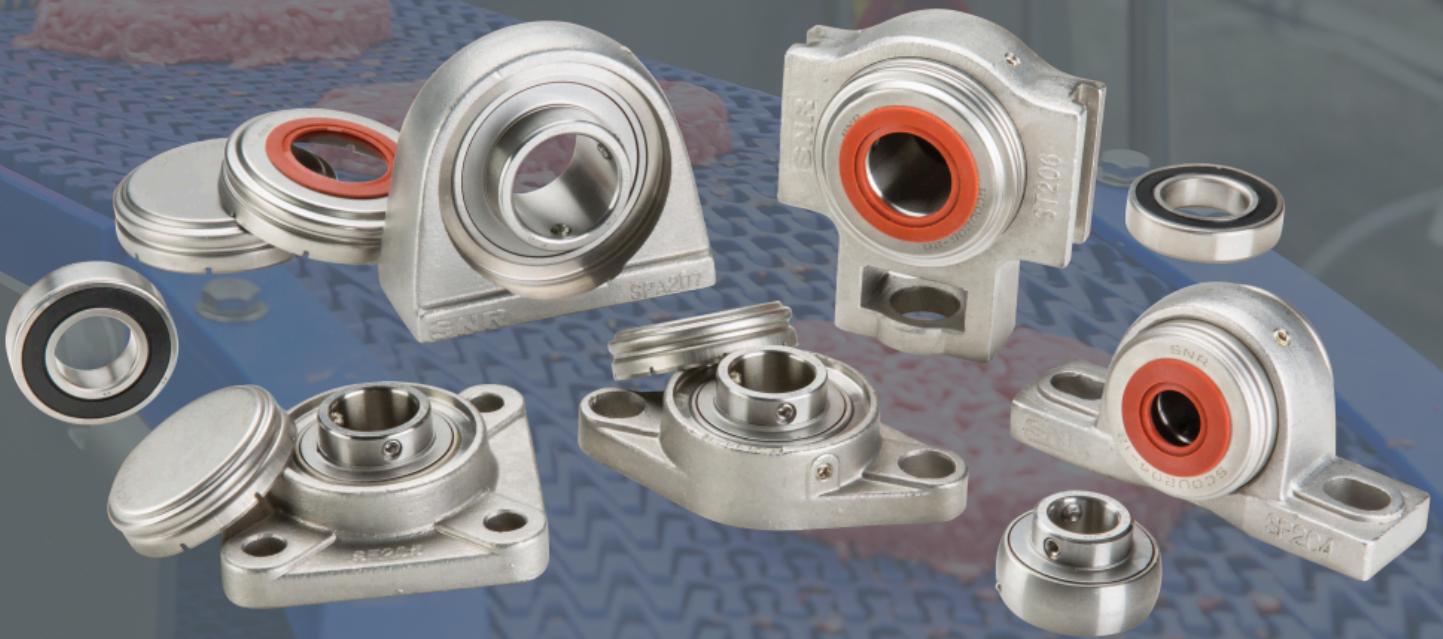


CASE STUDY

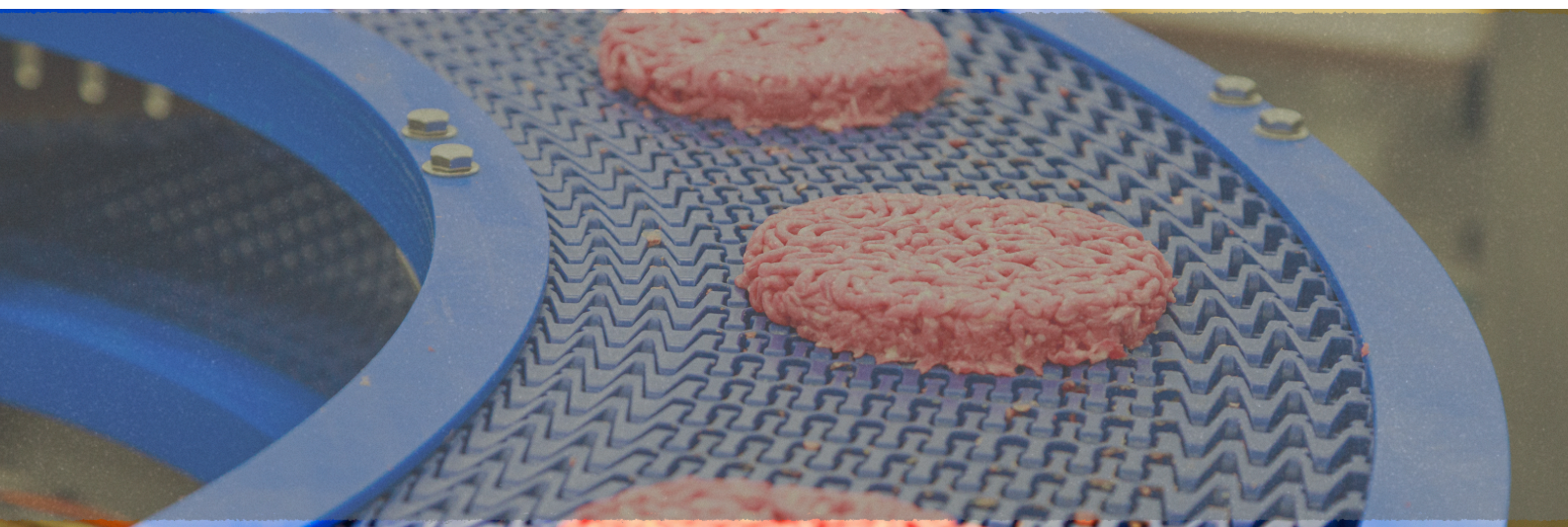
NTN-SNR SENTINEL RANGE



OVERVIEW

A UK beef processing plant and abattoir runs high-throughput carcass dressing, cutting and packing lines. It is a cold, wet, high-care environment with continuous high-pressure washdown, aggressive cleaning chemicals, and strict food-safety requirements.

Mounted bearing units, pillow blocks and flange units, carry the conveyors and drive shafts throughout the plant, often sited directly above or beside open product. The customer approached Orbic Engineering Solutions after a persistent run of bearing failures began driving up downtime, replacement spend, and hygiene risk.



THE CHALLENGE

The plant had been buying cheap, unbranded imported bearing units to save money. In a beef-processing washdown environment, that economy was a false one:

- The low-cost units failed repeatedly. Poor seals and inferior grease let water and cleaning chemicals in, washing out the lubricant and corroding the bearings.
- Each failure meant an unplanned line stoppage, an emergency replacement, and lost production, the failures were frequent and unpredictable.
- The lubricant in the imported units was not reliably food-grade, and grease leakage near open product created a real contamination and hygiene-audit risk
- Non-stainless or low-grade housings rusted quickly under daily high-pressure, chemical washdown, shortening life still further
- Constant re-ordering and re-greasing consumed maintenance labour, and the true cost of the 'cheap' units downtime, spoilage risk, labour, far exceeded their low price

