Snackfood Analysis

Instrumentation and Analyzers

Laboratory and Process Instruments and Support

Perten INSTRUMENTS
a PerkinElmer company

Snackfood Analysis


6 sec analysis

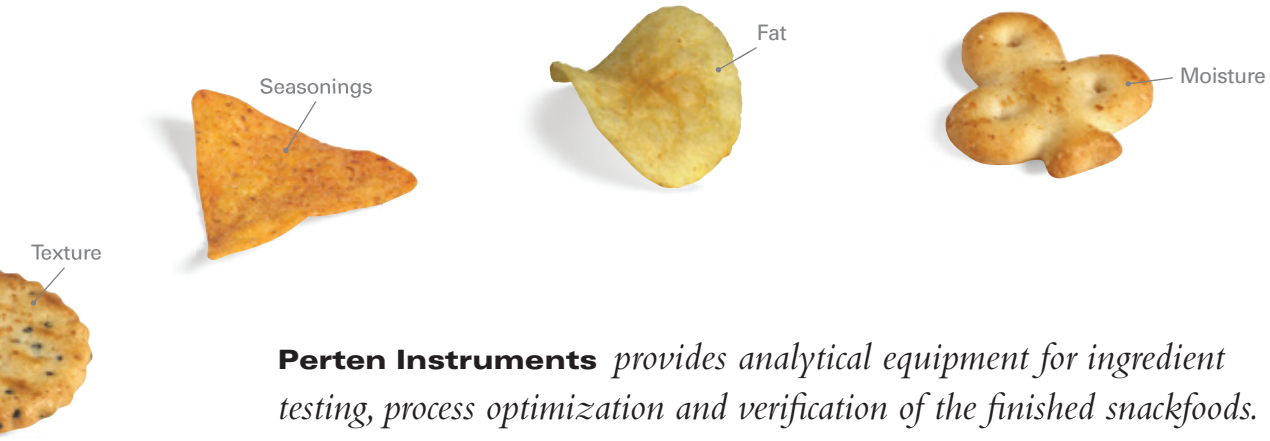

On-line measurements


Web-based software


Results 24|7


Quality of end products

Whether your products are baked, extruded or deep fried, our analytical solutions will help you save costs and improve quality. The types of analyses we offer include compositional analysis, starch gelatinization characteristics and degree of cook.



Perten Instruments *provides analytical equipment for ingredient testing, process optimization and verification of the finished snackfoods.*

Our NIR instruments, texture analyzers and performance analyzers are used by leading snackfood producers worldwide. We have extensive experience in snackfood testing and can help you make better snackfood products more efficiently.

Screen ingredients

Screening incoming ingredients not only helps you prevent out-of-spec materials entering production, but allows you to segregate by quality and use ingredients to their full potential as well.

NIR instruments quickly determine the composition of flour and other ingredients providing immediate screening capabilities. Measure moisture, protein, fat, ash and more in only seconds.

The Rapid Visco Analyser measures performance characteristics such as pasting, gelation, and viscosity in ingredients including masa, flour, stabilizers, starches and more.

Monitor & optimize production

The better understanding you have of the state of the production process, the easier it is to control and optimize. Our NIR instruments are particularly useful as they provide results in real-time when installed in the process or in just a few seconds when using the benchtop versions. Optimize frying, baking and seasoning to reduce waste and improve product consistency.

Verify finished product quality

When ingredients have been properly screened and the production process is being monitored, you have set a strong foundation for product quality. However, it does not alleviate the need for final product verification. Our texture analyzer verifies textural properties including crispiness, sponginess and more. NIR instruments quickly verify amount of seasoning, moisture, and fat content.

Compositional

DA 7250

Most accurate, feature rich & versatile NIR analyzer

DA 7440

On-line process NIR sensor

The DA 7250 NIR analyzer In only 6 seconds the DA 7250 determines moisture, fat, seasonings and more in ingredients, intermediates and finished products with outstanding accuracy. It's robust, easy to use and designed to be used in food production environments. As samples are analyzed in open-faced dishes no cleaning is required between samples, and results are operator independent.

Major snackfood producers use the DA 7250 directly on the production floor to rapidly verify product quality. This helps them decrease wastage, for example by being able to quickly adjust the seasoning addition or the frying process without having to wait for lab results.

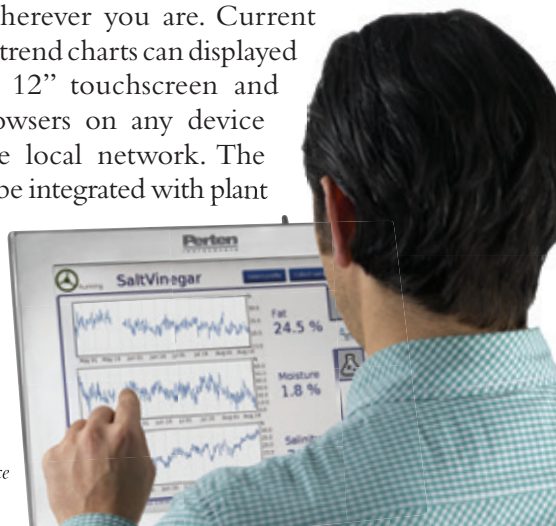
The DA 7250 SD version is designed for use in the food industry. Its sanitary design limits surfaces, crevices and other locations where food material could adhere. This makes it easy to clean, thereby reducing opportunities for microbial growth.

