

# Folding machine PowerBend Universal

The versatile solution for lean sheet metal forming in a wide variety of metal forming applications.



PowerBend Universal

Work. length x Sheet thickn. (400 N/mm <sup>2</sup> )	2,040 x 4.0 mm	3,240 x 3.0 mm	4,040 x 2.5 mm
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Segmented tools provide flexibility for a variety of geometries.

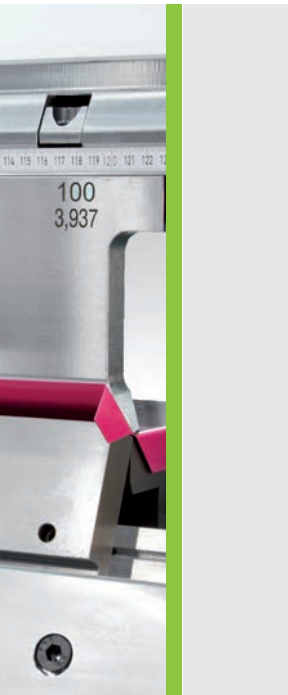
The name says it all: the folding machine PowerBend Universal has been constructed to meet the demands for a wide range of applications. In order to create a machine for all application areas up to 4 mm sheet thickness, Hans Schröder Maschinenbau took advantage of decades of experience in industrial sheet metal working.



Classic Bend control on swivelling arm: a modern, alphanumeric control system

The PowerBend Universal provides the perfect balance between technology and performance. It offers the greatest precision, longevity and an extremely rigid machine body that has been engineered using state of the art tools and finite element analysis.

The path-breaking electronic software control including the radius-step-bending function in standard, can be programmed quickly and easily with no computer skills. Anyone can program with the new software Classic Bend, making it the perfect machine for a wide array of production requirements. This software increases production and efficiency without increased complexity.



Standard equipment	
Software control	<ul style="list-style-type: none"> <li>– Positioning control Classic Bend, touchscreen monitor on swivelling arm</li> <li>– Radius function</li> </ul>
Clamping beam	<ul style="list-style-type: none"> <li>– Drive: 2 x 2.2 kW (converter controlled, 65 mm/sec, recirculated ball screws)</li> <li>– Clamping beam stroke: 350 mm (325 mm with manual clamping device)</li> <li>– Clamping beam geometry: 48° or optional 180°</li> <li>– Manual tool clamping device (WZS 020)</li> </ul>
Folding beam	<ul style="list-style-type: none"> <li>– Drive: 2 x 2.2 kW (converter controlled, 85°/sec)</li> <li>– Manual folding beam adjustment: 80 mm</li> <li>– Manual tool clamping device (WZS 15000/15100)</li> </ul>
Bottom beam	<ul style="list-style-type: none"> <li>– Bottom beam blade, one-piece, ca. 1100 N/mm<sup>2</sup> surface-hardened (nitrated) minimum gauge 10 mm</li> </ul>
Back gauge	<ul style="list-style-type: none"> <li>– Motorized back gauge up to 1,000 mm, pneumatic pop up gauge fingers, sheet support table with balls, recirculated ball screws (<math>\pm 0,1</math> mm)</li> </ul>
Others	<ul style="list-style-type: none"> <li>– Standard machine without folding- and clamping beam tools</li> <li>– Foot switch, anchor plates incl. dowels</li> </ul>

