

## Motorized test stand MH2-500N

- Achieves high repeatability with constant testing speed and position
- The horizontal design makes sample setup easy
- Easy digital setting of testing modes and speed
- Offers useful functions operated together with force gauge



### Features

<b>Improved Repeatability</b> <ul style="list-style-type: none"><li>Constant testing speed and position for applying compression and tensile force</li><li>Rugged design minimizes influence of deformation (max.0.5mm)</li></ul>	<b>Easy Operation</b> <ul style="list-style-type: none"><li>Ergonomically inclined control panel</li><li>Dial operation for digital setting</li><li>Three testing modes to meet testing requirements</li></ul>
<b>Versatility for a wide variety of testing</b> <ul style="list-style-type: none"><li>Ideal for durability test by setting the number of test cycles to repeat</li><li>Useful timer function for compression testing allows pausing at a set force value. (*)</li><li>Attached table can mount a wide range of grips and fixtures.</li><li>Optional functions for various purposes</li></ul>	<b>Functions for efficient testing</b> <ul style="list-style-type: none"><li>Easy setting of travel distance depending on the sample height.</li><li>Automatically changes traveling and measuring speed at a set force value. (*)</li><li>Starts software together with test stand motion. (*)</li></ul>

\* Requires certain models of force gauge and optional cable.

## [Application Example and Configurations]

### [Optional Cable]

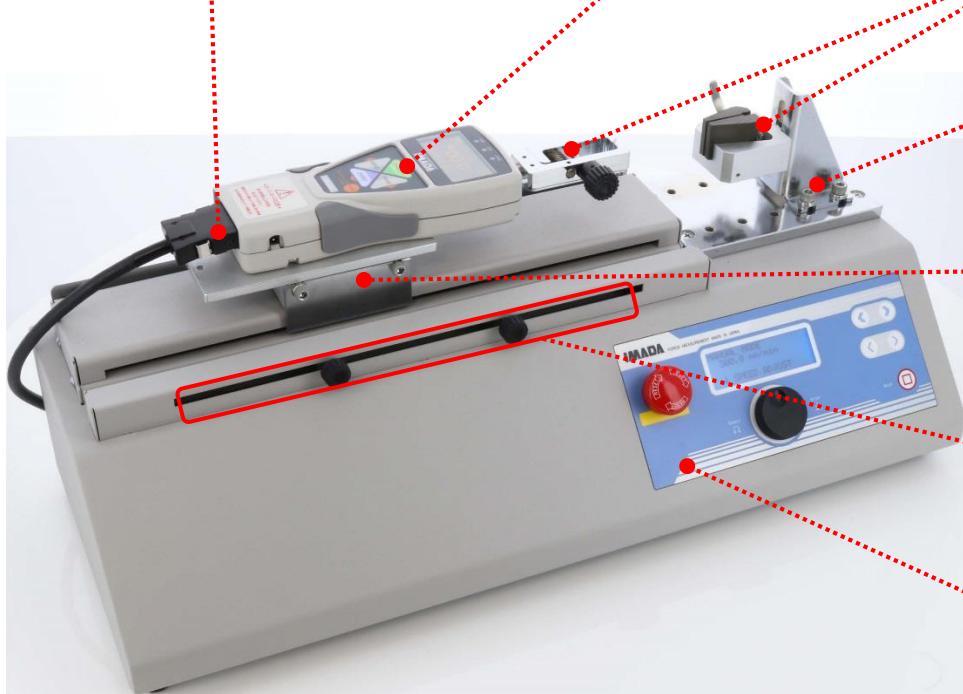
Connects force gauge and test stand to activate a variety of control functions.

### [Force Gauge]

Measures compression, tensile, peel strength, etc. Mountable to test stand with screws.

### [Optional Attachments]

Integral components to complete a testing system, selectable from a wide range to suit your testing applications.



### [Table]

Attachments or testing samples can be mounted on the table. Position is adjustable right, left, up and down.

### [Head]

Moves right and left with force gauge mounted on top.

### [Stroke Limit]

Set limits of stroke easily with these knobs.

### [Operation Panel]

Used for settings, operations and emergency stop.

\*Force gauge, optional attachments and optional cable are sold separately.

