

**Motorized test stand MX2 series  
MX2-500N/1000N/2500N**

- Achieves high repeatability with constant testing speed and position
- Easy digital setting of testing modes and speed
- Offers useful functions operated together with force gauge

FORCE MEASUREMENT  
**IMADA**



MX2-500N



MX2-2500N

**Features**

**Improved Repeatability**

- Constant testing speed and position for applying compression and tensile force
- Rugged design minimizes influence of deformation (max.0.5mm)

**Easy Operation**

- Ergonomically inclined control panel
- Dial operation for digital setting
- Three testing modes to meet testing requirements

**Versatility for a wide variety of testing**

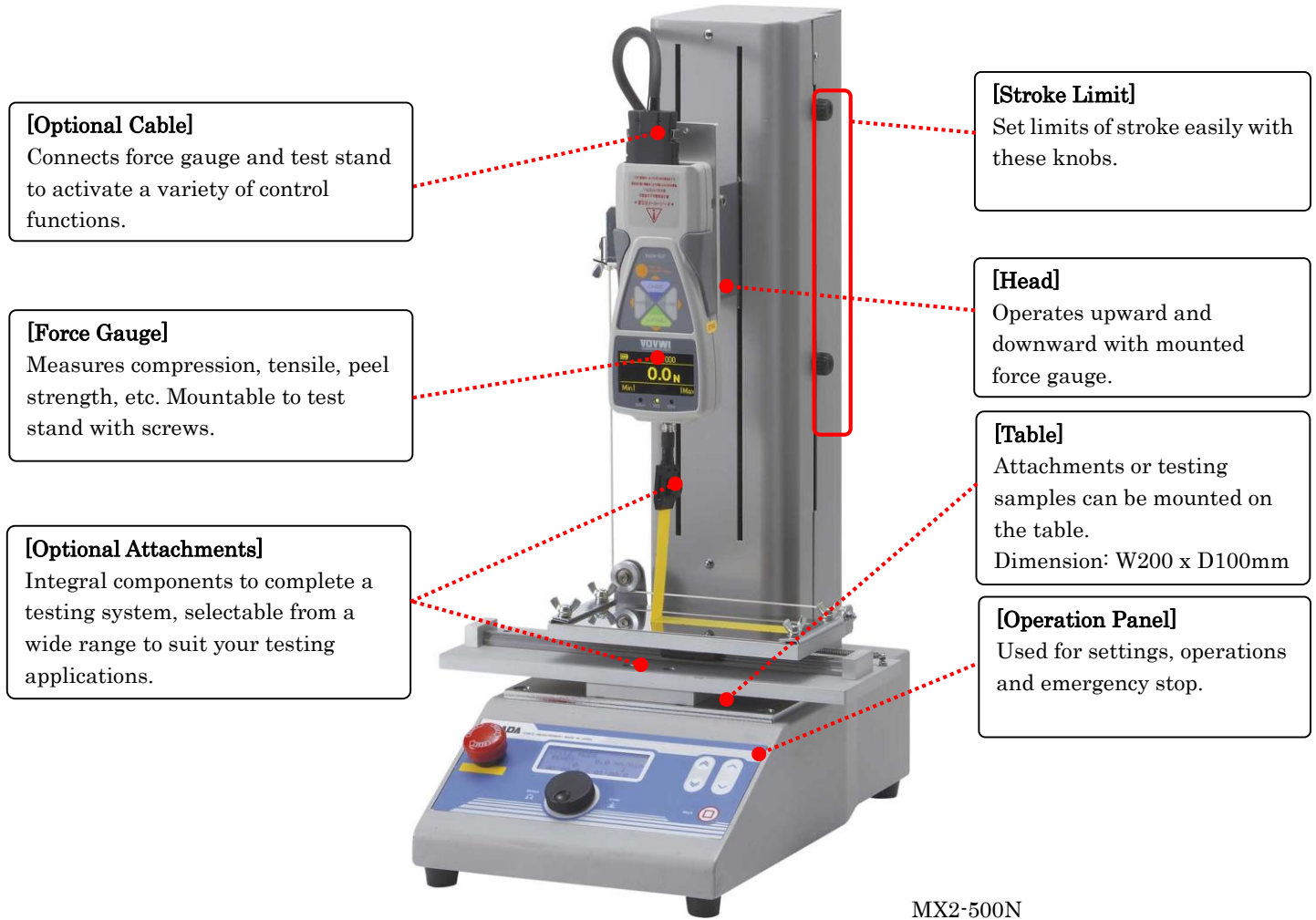
- Ideal for durability test by setting the number of test cycles to repeat
- Useful timer function for compression testing allows pausing at a set force value. (\*)
- Attached table can mount a wide range of grips and fixtures.
- Optional functions for various purposes

**Functions for efficient testing**

- Easy setting of travel distance depending on the sample height.
- Automatically changes traveling and measuring speed at a set force value. (\*)
- Starts software together with test stand motion. (\*)

\* 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.

