



**CNS  
FARNELL**



# QTS 25 TEXTURE ANALYSER

组织分析仪



## SETTING THE STANDARDS *in Texture Testing*



INDUSTRIAL



PERSONAL CARE



FOOD

# PRECISION 精密度高 质构分析 TEXTURE ANALYSIS

QTS-25 使得食品和其他行业物性测试更加可靠

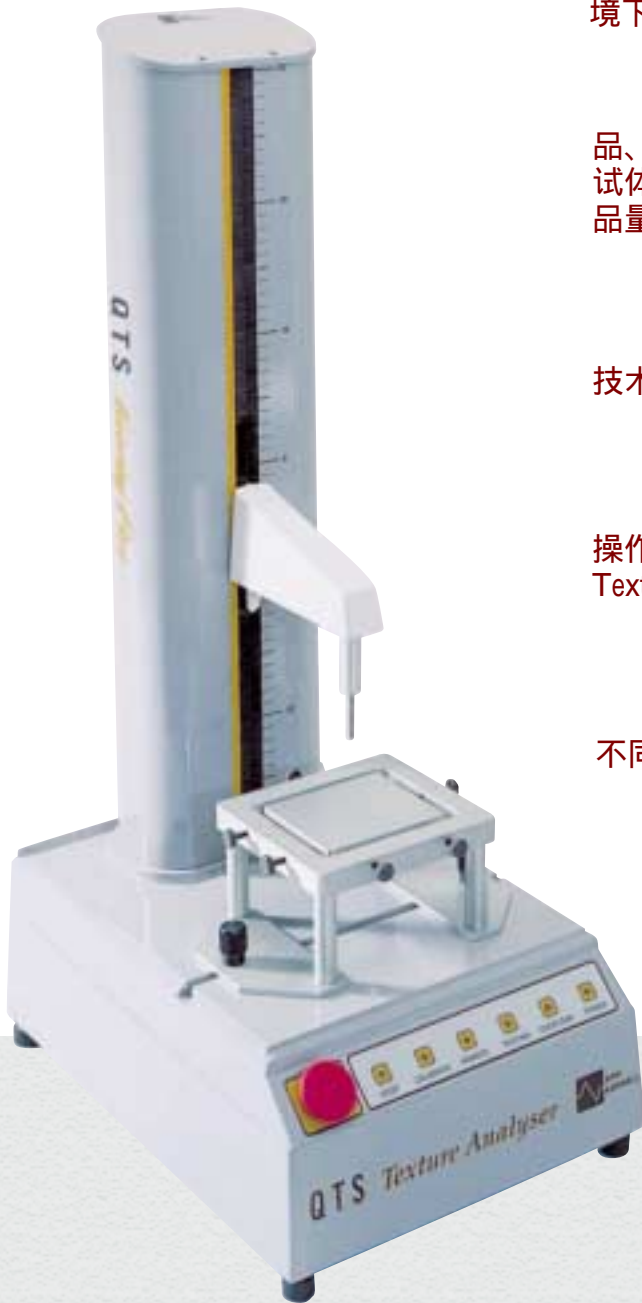
拥有40多年在质构分析上的专业经验，从Boucher冻力测试仪到Stevens各种范围的分析仪，CNS Farnell以完备的质构评估服务提供给客户。我们致力于创新应用研究和固体半固体材料测试用附件的开发，使我们的客户在各种环境下获得质构研究的最大使用价值。

