



UNIVERSAL FOLDING MACHINE  
**SPB Evolution**

# SPB Evolution

The SPB Evolution and the SPB Evolution UD are further developments of our proven ServoPowerBend concept: versatile industrial folding machines that unify power, speed, and precision.



The SPB Evolution series opens up new possibilities in sheet metal forming to your company. Hans Schröder Maschinenbau GmbH has combined the experience it has collected in the area of folding over the years with pioneering innovations: Precise linear drives and graphical programming, options like the rotating clamping beam, automatic tool changer, and the up-and-down folding beam. All of these are options to help make your production faster, more efficient, and more flexible.

It's no coincidence that the SPB Evolution is one of our most popular industrial solutions. Multi-shift operation, industrial serial production, complex processing of stable metal sheets – the SPB Evolution provides the availability and robustness required for

these challenges. At the same time, it features a high degree of flexibility during re-equipping, thanks to the rotating clamping beam and the optional automatic tool changer.

## **SPB Evolution UD: Up-and-down technology increases productivity**

Minimize the costs of handling large metal sheets on the machine and take advantage of Schröder's up-and-down technology. More processing steps in shorter times.



SPB Evolution*	2 500 x 5,0	3 200 x 4,0	4 000 x 3,0
Working length	2,540 mm	3,240 mm	4,040 mm
Sheet thickness 400 N/mm <sup>2</sup>	5.0 mm	4.0 mm	3.0 mm
Length	5,156 mm (5,632 mm)	5,856 mm (6,332 mm)	6,656 mm (7,132 mm)
Width	2,380 mm	2,380 mm	2,380 mm
Width with U shape 1,700 mm (Width with U shape)	3,350 mm (4,300 mm)	3,350 mm (5,150 mm)	3,350 mm (6,000 mm)
Machine height	2,290 mm	2,290 mm	2,290 mm
Basic machine weight	10,405 kg (10,705 kg)	11,960 kg (12,260 kg)	13,050 kg (13,350 kg)
<b>Clamping beam</b>			
Geometry	45° (180°)	45° (180°)	45° (180°)
Stroke	650 mm	650 mm	650 mm
Drive power	2 x 4.24 kW	2 x 4.24 kW	2 x 4.24 kW
Speed	100 mm/s	100 mm/s	100 mm/s
Clamping force	35 to	35 to	35 to
<b>Folding beam</b>			
Drive power	2 x 5.5 kW (2 x 8.17 kW)	2 x 5.5 kW (2 x 8.17 kW)	2 x 5.5 kW (2 x 8.17 kW)
Speed	150°/s	150°/s	150°/s
Folding beam adjustment	80 mm (200 mm)	80 mm (200 mm)	80 mm (200 mm)
Folding centre adjustment	80 mm	80 mm	80 mm

The rotating clamping beam featured by the SPB Evolution includes a second set of tools.

\* Differing specifications for the SPB Evolution UD are featured in brackets.

### Options for shortening equipping times: rotating clamping beam or automatic tool changer

Quickly changing jobs or complex tasks with diverse folding tools – the SPB Evolution features a second set of tools in the rotating clamping beam. Where other folding machines need to be re-equipped, the SPB Evolution simply continues its work. Another advantage: The rotating clamping beam provides you with an alternative machine geometry featuring different free spaces.

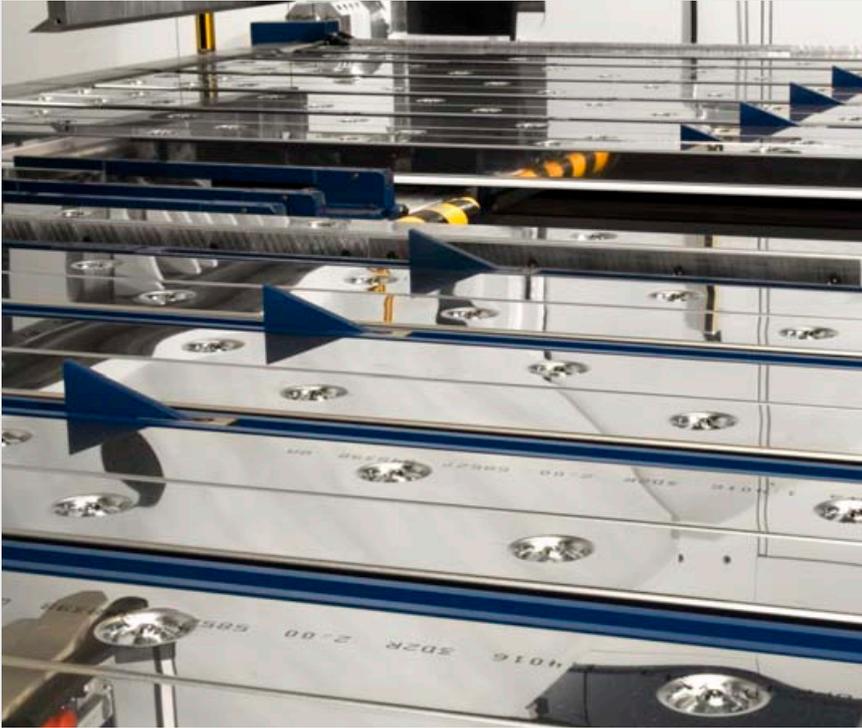
In case of frequent tool changes, we have another option for you: Instead of the rotating clamping beam, the SPB Evolution can be equipped to be even faster and more flexible with an automatic tool changer.

