

Folding machine PowerBend Professional

The PowerBend Professional is our revised folding machine with even more flexible application possibilities. It is the perfect solution for thin sheet metal processing and continuous use in large workshops, medium-sized businesses and industry.



PowerBend Professional

Work. length x Sheet thic kn. (400 N/mm²) 3,240 x 3.0 mm 4,040 x 2.5 mm



The rotating clamping beam offers a second set of tools and an alternative machine geometry. (New: Clamping beam directly driven with servo motors)

The PowerBend platform is based on decades of experience in industrial folding machines. It was engineered using state of the art tools, and finite element analysis. The resulting rigid frame provides a base from which the PowerBend achieves unmatched speed, precision, and operational efficiency. Thanks to the superior drive technology and advanced electronic control, the PowerBend Professional can handle complex geometries and difficult bending requirements with ease.

At the same time the machine offers the flexibility your company needs for the production of short runs and prototypes. With the hydraulic tool clamping device and the optional rotating clamping beam, set up times can be drastically reduced. The result is a considerable increase in productivity.

Highlights

- Clamping beam stroke 540 mm for product heights up to 250 mm
- 2 servo drives for continuous commuting of the Up-and-Down folding beam
- Servo-controlled folding beam adjustment
- More precise and faster positioning of the folding center, servo-controlled
- Safety package Plus
- LED status display
- Energy-efficient drives according to IE3
- Optimized for industry 4.0
- Prepared interface to product handling systems

Folding beam lowering with servo drive and recirculating ball screws





Standard equipment	
Software control	<ul style="list-style-type: none"> – POS 2000 Professional control on swivelling arm – Radius function – Remote maintenance
Clamping beam	<ul style="list-style-type: none"> – Clamping beam stroke: 540 mm – Clamping beam geometry: 48° or optional 180° – Drive: 2 x 2.2 kW; 65 mm/s, axis with recirculated ball screws – Axis inclination of clamping beam – Hydraulic tool clamping device (WZS 2000)
Folding beam	<ul style="list-style-type: none"> – Drive: 2 x 3.0 kW (converter controlled, 100°/sec) – Motorized folding beam adjustment: 150 mm with servo drive and recirculated ball screws (converter controlled) – Motorized folding center adjustment: +80/-20 mm (converter controlled) – Motorized central crowning device – Pneumatic tool clamping device (WZS 15100)
Bottom beam	<ul style="list-style-type: none"> – Bottom beam blade, ca. 1100 N/mm² surface-hardened (nitrated), one-piece with finger grooves, minimum gauge 10 mm (WZS 16300)
Back gauge	<ul style="list-style-type: none"> – Motorized back gauge up to 1,600 mm (closed; 2 sectors with pneumatic lowering device, sheet support table with balls; recirculated ball screws ± 0,1 mm)
Others	<ul style="list-style-type: none"> – Standard machine without folding- and clamping beam tools – Foot switch, anchor plates incl. dowels, LED Status display

Special equipment	
Clamping beam	<ul style="list-style-type: none"> – Rotating clamping beam (48°/180°) for 2 tool stations incl. hydraulic tool clamping device on both sides (WZS 2000)
Technology package Up-and-Down	<ul style="list-style-type: none"> – Up' n Down folding beam program-controlled: 2 servo drives for continuous commuting of the folding beam – Operation from the front and the rear – When operating from the front: only up-bends possible – External programming – Up and Down bottom beam blade, one-piece, ca. 1100 N/mm²; 30°, R 1/1,5/3 with finger grooves, minimal gauge 10 mm (WZS 16300) – U-gauge up to 1600 mm (2 sectors, balls in table) – Access security in front via light barriers – 2nd foot switch on rail for lateral movement – Servo-controlled folding center adjustment
Technology package 3D (only with Up-and-Down):	<ul style="list-style-type: none"> – POS 3000 3D Graphic control: DXF-Import and more processor capacity – Suction plates in gauge table with 6 suction units, program-controlled incl. positioning against the folding beam – 2 fixed square arms (left + right side) – 2 pneumatic pop up square arms assembled aisle side, program-controlled
Table and back gauge	<ul style="list-style-type: none"> – Back gauge extension to J- or U-gauge. Basis: motorized gauge up to 1600 mm, closed (see p. 7) – 2 fixed square arms (left + right side) – 2 pneumatic pop up square arms assembled aisle side, program-controlled
Safety	<ul style="list-style-type: none"> – Additional equipment for 2-man-operation in accordance with accident prevention rules – Additional operation from the rear 2nd footswitch + access security in front via light barriers – Customized light barrier package in front, horizontal light curtain aisle side RFID switch thru cabinet door
Others	<ul style="list-style-type: none"> – Foot switch on rail for lateral movement – Voltage transformer 12 kVA and air conditioner – Options for software control see p. 20f and tool options see p. 24–25

