

## EJOWELD® SRE

Reliable joining of composite materials by friction welding



EJOWELD® „SRE“ (work title) for joining light metal to advanced high-strength steel sheet. This versatile and reliable joining technology is especially suitable for joints on small flanges with its low profile head design. The introduction and implementation of flexible material-body design is enhanced by this method.



EN-AW 6016 T4 1,5mm | 22MnB5 + AISi 1,2mm

### Joining Process EJOWELD® SRE



**Step 1**  
Penetration of the cover sheet  
(Lightweight material)



**Step 2**  
Cleaning and activation  
of the surfaces



**Step 3**  
Plastification of friction element  
and base sheet



**Step 4**  
Compression / forming bulge  
around head

### Advantages EJOWELD® SRE

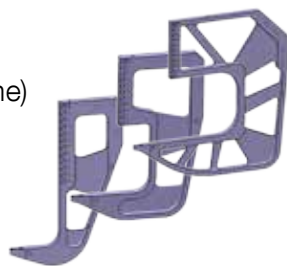
- No pre-hole
- No pre or post treatments of the joined parts
- No brittle intermetallic phases, because the process works without the thermal adhesive bond between aluminium and steel
- Tool geometry allows joining in areas with difficult access
- Control of the linear expansion differences between aluminium and steel induced by temperature changes

### Modular Design EJOWELD® SRE System

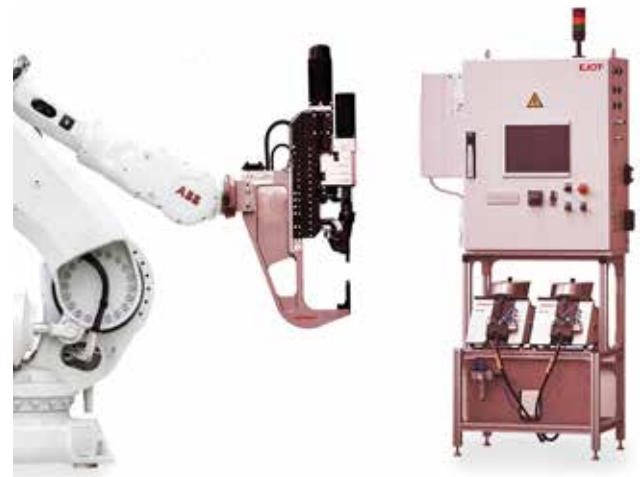
- Feed
- Control cabinet
- Installation tool
- Support system (C frame)
- Anvil adaptor
- Friction elements



Anvil 20, 50, 80, 110, 140, 170mm



C frame with immersion depth from 200-600mm



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