## [Operation Panel]

### [Emergency Button]

For emergency stops



### [LCD]

Shows status and settings

### [Push Dial]

For setting by turning and pressing. Jog move at manual mode.

### [Operation Buttons]

Controls upward and downward at set/max.(min.) speed and stop.

## [Applications] Use suitable attachments to perform a variety of measurements.

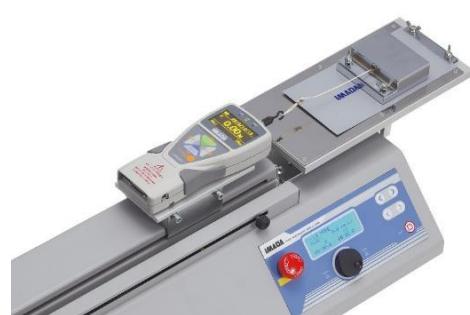
### Wire crimp pull test

Tests the strength of crimped terminal by measuring the tensile force required to remove a crimped terminal.

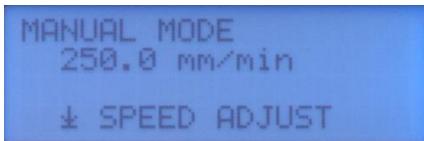


### Coefficient of friction test

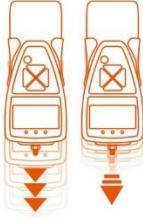
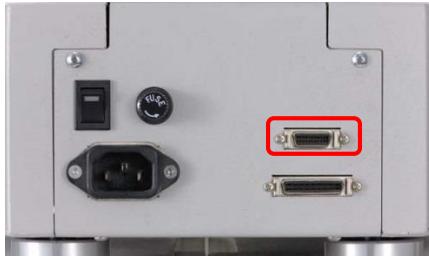
Measures kinetic and static coefficient of friction by pulling the weight on film or paper sample.



## [Basic Operations]

Adjusting speed		Testing speed is easily adjustable with dial.  Setting resolution: [10-20mm/min : 0.5mm/min] [20-100mm/min : 5mm/min] [100-300mm/min : 10mm/min]  Adjustable speed types: Start, Measuring, Return
Three measuring modes		Three testing modes are available to meet requirements.  • Manual mode: Moves while up/down buttons are pressed. • JOG mode: Minute feeding by turning dial (approx. 0.05mm per 1 turn) • Cycle mode: Travels between stroke limit knobs for cycles.
Other functions		Cycle mode allows to set the number of tests to repeat and pausing time.  Counter (number of tests to repeat): Max. 65535 times Timer (pausing time): Up to 99 min 59 sec 9 (by 0.1 sec)

## [Main Options]

Speed change (-V)	Length meter (-S)
This option changes the speed range. Useful for tests that require faster/slower speed condition.	This option provides an inbuilt length meter, which shows digital reading of travel distance of force gauge.
	
FA option (-FA)	External signal input (-CN)
This option provides inbuilt liner scale. It allows displaying displacement data on force gauge together with force value and drawing FS curves in PC via USB.  *ZTA series force gauge and optional cable are required. *Force-displacement measurement unit FSA series are also available, which includes the necessary products.	This option mounts the connector for external signal input. It allows inputs such as start, stop, and interlock.
	

**[Specifications]**

Model	<b>MH2-500N</b>
Capacity	500N
Speed	Digital 10 to 300mm/min [10 - 20mm/min: by 0.5mm/min] [20 - 100mm/min: by 5mm/min] [100 - 300mm/min: by 10mm/min]
Max. Sample Height *1	Approx. 245mm
Rigidity	[Standard models] less than 0.5 mm
Stroke Limit	Controllable with upper and lower knob
Measuring Modes	Manual / Jog / Cycle mode
Functions	Counter (number of tests to repeat): Max. 65535 times Timer (pausing time): Up to 99 min 59 sec 9 (by 0.1 sec)
Control	Emergency stop, force control (*2), overload prevention (*2, *3)
Operating temperature humidity	0 to +40 degree Celsius 35 to 70% (avoid condensation)
Voltage	AC100 to 240V, 50/60Hz (Select from 100, 120 and 230V. Accessories are provided accordingly.)
Power Consumption	50W
Dimensions	See [Dimensions]
Weight	Approx. 14kg
Accessories	Operation manual, power cable, spare fuse, tools, grip mounting plate
Available Options *4 *5	-CN: External signal input -S: Length scale -FA: Inbuilt liner scale -V45: Speed 1.5 to 45mm/min -V90: Speed 3 to 90mm/min -V450: Speed 15 to 450mm/min -V600: Speed 20 to 600mm/min -V900: Speed 30 to 900mm/min
Mountable Force Gauge *6	Mechanical Force Gauge: FB, PS, PSM series Digital Force Gauge: DST, DSV, ZTS, ZTA series (up to 1000N) Load cell: DPU series (up to 500N)

