

Now sold under the
Thermo Scientific brand

Thermo
SCIENTIFIC

Part of Thermo Fisher Scientific

The Gamma-Metrics COBOS™

(Coal Blending Optimization System) is optimization software that blends up to six coal sources to meet quality specifications at the lowest cost. This software system allows you to minimize the use of higher cost or scarce coal resources and reduce the variability of the quality in your blends. The Gamma-Metrics COBOS is designed to improve your bottom line.

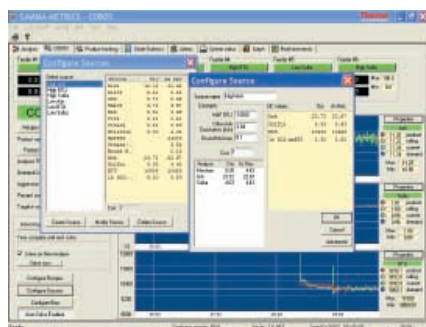
Product Specifications

Gamma-Metrics COBOS

Coal Blending Optimization System



The main Gamma-Metrics COBOS screen displays all the key inputs to and outputs from the system, along with trend lines on actual coal quality for each of the control parameters



System set-up is conveniently accomplished with user-friendly pop-up windows



Thermo Electron Corporation's Gamma-Metrics COBOS coal blending software works seamlessly with the Base Coal™ software on Thermo coal analyzers. This software system is capable of blending up to six different sources of coal to achieve the lowest cost blend that meets your target quality specifications.

The Gamma-Metrics COBOS allows any number of coal sources to be defined by composition and value. The operator can select up to six of the defined sources to blend. The software system will then blend the sources to meet a "recipe" consisting of up to five quality parameters, such as ash, sulfur, moisture, or even ash oxides or ratios of ash oxides. Any number of blend recipes can be predefined for different quality targets and priorities, which allows the operator to easily select the correct recipe for the batch being blended.

The Gamma-Metrics COBOS has an automated graphics interface that plots the control parameters specified by the current recipe. Information on current analysis,

product name, and percent of load completed are shown on the same page.

The Gamma-Metrics COBOS also automates the weight averaging of the MAF calorific value, bound moisture, and other ash constituents of all coal sources being blended. This feature is in operation even when the system is in manual blend mode, which eliminates the need for the operator to update these values in Base Coal when coals are being blended from different sources.

The software system allows the operator to specify critical feeder information, including the delay time from each feeder to the analyzer, the maximum and minimum capacity of the feeders, and how rapidly the feeder output is allowed to change.

The Gamma-Metrics COBOS is able to compensate for errors in quality assumptions and reported weights from each source during blending operations. The ability of the software system to handle changing source quality conditions makes it an excellent tool for controlling the blending of coal to improve your bottom line.

Analyze • Detect • Measure • Control™

Thermo
ELECTRON CORPORATION

Gamma-Metrics COBOS — Coal Blending Optimization System

Specification	
Sources	Up to 6 sources of blend coal
Control Parameters	Up to 5 blend control parameters
Software Required	Gamma-Metrics <i>Base Coal</i> ™ software
Input Signals from Control System	Gamma-Metrics COBOS mode selection Percentage of feed from each source
Inputs from Operator	
Source Name	
Sources Definition (required)	Moisture (%), Ash (%), Sulfur (%), Cost, Other non-PGNAA ash constituents (%), Moisture and ash free heating value, Bound moisture (%)
Sources Definition (optional)	Ash oxide data (% of ash)
Recipe Information	
Recipe Name	
Selection of quality parameters	Maximum control point, Minimum control point, and Priority
Feeder Information	
Coal flow time from the source to the analyzer	
Maximum feeder capacity	
Minimum feeder capacity	
Maximum feeder rate of change per minute	
Output Data from Gamma-Metrics COBOS	
The recommended percentage of the total coal flow needed from each active source to make the blend	
Data Transfer	
The software system receives data from and sends data to the user's PLC or control system via an OPC client/server link	

©2005 Thermo Electron Corporation. All rights reserved. Windows is a registered trademark of Microsoft Corporation.
 Specifications, terms and pricing are subject to change. Not all products are available in all countries. Please consult your local sales representatives for details.
 Literature Code PI.8016.1205

Australia	India	USA
+61 (0) 8 8150 5300	+91 (0) 20-56011245	+1 (800) 488-4399
+61 (0) 8 8234 5882 fax	+91 (0) 20-26125739 fax	+1 (858) 452-9250 fax

Process Instruments

China	South Africa
+86 (0) 21 6865 4588	+27 (0) 11-609-3101
+86 (0) 21 6445 7830 fax	+27 (0) 11-609-3110 fax

www.thermo.com/coal