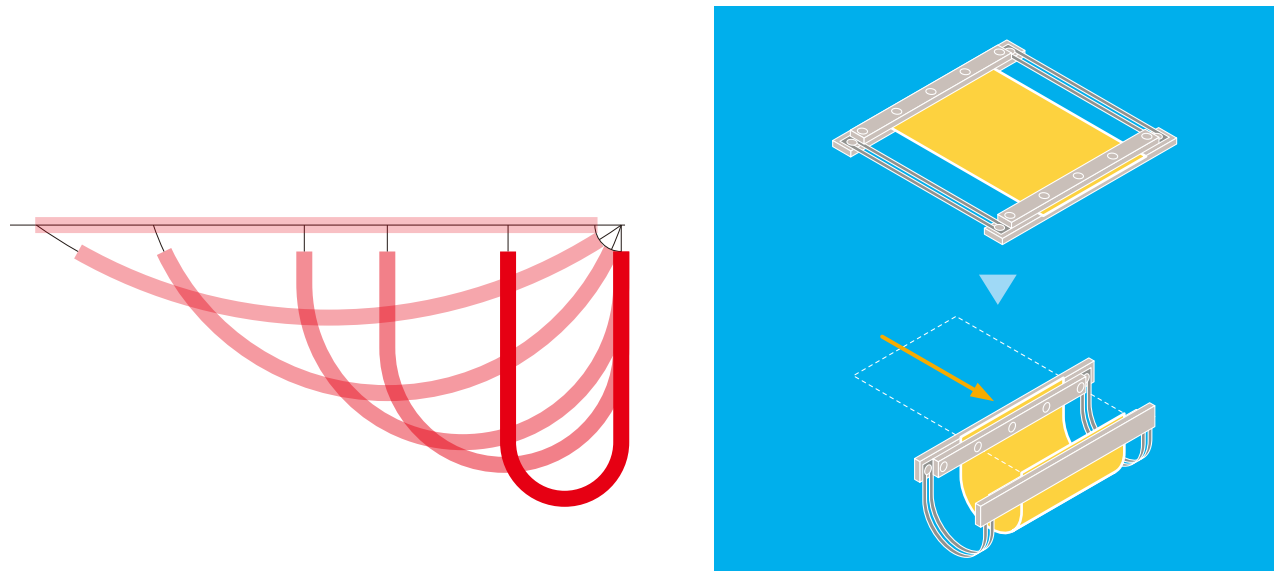


FLEXIBLE DISPLAY ENDURANCE TESTING SYSTEM

Non-tension U-shape Folding Test

Bending Test without Tension and Friction.

