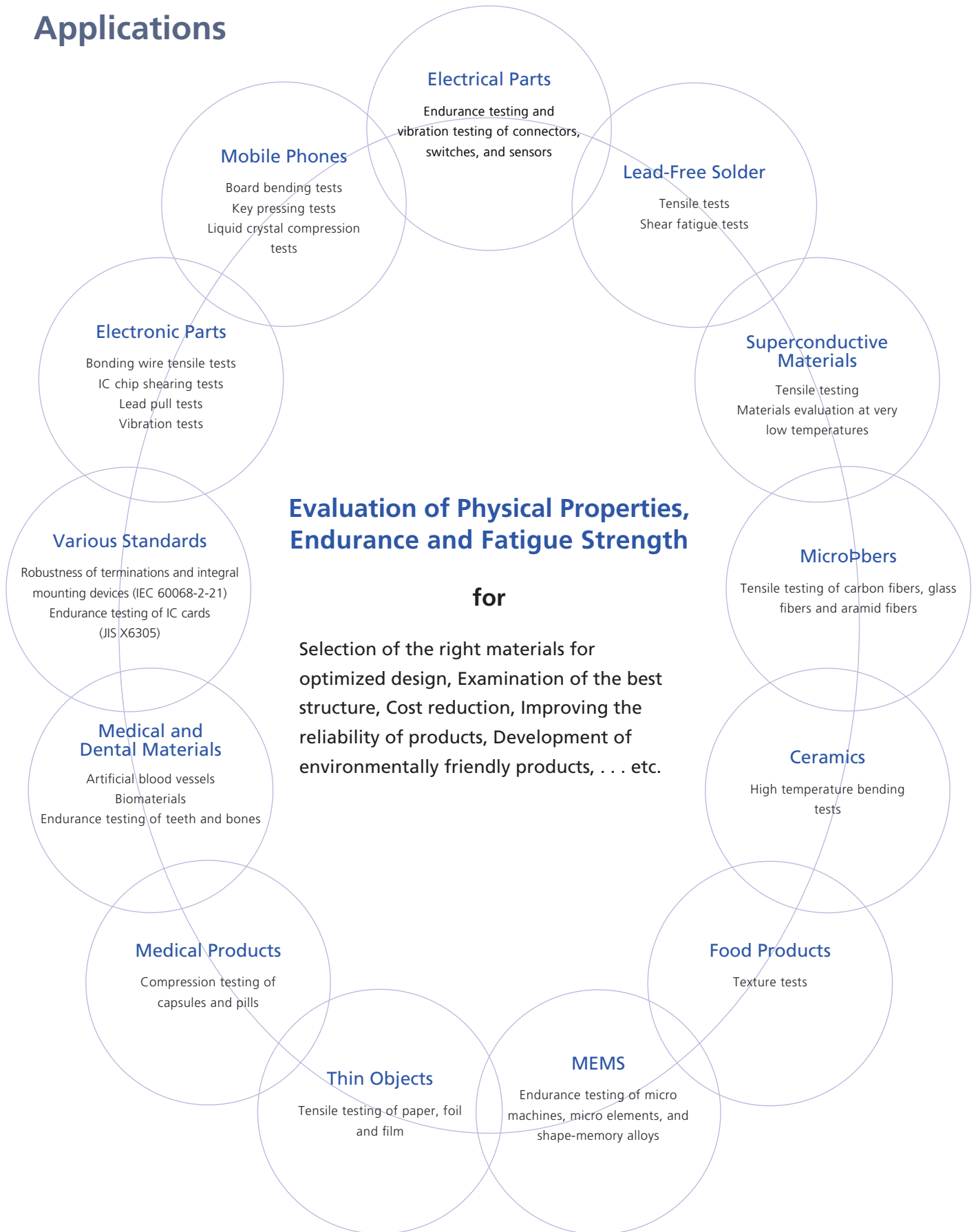


Magnetic Micro Testing System

Microservo MMT Series



Applications



Applicable Test Devices

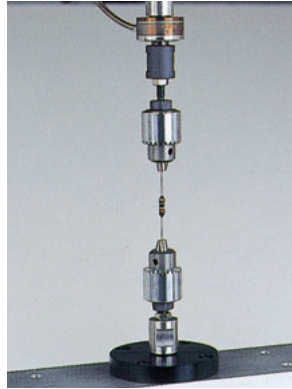
Tensile Test Jig

Test force: 100 N
 Specimen shape: Round bar ($\varnothing 4$)
 or
 flat plate (1 mm thickness \times 5 mm
 width maximum)



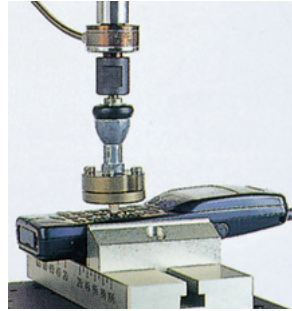
Drill Chuck Grip

Test force: 100 N
 Specimen shape: Round bar ($\varnothing 0.5$
 to 3 mm)
 or
 flat plate (1 mm thickness \times 4 mm
 width maximum)



Key Pressing Test Jig

Test force: 100 N
 Punch tip radius: $\varnothing 3$
 Punch material: Rubber
 Specimen:
 Mobile phones, keyboards



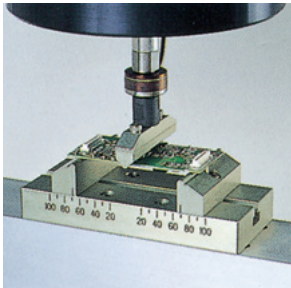
Compression Test Jig

Test force: 100 N
 Lower platen: $\varnothing 110$ mm
 Upper platen: $\varnothing 30$ mm
 * Various compression testing jigs,
 including tooth type, spherical type
 and those for key pressing tests, are
 available.



