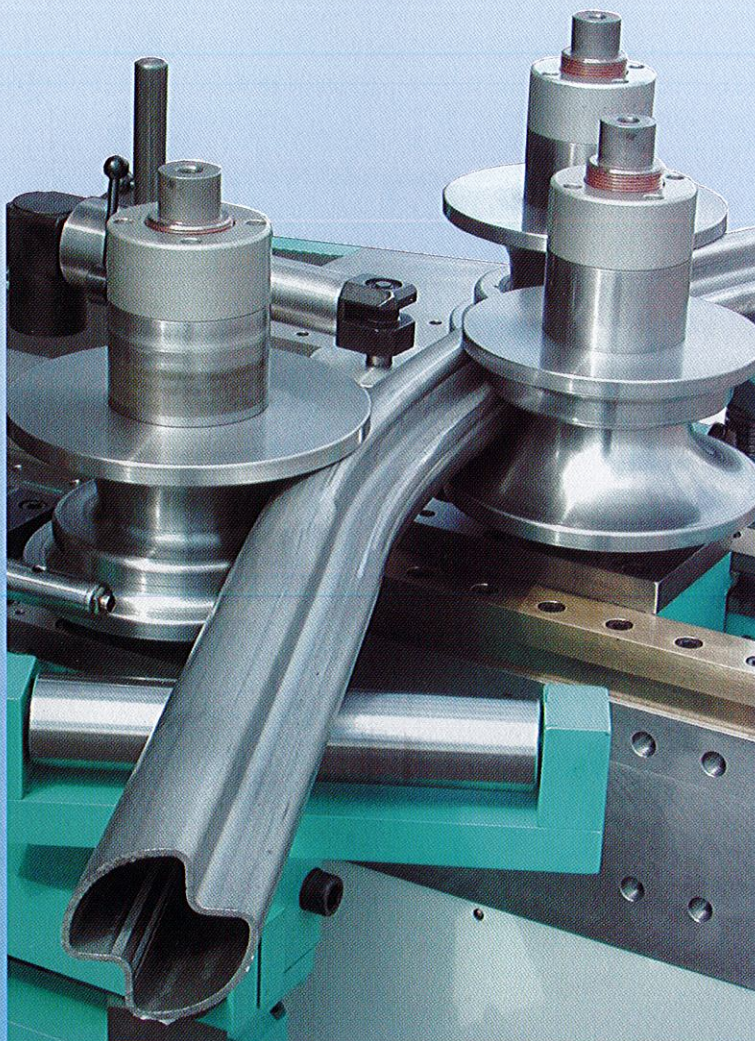




SECTION BENDING



**Technology
makes the
difference**

RB3-L

Compact and flexible

Use

RB3-L is used everywhere where aluminium or steel sections are rolled.

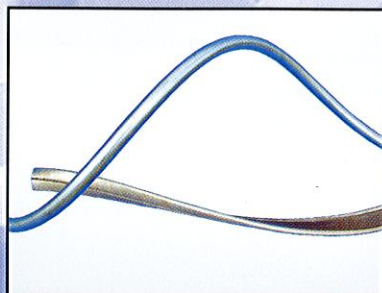
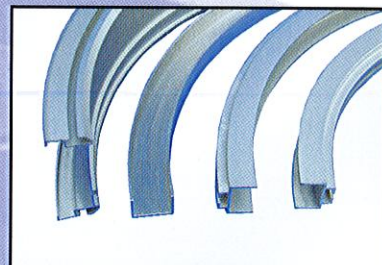
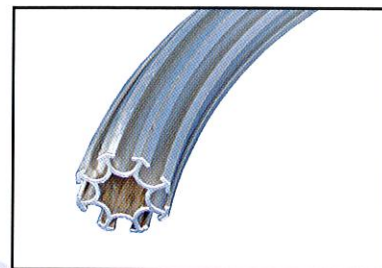
Due to its variable centre distance and its modular tool system, the machine can be optimised to the requirements of the section to be rolled.

For processing lightweight sections the axes can be adjusted to a minimum distance of 330 mm. For heavier sections they can be set to 600 mm.

