

# TMS-2000

Food Technology  
Corporation  
Your path to consistent quality

## Food Texture Measurement System

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



## Features

### Standard Features

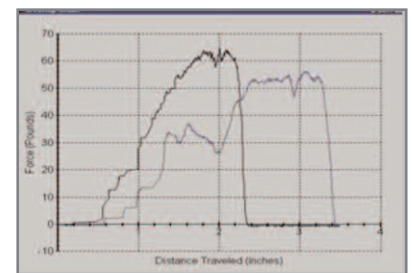
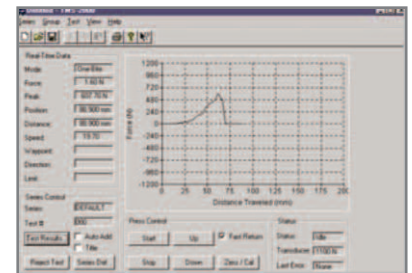
- Four testing modes - Manual, "One Bite", TPA and multi-step Programmable Mode
- Selectable data acquisition rates and filters with over 2.5 minutes test duration at the highest rate
- Data display and storage in either metric or "Imperial" units
- Automatic calculations of integrals, slopes, curvatures, statistics and TPA parameters
- Easy exportation of the 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" graphical 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. Test graphs can also be overlaid for additional scrutiny.



### The TP-6 Texture Press

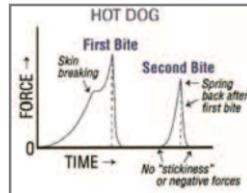
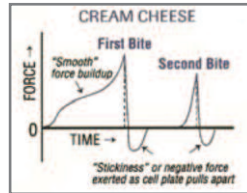
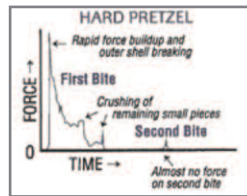
The re-designed TP-6 is much smaller, lighter and quieter than any previous FTC Shearpress. The hydraulic system is capable of up to 3000lbs of force, for testing very hard products and large sample sizes. The TMS-2000 comes with the industry standard Model CS-1 Kramer Shear Compression Test Cell as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



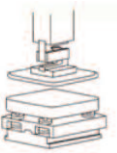
**Model CS-1**  
Standard Shear Compression Cell



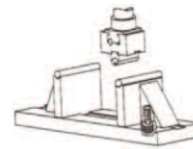
**Model CA-1**  
Single Blade Shear Cell



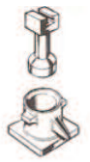
**Model CW-2**  
Combination Single Blade and Meat Shear Cell



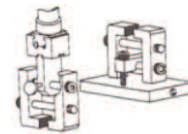
**Model TPA-1**  
Texture Profile Cell



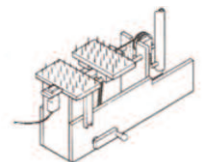
**Model BC-1**  
Heavy-duty 3-Point Bend



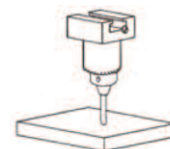
**Model CR-1**  
Succulometer Cell



**Model TT-1**  
Heavy-duty Tensile Test Cell



**Model ST**  
Thin Slice Tensile Test Cell



**Model PT-1**  
Penetration Test Cell



**Model CE-1**  
Universal Cell

## Specifications

<b>Speed</b>	Variable 2 - 30 in/min or 0 - 75 cm/min
<b>Stroke distance</b>	3.5 in / 8.9cm
<b>Maximum force</b>	3000 pounds / 1,363kgs
<b>Power</b>	120V/60Hz or 240V/50Hz
<b>Dimensions</b>	19 x 20 x 34 in / 48 x 51 x 86cm 125lbs / 56kg
<b>Data collection</b>	Maximum data sampling rate at 390 sample per second 12 bit A to D conversion for maximum resolution
<b>Supplied with:</b>	TP-6 ultra quiet Variable speed and pressure texturepress TMS-2000 software FTA loadcell (specify capacity at purchase) CS-1 test cell

## Food Technology Corporation

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