

Pneumatic Non-Shift Wedge Grips

Pneumatic non-shift wedge grips have an open-front design and use one-touch chucking by foot operation to provide simple specimen mounting. These grips are suitable for tensile testing materials such as plastics and metals.

Grip sets include upper and lower pneumatic non-shift wedge grips and file-teeth grip faces for gripping flat plate specimens. To operate the grips, a foot valve unit is required, and to connect the foot valve unit with an air compressor, a rubber hose is needed. Both are available as accessories.

Pneumatic non-shift wedge grips are operable at air pressures between 0.4 MPa (4 kgf/cm², 58 psi) and 0.6 MPa (6 kgf/cm², 87 psi). Additional grip faces for testing rods, wires, high hardness materials, and composite materials can be found in the document on Grip Faces for Manual and Pneumatic Non-shift Wedge Grips.

In certain regions, pneumatic non-shift wedge grip kits, which include upper and lower grips, file-teeth grip faces, a foot valve unit, and a rubber connecting hose, are available. In addition, an air compressor might be available as an accessory. Please contact your local Shimadzu representative for availability.

Additional items needed for operation:

- Foot valve unit
- Rubber connecting hose
- 0.5 MPa (5 kgf/cm², 73 psi) to 0.99 MPa (10 kgf/cm², 144 psi) air compressor



Relevant Materials

Plastics, Metals, Composites

Relevant Specimens

Plates, Rods, Wires

Operation

When the grips close by action on the foot valve unit, the grip frame is driven down into the vertically static wedged grip faces, causing both grip faces to close horizontally. Once clamped, a constant clamping pressure is applied to the specimen. To release the specimen after testing, grips are opened by action on the foot valve unit.



Grip faces stay in the same vertical position when opening and closing



Change grip faces to suit your sample

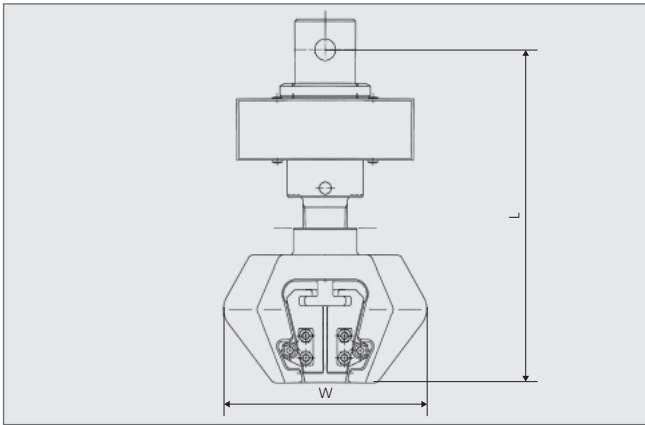


Foot valve unit

Specification

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
300	30,000	66,000	0 to 8.5 (0 to 0.33)	50 (2.0)	75 (3.0)	5 to 40 (41 to 104)	225 (8.9)	363 (14.3)	37 (82)	70 (35)	70 (35)
250	25,000	55,000	0 to 8.5 (0 to 0.33)	50 (2.0)	75 (3.0)	5 to 40 (41 to 104)	225 (8.9)	363 (14.3)	37 (82)	70 (35)	70 (35)
100	10,000	22,000	0 to 7 (0 to 0.28)	40 (1.6)	55 (2.2)	5 to 40 (41 to 104)	170 (6.7)	249 (9.8)	15 (33)	50 (17.5)	50 (17.5)
50	5,000	11,000	0 to 7 (0 to 0.28)	40 (1.6)	55 (2.2)	5 to 40 (41 to 104)	170 (6.7)	242 (9.5)	15 (33)	35 (13)	35 (13)
20	2,000	4,400	0 to 7 (0 to 0.28)	25 (0.98)	55 (2.2)	5 to 40 (41 to 104)	118 (4.6)	221 (8.7)	8 (18)	25 (10)	25 (10)
5	500	1,100	0 to 7 (0 to 0.28)	25 (0.98)	55 (2.2)	5 to 40 (41 to 104)	118 (4.6)	216 (8.5)	8 (18)	16 (6.5)	16 (6.5)

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

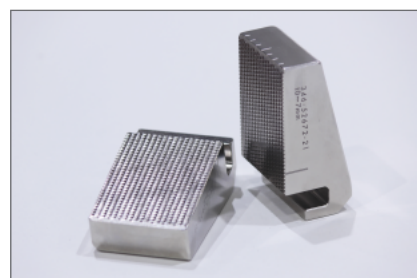


Ordering Information

P/N	Description
Pneumatic Non-Shift Wedge Grip Sets Includes: upper and lower pneumatic non-shift wedge grips and file-teeth grip faces	
343-05840-51	300 kN pneumatic non-shift wedge grip set (model PWG-300kN)
343-05394-51	250 kN pneumatic non-shift wedge grip set (model PWG-250kN)
346-52798-02	100 kN pneumatic non-shift wedge grip set (model PWG-100kNA)
346-52798-01	50 kN pneumatic non-shift wedge grip set (model PWG-50kNA)
346-52675-03	20 kN pneumatic non-shift wedge grip set (model PWG-20kNA)
346-52675-01	5 kN pneumatic non-shift wedge grip set (model PWG-5kNA)
Accessories	
343-05395-55	Foot valve unit to operate grips with air hoses to connect to grips
016-02232	Rubber hose, inner diameter 8 mm and length 1 m, to connect the foot valve unit with an air compressor

Grip Faces

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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