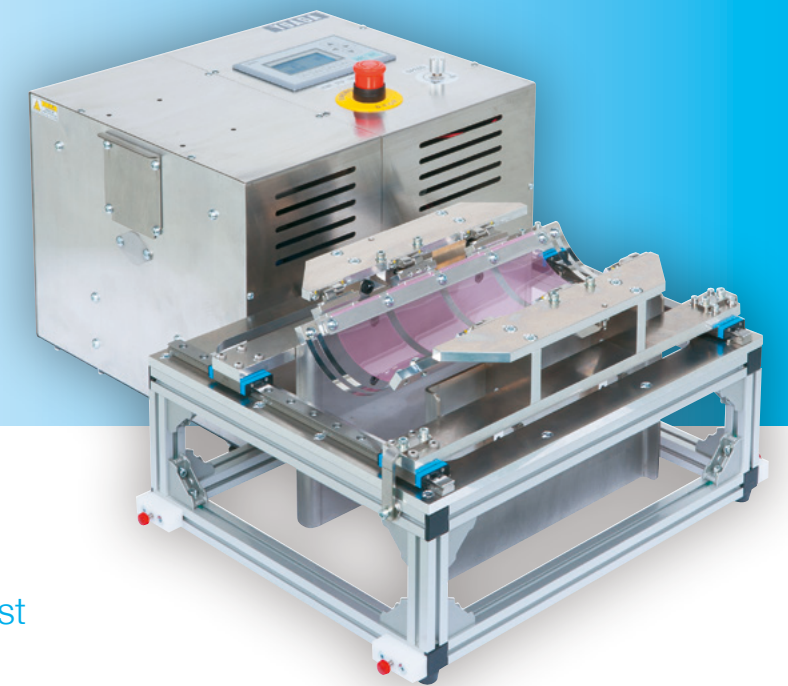
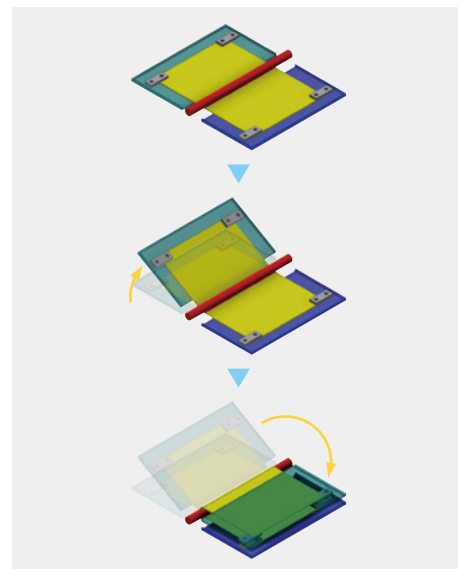
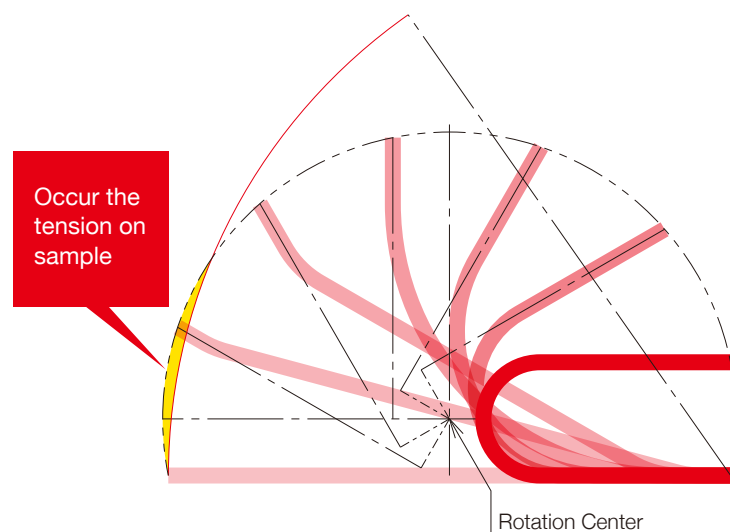
This test equipment gives the bending load by going straight one side of the sample towards the other. In this case, tension and friction don't occur because only bending force is applied to sample.



Install a sample with straighten, then repeat the stretching motion. Tilt controller moves downward in shrinking a sample, so sample will be a natural bending shape.

Issue in general bending test

With a test machine like right picture, the large tension occurs on the sample at the same time as starting a test. To understand the cause of this phenomenon, drawing a circle which is radius of sample length on the motion track of test machine such as left figure helps to you. In the yellow area, sample length is shorter than moved track of clamp. With using a rod, this phenomenon become conspicuous. For these reasons, unexpected breaking or dispersion of test data appear.



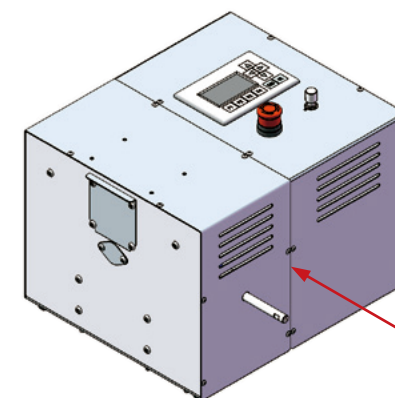
Endurance Testing System for Non-tension U-shape Folding Test

DLDMLH-FS

Desktop Model Endurance Testing Machine

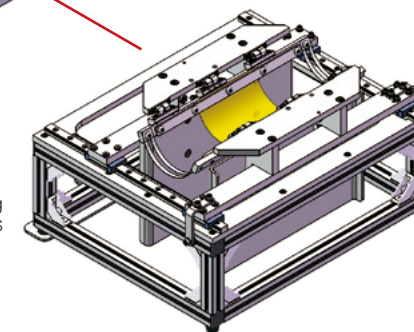
Non-tension U-shape Folding Test

This machine realizes the ideal bending shape as handwork.



