

KOMA



TSUDAKOMA
ROTARY TABLE
SELECTION GUIDE



**Methods
Machine
Tools Inc**

ABOUT US

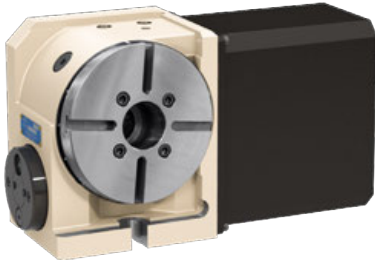
KOMA PRECISION

For over thirty years Koma Precision has been the foremost source for the finest the world has to offer in machine tool Productivity Innovation.

With over 30,000 rotary table installations, Koma is the largest distributor of Tsudakoma NC rotary tables and indexers in the world. With over 12,000 angle heads and live tools installed, Koma is the world's largest supplier for Alberti - the originator and the foremost innovator of productivity tooling.



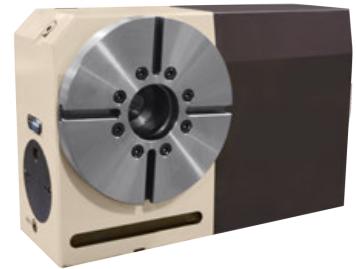
ROTARY TABLES



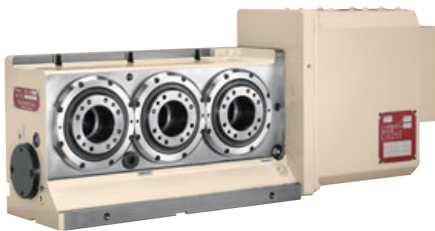
RWE SERIES



RWA SERIES



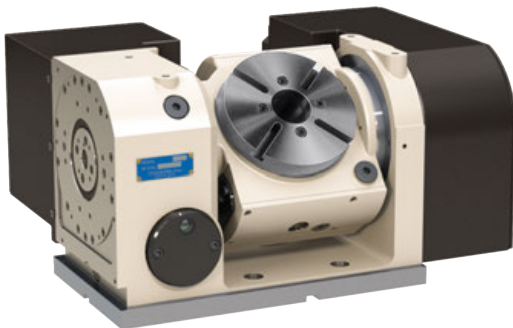
RBS SERIES



RN-MULTI SERIES



RWB SERIES



TWA SERIES



TBS SERIES



5TH AXIS TILTING
RTT-111, CA

MV-SERIES



MV-800H				
RWE SERIES	RWE-160	RWE-200		
RWA SERIES	RWA-160	RWA-200	RWA-250	
RBS SERIES	RBS-160	RBS-250		
RN MULTI SERIES	RN-100R-2	RN-100R-3	RN-100R-4	
TWA SERIES	TWA-130	TWA-160		
TBS SERIES	TBS-130	TBS-160		
5 th AXIS TILTING	RTT-111, CA			



MV-1000H				
RWE SERIES	RWE-160	RWE-200		
RWA SERIES	RWA-160	RWA-200	RWA-250	RWA-320
RBS SERIES	RBS-160	RBS-250	RBS-320	
RN MULTI SERIES	RN-100R-2	RN-100R-3	RN-100R-4	
TWA SERIES	TWA-130	TWA-160	TWA -200	
TBS SERIES	TBS-130	TBS-160		
5 th AXIS TILTING	RTT-111, CA			

MV-SERIES



MV-1100H/B

RWE SERIES	RWE-160	RWE-200		
RWA SERIES	RWA-160	RWA-200	RWA-250	RWA-320
RBS SERIES	RBS-160	RBS-250	RBS-320	
RN MULTI SERIES	RN-100R-2	RN-100R-3	RN-100R-4	
TWA SERIES	TWA-130	TWA-160	TWA -200	
TBS SERIES	TBS-130	TBS-160		
5th AXIS TILTING	RTT-111, CA			

