

# BOSCHERT



## COMPACT EVO

Punching

Nibbling

Forming

Marking

Tapping



*simply better!*



## COMPACT EVO

The **BOSCHERT** COMPACT has gained an excellent reputation as a dynamic, stable, reliable and flexible punching machine for entry-level CNC sheet metal processing – and now the **BOSCHERT** engineers have given the machine a full facelift. The new design itself is extremely convincing, but the COMPACT EVO also has several practical improvements to offer:

- Highly accurate hydraulics for precise embossing and roller function as standard
- Waste bin with wheels for easy emptying.
- Cable duct between the machine and the control cabinet
- Ergonomic moveable control panel with shelves and drawer
- Edge protection to prevent long-term damage to the brush table
- Cover of the hydraulics (on request)

## Frame

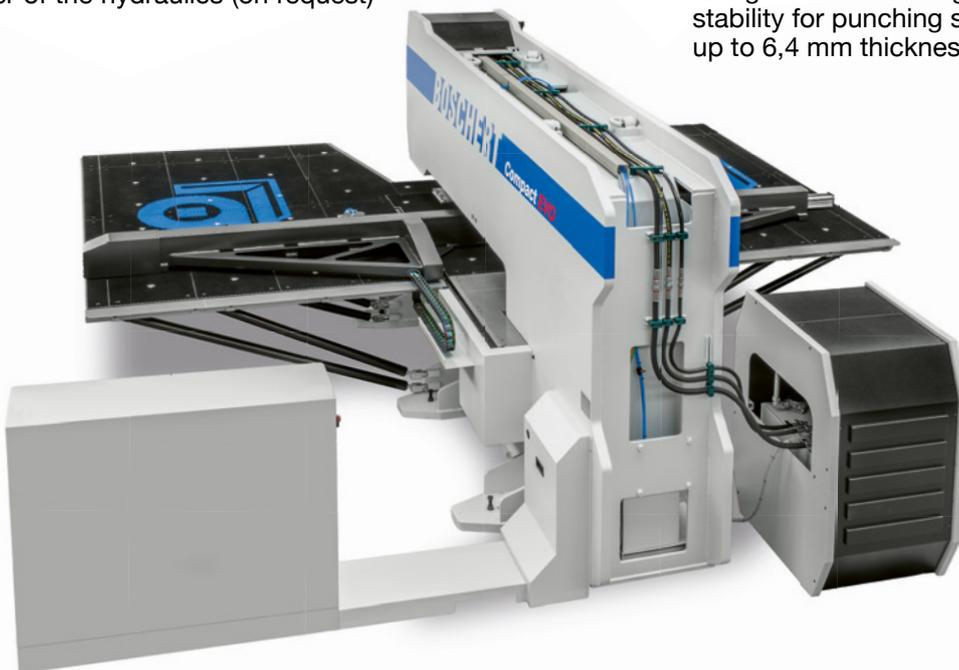


Solid welded steel construction guarantees the highest stability for punching sheets up to 6,4 mm thickness.

## Control panel



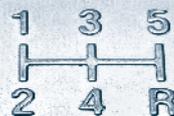
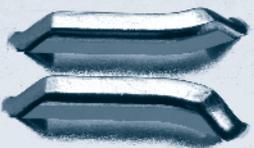
10,5" TFT colour screen, ergonomically designed.



## Industrial CPU



Control with internal memory, USB port and LAN RJ 45 for network connection. Possible remote maintenance by internet.



## COMPACT EVO

### Rotation Index

Stepless 360 degree rotation of all tools up to 105 mm diameter and pneumatic indexing of Revotools.

The 7-way Revotool was especially constructed for this model.

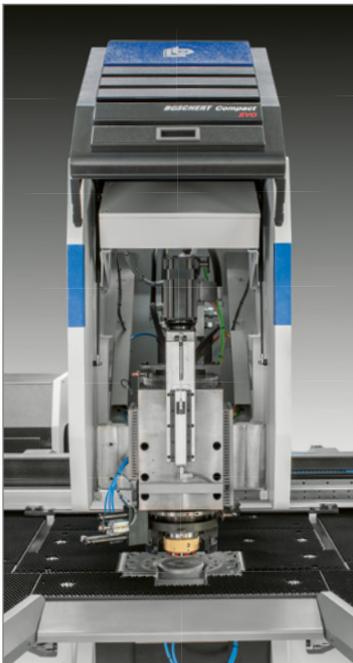
In addition to 6 tools with a diameter of 16 mm each, with a slitting tool of 5 x 30 mm it is possible to punch nearly every contour, allowing complete processing of the sheet without changing tools.

### Trumpf® standard tooling

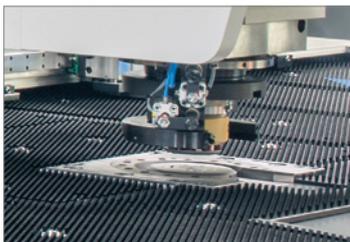
- easy handling
- low cost
- long tool life
- long regrind length



### Punching head rotation



Solid construction with servo motor and measuring system



Index equipment and also stripper height adjustment

### Revotools



Special 6-station to work on copper bar up to 10mm

### Technical Data COMPACT EVO

#### Working area

Compact	500 x 1000 (2000)	560 x 1080 mm (2080)
Compact	750 x 2000	810 x 2080 mm
Compact	1000 x 2000	1060 x 2080 mm
Compact	1250 x 2000 (2500)	1310 x 2080 mm (2580)
Compact	1500 x 2000 (3000)	1560 x 2080 mm (3080)

#### Performance

Max. sheet thickness	6,4 mm Revotool 4 mm <sup>1</sup>
Max. sheet length	9999 mm by repositioning
Max. hydraulic punching power	280 kN (optional 400 kN)
Max. workpiece weight	200 kg

#### Speeds

Max. positioning speed	
X- axes	60 m/min
Max. positioning speed	
Y- axes	60 m/min
Simultaneous X & Y	85 m/min
Max. strokes standard hydraulic	250 strokes/min
Max. strokes fast hydraulic	400 strokes/min
Max. strokes fast HBL hydraulic	750 strokes/min

#### Toolings

Trumpf® tooling system	
Max. punching diameter	105 mm or any shape within 105 mm
Revotool	4 / 6 / 7 & 8 stations
Time of tool changing	2-4 sec. Revotool 15 sec. manual

#### Axes accuracy during punching process

Positioning difference	+ - 0,10 mm
Repeatability	+ - 0,03 mm

#### Space requirement and weights <sup>2</sup>

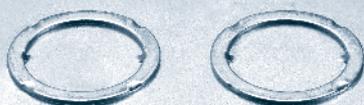
	B (X)	T (Y)	H
Compact 500 x 1000 (2000)	2900 (4000)	2540	2100 mm
		5800 (6000)	kg
Compact 750 x 2000	4000	3165	2100 mm
		7500	kg
Compact 1000 x 2000	4000	3790	2100 mm
		9200	kg
Compact 1250 x 2000 (2500)	4000 (5860)	4410	2100 mm
		10800 (11000)	kg
Compact 1500 x 2000 (3000)	4000 (6860)	5058	2100 mm
		14000 (15400)	kg

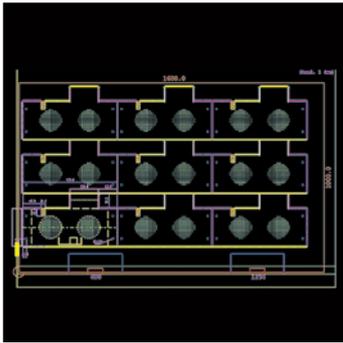
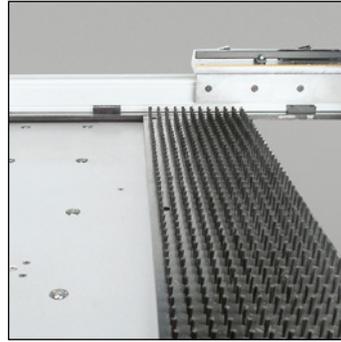
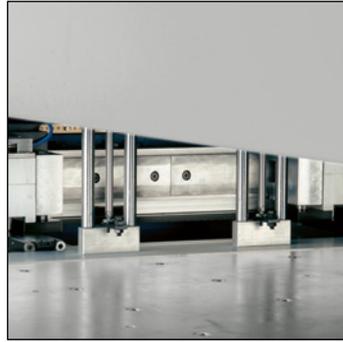
#### Electrical Values standard hydr. / fast hydr.

