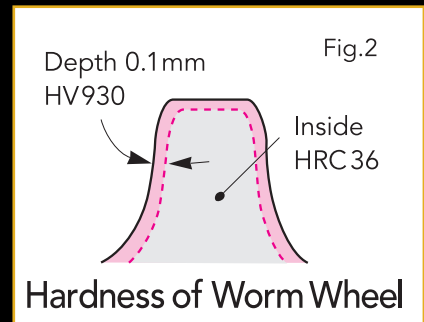


Nikken Rotary Tables  
for Mazak Nexus and VTC Machining Centers

**NIKKEN** Mazak

US Patent No. 4576058



## Nikken's Patented Hardened Worm Screw System

Nikken's Rotary Tables are known worldwide for their long-term reliability and productivity. These benefits, along with our unparalleled long-term accuracy and repeatability, are achieved mainly due to our Ion Nitrided Worm Wheel (HV930).

- Reduces friction and wear by up to 8 times (compared to common phosphorous bronze and aluminum bronze worm wheel construction)
- Reduction of wear translates into reduced maintenance, and therefore more uptime and productivity

### Ion-Nitrided Worm Wheel

- Extremely durable and wear resistant
- Maintains long-term accuracy

### Custom Bearings

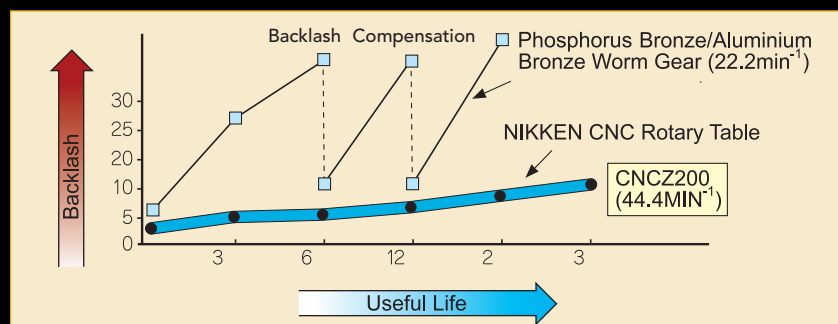
- Designed and manufactured by Nikken
- Excellent weight load capacities
- Large custom roller and thrust bearing surfaces
- Measured in micron accuracies

### Exceptional Brake Torque

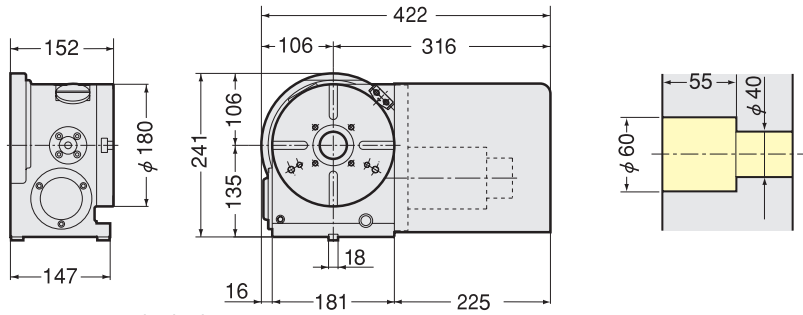
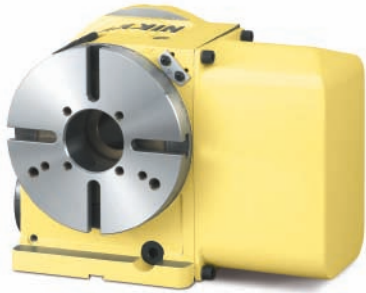
- New double-intensifying clamping mechanism utilized
- Powerful clamping is achieved

## Backlash Compensation

As wear is reduced, so is the need for backlash compensation. This chart shows typical wear characteristics, as well as the necessity for frequent backlash adjustments for other manufacturers' rotary tables.

