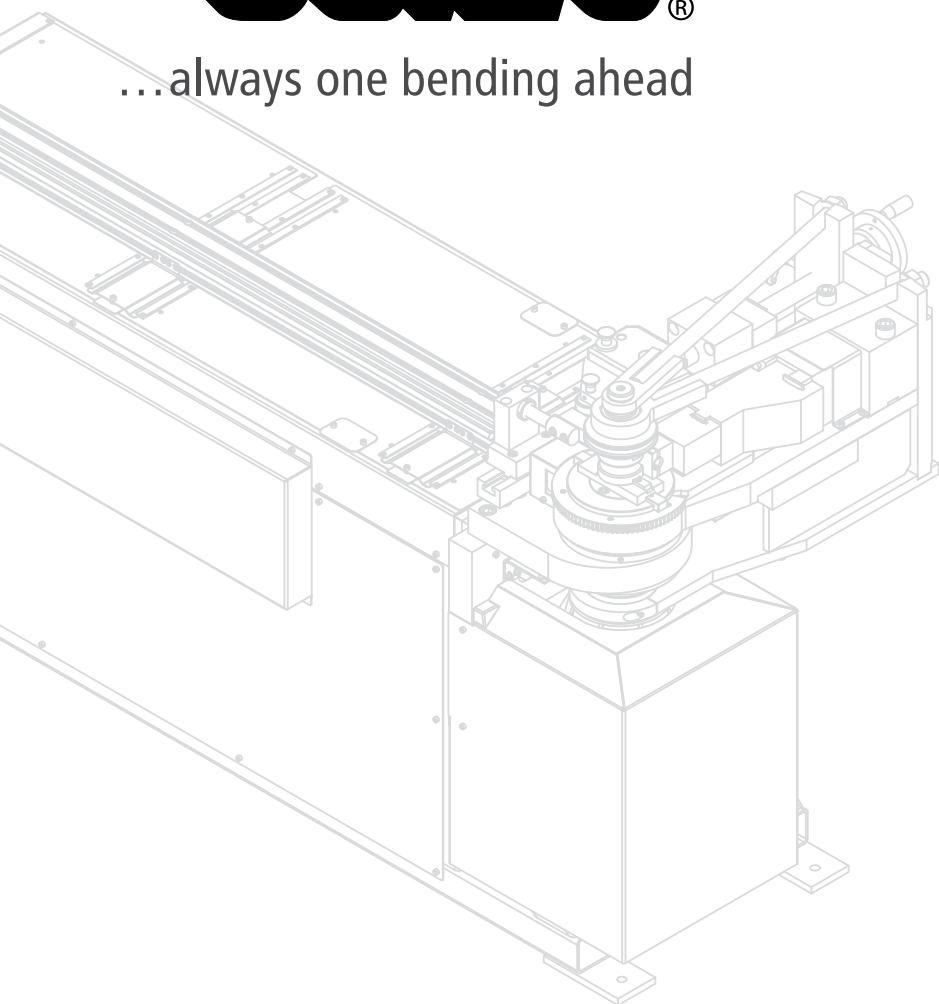




...always one bending ahead



Innovative Bending Technology at the highest level

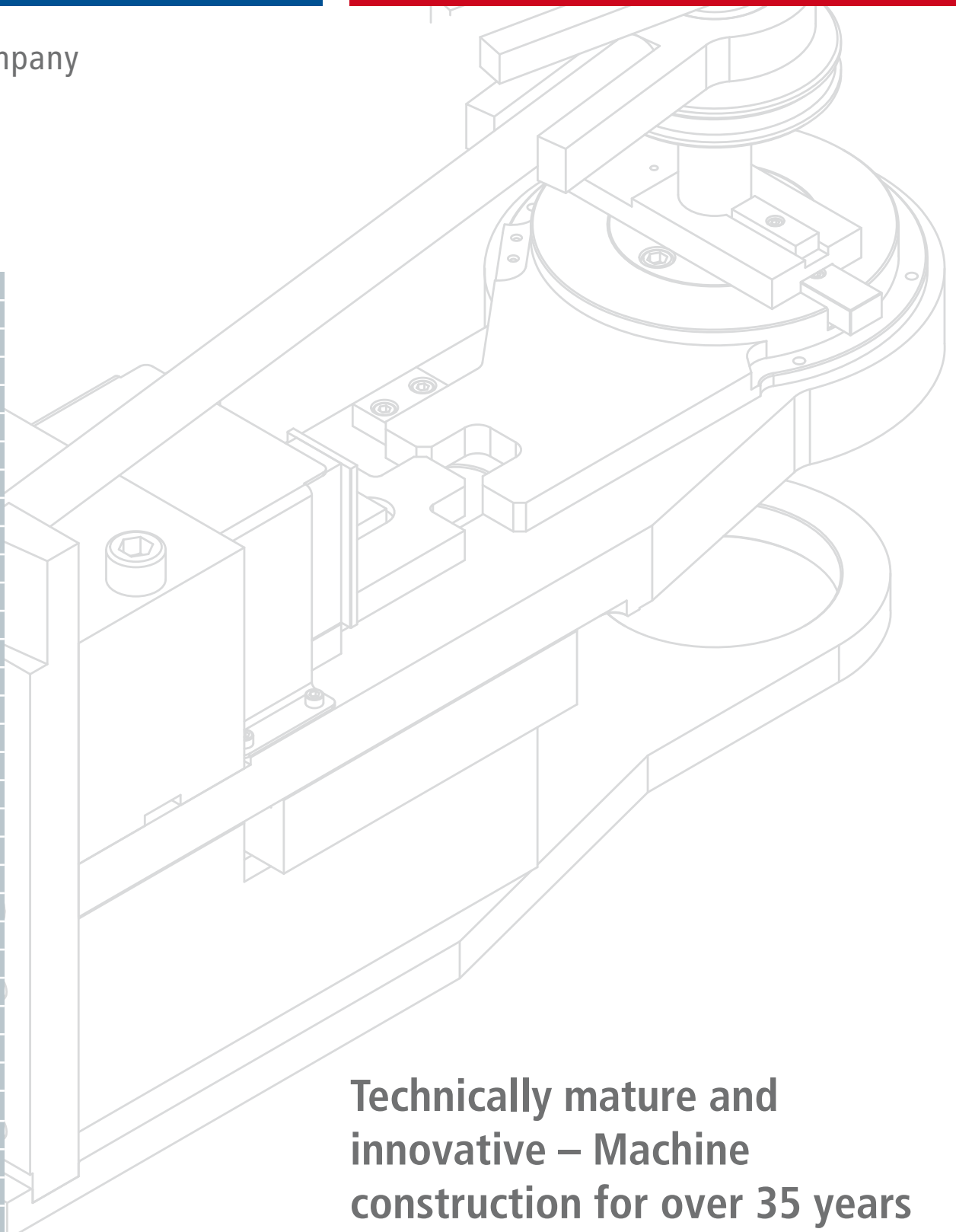
Semi-automatic bending systems
with software solutions

 for over 35 years – Made in Germany

www.jutec.de



The company



**Technically mature and
innovative – Machine
construction for over 35 years**



Made in Germany



JUTEC Bending Systems – Your strong partner in the tube bending technology

For over 35 years, we have developed and manufactured pipe bending machines at the highest technical level. All JUTEC bending machines strive to please, through user-friendly operations and the highest quality –all handmade in Germany. Thanks to several decades of experience in manufacturing innovative and reliable bending systems for processing of pipes and profiles, we can offer comprehensive solutions for tube processing. The present state of all JUTEC bending systems is the result of our ongoing and future-oriented development of our bending machines.

The product range starts from small hand bending machines and goes on to semi-automatic mandrel bending machines, roller and profile benders, and includes bending system solutions to the external diameter of 90 mm.

Your success is our goal. That is why we focus on cooperation between all JUTEC departments and on our know-how to find the perfect solution for your application. If necessary, we can also

realize very individual solutions. The development and production at our plant in Limburg give us the opportunity to make specific adaptations with the utmost flexibility and high quality.

