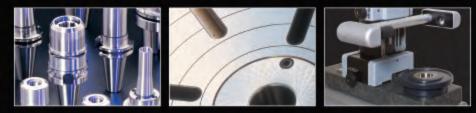
# NIKKEN & brother.



Nikken Rotary Tables, Toolholders and Accessories for Brother CNC Machining Centers

## **NIKKEN ROTARY TABLES**



## Nikken's Patented Ion Nitrided Worm Wheel

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 patented lon Nitrided Worm Wheel.

- 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





#### Carbide Worm Screw

- Extremely durable and wear resistant
- Maintains long-term accuracy
- Dual bearing support

#### **Custom Bearings**

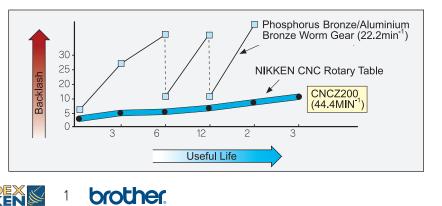
- Designed and manufactured by Nikken
- Excellent weight load capacities
- Large custom roller and thrust bearing surfaces
- Measured in micron accuracies

#### Exceptional Brake Torque

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

#### **Backlash Compensation**

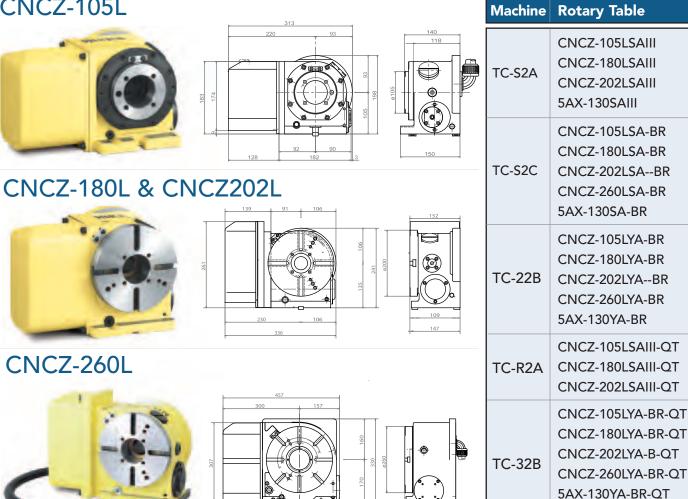
As wear is reduced, so is the need for backlash compensation. This chart shows typical wear characteristics, as well as the necessity for frequent backlash adjustments for other manufacturers' rotary tables.



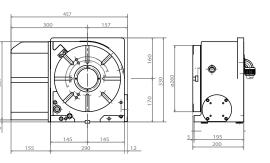


## **NIKKEN ROTARY TABLES**

## **CNCZ-105L**





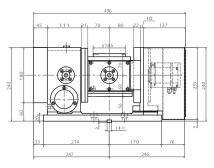


54	<b>AX-</b> 1	3	0

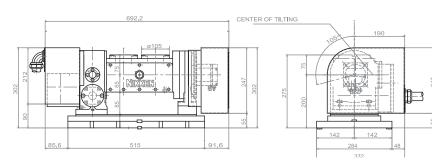


### 5AX-2MT-105





5AX-200IIBAYA-BR-QT





## NIKKEN ROTARY TABLES

Item / Code	No.	CNCZ-105	CNCZ-180	CNCZ-202	CNCZ-260
Diameter of T	able mm	105	180	202	250
Diameter of S	Spindle mm	60H7 X 30	60H7 X 40	60H7 X 40	60H7 X 52
Center Heigh	t mm/Pin Hole	10H7 pin hole	135	135	170
Width of T slo	ot mm	12	12	12	12
Clamping sys	tem/ Torque N.m	Air/ 205 N.m	Air/ 303 N.m	Air/ 303 N.m	Air/ 343 N.m
Min Incremen	it degree	.001	.001	.001	.001
Rotational Speed (3000 RPM Motor)		66.6/3000	66.6/3000	66.6/3000 66.6/3000	
Total Reduction	on Ratio	1/45	1/45	1/45 1/45	
Indexing Accu	uracy	30 sec	30 sec	30 sec	20 sec
Net Weight k	g	30	43	49	90
Max Load Ver	rtical/Horizontal kg	30/60	100/200	100/200	150/300
Driving torque	e N.m	27	54	115	153
Thrust load applicable on table	FxL N.m	65	415	637	984
	FxL N.m	220	980	980	2744

