

# Motorized test stand EMX-1000N

High end model available up to 1000N (100kgf).  
 It offers accurate test result and easy operation.  
 You can set up travel to move a mounted force gauge up/down by 0.1mm.  
 5 operating patterns (test speed/travel/test number of times) can be saved at maximum.

**EMX-1000N**



### Easy operation

**Limitless testing applications are possible with various grips and fixtures.**

### Easy control

Simple button operation.  
 Good angle of control panel makes it easy to operate.

### Operating patterns can be saved.

5 operating patterns can be saved at maximum, saving time to set up.

\*A force gauge, jigs, and cable are NOT included.

### Precise measurement

#### High rigidity

Ideal for precise measurement due to high rigidity of column.

#### Wide range of test speed.

You can move the force gauge up and down at speed from 0.5mm to 600mm/min

#### Speed shift point

You can choose the point to shift its test speed with the knob.

#### Digital setup of travel

You can set up travel to move the mounted force gauge up and down by 0.1mm digitally.

### Synchronized with external equipment

You can combine it with external equipment, improving testing efficiency etc.

#### [Example]

Start input	Interlock input	Operating state output
Possible to start and stop operation with a foot pedal switch connected to EMX-1000N.	A box surrounding EMX-1000N is available, and makes it possible to stop operation when its door is open.	It notifies you operating status by buzzer or light.

Easy to operate even for beginners

<p><b>With one dial</b> Speed adjustment</p> <ul style="list-style-type: none"> <li>● Set-up the number of test</li> <li>● Fine adjustment of a force gauge's position are possible.</li> </ul>	<p><b>Set up the number of test And pausing time</b> [The number of test] 1 to 65535 times [Pausing time] up to 99min59.9sec (per 0.1 sec)</p> <p style="text-align: center;">↓</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p><b>Ideal for repetition / durability test</b></p> </div>	<p><b>Set up the travel</b> You can set up travel to move a mounted force gauge up/down by 0.1mm.</p> <p style="text-align: center;">↓</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p><b>High repeatability More accurate test result</b></p> </div>
<p><b>Prevention against sensor break-down and operation control with an optional cable</b> It stops operation before force over capacity is added, or its operation is controlled according to load values When you combine it with a ZT series force gauge and an optional cable. *We cannot assure the perfect prevention against sensor break-down.</p>		

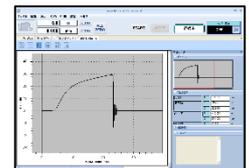
◎Useful functions for improving test efficiency.

Auto graphing function

Test start



Test finish



Start drawing a graph with the test stand motion start.

The graph drawing is finished and saved at the end of the test.

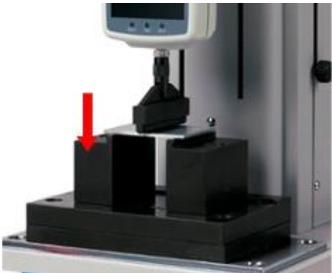
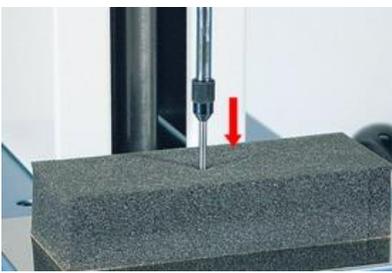
The stand operation and graph drawing can be linked by the following products

\* Please refer the MX2, EMX, MH2 application examples on page 3.

Digital force gauge	Force-Time graph drawing software	Connection cable
ZT series	Force Recorder (Light/ Standard)	CB-518
<p>Follow and capture data properly at 2000 Hz sampling rate though it is momentary force. It realizes accurate measurements.</p>	<p>The software drawing a graph of time and force on PC. (For ZT series)</p>	<p>Connect a force gauge ZTS series and EMX-1000N. Activate the over load prevention(*1) and force control function.</p>

\*1 It is NO GUARANTEE to prevent for sensor break-down, completely.

**[Force-Displacement Applications]**

Camera shutter switch feeling test	Material bending test	Material softness test
Switch feeling test is possible.	Bending strength test of metal or plastic board is possible.	Material softness can be analyzed.
		

\*EMX-1000N can be upgraded to enable force-displacement measurement. Please refer to Force-Displacement measuring unit below.

**Force-Displacement measuring unit FSA series**

This unit includes necessary items to perform force-displacement measurement. With FSA series, you can perform force-displacement analysis very easily. You can upgrade EMX-1000N to enable force-displacement measurement.