### Visual aids help programming: 3D graphical control

Schröder's POS 3000 3D graphic control enable you to program complex, multi-step sheet metal forms comfortably and reliably. The graphical simulation enables you to check every step in advance. This ensures the highest level of quality from the first bend.

### Your individual solution: Speed Optimizer and central crowning device

The SPB Evolution features interesting details – the expanded clamping beam opening height of 650 mm, a strong drive, and many options like the central crowning device, Speed Optimizer, or variations on the back and front stops ensure industrial sheet metal folding perfection.



To complement your typical sheet metal formats, we offer a variety of back stop systems featuring pneumatic retracting finger stops..



The right tool is the key to success: If required, we can add customer-specific developments to the wide range of tools we offer.

## Simplified use and automation

The SPB Evolution is arranged entirely for efficient industrial production. The goal is to reduce the number of manual actions.

With conventional folding machines, the sheet needs to be turned manually in case a bend in the opposite direction is planned. Even a simple Z fold becomes a challenge if an employee needs to turn a four-meter wide sheet of metal for this purpose.

We provide the solution: The SPB Evolution UD (up-and-down) bends up and down in a single process. This saves numerous manual actions, simplifies handling of cumbersome work pieces, shortens throughput times, and reduces costs of pieces.

### Front gauge system

Our folding beam tools with retracting finger stop is a very popular feature of the SPB Evolution, since these provide the operator with a front stop function for even more precise handling.

### Automatic tool changer

As an option, SPB Evolution and SPB Evolution UD are available including automatic tool changers. Two rotating units operated via highly precise linear drives remove the tools from the magazine using three gripper arms each and then position them in the clamping and folding beams or disassemble the current tools. Especially by using segmented tools, you can increase the speed of your work and minimize downtimes.

All information about products, upcoming orders, and the tools to be equipped are received by the tool changer via our POS 3000 control software.



Segmented tools – unique solutions are also available upon request



For fine tuning: central crowning device

## The right tools and accessories for any job

The SPB Evolution is a flexible platform that can be customized using tools, options, and accessories to requirements specific to production.

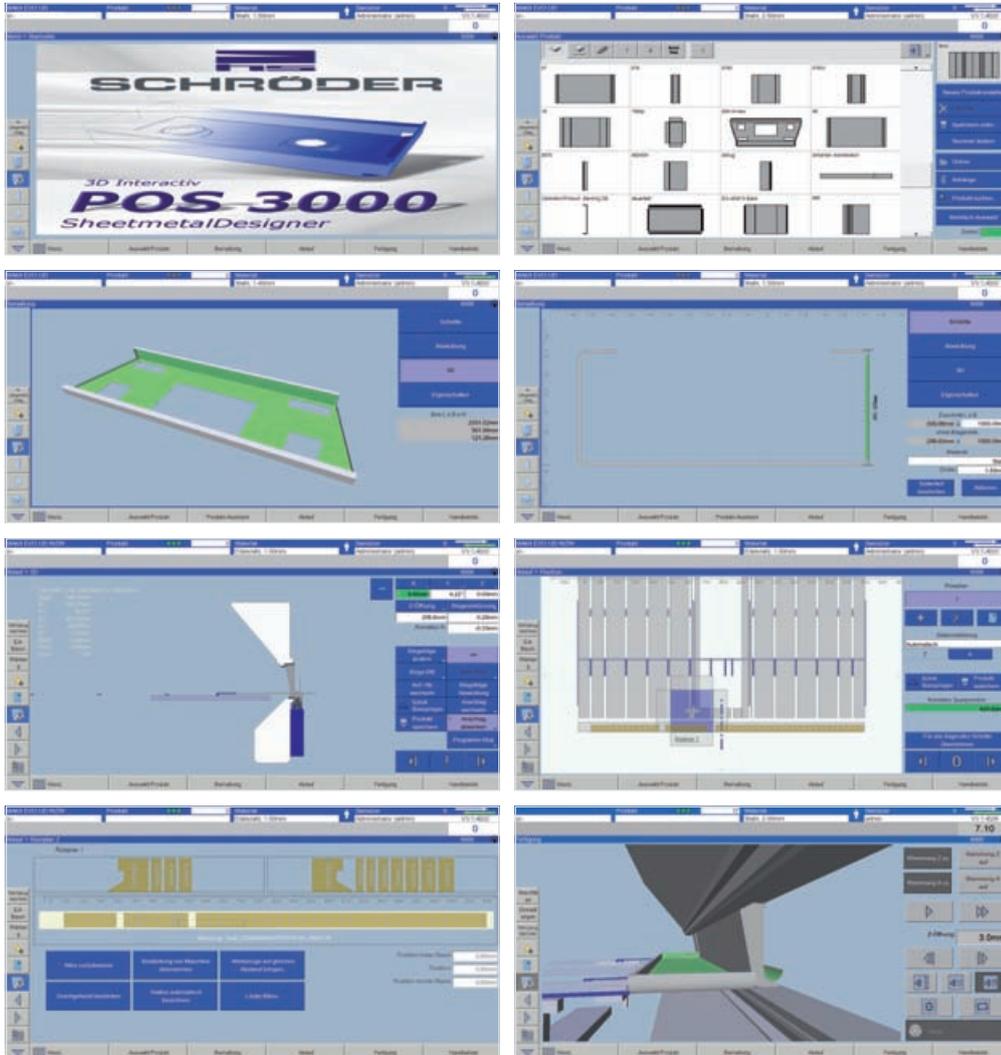
The extensive equipment includes POS 3000 3D graphical control, folding centre and motorized folding beam adjustment, positioning back stops arranged between U shape and sectors, left and right lateral angle gauges, removable support sheets, hydraulic tool clamping, pneumatic pop-up stop fingers, manual central crowning device, and a protection via light curtain controlled by safety-PLC for work safety. A big help with handling: the clever front stop function via retractable stop finger elements in the folding beam.

