

» **Exceptional Load Accuracy**

Load accuracy of +/- 0.5% down to 1% of load cell value provides a high dynamic range, thereby reducing the number of load cells required to cover the full force range.

» **Plug'n'Play YLC load cells**

Featuring anti-rotation collars to avoid load train twist and facilitating easy axial alignment

» **Large Work Area**

180 mm (7.08 in) throat depth for larger specimens and wide range of work tables for flexibility

» **Advanced Test Setup**

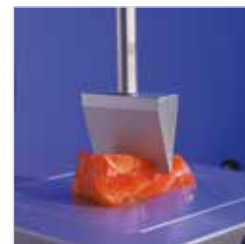
The Windows®7 compatible NEXYGEN<sup>Plus</sup> software features an improved and intuitive User Configurable Test functionality complementing the comprehensive texture analysis test library available

» **Application Expertise**

An extensive range of jigs, probes and fixtures designed from years of experience. In addition the machine can be fitted with multi-purpose grips for testing the strength and integrity of food packaging.

» **Broad Range of Applications**

- Bakery
- Cereals
- Confectionary & Snacks
- Dairy
- Fruit & Vegetables
- Gels
- Meat, Poultry & Fish
- Pasta & Rice; Snacks
- Pet Food
- Cosmetics
- Packaging



The TA1 texture analyser is a cost effective, easy to use solution for performing rapid, detailed texture analysis tests on applications up to 1 kN (225 lbf).

**The Benefits of Texture Analysis**

Texture analysis can highlight quality improvement opportunities throughout the supply chain and the production process. New or alternative ingredients can be compared with existing ingredients. In production, texture analysis is used for the measurement and control of process variations such as temperature, humidity and cooking time.

A texture profile analysis test replicates the effect of two bites on a sample. Lloyd Instruments NEXYGEN<sup>Plus</sup> texture analysis software captures force, distance and time during the test, allowing the calculation of texture critical parameters such as:

Adhesion Force	Firmness	Modulus
Adhesiveness	Fracturability	Resilience
Chewiness	Gumminess	Springiness
Cohesiveness	Hardness	Stringiness

## NEXYGEN<sup>Plus</sup> Materials Testing and Data Analysis Software

# NEXYGEN<sup>TM</sup> PLUS

NEXYGEN<sup>Plus</sup> materials testing software is the hub of the Lloyd Instruments materials testing system. This extraordinarily easy to use and flexible software, allows the operator to control and monitor all aspects of the system from a single front end, ensuring fast, reliable and powerful testing and data analysis.

### Features

- Large built-in library of test methods meeting international test standards
- Intuitive User Configurable Test facility
- Video and still capture for visual analysis
- User access settings and data traceability enabling compliance with FDA 21 CFR Part 11
- Built in SPC functionality for continuous monitoring of process parameters such as Cp and Cpk
- Microsoft Office<sup>®</sup> integration for seamless transfer of data to familiar Windows<sup>®</sup> packages, Windows<sup>®</sup> 7 compatible
- Versatile data export facility to LIMS, SPC or data management systems
- Test automation and batch testing

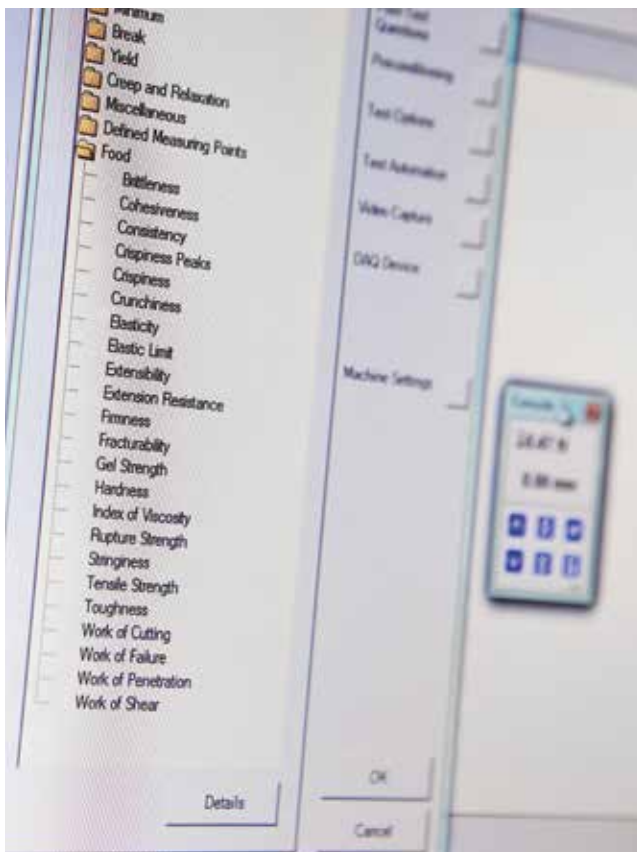
### Multi-lingual

NEXYGEN<sup>Plus</sup> software is available in the following languages: English • Spanish • French • German • Italian • Danish • Turkish • Chinese • Russian • Polish

