

Manual Non-Shift Wedge Grips

Manual non-shift wedge grips are versatile grips for tensile testing a wide variety of materials, including metals, plastics, and composites. The open-front design allows easy insertion of specimens and exchange of grip faces. The self-tightening action means samples are held firmly within the grip faces, minimizing slippage during testing.

Each manual non-shift wedge grip set includes upper and lower grips and file-teeth grip faces for flat plate specimens. Standard grip sets are available with maximum capacity between 5 kN (1,100 lbf) and 300 kN (66,000 lbf). In addition, grip sets are available with wide 50 mm (2.0 in) file-teeth grip faces for grips with maximum capacity between 5 kN and 100 kN (22,000 lbf). Grip sets of 250 kN (55,000 lbf) and 300 kN are supplied with 50 mm file-teeth grip faces as standard.

A comprehensive selection of additional grip faces can be found in the section Grip Faces for Manual and Pneumatic Non-Shift Wedge Grips. Options include grip faces especially designed for rods, wires, materials with high hardness, and composite materials.



Relevant Materials

Plastics, Metals, Lumber, Composites

Relevant Specimens

Plates, Rods, Wires

Operation

The wedge shape design of the manual non-shift wedge grip enables vertical movement of the grip frame while grip faces stay in the same position, simplifying specimen positioning. Movement of the handle to tighten the grip simultaneously pushes both grip faces together horizontally, by action of the wedge-shaped grip frame, applying a strong clamping force and minimizing the generation of vertical test forces. During testing, increased tension presses the grip faces tighter against the frame, increasing the gripping force applied to the specimen.