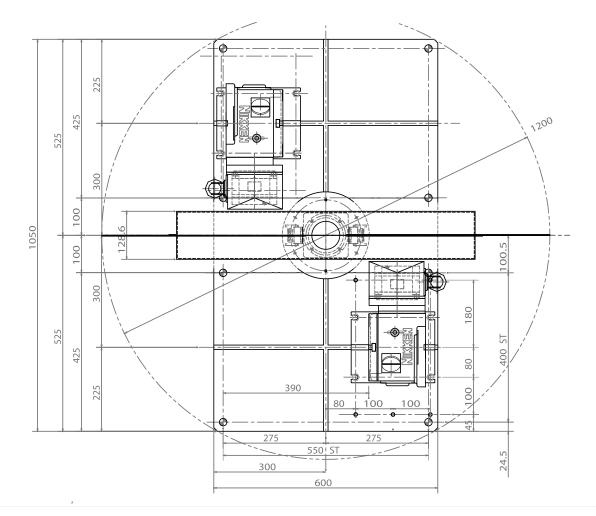
Item / Code	No.		5AX-130		5AX-2MT-105		
Diameter of T	Diameter of Table mm		105	105			
Diameter of S	pindle mm		60H7 X 30		60H7 X 30		
Center Heigh	t mm		150		175		
Pin Hole		10H7 pin hole		10H7 pin hole			
Max Load 0-9	Max Load 0-90 degree kg		25	10			
Driving torque	e N.m		72		72		
Thrust load	L	FxL N.m	65		49		
applicable on table		FxL N.m	220		980		

	Rotary	Tilt	Rotary	Tilt
Clamping system	Air	Air	Air	Air
Clamping Torque N.m	205	303	205	303
Min. Increment degree	0.001	0.001	0.001	0.001
Rotational Speed	33.3/3000	16.6/3000	33.3/3000	16.6/3000
Total Reduction Ratio	1/90	1/180	1/90	1/180

