



EHRT

**Punching Machine
Holecut 40-4 CNC**

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The HOLECUT Standard Line was developed especially for efficient processing of metal stampings. It features high flexibility and production accuracy. The main areas of application are for small and medium runs.



All pieces are sent down a slat conveyor and are pushed sideways onto a table. Any scrap is carried to the end of the conveyor and dropped into a bin. The machine continues to run in this manner until a new work piece is programmed or selected. Just merely insert new material.

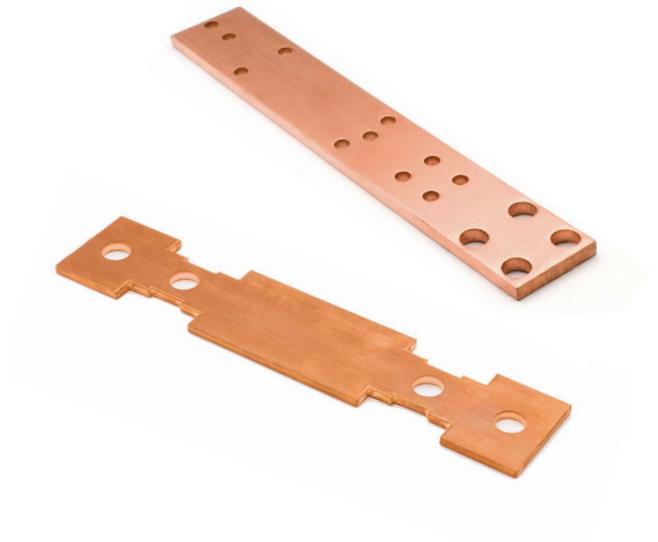
Work Pieces

The EHRT Holecut Standard Line punching machines rapidly processes flat profile bars up to 16 mm thick and 160 mm wide.



How it Works

Program the work piece by entering the length of the bar of raw material and the computer automatically calculates the maximum number of pieces to be punched (for example 18 pieces of a bar of 6000 mm). Once the desired number of work pieces is entered, the bar is pushed toward the stop. The machine is fully automated once the production process is launched.



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Clamping

The work piece is clamped laterally by an exchangeable transport gripper. The gripper pulls it through the machine along the x-axis in order to avoid damaging the work piece. In addition, the work piece is clamped sideways outside the punching area with each punching stroke which also allows the punching of slightly deformed material.



Tool Change System

The linear tool carrier (y-axis) has four stations that hold three punching tools and one cutting tool. All EHRT punching machines are equipped with a special plug-in system for a quick and easy change of tools. There is no need to screw anything together. Punches and dies can be changed rapidly meaning less machine downtime.



Punching Area

The great advantage of lateral clamping is that press cuts are allowed throughout the whole work piece including the border. This eliminates the restrictions of traditional clamping jaws.



Continuous Development

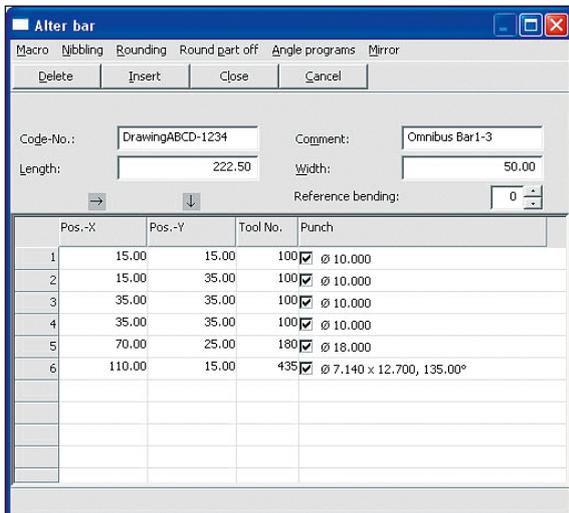
During the development of our latest line of punching machines, customer requests and suggestions have been implemented. We also placed a great importance on optimizing ergonomics.



Punching Software BasicCut

Easy Handling

The Microsoft Windows® based software BasicCut is very easy to learn. CNC programming skills are not required. All the punches in a work piece are shown on the screen making programming mistakes easily detected. When selecting a new piece, all the necessary tooling changes are displayed. Software training is minimized by the menu-driven software. Operators can soon program work pieces by themselves. BasicCut scans each program for possible collisions before transferring it to the control unit. This eliminates most handling errors. The software can be used in millimetres or inches.



