

The Journey to Circuit Optimization Starts with the Small Stuff

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In comminution circuit design and optimisation, emphasis is often placed on the shiny, bright lights of innovation, equipment selection and flowsheet configuration. Small stuff is frequently dismissed, but cumulatively can create significant losses in throughput, equipment availability, and product quality. Beyond that there are also concomitant effects on power and circuit effectiveness, which may lessen the original benefits and dim the brighter future being pursued.

This paper examines these “micro-losses” within crushing and grinding circuits, drawing on site-based experience and assessments across multiple operations. To illustrate the points, specific operational cases are provided to show what can happen, why it occurred and steps to avoid such situations.

By sweating the “Small Stuff”, through timely identification of issues, focussed attention and systematic operational analysis, the aim is to demonstrate that substantial improvements in comminution circuit performance can be achieved.