

Dry Analyzer

Process optimization starts with real-time measurements.

The Blue Cube Dry Analyzer is used for the in-line measurement of dry free flowing ore streams with grain sizes below 2mm.



In-line measurement

Small footprint, easy to integrate.
No sample streams, sample pumps, multiplexers.



Fast response

15-second updates to all parameters, simultaneously.



Low maintenance

The non-contact measurement approach results in a low maintenance system.



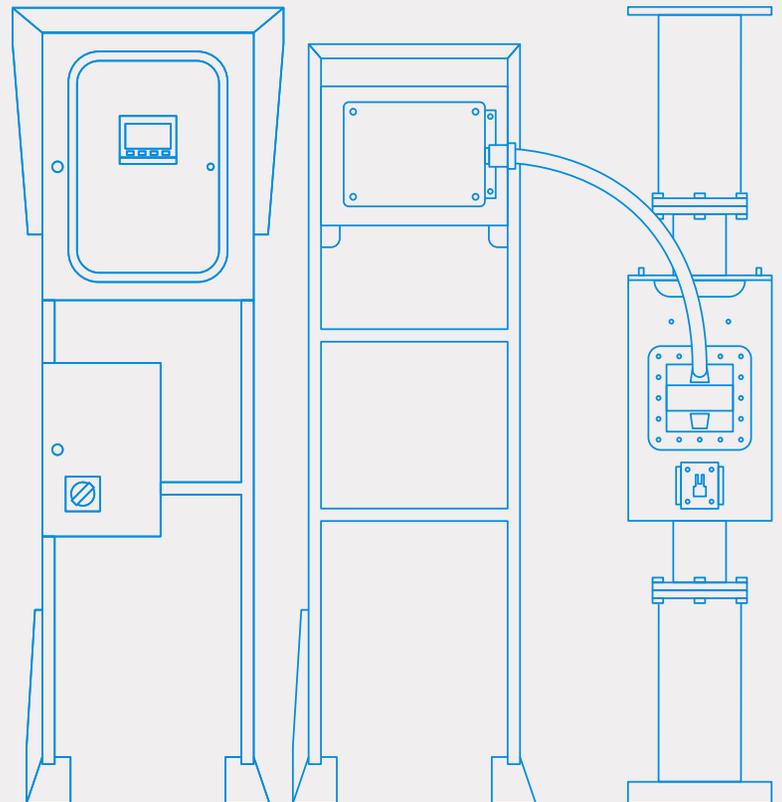
Simple installation

Modular design enables simple installation with minimal investment in new infrastructure.



Inherently safe

No radioactive sources or high intensity lasers.



What it is

Draslovka's unique technology provides multiple measurements with a single instrument. These measurements include elemental, mineral, and particle size (site dependent), but can also be used to model other lab analyses such as total heavy minerals. State-of-the-art spectroscopy and mathematical modeling are used to provide these real-time measurements to enable process control.

The **Blue Cube Dry Analyzer** is used for the in-line measurement of dry free flowing ore streams with grain sizes below 2mm. The analyzer was specifically developed for the mineral sands industry, however it can be adapted to other applications.



Heavy mineral applications

Metal Oxides

Cr_2O_3 , FeO, Fe_2O_3 , Ilmenite,
Leucosene, Rutile, Corundum,
Spinel, ZrO_2 , TiO_2 , MgO

Silicate Minerals

SiO_2 , Kyanite, Staurolite, Garnet,
Quartz, Zircon

Phosphate Minerals

Monazite, PO_4

What it does

Measure

The scanner head is designed to receive a free-flowing ore stream vertically downwards. Mineral grade, elemental grade and particle size are measured in-line and in real-time.

Blue Cube Dry Analyzers are suitable for installation in any plant environment and in process lines of any diameter.

Control

Data made available by an installed **Blue Cube Dry Analyzer** on a high tension roll (HTR) separator is an example of real-time control in the mineral sands industry.

Through the manipulation of the corona wire high voltage settings, it is possible to control the product grade in real-time.

Optimize

With the availability of the real-time data, it is possible to track the effect of process changes on the grade without full plant surveys.

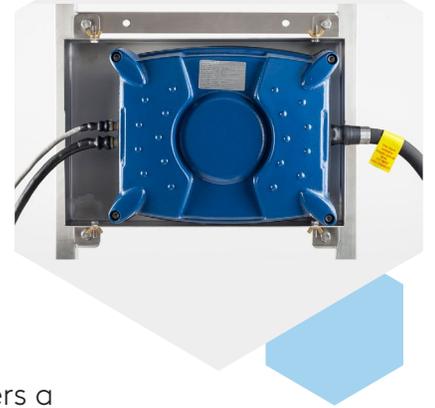
Product grade can be optimized and impurities minimized, all in real-time.