Special equipment	
Software control	<ul style="list-style-type: none"> <li>– Technology package POS 2000 Professional: graphic control with touchscreen on swivelling arm, motorized folding beam adjustment 80 mm, remote maintenance</li> <li>– POS 2000 Professional PC Version (external programming)</li> </ul>
Clamping beam	<ul style="list-style-type: none"> <li>– Hydraulic tool clamping device (WZS 2000)</li> </ul>
Folding beam	<ul style="list-style-type: none"> <li>– Power-Package folding beam (only for working length 3,200 mm): increases the bending capacity by 1 mm: reinforced drive incl. folding blade 35 mm, ca. 1100 N/mm<sup>2</sup> (in combination with sharp-nose blade WZS 020, bending angle restriction to max. 140°)</li> <li>– Pneumatic tool clamping device (only in combination with WZS 15100)</li> <li>– Motorized folding beam adjustment: 80 mm</li> <li>– Manual central crowning device</li> <li>– Motorized central crowning device (Requirement: Technology package POS 2000 Professional)</li> </ul>
Table and back gauge	<ul style="list-style-type: none"> <li>– Motorized back gauge up to 1,600 mm (closed; 2 sectors with pneumatic lowering device, sheet support table with balls; recirculated ball screws <math>\pm 0,1</math> mm)</li> <li>– Back gauge extension to J- or U-gauge. Basis: motorized gauge up to 1600 mm, closed (see p. 11)</li> <li>– 2 fixed square arms (left + right side)</li> <li>– 2 pneumatic pop up square arms assembled aisle side (only in connection with POS 2000 Professional)</li> </ul>
Safety	<ul style="list-style-type: none"> <li>– Additional equipment for 2-man-operation in accordance with accident prevention rules</li> <li>– Additional operation from the rear 2nd footswitch + access security in front via light barriers</li> </ul>
Others	<ul style="list-style-type: none"> <li>– Foot switch on rail for lateral movement</li> <li>– Voltage transformer and air conditioner</li> <li>– Options for software control see p. 20f and tool options see p. 24-25</li> </ul>

# Dimensions and technical data



PowerBend Universal	2,000 × 4.0	3,200 × 3.0	4,000 × 2.5
Working length (a)	2,040 mm	3,240 mm	4,040 mm
Sheet thickness (400 N/mm <sup>2</sup> )	4.0 mm	3.0 mm	2.5 mm
Machine length (b)	3,970 mm	5,170 mm	5,970 mm
Machine height	1,553 mm		
Working height	1,000 mm		
Machine height with swivelling arm	2,163 mm		
Weight basic machine (ca.)	5,800 kg	7,100 kg	8,080 kg
Machine width with back gauge (c)			
1 000 mm closed table	3,097 mm		
1 600 mm closed table	3,097 mm		
U-1600 mm	3,097 mm		
U or rather J-3200 mm	-	4,829 mm	-
U or rather J-4000 mm	-	-	5,617 mm
Clamping beam			
Geometry	48° (180°)		
Stroke	350 mm (325 mm with manual clamping device)		
Drive power	2 × 2.2 kW		
Speed	65 mm/sec		
Folding beam			
Drive	2 × 2.2 kW		
Speed	(85°/sec)		
Folding beam adjustment, manual/motorized	80 mm		

Standard tools can also be used to form rounded edges.

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



## PowerPackage folding beam

The „power package“ of the PowerBend Universal expands your range of applications. With the reinforced drive and the adjusted folding blade, you effortlessly process up to 4 mm thick sheet steel. To achieve a consistent bending result over the entire working length, it is good to be able to adjust the folding beam. This can be achieved by the optionally available manual or motorized central crowning system.



