

T5F Series Specification

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Model	Unit	TSF-3135	TSF-4135	TSF-5135	TSF-6135	TSF-8135	TSF-10135	TSF-4140
Travel								
X-axis	mm	2100	4100	5100	6100	8100	10100	4100
Y-axis	mm	3500	3500	3500	3500	3500	3500	4000
Z-axis	mm	1100	1100	1100	1100	1100	1100	1100
Guide Way (X / Y / Z)	type	Roller Linear Guideway / Roller Linear Guideway / Box Way	Roller Linear Guideway / Roller Linear Guideway / Box Way	Roller Linear Guideway / Roller Linear Guideway / Box Way	Roller Linear Guideway / Roller Linear Guideway / Box Way	Roller Linear Guideway / Roller Linear Guideway / Box Way	Roller Linear Guideway / Roller Linear Guideway / Box Way	Roller Linear Guideway / Roller Linear Guideway / Box Way
Distance from Spindle Nose to Table Surface	mm	200-1300	200-1300	200-1300	200-1300	200-1300	200-1300	200-1300
Distance from Spindle Center to the Track Surface	mm	2700	2700	2700	2700	2700	2700	3200
Table								
Table Dimension	mm	3000 × 2100	4000 × 2100	5000 × 2100	6000 × 2100	8000 × 2100	10000 × 2100	4000 × 2600
Max. Loading Capacity	kg	15000	18000	20000	23000	26000	29000	18000
T-slots (Number × Width × Pitch)	no × mm	28 × 10 × 200	28 × 10 × 200	28 × 10 × 200	28 × 10 × 200	28 × 10 × 200	28 × 10 × 200	28 × 13 × 200
Spindle								
Spindle Motor (Continuous / 30 Min)	kW	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)
Spindle Speed (Gear)	rpm	ST 6000 / OP. 4000	ST 6000 / OP. 4000	ST 6000 / OP. 4000	ST 6000 / OP. 4000	ST 6000 / OP. 4000	ST 6000 / OP. 4000	ST 6000 / OP. 4000
Spindle taper	type	BT50	BT50	BT50	BT50	BT50	BT50	BT50
Spindle Bearing Bore Diameter	Φmm	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100
Feed								
Rapid Travel Rate (X / Y / Z)	m / min	20 / 20 / 15	15 / 20 / 15	15 / 20 / 15	12 / 20 / 15	10 / 20 / 15	8 / 20 / 15	15 / 20 / 15
Cutting Rate	mm / min	10000	10000	10000	10000	10000	10000	10000
Manual JOG Feed Rate	mm / min	7.0/4.0/4.0	6.0/4.0/4.0	6.0/4.0/4.0	6.0/4.0/4.0	6.0/4.0/4.0	6.0/4.0/4.0	6.0/4.0/4.0
ATC								
Magazine Capacity (ST)	tools	60/90/120	60/90/120	60/90/120	60/90/120	60/90/120	60/90/120	60/90/120
Max. Tool Diameter (with adjacent tool)	Φmm	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125
Max. Tool Diameter (without adjacent tool)	Φmm	Φ215	Φ215	Φ215	Φ215	Φ215	Φ215	Φ215
Max. Tool Length	mm	450	450	450	450	450	450	450
Max. Tool Weight	kg	20	20	20	20	20	20	20
Tool Shank Type	type	BT50/CAT50	BT50/CAT50	BT50/CAT50	BT50/CAT50	BT50/CAT50	BT50/CAT50	BT50/CAT50
Tool Stud	type	P50T-1	P50T-1	P50T-1	P50T-1	P50T-1	P50T-1	P50T-1
Power Supply								
Power Supply	kVA	45	45	45	45	45	45	45
Controller		FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN	FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN	FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN	FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN	FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN	FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN	FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN
External Dimension								
External Dimension (Length×Width×Height)	mm	8650 × 6960 × 5240	10650 × 6960 × 5240	12670 × 6960 × 5240	14670 × 6960 × 5240	18670 × 6960 × 5240	22670 × 6960 × 5240	10650 × 7460 × 5240
Net Weight (RV)	kg	38000	43000	48000	53000	63000	73000	46000
Gross Weight (RV)	kg	43300	48500	53500	58500	68500	78500	52000
Accuracy (Following values were tested in the temperature-controlled room)								
Positioning (JIS 6338)	mm	±0.015 Full Travel	±0.015 Full Travel	±0.015 Full Travel	±0.015 Full Travel	±0.015 Full Travel	±0.015 Full Travel	±0.015 Full Travel
Positioning (VDI 3441)	mm	P0=0.025	P0=0.03	P0=0.04	P0=0.05	P0=0.06	P0=0.07	P0=0.030
Repeatability (JIS 6338)	mm	±0.003	±0.003	±0.003	±0.003	±0.003	±0.003	±0.003
Repeatability (VDI 3441)	mm	P±=0.02	P±=0.025	P±=0.03	P±=0.035	P±=0.045	P±=0.055	P±=0.025

