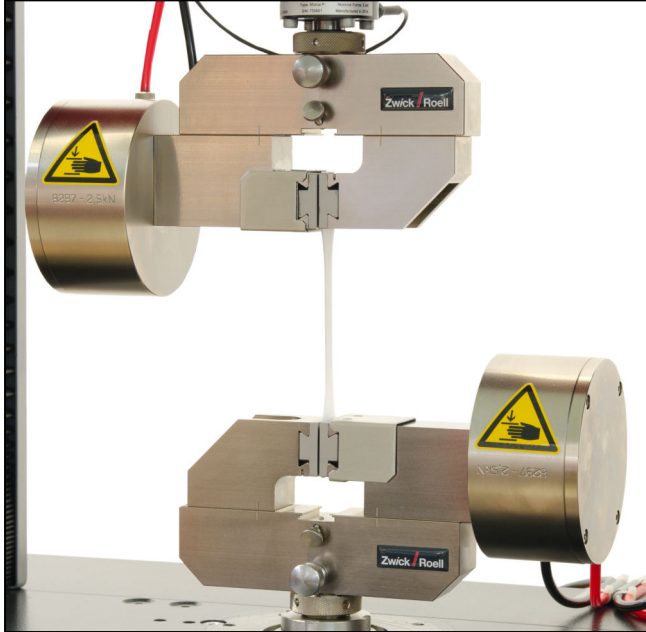


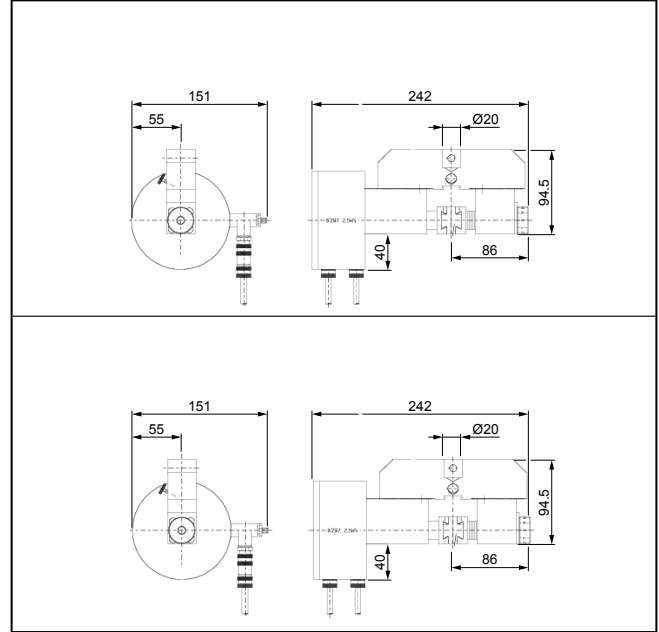
## Product Information

### Pneumatic grips type 8297, Fmax 2.5 kN

CTA: 97751 33353 33353



Pneumatic grips type 8297 Fmax 2,5 kN, opposing jaw with stepped adjustment



Pneumatic grips type 8297 Fmax 2,5 kN, general view, opposing jaw with stepless and stepped adjustment and opposing jaw with stepped adjustment

#### Applications

- Specimen material:  
metals, plastics, textiles, paper, non-wovens, elastomers, wood, insulating materials
- Specimen shape:  
round and flat specimens, asymmetrical specimens
- Type of loading:  
tensile, compression, alternating load

#### Function description

Pneumatic grips are single-sided closing and can be used for symmetrical and asymmetrical gripping.

The grips are opened and closed pneumatically and also the gripping force before the test is applied pneumatically.

The gripping pressure of the specimen grip can be set steplessly and reproducibly via a pneumatic control unit. The specimen is held securely and jaw breaks are prevented during the test.

The opening and closing of the specimen grips can be controlled by foot switches or the remote control of the materials testing machine, providing great operating comfort.

The opposing jaw varies according to type:

- stepped adjustment: fixed mounting, can be adjusted in 1mm steps (tool required)
- stepped and stepless adjustment: adjustment via screw drive, additionally adjustable in 1mm steps by means of a tool.

