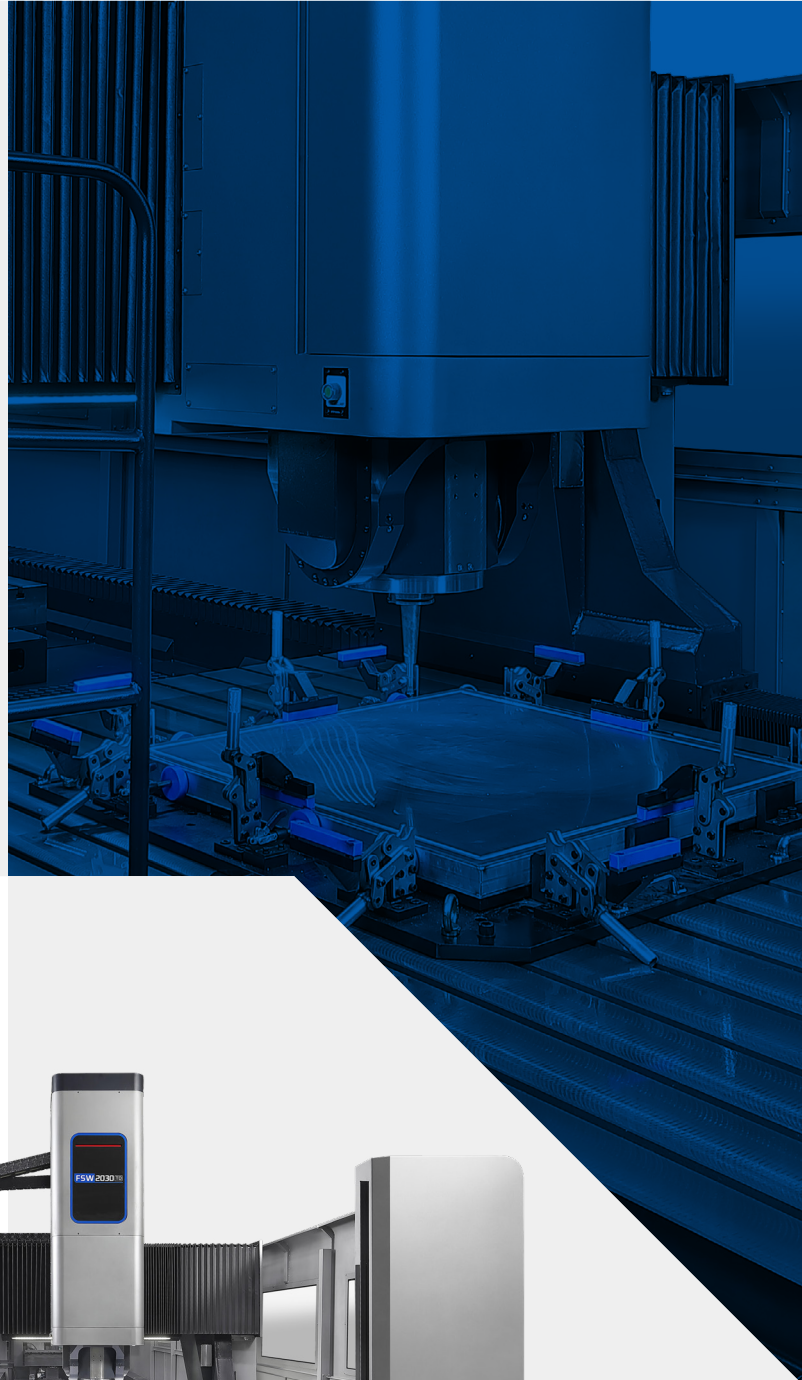


DN SOLUTIONS FRICTION STIR WELDING SOLUTION

FSW 2030

FSW 2030D
FSW 2030T
FSW 2030TD



BASIC STRUCTURE

To provide users with a compact and efficient workspace, we adopted a high-performance gantry structure. A high-rigidity frame ensures stable performance during FSW processing, and a layout pre-designed for automation helps maximize productivity and enables stable, reliable operation compared to other solutions.

X/Y/Z Travel Distance

FSW 2030/T

3350/2000/550 mm
(131.9/78.7/21.7 inch)

FSW 2030D/TD

8090/2000/550 mm
(318.5/78.7/21.7 inch)

X/Y/Z Rapid Traverse Rate

FSW 2030/D

40/30/30 m/min
(1574.8/1181.1/1181.1 ipm)

FSW 2030T/TD

40/30/20 m/min
(1574.8/1181.1/787.4 ipm)



SPINDLE

It is suitable for high-difficulty welding with a spindle that has high rigidity and precision. It stably processes deep welding thickness and maintains excellent stability even during long-term operation. It will provide users with optimal precision and productivity.

Max. Spindle Speed

3500 r/min

Max. Spindle Power

FSW 2030/D

286 N·m
(211 ft-lbs)

FSW 2030T/TD

181.6 N·m
(134.0 ft-lbs)

Tool Shank

HSK A-100



MACHINING AREA

By applying a 2m-class large pallet, a wide processing area is provided to produce parts of various sizes, and productivity is maximized with the 2PALLET automation option.

