

# Wire Winding Grip

## WG-250N/WG-1000N/WG-5000N

Ideal for tensile test of wire-type material

Winding clamp reduces crimping of sample

The center groove ensures the sample position to pull straight



WG-250N: for tensile test of fiber and thin wire up to 250N



Test Image  
(Tensile test of fiber)



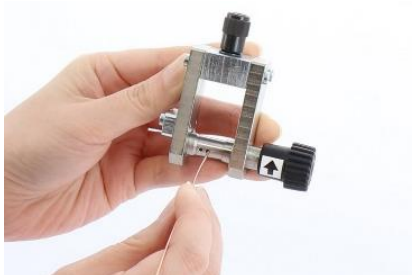
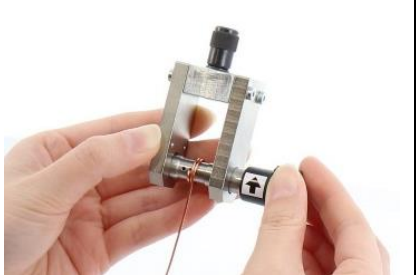
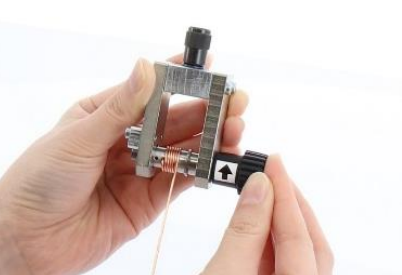
WG-1000N: for tensile test of various fiber and wires up to 1000N



Test Image  
(Tensile test of copper wire)

**Related Standard**

- JIS L 1013:2010 [Testing methods for man-made filament yarns] (Partly)
- JIS L 1095:2010 [Testing methods for spun yarn] (Partly)
- JIS L 2511:2000 [Polyester sewing thread] (Partly)

| How to install test sample for WG-1000N   |  |   |
|---|--|---|
| Insert the sample to the hole.  | Rotate the knob to wind the sample.  | Press the knob to fix the bolt.   |
|  |  |  |

\*The installation of sample is different for WG-250N.

| Specifications             |   |  |  |
|----------------------------|---|--|--|
| Model                      | WG-250N   | WG-1000N   | WG-5000N   |
| Features                   | Prevents the sample from breaking due to the large bolt diameter. | Designed for tensile test up to 1000N by winding sample with the knob. | Designed for tensile test up to 5000N by winding sample with the knob. |
| Sample *1                  | Fiber, Synthetic fiber, Conductive wire, hair                     | Fiber, Synthetic fiber, Metal single wire, Metal stranded wire         | Fiber, Synthetic fiber, Metal single wire, Metal stranded wire         |
| Capacity                   | 250N  | 1000N  | 5000N  |
| Method of winding *2       | Winding sample by hand  | Winding sample by rotating the knob                                    |  |
| Diameter of bolt           | Diameter: 17mm  | Diameter: 9mm  | Diameter: 12mm   |
| Sample diameter            | Diameter: 1mm   | Diameter: 1.2mm  | Diameter: 3mm  |
| Necessary sample length *3 | 310mm or longer   | 260mm or longer  | 320mm or longer  |
| Dimensions                 | See [Dimensions]  |  |  |
| Weight *4                  | Approx. 60g   | Approx. 180g   | Approx. 610g   |
| Mounting Screws            | M6  |  | M10  |


\*1 Some samples may not be suitable to grip or test with this product.

Ensure to prepare necessary protection to avoid accidents when testing deformable sample such as spring steel.

\*2 Samples which are hard or difficult to wind are not suitable.






\*3 This is the length required for having distance of 50mm between the upper and lower parts and 2 rounds winding of the sample (1 round for WG-250N).

\*4 Weight of the attachment is also applied as a load on the force gauge. Consider it when selecting the capacity of a force gauge.