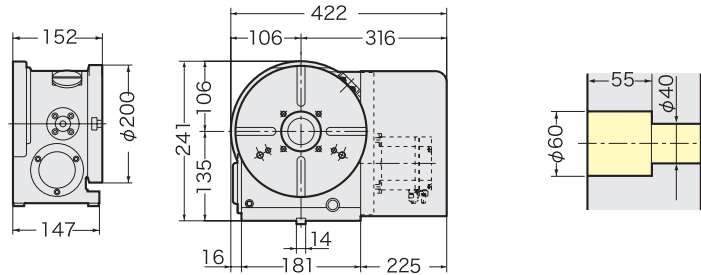
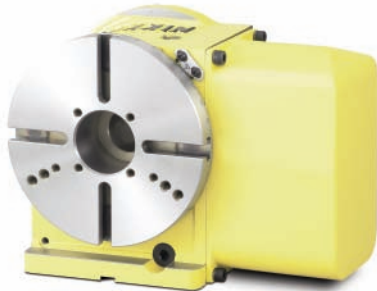


## CNC-180MA



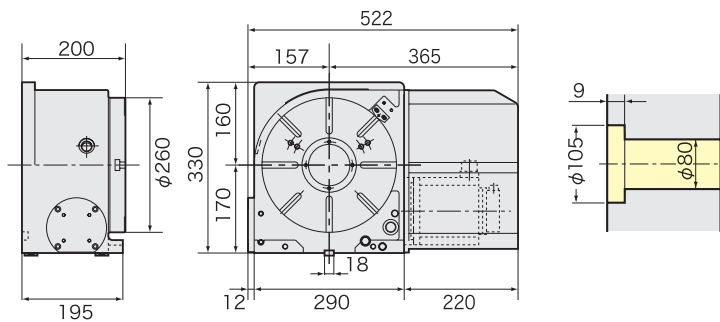
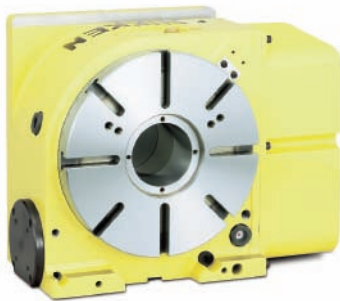
\* The stepped guide pieces W-18A ( 14-18 ) are included.

## CNC-202MA

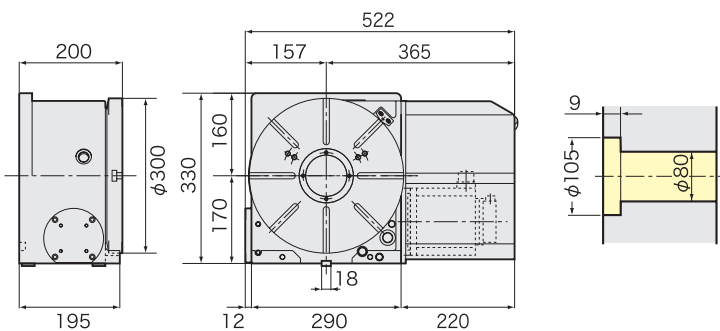
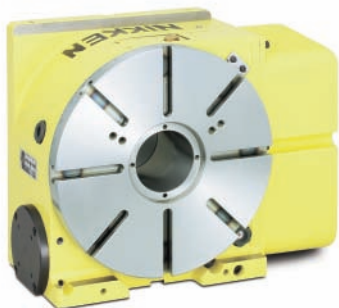


\* The stepped guide pieces W-18A ( 14-18 ) are included.

## CNC-260MA



## CNC-302MA














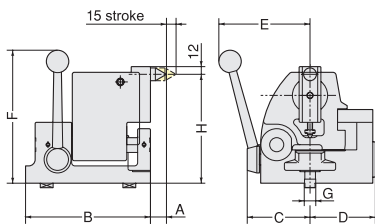
All products shown are approved for the following machines.

- Nexus 410A, 410A-HSVTC - 200C
- Nexus 410B, 410B-HS VTC - 250D
- Nexus 510C, 510C-HSVTC - 300C

- Standard and high speed tables are available.
- All tables are perfectly sealed for water resistance.
- Please contact Mazak applications for custom fixturing or non-standard rotary tables.

