

50 kN Capstan Grips for Rope

These 50 kN (11,000 lbf) capstan grips are designed specifically for testing the tensile properties of rope with a diameter between 8 and 28 mm (0.31 and 1.1 in). The upper and lower grips incorporate an easy-to-load split drum and the upper grip has a counterweight attached to maintain alignment of the grips with the axis of the universal tester during testing.

A grip set includes upper and lower grips with grooved faces inside the split drum to increase gripping of the specimen. Standard grip faces are for rope with a diameter of 8 to 12 mm (0.31 to 0.47 in). A range of additional drum grip faces is available to accommodate ropes with a diameter up to 28 mm (1.1 in).

Relevant Materials

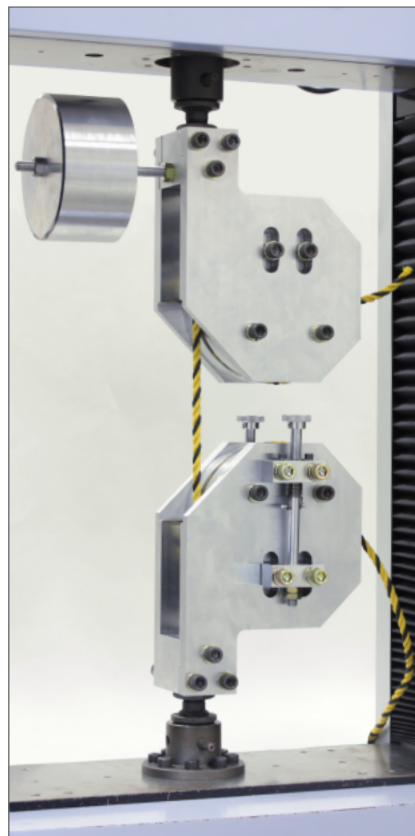
Yarn

Relevant Specimens

Rope

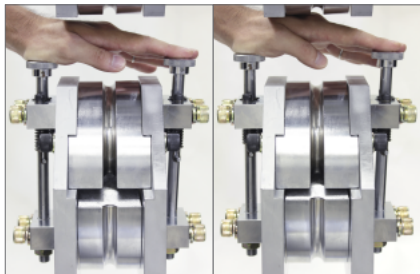
Relevant Standards

JIS L2701, JIS L2703, JIS L2704, JIS L2705



Operation

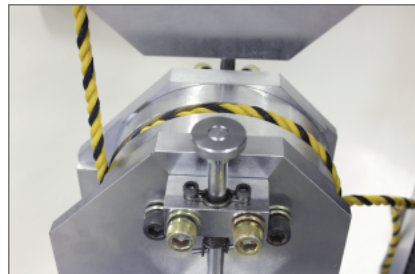
Specimens are inserted into the grooved split drum grip faces after depressing plungers on the side of the grips, which open the grip faces. During testing, a self-tightening action is applied because of the arrangement of the split drum and capstan, which increases the clamping force on the specimen as the test force increases.



Depress plungers to open the grip faces



Setting of rope

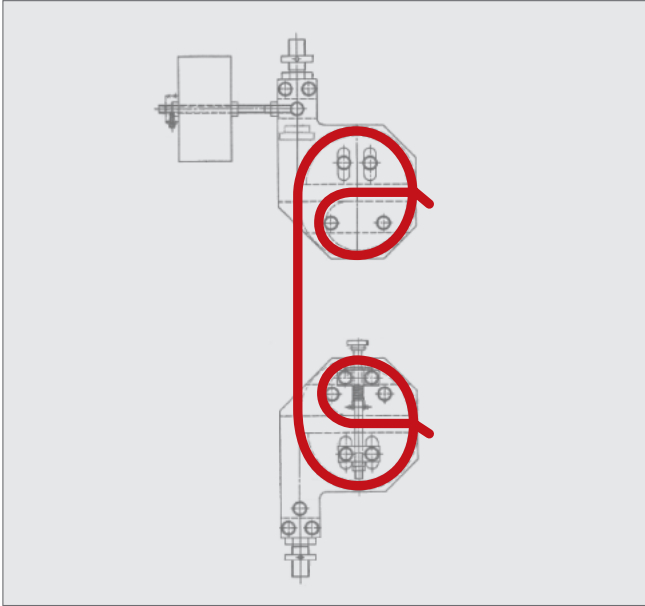
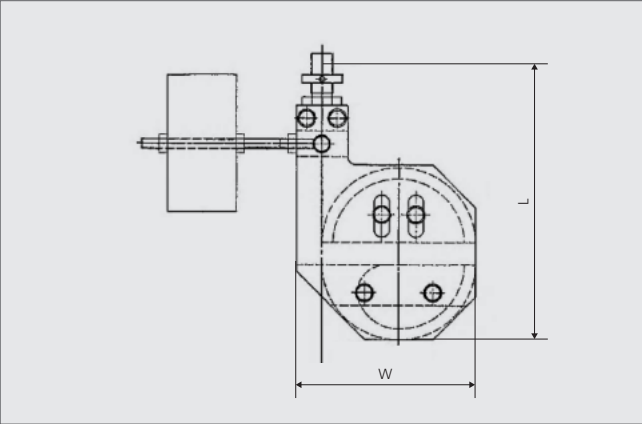


The self-tightening action

Specification

Maximum Grip Capacity			Applicable Specimen Diameter Note 1	Minimum Specimen Length	Temperature Range	Grip Size		Upper Grip Mass	Upper Grip Ø Fitting (Ø pin)	Lower Grip Ø Fitting (Ø pin)
						Width	Length Upper / Lower			
kN	kgf	lbf	mm (in)	mm (in)	°C (°F)	mm (in)	mm (in)	kg (lb)	mm	mm
50	5,000	11,000	8 to 12 (0.31 to 0.47)	1800 (70.9)	-10 to 60 (14 to 140)	210 (8.3)	308 / 318 (12.1 / 12.5)	20 (44)	35 (13)	35 (13)

Note 1: Additional drum grip faces for specimens with a diameter of 12 to 16 mm (0.47 to 0.63 in), 16 to 20 mm (0.63 to 0.79 in), 20 to 24 mm (0.79 to 0.94 in), and 24 to 28 mm (0.94 to 1.1 in) are available.



The way to twist the belt

Ordering Information

P/N	Description
343-07571-04	50 kN Capstan Grip Set for Rope Includes: upper and lower 50 kN capstan grips for rope with grip faces 8 to 12 mm (0.31 to 0.47 in) in diameter
Accessories	
343-08915-01	Drum grip faces for specimens 8 to 12 mm (0.31 to 0.47 in) in diameter
343-08915-02	Drum grip faces for specimens 12 to 16 mm (0.47 to 0.63 in) in diameter
343-08915-03	Drum grip faces for specimens 16 to 20 mm (0.63 to 0.79 in) in diameter
343-08915-04	Drum grip faces for specimens 20 to 24 mm (0.79 to 0.94 in) in diameter
343-08915-05	Drum grip faces for specimens 24 to 28 mm (0.94 to 1.1 in) in diameter

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