

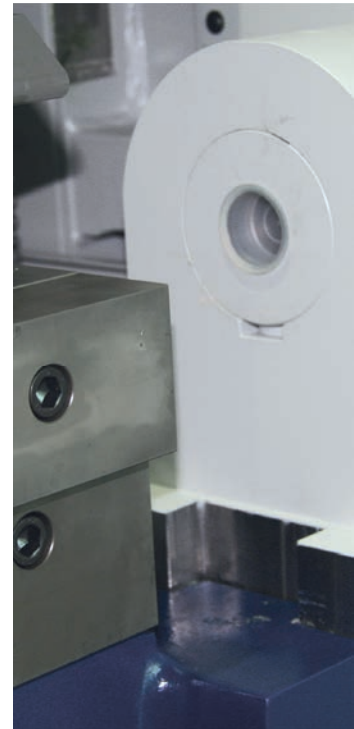
FOLDING MACHINE  
**MAK 4**

# The motorized folding machine MAK 4

The MAK 4 can be described as the most powerful and precise folding machine amongst all Schröder folders. With a maximal working length of 4000 mm and a maximum bending capacity of 6,0 mm steel sheet, the giant is designed for a hard and double shift day.



Motorized folding machine MAK 4 with POS 2000 Professional control software as standard



The lowerable folding beam is necessary to bend bigger radii precisely.

The MAK 4 is called the flagship amongst Schröder folding machines and combines the long-term experiences of metal forming with state-of-the-art technology.

The Schröder software POS 2000 Professional makes it possible to bend precise roundings via a Step-Radius-Bending method using the clamping beam that presses the sheet against the bottom- and the folding beam - the high dimensional accuracy of the bending results are only one advantage that this machine offers.

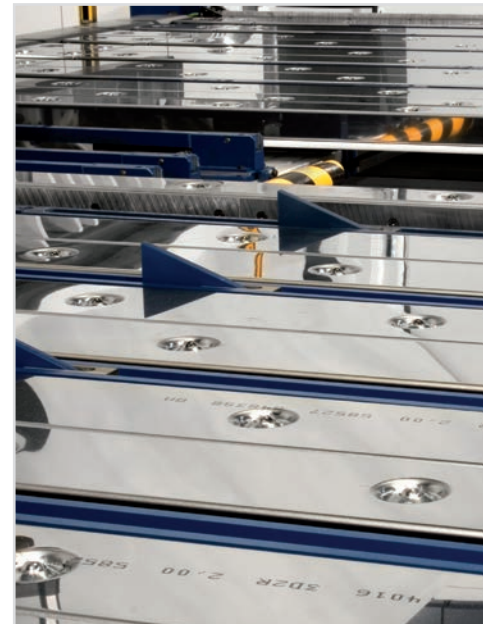
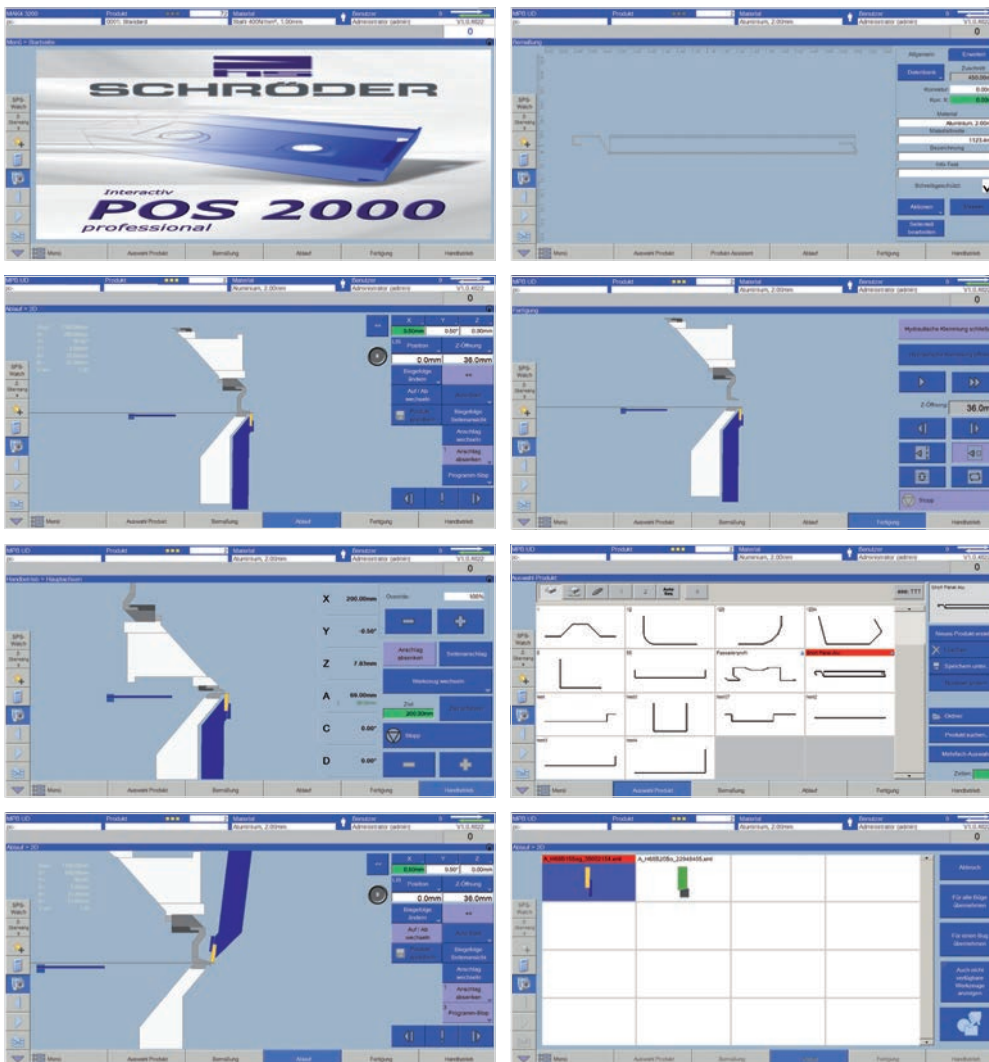


