





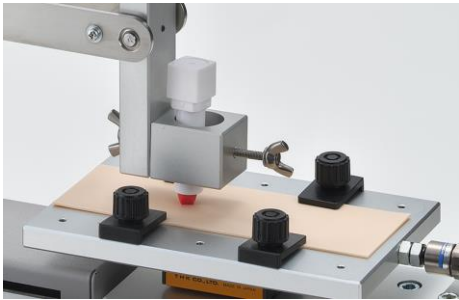
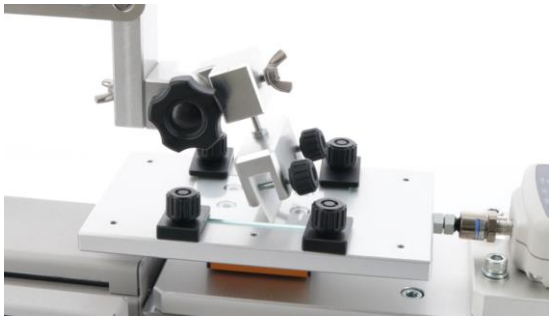
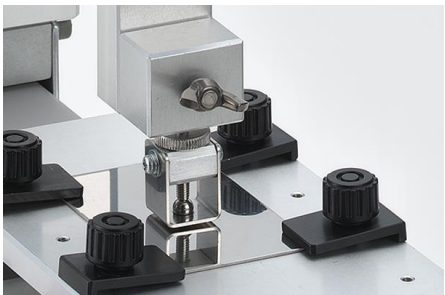



Variable Weight Reciprocating Friction Test Jig VWF-10N

Jig for Coefficients of Friction (COF) test of a Flat Specimen and a Contactor
Enable to handle various samples using different Contactor Holders
Available to create vertical force by weight and reciprocating friction
Automatically calculates Static and Ave. Kinetic COF by the supplied software

VWF-10N	
 <p>VWF-10N</p> <p>*(L) Elevation balance Unit (R) Table Unit</p>	 <p>COF test of a pen using VWF-10N*</p> <p>* The force gauge, the stand and the contactor holder sold separately.</p>

How to set up			
<p>Fix the Flat Specimen to the Table and the Contactor to the Contactor Holder.</p>	<p>After fixing the position of the Counterweight to hold the arm horizontal, rotate the handle of the Elevation balance unit to make the Contactor touch the Flat Specimen.</p>	<p>Put weight on the weight plate to create vertical force.</p>	<p>Set up the measuring speed and then start the measurement</p>
			

VWF-10N Test Examples	
Lip cream and artificial skin (with VWF-STH)	Plastic blade and glass plate (with VWF-ATH-VA and VWF-BLH)
	
Stainless ball and plate (with VWF-ATH and VWF-BAH6)	Pen and paper (with VWF-STH-VA)
	

*Various holders are available to fit different Contactor forms or measuring conditions (P4). Customization is also possible.

Specifications	
Model	VWF-10N
Maximum vertical force	1000g *At least 5g of weight is required for testing. Weight is not included.
Dimensions	See [Dimensions]
Max. size of Flat Specimen	See [Dimensions]
Max. thickness of Flat Specimen*3	8mm
Max. weight of Contactor	Less than 320g including weight of a Contactor Holder and attachments*4
Product weight	Elevation balance unit: 2.2kg Table unit: 1.6kg Attachment holder: 45g M6 adapter shaft: 6g
Accessory	VWF-ATH (Attachment holder) *5, VWF-CAM6 (M6 adapter shaft) *5 Force Recorder Standard COF ver. (Graphing software)
Compatible test stand	MH2-500N
Compatible force gauge	Digital force gauge ZTS/ZTA series