**[Stroke Limit]**  
Set limits of stroke easily with these knobs.

**[Head]**  
Operates upward and downward with mounted force gauge.

**[Table]**  
Attachments or testing samples can be mounted on the table.  
Dimension: W200 x D100mm

**[Operation Panel]**  
Used for settings, operations and emergency stop.

MX2-500N

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

## [Operation Panel]

**[Emergency Button]**  
For emergency stops

**[Push Dial]**  
For setting by turning and pressing. Jog move at manual mode.




**[LCD]**  
Shows status and settings


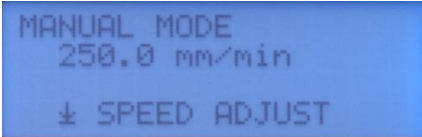
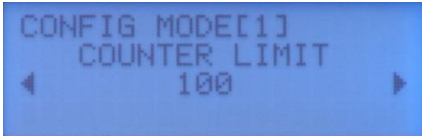
**[Operation Buttons]**  
Controls upward and downward at set/max.(min.) speed and stop.

MX2-500N display






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

| Wire crimp pull test   | Peel test of tapes  | 3-point bend material testing   |
|--|---|---|
| Tests the strength of crimped terminal by measuring the tensile force required to remove a crimped terminal. | Tests adhesive strength by peeling off the adhesive tape affixed on the table.      | Applies compression force to test strength of materials such as metal by bending or breaking. |
|                           |  |          |




**[Basic Operations]**

|                                     |   |  |
|-------------------------------------|---|--|
| <p><b>Adjusting speed</b></p>       |  | <p>Testing speed is easily adjustable with dial.</p> <p>Setting resolution:<br/>[10-20mm/min : 0.5mm/min]<br/>[20-100mm/min : 5mm/min]<br/>[100-300mm/min : 10mm/min]</p> <p>Adjustable speed types: Start, Measuring, Return</p>  |
| <p><b>Three measuring modes</b></p> |  | <p>Three testing modes are available to meet requirements.</p> <ul style="list-style-type: none"> <li>• Manual mode: Moves while up/down buttons are pressed.</li> <li>• JOG mode: Minute feeding by turning dial (approx. 0.05mm per 1 turn)</li> <li>• Cycle mode: Travels between stroke limit knobs for cycles.</li> </ul> |
| <p><b>Other functions</b></p>       |  | <p>Cycle mode allows to set the number of tests to repeat and pausing time.</p> <p>Counter (number of tests to repeat): Max. 65535 times<br/>Timer (pausing time): Up to 99 min 59 sec 9 (by 0.1 sec)</p>  |

**[Main Options]**

| Long stroke (-L)   | Speed change (-V)   | Length meter (-S)   |
|--|---|---|
| <p>This option provides extended stroke. Useful when testing stretching samples or testing for long distance.</p>  | <p>This option changes the speed range. Useful for tests that require faster/slower speed condition.</p>                | <p>This option provides an inbuilt length meter, which shows digital reading of travel distance of force gauge.</p> |
|   |                                      |                                |
| FA option (-FA)  | External signal input (-CN)   |   |
| <p>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.</p> <p>*ZTA series force gauge and optional cable are required.<br/>*Force-displacement measurement unit FSA series are also available, which includes the necessary products.</p> | <p>This option mounts the connector for external signal input. It allows inputs such as start, stop, and interlock.</p> |   |
|   |                                     |   |

