Catalog No. 40231 D

A Nidec Group Company
SHIMPO
All for dreams

Digest Version

Torque Measuring Instruments Series

DIGITAL TORQUE METER
CAPPING SYSTEM

DIGEST

NIDEC DRIVE TECHNOLOGY CORPORATION
Nidec Shimpo Corporation change its company name to Nidec Drive Technology Corporation on April 1, 2023.

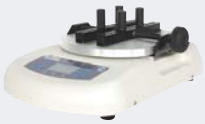
Torque Measuring Instruments

Manual

High-Performance Digital Torque Meters
TNX Series

P3

Digital Torque Meters
TNP Series



P4

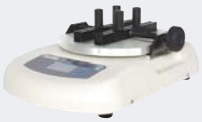
Simple Operation Digital Torque Meters
TNP-CE Series

P5

Digital Torque Meters with Printer Output
TNP-P Series

P5

Digital Torque Meters
TNJ Series



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Digital Torque Checkers
TRC Series

P7

Motorized

Motorized Torque Unit
DSP-5E

P8

TNX Series + DSP-10
Motorized Torque Test Machines

P9

Opening Torque Automatic Measuring Instruments
MTP-NT Series

P10

Measures opening and closure forces of various containers

●Opening/closure force of P.P. caps (TNX)

●Opening/closure force of screw caps

●Torque measurement of key switches

●Valve opening/closure torque measurement

●Torque wrench test

●Torque measurement of door levers

Capping Machines

Simple Model
Desktop Manual Cappers

CRXL Series

P11

Semi-Auto
Desktop Cappers

CRXB Series

P12

Electronic Control Type
Servo Driver

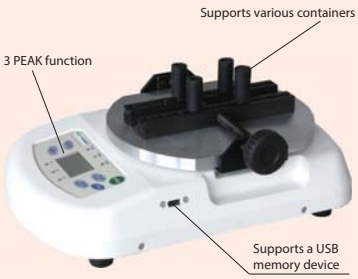
BRX Series

P13

Product Specification Icons

Torque	Torque measuring instruments (manual)
3 PEAK	Can extract the torque maximum values in 3 places
Clock	Enables recording of date and time when registering opening/fitting peak torques
P.P.	Supports P.P. caps
USB	Equipped with the USB communication function
Memory 3000	Can store up to 3000 sets of measurement data in memory
Torque test machine	Torque test machine (motorized)
Capping machine	Capping machine (motorized)
Memory 1000	Can store up to 1000 sets of measurement data in memory
	Can import data using the specialized free software
	Can import data using the standard software (optional)

Digital Torque Meters



High-Performance Digital Torque Meters

TNX Series

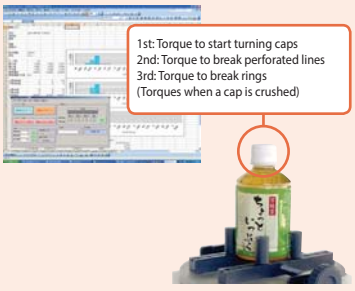
Torque | USB | 3 PEAK | Clock | P.P.

Memory 1000 | デジとるくん _TNX | Free downloads from website

Model	Rated torque	
TNX-0.5	500mN·m	0.5N·m
TNX-2	2N·m	
TNX-5	5N·m	
TNX-10	10N·m	

Measures opening/closure torques of caps, lids, and screws of various containers, such as cosmetics, medical products, and beverages, as well as the tightening force of valves, all with a high degree of accuracy

- Adopts versatile USB as its interface
  Makes data import easy through communication with PCs
- Can edit measurement data easily using the specialized software "Digitorq_TNX"
  (Data can be imported through a USB memory device or USB communications)
- Can store each 1000 sets of opening 1st, 2nd, 3rd peak values, and fitting peak value in memory, and transfer to a USB memory device



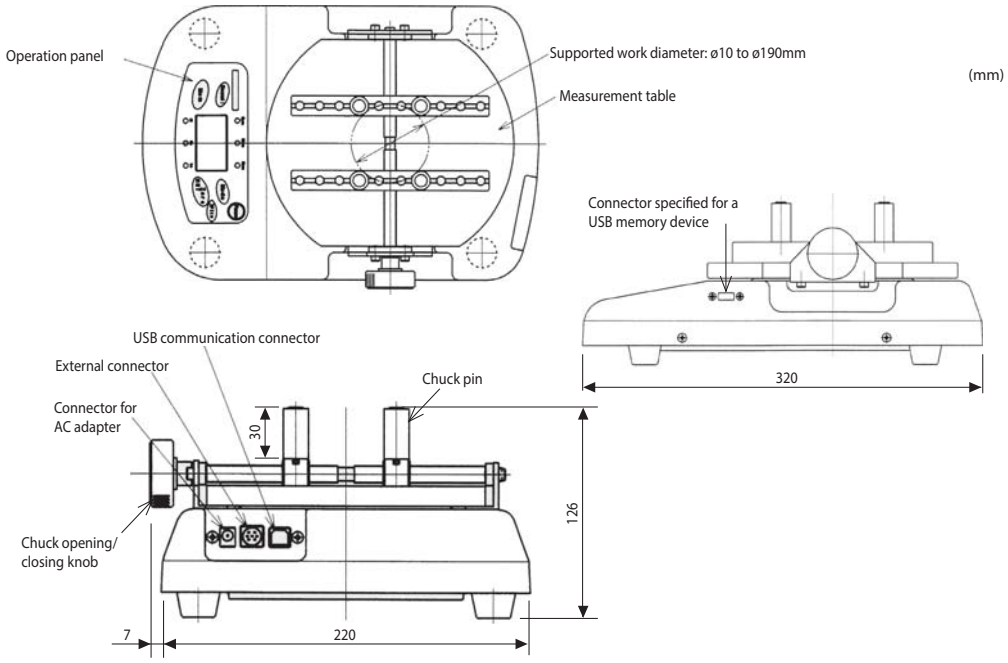
- Can perform motorized torque tests by combining with the DSP-10 (motorized torque stand)
- Supports P.P. caps

