



TruBend:

More
bending
freedom

Precise bending. More flexible than ever before.

The TRUMPF Group is one of the world's leading manufacturers of production technology. Technical solutions for our customers have been our focus since 1923. Our innovations lead the way with machine and power tools for sheet metal fabrication as well as in the laser and medical industries. The Automatically Controlled Bending (ACB) angle measuring system and the patented four-cylinder drive technology, which TRUMPF initially presented in 1997 and 2004 respectively, were milestones in the field of bending. Not only does TRUMPF continually develop new processes and more efficient machines, we also consistently realize operator-oriented innovations. Our corporate image is characterized by the highest level of quality and reliability in customer care. Our comprehensive service package assists you from the planning of your production plant to optimizing your workflow. You can rely on us for every project. Even if you only wish to learn about a new tool – we speak your language.

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TruBend Series 3000: Your introduction to TRUMPF bending technology.

The right solution for anyone who values both TRUMPF quality and a particularly attractive price/performance ratio.



TruBend Series 5000: The versatile, productive jack of all trades.

Comprehensive, high productivity, from programming to tool set up to bending: the TruBend Series 5000 works reliably and well – and even automatically.



TruBend Series 8000: Service made to measure.

For extreme component requirements, this machine series is the right solution. Special fabrication is the bread and butter of our cooperation partner EHT.

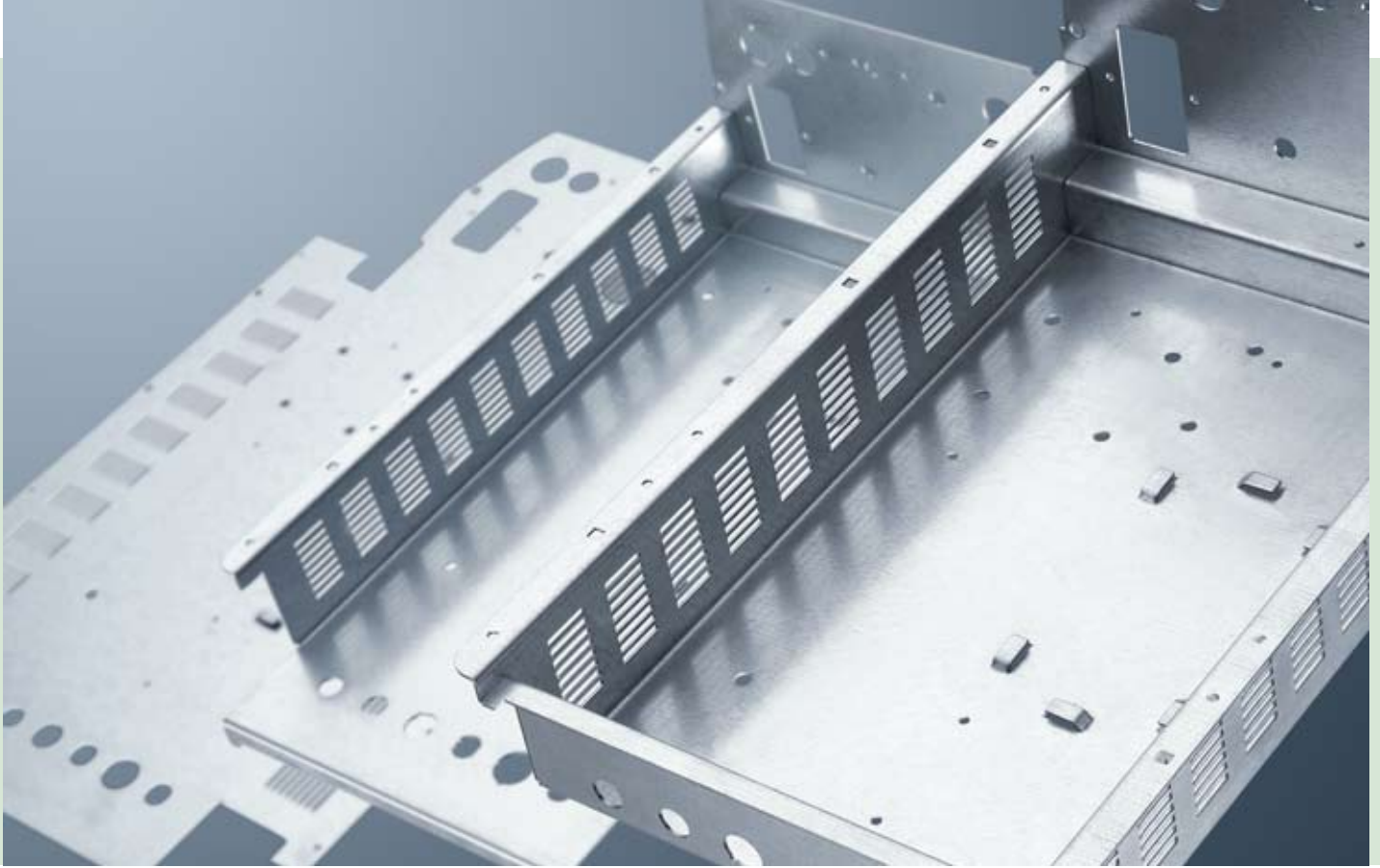


Why TruBend press brakes are so convincing.

Precise individuals.

TruBend press brakes combine a variety of advantages. The machines are flexible enough to manage the widest range of applications. Whether you produce large or small, complex or simple components – our patented technology will ensure the bending angles are correct from the very start. Our supplementary equipment allows you to assemble a machine to precisely fulfill your requirements.