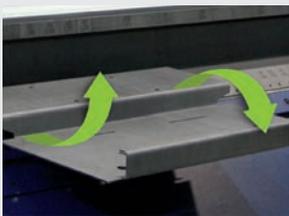
Dimensions and technical data



PowerBend Professional	3,200 x 3.0	4,000 x 2.5
Working length (a)	3,240 mm	4,040 mm
Sheet thickness 400 N/mm ²	3.0 mm	2.5 mm
Machine length (b)	5,700 mm	6,500 mm
Machine height with swivelling arm	2,313 mm	2,313 mm
Machine width with back gauge (c)		
1 600 mm closed table	3,223 mm	3,223 mm
U-1600	3,223 mm	3,223 mm
U or rather J-3200	4,955 mm	-
U or rather J-4000	-	5,743 mm
Weight basic machine (ca.)	7,800 kg	8,700 kg
Weight incl. rotating clampin beam (ca.)	9,200 kg	10,100 kg
Clamping beam		
Geometry	48° (180°)	48° (180°)
Stroke	540 mm	540 mm
Drive power	2 x 2.2 kW	2 x 2.2 kW
Speed	65 mm/s	65 mm/s
Folding beam		
Drive power	2 x 3.0 kW	2 x 3.0 kW
Speed	100 °/s	100 °/s
Folding beam adjustment, motorized	150 mm	150 mm
Folding center adjustment, motorized	+80/-20 mm	+80/-20 mm

Hydraulic too clamping and clamping beam stroke of 540 mm for up to 250 mm high products.

All specifications are considered as guidelines and may be subject to changes at any time.



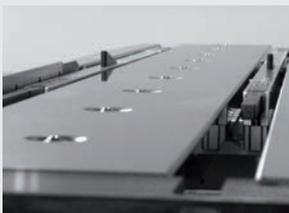
Up-and-Down folding beam

You will love this option: The Up-and-Down folding beam allows counterfolds in one work step, e.g. boxes with Z-bend. Instead of folding only from the bottom up, here the folding beam hits the workpiece from above. Folding from two directions eliminates the need to turn the sheet. Particularly with larger formats, this means fewer helping hands, less muscle power, and fewer risks for the material surfaces. In short: more ergonomics, safety and productivity.



Suctions cups in the back gauge table controlled via POS 3000

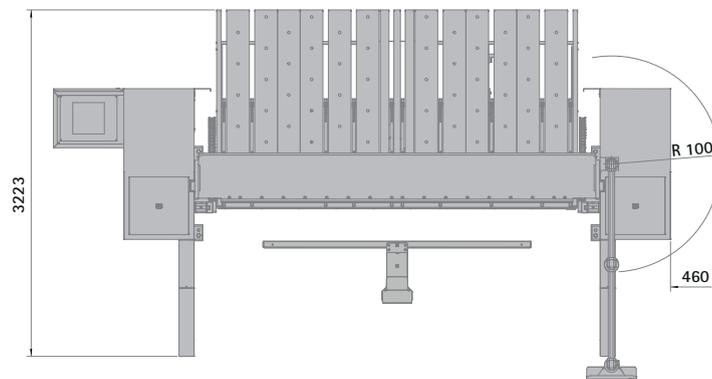
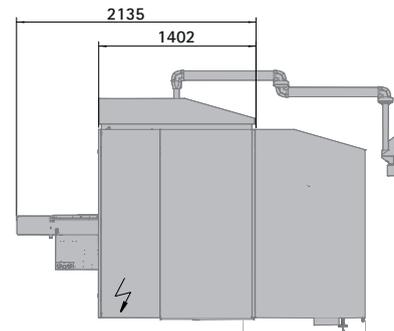
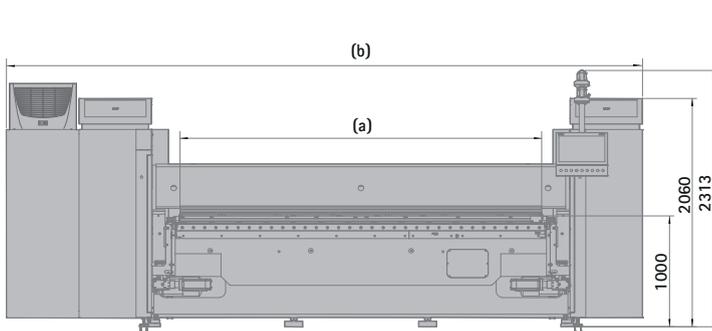
The PowerBend Professional is the only machine in its class that also offers pneumatic fixing of sheets as additional completion of the back gauge: The suction plates in the back auge grip where gauge fingers cannot find a reliable hold, for example because the workpiece has recesses or curves on the stop side. The sheet is suctioned once and, thanks to the intelligent control, all bends on one side run automatically at the push of a button without further handling by the machine operator.