## [Specifications]

| Model                          | MX2-500N   | MX2-1000N  | MX2-2500N   |
|--------------------------------|--|--|---|
| Image                          |   |    |    |
| Capacity                       | 500N   | 1000N  | 2500N   |
| Speed                          | Digital 10 to 300mm/min<br>[10 - 20mm/min: by 0.5mm/min]<br>[20 - 100mm/min: by 5mm/min]<br>[100 - 300mm/min: by 10mm/min]   |  |   |
| Max. Sample Height<br>*1       | Approx. 235mm  | Approx. 300mm  | Approx. 320mm   |
| Rigidity                       | [Standard models] less than 0.5 mm<br>[Long stroke (optional)] less than 1.0 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<br>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<br>35 to 70% (avoid condensation)  |  |   |
| Voltage                        | AC100 to 240V, 50/60Hz<br>(Select from 100, 120 and 230V. Accessories are provided accordingly.)   |  |   |
| Power Consumption              | 50W  |  |   |
| Dimensions                     | See [Dimensions]   |  |   |
| Weight                         | Approx. 18kg   | Approx. 19 kg  | Approx. 26 kg   |
| Accessories                    | Operation manual, power cable, spare fuse, tools   |  |   |
|                                | GF-1 (Grip mounting adaptor)   | GF-2 (Grip mounting adaptor),<br>mounting plate for high<br>capacity force gauge   | GF-2 (Grip mounting adaptor),<br>mounting plate for standard<br>force gauge   |
| Available Options<br>*4 *5     | -L: Extended stroke by 200mm<br>-CN: External signal input<br>-S: Length scale<br>-FA: Inbuilt liner scale<br>-V45: Speed 1.5 to 45mm/min<br>-V90: Speed 3 to 90mm/min<br>-V450: Speed 15 to 450mm/min<br>-V600: Speed 20 to 600mm/min<br>-V900: Speed 30 to 900mm/min | -L: Extended stroke by 300mm<br>-CN: External signal input<br>-S: Length scale<br>-FA: Inbuilt liner scale<br>-V75: Speed 2.5 to 75mm/min<br>-V150: Speed 5 to 150mm/min<br>-V750: Speed 25 to 750mm/min<br>-V1000: Speed 35 to 1000mm/min | -L: Extended stroke by 300mm<br>-CN: External signal input<br>-S: Length scale<br>-FA: Inbuilt liner scale<br>-V45: Speed 1.5 to 45mm/min<br>-V75: Speed 2.5 to 75mm/min<br>-V150: Speed 5 to 150mm/min |
| Mountable<br>Force Gauge<br>*6 | Mechanical Force Gauge: FB, PS, PSM series<br>Digital Force Gauge: DST, DSV, ZTS, ZTA series (up to 1000N)<br>Load cell: DPU series (up to 500N *7)  |  |   |
|                                | Mechanical Force Gauge: PSH series<br>Digital Force Gauge: ZTS, ZTA series (Over 2500N)  |  |   |

\*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. (MX2-500N/MX2-1000N: up to 1000N model of ZTS/ZTA series, MX2-2500N: With over 2500N model of ZTS/ZTA series is mounted.)

\*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 MX2-500N ... Model: MX2-500N-L

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


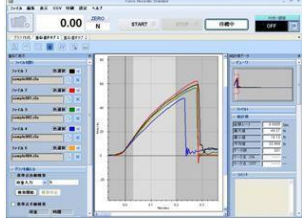
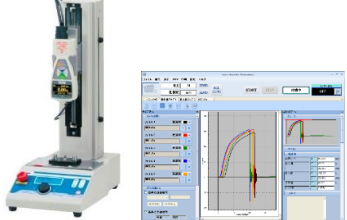
MX2-500N:-V600 capacity 250N, -V900 capacity 150N    MX2-1000N:-V750 capacity 500N, -V1000 capacity 250N

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

\*7 Mounting block (sold separately) is required to mount over 1000N range of DPU to MX2-1000N/MX2-2500N.



**[Related Products]**

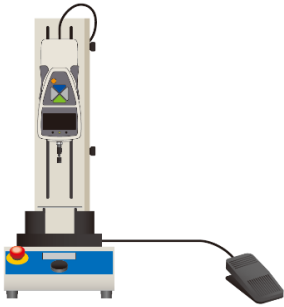



| Digital Force Gauge<br>ZTS/ZTA series   |               | Software<br>Force Recorder series  | Force – Displacement<br>Measurement Unit<br>FSA series   |
|---|---------------|--|--|
| With high sampling rate of 2000Hz, it offers highly precise measurement. Use optional cable to control motion together with MX2 series. |               | This graphing software can start and stop automatically based on the trigger setting of MX2 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.