Desktop Model Endurance Testing Machine
DLDMLH-FS

Non-tension U-shape Folding Test Jig
DMX-FS



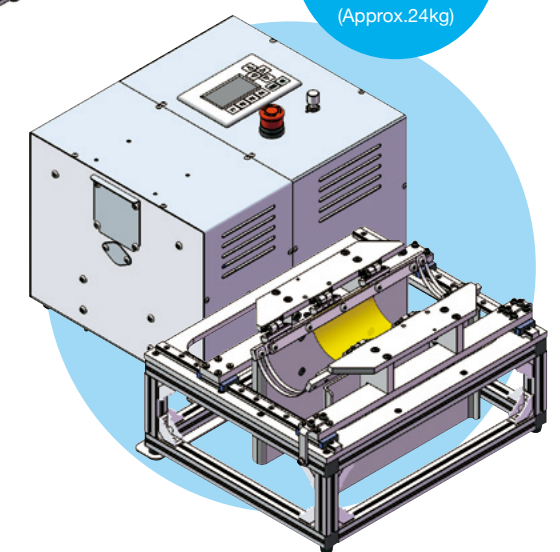
DLDMLH-FS
Non-tension
U-shape Folding Test
Drawing of
Completed Assembly
(Approx.24kg)

Non-tension and non-friction test

It is possible to fold without tension and friction for planar objects like films and FPCs.

Ideal bending test

This machine can form ideal bending shapes by the elasticity of test pieces, or tiny one by guide plates. (patent pending)

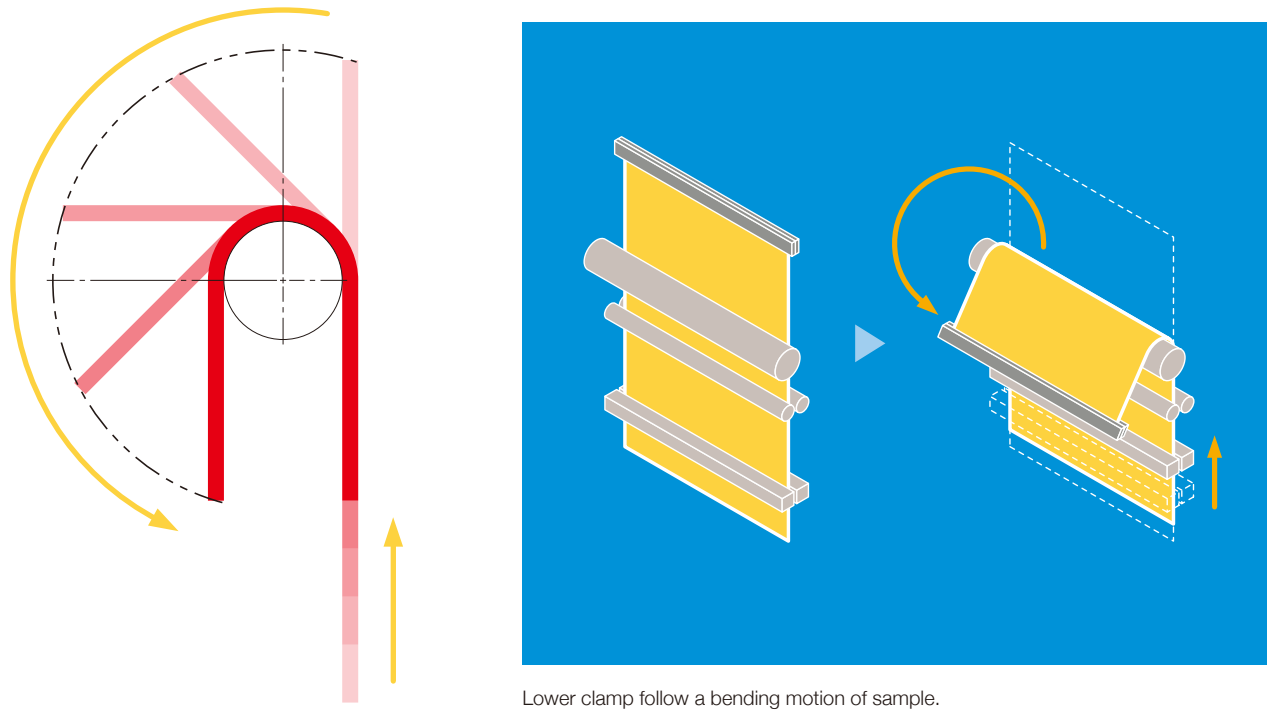


A safety cover is available for the flexible area as an option.