#### Advantages and features

- Constant pneumatic pressure allows even specimens prone to shrinkage to be held securely.
- Constant gripping force enables repeatable test results to be achieved.
- The jaws can be changed quickly and easily for different applications - no tools required. The jaws are centered automatically.
- Precise test results combined with high number of cycles achieved through centric insertion of specimen using easily adjustable centering stop.
- Adjustable opposing jaw for fast, easy testing, including joined (asymmetrical) specimens
- Ergonomic, open design for fast, easy specimen insertion and clamping

## Product Information

### Pneumatic grips type 8297, F<sub>max</sub> 2.5 kN

#### Technical data

Item No. Type	316449 <sup>1)</sup> 8197	316451 <sup>1)</sup> 8197	
Operating principle/feature	stepped adjustment of opposing jaw	opposing jaw with stepless and stepped adjustment	
Test load F <sub>max</sub>	2.5	2.5	kN
Gripping force, max. at 6 bar	3.6	3.6	kN
Gripping force, max. at 10 bar	6	6	kN
Pressure, min.	0.5	0.5	bar
Pressure, max.	10	10	bar
Dimensions			
Height	95	95	mm
Installation height	135	135	mm
Width	238	242	mm
Depth	110	110	mm
Depth with connection unit	151	151	mm
Clamping travel of pneumatically operated side	10.5	10.5	mm
Opening width, max. <sup>2)</sup>	20	20	mm
Specimen gripping	The specimen must be gripped over at least 2/3 of the jaw height.		
Weight per grip unit, approx.	2.4	2.5	kg
Connection, stud	Ø 20	Ø 20	mm
Ambient temperature	+10 to +35	+10 to +35	°C
Scope of delivery	2	2	pieces

1) If used in conjunction with optical extensometers: care must be taken that the area to be measured is not obscured by the pneumatic actuator.

2) The opening width arises when using jaws with 5mm jaw thickness.

#### Accessories required

##### Jaws:

Type 8287 or Type 8487

##### Pneumatic control unit

##### Optional accessories

##### Centering stop and Insertion aid

Description	Item number
Centering stops for centered clamping of flat and round specimens (0 - 60 mm), adjustable to scale. Scope of delivery: 2 pieces	<b>316355</b>
Insertion aid for centered clamping of ropes/wire/threads. Can only be used with jaws with max. height 30 mm. Scope of delivery: 2 pieces	<b>316443</b>

Product Information

Pneumatic grips type 8297, Fmax 2.5 kN

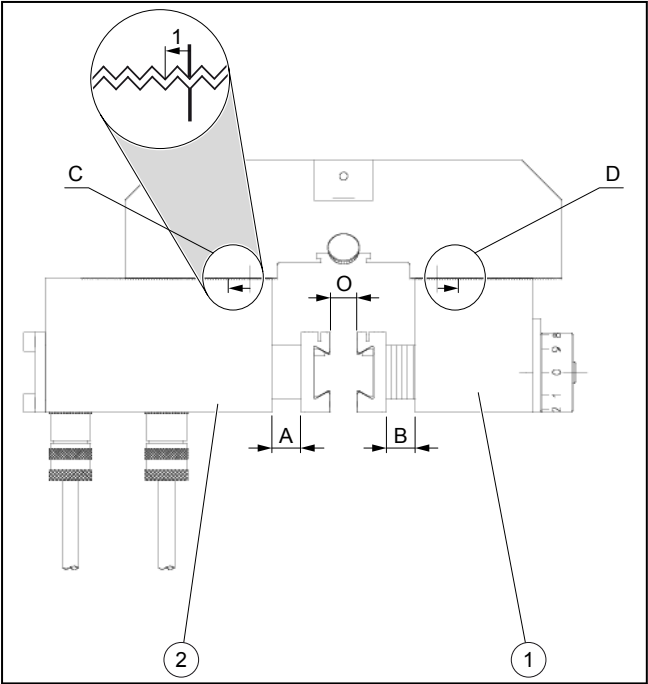
Spacer

Description	Item number
Spacers, 20 mm, for increasing the free space between clamping zone and grip body. Scope of delivery: 2 pieces	316559

Pressure amplifier

Description	Item number
Pressure amplifier for increasing operating pressure, max. input pressure 10 bar, pressure ratio 1:2, flow rate 900l/min, output pressure 2 - 10 bar. For installation in control unit line.	315016
Pressure amplifier for increasing operating pressure, max. input pressure 10 bar, pressure ratio 1:2, flow rate 400l/min, output pressure 2 - 20 bar. For installation in control unit line.	315018

CTA: 39539



Adjustment ranges and opening width of Types 8097, 8197 and 8297 pneumatic grips

- 1 Clamping unit
- 2 Opposing jaw
- A Clamping unit travel
- B Stepless adjustment range. Only for opposing jaws with stepless adjustment.
- C Stepped adjustment range of clamping unit. The unit can be released via screws and adjusted from the basic setting in 1mm increments.
- D Stepped adjustment range of opposing jaw. This has the same adjustment capability as the clamping unit (C).
- O Opening width without jaws