

# Motorized Torque Stand MTS series

- Regulated rotation speed for better accuracy.
- A variety of measuring capabilities such as torque control functions and torque-angle measurements.
- Range of clamp / sample holder attachments to suit many sizes, shapes and materials.

MTS series

**Automatic Rotation**

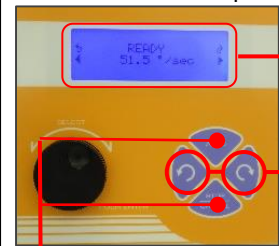
- Setting is available between 3 degree and 90 degree/ sec.
- The rotating control by the settings (Refer to the page 1 and 2)

**Various Clamp Attachment**

- The selectable attachment by the sample shape and materials.  
(Refer to the page 3 and 4)

**Simple Operations**

Display the speed, the repeat number and the pausing time



Operate the rotate direction  
Switch the manual and the automatic mode



Standard Chuck Attachment  
(Separately sold)

DTX series (separately sold)

**The stable measurements by MTS series**

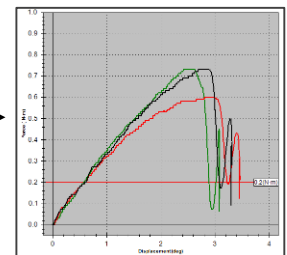
**1. Manual Mode**



Set the speed and press the button. High repeatable measurements are possible by the stable speed.

The Start Buttons

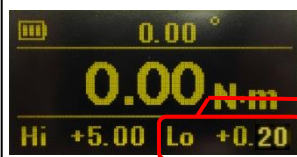
Speed Setting Dial



From hand twisting to motorized twisting of MTS series

**2. Automatic measurements by the setting torque**

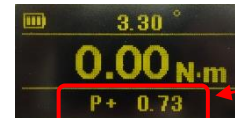
On DTX series



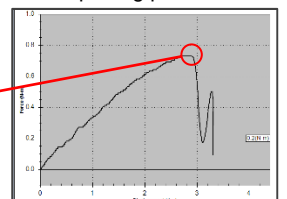
Set the Lower value  
And automatic test starts...



Automatically stop the measurements when the torque reaches at the lower value after capturing peak.



\*The specific combination is require for outputting the angle (Refer to the Page 3).



\*The measurement in accordance with JIS C 8280:2011" Edison screw lampholders" is partly possible with the above function. Please feel free contact us for the detail if necessary. (Our service group contact telephone: +81-(0)532-33-3288)

### 3. Repeat Test by Torque Value

For Repeat or Durable test for bottle caps and circuit boards.



Upper value  
Lower value  
Rotating Speed  
Repeat number

Repeat torque testing based on the measurement condition settings.



By the Combination of the Rotary Encoder Option Model and the Torque Gauge DTXA series...

### 4. Analysis of Torque-Angle Measurement



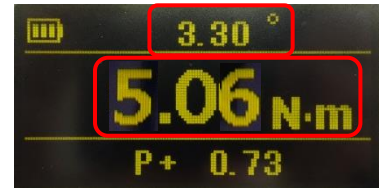
MTS series (-RA option)

&

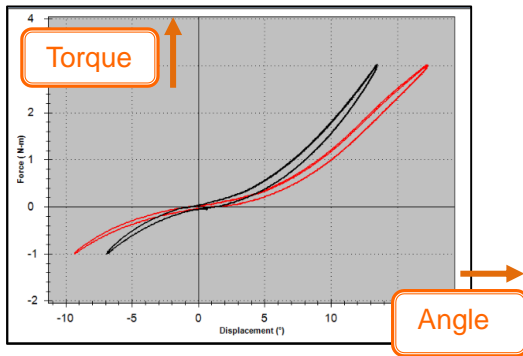


Torque gauge DTXA series

show



Torque and Angle relationship.



Also, torque and angle graphing is possible with

### Force Recorder Professional

(Separately sold) by USB connecting to PC.

←Ex. The graph of twisting strength test for a circuit board, a wooden board, nonwoven fabric and others.

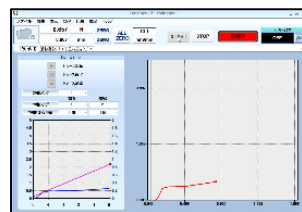
### Improve your testing efficiency

#### Linked Operation the Torque Stand and Graph Drawing Software

#### Test Start



Start the test by pressing the arrow button.