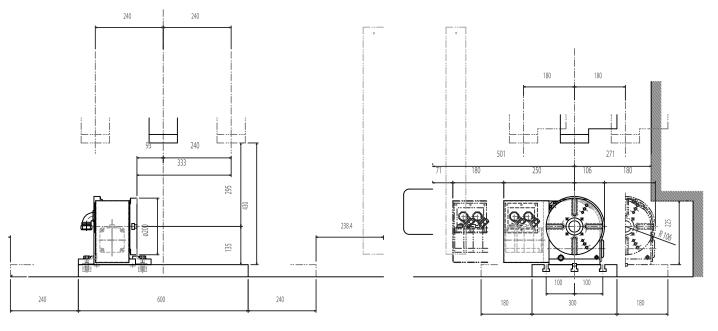




## TC-32B-QT with 2 CNCZ180LYA-BR

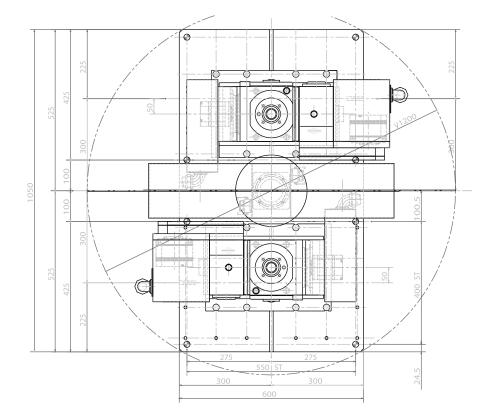


## TC-S2A with CNCZ202L



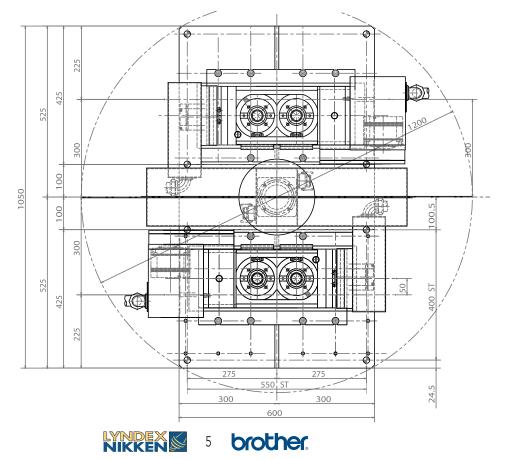
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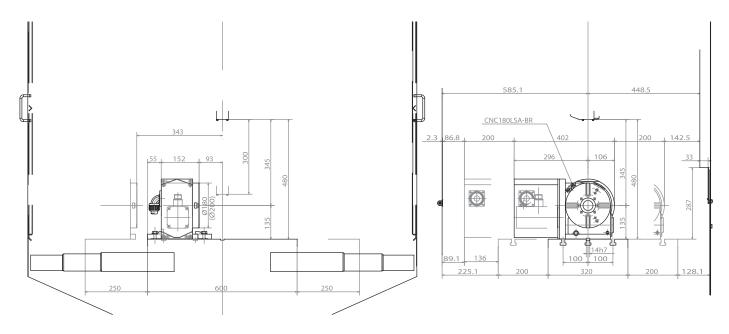


## TC-32B-QT with 2 5AX-130BAYA-BR

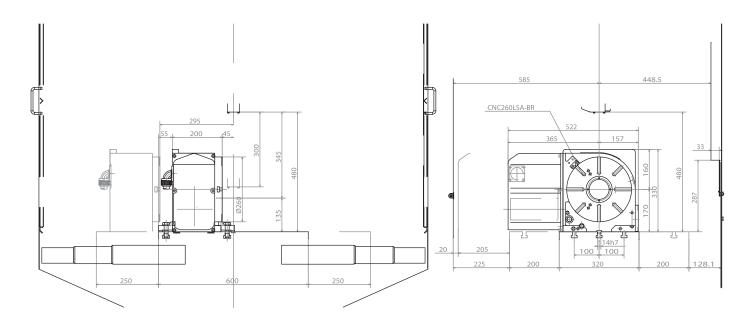
TC-32B-QT with 2 5AX-2MT-105-120BAYA-BR



## TC-S2C with CNC180LSA-BR



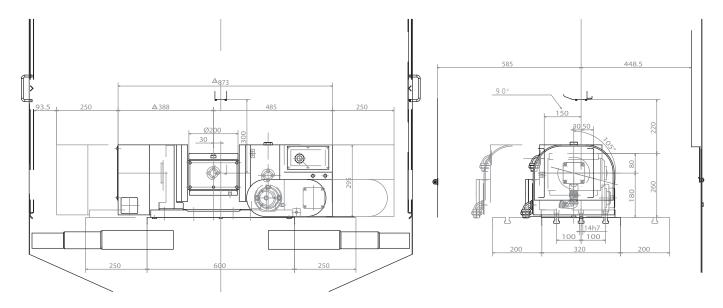
## TC-S2C with CNC260LSA-BR



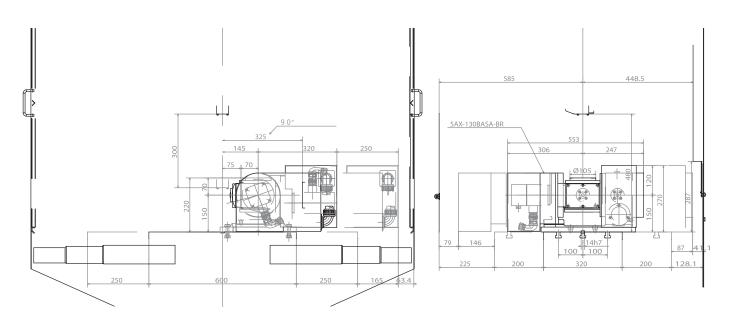


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## TC-S2C with 5AX-200BASA-BR



