TruBend
Think ahead.
Bend better.
Attention to every detail

Innovative ideas drive forward bending – and therefore your company, too. Modern bending machines from TRUMPF impress with functions that save resources, make operation easier and ensure precise quality – from the very first part. Whether it’s laser-measured angles, energy-saving hydraulics or fully automatic tool changes – find out more about how you can make your bending production even more successful on the following pages.

**Appropriate:**
- Choose from the largest range on the market

**Modern:**
- Digital functions provide precise results

**Simple:**
- Fun operation that is easy to learn
FACTS AND INNOVATIONS

You can’t bend the facts 4
Applications

HIGHLIGHT FUNCTIONS

Producing the complete spectrum of products 8
Part variety

Precise angles from the very first part 10
Quality

Reducing setup times all round 12
Productivity

Bending is team work 14
Ergonomics

Intuitive operation and programming 16
Programming

The right tool for any eventuality 18
Tools

MACHINES

TruBend Series 3000 22
The cost-efficient standard machine

TruBend Series 5000 24
The productive all-round machine

TruBend Series 7000 28
The ergonomic high-speed machine

TruBend Series 8000 30
The flexible large-format machine

Tandem version of the TruBend Series 8000 32
For double the press force and double the bending length

AUTOMATION

Automatically successful 34
Individual automation

ToolMaster 36
Change tools automatically

TruBend Cell 5000 38
The productive universal bending cell

TruBend Cell 7000 42
The innovative high-speed bending cell

TECHNICAL DATA

Figures 46
All details at a glance

SERVICES

TruBend Center 52
Putting the spotlight on panel bending

TruServices 54
Your Partner in Performance

TRUMPF 55
Passion is what drives us
# You can’t bend the facts

Bending sheet metal with 1,000 tons of press force precisely to 0.3°? TruBend machines make it possible. This page shows fascinating facts and illustrates what you can bend under optimum conditions.

<table>
<thead>
<tr>
<th>30%</th>
<th>weight savings with lightweight bending tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>450 km</td>
<td>TRUMPF has delivered over 450 km of bending tools to date</td>
</tr>
<tr>
<td>30°</td>
<td>30° bends due to bending aid</td>
</tr>
<tr>
<td>1,000 t</td>
<td>You can bend 1,000 t of large and thick parts powerfully</td>
</tr>
<tr>
<td>0.3°</td>
<td>0.3° can be bent</td>
</tr>
<tr>
<td>2,500 mm/s</td>
<td>2,500 mm/s backgauge for fast station operation</td>
</tr>
<tr>
<td>0.002 mm</td>
<td>Positioning precisely to 0.002 mm</td>
</tr>
</tbody>
</table>
Programming is essential when it comes to bending. Programs such as TecZone Bend simulate the bends in 3D and automatically check feasibility. This decreases the mental effort you need to put in, saves time and avoids rejects.

Setup is a part of bending. It is faster and easier with the automatic tool changer, tools with a lightweight design and automatically prepared setup plans.

It all depends on the angles. Whether you bend manually or automatically – intelligent functions ensure precision and productivity in your production.
Innovations for your success

You want to know what’s in it for you before you invest. On the following pages you can find the most important functions of the TruBend family sorted according to the benefits: part variety, quality, productivity, ergonomics, programming and tools.
Producing the complete spectrum of products

Whether you are bending delicate or oversized parts: use the widest machine range on the market to meet your various requirements – simply and without compromise.

Any component geometry

Regardless of whether it’s thick, thin, large or small parts – with bending machines from TRUMPF you can produce an enormous part variety. Due to the large range of TruBend machine variants, you can process any component geometry cost-efficiently and in top quality. You benefit from:

- various tonnages and bending lengths
- a large material range from aluminum to Hardox
- precise positioning of your parts with 2-, 3-, 4-, 5- or 6-axis backgauge systems

Any part size

If you normally bend large parts, the option increased open height might be of interest for you. In contrast, the TruBend Series 7000 and the automatic TruBend Cell Series 7000 are specialized for small parts. Bend with flexibility:

- With a press force of up to 1,000 metric tons
- Parts of up to 8 m in length
- Box heights of up to approx. 518 mm

Depending on the machine, you can bend box heights of up to 518 mm

Precisely realize even complex parts with many bends
Through thick and thin

Does the sheet thickness vary from batch to batch? No problem – the Thickness Controlled Bending (TCB) function automatically compensates for variations. Sensors detect the actual thickness of each sheet and adjust the pressing depth of the upper tool accordingly. This means that you can achieve precise angles regardless of the sheet thickness – without loss of productivity, calibration and programming effort.
Precise angles from the very first part

Perfect angles are what really counts when it comes to part quality during bending. If they are right from the very first part, you prevent rejects and don’t waste material or time. You have to be able to rely on your parts being identical in series production – you don’t want to have to measure every angle again at the end. This isn’t necessary with a TruBend machine, because it offers you valuable additional benefits.

Precise angles right away

Numerous factors influence angle precision when bending, for example fluctuating strengths in the material or springback. The solution: automatic angle measuring systems from TRUMPF – they enable you to bend perfectly from the very first part in a series. ACB stands for “Automatically Controlled Bending.” The ACB systems’ sensors record the actual angle and springback and control the press beam so that the desired angle is bent – quickly and precisely. The two ACB Laser and ACB Wireless systems complement one another; one system may be more appropriate than the other depending on the application.

Tactile process: ACB Wireless

The user-friendly system measures and corrects angles using two sensor disks that are integrated into the upper tool. These sensor disks come into contact with the inner surface of your bending part during bending. In doing so, together with sensors, they measure the precise angle electronically and ensure that it is perfect. The control and the angle measuring system communicate wirelessly here.

Optical process: ACB Laser

Without any setup required – with ACB Laser you can use a non-contact, optical system for angle measurement. This means that two measuring units move in front of and behind the bending line independently of one another. Each unit consists of a laser and a camera. The laser projects a line onto the sheet metal; the camera detects this line and calculates the angle of the bending part in real time.
The benefits for you – quality

Particularly suitable for:
– Acute and obtuse angles
– Thick sheet metal
– Large radii

No set-up required
System is suitable for all tools
Use of special tools possible
Low interference contour
Completely mark-free
Quick multi-point measurement

Strengths of ACB Wireless

- Particularly suitable for:
  - Short flanges
  - Reflecting surfaces
  - Interior tabs
- Quick station bending
- Quick multi-point measurement

Strengths of ACB Laser

- Particularly suitable for:
  - Acute and obtuse angles
  - Thick sheet metal
  - Large radii
- No set-up required
- System is suitable for all tools
- Use of special tools possible
- Low interference contour
- Completely mark-free
- Quick multi-point measurement

- High speed
- Perfect angles
- Various bending methods possible
Reducing setup times all round

From machine functions and tools to the software components – reduce your setup times to a minimum. You can achieve this with the aid of our unique overall concept. Read more about some of its components on this spread.
**Lightweight bending tools:**
30% less weight

With the Safety-Click safety mechanism you can change the upper tools from TRUMPF quickly and safely. The operator simply clamps the tool into and out of the machine clamp from below. Patented lightweight bending tools from TRUMPF weigh around 30% less than conventional upper tools; they are just as durable and resilient though. This means that the operator doesn’t have to lift such heavy loads and can set up more quickly.

**BendGuard:**
Automatically safe

Due to the BendGuard, you no longer have to adjust any safety devices manually on your bending machine. The BendGuard is CNC-controlled and moves independently to the height of the set-up tools. This means that you avoid errors and save manual interventions and setup time.

**ToolShuttle:**
Change tools simply

Manual setup made easy? This can be achieved with the ToolShuttle. You can ergonomically move the tools from the tool magazine to the setup position via a moving table – this makes handling easier, particularly of large and heavy tools. Your tools are also secure in the ToolShuttle – the closed storage prevents corrosion or dirt, the tools do not slide about, and searching time is also reduced.

**Tool Indicator:**
Position precisely

Due to the LED bar in the upper tool clamp, you can set up in no time – it shows you exactly where the tool stations have to be set up. It also visualizes which tool station the next bend is to be carried out on.

**ToolMaster:**
Change tools automatically

The ToolMaster automatically sets up your bending machine for every new program. An invaluable benefit, especially in case of small lot sizes, as you save time and effort. Find out more about the functions and benefits of the ToolMaster on pages 36 and 37.

The ToolShuttle allows you to set up heavy tools quickly and simply.

