

# Use Case - Primary and Secondary Packaging

## Ensuring Precision and Reliability Across Packaging Stages

Packaging lines face challenges like inconsistent fills, poor sealing, and misaligned packages, leading to waste, higher costs, product recalls and customer complaints. Pronetiqs SID addresses these issues with real-time monitoring and diagnostics, ensuring reliable, efficient, and high-quality packaging at every stage.

### The Challenge.

Production manufacturers face significant challenges in both primary and secondary packaging processes. In the filling and sealing phase, issues such as inconsistent fill levels and improper sealing can result in product wastage and the risk of spoilage. Likewise, during secondary packaging, where products are grouped for shipment or retail, common issues include misalignment and inadequate structural strength, which causes damage during transit phases. These challenges often lead to operational delays, increased costs, and customer dissatisfaction due to bad product quality.

**Reliable Material Handling:** Complex mechanisms ensure that packages and content are processed accurately through the machine. Short stops or longer downtimes negatively impact line efficiency. SID continuously monitors each of these mechanical assemblies, alerting operators to deterioration before it impacts the line.



### The Solution.

Deploying the SID platform, a predictive engine running at peak performance, major components can be monitored for anomalies in their processes via providing real-time monitoring and diagnostics.

#### Filling Machines

##### → Purpose

To fill containers with precise amounts of product, minimizing waste and ensuring consistency.

##### → SID Impact

**Accurate Fill Levels:** Volumetric controls to ensure each container meets exact specifications. Challenging production environments lead to wear and tear on sensitive components such as valves, cutting assemblies, scales or filling nozzles; SID detects when these components are showing signs of deterioration that impact machine performance, allowing you to maintain perfect quality.

**Instant Issue Detection:** Integrated sensors monitor for fill variances or interruptions, enabling immediate action.

#### Sealing Machines - Product Freshness

##### → Purpose

To securely seal containers, preventing leaks and preserving product quality.

##### → SID Impact

**Sealing Integrity:** High-precision systems create airtight seals, reducing spoilage during storage and transport. SID monitors the process to ensure consistency, ensuring food safety.

**Real-Time Monitoring:** Automated checks ensure correct sealing pressure to maintain consistency and detect potential issues.



## Palletizing Machines - Grouping and Protection

### → Purpose

To package multiple primary units together for secure transport and distribution.

### → SID Impact

**Robust Carton Alignment:** Ensures products are securely housed to prevent movement and damage. Accomplished using intricate mechanisms that are often prone to "short stops", SID monitors mechanical performance to identify signs of deterioration.

**Enhanced Structural Integrity:** Advanced materials and techniques strengthen cartons for improved durability during transit.

**Accurate Barcoding and Labelling:** Automation applies barcodes and labels with precision, ensuring compliance with retail and supply chain requirements.



### Conclusion.

Upgrading primary and secondary packaging processes enables manufacturers to overcome long-standing operational inefficiencies. Adopting SID delivers higher product quality, reduced costs, and increased end-user trust through reliable precision at every stage of the packaging lifecycle.

### Enhance your performance with Pronetiqs SID.

Contact us for a demo.  
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## Your Added Value.

The adoption of Pronetiqs SID will bring you:

**Improved Efficiency** – Reduces packaging line disruptions and supports seamless production flow.

**Minimized Waste** – Enhances filling accuracy and sealing reliability, decreasing product waste across the line.

**Greater Product Integrity** – Ensures products reach customers in optimal condition, leading to increased satisfaction.

**Streamlined Logistics** – Secured and properly grouped packages reduce transit-related damage and optimize transportation.