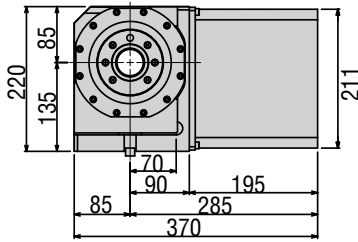


MV-1600H

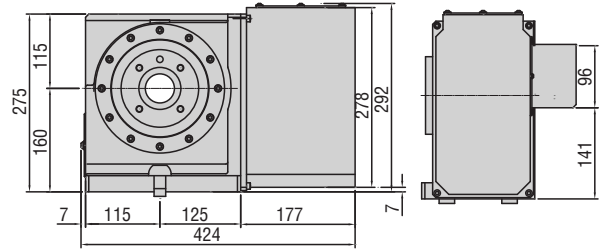
RWE SERIES	RWE-160	RWE-200		
RWA SERIES	RWA-160	RWA-200	RWA-250	RWA-320
RBS SERIES	RBS-160	RBS-250	RBS-320	
RWB SERIES	RWB-250	RWB-320		
RN MULTI SERIES	RN-100R-2	RN-100R-3	RN-100R-4	
TWA SERIES	TWA-130	TWA-160	TWA-200	TN-320
TBS SERIES	TBS-130	TBS-160	TBS-250	
5th AXIS TILTING	RTT-111, CA			

ROTARY TABLE DIMENSIONS

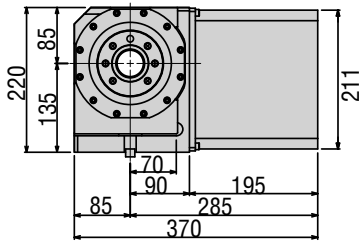
RWE & RWA Series (Drawings Not To Scale)



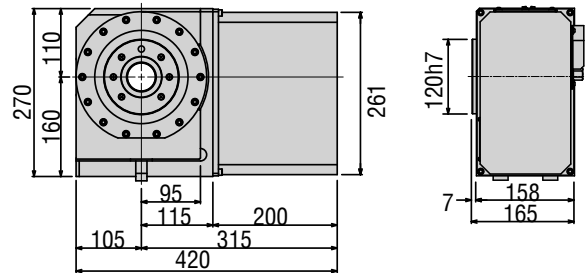
RWE-160



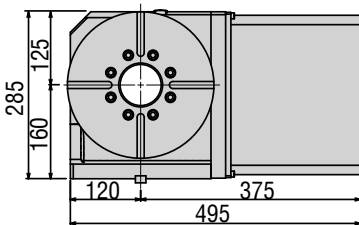
RWE-200



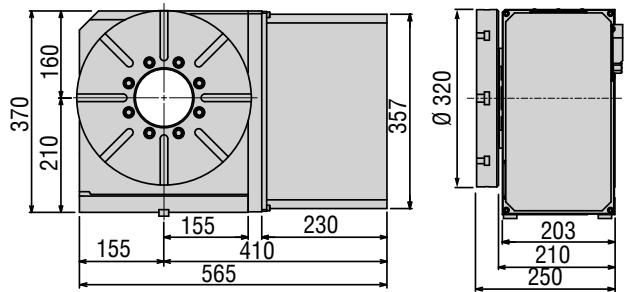
RWA-160



RWA-200



RWA-250



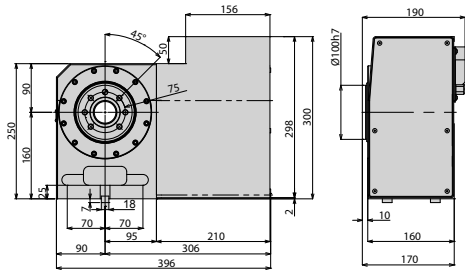
RWA-320

Please contact Koma Precision to confirm Tsudakoma Rotary Table working envelope.

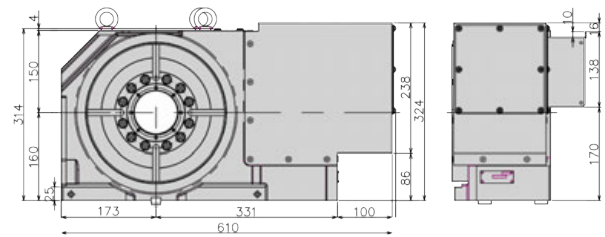
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ROTARY TABLE DIMENSIONS

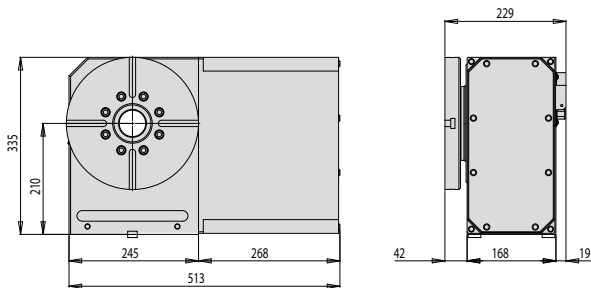
RBS, & RWB Series (Drawings Not To Scale)



