



Hygienic Food Processing Acoustic Control at Tyson Foods Using VibraCore® Acoustic Cleanroom Wall Panel Systems

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OVERVIEW

Tyson Foods operates large-scale food processing and packaging facilities where production lines, refrigeration systems, conveyors, and automated equipment operate continuously to support high-volume food manufacturing. These environments require strict sanitation standards and hygienic building materials to ensure product safety and regulatory compliance.

To improve acoustic performance while maintaining sanitation standards, Tyson Foods partnered with All Noise Control to implement VibraCore® Acoustic Cleanroom Wall Panel Systems engineered to reduce reverberation and improve acoustic control within hygienic food processing environments.

CHALLENGES

Food processing facilities are designed with durable, non-porous materials such as stainless-steel equipment, sealed wall systems, and epoxy flooring to maintain strict hygiene standards. While these surfaces support sanitation and cleaning procedures, they can also reflect sound energy, increasing reverberation levels throughout processing areas. Continuous operation of refrigeration compressors, conveyors, packaging systems, and ventilation equipment can produce sustained noise levels that spread throughout production zones. Excessive reverberation can make communication more difficult for workers and supervisors in active processing areas. The facility required an acoustic solution capable of reducing sound reflections while maintaining hygienic surfaces suitable for food production environments.

SOLUTION:

All Noise Control installed VibraCore® Acoustic Cleanroom Wall Panel Systems throughout selected processing and packaging areas to improve acoustic performance. The installation incorporated 2' x 4' x 2" thick fiberglass cleanroom acoustic panels engineered with a 6–7 PCF rigid fiberglass core designed for effective sound absorption.

These cleanroom acoustic wall panels provide an NRC rating of 0.85, significantly reducing sound reflections generated by mechanical equipment and refrigeration systems. Each panel is fully encapsulated with a durable PVF cleanroom finish, providing a sanitary, washable surface suitable for hygienic food processing environments while meeting Class 100 cleanroom standards and ASTM E84 Class A fire safety ratings.

RESULTS:

- Reduced equipment noise reflections in food processing zones
- Improved communication clarity among production staff
- Maintained sanitary conditions required for food manufacturing
- Enhanced acoustic comfort in packaging and processing areas
- Installed durable cleanroom acoustic wall panel systems