



TSUDAKOMA

ROTARY TABLE SELECTION GUIDE



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KOMA PRECISION, Inc. corporate facility located in East Windsor, CT.

With over 30,000 rotary table installations, KOMA Precision is the largest distributor of Tsudakoma NC rotary tables and indexers in the world.

Hardinge, Inc. is an international leader in providing a wide range of highly reliable and advanced turning, milling, grinding and workholding solutions. They never compromise on product design, so customers can count on Hardinge to help them make the right part to the required specification, every time.

KOMA Precision, Inc. is pleased to be a part of the Hardinge 'best in class' product solutions for customers whose performance and price requirements are as diverse as they are.

By accessorizing your Hardinge Machining Center with a Tsudakoma Rotary Table through your exclusive distributor, you can be assured that you are getting quality products that will provide exceptional results, plus the support and service to back it.

A complete manufacturing solution offered at a competitive price.





RNE-160R



RNA-161R



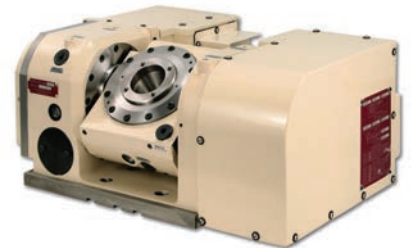
RBA-250R



RN-100R-2



RTT-111, CA



TN-101 • TN-131 • TN-161



GX 480

GENERAL MACHINE SPECIFICATIONS

Travel X-Axis	in.	18.9
Travel Y-Axis	in.	15.8
Travel Z-Axis	in.	16.9
Table Size	in.	23.6 x 15.8
Max. Load Capacity	lbs.	661
Spindle Speed	RPM	10,000
Tool Shank	Standard	CAT 40
	Option	CAT 40 to BT 40 conv. kit (20 position swing arm)
ATC Capacity		30



RNE-160R • RNE-200R • RNE-250R



RNA-161R • RNA-201R • RNA-251R



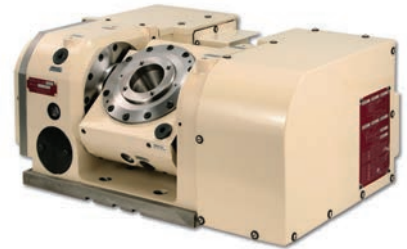
RBA-250R



RN-100R-2,3,4



RTT-111, CA



TN-101 • TN-131 • TN-161



GX 600

GENERAL MACHINE SPECIFICATIONS

Travel X-Axis	in.	23.6
Travel Y-Axis	in.	21.25
Travel Z-Axis	in.	21.25
Table Size	in.	29.5 x 21.25
Max. Load Capacity	lbs.	1,760
Spindle Speed	RPM	10,000
Tool Shank	Standard	CAT 40
	Option	CAT to BT or BT to CAT conv. kit (for 24 tool swing arm ATC) CAT to BT or BT to CAT conv. kit (for 30 tool swing arm ATC)
ATC Capacity		30



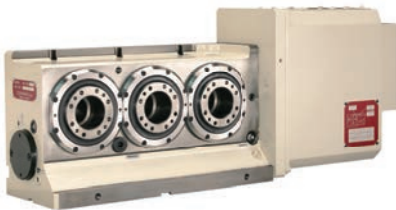
RNE-160R • RNE-200R • RNE-250R



RNA-161R • RNA-201R • RNA-251R



RBA-250R



RN-100R-2,3,4



RTT-111, CA



TN-101 • TN-131 • TN-161



GX 710

GENERAL MACHINE SPECIFICATIONS

Travel X-Axis	in.	27.95
Travel Y-Axis	in.	15.75
Travel Z-Axis	in.	16.9
Table Size	in.	31.5 x 15.8
Max. Load Capacity	lbs.	661
Spindle Speed	RPM	10,000
Tool Shank	Standard	CAT 40
	Option	CAT to BT or BT to CAT conv. kit (20 position swing arm ATC)
ATC Capacity		20