### Test Creation

Getting started with NEXYGEN<sup>Plus</sup> is simple, thanks to:

- An extensive built-in library of test methods covering ASTM, DIN, EN, ISO and other standards
- Test wizards for tension, compression, tearing, peeling, friction and flexural tests
- The User Configurable Test facility, ideal for product and component testing, R&D use and specialised testing



### Video and Still Picture Capture

Whether for advanced sample failure analysis or presentation of test results, video and stills capture is a feature unique to NEXYGEN<sup>Plus</sup>. Video and/or still pictures are synchronised with the stress/strain data and can be replayed or shown at specific points during the test in the graphical display. To utilise these powerful features simply connect your web cam or analogue video camera to your PC.

### Applications Expertise

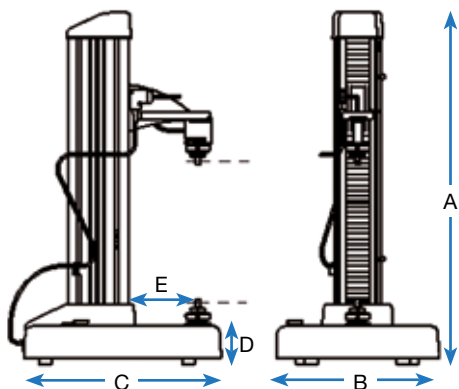
Our in-house application experts are available to assist with routine texture analysis queries and discuss your requirements for special applications. Through years of experience we have built an extensive range of jigs, probes and fixtures for food, cosmetics and packaging. We also offer a custom build service for test fixtures.

## Technical Specification

Force Capacity	1000 N (225 lbf)
Max. Crosshead Travel, Standard Travel ( <i>Between the Eye Ends</i> )	500 mm (19.7 in)
Crosshead Speed Range	0.01-2032 mm/min (0.0004-80 in/min)
Max. Return Speed	2032 mm/min (80 in/min)
Speed Accuracy ( <i>Unloaded</i> )	+/-0.2% of selected speed from 2% to 100% of max. speed
Min. Load Resolution ( <i>Load Cell Specific</i> )	0.0001N (2.2x10 <sup>-5</sup> lbf)
Load Cell Accuracy	+/-0.5% from 1% to 100% of load cell value
Extension Resolution	<0.15 microns
Data Sampling Rate	8kHz
Distance accuracy	+/-0.2% of reading from 2% to 100% of max. travel
Load Measuring System	EN ISO 7500:2004, Class 0.5 ASTM E4
Relative Humidity	20% to 85%
Operating Temperature	+5 to 35°C (41 to 95°F)
Storage Temperature	-17 to 54°C (0 to 130°F)
Supply Voltage (+/- 10%)	115VAC/230VAC, 50-60Hz
Max. Power Requirement	150VA

All systems conform to relevant EU standards and are CE marked. On site verification as per ASTM E4 and ISO 7500-1 recommended.

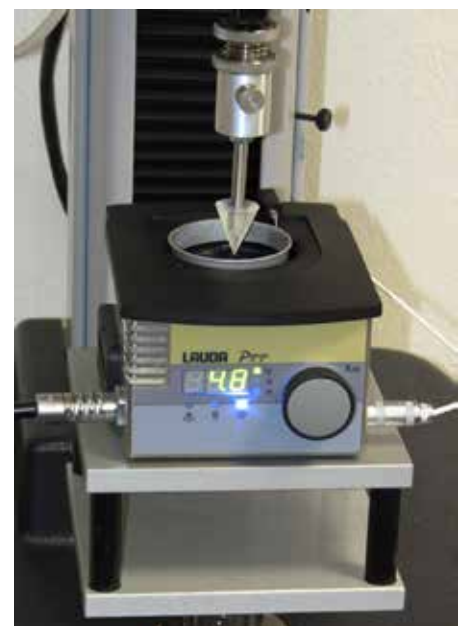
## Dimensions & Weight



A	Height (standard travel)	1001 mm (39.4 in)
B	Width (excluding console)	460 mm (18.1 in)
C	Depth	557 mm (21.9 in)
D	Base Height	108 mm (4.3 in)
E	Throat Depth	180 mm (7.1 in)
	Weight (standard travel)	52 kg (115 lb)

