

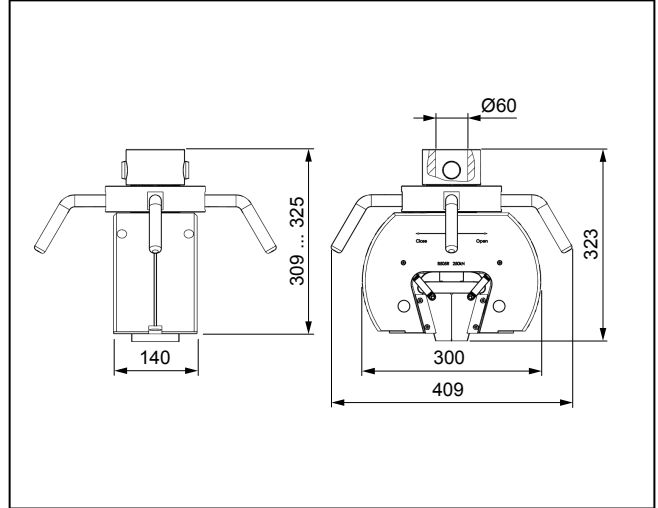
Product Information

Wedge grips type 8510, Fmax 250 kN body over wedge

CTA: 300249 53449



Wedge grips type 8510, Fmax 250 kN



Wedge grips type 8510, Fmax 250 kN, overview

Applications

- Specimen material:
Metal, wood, fiber-reinforced composite
- Specimen shape:
Round and flat specimens
- Type of loading:
Tensile

Function description

The body over wedge grip is a symmetrically closing and robust specimen grip. A manually operated cross handle facilitates smooth opening and closing.

The gripping force is generated via wedge action and is proportional to the tensile force. The ratio is determined by the wedge angle.

With specimen grips from the body over wedge series, 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 specimen grip can be used for tests at ambient temperature and for tests in a temperature chamber with extensions.

Advantages and features

Reliable test results

- The grips always close symmetrically to the tensile axis regardless of specimen thickness.
- No parasitic forces are generated when gripping the specimen.

- The specimen grip is ideally suited for alignment-critical applications and specimens sensitive to transverse tensile forces.
- Due to the same direction of rotation above and below as well as precise guidance, the specimen is gripped with minimal torsion.

High operating comfort

- A unique design featuring weight force compensation ensures smooth opening and closing throughout the entire application range.
- Markings on the jaws and centering stops allow for accurate and fast specimen centering.
- Fast and easy insertion of the specimen is achieved through the ergonomic and open design.

Maximum efficiency and time savings

- Symmetrical closing ensures identical grip-to-grip separation independent of the specimen diameter.
- The compact design allows for minimal heating and cooling times in the temperature chamber.
- When performing tests in a temperature chamber, extensions are used. Installing the extensions is quick and easy.
- For tests under ambient temperature (without extensions), a large crosshead travel is available.
- Specific adapters enable you to easily and quickly switch to compression and flexure testing, without dismantling the specimen grip.

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Technical data

Item No.	1003525 ¹⁾	
Type	8510	
Operating principle/identification	Wedge action	
Test load F _{max}	250	kN
Dimensions		
Height	323	mm
Width	300	mm
Widthwith actuation lever	409	mm
Depth	140	mm
Depthwith actuation lever	409	mm
Opening width with jaws	35	mm
Gripping of the specimen	The specimen must be gripped over a distance of at least 60 mm.	
Clamping surface		
Height	60	mm
Width	60	mm
Connection, hole	Ø 60	mm
Weight per specimen grip, approx.	61	kg
Ambient temperature	-70 ... +250	°C
Scope of delivery	2	piece(s)

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

Accessories required

Jaws

To use the sample holder, **1 set of jaws is required.**

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Flat jaws

Scope of delivery: 1 set (= 4 pieces)

Version	Specimen dimensions	Clamping surface		Ambient temperature [°C]	Hardness	Item No.
	Flat specimen, thickness [mm]	Height [mm]	Width [mm]			
Steel, fsc ¹⁾ 0.75 mm	0 ... 7	74	80	-70 ... +250	61 HRC	1003526
Steel, fsc ¹⁾ 0.75 mm	7 ... 14	74	80	-70 ... +250	61 HRC	1003527
Steel, fsc ¹⁾ 0.75 mm	14 ... 21	74	80	-70 ... +250	61 HRC	1003528
Steel, fsc ¹⁾ 0.75 mm	21 ... 28	74	80	-70 ... +250	61 HRC	1003529
Steel, fsc ¹⁾ 0.75 mm	28 ... 35	74	80	-70 ... +250	61 HRC	1003530

1) Fsc = fish scale

Prism jaws

Scope of delivery: 1 set (= 4 pieces)

Version	Specimen dimensions	Clamping height [mm]	Ambient temperature [°C]	Hardness	Item No.
	Round specimen, Ø [mm]				
Steel, St ¹⁾ 1.5 mm	4 ... 7.5	75	-70 ... +250	61 HRC	1003531
Steel, St ¹⁾ 1.5 mm	7.5 ... 11.5	74	-70 ... +250	61 HRC	1003532
Steel, St ¹⁾ 1.5 mm	11.5 ... 15.5	80	-70 ... +250	61 HRC	1003533
Steel, St ¹⁾ 1.5 mm	15.5 ... 18.5	74	-70 ... +250	61 HRC	1003534
Steel, St ¹⁾ 1.5 mm	18.5 ... 21.5	74	-70 ... +250	61 HRC	1003535
Steel, St ¹⁾ 1.5 mm	21.5 ... 24	74	-70 ... +250	61 HRC	1003536
Steel, St ¹⁾ 1.5 mm	24 ... 26	74	-70 ... +250	61 HRC	1003537
Steel, St ¹⁾ 1.5 mm	26 ... 28	74	-70 ... +250	61 HRC	1003538
Steel, St ¹⁾ 1.5 mm	28 ... 30	74	-70 ... +250	61 HRC	1003539
Steel, St ¹⁾ 1.5 mm	30 ... 32	74	-70 ... +250	61 HRC	1003540
Steel, St ¹⁾ 1.5 mm	32 ... 33.5	74	-70 ... +250	61 HRC	1003541
Steel, St ¹⁾ 1.5 mm	33.5 ... 35	74	-70 ... +250	61 HRC	1003542
Steel, St ¹⁾ 1.5 mm	35 ... 40	74	-70 ... +250	61 HRC	1007271

1) St= saw tooth

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Optional accessories

Description	ArticleNumber
Centering stops for centered gripping of the specimen with variable height adjustment Scope of delivery: 2 pieces, sufficient for two specimen grips	1003543
Adapter flange for compression and flexure fixtures for attaching fixtures up to 250 kN (e.g. compression and flexure test kits), scope of delivery: 2 pieces	072701