Standard equipment	
Software control	- Graphic control POS 2000 Professional on swivelling arm
Clamping beam	- Sharp nose blade 30°, R 1,5, 1100 N/mm <sup>2</sup> - Clamping beam with recirculated ball screws - Tool clamping device, hydraulic
Folding beam	- Folding blade 42 mm, divided, 1100 N/mm <sup>2</sup> - Folding beam drive, bilateral - Motorized folding beam adjustment, program controlled - Central crowning device, manual
Bottom beam	- Bottom beam blade, one-piece, 1100 N/mm <sup>2</sup>
Back gauge	- POS 2000 Professional control with positioning gauge 10 - 1000 mm incl. sheet support table
Others	- Piece counter - Tool set - Foot switch - Anchor plates

Special equipment	
Tool system	- Crowning device for folding beam - central adjustment, motorized - Motorized bottom beam adjustment, programm controlled
POS 2000 Professional Options	- Radius-Step-Bending function - PC version (external programming), 1. licence - PC version, further licence - POS 2000 Professional Plus DXF-Import and more processor capacity - Remote maintenance (connection via RJ45 network cable to be provided by customer)
Gauge	- Sheet support table with balls 10 - 1000 mm or 10 - 1600 mm - POS 2000 Professional with gauge 10 - 1600 mm and 2 gauge sectors with pneumatic lowering device
	Back gauge extension to J- or U-gauge. Basis: POS 2000 Professional 10 - 1000 mm Configuration: Several gauge sectors with pneumatic lowering device, angle gauge, balls in table
	2 pneumatic pop-up square arms aisle side, program controlled
Safety & Others	- Additional equipment for 2-man-operation control in accordance with accident prevention rules required - 2nd footswitch for operation from the rear - footswitch on rail for lateral movement - 2-beam light barrier protection to the front at operation from the rear - Tool cart for blades, and segmented tools

# POS 2000 Professional

Intelligent graphic control for efficient processing



Suited to your standard sheet formats we offer different gauge systems with pneumatic pop-up gauge fingers and ball rollers for an easy and smooth movement of the work piece.

Graphic control POS 2000 Professional: The result is always in front of your eyes – from the first steps to simulation.

The MAK 4 owes its processing speed and efficiency to the powerful POS 2000 Professional control. The graphical user interface makes even the most complex of jobs simple to program and run.



The easy to understand graphics present a clear visual interaction between the part, the machine, and the tools. Sophisticated parts are easily understood.