Item / Code No.		CNC180MA	CNC202MA	CNC260MA	CNC302MA	
Diameter of Table	inch	7.08"	7.87"	10.23"	11.81"	
Diameter of Spindle Hole	inch	2.36" X 1.57"	2.36" X 1.57"	3.14"	3.14"	
Center Height	inch	5.31"	5.31"	6.69"	6.69"	
Width of T Slot	mm	18	18	18	18	
Clamping System		Air	Air	Air	Air	
Clamping Torque	ft • lb	221	221	536	536	
Servo Motor		HC-53T	HC-53T	HC-53T	HC-53T	
MIN. Increment		0.001°	0.001°	0.001°	0.001°	
Rotation Speed		33.3	33.3	25	25	
Total Reduction Ratio		1/90	1/90	1/120	1/120	
Indexing Accuracy	sec	±20	±20	±10	±10	
Repeatability	sec	+ / - 2	+ / - 2	+ / - 2	+ / - 2	
Net Weight	lb	96	135	268	280	
MAX. Work Load on the Table	Vertical 	lb	224	224	392	392
	Horizontal 	lb	448	448	784	784
MAX. Thrust Load Applicable on the Table		N	10780	10780	25480	25480
		FXL N • m	637	637	984	984
		FXL N • m	980	980	3332	3332
MAX. Work Inertia	Vertical  $\left( \frac{GD^2}{4} \right) \text{ kg} \cdot \text{m}^2$	kg • m <sup>2</sup>	1.0	1.0	3.2	3.2
Driving Torque		N • m	144	144	192	192

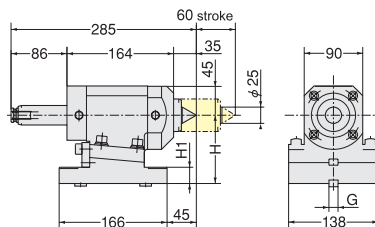
Item / Code No.	CNC180MA	CNC202MA	CNC260MA	CNC302MA
Manual Tailstock	P-125S	P-125S	P-170S	P-170S
Air/Hydraulic Tailstock	PBA-135	PBA-135	PBA-170	PBA-170
TAT Support Table	TAT-170	TAT-170	TAT-250	TAT-250
3-Jaw Scroll Chuck & Adaptor Plate	6" X-6B 6" # 7-813-0600 8" # 7-813-0800	8" # 7-813-0800 7" # X-7A	9" X-9H 10" # 7-813-1000	9" X-9C 10" # 7-813-1000 12" # 7-813-1200
Replacement Chuck Jaws	6" # 7-883-306-JAW 8" # 7-833-308-JAW	8" # 7-883-307-JAW 8" # 7-833-308-JAW	10" # 7-883-310-JAW	10" # 7-883-310-JAW 12" # 7-883-312-JAW
16C Manual Collect Closer & Adapter Plate	# 20012-16C	# 20012-16C	# 20012-16C	N/A



### Dimension of Manual Tailstock

Code no.	H	A	B	C	D	E	F	G	Weight (kg)
P-125S	125~135	27	150	76	74	120	210	14	25lbs
P-170S	160~180	25	195	98	102	145	210	18	50lbs

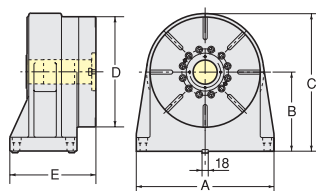
\* The stepped guide pieces W-18A ( 14-18 ) are optional accessories for P-125S.



### Dimension of AIR/HYD. Tailstock

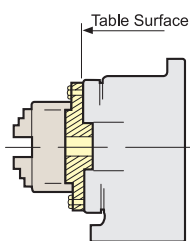
Code no.	H	H <sup>1</sup>	G	Thrust Air 0.5MPa	Thrust Hyd. 2MPa	Weight
PBA-135	135	55	18	1176	4733	44lbs
PBA-170	170	90	18	1176	4733	54lbs

\* The stepped guide pieces W-18A ( 14-18 ) are optional accessories for PBA-135.



### Dimension of TAT Support Table

Code no.	A	B	C	D	E	Clamping	Brake Torque	Weight
TAT-170	155	135	220	170	138	Air	275	40lbs
TAT-250	250	170	295	250	145	Air/hyd.	112/784	110lbs



### Details of Scroll Chuck

Code no.	Description	Replacement Jaws Available
X-6	6" 3-JAW CHUCK	No
7-813-0600	6" 3-JAW SCROLL CHUCK	Yes
X-7C	7" 3 JAW CHUCK	No
7-813-0800	8" 3-JAW SCROLL CHUCK	Yes
X-9E	9" 3-JAW CHUCK	No
7-813-1000	10" 3-JAW SCROLL CHUCK	Yes
7-813-1200	12" 3-JAW SCROLL CHUCK	Yes

# Nexus and VTC Vertical Machining Centers

Mazak manufactures the most productive machine tools in the world which meet standards of precision and reliability that are second to none in products, development, and manufacturing.

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