# **Perten Instruments**





# What can we do for you?

Perten Instruments provides testing equipment for quality control, process monitoring and R&D to the grain, flour, food and feed industries. We have extensive experience in a wide range of applications. Our instruments are designed to help save you time, improve quality, while capturing value in your process.

## Baked goods

Measure raw materials and finished goods for functional and compositional properties. From flour quality, product texture to volume, we have the instruments you need for your bakery.

# Breeding

Identify your most promising genotypes by using the wide array of analyzers available from Perten Instruments. Several of our instruments were designed with small breeder samples in mind.

# Dairy

With the versatility of our instruments, you can measure cream, butter, cheese, dairy powders and much more on 1 instrument. We also have instruments that measure functional properties such as texture, gelling and mouth-feel.

# Ethanol production

Measure 13 points in your process for multiple parameters – each point in just 6 seconds. From incoming corn, to the mash tank, to the fermentation broths, to the DDG, we can help you optimize ethanol production.

# Feed milling

Test ingredients at intake for energy value, protein and more, in only 6 second. Optimize formulations, control your process, and verify finished product quality. Analyze degree of cook in extruded feed products.

# Flour Milling

From Falling Number, flour ash analysis, gluten characterization to rheological data, Perten Instruments has the tools you need for complete quality control.

# Food

Our food quality control solutions are diverse and include a wide range of applications in baked products, dairy, meat processing, potato processing, pasta manufacturing, snack foods, breakfast cereals and more.

# Grain collection and trade

From small country elevators to large port facilities, we help cooperatives, private traders, inspection laboratories and governmental agencies to monitor grain quality, segregate and optimize grain use.

# Malting

Improve malt quality and yield through increased knowledge of the barley quality and the malting process using NIR and RVA technologies.

# Mixing plants

Perten Instruments offers many instruments for use in a bakery mix plant. The instruments analyze ingredients for both chemical and functional properties, monitor the blending process, and even check for missing ingredients on final mixes.

# **Oilseed milling**

Determine the composition of oilseeds at intake for immediate pricing decisions, monitor and optimize the extraction and refining processes, and verify that finished oils and by-products meet specifications.

# Petfood

Improve product quality and reduce costs simultaneously. Our analyzers test the quality and composition of ingredients, process intermediaries, and finished wet and dry petfood.

# **Starch Production**

Using our Rapid Visco Analyzers and NIR instruments, you will be able to characterize raw materials, process them efficiently, and make certain your starches have the right properties.





# **Product overview**

Perten Instruments offer tools for quality control and process monitoring of grain, flour, food and feed.



#### **Falling Number**

The international standard method for determination of alpha-amylase activity and sprout damage in grain and flour.



#### Rapid Visco Analyser (RVA) The RVA is a rotational viscometer with variable temperature and shear capabilities. Standard methods include starch pasting, degree of cook and weather damage in grain.



## Glutomatic

The world standard test for gluten quantity and quality in wheat. Measures wet gluten content, dry gluten content and the Gluten Index.



## doughLAB

A flexible dough rheometer with variable temperature and energy input to emulate commercial mixing. Measure water absorption, mix time and energy, and more.



## micro-doughLAB

A unique dough rheometer that provides rheological data from just 4 grams of flour or whole meal. Results are highly correlated with those from large scale instruments.



#### Lab mills

A range of hammer and disk lab mills for proper and convenient sample preparation for many tests used in the grain and food industry.



## **BVM Volumeter**

Laser based volume measurement of irregular objects such as breads, baked goods, cookies, candy and many other products.



# Diode Array 7250

Fast, accurate, easy-to-use NIR analysis system. Unparalleled versatility with abilities to analyze whole grains, powders, pastes, pellets, slurries, and liquids on one instrument. Case designed for at-line placement.



The Diode Array On-Line NIR Analyser is an advanced, modern NIR and Camera analyser for use in grain, flour, food and feed processing.







## Inframatic 9500

absorption and more.

NIR / NIT analysis of whole grains and oilseeds. Measures moisture, protein, specific weight, oil and more, accurately in less than 1 minute.



The most accurate wholegrain moisture meter available. 10-second analysis of moisture, specific weight and temperature in all grains and oilseeds.

# **SKCS 4100**

The unique instrument for hardness classification and determination of uniformity in small grains.



## **TVT Texture Analyzer**

Measure texture on a wide range of products. A fast and simple test to determine performance and quality characteristics.







# Specialists in Quality Control and Process Relevant Information

In 1962, Harald Perten founded Perten Instruments on the innovation of the Falling Number method, and we have continued to innovate ever since. Harald Perten's mission was to help customers improve product quality by providing analytical methods that were affordable, easy to use and interpret. This remains the cornerstone of our business.

Our vision is to offer complete solutions that provide fast and accurate results, and are developed specifically to meet the needs of food and agriculture processors. Implementing Perten Instruments systems must be beneficial for the overall objective of companies and research organizations; gaining knowledge or creating financial value.

We are active in nearly every part of the world. We serve you through our direct offices and our extensive network of highly qualified, experienced and trained distributors. Our distributors are an important part of Perten Instruments team and many have been with us for more than 25 years.

All of us are "Specialists in quality control of grain, flour, food and feed"



Moisture • Protein • Oil/Fat • Fiber • Starch • Amino Acids • Fatty Acids • Ash • Sugars • Viscosity • Texture • Pasting • Water Absorption • Mix Profile • Stability • Total Solids • ADF • NDF • Color • Hardness • Volume • Test Weight • Gluten Content • Gluten Quality • Gluten Index • Falling Number • Butterfat • Degree of Cook • Pasting Temperature • Pasting Time •





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