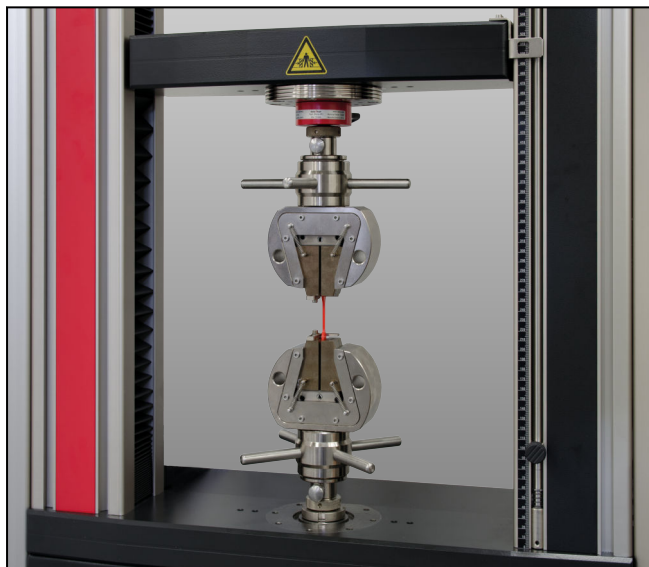


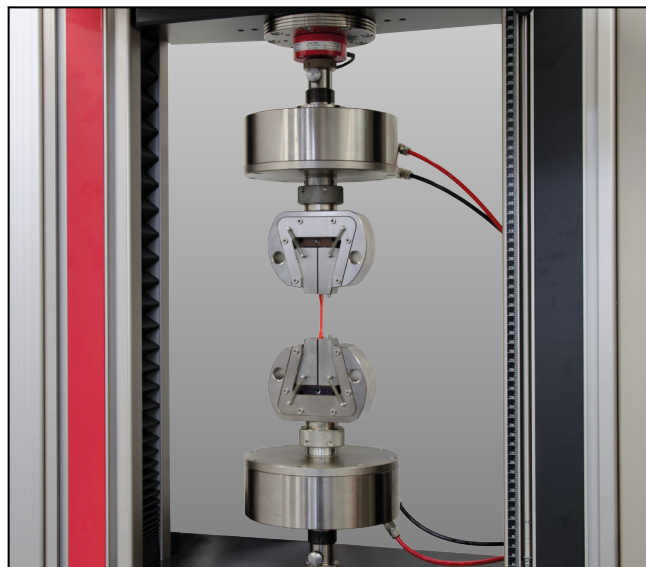
Product Information

Wedge grips type 8304, Fmax 10 kN body over wedge

CTA: 64518 64517



Wedge grips type 8304 Fmax 10 kN, with mechanical actuation



Wedge grips type 8304 Fmax 10 kN, with pneumatic actuation

Applications

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

Function description

One set of grips, two gripping principles. The modular design of the grips allows them to be configured for manual or pneumatic actuation according to requirements. Both versions close symmetrically.

With specimen grips from the Body over Wedge range the position of the jaws remains constant in the test direction as the specimen is gripped. This means that the grip-to-grip separation does not depend on the specimen thickness.

The manual version offers a cost-efficient, simple and robust solution. Opening and closing plus application of closing force prior to the test is via a cross handle.

With the pneumatic version the emphasis is on fast, reproducible and, most importantly, parallel gripping. Opening and closing plus application of gripping force prior to the test is pneumatically powered. Full gripping force is available right from the start, so that the static jaws transfer the test speed directly to the specimen.

For use in temperature chambers extensions are employed. The pneumatic actuator is located outside the temperature chamber.