**This unit includes...**

- A test stand with a linear scale (EMX-1000N-FA)
- A digital force gauge (ZTA series)
- Force displacement graphing software (Force Recorder Professional)
- Connection cable (CB-728)
- Attachments



\* Please refer to specifications for FSA series for further information. Other models are also available.

**[Specifications]**

Model		EMX-1000N		
Capacity		Maximum force to be added		
		1000N		
Functions	Speed	Speed range available		
		From 0.5 to 600mm/min		
		Unit	0.5-20mm/min	Able to set up speed every 0.5mm/min
			20-100mm/min	Able to set up speed every 5mm/min
	100-600mm/min		Able to set up speed every 10mm/min	
	Stroke	Max distance from table to tip of measurement shaft of force gauge when the head is on top	290mm	
	Maximum height of a sample	Please refer to “t” of Dimensions in page 5		
	Deflection	Max gap of distances from table to tip of gauges, under no force and max force applied.	[Standard type] less than 0.25mm [Long stroke] less than 0.6mm	
	Travel	Travel of up and down can be set up by 0.1mm.		
	Stroke limit	Controllable with upper/lower stroke limit sensor		
	Force control	Operation is controllable at selected force. *1		
	Display of speed	Speed is displayed digitally		
	Overload prevention	Operation automatically stops when force over capacity is applied.*1*2		
	Mode	Manual/Jog/Cycle mode		
Timer	Set up pausing time every 0.1 sec, up to 99min59.9sec			
Counter	Count or set up the number of tests (Max 65535 times)*3			
External I/O	It is possible to control the motion linkage from an external instrument.			
The body	Operating temperature		From 0 +40 degree Celsius	
	Operating humidity		From 35 to 70%, avoid condensation	
	Power voltage		AC100 ~ 240V, 50/60Hz (Please specify from 100.120.230V. Accessories are different)	
	Power consumption		100W	
	Size Standard type [Long stroke]		280*421*643(mm) [280*421*943(mm)]	
	Weight		Approx. 23.5kg	
Accessories	Manual, Power cable, Grip mounting adaptor, Cover, Spare hues, and Tools.			

Manual mode	JOG mode	Cycle mode
Possible to keep a force gauge moving upward or down word while the buttons are pressed.	Possible to move a force gauge in small increments, by turning its dial	Measurement starts only by pressing a button according to operating conditions fixed in advance automatically.

\*1 Possible only when ZT series force gauge and digital force amplifier FA Plus are connected with an optional cable.  
\*2 We do not assure you that it can prevent overload completely.  
\*3 If you need to test repeatedly more than 65535 times, please feel free to contact us.

**[Option] Specification can be changed flexibly according to your measurement conditions.**

**We meet your needs like**  
**“Faster speed is necessary” “Longer stroke is needed” “Wider space for sample is required”**

[Option Example]

Specification		Model
Option	Long stroke (To extend stroke by 300mm) *1	EMX-1000N-L
	Length measuring instrument (For displacement measurement)	EMX-1000N-S
	Speed change (Change from standard type) *1	EMX-1000N-V___*2
	FA type (A linear scale for measuring displacement built in) *3	EMX-1000N-FA

\*1 Please feel free to contact us if you would like to change stroke and range of speed.

\*2 The maximum speed can be put in V\_\_\_.

\*3 Please refer to Configuration Example on page2 and 3.

**[Optional Attachment]**

IMADA offers variety of attachments for limitless force testing applications. Besides, we can customize attachments only for you to suit your unique measurement needs.