Two processes. One machine.

Free bending or embossed bending? Both have their advantages and you have the choice. The highlight of free bending is the ability to bend angles between 30° and 180° without having to change tools. Extremely small leg lengths can be

bent using the embossed bending process. Fluctuations in the sheet thickness are virtually irrelevant, and the embossed profile has less spring-back. In contrast to free bending, embossed bending requires a new tool setup for each new angle.

Bending taken a step further.

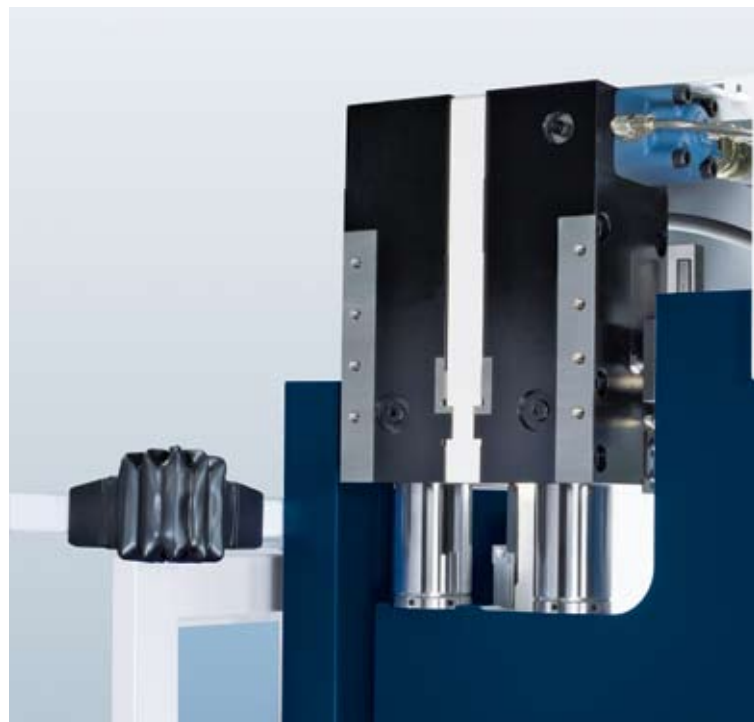


Four cylinders, many advantages.

To ensure that your components are manufactured with optimum quality, we have developed a new drive concept for the TruBend Series 5000 and the TruBend Series 3000. Where previously two cylinders applied the pressure, today four cylinders improve the bending quality. With this patented concept, the press force is applied quickly, precisely, and, most importantly, with even distribution on the beam which significantly reduces buckling. Minimal camber is required. The flat design of the front cover panel provides additional advantages. There is more edge clearance enabling even large, heavily pivoting components to be manufactured without restrictions.

Deviations excluded.

TruBend gives you effortless precision. Integrated crowning provides the parallels between the beam and the table, ensuring that exactly the same angle is bent over the entire length of the machine. The CNC crowning is fully automated, eliminating operator intervention.





Why inclined is good.

When bending eccentrically, the automated beam inclination ensures perfect bending results. With a positioning accuracy of up to 0.005 mm. For comparison: a piece of computer paper is approximately 0.1 mm “thick”.

Solidly built and accessible.

A stable machine frame is a prerequisite for precision components, as it eliminates deviations during processing. The open design of our C frames makes both the machines and the workpiece easily accessible. You have plenty of edge clearance to bend your parts.

TRUMPF



As flexible as your applications.

The more flexible your production, the faster you can react to new demands. That is why TruBend press brakes enable you to choose from a variety of flexible or simple backgauge systems, depending on your needs. In all cases, the backgauge concept offers you extremely large edge clearance, allowing you to easily manufacture even large parts. The tool clamp also provides clearance. You can choose from various clamping systems.

Tools with a system.

Our tools are the best thing that can happen to your TruBend. They are laser-hardened, and are therefore especially durable and wear-resistant. Our range of TRUMPF manufactured tools includes everything you require for bending, embossed bending, or folding. If you are unable to find what you need, we also manufacture custom tools. The programming data is included in the shipment so that new tooling can be installed in only a few minutes.

TRUMPF upper tools are laser-hardened and wear-resistant.






Faster and safer.

When you are producing at full capacity, you do not have the time to spend on safety issues. Our optional BendGuard operates on a simple principle: Two laser beams, which extend from the upper tool, secure the potentially dangerous area between the upper and lower tool. Should the laser beam be broken by an obstruction (operator's hand), the machine will stop immediately. Handling the BendGuard is also very practical.

It is secured to the beam and can be easily pushed upwards to exchange the upper tool. Of course, we also offer other options for safeguarding your work area. We would be pleased to provide you with further information.

The BendGuard safeguards the hazard area.





