Table Top Universal Testing Machine

Force Tester

MCT Series



A&D Company, Ltd.

Strength you can see!
Easy to operate with precision color touch panel.

General purpose
MCT-1150
Load display resolution: 0.1N

High performance
MCT-2150
Load display resolution: 0.01N

High performance, low capacity model
MCT-2150W
Load display resolution: 0.001N (When using 50N load cell)

Compact

Space-saving design allows for table top use (250(W)×405(D)×711(H) mm).

No hassle start up

Automatic calibration on start up means no waiting around. (Load cell calibration unnecessary)

High precision load cell included

Use with your favorite jigs

Use jigs from companies other than A&D as well.

*When using the M6 male screw adapter



*Picture shows tensile testing

Simple USB connection



*PC sold separately

Ideal for use in the field

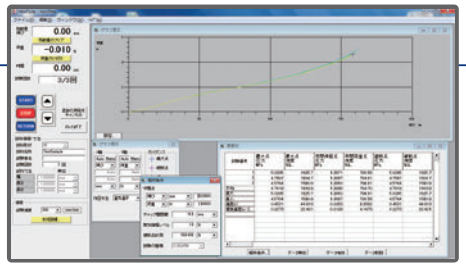
Easily adjust digital testing speed in 1 mm/min increments.
Standard displacement display.

Use only the touch panel to operate

Crisp, clear touch panel is easy to operate.

Data capture software included

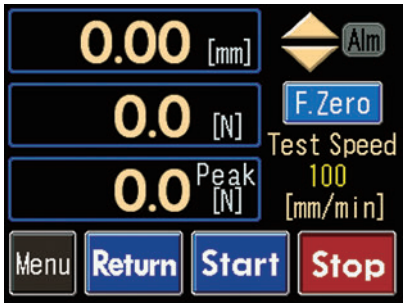
Supported OS: Windows XP Pro, 7 Pro, 10 Pro, 11 Pro
USB: Ver 2.0 or higher



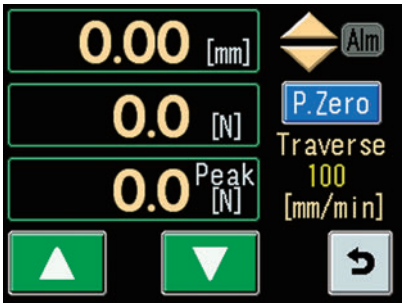
MSAT-Lite [Data processing software]
Displays operation and processing results.
Performs data analysis and graphing.
Or enter curve data in CSV format.

