

Product Information

Electromechanical Creep Testing Machine Kappa 10 DS



Figure 1:
Stacked version of Kappa 10 DS with compression plates
for creep test with corrugated cardboard boxes

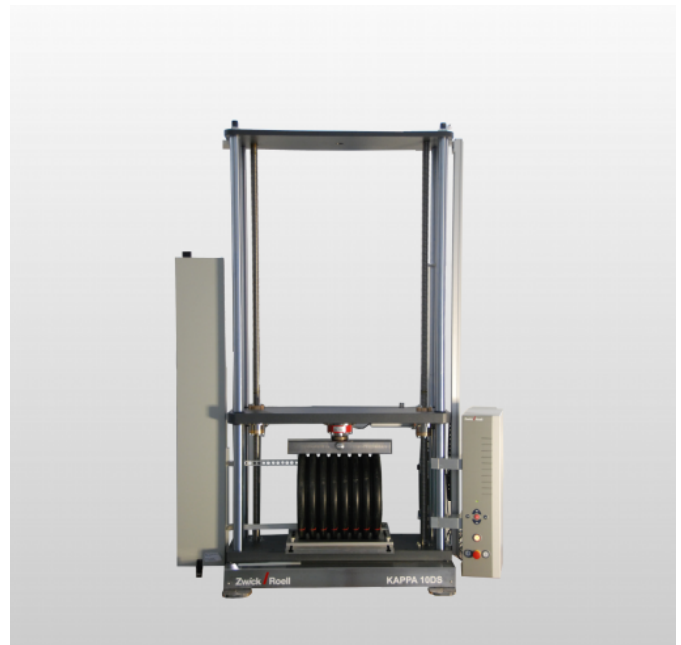


Figure 2:
Kappa 10 DS with compression tooling and longstroke
extensometer for creep test on pipes according to ISO 9967

Application

The Electromechanical Creep Testing Machine KAPPA 10 DS offers a wide range of applications.

- Testing of creep behavior on plastic pipes acc. to ISO 9967 with creep compression test
- For testing smooth, corrugated and ribbed pipes with internal diameters up to 800 mm
- Measurement of change of pipe external diameter, e.g. with smooth pipes
- Travel measurement system for continuous determination of deformation of pipe internal diameter
- Testing of creep behavior on corrugated cardboard boxes
- For testing corrugated cardboard boxes with max. dimensions of BxTxH = 600mm x 800mm x 750/1.250mm
- Additional other load-, stress- and strain-controlled creep tests
- Ambient or elevated temperature
- For long term tests (reaching >10.000h)

Load Frame and drive system

- Both table top and stacked version available
- High stiffness, precision and flexibility by 4-columns-design and double screw design
- Includes vibration isolation with Sylomer-dampers under the load frame
- High resolution crosshead resolver and high resolution load channel permit excellent control characteristics
- Special version for use in humidity environment available

Method of loading

- Constant rate of crosshead, acting via double precision acme thread spindles.
- Digital 2-point controller for either Load-, Stress- or Strain-rate
- Low-wear, long term testing due to the fact that drive system is deactivated after reaching the control target. Digital 2-point control activates drive system in case of control deviation e.g. at creep deformation.

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Specification Kappa 10 DS

Technical data:

	Kappa 10 DS 900	Kappa 10 DS 1400
load capacity	10 kN	10 kN
test area-depth	unlimited	unlimited
test area-width between drive screws	610 mm	610 mm
test area-height ¹	max. 900 mm	max. 1400 mm
crosshead strokes	900 mm	1400 mm
Lateral support of moving crosshead	precision sliding bearing on four hard chromium plated columns (40 mm diameter)	
Test speed range	0.01 mm/h to 100 mm/min	0.01 mm/h to 100 mm/min
Return speed	100 mm/min	100 mm/min
Crosshead speed accuracy	+/- 0.1 % of setting (no load or constant load averaged over 10 mm or 5 s)	+/- 0.1 % of setting (no load or constant load averaged over 10 mm or 5 s)
Resolution of stroke- encoder	0,003 µm	0,003 µm
Frame Dimensions (WxDxH)	880 x 650 x 1205 mm	880 x 650 x 1705 mm
Weight	300 kg	330 kg
Power requirements	230 VAC, 1 kVA	230 VAC, 1 kVA

¹ vertical clearance (including mounted standard load cell but without jigs- and fixtures/grips)

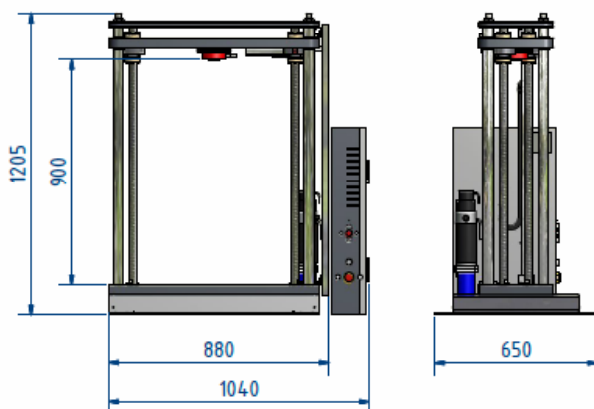


Figure 3: Kappa 10 DS 900 mm

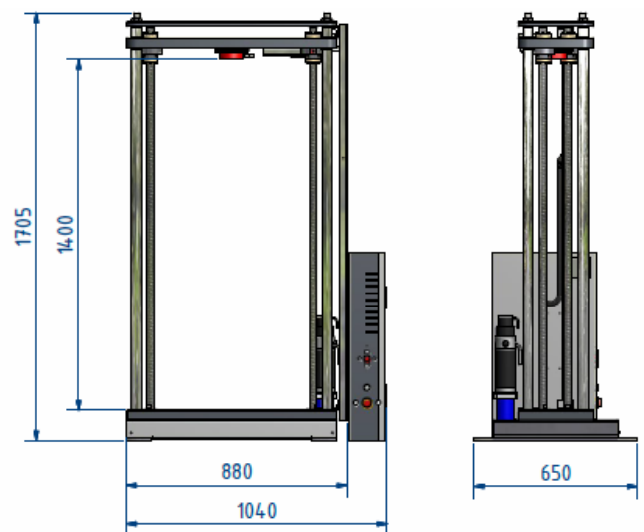


Figure 4: Kappa 10 DS 1400 mm