Its stainless steel design and open analysis area makes it ideal for use anytime hygienic or cleaning requirements are high, such as in food production environments, in dusty or dirty conditions, or when samples are messy. The DA 7250 SD is IP65 certified.

DA 7440 On-line NIR sensor The DA 7440 measures moisture, fat and flavorings in all types of fried, extruded or baked products – over conveyor belts and similar positions. Based on the latest diode array NIR technology it provides accurate real-time measurement, and requires no recalibration at product switch-overs.

By using a full NIR spectrum instead of only a few fixed wavelengths, the DA 7440 outperforms previous filter technology NIR guages. The past problems of frequent adjustments and poor accuracy are solved, and additional capabilities such as flavoring measurement are made possible. Using the full NIR spectrum it's even possible to measure products with different flavorings using only one calibration, which reduces waste when switching between products.

The web-based software makes it very easy to view measurements wherever you are. Current readings as well as trend charts can displayed on the optional 12" touchscreen and through web browsers on any device connected to the local network. The DA 7440 can also be integrated with plant control systems through various interfaces.



12" Touch screen Operator Interface

Functional

RVA
Starch pasting characteristics

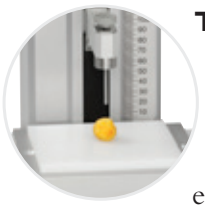
TVT
Texture analysis

RVA Ingredients such as corn flour, rice flour or wheat flour don't always behave as expected, even when apparently meeting specifications. The world's leading snackfood manufacturers use the Rapid Visco Analyser (RVA) to measure the real performance of incoming ingredients, as well as their finished snackfoods. Waste is minimized, and product performance is optimized.

The RVA was designed to determine starch pasting characteristics and is an ideal tool to determine how starchy ingredients will behave in the production process. Starch contributes to texture, flavor, color, nutritional value and shelf life stability of snackfoods, but its properties vary between different batches of flour and some batches will not perform as expected. Using the RVA ingredient batches which could cause issues in production can be identified before they are used, avoiding waste.

As a screening tool, the RVA can identify abnormal incoming flour, irregularities in dry mixing, and deviations in extruder performance as soon as possible. This keeps abnormal ingredients from entering the productions, keeps abnormal intermediates from progressing further, and keeps bad product out of packaging.

The RVA can evaluate all phases of extruded product from raw material, during production to finished product. It assesses the gelatinization characteristics of starch and other starchy ingredients and degree of cook of mix formulations and extruded finished products.

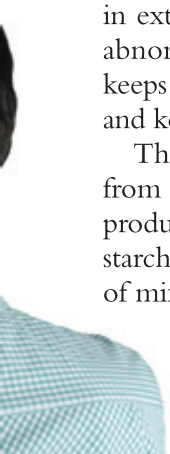


Texture Analyzer TVT 6700
The TVT 6700 texture analyzer provides objective testing of snackfood characteristics. Test crispiness and more in potato chips, tortilla chips, extruded snacks, pretzels, cookies and many other types of snacks. Use standardized test profiles or develop your own.

A wide range of accessories and methods are available, allowing you to test different texture characteristics.

With the TVT 6700, you can measure according to standardized methods and develop customized methods using our wide range of probes and rigs. Our customers perform measurements such as:

- Firmness
- Stickiness
- Tensile and cohesive strength
- Flexibility and extensibility
- Springiness, cohesiveness and resilience



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Food Analysis Experts for 50 years

Founded in 1962, Perten Instruments is a leading supplier of advanced analytical instruments to the food and agricultural industries. We serve some of the largest companies, smaller specialized operations, and the research institutes which support the food and agriculture industries.

Perten is focused on developing innovative methods and instruments which help the food industry feed the world more efficiently. We invented several widely used analysis methods including the Falling Number and Glutomatic methods and continue to invest heavily in R&D.

Today, Perten is a part of PerkinElmer, a global leader in instrumentation and diagnostic solutions. Perten heads up the Food Business Unit within PerkinElmer. Perten products – in combination with Delta liquid milk analyzers and Bioo Scientific safety test kits – offers one of the most complete lines of testing and analysis solutions available.

Our presence is worldwide through Perten and PerkinElmer offices and distributors. In total, we are active in over 100 countries. The Perten Instruments Group headquarters is located in Stockholm, Sweden, and we have local offices in a number of countries around the globe.

- Perten Office
- Perten Distributor

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