

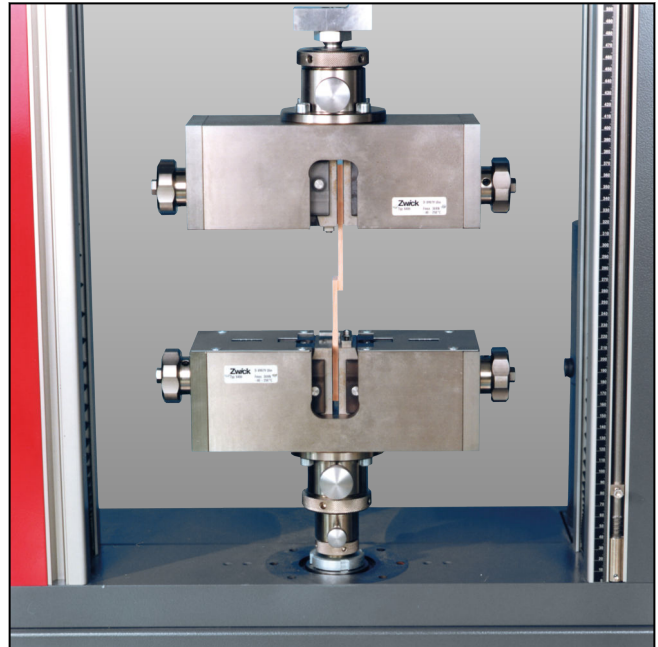
## Product Information

Wedge screw grips, Types 8306 (Fmax 10 kN) and 8406 (Fmax 30 kN)

CTA: 43056 40047



Type 8306 wedge screw grips, Fmax 10 kN



Type 8406 wedge screw grips, Fmax 30 kN

### Applications

- Specimen material  
Metals, plastics
- Specimen shape  
Round and flat specimens
- Type of loading  
Tensile

### Function description

A handwheel is used to open and close the wedge screw grips, as well as apply closing force before the test. Switchable synchronization allows the grips to be set both symmetrically and asymmetrically.

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

### Advantages and features

- Switchable synchronization enables symmetrical and asymmetrical specimen testing.

- Fast and easy insertion of specimen is enabled due to the ergonomic and open design.
- The jaws can be changed quickly and easily without tools if the application changes. The jaws are thus automatically centered.
- The specimen grip can be easily operated in the temperature chamber and quickly reaches its test temperature due to its low mass.
- accurate test results combined with a high number of cycles due to the adjustable centering stops for flat specimens
- You save time, by quickly and easily adapting small specimen grips and test tools to large specimen grips via the T-slotted system. Precise alignment ensures reliable test results.

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Wedge screw grips, Types 8306 (F<sub>max</sub> 10 kN) and 8406 (F<sub>max</sub> 30 kN)

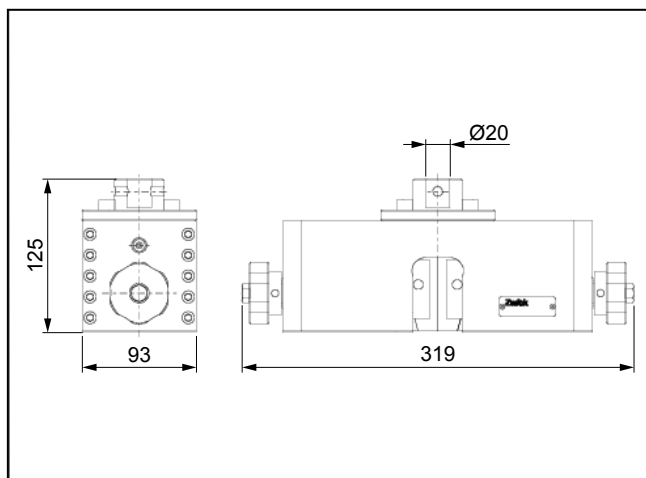
### Technical data

Item No.	1091220 <sup>1)</sup>	1091221 <sup>1)</sup>	
Type	8306	8406	
Test load F <sub>max</sub>	10	30	kN
Operating principle/identification	-	-	
Dimensions			
Height	125	137	mm
Width	319	319	mm
Depth	93	93	mm
Clamping surface			
Height	60	60	mm
Width	60	60	mm
Gripping of the specimen	The specimen must be gripped with at least 1/2 of the jaw height.		
Gripping travel	7	7	mm
Specimen dimensions			
Flat specimen, thickness	0 ... 30	0 ... 30	mm
Round specimen, Ø	4 ... 30	4 ... 30	mm
Weight per specimen grip, approx.	15	16	kg
Connection, stud	Ø 20	Ø 36	mm
Ambient temperature	-55 ... +250 <sup>2)</sup>	-55 ... +250 <sup>2)</sup>	°C
Scope of delivery	2	2	piece(s)

