

SCHRÖDER
GROUP



FOLDING MACHINE
MAKU

MAKU

The new, versatile motorized folding machine of the MAK - series is perfect for sheet metal processing in small- and medium-sized workshops.



In the standard version the MAKU is equipped with the nano Touch-control – this makes it an extremely versatile machine.



The new, motorized folding machine MAKU of the MAK-series convinces with its robust and stable construction. The „U“ in its name was intentionally chosen and stands for „Universal“: This folding machine is designed to meet the demands of sophisticated handicraft businesses. Its flexibility for applications up to 1.5 mm steel is the result of Hans Schröder Maschinenbau's decades of experience in industrial sheet metal folding machines.

The MAKU offers optimum precision, longevity and stability. Its extremely rigid machine bodies were engineered according to state-of-the-art technology.

This versatile machine is a safe investment into motorized sheet metal processing – and in the future of your company. For companies that rely on highest flexibility: Tools can be retrofitted easily at any time. Thanks to its adaptability the MAKU can be utilized for thin sheet metal processing.

The path-breaking electronic software control, that already masters radius bending in its standard, can be programmed quickly with no computer skills. The MAKU is the motorized folding machine for increased efficiency in your production.

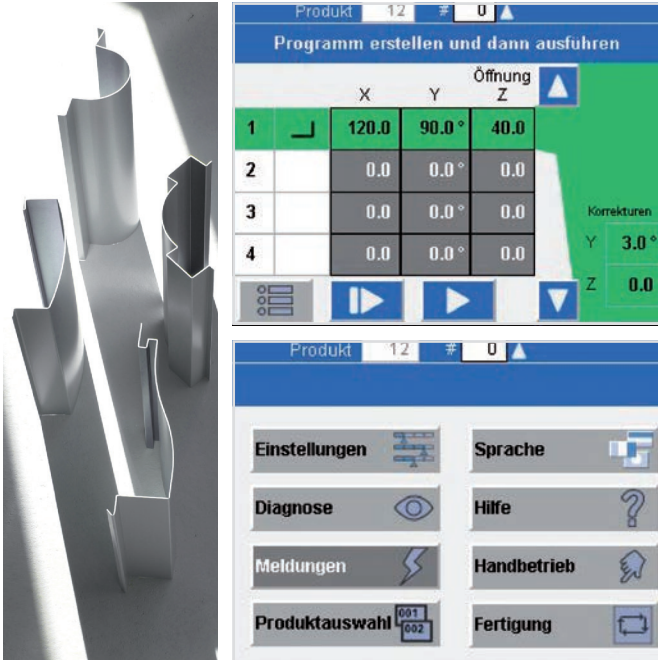
The MAKU is an easy to operate, robust folding machine with little tool costs and a unique range of options.

Standard equipment	
Software control	<ul style="list-style-type: none"> - nanoTouch-control with touchscreen turnable on switch cabinet - Radius function
Clamping beam	<ul style="list-style-type: none"> - 45° clamping beam with clearance 65 mm at the rear - Drive: middle motor 0.75 kW - Clamping beam stroke: 150 mm - Clamping pressure adjustment via handwheel (without tools) - Clamping beam tools WZS 080: tinsmith blade or optionally sharp nose blade 20°, ca. 700 N/mm², directly screwed to clamping beam
Folding beam	<ul style="list-style-type: none"> - Drive: 1.5 kW (controlled through contactors) - Manual adjustment: 30 mm - Folding blades 10 mm and 25 mm WZS 100 (from MAKU 3200: 15 mm and 25 mm); 700 N/mm²
Bottom beam	<ul style="list-style-type: none"> - Bottom beam with clearance 54 mm at the rear - Bottom beam blade WZS 270, one-piece, ca. 700 N/mm², at 30 mm step 8 mm, depending on chosen back gauge <ul style="list-style-type: none"> - without finger grooves - with finger grooves 6 mm or optionally 10 mm
Others	<ul style="list-style-type: none"> - Foot switch - Anchor plates incl. dowels

Special equipment	
Software control	<ul style="list-style-type: none"> - POS 2000 Professional graphic control on swivelling arm
Clamping beam	<ul style="list-style-type: none"> - Multi-stage drive for different tool heights incl. clamping rail for tool systems WZS 010 - Clamping beam tools: <ul style="list-style-type: none"> - Goat's foot blade: 90 mm and 130 mm - Radius blades R2 - R5
Folding beam	<ul style="list-style-type: none"> - Shifted back incl. cranked folding blades WZS 130 - Manual crowning device, central (not in combination with cranked folding blade) - Cutting device incl. linear guide (0.8 mm St37)
Safety	<ul style="list-style-type: none"> - 2-man-operation - Foot switch on rail for lateral movement
Back gauge and table	<ul style="list-style-type: none"> - Sheet support table 1,000 mm (without gauge) - Back gauge motorized 6 - 1,000 mm or optionally 10 - 1,000 mm - Pneumatic lowerable gauge fingers - Manually adjustable back gauge fingers for conical bending - Back gauge with spring fingers - Sheet support table with ball rollers

nano Touch

The most clearly laid-out alphanumeric control



Simple symbols and alphanumeric data describes the bending program.

