

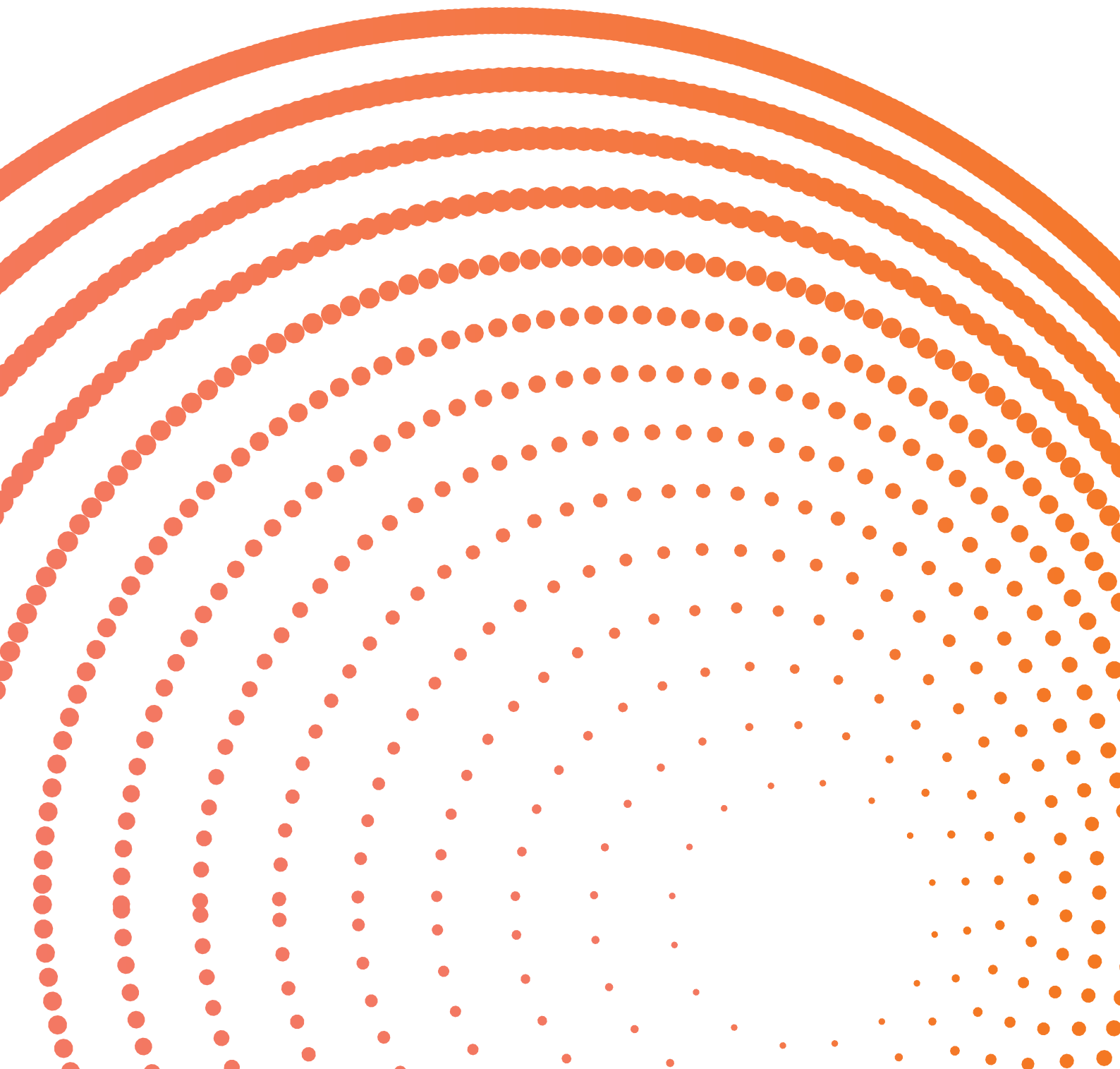
Rock IQ

Real Time Fragmentation Control

MOLYCOP

Instrumentation

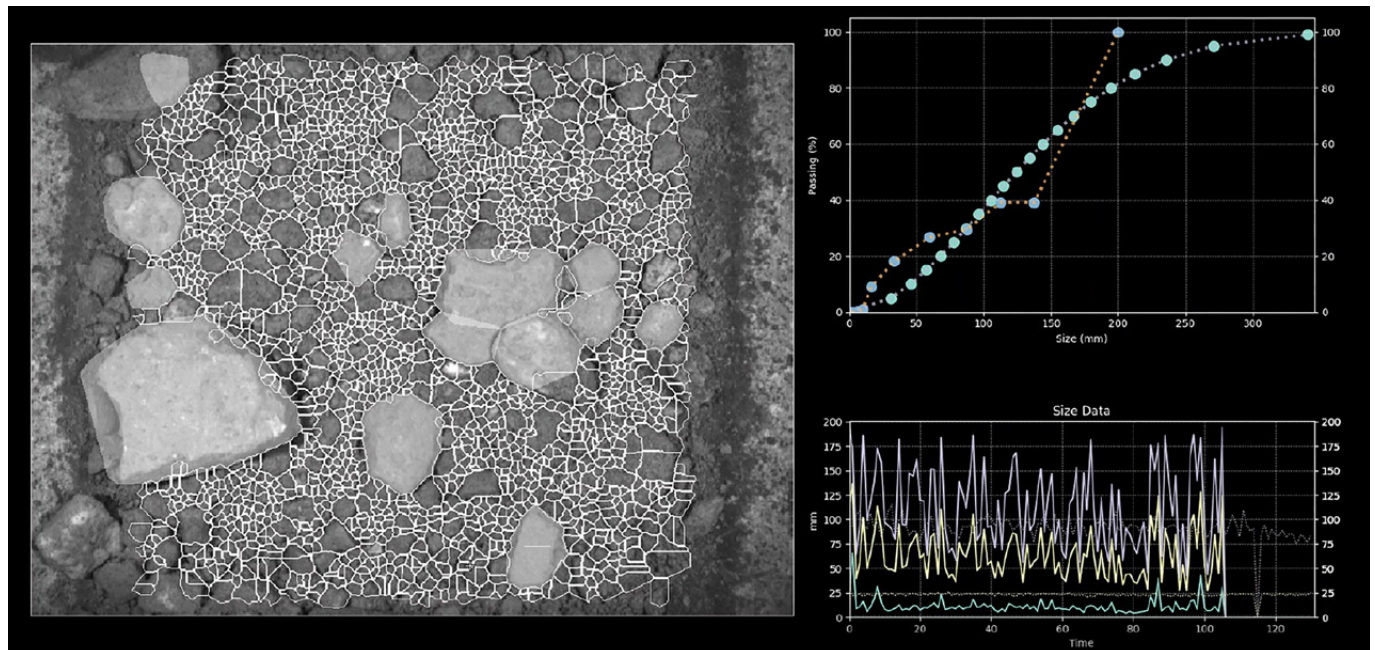
Milling



Rock IQ Overview

Rock IQ is a fragmentation measurement system specifically developed by Molycop (formerly ProcessIQ).

Images of the ore (on a conveyor or in a feeder) are captured by an IP camera and analysed to determine the coarse particle size distribution. Clients benefit from continuous, real-time measurements of the Particle Size Distribution (PSD) that can be used to optimise the comminution process.



Advantages

- Consistent, unbiased results
- Centralised operation or at the “Edge”
- Automated and continuous PSD measurement for advanced control
- Measurement statistics for increased confidence
- Improved blending of segregated ore
- Control Integration

Rock IQ can measure coarse particle size of material on a conveyor or at any transfer point.

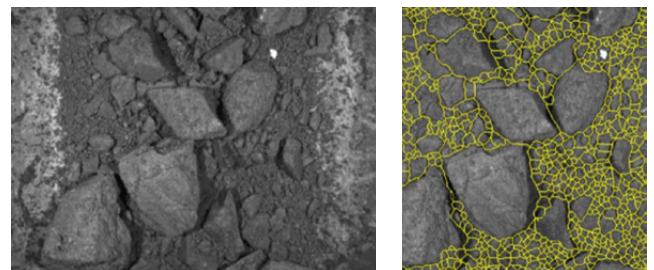
Typical locations include:

Primary Crusher Discharge	Secondary / Tertiary Crusher Discharge
Mill Feed	Pebble Crusher Product

Benefits

- **Increase throughput**
Improved crusher and mill operation
- **Improve process control**
Particle size is an important metric for optimal mill control
- **Maintain specification**
System can alarm when material is out of specification, for example an issue with the classification screens.

