

On-line Ash Monitor NGCQM



The Natural Gamma Coal Quality Monitor (**NGCQM**), is a non contacting fully on-line ash monitor that can easily be fitted to existing conveyor belts or feeders. Combining good performance with low cost, it provides the user with continuous data on the ash content of the conveyed coal.

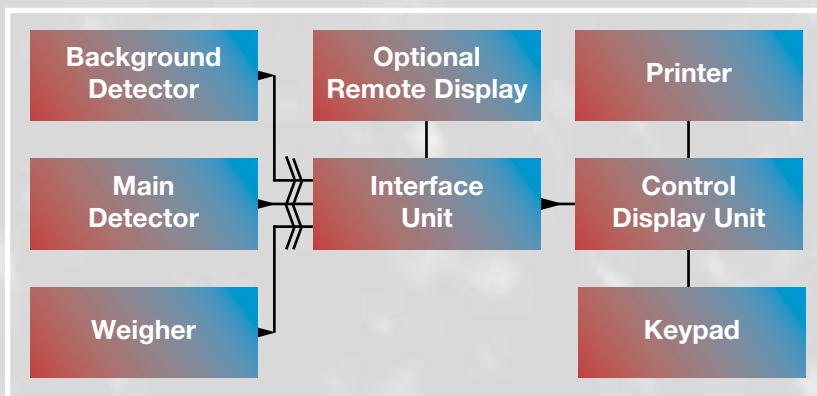


The NGCQM is environmentally friendly as it contains no radioactive sources.

NGCQMs

Principle of Operation

The dirt associated with coal contains a much higher concentration of radioactive elements than the coal itself. The signal from a natural gamma detector placed near the load contains ash information. When the signal is combined with the mass of the material from a belt weigher a measurement of ash can be obtained.



Accuracy

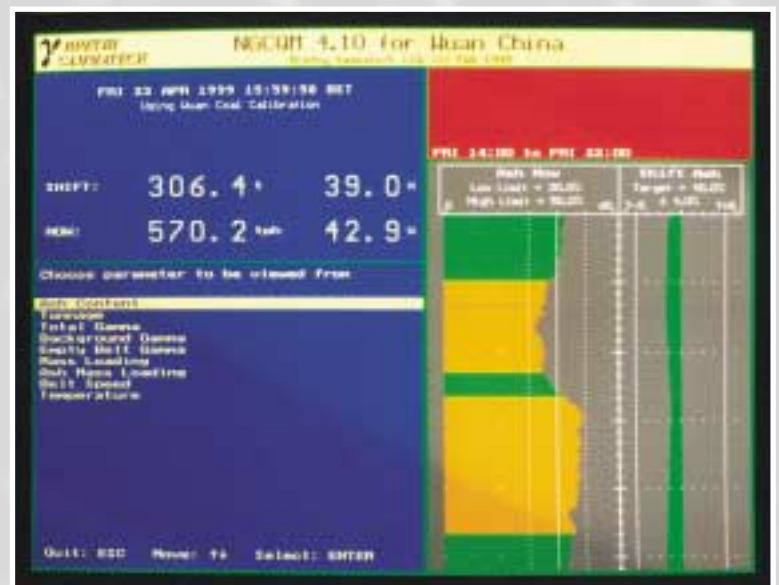
The accuracy of the **NGCQM** will depend upon the site and the belt weigher. Accuracies (1 σ) of better than 0.5% on final product and between 1 and 3% on run of mine material have been achieved with production systems.

Precision

Precisions in the order of 0.5% are regularly being achieved with the final product monitor. (Measured to ISO 15239)

Main Features

- Real time graphical and numerical display of instantaneous and shift ash
- Simple, secure menu driven operation
- User-definable quality parameters
- User configurable shift patterns with comprehensive end-of-shift reporting
- Optional batch operation with end-of-batch report
- User selectable graphical displays of archived trend information
- Analogue outputs of any two measured parameters
- Automatic restart upon restoration of power
- User selectable calibrations





Colliery Control Room



Applications

- Run of mine monitoring
- Control of diverting system for high ash material
- Washed coal
- Final product monitoring
- In blending control systems
- Monitoring of Power Station coals



Benefits

In Run of Mine applications the **NGCQM** has been used to identify the source of dirty production enabling managers to tackle the cause.

In one mining complex a network of **NGCQM**s is successfully used to apportion proceeds on the basis of tonnage and ash content.

In Power Station fuel applications boiler efficiency can be maximised and down time minimised.

In final product applications the **NGCQM** has, in many cases, eliminated the requirement for hourly control samples - significant Heat Error improvements have been achieved - thereby reducing costs and increasing revenue to the user.

The NGCQM often pays for itself in only a few weeks.

Site Specifications

Conveyor Speed	No limit
Conveyor Width	No limit
Tonnage Rate	No upper limit
Bed Depth	No upper limit

Electrical Requirements

220-240VAC, 50Hz single phase
5A supply at Control Unit

Environmental Requirements

Operating Temperature -10 to 40°C
Moisture 5 to 95% relative humidity
(non condensing)

System Inputs

Tonnage Rate 0-10V, 0.4-2.0V or 4-20mA
Belt Speed 0-10V, 0.4-2.0V or 4-20mA
Or contact closure if fixed belt speed

System Outputs

2 user configurable analogue outputs of any
measured or calculated parameter 0.4-2.0V
User configurable High/Low Ash Alarms
(voltage free contact)

**In excess of 50 NGCQM systems have been supplied to
many satisfied customers in the UK and around the world.
Bretby Gammatech provides a full maintenance, calibration
and support service.**

For further information contact:

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