使用单一方向的压缩或拉伸力，我们能模拟大部分食品、工业品、个人护理品在生产制造上的各种条件。该测试体现产品真实的情况，常用于保证质量统一性，减少次品量。

原先研发部门针对整个生产过程在线质量控制设定的技术指标，可通过质构仪优化工艺流程达到。

QTS-25质构仪是一台高端精密实验仪器,设计为单机操作,使用一个简单专业的控制台,或者使用PC运行TexturePro软件包加强分析功能。

全范围物性的准确值容易通过QTS获得，和传统测试不同，比如硬度、破裂值和新模拟测试方法的摩擦系数。



# TEXTURE PRO

## SOFTWARE

软件操作

提供行业内测试范围最广，功能最强的软件包

和具备蓝牙技术客户一起开发，TexturePro软件设计可完成所有简单测试到最复杂的课题研究。

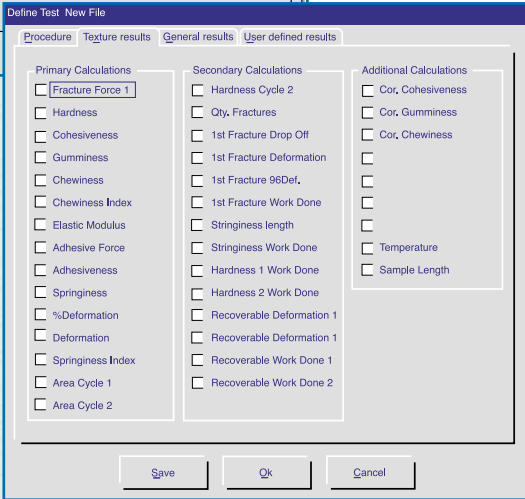
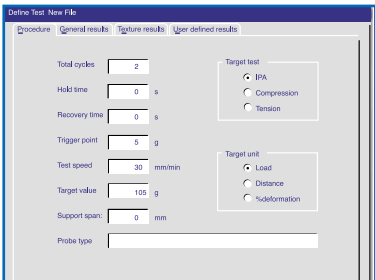
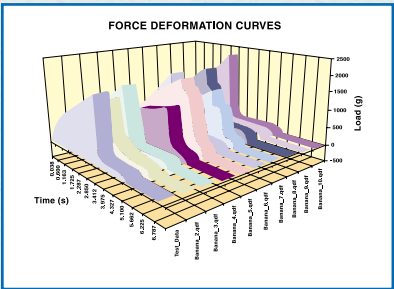
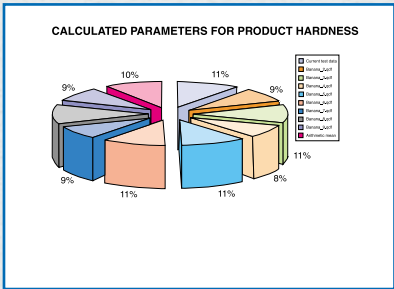
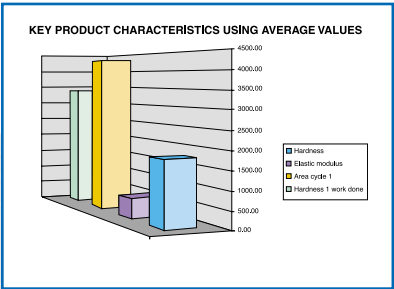
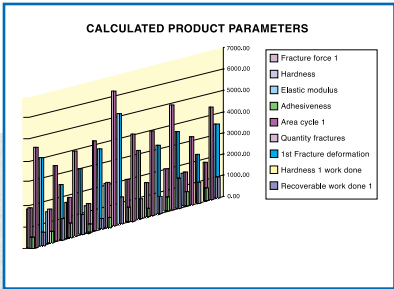
用户熟悉的Windows/MS模式，TexturePro提供最广的对其他质构分析软件的兼容性，增强MS Excel计算全量程的标准质构参数的能力，通过菜单驱动软件，减少许多替换系统所需的复杂宏程序。用户可以轻易合并自定义公式，并且分析大量来自Excel的统计数据。完全的MS office 兼容性意味着测试报告和图形可以通过简单拷贝和粘贴功能转移到不同的程序上去。

产品评估数据可放在同一图形上分析不同样品的趋势性，得到关键参数。用户可用无限制重复分析功能定义模块功能，从而得到特殊个性化的结果。最优化数据管理实现单一文件和批文件存放在一起。

