TECHLAB SYSTEMS

Test device CUTTING AND SHEARING
"WARNER BRATZLER" type

The cutting and shearing test device type WARNER BRATZLER This device is used for test, meat products, sausages, hot dogs, cucumbers, carrots, celery, courgette, zucchini, radish, beetroot and sweet potato, salsify, parsnips, leeks..

- ➢ **Probe for texture analysis in samples of meat products**
- ➢ **Manufactured in Stainless Steel**
- ➢ **Maximum test capacity: 1 kN**
- ➢ **Dimensions: Sheet 1 mm thick with V-shaped notch with cutting radius 0.5 mm**
- ➢ **Maximum diameter of the test sample: 25 mm**

The Warner-Bratzler Method to measure the tenderness of meat

Tenderness of meat is one of the highest quality characteristics for red meats. Cutting stress test standards have been established to determine the best tenderness of meat for various types of meat. The most common texture analysis method for tenderness is the Warner Bratzler test.

Test Device Warner-Bratzler

The Warner-Bratzler device used with a Texturometer makes it possible to measure the force required to cut a piece of meat. The device consists of a steel frame that has a triangular cutting blade. To test a sample of meat as a steak, the steak is cooked, cooled and then cut into the most accurate samples. to make the test.

Although it is not possible to obtain identical samples in meat trials, some rules can be followed to achieve the best test results, such as preparing samples in sizes and shapes that are as similar as possible, since mismatched sample sizes can lead to a large variation in the results of the tests and the analysis of the data obtained may not be correct.
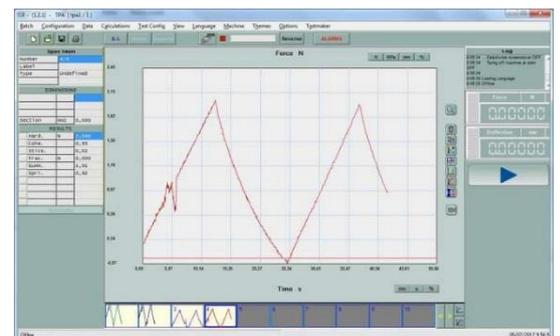
The typical results are:

Maximum Force	FIRMNESS
Area under the Curve	WORK WORK TO SHEAR (TOUGNESS)

Recommended Testing Machine:

FTM-50 Texturometer

MetroTEST Testing Software
(with **TPA** Texture Profile Analysis)

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Sample   size

Conducting a large number of tests can help balance outliers. When testing each meat product, be sure to extract the samples with the same method on the same part of the product each time. Pay special attention to the cutting direction when creating samples. For example, cut with the fibers of the meat when cutting the samples each time.

Form of the sample

Sharp cutting tools are important for the uniformity of the sample. Unsharpened cutting tools can create jagged edges and create variations between the data when testing each sample. Make sure that each sample is cut in parallel lines to create a uniform distribution of shear weight.

After carefully preparing your basic meat samples using these guidelines, the samples are placed in the KRAMER Test Device and cut with the Texturometer. The machine will record an accurate force-deflection diagram and the maximum shear force is the highest point in the curve graph.

To get help with obtaining the most accurate test results, you can contact our application engineers. Our engineers will not only configure the Texture Analyzer and the accessory for your application, but will help guide you in the success of your results.

Test Sample

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