The POS 2000 Professional provides a visual interface for the operator and programmer. Through it, every step of the bending process is clearly shown. The graphics show the part as it is formed around the tooling and machine. The product is confirmed in a virtual mode prior to putting the sheet on the back gauge table, so the operator can form the part with 100% confidence.

Part processing is as simple as following the on screen visual and written queues. From loading the sheet in the proper orientation, through each and every bend, the POS 2000 shows how to progress through each and every step of the part.

In short: Whether programming, running a simulation for a feasibility check or time study, or manipulating a part on the machine, the POS 2000 Professional supports your operation like no other can.



## POS 2000 Professional

- Windows 7 operating system
- Unlimited profile storage
- Automatic cut length calculation
- Unlimited tool storage and materials library
- Accurately scaled virtual bending simulation
- Zoom function
- Infinitely variable machine speed

## Options

- Radius-Step-Bending-function
- External programming  
(POS 2000 Professional PC-Version)
- Remote connect for maintenance and training

# Tools and technical data

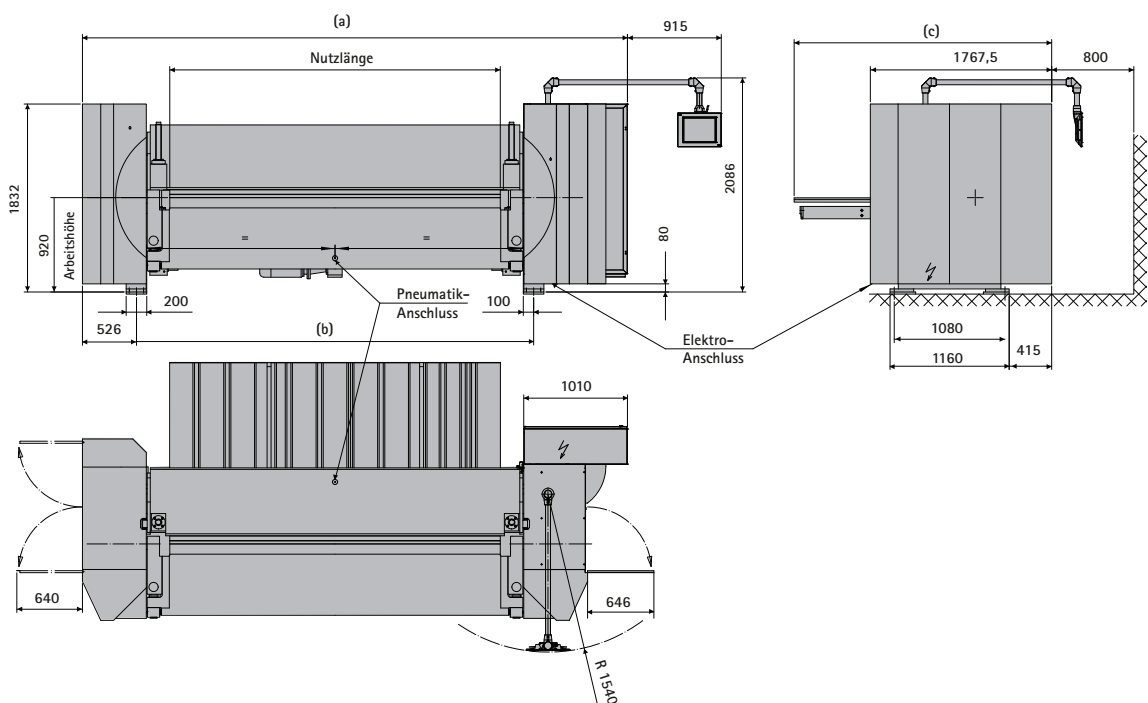
For every task the suitable a tool – with the high-quality segmented tools from Schröder your are folding exactly and bend radii with highest precision.

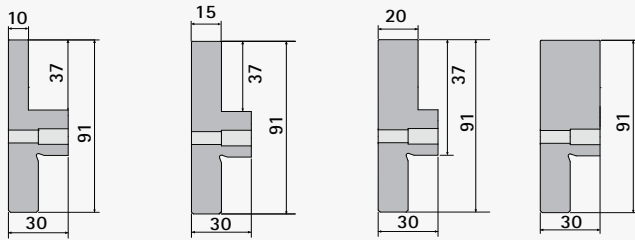
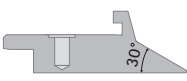
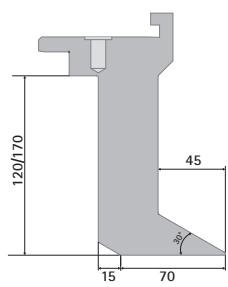
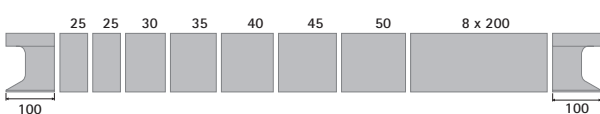