Electrical connecting value	20 / 25 kVA
Hydraulic motor	4,8 / 11 kW
Electrical consumption 2 mm sheet thickness continuous operation	4,9 / 7,7 kW/h
Electrical consumption 4 mm sheet thickness continuous operation	5,4 / 8,75 kW/h
Required fuse	3 x 25 A / 3 x 35 A
Pneumatic connecting value	min. 4 bar
Hydraulic oil	115 / 160 litre

<sup>1</sup> Mild steel St 40/mm<sup>2</sup>

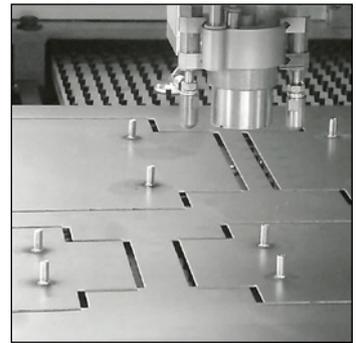
<sup>2</sup> The exact values can be found in each specific installation plan





## Optional components of the COMPACT

- a The automatic tool lubrication serves to increase tool life when nibbling stainless steel (VA) and decreases edge burrs in aluminium
- b Repositioning up to 10 meters and clamp movement without contacting the sheet. 2 robust clamps for sheets up to 200 kg(expandable to 4 clamps). Standard capacity up to 7 mm or 12,7 mm when required (Standard 7mm)
- c Sandblasted, corrosion resistant surface as standard. Balls in the table for heavier sheets and easy handling, brushes in the table for thin or scratch sensitive sheets are also available
- d Vacuum slug removal
- e BG-CUT CNC/CAD software to import DXF-files into machine language, calculates punch time, graphic simulation
- f Nibbling up to 750 strokes / min with integrated oil cooling
- g Programmable repositioning of the clamps for faster set up of the machine.
- h Tapping and drilling attachment for threads M3 up to M12 and smaller drilled holes in thicker sheets
- i Marking apparatus for marking parts in 10 different fonts
- j Stud welding
- k Composite material milling



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# BOSCHERT

## CombiLaser



**FORMING**



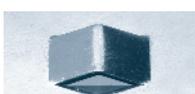
**PUNCHING**



**FIBERLASER**



*simply better!*



**Our system Components:**



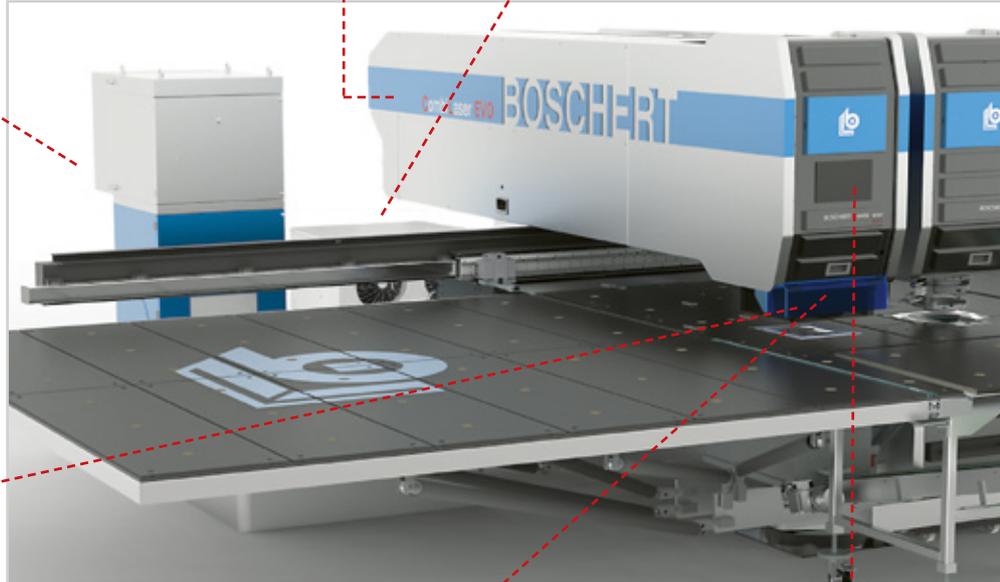
**Spark separator**, Temperature control and extinguishing device are standard



Cleverly integrated IPG-Fiberlaser source 1, 2, 3 or 4 kW power



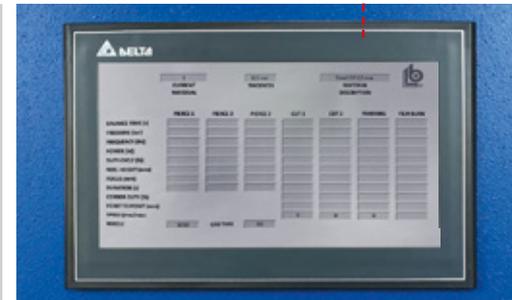
Cooling unit for laser



**BOSCHERT** has developed a security concept for the fiber laser in cooperation with the German safety trade association. Optionally the machine can be also equipped with a sight protection device.



Cutting head from Precitec



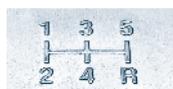
Touch screen to input the BLS (**BOSCHERT** Laser System) parameters of the laser



**Small parts chute**  
100x120mm und 670x670mm

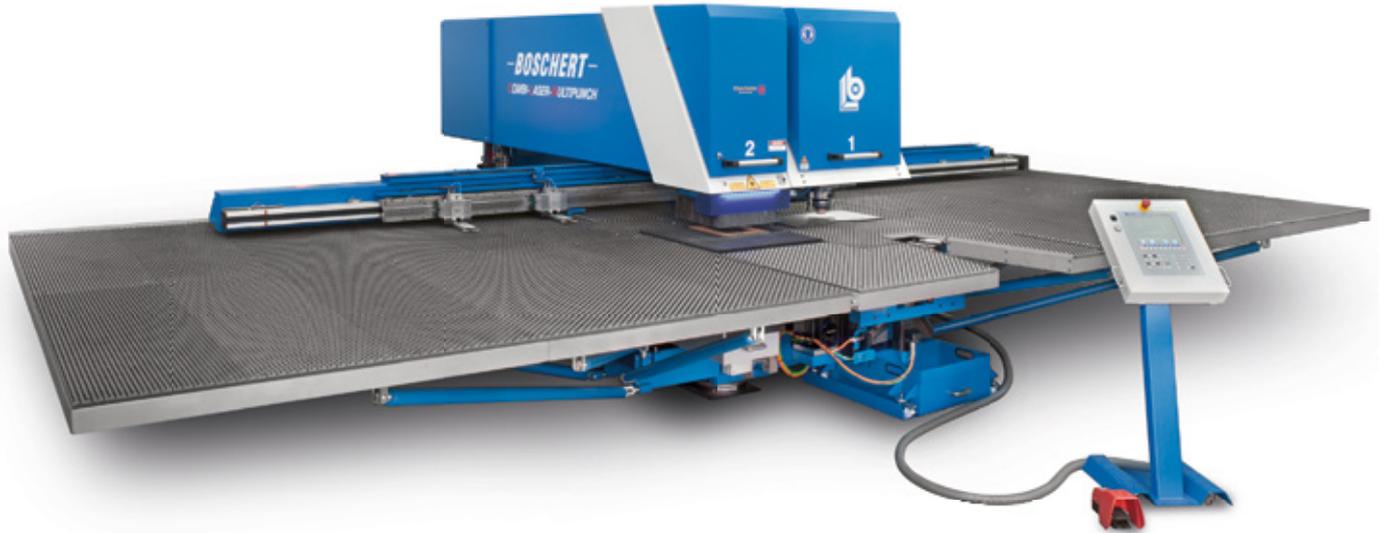


**Optional discharge**  
Conveyor belt for disposal of small parts (standard on CombiLaser Multipunch)





## Laser cutting, punching and forming



### The ideal combination: Punching and FiberLaser cutting

Because the trend in terms of material savings, resource conservation, lightweight construction and functional integration tends towards thin sheet metal constructions, **BOSCHERT** has now expanded its portfolio for equipping the **BOSCHERT** CombiLaser with a highly modern fiber laser cutting device.

Another benefit of the **BOSCHERT** CombiLaser: All currently existing Boschert punching machine models can be combined with the fiber laser system. **BOSCHERT** can therefore fully adapt to customer needs



The **BOSCHERT** CombiLaser combines the advantages of high quality laser cutting with the unique features of CNC punching. In the past, complex contours could only be cut on a flat sheet laser. Operations such as forming, beading, trimming and threading required a separate CNC punch. Now Boschert introduces the CombiLaser, combining the best qualities of both operations. **BOSCHERT**'s fiber laser system can be mounted to any of **BOSCHERT**'s standard line of CNC punching machines, which allows the customer to purchase the machine that best matches his requirements.





