

Feed Analyzer Near Infrared Analysis (NIRA™)

Powered by  INGOT® Calibrations



Unity designs at-line analyzers that are easy to operate and provide fast answers so you can run your process more efficiently.

Fast, accurate analysis is critical for finished feed and feed ingredients manufacturers to optimize their process and insure quality. Optimizing the process will save the plant time and money and provide very rapid payback. Near Infrared (NIR) analysis is a proven technique designed to provide fast, accurate, and reliable results for the feed and feed ingredients industry.

BENEFITS

- Complete analysis package
- Guaranteed Calibration included
- Network ready
- Easy to use and customize
- Low maintenance
- Designed for at-line analysis
- Superior accuracy, precision, and stability
- Easy NIR database transfer from older equipment

Unity delivers proven solutions for the feed, ingredients, pet food and forage markets. Well-controlled animal nutrition will optimize growth rates, milk production as well as reproduction rates. In less than a minute, our NIR systems provide simultaneous results for moisture, protein, fat, fiber, starch, ash, and other parameters. Our Feed Analyzer is ideal for every step in the feed manufacturing process, including

- raw material testing to guide proper ration supplementation
- raw material testing to control meal formulation
- raw material testing to optimize least cost formulation
- monitoring and controlling mixers and optimizing the addition of liquid fat
- monitoring and controlling moisture levels in extruders and driers
- verifying production batch values and optimizing fat spraying on pellets
- verifying and documenting finished feed label claims

The Unity Feed Analyzer is fast, allowing for 100% measurement of incoming ingredients and finished feed. This speed, combined with guaranteed accuracy, allows for complete control of the mill, maximizing profits and providing fast payback.

The Unity Feed Analyzer is powered by the Ingot calibration package from Aunir. This package includes a full suite of calibrations for finished feed and feed ingredients. Finished feed calibrations are available for poultry, swine/pig, ruminants, horse, fresh/salt water fish as well as a large range of feed concentrates. With calibrations for over 70 different ingredients, the Ingot calibration package covers virtually all ingredients used in a feed mill.

All Ingot calibrations are backed by Aunir's 30 years of experience in the field and comes with a performance guarantee. Calibration experts are on call to specifically tailor the calibrations to our customer's needs.

SpectraStar™

Feed Analyzer

Near Infrared Analysis (NIRA™)

How to Order

Simply choose the most appropriate wavelength range for the SpectraStar top window system that fits your application.

Feed Analyzer US-AFED-001
(1200nm – 2400nm)

Deluxe Feed Analyzer US-AFED-003
(680nm – 2500nm)

The Unity Scientific Feed Analyzer, powered by Ingot calibrations takes all of the guess work out of NIR analysis. With calibration performance that is guaranteed to be accurate, customers can be confident enough to completely control their process, providing great financial benefit to the plant.

The Unity Feed Analyzer is robust enough to be used both at-line or in the lab. The system features a long life lamp and no air filter or fan, providing for very low cost of ownership. The built in computer is fully networkable and LIMS compatible, allowing for plant management to immediately access results. The Feed Analyzer is a valuable tool to control every step in the feed manufacturing process, from raw ingredients to finished feed.

The Unity Scientific SpectraStar RTW (Top Window system) gives the ultimate in sampling flexibility and allows the customer to make measurements of all finished feed and feed ingredients. The SpectraStar's quick analysis time provides real-time feedback that allows the process to be controlled, optimizing the process and providing rapid payback.

The Feed Analyzer Package includes the following:

- SpectraStar 2400 RTW (1200nm – 2400nm) with built in touch screen, prediction software, multi cup adapter, powder cup adapter, Unity check cell
- Deluxe package has the SpectraStar 2500x (680nm - 2500nm)
- Large open cup for analysis of feed and feed ingredients
- Full Ingot Calibration package for finished feed and feed ingredients

SPECIFICATIONS

Technology

Pre-dispersive Scanning Monochromator with nominal bandwidth of 10 nm (FWHH)

Wavelength Range 1200 - 2400 nm (Feed Analyzer)

Wavelength Range 680nm – 2500nm (Deluxe Feed Analyzer)

Light Source Tungsten halogen lamp with MTBF rating of 10,000 hours (User changeable)

Grating Halographic grating for use from 680-2500nm

Detector InGaAs (temperature stabilized)

Scan Time Less than 0.8 seconds/scan

Analysis Time 10-30 seconds

Data Interval 1 nm

Photometric Noise <20 micro AU at 1640 nm

Temperature Range 0-40°C

User Interface

Operating System Windows 2000

Display 14.5 inch VGA with touch screen

Software InfoStar prediction and data management package

Optional Keyboard and mouse

Dimensions and Power Requirements

Size W 330 mm x H 368 mm x D 381 mm (W 13" x H 14.5" x D 15")

Weight 13.6 kg, 30 lbs.

Power Voltage 100-240 V ac, 50/60 Hz

Network Capabilities

OPC compliant
LIMS compatible
2 USB ports
1 Ethernet (RJ45) connector interfaces



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