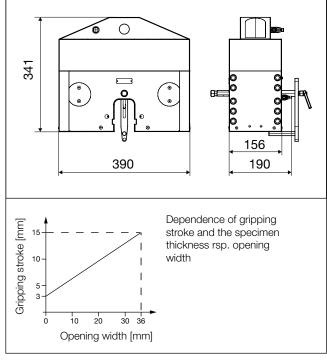


Zwick Materials Testing

Product Information

Pneumatic grips type 8597, Fmax 100 kN, double actuator





Applicational range

Specimen material: Metals, plastics, textiles, elastomers, wood

Specimen shape: Round and flat specimens Type of loading: Tensile, compression, alternating load

Functional principle and handling

Pneumatic grips are well suited to clamp grip sensitive materials or to achieve a high specimen throughput.

Independent from the test load the gripping force is always constant.

Double actuator pneumatic grips always close symmetrically to the tensile axis. Thickness setting is unnecessary - a big advantage when testing soft specimen and/ or specimens with changing thickness

These grips have a large opening width, which enables tests on thicker specimen.

A patented principle for generating gripping forces is realized here. This principle enables very high gripping forces to be generated with an adequate grip height and at a wide opening width. Whereby the gripping stroke varies dependent upon the thickness of the specimen to be gripped, or upon the current openi width. This results in a linear coherence (see diagra specimen to be gripped, or upon the current opening width. This results in a linear coherence (see diagram above).

The closing pressure of the specimen grips can be adjusted steplessly via the pneumatic control unit which guarantees safe gripping of a range of materials. Opening and closing the grips is made via foot switch or testing machine's remote control unit what gives these grips a high degree of operator comfort.

Further features

- The symmetrical closing of the jaws safes setting time for specimens with changing thickness and guarantees their exact alignment in the test axis
- The dove tail jaw system offers an easy change of jaw inserts without tools by lateral insertion into the grips - centring and fixation happens automatically
- Simple, rapid specimen insertion: Via adjustable specimen stops with scales a quick, exact presetting of the specimen position is possible.
- The reproducible gripping force onto the specimen provides constant test conditions
- Also specimens decreasing during the test were hold safely due to the constant gripping force
- With the optional mounting unit small load cells, grips, tools and test devices can be connected quickly and efficiently without the need for exchanging grips.



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Item number	320710
Туре	8597
Fmax	100 kN
Gripping force at 6 bar / 10 bar (approx.)	110 kN / 170 kN
Min. pressure / max. pressure	1.5 bar / 10 bar
Height x width x depth; depth with overhang	341 x 390 x 156 mm; 190 mm
Gripping stroke (please note diagramm overleaf)	15 mm
Specimen gripping	The specimen must be gripped by at least 1/2 of the jaw height.
Weight per grip (without jaw inserts)	53 kg
Connection dia.	60 mm
Temperature range	+10 +35 °C
Scope of supply	1 pair
Pneumatic control units:	
1x required	

Jaws (1x required)

Applicational	Design	Specimen	Gripping	Hardness	Item Number	
range		thickness/dia.	area (HxW)			
Plane jaws						
Metal strips and	Steel, concentric grooves, dist. 1mm	0 29 mm	dia. 74 mm	58 HRC	314046	
dumbbells,	Steel, concentric grooves, dist. 2mm	0 29 mm	dia. 74 mm	58 HRC	317246	
reinforced plastics	Steel, Pr 0,35 mm	0 29 mm	dia. 74 mm	58 HRC	316139	
(Flat specimens)	Steel, Pr 0,75 mm	0 29 mm	dia. 74 mm	58 HRC	320618	
	Steel, Pr 1,5 mm	0 29 mm	dia. 74 mm	58 HRC	320620	
GFK-/CFK strips,	Steel smooth, lapped	0 29 mm	dia. 74 mm	58 HRC	317244	
Scope of supply: 1 pair each. 2 pairs necessary. All jaws with shatter protection						
Textile ribbons	Steel, smooth	012 mm	110 x 110 mm	55 HRC	320354	
(Flat specimens)	Steel, corrugated	012 mm	110 x 110 mm	55 HRC	320356	
Scope of supply: 1 set (= 4 pieces). 1 set required.						
Prism jaws						
Round specimens	Steel, V-groove corrugated,	dia. 615 mm	74 mm high	58 HRC	314050	
with/w.o. shoulder	distance 1 mm	dia. 1029 mm	74 mm high	58 HRC	314052	
Fitting jaw mounting	(required to use the prism jaws)				314048	
Scope of supply: 1 pair each. 2 pairs of jaw mountings and 2 pairs jaw inserts necessary.						

Pr = Pyramid

Optional accessories

Description	Item Number
T-shoe connectors (1 pair) with thread M28 x 1,5 and centring dia 30 H7. For the connection of moun-	320252
ting studs or load cells as well as for the following mounting unit or mounting flange	
Mounting unit (1 piece) for connecting flexure table, upper unvil holder or compression test kits	314058
Mounting flange (1 piece) for connecting flexure tables, preferably mounted in the lower grip	314060
Pressure amplifier to increase the operating pressure	315016/315018