

Product Information

Lever Arm Creep Testing Machine Kappa LA



Kappa LA Spring (left) and Kappa LA DW (right)

Applications

The Kappa LA series lever arm creep testing machines are ideal for classic creep tests with test durations of up to 100,000 hours.

The force can alternatively be applied via dead weights or a prestressed spring.

The lever arm creep testing machine Kappa LA offers a wide range of applications:

- Creep test
- Creep test up to break:
 - Creep rupture
 - Stress rupture
- Relaxation test (Kappa LA Spring)
- Crack growth/widening test
- Continuous load definition and load block tests possible (Kappa LA Spring)
- Ambient or high-temperature test
- For long-term tests up to 100,000 h

Lever arm

- 20:1 lever arm ratio
- Proximity switch for automatic leveling of the lever arm



Patented wear-free flexible joint

- Wear-free flexible joints for high-quality lever arm mounting
- Accuracy class 1 to ISO 7500-1 from 0.5% to 100% of the nominal load (Kappa LA Spring)
- Accuracy class 1 to ISO 7500-2 from 4% to 100% of the nominal load (Kappa LA DW)

Advantages and features

- Stand-alone floor-standing testing machine
- High stiffness, precision, and flexibility due to fourcolumn design
- High-precision guide crossheads
- Vibration isolation through Sylomer damper
- Integration of the high-temperature controller in the base of the testing machine
- The drive system is designed to automatically hold the lever arm in the horizontal position. This ensures a precise lever arm ratio and a precise and constant load on the specimen.
- Smooth test load application
- High drive control frequency of 1000 Hz delivers fast and precise force and strain control (Kappa LA Spring)
- Precision load cell (Kappa LA Spring)
- Calibrated dead weights (Kappa LA DW)



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Kappa 50/100 LA Spring

Load application via spring assembly

- Wear-free flexible joints for high-quality lever arm mounting
- Wear-free flexible joints for axial alignment according to ISO 204, ASTM E139, ASTM E292 and NADCAP requirements
- Precision load cell
- Smooth test load application
- Accuracy class 1 to ISO 7500-1 from 0.5% to 100% of the nominal load



Kappa 50/100 LA with spring assembly

Kappa 50 LA DW

Dead-weight load application

- Calibrated dead weights
- Wear-free flexible joints for high-quality lever arm mounting
- Wear-free flexible joints for axial alignment according to ISO 204, ASTM E139, ASTM E292 and NADCAP requirements
- Smooth test load application
- Accuracy class 1 to ISO 7500-2 from 4% to 100% of the nominal load



Kappa 50 LA with dead weights

CTA: 179375 179372

Zwick Roell

Product Information

Lever Arm Creep Testing Machine Kappa LA

	50 LA Spring	50 LA-DW	
Item No.	MP00420	MP00420	
Test load F _{max}	50	50	kN
Test area			
Height	1500 ¹⁾	1500 ¹⁾	mm
Width	520 ²⁾	520 ²⁾	mm
Crosshead travel	150	150	mm
Load frame			
Dimensions			
Height	2362	2362	mm
Width	1050	1050	mm
Width with machine electronics	770	770	mm
Depth	655	655	mm
Weight			
With machine electronics, approx.	600	600	kg
Lever arm ratio	20:1	20:1	
Drive			
Crosshead speed, max.	50	50	mm/min
Deviation from the set drive speed, max.	± 0.1 ³⁾	± 0.1 ³⁾	% of v _{actual}
Crosshead return speed, max.	50	50	mm/min
Power input specifications			
Power supply voltage	230	230	VAC
Power consumption (full load), approx.	0.8	0.8	kVA

1) Maximum distance from the moving crosshead to the height-adjustable crosshead or base crosshead, without any accessories

2) Clearance between the lead screws

3) Measured over an interval of at least 5 s or 10 mm travel