Specifications

Model		TNX-0.5	TNX-2	TNX-5	TNX-10
Rated torque		500mN·m (0.5N·m)	2N·m	5N·m	10N·m
Measurement range		0.0 to ±500.0mN·m	0.000 to ±2.000N·m	0.000 to ±5.000N·m	0.00 to ±10.00N·m
Measurement unit		Selects between mN·m and N·cm	Selects between N·m and N·cm		
Display range		0.0 to ±500.0mN·m 0.00 to ±50.00N·cm	0.000 to 2.000N·m 0.0 to 200.0N·cm	0.000 to 5.000N·m 0.0 to 500.0N·cm	0.00 to 10.00N·m 0.0 to 1000N·cm
Display resolution		0.1mN·m / 0.01N·cm	0.001N·m / 0.1N·cm	0.001N·m / 0.1N·cm	0.01N·m / 1N·cm
Supported works		Chuck range: ø10 to ø190mm, Max weight: 5kg (5kg or less if the center of gravity of the measurement object is not aligned to the table's center)			
Overload display		Displays "OVR" on the LCD's sub display parts, LED blinks			
Display	Display parts	[Main display parts] 4-digit LCD display, Font height: 12mm [Sub display parts] 3-digit LCD display, Font height: 7mm			
	Judgment LED	Judgment LED (Hi, Go, Lo)			
Accuracy		±0.5% / F.S.			
Measurement mode		Opening mode, Fitting mode, Average mode			
Display cycle		Average mode: Selects among 8 times/sec, 4 times/sec, 2 times/sec, and 1 time/sec Opening/Fitting mode: 8 times/sec Fixes at 0.125sec when the fixed peak is displayed			
Memory	Memory	Selects the opening peak measurement among 1 peak, 2 peak, and 3 peak			
	Number of memory data	Stores each 1000 sets of opening 1st, 2nd, 3rd peak values, and fitting in memory			
	Statistics process	Average value, max. value, min. value, standard deviation, variation			
Judgment function		Can judge opening 1st, 2nd, 3rd peak values, and fitting peak value			
Clock function		Registers judgment results in display torque data with year, month, day, hour, and minute using the judgment LEDs			
Data output	USB communication	Imports memory data using USB1.1 specialized software			
	Printer	Prints memory data using RS232C compatible printers Baud rate: 19200bps (fixed) Compatible printers recommended: BS2-80TS (AC adapter is optional accessory) [Sanei Electric, Inc], CBM-910II [Citizen Electronics Co., Ltd.] Printer cable: TNTX-6003			
	USB memory device	Transfers memory data to a USB memory device			
External output		Overload output/Comparator output: Open collector output (max. DC30V/5mA) Switches to either overload output or comparator output			
Compatible software		Can import data using PC software (Digitorq_TNX) *Software can be downloaded free of charge from our website			
Extended function		Can connect the motorized torque stand (DSP-10)			
Accessories		USB cable, AC adapter, USB memory device, Chuck pins (4)			
Power supply		AC adapter (DC9V/1.1A) or built-in NiMH battery (rechargeable), measurement available during charging Battery operating time: Approx. 8 hours from full charge, Charging time: Max. 10 hours (Automatically ends when fully charged)			
External dimensions		Width 227 x Depth 320 x Height 126mm			
Weight		7kg	8kg		12.5kg
Operating environment		Temperature: 0 to 40°C Humidity: 35 to 85%RH (No condensation)			

Dimensional drawing

(mm)



Opening/fitting force of P.P. caps

Digital Torque Meters

TNP Series

Torque | Memory 1000 | デジとるくん _TNP

Free downloads from website

Model	Rated torque	
TNP-0.5	500mN·m	0.5N·m
TNP-2	2N·m	
TNP-5	5N·m	
TNP-10	10N·m	

- Can import opening/closure torque data to Excel using the specialized TNP software "Digitorq_TNP"
- Creates frequency distribution graphs of memory data

Simple Operation Digital Torque Meters

TNP-CE Series

- Clamps a container with one operation

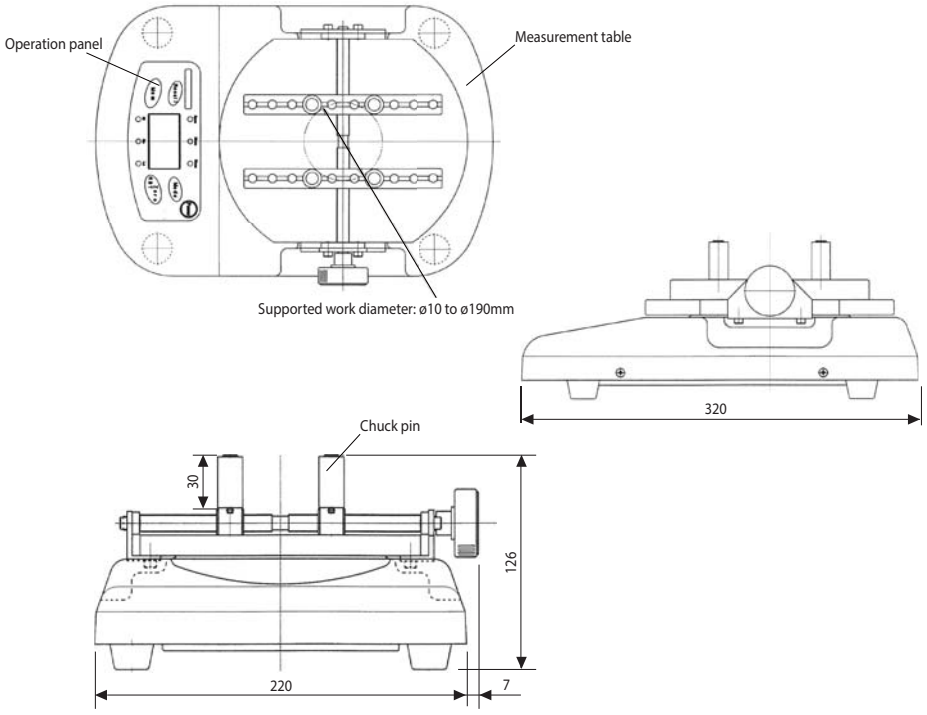
Specifications

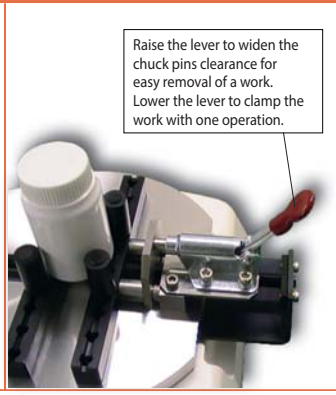
Model		TNP-0.5	TNP-2	TNP-5	TNP-10
Rated torque		500mN·m (0.5N·m)	2N·m	5N·m	10N·m
Measurement range		0 to ±500.0mN·m 0 to ±50.00N·cm	0.000 to ±2.000N·m	0.000 to ±5.000N·m	0.00 to ±10.00N·m
Measurement unit		Selects between mN·m and N·cm	Selects between N·m and N·cm		
Display range		0.0 to ±500.0mN·m 0.00 to ±50.00N·cm	0 to 2.000N·m 0 to 200.0N·cm	0 to 5.000N·m 0 to 500.0N·cm	0 to 10.00N·m 0 to 1000N·cm
Display resolution		0.1mN·m / 0.01N·cm	0.001N·m / 0.1N·cm	0.001N·m / 0.1N·cm	0.01N·m / 1N·cm
Chuck range		ø10 to ø190mm			
Overload display		Displays "OVR" on the LCD's sub display parts, 3 LEDs (Open, Meam, Close) blink			
Display	Display parts	[Number display parts] 4-digit LCD display, Font height: 12mm [Unit display parts] 3-digit LCD display, Font height: 7mm			
	Judgment LED	Judgment LED (Hi, Go, Lo)			
Accuracy		±0.5%/F.S.			
Measurement mode	Opening mode	Max. value display at opening (PEAK display): Displays the maximum value of torque applied to the measurement table			
	Fitting mode	Max. value display at fitting (PEAK display): Displays the maximum value of torque applied to the measurement table			
	Average mode	Real time display (Average value display): Displays the value of torque applied to the measurement table in real time			
Display cycle		Selects among 0.125sec (8 times/sec), 0.25sec (4 times/sec), 0.5sec (2 times/sec), 1sec (1 time/sec), Fixes at 0.125sec when the peak is displayed			
Sampling cycle		1msec (1000 times/sec)			
Memory	Number of memory data	1000 sets (max.)			
	Statistics process	Average value, max. value, min. value			
Data output		USB1.1			
PC software		Can import data using PC software (Digitorq_TNX)			
Accessories		USB cable, AC adapter			
Power supply		Built-in NiMH battery, or AC adapter (AC100V to 240V)			
External dimensions (mm)		Width 227 x Depth 320 x Height 126mm			
Weight		7kg	8kg		12.5kg
Operating environment		Temperature: 0 to 40°C Humidity: 35 to 85%RH (No condensation)			

Dimensional drawing

■TNP-□ Series

(mm)



When clamped	When released	Valve opening/fitting torque measurement	Torque wrench test
			

