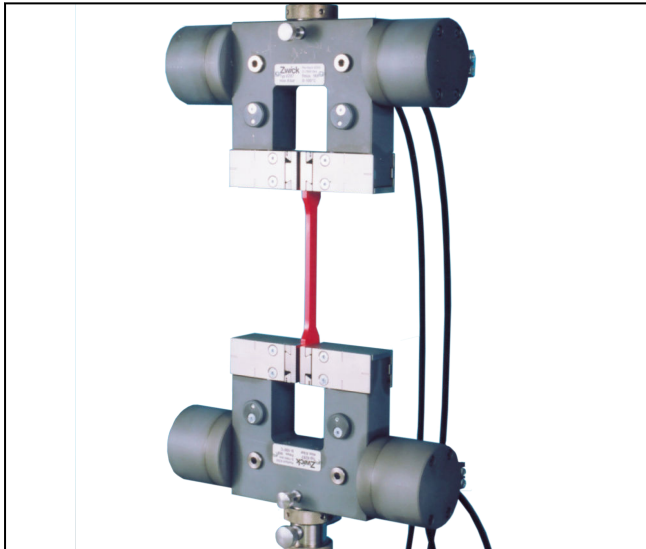


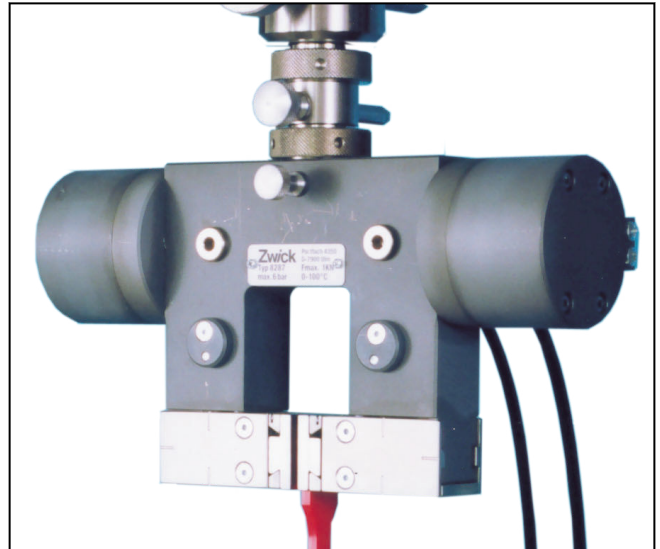
Product Information

Pneumatic grips, Type 8187 (Fmax 200 N) and Type 8287 (Fmax 1 kN)

CTA: 39552 39552



Type 8287 pneumatic grips, Fmax 1 kN



Pneumatic grips, Type 8287, Fmax 1 kN: detail

Applications

- Specimen material:
plastics, metals, paper, textiles, elastomers, wood
- Specimen shape:
round and flat specimens
- Type of loading:
tensile

Function description

Pneumatic grips are double acting and can be used for symmetrical gripping.

Pneumatic specimen grips are ideal for clamping-sensitive materials or if a high specimen throughput is required. The gripping force always remains constant, regardless of test load.

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. The specimen is held securely and jaw breaks are prevented during the test.

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.

Double-actuator pneumatic grips always close symmetrically with respect to the tensile axis. This means the

specimen is clamped in a precise axial position. It is not necessary to set the specimen thickness.

The maximum opening width/gripping force can be changed by repositioning a pin:

- large opening width -> low gripping force
- small opening width -> high gripping force

The interchangeable jaws make it possible to adapt the specimen grip so it can grip a variety of materials.

The specimen grip has a large opening width that makes the testing of thicker specimens also possible.