RNE-250R • RNE-320R



RNA-251R • RNA-321R



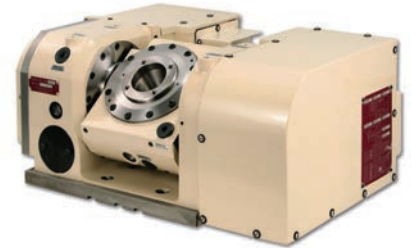
RBA-250R • RBA-320R



RN-100R-2,3,4



RTT-111, CA



TN-131 • TN-161 • TN-201



GX 1000

GENERAL MACHINE SPECIFICATIONS

Travel X-Axis	in.	40.16
Travel Y-Axis	in.	21.25
Travel Z-Axis	in.	21.25
Table Size	in.	44.9 x 21.25
Max. Load Capacity	lbs.	1,760
Spindle Speed	RPM	10,000
Tool Shank	Standard	CAT 40
	Option	CAT to BT or BT to CAT conv. kit (for 30 tool sing arm ATC)
ATC Capacity		30



RNE-250R • RNE-320R



RNA-251R • RNA-321R



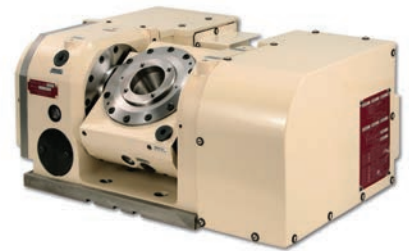
RBA-250R • RBA-320R • RBA-400R



RN-100R-2,3,4



RTT-111, CA



TN-131 • TN-161 • TN-201 • TN-320



GX 1300

GENERAL MACHINE SPECIFICATIONS

Travel X-Axis	in.	51
Travel Y-Axis	in.	27.5
Travel Z-Axis	in.	25
Table Size	in.	56 x 27.5
Max. Load Capacity	lbs.	3,300
Spindle Speed	RPM	10,000
Tool Shank	Standard	CAT 40
	Option	CAT to BT or BT to CAT conv. kit (for 30 tool swing arm ATC) CAT to BT or BT to CAT conv. kit (for 40 tool swing arm ATC)
ATC Capacity		30



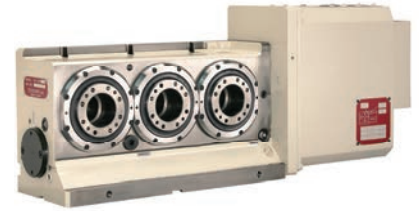
RNE-250R • RNE-320R



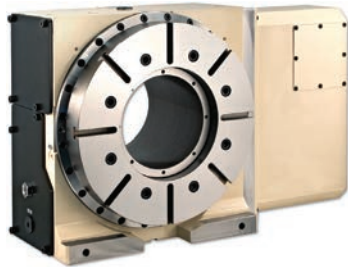
RNA-251R • RNA-321R



RBA-250R • RBA-320R • RBA-400R



RN-100R-2,3,4



RTV-304,AA



TN-161 • TN-201 • TN-320



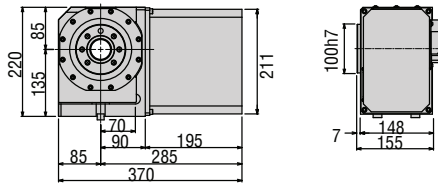
GX 1600

GENERAL MACHINE SPECIFICATIONS

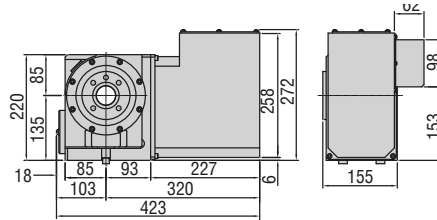
Travel X-Axis	in.	63
Travel Y-Axis	in.	27.5
Travel Z-Axis	in.	25
Table Size	in.	66.9 x 27.5
Max. Load Capacity	lbs.	3,300
Spindle Speed	RPM	10,000
Tool Shank	Standard	CAT 40
	Option	CAT to BT or BT to CAT conv. kit (for 30 tool swing arm ATC) CAT to BT or BT to CAT conv. kit (for 40 tool swing arm ATC)
ATC Capacity		30

RNE, RNA & RN-Multi Series ROTARY TABLE DIMENSIONS (Drawings Not To Scale)

