

## CU PROFI CU WK II CNC-WP

by Stierli-Bieger

Punching  
Nibbling  
Forming  
Marking  
Tapping  
Bending



*simply better!*

## Boschert CU PROFI

The CU Profi is a specially designed machine for punching copper, aluminum and steel bar. The CU Profi 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.



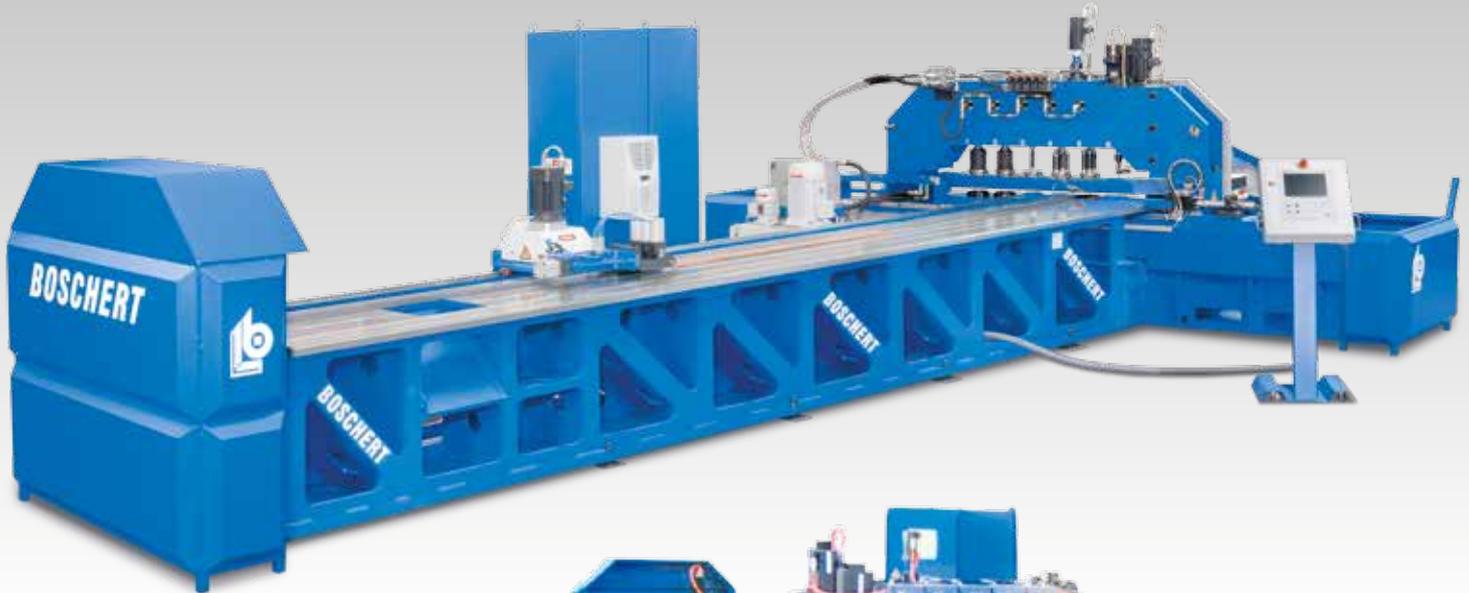
Tools of CU Profi: Beta V2, lead screw, thread holders, cutting tool 60x8 mm.



## Boschert CU WK II

In the CUWK, Boschert has developed a universal solution for the punching of copper bars. The machine can be adapted to almost any customer requirement. Each CU WK machine is built to the customer's unique needs including size of machine and number of tools. The machine is also able to punch material up to 15 mm thick.

In the five tool stations there can be one shearing station with an 80 x 8 mm or 50 x 10 mm parting tool. Two of the stations can be equipped with multi-tool to give a total of up to 15 tools. Additionally the CU WK can be equipped with a tapping unit as a separate, sixth head.