Despite its compact dimensions the RB3-L provides a sound design and 5,5 kW roll bending performance. It is sufficiently strong to roll even steel sections with a section modulus of up to 20 cm³.

In both stairs manufacture and metal working the RB-L and the Wende-Mat are capable of curving accurate handrails for newelled and spiral stairs.

The RB3-L with its compact dimensions offers maximum flexibility and performance.



Features

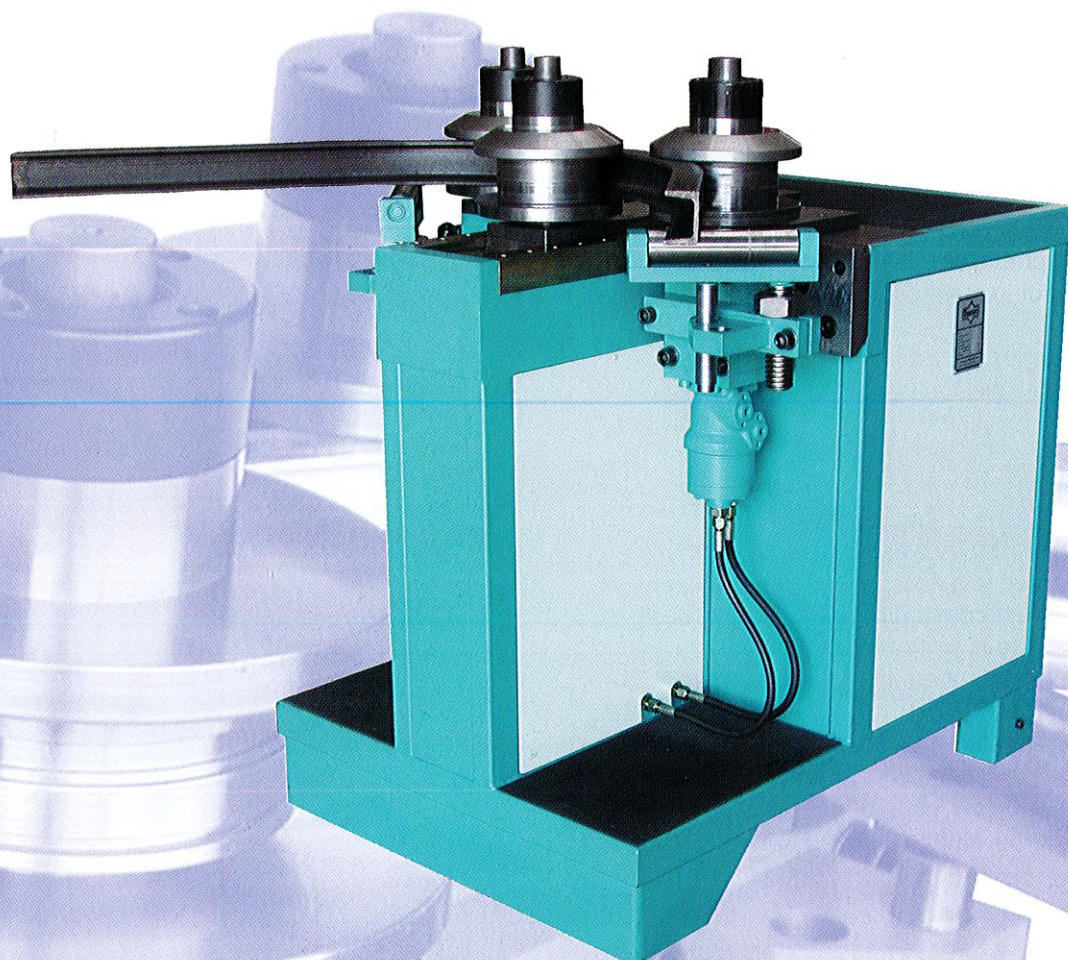
- Machine and control terminal are mobile and moveable
- Operation by means of a manual control unit with a magnetic holding unit is possible from a distance of 6 m
- Advanced and powerful control and drive concept
- A fourth roller or guiding block can be used
- Modular tool system
- Shafts are supportable
- High roll bending performance