## TC-S2C with 5AX-130SA-BR



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## **ROTARY TABLE ACCESSORIES**

# Additional Componets supplied with sets for QT Machines

Complete package includes:

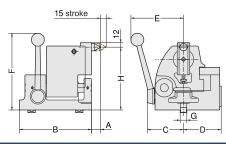
- Rotary Tables
- Amplifiers
- Internal and external cables
- Sheet Metal (where required)



Accessories	CNCZ-105	CNCZ-180 / CNCZ-202	CNCZ-260
Manual Tail Stock	P-105S	P-125S	P-170S
TAT Support Table	TAT-105	TAT-170	TAT-250

#### **Dimension of Manual Tailstock**

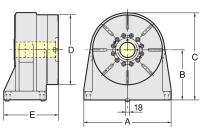




Code no.	Н	А	В	С	D	E	F	G	Weight (kg)
P-105S	102~110	27	150	76	74	120	195	14	10
P-125S	125~135	27	150	76	74	120	210	18	11.5
P-170S	160~180	25	195	98	102	145	210	18	22.5

#### **Dimension of TAT Support Table**





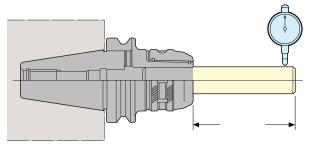
Code no.	А	В	С	D	E	Clamping	BrakeTorque (N.M)	Weight (kg)
TAT-105	155	105	175	105	113	Air	275	16
TAT-170	155	135	220	170	138	Air	275	18
TAT-250	250	170	295	250	145	Air/hyd.	112/784	50





## **Fine Run-Out Accuracy**

The finest run-out accuracy of any Milling Chuck (0.0002 at 4.0" from the nose).

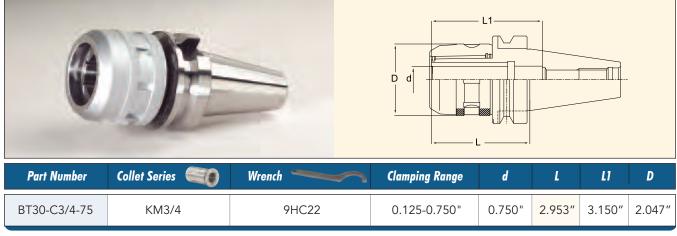


### BT TAPER ULTRA-LOCK™ MILLING CHUCKS

## Sub Zero Treatment

Nikken Toolholders are all subjected to ultra low temperature treatment of 90°C after carburizing. This treatment removes residual austenite to prevent deformation for many years.





Note: Milling Chuck collets are located on pages 17-22 of the Lyndex-Nikken Advanced Product Catalog. Spanner wrench not included.

### BT TAPER HIGH SPEED ULTRA-LOCK™ MILLING CHUCKS

F	T						
Part Number	Collet Series	Wrench	Clamping Range	d	L	LI	D
BT30-C3/4-75G	KM3/4	GH20	0.125 - 0.750"	0.750"	2.953"	3.150″	1.890″

Note: Milling Chuck collets are located on pages 17-22 of the Lyndex-Nikken Advanced Product Catalog. Spanner wrench not included.



brother.