Non-tension Bending Test

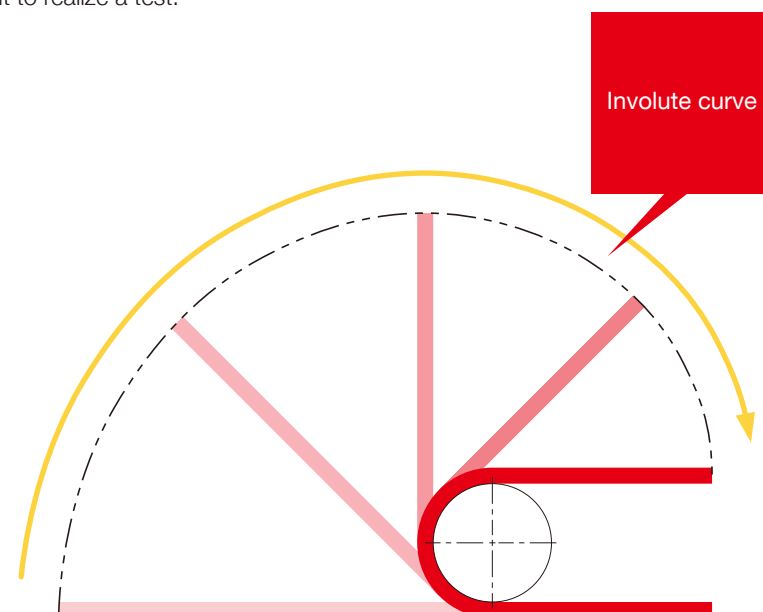
Bending Test without Tension (constant bending radius)

This equipment uses the bending rod to keep a bending radius constantly. The clamp moves on a central circular orbit same as bending rod. At this time, the other clamp will follow a bending rod. Tension doesn't occur for sample.



Issue in general bending test

When bend a sample along a bending rod, a edge of sample draws an Involute curve. Because test equipment can't clamp a sample, it is difficult to realize a test.

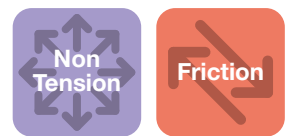


Endurance Testing System for Non-tension Bending Test

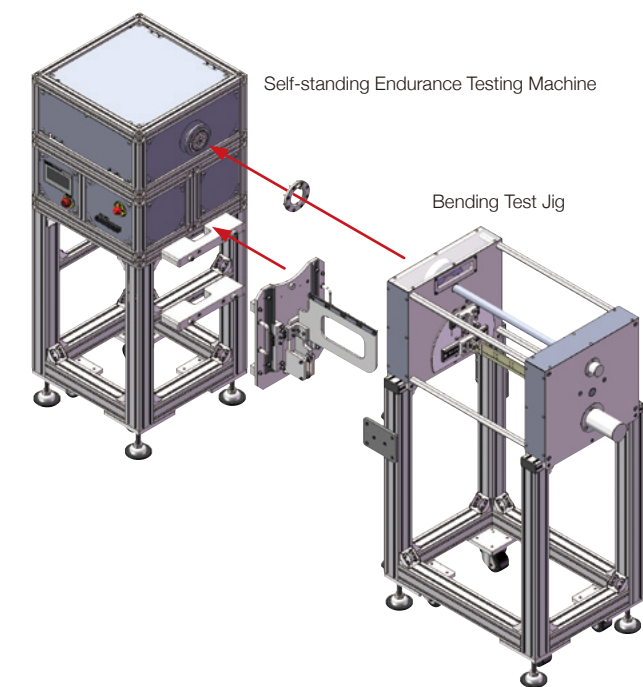
TCD-BTFB

Self-standing Endurance Testing Machine

Non-tension Bending Test



This test equipment can realize a bending test for a flexible device from card size to A4 size. Bending test with a weight can test by changing test jig.