We know the requirements for effective production processes and guarantee you professional advice. Benefit from our wealth of experience, gleaned from global activities. We accompany you from planning to maintenance in all processes. With the sophisticated JUTEC benders, you can safely and reliably concentrate on production. We create the best conditions for your success! Consider a family-run traditional company that combines high values with modernity and provides outstanding service!

JUTEC bending systems: Your strong partner!



Our bending machines are unrivalled in precision and productivity

JUTEC bending systems can be effectively deployed in almost every industrial and trade sector. We will be glad to assist you also in the field of special constructions.

Among other things, we offer solutions for:

- hydraulic construction
- machine construction
- metal construction
- pipeline construction
- plant engineering and construction
- prototyping
- refrigeration and air conditioning
- sanitary and heating construction
- shipbuilding
- staircase construction
- suppliers
- vehicle construction



Our pre-sales service:

35 years of JUTEC bending systems – a guarantor for top-level bending technology and system solutions. This is emphasised by references from every field of metal and tube processing. Therefore we would like to kindly invite you to have a closer look at our bending machines in the course of a forthcoming investment. Please take one of the opportunities listed below:

1. Welcome for trial production at our premises

All machines are readily available for test purposes in our demonstration room. Here we have the possibility to jointly discuss the machine in full detail and to bend samples. Furthermore, we offer the possibility to collect data on machine and production times that can also be evaluated in terms of a machine capability study (cmk value).