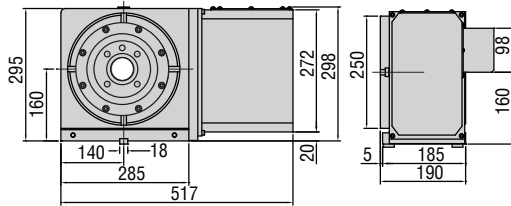
RNE-160



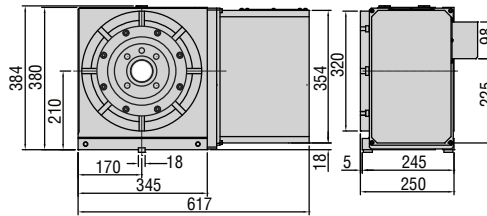
RNE-200



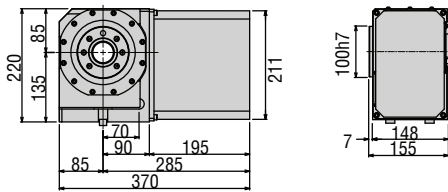
RNE-250



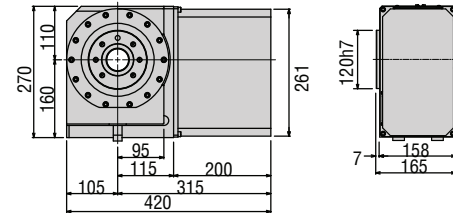
RNE-320



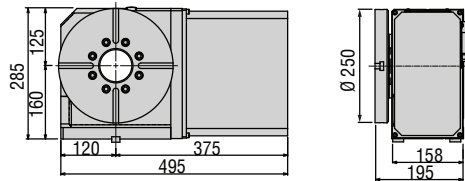
RNA-161



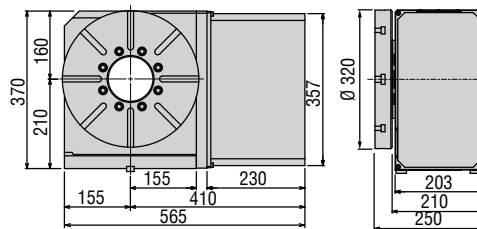
RNA-201



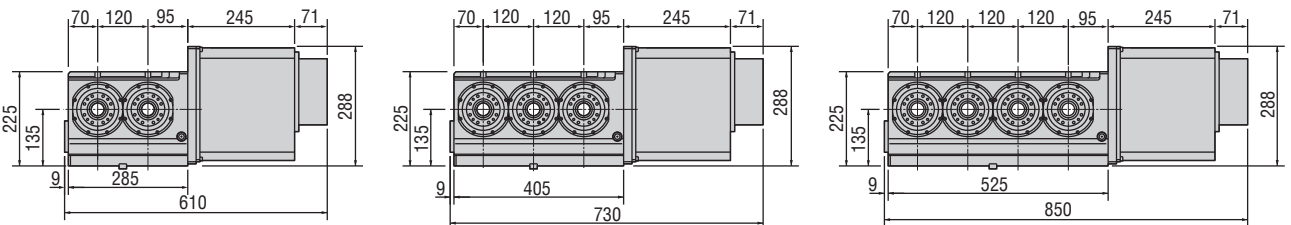
RNA-251



RNA-321

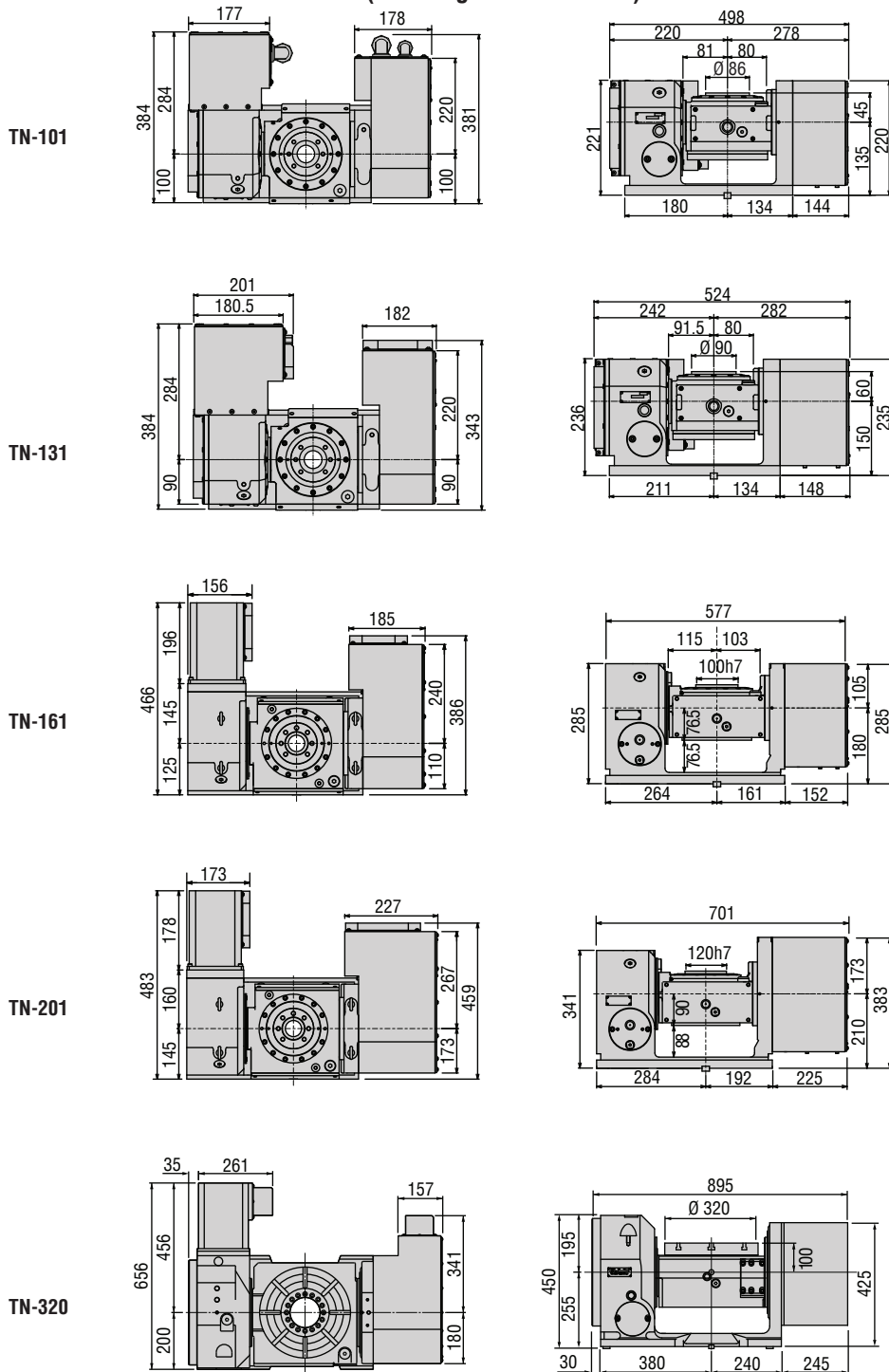


RN-100R-2,3,4








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

TN-Series ROTARY TABLE DIMENSIONS (Drawings Not To Scale)



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






RN-Multi, RNA & RNE-Series Rotary Tables

Table Model	RN-100-2,3,4	RNA-161	RNA-201	RNA-251 (S)	RNA-321 (S)	RNE-160	RNE-200	RNE-250	RNE-320	
Versions available	R, L	R, L	R, L	R, L	R, L	R, L	R, L	R, L	R, L	
Spindle outer diameter	80h7	100h7	120h7	140h7	180h7	100h7	120h7	140h7	180h7	
Table diameter (optional)	(115)	(160, 200)	(200, 250)	250	320	(160, 200)	(200, 250)	250	320	
Center height	135	135	160	160	210	135	160	160	210	
Center bore	Nose Diameter	50H7	55H7	65H7	80H7	115H7	55H7	65H7	75H7	110H7
	Thru Diameter	30	40	45	50	85	40	45	45	82
Table T-slot width (with face plate)	-	(12H8)	(12H8)	12H8	14H7	(12H8)	(12H8)	12H8	14H8	
Minimum spindle center distance	120	-	-	-	-	-	-	-	-	
Guide block width	18h7	14h7	18h7	18h7	18h7	14h7	18h7	18h7	18h7	
Servo motor (Fanuc)*	Alpha 4i	Alpha 2i	Alpha 4i	Alpha 8i (8is)	Alpha 8i (22is)	Alpha 4i	Alpha 4i	Alpha 8i	Alpha 12i	
