

LFPlus 1 kN (225 lbf) Universal Materials Testing Machine

The LFPlus universal testing machine is an easy to use solution for force measurement and material testing applications up to 1 kN (225 lbf). The machine uses interchangeable XLC Series load cells. Tension and compression testing with cycling to load and extension limits are standard features. The machine can be equipped with a variety of accessories including: grips, fixtures, compression frames, thermal cabinets and extensometers.

The LFPlus features an innovative design that maximises working space and simplifies operation and maintenance. The large work area and deep 179 mm (7 in) throat accommodates large specimens and is supplied with a standard universal eye end or optional expanded work table, T-slot table or drip tray. An impressive 0.05-1270 mm/min (0.002-50 in/min) crosshead speed makes it ideal for advanced applications such as creep tests and constant load holding tests. The machine includes standard pass/fail capabilities and statistics.

The LFPlus machine displays load and extension information on a high visibility LCD console with integral membrane keypad. The machine's intuitive console displays prompts and menus that guide the user through setup, operation and maintenance functions. Passwords may be used to limit functions to authorised users. Information can be displayed in a choice of languages as standard.

Machine performance can be optimised using our NEXYGENPlus material test and data analysis software. This Windows® based software with its built in applications library, is easy-to-use and allows detailed test data to be stored and displayed in graphical and tabular formats. The software allows data to be manipulated to produce detailed analytical reports, plus the ability to integrate with popular Windows® software packages such as Excel, and Outlook®. Other features include powerful video and still picture capture, advanced security and audit trails to safeguard data integrity, SPC and clear pass/fail indication.

Features

- Large working area
 - 179 mm (7 in) throat for large specimens
- Universal eye end
- Flexible work surfaces
 - Standard base table
 - Expanded work table (Optional)
 - T-Slot table (Optional)
 - Drip tray (Optional)
- XLC Series load cells
 - High accuracy load measurement
- Extended column options for testing high extension materials
- Speed range
 - 0.05 to 1270 mm/min (0.002 to 50 in/min)
- Intuitive operator interface
 - Menu driven with intelligent prompts
 - Membrane keypad with tactile feedback
 - Multi-lingual display options
 - Multi-unit display options
 - High resolution, backlit LCD display
- Flash upgradeable
- RS232 interface
- Extensometer input
- Load rate control

Specifications

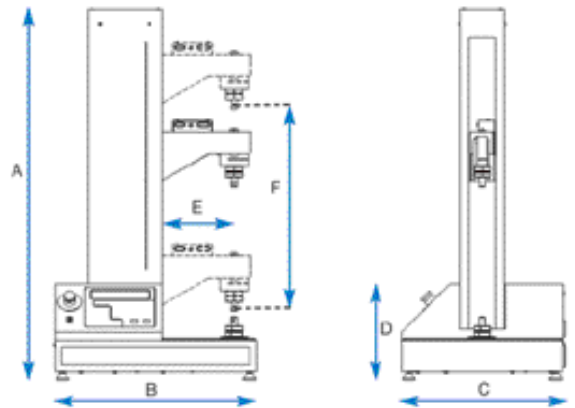
Force Capacity:	
LFPlus (Standard)	1 kN (225 lbf)
LFPlus-E (Extended)	1 kN (225 lbf)
Crosshead Speed Range:	0.05 to 1270 mm/min (0.002 to 50 in/min)
Speed Accuracy:	<0.2% at steady state
Maximum Crosshead Travel:	
LFPlus	500 mm (19.7 in)
LFPlus-E	750 mm (29.5 in)
Throat Depth:	179 mm (7 in)
Minimum Load Resolution:	0.0001N (load cell specific)
Load Cell Accuracy:	<0.5%
Extension Resolution:	<2 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:	NEXYGENPlus Data Analysis Software (optional)
Supply Voltage:	230Vac ±10%, 50-60 Hz, Fuse T1AH250V 115Vac ±10%, 50-60 Hz, Fuse T2AH250V
Weight:	
LFPlus	46 kg (102 lb)
LFPlus-E	48 kg (106 lb)
Operating Temperature:	5° to 35°C (41° to 95°F)



