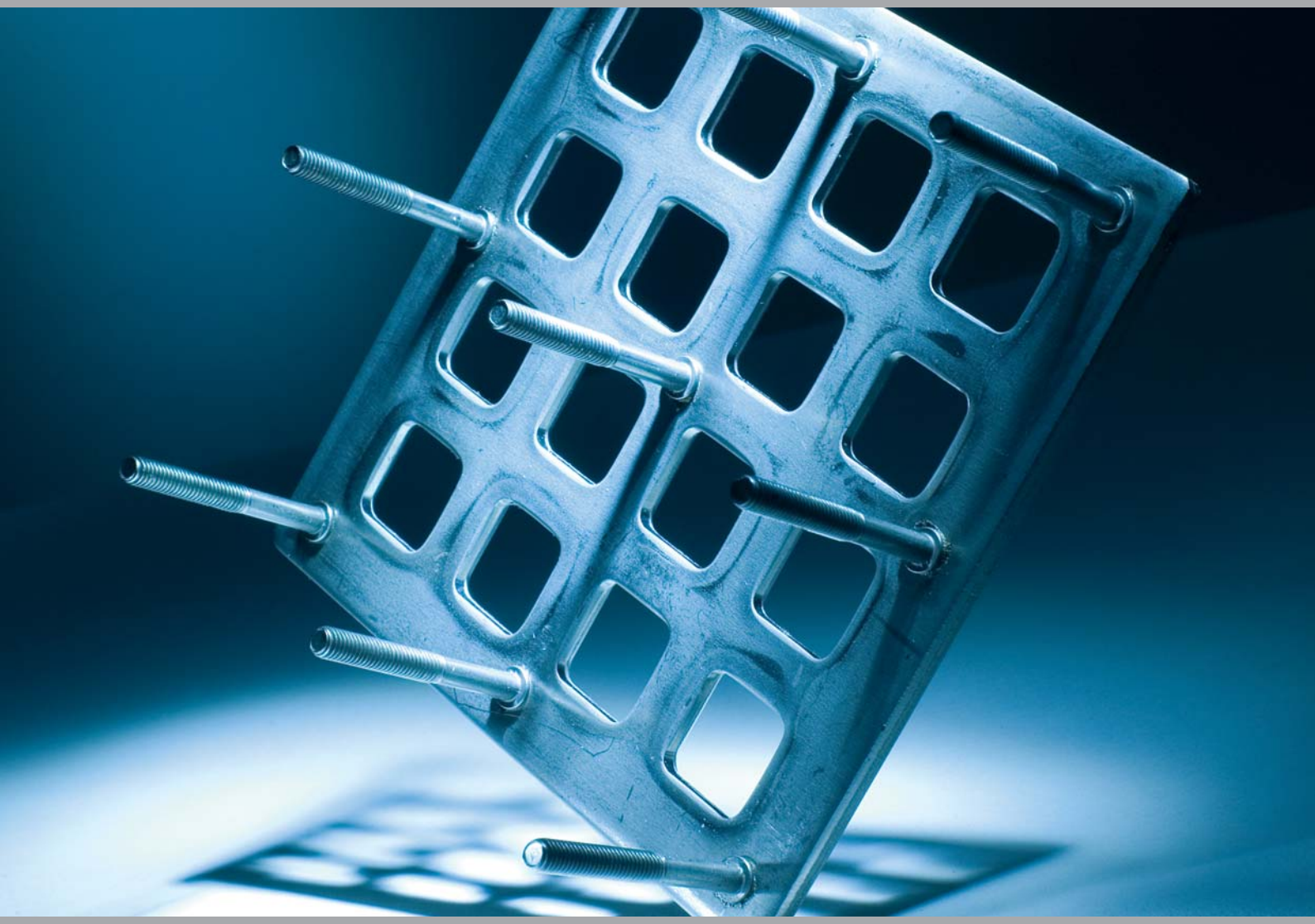


CD

Capacitor discharge stud welding

CD

Capacitor Discharge Stud Welding with Tip Ignition

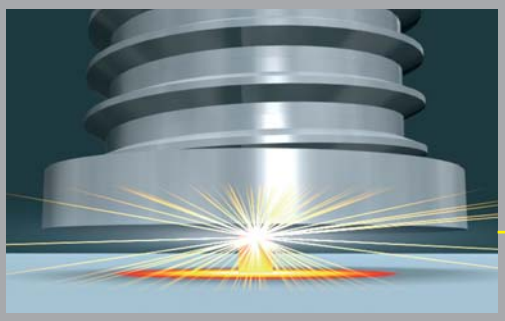
HBS CD/CDM power units provide outstanding reductions in costs and time. Every weld is precise avoiding any need for costly machining. The recipe for success: Extremely short welding time! (1 to 3 msec). No additional welding products are needed. Because a very low thermal load, the welding zone is minimal. In this way, distortion of the work piece is avoided. Often this is the only applicable technical solution.