TruBend Series 3000

TruBend 3066 | 3120 | 3180

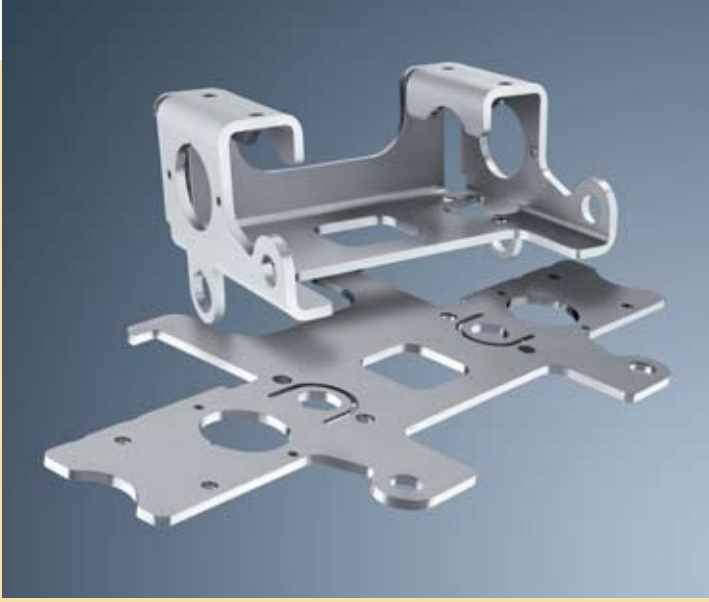


	TruBend 3066	TruBend 3120	TruBend 3180
Press force	660 kN	1,200 kN	1,800 kN
Bending length	2,080 mm	3,110 mm	4,140 mm
Width between columns	1,750 mm	2,690 mm	3,680 mm
Maximum table/beam distance	432 mm	432 mm	432 mm
Usable installation height	347 mm	347 mm	347 mm
Throat	420 mm	420 mm	420 mm
Operating height ¹	1,000 mm	1,000 mm	1,000 mm
Inclination of beam	± 3 mm	± 3 mm	± 3 mm
Speeds²			
Y rapid	200 mm/s	200 mm/s	200 mm/s
Y working	20/10 ³ mm/s	18/10 ³ mm/s	15/10 ³ mm/s
Y return traverse speed	180 mm/s	180 mm/s	180 mm/s
X axis	500 mm/s	500 mm/s	500 mm/s
R axis	340 mm/s	340 mm/s	340 mm/s
Z axis	1,000 mm/s	1,000 mm/s	1,000 mm/s
Precision			
Y axis position accuracy	0.01 mm	0.01 mm	0.01 mm
X axis position accuracy	0.05 mm	0.05 mm	0.05 mm
R axis position accuracy	0.1 mm	0.1 mm	0.1 mm



	TruBend 3066	TruBend 3120	TruBend 3180
Working range			
Y axis stroke	200 mm	200 mm	200 mm
Travel path X axis	600 mm	600 mm	600 mm
Max. gauge area in X	880 mm	880 mm	880 mm
Travel path R axis	340 mm	340 mm	340 mm
Control	T 3000	T 3000	T 3000
Connection values			
Connected load	11 kVA	18,5 kVA	18,5 kVA
Oil capacity (approx.)	100 l	200 l	250 l
Dimensions and weight			
Length x Width	2,600 x 1,750 mm	3,600 x 1,750 mm	4,610 x 2,000 mm
Height	2,330 mm	2,330 mm	2,330 mm
Weight	5,400 kg	8,300 kg	13,200 kg

¹ For 100 mm die.
² Speeds freely programmable.
³ In Europe.



Starting out or ramping up.

The TruBend Series 3000 can either be your entry into precision bending with TRUMPF technology or the expansion of your high-end machinery to include a flexible auxiliary machine. The TruBend Series 3000 offers many great features at an excellent cost-benefit ratio. It is easy to operate, complies with the highest safety standards, and delivers precise results.

The edge clearance offers ample space.

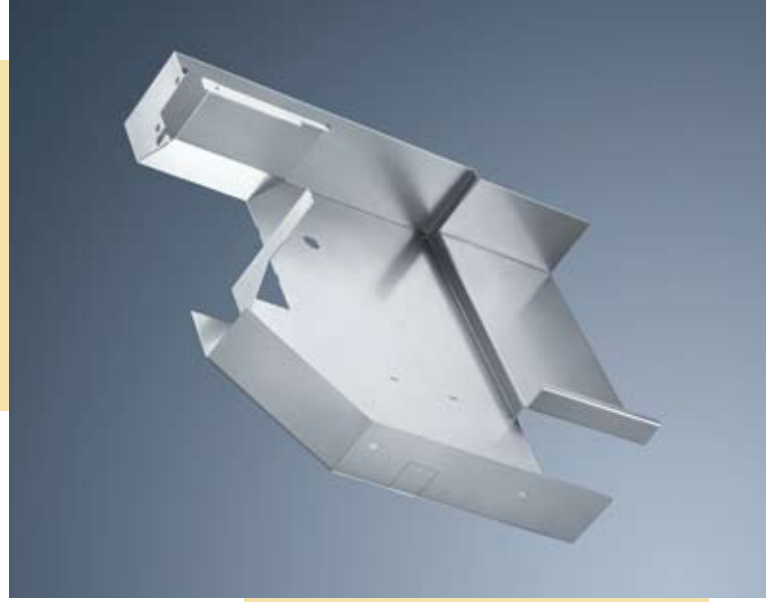


Impressively uncomplicated.

The T3000 controls are so easy to operate and its abilities are astounding. For instance, it ensures that angles and flanges are accurate. It sounds so simple and clear-cut, but there's a great deal of know-how behind it all. The T3000 calculates the immersion depth of the pressure beam on the basis of the material, die width and the sheet metal gauge. However, a correct immersion depth will only ensure that the angle is accurate. In order to ensure that the flange of the bending part is equally precise, the press brake has to take into account the fact that the material is shortened once it is bent. Therefore, the T3000 holds a comprehensive database of

Processing on the machine is as easy as operating the controls.