Digital Torque Meters with Printer Output

TNP-P Series

Torque | Memory 1000 | デジとるくん _TNPP | Free downloads from website

Model	Rated torque	
TNP-0.5P	500mN·m	0.5N·m
TNP-2P	2N·m	
TNP-5P	5N·m	
TNP-10P	10N·m	

- Can import opening/closure torque data to Excel using the specialized TNP-P software "Digitorq_TNPP"
- Creates frequency distribution graphs of memory data

Specifications

Model		TNP-0.5P	TNP-2P	TNP-5P	TNP-10P
Rated torque		0.5N·m	2N·m	5N·m	10N·m
Measurement range		0.0 to ±500.0mN·m	0.000 to ±2.000N·m	0.000 to ±5.000N·m	0.00 to ±10.00N·m
Measurement unit		mN·m N·cm	N·m N·cm		
Chuck range		ø10 to ø190mm			
Display	Display parts	4-digit LCD display, Font height: 12mm			
	Judgment LED	Judgment LED (HI, GO, LO)			
Accuracy		±0.5% / F.S.			
Measurement mode		OPEN (opening peak), CLOSE (fitting peak), MEAN (average measurement)			
Sampling cycle		1msec (1000 times/sec)			
Memory function		1000 sets (max.), average value, max. value, min. value			
Clock function		Stores the date of memory registration with registered torque values			
Data output	USB communication	Can import data using PC software (Digitorq_TNPP) *Software can be downloaded free of charge from our website			
	Printer	Can print separately or print memory data using RS232C compatible printers Baud rate: 19200bps (fixed)			
Accessories		USB cable, AC adapter, Printer cable TNTX-6003			
Power supply		AC adapter (AC100V to 240V) or built-in NiMH battery			
External dimensions		Width 227 x Depth 320 x Height 126mm			

Thermal printer set Contents for TNP-□P-BS2		
1	Torque meter	TNP-□P
2	Thermal printer	BS2-80TS
3	AC adapter	BS-110WJ
Thermal printer options		
1	Roll paper	BL-80-30 10 rolls/box

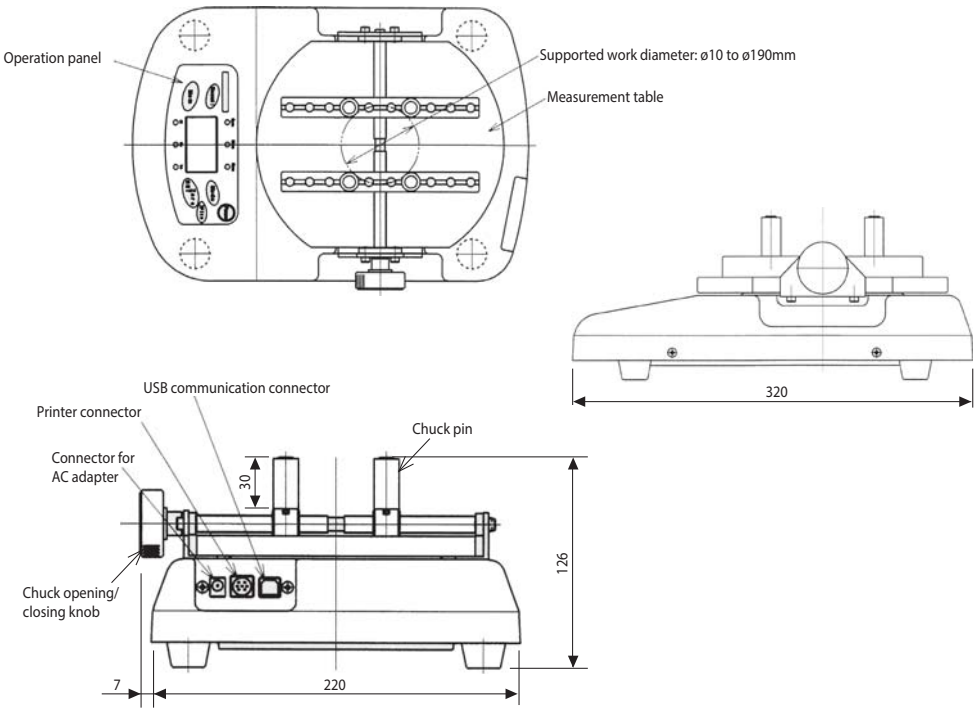
*1 paper roll is supplied.

Dot printer set Contents for TNP-□P-CBM		
1	Torque meter	TNP-□P
2	Dot printer	CBM-910II With AC adapter
Dot printer options		
1	Roll paper	RP5860 20 rolls/box
2	Ink ribbon	IR-91B 10 pieces/box

*1 paper roll is supplied.

Dimensional drawing

(mm)



Digital Torque Meters

TNJ Series

Torque

Model	Rated torque
TNJ-2	2N·m
TNJ-5	5N·m
TNJ-10	10N·m

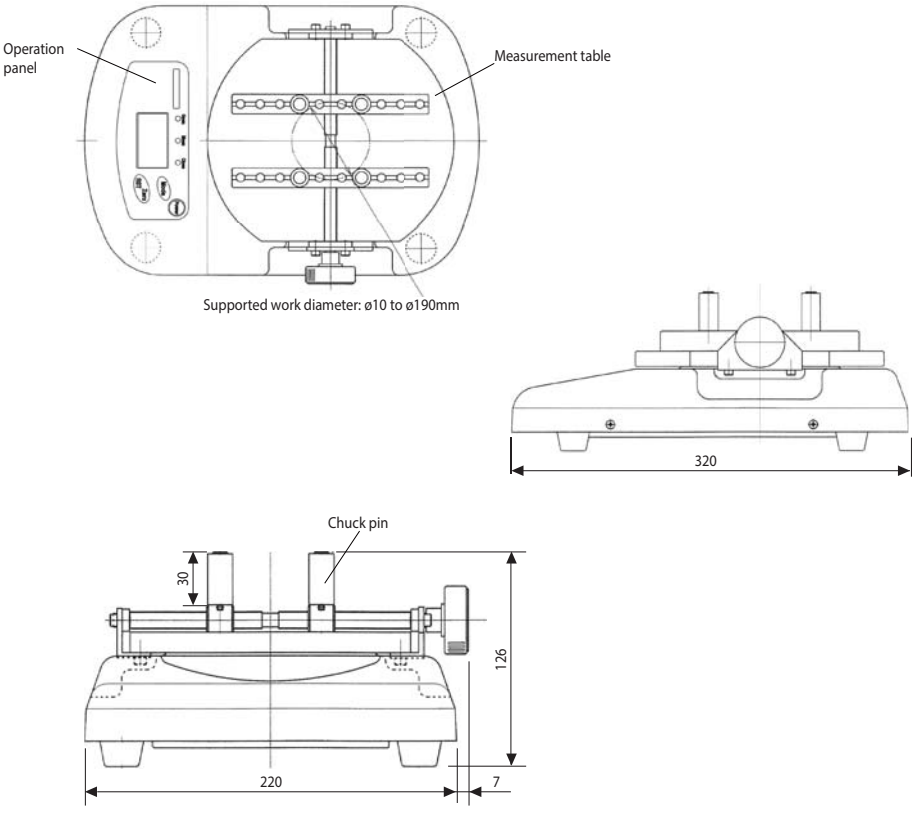
●Obtains high accuracy with simple operation
*The TNJ Series does not include a USB port or judgment function.

