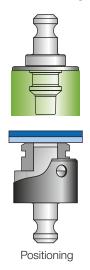


Clinching is a procedure to join sheet metals using punctual cold forming — without fasteners or filler materials. Joining is realised through the engagement of two or more metal layers. The RIVCLINCH® technology is a cost-effective, environmentally friendly method to join steel and stainless steel sheets, also aluminium and/or non-ferrous metals. As of now, we are also offering this efficient procedure as a fully automated version.

## The joining process in short











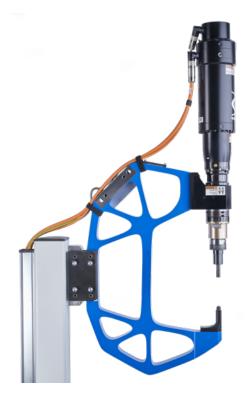
Placement of the punch

Sideways flow from setting movement of the punch

 Opening the die segments creates maximum undercut and an interlock of the material layers

Joining of sheet Result: resistant metals complete clinch joint

#### Benefit from the new key facts





- Modular electrical lightweight system
- High joint quality and a wide application range due to
  - dies with spring segments
  - path-controlled process with adjustable holding times that allows maximum undercut values
- Low-maintenance electrical drive with 67 kN force capacity
- Compact, robust and reduced-weight with C-Frame Select
- Modular design with mechanical strippers and punches in various sizes for different joining forces
- One supply unit for different joining technologies
  self-pierce riveting and clinching
- Flexible due to quick and easy retooling to vary between the RIVSET® and RIVCLINCH® technology
- Wide application range (aluminium – steel – stainless steel)

#### **Technical data:**

- Setting tools from 50 kg
  - according to C-frame size
- Process cycle from 1.0 sec.
  - according to clinching stroke

- Great variety of punches, dies and mechanical strippers – according to application
- High repeatability of the residual bottom thicknessaccording to application
- Online process monitoring for every cycle

## Joint modules for RIVCLINCH® and RIVSET® Automation

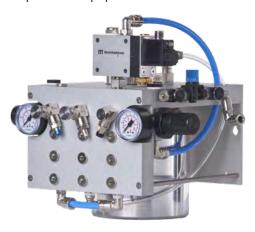
**CONTROL UNIT** 

MOBILE HMI PANEL/ MULTI-VISUALISATION

**SOFTWARE** 

You can select the respective control software from the HMI software menu; the hardware is the same.

### Optional equipment



- Spraying device for dry workpieces to achieve a long service life
- Spray nozzle positioned on the setting tool (C-frame)
- Adjustable spray nozzle bracket (minimum interference)
- Adjustable spray volume
- Valve and reservoir with external positioning (outside the robot cell)



### Scope of application

- Automotive and supplier industry
- Heating, ventilation and air conditioning
- Building technology
- Domestic appliances (white goods)

#### Interested? Please do not hesitate to contact us.







**RIVCLINCH®** metal joints without fastener Catalogue No 6782

https://www.boellhoff.com/en/pdf/rivclinch





**RIVSET®** Automation E – when modern multimaterial designs electrify, Catalogue No 6712

https://www.boellhoff.com/en/pdf/rivset-automation-e

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