

TMS-2000

food texture management system



The TMS-2000 is a research-grade texture measurement and analysis system. The system is comprised of a newly redesigned TP-6 Texture Press combined with a Windows 2000 or NT computer. The TMS-2000 can be supplied with or without the PC and is designed to accommodate all existing FTC test cells and Force Transducers. Most previous FTC systems can be upgraded to the TMS-2000 platform.

Features

Standard features

- Four testing modes- Manual, "One Bite", TPA and multi-step Programmable Mode
- Selectable data acquisition Rates and filters with over 2.5 minutes test duration at the highest rate
- Data display and storage in either metric or "english" units
- Automatic calculations of integrals, slopes, curvatures, statistics and TPA parameters
- Easy exportation of test data to other programs and applications

The computer and software

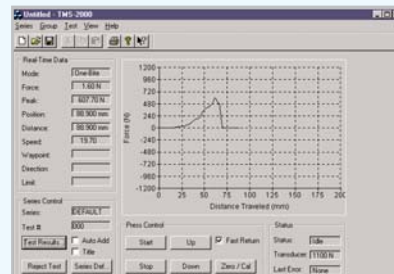
Designed specifically for food texture measurement, the TMS-2000 software controls the texture press and performs the data processing for presentation to the operator. Data collection and control are accomplished via TCP/IP protocol over a PPP link for extreme reliability. There is no hardware addition to the PC as the link is carried out through a standard serial or com port.

Graphing features

The TMS-2000 displays "Real Time" graphic representation during the test as well as a high resolution graph display at the end of each test. After a series of tests, groups of tests can be assembled and statistical information can be calculated as well. Test graphs can also be overlaid for additional scrutiny.

The TP-6 texture press

The redesigned TP-6 is much smaller, lighter and quieter than any previous FTC Shearpress. The hydraulic system is capable of up to 3000 lbs of force, for testing very hard products and large sample sizes. The TMS-2000 comes with the industry standard Model CS-1 Kramer Shear Compression Test Cell as well as one model FTC Force Transducer. FTA Transducers, or "load cells", are available in a $\pm 10, 50, 100, 250, 500, 1000$ and 3000 lbs of force ranges.

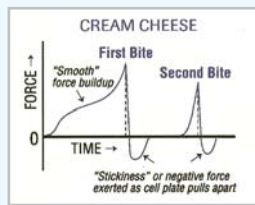
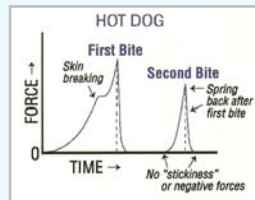
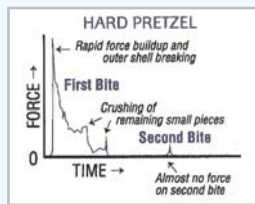


Four testing modes

The TMS-2000 is supplied with four test configuration modes. Manual for single movement compression or tensile testing. "One Bite" for easy repetitive testing of most food products. TPA mode for in depth research and Texture Profile Analysis. Program Mode is for customized testing with up to 8 stepped movements.

Automatic texture profile analysis (TPA)

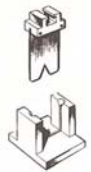
Texture Profile Analysis (TPA) is an imitative test designed to subject food to severe crushing and breaking similar to that which occurs during chewing. The TMS-2000 comes with a test program specially designed for TPA analysis. The food sample is placed between two flat plates and is compressed, then relaxed and compressed again. Seven textural parameters result from the analysis of a force position curve, springiness, cohesiveness, fracturability, hardness, chewiness, gumminess and adhesiveness.



Test Cells



MODEL CA-1
Single Blade Shear Cell



MODEL CW-2
Combination Single Blade and Meat Shear Cell



MODEL CE-1
Universal Cell



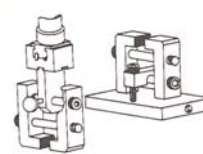
MODEL CS-1
Standard Shear Compression Cell



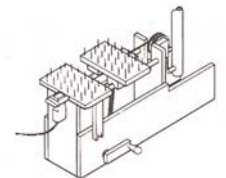
MODEL CR-1
Succulometer Cell



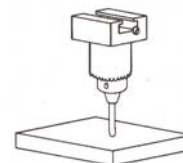
MODEL BC-1
Heavy-duty 3-Point Bend



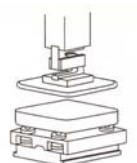
MODEL TT-1
Heavy Duty Tensile Test Cell



MODEL ST
Thin Slice Tensile Test Cell



MODEL PT-1
Penetration Test Cell



MODEL TPA-1
Texture Profile Cell

Specifications

Speed	Variable 2-30 in/min or 0-75 cm/min
Stroke distance	3.5 in / 8.9 cm
Maximum force	3000 pounds / 1,363 kgs
Power	15 Amps 120 Volt AC, 60 cycle
Dimensions	19 x 20 x 34 in / 48 x 51 x 86 cm 125 lbs / 56 kg
Data collection	Maximum data sampling rate at 390 sample per second 12 bit A to D conversion for maximum resolution
Supplied with	TP-6 ultra quiet Variable speed and pressure texturepress TMS-2000 software FTA load cell (specify capacity at purchase) CS-1 test cell