

2715-001 SERIES

Capstan Grips

The self-tightening grips are primarily designed for the precision testing of elastomeric and other flexible materials exhibiting a large reduction in cross-section area under load. They provide excellent testing accuracy, positive non-slip gripping action, and are quick and simple to use. The upper grip is counter balanced so that the specimen can be aligned with the load cell to eliminate non-axial forces.

PRINCIPLE OF OPERATION

Cord capstan grips provide a superior method for clamping twisted or braided cord during testing. Each grip has a round capstan with a right-hand spiral grooved surface that accommodates specimens up to 3.175 mm (0.125 in) in diameter. The capstan is split axially into two halves, one half being stationary and the other movable. The specimen is wound from the outside of the capstan towards the centre before being passed through the split halves where it is clamped. The groove completes 2.5 turns around the capstan, which allows two full turns for distributing the specimen load and stress concentration. The grips self tighten as load is applied to the specimen.

Smooth capstan surfaces are available separately.

FEATURES

- Rated capacity: 2.5 kN (250 kgf, 500 lbf)
- Fast and easy loading
- Minimizes jaw breaks
- Allows predetermination of specimen length

APPLICATION RANGE

- Type of loading: Tension, static only
- Specimen material: Twisted or braided cord
- Specimen shapes: Cord or strip



SPECIFICATIONS

Catalog Number		2715-001
Maximum Capacity	kN	2.5
	kgf	250
	lbf	500

MECHANICAL CONNECTION

Upper Fitting		½ in clevis pin (Type Dm)
Lower Fitting		½ in clevis pin (Type Dm)
Weight (Upper Grip)	kg	1.2
	lb	22
Working Principle		Self-clamping
Maximum Sample Diameter/Thickness	mm	3.2
	in	0.125
Minimum Sample Diameter/Thickness	mm	0.5
	in	0.02
Operating Temperature Range	°C	-73 to +316
	°F	-100 to +600

MINIMUM SAMPLE LENGTH AT ZERO GRIP SEPERATE

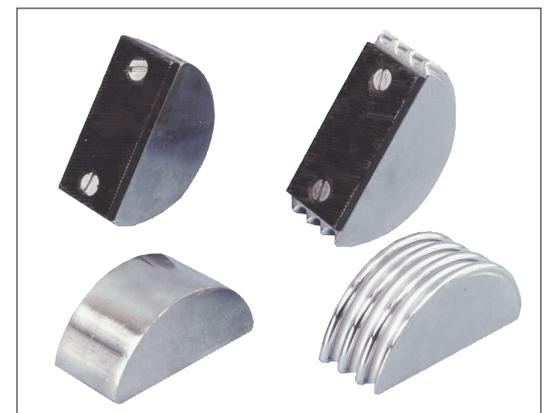
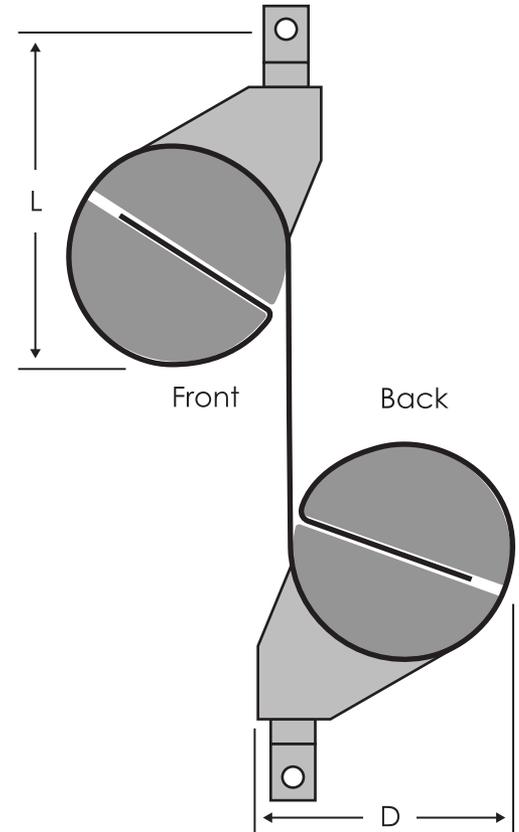
Cords	mm	480
	in	18.9
Tapes	mm	500
	in	19.7
Minimum Daylight Required	mm	240
	in	9.5
Gripping Surface		Grooved (Optionally smooth)
Length (L)	mm	130
	in	5.1
Depth (D)	mm	70
	in	2.78

ACCESSORIES

Catalog Number	2715-002
Description	Capstan, smooth. Maximum specimen width is 20 mm (0.8 in)

Notes:

- Grip catalog number provides two grips.
- Grips may require mechanical attachment coupling to connect to the load cell or machine base.
- Alternate smooth capstans are available for this grip.



A selection of interchangeable capstans to meet with a variety of applications

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