With the T3000, you have all machine functions under control.

all the shortening values and offers the ideal conditions for accurate bending parts. Just in case you change the immersion depth or the position of the backgauge, these values will be put into the database and will automatically be recommended for use with the next programming.

The large storage capacity of the control system is sufficient enough to hold up to 10,000 bending programs. Furthermore, the control system comprises up to 99 upper and lower dies and a maximum of 99 materials of your choice.



TruBend
Series
5000

TruBend 5050 | 5085 | 5130 | 5170 | 5230 | 5320



	TruBend 5050	TruBend 5085	TruBend 5130	TruBend 5170	TruBend 5230	TruBend 5320
Press force	500 kN	850 kN	1,300 kN	1,700 kN	2,300 kN	3,200 kN
Bending length	1,275 mm	2,210/2,720 ¹ mm	3,230 mm	3,230/4,250 ¹ mm	3,230/4,250 ¹ mm	4,420 mm
Width between columns	1,040 mm	1,750/2,260 ¹ mm	2,690 mm	2,690/3,680 ¹ mm	2,690/3,680 ¹ mm	3,680 mm
Maximum table/beam distance	505 mm	505/735 ¹ mm	505/735 ¹ mm	735 mm	735 mm	735 mm
Usable installation height	385 mm	385/615 ¹ mm	385/615 ¹ mm	615 mm	615 mm	615 mm
Throat	420 mm	420 mm	420 mm	420 mm	420 mm	420 mm
Operating height ²	1,085 – 1,105 mm	1,095 – 1,115 mm	1,095 – 1,115 mm	1,095 – 1,115 mm	1,095 – 1,115 mm	1,110 – 1,130 mm
Inclination of beam	± 10 mm	± 10 mm	± 10 mm	± 10 mm	± 10 mm	± 10 mm
Speeds³						
Y rapid	220 mm/s	220 mm/s	220 mm/s	220 mm/s	220 mm/s	220 mm/s
Y working	bis 10 mm/s	bis 10 mm/s	bis 10 mm/s	bis 10 mm/s	bis 10 mm/s	bis 10 mm/s
Y return traverse speed	220 mm/s	220 mm/s	220 mm/s	220 mm/s	220 mm/s	220 mm/s
X axis	1,000 mm/s	1,000 mm/s	1,000 mm/s	1,000 mm/s	1,000 mm/s	1,000 mm/s
R axis	330 mm/s	330 mm/s	330 mm/s	330 mm/s	330 mm/s	330 mm/s
Z axis	1,000 mm/s	1,000 mm/s	1,000 mm/s	1,000 mm/s	1,000 mm/s	1,000 mm/s

¹ Values apply to larger model (options). ² For 100 mm die. Value depends on wedge size.



	TruBend 5050	TruBend 5085	TruBend 5130	TruBend 5170	TruBend 5230	TruBend 5320
Precision						
Y axis position accuracy	0.005 mm	0.005 mm	0.005 mm	0.005 mm	0.005 mm	0.005 mm
X axis position accuracy	0.04 mm	0.04 mm	0.04 mm	0.04 mm	0.04 mm	0.04 mm
R axis position accuracy	0.08 mm	0.08 mm	0.08 mm	0.08 mm	0.08 mm	0.08 mm
Working range						
Y axis stroke	215 mm	215 mm	215 mm	445 mm	445 mm	445 mm
Travel path X axis	600 mm	600 mm	600 mm	600 mm	600 mm	600 mm
Max. gauge area in X	860 mm	860 mm	860 mm	860 mm	860 mm	860 mm
Travel path R axis	250 mm	250 mm	250 mm	250 mm	250 mm	250 mm
Control						
	TASC 6000	TASC 6000	TASC 6000	TASC 6000	TASC 6000	TASC 6000
Connection values						
Connected load	10 kVA	17 kVA	23 kVA	26 kVA	42 kVA	42 kVA
Oil capacity (approx.)	90 l	120 l	220 l	220 l	330 l	420 l
Dimensions and weight						
Length x Width	2,190 x 1,740 mm	3,110 x 1,740 mm 3,620 ¹ x 1,740 mm	4,070 x 1,740 mm	4,250 x 1,865 mm 5,240 ¹ x 1,865 mm	4,270 x 1,955 mm 5,260 ¹ x 1,955 mm	5,300 x 1,955 mm
Height	2,375 mm	2,375 / 2,835 ¹ mm	2,375 / 2,835 ¹ mm	3,000 mm	3,200 mm	32,00 mm
Weight	4,900 kg	7,300 / 7,800 ¹ kg 8,200 / 8,600 ¹ kg	10,200 / 10,900 ¹ kg	12,000 / 16,000 ¹ kg	16,000 / 19,500 ¹ kg	22,400 kg

³ Speeds freely programmable.