## Overview of our punching - forming - laser machines

### CombiLaser EVO



**1 head**  
 28to  
 90mm stroke  
 Max. 105mm outside diameter  
 Up to 8 Tools (Revotool)

#### Possible tool set up



8 tools

### CombiLaser TWIN



**2 heads**  
 28to  
 90mm stroke  
 Max. 105mm outside diameter  
 Up to 16 tools (Revotool)



9 tools

### CombiLaser TRI



**3 heads**  
 28to  
 90mm stroke  
 Max. 105mm outside diameter  
 Up to 24 tools (Revotool)

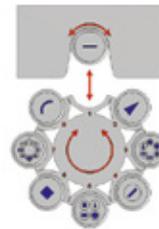


13 tools

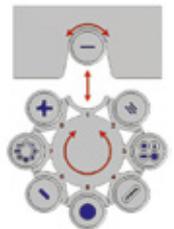
### CombiLaser MULTIPUNCH



**1 head with 8 stations tool changer**  
 28to  
 40 mm stroke  
 Max. 76mm outside diameter  
 Up to max. 64 tools (Revotool)



23 tools



18 tools

## Tools

### Trumpf standard tools



### Forming tools



### Revotool



4-way up to 25mm

6-way up to 20mm

8-way up to 16mm



## Options

### Enclosure



CombiLaser TRI with 4KW and enclosure

### **BOSCHERT** loading and unloading system



The loader is located on the right side of the punching machine. The loader replaces the front table and is constructed with the extension tables as a complete unit.

The loading system consists of the following components:

- Loading table
- Suction frame with vacuum system
- Thickness measurement
- Trolley for sheet staples

### CNC/CAD Software BG-Cut

CNC/CAD Software Our CNC/CAD solution offers a versatile and powerful support for **BOSCHERT** punching and laser machines. We also offer Auto-Nesting program for optimal sheet utilization.



## Technical data

### Working area

CombiLaser 1000 x 2000	1060 x 2000mm
CombiLaser 1250 x 2500	1310 x 2500mm
CombiLaser 1500 x 3000	1560 x 3000mm

### Performance

	Faser Laser		Solid state Laser			
			1000	2000	3000	4000
Laser performance			1kW	2kW	3kW	4kW
<b>Cutting ranges</b>						
Mild steel	max.	10mm	10mm	10mm	10mm	10mm*
Stainless steel	max.	5mm	8mm	10mm	10mm	10mm*
Aluminium	max.	3mm	6mm	8mm	10mm	10mm

### Speeds

Max. positioning speed	
X-axis	60m/min
Max. positioning speed	
Y-axis	60m/min
Simultan X & Y	85m/min
Max. stroke rate punching (HBL)	750/min
Max. sheet weight	250Kg

### Tool systems

Trumpf tooling system	
Max. punching diameter	105mm (76mm Multipunch)
Revotool 4/6 und 8-way	25mm / 20mm and 16mm
Number of tool stations (max. with Revotool):	
CombiLaser Compact	1 (8)
CombiLaser TWIN	2 (16)
CombiLaser TRI	3 (24)
CombiLaser Multipunch	8 (64)

### Axis accuracy

Positioning difference	+ 0,10mm
Repeatability	+ 0,03mm

### Programmable part chute

For laser parts	670 x 670mm max.
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### Space requirements and weights <sup>1</sup>

CombiLaser 1000x2000	7000 x 5900 x 2110mm
Weight	14500kg
CombiLaser 1250x2500	8000 x 6500 x 2110mm
Weight	16300kg
CombiLaser 1500x3000	9000 x 7100 x 2110mm
Weight	17400kg

### Electrical values

Fiber Laser	7kVA or 14kVA (4kW)
Punching machine	25KVA
Suction unit	5kVA
Cooling unit for 1kW-4kW	8,5kVA

<sup>1</sup> The exact values can be found in each specific layout plan

\* The maximum clamp opening is 12,7mm. Therefore is for 4kW Laser the clamp opening the maximum not the cutting range.



Your partner for sheetmetal production



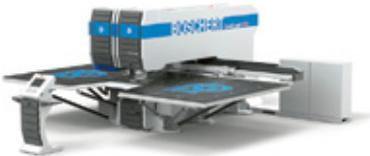
Notching machines



Manual punching machines



Press Brakes



Combined machines



FiberLaser



CNC punching machines



Copper processing



Shearing machines



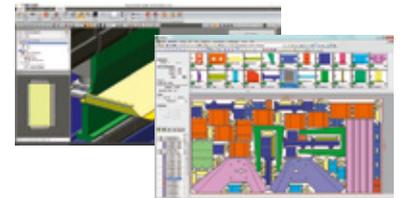
Plasma cutting machine



Edge deburring



Tool grinding machines



BG-Cut / Bend Software

## DESIGNED AND MADE IN THE BLACK FOREST



Machines



Tools



Software



Commissioning



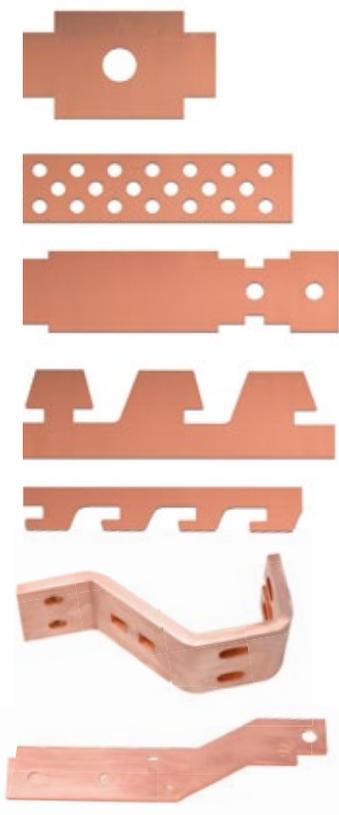
Training



After sales



**BOSCHERT**



## CuProfi CuMaster CNC-WP

by Stierli-Bieger

Punching  
Nibbling  
Forming  
Marking  
Tapping  
Bending

## BOSCHERT CuProfi

The CUProfi is a specially designed machine for punching copper, aluminum and steel bar. The CUProfi is capable of using eight tools to process highly efficient and complete copper bars in lengths up to 4000 mm or 6000 mm and in thicknesses from 2 to 15 mm (optionally 20 mm).

Moreover, the machine has a separating tool station (60 x 8 mm), and with this, it is possible to accurately cut the copper bars to the desired length.

The copper bars may be 12-200 mm wide. The material is fed by clamps gripping the bar from each side, resulting in flat and straight parts with nearly no waste.



Feed table with rollers



Optional threading from M3 to M16. Three thread diameters can be in operation simultaneously.



Easy tool change

It is important that the copper bars are clamped both in front and behind the punch head to avoid twisting and bending of the material. Finished parts are pulled to an unload table by the feed mechanism. Short and/or long parts require no intermediate handling.



Control panel

10,5" TFT color screen, ergonomically designed, is adjustable and mounted on casters. USB, dual palm buttons, tool change position button, emergency-off are all within easy reach. The powerful graphic and conversational software guarantees simple and fast programming. It is also available as a remote PC version.