Options

- Automatic radius measuring system
- Fourth roller is manually or hydraulically adjustable
- Supports for the shafts



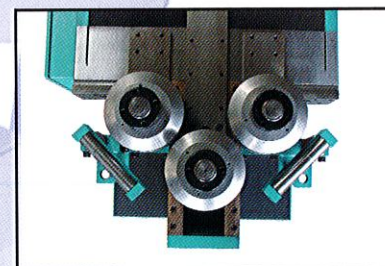
Mobile control panel with NC control



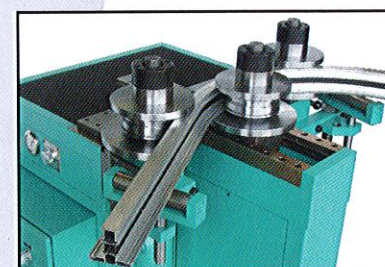
5,5 kW Bending-Power



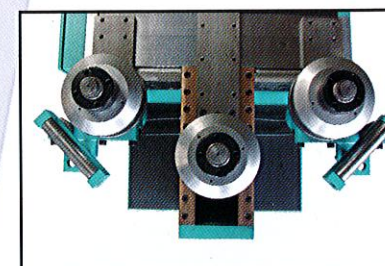
Flexible hand control unit



RB3-L with 330 mm distance between centres



RB3-L with special rollers



RB3-L with 600 mm distance between centres

Technical parameters

Pressure force of central roller 12 tonnes
Speed stepless 0-16 rev/min

Torque	Rated torque	Max. torque
	Continuous operation	
	3 x 920 Nm	3 x 960 Nm

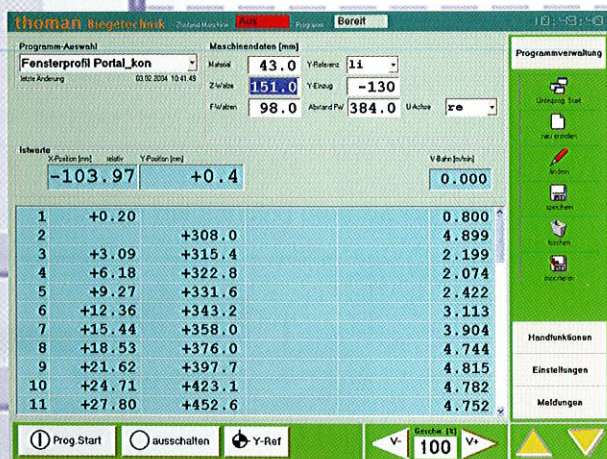
Driving power	5,5kW
Shaft diameter	65mm
Shaft length	160mm
Stroke X-axis	200mm
Front rollers adjustable	330-600mm
Length / width / height	1100/1000/1200mm
Weight	ca. 750 kg

Bogen an Bogen Programm

CNC path control with 15" touch screen

First choice if you want the best.

- State-of-the-art operating and control technology
- Very simple intuitive machine operation and programming
- Highest productivity and precision
- Best bending results and clean radius transitions without drag marks
- Sequencing of any number of bending radii
- Controlled axes, consequently no load-dependent deviations
- Real path interpolation, infinitely variable path velocity
- Teach-in programming
- Manual remote control with magnetic holding unit
- Full Windows functionality with Windows XP Professional
- Writing and filing of programs directly on the machine control
- Open, upgradeable system



Options

- 3rd all-purpose CNC axis
- Automatic radius measuring system
- Remote diagnosis online via the internet for software update or machine diagnosis
- Network connection for PC network for data backup on network server
- Special bending software available according to customer specifications, e.g. special bending software for roofs of indoor swimming pools or archways, respectively bends with left/right bend sequence

Nummer	Teilstück	Radius	Innen	Länge
1	Gerade	---	---	200.00
2	Bogen	500.00	---	400.41
3	Bogen	1000.00	---	1602.21

Software

The right software makes rolling easy

Whether calculating the precise adjustment for simple curves or automatically creating complete roll-bending programs with several radii. The user simply enters the length and angle of the bend. From this, the program automatically produces a suitable rolling program for controlling the axes.

The software is not just a calculation program, but also a development environment and database for filing and administering rolling programs, material and tool catalogues.