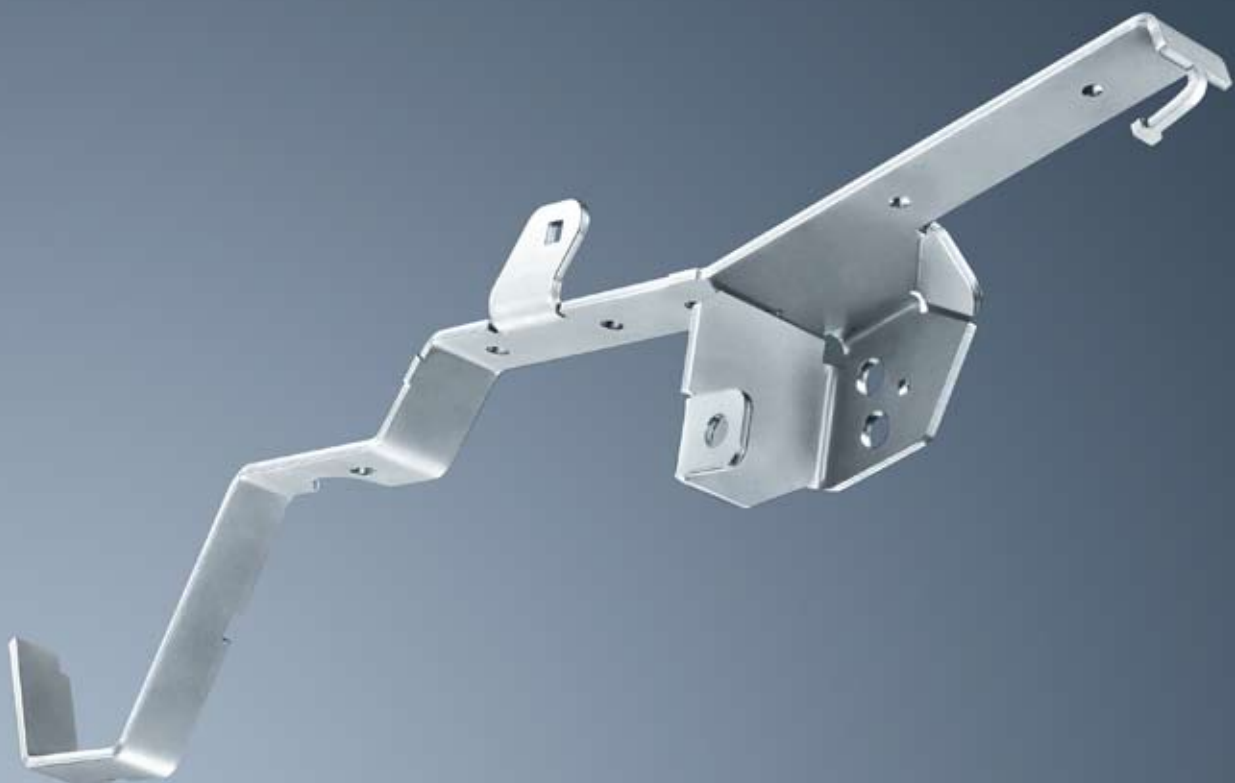


Six-axis backgauge solutions are available.

One for all.

Whether for volume production or small lot sizes, you will find the appropriate product for your needs within the TruBend Series 5000. Press force in our product group ranges from 50 t up to 320 t, and bending lengths are available from 1.2 m to

4.4 m. Additionally, backgauge solutions with two to six axes are available, depending on the complexity and geometry of the parts to be manufactured.





The ACB tool ensures exact angles.

It is a question of the correct angle.

The TruBend Series 5000 simplifies bending with ACB (Automatically Controlled Bending). What may sound complicated is actually quite simple: When you manufacture a new production run, the very first part is accurate. This saves cumbersome downtime and reduces scrap when starting production. In addition, lead time is improved because parts do not need to be measured and reworked. If the tolerances are exceeded, up to eight angle measuring systems swing into action and correct the angle immediately.

The optical positioning aid guides you from station to station.

Follow the light.

The optical set-up and positioning aid is a red LED bar that is installed in the cover of the upper tool holder. It shows to the nearest millimeter where bending tools have to be set up. This means the tools can be operated even without a setup plan and they will fit perfectly. The same applies to bending in numerous stations. The bending part can be easily positioned with the assistance of the indicator lights; checking the control unit is unnecessary. Non-productive time is thereby reduced. And not only that, because operators work in comfortable conditions, their productivity increases when operating the machine.





The Mobile Control unit contains the most important functions for machine control.

Success is controllable.

A TruBend Series 5000 press brake does exactly what you want it to do. All you need is the TRUMPF TASC 6000 touch screen control which guides you through clear, interactive interfaces offering a variety of possibilities. These include user authorizations, tool management, programs, and materials as well as setup plans drawn in minutes and bending programs with 3D simulations of the bending process.

The optional Mobile Control unit is a remote control for the machine. With this unit, the operator has the important functions under control without having to move from place to place. The integrated online support answers your questions right away. Should the need arise, our Teleservice can connect directly to your machine (with your approval) through the integrated modem and solve the issue quickly and without complications.

The bending aid assists the operator in the handling of very difficult parts.





TruBend
Series
8000

TruBend 8050 | 8085 | 8130 | 8170 | 8230 | 8300 | 8400 | 8500 | 8600



	TruBend 8050	TruBend 8085	TruBend 8130	TruBend 8170	
Press force	500 kN	850 kN	1,300 kN	1,700 kN	
Bending length	1,550 – 2,050 mm	1,550 – 4,050 mm	1,550 – 5,050 mm	2,050 – 6,050 mm	
Table/beam distance	570 – 870 mm	720 – 1,020 mm	720 – 1,020 mm	720 – 1,020 mm	
	TruBend 8230	TruBend 8300	TruBend 8400	TruBend 8500	TruBend 8600
Press force	2,300 kN	3,000 kN	4,000 kN	5,000 kN	6,000 kN
Bending length	2,550 – 6,050 mm	3,050 – 8,050 mm	3,050 – 8,050 mm	3,050 – 8,050 mm	4,050 – 8,050 mm
Table/beam distance	720 – 1,020 mm	720 – 1,020 mm	720 – 1,020 mm	720 – 1,020 mm	720 – 1,020 mm