Specifications

Model		TNJ-2	TNJ-5	TNJ-10
Measurement torque		2N·m	5N·m	10N·m
Measurement range		0.000 to ±2.000N·m	0.000 to ±5.000N·m	0.00 to ±10.00N·m
Measurement unit		N·m N·cm		
Display range		0 to 2.000N·m 0 to 200.0N·cm	0 to 5.000N·m 0 to 500.0N·cm	0 to 10.00N·m 0 to 1000N·cm
Display resolution		0.001N·m / 0.1N·cm	0.001N·m / 0.1N·cm	0.01N·m / 1N·cm
Chuck range		ø10 to ø190mm		
Overload display		Displays "OVR" on the LCD's sub display parts, 3 LEDs (Open, Meam, Close) blink		
Display	Display parts	[Number display parts] 4-digit LCD display, Font height: 12mm [Unit display parts] 3-digit LCD display, Font height: 7mm		
Accuracy		±0.5%/F.S.		
Measurement mode	Opening mode	Max. value display at opening (PEAK display): Displays the maximum value of torque applied to the measurement table		
	Fitting mode	Max. value display at fitting (PEAK display): Displays the maximum value of torque applied to the measurement table		
	Average mode	Real time display (Average value display): Displays the value of torque applied to the measurement table in real time		
Display cycle		Selects among 0.125sec (8 times/sec), 0.25sec (4 times/sec), 0.5sec (2 times/sec), 1sec (1 time/sec), Fixes at 0.125sec when the peak is displayed		
Sampling cycle		1msec (1000 times/sec)		
Accessories		AC adapter		
Power supply		AC adapter (AC100V to 240V)		
External dimensions (mm)		Width 227 x Depth 320 x Height 126mm		
Weight		8kg		12.5kg
Operating environment		Temperature: 0 to 40℃ Humidity: 35 to 85%RH (No condensation)		

Dimensional drawing

(mm)



Opening/fitting force of screw caps	Torque measurement of door levers
	

Digital Torque Checkers

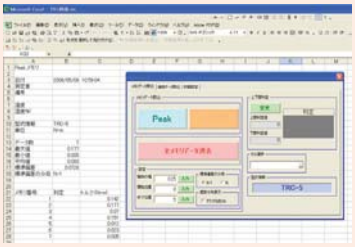
Digital Torque Checkers
TRC Series

Torque | Memory 1000 | デジとるくん _TRC

Free downloads from website

Model	Rated torque
TRC-2	2N·m
TRC-5	5N·m
TRC-10	10N·m

- Suitable for inspection and accuracy check of torque wrenches/torque drivers
- Can easily import data to PCs using the specialized TNP-P software "Digitorq_TRC", and display in Excel. Displays the number of data, max., min., and average values
- Equipped with the upper/lower limit judgments function that indicates judgment results using OK and NG LEDs, and notifies you by buzzer
  Can set up to 10 judgment patterns
- Can store up to 3000 sets of data, with 10 patterns of 300 sets in memory. Uses the statistics function to automatically calculate the number of data, max. value, min. value, and average value.



Accessories

□20mm adapter

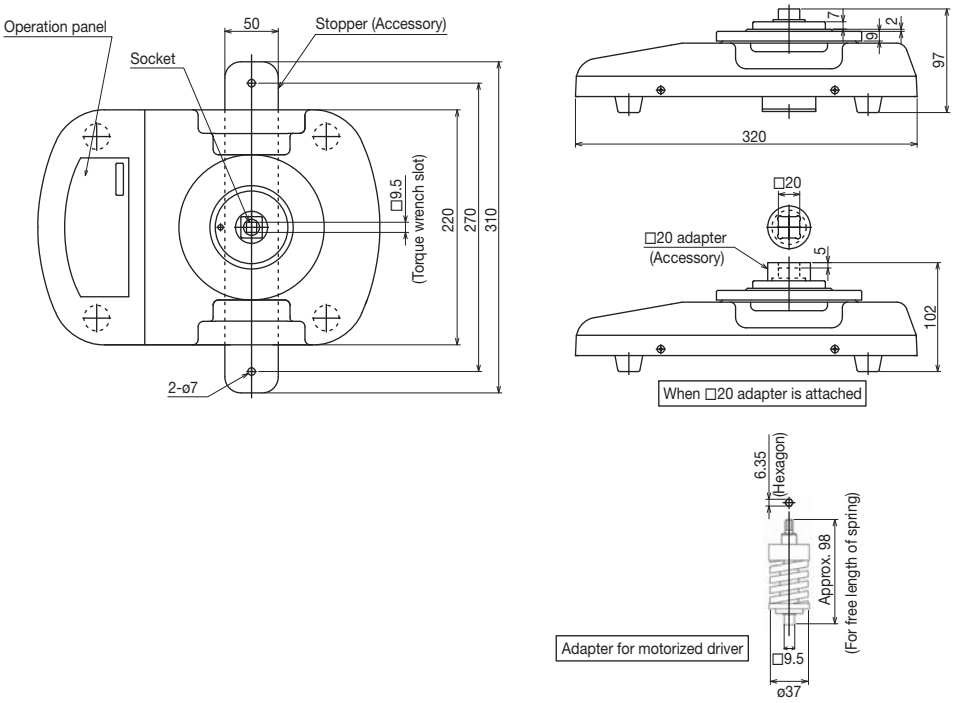
Adapter for motorized driver

Specifications

Model		TRC-2	TRC-5	TRC-10
Rated torque		2N·m	5N·m	10N·m
Measurement unit		N·m, N·cm		
Sampling cycle		10msec 100 times/sec		
Measurement range	N·m	0.020 to 2.000	0.050 to 5.000	0.010 to 10.00
	N·cm	2.0 to 200.0	5.0 to 500.0	10 to 1000
Display resolution	N·m	0.001	0.001	0.01
	N·cm	0.1	0.1	1
Display		•4-digit signed LCD, Font height: 12mm •Sub display parts: 3 digits		
Accuracy		±0.5%/F.S.		
Measurement mode		•PEAK: Holds display of torque peak values •MEAN: Indicates torques in real time		
Memory		The number of registration: Up to 3000 sets		
Upper/lower limit judgments function		Displays judgment results using OK and NG LEDs. Or notifies by buzzer. Can set 10 patterns of judgment and select among them.		
Data input		USB1.1 (Imports data using specialized software)		
Compatible software		Can import data using PC software (Digitorq_TRC)*		
Power supply		Built-in NiMH battery AC adapter (AC100 to 240V)		
Operating environment		0 to 40°C 35 to 85%RH (No condensation)		
External dimensions (mm)		Width 220 (only for the main unit) x Depth 320 x Height 97mm		
Weight		6kg (only for the main unit)		
Accessories		AC adapter, USB cable, Stopper		
	Adapter for power supply driver	0.6N·m	3N·m	

Dimensional drawing

(mm)



Torque check of torque drivers

Torque check of torque wrenches

Digital Torque Test Machines

*Digital torque meters are optional.

Motorized Torque Unit

DSP-5E

From manual to motorized operation

Torque test machine

Supported torque meters	DSP-5E allowable torque	
TNX-0.5	500mN·m	0.5N·m
TNX-2		
TNX-5		
TNP-0.5		
TNP-2		
TNP-5		
TNJ-2		
TNJ-5		

Power supply: AC100V (50/60Hz) 300VA

Motorizing manual opening torque tests eliminates the variation of measurement torques generated by human error.

- Semi-automatically measures the opening torque. Appropriate for sampling checks in line production
- Enables installation of the digital torque meters TNX, TNP, or TNJ Series to the specified motorized torque unit DSP-5E for measurements with higher accuracy*
- Can set an optional rotation angle and speed of the rotation axis for opening torque tests.
  *The TNX-10/TNP-10/TNJ-10 models cannot be installed.