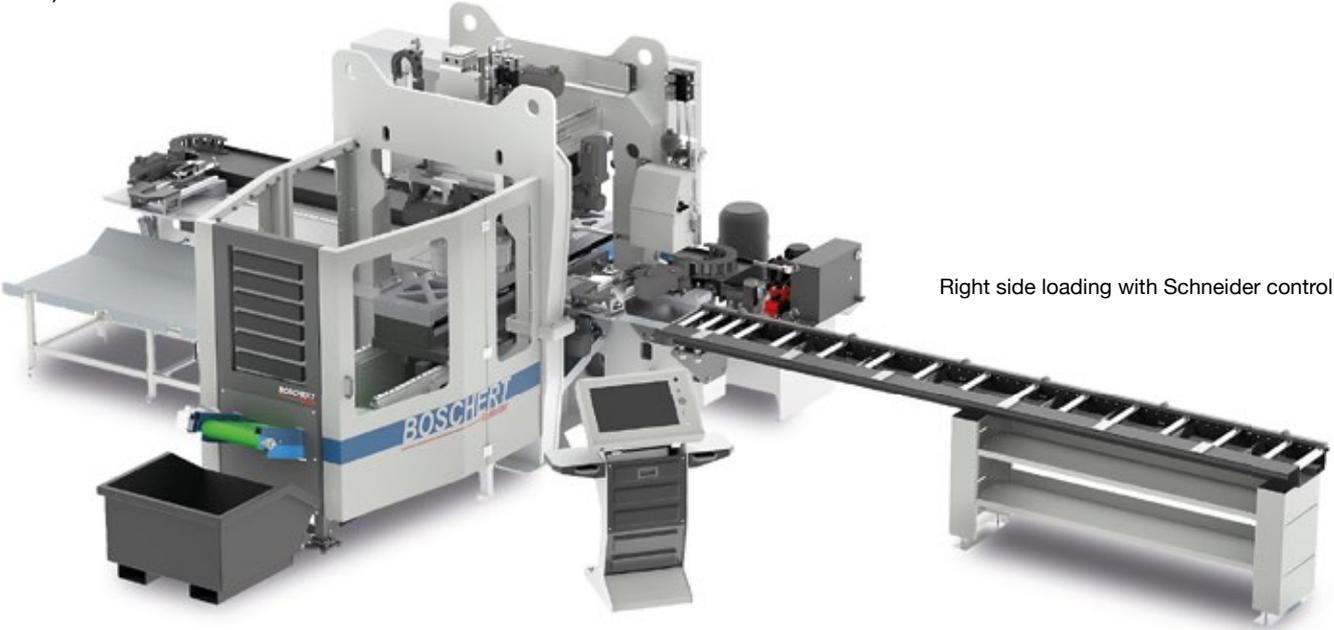
Tools of CU Profi: Beta V2, lead screw, thread holders, cutting tool 60x8 mm.



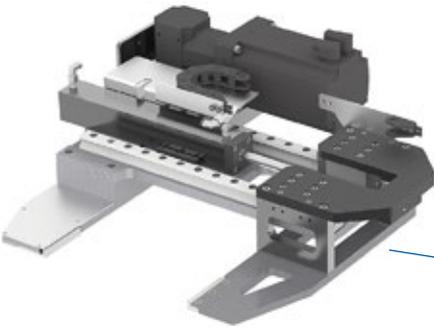
## BOSCHERT CuMaster

With the CuMaster, BOSCHERT offers a universal solution for copper processing. This machine can punch copper up to 305mm wide and 20mm thick material. All 8 stations can be equipped with 8-way (D. 16 mm) or 3-way (D. 31.7 mm) Multitools.

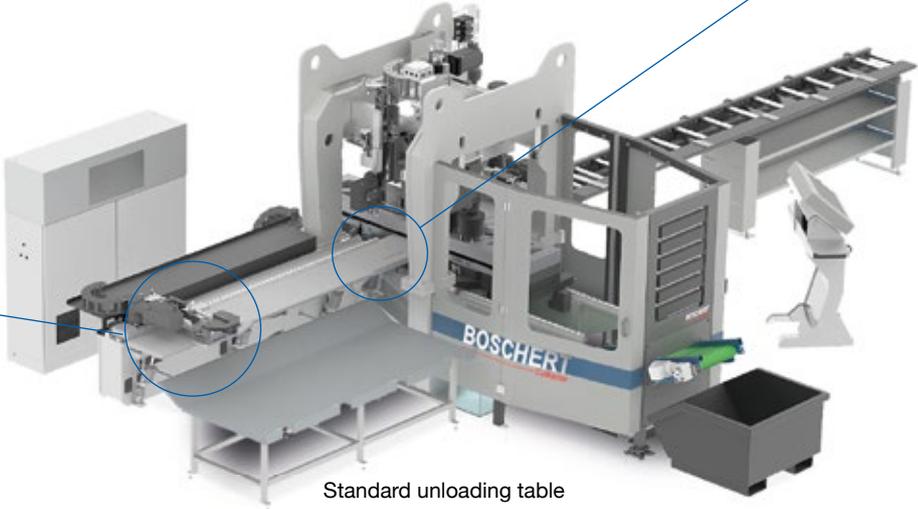
Additionally, the CuMaster could also have a 200x8 mm cutting station. The clamp width is automatically adjustable and can be moved on both sides in the X direction. This enables processing without a leftover piece.



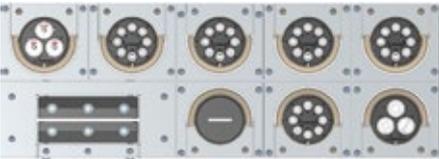
Right side loading with Schneider control



Automatic movable clamps



Standard unloading table



Possible tool set up with 48 tools



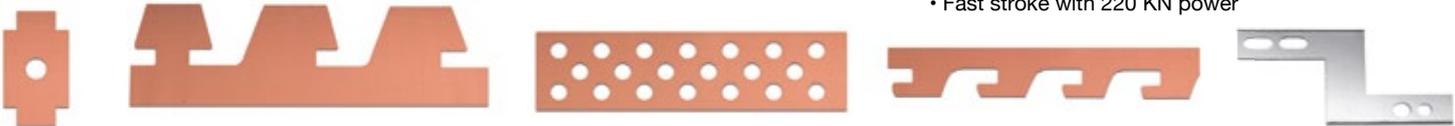
Double row tool holders



Multitool 8-way (16 mm max.)  
Multitool 3-way (31,7 mm max.)



Two-stage punching cylinder  
• Slow stroke with 600 KN power  
• Fast stroke with 220 KN power



## Options



Unloading table with hinge conveyor and pusher



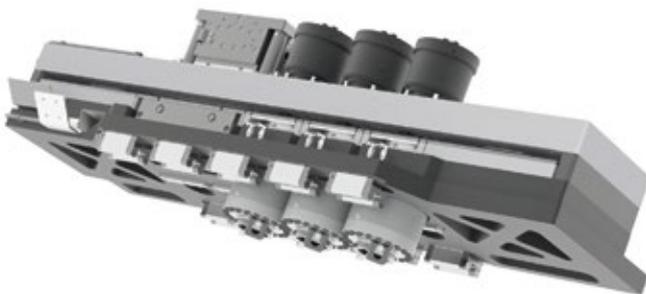
Small parts drop table



CUProfi and CuMaster marking unit: for labeling of finished parts



CUProfi and CuMaster loader. For automatic loading with pneumatic suction arms (4 oder 6 mm)



Up to 3 embossing cylinder with 60 KN power

## Technical Data

	CUProfi	CuMaster
<b>Maximum dimensions of work piece</b>		
Length	4000 mm / 150"	4000 mm / 150" (Option 6000 mm / 240")
Width	15-200 mm 0.6-8"	15-305 mm 0.6-12"
Thickness	3-20 mm 0.125-0.8"	3-20 mm 0,125"-0,8"
Punching force	1 x 400 KN (40 ton)	600 KN (60 ton) 220 KN (22 ton)
<b>Speeds</b>		
Max. axis	100 m/min	100 m/min
Max. stroke per minute	100	120 (22 ton) 58 (60 ton)
at 3 mm copper with 0,5 mm pitch		
<b>Tooling</b>		
Number of tool stations	8 (9)	8
Max. Number of punching tools	8 (9)	64
Tapping unit	yes	yes
System Amada special		
Max. Diameter	31,7 mm (B) / 1.25" 50,8 mm (C) / 2.0"	88,9 mm / 3.5"
Multitool 3-Stations with 3 x 31,7 mm	no	yes
Multitool 8-Stations with 8 x 16 mm	no	yes
Parting tool	60x8 mm	200x8 mm (opt.)
<b>LAN + USB</b>		
	yes	yes
<b>Online Support</b>		
	yes	yes
<b>Axes accuracy during punching process</b>		
Positioning Accuracy	+ - 0,10 mm + - 0.004"	+ - 0,10 mm + - 0.004"
Repeatability	+ - 0,05 mm + - 0.002"	+ - 0,05 mm + - 0.002"
<b>Space requirement and weights <sup>1</sup></b>		
Length	7000 mm / 24' 6" (9000 mm) / (29' 6")	8190 mm / 34' (10190 mm)
Width	3000 mm / 10'	4775 mm
Height	2100 mm / 7'	2364 mm
Weight	4000 kg 13.200 lbs	12.000 kg 26400 lbs
<b>Electrical values</b>		
Electrical connecting value	25 kVA	30 kVA
Hydraulic motor	11 kW / 15 HP	11 kW / 15 HP
Required fuse	3 x 35 A 35 Amp 3 phase	3 x 35 A 35 Amp 3 phase
Pneumatic connecting value	4 bar / 60 psi	4 bar / 60 psi
Hydraulic oil	160 Liter / 42 gal	160 Liter / 42 gal

<sup>1</sup> The exact values can be found in each specific installation plan.