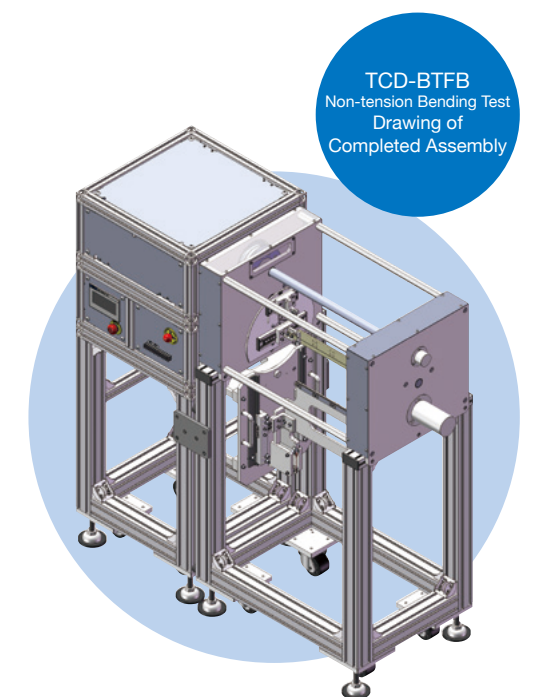
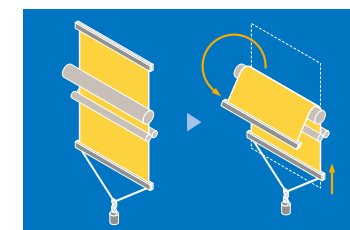
TCD-BTFB
Non-tension Bending Test
Drawing of
Completed Assembly

For sheet-shaped sample like a flexible device

This equipment can test for sheet-shaped sample from card size to A4 size by changing clamp position of sample. Operating angle is max. $\pm 180^\circ$, and available not only one side bending but also both side.

Tension and Friction test with weight

By changing test jig, it is possible to do bending test with burden by using a weight.



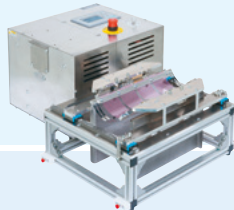
No weights are included.



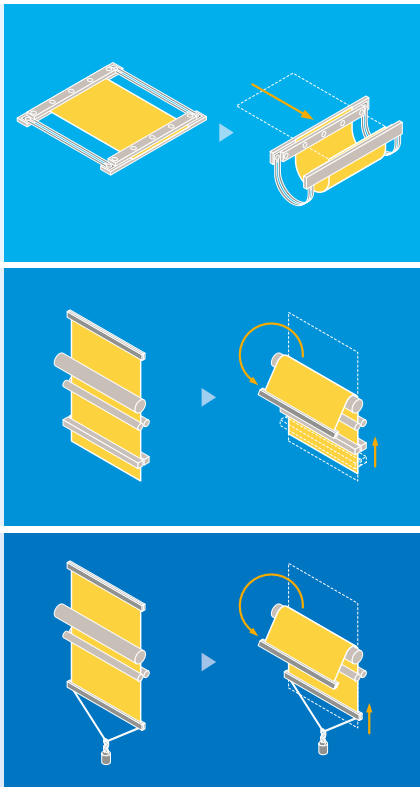
Applicable area of each system

Applicable area of each system for materials / devices / final products.

DLDMLH-FS
Desktop Model
Endurance Testing Machine
Non-tension U-shape Folding Test



TCD-BTFB
Self-standing
Endurance Testing Machine
Non-tension Bending Test



Materials

- Film
- Adhesion
- Ink



Devices

- Displays
- Semiconductor



Final Products

- Smartphones
- Tablet Devices





To improve our products, please note that their outer appearances and/or designs are subject to change without notice.

Our product information is also available on <http://www.yuasa-system.jp/en>

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Safety Note

To ensure your safe and proper usage, please observe all the manuals before using these machines.

Contact Us