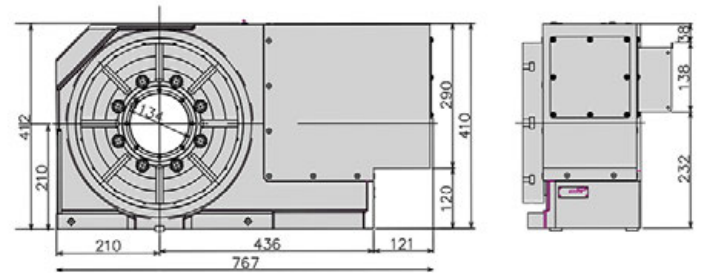
RBS-160



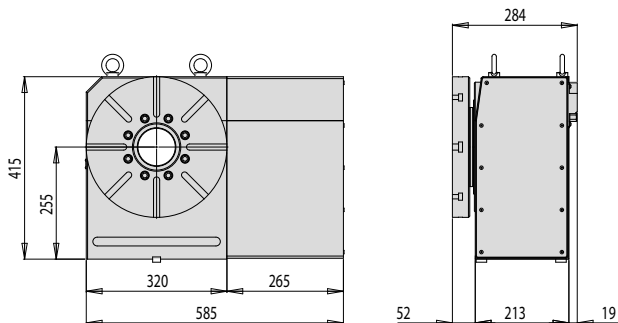
RWB-250R



RBS-250



RWB-320R



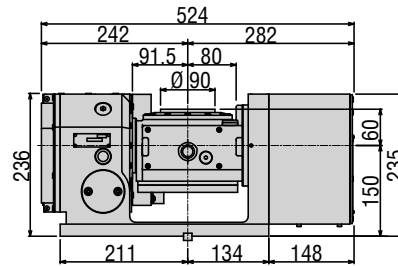
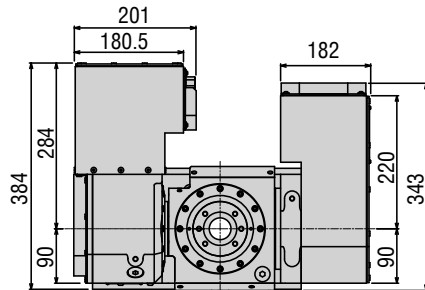
RBS-320

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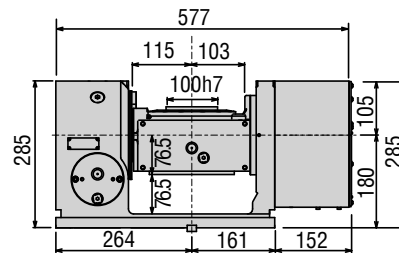
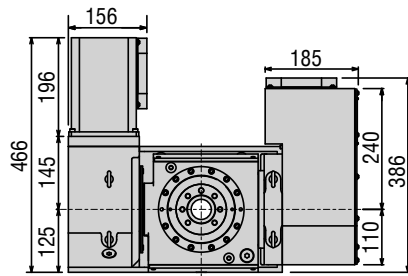
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ROTARY TABLE DIMENSIONS

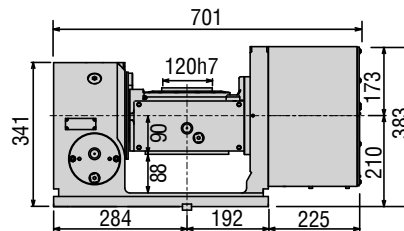
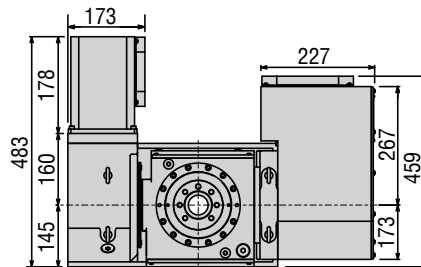
TWA-Series (Drawings Not To Scale)



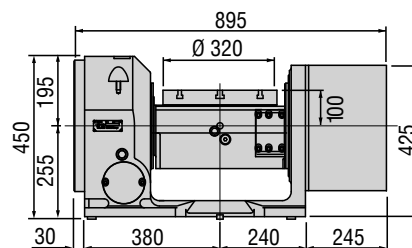
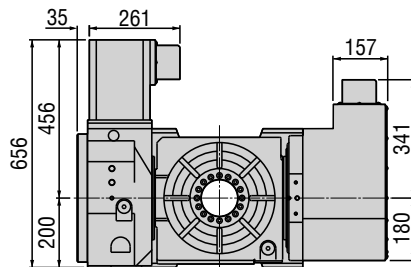
TWA-130



