

## Automation Components for TrumaBend Press Brakes



Fast and Flexible –  
The Automatic Bending Cell

**TRUMPF**  
**BendMaster**



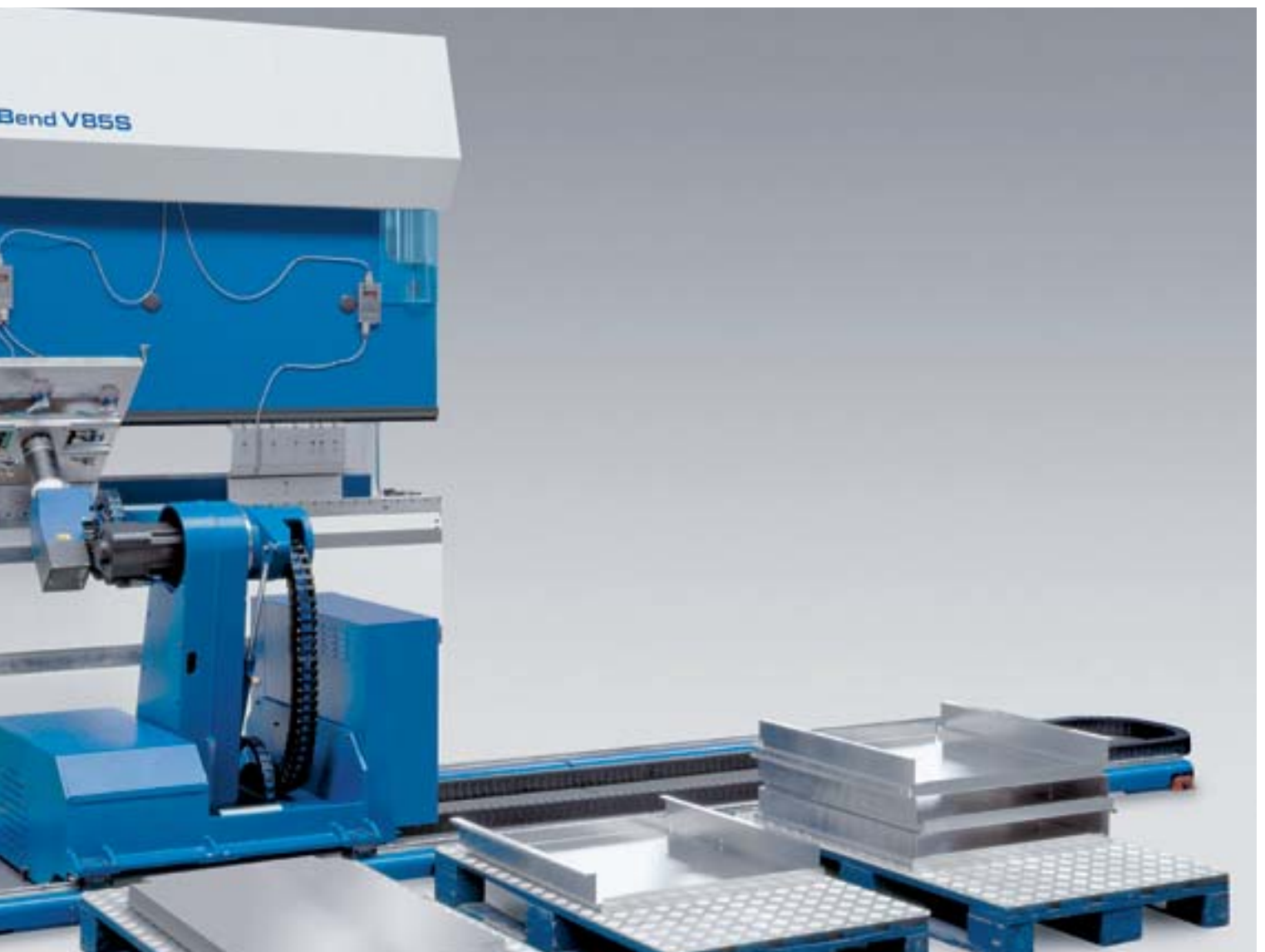
## TrumaBend + TRUMPF BendMaster: A Profitable Team

