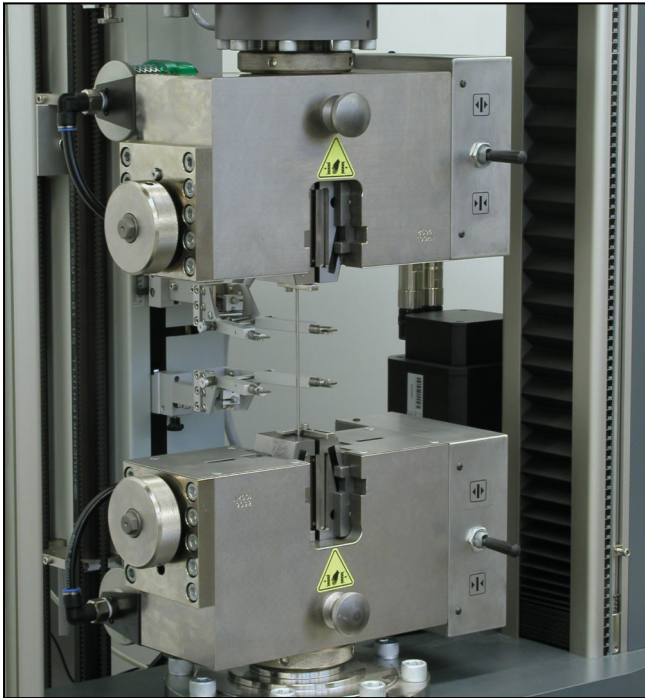


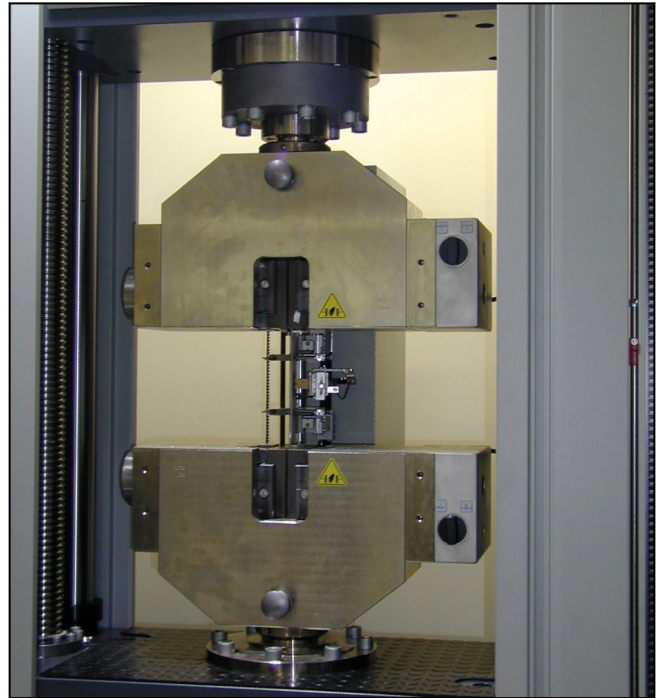
Product Information

Wedge screw grips Type 8406 Fmax 50 kN, Type 8506 Fmax 100 kN, 150 kN und Type 8507 Fmax 250 kN, motorized

CTA: 40051 40059



Type 8506 wedge screw grips, Fmax 100 kN, motorized



Type 850 wedge screw grips, Fmax 250 kN, motorized

Applications

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

Function description

A pneumatic motor is used to open and close the wedge screw grips, as well as apply closing force before the test. The actuation unit for this purpose is to be found direct on the specimen grip. 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.

A slot for the insertion of the T-slotted system is incorporated into this specimen grip type.

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.
- 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.

Product Information

Wedge screw grips Type 8406 F_{max} 50 kN, Type 8506 F_{max} 100 kN, 150 kN und Type 8507 F_{max} 250 kN, motorized