How it works

Our state-of-the-art mineral analyzers use advanced mathematical modeling combined with Diffuse Reflectance Spectroscopy (DRS) techniques to provide real-time measurements that enable process control and optimization.

DRS uses a broad band of light, from ultraviolet, through visible and into near-infra-red to determine mineral and elemental composition based on the spectra reflected from particles in the slurry.

Our optical technology can be applied to any quantifiable property that affects the spectra in this broad range of light. Compared to XRF, DRS covers a much broader range of electromagnetic frequencies and therefore can measure a much broader range of elements and minerals. It also requires shorter integration periods for detection.



1

Light is directed through a sapphire window onto the ore stream as it passes through the pipe and the light reflected by the stream particles are captured. The reflected light is digitized and used together with a calibration model to extract spectral features of interest and provide 15-second updates to the measured parameters.

2

The **Blue Cube Dry Analyzer** monitors the process and automatically extracts one calibration sample per day when process conditions are appropriate using the integrated pneumatic sampler.

3

The captured spectra are recorded and uploaded to an off-site data centre via the cloud. The laboratory assays of the calibration samples (emailed to Draslovka weekly), are used together with the uploaded spectra to monitor performance and fine-tune the calibration model.

4

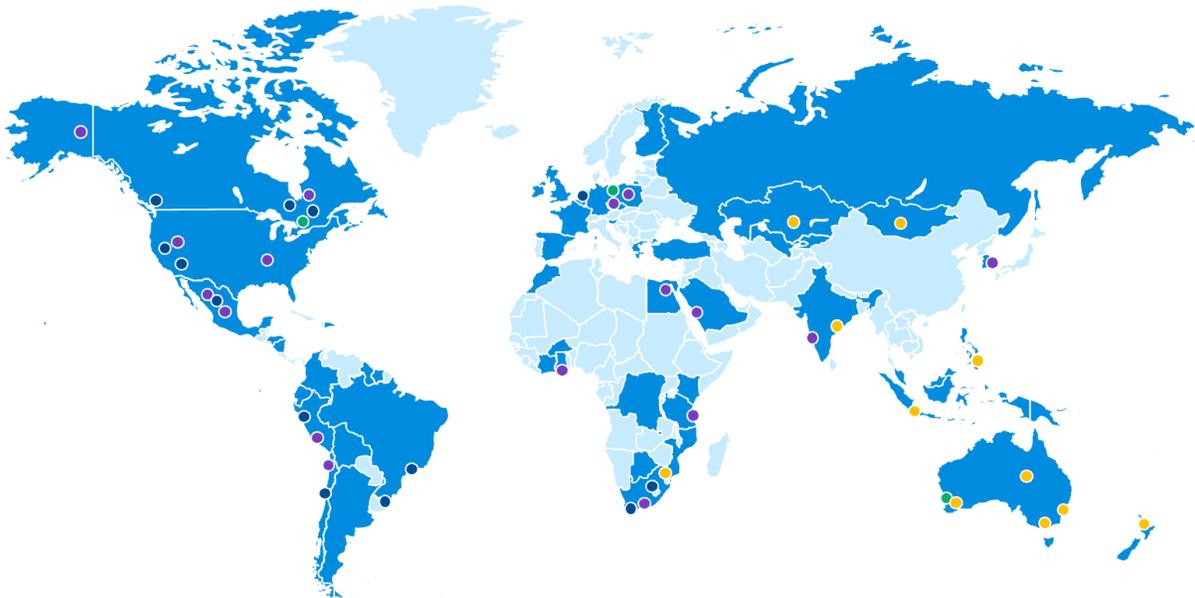
The refined calibration model is automatically downloaded to the instrument to ensure accuracy is maintained through drifts in process conditions and lithology. This process is repeated on an ongoing basis, with new samples used to improve or adjust the model, and to report on the accuracy of the analyzer.

Maintenance requirements

- Light source replacement every 9 months.
- Inspection of scan head every 3-6 months (until actual wear rate is established).

About Draslovka

- Draslovka has been reimagining what's possible with the CN family of chemicals for more than 100 years.
- We are a Czech-based company, driven by an international team working across the world with a conscious ambition to be the best at what they do.
- As a global leader in cyanide-based chemical specialties, we have 700+ staff across 14 countries and serve the largest mines in the world, with 95% of our clients recommending us.
- Our wide range of solutions includes Glycine Leaching Technology, reagents such as sodium cyanide, in-line mineral analyzers, and AI-based setpoint recommendation tools.
- We provide industry-transforming methods to extract metals at a lower unit cost, with reduced ESG impacts and an enhanced social license to operate.



Contact us

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