TOYODA

COMPACT and POWERFUL

Horizontal Machining Center

F4X

Floor space
2,100mm × 3,750mm

Spindle motor, short-time/continuous
30/26kW

Max. spindle torque
350N·m

TH555F4X
TOYODA

JTEKT
JTEKT CORPORATION

TOPCENTER F4X Machine specifications

Item		Unit	TH355F4X		TH555F4X	
			Standard specifications	Special specifications	Standard specifications	Special specifications
Table	Table dimensions	mm	□500		□500	
	Rotary table indexing angle	°	0.001		0.001	
	Pallet height (from floor)	mm	650 (Foundation parts height 55mm)		650 (Foundation parts height 55mm)	
	Max load on table	kg	800		800	
	Table indexing time (90°indexing)	sec	2		2	
Stroke	X-axis	mm	300		500	
	Y-axis	mm	550		550	
	Z-axis	mm	530		530	
	Distance between spindle nose and table center	mm	70～600		200～730	
	Distance between spindle center and top of table	mm	350～920		350～920	
	Max. workpiece swing x Max. workpiece height	mm	ϕ540X1,300※1		ϕ800X1,300※1	
Feeds	Rapid feed rate (X, Y and Z)	m/min	60		60	
	Cutting feed rate (X, Y and Z)	m/min	0.001～30		0.001～30	
	Cutting acceleration	m/s² (G)	X=3.92 (0.4) Y=8.82 (0.9) Z=12.25 (1.25)		X=3.92 (0.4) Y=8.82 (0.9) Z=12.25 (1.25)	
Spindle	Spindle speed	min⁻¹	8,000		8,000	
	Spindle diameter (front bearing bore)	mm	ϕ100		ϕ100	
	Spindle nose shape		HSK A63	KM6350	HSK A63	KM6350
	Spindle motor, short-time/continuous	kW	30/26		30/26	
	Rigid tap rotation speed	min⁻¹	MAX 4,000		MAX 4,000	
ATC	Tool holding capacity	tool	10		16	10/20
	Tool selection		Fixed address and shortcut		Fixed address and shortcut	
	Tool (dia. x length)	mm	ϕ160X310 (HSK) ※2	ϕ160X320 (KM) ※2	ϕ160X310 (HSK) ※2	ϕ160X320 (KM) ※2 ※3
	Tool mass	kg	15		15	
	Tool change time (Tool-to-Tool)	sec	2.5		2.5	
	Tool change time (Chip-to-Chip)	sec	3.5		3.5	
	Tools Holder		HSK-A63	KM6350	HSK-A63	KM6350
Dimensions & Weight	Floor space (width x depth)	mm	1,200x3,980		1,300x4,110	
	Machine height	mm	2,927		2927	
	Machine weight	kg	6,000		6,500	
Capability & Performance	Positioning accuracy ※4	mm	±0.003		±0.003	
	Repeatability ※4	mm	±0.002		±0.002	
	Table indexing accuracy ※4	sec	±15		±15	
	Table indexing repeatability ※4	sec	±7.5		±7.5	

※1:The workpiece swing is subject to limitations. For details, refer to the tooling data. ※2:For details, refer to the tooling data.
※3:Specification with 20-tool is up to ϕ125mm. ※4:According to our inspection method

CNC unit FANUC 31i. ● Standard／□ Optional

Division	Name	
Axis control	Min. input increment (0.001mm)	●
	Absolute position detection	●
	Inch/metric switch	□
Operation	Dry run	●
	Single block	●
	Manual handle feed 1 unit	●
	Program restart	□
	Manual handle interrupt	□
Interpolation function	Nano interpolation	●
	Positioning (G00)	●
	Exact stop mode (G61)	●
	Tapping mode (G63)	●
	Cutting mode (G64)	●
	Exact stop (G09)	●
	Linear interpolation (G01)	●
	Arc interpolation (G02, G03)	●
	Dwell (G04)	●
	Helical interpolation	●
	Reference point return (G28, G29)	●
	Second reference point return (G30)	●
	Third and fourth reference point return (G30)	●
Feed function	F1-digit feed	□
Program entry	Local coordinate system (G52)	●
	Machine coordinate system (G53)	●
	Workpiece coordinate system (G54 to G59)	●
	Additional workpiece coordinate systems (48 sets)	□
	Additional workpiece coordinate systems (300 sets)	□
	Custom macro	●
	Additional custom macro common variables (#100 to #199, #500 to #999)	●
	Fixed drilling cycle (G73, G74, G76, G80 to G89, G98 and G99)	●
	Additional optional block skip (9 pieces)	□
	Automatic corner override	□
Spindle function	Rigid tap	●
Tool function	Tool corrections (32)	●
Tool correction function	Tool corrections (Selecting from 64, 99, 200, 499 and 2000)	□
	Tool position offset	●
	Tool diameter and cutter radius compensation	●
	Tool length compensation (G43, G44 and G49)	●
Editing operation	Program storage capacity (64K bytes)	●
	Program storage capacity (Selecting from 128, 256, 512K bytes, 1M and 2M bytes)	□
	Number of registered programs (63)	●
	Number of registered programs (Selecting from 125 and 250)	□
	Simultaneous multi-program editing (incl. background editing)	●
Data entry/display	Touch panel control	●
Communication function	Built-in Ethernet	●
Others	10.4” color LCD	●

