

# LR5KPlus



- » Simple to set up, operate and maintain
- » High accuracy load measurement
- » Constant load holding
- » Data sampling rate 8 kHz
- » Load rate control
- » Saves up to 600 test results
- » 10 programmable test set ups
- » Pre-loading of samples and cycling to load or extension limits
- » Multi-stage testing with NEXYGEN-Plus software
- » Extension resolution < 0.1 microns
- » Multi-lingual display options
- » Multi-unit display options
- » Flash upgradeable
- » Extended column options for testing high extension materials
- » Wide selection of load cells, grips, jigs, extensometers, temperature chambers and other accessories

The LR5KPlus advanced materials testing machine incorporates an extensive range of features making it ideal for performing complex as well as routine testing applications up to 5 kN (1124 lbf). The standard LR5KPlus features a twin column design with a maximum crosshead travel of 975 mm (38.4 in). Extended machine column options (LR5KPlus-E models) for testing high elongation materials are also available.

This bench mounted machine is microprocessor controlled and incorporates world proven 32 bit technology for highly accurate load measurement and rapid data acquisition. The LR5KPlus features an integral user interface consisting of a side mounted control console with large, positive action membrane keys, allowing complex tests to be performed at the touch of a button. A back lit 4 line LCD display shows the test and set up information in a wide choice of user selectable languages and units.

The stand alone system is capable of storing up to 600 test results from a choice of ten programmable test set ups. Test parameters are entered using the keypad in a sequential menu driven format. For additional flexibility, the LR5KPlus can also be connected to a personal computer with optional Lloyd Instruments NEXYGENPlus material test and control software. NEXYGENPlus software provides almost unlimited testing and results processing capability in a familiar Windows® environment.

The high stiffness frame incorporates a crosshead guidance system to prevent side loading of the sample under test. The crosshead is driven by twin lead screws and a high precision motor to achieve a wide range of speeds throughout the full load range.

A series of highly accurate, interchangeable load cells is available for tension, compression and cycling through zero force measurements. Our extensive range of grips and fixtures support virtually any type of test. The system is ideal for use in production, quality control, educational and research environments.

## Specifications

Force Capacity	
LR5K Plus (Standard)	5 kN (1124 lbf)
LR5K Plus (Extended)	5 kN (1124 lbf)
Crosshead Speed Range	0.01 to 1016 mm/min (0.0004 to 40 in/min)
Speed Accuracy	<0.2% at steady state
Maximum Crosshead Travel	
LR5K Plus (Standard)	975 mm (38.4 in)
LR5K Plus (Extended)	1463 mm (57.6 in)
Width Between Columns	404 mm (16 in)
Minimum Load Resolution	0.0001 N (Load cell specific)
Load Cell Accuracy	<0.5%
Extension Resolution	<0.1 microns
Data Sampling Rate	8 kHz
Display	40 character x 4 line backlit LCD
Extensometer Inputs	Digital and Analogue
Load Measuring System	EN ISO 7500:2004 Class 0.5 ASTM E4
Software	NEXYGEN <i>Plus</i> Data Analysis Software
Supply Voltage	230Vac ±10%, 50-60 Hz, Fuse T3.15AH250V 115Vac ±10%, 50-60 Hz, Fuse T6.3AH250V
Weight	
LR5K Plus (Standard)	99 kg (218 lb)
LR5K Plus (Extended)	103 kg (227 lb)
Operating Temperature	5° to 35°C (41° to 95°F)

## Accessories

Load Cells:	Part No
5 N (1.12 lbf)	01/2946
10 N (2.25 lbf)	01/2360
20 N (4.5 lbf)	01/2950
50 N (11.25 lbf)	01/2361
100 N (22.5 lbf)	01/2480
250 N (56.25 lbf)	01/3048
500 N (112.5 lbf)	01/2362
1000 N (225 lbf)	01/2419
2500 N (562.50 lbf)	01/2363
5000 N (1124 lbf)	01/2364
<b>Application Software:</b>	
NEXYGEN <i>Plus</i>	40/0771

### Grips & Fixtures:

A wide range of grips and fixtures are available.

### Extensometers:

We supply contacting and non-contacting extensometers.

### Temperature Chambers and Furnaces:

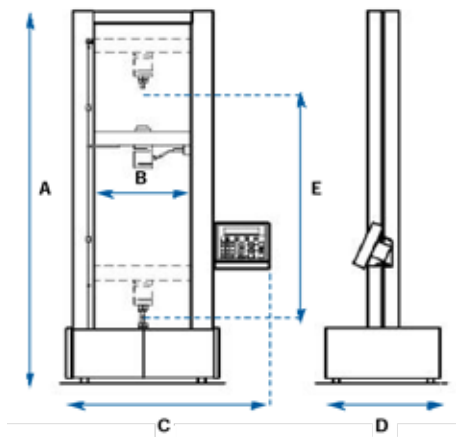
A range of thermal chambers and furnaces are available.

### Splinter Shields:

Splinter shields can be supplied to your specific requirements.

### LR5KPlus-CC Large Compression Cage Option:

The LR5KPlus machine can be ordered mounted above a floor standing compression cage for larger sample testing.



A	Height (standard)	1565 mm (61.2 in)
A	Height (extended)	2055 mm (80.9 in)
B		404 mm (16.0 in)
C		820 mm (21.9 in)
D		480 mm (18.9 in)
E	Standard travel	975 mm (38.4 in)
	Extended travel	1463 mm (57.6 in)

## Ordering Information

MODEL	PART NO	CAPACITY	DESCRIPTION
LR5KPlus	01/3051	5 kN (1124 lbf)	LR5KPlus Materials Testing Machine with Console
LR5KPlus-E	01/3073	5 kN (1124 lbf)	LR5KPlus Materials Testing Machine (Extended) with Console



### AMETEK Test & Calibration Instruments

A business unit of AMETEK Measurement & Calibration Technologies offering the following industry leading brands for test and calibration instrumentation.

#### Chatillon Force Measurement

Chatillon has been a hallmark in the industry since 1835. The hand held gauges and motorized testers have earned their reputation for quality, reliability and accuracy and they represent the de facto standard for force measurement.

#### Lloyd Instruments

##### Materials Testing Solutions

Materials testing machines and software from Lloyd Instruments guarantee the highest level of performance and capability for production testing, quality control, laboratory testing, research and education to provide expert materials testing solutions.

##### Davenport Polymer Test Equipment

Allows critical polymer parameters to be determined, including melt flow index and melt flow rate, intrinsic viscosity (IV) measurement of moisture-sensitive PET polymers and polymer density measurement.

##### Texture Analysers

The comprehensive program provides the platform to perform rapid, general food testing and detailed texture analysis on a diverse range of foods.

#### Newage Testing Instruments

Newage offers a comprehensive range of hardness testers, durometers, optical systems and software for measurement, data acquisition and analysis.

#### JOFRA Calibration Instruments

The inventor of the portable high precision dry-block temperature calibrators. The calibration instruments program also covers precision thermometers and temperature baths, temperature sensors hand held instruments for pressure calibration and process signal calibrators for easy control loop calibration, measurements and simulation.

#### M&G Pressure Testers & Pumps

Pneumatic floating-ball or hydraulic piston dead weight testers with accuracies to 0.015% of reading.

#### Crystal Pressure

Digital pressure gauges and calibrators that are accurate, easy-to-use and reliable. Designed for use in the harshest environments; most products carry an IS, IP67 and DNV rating.

# AMETEK®

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