Technical data

Item No. Type	318659 ¹⁾²⁾ 8406	318661 ²⁾ 8506	050156 ²⁾ 8506	318598 ²⁾ 8507	
Operating principle/identification	Motorized opening/closing				
Test load F _{max}	50	100	150	250	kN
Dimensions					
Height	146	177	190	252	mm
Width	407	409	424	548	mm
Depth	172	172	140	237	mm
Depth with actuation unit	231		293		mm
Depth with stop strip		-	-		
Depth with actuation unit and filter sound adapter		267		335	
Clamping surface					
Height	80	80	80	100/120	mm
Width	60	60	60	80	mm
Gripping of the specimen	The specimen must be gripped with at least 1/2 of the jaw height.				
Gripping travel	8	8	8	8	mm
Operating pressure, max. of pneumatic motor	7	7	7	7	bar
Air consumption	5	5	5	5	l/s
Closing/opening speed at 6 bar	5	5	5	5	mm/s
Motor noise level	72	72	72	≤ 72	dB (A)
Specimen dimensions					
Flat specimen, thickness	0 ... 42	0 ... 42	0 ... 42	0 ... 64	mm
Round specimen, Ø	4 ... 30	4 ... 30	4 ... 30	4 ... 80	mm
Pneumatic connection	DN7				
Weight per specimen grip, approx.	50	50	61	112	kg
Connection, stud	Ø 36	Ø 60	Ø 60	Ø 60	mm
Ambient temperature	+10 ... +35	+10 ... +35	+10 ... +35	+10 ... +35	°C
Scope of delivery	2	2	2	2	pieces

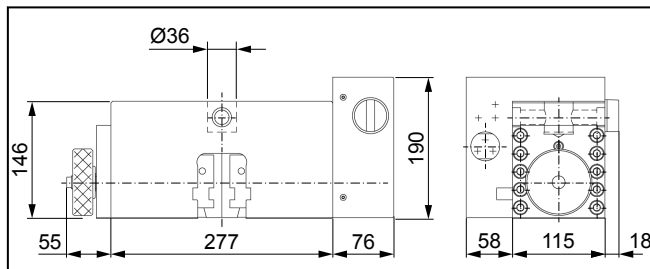
1) For the grip with motor-driven is a mounting flange and mounting stud required

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

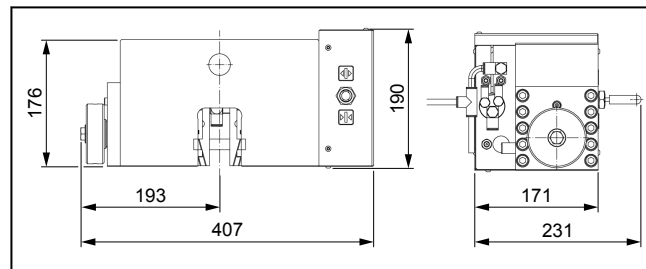
Product Information

Wedge screw grips Type 8406 Fmax 50 kN, Type 8506 Fmax 100 kN, 150 kN und Type 8507 Fmax 250 kN, motorized