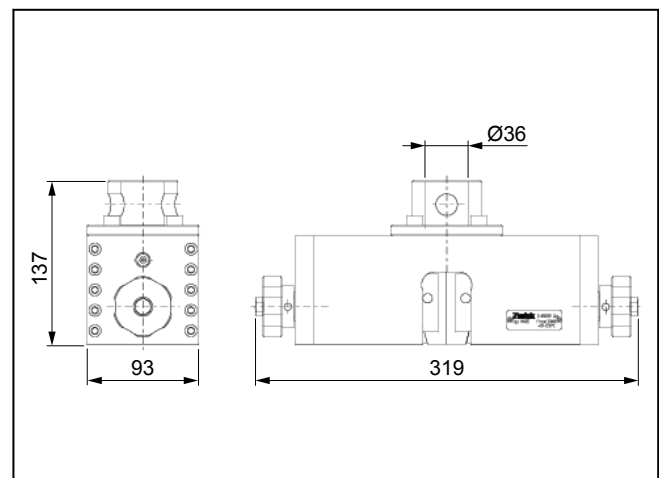
1) Recommended and approved for strain rate control to standards DIN EN ISO6892-1:2009 and ASTM E8-09.

2) The temperature range may be limited by a smaller jaw temperature range.

CTA: 29566 29568



Type 8306 wedge screw grips, F<sub>max</sub> 10 kN: general view



Type 8406 wedge screw grips, F<sub>max</sub> 30 kN: general view

## Product Information

Wedge screw grips, Types 8306 (F<sub>max</sub> 10 kN) and 8406 (F<sub>max</sub> 30 kN)

### Accessories required

#### Flat jaws for type 8306

- 1x required (alternatively 1x prism jaws)
- Scope of delivery: 1 set (= 4 pieces)

Application	Version	Specimen dimensions		Clamping surface		Ambient temperature [°C]	Hardness	Item No.
		Type 8306, F <sub>max</sub> 10 kN	Round specimen, Ø [mm]	Height [mm]	Width [mm]			
Thin sheet metal, soft wire, veneers, plastic tapes, GFRP strip specimens	Steel, fsc <sup>1)</sup> 0.4	0 ... 30	1 ... 4	60	60	-70 ... +250	61 HRC	317396
Sheet metal, softer wire, plastics, GFRP strip specimens	Steel, fsc <sup>1)</sup> 0.75	0 ... 30	2 ... 4	60	60	-70 ... +250	61 HRC	317398
Sheet metals, wires, wood laminated materials, plywood, plastics	Steel, fsc <sup>1)</sup> 1.25	0 ... 30	2 ... 4	60	60	-70 ... +250	61 HRC	317400
Metal, wood, fiber-reinforced plastics	Steel, fsc <sup>1)</sup> 0.4	0 ... 13	1 ... 4	80	60	-70 ... +250	61 HRC	316903
Metal, wood, fiber-reinforced plastics	Steel, fsc <sup>1)</sup> 0.75	0 ... 13	2 ... 4	80	60	-70 ... +250	61 HRC	316905
Metal, wood, fiber-reinforced plastics	Steel, fsc <sup>1)</sup> 1.25	0 ... 13	-	80	60	-70 ... +250	61 HRC	316907
Clamp-sensitive material	Steel, diamond-coated	0 ... 13	0 ... 13	80	60	-15 ... +80	-	317388
CFRP/GFRP strip specimens, sheet metals, fiber-reinforced plastics	Steel, fsc <sup>1)</sup> 0.75, needle bearings	0 ... 30	-	55	35	-15 ... +80	61 HRC	320555 <sup>2)</sup>
High-strength wires, glass fiber-reinforced plastics, carbon fiber materials	Hard metal, Pr <sup>3)</sup> 0.7	0 ... 13	1 ... 8	45	30	-40 ... +250	1250 HV	317392 <sup>4)</sup>

1) Fsc = fish scale

2) Required: Jaw mounting

3) Pr = pyramid grid

4) Required: Jaw mounting Pr 0.7 mm, gripping area 45 x 30 mm

## Product Information

Wedge screw grips, Types 8306 (F<sub>max</sub> 10 kN) and 8406 (F<sub>max</sub> 30 kN)

### Prism jaws for type 8306

- 1x required (alternatively 1x flat jaws)
- Scope of delivery: 1 set (= 4 pieces)

Application	Version	Specimen dimensions Type 8306, F <sub>max</sub> 10 kN Round specimen, Ø [mm]	Clamping height [mm]	Ambient temperature [°C]	Hardness	Item No.
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St <sup>1)</sup> 1.5	4 ... 10	60	-70 ... +250	61 HRC	317410
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St <sup>1)</sup> 1.5	10 ... 30	60	-70 ... +250	61 HRC	317412
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St <sup>1)</sup> 1.5	4 ... 10	80	-70 ... +250	61 HRC	316913
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St <sup>1)</sup> 1.5	10 ... 13	80	-70 ... +250	61 HRC	316915

