

Motorized Torque Stand MTS series

- It provides constant rotation speed, producing greater accuracy.
- It has a variety of measuring capabilities such as torque control functions and torque-angle measurements etc.
- We offer wide range of clamps / sample holding attachments to fit your sample's sizes, shapes and materials.


MTS series

Standard Chuck Attachment (Separately sold)

Automatic Rotation
-Selectable from 3 degree/sec up to 90 degree/sec
-Control the rotation according to a torque value (Refer to the page 1 and 2)


Various Clamp Attachments
-Select attachment to fit your sample shape and materials. (Refer to the page 3 and 4)

Standard Table (Separately sold)



Simple Operations

Speed setting dial Display the speed, the repeat number and the pausing time



Operate the direction of rotation

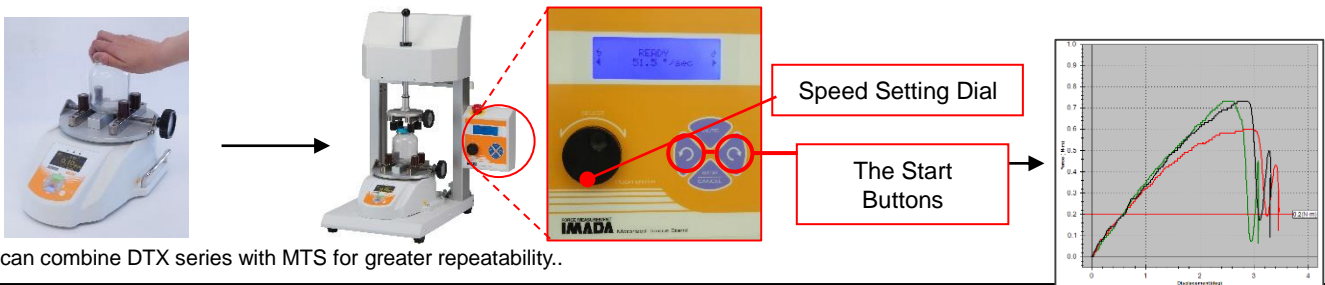
Switch the manual mode and the automatic mode

Torque gauge DTX series (separately sold)

MTS Features

1. Providing highly repeatable measurement

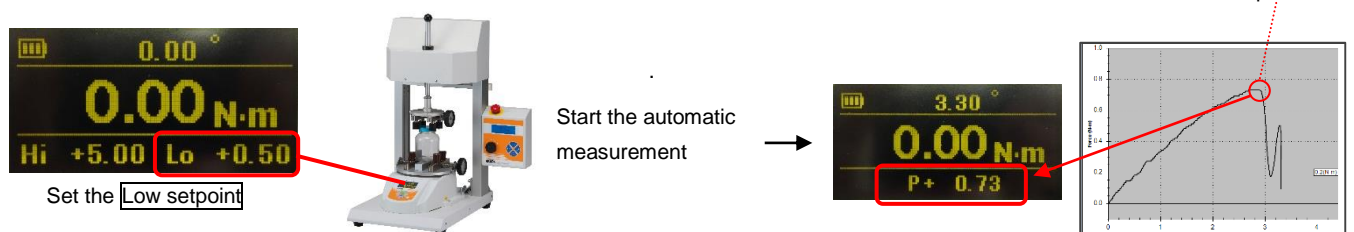
Simply set the speed and press the button to start. It offers constant test speed, producing highly repeatable measurements.



You can combine DTX series with MTS for greater repeatability..

2. Automatic operation

It automatically stops measurement when torque reaches the low setpoint after capturing peak.



Set the **Low setpoint**

Start the automatic measurement

peak

*You can perform a torque test partially in accordance with JIS C 8280:2011 "Edison screw lampholders" using the measurement method above. Please feel free contact us for the detail if necessary. (Our service group telephone: +81-(0)532-33-3288)

3. Enabling durability tests using repetition function

After setting the test requirements, it applies torque repeatedly.

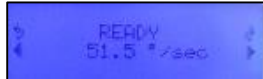
For Durability tests for bottle caps or circuit boards.



Set requirements



- Upper value
- Lower value



- Rotating Speed
- Repeat number



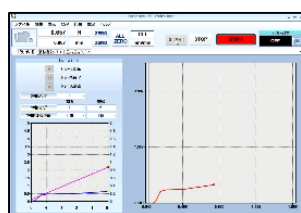
4. Making efficiency using software

With a single touch of a button, you can start measurement and graph drawing, and save the record.

Start tests



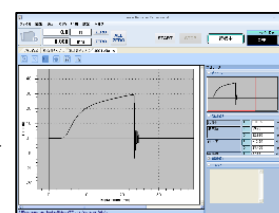
Press START button to start measurement.
Then software starts graphing at the same time.



Finish tests



When measurement is done,
software also stops graphing at the same time.



[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 enables sending angle data to torque tester. It is factory fitted only. To save or check angle, you need a DTXA Torque tester and Force Recorder Professional software.