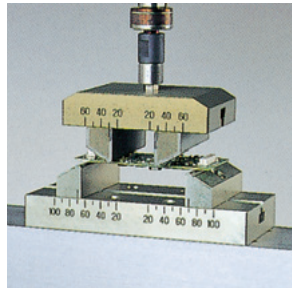
3-Point Bending Test Jig

Test force: 100 N
 Punch tip radius \times width: R2 \times 60mm
 Support roller radius \times width:
 R2 \times 60 mm
 Support spacing: 20 to 100 mm



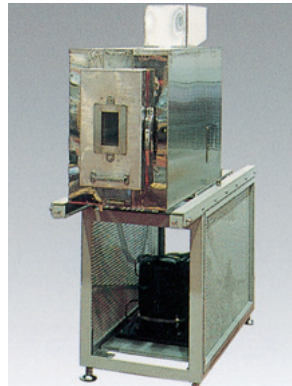
4-Point Bending Test Jig

Test force: 100 N
 Punch tip radius \times width: R2 \times 60 mm
 Punch span: 20 to 60 mm
 Support roller radius \times width:
 R2 \times 60 mm
 Support spacing: 20 to 100 mm



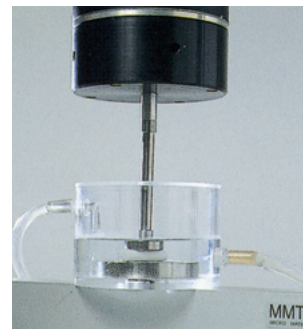
Thermostatic Chamber

Temperature range: Room
 temperature + 10 to 300°C



Constant Temperature Water Immersion Test Equipment

Temperature range: Room
 temperature + 10 to 50°C



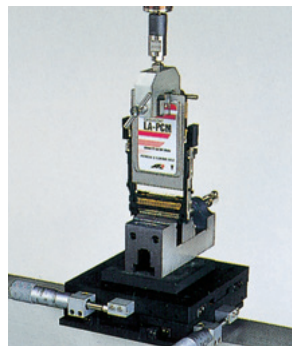
Microscope



Excitation Table



Card Insertion Test Jig



X-Y Stage

Distance: ± 12.5 mm



Control System



Controller 4830

Easy-to-use and multi-functional! The next generation of controller...

Extremely simple operation using a color LCD and touchpanel

Waveform generation with excellent reproducibility

Fully digital control with control parameter autotuning and waveform distortion correction functions achieves faithful load waveform reproducibility.

Push test function for testing actual objects

Achieves stable peak-value control using the test force, even for specimens with "play" (areas where no test force is applied).

World-class basic performance

The 24-bit high-resolution AD converter and detector-output linearization function achieve Class 0.5 test force accuracy (0.5% indicated value) with a standard system.

Waveform display functions

Test waveform display functions installed as standard permit the realtime display of time graphs, X-Y graphs, and peak graphs.

Major Specifications

In combination with Controller 4830

Main Unit Model	MMT-500NV-10	MMT-250NV-10	MMT-101NV-10	MMT-101NV-2	MMT-11NV-2
Part No.	348-20803-00	348-20802-00	348-20801-00	348-20801-01	348-20800-01
Test force	Max. ± 500 N	Max. ± 250 N	Max. ± 100 N		Max. ± 10 N
Piston stroke	Max. ± 10 mm			Max. ± 2 mm	
Frequency	Max. 100 Hz				Max. 60 Hz
Controlled items	Test force, piston stroke (can be expanded by adding options)				
Load cell (standard accessory*1)	± 500 N	± 250 N	± 100 N		± 10 N
Jigs and test devices	Not included in standard configuration (standard specification). (Select options or consult Shimadzu.)				
Indication accuracy	Test force : within $\pm 0.5\%$ indicated value or within $\pm 0.02\%$ dynamic max. test force, whichever is larger*2 Stroke : within $\pm 1\%$ indicated value or within $\pm 0.1\%$ max. stroke, whichever is larger				
Installation space (W x D x H)	1000 x 500 x 1200 mm (approx.)				
Total weight	approx. 150 kg	approx. 120 kg	approx. 100 kg		approx. 80 kg
Power supply	1 ϕ 100 V 1 kVA				1 ϕ 100 V 500 VA

*1 Various capacity load cells are available as options.

*2 For MMT-11NV-2, this becomes "within $\pm 1\%$ indicated value or within $\pm 0.02\%$ dynamic max. test force, whichever is larger."

• CE marked models are available as options.

Installation Requirements

1. Avoid the following conditions when installing the device.

- Large temperature fluctuation (Recommended temperature range: + 10 to + 40°C with temperature fluctuation within $\pm 5^\circ\text{C}$)
- High humidity
- Direct air blow from air-conditioners
- Exposure to direct sunlight
- Dust
- Vibration (Recommended: below 5 μm)

2. Power source conditions

- Avoid power sources with large voltage fluctuation (within 100 V \pm 10%).
When voltage fluctuation is unavoidable, use a dedicated constant voltage power supply.
- Grounding
D Class (Less 100 Ω)

External Dimensional Drawings