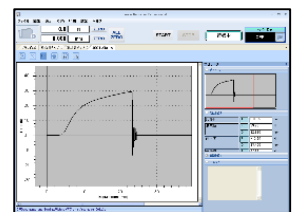


The graph drawing is also started at the same time.

#### Test Finish



The test finishes.



The graph drawing is also finished at the same time.

**One button pressing realizes measurement starting, graph drawing and saving.**

**\*Caution**



◆**The Fixation of the Standard Chuck Attachment**◆

The chucking force should be stable if it affects the torque.  
(Ex. PET bottle or Glass bottle torque measurements.)

◆**Recommendation of the Following Activity for the Sample Setting**◆

M5 hexagon socket head bolt is mounted on the handle.  
Screw it with a torque wrench or a torque driver installing 4mm bit to make chucking force stable.  
Below instruments are available.

◆**Recommended Instruments**◆

<Torque Driver>

-DID-4(SUGISAKI METER CO.,LTD)

-Hex bit(φ4mm)

<Torque Wrench>

- DIW-15(SUGISAKI METER CO.,LTD)

- 6.3sq Hex bit socket (φ4mm)

\*IMADA torque gauge HTGS/HTGA series (the attachment is separately sold) is also suitable for the activity.

\*Please contact us or your local distributor for the detail.

**[MTS series specification]**

Capacity	10N-m
Stroke	Refer to the dimensions
Dimension(mm)	Refer to the dimensions
Weight	Approx.14kg
Speed range	3~ 90 degree/sec
Function	Manual mode, JOG mode, Automatic mode(CONTINUOUS,ONE WAY) (*1)、 Overload preventing function(*1)、 Speed adjustment
Option	Rotary encoder option (*2) (-RA is at the end of the model)
Voltage level	AC100V ~ 240V , 50/60Hz , max 3A(*3)
Available temperature	0 ~ 40 degree Celsius
Available humidity	Less than 85%(No condensation)
Accessories	Power cable , Torque gauge connecting cable (*4), Centering stick, Spare fuse, Instruction manual, tools, Packing cardboard

\*1 Torque gauge should be connected with the cable (included)

\*2 This option is factory fitted only. To save or check angle, a DTXA Torque tester and Force Recorder Professional software are required.

\*3 Fuse may need changing, when used in a place other than country of purchase. Please contact us or your local distributor for the details.






\*4 The cable differ by the model. Standard model →CB-518, -RA option (equipping a rotary encoder) →CB-728.

**[MTS series lineup]**

Model	Option	Maximum sample height
MTS-10N	standard	140mm
MTS-10N-L		240mm
MTS-10N-2L		340mm
MTS-10N-RA	With a rotary encoder*	140mm
MTS-10N-L-RA		240mm
MTS-10N-2L-RA		340mm
MTS-10N-ST+□□□	Height change	Please inform us the necessary height
MTS-10N-RA-ST+□□□	Height change + with a rotary encoder	

\* This option is factory fitted only. To save or check angle, a DTXA Torque tester and Force Recorder Professional software are required.





**[Available sample size]**

	Small sample (less than 140mm)	Medium sample (less than 240mm)	Large sample (less than 340mm)
<b>Sample</b>	 <p>Glass bottle of jam / eye drop bottle/ supplement bottles etc.</p>	 <p>500ml or small PET bottle/ Feeding bottle etc.</p>	 <p>More than 1.5 liter PET bottle etc.</p>
<b>Available stand</b>	 <p>MTS-10N</p>	 <p>MTS-10N-L</p>	<p>Photo is in preparation.</p> <p>MTS-10N-2L</p>

\*The separate sold extension shaft is required for measuring a short sample by the long stroke type MTS series. Please refer to the page 7 for the detail.

\*We also offer custom made order. Please inform us the necessary height.



**[MTS Upper Side Chuck Attachment (separately sold)]**

	Standard chuck	Small chuck(*)	Pin chuck	M10 adapter
<b>Upper side</b>				
	<p><b>Model :MT-TB</b> <b>The allowable sample:</b> φ20~90mm</p>	<p><b>Model: MT-ST</b> <b>The allowable sample:</b> φ7~50mm</p>	<p><b>The allowable sample(Model)</b></p> <ul style="list-style-type: none"> <li>▪ Largeφ1.2~13mm(MT-DC-13)</li> <li>▪ Mediumφ0.5~6.5mm(MT-DC-6.5)</li> <li>▪ Stain-less Medium(MT-DC-6.5SUS)</li> <li>▪ Small φ0.5~4mm(MT-DC-4)</li> </ul>	<p><b>Model:MT-AD-M10</b> It makes possible to mounting with M10 female screw fixtures.</p>

\*The pin types are selectable. Please refer to the torque gauge table attachment specification for the detail.