Rock IQ measures rock fragmentation (coarse particle size) in real time and without affecting production.



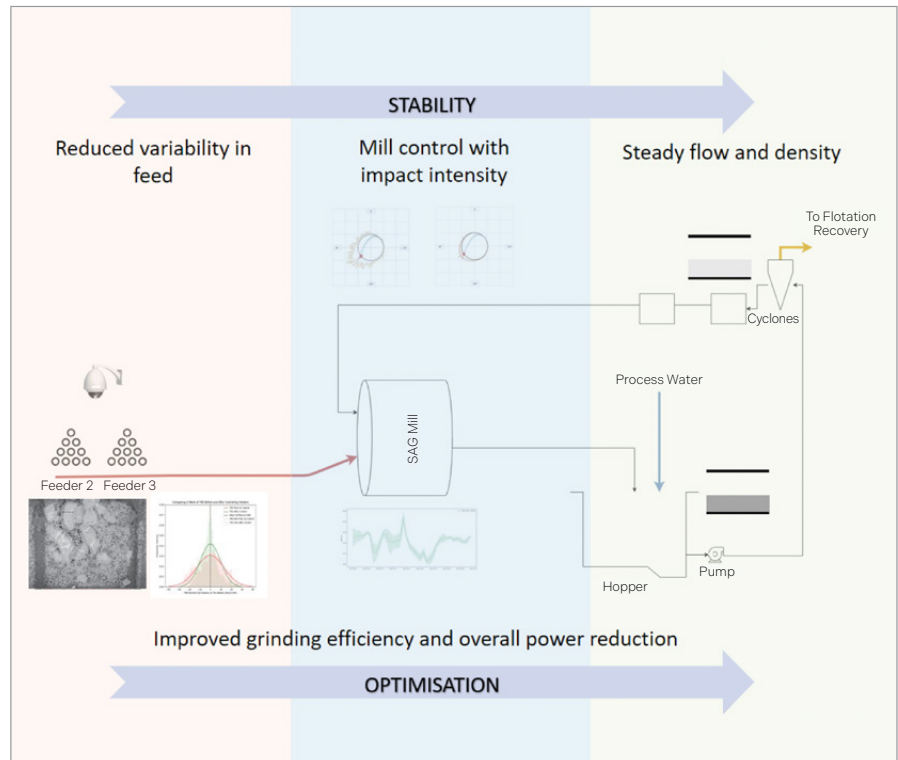
Control Integration

Several fragmentation measurement systems currently offer (more or less) the same thing: a real time measure of the coarse particle size.

Measurements by themselves, however, do not achieve much. What is critical is how the measurement is used to affect the process.

For over 10 years Molycop (formerly Process IQ) have been focused on the control and optimisation of mineral processing plants. In particular, Molycop have developed a comminution solution that combines niche instrumentation and advanced control to sustainability, throughput, recovery, and efficiency.

Molycop has the expertise to integrate existing Particle Size Measurements into an advanced control solution, and to provide a customised measurement and control solution. Value can be unlocked by integrating existing instrumentation into advanced control strategies, by providing new Particle Size measurements or by supplementing existing instrumentation



with additional fragmentation measurements.

Coarse particles take longer to leave a closed loop milling and classification circuit, affecting mill load, power, density and recirculating load.

Natural segregation on the stockpile often results in different feeders providing material with different feed size distributions. This natural segregation provides a handle to smooth out variability in the particle size distribution of the mill feed, to improve stability of the grinding circuit and reject short-term variability in the grinding circuit. A stable grinding circuit is a key component of an advanced optimisation strategy.

Rock IQ integrates directly with the Molycop solutions including MillStar APC control and MillSlicer VIP. Pairing fragmentation information with impact measurements from MillSlicer enables advanced optimisation of the mill operation.



If you're interested in exploring Molycop's products and services, we're here to help.



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