Contact or gap

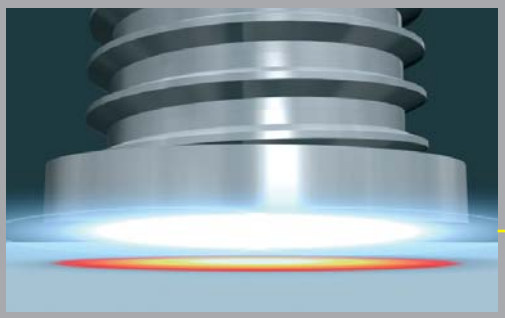
In contrast to contact welding, with gap welding the stud is positioned at a defined distance shortly before welding starts. This develops a higher plunging speed which leads to a shorter welding time (only 1 msec!).

This characteristic also provides welding of difficult materials like e.g. aluminum and brass.

Joining of stud-type welding elements with a diameter M3 to M10 (dia. 2 to 10 mm) onto thin sheets, min. 0.5 mm. Mild steel, stainless, steel, aluminum and brass.

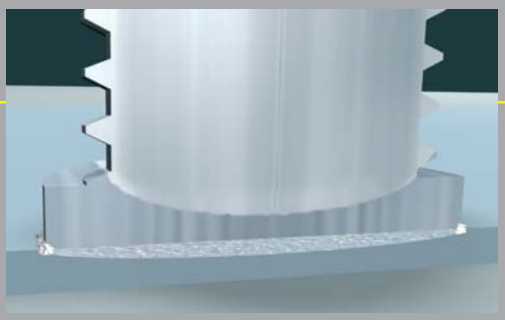


An arc is ignited between the face of stud and the surface of a work piece.



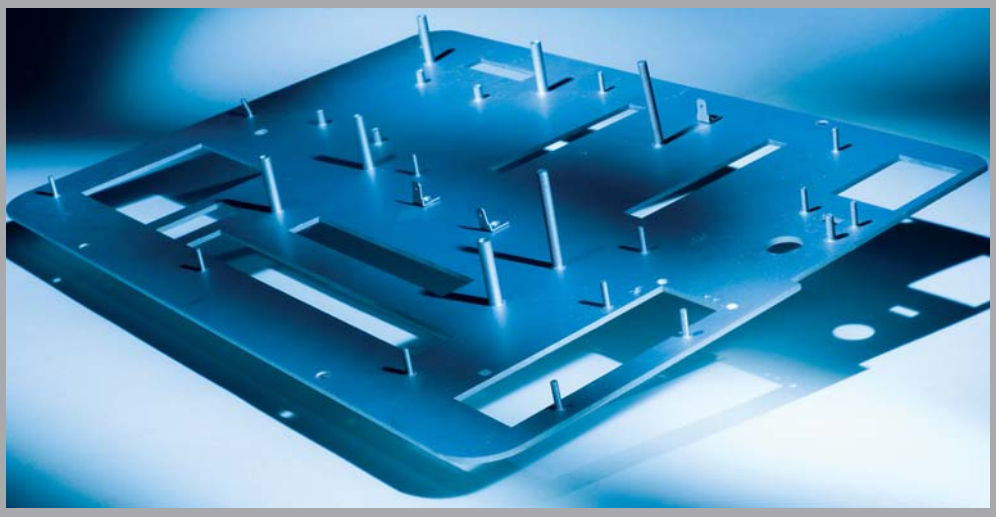
Both parts are melted, the stud is gently pressed against the work piece and than joined together.

The molten areas solidify. The extremely short and clean welding process does not require any machining.



As a result, an even and complete joint is achieved with a strength which is above the strength of stud and base material. The low thermal load provides welding onto thin sheets without damage to the rear side.