Any number of programs can be created and filed.

Program modules:

Basic module:

Creation and filing material catalogues (correction bends), tool catalogues and simple rolling programs. Calculating the program stages for rings and curves. Transferring and reading roll-bending programs.

Bend to bend:

For the easy design of programs for bends with virtually any rolling sequence.

Bend in bend:

Roll-bending in several roller passes with variance comparison. Permits accurate rolling of materials with unknown behaviour

Special bending software (optional):

Approximated ellipse:

Designing of bending programs for approximated ellipses by simply entering width and height.

Spiral:

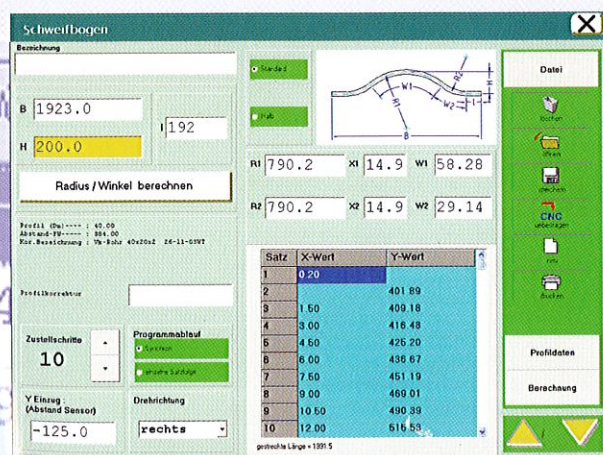
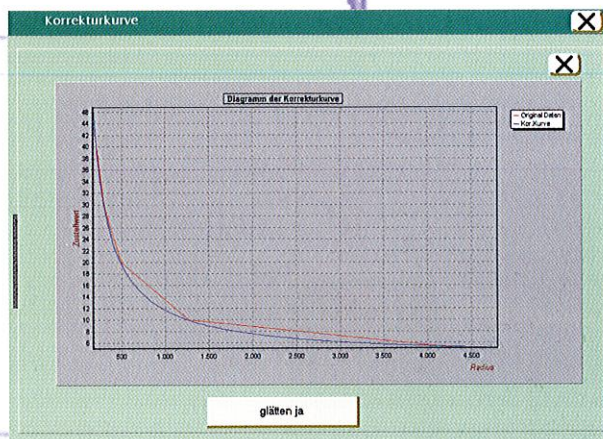
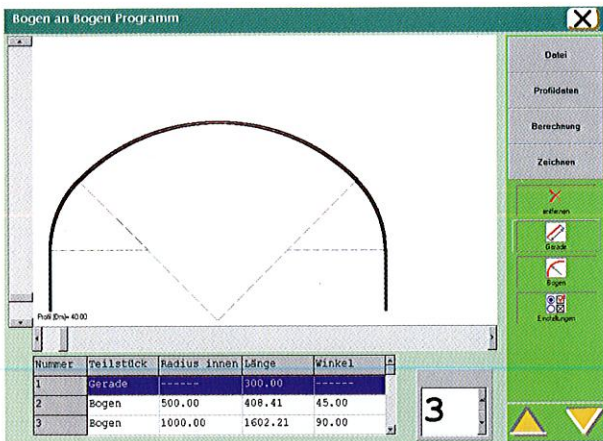
For calculating all the required data to produce accurate spirals.

Curves:

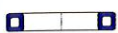
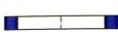
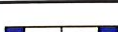
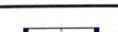
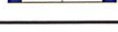
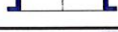
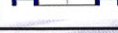
For calculating bending programs, e.g. archways with left-right bend sequence. Perfect, distortion-free bending radius transitions are achieved in alternating bending direction.

Roofing for indoor swimming pools:

The program automatically calculates all bending programs 1-n which are required for the production of an indoor swimming pool roof.