TWA-160



TWA-200



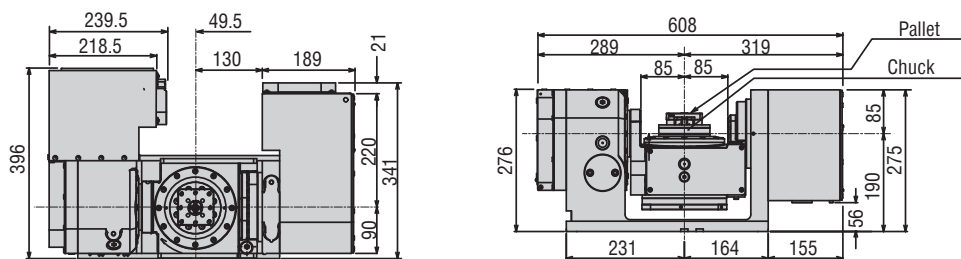
TN-320

Please contact Koma Precision to confirm Tsudakoma Rotary Table working envelope.

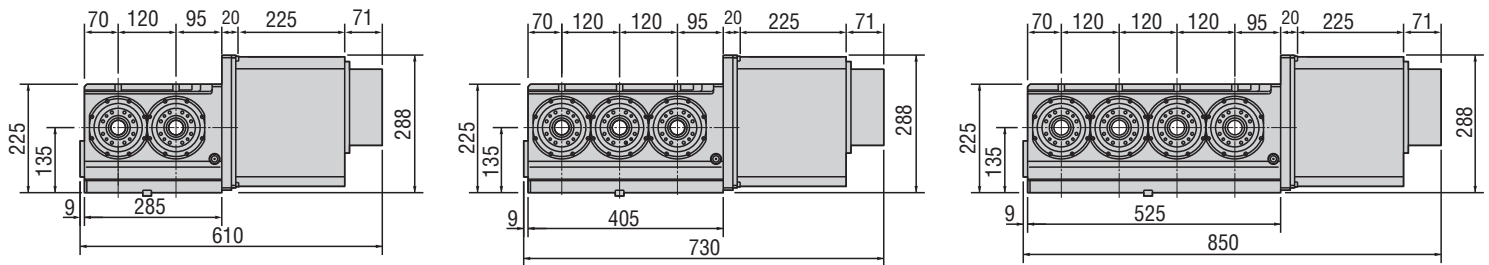
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ROTARY TABLE DIMENSIONS

RTT-111,CA, RN Multi Series & TBS-Series (Drawings Not To Scale)



RTT-111 CA



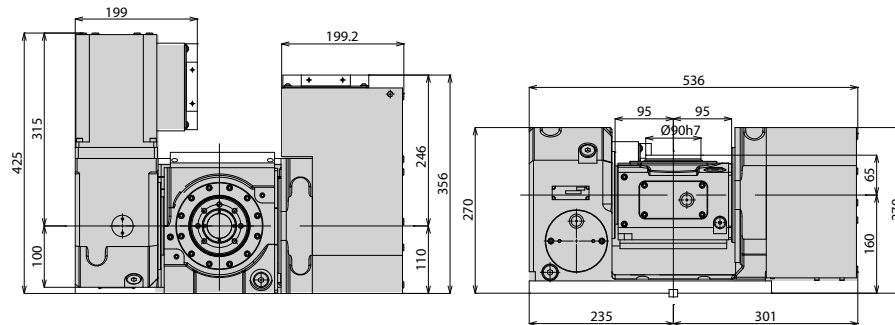
RN-100R-2,3,4

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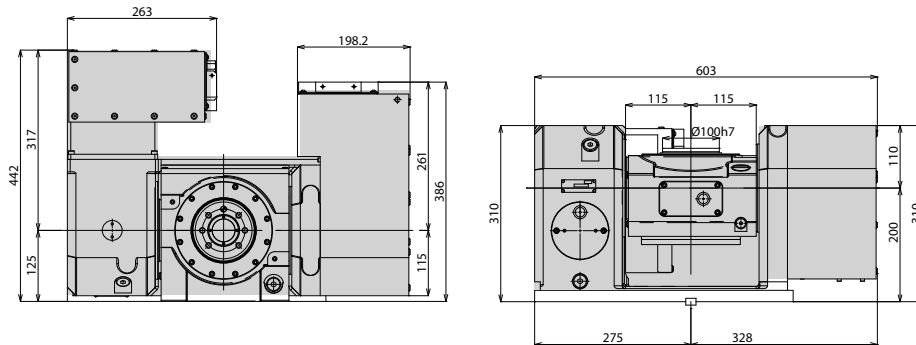
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ROTARY TABLE DIMENSIONS

