

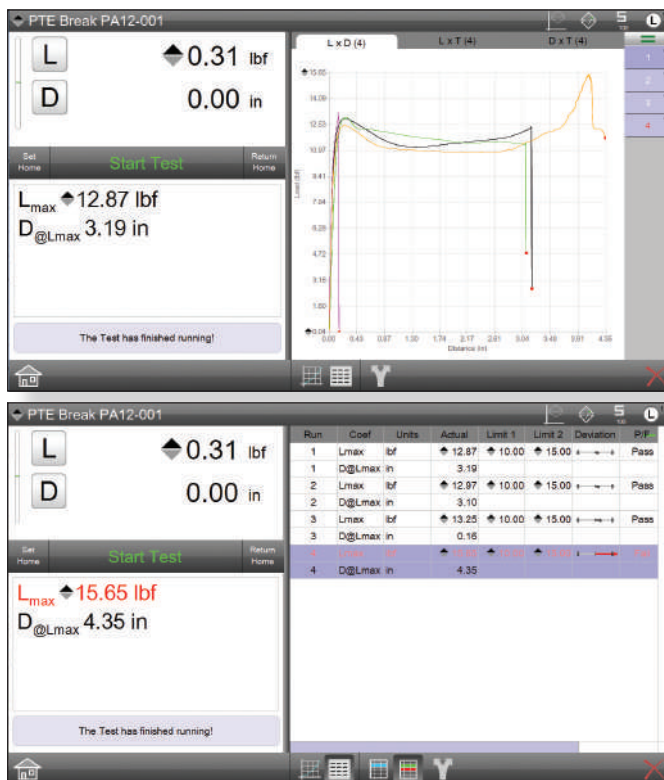
# L1 FORCE MEASUREMENT

## L1 SYSTEMS

Starrett L1 Systems represent our most-basic, computer-based force testing solution. Optimized for production and quality control testing, they are designed to be easy to setup, operate and maintain.

L1 Systems can be used to perform a wide variety of testing methods including:

- Load Limit Testing
- Distance Limit Testing
- Break Limit Testing
- Cyclic Count Testing
- Cyclic Duration Testing
- Constant Load Testing
- Constant Distance Testing



L1 System results are displayed as graphs and data tables.  
Test templates let you create tests in seconds.



# SOFTWARE CAPABILITIES

## LX SYSTEMS

### Lx System Product Comparisons and Capabilities

Target Applications	L3	L2 Plus	L2	S2	L1
Use for Stress, Strain and Material Testing applications	○				
Use for Advanced Load, Distance and Force Analysis applications	○	○			
Use for Basic Load, Distance and Force Measurement applications	○	○	○		○
Use for Advanced Extension and Compression Spring applications	○	○			
Use for Basic Extension and Compression Spring applications				○	
User Interface					
All-In-On Computer Workstation, Windows® OS	○	○			
Tablet Computer, Windows® OS			○	○	○
<b>Software Applications</b>					
Test Builder	○	○	○	★	
Force Quick Test Templates			○		○
Spring Quick Test Templates				○	
Formula Builder	○	★	★	★	
Automation Builder	★	★	★	★	
<b>Measurement Methodology</b>					
Measure results using the graph	○	○			
Measure results using a List of Value menu	○	○	○	○	
Create Test Setups using Graphical Test Methods (No programming)	○	○	○	□	
Create Test Setups using Quick-Test Templates			○	○	○
<b>Test Methods</b>					
Tensile Testing, Load, Distance, Break, Rate	○	○	○	□	○
Compression Testing, Load, Distance, Break, Rate	○	○	○	□	○
Hold Testing, Load, Distance for Duration or Event	○	○	○	□	○
Cyclic Testing for Duration, Count, Loop or Event	○	○	○	□	○
Shear Testing	○	○			
Flexural Testing	○	○			
Peel Testing	○	○			
Coefficient of Friction Testing	○	○			
Spring Testing	○	○		○	
<b>Measurement Capabilities</b>					
Measure Stress, Strain, Elongation, Strengths	○				
Measure Offset Yield	○				
Measure Modulus (Elastic, Chord, Tangent)	○				
Measure Strain and Elongation using Extensometer(s) (requires MMx test frames)	○				
Measure Energy, Work, Resilience	○	○			
Create Mathematical Expressions using Algebraic, Trigonometric and Logarithmic functions	○	▷			
Create Basic Expressions using Add, Subtract, Multiple and Divide	○	▷	▷	▷	
Use Digital I/O	▷	▷	▷	▷	
Use Analog I/O (requires MMx test frames)	▷	▷			
Use Command and Conditional Logic	▷	▷	▷	▷	
Measure Load, Distance, Time	○	○	○	○	○
Measure Minimum, Maximum and Averages	○	○	○	○	○
Measure Slopes and Intersections	○	○			
Measure Peaks, Valleys, Counts, Averages	○	○			
Measure Break, Rupture	○	○	○	□	○
Measure Delta between results within a test	○	○	○		
Measure results within multiple test runs simultaneously (multiview)	○	○			
Measure Spring Rate, Spring Constant	○	○		○	
<b>Reporting and Exporting Data</b>					
Print using standard reports, graph, batch, tolerance, statistics	○	○	○	○	○
Export results/data in .csv for custom reporting	○	○	○	○	○
Export results/data in .csv for integration with SPC software	○	○	○	○	○
Include tolerances on any result	○	○	○	○	○

Note: FMM frames run L1 software only

L3, L2 Plus, L2 and S2 software require a FMS, MMS, FMD or MMD frame