Order No. Description

01/LFL	BASE Model Number - 1st to 6th characters LLOYD INSTRUMENTS LF <i>Plus</i> Testing Machine				
	S E P X	Travel Length - 7th character			
		Standard, 500 mm (19.7 in)			
		Extended, 750 mm (29.5 in)			
		Pogo Design*			
		/LX	Measurement Adapter - 8th to 10th characters XLC Load Cell Adapter Kit		
			A B C D E	Work Surface - 11th character Standard Base Expanded Work Table - Metric Threads Expanded Work Table - Imperial Threads T-Slot Table Drip Tray	
			/US /UK /EU /CN	Mains Power - 12th to 14th characters 120V ac Mains Power 230V ac Mains Power 230V ac Mains Power 230V ac Mains Power	
01/LFL	S	/LX	C	/US	Sample Order No. (01/LFLS/LXC/US)
Lloyd Instruments LF <i>Plus</i> testing machine, standard 500 mm travel with expanded work table with 10-32 UNF threads and 120V ac power.					
* Note "Pogo Design" denotes machine designed to perform tests mounted above floor standing compression cage.					

Machine Dimensions



	mm	in
A (Standard machine height)	923	36.0
A (Extended machine height)	1173	46.0
B	500	19.7
C	400	15.7
D	240	09.5
E	179	7.0
F (Standard machine travel)	500	19.7
F (Extended machine travel)	750	29.5

Accessories

Item	Part No.	Item	Part No.
Load Cells:		Extensometers:	
5 N (1.12 lbf)	01/2946	A comprehensive range of contacting and non contacting extensometers are available. For further information see our extensometer specification sheets	
10 N (2.25 lbf)	01/2360		
20 N (4.5 lbf)	01/2950	Application Software:	
50 N (11.25 lbf)	01/2361	NEXYGEN <i>Plus</i> material test & analysis software	40/0771
100 N (22.5 lbf)	01/2480	Grips & Fixtures:	
250 N (56.25 lbf)	01/3048	A wide range of grips and fixtures are available. For further information see our grip specification sheets.	
500 N (112.5 lbf)	01/2362	Work Tables:	
1000 N (225 lbf)	01/2419	Expanded Work Table, Metric (350 mm x 400 mm) with M6 tapped holes for custom fixings:	SPK/LFM/0007
		Expanded Work Table, Imperial (350 mm x 400 mm) with 10 - 32 tapped holes for custom fixings:	SPK/LFM/0008
		Aluminium T-Slot Table (180 mm x 340 mm) for adjustable fixings:	SPK/LFM/0009
		Drip Tray for food and other testing:	SPK/LFM/0010

Expanded Work Table



T-Slot Table



www.ametek.com

UK / Head Office

Lloyd Instruments Ltd
Steyning Way
Bognor Regis
West Sussex, PO22 9ST

Tel +44 (0)1243 833 370
Fax +44 (0)1243 833 401
E-mail uk-far.general@ametek.co.uk
Web www.lloyd-instruments.co.uk

France

AMETEK S.A.S.
Rond Point de l'Épine des Champs
Buro Plus - Bât. D
78990 Elancourt

Tel +33 (0)1 30 68 89 40
Fax +33 (0)1 30 68 89 49
E-mail general@lloyd-instruments@ametek.fr
Web www.lloyd-instruments.fr

Germany

AMETEK GmbH
Rudolf-Diesel-Straße 16
D-40670 Meerbusch

Tel +49 (0)2159 9136-0
Fax +49 (0)2159 9136-39
E-mail info@ametek.de
Web www.ametek.de

USA

AMETEK Measurement & Calibration
Technologies Division
8600 Somerset Drive
Largo, Florida 33773

Tel +1 (727) 536 7831
Fax +1 (727) 539 6882
E-mail chatillon.fl-lar@ametek.com
Web www.lloyd-instruments.com
www.chatillon.com

Singapore

AMETEK Singapore Pte Ltd
No. 43 Changi South Avenue 2
#04-01 Singapore
#05-12 Techpoint 486164, Singapore

Tel +65 6484 2388
Fax +65 6481 6588
E-mail aspl@ametek.com.sg
Web www.lloyd-instruments.com

China

AMETEK, Inc. - Shanghai Rep. Office
Rm 912, Metro Tower
30 Tian Yao Qiao Road
Shanghai 200030

Tel +86 21 6426 8111
Fax +86 21 6426 7818 Ext.12
E-mail lloyd@ametek.com.cn
Web www.lloyd-instruments.com