## Ordering Information

Order number	Description
TA1	TA1
	<b>Model</b>
S	Standard Travel
	<b>Operation</b>
H	Hand Held Remote
C	Main Console
	<b>Power</b>
	115V US Power Cord
	230V UK and Euro Power Cord
	230V - CNAU China and Australian Power Cord
	<b>Order number sample</b>
TA1 S C 230V	TA1, Standard Travel, Main Console, UK and Euro Power Cord



Penetration test with peltier system able to generate temperature from 5°C to 80°C.

## Standard Accessories

- Base table
- Cylinder probe 12.5 mm (0.5 in)
- Stainless Steel Tray



## Optional Accessories

Item	Part No
YLC Series Load Cell 5 N (1.12 lbf)	01/3871 - 5N
YLC Series Load Cell 10 N (2.25 lbf)	01/3872 - 10N
YLC Series Load Cell 20 N (4.5 lbf)	01/3873 - 20N
YLC Series Load Cell 50 N (11.25 lbf)	01/3874 - 50N
YLC Series Load Cell 100 N (22.5 lbf)	01/3875 - 100N
YLC Series Load Cell 250 N (56.25 lbf)	01/3876 - 250N
YLC Series Load Cell 500 N (112.5 lbf)	01/3877 - 500N
YLC Series Load Cell 1000 N (225 lbf)	01/3878 - 1000N
<b>Texture Analysis Probes</b>	
Ball Probes (Diameter range 1/4"-1")	
Cone Probes (Cone angles 15°-90°)	
Cylinder Probes (Diameter range 1/4"-4")	
<b>Texture Analysis Fixtures and Test Accessory Kits</b>	
Back Extrusion Cell	01/2760
Butter Cutting Jig	01/2664
Kramer Type Shear Cell	01/2754
Ottawa Forward Extrusion Cell	01/2758
Warner Bratzler Shear Blade Set	01/2767
Spaghetti/Noodle Test Fixture	01/2659
Three Point Bend Food Jig	01/2756
Volodkevitch Bite Set	01/2663
Magnus Taylor Puncture Probe Set	01/3108
Comparative Dough Stickiness Jig	01/2657
Dough Preparation Set	01/2656
Gluten Dough Extensibility Jig	01/2759
Crisp Fracture Support Jig	01/2658
Knife Edge Probe Set	01/2693
18-Position Pea/Berry/Bean Test Fixture	01/3195
Texture Probe Set	01/1114
Bakery Accessories Kit	01/2696
Confectionery Accessories Kit	01/2698
Dairy Accessories Kit	01/2697
General Food Probe Kit	01/2695
Gel Bloom Kit	01/3374

For further information on any of our fixtures or our special fixture design service, please contact Lloyd Instruments.



Lloyd Instruments Ltd  
 Steyning Way, Bognor Regis • West Sussex, PO22 9ST • United Kingdom  
 Tel +44 (0)1243 833 370 • uk-far.general@ametek.co.uk

Information in this document is subject to change without notice. ©2011, by AMETEK Inc., www.ametek.com. All rights reserved.



### AMETEK Test & Calibration Instruments

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

#### LLOYD Materials Testing

##### 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.

#### 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.

#### Newage Hardness Testing

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

#### JOFRA Calibration

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

#### M&G Calibration

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

[www.lloyd-instruments.com](http://www.lloyd-instruments.com)

AMETEK Denmark (Denmark)  
 Tel +45 4816 8000 • ametek@ametek.dk

AMETEK S.A.S. (France)  
 Tel +33 (0)1 30 68 89 40 • general.lloyd-instruments@ametek.fr

AMETEK GmbH (Germany)  
 Tel +49 (0)2159 9136 510 • info.mct-de@ametek.de

AMETEK Measurement & Calibration Technologies (USA)  
 Tel +1 (727) 536 7831 • chatillon.fl-lar@ametek.com

AMETEK Singapore Pte Ltd (Singapore)  
 Tel +65 6484 2388 • aspl@ametek.com.sg

AMETEK Commercial Enterprise Co. Ltd (China, Shanghai)  
 Tel +86 21 5868 5111 • lloyd@ametek.com.cn

AMETEK Inc. (China, Beijing)  
 Tel +86 10 8526 2111 • lloyd@ametek.com.cn