The TRUMPF BendMaster automates the bending process. With the BendMaster, TRUMPF offers a concept, which takes the flexibility of the machine into full consideration. The TRUMPF BendMaster is equally suitable for use with small and large production runs – and that applies to heavy components as well as lightweight and complex ones



### Holistic Machine Concept

A holistic machine concept lies at the heart of this bending cell: the TrumaBend press brake and the BendMaster are operated via just one control, and both programmed with the ToPs 600 software. The TrumaBend machine, the BendMaster and the ToPs 600 software are all developed by TRUMPF – so you get everything from one source. Automation of bending contains years of TRUMPF know-how in material handling during sheet metal fabrication.



### **High Accuracy and Processing Safety**

The high-precision TrumaBend V series in combination with the ACB angle measuring system fulfills an important prerequisite for automated bending – that of precision. The new TRUMPF sheet sensor and the new double sheet recognition function also fulfill another precondition: processing safety. The way is thus open for almost completely unattended production of bent parts.

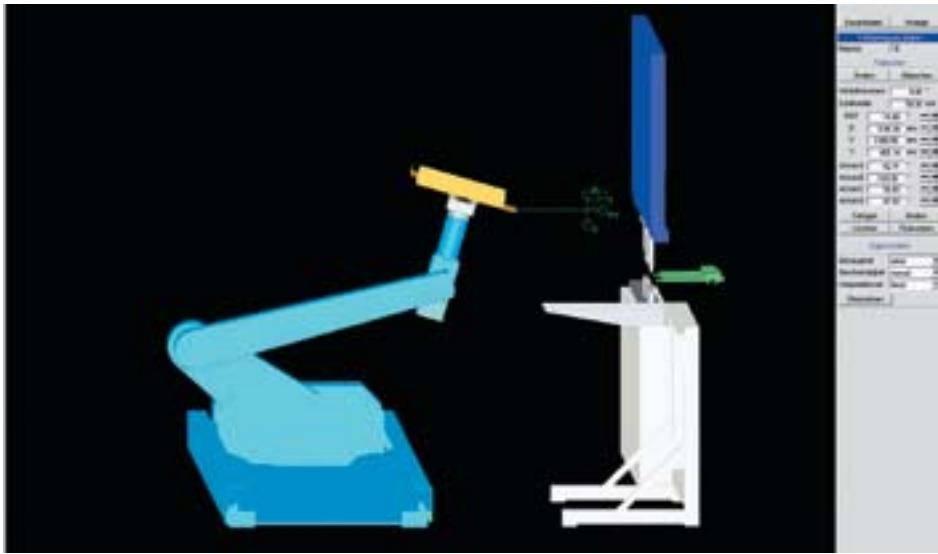
### **Maximum Flexibility**

The bending cell can be operated manually whenever necessary. Here, operator safety is guaranteed by the TRUMPF BendGuard. Resetting is unnecessary, because the BendMaster moves into a park position. And since no machine base is required, the operator has enough working space.

### **Short Processing Times**

A great deal of processing time during bending is taken up by sheet handling. Since the BendMaster only has one 1 rotary axis, 3 swiveling axes and 1 linear axis, processing times have been considerably reduced in relation to less specialized systems, in many cases undercutting comparable cycle times for manual bending.

