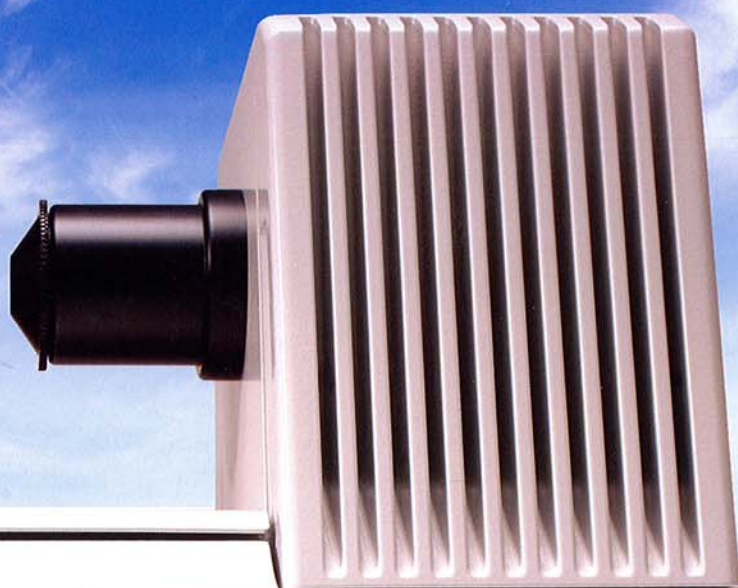


# Quant

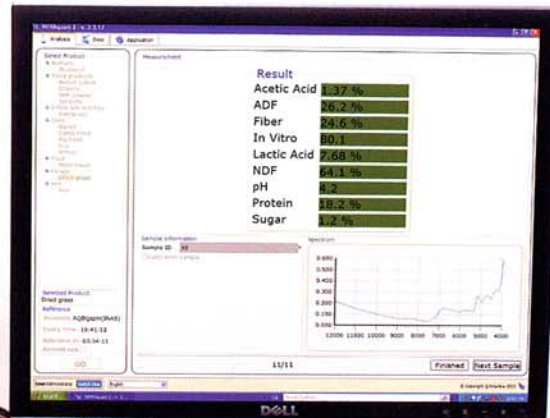
The new FT-NIR analyzer  
Food, Feed, Dairy, Agri and Biofuel



Quant

# State of the art...

... technology and sampling perfectly matched in the Quant



## Results in less than a minute

If correct results matter to you the Quant FT-NIR analyser from Q-Interline is the right choice. The Quant is used for non-destructive analysis of solids, powders, pastes and liquids. It will supply you with fast and precise results in less than a minute.

The Quant is ideal for production optimisation and quality control, yielding more profit.

## Exceptional spectral performance

The Quant from Q-Interline is based on the latest generation FT-NIR technology. The exceptional spectral performance of the Quant will generate a high quality spectrum with very low noise. This will allow for quantification of not only traditional components such as moisture, fat, protein and starch, but also makes the Quant ideal for quantification of low signal components like salt, pH and many others.

## Optimised sampling solutions

Applying correct sampling from the process to the lab is essential if unbiased results are to be obtained.

Only unbiased results can serve as a basis for process control and optimisation.

All the sampling accessories developed by Q-Interline are the result of our extensive experience and knowledge in the field of representative sampling.



## Low cost of ownership

The Quant has no scheduled maintenance and the light source and laser has an expected lifetime of 10 years.

There is a lifetime warranty on the interferometer scanning mechanism and on all optical components of the interferometer against damage or degradation by moisture.

The Quant uses no chemicals and sample containers are either inexpensive or re-usable, minimizing the cost of analysis.

## Maximum flexibility

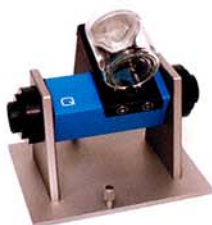
The Quant comes with an external PC which enables rapid upgrade on-site. This reduces any downtime of the equipment to a minimum.

The external computer enables the use of a range of add-ons, offering the user maximum flexibility, e.g. touch screen, label printer and barcode reader.