Advantages and features

- The grips always close symmetrically to the tensile axis regardless of specimen thickness.
- Centering stops enable fast, accurate specimen centering.
- Ergonomic, open design for fast, easy specimen insertion and clamping
- For determination of exact nominal strain the grip-to-grip separation is independent of the specimen diameter. This minimizes set-up time.
- Low weight plus compact design simplify handling, ensure short heating and cooling times in the temperature chamber and enable long travel.
- Absolutely secure gripping right from the start of the test for specimens prone to light slippage.
- Comparable, reproducible test results. Thanks to their parallel-clamping operation the grips transmit the test speed directly to the specimen.
- Modular design allows easy changeover between modes with and without extensions, enabling testing in a temperature chamber also. For tests without a temperature chamber long travel is available without extensions. Future-proof thanks to retrofit capability.
- The grips are suitable for alignment-critical applications (including with Nadcap accreditation) and for specimens sensitive to transverse tensile forces.
- Jaws can be changed quickly without the use of a tool to accommodate different specimens.

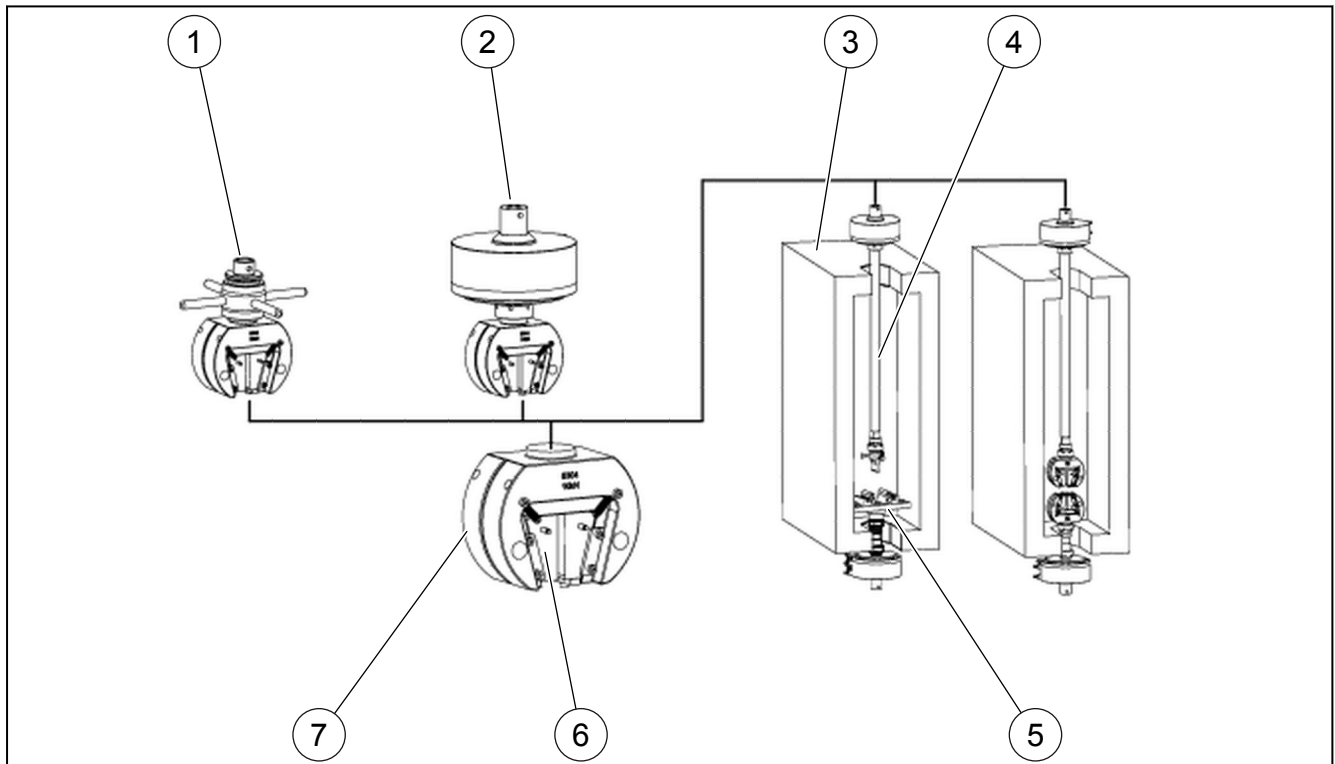
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Product Information

Wedge grips type 8304, Fmax 10 kN body over wedge

- Whether you are testing sensitive specimens or specimens with short clamping-lengths, these grips guarantee optimum clamping.

