Food Processing: Case Study

Increased Uptime by 40%

The Challenge: Costly Downtime and High Maintenance

A leading UK-based food manufacturer specialising in ready meals and frozen products faced a critical operational challenge: **unacceptably high downtime** in their processing lines. The intense, corrosive washdown procedures—necessitated by strict hygiene standards—were causing standard steel conveyor chains to degrade rapidly.

- **Frequent Failures:** Chains required replacement or repair every 3-4 months.
- **High Maintenance Costs:** Excessive labour hours were spent on lubrication and emergency repairs.
- **Lost Production:** Each unplanned stoppage cost the company thousands in lost product and missed delivery deadlines.

The Solution: Switching to High-Performance Stainless Steel Chains

Chain Supply UK engineers conducted a full audit of the client's washdown protocols and operating environment. We recommended and implemented our premium, high-grade **Stainless Steel Chain Solution**, specifically designed to withstand harsh chemical washdowns and extreme temperatures.

- **Material:** Specialised austenitic stainless steel (e.g., Grade 316) for superior corrosion resistance.
- **Design:** Optimised chain geometry and sealed components to minimize ingress of contaminants and cleaning agents.
- **Installation:** Phased rollout across the most critical, high-impact production lines.

The Results: A Dramatic Improvement in Efficiency

The implementation led to immediate and sustained operational improvements, significantly extending the lifespan of the chain system and reducing maintenance overhead.

Metric	Before Chain Supply UK Solution	After Chain Supply UK Solution	Improvement
Average Chain Lifespan	3-4 Months	14-16 Months	**300% Increase**
Unplanned Downtime	150 hours/year (per line)	90 hours/year (per line)	**40% Reduction**
Annual Maintenance Cost	High	Reduced by 35%	**Significant Savings**

"The switch to Chain Supply UK's stainless steel chains has been a game-changer. We've gone from constant firefighting to proactive maintenance, securing our production schedule and saving a fortune on replacement parts." - *Head of Engineering, Leading Food Manufacturer*

chainSupply UK

Chain Supply UK (CSUK) was founded in 2005 to source and supply all chain types, SMSRs & ancillary products for the industrial distribution market.

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⚙️ Manufacturing: Case Study

Reduced Costs by 30%

The Challenge: Inefficient Maintenance and Excessive Lubrication

A major automotive parts manufacturer supplying Tier 1 suppliers in the UK was operating with a reactive maintenance schedule for their assembly lines. Their high-speed precision conveyor systems required constant, hands-on attention, leading to substantial hidden costs.

- **Reactive Repairs:** Failures were often addressed *after* a breakdown occurred, leading to production bottlenecks.
- **Lubrication Overload:** Excessive oil was being applied to chains, leading to product contamination risk and higher disposal costs.
- **Short Chain Life:** Premature wear caused by inadequate lubrication penetration and inconsistent tension.

The Solution: Proactive Maintenance Program and Chain Optimisation

Chain Supply UK implemented a comprehensive **Preventive Maintenance and Chain Optimisation Program** centred on introducing advanced, low-maintenance chain technology.

- **Technology:** Switched key lines to our **Maintenance-Free, Self-Lubricating Chain** to eliminate the need for manual oiling.
- **Service:** Implemented a quarterly on-site audit schedule focusing on tensioning, alignment, and wear monitoring.
- **Training:** Provided detailed training to the client's maintenance team on predictive failure indicators and correct installation techniques.

The Results: Streamlined Operations and Substantial Cost Savings

By moving from a reactive to a proactive model, the client unlocked significant efficiencies, leading to a massive reduction in operational expenditure.

- **30% Reduction in Total Maintenance and Operation Costs** (achieved within 12 months).
- **Elimination of Daily Lubrication Labor:** Redirected 10+ man-hours per week to higher-value tasks.
- **90% Reduction in Spoilage Risk:** Completely eliminated lubrication contamination of finished components.
- **Increased Chain Life:** Self-lubricating technology led to smoother operation and a **2x longer lifespan** on critical components.

"Our operational budget saw an immediate benefit. The initial investment in the self-lubricating chains paid for itself within the first year purely through the reduction in maintenance labour and oil costs."
- Plant Manager, Automotive Components Facility

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🚚 Logistics: Case Study

Zero Unplanned Stops

The Challenge: Reliability in a 24/7 Distribution Hub

A large distribution centre, critical to a major retailer's e-commerce operations, relies on hundreds of meters of conveyor chain systems to sort and move thousands of parcels every hour, 24/7. Unplanned downtime is catastrophic, creating backlogs and damaging customer service reputation. The centre was experiencing 3-5 unscheduled stops per month due to chain breakages and component wear.

- **High-Stress Operation:** Chains were subjected to continuous start/stop cycles, heavy loads, and abrasive dust/debris.
- **Cost of Failure:** Each stop required a full system shutdown and cost the facility an estimated £5,000 per hour in lost productivity.
- **Lack of Visibility:** Maintenance was guesswork based on historical averages rather than real-time component health.

The Solution: A Digital Reliability Program and Precision Chains

Chain Supply UK developed and deployed our **Comprehensive Reliability Program** for their main sortation hub, combining superior hardware with a digital monitoring service.

- **Hardware:** Installed our **High-Tensile, Shock-Resistant Conveyor Chains** designed for high-cycle, heavy-load logistics applications.
- **Monitoring:** Integrated our proprietary **Wear and Vibration Sensors** onto critical chain segments.
- **Service:** Provided **24/7 Remote Monitoring** and weekly Predictive Maintenance reports, alerting the client *before* a component reached a critical failure point.

The Results: 12 Months of Flawless Operation

By moving to a truly predictive maintenance model, the distribution center eliminated the root cause of unplanned stops and achieved a significant operational milestone.

- **Zero Unplanned Stops:** Maintained **12 consecutive months of operation** without a single stoppage related to chain failure.
- **Increased Throughput:** Consistent, reliable operation allowed the facility to increase its hourly processing capacity by **5%**.
- **Predictive Scheduling:** Maintenance is now scheduled precisely, replacing only components that are nearing their end-of-life, saving time and component costs.
- **£180,000+ Savings:** Avoided the estimated cost of downtime from the previous year.

"Our entire operation hinges on the chain reliability, and Chain Supply UK delivered. Achieving a full year of operation without a single breakdown is phenomenal and has fundamentally secured our holiday peak season capacity." - *Operations Director, National Distribution Centre*