MAK 4	2,000 x 6.0	3,200 x 6.0	4,000 x 5.0
Working length	2,020 mm	3,220 mm	4,020 mm
Sheet thickness (400 N/mm <sup>2</sup> )	6.0 mm	6.0 mm	5.0 mm
Weight	4,370 kg	8,880 kg	10,900 kg
Machine length (a)	4,110 mm	5,310 mm	6,110 mm
Hole fixings (b)	2,670 mm	3,870 mm	4,670 mm
Machine width POS 2000 Professional			
Back gauge, 1,000 mm	2,510 mm		
Back gauge, 1,600 mm	2,600 mm		
Back gauge, 3,200 mm	4,460 mm		
Back gauge, 4,000 mm	5,320 mm		
Standard colour	RAL 7035 light grey RAL 5003 sapphire blue		

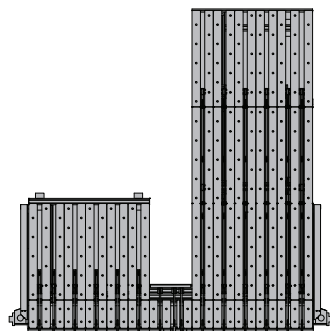
Lowerable folding beam

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

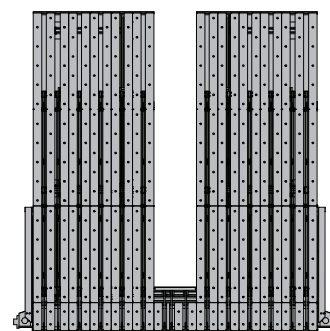


Tool options	
Bottom beam tools	Bottom beam blade, segmented clearance 30 mm, surface-hardened, ca. 1100 N/mm <sup>2</sup>
Folding beam tools (WZS* 3000), ca. 1100 N/mm <sup>2</sup> surface-hardened	 <p>Folding blade, segmented 10/15/20/30 mm, 91 mm high, ca. 1100 N/mm<sup>2</sup></p>
Clamping beam tools (WZS 2000), hydraulic tool clamping, ca. 1100 N/mm <sup>2</sup> surface-hardened	 <p>Sharp-nose blade 30°, R 1/1,5/3, divided</p>  <p>Goat's foot blade 120 or 170 mm high, 30°, R 1/1,5/3, foot width 85 mm, clearance 45 mm</p>  <p>Example: segmentation of a goat's foot tool for a working length of 2,040 mm (segmentation varies according to working lengths)</p>

### Special configuration: extensions



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



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

All dimensions in mm

Standard colour: RAL 7035 light grey, RAL 5003 sapphire blue. Special painting at an extra charge



## Schröder Group

The Schröder Group consists of Hans Schröder Maschinenbau GmbH, which is located in Wessobrunn, Germany, and SCHRÖDER-FASTI Technologie GmbH, which is located in Wermelskirchen, Germany.

Founded in 1949, Hans Schröder Maschinenbau GmbH unifies traditional and modern approaches in machine building: Successfully managed as a quality and customer-oriented, family-owned company, Hans Schröder Maschinenbau is specialized in the development of modern machine concepts for bending and cutting sheet metal.

The successful integration of the Fasti Company in 2006 and its worldwide presence make the Schröder Group one of today's leading providers of machines for bending, cutting, beading, flanging, and circular bending all types of sheet metal. The company's precision machines range from proven solutions for craftsmen to innovative, high-performance machines for automatic industrial production processes. Overall, the Schröder Group currently employs more than 240 people at various locations at home and abroad.

All information provided as a guide only  
and subject to change at all times.  
14-1832-HSM 140206ENv01

**Hans Schröder Maschinenbau GmbH**  
Feuchten 2 | 82405 Wessobrunn-Forst | Germany  
T +49 8809 9220-0 | F +49 8809 9220-700  
E [info@schroedergroup.eu](mailto:info@schroedergroup.eu)  
[www.schroedergroup.eu](http://www.schroedergroup.eu)

**SCHRÖDER**  
GROUP