Easy to operate touch panel

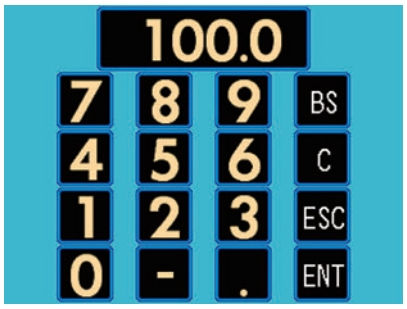
Main screen



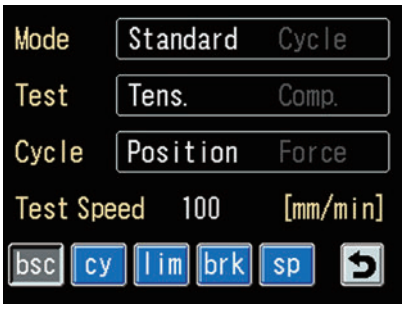
Manual operation screen



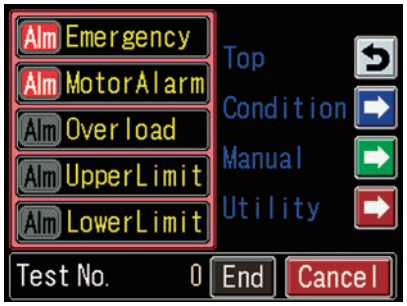
Speed setting input screen



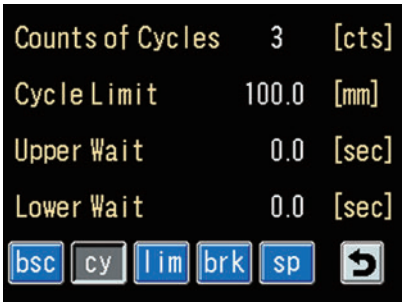
Test condition settings screen



Menu/alarm setting screen

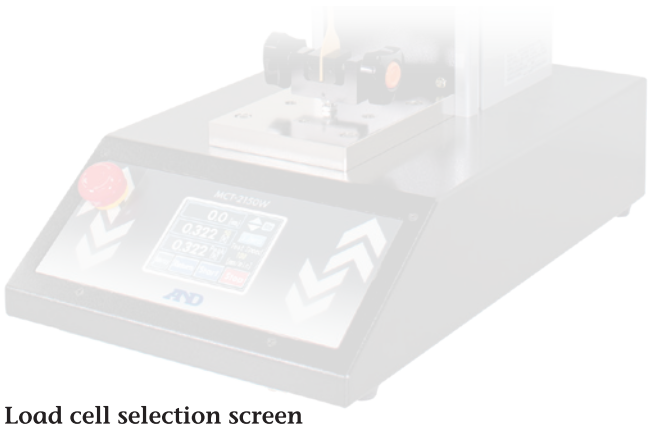


Cycle test settings

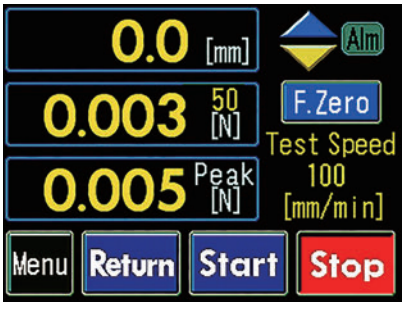


Limit settings

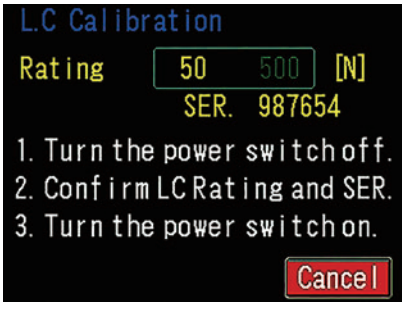




MCT-2150W main screen
(When using 50N load cell)



Load cell selection screen
(MCT-2150W only)

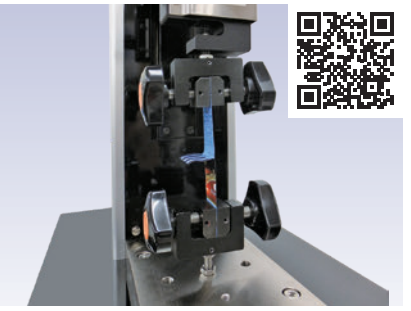


Supports various material tests *Not waterproof

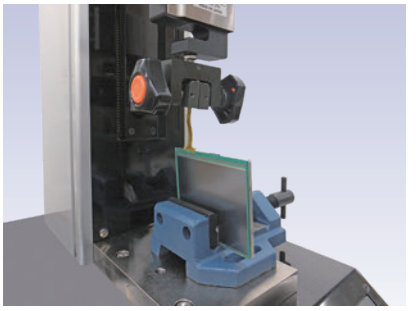
Switch push force test



Heat seal peel strength test



Electronic component tensile strength test



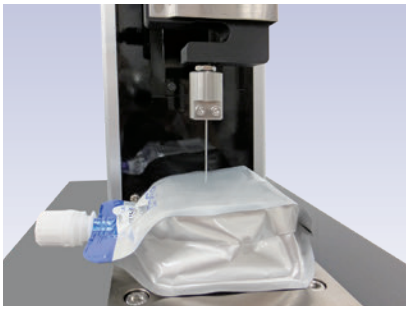
Packing container compressive strength test



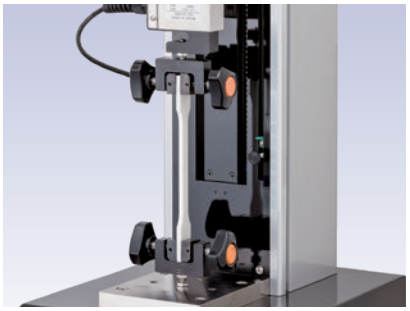
Plastic bottle compressive strength test



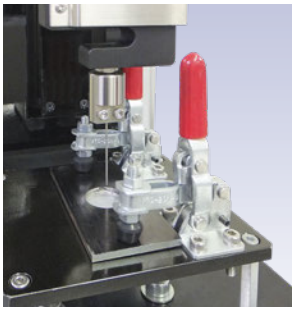
Packing container puncture resistance test



