



ByBend Smart

High performance bending to exceed your expectation in productivity and flexibility at attractive conditions.

Customer benefits

- High performance bending for today and tomorrow.
- Fast entry into world class bending technology.
- Swiss quality at attractive conditions.
- Flexible and customizable option package to meet your most demanding in productivity and flexibility.
- State of the art control and user-friendly offline programming.
- Comprehensive know-how. Benefit from Bystronic's experience with bending technology in the sheet metal processing business
- Lean processes. Bystronic software solutions and the OPC-UA interface optimally integrate the ByBend Smart into your production environment.



- 1 Daylight and stroke length expansion: Taller tools can be used with the ByBend Smart. Thus, users can process parts with longer flanges.
- 2 New are dynamic sheet supports. With a capacity of 220.46 lbs each, they are the ideal option to relieve operators of their daily physical stress.
- 3 For faster tool changing: The RF-A Pro fast clamping system increases the process speed of bending jobs that require frequent tool changes. (Option)
- 4 Everything on a touch screen: Operators control the entire bending process with just a few swipes of the finger on a 22-inch touch screen.

	ByBend Smart 100/3100	ByBend Smart 100/3100	ByBend Smart 160/4100	ByBend Smart 225/3100	ByBend Smart 225/4100	ByBend Smart 300/3100	ByBend Smart 300/4100
Tonnage	110 US tons	176 US tons	176 US tons	247 US tons	247 US tons	330 US tons	330 US tons
Bending length	122 inch	122 inch	161 inch	122 inch	161 inch	122 inch	161 inch
Open height	22.8 inch						
Standard stroke	11.8 inch						
Y-approach speed (up to)	472.4 inch/min	472.4 inch/min	472.4 inch/min	425.2 inch/min	425.2 inch/min	283.5 inch/min	283.5 inch/min
Y-working speed (up to)	37.8 inch/min	30.7 inch/min	30.7 inch/min	30.7 inch/min	30.7 inch/min	21.2 inch/min	21.2 inch/min

ByBend Smart Technical Data





	ByBend Smart 100/3100	ByBend Smart 160/3100	ByBend Smart 160/4100	ByBend Smart 225/3100	ByBend Smart 225/4100	ByBend Smart 300/3100	ByBend Smart 300/4100
Length	224 inch	224 inch	244 inch	224 inch	244 inch	224 inch	244 inch
Width	112 inch						
Height	122 inch	122 inch	124.6 inch	122 inch	124.6 inch	123 inch	125.3 inch
Tonnage	110 US tons	176 US tons	176 US tons	247 US tons	247 US tons	330 US tons	330 US tons
Bending length	122 inch	122 inch	161 inch	122 inch	161 inch	122 inch	161 inch
Standard stroke	11.8 inch						
Open height	22.8 inch						
Distance between side frames	96.5 inch	96.5 inch	134.6 inch	96.5 inch	134.6 inch	96.5 inch	134.6 inch
Throat	15.8 inch	19.8 inch	19.8 inch				
Table Width	2.4 inch						
Table Width (T12)	2.9 inch						
Max. back gauge range X-axis	33.5 inch						
Max. back gauge range X-axis (2/4/5-axis)	33.5 inch						
X-axis travel	23.6 inch						
X-axis travel (2/4/5-axis)	23.6 inch						
X-axis speed	1,416 inch/min						
X-axis speed for 2/4/5-axis (up to)	1,416 inch/min						
X-axis accuracy	0.002 inch						
X-axis accuracy (2/4/5-axis)	0.002 inch						
R-axis travel	5.9 inch						
R-axis travel (2/4/5-axis)	5.9 inch						
R-axis speed	472.4 inch/min						
R-axis speed for 2/4/5-axis (up to)	472.4 inch/min						
R-axis accuracy	0.002 inch						
R-axis accuracy (2/4/5-axis)	0.002 inch						
Z-axis travel	72 inch	72 inch	110 inch	72 inch	110 inch	72 inch	110 inch
Z-axis speed	2,362.2 inch/min						
Z-axis speed for 4/5-axis (up to)	2,362.2 inch/min						
Y-approach speed (up to)	472.4 inch/min	472.4 inch/min	472.4 inch/min	425.2 inch/min	425.2 inch/min	283.5 inch/min	283.5 inch/min
Y-working speed (up to)	37.8 inch/min	30.7 inch/min	30.7 inch/min	30.7 inch/min	30.7 inch/min	21.2 inch/min	21.2 inch/min
Accuracy Y-axis	0.0004 inch						
Oil capacity	66 gal	66 gal	92.4 gal	66 gal	92.4 gal	79.2 gal	112.2 gal
Main motor power	20 HP	24.8 HP	24.8 HP	29.5 HP	29.5 HP	29.5 HP	29.5 HP
Weight	11 t	12.6 t	16.4 t	14.8 t	18 t	17.6 t	21.8 t

The right to make changes to dimensions, construction, and equipment is reserved. ISO-9001-certified.