# Powerful Quant applications

- which Quant is right for you



## AgriQuant

- for mixed feed, raw materials, soils and agricultural products

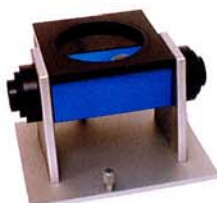
The AgriQuant is the only analyser utilising the spinning tumbling accessory making it well suited to handle samples of all degrees of heterogeneity. The sample is analysed by reflection measurement in 125ml glass jars with lids. The glass jar rotates during analysis providing representative sampling, making sure the sample is constantly mixed and reducing the effects of product heterogeneity. The glass jar has a large opening for easy filling. The lid ensures that the sample is stored under stable conditions and that influence from the surroundings is minimised.



## DairyQuant

- for a wide variety of dairy products

With a range of optimised sampling accessories the DairyQuant handles a large variety of dairy products. The DairyQuant is fast, easy to use and delivers precise analytical results in under a minute. The high spectral quality of the Quant enables analysis of difficult parameters like salt as well as more traditional components like fat, moisture and protein. The accessories can handle various degrees of heterogeneity making the DairyQuant ideal for analysis of cheese, butter and powders.



## FoodQuant

- a versatile food analyser

The FoodQuant offers a very versatile platform with accessories optimised for the wide range of products found in the food industry. The ability to swap accessories is a powerful feature of the FoodQuant enabling analysis of liquids, solids, powders and pastes with the same analyser. The sample cups are glass free and can be used in the production area, offering operators a strong tool to secure and optimise the production yield.



## FuelQuant

- for biodiesel, bioethanol and raw materials

With increasing production of high quality supplementary green energy comes the need to control and optimise the process. No technology offers faster and more accurate answers than the FuelQuant for incoming raw materials, in process quality assurance or final product control. With accessories optimised for each job the combined benefits of sampling and spectral quality yields a platform that can detect even trace concentration levels before they become a problem in production.



## UniQuant

- a Quant designed for your analytical needs

The UniQuant is the base platform from which advanced universal applications can be built. Choose from three detectors (DTGS, InAs or InGaAs), 8 standard accessories and a wealth of special accessories. Q-Interline with its know-how and experience is the ideal partner for demanding research and university applications.

# Strong Quant software

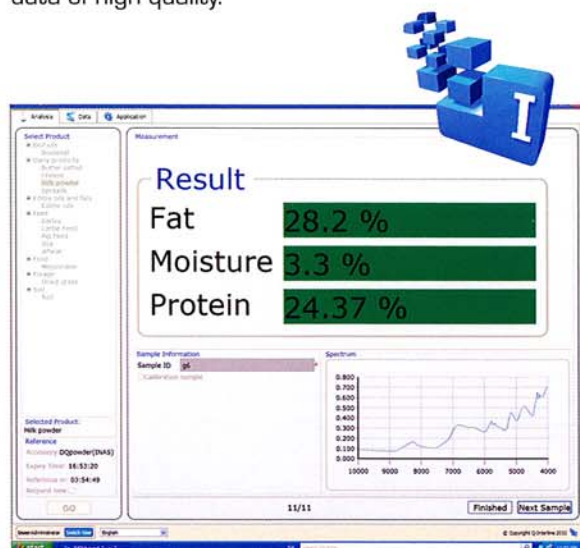
- the widest range of possible use

## Included with all Quant systems

All Quant analysers come with the Quant software package comprising InfraQuant for workflow controlled QC operations and Horizon QI used for advanced spectrum collection, viewing and manipulation.

### InfraQuant

InfraQuant is developed in collaboration with our users and offers an easy to use yet powerful platform to streamline QC operations and produce analytical data of high quality.



### Analysis Manager

Guides the operator through the analysis sequence – in most cases in their native language. With information messages, warnings and reminders, the wizard ensures consistent results independent of operator skills and experience. The results are presented as clearly visible figures with integrated colour codes. The colour codes reflect the validity of the results measured against pre-set criteria.

### Data Manager

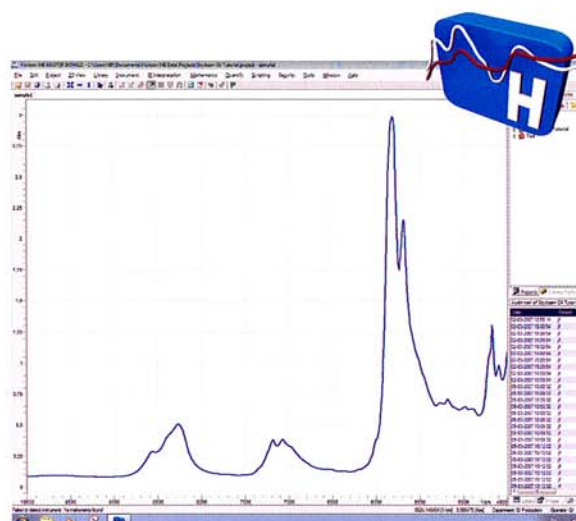
Find, review, trend, print, export and delete results.