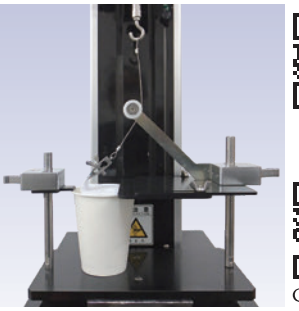
Tensile strength test



Food packaging puncture test



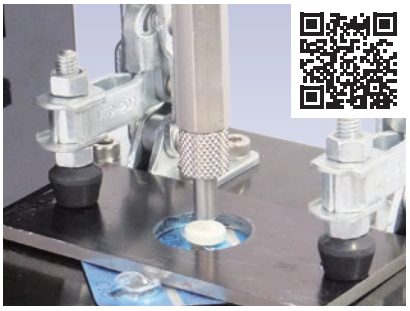
Container seal peeling test



Pudding

Cup ramen

Medicine PTP packaging push force test

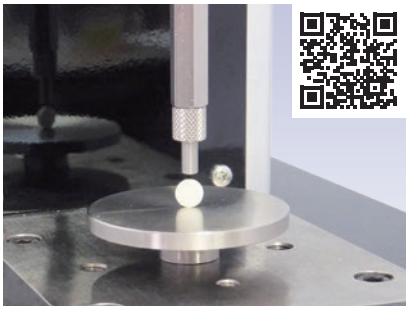


Syringe resistant test

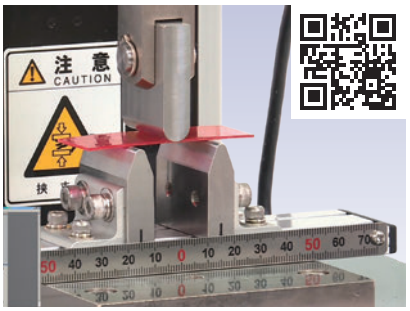


*Custom-made products

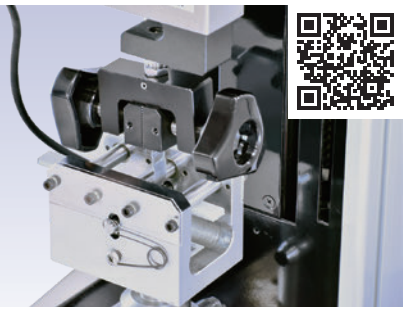
Tablet strength test



Sheet metal bending strength test



Plating peeling test



Safety cover

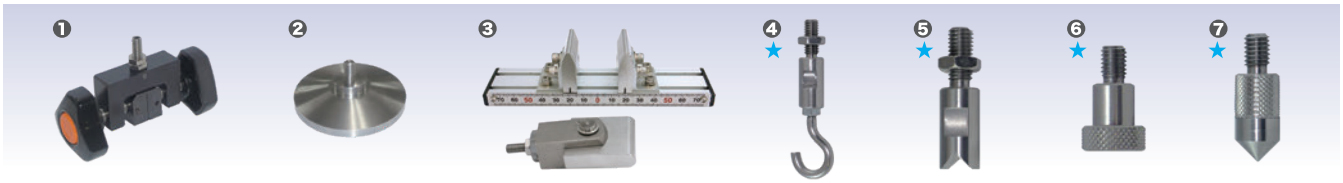


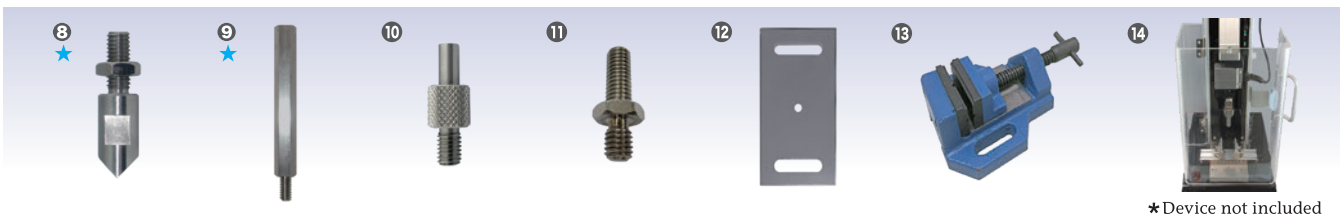
A safety cover can be installed to prevent samples from being scattered during measurement.