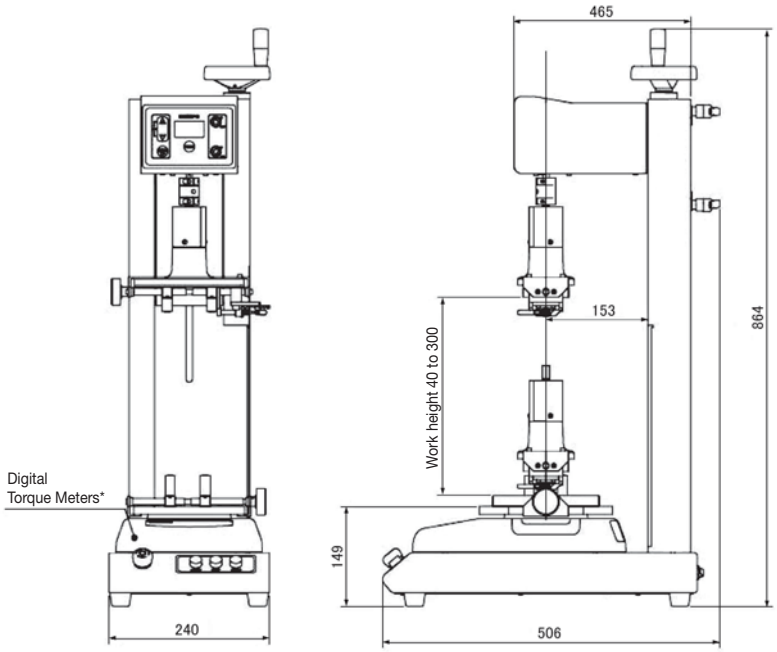
Specifications

Model		DSP-5E
Torque meters that can be installed*		TNX-0.5, TNX-2, TNX-5 / TNP-0.5, TNP-2, TNP-5 / TNJ-2, TNJ-5 (digital torque meters are optional)
Allowable torque		5N·m
Chuck		Chuck pin 20mm 4 points
Supporting cap diameter		ø12 to 70mm
Chuck system		Handle / Single operation clamp
Work height	Range	40 to 300mm
	Mechanism	Adjusts using the handle
Display	LCD display	Signed 4-digit display (Displays the rotation angle)
Operation mode		AUTO mode / JOG mode
AUTO mode	Operation	Sets angle/speed and operates
	Direction	Opening (CCW) direction
	Origin return	HOME operation (CW) direction
	Speed setting	Sets with key operation (0.5 to 12.5 rpm)
	Angle setting	Sets with key operation (1 to 1080°)
JOG mode	Operation	JOG operation
	Direction	Opening (CCW) direction/HOME operation (CW) direction
	Speed setting	Sets with key operation (0.5 to 12.5 rpm)
External dimensions		Width 240 x Depth 506 x Height 864mm
Weight (excluding torque meter)		Approx. 15kg
Power supply		AC100V(50/60Hz) 300VA
Operating condition		Temperature range 0 to 40°C Humidity range 0 to 85%RH

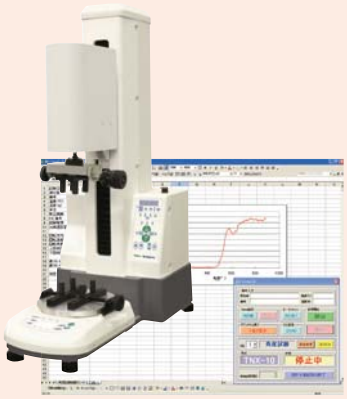
*The DSP-5E's AUTO operation does not support the TNX's 3 peak measurement. It only supports the 1st peak measurement.

Dimensional drawing

(mm)



*Digital torque meters are optional.



TNX Series + DSP-10

Motorized Torque Test Machines

Actualizes multiple torque tests

Torque test machine | USB | 3 PEAK | Clock | P.P. | Memory 1000 | TNT_DSP | Accessories

Model	Rated torque	
TNX0.5+DSP-10	500mN·m	0.5N·m
TNX-2+DSP-10	2N·m	
TNX-5+DSP-10	5N·m	
TNX-10+DSP-10	10N·m	

Power supply: AC100V
Accessories: USB cable, Power cable, etc.

Motorized torque test machines that combine the high-performance digital torque meters TNX Series with the specified motorized torque stand DSP-10.

- Uses a servo motor and measures per-angle torque at a constant rotation speed. Removes measurement data variation, and enables more advanced tests and management
- Equipped with specialized software "TNT_DSP" as standard. Can set the test rotation speed and angles
  Imports torque and angle data and displays torque and angle or torque and time in graphical form
- Extended torque test modes
  - •Angle tests
  - •Torque tests
  - •Reciprocating tests
  - •PP tests
  - •Sampling tests
  - •Destruction tests

DSP-10

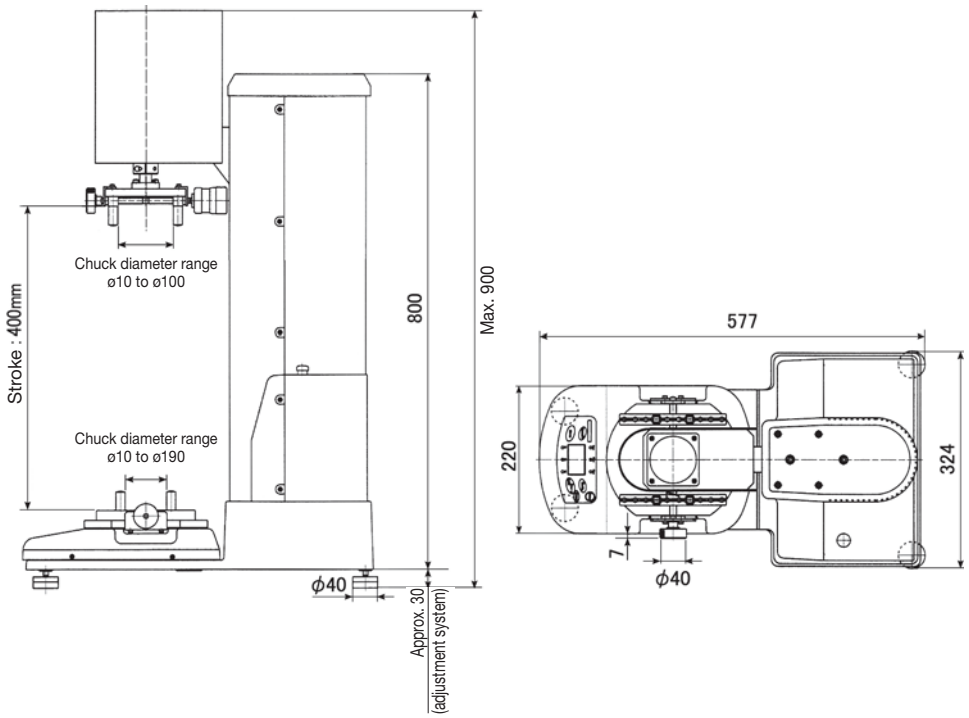
Specifications

Model		TNX-0.5 + DSP-10	TNX-2 + DSP-10	TNX-5 + DSP-10	TNX-10 + DSP-10
Torque sensor	Rated torque	0.5N·m	2N·m	5N·m	10N·m
	Display resolution	0.1mN·m / 0.01N·cm	0.001N·m / 0.1N·cm		0.01N·m / 1N·cm
	Measurement unit	mN·m N·cm	N·m N·cm		
	Accuracy	±0.5%/ F.S.			
Rotation shaft	Rotation speed	0.1 to 25.0rpm			
	Rotation direction	Selects opening or fitting			
	Measurement angle resolution	0.1°			
	Measurement angle	0° to 1440°			
	Data output cycle	Selects among 10 times/sec, 20 times/sec, 50 times/sec, and 100 times/sec			
	Overload detection	Stops when overloaded			
Supported works		Chuck range: ø10 to ø100			
Elevating axis	Movement speed	10 to 600mm/min			
		Sets the movement distance using upper/lower limit switches			
	Max. movement distance	400mm			
Test operation		PP tests, angle tests, torque tests, destruction tests, reciprocating tests, sampling tests			
Specialized attached software TNT_DSP		Sets the test rotation speed and angles			
		Imports torque and angle data, and display torque and angle, or torque and time in graphs			
Accessories		USB cable, Power cable, etc.			
Power supply		AC100V			
External dimensions		Width 324 x Depth 577 x Height (max.) 900mm			
Weight		Approx. 43kg			Approx. 47.5kg

*The weight above shows a total of the TNX Series and DSP-10.
*Order the TNX-□ and DSP-10 separately.