## LYNDEX-NIKKEN TOOL HOLDERS

#### **BT30 SK COLLET CHUCKS**

0									
Part Number	Collet Series 🖅	Wrench	L	LI	Н	D	D1	Back Up Screw	
BT30-SK6-60 BT30-SK6-90 BT30-SK10-45 BT30-SK10-60 BT30-SK10-90 BT30-SK16-60 BT30-SK16-90 BT30-SK25-90	SK06 SK06 SK10 SK10 SK10 SK16 SK16 SK25	SKL-6W SKL-6W SKL-10 SKL-10 SKL-10 9HC16 9HC16 9HC22	2.362" 3.543" 1.772" 2.362" 3.543" 2.362" 3.543" 3.543"	1.299" 2.205" 0.866" 1.378" 2.559" 1.457" 2.638" 2.559"	0.827-1.378" 0.827-1.378" 1.181-1.969" 1.181-1.969" 1.181-1.969" 1.772-2.362" 1.772-2.559" 2.165-2.953"	0.768" 0.768" 1.083" 1.083" 1.083" 1.575" 1.575" 2.165"	0.768" 1.260" 1.083" 1.083" 1.083" 1.575" 1.575" 2.165"	SKG-8 SKG-12S SKG-12L SKG-12L SKG-12L SKG-12 SKG-12 SKG-12	

Note: SK collets are located on page 31-33 of the Lyndex-Nikken Advanced Product Catalog. Spanner Wrench not included.

#### BT30 HIGH SPEED SK COLLET CHUCKS

F	T							
Part Number	Collet Series	Wrench 🕬	L	L1	Н	D	D1	Back Up Screw
BT30-GSK6-60P BT30-GSK6-90P BT30-GSK10-45P BT30-GSK10-60P BT30-GSK10-90P BT30-GSK16-60P BT30-GSK16-90P BT30-GSK25-90P	SK06 SK06 SK10 SK10 SK10 SK16 SK16 SK25	GH-6 GH-6 GH10 GH10 GH10 GH16 GH16 GH25	2.362" 3.543" 1.772" 2.362" 3.543" 2.362" 3.543" 3.543"	2.480" 0.906" 2.677" 1.496" 1.496" 2.677"	1.772" - 2.559"	0.768" 0.768" 1.083" 1.083" 1.083" 1.575" 2.165"	0.768" 0.768" 1.083" 1.083" 1.083" 1.575" 1.575" 2.165"	SKG-8 SKG-8 SKG-12S SKG-12L SKG-12L SKG-12L SKG-12 SKG-28

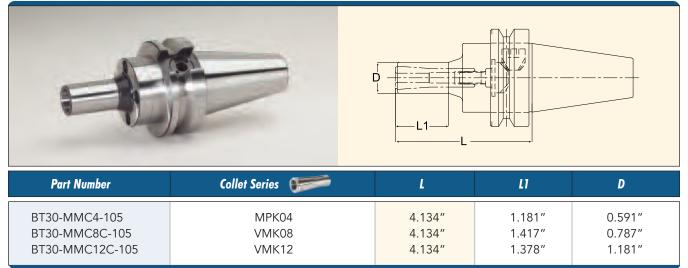
Note: SK collets are located on pages 31-33 of the Lyndex-Nikken Advanced Product Catalog. Spanner wrench not included.



## **MMC - Accuracy in Small-Diameter Cutting**

The MMC Collet Chucks features a slim and compact body for precision machining with small diameter tools (up to  $1/2^{"}$ ). The MMC has an easy-to-use draw-in collet clamping system, and is an ideal toolholder for your high speed machining needs.

#### **BT30 MMC COLLET CHUCKS**



Note: For MPK and VMK Collets see page 42 of the Lyndex-Nikken Advanced Product Catalog.

## Nikken's High Performance VC Holder

The VC Holder produces exceptional gripping torque, run-out accuracy and cutting rigidity. This high performance tool excels in holding end mills during high speed rotations, especially suitable for finishing on die mold machining. It is capable of speeds up to 40,000 rpm and has coolant thru capabilities.