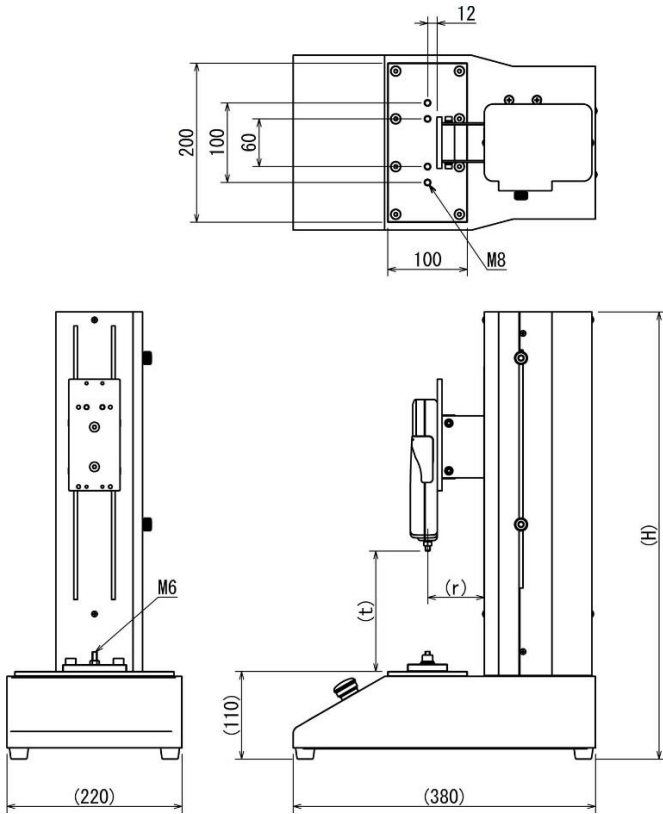
|   |
|---|
| <ul style="list-style-type: none"> <li>• <b>Overload Prevention:</b> Prevents the sensor from getting damaged due to overloading. (It does not guarantee complete protection against overloading.)</li> <li>• <b>Force control:</b> Allows to set a force value to apply or to stop.</li> <li>• <b>Measuring speed setting:</b> Enables automatic speed change at a point of contact using the set force value.</li> <li>• <b>Automatic measurement:</b> Software recording and zeroing force gauge can be automatically done.</li> </ul> |
|---|

\* 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.                                  |  | Enables you to comply with a safety code by having safety shield, which stops movement of test stand when opened.  |  |
| 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> |  | Recommended when you... <ul style="list-style-type: none"> <li>- Want to incorporate IMADA testing system into your equipment</li> <li>- Fix controller/drive part on a specific place</li> <li>- Need to prevent dangers in testing by keeping distance.</li> </ul> |  |

## [MX2-500N Dimensions]

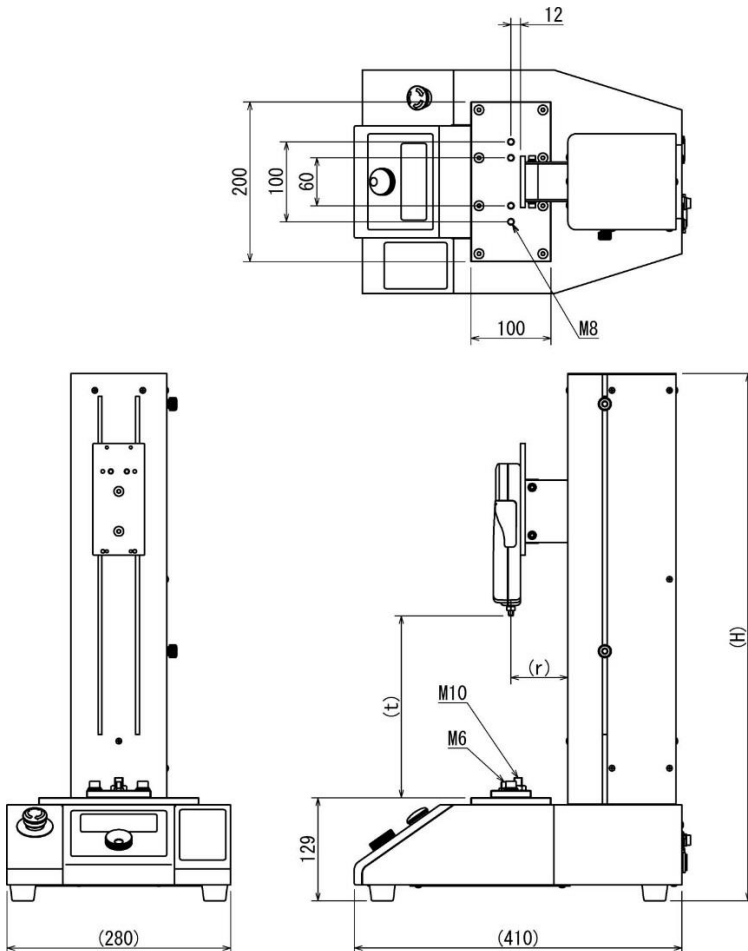


|   | MX2-500N                                  | MX2-500N<br>-L |
|---|---|----------------|
| H | 562                                       | 762            |
| r | With DST/DSV/ZTS/ZTA (2N to 500N) mounted | 71             |
|   | With DPU (lower than 500N) mounted        | 69             |
| t | With DST/DSV mounted                      | 245            |
|   | With ZTS/ZTA (2N to 500N) mounted         | 235            |
|   | With DPU (2N to 10N) mounted              | 260            |
|   | With DPU (20N to 500N) mounted            | 250            |