Dimensional drawing

(mm)



Motor cogging torque measurement	Idling torque measurement of gear heads	Torque measurement of lens zooming and focusing	Opening/fitting torque measurement of mobile phones	Supports HACCP and GMP. Opening/fitting force of caps	Screw torque measurement
					

MTP-NT Series

Torque P.P.

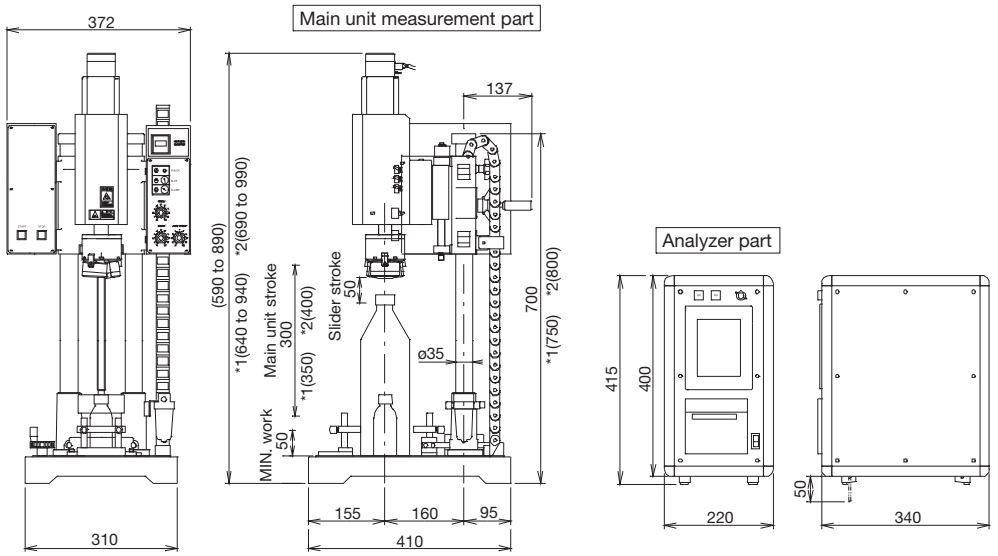
- Eliminates individual differences and fitting operations through automatic measurement
- Automatically fixes a cap container
- Enables record management through printing, or intensive management with PCs
- Constantly controls the cap chuck pressure and digitally displays it
- Can be introduced to the inspection line system
- Appropriate for sampling checks in line production
- Supports various types of caps from screw caps to aluminum P.P. caps
- Enables torque management of capper heads

Specifications

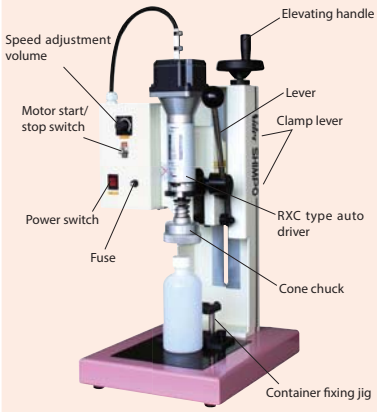
Model	MTP-2NT	MTP-4NT	MTP-6NT
Rated torque	196N·cm	392N·cm	588N·cm
Measurement range	4 to 196N·cm	8 to 392N·cm	12 to 588N·cm
Minimum display	1N·cm (0.01N·m)		
Measurement unit	N·cm or N·m *Can be switched in the initial setting items		
Chuck range	Bottle ø30 to ø110mm Cap ø14 to ø80mm 1 set of specified jaws is necessary for 1 work. Total height 80mm to 310mm (Special jigs may be necessary depending on shapes.) *For other items than those mentioned above, contact us.		
Display	Touch panel display 5" TFT color QVGA Can display the following items: (1) Torque value during measurement (2) Measurement torque curve (3) Measurement value (4) Judgment result, etc.		
Accuracy	General 2.0%F.S at 20°C Temperature characteristics 0.03%/°C, excluding the drift value of origin deviation		
Measurement angle	Max. 720° *The measurement end angle can be optionally set to 720° or less		
Measurement time	Links to the input pulse (0.2°) Note that 1° is displayed.		
Setting item	Measures the peak torque value, peak torque angle, LB angle, and BB angle *LB and BB angles are entry items based on the indication.		
Functions	(1) Can set the chuck pressure (memory) for each channel (2) Equipped with the 2-speed automatic change function as standard		
Statistics process function	Max. value per channel (product type) and sample (lot), min. value, average value, standard deviation, failure rate, etc.		
Zero point adjustment	Adjusts with one operation using the operation panel switches		
Printer	Thermal graphic printer Torque curves can be printed Paper width: Approx. 80mm		
Number of channels (CH)	Can register types of up to 48 channels (CH) *Memory cards, etc. do not require replacement.		
Data output	Can output measurement data to PCs *Specialized software is necessary (for details, contact us).		
Operating environment	0 to 40°C 90%RH or less (No condensation)		
Rotation speed	0.2 to max 3.3/4.0rpm 50/60Hz Can adjust using the volumes (one for each AB)		
Slow start function	Can adjust using the one volume		
Head elevation	Air cylinder method		
Cap chuck	Three-jaw type air chuck		
Work chuck	Air clamp using the air cylinder		
Power supply	AC100V to AC120V 50/60Hz		
Air source	Dry air of 0.5MPa or more		
Instrument weight	Main unit: Approx. 30kg Analyzer part: Approx. 10kg Note that optional parts are excluded.		

Dimensional drawing

(mm)



*1 Support extension 50 type
*2 Support extension 100 type



Simple Model Desktop Manual Cappers

CRXL Series

Recommended for manufacturing of a wide variety of products in small and mid-sized quantities

Capping machine

Model	Tightening shaft torque range
CRXL-L	0.5 to 2.0N·m
CRXL-H	1.5 to 3.5N·m

Power supply: AC100V (50/60Hz) 1KVA

Improves operation performance, efficiency, and product quality of capping.
Supports various sizes of caps.