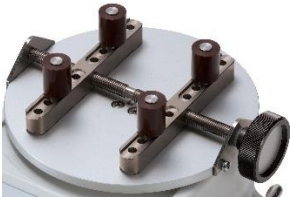




**[Compatible Torque Gauges (separately sold)]**

Advanced model	Standard model
DTXA series	DTXS series
	
The advanced model torque gauge equipping various functions such as angle input/ output and data saving to USB flash drive.	The standard model torque gauge focusing on the usability and the high measuring performance of DTXA series.

DTXS/DTXA series table can be selected from below.



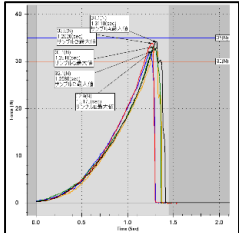


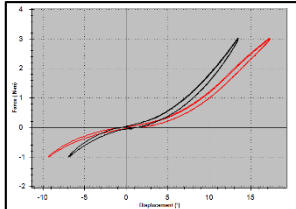
Please refer to the torque gauge table attachment specification for the further information.

Table Attachment for DTX series		
Standard table(*) Model: DT-TB	Small table(*) Model: DT-ST	Pin chuck Model: DT-DC-6.5 etc.
		

\*The pin types are selectable.

\*Please refer to the torque gauge table attachment specification for the detail.

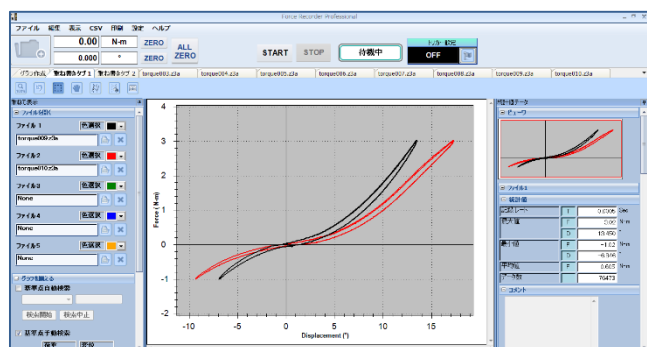
**[Example combination: for 500ml PET bottle]**

	Torque Gauge	Torque Stand	Upper attachment	Bottom attachment	Software
Measurement only for torque	 DTXS series	 MTS-10N-L	Choose the attachments by the sample		 Force Recorder Standard Torque-Time Graph
Measurement for torque and angle	 DTXA series	 MTS-10N-L-RA	Choose the attachments by the sample		 Force Recorder Professional Torque-Angle/Torque-Time Graph

\*The torque- angle measurement unit including all necessary products is TAA series. Please refer to the detail of TAA series specification if necessary.

[Related Products]

Force Graphing Software :Force Recorder



\*The display is from Professional type.

The remarkable points of Force Recorder

- Draw smooth graphs of torque-time or torque-angle(\*1) with USB high speed communication (Max. 2000 data/sec)
- Max. 5 graphs are compared on the same display (Limited function of Standard or Professional type)
- The measurement conditions such as the speed and the using fixture enable to be written on the each graph.