## The tools and options open up even more possibilities to you

- **Special accessories**
  - Motorized crowning device, central adjustment
  - Z-axis drive Speed Optimizer (up to 120 mm/s axis speed)
  - Tool cart for blades, rails and segmented tools
- **Stop**
  - 2 pneumatic pop up square arms assembled at innerside of U-back stop
  - Front stop feature for folding beam
- **Clamping beam tools**
  - Sharp noose blade (20/30°)
  - Goat's foot blade (120/180/300 mm, segmented incl. corner parts)
- **Bottom beam tools**
  - One piece bottom beam blade
  - Segmented bottom beam blade
- **Folding beam tools**
  - Folding blade 30/40 mm, divided or segmented
  - Folding blade 10/15/20 mm, segmented or in one piece
  - Folding blade 20 mm, 30° segmented

# Programming top performance

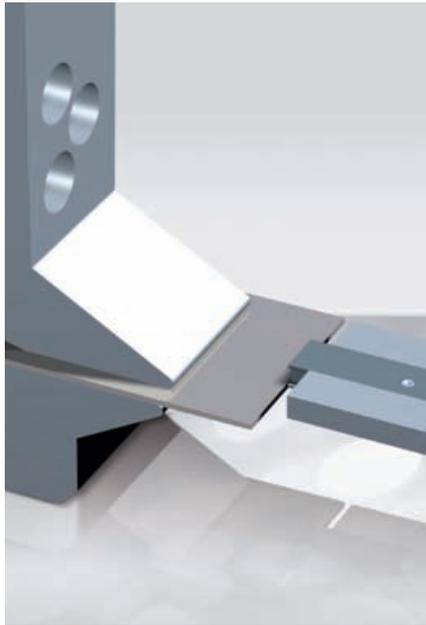
Visualize quality: POS 3000 3D graphical control with simulation



Numerous possibilities: "up-and-down" technology and large opening heights create new possibilities.

POS 3000 3D graphical control: see the results with your own eyes, from the first steps up until the simulation

Only the correct software makes hardware into a flexible, easy to operate solution. With their POS 3000 3D graphical control, sheet metal folding specialist Schröder has developed one of the most powerful control on the market, and because both the hard and software come from a single provider, the SPB Evolution and POS 3000 3D graphical control are a perfect match.



Clever: Front stop feature via retracting fingers in the clamping beam tool



## Highlights

- 3D graphical control including a schematic depiction of the machine, tool, and work pieces
- Intuitive, visual touchscreen programming
- 3D bending simulator for visual program inspection
- Tool equipping programming and controls for automatic tool changer
- Cycle time calculator
- High-speed data transmission to frequency inverters (Ethernet Power Link)
- PC version, CAM connection, ERP/PPS interfaces, and DXF converter available
- Remote maintenance via Schröder's software service

Special feature: Program graphically with the POS 3000. The machine, tool, and work piece are all clearly displayed. Since ultimately, we know that: operating staff and preparation employees have a better eye for products and not for IT programming lines. That's why your employees bend visually beforehand on the screen and check the result in the 3D bending simulator, which means they can be sure that the sheet metal will be processed perfectly from the first bend. Bending programs that have already been created can be called up again quickly, checked visually, and corrected according to material requirements.

Do you want to learn more about the POS 3000 3D graphical control? Please read our software brochure, or better yet: Allow us to show you live how the POS 3000 can help optimize your production.



## 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.  
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