### BT30 VC COLLET CHUCK

Part Number	Collet Series 🚛	Wrench	L	LI	H	D	DI	Back Up Screw
BT30-VC6-45 BT30-VC6-60 BT30-VC6-90 BT30-VC13-60 BT30-VC13-90 BT30-VC13-120	VCK6 VCK6 VCK6 VCK13 VCK13 VCK13	GH10 GH10 GH10 GH16 GH16 GH16	1.772" 2.362" 3.543" 2.362" 3.543" 4.724"	0.906" 1.378" 2.559" 1.457" 2.638" 3.819"	1.38"-1.77" 1.38"-1.77" 1.38"-1.77" 1.97"-2.36" 1.97"-2.36" 1.97"-2.36"	1.083" 1.083" 1.083" 1.575" 1.575" 1.575"	1.083" 1.248" 1.315" 1.618" 1.626" 1.669"	VCG6-8A VCG6-8A VCG6-8A VCG13-15A VCG13-15A VCG13-15A

Note: For VCK Collets see page 50 of the Lyndex-Nikken Advanced Product Catalog.



## LYNDEX-NIKKEN TOOL HOLDERS

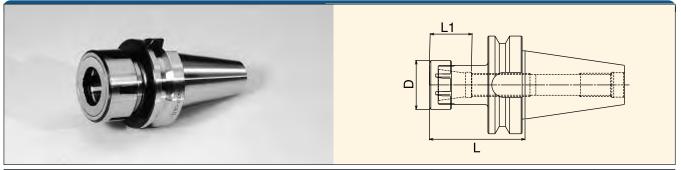
#### **BT TAPER SHELL MILL HOLDERS**

	Part Number Taper d L						
Part Number	Taper	d	L	D	LI	Key Size	Arbor Thread
B3001-0500 B3001-0750 B3001-1000	BT30 BT30 BT30	1/2" 3/4" 1"	1.19" 1.19" 1.19"	1.38" 2.00" 2.38"	0.57" 0.67" 0.67"	1/4" 5/16" 3/8"	1/4"-28 3/8"-24 1/2"-20

#### HSBALANCE<sup>™</sup> Shell Mill Holders

For high speed applications, refer to page 97 of the Lyndex-Nikken Advanced Products Catalog.

#### BT TAPER ER COLLET CHUCKS



Part Number	Collet Series	Wrench	Collet Range	L	L1	D
B3007-0008	ER8	08-HSSPAN	.019196″	2.00″	0.51″	0.47″
B3017-0008	ER8	08-HSSPAN	.019196″	4.00″	0.51″	0.47″
B3007-0011	ER11	011-HEX	.019275″	2.00″	0.65″	0.75″
B3017-0011	ER11	011-HEX	.019275″	4.00″	0.65″	0.75″
B3007-0016	ER16	016-SPAN	.019406″	2.36″	0.87″	1.26″
B3017-0016	ER16	016-SPAN	.019406″	4.00″	0.87″	1.26″
B3027-0016	ER16	016-SPAN	.019406″	5.00″	0.87″	1.26″
B3037-0016	ER16	016-SPAN	.019406″	6.00″	0.87″	1.26″
B3007-0020	ER20	020-SPAN	.039511″	2.50″	1.06″	1.38″
B3017-0020	ER20	020-SPAN	.039511″	4.00″	1.06″	1.38″
B3007-0025	ER25	025-SPAN	.039629″	2.00″	1.18″	1.65″
B3017-0025	ER25	025-SPAN	.039629″	4.00″	1.18″	1.65″
B3007-0032	ER32	032-SPAN	.078787″	3.00″	1.34″	1.97″
B3017-0032	ER32	032-SPAN	.078787"	5.00″	1.34″	1.97″

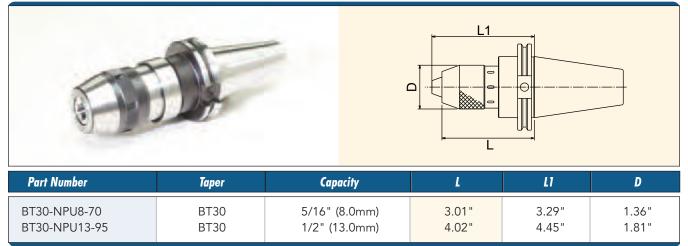
#### HSBALANCE<sup>™</sup> ER Collet Chucks

For high speed applications, refer to page 102 of the Lyndex-Nikken Advanced Products Catalog. Note: ER Collets are located on page 64-75 of the Lyndex-Nikken Standard Product Catalog.