2. Demonstration of machines at your premises

After having prepared a quotation and detailed definition of all kinds of tubes and required bending tasks, we will be glad to visit you at your premises with the corresponding bending machines. Even then of course we have the opportunity to discuss together the machine in full detail and sample parts to bend.

3. Consultation/exchange of information

We will make an appointment with you and meet for a constructive application consulting session being focused on your bending tasks.

Despite longstanding experience, the feasibility of a geometry is difficult to assess in theory in case of special bending tasks. Due to the variety of materials and degrees of hardness, it is useful to send us sample material for testing purposes prior. The insights gained by JUTEC based on executed trial bending will then result in a binding and process-reliable conclusion. Benefit from our service.



Mandrel bending

Rotary draw bending with mandrel. In mandrel bending the tube is fixed between the bending tool and a clamp die. By rotation of the tool round the bending axis the tube is inclined in the radius of the bending tool. A counter bearing (counter rollers or sliding rail) supports the straight tube end from outside. A stationary inner mandrel caters for stabilisation from inside during bending and prevents formation of wrinkles and oval distortion. Depending on the individual application the mandrel is equipped with one or more balls fulfilling their function in the radius where they maintain the roundness of the material.

If the material is too hard or if extremely thin-walled material is bent it is mandatory to use a wiper die. This tool prevents wrinkle formation in the inner radius in front of the tool. This procedure is applied for bending radii $\leq 2xD$.

Model: 4800, 5000, 7000, 9000

Clear advantages of these mandrel bending systems are:

- precise and extremely accurate on the bending axis $\pm 0.1^\circ$
- standard radii: $R_m=2xD$ ($R_m=1,5xD$ possible)
- during bending, the material keeps clamped on a carriage, equipped with digital evaluation of the position in length and torsional twisting. Thus a true-to-size realisation of the geometry is possible.
- depending on the respective machine control, automatic overbending of the tube is possible by means of a material database
- depending on the respective machine control, data can be imported from external calculation systems (e.g. CAD) via USB or LAN interface
- depending on the respective machine control, an "onboard calculation" of the tube geometry is possible, thus allowing free-hand drawing as well as reading in of Cartesian coordinates with subsequent conversion to bending data
- for bending without mandrel, the mandrel can be removed
- allows high-quality and narrow bends

Mandrel-free bending

Rotary draw bending without mandrel. For rotary draw bending without mandrel the tool is equipped with a catch. By rotating the tool round the bending axis the tube is inclined in the radius of the bending tool. A counter bearing (counter rollers or slide shoe) serves for absorbing transverse forces during the forming process and supports the straight tube end from outside. For bending thick-walled solid tubes a counter roller is used. Thin-walled tubes like, for example, stainless steel, copper, aluminium, etc. are bent by means of a slide shoe. By guiding the material from outside and by pressing on the slide shoe and thus the workpiece into the bending tool, possibly occurring wrinkle formation as well as expected oval distortions can be counteracted.

The bending of solid material and producing repeatable pipe bends, up to a radius of 1000 mm, is possible with special bending tools.

Model: KBV, 3000, 6000

Clear advantages of these mandrel-free bending systems are:

- quick and easy handling
- larger bending radii and higher wall thickness
- simple programming (Model 3000 + 6000)
- small, compact and maintenance-free units
- special constructions can be realised at low cost
- extremely mobile machines and precise bending results
- automatic overbend compensates the material typical springback.

Roll bending

Roll-bending is based on press bending. The bending tool (normally a segmental tool) with integral radius is pressed, either manually or hydraulically, against the workpiece, which is mutually fixed by two counter bearings. This movement forces the inserted tube to bend around the bending segment. With the 3-roll bending device, the pressing tool and the counter bearings are replaced by tool rolls. In addition to spot bending, the rolls can be put in rotation in order to achieve a rolled radius. The positioning of the rolls towards each other defines the radius, and the traverse path defines the bending angle. By engaging a lifting roll, optionally helices with a defined inclination can be manufactured. It is extremely challenging to manufacture this geometry true to size and this can only be achieved with the help of measuring devices and a tube calculation program. Since the tubes cannot be supported from inside during roll bending, this procedure is, without a loss in quality, only appropriate for thick-walled tubes or/and large bending radii.