## You are going into series production?

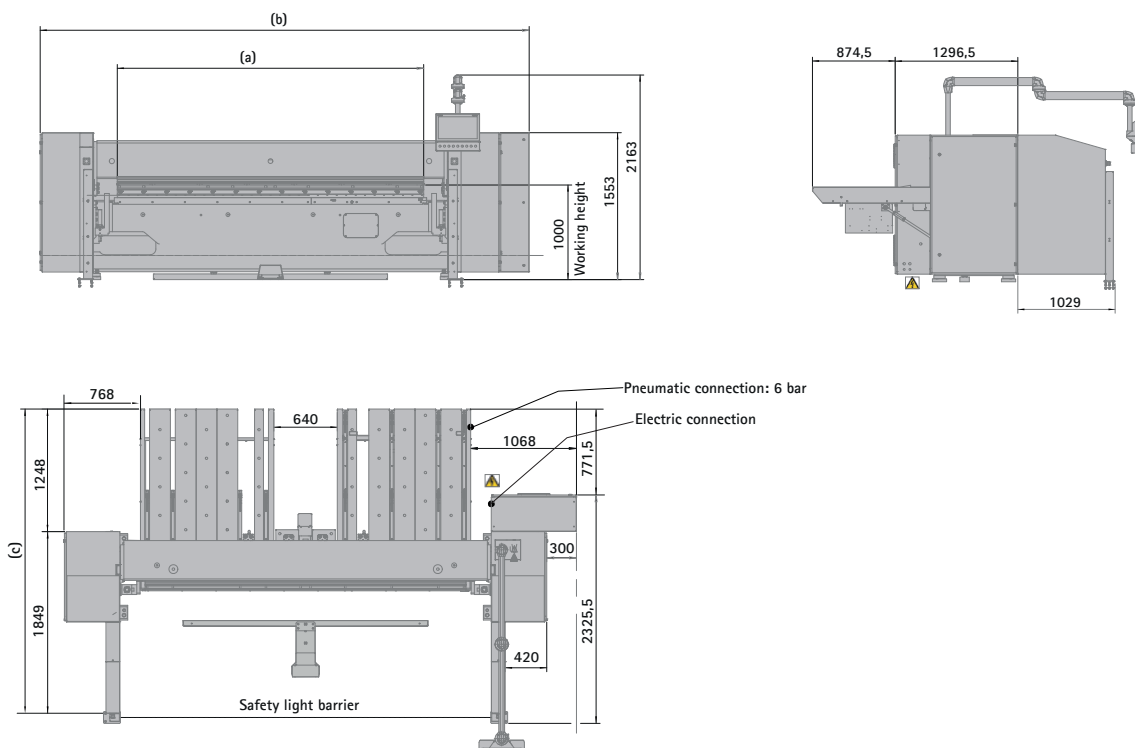
A motorized back gauge, in the standard version up to 1,000 mm or optionally up to 1,600 mm, is equipped with high-quality recirculated ball screws to achieve an accuracy of  $\pm 0.1$  mm. This guarantees repeatability in series production. For gauge options from 1,600 mm, the stops are divided into two or more sectors, each of which is pneumatically lowered as required. Sheet support tables with balls make handling easy and gentle on the material. In addition, there is the option of extending the table and back gauge to a J or U-shaped table. The basis here is the 1,600 mm closed table (see p. 11).



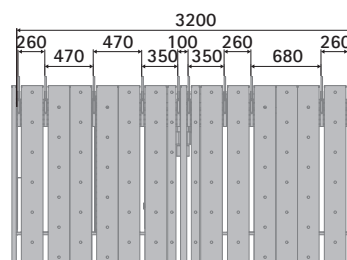
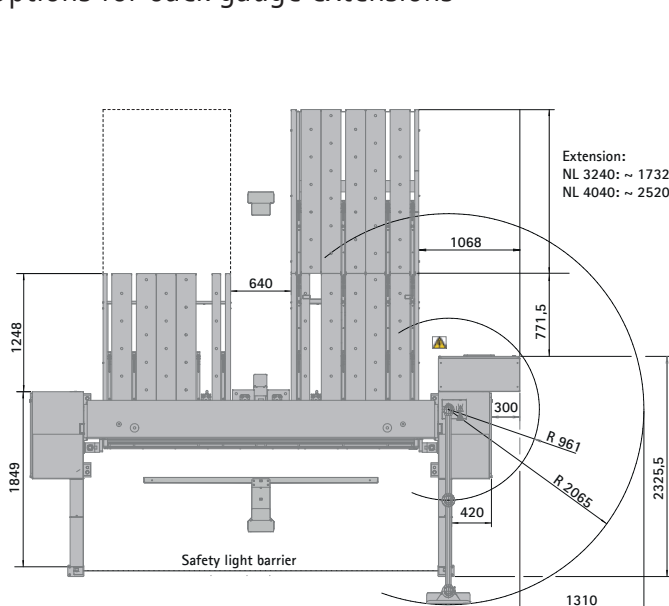
## Segmented tools

Thanks to its superior drive technology, the machine can handle the most difficult materials. In order to be able to conveniently produce even complex workpieces, we offer you segmented tools. In combination with the pneumatic tool clamping for the folding beam, these tools open up even more space, and the optionally available hydraulic tool clamping on the clamping beam shortens your setup times.

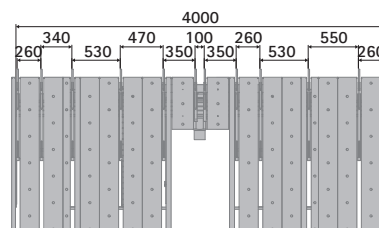
## Dimensions: PowerBend Universal



## Options for back gauge extensions



Gauge table 1,600 mm, closed



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