

TTNC-102-2, 101-4, 151-2, 201-2

MULTI-SPINDLE FOR HIGH PRODUCTION

Multiple spindle tilting rotary tables for high production 4<sup>th</sup> & 5<sup>th</sup> axis machining. These tables are suitable for simultaneous machining of multiple workpieces with complex shapes or five faces.



TTNC-102-2

Table Model			TTNC-102-2	TTNC-101-4	TTNC-151-2	TTNC-201-2					
Tilt Range			-17° ~ +107°	-110° ~ +110°	-110° ~ +110°	-110° ~ +110°					
Minimum table center distance			140	120	250	304.8					
Spindle outer diameter			90h7	80h7	-	-					
Table diameter (optional)			(135)	(115)	160	225					
Table height at 0° position (w/ face plate)			230 (255)	275 (300)	270	350					
Center height at 90° position			160	200	200	260					
Center bore	Nose Diameter (w/ face plate)	mm	55H7 (40H7)	50H7 (50H7)	35H7	40H7					
	Thru Diameter	mm	35	30	35	32					
Table T-slot width (w/ face plate)			(12H8)	(10H8)	12H7	12H7					
Guide block width			14h7	18h7	18h7	18h7					
Servo motor (Fanuc)*			Rotary	Tilt	Rotary	Tilt	Rotary	Tilt			
			Alpha 2i	Alpha 2i	Alpha 8i	Alpha 8i	Alpha 4i	Alpha 8i	Alpha 8i	Alpha 12i	
Maximum motor speed			rpm	5,000	5,000	4,000	4,000	4,000	4,000		
Speed reduction ratio			1/90	1/180	1/60	1/90	1/90	1/90	1/120		
Maximum table speed			rpm	55.6	27.8	66.7	44.4	55.5	44.4	33.3	
Inertia converted into motor shaft			x 10 <sup>-3</sup> kg·m <sup>2</sup>	.20	.06	.52	1.08	.45	1.09	.48	3.2
Clamp system			Pneumatic	Pneumatic	Pneumatic	Hydraulic**	Pneumatic	Hydraulic**	Hydraulic**	Hydraulic**	
Clamp torque @72psi [500 psi]			Nm (ft. lbs.)	127 (94)	284 (209)	80 (59)	[980] [(722)]	78 (57)	[1,000] [(737)]	[490] [(361)]	[2,450] [(1,806)]
Indexing accuracy			arc sec.	±20	-	±30	-	±15	-	±7.5	-
Tilting accuracy			arc sec.	-	±22.5	-	±30	-	±30	-	±30
Net Weight			kg (lbs.)	100 (220)	370 (814)	340 (748)	550 (1,210)				
Allowable wheel torque - rotary			Nm (ft. lbs.)	93 (69)	176 (130)	147 (108)	470 (346)				
Allowable work inertia			kg·m <sup>2</sup>	0.08	0.05	0.19	0.63				
Allowable work weight	0° tilt angle		Kg (lbs)	35 (77)	25 (55)	40 (88)	50 (110)				
	0° ~ 90° tilt angle		kg (lbs)	20 (44)	25 (55)	40 (88)	50 (110)				
Allowable work moment		Nm (ft. lbs.)	54.8 (40.4)	176 (129.7)	156.8 (115.6)	254.8 (187.8)					
Allowable load when table clamped		N (lbf)	1,960 (439)	1,960 (439)	6,860 (1,537)	9,800 (2,195)					
		Nm (ft. lbs.)	127 (93.6)	80 (59)	78 (57.5)	490 (361)					
		Nm (ft. lbs.)	284 (209)	980 (722)	980 (722)	2,450 (1,806)					