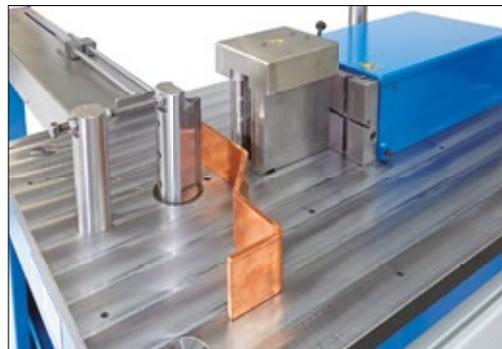


# Stierli-Bieger Universal Bending Center

The Stierli-Bieger horizontal bender is a modern and powerful solution for the efficient fabrication of busbar.

The integrated angle correction automatically compensates for any spring back and differences in material, thus achieving extremely high precision and reliability. In addition to the measuring tools, many other tools including those for edgewise bending, offset bending and twist bending can be quickly and economically added.

Programming can be done at the machine with the simple yet powerful graphic control or by off-line systems used in conjunction with the Boschert punching systems.



Measuring vee-block with automatic angle correction and bending without marks.



Modern graphic touch-screen control with conversational programming and integrated library of common shapes.

## Technical data

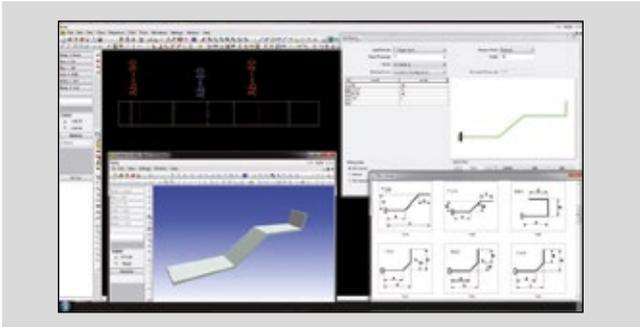
### 220 CNC-WP

### 420 CNC-WP

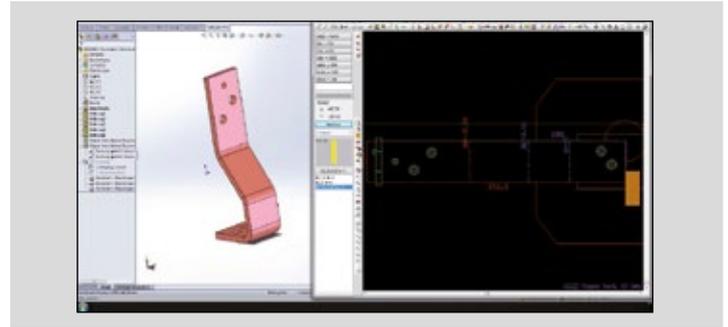
Working force:	220 kN	420 kN
Tooling height:	150 mm	200 mm (250 mm)
Bending capacity:	150 x 16 mm	200 x 16 (20)
CNC-length stop:	1 m / 2m / 3m	1 m / 2m / 3m
Measuring vee-block:	up to thickness 20 mm	up to thickness 20 mm
Punch insert:	up to thickness 25 mm	up to thickness 30 mm
Offset bending tools:	2 different systems available	
Edgewise bending:	60 x 10 mm	100 x 10 mm
Twist bending:	60 x 10 mm	100 x 10 mm
Narrow section punch:	Height 150 mm	Height 200 mm
	Support system upwards or rearwards	
Programming:	At the machine through graphic, conversation control or by programming system. 3D interfaces available for 3D EPLAN, Solidworks, AutoCad Inventor, etc.	
Control features:	Graphic bending simulation, predefined shape library, material library, tool library, automatic calculation of length, automatic calculation of bending and length stop positions.	
Connection/ Backup:	Ethernet interface + USB port	
Hydraulic:	Most modern hybrid hydraulic reduces noise emissions and energy requirements.	



## CNC / CAD Software



It is very easy to quickly program the Labod control on both the Boschert and Stierli machines. Alternatively Boschert/Stierli offers CNC/CAD programming software from various different suppliers.



With these systems both the punching and bending machines can easily be programmed automatically from CAD files. Savings in time and material are significant.



## Hydraulic Copper Shear CS

For the cutting of copper bars with no waste, the Boschert copper shears are perfect machines. Hold downs above and below the bar, minimal cutting angle and minimal clearance all add up to near-perfect cuts.

Cutting capacity: 7.875" x 1/2"; 200 mm x 12 mm  
Copper  
6" x 0.59"; 150 mm x 15 mm  
Copper

Back Gauge Lengths: 0 – 40"; 0 – 1000 mm



## BOSCHERT CU TWIST 120 NC

For production twisting of copper bars to exacting standards. The controlled rotation ensures high repeatability.

max. width: 4 3/4"; 120 mm  
max. thickness: 1/2"; 12 mm  
max. Length: variable mm  
min. twist length: ca. 2 x material width  
possible twist angle: 0 - 110°



**BOSCHERT**  
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## *Sheet Metal At Its Finest*

*Punching*

*Bending*

*Cutting*

*Copper Processing*

*Tool Grinding*

*Laser-/Plasma Cutting*

*Overview Brochure*



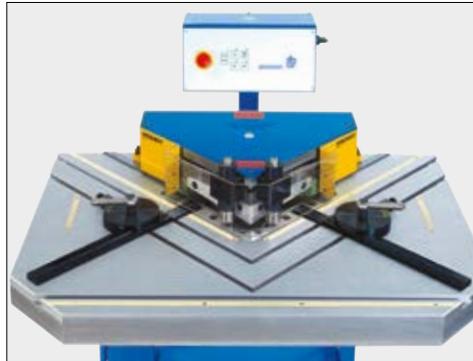
## Notching Machines

Notching with 90°



LB12/4

Type	Notching of 90°
LB 12/4	225 x 225 x 4 (3) mm
LB 12/6	225 x 225 x 6 (4) mm
LB 13	225 x 225 x 6 (4) mm
LB 15/2000	225 x 225 x 8 (6) mm



LB 13



LB 15/2000

Hydraulic fixed angle machines permit notching at an angle of 90°. Clean cuts are guaranteed in all sheet metal thicknesses combined with high repetitive accuracy.

The TRI-GIDE System allows for cutting on one side of the blade and when used in conjunction with the depth stop bar, components and blanks can be sheared.

With the design features incorporated, extra long blade life is assured even when notching special steels. With the design features incorporated, extra long blade life is assured even when notching special steels.

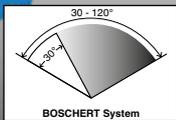


Three-Point Guiding

Adjustable angle from 30° - 120°



Mini S



Type	Notching from 30° bis 120°
K 30-120 Mini S	150 x 150 x 4 (3) mm
K 30-120	200 x 200 x 6 (4) mm



K 30 - 120

**BOSCHERT**'s blade system for variable angle notchers is unique in the world whereby a 30° upper blade is directly connected to two corresponding lower blades.

All notches of more than 30° are accomplished automatically with a right and left notch.

Pneumatic power rotates after each stroke. This unique and innovative system guarantees exceptionally long blade life when compared with other conventional variable angle systems.

Second stations machine



Second stations for multi-purpose applications. Most of our models can be equipped with a second station. Please see our technical data for more details. For the second station we offer the highest flexibility on our models e.g. punching station for Trumf tools, fast exchange blades or coping station with 25x100 mm shape.





## Manual Operated Punching Machine



ECCO LINE 500 digital

### Mode of Operation:

When the tool is set, the material stops are repositioned in the X and Y axes and the work piece is moved against the stops. When the foot pedal is pressed the ram punches the hole.

### Characteristics of the machine:

- Maintenance-free hydraulic drive
- Constant punching pressure
- Compact design
- Continuous stroke adjustment

### ECCO LINE manual

The hydraulic punching machines from the Ecco Line series are designed for sheet metal, plate and profiles.

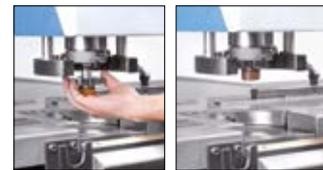
The design is proven through the machines' flexibility and accuracy.