Maximum motor speed rpm	4,000	5,000	4,000	3,000 (4,000)	3,000 (4,000)	4,000	4,000	3,000	3,000	
Speed reduction ratio	1/36	1/72	1/72	1/90 (1/45)	1/120 (1/45)	1/90	1/90	1/120	1/120	
Number of spindles	2 3 4	-	-	-	-	-	-	-	-	
Maximum table speed rpm	111.1	69.4	55.6	33.3 (88.9)	25 (88.9)	44.4	44.4	25	25	
Inertia converted into motor shaft x 10 ⁻³ kg·m ²	.64 .92 1.06	.09	.17	.41 (.44)	.52 (1.66)	.09	.17	.41	.52	
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)	600 (442)	1,000 (737)	
Indexing accuracy arc sec.	±30	±12.5	±10	±10	±10	±12.5	±10	±10	±10	
Repeatability arc sec.		±2				±2	±2	±3.5	±3.5	
Net Weight kg (lbs.)	70-110(154-242)	38 (84)	61 (134)	80 (176)	145 (319)	44 (97)	62 (136)	107 (235)	205 (451)	
Allowable wheel torque Nm (ft. lbs.)	176 (130)	206 (152)	288 (212)	596 (439)	939 (692)	206 (152)	288 (212)	565 (416)	939 (692)	
Allowable work inertia kg·m ²	.10	.64	1.25	1.95	4.48	.48	1.25	1.95	3.77	
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)]	75 (165) [150 (330)]	100 (220) [250 (550)]	100 (220) [250 (550)]	150 (330) [350 (770)]
	 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)	7,840 (1,762)	13,720 (3,085)	250 (550)	350 (770)
	 Nm (ft. lbs.)	80 (59)	500 (369)	800 (590)	1,000 (737)	1,500 (1,106)	250 (180)	400 (295)	13,720 (3,073)	19,600 (5,555)
	 Nm (ft. lbs.)	156 (115)	780 (575)	1,900 (1,400)	1,900 (1,400)	4,700 (3,464)	392 (290)	980 (723)	600 (442)	1,000 (737)

