

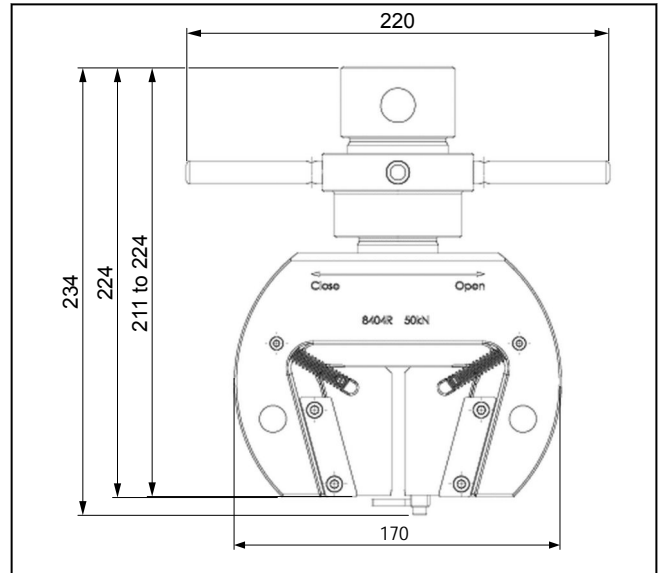
## Product Information

### Wedge grips type 8404, Fmax 50 kN body over wedge

CTA: 64508 64509



Wedge grips type 8404, Fmax 50 kN



Wedge grips type 8404 Fmax 50 kN, general view

#### 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.

## Product Information

Wedge grips type 8404, F<sub>max</sub> 50 kN body over wedge

### Technical data

Type	8404	
Item No.	1006757 <sup>1)2)</sup>	
Test load F <sub>max</sub>	50	kN
Dimensions		
Height (without centering stop)	224	mm
Width	170	mm
Width with actuation lever	220	mm
Depth	97	mm
Depth with actuation lever	220	mm
Clamping surface		
Height	60	mm
Width	35/60	mm
Opening width with jaws	22	mm
Gripping of the specimen	The specimen must be gripped with at least 2/3 of the jaw height.	
Weight per specimen grip, approx.	11	kg
Connection, stud	Ø 36	mm
Ambient temperature	-70 ... +250	°C
Scope of delivery	2	pieces

1) Recommended and approved for strain rate control to standards DIN EN ISO6892-1:2009 and ASTM E8-09.

2) A load cell with a limit torque of at least 200 Nm is required (e.g. type K or type P).

### Accessories required

#### Flat jaws

Scope of delivery: 1 set (= 4 pieces)

Application	Version	Specimen dimensions Flat specimen, thickness [mm]	Clamping surface		Ambient temperature [°C]	Hardness	Item No.
			Height [mm]	Width [mm]			
Ferrous and non-ferrous metals, steel, metal pipes, plastics, toughened plastics, composites	Steel, fsc <sup>1)</sup> 0.75 mm	0 ... 6.5	60	35	-70 ... +250	61 HRC	086971
Ferrous and non-ferrous metals, steel, metal pipes, plastics, toughened plastics, composites	Steel, fsc <sup>1)</sup> 0.75 mm	0 ... 6.5	60	60	-70 ... +250	61 HRC	088568
Ferrous and non-ferrous metals, steel, metal pipes, plastics, toughened plastics, composites	Steel, fsc <sup>1)</sup> 0.75 mm	6.5 ... 12	60	35	-70 ... +250	61 HRC	086975

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Application	Version	Specimen dimensions	Clamping surface		Ambient temperature [°C]	Hardness	Item No.
		Flat specimen, thickness [mm]	Height [mm]	Width [mm]			
Ferrous and non-ferrous metals, steel, metal pipes, plastics, toughened plastics, composites	Steel, fsc <sup>1)</sup> 0.75 mm	6.5 ... 12	60	60	-70 ... +250	61 HRC	088570
Ferrous and non-ferrous metals, steel, metal pipes, plastics, toughened plastics, composites	Steel, fsc <sup>1)</sup> 0.75 mm	12 ... 17.5	60	35	-70 ... +250	61 HRC	086976
Ferrous and non-ferrous metals, steel, metal pipes, plastics, toughened plastics, composites	Steel, fsc <sup>1)</sup> 0.75 mm	12 ... 17.5	60	60	-70 ... +250	61 HRC	088571
Ferrous and non-ferrous metals, steel, metal pipes, plastics, toughened plastics, composites	Steel, fsc <sup>1)</sup> 0.75 mm	17.5 ... 22	60	35	-70 ... +250	61 HRC	086977
Ferrous and non-ferrous metals, steel, metal pipes, plastics, toughened plastics, composites	Steel, fsc <sup>1)</sup> 0.75 mm	17.5 ... 22	60	60	-70 ... +250	61 HRC	088573

1) Fsc = fish scale

### Prism jaws

Scope of delivery. 1 set (= 4 pieces)

Application	Version	Specimen dimensions Round specimen, Ø [mm]	Clamping height [mm]	Ambient temperature [°C]	Hardness	Item No.
Dumbbell head specimens, more round specimens	Steel, St <sup>1)</sup> 1.5 mm	4 ... 7.5	60	-70 ... +250	61 HRC	086980
Dumbbell head specimens, more round specimens	Steel, St <sup>1)</sup> 1.5 mm	7.5 ... 11.5	60	-70 ... +250	61 HRC	086981
Dumbbell head specimens, more round specimens	Steel, St <sup>1)</sup> 1.5 mm	11.5 ... 14	60	-70 ... +250	61 HRC	086982
Dumbbell head specimens, more round specimens	Steel, St <sup>1)</sup> 1.5 mm	14 ... 16.5	60	-70 ... +250	61 HRC	086983
Dumbbell head specimens, more round specimens	Steel, St <sup>1)</sup> 1.5 mm	16.5 ... 19	60	-70 ... +250	61 HRC	086984

1) St= saw tooth

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### Optional accessories

Description	ArticleNumber
Centering stops for centered clamping of specimen with variable height adjustment Scope of delivery: 1 pair, sufficient for 1 pair of grips	<b>087285</b>