

CLOSING THE GAP

A new closed side setting (CSS) measurement device – the C-Gap – is now available to the Australian market through Mintap, based in Perth.

The C-Gap offers accuracy, safety and operability to the quarrying and mining industries for the measurement of the CSS in gyratory, jaw and cone crushers.

Mintap was established after a fortuitous meeting between Perth-based metallurgist Brant Tapley and a European crusher vendor conducting an audit at an iron ore mine in Norway. After spending countless hours at numerous mine sites trying to optimise crusher performance and explaining the need to measure the CSS of primary crushers accurately to management, Brant said seeing the C-Gap placed on a smoko table far from home was a "eureka!" moment. Mintap has secured the distribution rights to the C-Gap and obtained Australian RCM certification.

To cater for most crusher installations, the C-Gap can measure the CSS between 7mm and 220mm with an accuracy of +/- 1mm. The swivelled hoses connecting the sensors to the portable dustproof handheld unit are offered in lengths from 5m to 30m, enabling the user to remain well clear of the crusher without the need to lean over any handrails.

The C-Gap works by placing selected high density rubber hollow bulbs into the crusher

mantle. When the bulb is squeezed between the fixed and moving plates, the air pressure in the hose increases, and by correlating air pressure to CSS through manual calibration, the CSS is measured.

The process of measuring the CSS on all four sides of a cone crusher takes less than five minutes and requires only one operator. Jaw and gyratory crushers are about the same.

The C-Gap effectively replaces current methods of CSS measurement, namely the use of lead weights, steel drums, aluminium or clay balls, used oil filters or manual measurement. Because the procedure is so quick and simple, the CSS can be measured every shift on all crushers, ensuring consistent crusher operation by achieving targeted set points across all crews.

MAINTAINING THE CSS

To date, there has not been a quick, accurate and safe way to measure the CSS in larger primary crushers; the CSS on these crushers is usually measured during shutdowns only, meaning it runs unchecked for potentially weeks at a time. This results in reduced crusher performance, placing increased



The C-Gap effectively replaces current methods of CSS measurement.

emphasis on downstream circuits.

By measuring every shift, the CSS can be maintained and mantle wear can be documented, assisting with service planning.

Operators on sites using the C-Gap commended its "safety advantage over the lead weights". Through site comparative trials they noted the C-Gap had an improved accuracy over the use of traditional means.

The C-Gap is available for outright purchase and 12-month hire purchase. Cost-benefit analyses of sites that currently use lead weights have shown a payback within six months of purchase when one considers the cost and safe disposal of these. The sites that do not use lead weights enjoy the improved accuracy of the C-Gap. •

Source: Mintap Pty Ltd

petrographic services



GROUNDWORK plus

Fast, confidential petrographic examination, analysis and reporting

- Thin section and polished thin section preparation of geological materials including concrete and quarry products
- Petrographic investigation of source rock and ore minerals, quarry materials including sand, aggregates and building materials (concrete / bitumen)
- Petrographic reports for quarry certification