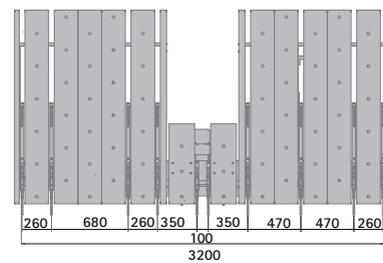
Exact positioning of sheets

In the basic version, the PowerBend Professional offers a sheet support table that allows gauging from 10 to 1,600 mm. The optional fixed angle gauges on the left and right are suitable for folding long, thin sheets at exactly the right angle. For these gauge options, we also offer pneumatically lowerable angle gauges aisle side. In addition, it is possible to extend the back gauge table to a J- or U-shaped table. The basis here is the 1 600 mm back gauge (see p. 7). The high-quality recirculating ball screws achieve a dimensional accuracy of ± 0.1 mm. An extremely helpful function is also the option to gauge against the folding beam, which allows you to measure the side of the workpiece to be bent.

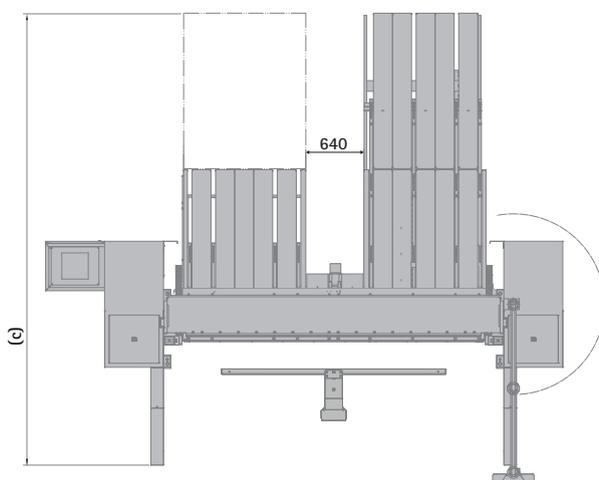
Dimensions: PowerBend Professional



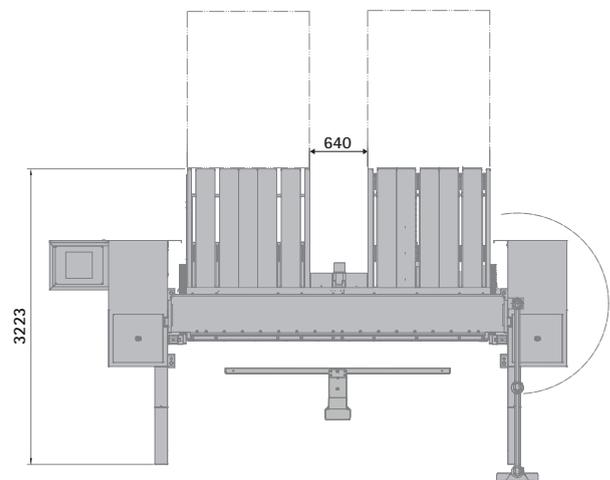
Finger distance for work. length 3240 mm



Options for back gauge extensions



J-shape 3,200/1,600, 4 x 800 mm
 J-shape 4,000/1,600, 5 x 800 mm



U-shape 1,600, 2 x 800 mm
 U-shape 3,200, 4 x 800 mm
 U-shape 4,000, 5 x 800 mm