

Manual Screw Flat Grips

Screw flat grips are general-purpose grips used for static tensile testing of a wide range of materials, most commonly, rubbers, plastics, textiles, and paper, and specimens such as plates and wires. Another advantage of these grips is they can be used to test thick specimens, up to 16 mm (0.63 in).

There are two types of manual screw flat grips: standard and stainless steel. Standard models have an operational temperature range from -70 to 250°C (-94 to 482°F), whereas stainless steel models are capable of operating over an extended temperature range of -70 to 320°C (-94 to 608°F).

Single-side file-teeth grip faces come standard on 1 kN (220 lbf) and 5 kN (1,100 lbf) capacity grips, and 50 N (11.0 lbf) capacity grips have flat grip faces. Additional grip face options include waves, rubber-coated, high-strength rubber-coated, grip faces for grab tests, and line-contact grip faces. Grip faces are easily exchanged. See the document on Grip Faces for Manual Screw Flat Grips for further information on grip face options.

Relevant Materials

Rubber, Plastics, Textiles, Cloth, Paper

Relevant Specimens

Plates, Wires



Operation

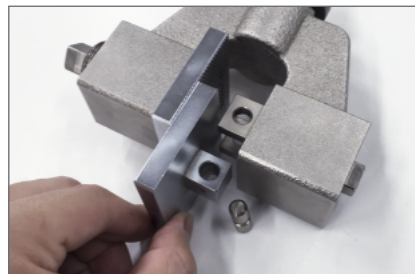
Manual screw flat grips present a straightforward approach to mounting test specimens. Knurled knobs, adjusted by fingers, tighten the grip faces on the 50 N capacity models. On the higher capacity 1 kN and 5 kN models, the grip faces are closed and opened by a T-wrench.



50 N grip: closed and opened by fingers



1 kN and 5 kN grips: closed and opened by a T-wrench



Change grip faces to suit your sample

Specification



5 kN



1 kN

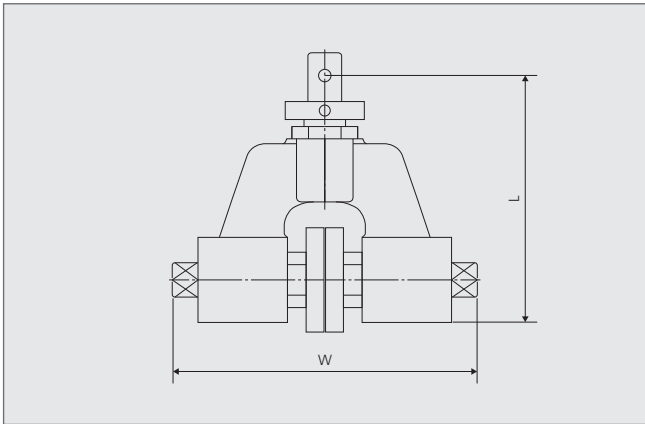


50 N

Maximum Grip Capacity			Applicable Specimen Thickness Note 1	Grip Face Size		Temperature Range Note 2	Grip Size		Upper Grip Mass	Upper Grip Ø Fitting (Ø pin)	Lower Grip Ø Fitting (Ø pin)
				Width	Length		Width	Length			
N	kgf	lbf	mm (in)	mm (in)	mm (in)	°C (°F)	mm (in)	mm (in)	kg (lb)	mm	mm
Standard Manual Screw Flat Grips											
5,000	500	1,100	0 to 16 (0 to 0.63)	60 (2.4)	50 (2.0)	-70 to 250 (-94 to 482)	114 (4.5)	122 (4.8)	2 (4.4)	16 (6.5)	16 (6.5)
1,000	100	220	0 to 15 (0 to 0.59)	50 (2.0)	30 (1.2)	-70 to 250 (-94 to 482)	105 (4.1)	95 (3.7)	0.7 (1.5)	16 (6.5)	16 (6.5)
50	5.0	11.0	0 to 14 (0 to 0.55)	35 (1.4)	25 (0.98)	-70 to 250 (-94 to 482)	96 (3.8)	87 (3.4)	0.3 (0.7)	10 (4)	16 (6.5)
Stainless Steel Manual Screw Flat Grips											
1,000	100	220	0 to 15 (0 to 0.59)	50 (2.0)	30 (1.2)	-70 to 320 (-94 to 608)	90 (3.5)	129 (5.1)	1.3 (2.9)	16 (6.5)	16 (6.5)
50	5.0	11.0	0 to 14 (0 to 0.55)	35 (1.4)	25 (0.98)	-70 to 320 (-94 to 608)	80 (3.1)	116 (4.6)	0.5 (1.1)	10 (4)	16 (6.5)

Note 1: The applicable specimen thickness is valid only for grip faces supplied with the grips and may change when other grip faces are used.

Note 2: The operational temperature range is reduced to between 0 and 60°C (32 and 140°F) when rubber-coated grip faces are installed.

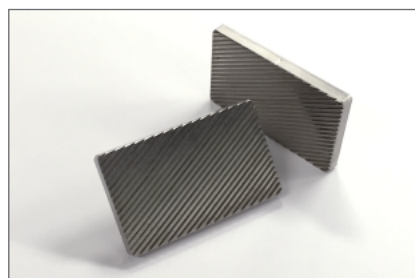


Ordering Information

P/N	Description
Standard Manual Screw Flat Grip Sets Includes: upper and lower standard manual screw flat grips, grip faces, and a T-wrench (SCG-5kNA, SCG-1kNA)	
346-52326-04	5 kN standard manual screw flat grip set with single-side file-teeth grip faces (model SCG-5kNA)
346-52327-04	1 kN standard manual screw flat grip set with single-side file-teeth grip faces (model SCG-1kNA)
346-52328-04	50 N standard manual screw flat grip set with flat grip faces (model SCG-50NA)
Stainless Steel Manual Screw Flat Grip Sets Includes: upper and lower stainless steel manual screw flat grips, grip faces, and a T-wrench (SCG-1kNSUS)	
344-13913-23	1 kN stainless steel manual screw flat grip set with single-side file-teeth grip faces (model SCG-1kNSUS)
341-29149-21	50 N stainless steel manual screw flat grip set with flat grip faces (model SCG-50NSUS)

Grip Faces

Single-side file-teeth grip faces are standard accessories of 5 kN and 1 kN manual screw flat grip sets. 50 N manual screw flat grips are supplied with flat grip faces. If you require another type of grip face, please refer to the document "Grip Faces for Manual Screw and Pneumatic Flat Grips."



Shimadzu Corporation
www.shimadzu.com/an/

For Research Use Only. Not for use in diagnostic procedures.

This publication may contain references to products that are not available in your country. Please contact us to check the availability of these products in your country.

Company names, products/service names and logos used in this publication are trademarks and trade names of Shimadzu Corporation, its subsidiaries or its affiliates, whether or not they are used with trademark symbol "TM" or "®".

Third-party trademarks and trade names may be used in this publication to refer to either the entities or their products/services, whether or not they are used with trademark symbol "TM" or "®".

Shimadzu disclaims any proprietary interest in trademarks and trade names other than its own.

The contents of this publication are provided to you "as is" without warranty of any kind, and are subject to change without notice. Shimadzu does not assume any responsibility or liability for any damage, whether direct or indirect, relating to the use of this publication.