

## Technical Information – Capacitor Discharge Welding

### Weld guarantee

As manufacturer of the connectors, we offer our customers a weld guarantee on all purchased welding elements. This is conditional on the correct processing method and the correct selection of the basic material (workpiece).

Pay attention to the DIN EN ISO 13918 and EN ISO 14555 standards, plus DVS information sheets 0902 and 0904.

### Dimensions

Schmeck welding studs and pins conform to DIN EN ISO 13918: 2008.

Welding studs with modified tolerances conform to the general tolerances specified in DIN ISO 2768-m. Intermediate lengths and excess lengths can be delivered on request.

Schmeck welding studs are suitable for manual and fully-automated processing / supply (CNC systems)

### Materials and strength classes

Our welding studs are made from the following materials as standard:

- Steel 4.8 according to DIN EN ISO 898 T 1, suitable for welding
- Stainless steel A2-50 (sorts at our discretion)
- A4-50 (1.4401 and 1.4404) and A5-50 (1.4571) according to EN ISO 3506 T1
- Brass CuZn 37 (Ms 63) according to ISO 426-1, ISO 1638
- Aluminium AlMg 3, AlSi 12 and Al99,5 according to EN 1301 T2

Other materials, e.g. steel 5.8, 6.8 and 8.8, also stainless steel A2-70 are available on request following prior consultation.

Certificate 3.1 according to DIN EN 10204 and initial sample test reports according to VDA are available on request.

## Construction

Steel welding studs have an anti-corrosive galvanised copper coating (C2E) according to DIN ISO 4042.

Other surface finishes (e.g. nickel or zinc-plating) are available on request following prior consultation.

Materials without galvanised surfaces are degreased on delivery.

## Technical delivery conditions

Schmeck welding studs are delivered with a 1.5 Acceptable Quality Level (AQL) according to DIN ISO 3269. The quantity tolerance can be up to  $\pm 10\%$  of the order quantity.

## Ignition tip

Our welding studs have a cold-formed, calibrated ignition tip with very narrow length and diameter tolerances. In this way, the arc is triggered and the weld time is controlled.

## Stud flange

All of our welding studs are equipped with a cold-formed flange. This prevents the arc from jumping over to the cylindrical stud shaft and increases the welding surface. This guarantees a high-quality weld join on the stud. Other flange dimensions are only available on request following prior consultation.

## Thread

Our welding studs have a cold-rolled thread according to DIN ISO 724 (tolerance class 6g, copper-plated). Other threads and tolerance classes are available on request following prior consultation.