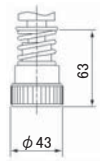
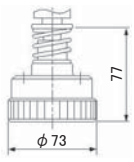
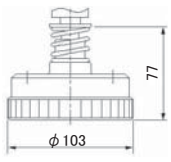
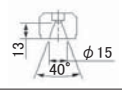
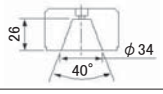
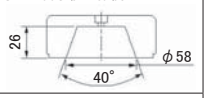
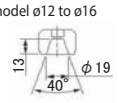
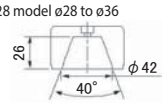
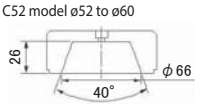
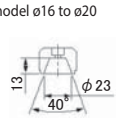
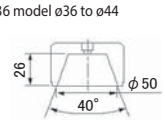
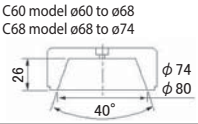
- With the ring cone type continuously variable transmission, high-speed response (overrun prevention), stable torque (prevention of loosening and over-tightening), maintenance-free driving unit (sealed structure), and instant driving due to AC100V (no air source required) are enabled
- Actualizes low power consumption and less noise with the brushless motor
- Can freely adjust the capping torque

CRXL-L model: 0.5 to 2.0N·m
CRXL-H model: 1.5 to 3.5N·m

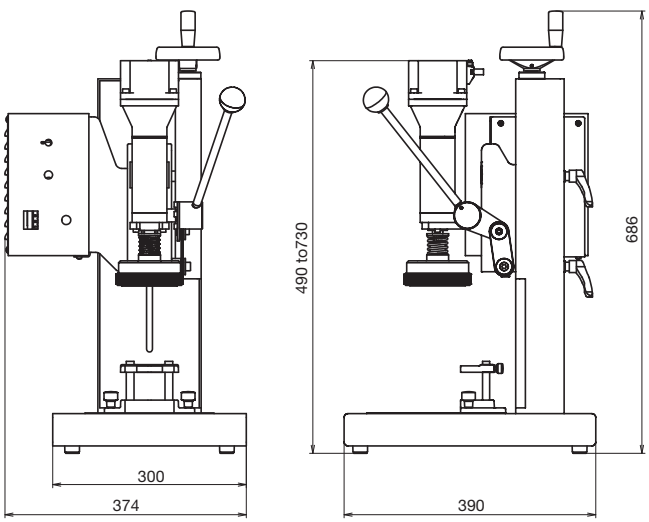
Specifications

Model	CRXL-L	CRXL-H
Tightening method	Stall torque method using the RX type auto speed changer	
Tightening shaft torque range	0.5 to 2.0N·m	1.5 to 3.5N·m
Speed change range	0.1 to 0.4 (proportional to the torque range)	
Torque adjustment method	Manual dial method (Turn the dial to change the torque and speed change ratio)	
Driving motor	Brushless motor (120W)	
Motor speed change range	200 to 2000rpm	
Output shaft rotation speed	20 to 800rpm (Varies depending on the torque range)	
Chuck	Taper cone system	
Chuck models (optional)	A type: A08 A12 A16 B type: B20 B28 B36 C type: Selects among C44, C52, C60, and C68	
Supported works	Cap diameter: ø8 to ø74mm (Specify a chuck model among those mentioned above) Container diameter: ø20 to ø100mm Work height: 80 to 270mm Specify separately for purchase.	
Capping method	Manual lever type (stroke: 50mm)	
Container clamp method	Method to clamp manually on the positioning jig plate	
External dimensions	Width 374 x Depth 390 x Height 730mm*1	
Weight	Approx. 28kg	
Power supply	AC100V (50/60Hz) 1KVA	
Operating condition	Temperature range 0 to 40°C Humidity range 0 to 85%RH	

Dimensional drawing

Type	A type taper cone chuck	B type taper cone chuck	C type taper cone chuck
Cap chuck dimensions			
Cap chuck rubber dimensions	When attached to A type chuck	When attached to B type chuck	When attached to C type chuck
	A08 model ø8 to ø12 	B20 model ø20 to ø28 	C44 model ø44 to ø52 
	A12 model ø12 to ø16 	B28 model ø28 to ø36 	C52 model ø52 to ø60 
	A16 model ø16 to ø20 	B36 model ø36 to ø44 	C60 model ø60 to ø68 C68 model ø68 to ø74 

(mm)



Semi-Auto Desktop Cappers Servo Type

CRXB

Improves efficiency, quality, and cost performance

Capping machine

Model	Tightening shaft torque range
CRXB	0.5 to 10.00N·m

Power supply: AC100V (50/60Hz) 450VA

Computerized BOX type auto driver specifications

- Supports a wide range of tightening between 0.5 and 10.00N·m* (per 0.01N·m)
- Can set the rotation speed between 50 and 500rpm (per 1rpm)
- Can display the tightening torque digitally, and perform the upper/lower limit judgments using the control BOX
- Free to select a cap chuck among 3 types

  •Taper cone chuck •Air chuck
  •Three-jaw chuck

- Simple settings of various data, such as the final tightening torque, upper/lower limits, and tightening speed
- Can store up to 16 patterns of capping tightening torque in memory
  Instantly responds to work changes
- When capping finishes, the driver unit rises, and the machine automatically stops
- Uses the compact planetary gear type torque sensor with high accuracy
  *The machine may not support tightening depending on the containers, cap shape, and materials. Contact us in advance.

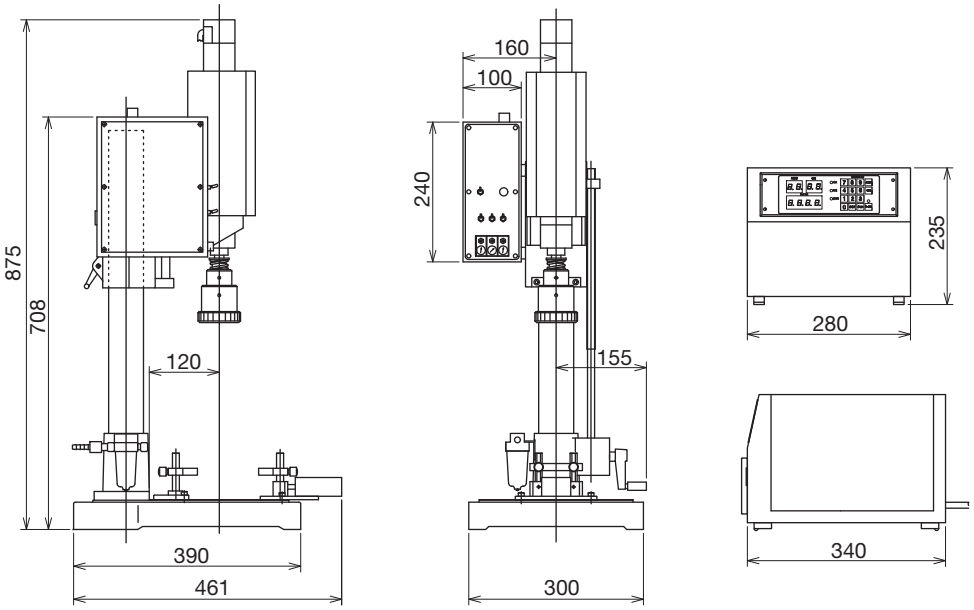
Specifications

Model		CRXB
Tightening torque range		0.5 to 10.00N·m (5.1 to 102kgf·cm) Can optionally set by 0.01N·m
Main shaft rotation speed (tightening speed)		Can optionally select using the panel switch
		Max. rotation speed (when no load applied)
		Can set between 50 and 500rpm (per 1rpm)
Number of condition setting memory patterns		Up to 16 patterns (of capping conditions can be stored in memory)
Supported works		Cap diameter: ø8 to ø74mm_Container diameter: ø20 to 100_Work height: 80 to 310mm *Provide a sample in advance.
Chucking clamp elevation		Air cylinder method (We would like to ask the customer to provide an air pressure sample of 0.5 to 0.7MPa)
Cap chuck		Selects among taper cone chuck, air chuck, or three-jaw chuck
External dimensions	Main unit	Width 300 x Depth 461 x Height 875mm
	Control BOX	Width 280 x Depth 340 x Height 235mm
Weight	Main unit	30kg
	Control BOX	11kg
Power supply		AC100V 50/60Hz (450VA)

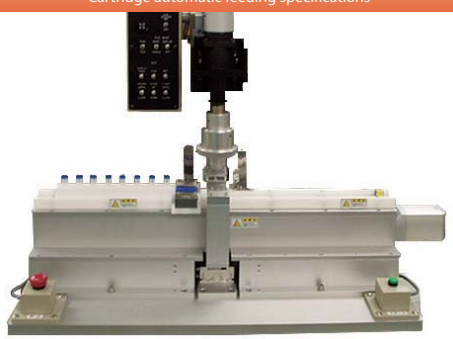
*Provide a sample work in advance.
If you purchase air or three-jaw chucks, we will design and manufacture chucks based on the cap diameter of provided samples.