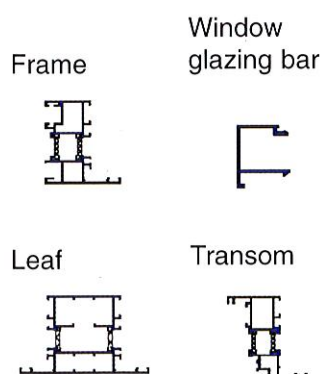


Bending performance

	RB3-L	min Rad.	RB3	min Rad.	RB4	min Rad.
	20x2 80x4	80 500	114x5	700	160x5	1500
	45	300	70	500	90	750
	80x60x4	1000	100x100x5	1500	120x120x5	2500
	40x40	300	60x60	400	80x80	600
	100x30	300	160x40	500	260x30	500
	80x15	400	120x20	600	120x30	600
	80	400	100x100x11	500	120x120x12	1000
	80	500	100x100x11	600	120x120x12	1000
	60x60x5	600	80x80x8	800	100x100x10	1000
	60x60x5	400	80x80x8	600	100x100x10	1000
	100x50x6	500	160x65x7,5	650	240x85x9,5	850
	100x50x6	400	160x65x7,5	800	240x85x9,5	1000
	80x42	500	120x58	600	140x66	1000
	100x50	500	120x120	1000	140x140	1500
Max. Wx steel sections	20 cm ³		60 cm ³		100 cm ³	
Max. Wx aluminium sections	30-75 cm ³		90-150 cm ³		150-250 cm ³	

The table just depicts a selection of options and alternatives. Contact us if you deal with special sections or requirements.

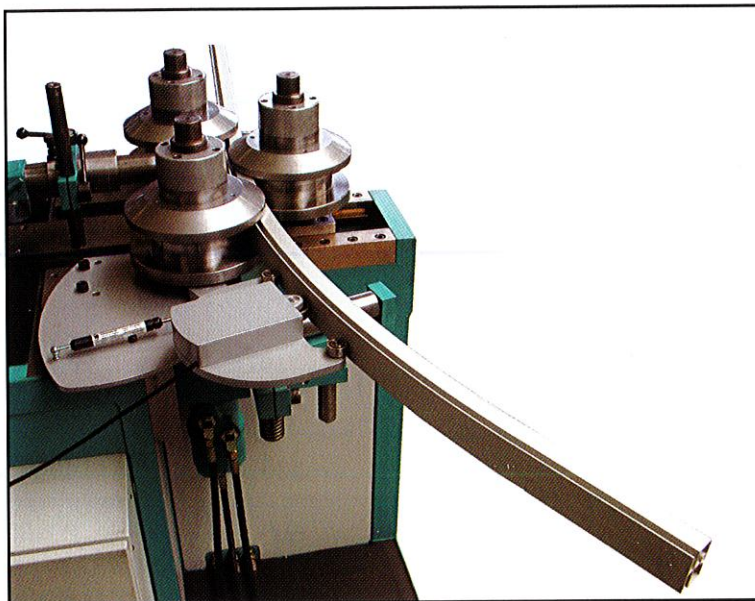
Bending machines manufactured at Thoman exhibit a sound design and strong hydraulic drives. For heavy or very high sections, the driving shafts can be additionally supported at the top end. Due to the extremely high torque of the hydraulic drives, a number of sections can be rolled to the finished dimensions in an easier and faster process than experienced to date. This ensures much higher precision and productivity results.



Your advantage: Better bending through superior technology.

Automatic radius measuring

- Automatically measures and corrects the bending radius of the bend
- The available bending radius is directly displayed on the control
- Deviations in the bending radius due to different material hardness is detected and automatically corrected by the measuring system.
- **The advantages are true-to-size parts as well as extremely economic production and high dimensional accuracy.**



