CNC MOD 500x300
CNC stud welding machine for fully automatic stud welding
• very good price/performance ratio
• cost-effective operation already with small and medium quantities
• for precise and reliable stud welds
• excellent quality and performance features
• high cycle time
• modular concept - enables customer-oriented solutions
• standard working area: 500x300 mm,
  customizable (X: 300-800 mm, Y: 200-600 mm)
Application
• threaded studs, studs and tapped studs Ø 2-10 mm, length: 6-40 mm
  (other diameters and lengths as well as special welding elements on inquiry)
• welding methods: capacitor discharge (contact and gap method)
  (optional: short cycle, drawn arc)
Standard equipment
• stud welding unit LBS 90 (optional: other stud welding units, depending on application)
• automatic welding head KHA-200F (optional: automatic welding head KKA-200F)
• stud feeding system VBZ
Description
- fully automatic operation of welding programs
- fully automatic stud feeding
- simple operation of the control unit and the machine
- quick and simple programming
  1. on an user interface directly at the machine
  2. on a PC in an excel sheet (transfer of the generated files by USB interface)
     (precognition about programming languages not necessary)
- quick and simple installation and retooling
- manual and automatic operation
- selectable parking position
- selectable zero points/zero adjustment
- 500 welding positions programmable (number of programs user-defined)
- rework function
- monitoring of stud transport (aut. program stop, if stud is not fed; aut. reloading, if stud is missing),
- monitoring of welding current (aut. program stop, if stud is not welded)
- monitoring of charging voltage
- robust and compact construction made from aluminium profiles
- insulated desk top made from aluminium with T-slots
- drive by high-precision ball screw actuators
- quick-change system for changing welding heads quickly
- multi-language ability
- external main switch and external emergency stop switch
- electromagnetic compatibility (EMC) tested, CE conformity

Options
- housing according to EU directive on machinery 98/37/EG (sliding door at loading area), underframe
- second and third welding head
- pneumatic workpiece clamps with integrated mass transmission (can be positioned freely)
- drive by servo motors
- motor driven Z-axis (for different welding levels or stud lengths)
- single stud feeding by manual throw-in
- fluid spraying device

Technical Data

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<tr>
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<th>CNC MOD 500x300</th>
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<tr>
<td>Working area</td>
<td>X-axis: 500 mm, Y-axis: 300 mm</td>
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<tr>
<td>Clamping area T-slot plate</td>
<td>810x360 mm</td>
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<td>Clearance between clamping area and X-Y-axis</td>
<td>200 mm</td>
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<td>Equipment X-Y-axis</td>
<td>ball screw, drive by step motor (optional: drive by servo motor), ball track</td>
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<td>Traverse path</td>
<td>X: 500 mm, Y: 300 mm, Z: height adjustment 60 mm by precision hand crank, pneumatic working slide 80 mm</td>
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<td>Welding rate</td>
<td>up to 40 studs/minute (depending on configuration and use)</td>
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<td>Positioning accuracy welded studs</td>
<td>± 0,15 mm (steel, stainless steel) ± 0,2 mm (aluminium)</td>
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<td>Positioning/repeating accuracy machine</td>
<td>± 0,05 mm</td>
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| Traverse path speed | X: \( V_{\text{max}} = 0,15 \text{ m/s} \), Y: \( V_{\text{max}} = 0,15 \text{ m/s} \) 
  (optional: X: \( V_{\text{max}} = 0,25 \text{ m/s} \), Y: \( V_{\text{max}} = 0,25 \text{ m/s} \);
  with servo motors (optional): X: \( V_{\text{max}} = 0,5 \text{ m/s} \), Y: \( V_{\text{max}} = 0,5 \text{ m/s} \) |
| Dimensions (WxHxL) | 1200x1500x1000 mm |