The machines of the Ecco Line series have 28 tons (optional 40 tons) punching pressure using the well-known Trumpf tooling system

Type	throat depth	X-axis
EL 300	300 mm	500 mm
EL 500	500 mm	1000 mm
EL 750	750 mm	1500 mm

### Tool change:

#### Punch



#### Die



### Profile options:



### EvoLine with option for working profiles

With this new option you can punch angles up to a height of 90 mm with the extended length tooling.



EvoLine 500 digital with profile option





## CNC Punching Machines



COMPACT EVO 1250 x 2000

### COMPACT EVO

The Compact punching machine from **BOSCHERT** is the perfect machine for the first-time user of CNC punching technology.

Advantages:  
user-friendly graphic programming,  
high quality with low cost, small floor  
space requirement.

Heavy duty C-frame construction allows working of oversized sheets, by using turning and automatic repositioning function.



### COMPACT EVO

Type	500 mm x 1000
Type	750 mm x 1500
Type	1000 mm x 2000
Type	1250 mm x 2500
Type	1500 mm x 3000

#### Control panel

10,5" TFT colour screen, ergonomically designed, it is adjustable and mounted on casters. USB, dual palm buttons, tool change position button, emergency-off.

The powerful graphic and conversational software guarantees simple and fast programming. It is also available in a PC version.



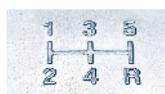
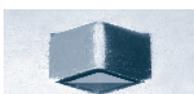
Index equipment and also stripper height adjustment

### COMPACT EVO Rotation Index

Stepless 360 degree rotation of all tools up to 105 mm diameter using brushless DC motors and pneumatic indexing of Revotools.

The 7-way Revotool was especially constructed for this model.

In addition to 6 tools with a diameter of 16 mm each, with a slitting tool of 5 x 30 mm it is possible to punch nearly every contour, allowing complete processing of the sheet without changing tools.



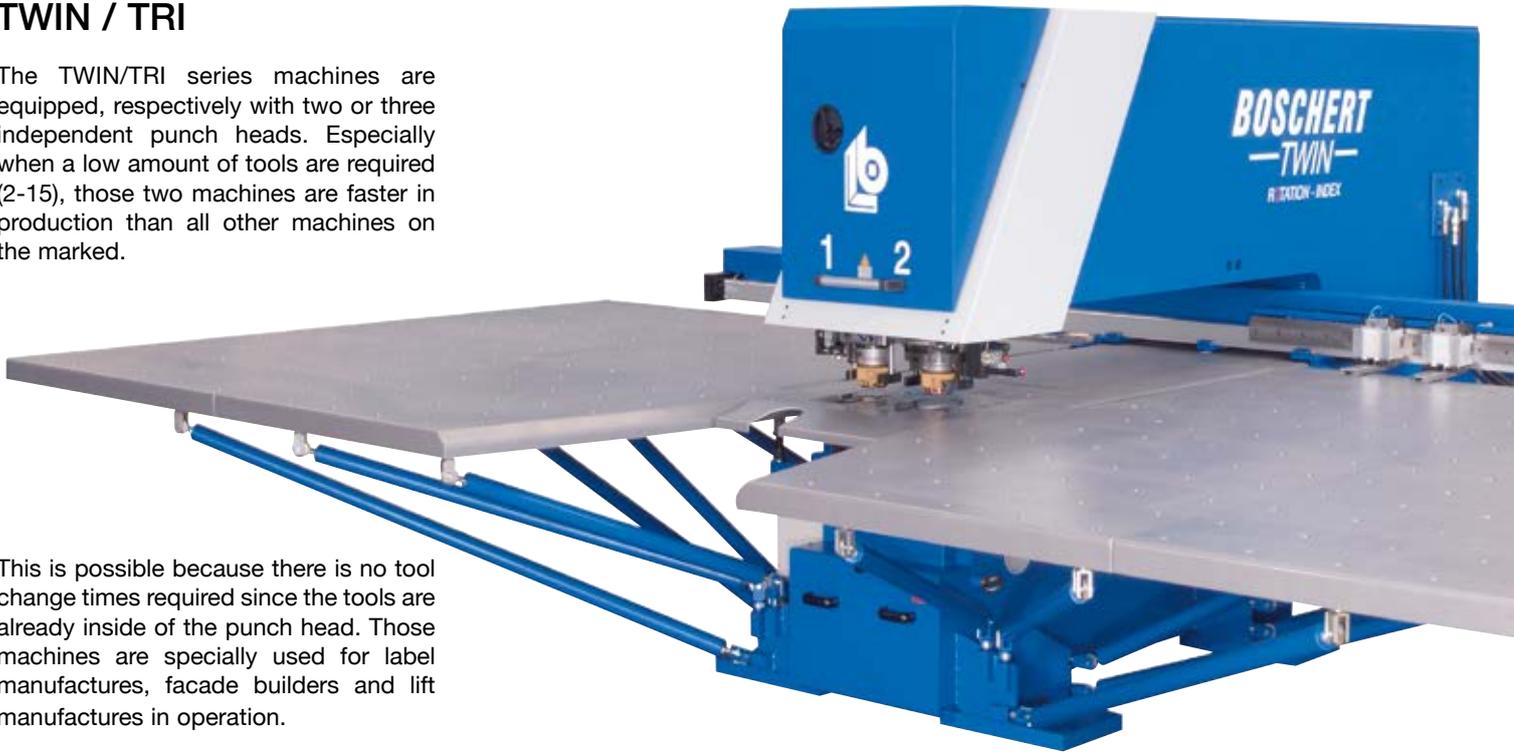


## CNC Punching Machines

### TWIN / TRI

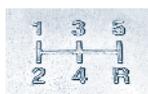
The TWIN/TRI series machines are equipped, respectively with two or three independent punch heads. Especially when a low amount of tools are required (2-15), those two machines are faster in production than all other machines on the market.

This is possible because there is no tool change times required since the tools are already inside of the punch head. Those machines are specially used for label manufactures, facade builders and lift manufactures in operation.



### TWIN / TRI

Type	500 mm x 1000
Type	750 mm x 1500
Type	1000 mm x 2000
Type	1250 mm x 2500
Type	1500 mm x 3000





## CNC Punching Machines



MULTIPUNCH 1250 x 2500

### Rotation Index

360 degree stepless rotation of all tools, including Revotools. Maximum diameter of tools is 76.2 mm (3"). Driven by two brushless DC servo motors. The Revotools are changed by a pneumatic cylinder. 8 station tool carousel with cassettes that hold punch, die and stripper or Revotool head with 4, 6 or 8 tools.

### Tool Changer

The Multipunch changes tools in 3-5 seconds. Revotools within the same cartridge are changed in less than 3 seconds.

### MULTIPUNCH Auto Tool Change

The Multipunch tool carousel is mounted at the front of the machine, below table level.

The vertical and horizontal axis movements are controlled by ball screws with linear ball guides using double carriages.

The rotary axis positions the eight cassettes with a rack and pinion drive.

The Multipunch uses Trumpf style tools up to size II (3") and Boschert Revotools. It is possible to have up to 64 individual tools, all fully indexable, in the machine.

### MULTIPUNCH

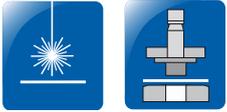
Type	1000 mm x 2000
Type	1250 mm x 2500
Type	1500 mm x 3000

The programmable small parts chute measures 200 mm x 300 mm.



8 station tool carousel with cassettes that hold punch, die and stripper or Revotool head with 4, 6 or 8 tools.





**CombiLaser**



CombiLaser Multipunch



Combicut laser TRI 3-head punching machine with 2xRevotool (head 1 + 3) and rotation / index (head 2)

**The ideal combination:  
Punching and  
Fiber Laser cutting**

The trend in manufacturing is to make components that are lighter in weight, use less material, conserve resources and integrate functionality.

As such, customers are working with thinner sheet structures.

**BOSCHERT** has expanded its successful “Combi” series of machines to include fiber laser.

In close cooperation with our partner, Kjellberg Finsterwalde, Boschert has added the Kjellberg Xfocus 1000 fiber laser to its CNC punching line. The CombiLaser series is available with working ranges from 1000 x 2000mm to 1500 x 3000mm.

Now customers can produce complex parts on a single machine without repositioning.

**Safety & Security**



**BOSCHERT** has developed a security concept for the fiber laser in cooperation with the BG professional association. Optionally the machine can be also equipped with a sight protection device.

