

# LR300k

## Materials Testing Machine

The LR300K twin column materials testing system provides a complete solution for testing applications with capacities up to 300kN (66000 lbf). Tension and compression testing with cycling to load and extension limits are standard features. Load and extension are displayed on a highly legible LCD display, selectable in a variety of units. Multi-lingual instructions are displayed in a sequential menu driven format, allowing set-up and operation to be achieved rapidly and efficiently. A dedicated microprocessor controlled, closed loop servo drive ensures accurate speed, load rate, constant load and strain rate control. A crosshead speed range of 0.01mm/min to 500mm/min is available and is monitored more than 20,000 times per second. A working test space between columns of 620mm (24in) combined with a total crosshead displacement of 1200mm (47in) can accommodate a wide variety of samples and materials for accurate and consistent testing.

The LR300K can be further enhanced with Lloyd Instruments state of the art materials test and data analysis software NEXYGEN™ thanks to a built in RS232 interface, allowing full PC integration. The system is ideal for use in production, quality control, educational and research environments.

### FEATURES

- Simple to set-up, operate and maintain
- High accuracy load measurement
- Rapid data acquisition
- Extension resolution better than 0.1 microns
- Capable of full load at full speed
- Exceeds national and international standards
- Constant load and strain rate control
- Large working area
- Multi lingual, Multi unit display options
- Full PC integration
- Wide selection of load cells, grips, jigs and accessories

### SPECIFICATIONS

Force Range:	300kN (66000lbf)
Crosshead Speed:	0.01 to 255 mm/min 0.0005 to 10 inches/min
Speed Accuracy:	< 0.1% at steady state
Stroke:	0.1 to 1300mm 0.05 to 51 inches
Load Resolution:	< 0.005% of load cell used (max)
Extension Resolution:	< 0.1 microns
Sampling Rate:	100Hz
Extensometer Inputs:	+10V dc analogue input Strain gauge input optional
Data Outputs:	Digital - RS232 Analogue - 10Vdc max
Measuring System:	Exceeds the requirements of BS EN ISO 7500: 1999. Class 0.5, ASTM E4, DIN 51221.
Analysis Software:	NEXYGEN™ Data Analysis Software (optional)
Supply Voltage:	115/230Vac ± 10% 50 - 60Hz
Weight:	1200kg (2646lb)
Operating Temp:	5° to 35°C (40°F to 95°F)
Warranty:	1 year



**SPECIFICATION**  
SS-MT-6233-0101  
January 2001

### INTERNET

[www.ametek.com](http://www.ametek.com)  
[www.chatillon.com](http://www.chatillon.com)  
[www.lloyd-instruments.co.uk](http://www.lloyd-instruments.co.uk)

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## ORDERING INFORMATION

Model	Part No.	Description
LR300K	01/2338	Twin Column, Floor mounted Materials Testing System

### LR300K DIMENSIONS

Crosshead Width	620mm	24.0in
Column Depth	345mm	13.5in
Maximum Workspace	1580mm	62.0in
Machine Height	2750mm	108.0in
Base Height	700mm	27.5in
Machine Width	1230mm	48.0in
Machine Depth	860mm	34.0in
Console Width	330mm	13.0in
Console Depth	60mm	2.5in
Console Height	340mm	13.5in



### STANDARD ACCESSORIES

#### LOADCELLS:

##### Main Loadcell, One of either

100 kN (22000 lbf)	HLC-100K-A1	01/2457
150 kN (33000 lbf)	HLC-150K-A1	01/2458
300 kN (66000 lbf)	HLC-300K-A1	01/2392

##### Additional Loadcells

50 N (11 lbf)	HLC-0050-A1	01/2936
100 N (22 lbf)	HLC-0100-A1	01/2413
1000 N (220 lbf)	HLC-1000-A1	01/2412
5000 N (1100 lbf)	HLC-5000-A1	01/2944
10 kN (2200 lbf)	HLC-10K-A1	01/2411
30 kN (6600 lbf)	HLC-30K-A1	01/2978

#### EXTENSOMETERS:

Non contacting extensometer (115V) with stand	LASERSCAN L1	01/2940
Non contacting extensometer (230V) with stand	LASERSCAN LR	01/2932
Extensometer punch (applies 2mm (0.08 inch) targets)	TTOXP/2	01/1159
Extensometer punch (applies 4mm (0.16 inch) targets)	TTOXP/4	01/1156
Long travel extensometer without stand	EXL750 LR	01/2247
Extensometer stand for EXL750	Ext Stand C	01/2261
High resolution Extensometer with stand	EXH750 LR	01/2474

#### Strain Gauge Extensometers (NOTE Extensometer kit 01/1966 is NOT required)

Gauge Length 10mm (0.40 in) max elongation 10%	STGA/10/10L	01/2793
Gauge Length 10mm (0.40 in) max elongation 50%	STGA/10/50L	01/2960
Gauge Length 25mm (0.98 in) max elongation 5%	STGA/25/5L	01/2956
Gauge Length 25mm (0.98 in) max elongation 10%	STGA/25/10L	01/2794
Gauge Length 25mm (0.98 in) max elongation 25%	STGA/25/25L	01/2795
Gauge Length 25mm (0.98 in) max elongation 50%	STGA/25/50L	01/2796
Gauge Length 25mm (0.98 in) max elongation 100%	STGA/25/100L	01/2797
Gauge Length 50mm (1.97 in) max elongation 5%	STGA/50/5L	01/2958
Gauge Length 50mm (1.97 in) max elongation 25%	STGA/50/25L	01/2798
Gauge Length 50mm (1.97 in) max elongation 50%	STGA/50/50L	01/2799
Gauge Length 50mm (1.97 in) max elongation 100%	STGA/50/100L	01/2800
Gauge Length 80mm (3.15 in) max elongation 10%	STGA/80/10L	01/2801
Gauge Length 80mm (3.15 in) max elongation 25%	STGA/80/25L	01/2802

#### SOFTWARE:

NEXYGEN™ 4.0 Software Package	40/0658
NEXYGEN™ Upgrade to Version 4.0	40/0658/NR
ONDIO Application Builder (Use With NEXYGEN)	40/0683
NEXYGEN/ONDIO Software Suite	40/0695
NEXYGEN/ONDIO Upgrade	40/0695/U

#### GRIPS & FIXTURES:

All grips up to a capacity of 300 kN (66000 lbf) can be fitted.

All machines are capable of testing in tension, compression, flexure, friction, tear, peel, and adhesion modes - plus many more.

# AMETEK®

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Manufacturer