The nano Touch is a modern alphanumeric touch screen control. Self-explanatory and very easy to operate. A path measurement system controls the machine axes, programming from flange to flange. A clearly laid out user interface with easy to understand icons with text and numeric displays eases the operator through his day of running jobs.

Corrections for angle and flange length are entered per part or per bend for even more accuracy control. The nano Touch is proof positive that sometimes simple is better. Hans Schröder Maschinenbau is setting new control standards for companies needing the advantages of folding as a process, but does not need the sophistication of a high end control system.

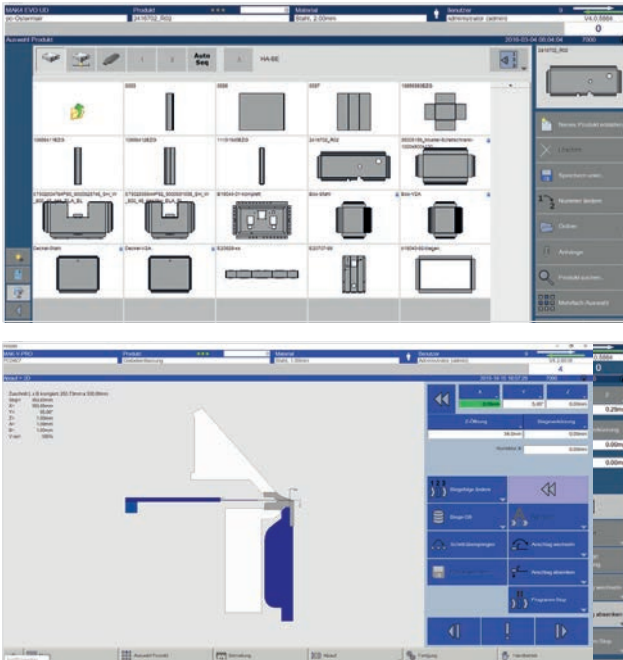


nano Touch

- Store up to 9,999 programs, each program up to 99 bends
- Icon based programming
- Part corrections per bend, or per program
- Bend list with current bend highlighted
- Piece counter
- Positioning control with monitor turnable on switch cabinet

POS 2000 Professional

The graphical solution to your complex forming needs



POS 2000 Professional keeps the operator informed, from programming to the running part.

For parts requiring graphical assistance to program and manipulate through the bending sequence, 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 Professional shows how to progress through each and every step of the part.



POS 2000 Professional

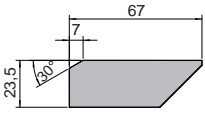
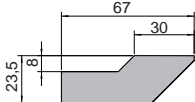
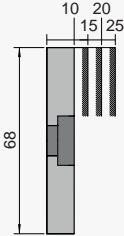
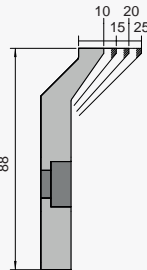
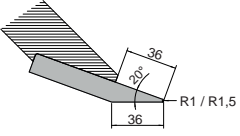
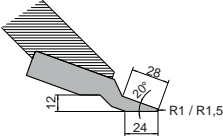
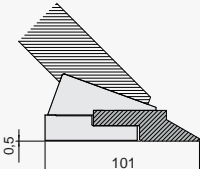
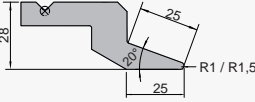
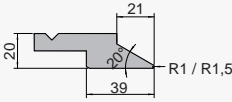
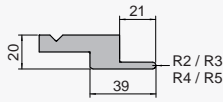
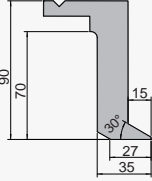
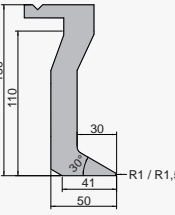
- Windows 7 operating system
- Unlimited profile storage
- Unlimited tool storage
- Unlimited materials library
- Automatic cut length calculation
- Accurately scaled virtual bending simulation
- Zoom function
- Optimization of all machine axes
- Infinitely variable machine speed
- Radius function (additional crowning device recommended)