Unit: mm



## [MX2-1000N Dimensions]



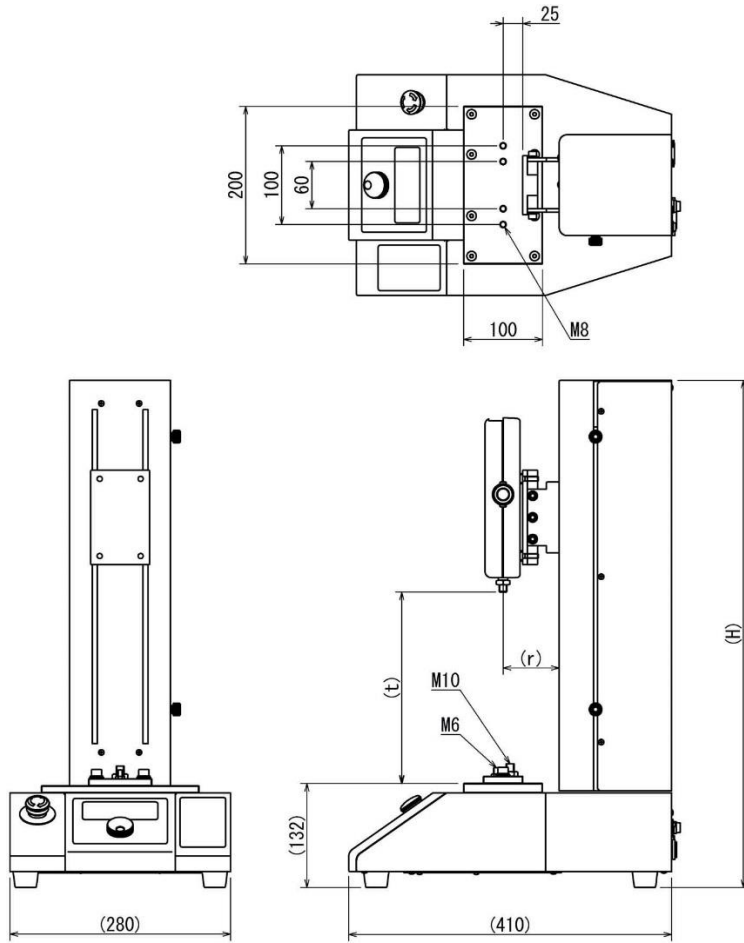
|   | MX2-1000N                                  | MX2-1000N<br>-L |
|---|--|-----------------|
| H | 660  | 960             |
| r | With DST/DSV/ZTS/ZTA (2N to 1000N) mounted | 71              |
|   | With ZTS/ZTA (2500N to 5000N) mounted      | 74              |
|   | With DPU (lower than 500N) mounted         | 69              |
|   | With DPU (Over 1000N) mounted              | 73              |
| t | With DST/DSV mounted                       | 310             |
|   | With ZTS/ZTA (2N to 1000N) mounted         | 300             |
|   | With ZTS/ZTA (2500N to 5000N) mounted      | 340             |
|   | With DPU (2N to 10N) mounted               | 325             |
|   | With DPU (20N to 500N) mounted             | 315             |
|   | With DPU (1000N to 5000N) mounted          | 345             |

Unit: mm

\* Mounting block (optional) is required when mounting DPU-1000N to 5000N.

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**[MX2-2500N Dimensions]**



|   | MX2-2500N                                  | MX2-2500N-L |     |
|---|--|-------------|-----|
| H | 644  | 944         |     |
| r | With DST/DSV/ZTS/ZTA (2N to 1000N) mounted | 72          |     |
|   | With ZTS/ZTA (2500N to 5000N) mounted      | 71          |     |
|   | With DPU (lower than 500N) mounted         | 70          |     |
|   | With DPU (Over 1000N) mounted              | 74          |     |
| t | With DST/DSV mounted                       | 320         | 620 |
|   | With ZTS/ZTA (2N to 1000N) mounted         | 315         | 615 |
|   | With ZTS/ZTA (2500N to 5000N) mounted      | 320         | 620 |
|   | With DPU (2N to 10N) mounted               | 290         | 590 |
|   | With DPU (20N to 500N) mounted             | 285         | 585 |
|   | With DPU (1000N to 5000N) mounted          | 210         | 510 |

Unit: mm

\* Mounting block (optional) is required when mounting DPU-1000N to 5000N.

**[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.

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