

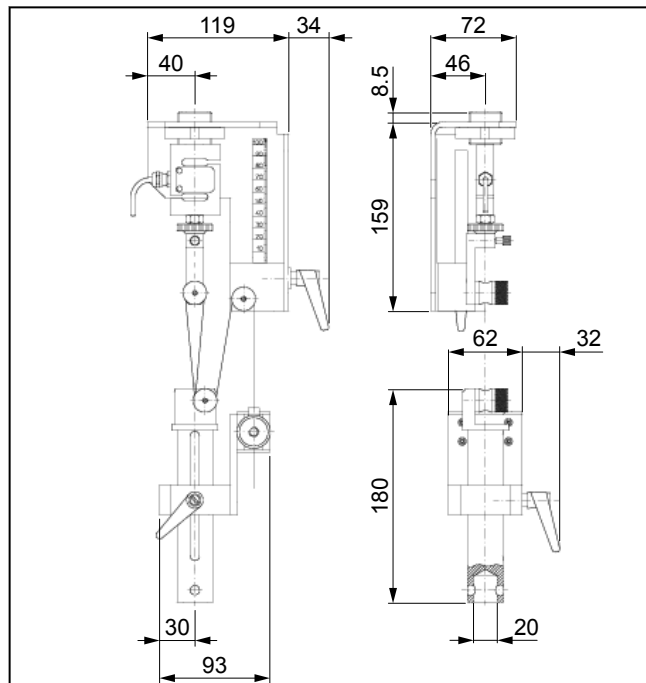
Product Information

Double capstan grips Type 8170, Fmax 500 N

CTA: 40194 40193



Double capstan grips Type 8170, Fmax 500 N



Double capstan grips Type 8170, Fmax 500 N, dimensions

Applications

- Specimen material:
Rubber, elastomer, textile
- Specimen shape:
High strain, filamentary materials, e.g. rubber threads and elastic fibers
- Type of loading:
Tensile

Function description

The double capstan grips can be used to grip filamentary, high-extension tensile specimens.

With this deflection principle a force differential occurs over two stages, allowing specimen failure within the gauge length with no jaw breaks.

After the deflection of the double thread, a prestress weight (not included in scope of delivery) is attached. During this phase all three rollers can be moved to compensate for the change in length caused by the attachment of the prestress weight. The three lengths are adjusted to the material being tested.

Finally, the double thread is also gripped in height adjustable specimen grips.

After closing the specimen grips, the deflection rollers are locked into place. This results in frictional forces between the rollers and the specimen, which gently reduce the tensile force prior to end clamping (specimen grip), ensuring that the specimen is gripped securely and prevents the jaws from breaking.

A specimen grip with constant gripping force is used to clamp the double thread because the specimen to be tested can frequently slip out from between the gripping areas.

Advantages and Features

- Wrapping the specimen around the load reduction rollers ensures gentle gripping without jaw breaks.
- These specimen grips ensure exact strain measurement on high-extension threads.
- Preventing jaw breaks allows for efficient testing.

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Technical data

Item No.	3003544	
Type	8170	
Test load F_{max}	0.5	kN
Specimen diameter, max.	5	mm
Deflection rollers radius	10	mm
Upper specimen grip		
Height	276	mm
Width	112	mm
Depth	80	mm
Width with clamping lever	146	mm
Weight	1.8	kg
Connection, bolts	Ø 8	mm
Lower specimen grip		
Height	180	mm
Width	93	mm
Depth	62	mm
Depth with clamping lever	96	mm
Weight, approx. (with wedge screw grip)	1.3	kg
Connection, bolts	Ø 20	mm
Ambient temperature	+10 to +35	°C
Scope of delivery	Set ¹⁾	

1) Upper and lower specimen grip, one wedge screw grip Type 8106, Fmax 500 N

Accessories required

Jaws for Type 8106 wedge screw grips (1x required)

Scope of delivery: 1 set (= 4 pieces)

Applications	Version	Gripping area (H x W) [mm]	Ambient temperature [°C]	Hardness	Item No.
Metal strip specimens	Steel, fsc ¹⁾ 0.4 mm	30 x 15	-40 to +250	61 HRC	313286
Yarns, plastic films, soft, notch-sensitive materials	Vulkollan, smooth	30 x 15	-15 to +80	95 Shore A	313288
Yarns, plastic films, soft, notch-sensitive materials	Vulkollan, corrugated	30 x 15	-15 to +80	95 Shore A	313290
Metal wire, thin metal sheet, tapes	Oxide ceramic, smooth	30 x 15	-15 to +80	Knoop 8002300 N/mm ²	313292

1) Fsc = fish scale