# Automatic Throughout: From Flat Sheet to Bent Part



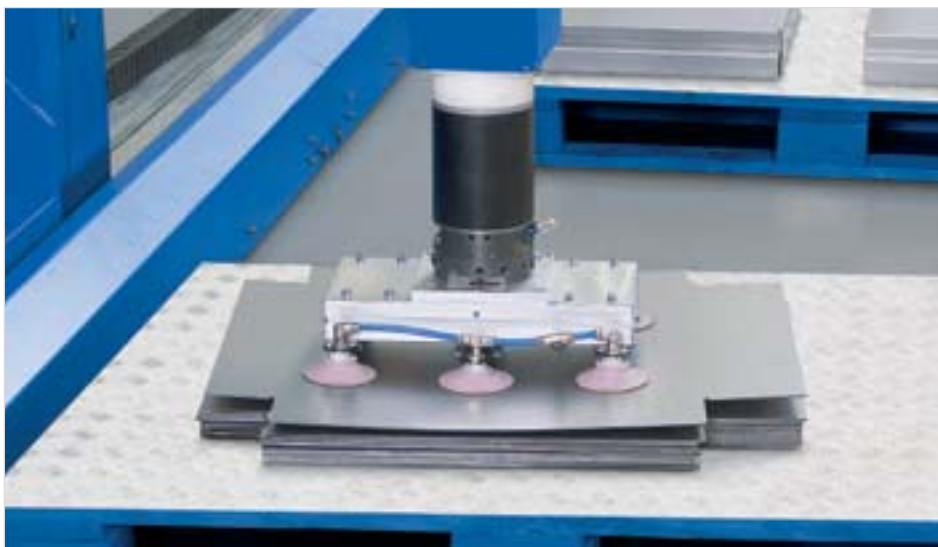
## Programming with ToPs 600

- Simple programming due to additional bend automation module
- One software for TrumaBend and BendMaster
- Automatic travel calculation
- Automatic gripping station
- Process simulation
- Collision monitoring
- Various palleting modules for depositing finished parts
- Gripper libraries or gripper import via CAD interface



## Clear Workpiece Recognition

- Detection of blank stacks, blank position and blank height via sensor head
- No positioning station needed to center the blank
- Automatic "last blank" recognition
- Automatic "wrong blank" recognition
- Free choice of stacking position on-site



## Process-Safe Gripping

- Cableless rotary transmission leadthrough to gripper
- Pneumatic gripper coupling
- Simple gripper design
- Vacuum monitoring
- Integrated sensor to prevent double-sheet pickup
- Automatic gripper change

## High-Precision Bending

- Support from angle measuring system ACB
- Fast bending due to high traversing speeds
- Tracking of blanks
- Synchronization of bending speed on TrumaBend with the BendMaster



## Sorted Stacking

Selection of stacking routines via ToPs 600:

- Finished parts in stack can be freely positioned
- Finished parts in stack are nested
- Assembly units are laid on edge

