



Serving your process needs

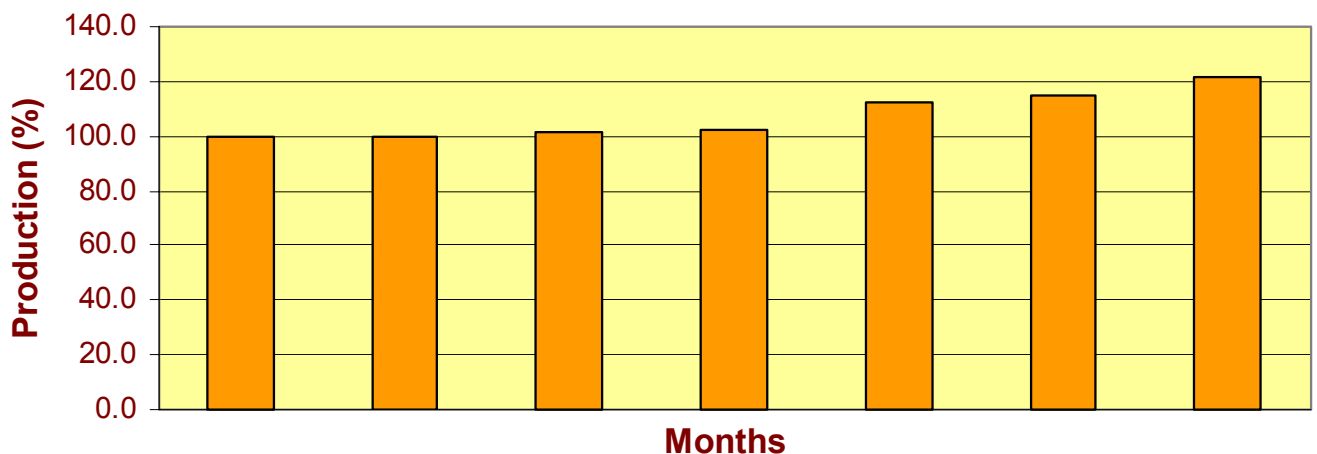
Caspeo™ for the cement industry

The grinding circuits for raw and clinker are the main power consumer posts in cementeries. Their optimization matches with competitiveness.



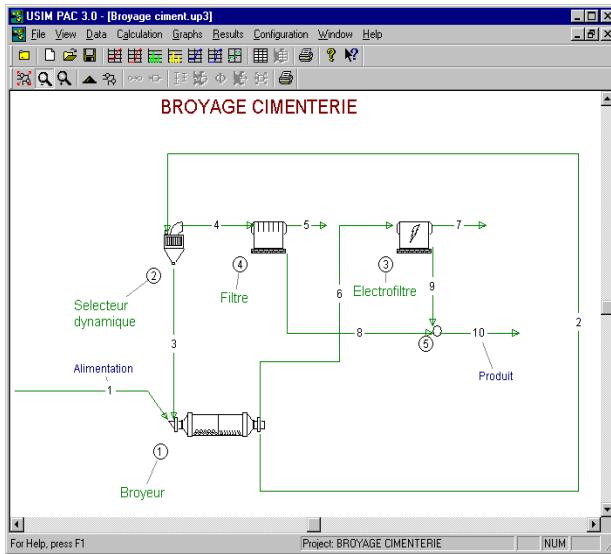
Caspeo proposes solutions for grinding optimization leading to a productivity increase and a decrease of power draws, keeping intact the product quality and the circuit flexibility.

Efforts are concentrated on a global optimization of the circuit, including possible improvements at the grinding mill or classification stage.



Caspeo™

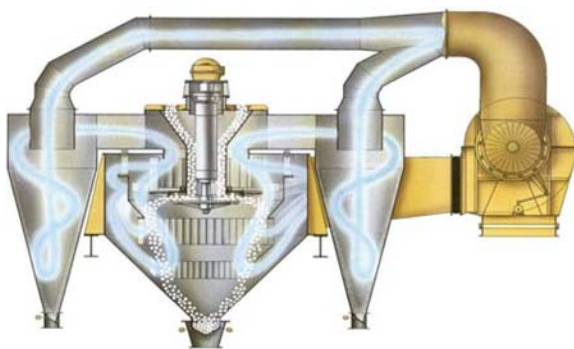
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The **global optimization of the grinding circuit** is done by numeric simulation with the USIM™ PAC software. This technique allows to rapidly determine, without costly tests, the modifications required by the equipment.