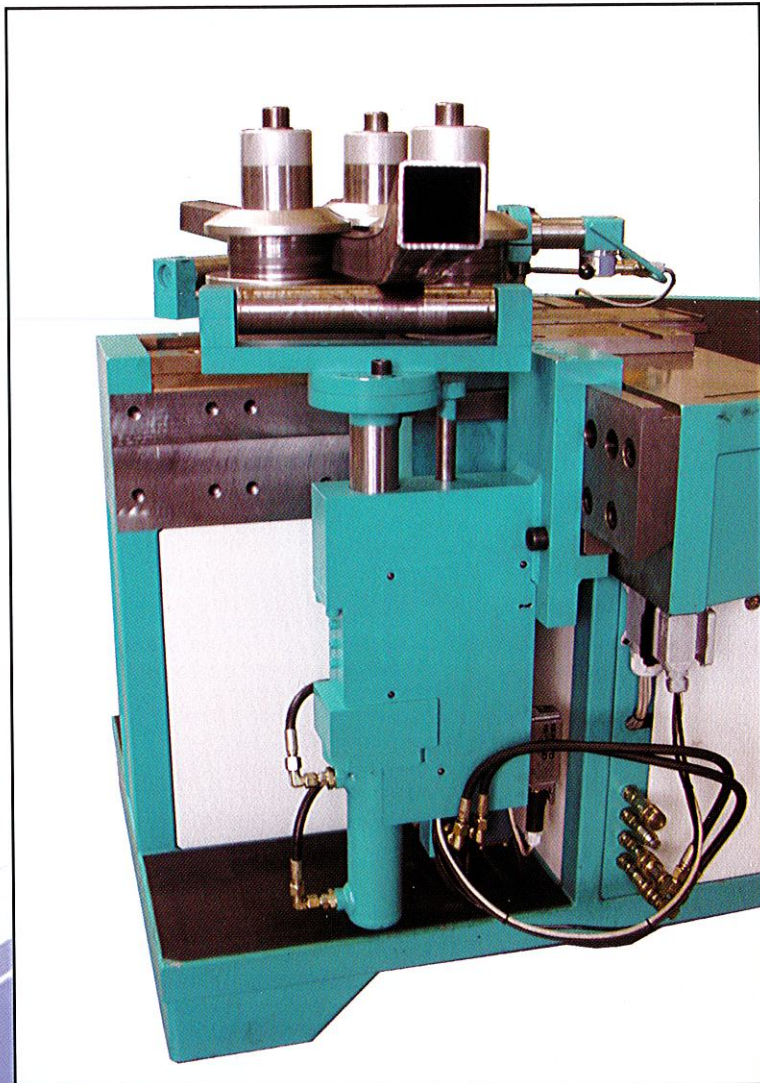
RB3-L with automatic radius measuring

3rd CNC controlled axis

- Permits the controlled bending of 3-dimensional bending components.
- Completely integrated and programmable in the control
- Precision 1/100 mm
- To assist unsymmetrical sections or L-sections
- **You benefit from additional possibilities and a considerable increase in the range of applications of the machine**

Hydraulic support and guide rollers

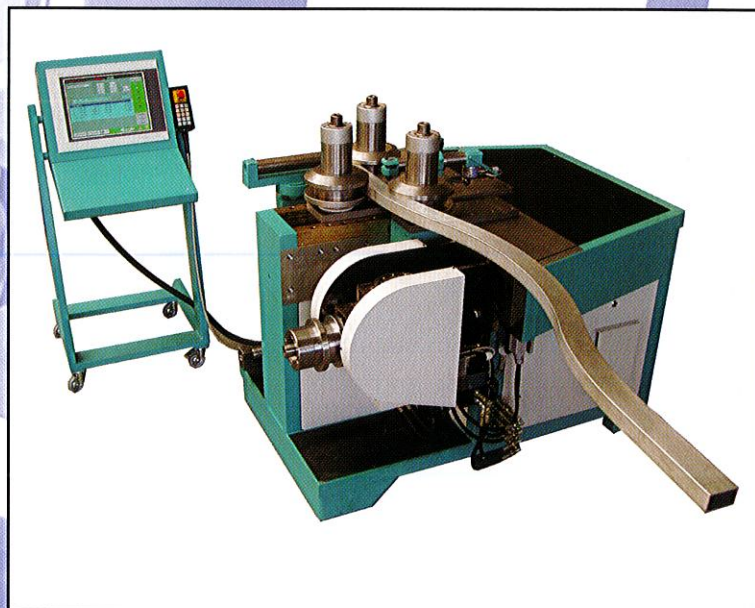
- To assist unsymmetrical sections or L-sections
- Digital display of the actual position (optional)
- Manual control using inching switch
- Adjustable calibrating roller can be used for bending L-sections (optional)
- Simple and easy operation is ensured even with high approach forces.