* Other motors & RPM available.
Dimensions = mm

Specifications subject to change without notice

RBA & RTV-Series Rotary Tables

Model		RBA-250 (S)	RBA-320 (S)	RBA-400	RTV-304
Versions available		R, L	R, L	R, L	AA, BA
Table diameter		250	320	400	350
Center height		160	210	255	235
Center bore	Nose Diameter	95H7	130H7	190H7	190H7
	Thru Diameter	71	101	151	160
Table T-slot width (with faceplate)		12H7	14H7		
Guide block width		18h7			
Servo motor (Fanuc)*		Alpha 8i (8is)	Alpha 12i(22is)	Alpha 12i	Alpha 12i
Maximum motor speed	rpm	3,000 (4,000)	3,000 (4,000)	3,000	3,000
Speed reduction ratio		1/90 (1/45)	1/90 (1/45)	1/90	1/90
Maximum table speed	rpm	33.3 (88.9)	33.3 (88.9)	33.3	33.3
Inertia converted into motor shaft	$\times 10^{-3}\text{kg}\cdot\text{m}^2$.94 (1.0)	3.04 (3.47)	4.28	2.70
Clamp system		Hydraulic**			
Clamp torque @500psi	Nm (ft. lbs.)	1,000 (737)	2,450 (1,806)	4,200 (3,095)	2,700 (1,990)
Indexing accuracy	arc sec.	±7			±7.5
Repeatability	arc sec.	±2			
Net Weight	kg (lbs.)	100 (220)	180 (396)	300 (660)	180 (396)
Allowable wheel torque	Nm (ft. lbs.)	581 (428)	931 (686)	1,666 (1,228)	1,370 (1,010)
Allowable work inertia	kg·m ²	2.34	5.12	9.7	10.0
Allowable work weight	 kg (lbs) [w/ tailstock]	150 (330) [300 (660)]	200 (440) [400 (880)]	250 (550) [500 (1,100)]	300 (660) [500 (1,100)]
	 kg (lbs)	300 (660)	400 (880)	500 (1,100)	500 (1,100)
Allowable load when table clamped	 N (lbf)	19,600 (4,390)	29,400 (6,586)	39,200 (8,781)	29,400 (6,586)
	 Nm (ft. lbs.)	1,000 (737)	2,450 (1,806)	4,200 (3,095)	2,700 (1,990)
	 Nm (ft. lbs.)	980 (722)	3,626 (2,672)	5,880 (4,334)	3,626 (2,672)