Model: RB60, RB43

Clear advantages of this bending system are:

- mobile horizontal bending machines
- large bending radii
- variable radius control – the smallest bending radius is initially defined on the machine
- variable applications for tubes and profiles
- Maintenance-free drives
- three phase motor
- variable bending speed
- by the 3-roll drive, high feed forces and very small radii in a bending operation

Control technology of mandrel bending

Convenience control:

- materials management for parameterisation of specific tube data and for automatic calculation of the elastic recovery of the material
- graphical control monitor for keeping the exact positioning as to length and torsional twisting prevents false positioning
- function for re-bending of a previously manufactured bend including automatic adjustment of materials data
- integrated 2D tube calculation (optional)
- data input possible via USB keyboard
- USB interface
- (W)LAN: Integration in the network via TCP/IP – data exchange via FTP
- from model year 2016 compatible for model 4800

Premium control:

- optimised touch-screen operation and large 10,1" colordisplay
- real-time operating system, capable of multitasking
- materials management for parameterisation of specific tube data and for automatic calculation of the elastic recovery of the material
- graphical control monitor for maintaining the exact positioning as to length and torsional twisting prevents false positioning
- function for re-bending of a previously manufactured bend including automatic adjustment of materials data
- integrated isometric 3D tube calculation with import of bending data in the program memory
- data input possible via USB keyboard
- USB interface
- (W)LAN: Integration in the network via TCP/IP – data exchange via FTP

The control technology of JUTEC mandrel bending systems is unique in its performance and user-friendliness. The intuitive menu navigation and modern hardware of JUTEC mandrel bending machines 5000, 7000 and 9000 are equipped with touchscreen displays. All models can be delivered with comfort control (display 15x9 cm, 7") or Premium PLC with larger TFT display (22x12.5 cm, 10.1") and integrated isometric 3D pipe calculation. The two program controllers can read the available geometric data in the form of Cartesian coordinates a *.csv file via the interfaces and convert this into bending data. Thus, the controller also has an interface with CAD systems. The menu-driven operation is easy to understand and is additionally supported by help texts. The backup of all machine-relevant data is simple and fast via the USB stick. All machines of the model series 5000, 7000, 8000 and 9000 are compatible and can be retrofitted anytime with the comfort and the Premium PLC.

simple data storage via USB stick

all data editable with Excel

interfaces USB, (W)LAN

CAD-compatible

direct calculation of bending data



bending system 5000 Mandrel bending



Bending system 5000 – The cost-effective bending machine with electric drive for narrow bending radii

The compact drive unit with detachable mandrel holder offers advantages when used at the place of installation. For difficult geometries, the free-standing bending head can easily be modified to right-hand bending and left-hand bending. The pluggable bending tools enable quick retrofitting for bending other tube dimensions. A fast hydraulic system for reducing bending times is an important factor for series production. The locking clamp pressure for tube clamping can be optimally adjusted. The SPS control with data storage and latest X2X interface can store over 1000 programs (can be expanded via USB stick) for bending angle, linear measure and torsion angle for a maximum of 50 bending sequences at one tube length. A freely programmable database for any number of materials (USB) is available for monitoring the elastic recovery values. The machine disposes of two operational modes: In "simple bending" length and torsion of the bends towards each other are automatically displayed. In the mode "controlled bending" the data is stored beforehand and a permanent nominal/actual comparison is made during bending. This way, false positioning within a tolerance window is excluded and thus the user-related error rate is minimised. General error messages are shown on the big screen with full text. Mandrel retraction can be programmed and the mandrel can be retracted ahead of schedule when a certain bending angle has been accomplished.

New! Also, a stationary version with order systems for tools and mandrel bars is available now. Advantages in special constructions with huge pipe postponement.

Possible fields of application:

- hydraulic piping
- pipeline construction
- plant construction, e.g. chemical industry
- metal construction
- prototyping

Technical data:

- bending capacity \varnothing 6 to 50 x 4 mm depending on materials used
- bending radius min/max: 10 mm/140 mm
- bending radii min.: 1.5 x \varnothing (standard 2 x \varnothing)
- multi functional machine control
- setting of bending angle (0.1°)
- mandrel support lengths 1500/3000/4500/6000 mm (special constructions even longer)
- bending result 180° max.
- weight 600-700 kg (depending on type of construction)

Optional accessories:

- automatic mandrel lubrication (minimum quantity)
- pneumatic or hydraulic quick chuck
- positioning of length and torsional twisting via automatic braking function or by means of manual catches via pedal switch
- pneumatic rotary stop
- tube calculation software
- frequency converter for the bending axis
- 10" touch screen with integrated tube calculation
- bending radius up to 250 mm
- data transmission via cable (LAN), radio communication (WLAN), or USB

bending systems 7000 and 9000

Mandrel bending



Possible fields of application:

- hydraulic piping
- pipeline construction
- plant construction, e.g. chemical industry
- metal construction
- prototyping

Technical data 7000 and 9000:

bending capacity 7000: Ø 20 to 70 x 5 mm

bending capacity 9000: Ø 20 to 90 x 5 mm

depending on materials used

- bending radius min/max: 40 mm/250 mm
- bending radii minimum: 1.5 x Ø (standard 2 x Ø)
- multi functional machine control
- setting of bending angle (0,1°)
- mandrel support lengths 3000/4500/6000 mm
- bending result 180° max
- weight 1,600-3,200 kg (depending on type of construction)