Rear view with tilting table



1-3 exchangeable clamps are used depending on the width of the bar



Tool change



4- or 6 way Multitool



Maximum tool size of 88.9 mm diameter



## Options



Suction loader CU WK II



CU Profi and CU WK II marking unit: for labeling of finished parts



Chain loader

For automatic loading of the CU WK we offer two solutions: the chain loader and the loader with pneumatic suction arms.



CU WK II Push-Pull: With this option, using pre-cut lengths of bar, it is possible to have zero waste.



CU WK II with chain loader and sorting table



CU Profi loader. For automatic loading with pneumatic suction arms (4 oder 6 mm)

## Technical Data

	CU Profi	CU WK II
<b>Maximum dimensions of work piece</b>		
Length	4000 mm / 120" (Option 6000 mm)	6000 mm / 240" (Option 240")
Width	15-200 mm 0.6-8"	15-250 mm 0.6-8"
Thickness	3-15 mm (20) 0.125-0.5"	1-15 mm (20) 0.040-0.6"
Punching force	1 x 400 KN (40 ton)	2 x 400 KN + 3 x 280 KN
<b>Speeds</b>		
Max axis	100 m/min	60 m/min
Max. stroke per minute	100	100
	at 3 mm copper with 0,5 mm pitch	
<b>Tooling</b>		
Number of tool stations	8 (9)	5 (6 optional)
Max. Number of punching tools	8 (9)	25 (31)
Tapping unit	yes	yes
System Amada spesial		
Max. Diameter	31,7 mm / 1.25"	88,9 mm / 3.5"
Multitool 4-Stations with each 2 x 31,7 + 2 x 12,7 mm	no	yes
Multitool 6-Stations with 6 x 12,7 mm	no	yes
<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 + - 0.002"
Repeatability	+ - 0,05 mm + - 0.004"+	+ - 0,05 mm - 0.002"
<b>Space requirement and weights <sup>1</sup></b>		
Length	7000 mm / 24' 6" (9000 mm) / (29' 6")	11500 mm / 38'
Width	3000 mm / 10'	5000 mm / 16' 6"
Height	2100 mm / 7'	2100 mm / 7'
Weight	4000 kg 13.200 lbs	13.000 kg 28.600 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.





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**



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.

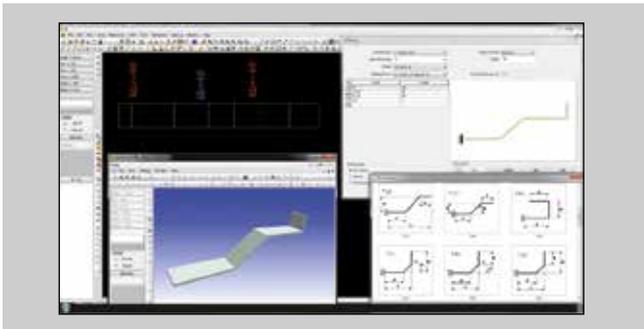
**Control features:** Graphic bending simulation, predefined shape library, material library, tool library, automatic calculation of length, automatic calculation of bending and length stop positions.

**Connection/ Backup:** Ethernet interface + USB port

**Hydraulic:** Most modern hybrid hydraulic reduces noise emissions and energy requirements.

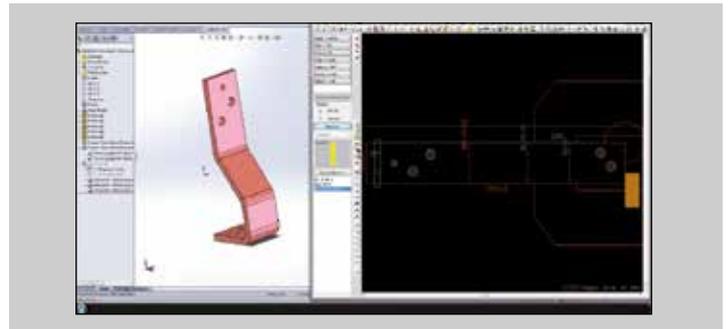


## CNC / CAD Software



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°



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