

FLATLINE FSWC

All-access for non-stop production

Stirtec Flatline machines are the most productive Friction Stir Welding centers, designed for welding applications involving all metals. The FSWC can process workpieces of any type, provided they fit within the clamping area and require a maximum process force of 25 kN.

The open gantry design provides excellent accessibility for loading and unloading.

The machine type of the Flatline FSWC combines the latest FSW technology RapidStir® with the option for multi-spindle configuration.

- ▶ STIRlytics process software for 100 % traceability
- ▶ FSW force and position control system for optimum welding results
- ▶ synthesizing RapidStir® technology for welding speeds up to 6,000 mm/min
- ▶ simultaneous part handling to the FSW welding cycle
- ▶ automatic tool pick-up station with 5 tool pockets, expandable to 10 tool pockets
- ▶ upgradeable multi-spindle with the installation of second gantry system (available on request)

MACHINE INFORMATION

machine dimensions (L x W x H) 3,900 (min.) x 3,300 x 3,700 mm

OPERATING TRAVELS (3-AXIS FSW UNIT)

X-axis (min.) 1,800 mm
Y-axis 1,700 mm
Z-axis 500 mm

FSW WELDING FORCES & FEED RATES

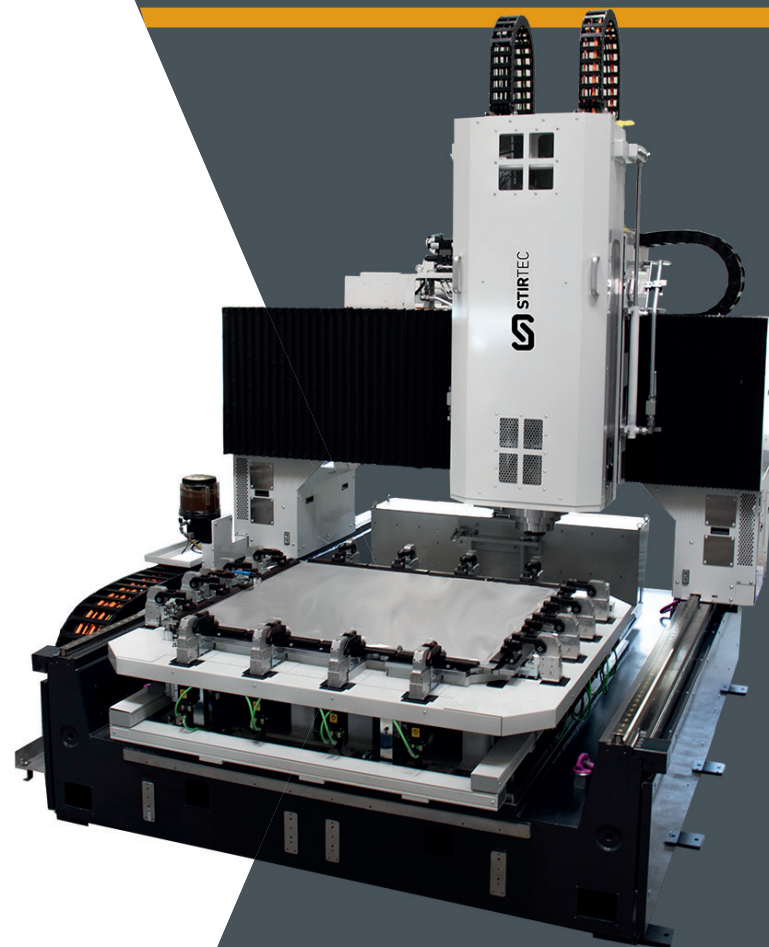
max. welding force in Z-direction 25 kN
spindle rotation speed 6,000 rpm
rapid traverse in X-, Y-, Z-axis 20 m/min

CONTROL SYSTEM

control system SIEMENS Sinumerik one

MACHINE TABLE / WORKING AREA

working area (X-axis, length) from 1,800 mm, extendable in 400 mm increments up to 3,000 mm; larger dimensions available on request
working area (Y-axis, width) 1,700 mm
working height (max., spindle nose-to-table distance) 700 mm



- ✓ accommodates workpieces up to 1,800 × 1,700 mm (L × W), the maximum workpiece height depends on the tool configuration and the clamping fixture.
- ✓ achievement of highest welding speeds in reference to the application (up to 6,000 mm/min)
- ✓ possibility for dual part operation simultaneously (table extension available on request)