*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]

	MTS-10N	MTS-10N-L	MTS-10N-2L
Image			printing
Maximum sample height	140mm	240mm	340mm
Feature	For small samples	For middle size samples	For large samples
Recommended samples	 Glass bottle of jam / eye drop bottle / supplement bottles etc.	 500ml or small PET bottle / Feeding bottle etc.	 More than 1.5 liter PET bottle etc.

*We can custom design and manufacture to meet your particular requirements. Please let us know the height you need.

*You may need an extension shaft to measure a low sample using MTS-10N-L and MTS-10N-2L.

Please see "How to select the extension shaft" below.

How to select the extension shaft

For MTS-10N-L





Sample height	Required extension shaft
130 to 240mm	No need
Lower than 130mm	MT-EXT (100mm length)

*Please see P' for the shaft's dimensions.

For MTS-10N-2L

Sample height	Required extension shaft
230 to 340mm	No need
130 to 230mm	MT-EXT (100mm length)
Lower than 130mm	MT-EXT2 (200mm length)

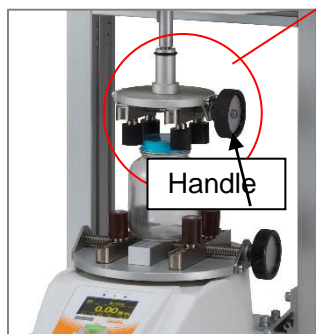
[Grips for upper side of MTS (Sold separately)]

Model	Standard chuck MT-TB	Small chuck(*) MT-ST	Pin chuck MT-DC-13 etc.	M10 adapter MT-AD-M10
Image				
Sample diameter	φ20~90mm	φ7~50mm	<ul style="list-style-type: none"> • MT-DC-13: L φ1.2~13mm • MT-DC-6.5: M φ0.5~6.5mm • MT-DC-6.5SUS: M (Stain-less) • MT-DC-4: S φ0.5~4mm 	You can combine attachment having M10 female

*For further information, please see Specification of "Attachments for torque gauges" and "Tables for torque gauge".

*We offer a few choice for pins

***Tips for appropriate measurement**



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

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

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

Screw M5 hexagon socket head bolt on the handle by a torque wrench or a torque driver with 4mm bit to regulate chucking force.
The following instruments are recommended to do this.

◆**Recommended Instruments**◆

<Torque Driver>

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

-Hex bit(φ4mm)

<Torque Wrench>

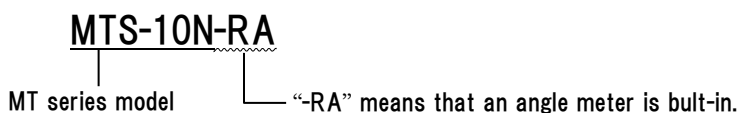
- DIW-15(SUGISAKI METER CO.,LTD)

- 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.

[Optional Function -RA]



Usage examples of MTS equipping an angle meter

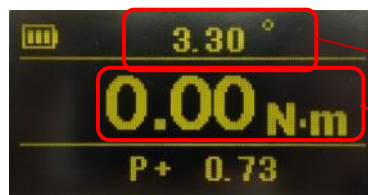
You can analyze the relation of torque and angle using MTS series (-RA) combined with DTXA series.



MTS series (-RA)



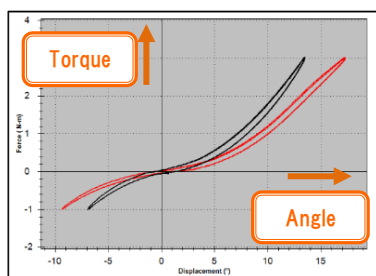
Torque gauge DTXA series



angle

torque

↑ It indicates torque and angle.



Data analyzing software



Force Recorder Professional (Sold separately)

It enables graphing torque-angle on PC via USB cable.

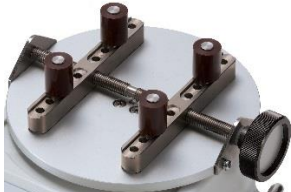


←An example graph of twist testing for circuit board/board/bonded textile etc.

*We offer a package of MTS series (-RA) and a torque gauge DTXA series as TAA series. Please refer to Specifications of TAA series for further information.

[Compatible Torque Gauges (separately sold)]

Model	DTXA series	DTXS series
Image		
Feature	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 having high measuring performance and high usability.

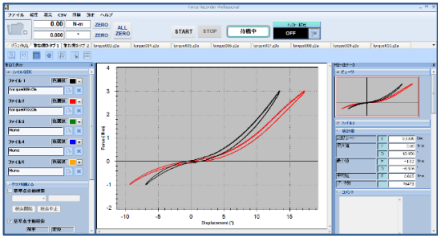
[Table and Attachment for One (separately sold)] *These are for DTX series.

Model	Standard table(*1) Model: DT-TB	Small table(*2) Model: DT-ST	Pin chuck Model: DT-DC-6.5 etc.
Image			

*1 The pin types are selectable.