TexturePro软件包括扩展帮助功能和应用标注.一个专注于软件支持队伍保证这项有价值的资源定期更新换代,保持和PC最新发展技术同步。

### 软件功能

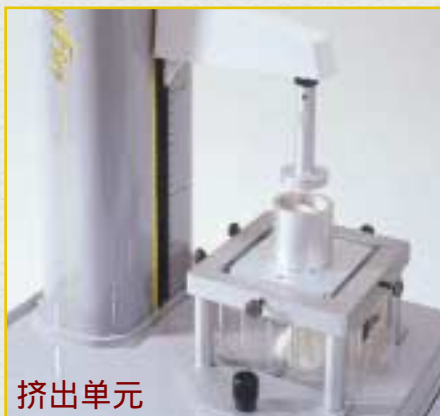
- 独特的直接使用MS Excel操作方便报告和展示。
- 完全控制QTS。
- 简单选择质构参数，减少使用宏。
- 功能强大的样品和图形分析（包括多图）以及各种统计方式。
- 使用Excel进行简单的计算和数据处理，可以得到所有的质构表征；
  - 质构曲线分析--食品工业中和感官有关联。
  - 应力松弛--测试样品在恒定应变下的松弛。
  - 拉伸测试--测试断裂强度和弹性。
  - 疲劳循环测试--测试样品性能疲劳回复。
  - 骤变强度测试--断裂强度及形变。
- 扩展帮助及应用文件。
- 应用支持实验室和资料库。



TexturePro software users can enjoy the wealth of statistical and data analysis functions offered by Microsoft Excel.



# SPECIALIST TESTING CAPABILITY



挤出单元

## EXTRUSION CELL

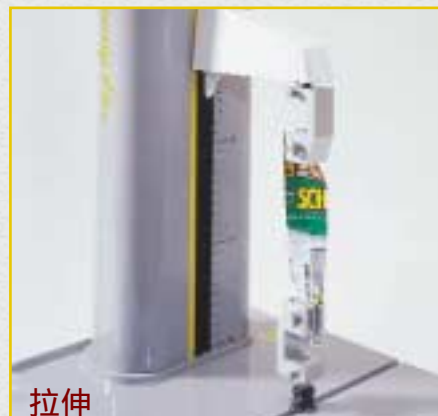
Back and forward extrusion tests are used to determine the flow properties of viscous fluids such as yogurts, cosmetic creams, soft gels, sauces and lubricants.



挤出单元

## OTTAWA CELL

A square test cell and plunger extrudes the sample through a range of apertures. Used to assess particulate products such as breakfast cereals, loosefill polystyrene, beans and pulses.



拉伸

## GRIP ASSEMBLY

Multipurpose tensile grips supplied in pairs. Single or double vice options are available. Used to test the break strength of packaging seals, chewing gum sticks and textile fibres.



压缩板

## COMPRESSION PLATE

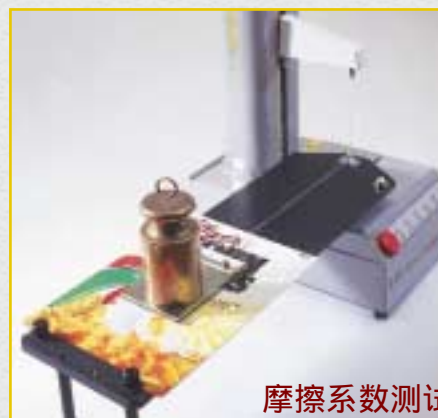
A large top plate used for standard compression tests on bakery goods and other structured products such as packaging materials. Used in the calculation of stress relaxation and visco-elasticity.

The probes and fixtures shown here are just a small selection from our standard range, and are often tailored to meet individual customer requirements. Selection of the correct accessory or probe enables the generation of accurate and reliable results that are meaningful in relation to the true physical properties of a product.

CNS Farnell has an active development programme designed to develop both custom and standard probes and accessories that imitate 'real life' conditions and help eliminate empirical variation during testing.

Why not challenge our technical team to provide the solution to your texture investigations? For more details, visit our website at:

[www.TextureAnalysis.com](http://www.TextureAnalysis.com)



摩擦系数测试

## FRICTION ASSEMBLY

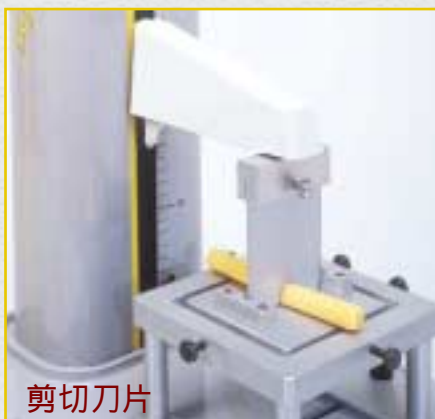
An extension flatbed and pulley system enables static and dynamic forces to be calculated. Used to evaluate packaging materials and the spreading characteristics of lubricants, pharmaceuticals and cosmetics.