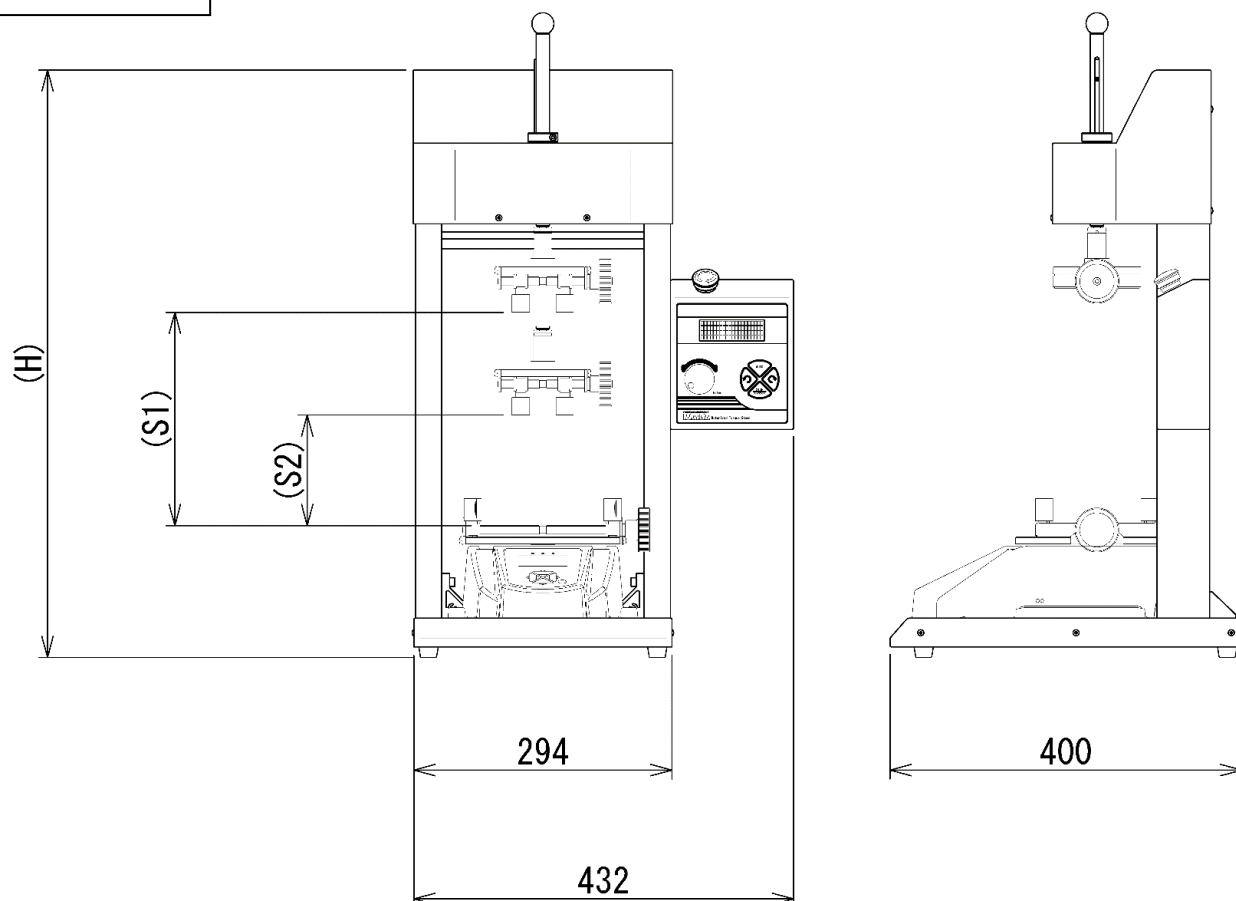
\*Selectable 3 types, Light type, Standard type and Professional type, are available.

\*Please refer to the each specification for the detail.

\*DTXA and MTS -RA option are required for the drawing graphs of torque- angle.

**[Dimension (Unit: mm)]**

MTS series

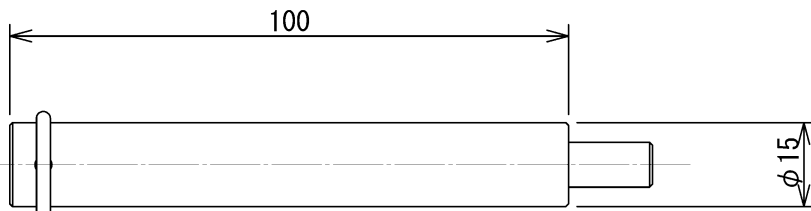


Model	H	S1	S2
MTS-10N	575mm	140mm	30mm
MTS-10N-RA			
MTS-10N-2L	675mm	240mm	130mm
MTS-10N-2L-RA			
MTS-10N-ST+□□□	575+□□□mm	140+□□□mm	30+□□□mm
MTS-10N-RA-ST+□□□			

\*S1 and S2 are the strokes of mounting the standard chuck attachment (separately sold) on this product and the standard table on the torque gauge.

\*The optional extension shaft MT-EXT is required for measuring a short sample with the long stroke type MTS series. Please refer to the Page 7.

Extension Shaft MT-EXT



The extension shaft MT-EXT (separately sold) is required for measuring a short sample by the long stroke type MTS series. It is also able to make a longer shaft by the custom made order. Please contact us.

**[Cautions]**

- The contents may be changed without previous notice.
- All of products are designed for measurement purpose only.
- Do not copy and use this content without authority.
- Please note if you add load over capacity or apply twist or side force, the sensor would be broken down.