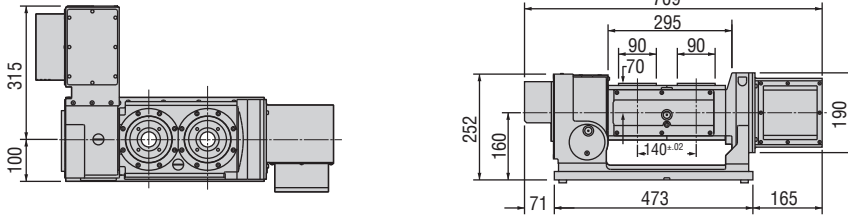
\* Other motors & RPM available • \*\* Booster optional • Specifications subject to change without notice

# NC Tilting Rotary Tables ▶ Multi-Spindle Models

## Dimensions

Drawings not to scale • Dimensions = mm

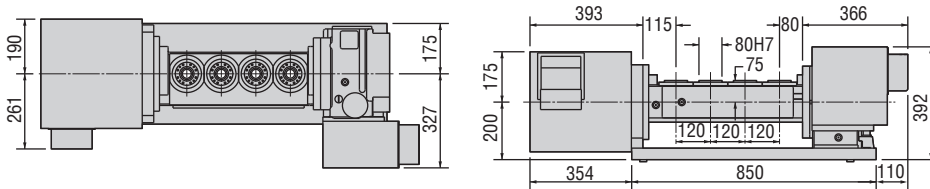
### TTNC-102-2



TTNC-101-4  
5C Collet Option



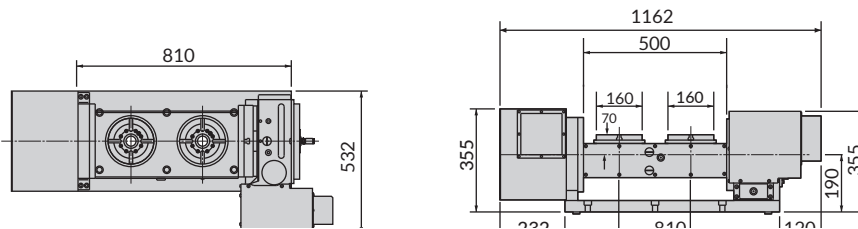
### TTNC-101-4



TTNC-151-2 RJ  
Rotary Joint Option



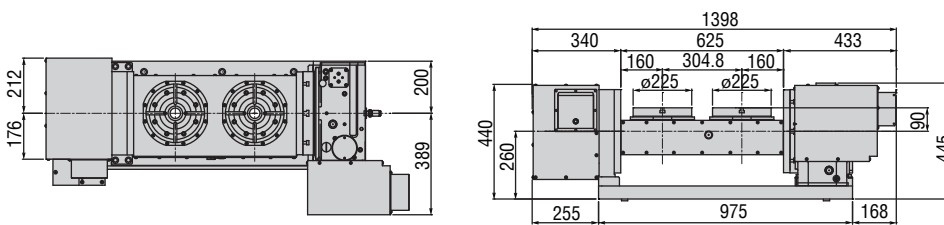
### TTNC-151-2



TTNC-201-2



### TTNC-201-2

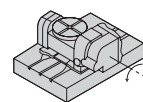


## Options & Accessories

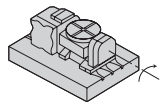
TPC NC Controller	
Chucks	
Tailstock	
Support Spindle	
Face Plate	
Encoder / Scale	
Pull Stud Device	
Rotary Joint	
Booster	
PVC or Steel Cables	

The dimensions above are for tables with a FANUC servo motor. Other motors available (dimensions may increase).

## Layout a



## Layout b



## Clamping Block and Bolt

Dimensions = mm

	Type	Q'ty	Layout	T-Slot Width	A	B	C	D	E	F	G	H	I	J	K	L	M
TTNC-102-2	I	4	a b	14	20	12	70	10	35	25	20	17	8	55	35	23	12

Note 1: In the case of layout b, contact us for details about mounting.

Note 2: When using a machine with a T-slot pitch other than the above, use suitable clamping blocks and bolts that are available on the market, or order custom-made ones from TSUDAKOMA (opt.)

## Type I

