



Location: Festus, Missouri
Industry: Construction
Material Manufacturer

73% REDUCTION IN VIBRATION LEVELS

THE RESULTS

After completing the recommendations, RDI Service Advisors observed:

Total Displacement Reduction from 57 mils to 15.5 mils.

Disappearance of south side mill vibrations.

Disappearance of west side mill vibrations.

Similar Relative Phase among the motor and gearbox of the raw mill.

THE CHALLENGE

Buzzi Unicem USA, a leading cement manufacturer, faced foundation concerns with a raw mill at their Festus, Missouri, site and contacted RDI Technologies. Their proactive approach highlights their commitment to informed decision-making, ensuring operation reliability and safety.

THE SOLUTION

Buzzi Unicem USA, contacted RDI Technologies for a Motion Amplification® service visit to assess the raw mill's vibration and movement. Scott Burkhart, Director of Services, and Jim Bricco, Senior Service Engineer, utilized the Iris M™ System, Motion Amplification, Shaft Inspection, and Motion & Phase Map. They identified vibration frequencies of interest, mainly related to mill and motor speeds (23 CPM and 896 CPM, respectively).

Significant base movement, primarily associated with the mill speed, led to heightened displacement near the mill's top, reaching 57 mils across the coupling. Additionally, some pedestals exhibited noteworthy movement, partly linked to mill speed but primarily attributed to random vibration.

With this data, RDI Services recommended to:

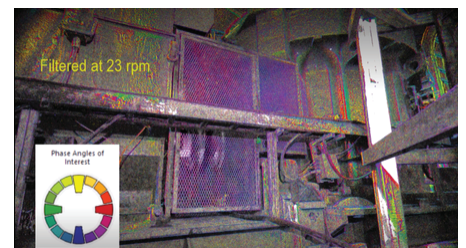
- Secure all hold-down bolts on all pedestals.
- Schedule Motion Amplification follow-up recordings after the scheduled foundation repairs were performed for commissioning and baselining purposes.



Click or Scan
to View the
Video Results



Jim Bricco takes non-contact data with the Iris M™ system to diagnose vibration issues.



Phase Map in RDI Motion Explorer® uses color to convey the phase relationship of different asset components