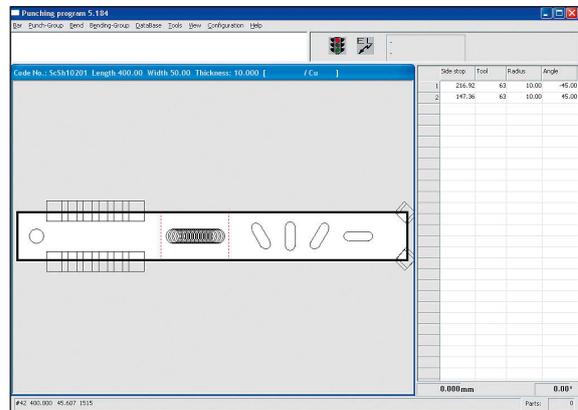
Special Punching Programs

For faster programming of work pieces the following extra programmes are available:

- Nibbling (oblong holes, length + angle)
- Nibbling (oblong holes, between two holes)
- Circle
- Hole Circle

Cutting

The machine features a cutting program to separate the work pieces after punching by using nibbling technology. If work pieces are to be punched without cutting, this option can be disabled.

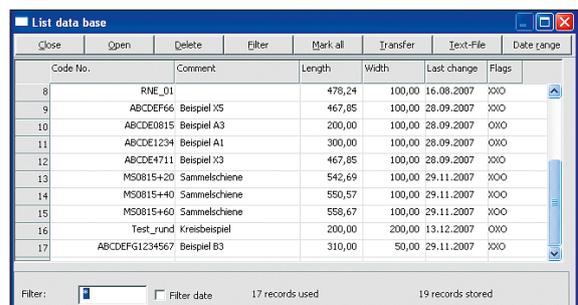
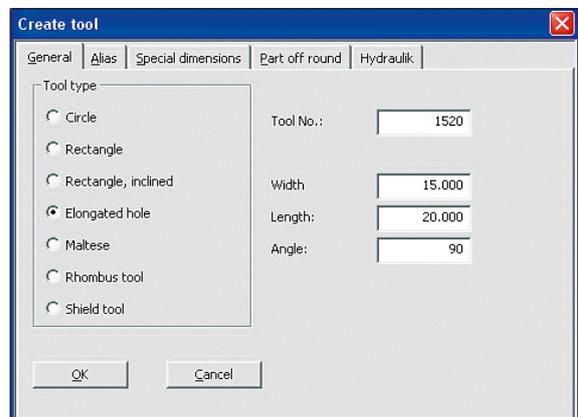


Program Storage

The program for each work piece can be stored as alphanumeric names up to 16 digits. Up to 200.000 parts can be stored which can be located easily by using the search and sort options.

Networking

Networking with other EHRT machines and external workstations is supported.



Software languages: German, English, Russian, French, Finnish. Other languages on request.

Technical Data Holecut 40-4 CNC

Punching Force	400 KN (40 tonnes)	
Punching Pressure	max. 300 bar	
Punching System	Hydraulic with solenoid valves, oil volume 160l	
Stroke Rate	40/min	
Dimensions of work piece		
Width	15 - 160mm	0.6 - 5.9"
Thickness	3 - 16 mm (Copper/Aluminium)	0.1 - 0.6"
	3 - 10 mm (Steel)	0.1 - 0.4"
Length	30 - 6000 mm (higher lengths optional)	1.2 - 236"
Oddment Length	min. 40 mm	min. 1.6"
Number of punching tools	4	
Hole Diameter	max. 32 mm (for thickness t=10 mm in Copper/Aluminium)	
Regrind of punch and die plate	max. 3 mm each	0.12"
Positioning Speed	35 m/min	
Axis Acceleration	2,5 m/s ²	
Positioning Accuracy	+/- 0.12 mm	+/- 0.005"
Production Accuracy	+/- 0.15 mm + (L/ 4.000)	+/- 0.006" + (L/ 157.5)
CNC Axis	2	
	x-axis	for transport gripper
	y-axis	for die carrier
Power Unit of CNC axis	digital three-phase AC servomotor with gear and gear rack	
CNC Control	Siemens S7	
Control Unit	industrial PC running Windows XP® or higher	
Electrical Standards	according to VDE	
Electrical Connected Load	19,5 KW	
Finishing	RAL 5010 Gentian Blue	
	Doors and Coverings RAL 7035 Light Grey	
Safety Installations	all danger zones are secured according to CE standards	

Subject to change without prior notice.

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