Inframatic 9500

NIR Grain Analyzer

Whole Grain

Networking

Official Approvals:
NTEP 13-112
LNE-27380
NMI 15/1/5
and more...

Grain Intake

Flour

Industry Standard Technology Made Better

Perten INSTRUMENTS
a PerkinElmer company

Accurate and Robus

Perten Instruments is the number one company in grain quality testing and has produced Near Infrared grain analyzers for 30 years. The Inframatic 9500 is the latest Inframatic model, and offers the best accuracy available.

It is reliable, robust, and built to meet the requirements of grain handling operations. It analyzes a wide range of grains and oilseeds for moisture, protein, oil and many other parameters in less than 30 seconds.

The IM 9500 uses industry standard near-infrared transmission to analyze samples, but innovates with several key components. As a result the IM 9500 is more accurate, more stable over time and requires less maintenance than other analyzers.

Single Block Optics The monochromator is machined from a single block of metal, with a rigidity of structure not available in other instruments. It makes the instrument more accurate by being less sensitive to vibration and changes in temperature that disturb the light path of older design instruments. It also means that all instruments are produced identical as there is no assembly of parts, just the high precision machining. Additionally, it makes the instrument more economical to own as a single block monochromator has a much longer lifetime than other designs.

NIST Wavelength Standard All instruments are standardized at the factory to a NIST wavelength standard (National Institute of Standards and Technologies). This means that all instruments use the true wavelength scale, and hence give the same results when analyzing the same grain samples.

Reference Pellet Check Sample By analyzing the certified pellet check sample, users can be certain that the instrument hardware is performing to specification and has not changed. It provides a traceable performance record.

Combine these features with essentially unlimited results storage, Windows connectivity, low cost of ownership, and contemporary styling, and the IM 9500 is simply the best instrument available.

st by Design.

1. *Select*

2. *Pour*

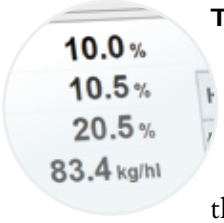
3. *Remove*

Designed for Users

The large color touch screen with its intuitive menus makes it easy to operate the instrument and to read analysis results – even from a distance. The user interface is designed to make analysis as rapid and secure as possible. All the operator needs to do is to select the type of grain to analyze and pour it into the funnel. No manual settings or changes are necessary.

Accessories

The available accessories increase the utility and value of the IM 9500. They provide added functionality and convenience.



Test Weight Module The IM 9500 can be equipped with a Test Weight Module that becomes an integrated part of the instrument. Results are displayed along with the other parameters – no manual intervention required. A large sample volume is measured (600 ml) making the results very accurate closely matching the traditional method. The IM 9500 can be ordered to include the Test Weight Module from the factory.

Reference Pellet Check Sample The Reference Pellet Check Sample verifies the IM 9500 matches factory standards. Each Reference Sample has been certified by Perten and is supplied with official limits. Immediately confirm the state of the analyzer at any time. The sample can be used as a check sample, and is suitable for use up to one year from purchase.

Flour Module The Flour Module provides the added capability of measuring flour samples. Measure multiple parameters including moisture, ash and protein. For flour millers this turns the IM 9500 into a flexible analyzer used both for grading incoming wheat and monitoring the milling process.

The Flour Module consists of two cells and a loading station. To analyze flour simply fill a cell using the loading station, close it and insert it into the funnel of the IM 9500. It's easy, rapid and accurate.

Ticket Printer Print results after each analysis directly from the IM 9500 using this rapid thermal ticket printer. It connects to the IM 9500 via USB and uses standard paper rolls available at most well-stocked office suppliers.

Ver 4.3 2016.05.31

Calibrations and Approvals

With 30+ years of experience with NIR and calibration development, we have the tools and expertise to develop, maintain, and update global calibrations. Standard available calibrations are included with the instrument at time of purchase. The IM 9500 is officially approved for use in grain trade in several countries such as – Australia (NMI 15/1/5), Germany (PTB 11.26/13.01), USA (NTEP CC No. 13-112), France (LNE-27380) and more.