Options

- PC version for offline programming
- Remote maintenance

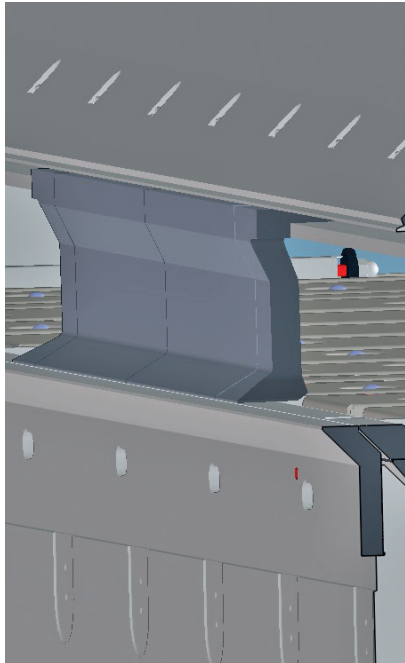
Tools

We offer you the perfect tools for your requirements.

Tool options				
Bottom beam tools (WZS* 270)		Blade one-piece H = 23.5 mm with or without finger grooves, ca. 700 N/mm ²		Blade one-piece H = 23.5 mm, 8 mm step, with or without finger grooves, ca. 700 N/mm ²
Folding beam tools		Folding blade (WZS 100) one-piece, directly screwed, 10/15/20/25 mm, 68 mm high, ca. 700 N/mm ²		Folding blade cranked (WZS 130) one-piece, directly screwed 10/15/20/25 mm, 88 mm high, ca. 700 N/mm ²
Clamping beam tools (WZS 080)		Sharp-nose blade one-piece, directly screwed, 20°, sharp or R1/R1.5/3, foot width 36 mm, ca. 700 N/mm ²		Tinsmith blade one-piece, directly screwed, 20°, sharp, R1 or R1.5, foot width 24 mm, clearance 12 mm ca. 700 N/mm ²
Clamping beam tools for clamping rail (WZS 010)		Tool clamping for WZS 010		Tinsmith blade one-piece, 20°, sharp, R1 or R1.5, foot width 25 mm, clearance 8 mm
		Sharp-nose blade one-piece, 20° sharp, R1 or R1.5, foot width 39 mm, ca. 700 N/mm ²		Radius blade R2/3/4/5 ca. 700 N/mm ²
		Goat's foot blade 30° sharp, 90 mm high, foot width 35 mm, clearance 15 mm, segmented incl. corner parts, ca. 1100 N/mm ²		Goat's foot blade 30°, sharp, R1 or R1.5, 130 mm high, foot width 50 mm, clearance 30 mm, segmented incl. corner parts ca. 1100 N/mm ²

* WZS = Toolsystem

Dimensions and technical data

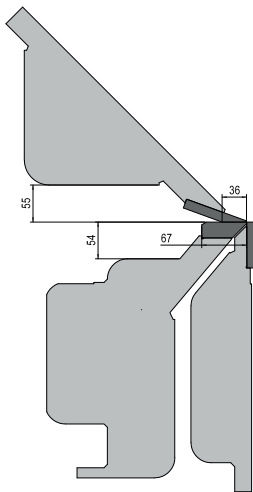


MAKU	2,500 x 1.5	3,200 x 1.5
Working length (a)	2,520 mm	3,220 mm
Sheet thickness (400 N/mm ²)	1.5 mm	1.5 mm
Machine length (b)	3,775 mm	4,475 mm
Length of working area (c)	2,920 mm	3,620 mm
Machine height (d)	1,255 mm	
Working height (e)	870 mm	
Machine width		
Without gauge	995 mm	
Sheet support table 1,000 mm	1,970 mm	
Back gauge, motor. 1,000 mm (f)	1,970 mm	
Clamping beam		
Stroke	150 mm	
Drive power	0.75 kW	
Speed	65 mm/sec (85 mm/sec)	
Folding beam		
Adjustment	30 mm	
Drive power	1.5 kW	
Speed	65°/sec (90°/sec)	

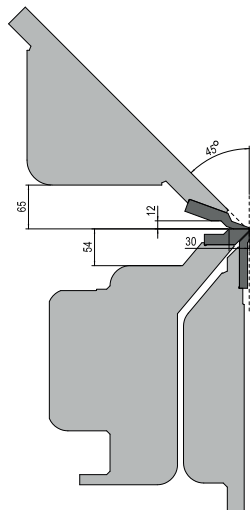
Cross section of goat's foot blade and cranked folding blade.

