

AUTOMATION

**Production stud welding equipment
and systems**



MPW 1010 and 2010: Best Solution for Best Results

Automated welding
of studs onto steel and
aluminum sheets of
different wall thickness
(from 0.5 mm!).
Suitable for all stud
welding processes.



- Most various welding elements can be welded, e.g. threaded studs, tapped pads, pins and grounding clips (custom-made fasteners and studs on request).
- Welding can be conducted on multiple height levels as well as convex work pieces.
- Different materials can be welded (mild steel, stainless steel, aluminum and brass).
- Welding can be carried out onto convex work piece designs.

Automatically faster, better

Exclusive HBS features

30% increased working range.

Three of four welding heads have access to the entire working range (no loss of coverage).

50% time savings. Easiest program-

ming through a user operated program editor. Programming to DIN ISO 66025. Additional timesavings through the use of HBS-CAD provides a fast DXF file transmission within seconds (option).

3X higher traverse speed. All drive axes

are servomotor driven (incl. Z axis). Traverse speed up to 60 m/min.

By 60% higher welding sequence,

example: 40 studs/min. with a working range of 500 x 500 mm, stud distance 100 mm.



High precision welding head KAH 412



MPW 1010 and MPW 2010

Best traverse range only from HBS

Cost effectiveness

Decisive advantages from favorable price-performance ratios.

More efficient working range!

The traverse range is increased by 30% by using three of four welding heads access the entire working range. **Exclusively at HBS!**

Smooth sequences

Ergonomically designed systems equipped with a very robust machine support, accessible from any side and with a mobile control panel.

Cost-effective retooling

Carried out by user friendly programming and use of a special welding head quick-change system.

Shortest sequence times

Increased efficiency through rapid and accurate stud feeding.

MPW series	MPW 1010	MPW 2010
Working range	1,250 x 1,050 mm	1,250 x 2,250 mm
Welding capacity	Up to 40 studs/min	
Traverse speed	Up to 60 m/min	
Stud feeding	automated	
Max. number of stud welding heads	4 (up to 3 stud length per welding head possible)	



Especially suitable for welding onto work pieces with different work piece heights.

HBS Cost Effectiveness

- Highest productivity and best economic efficiency
- Easiest programming to DIN ISO 66025
- Accurate and fast positioning to different levels by servomotor driven Z-axis
- Optional with four welding heads and up to 12 stud length
- Highest traverse speed through servo drive technique
- Perfect positioning accuracy through servomotor driven axes
- Very high welding rates

CPW 0604

Value orientated model for automation

Designed for optimum functionality:

The uncompromising value orientated model to start with automation, suitable for all welding procedures. Easiest programming and operation. You can optimize productivity and quality of your company within short.

Automation advantages

Powerful and multiple usability. High welding rate up to 30 studs/min and a traverse speed up to 25m/min, and working with different work piece heights on a working range of 600 x 400 mm: you achieve perfect results with highest positioning accuracy.

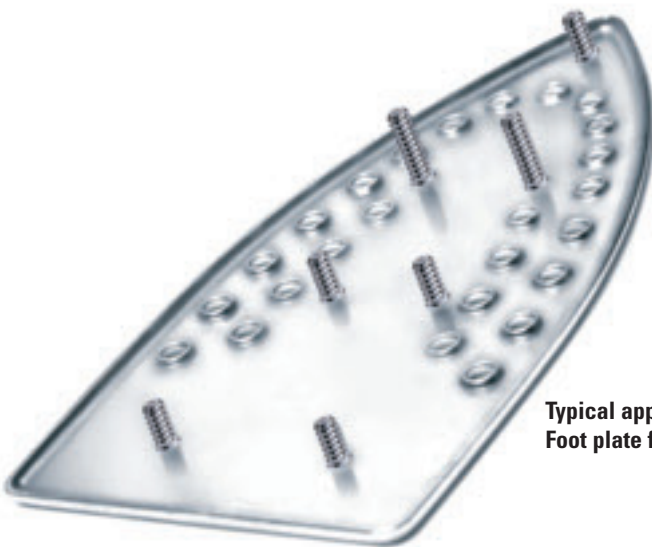
High standards!

Equipped with the precision welding head KAH 412, a high-performance SPC control, SPC safety functions and the PRG editor for automated check of data. You are working with a new, technologically sophisticated system of HBS.

	CPW 0604
Working range	600 x 400 mm
Welding capacity	Up to 30 studs/min.
Traverse speed	Up to 25 m/min.
Stud feeding	Automated
Welding head	KAH 412

Leading through HBS technology:

- Servo-motor driven X, Y and Z axes
- High welding rate
- High traverse speed
- Easiest programming
- Automated check of entry data by PRG editor
- Up to 3 stud lengths can be used without refitting the welding head
- Programmable height adjustment for different work piece heights



Typical application example of CPW:
Foot plate flat-iron

Automation advantages are inherently combined into one HBS system with the highest price-performance ratio.



