Chockfast

Escoweld 7505E / 7530 Grouting Compound Provides Precision Alignment for Silo Loading Cells

Problem:

At an agricultural facility, four independent load cells located underneath the silos are used to gather information on weight and volume of grain for transportation and processing. Significant process impact caused excessive vibration on the pads and the loading cells. This caused detrimental interference to the load cells resulting in inaccurate weight measurements.

Furthermore, it was found that the frame of the loading cell is also susceptible to physical degradation from exposure to the elements. To address these concerns, the client was in search of an epoxy grouting system that could withstand the stresses experienced by the loading cell to maintain accuracy of the equipment.

Solution:

The client selected the proven Escoweld 7505E / 7530 grout to secure the loading cells, withstand vibration, and ensure precision alignment.

- The load cells were aligned and then chocked to the original foundation.
- Forms were established around the load cells, to make space for grouting installation, supporting the alignment of the equipment.
- Escoweld 7505E / 7530 was then mixed using a mechanical mortar mixer until all components were thoroughly combined.
- Escoweld 7505E / 7530 was poured into the forms beneath the loading cells and left to cure for 24 hours.



Metal silos



Silo loading cell

Chockfast

Project Outcome:

Maintaining Precision Alignment

This agricultural plant needed a grouting solution that would maintain the critical calibrations and specifications of the loading cell. By utilizing Escoweld 7505E / 7530, the loading cells could be secured and aligned with the silos to dampen vibrations, helping to optimize the cells' performance.

If gone unchecked, the vibrations would have led to inaccuracies with the loading cells and additional calibration requirements. However, Escoweld 7505E / 7530 was able to prevent the detrimental vibration entirely from impacting the sensitive requirements of the equipment.

Increase Equipment and Foundation Service Life

The agricultural facility was seeking a proven, reliable solution to ensure consistent operations. The high performance and compressive strength of Escoweld 7505E / 7530 allowed for the loading cells to operate as expected thereby minimizing repair frequency and maintenance cost.



Loading cell after Escoweld installation

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