with the tried and tested Xpert press brake, the agile robot processes bending jobs fully automatically and without errors.

Save time thanks to automation

The Bending Cell reduces manual interventions to a minimum and makes the most of the available resources. The 7-axis robot not only autonomously changes the grippers and bending tools, it also knows how to process the job most efficiently: The intelligent software autonomously determines the optimal sequence of the bending tools for every job list. This saves up to 30 percent of the processing time.

After the initial offline programming, the Bending Cell operates completely autonomously. While the robot is bending, operators can perform other tasks, for example the supply and removal of sheet metal and parts or operating a laser cutting system or welding system. Night shifts consisting of changing jobs with different parts are no problem for the Bending Cell. It can also handle kit production, which entails recurring cycles during which all the parts for a complete product are produced.

Operating the Bending Cell is remarkably simple, because both the robot and the press brake are controlled using the same touch screen. The ByVision Bending user interface always provides the user with an overview of the current job status and the remaining production time, upon request also on mobile devices. Data for new jobs can be imported without interrupting the running production process.

Repetition accuracy for perfect parts

The quality standards in the sheet metal processing industry are high. Angle errors even of a few tenths of a degree can result in customer complaints. However, thanks to the Bending Cell's very high degree of repetition accuracy, nasty surprises during the quality control are a thing of the past: The first part is just as perfect as the thousandth.

The Bending Cell reliably implements the parameters that are programmed offline. The extremely precise LAMS angle measuring system ensures that all the critical factors are compensated during the bending process – from diverging spring back factors of the processed sheet metal through to temperature fluctuations in the production hall. Thanks to the logging of the final angles by the software, quality control is an integral part of the Bending Cell

Modular design for increased flexibility

Changing order situations demand flexible automation solutions. The Bending Cell's modular design ensures a high degree of flexibility and availability. In addition to the Xpert press brake, the fully equipped version consists of a robot with gripper changer, tool changer, a generous material storage unit, and a tool magazine. The individual modules can also be purchased separately in order to upgrade the system depending on the user's requirements. Thus, the gripper changer and tool changer or the material storage unit and the tool magazine can be integrated at a later time.

This modular design allows the Bending Cell to be individually adapted to the requirements of the production environment, also in terms of performance. Five different robot types are available with lifting capacities ranging from 90 to 270 kilograms. The automation solution is available for the Xpert and Xpert Pro 100, 150, 250, and 320 press brakes. This means that the maximum press capacity is 320 tons, and bending lengths up to 3 meters are possible. Users who already own an Xpert can simply upgrade it with the automation solution at any time.

Comprehensive automation concept from a single source

Too many cooks spoil the broth – this also applies to automation, because frequently, many different suppliers have to work together to offer automation solutions. This means that when maintenance services are required, it is frequently unclear who is responsible and the responsibility is shuffled back and forth. For the customer, this means a great deal of hassle that costs time and energy.

With the Bending Cell, such disruptive delays do not occur, because there is a single point of contact: Bystronic provides the press brake, the automation system, customer service, and comprehensive advice from a single source. Be it maintenance services, programming support, or the modification of an existing system – Bystronic's specialists find a solution for every requirement.

Learn more on: bendingcell.bystronic.com



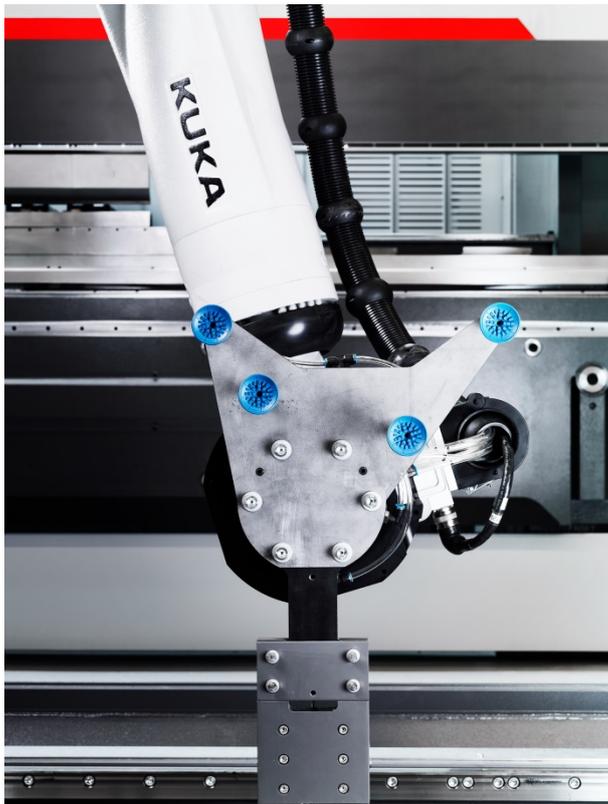
Fully automatic bending solution: The Bending Cell is just as ideally suited for the processing of long job lists as for changing orders – from small batch sizes right through to large series.



Flexible and autonomous: The 7-axis robot can handle lifting capacities up to 270 kilograms and can autonomously change grippers and bending tools.



Flexibility for changing orders: With a capacity of 37 meters, the tool magazine offers sufficient space for a wide range of bending tools.



A firm grip for every situation: Depending on the requirements, the Bending Cell can be equipped with between five and eight gripper stations. This enables parts in a wide variety of shapes and sizes to be processed fully automatically.

Images can be sourced via the Media Center on the Bystronic homepage:
<https://bystronic.picturepark.com/WorldPort/Port/MediaCenter>

About Bystronic

Bystronic is a leading global provider of high-quality solutions for the sheet metal processing business. The focus lies 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 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 expertise, and service excellence. Since 1994 Bystronic has been a part of the Swiss industrial holding company Conzeta. In 2017, with more than 2400 employees, Bystronic achieved a revenue of 774 million euro.

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