三点弯曲

## 3-POINT BEND ASSEMBLY

Designed to calculate 'snap' value of brittle materials and foods, this fixture has a variable span up to 135mm. Used in the assessment of polymers, PCBs, cosmetics, confectionery, biscuits and vegetables.



剪切刀片

## SHEAR BLADES

Set of four blades including the Warner-Bratzler blade. Shear cutting tests may be applied to vegetables, pasta, cosmetics, meats and any other products requiring an indication of cross-sectional structure.



冲压部件

## PUNCH ASSEMBLY

Consisting of bottom plate with a precision aperture and corresponding punch probe. Used to evaluate shear forces within bakery dough (to assess gluten extensibility), cheese, meats products and even clay!



**TextureAnalysis.com**

## TECHNICAL SPECIFICATIONS

<b>LOAD RANGE</b>	0-5kg, 0-25kg
<b>LOAD RESOLUTION</b>	0-5kg (0.2g increments), 0-25kg (1g increments)
<b>LOAD ACCURACY</b>	Better than 0.1% of full scale
<b>LOAD REPEATABILITY</b>	Better than 0.1% of full scale
<b>POSITION RANGE</b>	100mm-520mm
<b>POSITION ACCURACY</b>	0.02mm, +/- 0.1% of set distance
<b>SETTING RESOLUTION</b>	0.01mm
<b>MEASURING RESOLUTION</b>	0.01mm
<b>TEST SPEED RANGE</b>	2-1000mm/min, 0.03-16.7mm/s
<b>TEST SPEED ACCURACY</b>	Better than 0.1% of full scale
<b>TEST MODES</b>	Single Hold Texture Profile Analysis (TPA) Cycle
<b>NUMBER OF CYCLES</b>	Maximum 255
<b>DATA OUTPUT OPTIONS</b>	Analogue Parallel Printer RS232 Serial
<b>DATA ACQUISITION</b>	26 data sets per second (Time, Load, Distance & Scaled Load)
<b>APPROVALS</b>	CE Marked
<b>ATMOSPHERE</b>	Normal laboratory conditions Protection is required for excessive dust
<b>OPERATING TEMPERATURE</b>	5°C to 35°C
<b>POWER SUPPLY</b>	85-264V AC 50/60Hz
<b>POWER CONSUMPTION</b>	150W
<b>QTS-25 DIMENSIONS</b>	W 300mm D 410mm H 820mm Plus Controller keypad
<b>QTS-25 WEIGHT</b>	25kg (55lbs)
<b>SHIPPING DIMENSIONS</b>	500 x 600 x 980mm
<b>SHIPPING WEIGHT</b>	44kg (97lbs)

## Features

- Simple to install and operate bench top tool for the laboratory
- Reliable and accurate internationally recognised instrument for routine and R & D investigations
- Proven 40 year track record in texture measurements
- Unlimited flexibility in probes and test accessories available
- Optional links to PC, Parallel Printer or Chart Recorder
- Stand alone operation with target unit digitally displayed
- Direct print-out capability of peak and final results with average and standard deviation calculation for current batch
- 2 Interchangeable loadcell options:  
5Kg in 0.2g increments  
25Kg in 1.0g increments
- 4 principle modes of operation, combinations of which provide almost unlimited test flexibility
- 3 core options of testing:  
Target Load  
Target Distance  
% Deformation

## TYPICAL APPLICATIONS

BAKED GOODS, DAIRY PRODUCTS, MEATS, CONFECTIONERY, GELS & GELATINS, PET FOODS, SAUCES, SNACK FOODS, SPREADS, FRUITS, SURIMI, VEGETABLES

ADHESIVES, ASPHALT, RUBBER, PERSONAL CARE PRODUCTS, PAINTS, POLYMERS, SILICONE, DETERGENTS, SPONGES, PACKAGING, WIRES, TEXTILES, CANDLES, TAPES, GREASE