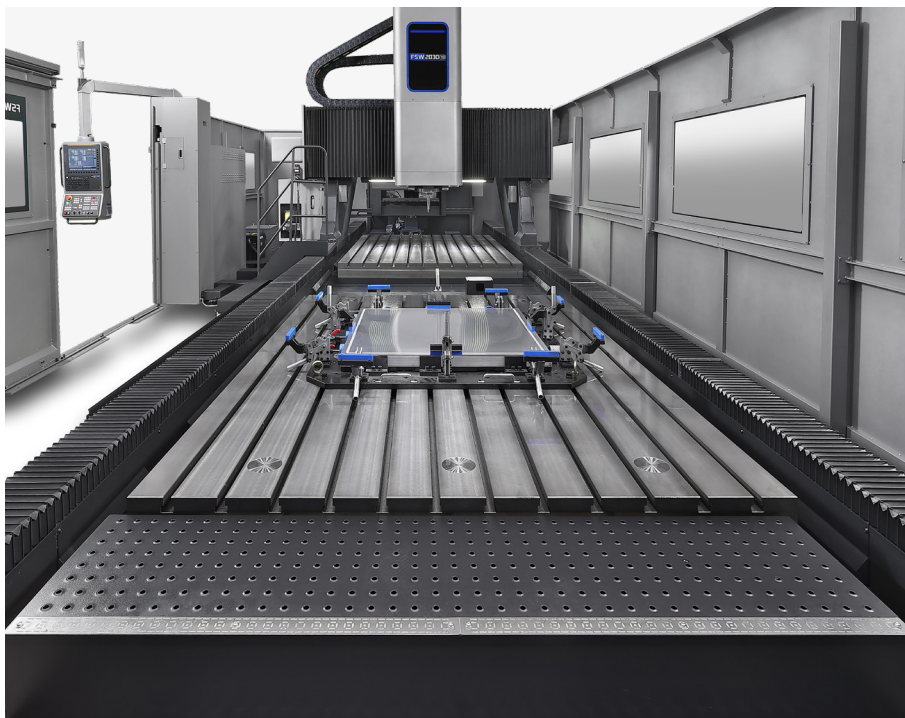
Max. Workpiece Size

Table Size

2000 x 3000 mm
(78.7 x 118.1 inch)

Max weight on Table

2500 kg
(5511.5 lb)



KEY ADVANTAGES

Adopting a high-rigidity cast structure that can weld even high-load workpieces, it provides superior welding thickness and stability compared to other solutions.

Max Force

20 kN
(4496 lb-f)

Max. Tool Dia.

100 mm
(3.9 inch)

Max. Tool Length

250 mm
(9.8 inch)

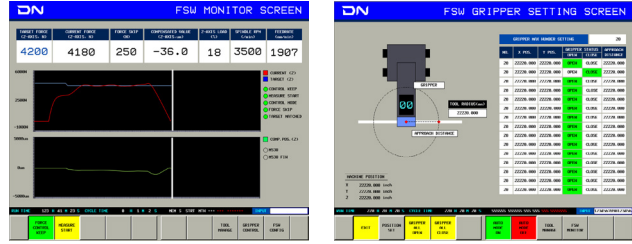
Max. Tool Weight

7 kg
(15.4 lb)



Software

DN Solutions' software precisely controls the force sensor and maintains a constant force in all sections to provide optimal welding conditions. Fixture control also provides a solution that can automatically open/close the gripper through software.



Specification

Description	Features	Unit	FSW 2030	FSW 2030D	FSW 2030T	FSW 2030TD	
Table	Table Size	mm (inch)	2000 x 3000 (78.7 x 118.1) x 1ea	2000 x 3000 (78.7 x 118.1) x 2ea	2000 x 3000 (78.7 x 118.1) x 1ea	2000 x 3000 (78.7 x 118.1) x 2ea	
	Max. Load Capacity	Kgf	2500	2500 x 2ea	2500	2500 x 2ea	
	Max. Force (Z)	kN (lb-f)	20 (4496)				
Axis System	Travel X/Y/Z	mm (inch)	3350/2000/550 (131.9/78.7/21.7)	8090/2000/550 (318.5/78.7/21.7)	3350/2000/550 (131.9/78.7/21.7)	8090/2000/550 (318.5/78.7/21.7)	
	C	deg	-		±720		
	Tilt Angle B	deg	-		0~5		
	Feedrate X/Y/Z	m/min (ipm)	40/30/30 (1574.8/1181.1/1181.1)			40/30/20 (1574.8/1181.1/787.4)	
	Feedrate C/B	r/min	-		20(C)/1.2(B)		
	Number of Axes	ea	3			4	
Spindle	Drive Type	-	Direct		Built-in spindle		
	Tool Shank	-	HSK-A100 / BT 50		HSK-A100		
	Max. Spindle Speed	r/min	3500		3500		
	Max. Torque	N·m (ft-lbs)	286(211) (S6, 15%)		181.6(134.0) (S1)		
ATC	Number of Magazine	ea	5				
	Tool Max. Dia. / L	mm (inch)	100/250 (3.9/9.8)				
	Tool Max. Weight	kg (lb)	7 (15.4)				
CNC	CNC System	-	FANUC 0i+				
Machine Weight		ton	9	15	10	16	



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