Optional accessories:

- automatic mandrel lubrication (minimum quantity)
- pneumatic or hydraulic quick chuck
- higher bending radii up to 300 mm
- positioning of length and torsional twisting via automatic braking function or by means of manual catches via pedal switch
- automatic tool retraction
- tube calculation software
- frequency converter for the bending axis
- 10" touch screen with integrated tube calculation
- data transmission via cable (LAN), radio communication (WLAN), or USB

Bending systems 7000 and 9000 – The cost-effective bending machine for narrow bending radii

For tube dimensions of 20 mm to 90 mm this bending system offers solutions for complex geometries with standard radii of 2xD. Depending on material quality and wall thickness ratio also radii of 1.5xD can be realised suitable for series production. At a tool height of 120 mm there are also sufficient possibilities for special profiles. The extremely precise and strong electric drive of the bending axis and the stable and rigid construction of the mandrel support and the bending arm contribute also to the desired bending result. The pluggable bending tools enable quick retrofitting for bending other tube dimensions. The locking clamp pressure for tube clamping can be optimally adjusted. The SPS control with data storage and latest X2X interface can store over 1000 programs (can be expanded via USB stick) for bending angle, linear measure and torsion angle for a maximum of 50 bending sequences at one tube length. A freely programmable database for any number of materials (USB) is available for monitoring the elastic recovery values. The machine disposes of two operational modes: In "simple bending" length and torsion of the bends towards each other are automatically displayed. In the mode "controlled bending" the data is stored beforehand and a permanent nominal/actual comparison is made during bending.

Also available with pneumatic rotation stopper or with gear-assisted length and twist positioning.

bending system 4800

Mandrel bending



Bending system 4800

– The mandrel bending device with manual chucking

This mandrel bending system with eccentric rapid chucking for tube fixing enables low-cost bending. The compact drive unit with detachable mandrel support offers advantages when used at the place of installation. By means of a position recording directly on the bending axis we achieve optimum bending accuracy. Setting of the bending angle is made easily and quickly via a comfortable touchscreen-control with menu-driven display. With comfort control, two speeds are available, as well as a configurable via bending function to compensate for the material springback. The bending process is significantly shortened by the automatic retraction at the bow end. For more complex bending tasks bending programs can be stored, disposing of an angle sequence of 50 bends max. per geometry. 1000 programs can be stored. Pluggable bending tools enable quick retrofitting for other tube dimensions. For difficult geometries, the bending direction of the machine can be retrofitted to right-hand or left-hand bending as a standard. The open bending unit allows, for example, bending of handrail frames with one welding seam only. The optional calculation software on the PC determines the cut length for the total geometry as well as traverse path, torsion angle and bending angle for every bend. Mandrel retraction can be programmed and the mandrel can be automatically retracted ahead of schedule when a certain bending angle has been accomplished.

Possible fields of application:

- hydraulic piping
- pipeline construction
- plant construction, e.g. chemical industry
- prototyping

Technical data:

- bending capacity \varnothing 6 to 50 mm
- bending radius min/max: 10 mm/140 mm
- bending radii 2 x D
- multi functional machine control
- setting of bending angle (0.1°)
- mandrel support lengths 1500/3000/4500/6000 mm (special constructions even longer)
- bending result 180° max
- weight 600-700 kg (depending on type of construction)

Optional accessories:

- automatic mandrel lubrication (minimum quantity)
- digital path measurement for length and torsional twisting (resolution 0.1)
- remote control of all functions at the carriage (rotational and length arrester)
- bending radius up to 250 mm
- PC tube calculation software

bending system 6000

Mandrel-free bending



Bending with slide shoe for thin-walled tube



Bending with counter roller for thick-walled tube

Possible fields of application:

- hydraulic piping
- signpost construction
- meander bending
- prototyping
- sanitary and heating construction

Technical data 6000S and 6000D:

bending capacity 6000S: Ø 10 to 50 x 4 mm
current 230V

bending capacity 6000D: Ø 10 to 60 x 4 mm

bending capacity 6000DS: Ø 10 to 60 x 5 mm
three-phase 400V / optional 230V

- bending radius min/max: 36 mm/280 mm
- optional: large bending radii up to 500 mm
- setting of bending angle (0.1°)
- multi functional machine control
- bending result 180° max.
- hexagonal shaft 40 mm for quick tool change
- safety pedal switch with emergency stop function
- weight 110 kg
- touchscreen

Optional accessories:

- profile bending device PB20 – for bending of flat steel bars and square steel up to 100 x 10 mm max., round bars up to Ø 20 mm max.
- roll bending device RB43
- roll bending device RB60, without drive.
RB43 is mounted onto the hexagonal shaft of the bending axis. By switching over the machine to continuous bending the bending systems serves as a drive unit.