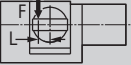

* Other motors & RPM available

** Booster optional

Dimensions = mm

Specifications subject to change without notice

TN-Series Rotary Tables

Model	TN-101		TN-131		TN-161		TN-201		TN-320		RTT-111, CA		
Tilt Range	-17° ~ +107°		-17° ~ +107°		-30° ~ +110°		-30° ~ +110°		-30° ~ +110°		-17° ~ +107°		
Spindle outer diameter	86h7		90h7		100h7		120h7		-				
Table diameter (optional)	(135)		(135)		160 (200)		200 (250)		320				
Table height at 0° position	180 (205 w/face plate)		210 (235 w/face plate)		235 (260 w/face plate)		270 (300 w/face plate)		355		190		
Center height at 90° position	135		150		180		210		255		190		
Center bore	Nose Diameter (w/face plate)	55H7 (40H7)		55H7 (40H7)		55H7 (50H7)		65H7 (60H7)		105H7		-	
	Thru Diameter	35		35		40		45		100		-	
Table T-slot width	12H7 (w/face plate)		12H8 (w/face plate)		12H8 (w/face plate)		12H8 (w/face plate)		14H7		14H7		
Guide block width	14h7		14h7		18h7		18h7		18h7		14H7		
Servo motor (Fanuc) *	Rotary	Tilt	Rotary	Tilt	Rotary	Tilt	Rotary	Tilt	Rotary	Tilt	Rotary	Tilt	
	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 4i	Alpha 4i	Alpha 8i	Alpha 8i	Alpha 2i	Alpha 2i	
Maximum motor speed	rpm	5,000	5,000	5,000	5,000	5,000	4,000	4,000	3,000	3,000	5,000	5,000	
Speed reduction ratio		1/60	1/120	1/60	1/120	1/72	1/120	1/45	1/90	1/120	1/240	1/60	1/120
Maximum table speed	rpm	83.3	41.7	83.3	41.7	69.4	41.7	88.9	44.4	25	12.5	83.3	41.7
Inertia converted into motor shaft	x 10 ⁻³ kg·m ²	.072	.078	.074	.072	.17	.18	.38	.45	.82	.45	.074	.72
Clamp system	Pneumatic	Pneumatic	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Hydraulic @500 psi	Hydraulic @500 psi	Hydraulic @500 psi	Hydraulic @500 psi	
Clamp torque @72psi	Nm (ft. lbs.)	200 (147)	300 (221)	500 (369)	500 (369)	500 (369)	800 (590)	800 (590)	1,000 (737)	[2,200] [(1,621)]	[2,200] [(1,621)]	[2,200] [(1,621)]	[2,200] [(1,621)]
Indexing accuracy	arc sec.	±20	-	±20	-	±15	-	±15	-	±10	-	±20	-
Indexing repeatability	arc sec.	±2	-	±2	-	±2	-	±2	-	±2	-	±2	-
Tilting accuracy	arc sec.	-	±22.5	-	±22.5	-	±22.5	-	±22.5	-	±22.5	-	±30
Tilting repeatability	arc sec.	-	±4	-	±4	-	±2	-	±2	-	±2	-	±4
Net Weight	kg (lbs.)	65 (143)		76 (167)		127 (279)		190 (418)		440 (968)		98 (216)	
Allowable wheel torque - rotary	Nm (ft. lbs.)	152 (112)		152 (112)		200 (147)		450 (332)		931 (686)		152 (112)	
Allowable work inertia	kg·m ²	.08		.08		.19		.59		1.53		.08	
Allowable work weight	0° tilt angle 	kg (lbs)	35 (77)	35 (77)	60 (132)	120 (264)	150 (330)	35 (77)					
	0° ~ 90° tilt angle 	kg (lbs)	20 (44)	20 (44)	40 (88)	70 (154)	100 (220)	20 (44)					
Allowable work moment	 Nm (ft. lbs.)	24 (17.7)	24 (17.7)	39.2 (28.9)	53.7 (39.6)	163.3 (120.4)	57 (42)						
Allowable load when table clamped	 N (lbf)	3,920 (878)	3,920 (878)	7,840 (1,756)	13,720 (3,073)	19,600 (4,390)	3,920 (878)						
	 Nm (ft. lbs.)	200 (147)	500 (369)	500 (369)	800 (590)	2,200 (1,621)	500 (369)						
	 Nm (ft. lbs.)	300 (221)	500 (369)	800 (590)	1,000 (737)	2,200 (1,621)	500 (369)						

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

Superior Service

KOMA's commitment to service is unrivalled. We have a state of the art comprehensive service facility. Our factory trained highly skilled service technicians are ready to respond to our customers' immediate service requirements.

Our motto: If we sell it we service it!

Our goal: To repair and return your product in factory new condition, while meeting your delivery requirements.

Offering outstanding service is one of our core beliefs that helps our customer compete in today's competitive market.





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ROTARY TABLES | ANGLE HEADS | LIVE TOOLS | SWISS TOOLS | TOOL PRESETTERS