NIR Networking

When grading grain it is important to have complete control over the calibrations used in each instrument and to be able to monitor performance in virtually real-time. This can be done by using Perten Instruments' newly launched network platform, NetPlus. Through NetPlus the administration of the network is accessible 24 hours a day.

Perten Support

Through our extensive group of trained distributors and direct offices, Perten provides unparalleled support of our instruments. It starts with instruments engineered to meet the needs of our customers and the demands of the environments in which they are used. It extends to the software provided for routine operation, networking and remote administration (TeamViewer), and – ultimately – installation and training. Your purchase of an instrument is the beginning of our relationship – not the end.

Specifications

Products: Wheat, Wheat flour, Barley, Corn, Soybeans and many others
Parameters: Moisture, Protein, Oil, Hectoliter weight/Test Weight (optional) and many more
Analysis Time: ~25 s without HLW/TW
Sample Size: 400 ml (600 ml with specific weight module HLW/TW)
Subsamples: Up to 16 per sample
Analysis Principle: Scanning grating, transmittance
Wavelength Range: 570-1100 nm
Size (W x D x H): 485 x 390 x 370 mm (485 x 390 x 510 mm with HLW/TW)
Weight: 34 kg (40 kg with HLW/TW)
Interfaces: Ethernet, 4 USB ports
Display: 12" LCD color touch screen
Protection: Dust and humidity protected