CTA: 40050 40053

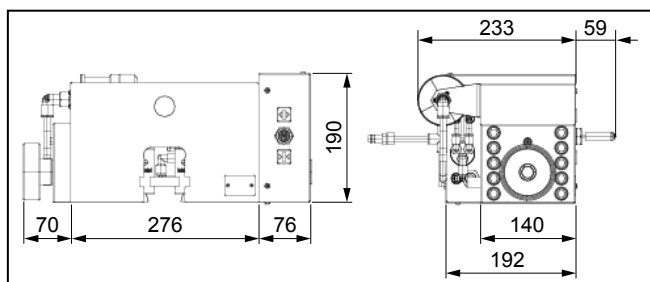


Wedge screw grips type 8406, motorized, Fmax 50 kN, overview

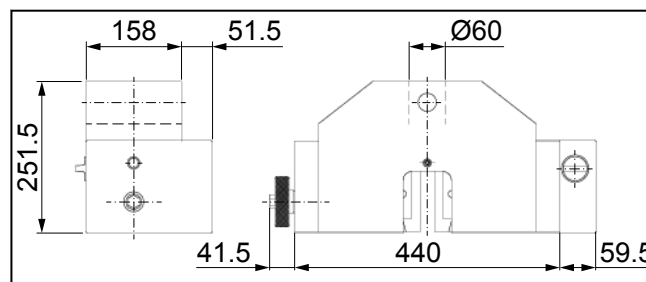


Wedge screw grips type 8506, motorized, Fmax 100 kN, overview

CTA: 40057 40060



Type 8506 wedge screw grips, motorized, overview



Type 8507 wedge screw grips, motorized, Fmax 250 kN: overview

Accessories required

Flat jaws for type 8406

Application	Version	Specimen dimensions		Clamping surface		Ambient temperature [°C]	Hardness	Item No.
		Type 8406, F _{max} 50 kN		Height [mm]	Width [mm]			
		Flat specimen, thickness [mm]	Round specimen, Ø [mm]					
Metal, wood, fiber-reinforced plastics	Steel, fsc ¹⁾ 0.4	0 ... 42	1 ... 4	80	60	-70 ... +250	61 HRC	316903
Metal, wood, fiber-reinforced plastics	Steel, fsc ¹⁾ 0.75	0 ... 42	2 ... 4	80	60	-70 ... +250	61 HRC	316905
Metal, wood, fiber-reinforced plastics	Steel, fsc ¹⁾ 1.25	0 ... 42	-	80	60	-70 ... +250	61 HRC	316907
Clamp-sensitive material	Steel, diamond-coated	0 ... 30	0 ... 13	80	60	-15 ... +80	-	317388
High-strength wires, glass fiber-reinforced	Hard metal, Pr ²⁾ 0.7	0 ... 13	1 ... 8	45	30	-40 ... +250	1250 HV	317392 ³⁾

Product Information

Wedge screw grips Type 8406 F_{max} 50 kN, Type 8506 F_{max} 100 kN, 150 kN und Type 8507 F_{max} 250 kN, motorized

Application	Version	Specimen dimensions		Clamping surface		Ambient temperature [°C]	Hardness	Item No.
		Type 8406, F _{max} 50 kN	Round specimen, Ø [mm]	Height [mm]	Width [mm]			
plastics, carbon fiber materials								
Hard metals	Hard metal, Pr ²⁾ 0.7 mm	0 ... 13	1 ... 8	70	34	-70 ... +250	1250 HV	318643 ⁴⁾

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

Prism jaws for type 8406 (1 x required)

Scope of delivery: 1 set (= 4 pieces)

Application	Version	Specimen dimensions	Clamping height [mm]	Ambient temperature [°C]	Hardness	Item No.
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St ¹⁾ 1.5	Type 8406, F _{max} 50 kN Round specimen, Ø [mm]	80	-70 ... +250	61 HRC	316913
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St ¹⁾ 1.5	4 ... 10	80	-70 ... +250	61 HRC	316915

- 1) St= saw tooth

Product Information

Wedge screw grips Type 8406 F_{max} 50 kN, Type 8506 F_{max} 100 kN, 150 kN und Type 8507 F_{max} 250 kN, motorized

Flat jaws for type 8506

Application	Version	Specimen dimensions				Clamping surface		Ambient temperature [°C]	Hardness	Item No.
		Type 8506, F _{max} 100 kN		Type 8506, F _{max} 150 kN		Height [mm]	Width [mm]			
		Flat specimen, thickness [mm]	Round specimen, Ø [mm]	Flat specimen, thickness [mm]	Round specimen, Ø [mm]					
Metal, wood, fiber-reinforced plastics	Steel, fsc ¹⁾ 0.4	0 ... 42	1 ... 4	0 ... 42	1 ... 4	80	60	-70 ... +250	61 HRC	316903
Metal, wood, fiber-reinforced plastics	Steel, fsc ¹⁾ 0.75	0 ... 42	2 ... 4	0 ... 42	2 ... 4	80	60	-70 ... +250	61 HRC	316905
Metal, wood, fiber-reinforced plastics	Steel, fsc ¹⁾ 1.25	0 ... 42	-	0 ... 42	-	80	60	-70 ... +250	61 HRC	316907
Clamp-sensitive material	Steel, diamond-coated	0 ... 30	0 ... 13	0 ... 30	0 ... 13	80	60	-15 ... +80	-	317388
High-strength wires, glass fiber-reinforced plastics, carbon fiber materials	Hard metal, Pr ²⁾ 0.7	0 ... 13	1 ... 8	0 ... 13	1 ... 8	45	30	-40 ... +250	1250 HV	317392 ³⁾
Hard metals	Hard metal, Pr ²⁾ 0.7 mm	0 ... 13	1 ... 8	0 ... 13	1 ... 8	70	34	-70 ... +250	1250 HV	318643 ⁴⁾

1) Fsc = fish scale

2) Pr = pyramid grid

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

4) Required: Jaw mounting

Product Information

Wedge screw grips Type 8406 F_{max} 50 kN, Type 8506 F_{max} 100 kN, 150 kN und Type 8507 F_{max} 250 kN, motorized

Prism jaws for type 8506 (1 x required)

Lieferumfang: 1 Satz (= 4 Stück)