\*1 Max. sample height refers to the distance between the table and the tip of force gauge measuring shaft when the head is at the top. (With up to 1000N model of ZTS/ZTA series)

\*2 ZTS/ZTA series force gauge and optional cable CB-518 are required.

\*3 It does not guarantee complete protection against overloading.

\*4 Add the option code after the model name to complete the model with options.

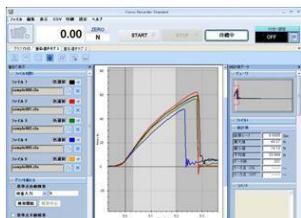
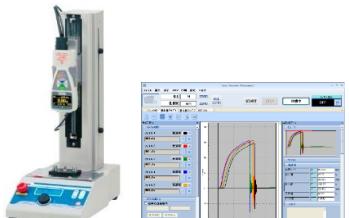
e.g. When adding long stroke option to MH2-500N ... Model: MH2-500N-L

\*5 Capacity is reduced as below by some speed change options.

-V600 capacity 250N, -V900 capacity 150N

\*6 Ensure to use within the capacity of force gauge and test stand regardless of the mountable models.

## [Related Products]

Digital Force Gauge <b>ZTS/ZTA series</b>	Software <b>Force Recorder series</b>	Force – Displacement Measurement Unit <b>FSA series</b>
With high sampling rate of 2000Hz, it offers highly precise measurement. Use optional cable to control motion together with MH2 series.	This graphing software can start and stop automatically based on the trigger setting of MH2 test stand function.	It draws a detailed graph of force and displacement, which is suitable for tactile test, material evaluation and more. The unit includes a force gauge, a test stand with a linear scale, a cable and a graphing software.
		
Cable	<b>CB-518</b> For connecting with force gauge ZTS/ZTA series: Activates useful functions <b>CB-706</b> For -CN option: Open end cable to connect with external device <b>CB-718</b> For -FA option: Connects ZTA series force gauge and test stand to provide force and displacement measurement. (Motion control and related functions are also available.)	

## [Control Functions]

Activated when ZTS/ZTA series force gauge and CB-518 are used together.

- Overload Prevention: Prevents the sensor from getting damaged due to overloading.  
(It does not guarantee complete protection against overloading.)
- Force control: Allows to set a force value to apply or to stop.
- Measuring speed setting: Enables automatic speed change at a point of contact using the set force value.
- Automatic measurement: Software recording and zeroing force gauge can be automatically done.

