

ACOUSTIC TREATMENT OF A BRADFORD BREAKER

HUSHPAK PROJECT CASE STUDY



...the quiet achievers

PROJECT OUTCOMES:

- ✓ Noise reduction in excess of 10dB(A)
- ✓ Decrease in site's overall noise footprint
- ✓ Reduction in noise complaints and exceedences
- ✓ On time
- ✓ On budget

THE PROJECT:

Coal mines are committed to decreasing their noise footprint within the local environment. Hushpak Engineering was engaged to design and develop a noise attenuation solution for a Bradford Breaker, which was a dominant noise source on a colliery site. The work was part of a larger project to decrease overall noise impact.

THE PROBLEM:

The mine site was exceeding imposed noise limits, which was impacting on residents in neighbouring suburbs.

One of the dominant noise sources contributing to the exceedence was determined to be the Bradford Breaker.

THE SOLUTION:

Hushpak designed and built a custom Acoustic Treatment System to attenuate the Bradford Breaker noise levels at the source itself. The solution incorporated Hushpak's patented Hushclad sound cladding panels, along with some additional noise attenuating materials.

The system was designed by Hushpak's acoustic engineers and manufactured at their Adamstown facility, before being installed on site.

THE RESULTS:

Noise levels were monitored before and after the Acoustic Treatment System was installed, in order to determine the degree of noise attenuation achieved by the system. Noise monitoring at the Bradford Breaker indicated that Hushpak's Acoustic Treatment System achieved a reduction in noise level of more than 10 dB(A). This means the perceived noise (the sound pressure) was reduced to 1/3 of the original level - a substantial improvement. Further away from the Bradford Breaker, reductions of more than 8 dB(A) were observed.

PROJECT BENEFITS:

The Bradford Breaker Acoustic Treatment Project is one in a series of site wide projects, helping to reduce the level of noise generated by the site and to decrease its effect on the residents of neighbouring suburbs.

The customer experienced a noticeable decrease in noise exceedence alarms as a result of the projects completed to date. Hushpak achieved substantial noise reduction contributing to a decrease in the site's overall noise footprint.



Preparing the breaker unit for installation of Hushclad



View from above; Bradford Breaker enclosed with Hushclad



Acoustic enclosure lowering onto the drive end of Bradford Breaker

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