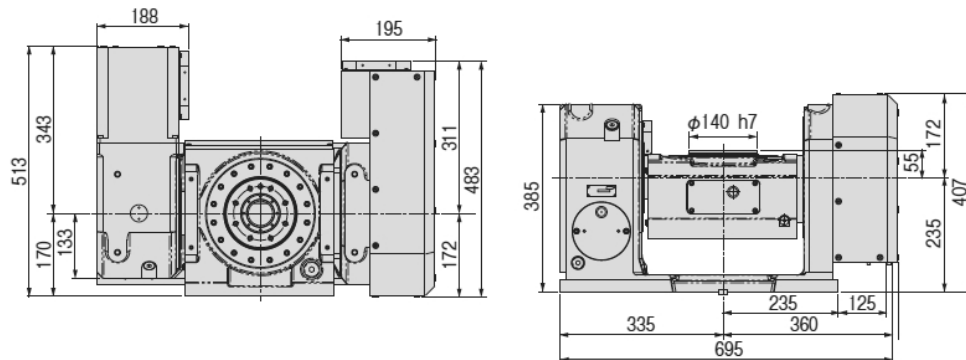
TBS-Series (Drawings Not To Scale)



TBS-130



TBS-160



TBS-250

Please contact Koma Precision to confirm Tsudakoma Rotary Table working envelope.

ROTARY TABLE SPECIFICATIONS

RN-Multi, RWA & RWE-Series

Table Model		RN-100-2,3,4	RWA-160	RWA-200	RWA-250 (S)	RWA-320 (S)	RWE-160	RWE-200
Versions available		R, L	R, L	R, L	R, L	R, L	R, L	R, L
Spindle outer diameter		80h7	100h7	120h7	140h7	180h7	100h7	120h7
Table diameter (optional)		(115)	(160, 200)	(200, 250)	250	320	(160, 200)	(200, 250)
Center height		135	135	160	160	210	135	160
Center bore	Nose Diameter	50H7	55H7	65H7	80H7	115H7	55H7	65H7
	Thru Diameter	30	40	45	50	85	40	45
Table T-slot width (with face plate)		-	(12H8)	(12H8)	12H8	14H7	(12H8)	(12H8)
Minimum spindle center distance		120	-	-	-	-	-	-
Guide block width		18h7	14h7	18h7	18h7	18h7	14h7	18h7
Servo motor (Fanuc)*		Alpha 4i	Alpha 2i	Alpha 4i	Alpha 8i (8is)	Alpha 8i (22is)	Alpha 2i	Alpha 4i
Maximum motor speed	rpm	5,000	5,000	5,000	4,000 (4,000)	4,000 (4,000)	5,000	5,000
Speed reduction ratio		1/36	1/72	1/72	1/90 (1/45)	1/120 (1/45)	1/72	1/72
Number of spindles		2 3 4	-	-	-	-	-	-
Maximum table speed	rpm	138.9	69.4	69.4	44.4 (88.9)	33.3 (88.9)	69.4	69.4
Inertia converted into motor shaft	$\times 10^{-3}\text{kg}\cdot\text{m}^2$	.64 .92 1.06	.09	.17	.41 (.44)	.52 (1.66)	.09	.17
Clamp system		Pneumatic		Pneumatic Dual Taper			Pneumatic Disc Clamp	
Clamp torque @72psi	Nm (ft. lbs.)	80 (59)	500 (369)	800 (590)	1,000 (737)	1,500 (1,106)	250 (180)	400 (295)
Indexing accuracy	arc sec.	±30	±12.5	±10	±10	±10	±12.5	±10
Net Weight	kg (lbs.)	70-110(154-242)	38 (84)	61 (134)	80 (176)	145 (319)	40 (88)	61 (135)
Allowable wheel torque	Nm (ft. lbs.)	176 (130)	206 (152)	288 (212)	596 (439)	939 (692)	206 (152)	288 (212)
Allowable work inertia	kg·m ²	.10	.64	1.25	1.95	4.48	.64	1.25
Allowable work weight	 kg (lbs) [w/ tailstock]	25 (55) [50 (110)]	100 (220) [175 (385)]	125 (275) [250 (550)]	125 (275) [250 (550)]	175 (385) [375 (825)]	100 (220) [200 (441)]	125 (275) [250 (551)]
	 kg (lbs)	50 (110)	200 (440)	250 (550)	250 (550)	350 (770)	-	-
Allowable load when table clamped	 N (lbf)	5,880 (1,317)	10,800 (2,419)	14,400 (3,226)	14,400 (3,226)	24,800 (5,555)	10,800 (2,419)	14,400 (3,226)
	 Nm (ft. lbs.)	80 (59)	500 (369)	800 (590)	1,000 (737)	1,500 (1,106)	500 (369)	800 (590)
	 Nm (ft. lbs.)	156 (115)	780 (575)	1,900 (1,400)	1,900 (1,400)	4,700 (3,464)	780 (575)	1,900 (1,400)

