

TDHT Series Specification

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Model	Unit	TDH-2622	TDH-3122	TDH-4122	TDH-5122	TDH-3127	TDH-4127	TDH-5127
		TDHT-2622	TDHT-3122	TDHT-4122	TDHT-5122	TDHT-3127	TDHT-4127	TDHT-5127
Travel								
X-axis	mm	2600	3100	4100	5100	3100	4100	5100
Y-axis	mm	2200	2200	2200	2200	2700	2700	2700
Z-axis	mm	ST. 1100	ST. 1100	ST. 1100	ST. 1100	ST. 1100	ST. 1100	ST. 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 (ST.) (OP. 200-1500 / 200-1700 / 400-1300 / 400-1500)	200-1300 (ST.) (OP. 200-1500 / 200-1700 / 400-1300 / 400-1500)	200-1300 (ST.) (OP. 200-1500 / 200-1700 / 400-1300 / 400-1500)	200-1300 (ST.) (OP. 200-1500 / 200-1700 / 400-1300 / 400-1500)	200-1300 (ST.) (OP. 200-1500 / 200-1700 / 400-1300 / 400-1500)	200-1300 (ST.) (OP. 200-1500 / 200-1700 / 400-1300 / 400-1500)	200-1300 (ST.) (OP. 200-1500 / 200-1700 / 400-1300 / 400-1500)
Distance from Spindle Center to the Track Surface	mm	1700	1700	1700	1700	2300	2300	2300
Table								
Table Dimension	mm	2500 × 1500	3000 × 1500	4000 × 1500	5000 × 1500	3000 × 2100	4000 × 2100	5000 × 2100
Max. Loading Capacity	kg	9000	11000	14000	17000	14000	17000	20000
T-slots (Number × Width × Pitch)	no×mm	22 × 9 × 160	22 × 9 × 160	22 × 9 × 160	22 × 9 × 160	28 × 10 × 200	28 × 10 × 200	28 × 10 × 200
Spindle								
Spindle Speed (ST)	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) ST.	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	24 / 24 / 15	24 / 24 / 15	20 / 24 / 15	15 / 20 / 15	20 / 20 / 15	15 / 20 / 15	15 / 20 / 15
Cutting Rate	mm / min	10000	10000	10000	10000	10000	10000	10000
Manual JOG Feed Rate	kW	4.0 / 4.0 / 4.0	4.0 / 4.0 / 4.0	7.0 / 4.0 / 4.0	6.0 / 4.0 / 4.0	7.0 / 4.0 / 4.0	6.0 / 4.0 / 4.0	6.0 / 4.0 / 4.0
ATC								
Magazine Capacity (ST)	tools	30(40/60)	30(40/60)	30(40/60)	30(40/60)	30(40/60)	30(40/60)	30(40/60)
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	400	400	400	400	400	400	400
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
Full 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	7790 ×4100/4675 ×5050	8660 ×4100/4675 ×5050	10750 ×4100/4675 ×5050	12850 ×4100/4675 ×5050	8740 ×5600/5900 ×5050	10740 ×5600/5900 ×5050	12790 ×5600/5900 ×5050
Net Weight (B / BMC)	kg	32000 / 34500	34500 / 37000	37500 / 40000	40500 / 43000	35500 / 38000	39500 / 42000	43500 / 46000
Gross Weight (B / BMC)	kg	35500 / 38000	37500 / 40500	41000 / 43500	44000 / 46500	38000 / 40500	42000 / 44500	47500 / 50000
Accuracy (Following values were tested in the temperature-controlled room)								
Positioning (JIS 6338)	mm	±0.01 Full Travel	±0.01 Full Travel	±0.01 Full Travel	±0.01 Full Travel	±0.01 Full Travel	±0.015 Full Travel	±0.015 Full Travel
Positioning (VDI 3441)	mm	P0.020	P0.025	P0.030	P0.040	P0.025	P0.030	P0.040
Repeatability (JIS 6338)	mm	±0.003	±0.003	±0.003	±0.003	±0.003	±0.003	±0.003
Repeatability (VDI 3441)	mm	Ps=0.015	Ps=0.020	Ps=0.025	Ps=0.030	Ps=0.020	Ps=0.025	Ps=0.030