### Application Manager

Use the password protected administrator module to set up procedures, define wizards, configure instrument validation and edit the workflow for the analysis sequence.

### Horizon QI

Horizon QI is a strong and powerful spectroscopic software module for the Quant analyser. It has been developed specifically for the Quant platform and offers a wide range of functionalities.



Spectrum collection, viewing and manipulation  
Powerful spectroscopic tool for the advanced user.

Advanced system validation  
Instrument and accessory validation

Advanced Instrument Health  
Know the exact status of your system. More than 50 values tagged every second.

Add-on modules to Horizon QI  
Extend the functionalities of your Horizon QI through a series of powerful add-on modules:

- Horizon Quantify
- Horizon Library
- Horizon Scripting
- Horizon 3D

# Specifications of the Quant Analyser

## SPECTROSCOPIC PERFORMANCE (typical, at 25 °Celsius with InAs detector)

Spectral Range 3,700 to 14,885  $\text{cm}^{-1}$   
Signal to Noise (60 s, 16  $\text{cm}^{-1}$ , at peak response) > 500 000: 1  
Frequency Repeatability (@ 7300  $\text{cm}^{-1}$ ) < 0.006  $\text{cm}^{-1}$   
Frequency Accuracy (@ 7300  $\text{cm}^{-1}$ ) < 0.01  $\text{cm}^{-1}$   
Absorbance Reproducibility (toluene) < 0.002 AU

## OPTICAL BENCH

Beamsplitter Material ZnSe (non-hygroscopic)  
Interferometer Mechanism (patent pending) High-throughput double pivot Michelson, fully jacketed  
Source (with electronic stabilization) Quartz Halogen, 10-year expected life  
Solid-state Laser Maintenance Free

## DATA COMMUNICATIONS

Hardware Port Ethernet, 10/100 Mbps

## INSTRUMENT ENCLOSURE

Material Rugged Design, all-metal frame with integral handles  
Size 435 mm (W) x 280 mm (D) x 372 mm (H), Weight 24 kg

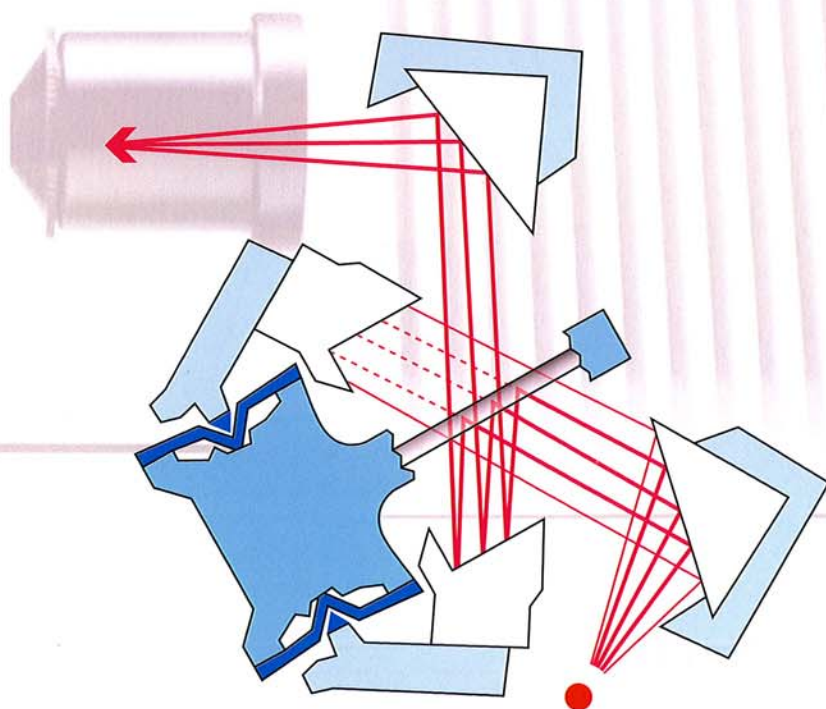
## ENVIRONMENTAL

Universal Power Supply 120-240 VAC, 50/60 Hz, 65 W  
Operating Temperature 10 °C to 35 °C  
Operating Relative Humidity 5 % to 80 %, non-condensing  
Regulatory Certification and Compliance TUV, CE and RoHS

## FT-NIR Technology

The Quant Analyser is powered by the latest ABB Bomem FT-NIR technology. FT-NIR is short for Fourier Transform Near Infrared and measures the entire spectrum of the sample.