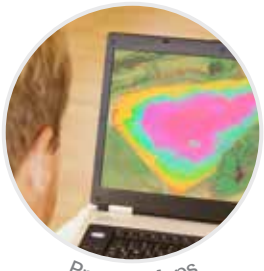
Inframatic 8800

NIR Grain Analyzer

On-farm

Take Anywhere

GPS



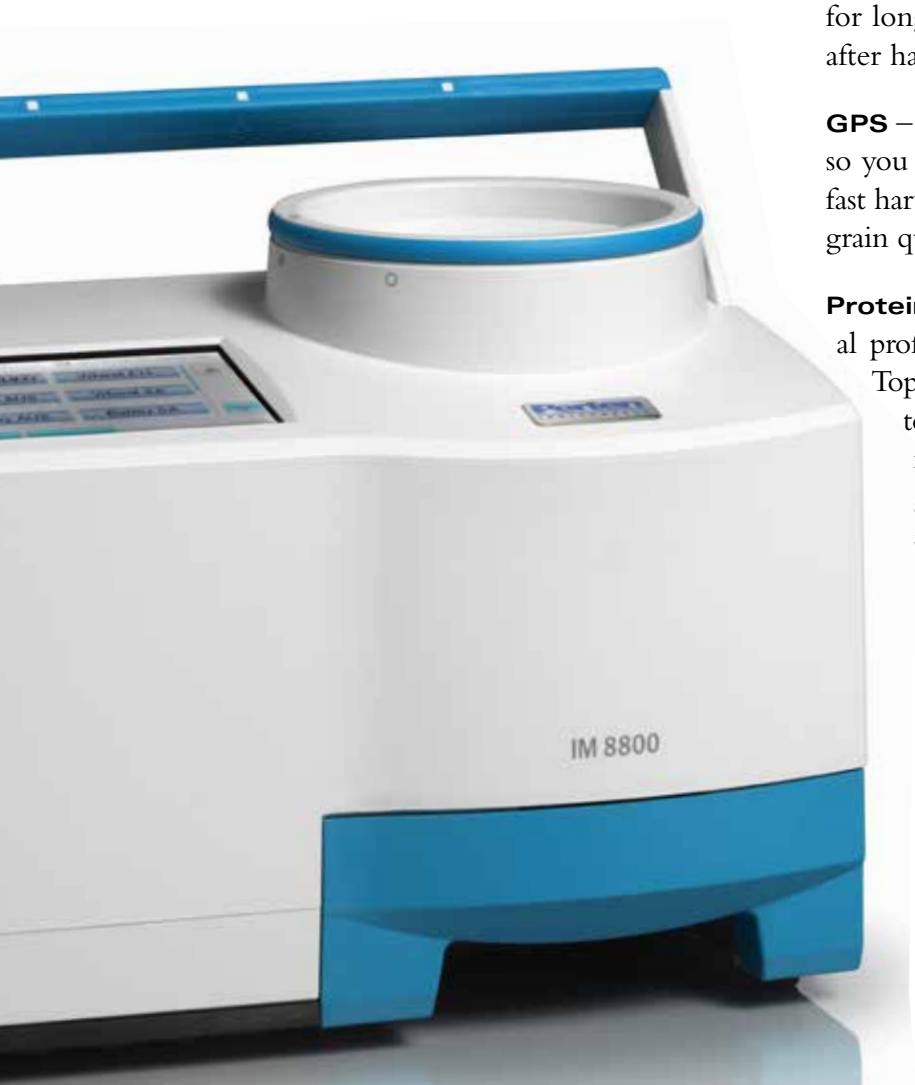
Protein Maps

Accurate Portable Grain Analyzer

Perten INSTRUMENTS

The take-anywhere answer to your grain quality questions.

Near-infrared (NIR) grain testing has been a fixture at large elevators and grain processors for years. With the use of newly available technology, Perten Instruments is excited to introduce a tester designed specifically for on-farm use.

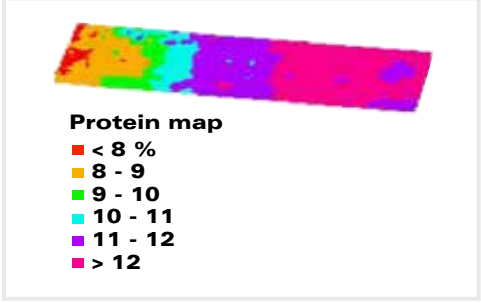


Designed for farm conditions, this rugged meter is ideal for testing grain for moisture, protein and oil. An automated shutter protects the tester from light, insects and vermin to ensure reliable, low maintenance operation for years to come.

Portable – Compact, light enough to hand carry and powered by 12V, or battery (up to 2 hours), the Inframatic 8800 goes with you where you need it most: in the pickup truck, in the cab of the header and to the silo. The optional carrying bag protects the IM 8800 and is useful for transporting the instrument to inspection sites, fields etc. It's also useful for long-term, protective storage of the instrument after harvest.

GPS – The Inframatic 8800 is equipped with a GPS so you can create protein maps of your fields. Make fast harvesting and binning decisions to manage your grain quality.

Protein maps allow farmers to extract additional profit by identifying pockets of premium grain. Topography, fertilization, and run-off are known to cause variation in protein content within a field. The Inframatic 8800 helps you get the most value from the grain you are already producing.



Why the Inframatic 8800 is different

An on farm grain analyzer has been desirable for some time. The demands on such an instrument are high, however, and must balance many requirements. It must be rugged and robust. It must be portable to tote around the field. It must be simple to operate, but sophisticated enough to provide accuracy similar to elevator and lab instruments. And it must do it all in a cost-effective manner.

Recent technological developments have allowed us to develop just such an instrument. The Inframatic 8800 uses solid state components and diode array technology meaning no moving optical components. The lack of moving parts allows us to align and match instruments at the factory – one instrument is exactly like the next. This means the instruments are accurate, repeatable, and reproducible.

Measure in the field

It's all about portability and fit-for-purpose with the IM 8800. Place it in the cab of your pickup or harvester. It's small enough to carry around the field for spot testing allowing you to determine optimal harvest time. The 2 hour battery life and GPS allow you to create protein maps of fields. Variability of protein in wheat within a single row has been shown to be up to 6%. The maps allow you to capture that value. Maximize profitability by better controlling drying, identifying your highest quality grain, and selling it for a premium.

Quality Control before delivery

Deliver the right grain to the right buyer. Test your grain as it's going into storage and as it's going into the truck. Send the highest quality grain to those willing to pay premiums. Make sure you get the most for your grain.

"Get the most from your grain with fast, accurate analysis."