* Other motors & RPM available

** Booster optional

Dimensions = mm

Specifications subject to change without notice

ROTARY TABLE SPECIFICATIONS

RBS & RWB-Series

Table Model			RBS-160	RBS-250	RBS-320	RWB-250	RWB-320
Versions available			R	R	R	R, L	R, L
Spindle outer diameter	mm		100h7	140h7	180h7	--	
Table diameter	mm		(160, 200)	250	320	250	320
Center height	mm		160	210	255	160	210
Center bore	Nose Diameter	mm	55H7	80H7	115H7	105	150
	Thru Diameter	mm	40	50	85	80	120
Table T-slot width			12H8	12H8	14H8	12H7	14H7
Guide block width			14h7	18h7	18h7	18h7	
Servo motor (Fanuc)*			Alpha 4i	Alpha 8i	Alpha 12i	Alpha 8i	Alpha 12i
Maximum motor speed	rpm		5,000	4,000	4,000	4,000	4,000
Speed reduction ratio			1/36	1/36	1/36	1/90	1/120
Maximum table speed	rpm		138.9	111.1	111.1	44.4	33.3
Inertia converted into motor shaft	$\times 10^{-3}\text{kg}\cdot\text{m}^2$		0.19	0.42	2.24	1.27	3.53
Clamp system**			Pneumatic			Hydraulic	
Clamp torque @500psi	Nm (ft. lbs.)		-	-	-	1,300 (958)	3,100 (2,284)
Indexing accuracy	arc sec.		± 7.5	± 7.5	± 7.5	± 7	
Net Weight	kg (lbs.)		55 (121.2)	100 (220)	200 (440)	125 (286)	250 (550)
Allowable wheel torque	Nm (ft. lbs.)		--			1,011 (745)	2,127 (1,567)
Holding torque @72psi	Nm (ft. lbs.)		700 (516)	1480 (1076)	2580 (1901)	--	
Allowable work inertia	$\text{kg}\cdot\text{m}^2$		0.48	1.95	4.48	7	19
Allowable work weight [with tailstock]	 kg (lbs)		100 (200) [200 (440)]	125 (275) [250 (550)]	175 (385) [350 (770)]	175 (385) [350 (770)]	250 (550) [500 (1,100)]
	 w/ SSB		-	-	-	900 (1,980)	1,500 (3,300)
Allowable load when table clamped	 N (lbf)		10,800 (2,419)	14,400 (3,226)	24,800 (5,555)	35,000 (7,700)	89,000 (19,580)
	 Nm (ft. lbs.)		500 (369)	1,000 (737)	1,500 (1,106)	1,300 (958)	3,100 (2,284)
	 Nm (ft. lbs.)		780 (575)	1,900 (1,400)	4,700 (3,464)	1,500 (1,105)	5,300 (3,906)