Tremendous time and cost savings
Unmatched economic efficiency with HBS

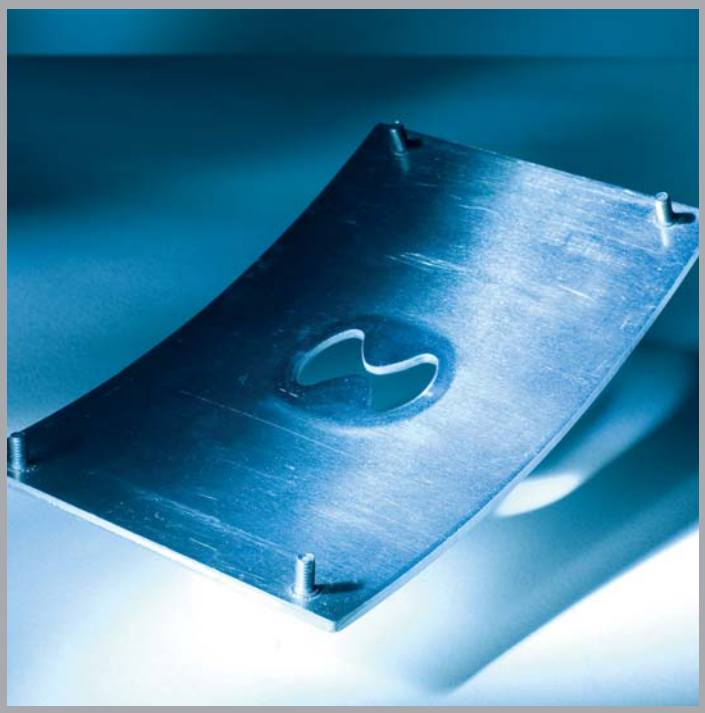


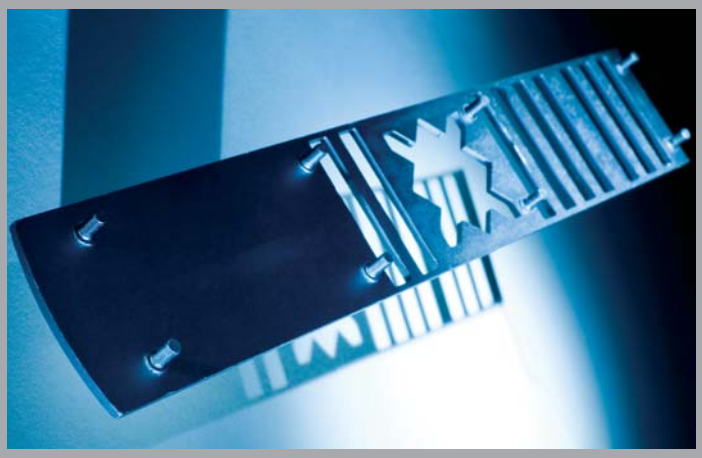
CD

Best Solution for Best Result

Typical applications include: Sheet metalwork, electronic industries, switchboard cabinets, laboratory and medical equipment, food industry, household appliances, etc.

When studs are welded to thin sheets (steel, aluminum and brass), the procedure of stud welding with tip ignition will always be the most cost effective process and sometimes the only possible solution.





CD
State of the art technology is combined with time proven power units

High Cost Effectiveness
The high-performance, compact CD series facilitates long life expectation and safe operation. Regardless whether in the workshop or on site.

The professional generation
Planned research and development is constantly reviewing all product designs for new and improved, cost effective technology, to keep all HBS products in a state of the art position.

All today's available experience and knowledge of stud welding technology are part of the products which we have been developed for more than 30 years. HBS welding elements are matching this technology.

The success of systematic measures

CD 1501
Lightest power unit, ideal for sites with limited access to the work pieces.

CD 2301
Bigger and stronger brother with higher capacity and charging energy.

CD 3101
Most powerful high-end model of the CD series. And with just 22 kg still light-weight.

Top in any of the items:

- Especially suitable for thin metal sheets
- High economic efficiency and best price-performance ratio
- Especially suitable for construction sites with large mains voltage fluctuations
- Highest operating and safety standards
- Microcontroller and library function
- High welding sequence with outstanding welding results

	CD 1501	CD 2301	CD 3101
Welding range	M3 to M8 dia. 2 to 8 mm	M3 to M8 (M10 limited) dia. 2 to 8 mm (dia. 10 mm limited)	M4 to M10 dia. 4 to 10 mm
Welding rate	8 to 20 studs/min	8 to 20 studs/min	5 to 20 studs/min
	(depending on application and stud dia.)		
Sheet thickness	Especially suitable for thin metal sheets from 0.5 mm.		
Energy	1,600 Ws	2,400 Ws	3,200 Ws