Ver 4.2 2014.09.25

Standardized and Matched

The Inframatic 8800 is standardized to our elevator/lab instrument – the Inframatic 9500. The Inframatic 9500 is well established in the market and is an approved for payment instrument in many countries. It has approvals in the USA, Germany, and Australia to name a few.

Perten Instruments

With 50+ years in agri-food business, we have the experience and expertise to make your use of the IM 8800 successful.

Perten Support

Through our extensive group of trained distributors and direct offices, Perten provides unparalleled support of our instruments. It starts with instruments engineered to meet the needs of our customers and the demands of the environments in which they are used. It extends to the software provided for routine operation, networking and remote administration, and – ultimately – installation and training. Your purchase of an instrument is the beginning of our relationship – not the end.

Specifications

Products: Grains and Oilseeds
Parameters: Moisture, Protein, Oil, Wet Gluten and more
Available Calibrations: Wheat, Durum, Barley, Canola/Rape seed, Sorghum, Corn and Soybean
Analysis Time: ~90 s
Sample Size: ~400 ml
Subsamples: Up to 10 per sample
Analysis Principle: Diode-array detector, Transmittance
Wavelength Range: 850-1050 nm
Size (W x D x H): 349 x 265 x 274 mm
Weight: 7 kg
Interfaces: 4 x USB-A ports, 1 x Ethernet port (RJ45)
Display: 5.7" color touch screen
Protection: Dust and humidity protected
Battery Operation: ~2 hrs.
Positioning: GPS module, connected through USB port
Ambient Temperature: 5-45 °C

Inframatic 8600

Flour Analyzer

Flour Milling

Flour

Grain Intake

Flour Quality

Rapid and Accurate Meal and Flour Analysis

Perten INSTRUMENTS

Ver 4.0 2014.10.15

Inframatic Flour Analyzer

The Inframatic Analyzer is a Near Infrared Reflectance (NIR) spectrometer specifically designed and optimized for the analysis of powdered food products. The speed and ease-of-use of the Inframatic Flour saves time and money by providing rapid and reproducible analysis. Its filter-based optics is as accurate as monochromator systems, at significantly lower investment and maintenance costs, and with great wavelength flexibility. Perten Instruments has over 20 years of experience in NIR instruments for food and agriculture industry and is the number one supplier of NIR instruments in the world with over 7.000 units installed.

Features & Benefits

Standard Calibrations: The instrument is delivered with ready-to-use standard calibrations, based on thousands of samples from a wide range of varieties.
Ash Measurement: 20 second ash analysis with accuracy equal to reference method. One calibration for all wheat flours 0.3 - 0.7 % ash. Patented and officially approved (AACC 08-21).
Easy to use: The Inframatic Flour Analyzer employs two-button operation, making it easy to use by non-technical personnel, thus reducing costly errors.
Stand-alone Instrument: There is no need for an external computer. This simplifies operation and allows instrument placements in environments unsuitable to computers.
Unique Sample Presentation System: Significantly reduces sample presentation time and improves repeatability. There are no sample cups that are easily broken, scratched and expensive to replace.

Applications

Raw Material Analysis: Determine protein, moisture, hardness and other parameters to ensure you pay the right price for the right grain.
Process Optimization: 20 second ash analysis enables rapid process adjustments for maximum extraction within specifications.
Finished Product Verification: Verify product compliance with specifications and reduce costly rejections by analyzing every truck-load before dispatch.

Recommended Accessories

Laboratory Mill 120 or 3100: Approved hammer mills for preparation of whole grain.
PICS: Windows-based software for data collection, instrument administration and calibration development.
Precision Packer: Automatic sample presentation improves precision and removes differences between operators.

Specifications

Power Requirements: 115 or 230 V, 50 or 60 Hz (specify on order)
Dimensions (HxDxW): 260x410x370 mm
Net Weight: 23 kg
Analysis time: from 20 seconds
Wavelength range: 500 - 2300 nm
Wavelengths: 7 - 20 (depending on application)
Products: Ground grain and flour of Wheat, Rye, Oats, Corn, Rice, etc.
Parameters: Protein, Moisture, Ash, Hardness, Zeleny, Water absorption, Color, etc.