Dimensional drawing

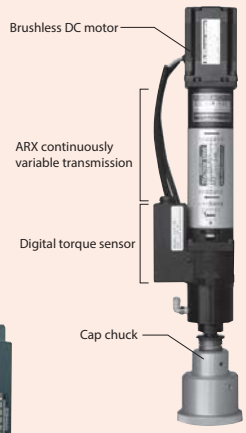
(mm)



Responds to special specifications

Clean room automatic ventilation specifications	Cartridge automatic feeding specifications
	

BRX type auto driver



Driver unit
BRXM

Controller unit
BRXD

Display setter
BRXP

Electronic Control Type Servo Driver
For being installed in capping machines
BRX Series

Enables a wide range of tightening

Capping machine

Model	Tightening shaft torque range
CRXB	0.5 to 10.00N·m

Power supply: AC100V (50/60Hz) 450VA

Driver unit + Setting display + Controller unit

- No tightening variation
- No liquid leakage and no over-tightening with the cap damage prevention function
- Checks the tightening torque digitally and always monitors quality
- Outputs the fault signal immediately if management mistakes occur
- Can connect up to 10 controllers per 1 setting device through RS-422 connection
- Can set and display torques from the touch panel by connecting a programmable controller to the touch panel
- Can set torques in a wide range between 0.5 and 10.00N·m (per 0.01N·m)
- Can set the rotation speed between 50 and 500rpm (per 1rpm)
- High accurate tightening with the torque feedback system
- With the ARX continuously variable transmission, the rotation speed automatically changes according to the load, which realizes high accurate tightening in spite of the small motor
- Automatically changes the rotation speed according to the load torque because of the built-in ARX continuously variable transmission
- Mounts the torque sensor on the side of the output shaft and control tightening with the specified torque
- When tightening finishes, displays the maximum output torque, and judge acceptance using the stored upper/lower limit values
- Equipped with Centronics compatible printer output, RS-232C output, and analog output as standard
- Maintenance-free and no brush powder

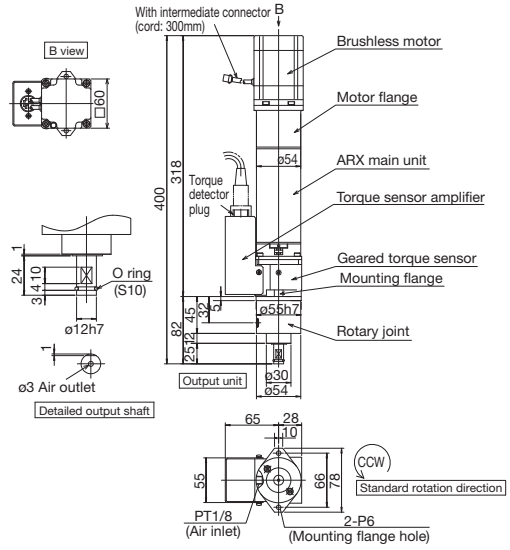
Specifications

Model		BRX Series
Tightening method		ARX torque feedback method
Tightening shaft torque range		0.5 to 10.00N·m (Sets per 0.01N·m)
Torque display		Displays the tightening torque for each tightening, based on the upper/lower limit settings
Number of display digits		4 digits (Range: 0.00 to 10.00N·m)
Torque upper/lower limit judgments		OK/NG (LEDs display and external signal output)
Torque external output		Interface compatible with Centronics included as standard (Display setter)
		RS-232C included as standard (Display setter)
		RS-422 included as standard (Controller)
		Can output to a programmable controller instead of the display setter
		Analog output (controller) 0 to 1.5VDC
Output shaft rotation speed		Sets between 50 and 500rpm by 1rpm (rotation speed without load)
Tightening conditions		Can set up to 16 sets, switch using the panel or external signal inputs
Torque sensor		Gear reaction type torque sensor (strain gauge digital output type)
Motor		Brushless DC motor (100W)
Self diagnosis		Displays error messages when the system malfunctions, and outputs external signals
Power supply	Driver (main shaft unit)	Supplies power for motor and sensor from the controller
	Display setter	AC85 to 253V(50/60Hz) 20VA
	Controller	AC100V (Specify 200V separately) (50/60Hz) 400VA DC24V (for I/O) 0.1A
Attached cables	Torque sensor cable (5m)	Between BRXD and BRXM
	Motor cable (5m)	Between BRXD and BRXM
	Motor sensor cable (5m)	Between BRXD and BRXM
	RS422 cable (5m)	Between BRXD and BRXP
	Input I/O cable (2m)	Between BRXD and users
	Output I/O cable (2m)	Between BRXD and users
	Power cable (2m)	Between BRXD and users

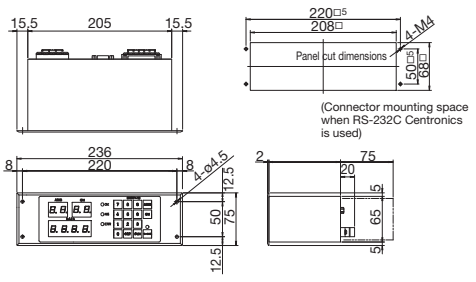
Dimensional drawing

(mm)

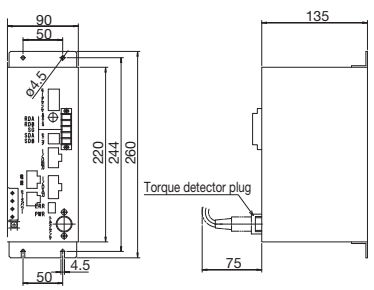
For BRX-RJU (with rotary joint)



BRXP-10 (Display setter)



BRXD-10 (drive controller)



Specialized software CXT-BRX

Operation environment
•DOS/V compatible machines •Windows 8* (Japanese environment) Windows 7* (Japanese environment) Windows XP* (Japanese environment) (Supports 32bit/64bit) •Excel 2003* Excel 2007* Excel 2010* (Supports 32bit)

*Windows8, Windows7, WindowsXP and Excel are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

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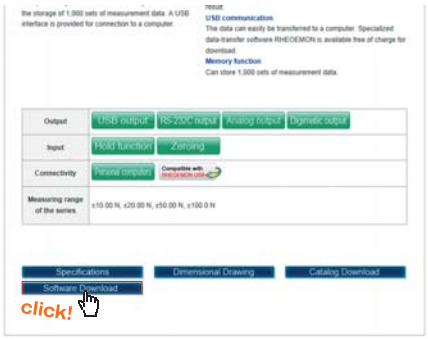

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- Main Line of Business
  Variable reducers, Pressing machines, Electric instruments, Controllers/Precision instruments, Ceramics
- This catalog is as of February, 2015.
  Product appearance and specifications are subject to change without notice due to continual improvements.

⚠ Before using the product, please read through the instruction manual carefully and follow it for proper use.

VEGETABLE OIL INK

WA-1502000