ECKOLD PORTABLE CLINCHING PLIERS (CLINCH-ECKOLD)

- Pneumatic
- 45mm Horizontal Throat
- 2 × 45mm Vertical Throat
- 3.5mm Capacity Mild Steel
- Single Stroke
- 6mm Working Stroke Between Strippers
- 360° Swivelling Suspension Mechanism
- High Pressure Force Of 35kN At 6 Bar
- 5/6 Bar Pneumatic Pressure
- 5L Per Stroke Air consumption
- 2 Seconds Low Cycle Time
- Maximum 32mm Gap
- 50mm/60mm Width In Working Area
- Manually Guided

ECKOLD PORTABLE CLINCHING PLIERS (CLINCH-ECKOLD) are pneumatically driven and have integrated adjustable stroke limitation for the application of individual clinching elements on various metal sheet combinations. The key features of this portable ECKOLD product are its lightweight design, large throat, and 360° swivelling suspension mechanism. Thanks to the large throat and the excellent reproduction accuracy of the pre-set, yet adjustable stroke, the pliers are particularly suitable for joining tasks in the HVAC sector. The clinching method allows for the connection of two or more overlapping pieces of sheet metal by means of local cold forming.

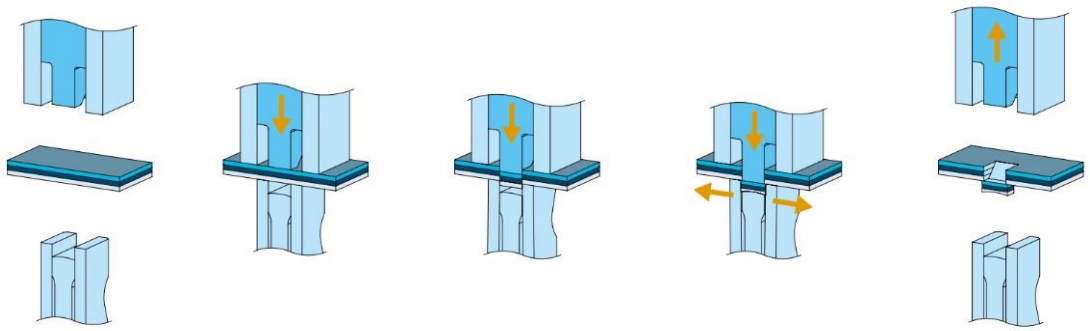
Other advantages of the device include the cheap tools, the sturdy overall design and low maintenance costs. Tools for this machine (punches and dies) vary, depending on the actual clinching task, and must be ordered in conjunction with the machine.

SPECIFICATIONS

Model:	Horizontal Throat:	Vertical Throat:	Maximum Thickness:	Stroke Frequency:	Working Stroke:	Pressure Force;
CLINCH-ECKOLD	45mm	2 x 45mm	3.5mm Capacity Mild Steel	Single Stroke	6mm Between Strippers	35kN at 6 Bar
Pneumatic Pressure:	**Air Consumption:**	**Gap:**	**Length:**	**Width:**	**Height:**	**Weight - net/ gross (apx):**
5/6 Bar	5L Per Stroke	32mm Max.	612mm	200mm	216mm	9.6/11Kg

HOW DOES CLINCHING WORK?

- Clinching is a forming process for the joining of thin workpieces, tubes and / or profiles made in steel, stainless steel, non-ferrous metals (in particular aluminium) and fibre-reinforced plastics.
- Clinching allows for the connection of two or more overlapping workpieces by means of local cold forming.
- The main advantage of this joining method lies in the fact that a positive joint is formed directly from the sheet metal material. There is thus no need for auxiliary materials or fixtures such as soldering flux or rivets.
- In the clinching process, the sheet materials are partly pushed through each other and then pressed together to plastically form an interlock between two or more sheets.



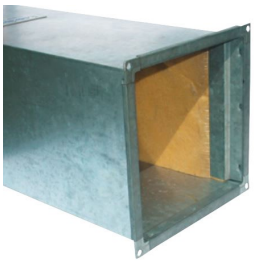
CHARACTERISTICS AND ADVANTAGES OF THE CLINCHING TECHNIQUE:

- No pre- or after-treatment
- No heat on the workpiece, no sparks
- No toxic gases or fumes
- Suitable for painted or coated sheets, protective layer stays on
- No additional fasteners or other materials required
- Suitable for sheets differing in thickness and material quality
- Low energy consumption
- Low-noise
- Simple, and non-destructive quality control

KEY FEATURES:

- Universal use
- Changeable tool holders
- Large throat
- Slewable suspension device (slewable by 360°)
- Great repeating accuracy of the defined but adjustable stroke
- Higher life times of tools compared to pressure depending procedures
- Solid design, especially suitable for industrial continuous operation
- Low-priced tools (punch and die)
- Low-noise
- Low maintenance

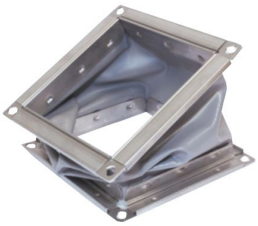
The portable clinching pliers are perfectly suitable for setting joining elements on airduct cross sections in the climate and heating production, i. e. especially 3-layer connections joined with the clinching type S-DF up to a total thickness of 3.5 mm. Also all established 2-layer connections can be realised with ECKOLD clinching technique.



Air Duct

Air Duct Shaped Piece

Flexible Form Piece



Flexible Form Piece

Fan

Frame