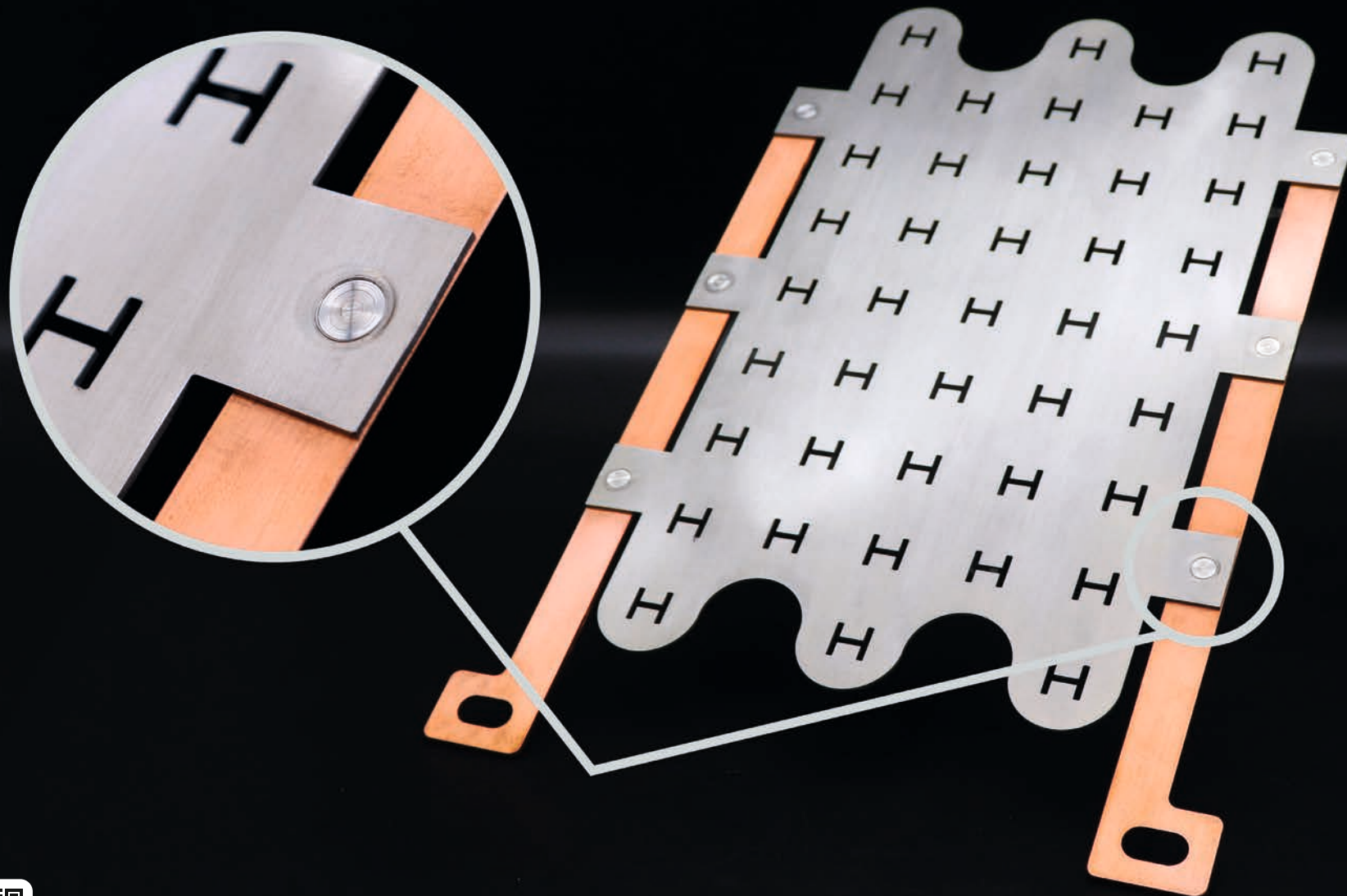




find your application on our website www.stirtec.at
how to spot-weld: dissimilar busbar connectors (Al-Cu)

V-RSW30

REFILL FRICTION STIR SPOT WELDING UNIT

Specifications

With the demanding requirements on most efficient battery systems and charging infrastructure, Stirtec presents the machine type V-RSW30 for industrial use of the innovative welding technique Refill Friction Stir Spot Welding (RFSSW). Due to its special developed spindle system, similar-dissimilar materials are joined together with outstanding mechanical and electrical properties. The welding process is performed position/force controlled or in a combination of both control modes. The machine is capable to spot welding solid pure aluminum to copper or electrical wiring to busbars or electric panels with high cross-sectional area of a conductor.