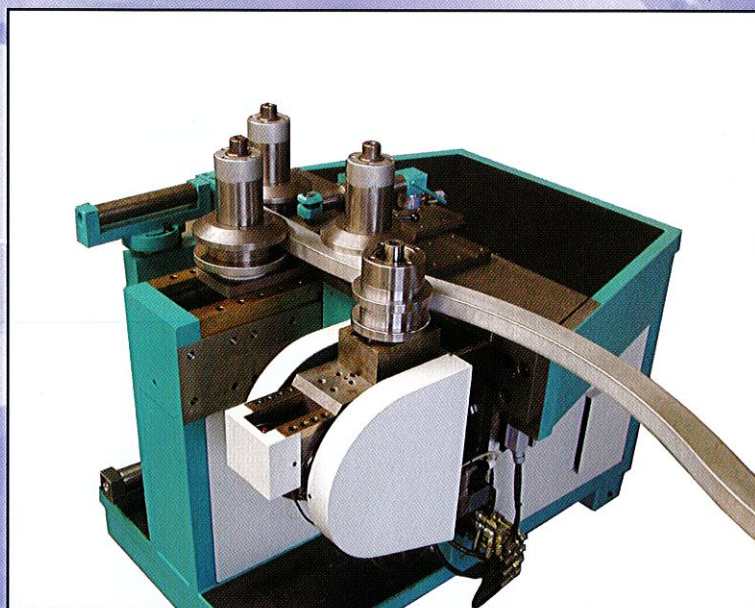
RB3 with 3rd CNC controlled axis

3rd CNC controlled axis, can be swivelled

- Permits the controlled bending of bending components with left-right bend sequence in one pass
- Permits the controlled bending of 3-dimensional bending components.
- Completely integrated and programmable in the control
- Precision 1/100 mm
- Can be used vertically and horizontally.
- Can be swivelled during the process in the vertical or horizontal working direction.
- **A unique and exceptionally economic possibility to produce bends with alternating bending direction.**



RB3 with universal axis swivelled down (vertical direction)



RB3 with universal axis swivelled up (horizontal direction)

Additional options

- Fourth roller is manually or hydraulically controllable
- Supports for the shafts with very high or heavy sections
- Safety housing for fully automatic operation
- Spiral facility for the production of heat exchangers
- Many additional possibilities

Our objective is to fully utilise the possibilities offered by section bending technology. In this regard we are constantly developing new systems and solutions. The advantages are more economic production, higher quality for your products as well as additional possibilities with regard to design and technique.

Benefit from our experience

We have many years of experience in the bending of aluminium and steel sections. We are consequently able to assist you in a competent manner.