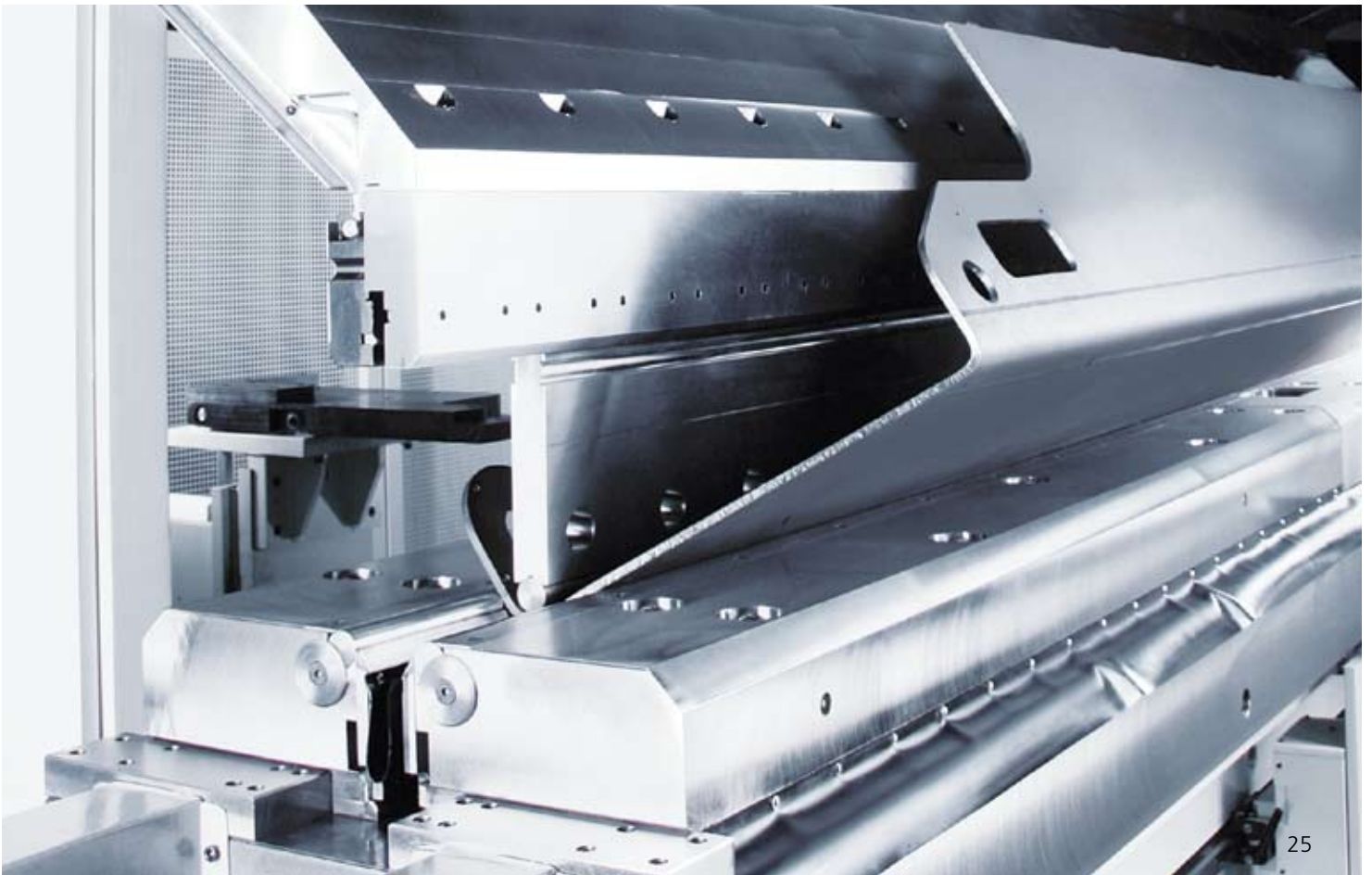
Customer-specific requirements available upon request.



The specialists.

A machine specifically designed to meet your requirements is sometimes the best solution. Especially if you have an extraordinary application to manage, such as very large or especially long parts or those that require a higher press force. The TruBend Series 8000 press brakes are designed especially to meet your requirements. You determine the press force and working length, the accessories and the attachments. Precision, reliability and cost transparency are all included. The application of standard devices contributes to an optimal cost-benefit ratio.

The TruBend Series 8000 enables you to bend even unusually large parts.



Teamwork.

The custom-made products of the TruBend Series 8000 are produced by our partner, EHT Werkzeugmaschinen GmbH. You are the one who will primarily benefit from this partnership. Years of experience in producing press brakes and thousands of installed machines prove the competence of EHT engineers.

A mobile tool transporter can help you move especially heavy tools.





Precise angles from the start.

The Laser Controlled Bending system (LCB) measures angles without touching the material and without wear. Yet LCB not only measures, it also automatically controls angles, adjusting them if required, so they are correct from the first part on.

Automation:

Two versions
for broad
bandwidth.