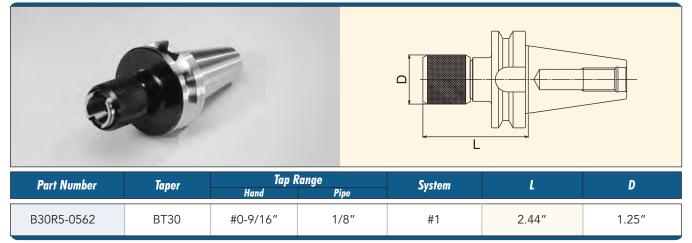


## LYNDEX-NIKKEN TOOL HOLDERS

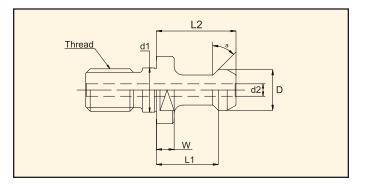
#### BT TAPER INTEGRAL KEYLESS DRILL CHUCKS



#### **BT TAPER RIGID TAP HOLDERS**



Note: For Tap Collets see page 128-140 of the Lyndex-Nikken Standard Product Catalog.



#### **BT TAPER RETENTION STUDS**

Part Number	D	d1	d2	LI	L2	Angle °	W	Thread	O-RING
B30-6000	0.430	0.492		0.709	0.91	60	0.19	M12P1.75	
PS-130E	0.430	0.492	0.098	0.709	0.91	60	0.19	M12P1.75	



## TOOLJAW<sup>®</sup> The Toolholder Clamp Champ • Lyndex-Nikken Item No. B30-TOOLJAW



**Lyndex-Nikken ToolJaws** are machinists' favorite tooling setup fixtures because they are so handy and practical. Load a toolholder into a ToolJaw. You'll gain immediate access to both the working end, *and* the taper end and your toolholder will be secured by a vise-tight grip.

Easy to use, just place or mount your ToolJaw in a convenient spot and slip a holder into its cradle. Raise the flange lock and secure it with an easy-to-grip thumb screw.

#### Features

- Access both ends of your toolholders simultaneously.
- Minimize toolholder handling.
- Speed up your setup.
- Proven performance in the world's top shops.
- Convenient and practical.
- Easy to use.

## FlashPoint<sup>™</sup> • Lyndex-Nikken Item No. FP – 1

Axis setter for steel workpieces.

**FlashPoint and FlashPoint II** are fast, easy to use, and boast unparalleled accuracy and repeatability. They are ideal setup tools for CNC machining centers and lathes because exact setup points become easily visible from the machine's control panel.



#### • Advanced conductive detection system Instant LED response

Works with ferrous metals only Unaffected by cutting oil

• **Precise** Height:

Height:2" +/- 0.0001"Parallelism:within 0.0002"Repeatability:within 0.0002"

- **Magnetic** Direct X-, Y-, and Z-axis setting for all ferrous metals
- **Overrun protection** 3/16"
- Compact design
- Hardened and precision ground steel construction: built to last

## FlashPoint II<sup>™</sup> • Lyndex-Nikken Item No. FP – 2

Axis setter for steel workpieces & Z-axis setter for non-ferrous workpieces.