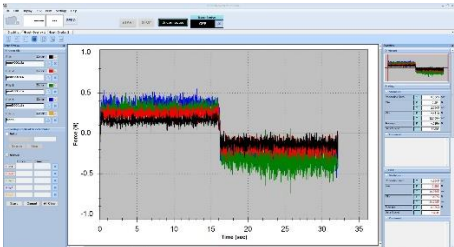
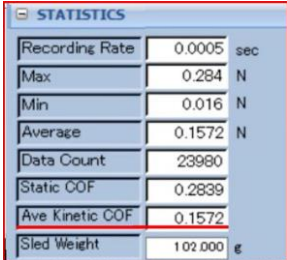
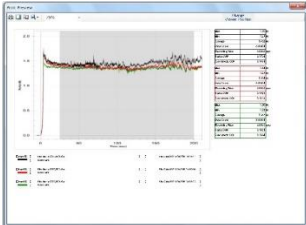
*1 Vertical force on the contacting point and force of friction are not necessarily correlated with each other. Please compare coefficients of friction acquired under the same conditions such as test speed, weight, sample angles and so on.

*2 Test speed should not surpass 300mm/min to limit noises caused by vibration in the test result.

*3 Four clampers and four knobs are included.



*4 If the total weight of a Contactor, a Contactor Holder and attachments exceeds 320g, consult us regarding custom-made option.

*5 IMADA's attachments with M6 screw are able to be attached to this product by using VWF-ATH and VWF-CAM6. Depending on the attachments, various samples such as wire-like form or an eraser can be used as Contactors. See p4 for further information.






Main Function of the Supplied Software		
Basic operation	<p>-Save graphs automatically It enables automatic graphing and data saving by using trigger function.</p> <p>-Switch graphs with plural tabs The recorded graphs can be displayed in plural tabs.</p> <p>-Add notes Notes can be inserted at desired points on the graph.</p>	
Advanced operation	<p>-Overlay graphs Max. 5 graphs can be overlaid. It can be printed and output in desired format. It allows you to print or output overlaid data in desired format.</p> <p>-Zoom graph Simply click and drag to specify an area to zoom-in. The Max, Min, and Ave. values of the selected area are displayed. It allows you to print or output in desired format.</p>	
Display	<p>-Automatically calculate the COF The Static and Ave. Kinetic COF can be automatically calculated by input the weight of weight.</p> <p>-Display statistics The Max, Min, and Ave. values can be displayed.</p> <p>-Input comments Notes such as testing conditions up to 198 characters can be input.</p>	
Output	<p>-Print test results Prints out in A4 or letter size.</p> <p>-Output data The data can be output in Word, Excel, and PDF format. Graph is attached as an image file.</p>	

Specifications of the supplied software	
Data transferring speed	Max. 2000 data / sec (2000Hz)
Recording data point	Max. 7.2 million
Functions	Graph overlaying function, Capture function, Graph scaling, Automatic calculation of COF, Statistics output, Point marking
Graph recording	Trigger function
Edit	Add comments and notes, Borderline function Settings
Output	Printing (A4, letter size), CSV, Word, Excel, PDF
OS	Windows 7/8/8.1/10
Supporting Hardware	CPU: Pentium4(1GHz or more) or more Memory: 2GB or more, Hard disk (data storage area): 10GB or more
Plat form	.NET Framework4.6 or later
Image size	Resolution 1024x768 pixel or more
Connection port	USB1.1, USB2.0 connecor * Operation in USB 3.0 has not been varified.

[Clamper and Knob] The set of clamper and knob is available for replacement. *





Model	Included Parts	Images	
SCK-PRT	Sample Clamper and Knob	 SCK-PRT	 Installation image

* This set of parts is sold in two pairs per order, not sold individually.