*Data specified in brackets relate to the optional equipment.

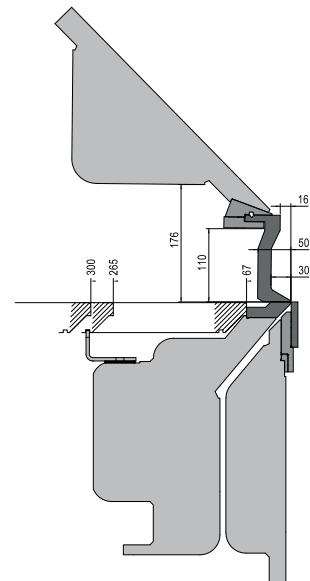
All specifications are considered as a guide only and may be subject to change at any time.



Cross section tool: Standard Sharp nose blade, R 1.0, directly screwed

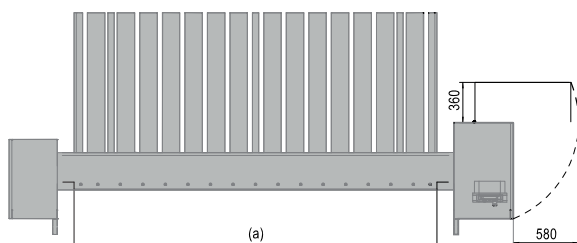
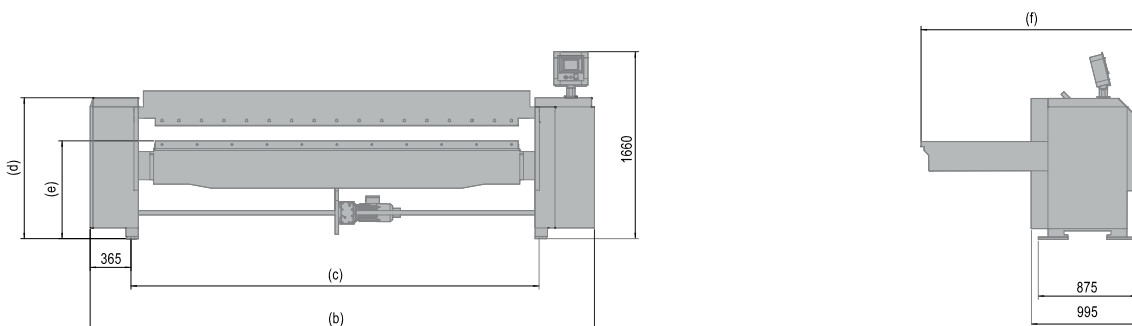


Cross section tool: Tinsmith blade, R 1.0, directly screwed, cranked folding blade

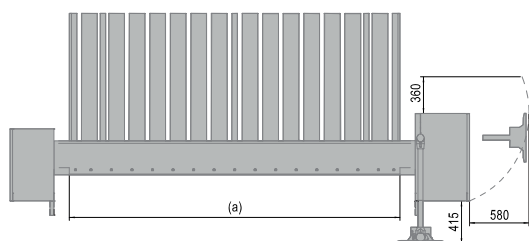
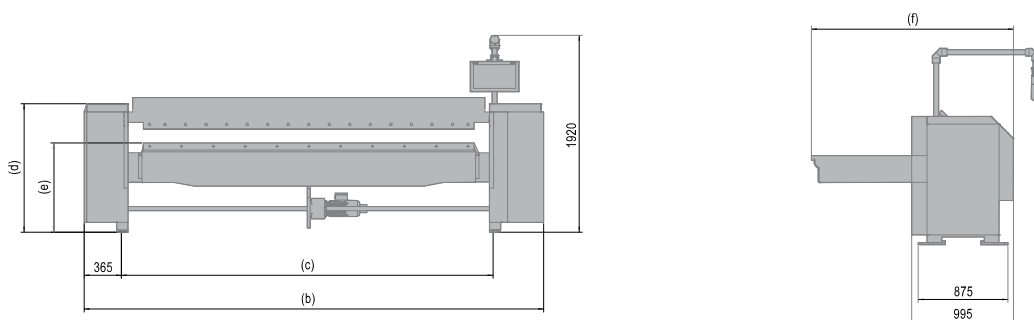


Cross section tool: Goat's foot blade: 130 mm and crowning device

Dimensions: MAKU with nanoTouch control



Dimensions: MAKU with POS 2000 Professional



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.

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