

## Installation Instructions for Texture Accessory Part TA-RCA

### TA-RCA – Roller Cam Accessory

The TA-RCA Grips have knurled surfaces on the two roller cams. They are ideally used to measure the stretch behavior of materials with smooth surfaces or whose structural properties change under tensile load.

The special operating feature of the “Roller Cam” grip mechanism is the self-tightening behavior that takes place during the tension test. Each grip holds onto the test material with increasing force so that its hold on the material will not loosen. This assures that failure of the material will take place away from the grips as the material stretches.

The Roller Cam Accessory is used with the Brookfield Texture Analyzer (1000g load cell or higher) to perform tension tests on materials. The test item is secured firmly in the grips prior to the test. During the test, the grips move away from each other at either a controlled rate of separation or under a controlled stress. During a controlled rate test, the measured value by the Texture Analyzer is the load (in grams or Newtons) that indicates the tension on the test material; during a controlled stress test, the measured value is the distance traveled by the Upper Cam Grip.

The TA-DGA consists of the following components:

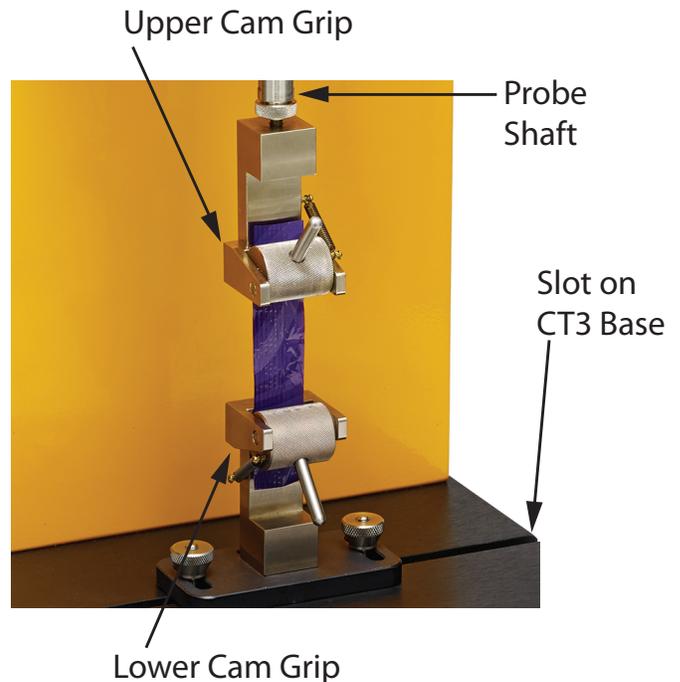
- 1) Lower Grip Assembly, which inserts into the slot on the base of the CT3.
- 2) Upper Grip Assembly, which attaches to the general probe connection on the CT3.

The total distance that the CT3 Texture Analyzer can pull an item apart is 4 inches.

### Installation and Alignment in Standalone Operation

Rotate SELECT/SCROLL to the TENSION test. Press the START button; this message is displayed: ATTACH TENSION FIXTURES, PRESS START TO CONTINUE. Install the two grips on the CT3.

Press the START button again. Depress the SELECT/SCROLL knob and hold it in this position to move the Upper Grip Assembly downward to its desired start position for the test. Rotate the SELECT/SCROLL knob counterclockwise to slowly raise the Grip; rotate counter-clockwise to slowly lower the Grip.



### Installation and Alignment using Texture Pro CT Software

On the right side of the TEST tab screen is the adjust beam window. Repeatedly click the double down arrow and lower the probe shaft to about 100mm. Connect the Upper Grip onto the probe shaft. Clamp the test sample to the Upper Grip. Align the Lower Grip directly under the Upper Grip using the test sample as a guide. When the Grips are properly aligned, clamp the test sample into the Lower Grip.

After clamping the sample, click the single down arrow (Adjust Beam section) to relieve any tension on the sample. It is important that the sample not be under tension when the test is started.

General test parameters should be established without hitting the upper limit switch. The distance to the upper limit switch is shown in mm in the Adjust Beam window. In the Test Type section, select Tension. In the Test Target section, select Distance and enter, as Target Value, the distance you wish the Upper Grip to travel. In the General Test Parameters section, set an appropriate trigger load and test speed.

In the sample identification section, enter a product name and the batch name. These can be alphanumeric and will become the data file name.

When running the test, the CT3 measures the tension force on the material and records the distance traveled by the Upper Grip from the test start position. Normally the peak load will occur when fracture occurs.