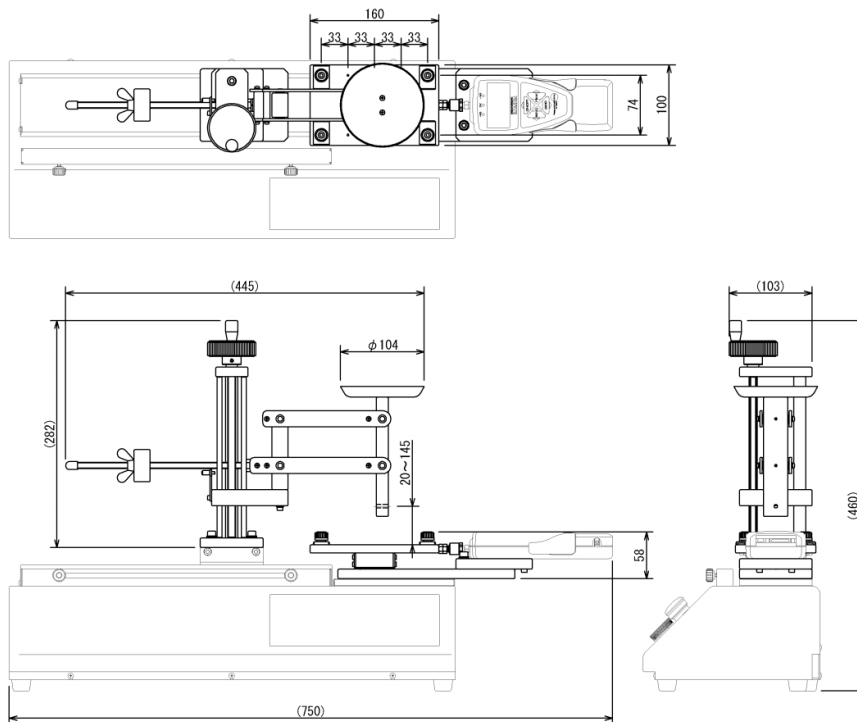
Contactor Holders *Sold separately					
Type	Stick Holder	Variable Angle Stick Holder	Variable Angle Attachment Holder	Ball Holder(φ6)	Blade Holder
Model	VWF-STH	VWF-STH-VA	VWF-ATH-VA	VWF-BAH6	VWF-BLH
Weight	51g	118g	112g	22g	57g
Contactor example	Lip stick, pen	Lip stick, pen	Eraser, needle*1	Round sample with φ6*2	Razor blade, plastic blade*2
Image					

*1 M6 adaptor shaft and attachment to grip the contactor are also needed for measurement.

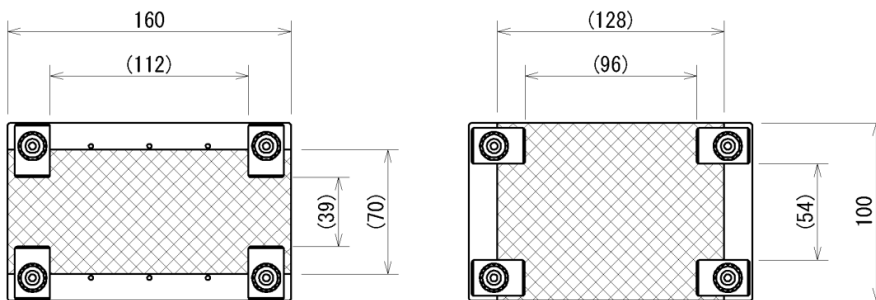
*2 An attachment holder (VWF-ATH or VWF-ATH-VA) is required for measurement.

Related Products			
Option Cable for Force control CB-528	Flat Chuck GC-1100/1200	Pin Chuck CP-150	Horizontal Motorized Test Stand MH2-500N
Connects the force gauge and the stand and allows the software to record test results automatically just by operating the motorized test stand.	ideal for samples with various thickness due to its wide opening.	designed to grip wire-shaped samples up to diameter of 3.2mm.	Only motorized stand compatible with VWF-10N in the current product lineup.
			

[Dimensions]



※Max. size of flat specimen



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 and a motorized test stand (sold separately) are required to use this product.
- Some samples may not be suitable to measure with this product.

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