The technical data can vary in the different countries, according to local security rules and configuration of the machine.

Most important options

**Fast Bend+**

Saves 20 percent time in comparison to conventional safety systems

**LAMS**

Measures and corrects the angle during the bending process

**Energy Saver**

Reduces machine energy consumption by up to 60 percent. The machine creates less noise and less heat.

**Optical bend guiding system**

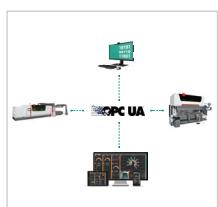
The worldwide fastest bending process control leads the user to the perfect part quickly and safely

**Detachable Bending line laser**

Position bent parts quickly and easily

**LED workspace lighting**

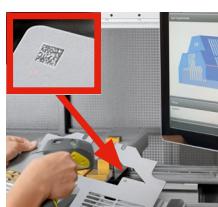
Illuminates the workspace perfectly and uses a minimum amount of energy

**OPC Interface**

Enables machine and operational data evaluation

**Tablet Control**

Bend process corrections are easily made using the tablet

**PartID (part identification)**

Identifies manufactured parts

**Condition Messenger**

Preventive function check of the machine

**ByCockpit**

Digital real-time information for sheet metal parts production. The ByCockpit keeps you up to date with selected key indicators on the machine performance, manufacturing efficiency, and material stock.

**Optical Tool Detection System**

Camera based tool set up verification system



Flexible back gauge systems
Double the axis speed compared to the standard backgauges possible



Hydraulic bending aids
Makes bending large, heavy, and long-sided parts easier. Material-friendly handling of sensitive materials such as stainless steel



Hydraulic quick-clamping
The automatic clamping of upper tools shortens set-up time by more than 20 percent



Optical stroke triggering
Triggers the stroke of the pressbrake with a simple foot movement



Tandem operation
Maximum flexibility for processing small to extra-long bend parts



Robot interface
Allows to connect robots from various manufacturers



	Customer benefits				Pressbrake				
	Increase efficiency	Reduce costs	Simplify processes	Be informed	Xpert 40 + 80	Xpert	Xpert Pro	Xact Smart	Xpress
Fast Bend+	■	■	■	■					
Fast Bend	■	■	■	■	■	■	■		
Fast Bend S	■	■	■	■				▲	▲
Fast Bend with angle measurement	■	■	■	■		▲			
LAMS	■	■	■	■		▲	▲		
Dynamic Crowning	■	■	■			■	■	▲	
Energy Saver		■			■	▲	■	▲	
Optical bend guiding system	■		■	■	▲	▲	▲		
Optical foot switch	■		■		▲				
Tablet Control	■		■		▲	▲	▲		
PartID (part identification)	■	■	■		▲	▲	▲	▲	▲
Bending line laser	■		■		▲	▲	▲	▲	▲
LED workspace lighting	■		■		▲	▲	▲	▲	
OPC Interface	■	■	■	■	■	■	■	▲	▲
Condition Messenger	■		■		■	■	■		
Observer	■	■	■	■	▲	▲	▲	▲	▲
Flexible back gauge systems	■		■		▲	▲	▲	▲	▲
Hydraulic bending aids	■	■	■			▲	▲	▲	
Hydraulic quick-clamping	■	■	■		▲	▲	▲	▲	
Tool opening on a control panel	■					▲	▲		
Tandem operation		■				▲	▲	▲	
Robot interface		■			▲	▲	▲	▲	
Increased open height, stroke, and throat	■		■		▲	▲	▲	▲	
Bar code scanner	■				▲	▲	▲		▲
Remote diagnostics	■				▲	▲	▲	▲	▲
Optical Tool Detection System	■		■	■	▲				
Mechanical crowning system	■	■	■						▲

■ Standard

▲ Option



Bending tools

Use the right tools to achieve perfect bending results when air bending, embossing, and 3-point bending. Original tools from Bystronic are capable of unleashing the full potential of the machine's features, in order to ensure that your parts are always bent with utmost precision.

Customer benefits

- The quality of our tools is specifically designed and tested for Bystronic press brakes and your applications
- Bystronic bending tools (available with a variety of clamping types) are flexible and versatile, in order to cover your applications
- Original tool plus bending data: With every bending tool, you also receive the relevant import data for your press brake's software
- For particularly challenging applications, our tool specialists will be glad to advise and support you with the design of customized solutions
- The special production process and the high-strength quenched and tempered steel of our tools guarantee a long service life even under tough conditions
- The right tool for your product: You show us the product you want to manufacture, we recommend the suitable bending tool setup
- Bystronic bending tools can also be used with third-party press brakes. For this purpose, Bystronic offers its tools with various clamping styles