**Programmable removal of small parts:**



Finished parts on the CombiLaser can be quickly unloaded by means of two separate CNC controlled parts chutes.

The part chutes are positioned directly in front of the fiber laser head and are 100x120 mm and 670x670 mm.

**CombiLaser**

Type	1000 mm x 2000
Type	1250 mm x 2500
Type	1500 mm x 3000





## FiberLaser

more than just light



FiberLaser 3015

### Fiber laser in a compact design with many practical advantages

The **BOSCHERT** Fiber Laser is available in two sizes, 3015 and 4020 with a working range of 1500 x 3000 mm or 2000 x 4000 mm. Selectively these can be equipped with a 1 kW, 2 kW or a 4 kW fiber laser from our long-time plasma and laser technology partner Kjellberg.

The unique design results in very good accessibility when loading and unloading the machine table, which also has a part chute for the immediate discharge of cut pieces. These work pieces can be up to 350 x 1500mm and are reliably discharged over the entire table width.

Our design eliminates the problematic tipping of small, cut work pieces, which increases process reliability and ensures fast access to those work pieces.

In addition, waste products are transported via a second conveyor belt into a waste container which is located on the operator side.

### Operational convenience for greater productivity and efficiency

The precise cutting system and the practical clamping concept also allow working on sheets as small as 500 x 50 mm, thus giving a very high degree of material utilization.

The sheet metal is clamped by a freely selectable number (max. up to 4) of pneumatic clamps guided on a ball screw.

The whole cutting unit travels and positions via a rack-and-pinion drive in the X-axis.

For the operator it is also an advantage that the maintenance opening for the laser head (for example for changing the nozzle) is arranged on the front, reducing the down time of the machine and increasing productivity.

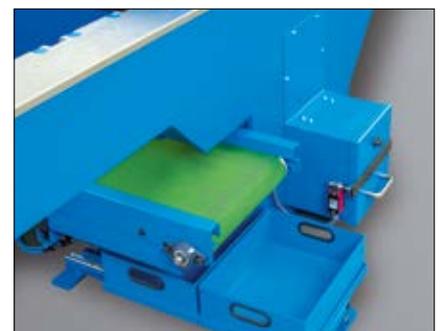
The laser head is moved and positioned quickly and precisely in the Y axis with a drive combination of ball screw spindle and linear guides.



Part chute

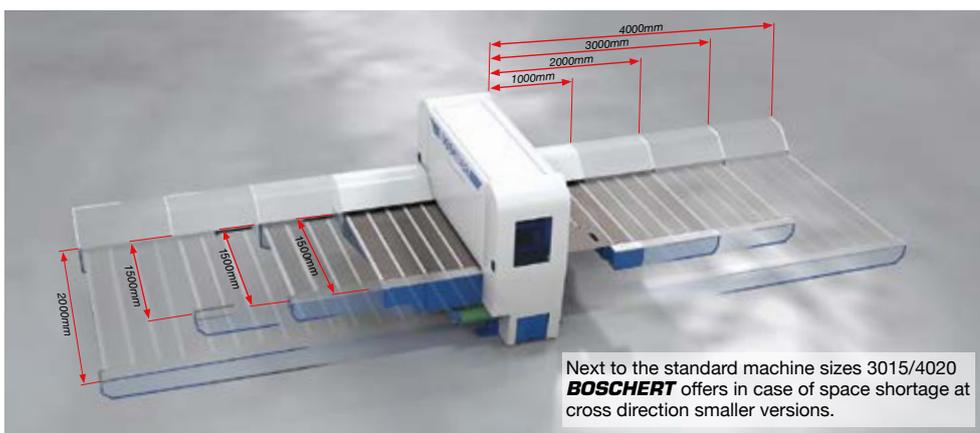


Easy maintenance



Part sorting

### Variable machine sizes



Perfect accessibility





## Plasma Cutting and Punching



### COMBICUT

Producing complex inside and outside contours quickly at high quality is possible now also with Plasma.

Forming, offsetting, producing tongues, beads and even threads are the special domain of punching.

The **BOSCHERT** CombiCut unites the strength of all processes in one machine.

### COMBICUT

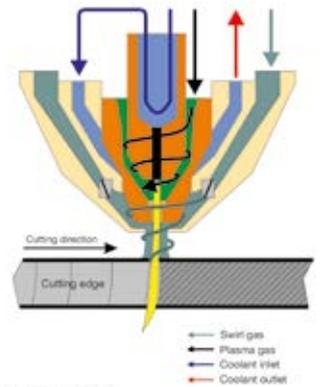
Sheet thickness up to 12 mm /  
Plasma power 160A

Type	750 x 1500
Type	1000 x 2000
Type	1250 x 2500
Type	1500 x 3000

COMBICUT TWIN 1500x3000

### Productivity, Quality, Flexibility:

The exceptional quality of the cutting surfaces is characterized by dross free cuts, the fine tolerance of the cut angle and straightness of cut, as well as smoothness of the cut edge and a positioning tolerance of +/- 0.2 mm. In addition, repeatability is 0.03 mm and is based on the technology of the HiFocus system, which is known worldwide.



Procedure principle



### ErgoCut



ErgoCut 3015

The ErgoCut is manufactured with a stable, rigid portal design and equipped with a sophisticated linear guide system as well as a 5 axis CNC control system. Dynamic drives ensure positioning speeds of up to 30 meters/minute, with a guaranteed positioning accuracy of +/- 0.1mm. The cutting head speed can be adjusted from 10 to 8,000 mm/min, and therefore can be optimally adapted to the material to be cut and its thickness.

The Kjellberg system HiFocus 160i, which has proven itself time and again in industrial use is used as the plasma source.

The Hypertherm HyPerformance plasma system is also available as standard equipment. The Kjellberg- and also the Hypertherm - systems have been successfully utilized in the Boschert CombiCut combination punch machines for many years and are distinguished by an outstanding cost/benefit ratio.

### ErgoCut

3015	Working area	1530 x 3030
4020	Working area	2030 x 4030
	Cutting range	0,5-50 mm





## CuProfi



The CuProfi is a specially designed machine for punching copper, aluminium and steel bar.

The CuProfi is capable of using eight tools to process highly efficient and complete copper bars in lengths up to 4000 mm or 6000 mm and in thicknesses from 2 to 15 mm (optionally 20 mm).

Moreover, the machine has a separating tool station (60 x 8 mm), and with this, it is possible to accurately cut the copper bars to the desired length.



Optional threading from M3 to M16.  
Three thread diameters can be in operation simultaneously.

The copper bars may be 12-200 mm wide. The material is fed by clamps gripping the bar from each side, resulting in flat and straight parts with nearly no waste.



## CuMaster



With the CuMaster, **BOSCHERT** offers a universal solution for copper processing.

This machine can punch copper up to 305mm wide and 20mm thick material. All 8 stations can be equipped with 8-way (D. 16 mm) or 3-way (D. 31.7 mm) Multitools.

Additionally, the CuMaster could also have a 200x8 mm cutting station.

The clamp width is automatically adjustable and can be moved on both sides in the X direction. This enables processing without a leftover piece.



Working range





## CU-FLEX

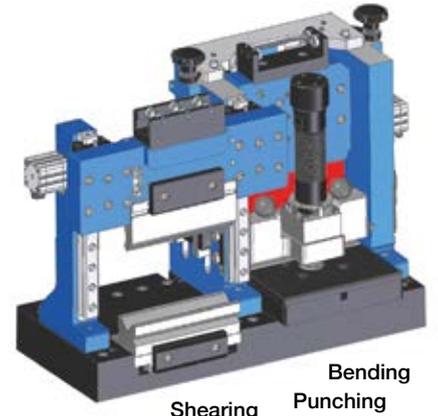


### **BOSCHERT** CU-FLEX

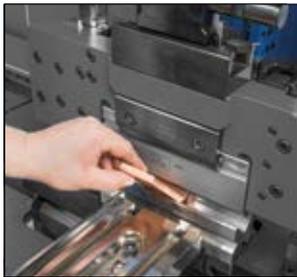
The new CuFlex from **BOSCHERT** is a cost effective 3 in 1 machine.

Due to the compact design, significant floor space is saved versus three single machines. The machine is also suitable for handling aluminium and steel. Back gauge and bending control with CybTouch 15 CNC.