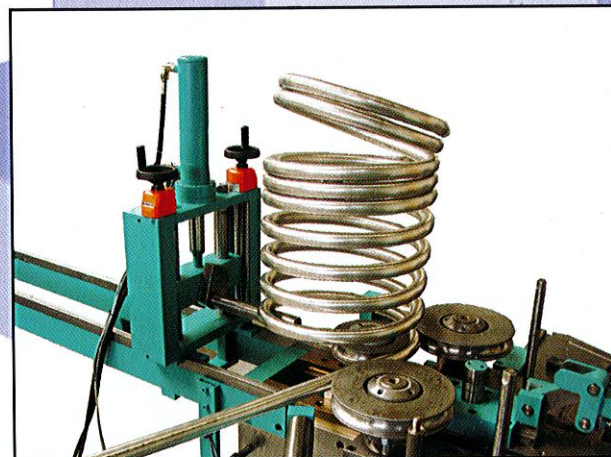
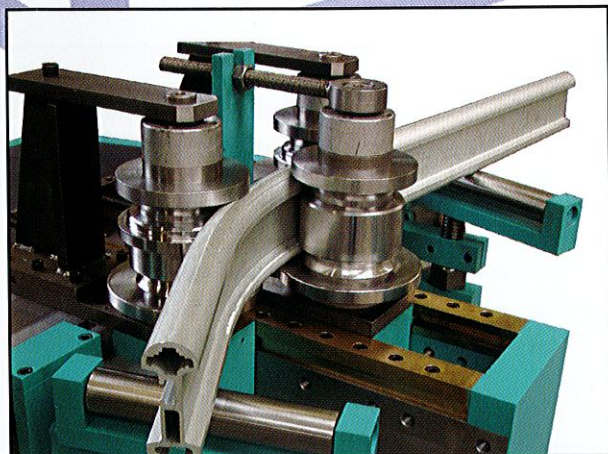
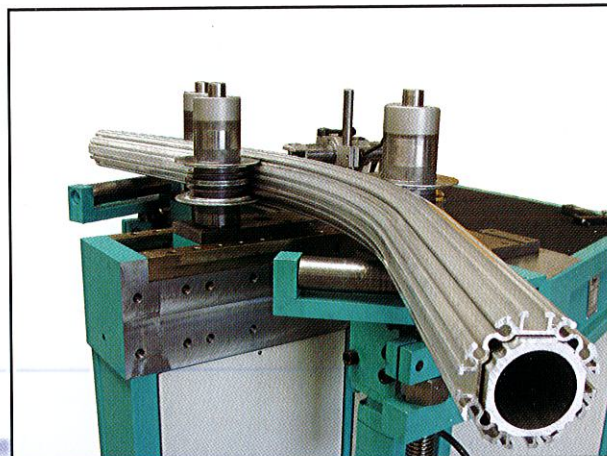
During the development and design of your section systems we can assist and advise you with regard to the relevant bending technology criteria.

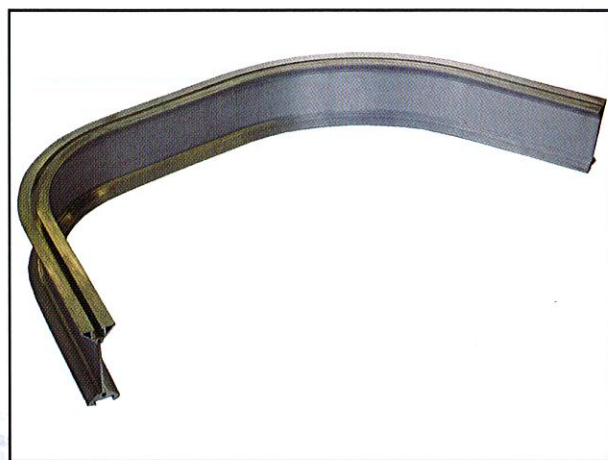
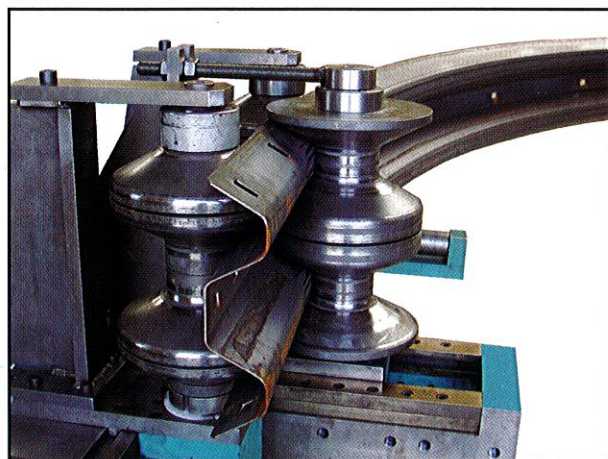
We develop solutions for and with our clients. Bending trials can be carried out in the initial stages for special applications to determine the best solution for your bending application.

We develop and manufacture all bending tools at our own facilities. We are thus able to ensure short delivery term and a high of quality standard.

You will receive thorough training on your machine and with your sections.

So that you can be sure of receiving a high-performance, safe and optimum solution.





Whether for vehicle, window or facade construction, conveying technology, general machine building, stair construction, aerospace, exhibition building, steel construction, aluminium construction, advertising technology and illuminated signs, commission bending, supply industry, carriage building, boatbuilding, cabin building, elevator systems, conservatories, roofs for indoor swimming pools, etc., there are no limits to the versatility of the machines.