Application	Version	Specimen dimensions		Clamping height [mm]	Ambient temperature [°C]	Hardness	Item No.
		Type 8506, F _{max} 100 kN Round specimen, Ø [mm]	Type 8506, F _{max} 150 kN Round specimen, Ø [mm]				
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St ¹⁾ 1.5	4 ... 10	4 ... 10	80	-70 ... +250	61 HRC	316913
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St ¹⁾ 1.5	10 ... 30	10 ... 30	80	-70 ... +250	61 HRC	316915

1) St= saw tooth

Jaw mounting for type 8406 / 8506

Description	ArticleNumber
Jaw mounting for hard metal jaws, Pr 0.7 mm, 45 x 30 mm (1 set = 4 pieces) ¹⁾	317390
Jaw mounting for hard metal jaws, Pr 0.7 mm, incl. centering stops, 70 x 34 mm (1 set = 4 pieces)	318645

1) F_{max} 50 kN

Flat jaws for type 8507

- 1x required (alternatively 1x prism 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]			
Metal, wood, fiber-reinforced plastics	Steel, fsc ¹⁾ 0.4	0 ... 64	100	80	-70 ... +250	61 HRC	318602
Metal, wood, fiber-reinforced plastics	Steel, fsc ¹⁾ 0.75	0 ... 64	100	80	-70 ... +250	61 HRC	318604
Metal, wood, fiber-reinforced plastics	Steel, fsc ¹⁾ 1.25	0 ... 64	100	80	-70 ... +250	61 HRC	318606

Product Information

Wedge screw grips Type 8406 Fmax 50 kN, Type 8506 Fmax 100 kN, 150 kN und Type 8507 Fmax 250 kN, motorized

Application	Version	Specimen dimensions Flat specimen, thickness [mm]	Clamping surface		Ambient temperature [°C]	Hardness	Item No.
			Height [mm]	Width [mm]			
Clamp-sensitive material	Steel, diamond-coated	0 ... 64	100	80	-70 ... +250	-	318608
Hard metals	Hard metal, Pr ²⁾ 0.7 mm	0 .. 48	80	50	-70 ... +250	1250 HV	320034 ³⁾

- 1) Fsc = fish scale
- 2) Pr = pyramid grid
- 3) Required: Jaw mounting

Prism jaws (with V-groove) for type 8507

- 1x required (alternatively 1x flat 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.
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St ¹⁾ 1.5	10 ... 30	100	-70 ... +250	61 HRC	318612
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St ¹⁾ 1.5	30 ... 60	100	-70 ... +250	61 HRC	318614
Round specimens: Metal, wood, fiber-reinforced plastics	Steel, St ¹⁾ 1.5	40 ... 80	120	-70 ... +250	61 HRC	318616
Round specimens: Hard metals	Hard metal, Pr ²⁾ 0.7 mm	4 ... 10/10 ... 30	80	-70 ... +250	1250 HV	325572 ³⁾ 4)

- 1) St= saw tooth
- 2) Pr = pyramid grid
- 3) Scope of delivery: 8 pieces
- 4) Required: Jaw mounting

Product Information

Wedge screw grips Type 8406 Fmax 50 kN, Type 8506 Fmax 100 kN, 150 kN und Type 8507 Fmax 250 kN, motorized

Jaw mounting for type 8507

Description	ArticleNumber
Jaw mounting for hard metal jaws, Pr 0.7 mm, incl. centering stops	320036
Jaw mounting for hard metal jaws, Pr 0.7 mm, for round specimens	325573

Optional accessories

Connectors Type 8406 / Type 8506

Description	ArticleNumber
T-slotted shoe-connector with Connectors with M28 x 1.5 thread for connecting Ø8, 20, 36 mm mounting studs or load cells, centering spigot, Ø 30 H7, for connecting mounting unit, mounting flange or Ø 60 mm mounting stud 2 pieces	320252
T-slotted shoe connector for load cell calibration, Fmax 100 kN, with hole Ø 64/48 mm, included in delivery: 2 pieces	029093

Connectors type 8507

Description	ArticleNumber
Connectors with M28x1.5 thread for connecting Ø 8, 20, 36 mm mounting studs or load cells, centering gauge, Ø 30 H7, for connecting mounting unit, mounting flange or Ø 60 mm mounting stud. Scope of delivery: 2 pieces	318600
Mounting stud, Ø 60 mm only used with connectors. For connecting additional accessories. Scope of delivery: 1 piece	314062

Mounting unit and mounting flange Type 8406 / Type 8506 / Type 8507

Description	ArticleNumber
Mounting unit for connecting flexure tables, upper anvil holders and compression test kits	314058
Mounting flange (Fmax 250 kN) for connecting flexure tables.	314060