

The food safety imperative

The potential for food borne illnesses threatens food manufacturers, retailers and consumers.

84% of consumers hold manufacturers and retailers responsible

48 million people (1 in 6 Americans) contract food borne illnesses each year

A recent recall cost a leading ice cream maker a **67%** sales loss

A single, 250-person outbreak can cost a fast food restaurant up to **\$1.9 million**

Protecting food quality and sustainability

Transportation — Seatrade

Time and temperature certainty are essential for perishables on the move.

Improve food quality, grow the bottom line

Challenge

Because the voyage of perishable food cargo at sea can last up to seven weeks, the temperature consistency of reefer containers is essential to preserving cargo quality and safety. When the world's largest reefer vessel operator sought to upgrade its new container fleet, it needed remote visibility into each container throughout this journey.

Solution

Copeland's data acquisition solutions for fleet and asset management equipped Seatrade's reefer containers with the most reliable remote monitoring solution available:

- REFCON system for power-line reefer monitoring
- ProAct™ Transport software
- API integration



Results

- Enabled real-time remote, centralized monitoring of new, high-value reefer fleet
- Preserved quality and safety of perishable cargos
- Automated data logging and documentation of event history
- Provided visibility from land to reroute containers into alternate trades

Copeland has solutions for critical areas, applications and markets

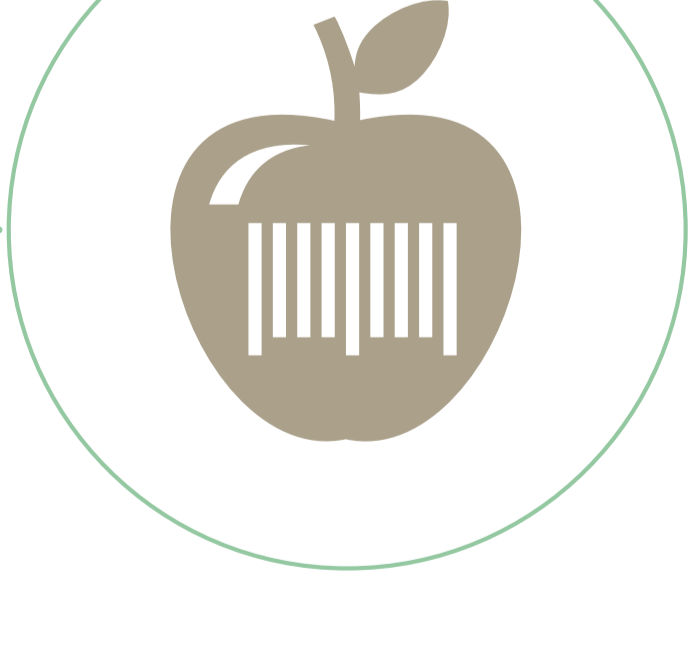


	Harvest	Processing	Transportation	Distribution	End users
Copeland™ compressors and refrigeration systems	✓	✓	✓	✓	✓
Vilter™ industrial refrigeration	✓	✓		✓	
Facility management systems and Dixell™ controls	✓	✓	✓	✓	✓
GO loggers and trackers	✓	✓	✓	✓	✓
Cooper-Atkins™, ProAct™ and White-Rodgers™ temperature management	✓	✓	✓	✓	✓
ProAct™ connectivity, insights and services			✓	✓	✓
Project management				✓	✓

Additional Copeland solutions

Conditions control, management and insights

- Electronics and facility controls
- Oversight services for cargo
- ProAct connectivity and monitoring
- ProAct software, apps and services
- ProAct service center
- Transformative wave HVAC and RTU management systems
- Cooper-Atkins temperature management systems
- REFCON vessel and terminal monitoring

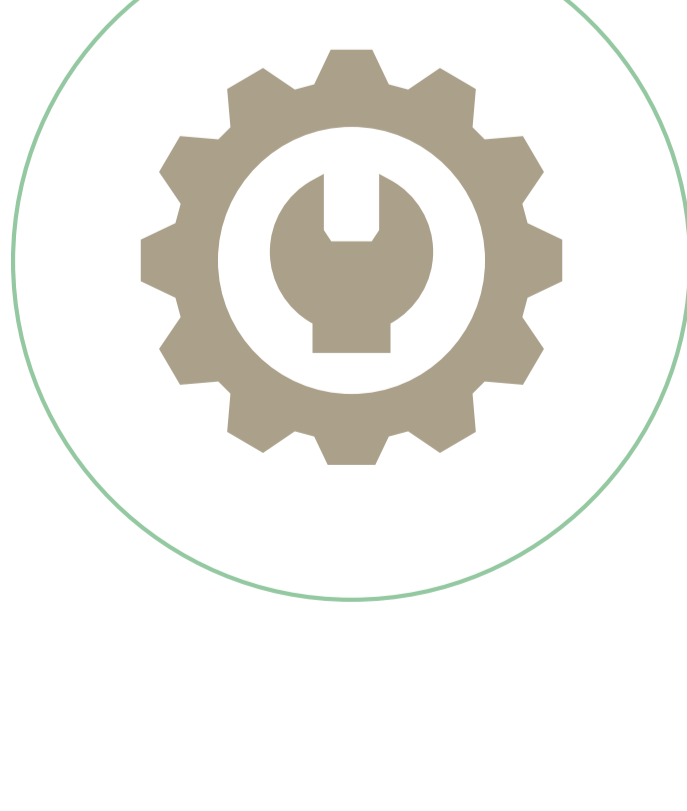


Food safety and quality

- Copeland efficient compressors and refrigeration systems
- Cooper-Atkins temperature monitoring and management
- Dixell parametric, system and facility controls
- Electronics and controls
- Cargo trackers and loggers
- ProAct connectivity and monitoring
- ProAct alarm management and food quality services
- Vilter industrial refrigeration
- REFCON vessel and terminal monitoring

Infrastructure and maintenance

- Copeland efficient compressors and refrigeration systems
- Dixell parametric, system and facility controls
- Electronics and facility controls
- Project management services
- ProAct connectivity and monitoring
- ProAct site manager, apps and PSC services
- ProAct software, apps and services for facilities
- Transformative wave HVAC and RTU management systems
- Vilter industrial refrigeration



Energy and sustainability

- Copeland efficient compressors and refrigeration systems
- Copeland alternate refrigerant compressors and systems and refrigeration systems
- Dixell parametric, system and facility controls
- Electronics and controls
- Commissioning services
- ProAct connectivity and monitoring
- ProAct reporting, services and insights
- Transformative wave HVAC and RTU management systems