Bending system 6000S and 6000D – The powerful bending machine for workshop and mounting

The compact, mobile type of construction enables precise and repeatable bending up to an outer diameter of 60 mm both stationary and at the place of mounting. A strong three-phase motor and a precision gear cater for powerful drive. By means of position recording directly on the bending axis we achieve optimum bending accuracy. The bending angle is easily and quickly set via a comfortable and menu-driven user interface with touchscreen control, which guarantees an even more intuitive operation. For more complex bending tasks, 100 bending programs can be stored, which provide a succession of angles of 8 bends max. per geometry. By the multi-function control, the bending speed for the forward and reverse can be set variable and there is configurable overbend function to compensate for material springback. With the help of the four material characteristics, the material is automatically turned to the required bending angle, thereby achieving an accurate bending result. The principle "stationary tube and rotating tool" enables bending with lowest possible space requirements. For thin-walled tubes slide shoes are used for wrinkle-free bending and in order to produce bends, for example from tubes made of stainless steel and copper, with smallest possible deformations. With the profile bending adaptor PB20, flat steel bars, square steel and round bars can be bent without problems. With the small bender KBV as attachment, extremely small bending radii are possible.

bending system 3000

Mandrel-free bending



Complete equipment for mounting



Quick tool change thanks to hexagonal holder and fast readjustment

Bending system 3000 – The mobile high-capacity bending machine

The compact, mobile type of construction enables precise and repeatable bending up to a pipe diameter of 35 mm both stationary and at the place of mounting. A strong three-phase motor and a precision gear cater for powerful drive. The motor can be steplessly adjusted in the velocity, so that the return is carried out at high speed, thereby shortening the cycle time. By means of position recording directly on the bending axis we achieve optimum bending accuracy. The adjustment of the bending angle of 0.5° is quick and easy via pushbuttons. The large LCD display significantly shows the angle. The provision to save up to three bending angles allows rational bending of tubes with different bending results. For transport purposes, the compact unit can be neatly and safely stored in solid transport cases. The principle "stationary tube and rotating tool" enables bending with lowest possible space requirements. For thin-walled tubes slide shoes are used for wrinkle-free bending and in order to produce bends, for example from tubes made of stainless steel and copper, with smallest possible deformations. With the profile bending adaptor PB20, flat steel bars, square steel and round bars can be bent without problems.

Possible fields of application:

- hydraulic piping
- prototyping
- sanitary and heating construction

Technical data:

- bending capacity \varnothing 6 to 35 mm, CU \varnothing 42 mm depending on materials used
- bending radius min/max: 36 mm/150 mm
- precise digital setting of bending angle
- bending result 180° max.
- hexagonal shaft 40 mm for quick tool change
- safety pedal switch with emergency stop function
- current 230 V connection
- weight 29 kg
- with frequency converter and three-phase motor
- 3 bending angle storable

Optional accessories:

- sliding shoe holder
- double role receptive
- profile bending device PB20 – for bending of flat steel bars and square steel up to 80 x 8 mm max., round bars up to \varnothing 20 mm max.
- tripod base frame
- machine case
- tool box

KBV

Mandrel-free bending



KBV as attachment device



Quick and handy in the bench vice

Possible fields of application:

- hydraulic piping
- prototyping
- sanitary and heating construction

Technical data:

- bending capacity Ø 6 to 18 mm
- manual limitation of bending angle
- bending result 180° max.

Optional accessories:

- KBV with hexagonal holding fixture for bending on model 3000 or 6000
- machine case
- length arrester

Small bending device KBV – The convenient manual bending device

The compact, mobile type of construction enables precise and repeatable bending in the bench vice. The device is driven by means of a screw-in handle. A lockable set collar ensures repeatable bending. The exchange of pluggable tools is as easy as can be. The principle "stationary tube and rotating tool" enables bending requiring smallest possible space. For thin-walled tubes slide shoes are used for wrinkle-free bending and in order to produce bends, for example from tubes made of stainless steel and copper, with smallest possible deformations. The optional type of construction with hexagonal holding fixture enables, besides utilisation in the bench vice, also using the driving forces of the bending systems 3000 and 6000. For this purpose the KBV is simply mounted onto the bending shaft of the machine.