CTA: 64516



Wedge grips type 8304 BOW, system illustration

- | | | | |
|----------|--|----------|------------------|
| 1 | Mechanical operation | 5 | Flexure test kit |
| 2 | Pneumatic operation | 6 | Jaws |
| 3 | Temperature chamber | 7 | Base unit |
| 4 | Extension piece for insertion in temperature chamber | | |

Product Information

Wedge grips type 8304, F_{max} 10 kN body over wedge

Technical data

Type	8304	8304	
Item No.	1004955 ¹⁾	1004956 ²⁾	
Operating principle/identification	Wedge action	Double-sided closing (wedge action)	
Test load F _{max}	10	10	kN
Dimensions			
Height	195	280	mm
Width	130	185	mm
Depth	73	185	mm
Opening width, max.	6.5	6.5	mm
Weight			
Jaws (pair)	0.75	0.75	kg
Optional stopper system	0.5	0.5	kg
Connection, stud	Ø 20	Ø 20	mm
Ambient temperature	-70 to +250	0 to +50	°C
Scope of delivery	2	2	pieces

1) A load cell with a limit torque of at least 200 Nm is required (e.g. Type Xforce K).

2) The specimen grips can also be used at temperatures from -70 to 250°C in conjunction with an extension piece for temperature chambers (pneumatic actuator is located outside the temperature chamber).

Accessories required

Pneumatic control unit

Jaws for Type 8304 (1x required)

Scope of delivery: 1 set (= 4 pieces)

Range of application	Version [mm]	Specimen thickness [mm]	Gripping area (H x W) [mm]	Ambient temperature [°C]	Hardness	Item No.
Plastics, reinforced plastics, fiber composites, wood	steel, fsc ¹⁾ 0.4	0 to 6	55 x 35	-70 to +250	61 HRC	1005224
Plastics, reinforced plastics, fiber-reinforced composites, wood	Steel, fsc ¹⁾ 0.75	0 to 6	55 x 35	-70 to +250	61 HRC	1005225
Plastics, reinforced plastics, fiber composites, wood	steel, fsc ¹⁾ 1.25	0 to 6	55 x 35	-70 to +250	61 HRC	1005226

1) Fsc = fish scale

Extension piece (1 x required)

Description	Length [mm]	Attachment	Weight, approx. [kg]	Item No.
Extension piece	100	M48x1.5	1	1004957

Product Information

Wedge grips type 8304, Fmax 10 kN body over wedge

Extension piece (1 x required)

Description	For temp. ch. e.g. [mm]	Length [mm]	Attachment	Weight, approx. [kg]	Item No.
Extension piece	H = 500	371	M48x1.5	3.1	1004958
Extension piece	H = 650	421	M48x1.5	3.5	1037598
Extension piece	H = 650	521	M48x1.5	4.2	1010290
Extension piece	H = 700	571	M48x1.5	4.6	1004960
Extension piece	H = 850	721	M48x1.5	5.7	1004961
Extension piece	H = 900	621	M48x1.5	5.0	1020172
Extension piece	H = 900	671	M48x1.5	5.4	1037599
Extension piece	H = 900	771	M48x1.5	6.1	1004962

Optional accessories

Centering stops

Description	Item number
Centering stops for centered clamping of specimen with variable height adjustment ¹⁾²⁾ Scope of delivery: 2 pieces, sufficient for 2 grip units	1005245

1) Note: check suitability for use with specimen shape and initial gauge-length.

2) For use in tests at room temperature only.

E.g. for connecting flexure fixtures to the extension pieces or pneumatic actuator.

Description	Item number
Adapter for attaching various dies via 16 ^{H7} hole	1008923
Adapter for attaching additional accessories via 20 ⁹⁶ mm mounting stud	1008924
Connector for attaching flexure tables and additional accessories via M28x1.5 / 30 ^{H7} / 2M6, BC40	1008925