OUR SOLUTION

Orbic specified NTN's food-industry SENTINEL range, stainless steel mounted bearing units built specifically for wet, high-care food processing, as a direct replacement for the failing imported units.

The housings and inserts are 100% stainless steel, standing up to the aggressive daily washdown and cleaning chemicals that had rusted the previous units. The inserts use NTN's LUBSOLID solid lubrication in a 'Full Pack' an oil-impregnated polymer matrix that fills the bearing's free space and lubricates it for life, with no grease to leak or wash out. It is NSF H1 registered, and the FDA-compliant seals are made in a visible blue so any fragment is easy to detect, both critical points in a beef-processing hygiene audit.

Because LUBSOLID needs no re-greasing, the grease nipple is replaced by a stainless screw, removing manual lubrication from the schedule entirely and eliminating grease leakage over open product. Stainless protective end covers were added for extra protection during high-pressure washdown.

The units are dimensionally standard, so they fitted the existing conveyor and drive mountings as a straight swap. As an authorised NTN distributor, Orbic provided the selection, NSF and FDA documentation, and on-site support to roll the range out across the plant's critical lines.

OUTCOME

- ✓ **58% Reduction in Unplanned Downtime**
- ✓ **Bearing Failures Drastically Reduced**
- ✓ **Manual Re-Greasing Eliminated with LUBSOLID**
- ✓ **Full Food-Safety Compliance - Audit-Ready**
- ✓ **Corrosion Resistance Under Daily Washdown**
- ✓ **Lower Total Cost of Ownership**