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Model	Unit	TDH-6127 TDHT-6127	TDH-3135 TDHT-3135	TDH-4135 TDHT-4135	TDH-5135 TDHT-5135	TDH-6135 TDHT-6135	TDH-4140 TDHT-4140	TDH-5140 TDHT-5140
Travel								
X-axis	mm	6100	3100	4100	5100	6100	4100	5100
Y-axis	mm	2700	3500	3500	3500	3500	4000	4000
Z-axis	mm	ST. 1100	ST. 1100	ST. 1100	ST. 1100	ST. 1100	ST. 1100	ST. 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 (ST.) (OP. 200-1500 / 200-1700 / 400-1300 / 400-1500)	200-1300 (ST.)	200-1300 (ST.)	200-1300 (ST.)	200-1300 (ST.)	200-1300 (ST.)	200-1300 (ST.)
Distance from Spindle Center to the Track Surface	mm	2300	2700	2700	2700	2700	3200	3200
Table								
Table Dimension	mm	6000 × 2100	3000 × 2100	4000 × 2100	5000 × 2100	6000 × 2100	4000 × 2600	5000 × 2600
Max Loading Capacity	kq	23000	14000	17000	20000	23000	18000	20000
T-slots (Number × Width × Pitch)	no×mm	28 × 10 × 200	28 × 10 × 200	28 × 10 × 200	28 × 10 × 200	28 × 10 × 200	28 × 13 × 200	28 × 13 × 200
Spindle								
Spindle Speed (ST)	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) ST.	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	10 / 20 / 15	20 / 20 / 15	15 / 20 / 15	12 / 20 / 15	10 / 20 / 15	15 / 20 / 15	12 / 20 / 15
Cutting Rate	mm / min	10000	10000	10000	10000	10000	10000	10000
Manual JOG Feed Rate	kW	6.0 / 4.0 / 4.0	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
ATC								
Magazine Capacity (ST)	tools	30(40/60)	30/40	30/40	30/40	30/40	30/40	30/40
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	400	400	400	400	400	400	400
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
Pull 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	14740 × 5600/5900 × 5050	8650 × 5950/6180 × 5050	10860 × 5950/6180 × 5050	12910 × 5950/6180 × 5050	14860 × 5950/6180 × 5050	10770 × 6450/6680 × 5050	12770 × 6450/6680 × 5050
Net Weight (B / BMC)	kg	51000 / 53500	34000/36500	38500 / 41000	43000 / 45800	53000 / 52500	53000 / 56500	57500 / 60000
Gross Weight (B / BMC)	kg	57000 / 59500	37500 / 40000	42000 / 44500	46500 / 49000	53500 / 56000	57000 / 59500	61000 / 63500
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	P0.050	P0.025	P0.030	P0.040	P0.050	P0.030	P0.040
Repeatability (JIS 6338)	mm	±0.003	±0.003	±0.003	±0.003	±0.003	±0.003	±0.003
Repeatability (VDI 3441)	mm	Ps=0.035	Ps=0.02	Ps=0.025	Ps=0.030	Ps=0.030	Ps=0.025	Ps=0.030

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Model	Unit	TDH-6140	TDH-4142	TDH-5142	TDH-6142
		TDHT-6140	TDHT-4142	TDHT-5142	TDHT-6142
Travel					
X-axis	mm	6100	4100	5100	6100
Y-axis	mm	4000	4200	4200	4200
Z-axis	mm	ST. 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 (ST.)	200-1300 (ST.)	200-1300 (ST.)	200-1300 (ST.)
Distance from Spindle Center to the Track Surface	mm	3200	3750	3750	3750
Table					
Table Dimension	mm	6000 × 2600	4000 × 3200/3500	5000 × 3200/3500	6000 × 3200/3500
Max. Loading Capacity	kq	23000	15000	18000	23000
T-slots (Number × Width × Pitch)	no×mm	28 × 13 × 200	28 × 15 × 200/28 × 17 × 200	28 × 15 × 200/28 × 17 × 200	28 × 15 × 200/28 × 17 × 200
Spindle					
Spindle Speed (ST)	kW	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)	22 / 26 (OP. 30/37)
Spindle Speed (Gear) ST.	rpm	ST. 6000 / OP. 4000	ST. 6000 / OP. 4000 (OP. : Direct-driven 8000 / 10000)	ST. 6000 / OP. 4000 (OP. : Direct-driven 8000 / 10000)	ST. 6000 / OP. 4000 (OP. : Direct-driven 8000 / 10000)
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	10 / 20 / 15	20 / 15 / 15	15 / 15 / 15	12 / 15 / 15
Cutting Rate	mm / min	10000	10000	10000	10000
Manual JOG Feed Rate	kW	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	30/40	30(40/60)	30(40/60)	30(40/60)
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	400	400	400	400
Max. Tool Weight	kg	20	20	20	20
Tool Shank Type	type	BT50 / CAT50	BT50 / CAT50	BT50 / CAT50	BT50 / CAT50
Pull 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	14770 × 6450/6680 × 5050	12250 × 7215/7315 × 5050	14250 × 7215/7315 × 5050	15250 × 7215/7315 × 5050
Net Weight (B / BMC)	kg	65000 / 67500	65500 / 68500	70500 / 73500	75500 / 78500
Gross Weight (B / BMC)	kg	69000 / 71500	71500 / 74500	76500 / 79500	81500 / 84500
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	P0.050	P0.03	P0.04	P0.05
Repeatability (JIS 6338)	mm	±0.003	0.003/300	0.003/300	0.003/300
Repeatability (VDI 3441)	mm	Ps=0.035	Ps=0.025	Ps=0.030	Ps=0.035