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Model	Unit	T5F-5140	T5F-6140	T5F-8140	T5F-10140
Travel					
X-axis	mm	5100	6100	8100	10100
Y-axis	mm	4000	4000	4000	4000
Z-axis	mm	1100	1100	1100	1100
Guide Way (X / Y / Z)	type	Roller Linear Guideway / Roller Linear Guideway / Box Way	Roller Linear Guideway / Roller Linear Guideway / Box Way	Roller Linear Guideway / Roller Linear Guideway / Box Way	Roller Linear Guideway / Roller Linear Guideway / Box Way
Distance from Spindle Nose to Table Surface	mm	200-1300	200-1300	200-1300	200-1300
Distance from Spindle Center to the Track Surface	mm	3200	3200	3200	3200
Table					
Table Dimension	mm	5000 × 2600	6000 × 2600	8000 × 2600	10000 × 2600
Max. Loading Capacity	kg	20000	23000	26000	29000
T-slots (Number × Width × Pitch)	no×mm	28 × 13 × 200	28 × 13 × 200	28 × 13 × 200	28 × 13 × 200
Spindle					
Spindle Motor (Continuous / 30 Min)	kW	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)
Spindle Speed (Gear)	rpm	ST. 6000 / OP. 4000	ST. 6000 / OP. 4000	ST. 6000 / OP. 4000	ST. 6000 / OP. 4000
Spindle taper	type	BT50	BT50	BT50	BT50
Spindle Bearing Bore Diameter	Φmm	Φ100	Φ100	Φ100	Φ100
Feed					
Rapid Travel Rate (X / Y / Z)	m / min	15 / 20 / 15	12 / 20 / 15	10 / 20 / 15	8 / 20 / 15
Cutting Rate	mm / min	10000	10000	10000	10000
Manual JOG Feed Rate	mm / min	6.0/4.0/4.0	6.0/4.0/4.0	6.0/4.0/4.0	6.0/4.0/4.0
ATC					
Magazine Capacity (ST)	tools	60/90/120	60/90/120	60/90/120	60/90/120
Max. Tool Diameter (with adjacent tool)	Φmm	Φ125	Φ125	Φ125	Φ125
Max. Tool Diameter (without adjacent tool)	Φmm	Φ215	Φ215	Φ215	Φ215
Max. Tool Length	mm	450	450	450	450
Max. Tool Weight	kg	20	20	20	20
Tool Shank Type	type	BT50/CAT50	BT50/CAT50	BT50/CAT50	BT50/CAT50
Tool Stud	type	P50T-1	P50T-1	P50T-1	P50T-1
Power Supply					
Power Supply	kVA	45	45	45	45
Controller		FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN	FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN	FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN	FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN
External Dimension					
External Dimension (Length×Width×Height)	mm	12670 × 7460 × 5240	14670 × 7460 × 5240	18670 × 7460 × 5240	22670 × 7460 × 5240
Net Weight (RV)	kg	52000	58000	70000	82000
Gross Weight (RV)	kg	58500	64500	76500	88500
Accuracy (Following values were tested in the temperature-controlled room)					
Positioning (JIS 6338)	mm	±0.015 Full Travel	±0.015 Full Travel	±0.015 Full Travel	±0.015 Full Travel
Positioning (VDI 3441)	mm	P0.040	P0.050	P0.060	P0.070
Repeatability (JIS 6338)	mm	±0.003	±0.003	±0.003	±0.003
Repeatability (VDI 3441)	mm	P±=0.030	P±=0.035	P±=0.045	P±=0.055