

VARISTEM® Case Study | Noise, Vibration & Airblast

One of the largest financial gains from using the Varistem® blast stemming plugs is an improvement in overall fragmentation. This results in an improvement in loading rates, bucket fill factors, load and haul cycle times, and ultimately crusher throughput.

There are however numerous safety and environmental benefits offered by using Varistem® plugs in addition to the production benefits already achieved. These benefits include:

- Reduction in blast noise
- Reduction in ground vibration
- Reduction in flyrock and stemming ejection

A case study conducted on a quarry, surrounded by communities and sensitive structures, provides more insight into the type of noise and vibration improvement that can be achieved with Varistem® Blast Stemming Plugs.



VARISTEM® Case Study | Noise and Vibration Comparison

60% reduction 10% reduction | 10% reduction 7% reduction | 77% reduction 61% reduction

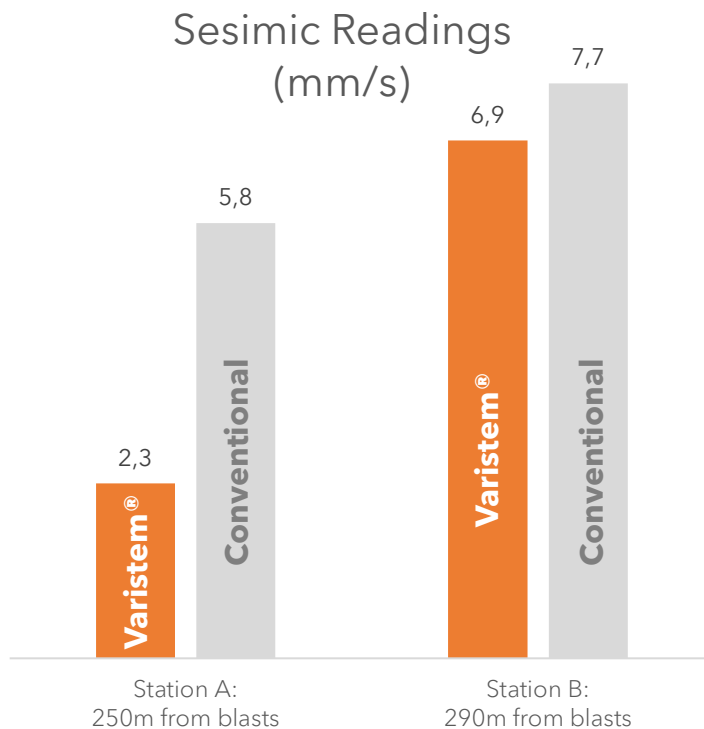


Figure 1: Average Seismic readings (mm/s) for two seismograph stations. Stations recorded pre-and post Varistem® Blasts

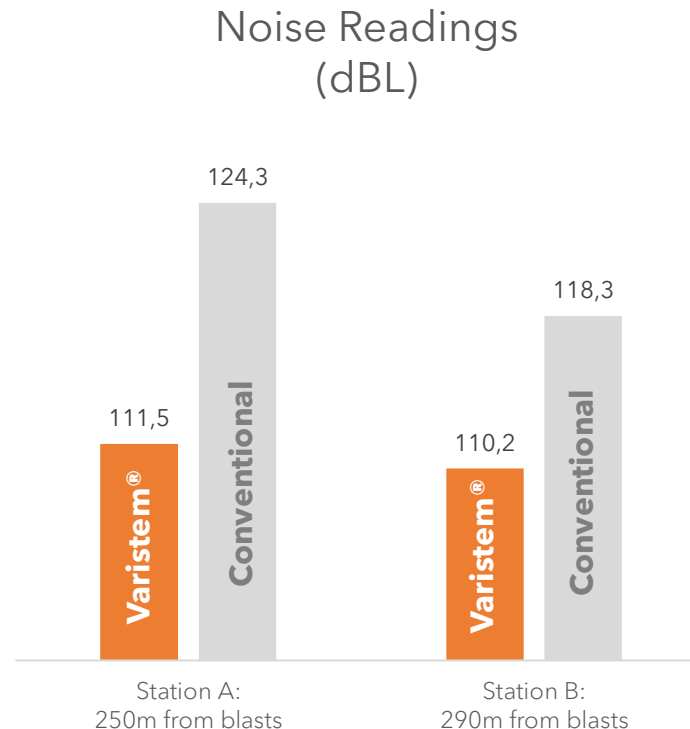


Figure 2: Average Decibel readings (dBL) for two decibel meter stations. Stations recorded pre-and post Varistem® Blasts

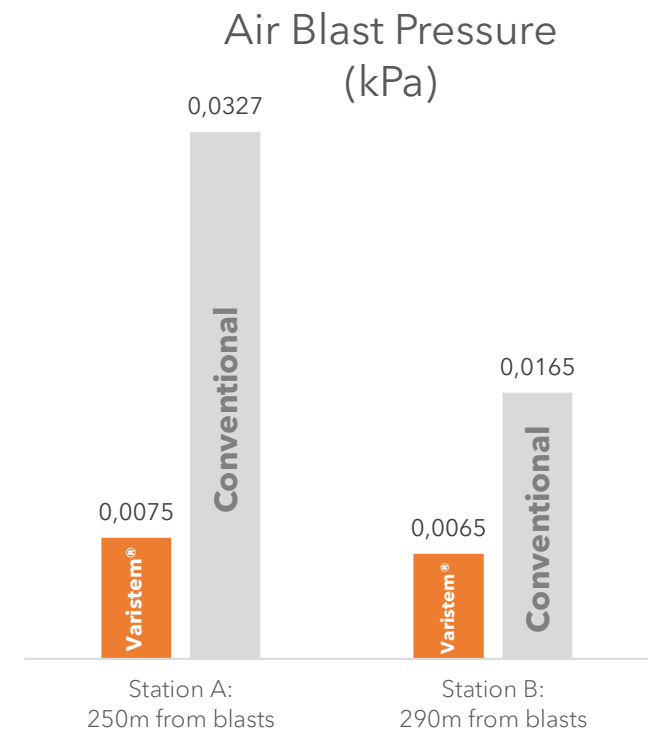


Figure 3: Average Pressure readings (kPa) for two pressure meter stations. Stations recorded pre-and post Varistem® Blasts