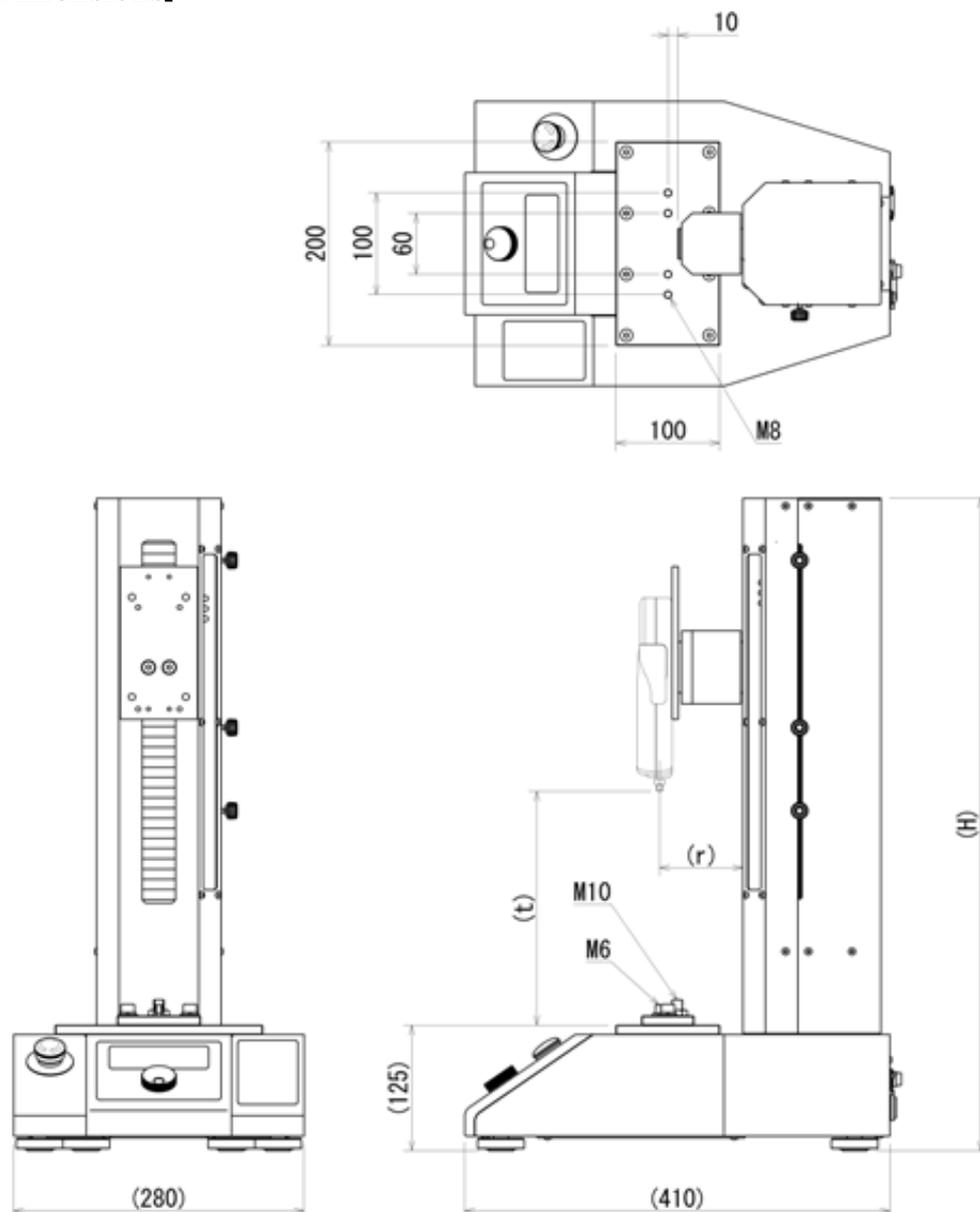
Urethane made compression jig	Pantograph grip	Film grip	Fixture for 90 degree peel testing
UR series	PGC series	FC series	P90-200N
			

\* Please refer to the specification sheet of each attachment.

**[Other Option Example]**

Scattering prevention panel	Separated operation panel
	
It covers the front of a test stand and reduces the risk of injury from sample scattering.	It is useful for remote control and installation to a facility.

[Dimensions]



\*Unit is mm

		EMX-1000N	EMX-1000N-L
H		645	945
r	When DS2/ZT(2N to 1000N) is mounted	80	
	When ZT(2500N to 5000N) is mounted	93	
	When DPU(lower range of 500N) is mounted	78	
	When DPU(higher range of 1000N) is mounted	82	
t *1	When DS2 is mounted	325	625
	When ZT(2N to 1000N) is mounted	320	620
	When ZT(2500N to 5000N) is mounted	365	665
	When DPU(2N to 10N) is mounted	380	680
	When DPU(20N to 50N) is mounted.	375	675
	When DPU(1000N to 5000N) is mounted	300	600

\*1 The value is without attachments. Please note that the maximum height of a sample will be shorter than “t” when you combine a gauge or a load cell with attachments.

[Cautions]

- \*The contents may be changed without notice in advance.
- \*This product is designed for measurement purpose only.
- \*Do not copy the contents without permission.
- \*Force gauge is not included but necessary for force measurement.