During set up the Tool Indicator shows precisely where the bending tools have to be used.
Bending is team work

The team made up of human and machine is critical to success during bending. If the operator is at ease, the machine can deliver its full potential. A bending machine from TRUMPF therefore does everything it can to make the operator’s work easier. Starting with a quiet drive, optimum illumination and the adjustable screen, to intelligent highlights such as the MagicShoe – ease of operation and ergonomic design ensure bending is more fun and bring relief to the bending specialist physically. A few examples:
The benefits for you – ergonomics

MobileControl: For less time spent moving about
The smart helpers MobileControl and MobileControl Pro ensure that you spend less time moving around. As movable operating units in a rail on the press beam, they include the most important functions, meaning that you can change the machine parameters in an instant – without constantly having to go to the control panel.

Bending aid: Lift sheet metal easily
Over time, bending large and heavy parts has a negative impact on the health of even the strongest operators. The bending aid from TRUMPF prevents the problem before it starts. It aids bending of weights of up to 300 kg, relieves the operator in the case of angles of up to 30°, and can be automatically adjusted in height.

Part Indicator: For minimal rejects
The Part Indicator indicates to the operator on the screen where they should position the bending part. The next insertion position is then always shown. This reduces rejects, particularly in the case of inexperienced operators.

Wireless foot switch and MagicShoe: For safe operation
Safety is important for ensuring that every operator can work optimally. The TÜV-tested wireless foot switch provides increased freedom of movement and eliminates the tripping hazard. The MagicShoe takes you another step towards ergonomics; it completely replaces the foot switch – the stroke is triggered by a movement of the foot.
Intuitive operation and programming

With TRUMPF, benefit from the enormous potential for time savings when controlling and programming your bending machine. The Touchpoint TruBend combines the advantages of state-of-the-art multi-touch technology and industrial control. This makes operating your bending machine as simple and intuitive as using a tablet or smartphone. Programming 25 parts in 18 seconds? TecZone Bend makes it possible. Benefit from the quickest and simplest bending programming currently on the market.

A dialog between operator and machine

**Touchpoint TruBend** is the simple interface for operating your bending machine. Navigation follows an intuitive logic. The displays are reduced to their essentials; realistic 3D visualizations with collision check make processing easier. The right solution is therefore achieved for each application – from simple to complex components. The integrated aid also makes machine operating easier; it can be called up using twofinger operation and simple touch gestures such as swiping.

**TecZone Bend** is the quickest and simplest programming system for bending machines and a great help for any operator. This means that you can carry out programming either at the machine or offline in the office and can switch seamlessly between these two aspects. The TRUMPF software automatically generates program proposals, including NC programs, based on 2D and 3D data. It calculates your bending programs in seconds – including collision check in real time, dismantling assemblies, managing setup plans, and much more. Prioritization of tools reduces work outlay and increases the productive operating time of your machine.
Access the right program automatically

Access the right bending program in an instant with the 2D code scanner. The scanner, which is connected to the machine, reads a bar code or Data Matrix Code from paper and automatically loads the program. This saves you entry and search outlay.
The right tool for any eventuality

Your bending machine provides top performance every day. All components have to interact to ensure this. This is why we don’t just provide detailed advice, but also produce all tools ourselves – durable, precise and perfectly coordinated to your TruBend machine. Choose from the widest range of tools on the market. Our specialists also develop special tools to suit any requirement.

Durable with built-in added value
Wear-resistant working areas make your tools particularly durable. This is why laser beams harden them precisely where it matters – on the surface. The interior remains elastic to ensure that the tool does not splinter during overload. High-quality coatings such as LASERdur AL and LASERdur ZN prevent unwanted adhesion of aluminum or zinc due to abrasion of the sheet metal. This means that there are outstanding glide characteristics and no marks or imprecision. Your tools are also corrosion-resistant and do not have to be cleaned.

Bend without leaving any trace
When bending visible parts it is particularly important that you do not leave any marks on the sheet metal. You can achieve this with the RollBend tool. It enables you to create small flange lengths, as well as moldings and holes close to the bending line, without causing deformation. You can easily combine it with standard dies.

Ensure your tools have a high level of surface hardness and outstanding glide characteristics – the LASERdur AL and LASERdur ZN hardening processes.

With the RollBend tool you can create short flange lengths, as well as moldings and holes close to the bending line, in a low-mark manner and without causing deformation.
For perfect interplay with your machine, we produce all bending tools ourselves. You can obtain more than 150 upper and lower tools ex stock – as a set or individual parts. We develop, test and produce special tools in accordance with your specifications for particular requirements.
To ensure you bend correctly

Whether you are a specialist for small or large parts, want to bend productively as an all-rounder or rely on fully automatic bending cells – you have the choice. On the following pages, you can find bending machines with intelligent functions for every requirement – to ensure you’re always on the right track when it comes to bending.
Find more information on TruBend machines at www.trumpf.com/hup25d
TruBend Series 3000

The cost-efficient standard machine – combines top TRUMPF quality with simple operation and an attractive price-performance ratio.

01 Simply get started
and program

02 Compact design
for symmetrical transmission of forces

03 Flexible setup
using the system

04 Precise angles
measured by laser
01

**Simply get started**
and program

You can also produce cost-efficiently with low capacity utilization with the machines from the TruBend Series 3000. Furthermore, you benefit from top safety standards. You can carry out graphical programming directly at the controls by quickly inputting externally created 2D DXF drawings. Tool data in DXF format can be imported quickly. TecZone Bend, the quick and easy programming system, is also available as an offline version.

---

02

**Compact design**
for symmetrical transmission of forces

The compact architecture with hydraulic drive ensures a symmetrical transmission of forces. The entire bending length can be used without limitations here. The crowning facility guarantees uniform, precise angles, even with large bending lengths. That and their 4-cylinder technology make the machines of the TruBend Series 3000 the fastest bending machines of their class.

---

03

**Flexible setup**
using the system

The tool handling is thoroughly well thought-out – self-centering tools reduce setup times; wear-resistant tool clamps ensure quality in the long run. You can set up upper tools of up to 13.5 kg from below quickly with the aid of Safety-Click. You can also insert tools so they are rotated in the mounting.

---

04

**Precise angles**
measured by laser

The TruBend Series 3000 is the only machine in its class with which you receive the ACB Laser angle measuring system. The laser and camera automatically check whether all angles are correct during the bending operation. The non-tool-based measurement system means no marks, no setup outlay and top part quality without rejects.

---

More information about the impressive functions of the TruBend Series 3000:

- System for perfect angles (page 10/11)
- TecZone Bend offline programming (page 16)
- 2D code scanner (page 17)

Find more information about the TruBend Series 3000 at www.trumpf.com/s/kx4t6m
TruBend Series 5000

The productive all-round machine – with its high number of benefits and functions during programming, setup and operation, you achieve unrivalled productivity during production.

01 Makes your designs a reality
precise and flexible

02 Flexible expansion
and automation

03 Ergonomic control
made for operators

04 Easy to operate
with handy extras
01

**Makes your designs a reality**
precise and flexible

Everything it does, it does quickly and precisely – among other things, sophisticated angle measuring systems such as ACB Wireless and ACB Laser ensure precise angles from the very first part – regardless of the material properties. It is user-friendly, saves rejects and increases your productivity, as it reduces outlay for running in. Choose the right solution for every application – the two independent angle measuring systems can be combined with one another.

![Precise angles due to laser measurement – ACB Laser.](image)

02

**Flexible expansion**
and automation

Your machine grows with you – with the ToolMaster tool changer you can set up automatically. You can also upgrade it to the automated bending cell TruBend Cell 5000.

![The ToolMaster now includes even more tools.](image)

03

**Ergonomic control**
made for operators

The third generation of the TruBend Series 5000 makes the operator’s daily work easier due to a variety of innovations. This includes comfortable and ergonomic control via wireless foot switch or MagicShoe, which you can use to trigger the stroke directly. With the MobileControl system, you can save walking time, which is a great advantage when it comes to a 4-m-long machine.

![The wireless foot switch puts an end to tripping.](image)

04

**Easy to operate**
with handy extras

The handy bending aid for angles of up to 30°, including automatic height adjustment, provides valuable assistance. In particular, it helps when bending heavy or large parts. You can choose between either plastic, brushes or rollers as support. The Part Indicator positioning aid makes correctly inserting the component into the machine easier – safety is increased for the operator and you reduce rejects.