Accessories

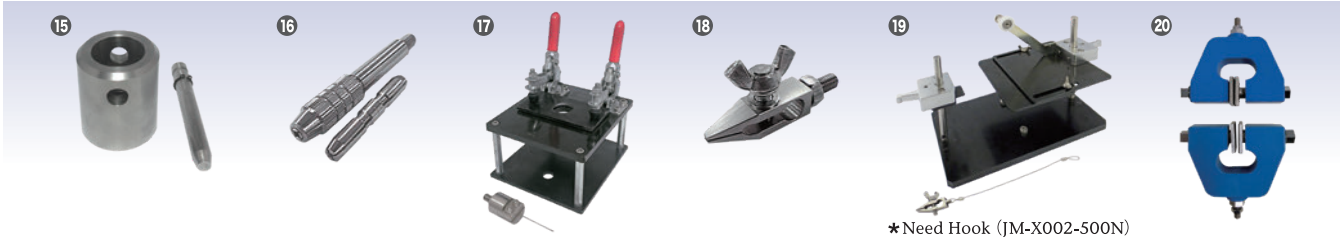
Optional jigs

❶ JM-JFM-500N	Screw action jaws (Not sold as a bottom/top pair)	Maximum load 500N Price for one piece. An upper and lower jaw are necessary for tensile strength tests. Face dimensions 20 (w) × 19 (h) mm, opening width 10 mm. The face side is knurled.
❷ J-C3-1KN-U	Load sensitive plates for STA/STB For 1kN/500N/50N Ø60 mm	Maximum load 500N Price for one piece. An upper and lower jaw are necessary for compression tests.
❸ JM-B-500N	R2 Bending test jig	Maximum load 500N Lower fulcrum R2 Upper fulcrum R5. Bottom span between 10 and 110 mm.
JM-B1-500N	R5 Bending test jig	Maximum load 500 N Lower fulcrum R5 Upper fulcrum R5. Bottom span between 10 and 110 mm.
JM-X001-500N	Attachment set (Items with ★ included)	Maximum load 500N Attachment set.
❹ JM-X002-500N★	Hook	Maximum load 500N Hook inner diameter 10 mm. The hook opening is 6 mm allowing string-shaped objects with a diameter of 6 mm or less to be hooked.
❺ JM-X003-500N★	V groove indenter	Maximum load 500N Tip V Groove angle 90°, diameter 10 mm, length 20 mm
❻ JM-X004-500N★	Load sensitive plate Ø15 mm	Maximum load 500N Tip diameter 15 mm, height 16 mm
❼ JM-X005-500N★	Cone indenter	Maximum load 500N Tip cone 90°, diameter 10 mm, length 20 mm
❽ JM-X006-500N★	Wedge indenter	Maximum load 500N Tip edge angle 60°, blade width 10 mm, diameter 10 mm, length 20 mm
❾ JM-X007-500N★	Extension rod	Maximum load 500N Used to extend hooks and attachments. Length 80 mm, M6 female screw 14 mm depth to fix attachment
❿ JM-X008-500N	Load sensitive plate Ø5 mm	Maximum load 500N Tip diameter 5 mm, height 20 mm Used when compressing small objects.
⓫ JM-X009-500N	M6 Male screw adapter	Maximum load 500N Used to fix M6 female screw jigs or attachments.
⓬ JM-X010	Lower adapter	Maximum load 500N Used to shift the position of lower jigs.
⓭ JM-X011	MCT vice	Maximum load 500N Open width max 30 mm.
⓮ JM-X012	MCT safety cover	Safety cover for preventing scattering of materials. Made of acrylic.
⓯ JM-X013	MCT jaw stand for Tensilon jigs	Maximum load 500N Jaw stand for use with Tensilon testing jigs. Fixed by pin.
⓰ JM-X014	Pin Chuck (100N)	Maximum load 100N Same as pin vice. Grip pin diameter max 3.2 mm.
⓱ JM-CL-100N	MCT Puncture Test Jig	Maximum load 100N Used for film piercing tests. Comes with 1 needle (Ø1 mm, tip R 0.5 mm).
JM-CL-100N-01	Puncture Test Jig replacement needles (10 piece set)	Replacement for the above needle Diameter 1 mm, tip R 0.5 mm.
⓲ JM-JXM-250N	Pin Chuck (250N)	Maximum load 250N Small parallel clamping jaw Tip width 2 mm Ideal for peeling tests.
⓳ JM-PZ-50N	Container seal peeling test jig	Maximum load 50N Used for container lid seal peel strength measurement. Peels at approx. 45°.
⓴ JM-JFM1-500N	Screw action jaws	Maximum load 500N TENSILON type screw action jaws (bottom/top pair) *Need Face and Universal joint (J-UF3-1KN)