This technique generates a large amount of high-quality spectral data, which makes it possible to accurately determine various components such as fat, moisture, protein, lactose etc.



# Q-Interline – your knowledge partner

## Q-Interline is dedicated to spectroscopy

For over a decade, we have developed, produced and marketed spectroscopy-based analysis equipment for quality and process control. We work hard to provide our customers with spectroscopy that makes a difference. We offer courses, maintenance agreements, calibration support and user group meetings for our customers.

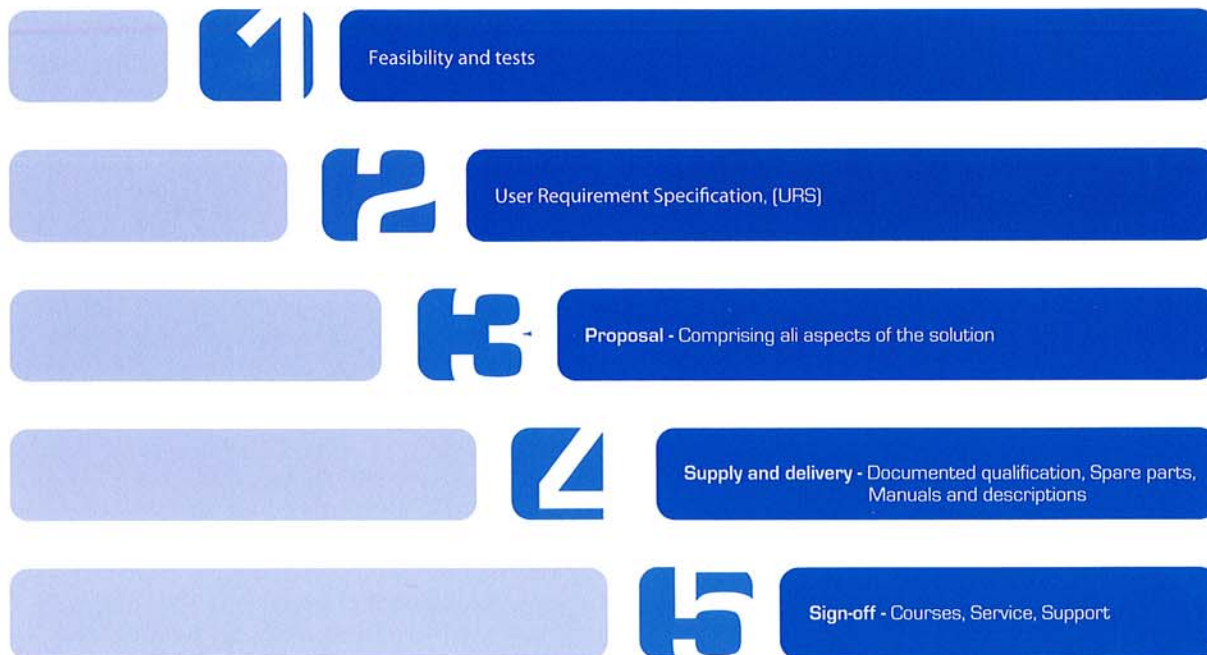
## Powerful technology combined with dynamic knowledge

Our spectroscopy equipment, accessories and software are based on advanced technology platforms. So we do not have to worry about optics, but focus 100 per cent on tailoring an optimum solution for sampling and ease of use for our customers – and can still provide you with the best technology on the market. With this combination we believe you are in good hands.

## 25 million analysis results per year

Our customers tell us that know-how and experience make the difference. Hundreds of installations in laboratory and process sites and an estimated 25 million analysis results generated annually on Q-Interline instruments speaks for itself. We increase our knowledge every day. A knowledge that we are eager to share with our customers.

## OUR PROJECT FLOW:



The Q-Interline project flow is the best way to fulfil your needs.



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