

QualitySpec® 7000

Setting a new standard for rapid, non-contact process analysis

Employing state-of-the-art near infrared (NIR) technology, the QualitySpec 7000 supplies non-contact, over-conveyance analysis of process material. The unique system is ideally suited for continuous measurement of solids and blended materials in a range of industries including forest products, mining and food processing. By providing multiple measurements from a single point, the QualitySpec 7000 yields more information quickly, to help make real-time decisions about the process as it changes.

Benefits

- Fast, reliable process analysis
- Non-contact, non-destructive measurement
- Multiple constituent measurements from a single scan
- Measures real-time as process is in motion
- Safe, simple light source — no hazardous radiation, neutron generators or x-rays

PRIMARY INDUSTRIES:

- Mining
- Food processing
- Pulp and paper

APPLICATIONS:

- Mineral analysis
- Moisture content analysis
- Analysis of protein, fats and sugars
- Lignin, fiber quantities and lime mud analysis

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The QualitySpec 7000 is designed for rapid, precise, non-destructive and non-contact spectral measurement for continuous analysis of material as it is being conveyed in the process. Time-consuming sampling and laboratory analysis is eliminated by measuring materials as they move through the process. Data from the analyzer is available for use by a process control system for real-time, closed-loop process control.

At the core of the QualitySpec 7000 is the Goetz spectrometer that uses a simple, safe quartz-halogen light source and leverages proprietary spectrometer technology with a highly sensitive detector array. When combined with chemometric modeling techniques that "calibrate" the analyzer for the constituents of interest, the QualitySpec 7000 is a powerful tool for improved process and quality control.

In mining, the QualitySpec 7000 allows for real-time continuous monitoring of important ore characteristics, such as monitoring percentages of expansive clays, hornblende or talc. This aids the overall process flow by improving ore recovery and minimizing safety concerns — resulting in significant cost savings.

Improve your process knowledge and increase quality control with the QualitySpec 7000. Contact your ASD sales representative today or visit asdi.com to learn more.

Specifications

PERFORMANCE

Wavelength Range	350-2500 nm
Wavelength Accuracy	1 nm
Sampling Spot Size	76-100 mm (3-4 in)

OUTPUT

Fast Ethernet; 100 Base-T or 100 Base-FX (fiber optic for distance exceeding 100 meters)

OPC Server connection to constituents in Microsoft Access® database

Measure and record two values for up to 20 constituents

Qualitative or quantitative data for each constituent

Model Quality Index (MQI), a model quality indicator for each result

MECHANICAL/ELECTRICAL

Light Source	100 watt quartz-halogen
Optical Head Mounting Distance	74 cm (29 in), from bottom of optical head box to average material level on conveyor
Power	230 VAC ± 10%, 12 amps, 50/60 Hz
Weight	(Exclusive of Mounting Structures)
Optical Head	22.6 kg (50 lbs)
Electronics Cabinet	159 kg (350 lbs)
Dimensions (H x W x D)	
Optical Head	43 x 41 x 46 cm (17 x 16 x 18 in)
Electronics Cabinet	100 x 122 x 48 cm (39 x 48 x 19 in)

ENVIRONMENTAL CONSIDERATIONS

Temperature Rating	-20 to 50° C (-4 to 122° F) ambient
Humidity	5 to 95% non-condensing

APPROVALS

CE Marked

Goetz et al., "Apparatus, system and method for optical spectroscopic measurements." U.S. Patent 8,164,747 B2, issued Apr. 24, 2012

NIST traceable calibration

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