Grinding mill optimization

From a few laboratory tests, the simulation determines optimal characteristics for the load of balls (maximum size and distribution) depending on the product to be obtained.



The **optimization of the dynamic separator** operates on the air distribution by mechanical modification.

Settings are adjusted to reach the optimal performance determined by simulation.

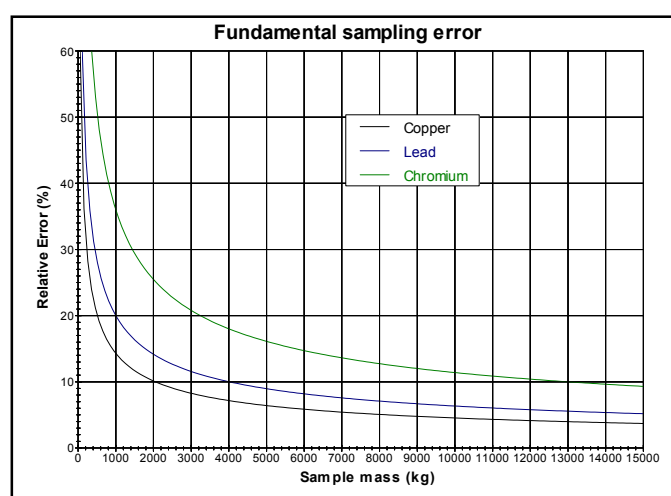


Caspeo™ also has expertise in the fields of:

Solids sampling

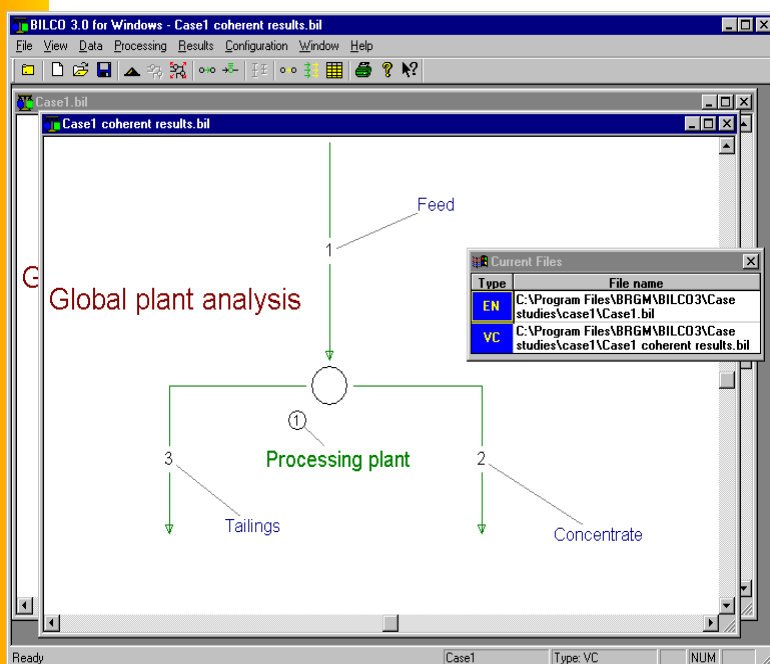
For raw material, tailings or products, good sampling procedures insure an efficient process follow-up.

Caspeo provides its expertise in the definition of dedicated sampling protocols, using the ECHANT™ software.



Mass balance: a production tool

Data quality is improved by reconciliation. That leads to coherent and reliable performance estimation for process follow-up and optimization.



Caspeo proposes a complete data analysis system by mass balancing, based on the BILCO™ software.

This system works autonomously but can also be embedded in an existing production management system



Caspeo™ service offer

Project

Caspeo carries out projects for process design or optimization and gives importance to field works in close cooperation with the production teams.

Expertise - Consulting

Based on its expertise, **Caspeo** gives you its best advice for your technical choices. Audit of processes in operation or in project is one example.

Training

Caspeo proposes dedicated training sessions in its expertise fields, such as sampling, data reconciliation, process modeling and simulation. Case studies using software illustrate the theoretical lectures.

Caspeo relies on and distributes the process analysis software of BRGM

ECHANT: the sampling aid tool

BILCO: data reconciliation and analysis by material balancing

USIM PAC: the multipurpose tool for process engineer

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