![The bending aid – supports the operator.](image)
**Fully automatic safety**

due to BendGuard Automatic

Adjusting the safety device manually? Not anymore. Due to the CNC control, the BendGuard Automatic moves automatically to the tool height of the set-up upper tools. This means that you save two additional manual interventions, and therefore valuable setup time. A possible safety-relevant source of error is also eliminated.

---

**Efficient and economical**

gained as required

The speed-controlled servo drive On-Demand Servo Drive precisely provides your TruBend machine with the energy that it needs. It only runs during the bending process; in between, the hydraulics stop and do not use any energy. This means that it is economical, quick and quiet. If the press beam has to cope with a large pressing depth, the On-Demand Servo Drive supports it with increased working speed.

---

**Clearance**

for precision

Due to the low deflection of the press beam, the 4-cylinder drive ensures a high level of precision over the entire bending length. Its flat design with a small cylinder diameter provides more edge clearance in front of the machine. The minimal contact surface prevents transfer of heat to the machine frame. The drive works electro-hydraulically and thus particularly dynamically, quietly and in an energy-saving manner.

---

**Universal bending**

due to carefully thought-out design

You can bend a universal spectrum of parts with the TruBend Series 5000. The open machine architecture allows large box heights and greater part flexibility. With the help of the lower tool displacement, you can use special lower tools if required, for example to create folds or Z bends at a station – this can be done quickly, without retooling. The 6-axis backgauge with its gauge fingers that are independent from one another support maximum part variety.
Smart and intuitive
with Touchpoint control

Operate your bending machine as easily as your smartphone – TRUMPF combines the benefits of state-of-the-art multi-touch technology and industrial control in the Touchpoint TruBend. Intuitive operation, even possible with gloves, is reminiscent of tablets or smartphones. The displays focus on the essentials and therefore make handling easier.

An additional screen gives you a better overview.

A boost
for your programming

With the TecZone Bend software you can use the fastest and simplest programming system for bending machines on the market. It allows you to program either at the machine or offline in the office, and relieves each machine operator significantly.

Shop floor programming with TecZone Bend.

More information about the impressive functions of the TruBend Series 5000:

- Thickness Controlled Bending – TCB (page 9)
- System for perfect angles (page 10/11)
- Tool Indicator (page 13)
- BendGuard (page 13)
- ToolMaster (page 13)
- MobileControl (page 15)
- Bending aid (page 15)
- Part Indicator (page 15)
- Wireless foot switch (page 15)
- MagicShoe (page 15)
- Touchpoint control (page 16/17)
- TecZone Bend shop floor programming and offline programming (page 16)
- 2D code scanner (page 17)
TruBend Series 7000

The ergonomic high-speed machine – it bends small and medium-sized parts under top work conditions in a space-saving and highly productive manner.

01 High output with top quality
due to direct drive and ACB

02 Quick and safe
due to BendGuard Automatic

03 Well thought-out space-saver
suitable for every production

04 Comfortable operation
due to consistent ergonomics
High output with top quality due to direct drive and ACB Wireless

Energy-saving and highly productive – the directly driven torque motor produces a high torque even at a low revolution speed. This means that you can use large press forces at the same high working speed. The mass-reduced backgauge also ensures a high level of drive dynamics. Together with the angle sensor ACB Wireless, you lay the ideal foundations for top productivity.

Its backgauge makes the machine particularly dynamic.

Quick and safe due to BendGuard Automatic

Two manual interventions fewer – manual adjustment of the safety device is now a thing of the past due to the BendGuard Automatic. With the help of the CNC control, the BendGuard moves independently to the height of the set-up tools. You save the usual manual interventions and valuable setup time, and can work safely and error free.

Automatic safety with the BendGuard Automatic.

Well thought-out space-saver suitable for every production

Small and compact – with its low installation area, the TruBend Series 7000 is suitable for every production and can be transported by a forklift truck. When bending small and extremely small parts, the machine is a big help – due to the geometry of the gauge finger, you can also position parts with very small flanges with ease and collision-free. You can conveniently remove small parts directly after bending with the aid of a box.

Comfortable operation due to consistent ergonomics

If things are good for the bending operator, things are good for the bending process – the TruBend Series 7000 is the first press brake to receive an ergonomics certificate. The operator works ergonomically with a sitting and standing aid; they can adjust the support table individually. The sitting and standing aid and the swiveling control are easy on the spine. LED lighting ensures top visibility in the work area. A laser that projects the line to be bent onto the sheet metal part provides intelligent assistance.

More information on the impressive functions of the TruBend Series 7000:

- System for perfect angles (page 10/11)
- BendGuard (page 13)
- Touchpoint control (page 16/17)
- TecZone Bend shop floor programming and offline programming (page 16)
- 2D code scanner (page 17)
TruBend Series 8000

The flexible large-format machine – with up to 1,000 metric tons of press force, it bends small, large or extra-large parts strongly and precisely.

01 Bending complex parts
   even with extremely large sizes

02 Simple setup
   even with heavy tools

03 Quick installation
   due to surface-mounted design

04 Powerful bending
   with extra force
01

**Bending complex parts**
even with extremely large sizes

The TruBend Series 8000 processes large and oversize formats in a versatile manner and extremely precisely, for example due to the LCB (Laser Controlled Bending, similar to ACB Laser) laser-based angle measuring system version. With a particularly large usable open height and throat depth, 8 m of bending length, and up to 1,000 metric tons of press force, even high-tensile materials and long flanges are no problem. You can bend smaller workpieces on multiple tool stations; the machine can even achieve Z bends perfectly – a true all-rounder.

LCB (Laser Controlled Bending) – the laser-controlled goniometer version of the TruBend Series 8000.

02

**Simple setup**
even with heavy tools

Large bending parts require large tools. Despite this, the TruBend Series 8000 can be set up quickly and easily due to the ToolShuttle – the operator moves the tools from the tool magazine directly into the machine ergonomically and safely. The ToolShuttle has over 160 m of load capacity and stores your tools so that they are well protected.

The ToolShuttle sets up your tools quickly and ergonomically.

03

**Quick installation**
due to surface-mounted design

Surface-mounted versions of up to 6 m save you from needing expensive foundations. This therefore doesn’t just reduce the investment required, you can also position the machine independently and move it around. If you eventually resell the machine, you will benefit from stable prices in the second-hand market, as your buyer does not have to provide foundations.

04

**Powerful bending**
with extra force

However, the crowing facility and tool clamp of the TruBend Series 8000 are extremely sturdy with capacities of up to 6,000 kN per meter. The automatic crowing facility provides high productivity and precise angles over the entire bending length. Alternatively, adjust the crowning curve point by point every 250 mm. A further advantage: like all bending machines from TRUMPF, the TruBend Series 8000 also has no unnecessary interference contours and thus makes parts handling easier.

More information on the impressive functions of the TruBend Series 8000:

- System for perfect angles (page 10/11)
- ToolShuttle (page 13)
- TecZone Bend stand-alone offline programming (page 16)
- 2D code scanner (page 17)

Find more information about the TruBend Series 8000 at [www.trumpf.com/s/7e30pl](http://www.trumpf.com/s/7e30pl)
Tandem version of the TruBend Series 8000

Operate two perfectly attuned machines individually or together as one machine – for double the press force and double the bending length.

Large format in duplicate – for any situation
Do you bend both 6 m or 8 m long parts as well as short sheets? Then you need a flexible solution – the tandem version of the TruBend Series 8000. Two machines act synchronously and thus double the bending length and press force here. You can achieve longer flange lengths due to a large throat depth and can increase your part variety. You can also use each machine individually, meaning that you have two machines available for short parts. The result: more capacity, more productivity, more orders processed.

Easy to operate over 8 m too
You can even save money during installation due to the surface-mounted installation. Clever helpers such as MobileControl, the multi-touch control or the bending aids are also there to support you in the tandem design – they make working over long distances easier and allow you to produce extremely professionally.

Productive and reliable over the whole length
You can carry out two different bending operations with one tool using the lower tool displacement, even in tandem mode. This increases your part variety and saves setup time and investment costs. The BendGuard ensures safe working across the entire tandem bending length.
A tandem facility is worthwhile even if you only occasionally bend oversized parts. Simply use the machine as a tandem facility on certain days; the two machines can produce independently of one another during the rest of the week.

When is your tandem day?

Do you have very special requirements when it comes to bending length, press force, backgauge, open height or tool system? Due to decades of experience in building customized bending machines, we will, of course, help you in developing special machines.
Automatically successful

You produce particularly cost-efficiently with an automatic bending cell – around the clock if required. You reduce your cycle times and bend with minimal personnel effort. The continuously high quality of your components saves reworking and rejects. When do you start bending successfully automatically?