The grip faces stay in the same vertical position



Rotated Handle



Possible to change grip face suitable for your sample

Specification



300kN/250kN



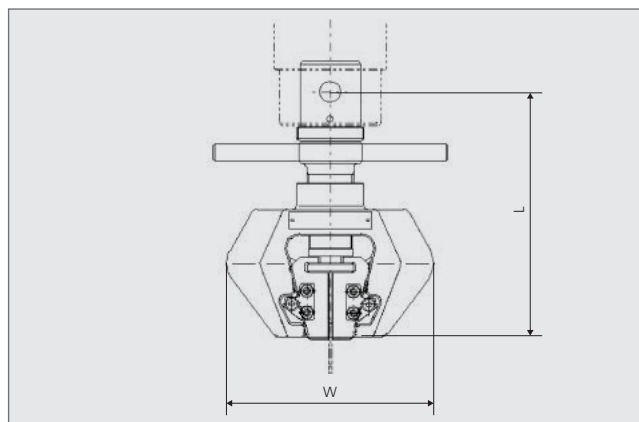
100kN/50kN



20kN/10kN/5kN

Maximum Grip Capacity			Applicable Specimen Thickness Note 1	Grip Face Size		Temperature Range	Grip Size		Upper Grip Mass	Upper Grip Ø Fitting (Ø pin)	Lower Grip Ø Fitting (Ø pin)
				Width	Length		Width	Length			
kN	kgf	lbf	mm (in)	mm (in)	mm (in)	°C (°F)	mm (in)	mm (in)	kg (lb)	mm	mm
Manual Non-Shift Wedge Grips											
300	30,000	66,000	0 to 8.5 (0 to 0.33)	50 (2.0)	75 (3.0)	-70 to 300 (-94 to 572)	225 (8.9)	340 (13.4)	33 (72.8)	70 (35)	70 (35)
250	25,000	55,000	0 to 8.5 (0 to 0.33)	50 (2.0)	75 (3.0)	0 to 120 (32 to 248)	225 (8.9)	340 (13.4)	33 (72.8)	70 (35)	70 (35)
100	10,000	22,000	0 to 7.0 (0 to 0.28)	40 (1.6)	55 (2.2)	-70 to 300 (-94 to 572)	170 (6.7)	203 (8.0)	10 (22.0)	50 (17.5)	50 (17.5)
50	5,000	11,000	0 to 7.0 (0 to 0.28)	40 (1.6)	55 (2.2)	-70 to 300 (-94 to 572)	170 (6.7)	194 (7.6)	9.5 (20.9)	35 (13)	35 (13)
20 / 10	2,000 / 1,000	4,400 / 2,200	0 to 7.0 (0 to 0.28)	25 (0.98)	55 (2.2)	-70 to 300 (-94 to 572)	118 (4.7)	174 (6.9)	3.6 (7.9)	25 (10)	25 (10)
5	500	1,100	0 to 7.0 (0 to 0.28)	25 (0.98)	55 (2.2)	-70 to 300 (-94 to 572)	118 (4.7)	169 (6.7)	3.6 (7.9)	16 (6.5)	16 (6.5)
Manual Non-Shift Wedge Grips with Wide Grip Faces											
100	10,000	22,000	0 to 7.0 (0 to 0.28)	50 (2.0)	55 (2.2)	0 to 120 (32 to 248)	150 (5.9)	242 (9.5)	16 ()	50 (17.5)	50 (17.5)
50	5,000	11,000	0 to 7.0 (0 to 0.28)	50 (2.0)	55 (2.2)	0 to 120 (32 to 248)	150 (5.9)	242 (9.5)	15 ()	35 (13)	35 (13)
20	2,000	4,400	0 to 7.0 (0 to 0.28)	50 (2.0)	55 (2.2)	0 to 120 (32 to 248)	108 (4.3)	205 (8.1)	6.6 (14.6)	25 (10)	25 (10)
10	1,000	2,200	0 to 7.0 (0 to 0.28)	50 (2.0)	55 (2.2)	0 to 120 (32 to 248)	108 (4.3)	205 (8.1)	6.6 (14.6)	25 (10)	25 (10)
5	500	1,100	0 to 7.0 (0 to 0.28)	50 (2.0)	55 (2.2)	0 to 120 (32 to 248)	108 (4.3)	201 (7.9)	6.5 (14.3)	16 (6.5)	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.

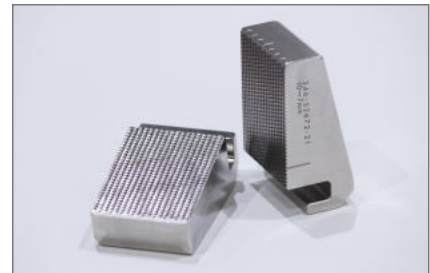


Ordering Information

P/N	Description
Manual Non-Shift Wedge Grip Sets Includes: upper and lower grips and file-teeth grip faces	
343-05840	300 kN manual non-shift wedge grip set (model MWG-300kN)
343-07979-12	250 kN manual non-shift wedge grip set (model MWG-250kN)
346-52791-02	100 kN manual non-shift wedge grip set (model MWG-100kNA)
346-52791-01	50 kN manual non-shift wedge grip set (model MWG-50kNA)
346-52653-03	20 / 10 kN manual non-shift wedge grip set (model MWG-20kNA)
346-52653-01	5 kN manual non-shift wedge grip set (MWG-5kNA)
Manual Non-Shift Wedge Grip Sets with Wide Grip Faces Includes: upper and lower grips and wide file-teeth grip faces	
343-05783-21	100 kN manual non-shift wedge grip set with wide grip faces
343-05783-22	50 kN manual non-shift wedge grip set with wide grip faces
343-05704-11	20 kN manual non-shift wedge grip set with wide grip faces
343-05704-12	10 kN manual non-shift wedge grip set with wide grip faces
343-05704-13	5 kN manual non-shift wedge grip set with wide grip faces

Grip Face

The file teeth grip faces are standard accessories of all grips. If you need the other type of grips face, please refer to the document "Grip face for Manual and Pneumatic Non-shift Wedge Grips".



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