



A6 Series Lever Arm Creep Testing Machines

2-5

Mechanical Test



Features:

High precise, versatile usable and therefore cost effective creep testers:
 High stiffness, precision and durability design
 High quality components, the testing software A6-DAS, and control electronics bring you the benefits to own more than many years' of materials testing experience.

Applications:

Creep tests
 Creep rupture tests
 Stress rupture tests
 Relaxation tests (only with spring loaded system)
 Creep crack tests

Definition of individual stepless sequences of temperature
 Ambient or elevated temperature
 For long term tests (reaching more than 10.000h)

Description:

A6 offers smart sensing technology which can recognize & calibrate all connected sensors including their defined force limits and environments.

The A6 series especially concentrates on the Creep testing including the most important require Load, Temperature, Strain and datum security.

Standards: Metals Creep tests ISO 204:1997, ASTM E 139-06

A6 lever arm design provides the precise lever arm adjustment with straight-line travel and maintains in-line knife-edge action and optimum loading accuracy. In-line counterbalance adjustment provides simple balancing operation after ratio change.



A6 Series Lever Arm Creep Testing Machines

Specification:

Tension/Compression Frames

Model	A6-232
Capacity	10~2000kgf, 1kgf/step
Column Width*	500 mm
Lever Arm Ratios*	20:1, 10:1 or 5:1

Optional Drawhead Drive

Speed:	0.1-1.2 in/min (2.5-30.5 mm/min)
Travel:	5 in. (127 mm)

Load Accuracy ±0.5% (with certification of calibration)

Power Requirements

115 or 230 VAC, 50/60 Hz

Calibrated load weights

Available Sizes (English Units)

0.1 ±0.00013 lb.	0.2 ±0.00018 lb.
0.5 ±0.00033 lb.	1.0 ±0.00059 lb.
5.0 ±0.00178 lb.	10.0 ±0.00286 lb.
20.0 ±0.0044 lb.	30.0 ±0.0055 lb.
40.0 ±0.0066 lb.	

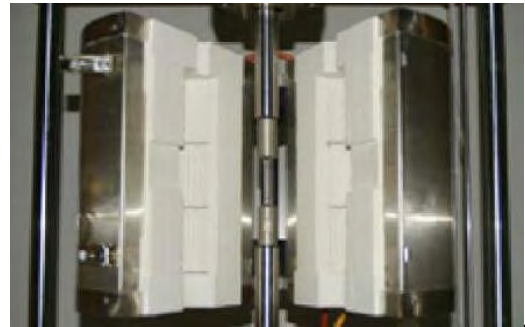
Available Sizes (Metric Units)

0.5 ±0.0005 N	1.0 ±0.0008 N
2.5 ±0.0014 N	5.0 ±0.0026 N
10.0 ±0.0048 N	25.0 ±0.0075 N
50.0 ±0.012 N	100.0 ±0.019 N
150.0 ±0.024 N	200.0 ±0.029 N

Accessories

HT-furnace

- 3-zone furnace standard up to 1200 C
- Internal diameter: 150 mm
- Heating length: 300 mm



• Vertical positioning of furnace. furnace stays in

- the centre of the specimen during test
- Openings for load train, Thermocouples and Extensometers
- Optional side windows for optical strain measurement
- 3 Thermocouples for furnace controller, up to 3 additional Thermocouples for temperature control at the specimen
- Power: 250 watts amps per zone
- Mounting bracket
- Y & Z alignment screw adjuster

HT-controller

- Integrated, sophisticated Control-Algorithm for a precise Temperature along specimen and to prevent from Temperature overshooting
- Empirically determined control parameters for different temperatures are no longer required
- Automatic Controller settings from 80 C...1200 C
- Temperature-tolerances acc. ASTM E 139
- Interface for 6 Thermocouples (3 for furnace, 3 for specimen's special configurations)
- Digital display of temperatures
- Stand Alone or PC-operation



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Specification:

Alignment couplings
Quick-change couplings
Couplings for threaded or button-head specimens
Specimen grips, pull rods, and adapters



Extensometers, mechanical or non-contacting laser type
Displacement transducers and controllers
Linear Encoding Elongation Sensor
Crosshead Displacement Sensor
Elongation Sensor Signal Conditioning



Load cells
Electronic „Plug and Play“-Type
(Calibration and technical data are saved in sensor plug)
High accuracy (Linearity, Repeatability, Hysteresis, resolution) acc. to ASTM E 4 and ISO 7500-1
High measurement range in class 1 acc. ISO 7500-1 from 0.4 %100% of nominal load



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Specification:

Advanced computer control and datum acquisition via exclusive A6-DAS software

User-friendly and upgradeable Windows based software

Computer display of Part Number, Part Name, Test Date and Time, Temperature, Extension, Temperature vs Time graphs, etc.

Stress relaxation test module

Constant stress test module

Cyclic load test module

Automatic "weightless" and computerized hot-step loading

Long term 10,000 hours testing time data acquisition

Simultaneous temperature, time and displacement data recording, even at oven failure