1. The right machine
Your TRUMPF bending cell suits you – choose the right machine type and the right machine size depending on the range of components.

2. Automatic setup
Automatically set up your bending machine for each new program with the ToolMaster tool changer. An invaluable advantage, even in case of small lot sizes. You save time and effort.
Why TruBend Cell?
To ensure that your processes run reliably and productively, we develop comprehensive solutions made up of bending machines, bending tools and automation. This also includes software, sensor systems, material flow and state-of-the-art gripping technology.

Keep a tight grip on your production
The BendMaster carries out gripping and moving during automatic bending. With its vacuum gripping technology, it reliably handles components of up to 100 kg in weight and up to 4 m in length. The nimble pivoted-jaw gripper moves the small components. It skillfully removes small parts at the sheet removal station and provides them parallel to production. Depending on what you need and on which machine you carry out production, we recommend the pivoted-jaw and vacuum gripper technology.

Reliable due to sensors
Sensors ensure reliable material handling. This ensures consistent quality. The sheet sensor identifies blanks that are not centered – due to it, the gripper is able to pick up the blank in the correct position. Weight sensors ensure that only individual sheets are always lifted. The sensor system in the backgauge fingers ensures quick and precise positioning of your parts.

3. Produce automatically
Process a wide range of components with low part costs and high reliability standards. The universal offline programming saves time – create programs parallel to production at the workstation.

4. Customize completely
We also provide customized options when it comes to system technology and robotics. Do you require multiple robots or want to connect handling equipment? Are you looking for a solution for unusual circumstances? Simply contact us; we will be happy to advise you.
ToolMaster

Make searching for and moving tools a thing of the past: the tool changer sets up your bending machine for the next task automatically – the new generation is faster than ever. This doesn’t just save time and effort, it also particularly increases your productivity.

**Change tools automatically**
Retooling a bending machine during each program change is laborious. The ToolMaster carries out these setup operations for you. It can now do even more – you are able to load it parallel to production through a door; it uses standard tools, ACB tools, tools with adapters and has space for up to 85 m of tools on average – depending on the tool, even more is possible.

You can carry out other tasks while the ToolMaster automatically sets up your tools. This really pays off, particularly when it comes to small lot sizes. Searching and walking times are eliminated completely. Its positioning accuracy makes station operation easier for you. A further benefit – the closed storage protects your tools from dirt and corrosion.
Depending on the component, upper tools have to be set up so they are rotated. The rotary unit of the ToolMaster carries this out parallel to production.

The ToolMaster uses standard tools; you can also use ACB and specialist tools, as well as tools with an adapter.

Due to the integrated parking position for the bending aid or support brackets, you can use the space in front of the bending machine optimally depending on the component.
TruBend Cell 5000

The productive universal bending cell – produce a wide range of parts cost-efficiently and flexibly with a consistently high level of quality. The BendMaster relieves the operator when bending components of up to 100 kg in weight.

01 Produce reliably with in-built intelligence

02 Efficient programming for maximum productivity

03 Easy regripping due to automatic gripper change

04 Shape the material flow with the appropriate installation version
Program all components of your bending cell simply, efficiently and consistently with TRUMPF. Automatic calculations support tool selection, bending sequences and finding the precise gripping position – and make all these processes easier.

The big advantage with automatic bending – you can produce reliably and with consistent quality around the clock. This is ensured by a range of factors. The sensor system in the 4-axis or 6-axis backgauge positions your components with precision down to the millimeter. The angle sensor ACB ensures top part precision. Integrated simulation of your processes prevents failures and errors before they occur.

You can bend the perfect angles automatically due to ACB.

The right gripper is always used – this is how your TruBend Cell 5000 processes the widest range of orders easily in succession. Depending on the component size, you can combine different gripping technologies for this purpose. You save plenty of time during small part production – blanks are separated parallel to production and transferred over to the pivoted-jaw gripper. You can produce up to four component types in one operation using the rotating sheet removal station, including regripping consoles.

The gripper quickly places the sheet metal on the regripping station, regrips it and lifts it up again.

Individually determine the material flow.

Want maximum freedom? You can shape the material flow of your TruBend Cell 5000 according to your requirements using conveyor belts and pallet conveyors. A conveyor belt for removal of small, non-stackable parts also increases your productivity. Without interrupting the bending operation, the pallet conveyor loads blanks or unloads finished workpieces. If required, you can also connect your bending cell to a store.
Keep a tight grip on your production
Do you need speed and maximum productivity? Should your TruBend Cell 5000 also reliably handle large and heavy parts? In both cases, the grippers with flexible use assist you at the bending cell with precision. This means that the pivoted-jaw gripper with its additional axes works highly productively. Its regripping outlay is minimal. It even holds parts that the suction cup cannot grab effortlessly. In contrast, the suction cup gripper can deal with any dimensions and reliably processes even very large and heavy parts. You can even design and produce suction cup grippers yourself cheaply.
Go with the flow
How long should your floor lane be? Where would you like to have how many pallet spaces? A bending cell can be tailored precisely to your components and your production volume. This page shows some installation versions.

TruBend 5130 with BendMaster (60), 10 m path, sheet removal station, conveyor belt and gripper changing console.

TruBend 5230 with BendMaster (150), 14 m path and gripper changing consoles.

TruBend 5170 with BendMaster (60), 12 or 14 m path, sheet removal station with rotary table, two gripper changing consoles, conveyor belt and two pallet conveyors.

TruBend 5170 with BendMaster (60), 12 or 14 m path, sheet removal station with rotary table, two gripper changing consoles, conveyor belt and two pallet conveyors with storage connection.

Did you know?
Your TruBend Series 5000 machine can be upgraded to an automatic bending cell at a later date.

Find more information about the TruBend Cell 5000 at www.trumpf.com/sqlo04
TruBend Cell 7000

The innovative high-speed bending cell – you can bend small parts dynamically and extremely cost-efficiently with the quickest system in the world.

01 Minimal costs per bend

02 More productive due to clever gripper

03 Compact minimal space required

04 Well thought out optimum material flow
Two synchronized robots load your machine at the same time – the ToolMaster sets up automatically and the LoadMaster Bend loads quickly, reliably and parallel to production. With the aid of a connector system, the system pallets provide up to 24 different components here. Finished parts are placed in boxes with different sections or discharged onto the pallet conveyor. The gentle conveyor belt is suitable for scratch-prone parts. The storage capacity is large enough that you can produce entirely without an operator over a long period of time.

The tool clamp of the TruBend Cell 7000 is divided so that the robot arm of the BendMaster can grip directly through it. This minimizes regripping outlay and allows your cell to work even more quickly and productively. The pivoted-jaw gripper is available in multiple versions; which one is most suitable for you depends on your applications.

The part throughput of a TruBend Cell 7000 is twice as high as in a conventional bending cell. Quick individual components and harmonious processes make the bending cell dynamic. From the divided tool clamp and tool changer to offline programming – the interplay of innovative functions enables cycle times of just four to six seconds per bend. This allows you to bend with unparalleled low part costs.

With an installation area of just 5.5 by 3.8 m, the TruBend Cell 7000 fits in any production. In addition to the space-saving installation, operation has also been thought out to the smallest detail. You can therefore load and unload your bending cell easily from the same side. Use precisely the installation variant within the small cell that suits your requirements.

Minimal costs
per bend

The part throughput of a TruBend Cell 7000 is twice as high as in a conventional bending cell. Quick individual components and harmonious processes make the bending cell dynamic. From the divided tool clamp and tool changer to offline programming – the interplay of innovative functions enables cycle times of just four to six seconds per bend. This allows you to bend with unparalleled low part costs.

More productive
due to clever gripper

The tool clamp of the TruBend Cell 7000 is divided so that the robot arm of the BendMaster can grip directly through it. This minimizes regripping outlay and allows your cell to work even more quickly and productively. The pivoted-jaw gripper is available in multiple versions; which one is most suitable for you depends on your applications.

Compact
minimal space required

With an installation area of just 5.5 by 3.8 m, the TruBend Cell 7000 fits in any production. In addition to the space-saving installation, operation has also been thought out to the smallest detail. You can therefore load and unload your bending cell easily from the same side. Use precisely the installation variant within the small cell that suits your requirements.