* Other motors & RPM available

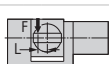
** Booster optional

Dimensions = mm

Specifications subject to change without notice

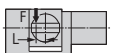
ROTARY TABLE SPECIFICATIONS

TBS Series & RTT-111,CA

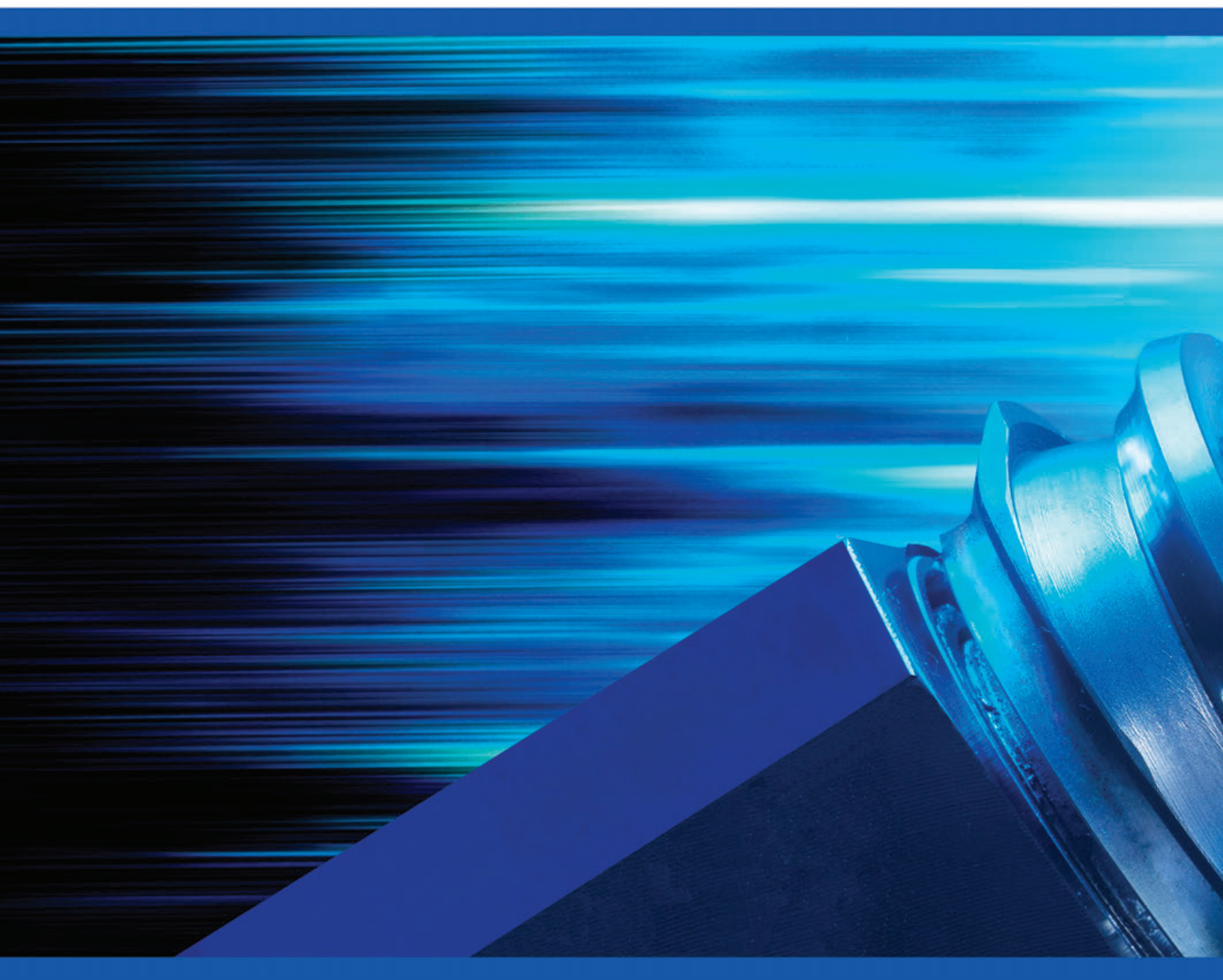
Table Model			TBS-130		TBS-160		TBS-250		RTT-111, CA			
Tilt Range			-30° ~ +110°		-30° ~ +110°		-30° ~+110°		-17° ~ +107°			
Spindle outer diameter			90h7		100h7		140h7		-			
Table diameter (optional)			(135)		(160 or 200)		(250)		-			
Table height at 0° position			225 (250 w/faceplate)		270 (300 w/faceplate)		290 (320 w/ faceplate)		190			
Center height at 90° position			160		200		235		190			
Center bore	Nose Diameter (w/face plate)		55H7 (40H7)		55H7 (50H7)		80H7 (75H7)		-			
	Thru Diameter		40		40		50		-			
Table T-slot width			12H8		12H8		-		-			
Guide block width			14 h7		18h7		-		14H7			
Servo motor (Fanuc)*			Rotary	Tilt	Rotary	Tilt	Rotary	Tilt	Tilt	Tilt		
			Alpha 2i	Alpha 2i	Alpha 2i	Alpha 4i	Alpha 8i	Alpha 8i	Alpha 2i	Alpha 2i		
Maximum motor speed	rpm		5,000	5,000	5,000	5,000	4,000	4,000	5,000	5,000		
Speed reduction ratio			1/48	1/60	1/60	1/60	1/45	1/60	1/60	1/120		
Maximum table speed	rpm		104.2	83.3	83.3	83.3	88.9	66.7	83.3	41.7		
Inertia converted into motor shaft	x 10 ⁻³ kg.m ²		.074	.072	.17	.18	.465	.465	.074	.072		
Clamp system			Pneumatic						Pneumatic Dual Taper			
Clamp torque @72psi			Nm (ft. lbs.)		700 (516)	700 (516)	700 (516)	700 (516)	1,000 (737)	1,000 (737)	500 (369)	500 (369)
Indexing accuracy			arc sec.		±10	-	±10	-	±10	-	±15	-
Tilting accuracy			arc sec.		-	±17.5	-	±17.5	-	±20	-	±30
Net Weight			kg (lbs.)		125 (276)		160 (353)		280 (617)		98(216)	
Allowable wheel torque - rotary			Nm (ft. lbs.)		-		-		-		152(112)	
Allowable work inertia			kg.m ²		.08		.19		1.05		.08	
Allowable work weight	0° tilt angle		kg (lbs)		35 (77)		60 (132)		135 (298)		35 (77)	
	0° ~ 90° tilt angle		kg (lbs)		20 (44)		40 (88)		85 (187)		20 (44)	
Allowable work moment			Nm (ft. lbs.)		61.1		59.6		186.7 (137)		57 (42)	
Allowable load when table clamped			N (lbf)		3,920 (878)		10,800		14,400 (64,054)		3,920 (878)	
			Nm (ft. lbs.)		700 (516)		700 (516)		1,000 (737)		500 (369)	
			Nm (ft. lbs.)		700 (516)		700 (516)		1,000 (737)		500 (369)	