BendMaster	up to 60 kg bearing load	up to 150 kg bearing load
Max. ultimate load	60 kg	150 kg
Max. weight of plate	40 kg	100 kg
Min. sheet thickness	0.7 mm	0.7 mm
Max. format for components	2,000 x 1,000 mm	3,000 x 1,500 mm
Max. profile for parts format	3,000 x 1,000 mm	4,000 x 500 mm
Max. length floor track	14 m	16 m
Max. number pallet spaces	24 ¹	26 ²

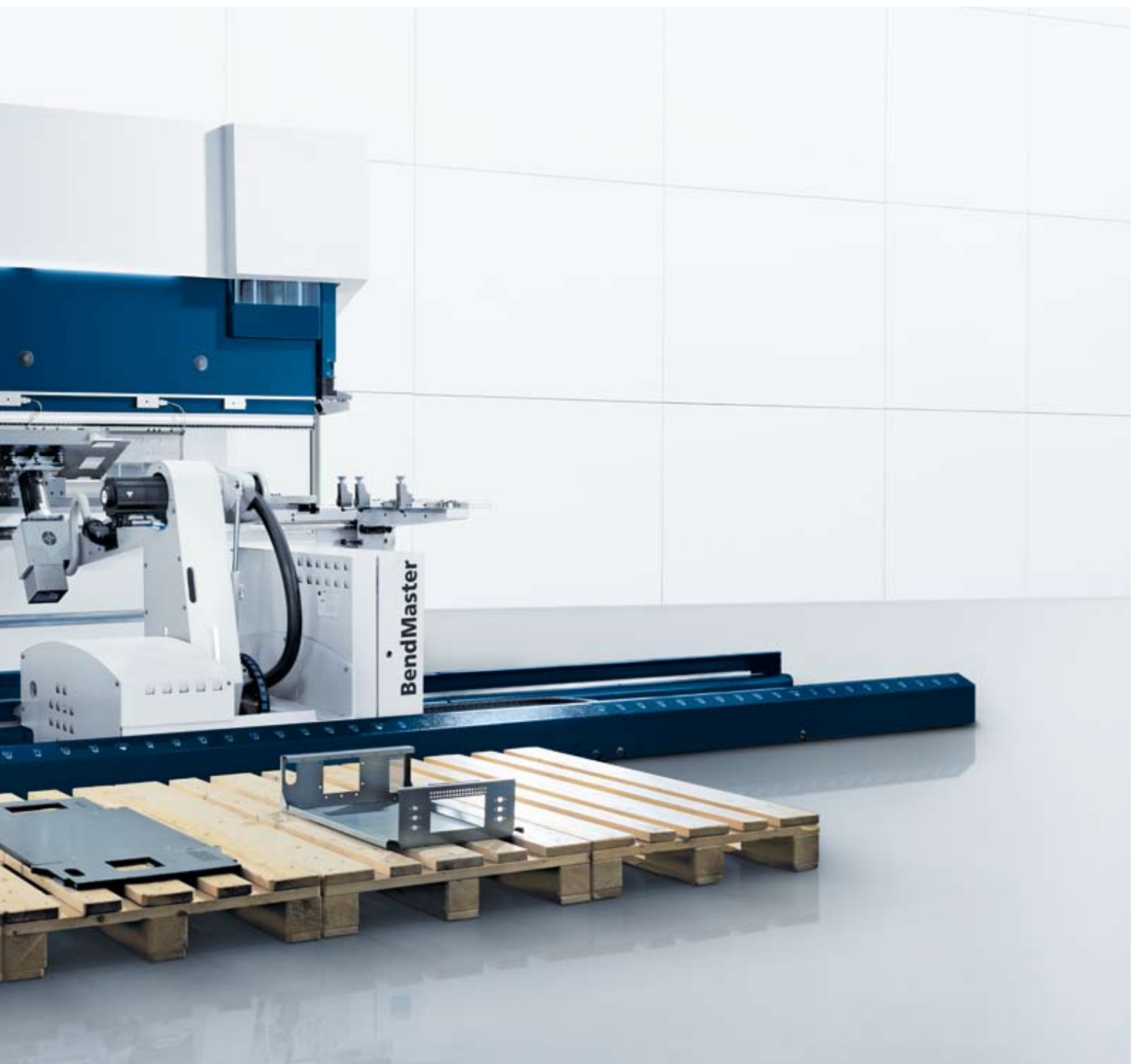
¹ For TruBend 5085 with 14 m track length.

² For TruBend 5130 with 16 m track length.

For small parts, use a mechanical gripper.

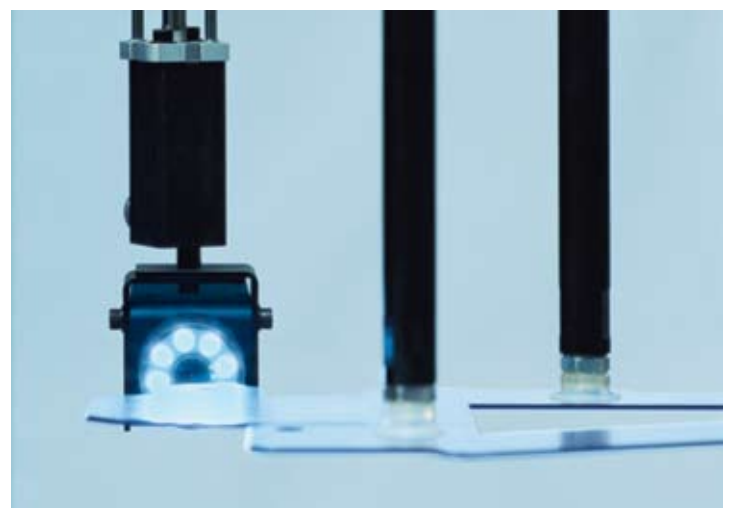


Used with the BendMaster, TruBend Series 5000 press brakes operate more productively and almost by themselves. Together, both continue to produce even when the operator takes a break, or, if needed, they can operate extra shifts. The BendMaster processes stacks of sheet metal precisely according to schedule, feeds the machine blanks as well as sorts and stacks the finished parts. The TRUMPF specialized bending robot is available in two versions. In the version with a maximum bearing load of 150 kg, the BendMaster positions sheets with a weight of up to 100 kg. The BendMaster with a bearing load of up to 60 kg can handle small to large components weighing up to



Material-handling technology enables parallel processing during production.

