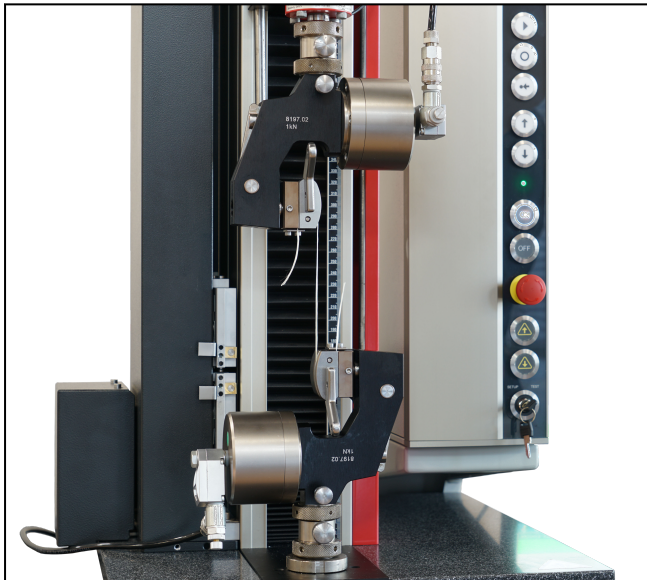


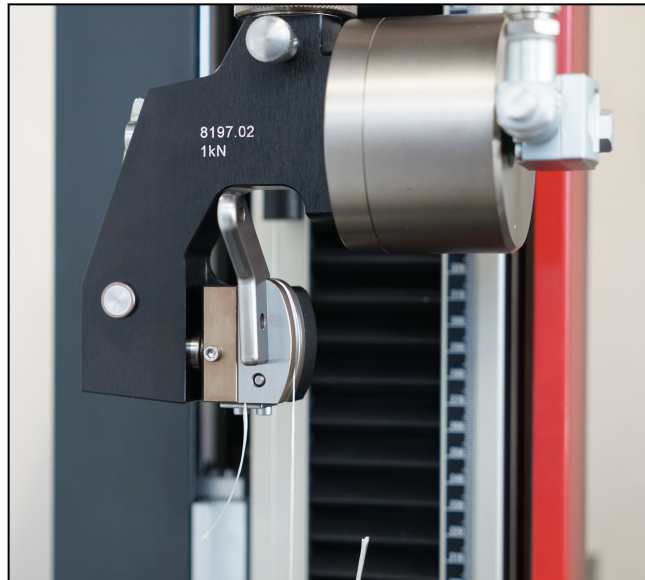
Product Information

Capstan grips type 8197 / F8197, Fmax 1 kN, pneumatic

CTA: 196631 196632



Capstan grips type 8197 Fmax 1 kN, pneumatic



Capstan grips type 8197 Fmax 1 kN pneumatic, detail

Applications

- Specimen material:
textiles, plastics
- Specimen shape:
single and ply yarn, twine, multifilaments
- Type of loading:
tensile
- Standard:
tire cord to ASTM D885, single and ply yarn to ISO 2062, BISFA 2002

Function description

These pneumatic grips for yarn and tire cord are single-actuator grips for clamping fibrous or filamentary tensile specimens.

The load-reduction curve with 180° deflection gently reduces the tensile force before the clamping point. Pneumatic clamping ensures constant gripping force with easy, reproducible adjustment. The specimen is held securely and jaw breaks during the test are avoided.

The force reduction curve with 180° deflection allows a defined grip-to-grip separation to be assumed, eliminating the need for an extensometer.

The gripping pressure for the specimen grip can be set steplessly and reproducibly via a pneumatic control unit and optionally via the testXpert III testing software. This ensures safe clamping of a variety of materials. The specimen grip is opened and closed via buttons on the testing machine. The optional foot pedal unit or machine remote control can be used for additional operating convenience.

Advantages and features

- Secure holding of the specimen ensures reliable test results, even with specimens prone to shrinkage.
- High specimen throughput thanks to quick specimen insertion and exact centering with insertion aid and guide groove.
- Fast, easy two-handed specimen change - grips operated via foot control unit.
- The load-reduction curve ensures gentle gripping with no jaw breaks.

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Differentiation in two versions

Pneumatic closing and gripping

- For specimen grips that close with pure pneumatic actuation, the closing motion only occurs as long as the closing button is activated. If the button is released during the closing process, the specimen grip automatically switches back to the safe, open position. The position is only held after the specimen grips are fully closed. The preset gripping pressure is only applied once the test starts. All pneumatic grips are available in this version.

Spring-closing and pneumatic gripping

- Spring-closing specimen grips feature a technological difference between closing and gripping. With a brief touch of the closing button, the built-in spring closes the specimen grips very quickly with a low force of < 150 N. The specimen is therefore quickly clamped and operating times are reduced. The preselected gripping pressure is applied when the test starts. Seven selected specimen grips in a force range ≤ 2.5 kN are available in this version.

Technical data

Item No.	1106811	1106832	
Type	8197	F8197	
Operating principle/identification	For tire cords; pneumatic end clamping	For tire cords; pneumatic end clamping	
Test load F_{max}	1	1	kN
Operating pressure	1 ... 10	1 ... 10	bar
The operating pressure depends on the upstream components.			
Piston area, standardized	86.49	86.49	cm ²
Gripping force at 6 bar	5.2	5.2	kN
Gripping force at 10 bar	8.5	8.5	kN
Opening width with jaws	3	3	mm
Dimensions			
Height	160	160	mm
Width	187	187	mm
Depth	75	75	mm
Depth with guide mandrel and connection unit	90	90	mm
Free curve length	54	54	mm
Connection, hole	Ø 20	Ø 20	mm
Weight per specimen grip, approx.	1.6	1.6	kg
Ambient temperature	+10 ... +35	+10 ... +35	°C
Scope of delivery	2	2	piece(s)

Accessories required

Pneumatic hoses (1x required)

Description	ArticleNumber
Set of pneumatic hoses for connecting a pair of pneumatic grips	1112640

Pneumatic control unit

See section 4.6 Accessories

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Load reduction curve (1 x required)

1 set = 2 pieces

Surface	Deflection [°]	Length per load reduction curve [mm]	Hardness	Item No.
Polished, rust-proof version	180	54	52 HRC	1040334

Flat jaws

Scope of delivery: 1 set (= 2 pieces)

Version	Clamping surface Height [mm]	Width [mm]	Ambient temperature [°C]	Hardness	Item No.
Polished, rust-proof	38	16	+10 ... +35	52 HRC	1040335