*Device not included



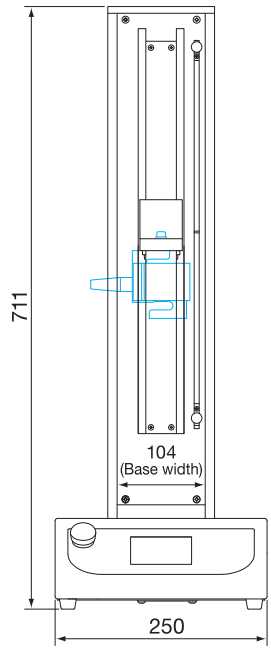
*Need Hook (JM-X002-500N)

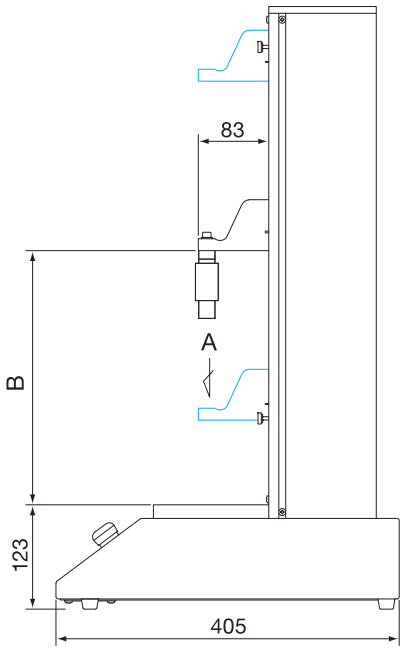
Specifications

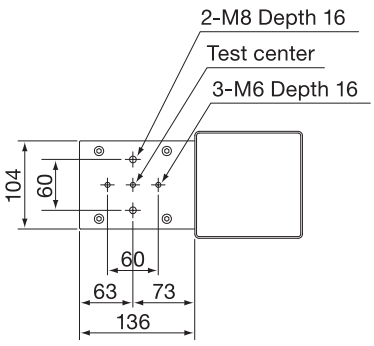
Model		MCT-1150 General purpose model	MCT-2150 High performance model	MCT-2150W High performance, low capacity model
Table/floor model		Table model		
Maximum capacity		500N		
Crosshead stroke		400 mm	370 mm	
Effective stroke*1		315 mm	285 mm	
Crosshead speed		10-300 mm/min: Within 5% of the set value*2		
Crosshead speed setting		Digital setting: 1 mm/min increments within the above range		
Crosshead speed and load capacity		Full speed range at maximum capacity		
Crosshead return speed		Three speed settings: 10, 100, 300 mm/min		
Load measurement accuracy	When using 500N load cell	±0.2% F.S	500N~50N : ±0.2% F.S 50N~5N : Within ±2% of indicator value 5N and lower : Within ±0.1N	500N~50N : ±0.2% F.S 50N~5N : Within ±2% of indicator value 5N and lower : Within ±0.1N
	When using 50N load cell	———	———	50N~5N : ±0.2% F.S 5N~0.5N : Within ±2% of indicator value 0.5N and lower : Within ±0.01N
Load display resolution	When using 500N load cell	0.1N	0.01N (0.1N will display for values over 100N)	
	When using 50N load cell	———	———	0.001N (0.01N will display for values over 10N)
Load calibration		Auto-zero function (calibration unnecessary)		
Displacement display		000.0 mm (Min. 0.1 mm)	00.00 mm (Min 0.01 mm : 0.1 mm will display for values over 100 mm)	
Included software		MSAT-Lite		
Safety mechanisms		1. Upper and lower displacement stroke limits 2. Overload limit (automatic shutdown when load cell passes 105% of rated capacity) 3. Emergency stop switch		
Dimensions (W×D×H)		250 × 408 × 711 mm		
Weight		17 kg	18 kg	
Power supply		AC90~240 V 1Ø 50/60 Hz		
Power consumption		90 W		
Operating ambient conditions		Temperature : 5~40°C Humidity : 20~80%RH		
Recommended ambient conditions		Temperature : 23±2°C Humidity : 50±10%RH		
Standard equipment		Instruction manual, 500N capacity load cell, computer software (CD-ROM), USB cable*3		

*1 When using standard screw action jaws
*2 Unladen
*3 For MCT-2150, a 50N capacity load cell is also included.

External dimensions Unit: mm







Overhead view

	B
MCT-1150	Min 100, Max 500, Stroke 400 mm
MCT-2150 MCT-2150W	Min 100, Max 470, Stroke 370 mm

A&D Company, Ltd.

Attention to Safety!	●For proper use, read the instruction manuals cafully before use

●Appearance and/or specifications subject to change for improvement without notice.
●Contents of this catalog last updated March 2022.

* MCT-ADCC-02-PR3-223000