

FTPlus

Friction Tester to ASTM D 1894, ISO 8295 and TAPPI T549

The FTPlus is a bench mounted, single lead screw dedicated friction tester. Conforming to the requirements of ASTM D1894, ISO 8295 and TAPPI T549, the tester includes these standards as user configurable tests, with a further seven available for user custom configuration.

Three XLC load cell options are available: 10N, 50N or 100N. One optional load cell is included as standard with the tester. A friction table is mounted directly on the machine, with a full set of accessories to achieve the ASTM, ISO and TAPPI requirements.

User configurable test screens allow for final movement limits, calculation limits (relative and absolute), sled weights and dimensions.

A high-resolution encoder is used to measure the sample extension and also to provide high accuracy speed control. The crosshead is driven by a high precision servo-motor and DC servo system to achieve a wide range of speeds throughout the full load range.

The machine is microprocessor controlled and is operated from the integral control console, which enables tests to be quickly and easily set up and performed. Large, positive feedback membrane switches with tactile and audible feedback enables test parameters to be established in conjunction with the backlit 4 line liquid crystal alphanumeric display.

The machine may be programmed to perform up to 10 different tests and the statistics for each type of test are automatically calculated including static coefficient of friction, kinetic coefficient of friction, peak load and average load. Up to 600 samples can be stored in any of the test setups.

The FTPlus is a fully self-contained instrument, however an RS232 is provided to allow computer control using Lloyd Instruments NEXYGENPlus material test and data analysis software if required. The FTPlus may also be configured as a universal testing machine to perform tensile, compression, flexural and other mechanical tests up to 1kN (225lbf) with the appropriate grips and fixtures.

Features

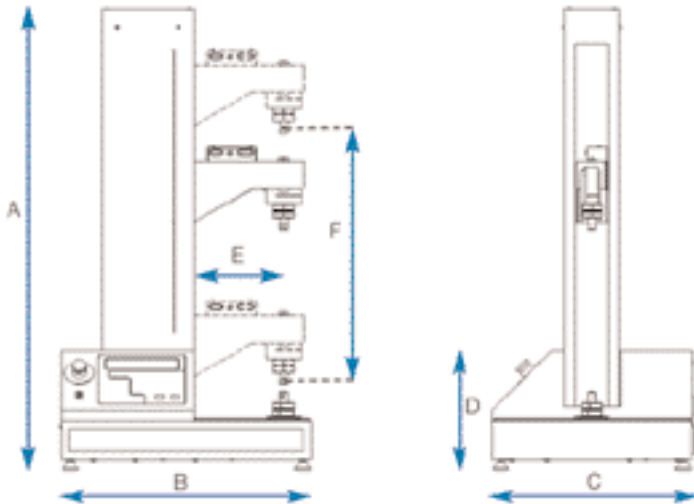
- Conforms to international standards for friction testing including ASTM, ISO and TAPPI
- Dedicated friction table supplied
- Dedicated user interface for calculating static coefficient of friction, kinetic coefficient of friction, peak and average load
- Can perform user configurable tests plus seven tests available for custom configuration
- Intuitive user interface
 - Menu driven with intelligent prompts
 - Membrane keypad with tactile feedback
 - High resolution, backlit LCD display
- Saves up to 600 test sample results
- Universal eye end
- XLC Series load cell options: 10N, 50N and 100N (Accuracy 0.5% of reading)

Specifications

Force Capacity:	1 kN (225 lbf)
Maximum Crosshead Travel:	500 mm (19.7 in)
Crosshead Speed Range:	0.05 to 1270 mm/min (0.002 to 50 in/min)
Maximum Return Speed:	1270 mm (50 in/min)
Speed Accuracy:	<0.2% at steady speed
Load Cell Accuracy:	<0.5% of reading
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:	Exceeds the requirements of EN ISO 7500:2004 Class 0.5 ASTM E4
Weight (inc. friction table):	36.2 kg (79.8 lb)
Humidity:	5-85% RH (Non-condensing)
Operating Temperature	5° to 35°C (41° to 95°F)
Supply Voltage:	230Vac ±10% 50-60 Hz Fuse T1AH250V 115Vac ±10% 50-60 Hz Fuse T2AH250V
Lower Grip Pin:	5/8 in



Machine Dimensions



		mm	in
A	Machine Height	923	36.0
B	Machine Width	500	19.7
C	Machine Depth	400	15.7
D	Base Height	240	09.5
E	Column to Eye End	179	7.0
F	Maximum Travel	500	19.7



Typical test screen

Ordering Information - FTPlus Friction Tester

Model	Part No	Description
FTPlus Friction Tester (1 kN, 225 lbf) fitted with 10N XLC load cell		
FTPlus	01/FTLS/10N/EU	FTPlus friction tester with EU 220V ac mains power
FTPlus	01/FTLS/10N/US	FTPlus friction tester with US 120V ac mains power
FTPlus	01/FTLS/10N/UK	FTPlus friction tester with UK 230V ac mains power
FTPlus	01/FTLS/10N/CN	FTPlus friction tester with CN 230V ac mains power
FTPlus Friction Tester (1 kN, 225 lbf) fitted with 50N XLC load cell		
FTPlus	01/FTLS/50N/EU	FTPlus friction tester with EU 220V ac mains power
FTPlus	01/FTLS/50N/US	FTPlus friction tester with US 120V ac mains power
FTPlus	01/FTLS/50N/UK	FTPlus friction tester with UK 230V ac Mains Power
FTPlus	01/FTLS/50N/CN	FTPlus friction tester with CN 230V ac mains power
FTPlus Friction Tester (1 kN, 225 lbf) fitted with 100N XLC load cell		
FTPlus	01/FTLS/100N/EU	FTPlus friction tester with EU 220V ac mains power
FTPlus	01/FTLS/100N/US	FTPlus friction tester with US 120V ac mains power
FTPlus	01/FTLS/100N/UK	FTPlus friction tester with UK 230V ac mains power
FTPlus	01/FTLS/100N/CN	FTPlus friction tester with CN 230V ac mains power

Ordering Information - Friction Table Accessory

Customers, who wish to perform friction tests on other models of Lloyd Instruments materials testing machines, can purchase our friction table separately using the part numbers below.



Model	Part No	Description
TG112/LF	01/3277/LF	Friction table accessory for use with LFPlus test machine only
TG112/LRX	01/3277/LRX	Friction table accessory for use with LRXPlus test machine only
TG112/LR	01/3277/LR	Friction table accessory for use with all LRPlus Series test machines (except for the LFPlus and LRXPlus machines)

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