Schematic view of the working stations



Bending  
Shearing      Punching



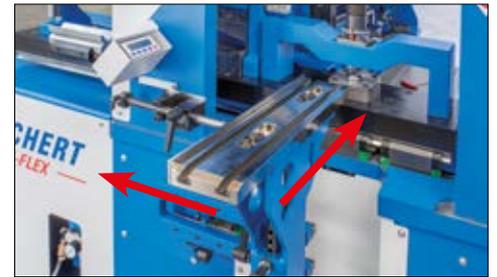
Bending



Shearing



Punching



Movable front gauge with digital readout



### Stierli-Bieger Universal Bending Center

The Stierli-Bieger horizontal bender is a modern and powerful solution for the efficient fabrication of busbar.

The integrated angle correction automatically compensates for any spring back and differences in material, thus achieving extremely high precision and reliability. In addition to the measuring tools, many other tools including those for edgewise bending, offset bending and twist bending can be quickly and economically added. Programming can be done at the machine with the simple yet powerful graphic control or by off-line systems used in conjunction with the **BOSCHERT** punching systems.



 **HYBRID** Technology



#### Technical data:

##### **220 CNC-WP**

Working force:	220 kN
Tooling height:	150 mm
Bending capacity:	150 x 16 mm
CNC length stop:	1 m / 2 m / 3 m

##### **420 CNC-WP**

Working force:	420 kN
Tooling height:	200 mm (250mm)
Bending capacity:	200 x 16 mm (20)
CNC length stop:	1 m / 2 m / 3 m



Messuring prism with automatic spring-back compensation and bending without marks for copper, aluminium and steel.



## Profi Bend28 NC / CNC



Profi Bend 28/1000 NC



CybeleC CybTouch15

Profi Bend 28/1000 CNC

### Profi Bend 28

NC	28t Bending force	1000 Bending length
CNC	28t Bending force	1000 Bending length

The Profi Bend 28 is simple to operate. The ram can be adjusted under pressure by using the hand wheel.



The powered back gauge is programmable with up to 99 programs of 30 lines each.

The **BOSCHERT** Profi Bend 28 NC and Profi Bend 28 CNC are precision hydraulic press brakes.

With a maximum bending force of 28 tons, typical work could include parts up to 300mm long and 10mm thick. Standard tooling is Amada style, with other systems available on request. Material stops are adjustable vertically and horizontally and have stop fingers with three faces each.

The extremely compact and robust structure of these machines and the twin guides guarantee ram repeatability of 0.02mm.

The Profi are designed to manufacture small parts and perfectly complement your existing larger machines. By forming small parts on the Profi and larger parts your existing machines, plant productivity is greatly improved.



2 or optional 4 side adjustable back gauges and optional 2 adjustable front supports



## Profi Bend 56 CNC



Profi 56/1400 CNC

The Profi Bend 56 CNC models are available in 1400 and 2200 mm bending lengths. The pressure of 56 tons takes place with 2x28 ton force cylinders.

All CNC Profi Bend 28/56 Press Brakes machines are equipped with the Cybelec CybTouch15 as a standard control.



Optional CYBELEC VisiPac 19

### Profi Bend 56 CNC

56 t Bending force	1400 Bending length
56 t Bending force	2200 Bending length



## Quick Bend 28 CNC



Quick Bend 28 CNC  
*Hybrid Technologie*

Productivity and ergonomics are combined in perfect harmony.

The nearly silent press brake Quick Bend, with up to 250mm/s approach speed and 200mm/s return speed is setting new standards in production.

Thanks to the hybrid technology, up to 80% energy savings compared with conventional hydraulic systems can be achieved.

The Quick Bend corresponds to all CE - Safety requirements with the CYBELEC VisiPac19 graphic controller, Rexroth hydraulics and the Fieessler AKAS V. Other standard equipment includes the R-axis, linear guide for the X axis and the quick-change tool system ROL 200.

### Quick Bend

28 t Bending force	1000 Bending length
56 t Bending force	1400 Bending length
56 t Bending force	2200 Bending length



## **BOSCHERT** Gizelis Press Brakes and Shears

### Press Brakes and Shears from Gizelis:

To provide a complete line of sheet metal processing machinery, **BOSCHERT** created a partnership with Gizelis. This Greece based, joint venture, operates from a brand new modern factory developed by the partners.

Gizelis has over 55 years experience in building high quality press brakes and shears and has delivered over 2.000 machines.



G-Blend Plus 3140



Hybrid

### G-Bend Plus

Bending force	800 - 8800 kN
Working lengths	2000 - 7000 mm

### G-FLEX / G-BEND PLUS / HYBRID

Bending force	800 - 4400 kN
Working lengths	2000 - 7000 mm



G-Cut 3006 CNC



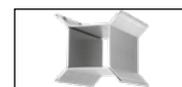
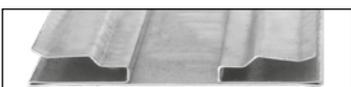
G-Cut 3010 CNC

### G-ELECTROCUT CNC

Cutting thickness for mild steel	6 mm
Cutting lengths	2000-4000 mm

### G-CUT CNC

Cutting thickness for mild steel	4-20 mm
Cutting lengths	2000-6000 mm



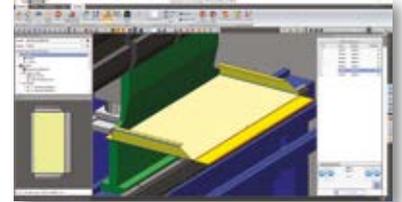


## **BG-Soft** BG-Bend / BG-Cut

The performance **Soft-Package** for Bending and Punching/Cutting.  
On request also available as a single version.

### **BG-Bend**

BG-Bend is an application for programming and import of SolidWorks, Solid Edge and Inventor 3D files. The software generate with the automatic or manual tool selection the bend sequencing with collision detection and back gauge finger stops positioning the program. These programs from the Press Brake could be used for 2D BG-Cut of punching or Laser machines considering all information's of the bending result of the Press Brake tools.

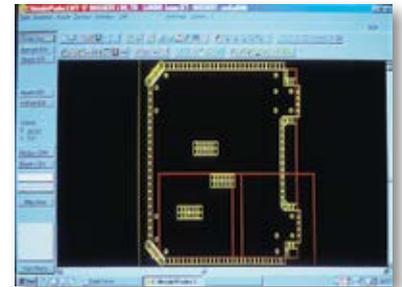


#### **BG-Bend:**

- 3D Import and design
- Automatic and manual tool selection
- Automatic and manual bend sequencing with collision detection
- Automatic and manual finger stop positioning with graphic control of all axis
- Automatic retraction calculation
- 3D simulation of bending process with collision detection
- Online capability
- Setup reports for the machine operator including bend sequences, tooling and bend-by-bend graphics

### **BG-Cut**

BG-Cut produce depending on automatic or manual selection the processing contours with the required tools. After the machine program for the punching or laser machine has been created, a setup and processing report can be created.



#### **BG-Cut:**

- Direktimport von BG-Bend
- 2D Import and drawings
- Machine selection punch or laser
- Automatische sowie manuelle Werkzeug- oder Laserauswahl
- Special tools
- Manual nesting
- Automatic nesting (option Auto Nest)
- 2D simulation
- Online capability
- Setup reports

#### **BG-Cut Auto Nest (Option):**

Offers optimal material utilization with AutoNest - CNC automatic nesting module. AutoNest is a powerful True Shape nesting tool offering versatile methods for automatic and manual nesting to achieve the best possible nesting solutions.



#### **1 BG-Soft enhanced your productivity:**

- Faster design-to-production times with automated features
- Offline programming means minimal machine down-time
- Collision-less bend sequences mean reduced stock wastage
- Tool libraries are compatible to available tooling resulting in production-ready Setup reports
- Technology report



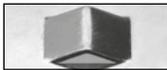
## Punching Tools



We supply punching tools of very high quality.

Part of our Service Strength, is that we offer Punch Tooling for all of our Punching Machines, including Tools for Special Applications from design to supply.

This includes **BOSCHERT** Revotool, Trumpf and Amada Style.



## Grinding Machine

### Easy-sharp

Typ Trumpf

Typ Amada



**BOSCHERT** now offers a tool grinding machine which easily justifies its purchase, even for a small amount of tools.

To maintain the punch and die hardness during grinding our Easy Sharp is equipped with a coolant system.

Regular and timely grinding of the tools guarantees a constant punch quality and increases the tool life as well as protecting your punching machine.

We would be happy to discuss the advantages of the user-friendly EASY SHARP tool grinding machine from **BOSCHERT**.

