

Rio Tinto- Argyle Diamond Mine Reference: 1st November 2017

Argyle Diamond mine has been using the C Gap hand held unit since 2015 in this time we have had great success in reducing crusher downtime and improving our ability to monitor and control the gap set point to both our underground gyratory crushers due to the unit's ease of use while performing daily gap checks.

Performing crusher gap checks with the C Gap unit has eliminated the risk of falling objects to personnel performing the task as personnel are not being put in the line of fire.

Before we started using the C Gap unit to perform gap checks we only had two options

- 1) Use a rolled up aluminium foil ball on the end of a rope and lower into the crusher while crusher was on line with no feed. Then take the aluminium ball and measure the CSS with a set of measuring callipers. This method could only be performed ones before we had to reform the ball with more aluminium foil which was time consuming resulting in long periods of downtime close to 60 minutes per crusher per day.
- 2) Use a set of measuring callipers isolate the crusher clean down the apron feeder so no rock would fall into crusher while performing gap check open the inspection ports at the spider arm level and measure the CSS by hand. This method is also time consuming resulting in long periods of downtime close to 90 minutes per day and the utilisation of two licensed HV switching electricians to isolate the crusher.

This method was also unsafe due to the risk of falling rock from the apron feeder impacting operator's hands while performing the task.

Since we started using the C Gap unit it has reduced the time it takes to perform gap checks down to 10 minutes per day and we have the option to do multiple checks with minimal impact to production and manning.

Due to the C Gap units ease of use we no longer have to isolate the crusher we just stop feed prior to performing a gap check then lower the ball into the crusher bowl take 3 measurements then put crusher back on line.

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