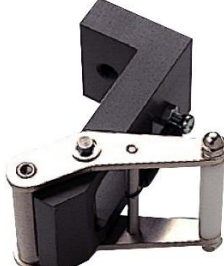
| Examples of Product Configuration WG-250N   |   |   |
|---|---|---|
| <b>Example1</b> <b>Code: 1W2001A</b>  |  |   |
| Simple tensile test up to 250N.   |   |   |
| Digital Force Gauge: DST-500N<br>Motorized Test Stand: MX-500N<br>Optional Attachment: WG-250N (2pcs)   |   |   |
| <b>Example2</b> <b>Code: 1W2001B</b>  |   |   |
| Complies with the corresponding part of JIS L 1013:2010 and JIS L 1095:2010.  |   |   |
| Force-Displacement Measurement Unit: FSA-0.5K2-500N-L<br>Optional Attachment: WG-250N (2pcs)  |   |   |
| Examples of Product Configuration WG-1000N  |   |   |
| <b>Example1</b> <b>Code: 1W2002A</b>  |  |   |
| Tensile test up to 1000N with high functionality and versatility.   |   |   |
| Digital Force Gauge: ZTS-1000N<br>Motorized Test Stand: MX2-1000N<br>Optional Attachment: WG-1000N (2pcs)<br>Optional Cable: CB-518<br>Optional Software: Force Recorder Standard |   |   |
| Examples of Product Configuration WG-5000N  |   |   |
| <b>Example1</b> <b>Code: 1W2003A</b>  |   |  |
| Tensile test up to 5000N with high functionality and versatility.   |   |   |
| Digital Force Gauge: ZTS-5000N<br>Motorized Test Stand: MX2-5000N<br>Optional Attachment: WG-5000N (2pcs)<br>Optional Cable: CB-518<br>Optional Software: Force Recorder Standard |   |   |

WG-250N Example2 Image

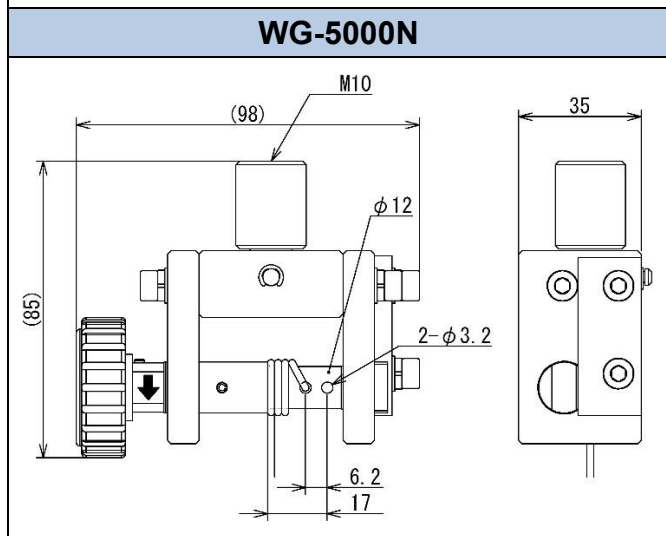
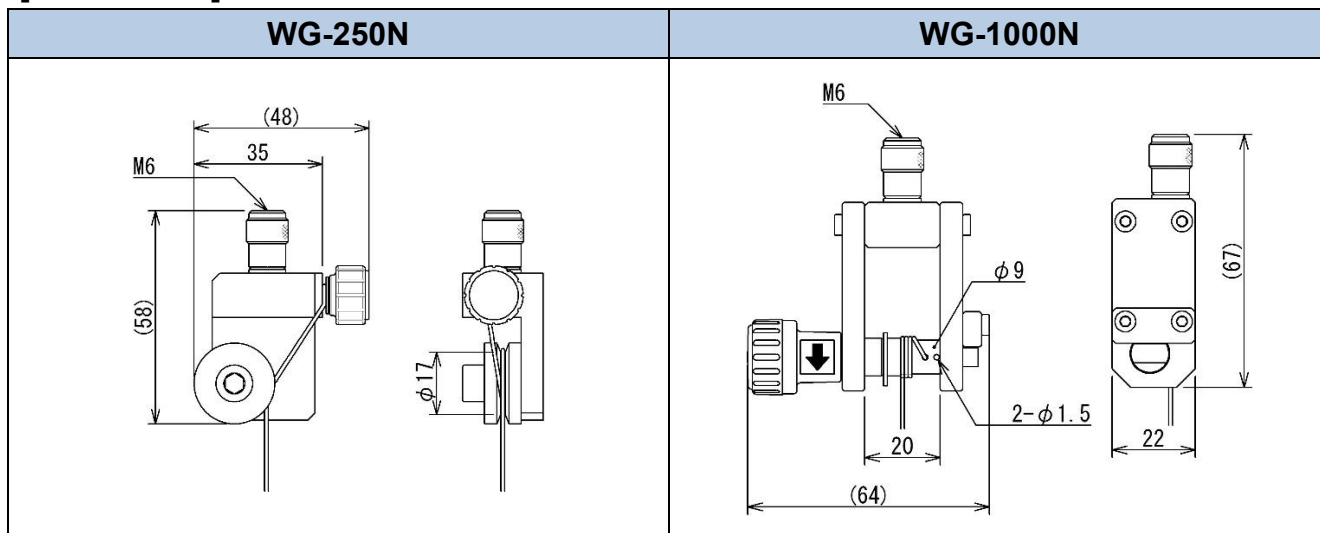
- \* Refer to the specification of each product for details.
- \* Product configuration varies depending on the shape and characteristic of the sample, and measurement conditions.
- \* The recommended capacity of force gauge varies depending on the expected force to be loaded.
- \*1 Analysis of breaking trend by graphing is needed to comply with a part of the standard.