- ▶ STIRlytics process software for 100% traceability
- ▶ FSW force and position control system for optimum spot-welding results
- ▶ highest repeatability and accuracy due to rigid machine frame
- ▶ suitable for all aluminum alloys and copper components
- ▶ spot-welding technology without any preparation for welding

MACHINE INFORMATION

machine dimensions	2046 x 1840 x 2100 mm
spindle orientation	vertical

OPERATING TRAVELS (3-AXIS FSW UNIT)

X-axis binder (table traverse)	500 mm
Y-axis cross slide	400 mm
Z-axis slide ram	500 mm

FSW WELDING FORCES & FEED RATES

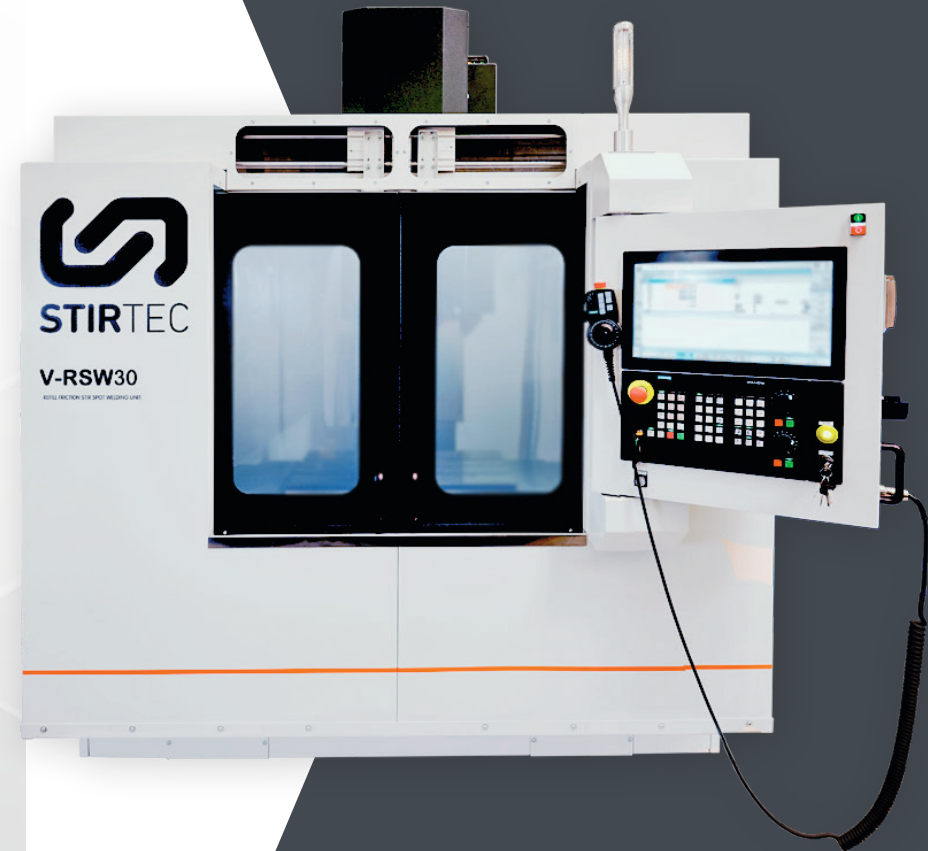
max. welding force in Z-direction	30 kN; spindle rotation speed 5.000 rpm
rapid traverse in X, Y, Z-axes	20.000 mm/min
positioning accuracy in X, Y, Z-axes	0,02 mm

CONTROL SYSTEM

control system	SIEMENS 840D sl / Sinumerik one
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MACHINING TABLE (DIMENSIONS)

table dimensions	760 x 400 mm
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- ✓ flat busbar (similar-dissimilar), connector and electronical components for battery systems
- ✓ special developed RFSSW spot-welding spindle for industrial use
- ✓ exceptional mechanical and electrical properties