Minimal costs
per bend

The part throughput of a TruBend Cell 7000 is twice as high as in a conventional bending cell. Quick individual components and harmonious processes make the bending cell dynamic. From the divided tool clamp and tool changer to offline programming – the interplay of innovative functions enables cycle times of just four to six seconds per bend. This allows you to bend with unparalleled low part costs.

More productive
due to clever gripper

The tool clamp of the TruBend Cell 7000 is divided so that the robot arm of the BendMaster can grip directly through it. This minimizes regripping outlay and allows your cell to work even more quickly and productively. The pivoted-jaw gripper is available in multiple versions; which one is most suitable for you depends on your applications.

Compact
minimal space required

With an installation area of just 5.5 by 3.8 m, the TruBend Cell 7000 fits in any production. In addition to the space-saving installation, operation has also been thought out to the smallest detail. You can therefore load and unload your bending cell easily from the same side. Use precisely the installation variant within the small cell that suits your requirements.

Minimal costs
per bend

The part throughput of a TruBend Cell 7000 is twice as high as in a conventional bending cell. Quick individual components and harmonious processes make the bending cell dynamic. From the divided tool clamp and tool changer to offline programming – the interplay of innovative functions enables cycle times of just four to six seconds per bend. This allows you to bend with unparalleled low part costs.

More productive
due to clever gripper

The tool clamp of the TruBend Cell 7000 is divided so that the robot arm of the BendMaster can grip directly through it. This minimizes regripping outlay and allows your cell to work even more quickly and productively. The pivoted-jaw gripper is available in multiple versions; which one is most suitable for you depends on your applications.

Compact
minimal space required

With an installation area of just 5.5 by 3.8 m, the TruBend Cell 7000 fits in any production. In addition to the space-saving installation, operation has also been thought out to the smallest detail. You can therefore load and unload your bending cell easily from the same side. Use precisely the installation variant within the small cell that suits your requirements.

Minimal costs
per bend

The part throughput of a TruBend Cell 7000 is twice as high as in a conventional bending cell. Quick individual components and harmonious processes make the bending cell dynamic. From the divided tool clamp and tool changer to offline programming – the interplay of innovative functions enables cycle times of just four to six seconds per bend. This allows you to bend with unparalleled low part costs.

More productive
due to clever gripper

The tool clamp of the TruBend Cell 7000 is divided so that the robot arm of the BendMaster can grip directly through it. This minimizes regripping outlay and allows your cell to work even more quickly and productively. The pivoted-jaw gripper is available in multiple versions; which one is most suitable for you depends on your applications.

Compact
minimal space required

With an installation area of just 5.5 by 3.8 m, the TruBend Cell 7000 fits in any production. In addition to the space-saving installation, operation has also been thought out to the smallest detail. You can therefore load and unload your bending cell easily from the same side. Use precisely the installation variant within the small cell that suits your requirements.
Optimum processes
Automatic helpers ensure a smooth material flow around your bending cell. The ToolMaster sets it up automatically with the appropriate tools. The sensor system identifies the tool type and its position. This means that you can arrange the bending tools in the ToolMaster in any manner. It pays off especially with small lot sizes – your machine processes different orders without you having to deploy staff. The LoadMaster doesn’t just load your system with blanks parallel to production. An integrated sheet sensor also measures the blanks optically and transfers them to the BendMaster in exactly the right position. Finished parts land on a conveyor system; from there they are either transferred into boxes or are discharged via the pallet conveyor. You can produce without an operator over a long period of time due to the large storage capacity. The TruBend Cell 7000 is also space-saving and can be loaded and unloaded from the same side.
Arranged according to your requirements
Whether you want to have your finished parts sorted into boxes or discharged via a gentle conveyor belt – all components of your TruBend Cell 7000 can be put together perfectly in accordance with your requirements. This page shows possible versions as examples.

TruBend 7036 Cell Edition with BendMaster (15) and LoadMaster.

TruBend 7036 Cell Edition in combination with BendMaster (15), LoadMaster, ToolMaster and conveyor belt.

TruBend 7036 Cell Edition, BendMaster (15), LoadMaster, ToolMaster and conveyor system.
We have summarized the most important technical data of the TruBend machines for you on the following pages.
## Technical data

### TruBend 3066, TruBend 3100, TruBend 3170

<table>
<thead>
<tr>
<th></th>
<th>TruBend 3066</th>
<th>TruBend 3100</th>
<th>TruBend 3170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press force</td>
<td>660 kN</td>
<td>1000 kN</td>
<td>1700 kN</td>
</tr>
<tr>
<td>Bending length</td>
<td>2040 mm</td>
<td>3060 mm</td>
<td>4080 mm</td>
</tr>
<tr>
<td>Width between columns</td>
<td>2364 mm</td>
<td>3384 mm</td>
<td>4404 mm</td>
</tr>
<tr>
<td>Max. table/press beam distance</td>
<td>470 mm</td>
<td>470/620[1] mm</td>
<td>620 mm</td>
</tr>
<tr>
<td>Usable open height with manual and hydraulic tool clamp</td>
<td>350 mm</td>
<td>350/500[1] mm</td>
<td>500 mm</td>
</tr>
<tr>
<td>Usable open height with TRUMPF QuickClamp</td>
<td>430 mm</td>
<td>430/580[1] mm</td>
<td>580 mm</td>
</tr>
<tr>
<td>Working height[2]</td>
<td>1049 – 1069 mm</td>
<td>1049 – 1069 mm</td>
<td>1049 – 1069 mm</td>
</tr>
<tr>
<td>Press beam inclined position</td>
<td>± 3 mm</td>
<td>± 6.5 mm</td>
<td>± 7.5 mm</td>
</tr>
</tbody>
</table>

### Speeds[3]

<table>
<thead>
<tr>
<th></th>
<th>TruBend 3066</th>
<th>TruBend 3100</th>
<th>TruBend 3170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y axis rapid traverse[4]</td>
<td>200 mm/s</td>
<td>200 mm/s</td>
<td>170 mm/s</td>
</tr>
<tr>
<td>Max. Y axis operation</td>
<td>15 mm/s</td>
<td>15 mm/s</td>
<td>15 mm/s</td>
</tr>
<tr>
<td>Y axis return speed</td>
<td>200 mm/s</td>
<td>200 mm/s</td>
<td>170 mm/s</td>
</tr>
<tr>
<td>X axis</td>
<td>500 mm/s</td>
<td>500 mm/s</td>
<td>500 mm/s</td>
</tr>
<tr>
<td>R axis</td>
<td>200 mm/s</td>
<td>200 mm/s</td>
<td>200 mm/s</td>
</tr>
<tr>
<td>Z axis</td>
<td>1000 mm/s</td>
<td>1000 mm/s</td>
<td>1000 mm/s</td>
</tr>
</tbody>
</table>

### Precision

<table>
<thead>
<tr>
<th></th>
<th>TruBend 3066</th>
<th>TruBend 3100</th>
<th>TruBend 3170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y axis</td>
<td>0.01 mm</td>
<td>0.01 mm</td>
<td>0.01 mm</td>
</tr>
<tr>
<td>X axis</td>
<td>0.05 mm</td>
<td>0.05 mm</td>
<td>0.05 mm</td>
</tr>
<tr>
<td>R axis</td>
<td>0.1 mm</td>
<td>0.1 mm</td>
<td>0.1 mm</td>
</tr>
</tbody>
</table>

### Traverse paths

<table>
<thead>
<tr>
<th></th>
<th>TruBend 3066</th>
<th>TruBend 3100</th>
<th>TruBend 3170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y axis stroke</td>
<td>200 mm</td>
<td>200/350[1] mm</td>
<td>350 mm</td>
</tr>
<tr>
<td>X axis traverse path</td>
<td>600 mm</td>
<td>600 mm</td>
<td>600 mm</td>
</tr>
<tr>
<td>Max. stop range in X direction</td>
<td>860 mm</td>
<td>860 mm</td>
<td>860 mm</td>
</tr>
<tr>
<td>R axis traverse path</td>
<td>150 mm</td>
<td>150 mm</td>
<td>150 mm</td>
</tr>
</tbody>
</table>

### Control

<table>
<thead>
<tr>
<th></th>
<th>TruBend 3066</th>
<th>TruBend 3100</th>
<th>TruBend 3170</th>
</tr>
</thead>
<tbody>
<tr>
<td>T3500T</td>
<td>T3500T</td>
<td>T3500T</td>
<td></td>
</tr>
</tbody>
</table>

### Dimensions and weight

<table>
<thead>
<tr>
<th></th>
<th>TruBend 3066</th>
<th>TruBend 3100</th>
<th>TruBend 3170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length x width</td>
<td>2587 x 1644 mm</td>
<td>3607 x 1644 mm</td>
<td>4647 x 1644 mm</td>
</tr>
<tr>
<td>Height</td>
<td>2370 mm</td>
<td>2370/2720[1] mm</td>
<td>2925 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>5650 kg</td>
<td>7700/8300[1] kg</td>
<td>15000 kg</td>
</tr>
</tbody>
</table>

---

[1] With increased open height (option).