| Mountable Force Gauge for WG-500N and WG-1000N   |  |   |
|--|--|---|
| <b>DST/DSV series</b>  | <b>ZTS/ZTA series</b>  | <b>FB/PS/PSM series</b>   |
| Digital force gauge with excellent cost-performance capable to manage data with PC.                      | Digital force gauge with high precision, featuring high sampling rate and a variety of useful functions. | Mechanical force gauge for easy handling.   |
|                         |                         |  |
| Mountable Force Gauge for WG-5000N   |  |   |
| <b>High capacity ZTS/ZTA series</b>  | <b>PSH series</b>  |   |
| Digital force gauge with high precision, featuring high sampling rate and a variety of useful functions. | Mechanical force gauge for easy handling.  |   |
|                        |                        |   |

\* Select suitable force gauge to correspond with the mounting screws of attachment.

| Related Products  |   |  |
|---|---|--|
| <b>Pin Grip<br/>CP-150N</b>   | <b>Jacob's Chuck<br/>GC-5/GC-15</b>   | <b>Roller Grip<br/>GC-60/GC-100</b>  |
| Designed for gripping thin wire-type materials.                                     | Ideal for gripping round cylindrical shaped samples.                                | Attachment designed to hold extensible samples such as rubber, film etc. without slipping. |
|  |  |       |

**[Dimensions]**



Unit: mm

**[Cautions]**

- Information in this document is subject to change without prior notice.
- This document is product descriptions and handling precautions, and do not guarantee various characteristics or safety.
- This product is designed for force measurement purpose only.
- Do not copy and use this content without authorization.
- A force gauge (sold separately) is required to use this product.
- Some samples may not be suitable to measure with this product.

|  |  |   |
|--|--|---|
| <p><b>IMADA CO., LTD</b><br/>99 Jinnoshinden-cho aza Kanowari Toyohashi<br/>Aichi Japan 441-8077<br/>Tel: +81-(0)532-33-3288<br/>Fax: +81-(0)532-33-3866<br/>E-mail: <a href="mailto:info@forcegauge.net">info@forcegauge.net</a><br/>Website: <a href="http://www.forcegauge.net/en/">http://www.forcegauge.net/en/</a></p> |  | <p>Visit our website for more information on a wide range of product specifications, measurement applications and videos.</p> |
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