

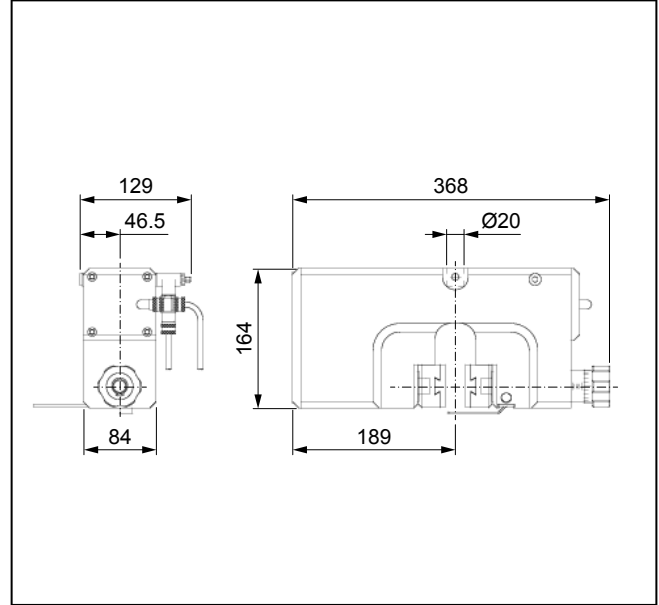
Product Information

Pneumatic grips types 8397/8947, Fmax 5 / 10 / 30 kN

CTA: 73146 33363



Pneumatic grips type 8397, Fmax 10 kN



Pneumatic grips type 8397 Fmax 10 kN, general view

Applications

- Specimen material:
metals, plastics, textiles, paper, elastomers, wood, insulating materials
- 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 features stepless adjustment.

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
- Extremely high gripping force guarantees secure specimen clamping.
- Save time by attaching small specimen grips and test fixtures to large specimen grips quickly and easily via T-slot systems. The precise alignment ensures reliable test results.

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Technical data

Item No. Type	1106788 8397	1106789 ¹⁾ 8397	1106790 ¹⁾ 8497	
Operating principle/identification	Opposing jaw with stepless adjustment			
Test load F _{max}	5	10	30	kN
Operating pressure The operating pressure depends on the upstream components.	1 ... 10	0.5 ... 10	0.5 ... 10	bar
Gripping force at 6 bar	9	18	35	kN
Gripping force at 10 bar	16	30	58	kN
Opening width with jaws, 5 mm thickness	0 ... 24 ²⁾			mm
Gripping travel of pneumatically operated side	12.5	12.5	12.5	mm
Adjustment path of the manually operated side	15	15	15	mm
Gripping of the specimen	The specimen must be gripped with at least 2/3 of the jaw height.			
Dimensions				
Height	162	164	177	mm
Width	266	377	368	mm
Depth	84	84	112	mm
Depth with connection unit	135	140	164.5	mm
Connection, hole	Ø 20	Ø 20	Ø 36	mm
Weight per specimen grip, approx.	8.2	10	15	kg
Ambient temperature	+10 ... +35	+10 ... +35	+10 ... +35	°C
Scope of delivery	2	2	2	piece(s)
Opening width with jaws, 5 mm thickness ³⁾		24	24	

1) Recommended and approved for strain rate control compliant to standards DIN EN ISO 6892-1:2009 and ASTM E8-09.

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

3) This opening width results when using the alternative jaw mountings and jaw inserts with 5 mm jaw thickness

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

Flat jaws

Scope of delivery: 1 set (= 4 pieces), distance between grooves: 1 mm

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As an alternative for these jaws: Jaw mounting Fmax 20 kN (Item No. 317615) with jaws type 8487

Application	Version	Specimen dimensions Flat specimen, thickness [mm]	Clamping surface Diameter [mm]	Ambient temperature [°C]	Hardness	Item No.
Metal/plastic/flat specimens	Steel, concentric grooves	0 ... 24	49	-70 ... +250	58 HRC	317613

Prism jaws

Scope of delivery: 1 set (= 4 pieces), distance between grooves: 1 mm

As an alternative for these jaws: Jaw mounting Fmax 20 kN (Item No. 317615) with jaws type 8487

Application	Version	Specimen dimensions Round specimen, Ø [mm]	Clamping surface Height [mm]	Ambient temperature [°C]	Hardness	Item No.
Metal/plastic/round specimens	2 x steel with V-slot, St 1 mm and 2x steel, concentric grooves ¹⁾	3 ... 10	50	-70 ... +250	58 HRC	317609
Metal/plastic/round specimens	2 x steel with V-slot, St 1 mm and 2x steel, concentric grooves ¹⁾	10 ... 24	50	-70 ... +250	58 HRC	317611

1) This means there are two prism jaws and two flat jaws.

Optional accessories

Jaw mounting

Description	ArticleNumber
Jaw mounting Fmax 20 kN, scope of delivery (4 pieces)	317615

Mounting unit

Description	ArticleNumber
Mounting unit for Types 8397 and 8497 pneumatic grips <ul style="list-style-type: none"> • Thread M28x1.5 • Bush, Ø 16 H7, for attaching smaller load cells (Fmax < 30 kN), specimen grips or test fixtures (mounting stud and adapter required) Scope of delivery: 2 pieces Jaw mounting required (Item No. 317615)	317617

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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