[2] With lower tool height of 100 mm. Working height varies depending on the height of the material being set up on the machine.

[3] Traverse speed can be freely programmed.


Subject to alteration. Only specifications in our offer and order confirmation are binding.
### TruBend 5085, TruBend 5130, TruBend 5170, TruBend 5230, TruBend 5320

<table>
<thead>
<tr>
<th></th>
<th>TruBend 5085</th>
<th>TruBend 5130</th>
<th>TruBend 5170</th>
<th>TruBend 5230</th>
<th>TruBend 5320</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press force</td>
<td>850 kN</td>
<td>1300 kN</td>
<td>1700 kN</td>
<td>2300 kN</td>
<td>3200 kN</td>
</tr>
<tr>
<td>Bending length</td>
<td>2210/2720(1) mm</td>
<td>3230 mm</td>
<td>3230/4250(1) mm</td>
<td>3230/4250(1) mm</td>
<td>4420 mm</td>
</tr>
<tr>
<td>Width between columns</td>
<td>1750/2260(1) mm</td>
<td>2690 mm</td>
<td>2690/3680(1) mm</td>
<td>2690/3680(1) mm</td>
<td>3680 mm</td>
</tr>
<tr>
<td>Max. table/press beam distance</td>
<td>505/735(1) mm</td>
<td>505/735(1) mm</td>
<td>735 mm</td>
<td>735 mm</td>
<td>735 mm</td>
</tr>
<tr>
<td>Usable open height</td>
<td>385/615(1) mm</td>
<td>385/615(1) mm</td>
<td>615 mm</td>
<td>615 mm</td>
<td>615 mm</td>
</tr>
<tr>
<td>Throat depth</td>
<td>420 mm</td>
<td>420 mm</td>
<td>420 mm</td>
<td>420 mm</td>
<td>420 mm</td>
</tr>
<tr>
<td>Working height(2)</td>
<td>1095 – 1115 mm</td>
<td>1095 – 1115 mm</td>
<td>1095 – 1115 mm</td>
<td>1095 – 1115 mm</td>
<td>1110 – 1130 mm</td>
</tr>
<tr>
<td>Press beam inclined position</td>
<td>±10 mm</td>
<td>± 10 mm</td>
<td>± 10 mm</td>
<td>± 10 mm</td>
<td>± 10 mm</td>
</tr>
</tbody>
</table>

#### Speeds(3)

<table>
<thead>
<tr>
<th></th>
<th>TruBend 5085</th>
<th>TruBend 5130</th>
<th>TruBend 5170</th>
<th>TruBend 5230</th>
<th>TruBend 5320</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y axis rapid traverse</td>
<td>220 mm/s</td>
<td>220 mm/s</td>
<td>220 mm/s</td>
<td>220 mm/s</td>
<td>220 mm/s</td>
</tr>
<tr>
<td>Y axis press operation(4)</td>
<td>Max. 25 mm/s</td>
<td>Max. 25 mm/s</td>
<td>Max. 25 mm/s</td>
<td>Max. 25 mm/s</td>
<td>Max. 25 mm/s</td>
</tr>
<tr>
<td>Y axis return speed</td>
<td>220 mm/s</td>
<td>220 mm/s</td>
<td>220 mm/s</td>
<td>220 mm/s</td>
<td>220 mm/s</td>
</tr>
<tr>
<td>X axis(5)</td>
<td>1000/1750 mm/s</td>
<td>1000/1750 mm/s</td>
<td>1000/1750 mm/s</td>
<td>1000/1750 mm/s</td>
<td>1000/1750 mm/s</td>
</tr>
<tr>
<td>R axis</td>
<td>330 mm/s</td>
<td>330 mm/s</td>
<td>330 mm/s</td>
<td>330 mm/s</td>
<td>330 mm/s</td>
</tr>
<tr>
<td>Z axis(5)</td>
<td>1750/2500 mm/s</td>
<td>1750/2500 mm/s</td>
<td>1750/2500 mm/s</td>
<td>1750/2500 mm/s</td>
<td>1750/2500 mm/s</td>
</tr>
</tbody>
</table>

#### Precision

<table>
<thead>
<tr>
<th></th>
<th>TruBend 5085</th>
<th>TruBend 5130</th>
<th>TruBend 5170</th>
<th>TruBend 5230</th>
<th>TruBend 5320</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y axis</td>
<td>0.005 mm</td>
<td>0.005 mm</td>
<td>0.005 mm</td>
<td>0.005 mm</td>
<td>0.005 mm</td>
</tr>
<tr>
<td>X axis</td>
<td>0.04 mm</td>
<td>0.04 mm</td>
<td>0.04 mm</td>
<td>0.04 mm</td>
<td>0.04 mm</td>
</tr>
<tr>
<td>R axis</td>
<td>0.08 mm</td>
<td>0.08 mm</td>
<td>0.08 mm</td>
<td>0.08 mm</td>
<td>0.08 mm</td>
</tr>
</tbody>
</table>

#### Traverse paths

<table>
<thead>
<tr>
<th></th>
<th>TruBend 5085</th>
<th>TruBend 5130</th>
<th>TruBend 5170</th>
<th>TruBend 5230</th>
<th>TruBend 5320</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y axis stroke</td>
<td>215/445(1) mm</td>
<td>215/445(1) mm</td>
<td>445 mm</td>
<td>445 mm</td>
<td>445 mm</td>
</tr>
<tr>
<td>X axis traverse path</td>
<td>600 mm</td>
<td>600 mm</td>
<td>600 mm</td>
<td>600 mm</td>
<td>600 mm</td>
</tr>
<tr>
<td>Max. stop range in X(5)</td>
<td>860/1000 mm</td>
<td>860/1000 mm</td>
<td>860/1000 mm</td>
<td>860/1000 mm</td>
<td>860/1000 mm</td>
</tr>
<tr>
<td>R axis traverse path</td>
<td>250 mm</td>
<td>250 mm</td>
<td>250 mm</td>
<td>250 mm</td>
<td>250 mm</td>
</tr>
</tbody>
</table>

#### User interface

<table>
<thead>
<tr>
<th></th>
<th>TruBend Touchpoint</th>
<th>TruBend Touchpoint</th>
<th>TruBend Touchpoint</th>
<th>TruBend Touchpoint</th>
<th>TruBend Touchpoint</th>
</tr>
</thead>
</table>

#### Dimensions and weight(6)

<table>
<thead>
<tr>
<th></th>
<th>TruBend 5085</th>
<th>TruBend 5130</th>
<th>TruBend 5170</th>
<th>TruBend 5230</th>
<th>TruBend 5320</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length x width</td>
<td>3020 x 1800 mm</td>
<td>3530 x 1800 mm</td>
<td>3980 x 1800 mm</td>
<td>3980 x 1900 mm</td>
<td>4150 x 2055 mm</td>
</tr>
<tr>
<td></td>
<td>3530 x 1800 mm</td>
<td>3980 x 1900 mm</td>
<td>4150 x 2055 mm</td>
<td>5140 x 2055 mm</td>
<td>5180 x 2055 mm</td>
</tr>
<tr>
<td>Height</td>
<td>2375/2835(1) mm</td>
<td>2375/2835(1) mm</td>
<td>3000 mm</td>
<td>3200 mm</td>
<td>3200 mm</td>
</tr>
<tr>
<td></td>
<td>2375/2835(1) mm</td>
<td>2375/2835(1) mm</td>
<td>3000 mm</td>
<td>3200 mm</td>
<td>3200 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>8000/8700(1) kg</td>
<td>10700/11800(1) kg</td>
<td>14150/17850(1) kg</td>
<td>17200/19850(1) kg</td>
<td>23400 kg</td>
</tr>
</tbody>
</table>

---

(1) Second value for the enlarged design respectively (option).

(2) With lower tool height of 100 mm. Working height varies depending on the height of the material being set up on the machine.

(3) Traverse speed can be freely programmed.

(4) With working speed of 10 mm/s.