Case set:	Order no.:	KBV accessories:	Order no.:	KBV accessories:
KBV and tools 8 - 10 - 12 mm Order no.: KBVS	0620	bending tool (6 mm, R 20)	2249	counter roller (6-12 mm)
	0820	bending tool (8 mm, R 20)	2251	counter roller (14-18 mm)
	1025	bending tool (10 mm, R 25)	KBVL	length arrester (300 mm)
	1230	bending tool (12 mm, R 30)	2250	slide shoe press-on holder
	1442	bending tool (14 mm, R 42)	3006	slide shoe (6 mm)
	1545	bending tool (15 mm, R 45)	3008	slide shoe (8 mm)
	1648	bending tool (16 mm, R 48)	3010	slide shoe (10 mm)
	1854	bending tool (18 mm, R 54)	3012	slide shoe (12 mm)

profile bending attachment PB20



PB20 as attachment device on model 6000



PB20 with model 3000

Profile bending attachment PB20

The profile bending attachment PB20 is the optimum complement for tube bending on models 3000 and 6000. The device can be installed easily and quickly on the bending shaft without requiring tools. The workpiece is clamped onto the rotary disc with the clamping device and drawn around the bending tool. By means of this system leg lengths to be bent off can be precisely measured in connection with a length arrester and can be bent with good repeatability.

Technical data:

- bending capacity steel 37: 100 x 10 mm, Ø 20 mm
- many standard tools available
- special tools possible
- Sharp-edged tools with bending radius R 2 or 5 mm
- Round tools R 10 to 25 mm for bending max. 260° optional

RB60

roll bending



Possible fields of application:

- handrails/lower booms for spiral staircases
- large tube profile bends
- general metal construction

Technical data:

- bending capacity \varnothing 10 to 60 mm
- bending radius min: 300 mm at \varnothing 42,4 mm
- bending direction: right and left
- digital bending setting for radius and inclination
- safety pedal switch with emergency stop function
- suitable construction site 230 V connection
- weight 280 kg
- maintenance-free robust three-phase motor

Optional accessories:

- supporting roller – for stabilisation purposes
- elevating roll – to produce controlled inclination
- MGR – measuring device for determining the correct radius
- MGV – measuring device for determining the correct inclination based on torsional twisting
- MPW – PC calculation program for determining the correct bending values
- RB4303 – universal bending tool for profiles up to a height of 60 mm
- tools for special profiles

RB60 – The precise 3-roll bending machine

When developing the compact and mobile horizontal bending machine the focus was clearly on the production of true-to-size helices, like, for example, handrails for spiral staircases. This is the supreme discipline since two parameters influencing each other (radius and inclination) have to be united to a true-to-size geometry in a bend. The interplay between tube calculation on the PC, implementation on the bending machine and the control via measuring devices with final correction of the bending values ensure accurately fitting bending. By only few and simple input in the PC tube calculation program, the local printer provides a print-out and supports the calculation of all necessary bending and correction data for working on the machine. A new powerful drive concept enables continuously variable setting of the bending speed and only requires a 230 V AC power connection. Hardened steel tools as well as surface-protecting hard plastic tools are available. In order to ensure optimum feed also with narrow bending radii, all three bending shafts are driven. Also at daily hard work in the plane when bending tubes and profiles, this drive system has proven its worth. Customers using the bending systems 4800, 5000 and 6000 have the roll bending unit without a drive. The roll bending unit with the designation RB43 can be adapted via the flexible shaft on the bending systems 4800, 5000 and 6000.

RB60 roll bending



1.



2.



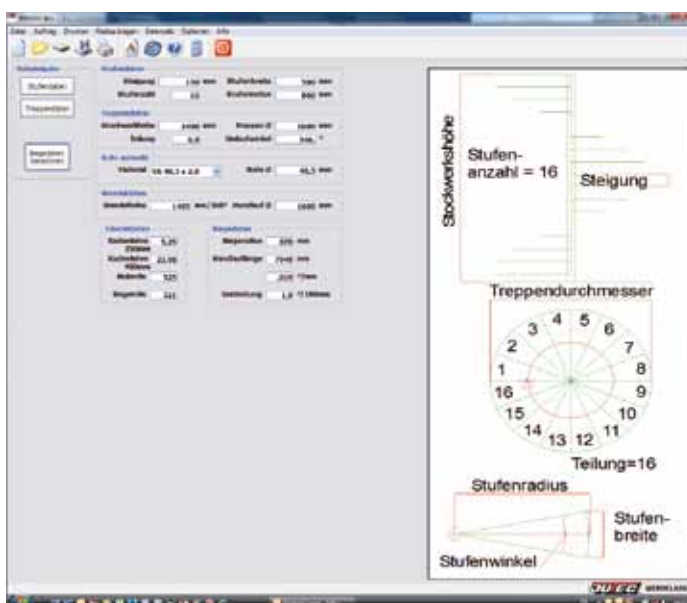
3.

JUTEC measuring devices available as accessories for RB60 in a compact case:

1. convenient metal case with measuring accessories
2. MGR – measuring device for determining the correct radius
3. MGV – measuring device for determining the correct inclination based on torsional twisting

Bending software JUTEC Wendelass

Wendelass is a calculation software for handrails for spiral staircases and segmental arches. After input of staircase and materials data the machine setting and the control values for the digital measuring devices for radius and inclination are precisely calculated. With this special bending software, the roll bending device RB60/RB43 becomes the perfect handrail bending device.