ROTARY TABLE SPECIFICATIONS

TWA Series

Table Model			TWA-130		TWA-160		TWA-200		TN-320		
Tilt Range			-17° ~ +107°		-30° ~ +110°		-30° ~ +110°		-30° ~ +110°		
Spindle outer diameter			90h7		100h7		120h7		-		
Table diameter (optional)			(135)		160 (200)		200 (250)		320		
Table height at 0° position			210 (235 w/face plate)		235 (260 w/face plate)		270 (300 w/face plate)		355		
Center height at 90° position			150		180		210		255		
Center bore	Nose Diameter (w/face plate)		55H7 (40H7)		55H7 (50H7)		65H7 (60H7)		105H7		
	Thru Diameter		35		40		45		102		
Table T-slot width			12H8 (w/face plate)		12H8 (w/face plate)		12H8 (w/face plate)		14H7		
Guide block width			14h7		18h7		18h7		18h7		
Servo motor (Fanuc)*			Rotary	Tilt	Rotary	Tilt	Rotary	Tilt	Rotary	Tilt	
			Alpha 2i	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 4i	Alpha 4i	Alpha 8i	Alpha 8i	
Maximum motor speed	rpm		5,000	5,000	5,000	5,000	5,000	5,000	4,000	4,000	
Speed reduction ratio			1/60	1/120	1/72	1/120	1/45	1/90	1/120	1/240	
Maximum table speed	rpm		83.3	41.7	69.4	41.7	111.1	111.1	33.3	16.7	
Inertia converted into motor shaft		x 10 ⁻³ kg·m ²	.074	.072	.17	.18	.38	.45	.82	.45	
Clamp system			Pneumatic Dual Taper							Hydraulic @500 psi**	
Clamp torque @72psi			Nm (ft. lbs.)		500 (369)	500 (369)	500 (369)	800 (590)	800 (590)	1,000 (737)	[2,200] [(1,621)] [2,200] [(1,621)]
Indexing accuracy			arc sec.		±20	-	±15	-	±15	-	±10 -
Tilting accuracy			arc sec.		-	±22.5	-	±22.5	-	±22.5	- ±22.5
Net Weight			kg (lbs.)		76 (167)		127 (279)		190 (418)		440 (968)
Allowable wheel torque - rotary			Nm (ft. lbs.)		152 (112)		200 (147)		450 (332)		931 (686)
Allowable work inertia			kg·m ²		.08		.19		.59		1.53
Allowable work weight	0° tilt angle		kg (lbs)		35 (77)		60 (132)		120 (264)		150 (330)
	0° ~ 90° tilt angle		kg (lbs)		20 (44)		40 (88)		70 (154)		100 (220)
Allowable work moment			Nm (ft. lbs.)		24 (17.7)		39.2 (28.9)		53.7 (39.6)		163.3 (120.4)
Allowable load when table clamped			N (lbf)		3,920 (878)		7,840 (1,756)		13,720 (3,073)		19,600 (4,390)
			Nm (ft. lbs.)		500 (369)		500 (369)		800 (590)		2,200 (1,621)
			Nm (ft. lbs.)		500 (369)		800 (590)		1,000 (737)		2,200 (1,621)

* Other motors & RPM available • Dimensions = mm • Specifications subject to change without notice



Tsudakoma-Methods 19.0 6/11/19



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