(5) Depending on the selected backgauge.

(6) Data relates to the basic machine without options.

Subject to alteration. Only specifications in our offer and order confirmation are binding.
TruBend 7036, TruBend 7050

<table>
<thead>
<tr>
<th></th>
<th>TruBend 7036</th>
<th>TruBend 7050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press force</td>
<td>360 kN</td>
<td>500 kN</td>
</tr>
<tr>
<td>Bending length</td>
<td>1020 mm</td>
<td>1530 mm</td>
</tr>
<tr>
<td>Width between columns</td>
<td>932 mm</td>
<td>1305 mm</td>
</tr>
<tr>
<td>Max. table/press beam distance</td>
<td>420 mm</td>
<td>505 mm</td>
</tr>
<tr>
<td>Usable open height</td>
<td>295 mm</td>
<td>385 mm</td>
</tr>
<tr>
<td>Throat depth</td>
<td>150 mm</td>
<td>250 mm</td>
</tr>
<tr>
<td>Working height[1]</td>
<td>1150 mm</td>
<td>1150 mm</td>
</tr>
<tr>
<td>Press beam inclined position</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Speeds</strong>[2]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y axis rapid traverse</td>
<td>220 mm/s</td>
<td>220 mm/s</td>
</tr>
<tr>
<td>Y axis return speed</td>
<td>220 mm/s</td>
<td>220 mm/s</td>
</tr>
<tr>
<td>X axis</td>
<td>1500 mm/s</td>
<td>1500 mm/s</td>
</tr>
<tr>
<td>R axis</td>
<td>750 mm/s</td>
<td>750 mm/s</td>
</tr>
<tr>
<td>Z axis</td>
<td>2200 mm/s</td>
<td>1000 mm/s</td>
</tr>
<tr>
<td><strong>Precision</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y axis</td>
<td>0.002 mm</td>
<td>0.002 mm</td>
</tr>
<tr>
<td>X axis</td>
<td>0.02 mm</td>
<td>0.02 mm</td>
</tr>
<tr>
<td>R axis</td>
<td>0.06 mm</td>
<td>0.06 mm</td>
</tr>
<tr>
<td><strong>Traverse paths</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y axis stroke</td>
<td>120 mm</td>
<td>215 mm</td>
</tr>
<tr>
<td>X axis traverse path</td>
<td>240 mm</td>
<td>240 mm</td>
</tr>
<tr>
<td>Max. stop range in X</td>
<td>500 mm</td>
<td>500 mm</td>
</tr>
<tr>
<td>R axis traverse path</td>
<td>153 mm</td>
<td>153 mm</td>
</tr>
<tr>
<td><strong>User interface</strong></td>
<td>Touchpoint Bend</td>
<td>Touchpoint Bend</td>
</tr>
<tr>
<td><strong>Dimensions and weight</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length x width</td>
<td>1900 x 1340 mm</td>
<td>2420 x 1805 mm</td>
</tr>
<tr>
<td>Height</td>
<td>2380 mm</td>
<td>2580 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>3500 kg</td>
<td>5500 kg</td>
</tr>
</tbody>
</table>

[1] With 100 mm die height.

[2] Traverse speed can be freely programmed.

[3] Dependent on the die width and application.

Subject to alteration. Only specifications in our offer and order confirmation are binding.
## Technical data

<table>
<thead>
<tr>
<th>TruBend</th>
<th>8230</th>
<th>8320</th>
<th>8400</th>
<th>8500</th>
<th>8600</th>
<th>8800</th>
<th>81000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Press force</strong></td>
<td>2300 kN</td>
<td>3200 kN</td>
<td>4000 kN</td>
<td>5000 kN</td>
<td>6000 kN</td>
<td>8000 kN</td>
<td>10000 kN</td>
</tr>
<tr>
<td><strong>Bending length</strong></td>
<td>4050/5050/6050 mm</td>
<td>5050/6050 mm</td>
<td>5050/6050 mm</td>
<td>4050 mm</td>
<td>4050/5050/6050 mm</td>
<td>6050/7050/8050 mm</td>
<td>7050/8050 mm</td>
</tr>
<tr>
<td><strong>Width between columns</strong></td>
<td>3550/4050/5050 mm</td>
<td>4050/5050 mm</td>
<td>3550/4050/5550 mm</td>
<td>3050 mm</td>
<td>3050/4050/5050 mm</td>
<td>5050/6050/7050 mm</td>
<td>6050/7050 mm</td>
</tr>
<tr>
<td><strong>Surface-mounted design</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes/yes/–</td>
<td>Yes</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Max. table/press beam distance</strong></td>
<td>820/1020 mm</td>
<td>820/1020 mm</td>
<td>820/1020 mm</td>
<td>820/1020 mm</td>
<td>820/1020 mm</td>
<td>820/1020 mm</td>
<td>820/1020 mm</td>
</tr>
<tr>
<td><strong>Usable open height</strong></td>
<td>675/875 mm</td>
<td>675/875 mm</td>
<td>675/875 mm</td>
<td>675/875 mm</td>
<td>675/875 mm</td>
<td>675/875 mm</td>
<td>675/875 mm</td>
</tr>
<tr>
<td><strong>Throat depth</strong></td>
<td>420/620/700 mm</td>
<td>420/620/700 mm</td>
<td>420/620/700 mm</td>
<td>420/620/700 mm</td>
<td>420/620/700 mm</td>
<td>420/620/700 mm</td>
<td>420/620/700 mm</td>
</tr>
<tr>
<td><strong>Working height</strong></td>
<td>1165 mm</td>
<td>1165 mm</td>
<td>1065/1165/1065 mm</td>
<td>1065 mm</td>
<td>1015 mm</td>
<td>1015 mm</td>
<td>965 mm</td>
</tr>
<tr>
<td><strong>Press beam inclined position</strong></td>
<td>± 10 mm</td>
<td>± 10 mm</td>
<td>± 10 mm</td>
<td>± 10 mm</td>
<td>± 10 mm</td>
<td>± 10 mm</td>
<td>± 10 mm</td>
</tr>
<tr>
<td><strong>Speeds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y axis rapid traverse</td>
<td>220 mm/s</td>
<td>150 mm/s</td>
<td>170 mm/s</td>
<td>160 mm/s</td>
<td>120 mm/s</td>
<td>140 mm/s</td>
<td>100 mm/s</td>
</tr>
<tr>
<td>Y axis press operation</td>
<td>10 mm/s</td>
<td>10 mm/s</td>
<td>10 mm/s</td>
<td>10 mm/s</td>
<td>9 mm/s</td>
<td>10 mm/s</td>
<td>8 mm/s</td>
</tr>
<tr>
<td>Y axis return speed</td>
<td>220 mm/s</td>
<td>120/150 mm/s</td>
<td>170 mm/s</td>
<td>160 mm/s</td>
<td>120 mm/s</td>
<td>140 mm/s</td>
<td>100 mm/s</td>
</tr>
<tr>
<td>X axis(3)</td>
<td>1000 mm/s</td>
<td>1000 mm/s</td>
<td>1000 mm/s</td>
<td>1000 mm/s</td>
<td>1000 mm/s</td>
<td>1000/800/800 mm/s</td>
<td>800 mm/s</td>
</tr>
<tr>
<td>R axis(3)</td>
<td>200 mm/s</td>
<td>200 mm/s</td>
<td>200 mm/s</td>
<td>200 mm/s</td>
<td>200 mm/s</td>
<td>200/140/140 mm/s</td>
<td>140 mm/s</td>
</tr>
<tr>
<td>Z axis(3)</td>
<td>1000 mm/s</td>
<td>1000 mm/s</td>
<td>1000 mm/s</td>
<td>1000 mm/s</td>
<td>1000 mm/s</td>
<td>1000/800/800 mm/s</td>
<td>800 mm/s</td>
</tr>
<tr>
<td><strong>Precision</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y axis</td>
<td>0.01 mm</td>
<td>0.01 mm</td>
<td>0.01 mm</td>
<td>0.01 mm</td>
<td>0.01 mm</td>
<td>0.01 mm</td>
<td>0.01 mm</td>
</tr>
<tr>
<td>X axis(3)</td>
<td>0.02 mm</td>
<td>0.02 mm</td>
<td>0.02 mm</td>
<td>0.02 mm</td>
<td>0.02 mm</td>
<td>0.02 mm</td>
<td>0.02 mm</td>
</tr>
<tr>
<td>R axis(3)</td>
<td>0.05 mm</td>
<td>0.05 mm</td>
<td>0.05 mm</td>
<td>0.05 mm</td>
<td>0.05 mm</td>
<td>0.05 mm</td>
<td>0.05 mm</td>
</tr>
<tr>
<td><strong>Traverse paths</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y axis stroke</td>
<td>500/700(1) mm</td>
<td>500/700(1) mm</td>
<td>500/700(1) mm</td>
<td>500/700(1) mm</td>
<td>500/700(1) mm</td>
<td>500/700(1) mm</td>
<td>500/700(1) mm</td>
</tr>
<tr>
<td>X axis traverse path(3)</td>
<td>600 mm</td>
<td>600 mm</td>
<td>600 mm</td>
<td>600 mm</td>
<td>600 mm</td>
<td>600 mm</td>
<td>600 mm</td>
</tr>
<tr>
<td>Max. stop range(3) in X</td>
<td>1000 mm</td>
<td>1000 mm</td>
<td>1000 mm</td>
<td>1000 mm</td>
<td>1000 mm</td>
<td>1000 mm</td>
<td>1000 mm</td>
</tr>
<tr>
<td>R axis traverse path(3)</td>
<td>200 mm</td>
<td>200 mm</td>
<td>200 mm</td>
<td>200 mm</td>
<td>200 mm</td>
<td>200 mm</td>
<td>200 mm</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td>T8000T multi-touch</td>
<td>T8000T multi-touch</td>
<td>T8000T multi-touch</td>
<td>T8000T multi-touch</td>
<td>T8000T multi-touch</td>
<td>T8000T multi-touch</td>
<td>T8000T multi-touch</td>
</tr>
</tbody>
</table>