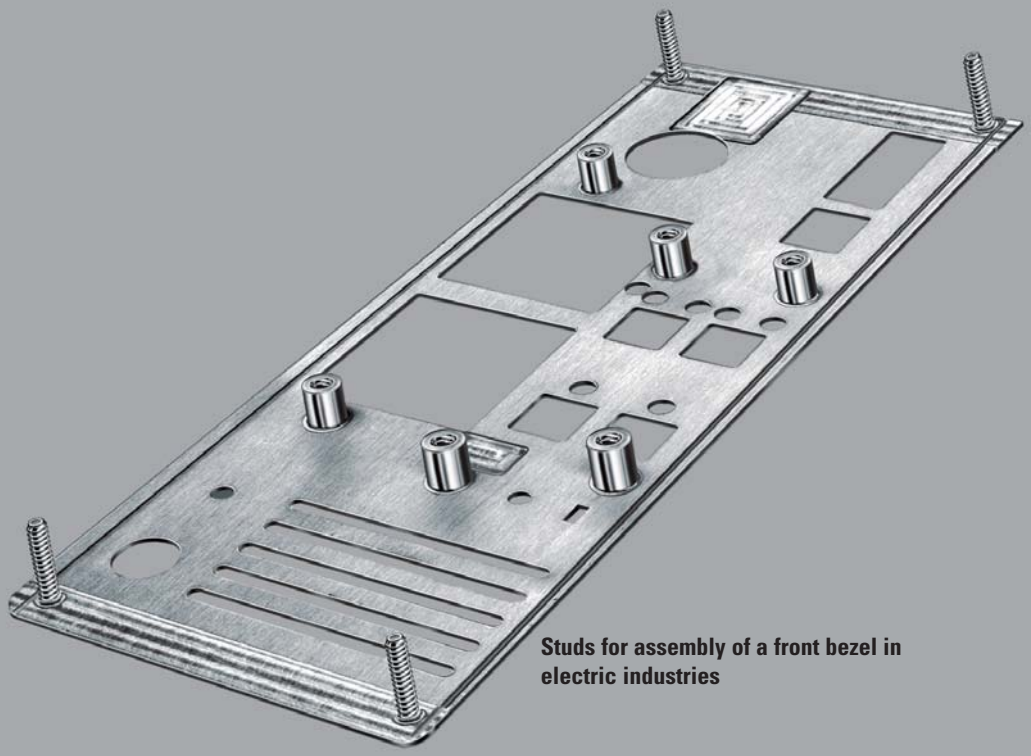
Stud to fasten a handle onto a trowel

C 08
Rugged casing with high operating convenience.
Weight: 0.5 kg without the delivered 6.5 m cable.

CA 08
High-performance stud welding gun for tip ignition process of gap welding.
Weight 0.7 kg without cable.
High accuracy of welding position by zero-play ball linear bearing for guiding the welding piston.

CDM
High Tech with wide range power supply 85 to 265 V

Small, compact, very powerful series for automated applications with high welding sequence of up to 40 studs/min. Microcontroller, up to 8 programs can be stored. With wide range power supply (85 to 265 V).



Studs for assembly of a front bezel in electric industries

Industry leader in providing the following features:

- Especially suitable for thin sheets
- Process monitoring
- RS232 interface
- Microcontroller and library function
- Especially suitable for construction sites with large mains voltage fluctuations
- Highest operating and safety standards
- High welding sequence with outstanding welding results

	CDM 2401	CDM 3201
Welding range	M3 to M8 (M10 limited) dia. 2 to 8 mm (10 mm limited)	M3 to M10 dia. 2 to 10 mm
Welding rate	20 to 40 studs/min	12 to 40 studs/min
	(depending on application and stud dia.)	
Sheet thickness	Especially suitable for thin metal sheets from 0.5 mm.	
Energy	2,400 Ws/800 Ws*	3,200 Ws/1,600 Ws*

* with change over of capacitors

Success of systematic measures

CDM 2401
A power unit with a welding rate of 20 to 40 studs/min.

CDM 3201
The top model. Highest energy and capacitance. This system is the industry performance leader in welding M10 studs.

ACCU-TWIN
Battery powered stud welding unit

Specially developed system for capacitor discharge stud welding with contact to fasten heating-cost distributors. Compact power unit and welding gun for simultaneous welding of 2 studs!

Welding range 2 x M3
Weight 8.5 kg (without battery 6.4 kg)
Weight gun 550 g

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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