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

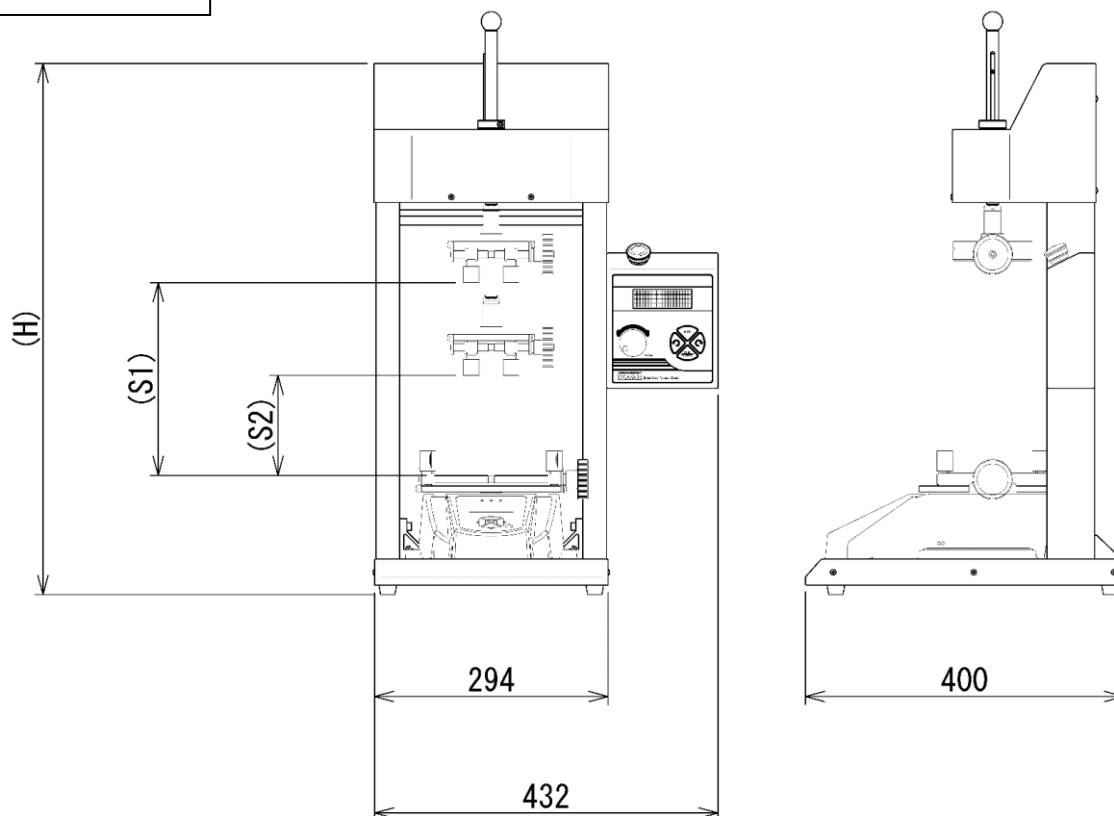
[Data Analysis Software: Force Recorder]

Image	Feature
	<ul style="list-style-type: none"> ▪ It draws smooth graphs of torque transition at high speed (Max. 2000 data/sec) via USB. ▪ It overlays Max. 5 graphs (Limited function of Standard or Professional type) ▪ You can write test requirements such as test speed, fixture, etc for each graph. ▪ It draws torque-angle graph using the following 3 items together: <ol style="list-style-type: none"> 1. MTS series (-RA) 2. Torque gauge DTXA 3. Force Recorder Professional. ◆ Selectable from 3 types: Light, Standard, and Professional.

*Please refer to the each specification for the detail.

[Dimension (Unit: mm)]

MTS series

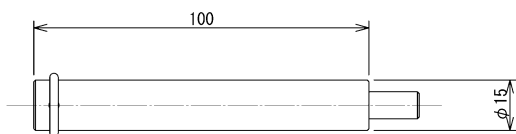


Model	H	S1	S2
MTS-10N	575mm	140mm	30mm
MTS-10N-RA			
MTS-10N-L	675mm	240mm	130mm
MTS-10N-L-RA			
MTS-10N-2L	775mm	340mm	230mm
MTS-10N-2L-RA			

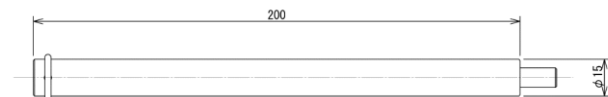
*S1 and S2 are the stroke ranges when a standard attachment (sold separately) and a standard table are attached.

[Dimensions for Optional Extension Shaft (Unit:mm)]

Extension Shaft MT-EXT



Extension Shaft MT-EXT2



[Cautions]

- The contents may be changed without previous notice.
- All of the 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.

Feel free to contact us if you have any concerns. Our service gr: +81-(0)532-33-3288