

Pin Grips for Flat Specimens

Pin grips are very user friendly and are designed for conducting tensile tests of hard and brittle plate specimens that are difficult to grip. Specimens are held within the grips by passing pins through holes in the specimens.

A beneficial feature of these grips is different specimen thicknesses can be accommodated because of the incorporation of specimen thickness adjustment screws, or bushes, which position the specimen at the center of the grips.

Relevant Materials

Metals, Ceramics

Relevant Specimens

Plates



Operation

A specimen is placed within the grip faces so that the hole in the specimen is lined up with the hole in the grip faces. Bushes, followed by the pins, are inserted through the grip faces and specimen. The bushes are screwed to change the horizontal position of the specimen and line it up with the axis of the testing machine.



Screwing the bush



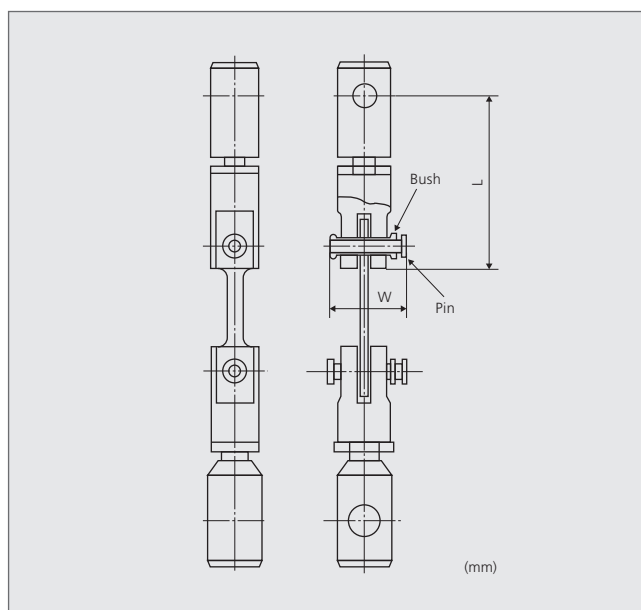
Inserting the pin



Bushes line the specimen up with the testing axis

Specification

Maximum Grip Capacity			Applicable Specimen Thickness	Pin Diameter	Temperature Range	Grip Size		Upper Grip Mass	Upper Grip Ø Fitting (Ø pin)	Lower Grip Ø Fitting (Ø pin)
						Width	Length			
kN	kgf	lbf	mm (in)	mm (in)	°C (°F)	mm (in)	mm (in)	kg (lb)	mm	mm
100	10,000	22,000	0.8 to 3 (0.031 to 0.12)	18 (0.71)	-10 to 60 (14 to 140)	90 (3.5)	260 (10.2)	4 (8.8)	50 (17.5)	50 (17.5)
50	5,000	11,000	0.8 to 3 (0.031 to 0.12)	12 (0.47)	-10 to 60 (14 to 140)	90 (3.5)	260 (10.2)	4 (8.8)	35 (13)	35 (13)
20	2,000	4,400	0.8 to 3 (0.031 to 0.12)	8 (0.31)	-10 to 60 (14 to 140)	90 (3.5)	260 (10.2)	4 (8.8)	25 (10)	25 (10)



Ordering Information

P/N	Description
Pin Grip Sets for Flat Specimens Includes: upper and lower pin grips for flat specimens, 2 pins, and 4 bushes	
343-06853-04	100 kN pin grip set for flat specimens with 18 mm diameter pins and bushes
343-06853-05	50 kN pin grip set for flat specimens with 12 mm diameter pins and bushes
343-06853-06	20 kN pin grip set for flat specimens with 8 mm diameter pins and bushes
Additional Pin and Bush Sets Includes: 2 pins and 4 bushes (one pin and bush set is required for each pair of grips)	
343-04882-03	18 mm diameter pin and bush set for 100 kN pin grips for flat specimens
343-04882-02	12 mm diameter pin and bush set for 50 kN pin grips for flat specimens
343-04882-01	8 mm diameter pin and bush set for 20 kN pin grips for flat specimens

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