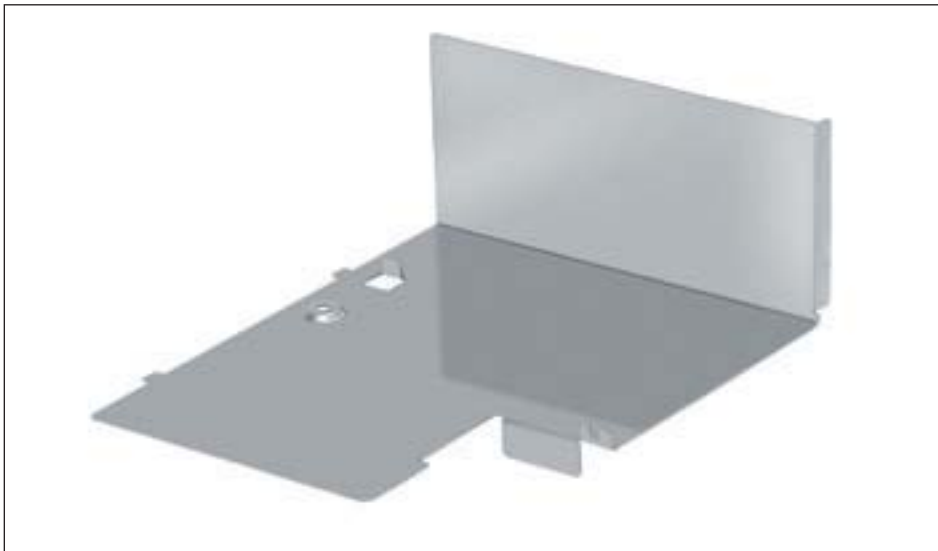


## Flexible Expansion Option

- Modular travel path extension in 2-meter intervals
- Low collision contour of floor track
- Inexpensive extension of pallet stations
- Simple connection with transportation and storage systems
- Larger working area for external gripping stations



## Examples that Convince



### Angle

Material	stainless steel 1.4301
	1 mm thick
Dimensions	350 x 400 x 200 mm
Weight	1.85 kg
Application sector	foodstuffs industry



### Module

Material	stainless steel 1.4301
	1 mm thick
Dimensions	450 x 300 x 500 mm
Weight	2.8 kg
Application sector	housing construction



### Housing components

Material	aluminium
	1.25 mm thick
Dimensions	800 x 1000 x 50 mm
Weight	2.2 kg
Application sector	plant engineering

# Technical Data

## Technical Data TrumaBend V85S/V130

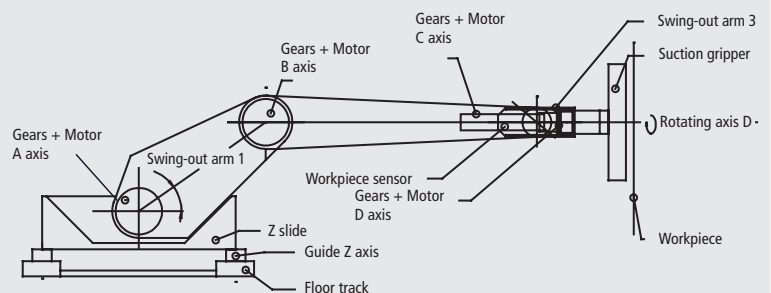
Tonnage	850/1300 kN	Travel in gauge area	
Bending length	2550/3060 mm	Stroke Y axis	215 mm
Insertion height	385 mm	Travel X axis	600 mm
Increased insertion height <sup>1</sup>	535 mm	Max. gauge area in X	860 mm
Ram inclination	±10 mm	Travel R axis	250 mm
Width between columns	2260/2690 mm	Control	2D graphic control
Throat	410 mm	Further equipment	3D graphic control
Bed width	120 mm	Connected load	
Working height <sup>2</sup>	1050 mm	electrical	18.7/45 kVA
		pneumatic	6 ± 1 bar
Speeds y axes		Dimensions and weights	
Rapid traverse	200 mm/s	Space requirements (L x W)	3190 x 1915/3640 x 2210 mm
Working cycle	1 – 10 mm/s	Height	2375 mm
Return traverse	135 mm/s	Weight	8960/10650 kg
Positioning accuracy			
Y axis	0.01 mm		
X axis	0.04 mm		
R axis	0.8 mm		

<sup>1</sup> Optional on the V130

<sup>2</sup> At 100 mm available tool height

## Technical data TRUMPF BendMaster

Max. load	55 kg	Connection values	
Max. blank weight	40 kg	electrical	10 kVA
Max. part dimension	1000 x 2000 mm	pneumatic	8 bar
Min. sheet thickness	0.7 mm	Dimensions and weights	
Speeds		Space requirements	
Floor track rapid		with TrumaBend V85	6000 x 8000 mm
traverse	2 m/s	Height	3000 mm
Swivel (180°)	1 s		
Positioning accuracy			
Floor track	0.5 mm		
Overall positioning accuracy			
of rotating axes	0.2 mm		
Max. working area			
Z axis	2750 mm		
Control	TRUMPF CNC		



TRUMPF is certified in accordance with DIN ISO 9001



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