

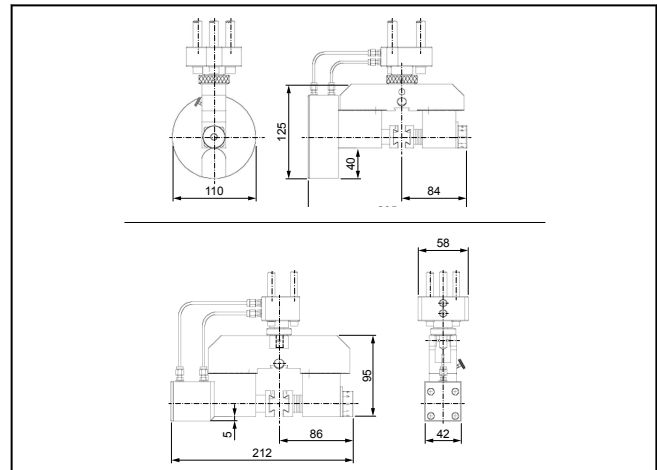
Product Information

Pneumatic grips for temperature chambers type 8097, Fmax 200N, and type 8297, Fmax 2.5kN

CTA: 73139 39610 39486



Pneumatic grips for temperature chambers, type 8297 Fmax 2.5 kN, single-actuator



Pneumatic grips, type 8097, Fmax 200 N and type 8297, Fmax 2.5 kN, single-actuator, overview

Applications

- Specimen material:
Metal, plastics, textiles, paper, fleece, elastomers, wood, insulation
- Specimen shape:
Round and flat specimens, asymmetrical specimens
- Type of loading:
Tensile, compression, alternating load

Function description

The pneumatic grip is a single action grip and can be used for symmetrical and asymmetrical gripping.

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.

The opposing jaw is steplessly and step-by-step adjustable:

- Via a lead screw
- With tool in 1 mm increments

These specimen grips have special connection units for use in the temperature chamber with integrated compressed air supply.

A receptacle for condensation water serves as a drainage system to remove condensation from the test area. The height of the connection units is dependent on the following:

- Materials testing machine
- Temperature chamber
- Specimen-dependent stroke ratios in the temperature chamber

Therefore the connection units are determined according to the project.

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

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Technical data

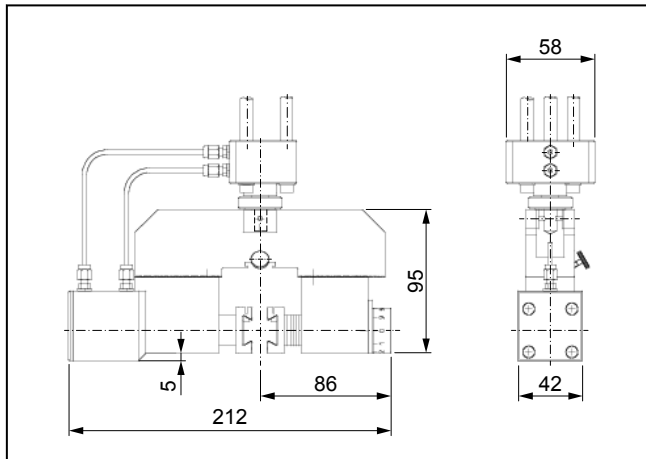
Item No. Type	1106803 8097	1106806 8297	
Operating principle/identification	For temperature chamber	For temperature chamber	
Adjustability of the opposing jaw	Stepless and stepped	Stepless and stepped	
Test load F _{max}	0.2	2.5	kN
Operating pressure	1.5 ... 10		bar
The operating pressure depends on the upstream components.			
Gripping force at 6 bar	0.45	3.6	kN
Gripping force at 10 bar	0.75	6	kN
Opening width with jaws, 5 mm thickness ¹⁾	20	16	mm
Gripping travel of pneumatically operated side	10.5	10.5	mm
Gripping of the specimen	The specimen must be gripped with at least 2/3 of the jaw height.		
Dimensions			
Height	95	125	mm
Width	212	205	mm
Depth	42	110	mm
Depth with connection unit	58		mm
Depthwith connection unit		74	
Connection, hole	Ø 8	Ø 20	mm
Weight per specimen grip, approx.	1.28	2.5	kg
Ambient temperature	-70 ... +250	-70 ... +250	°C
Scope of delivery	2	2	piece(s)

¹⁾ The opening width is the result of using jaws with 5 mm jaw thickness.

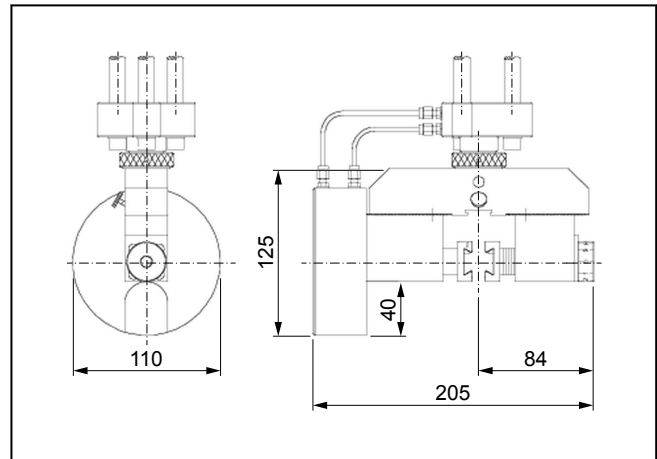
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Pneumatik-Probenhalter Typ 8097 für Temperierkammer, Fmax 200 N, einseitig schließend, Übersicht



Pneumatik-Probenhalter Typ 8297, Fmax 2,5 kN, einseitig schließend, Übersicht

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

Jaws

Type 8287 or type 8487

Optional accessories

Centering stop and Insertion aid

Description	ArticleNumber
Centering stops for centered clamping of flat and round specimens (0 - 60 mm), adjustable to scale. Scope of delivery: 2 pieces	316355
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	316443

Spacer

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

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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

Dryer unit

Description	ArticleNumber
Dryer unit with pre-filter for pneumatic grips for temperature chambers. Dryer unit is required to prevent condensation within the grips during tests in a temperature chamber at temperatures below 0°C.	315014