1) St= saw tooth

### Flat jaws for type 8406

- 1x required (alternatively 1x prism jaws)
- Scope of delivery: 1 set (= 4 pieces)

Application	Version	Specimen dimensions Type 8406, F <sub>max</sub> 30 kN		Clamping surface		Ambient temperature [°C]	Hardness	Item No.
		Flat specimen, thickness [mm]	Round specimen, Ø [mm]	Height [mm]	Width [mm]			
Thin sheet metal, soft wire, veneers, plastic tapes, GFRP strip specimens	Steel, fsc <sup>1)</sup> 0.4	0 ... 30	1 ... 4	60	60	-70 ... +250	61 HRC	317396
Sheet metal, softer wire, plastics, GFRP strip specimens	Steel, fsc <sup>1)</sup> 0.75	0 ... 30	2 ... 4	60	60	-70 ... +250	61 HRC	317398
Sheet metals, wires, wood laminated materials, plywood, plastics	Steel, fsc <sup>1)</sup> 1.25	0 ... 30	2 ... 4	60	60	-70 ... +250	61 HRC	317400
Metal, wood, fiber-reinforced plastics	Steel, fsc <sup>1)</sup> 0.4	0 ... 13	1 ... 4	80	60	-70 ... +250	61 HRC	316903

## Product Information

Wedge screw grips, Types 8306 (F<sub>max</sub> 10 kN) and 8406 (F<sub>max</sub> 30 kN)

Application	Version	Specimen dimensions		Clamping surface		Ambient temperature [°C]	Hardness	Item No.
		Type 8406, F <sub>max</sub> 30 kN		Height [mm]	Width [mm]			
		Flat specimen, thickness [mm]	Round specimen, Ø [mm]					
Metal, wood, fiber-reinforced plastics	Steel, fsc <sup>1)</sup> 0.75	0 ... 13	2 ... 4	80	60	-70 ... +250	61 HRC	316905
Metal, wood, fiber-reinforced plastics	Steel, fsc <sup>1)</sup> 1.25	0 ... 13	-	80	60	-70 ... +250	61 HRC	316907
Clamp-sensitive material	Steel, diamond-coated	0 ... 13	0 ... 13	80	60	-15 ... +80	-	317388
CFRP/GFRP strip specimens, sheet metals, fiber-reinforced plastics	Steel, fsc <sup>1)</sup> 0.75, needle bearings	0 ... 30	-	55	35	-15 ... +80	61 HRC	320555 <sup>2)</sup>
High-strength wires, glass fiber-reinforced plastics, carbon fiber materials	Hard metal, Pr <sup>3)</sup> 0.7	0 ... 13	1 ... 8	45	30	-40 ... +250	1250 HV	317392 <sup>4)</sup>

- 1) Fsc = fish scale
- 2) Required: Jaw mounting
- 3) Pr = pyramid grid
- 4) Required: Jaw mounting Pr 0.7 mm, gripping area 45 x 30 mm

### Prism jaws for type 8406

- 1x required (alternatively 1x flat jaws)
- Scope of delivery: 1 set (= 4 pieces)

Application	Version	Specimen dimensions	Clamping height [mm]	Ambient temperature [°C]	Hardness	Item No.
		Type 8406, F <sub>max</sub> 30 kN Round specimen, Ø [mm]				
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St <sup>1)</sup> 1.5	4 ... 10	60	-70 ... +250	61 HRC	317410
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St <sup>1)</sup> 1.5	10 ... 30	60	-70 ... +250	61 HRC	317412

## Product Information

Wedge screw grips, Types 8306 (F<sub>max</sub> 10 kN) and 8406 (F<sub>max</sub> 30 kN)

Application	Version	Specimen dimensions Type 8406, F <sub>max</sub> 30 kN Round specimen, Ø [mm]	Clamping height [mm]	Ambient temperature [°C]	Hardness	Item No.
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St <sup>1)</sup> 1.5	4 ... 10	80	-70 ... +250	61 HRC	316913
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St <sup>1)</sup> 1.5	10 ... 13	80	-70 ... +250	61 HRC	316915

1) St= saw tooth

### Jaw mountings

Description	ArticleNumber
Jaw mounting for steel, fsc 0.75 mm, needle bearing jaws	<b>320553</b>
Jaw mounting for hard metal jaws, Pr 0.7 mm, incl. centering stops	<b>317390</b>

### Optional accessories

Description	ArticleNumber
Jaw mountings for jaws type 8487, incl. centering stops, as alternative for jaws listed in jaw table, F <sub>max</sub> 20 kN, scope of delivery: 1 set = 4 pieces	<b>317402</b>