• Advanced micro-switch detection system LED responds at 2" from workpiece plane Works with all workpiece material Unaffected by cutting oil

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2" +/- 0.0001"

within 0.0001"

within 0.0001"

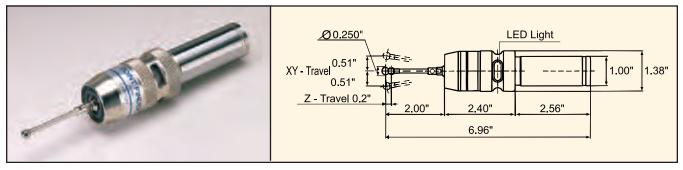
• Precise

Height: Parallelism: Repeatability:

- **Magnetic base** Direct X-, Y-, and Z-axis setting for all ferrous and non ferrous materials
- Overrun protection 1/16"
- Compact design
- Hardened and precision ground steel construction with scratch-proof ceramic face

## **PointFinder**<sup>™</sup> • Lyndex-Nikken Item No. PF-2

Locate the precise relative positioning of the workpiece to the spindle – measuring directly from the spindle itself.



#### **Features**

- Position your workpiece without primary axis setters.
- Fast, easy and accurate.

- Measure without calipers.
- Set depths, find centers without gauges.

## **XYZSETTER**<sup>™</sup>

Easy, accurate setting of any axis.

**XYZSetters** minimize your setup time to maximize your production time. These unique instruments allow you to precisely establish all primary references quickly and dependably. Two models are available for either front or side reading. Both models are precision made of ground, hardened tool steel. Both have dial indicators graduated in thousandths (0.001").

Part Number	Description
XYZ–A	Front Reading XYZSetter™
XYZ–B	Side Reading XYZSetter™



• Turn expensive setup time into profit-making production time.

# ZeroSetter™

#### Quick, simple, precise Z-axis off-setting.

**ZeroSetter** assures fast reliable results every time you off-set your Zaxis. Your setup time will be reduced, so you'll gain valuable production time. Made of hardened tool steel, each setter is meticulously ground for top precision. ZeroSetter establishes an absolute gauge length of 4"or 6" that serves as your primary reference point. Its dial indicator is graduated in thousandths (0.001").

Part Number	Description			
ZERO-SET4	4" Gauge Length ZeroSetter			
HP-4	4" Gauge Length Height Presetter			
HP-6	6" Gauge Length Height Presetter			





## E123 Tool Presetter • Fast, Accurate and Affordable

Our E123 line makes tool presetting as easy as one, two, three. The E123 is the affordable answer to fast and accurate tooling setup, measurement and inspection. No other tool presetter at this price level offers the high technology, precision and ease of use of the E123.

Part Number	Description		
E123-50	50 Taper E123 Presetter		
<b>B30 MASTER</b>	Resetting gauge BT30 Taper		
50/30-REDUCE	Reducing sleave for 30 Taper		
PRINTER	Portable Thermal Printer with labels		

#### **Mechanical Features**

- Measuring Range: X-Axis 130 mm (ø260 mm) Z-Axis – 360 mm
- Zero Setting with Certified Resetting Gauge
- Resolution: X-Axis 1m Z-Axis 5m

#### **Spindle**

- Fixed rotating spindle
- Incorporates six mini-bearings with radial concentricity error compensation
- Available in two standard versions: ISO/BT/CAT40 and ISO/BT/CAT50

#### **Axis Movement**

- Movement of both X and Z axis is manual rapid
- Simple hand wheels are incorporated for final framing of the profile in the screen
- Mechanism is completely maintenance-free

#### **Base Column**

 Ground granite bases and columns ensure accuracy of movement in all temperatures

#### Camera

- Touch-screen vision system
- Exclusive camera system features full-color LCD screen
- A C-MOS image sensor with STN screen allows accurate measuring of any kind of tool profile
- Measurement is fully automatic and includes both radius and angle values
- Focusing bars ensure 100% repeatability







# brother

Brother Machines set the world standard for high reliability, high accuracy and usability. They feature high performance capabilities that enable innovative parts machining.

1300 Remington Road, Suite D Schaumburg, Illinois 60173 847-718-9500

Lyndex-Nikken has emerged as the premier manufacturer of rotary tables and tool holders in the world.

1468 Armour Blvd. Mundelein, IL 60060 800-543-6237 www.lyndexnikken.com