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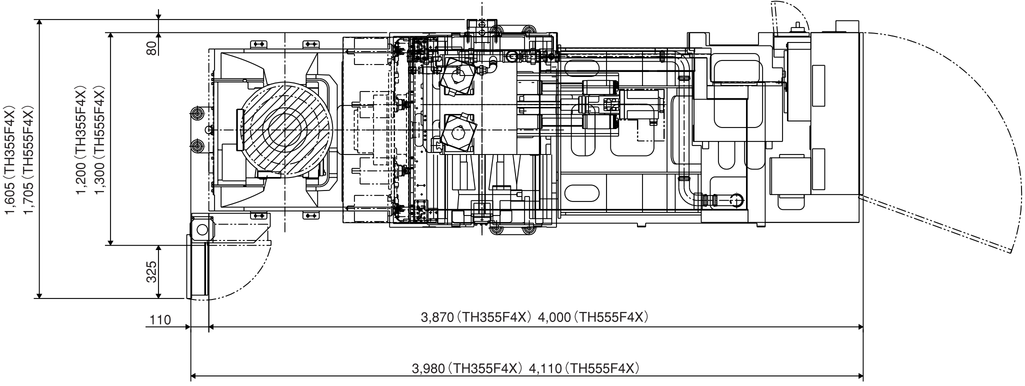
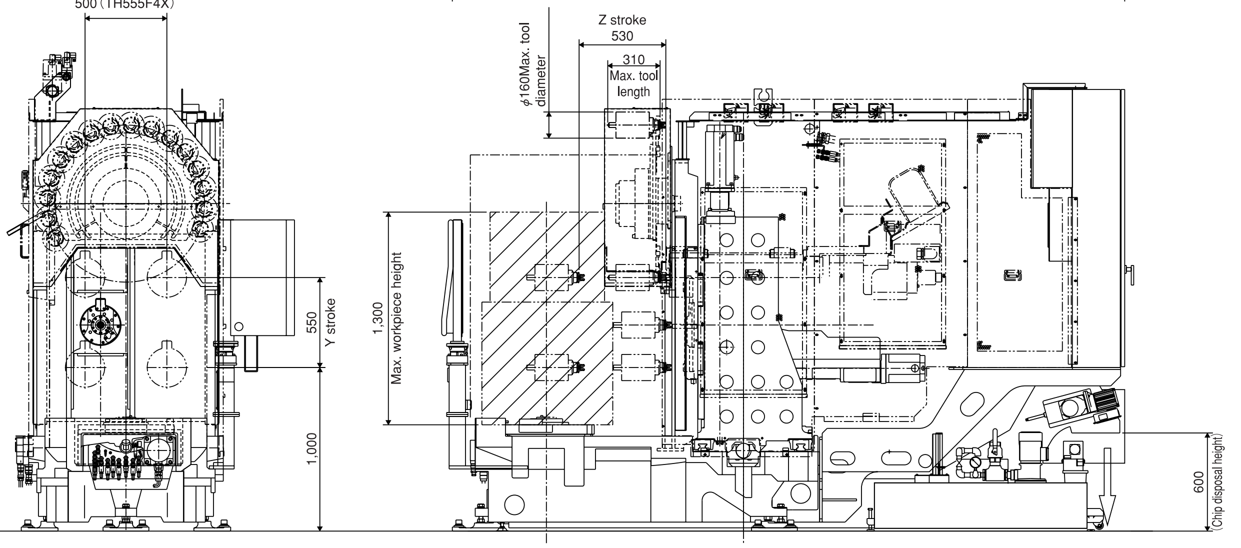
TOPCENTER F4X
Layout plan

unit : mm





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