Top: System with robust machine base support (optional) and intermediate support (ideally suitable for installation of stud welding units)



Fig. to the left: The high-performance controlled precision welding head KAH 412 achieves best results with all welding processes.

Automation components

Components can be configured or combined to meet individual stud welding applications

Can be used with HBS welding machines as well as with robot applications. In addition, standardized interfaces provide an integration into customer specific systems like transfer lines or special installations.

HBS quality and design provides state of the art technology both highly flexible and impeccably accurate. These feature are consistent throughout all product lines of capacitor discharge, drawn arc or short cycle drawn arc stud welding.

With the high-end unit series:

IT 50; IT 90; IT 1002; CDM 2401; CDM 3201; SCD 3201 and the HBS precision welding heads **KAH 412** and **KAH 412 LA**.

PAH-1
for stud welding with
capacitor discharge
or arc welding
Stud dia.: 3 to 8 mm
Stud length: 8 to 30 mm



CDM 2401, CDM 3201, especially suitable for thin metal sheets from 0.5 mm (mild steel, stainless steel, aluminum and brass). IT 50, IT 90, IT 1002, especially suitable for high welding rates, highest quality demands and difficult welding geometries. IT 50, IT 90 up to 4 welding heads can be connected. IT 50 (separate control and evaluation).

HBS-Stud feeding



VBZ-3
Fully automated stud feeding, stud dia.: 3 to 10 mm, stud length: 6 to 50 mm, feed speed: up to 30 studs/min (depending on welding element and feeding tube)

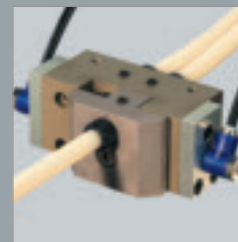


PBZ
Pneumatic Single Feed Unit. Manual stud feeding. Stud transport actuated by CNC-control unit.

HBS-Components



Change over kit
To change to different stud diameter in the fully automatic stud feeder VBZ-3



Feeding switch point
To weld different stud length with one welding head.



Assortment kit
Conversion kit for stud welding heads (dia. 3 to 8)

HBS precision welding head KAH 412 and KAH 412 LA

(KAH 412 LA with length compensation:
Application range preferably Short Cycle)

**KAH 412 LA: Lift device motor driven
Z-axis for continuous adjustment of
welding height levels**

**KAH 412 and KAH 412 LA:
Push button locking system for
feed tube**

**KAH 412 and KAH 412 LA:
Welding range: M3 to M8, dia.
3 to 8 mm (dia. 10/12/12.7 mm
with modification only)
stud length: 8 to 40 mm**

**KAH 412: Spring setting read
out on scale**

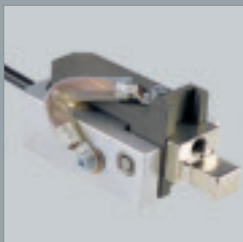
**KAH 412: Digital display for
lift and plunge adjustment**

**KAH 412 and KAH 412 LA:
Prisma shaped quick
exchange system**

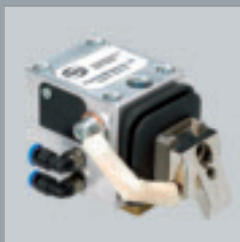
**KAH 412 and KAH 412 LA:
Piston is guided in backlash
free linear ball bearings
which guarantees highest
precision and reproducible
welding quality**



ARC 1550, ARC 800, especially suitable for thick sheets from 2 mm steel. SCD 3201, Capacitor discharge and short cycle drawn arc stud welding possible with one stud welding unit. Especially suitable for thin metal sheets from 0.5 mm (mild steel, stainless steel, aluminum and brass) only capacitor discharge stud welding with tip ignition.



**Pneumatic
clamp PMB-S
with vertical movement**



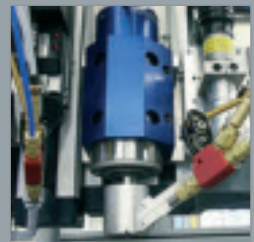
**Pneumatic
clamp PMB-LS2
with horizontal and
vertical movement**



**FSE Component
Liquid spray unit to
wet/spray the welding
position before welding
(pulse dosage)**



**Down holder
Component to hold
down the work piece**



**Milling head
with extraction unit**



Benefit with HBS

Leading through
technology,
quality and service.

5 welding processes,
12 model series
and more than
30 model variants.

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