40 kg with a combination of mechanical and vacuum grippers. The TruBend Series 5000 and the BendMaster are operated with just one control, and both are programmed offline with TruTops Bend. BendMaster's integrated sheet sensor ensures that the exact positioning of the sheet metal stack is detected and the single sheets are input correctly. An additional positioning station is not required. Owing to the modular construction of the BendMaster's floor tracks – extensions up to 16 m are possible – and the integration of various material-handling technologies, customized bending cell solutions are possible.



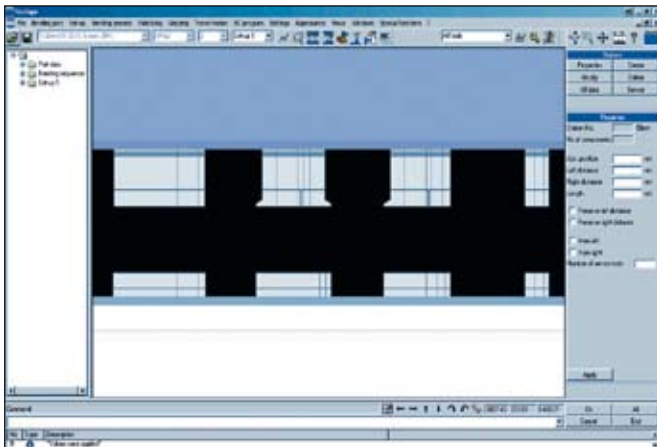
TruServices:

Programmed
for success
with TruTops.

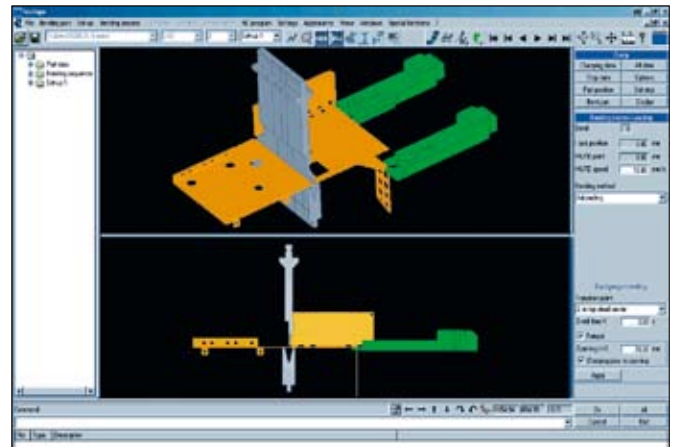
Operator-friendly.

With the TruTops Bend software, safe bending processes can be easily programmed while your press brake is in use. From the initial idea to the completed part, this software is based on TRUMPF expertise, and takes into consideration automation components such as the BendMaster. Its concise structure makes it intuitive to use.

TruTops Bend will suggest the tools you will need to prepare.



A complete bending process is simulated in order to prevent a collision from occurring.





Three steps to the NC program.

The system establishes the order of bending and the assembly plan according to your guidelines. It will then simulate the bending process and deliver the most efficient processing routines. 3-D animation advises you of possible collisions. As soon as a trouble-free procedure is guaranteed, TruTops Bend configures the NC program with your machine's machining sequence and defines all necessary work steps. As a final step, the completed NC program is automatically generated and transferred to your machine.

The only requirement is a standard PC with Windows®. The software can be easily integrated into your in-house network, so that an online connection to the TruBend machine is not a problem.

TruServices:

We are
there
for you.

Guidance right from the start.

In addition to bending tools and software, we offer you numerous services related to the machine. Our service begins even before you decide on a TruBend. We provide comprehensive consulting services so that together we can figure out which machine you really need. And we will also be happy to help you dispose of your old machine on request.

Money matters.

TRUMPF has many different financing and leasing options to offer you when buying a TruBend. Leasing eases your liquidity situation and does not incur investment taxes. Leasing is also balance-sheet-neutral. It has no effect on your balance sheet figures, an important factor in your credit rating under the Basel II agreement.

It's a go.

After delivery, your TruBend is up and running in very little time. Because the machine, programming, and tools all come from a single source, there are no interface problems to worry about.





Comprehensive support.

TRUMPF supports you throughout the entire life cycle of your machine and beyond with services that are made to order. We maintain the machine and retrofit it with new options when desired. We train you and your employees so that you can take advantage of the full potential of your TruBend machine. When needed, we optimize the machine parameters on site and

help you to improve parts cost, production speed, and quality. If necessary, our service specialists can link directly to your machine through a modem, with your permission, and access the control system – keeping downtime and technician visits to a minimum. And if you ever need spare parts, we are there for you around the clock, 365 days a year.



TRUMPF is certified according to DIN EN ISO 9001 and VDA 6.4