Advantages and features

- The symmetrically closing jaws save time required for adjusting to varying specimen thicknesses and ensure that the specimen is held exactly in the test axis.
- The jaws can be changed quickly and easily for different applications - no tools required. The jaws are centered automatically.
- Constant gripping force enables repeatable test results to be achieved.
- Constant pneumatic pressure allows even specimens prone to shrinkage to be held securely.
- Ergonomic, open design for fast, easy specimen insertion and clamping

Product Information

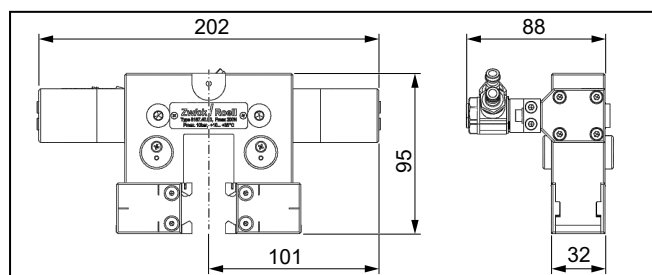
Pneumatic grips, Type 8187 (F_{max} 200 N) and Type 8287 (F_{max} 1 kN)

Technical data

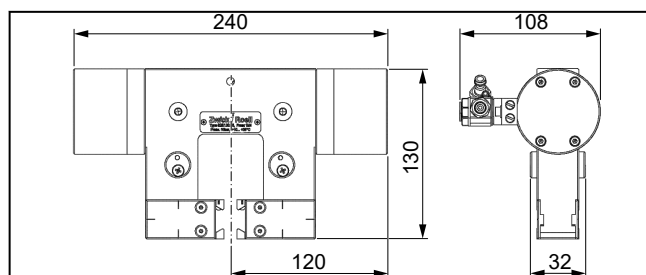
Item No. Type	1106792 8187	1106793 8287	
Operating principle/identification	Opening width adjustable via lever	Opening width adjustable via lever	
Test load F _{max}	0.2/0.1 ¹⁾	1/0.5 ¹⁾	kN
Operating pressure	0.5 ... 10	1 ... 10	bar
The operating pressure depends on the upstream components.			
Gripping force at 6 bar			
Opening width range 1, approx.	0.2	1.1	kN
Opening width range 2, approx.	0.1	0.6	kN
Gripping force at 10 bar			
Opening width range 1, approx.	0.33	1.8	kN
Opening width range 2, approx.	0.16	1.1	kN
Opening width with jaws, 5 mm thickness			
Range 1	0 ... 12 ²⁾	0 ... 12 ²⁾	mm
Range 2	0 ... 22 ²⁾	0 ... 22 ²⁾	mm
Gripping of the specimen	The specimen must be gripped with at least 2/3 of the jaw height.		
Dimensions			
Height	95	160	mm
Width	202	240	mm
Depth	42	65	mm
Depth with connection unit	88	108	mm
Connection, hole	Ø 8	Ø 20	mm
Weight per specimen grip, approx.	1	2.8	kg
Ambient temperature	+10 ... +35	+10 ... +35	°C
Scope of delivery	2	2	piece(s)

1) The gripping stroke is adjustable from 0 - 12 mm to 0 - 22 mm. This reduces the gripping force by 50 % to 100 N and 500 N.

2) The opening width is the result of using jaw inserts with 5 mm jaw thickness.



Pneumatic grip Typ 8187 F_{max} 200 N, dimensions



Pneumatic grip Typ 8287 F_{max} 1 kN, dimensions

Product Information

Pneumatic grips, Type 8187 (Fmax 200 N) and Type 8287 (Fmax 1 kN)

Accessories required

Pneumatic hoses (1x required)

Description	ArticleNumber
Set of pneumatic hoses for connecting a pair of pneumatic grips; including hose guiding for strain relief	1112640

Pneumatic control unit

See section 4.6 Accessories

Jaws

Type 8287 or type 8487

Optional accessories

Pressure amplifier

Description	ArticleNumber
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

The insertion aid can only be used in combination with the following double-acting pneumatic grips:

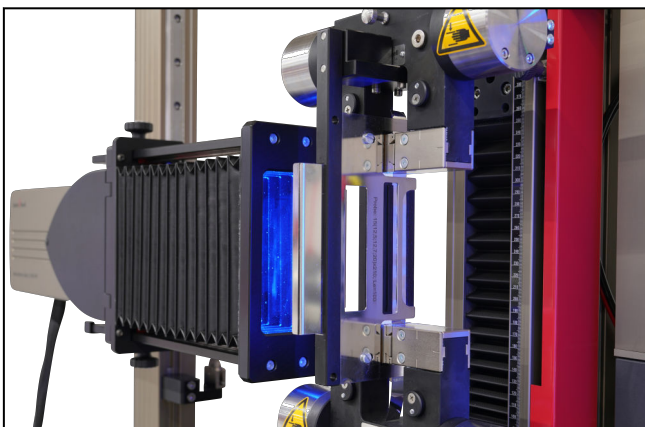
- Pneumatic grips type 8187, Fmax 200 N (ArticleNumber 1106792) and type 8287, Fmax 1 kN (ArticleNumber 1106793)
- Pneumatic grips for temperature chambers type 8287, Fmax 1 kN (ArticleNumber 1106804)
- Pneumatic grips type 8297, Fmax 2.5 kN (ArticleNumber 1106794) and type F8297, Fmax 2.5 kN (ArticleNumber 1106831)

Insertion aid for foil/film specimens, 1x required

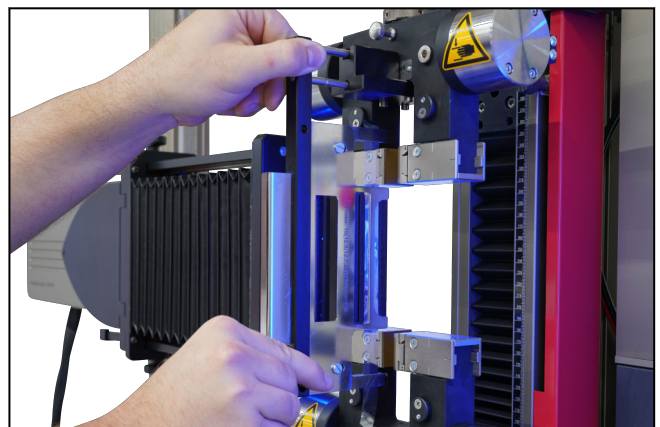
For optimal alignment and secure insertion of thin flexible foils/films made of metal or plastic into the specimen grip.

Description	ArticleNumber
Insertion aid for foil/film specimens; width: 10...25.4 mm, length: 210 mm, L0: 100 mm	1115929
Insertion aid for foil/film specimens; width: 10...25.4 mm, length: 160 mm, L0: 50 mm	1127183

CTA: 318533 318525



Insertion aid for thin flexible foils/films



Insertion aid for thin flexible foils/films, details

Product Information

Pneumatic grips, Type 8187 (Fmax 200 N) and Type 8287 (Fmax 1 kN)

Insertion station for foil/film specimens, 1x required

For attaching the insertion aid for quick and easy insertion of the foil/film specimen into the insertion aid.

Description	ArticleNumber
Insertion station for foil/film specimens; width: 10...25.4 mm, length: 210 mm, L0: 100 mm	1115928
Insertion station for foil/film specimens; width: 10...25.4 mm, length: 160 mm, L0: 50 mm	1127181

Adapter, 1x required

Description	ArticleNumber
Adapter for optimal alignment and quick insertion of the insertion aid.	1115930

Insertion aid distance block for adapter, 1x required

Determines the distance between the specimen center and test axis center and is attached to the adapter.

Description	ArticleNumber
Insertion aid distance block for 10 mm specimen width	1127184
Insertion aid distance block for 12.5/12.7 mm specimen width	1127185
Insertion aid distance block for 15 mm specimen widths	1127186
Insertion aid distance block for 20 mm specimen width	1127187
Insertion aid distance block for 25/25.4 mm specimen width	1127188

Transport frame

Description	ArticleNumber
Transport frame for depositing five insertion aids.	1127189