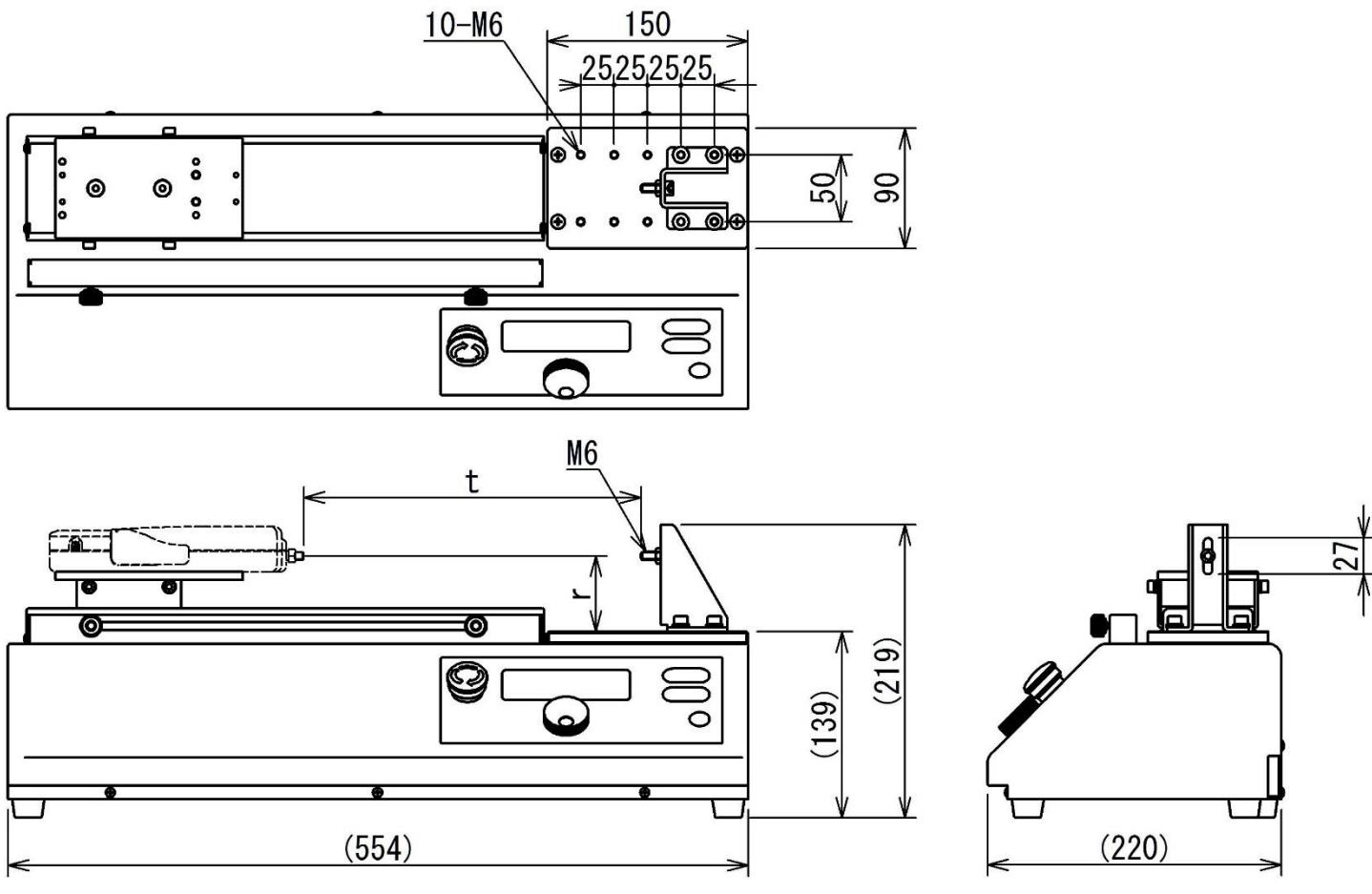
\* See 'Advanced Functions of Test Stands' for details.

## [Examples of Customized Solutions]

External signal input: -CN option	Interlock: -CN option
Allows to mount a switch to start and stop operation such as a foot pedal, which improves efficiency or allows operating it together with your equipment.	
	
Testing Large Samples	Controller-separated Model
Recommended when you... <ul style="list-style-type: none"> <li>- Test a sample larger than test stand table.</li> <li>- Test multiple points on a large sample to push in/pull.</li> </ul>	

\*Images above show examples with vertical type test stand.

### [Dimensions]



		MH2-500N
r	With DST/DSV/ZTS/ZTA (2N to 500N) mounted	56
	With DPU (lower than 500N) mounted	54
t	With DST/DSV mounted	250
	With ZTS/ZTA (2N to 500N) mounted	245
	With DPU (2N to 10N) mounted	270
	With DPU (20N to 500N) mounted	260

Unit: mm

### [Cautions]

- The contents may be changed without prior notice.
- Force gauge is not included but necessary to conduct force measurement.
- This product does not include a force gauge, optional attachments or optional cable.
- This product is designed for measurement purpose only.
- Do not copy the contents without permission.

### IMADA CO., LTD

99 Jinnoshinden-cho aza Kanowari Toyohashi  
Japan 441-8077  
Tel: +81-(0)532-33-3288  
Fax: +81-(0)532-33-3866  
E-mail: [info@forcegauge.net](mailto:info@forcegauge.net)  
Website: <http://www.forcegauge.net/en/>



Visit our website for more  
information on wide product  
specifications, measurement  
applications and videos.