JUTEC bending systems special tool construction

We offer a large stock of suitable bending tools for all standard bending applications and standard bending tasks. We are happy to cater to your individual wishes and special bending tasks. Through our large own CNC lathes and milling machines park, we guarantee short delivery times, even for special tools—all made in Germany.



Samples



Section tube with special tool on RB60



Mandrel bending tool bend-to-bend
(e.g. door handle)



Bending tool for american bend



Mandrel bending tool



Section tube with special tool on RB60



Bending tool for flat steel bending



Sample of bending

special constructions in operation



Retrofit to right/left bending enables bending of symmetrical bending workpieces



Bending capacity up to 100 mm possible with mandrel bending device 9000



Mandrel bending device 8000 with bending tool for square tube 60x40 mm



6000S with special length



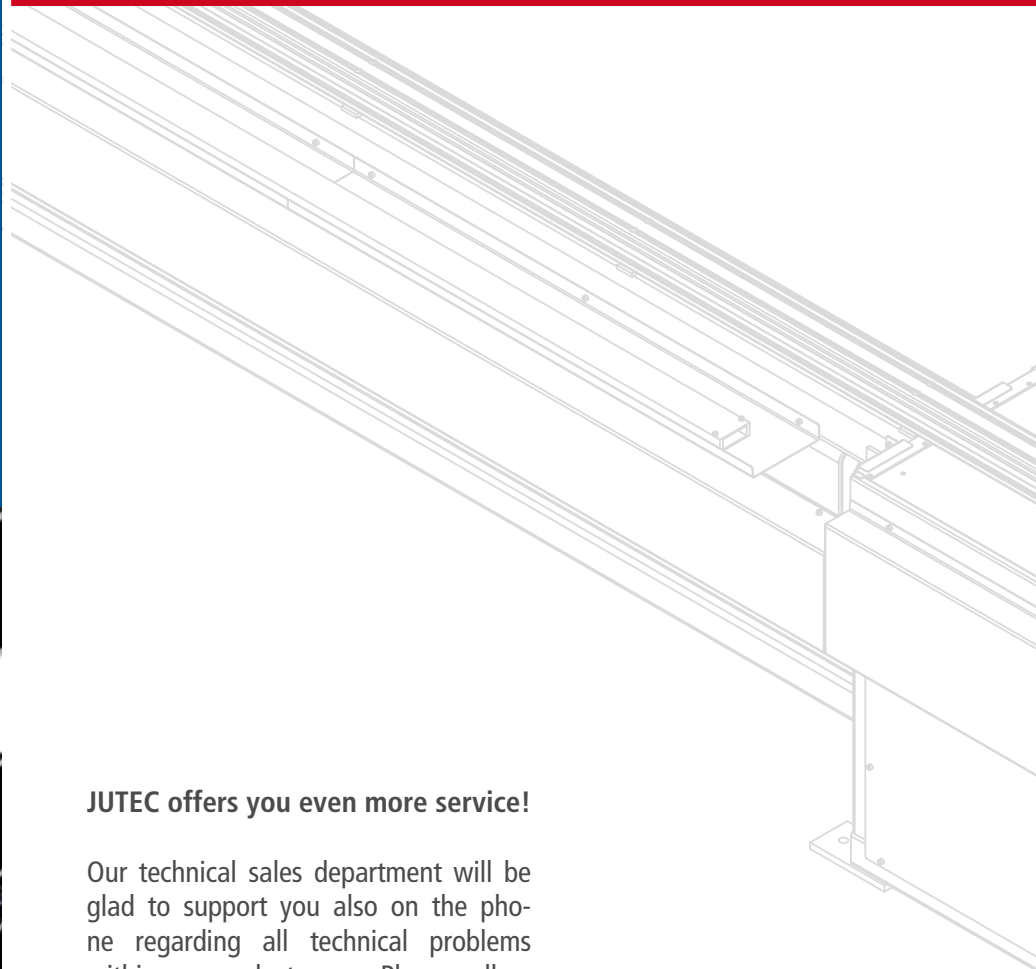
Mandrel bending machine 4800 with special tool



Special construction mandrel bending device 5000 with 3-fold bending tool



Spiral on 3-roll bending machine RB60



JUTEC offers you even more service!

Our technical sales department will be glad to support you also on the phone regarding all technical problems within our product range. Please call us or get information on the internet at:

www.jutec.de

JUTEC Biegesysteme GmbH
Ottostraße 22
D-65549 Limburg

Tel.: +49 6431/93 49-0
Fax: +49 6431/93 49-25
E-Mail: info@jutec.de



...always one bending ahead