Kinrise Snackfoods bakes efficiency and business continuity into its operations with MiR AMRs from Konica Minolta

CHALLENGE

- Improve onsite safety and efficiency
- Achieve data-driven oversight and analytics capabilities
- Reduce reliance on manual pallet handling and operational bottlenecks.

SOLUTION

- MiR1350 pallet lift – Autonomous Mobile Robots (AMR) with pallet lifter
- MiRCharge48 – autonomous charging solution
- MiR Fleet – AMR fleet management software
- sConnect – AMR performance analytics software.

CUSTOMER BENEFITS

- Enhanced onsite safety through reduced manual labour
- Enhanced productivity through improved efficiency and continuous operation
- Access to real-time data for improved decision-making
- Scalable model to support future growth.

Kinrise.
Creating moments of joy through food.

Industry: Food and beverage manufacturing
Location: Melbourne, VIC

Kinrise Snackfoods is one of Australia's largest food manufacturers and is responsible for producing some of the country's well-known snack brands, including Cobs, Greens, and Waterthins. Kinrise Snackfoods has more than 40 years of experience in making iconic Australian snack foods, and consistently emphasises innovation in its manufacturing processes to maintain high standards of efficiency and safety.

Giving Shape to Ideas

> "Working with Konica Minolta Australia for this project has transformed our manufacturing processes, streamlined operations while improving our working environment."
>
> **KATHY GAVRILIDIS,**
> **HEAD OF OPERATIONS,**
> **KINRISE SNACKFOODS**

Challenge

Kinrise Snackfoods faced significant challenges in managing the internal logistics of its large-scale manufacturing facilities for its Cobs operations. In particular, its manual pallet handling process was labour-intensive, requiring transportation of full pallets from palletising robot cells to the hood wrapper and simultaneously managing the distribution of empty pallets back to the palletising cells. This traditional method posed safety risks to human workers while limiting operational efficiency, leading to bottlenecks, increasing the risk of workplace accidents, and reducing the overall throughput of the manufacturing process.

The existing system also lacked the analytical capabilities to optimise operations, leaving Kinrise Snackfoods with limited insight into key performance metrics that could drive further efficiency improvements. This lack of data-driven operational oversight hindered proactive decision-making and operational agility.

The solution

In response to these challenges, Kinrise Snackfoods partnered with Konica Minolta Australia to deploy four autonomous mobile robots (AMRs) from Mobile Industrial Robots (MiR) as part of an automated intralogistics solution. These robots are engineered to autonomously transport full pallets throughout the manufacturing facility, significantly reducing manual handling and enhancing safety. The system integrates with existing palletising robot cells and hood wrappers, creating a seamless flow of pallets from production to packaging. Kinrise Snackfoods also deployed MiRCharge, an autonomous charging station, and MiR Fleet, a fleet management software that manages job distribution, traffic management, and auto charging amongst the AMRs as part of its solution. This holistic approach delivers more efficient job distribution and traffic management within Kinrise Snackfoods' facilities.

The implementation also featured Konica Minolta's proprietary sConnect analytics software, giving Kinrise Snackfoods access to essential insights such as use rates, charging performance, and location heatmaps. This data is instrumental in driving further efficiencies and operational oversight, as access to real-time data lets the team make informed decisions that significantly enhance its operational efficiency.

Kathy Gavrilidis, head of operations, Kinrise Snackfoods, said "The implementation of MiR robots at Kinrise Snackfoods' facility has given us greater productivity, greater operational efficiency, and improved our safety overall on our site. It has really been a valuable investment for Kinrise Snackfoods."

Prior to implementation, Konica Minolta Australia conducted a thorough pre-simulation to ensure the solution was tailored to the specific needs of the Kinrise Snackfoods manufacturing environment. This simulation was critical in validating the functionality and integration of the AMRs with the existing systems, such as the palletising robot cells and hood wrappers. By simulating the real-world operations within the facility, potential issues were identified and addressed proactively, ensuring a smooth transition and minimising downtime.

Dev Mali, national capital program manager, Kinrise, said "The Konica Minolta Australia team was very professional, and provided a pre-simulation to ensure the solution was fit for purpose. Additionally, the support provided post-implementation is second to none."

Giving Shape to Ideas

Customer benefits

The AMR deployment has transformed the operational dynamics at Kinrise Snackfoods. One of the most significant improvements has been the increase in safety and efficiency: the integration of AMRs has noticeably reduced manual labour for human workers onsite, which has directly decreased the incidence of work-related injuries. Additionally, the AMRs operate around the clock, handling hundreds of pallets weekly and covering extensive distances within the facility. This ensures that production never halts and goods are moved swiftly and seamlessly, boosting the operational efficiency of the business.

The insights provided by sConnect analytics have also empowered Kinrise Snackfoods to optimise its

operations continuously. The ability to monitor performance metrics and adjust operations dynamically has led to sustained improvements and adaptability in manufacturing processes. Importantly, it has laid down a scalable model for future growth, which is crucial in today's competitive market.

Following the successful deployment of the AMRs, Konica Minolta continues to provide post-implementation support to ensure the ongoing success and optimisation of the automated systems at Kinrise Snackfoods. This support includes regular maintenance checks, software updates, and training sessions for Kinrise Snackfoods staff to manage and operate the new technology efficiently.

Kathy Gavrilidis said, "The solution's intuitive interface and ease of use lets Kinrise Snackfoods manage these AMRs with existing staff. Working with Konica Minolta Australia for this project has transformed our manufacturing processes, streamlining operations while improving our working environment."

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**DEV MALI,
NATIONAL CAPITAL
PROGRAM MANAGER,
KINRISE SNACKFOODS**