**Dimensions and weight available on request**

(1) Values for the enlarged design (option).

(2) Values for tool clamp with max. load of 3000 kN/m.

(3) Values apply to 2-, 4- and 5-axis backgauge.

Subject to alteration. Only specifications in our offer and order confirmation are binding.
2 x TruBend 8230 (4 m), 2 x TruBend 8320 (3 m), 2 x TruBend 8400 (4 m), 2 x TruBend 8500 (4 m), TruBend Cell 5000 with BendMaster (60), TruBend Cell 5000 with BendMaster (150), TruBend Cell 7000 with BendMaster (15)

<table>
<thead>
<tr>
<th>Tandem system</th>
<th>2 x TruBend 8230 (4 m)</th>
<th>2 x TruBend 8320 (3 m)</th>
<th>2 x TruBend 8400 (4 m)</th>
<th>2 x TruBend 8500 (4 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press force</td>
<td>2 x 2300 kN</td>
<td>2 x 3200 kN</td>
<td>2 x 4000 kN</td>
<td>2 x 5000 kN</td>
</tr>
<tr>
<td>Electrical connection (approx.)</td>
<td>2 x 35 kVA</td>
<td>2 x 44 kVA</td>
<td>2 x 53 kVA</td>
<td>2 x 62 kVA</td>
</tr>
<tr>
<td>Bending length</td>
<td>8100 mm</td>
<td>6100 mm</td>
<td>8100 mm</td>
<td>8100 mm</td>
</tr>
<tr>
<td>Width between columns</td>
<td>3050 mm</td>
<td>2050 mm</td>
<td>3050 mm</td>
<td>3050 mm</td>
</tr>
<tr>
<td>Throat depth</td>
<td>820 mm</td>
<td>820 mm</td>
<td>820 mm</td>
<td>820 mm</td>
</tr>
<tr>
<td>Length</td>
<td>9280 mm</td>
<td>7280 mm</td>
<td>9340 mm</td>
<td>9460 mm</td>
</tr>
</tbody>
</table>

The TruBend Series 8000 is available in four designs, whereby the left and right machine types are always the same. Other lengths/tonnages available on request. Subject to alteration. Only specifications in our offer and order confirmation are binding.

<table>
<thead>
<tr>
<th>Max. component size</th>
<th>2000 x 1000 mm</th>
<th>3000 x 1500 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profiles</td>
<td>Up to 2500 mm</td>
<td>Up to 4000 mm</td>
</tr>
<tr>
<td>Max. component weight</td>
<td>40 kg</td>
<td>100 kg</td>
</tr>
<tr>
<td>Max. carrying capacity</td>
<td>60 kg</td>
<td>150 kg</td>
</tr>
<tr>
<td>Min. sheet thickness</td>
<td>0.7 mm</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>Path length</td>
<td>6 – 14 m</td>
<td>6 – 16 m</td>
</tr>
<tr>
<td>Max. blank stack</td>
<td>700 mm</td>
<td>700 mm</td>
</tr>
<tr>
<td>Max. stack height for finished parts</td>
<td>1000 mm</td>
<td>1200 mm</td>
</tr>
<tr>
<td>TruBend Series 5000</td>
<td>5130 to 5230</td>
<td>From 5130 to 5230</td>
</tr>
</tbody>
</table>

Subject to alteration. Only specifications in our offer and order confirmation are binding.

<table>
<thead>
<tr>
<th>Maximum component size</th>
<th>500 x 380 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum sheet thickness</td>
<td>8 mm</td>
</tr>
<tr>
<td>Max. component weight</td>
<td>3 kg</td>
</tr>
<tr>
<td>Max. carrying capacity</td>
<td>15 kg</td>
</tr>
<tr>
<td>Press force</td>
<td>360 kN</td>
</tr>
<tr>
<td>Working speed</td>
<td>Up to 50 mm/s</td>
</tr>
<tr>
<td>Dimensions</td>
<td>5500 x 3870 mm</td>
</tr>
</tbody>
</table>

Subject to alteration. Only specifications in our offer and order confirmation are binding.
Spotlight: Panel bending

In addition to die bending, TRUMPF provides another technology – panel bending. This allows you to achieve multi-dimensional workpieces with minimum flange lengths, high boxes, small profiles, formed sections, recesses, diverse radii and multiple negative bends quickly and with flexibility.

Whether it’s partially or fully automatic – with the TruBend Center 5030 and TruBend Center 7030 panel benders, you can exploit the widest range of parts on the market. You can therefore also create particularly complex components in addition to the traditional panel bending range. From delicate cases to large tanks, components for the widest range of industry branches and applications are created.
TruServices.
Your Partner in Performance

To ensure your future success, you need services that definitely put you ahead of the pack for the long term. Whether that means creating the best conditions for successful production, or using your TRUMPF bending machine perfectly to adapt to changes with flexibility – together we’ll find ways to sustainably maximize your value creation. As a reliable partner, we will provide you with comprehensive solutions and service packages for your requirements – so that you can produce cost-efficiently and at a constantly high level.

EMPOWER
If you want to create the best conditions for successful production, we will support you in this. With the BendGuide app from TRUMPF you can calculate the most important bending parameters (such as press force, press force table, box height, flange length, die width, open height control, inner workpiece radius or workpiece height) quickly and easily.

SUPPORT
If flexibility and system availability in ongoing operation are a must for you, we are there for you. The Technical Service and the TRUMPF service networks will assist you. Simply contact us; you can even do this via the Service app.

IMPROVE
If you want to gradually focus your production on maximum value creation, we will achieve your goal together. Use our comprehensive training program to expand your knowledge and get a competitive edge. Our experienced trainers share their tips and tricks with you when it comes to bending machines and take you to the next level in the field of bending.

Find more information about TruServices at www.trumpf.com/s/services
Passion is what drives us

Whether it’s production and manufacturing technology, laser technology or material processing – we develop highly innovative products and services which are suitable for industry and absolutely reliable. We put everything we’ve got into giving you a compelling and competitive edge – expertise, experience and a lot of passion.

Lasers for manufacturing technology
Whether on a macro, micro or nano level – we have the right laser and the right technology to produce innovatively and cost-efficiently in every industrial application. Beyond the technology itself, we support you with system solutions, application knowledge and consulting.

Power supplies for high-tech processes
From semi-conductor manufacturing to solar cell production – with our RF and MF generators, the current for induction heating, plasma and laser excitation is given a defined frequency and power – with high reliability and repeatability.

Machine tools for flexible sheet metal and tube processing
Whether it’s laser cutting, punching, bending or laser welding – we offer tailor-made machines and automation solutions, including consulting, software and services for all processes in flexible sheet metal processing – so you can reliably manufacture your products to exacting quality standards.

Industry 4.0
The TruConnect range of solutions links humans and machine by information. It covers all steps in the production process – from the offer right through to the shipping of your parts.