



# Speedcargo and Güdel Announce Launch of Automation System for ULD Palletizing

**First-of-its-kind robotic end-to-end material handling solution for large and heavy loads.**

**Munich, April 2023** – The recently announced partnership between Speedcargo and Güdel has resulted in a breakthrough automation system that will revolutionize the way ground handling operates from acceptance to build-up. Robotic automation has not seen success in the airfreight industry due to the unstructured and non-standard nature of cargo. This is the world's first robotic

end-to-end material handling solution which can handle cargo of varying sizes and weights: from very small to very large, very light to very heavy, and from standard to odd-shaped cargo.

Combining Güdel's advanced gantry robot systems and decades of knowhow in intralogistics automation, and Speedcargo's expertise in advanced software for

3D computer vision, optimization and intelligent robotics, the system will improve three key ground handling operations.

First, the system improves acceptance by creating express automated lanes with a seamless integrated process for weight, dimension and x-ray checks. This enables continuous acceptance and improves cargo throughput at the acceptance gates

and ready-for-carriage cargo will then be moved to the buffer zone.

Secondly, the system allows for automated storage for buffer and retrieval. Accepted cargo will be intelligently and efficiently stored and managed to enable precise and fast retrieval for a flexible and optimized ULD build-up. The system allows storage space to be managed dynamically, allowing the warehouse to be used to its full capacity.

Thirdly, the system automates ULD Build-Up. Optimized ULD build-up plans are automatically executed using precision gantry robots while a centralized control system ensures that the cargo is fed to the palletizing robot in an optimized sequence that results in a fast, reliable and secure build-up. The system is also equipped with a range of sophisticated grippers and sensors to ensure that high-mix cargo is handled with a very high degree of safety and reliability.

**“The industry is at the cusp of change. The pandemic heightened the industry’s focus on cargo and brought to fore key challenges relating to an ageing and depleting workforce, while increasing the pressure on**

**warehouse space as cargo volumes continue to rise. Automation addresses these key issues and will become a foundational building block for future airfreight operations.”**

*Dr. Krishna Kumar Nallur, CEO Speedcargo*

Automated cargo handling solutions will address some of the key challenges faced by the industry around labour constraints due to demographic trends. There is a dwindling number of trained and experienced cargo handlers to ensure efficient operations and this trend has been accelerated by the Covid pandemic and ongoing retirements. New entrants to the workforce are less willing to do labour-intensive jobs, which involve both mundane tasks and hazardous heavy lifting. Automation will make air cargo handling attractive to the next generation by upskilling the workforce and creating an environment that focuses on managing automated digital systems.

Automation also addresses space constraints. Increased cargo volumes are continuously putting pressure on warehouses, increasing demands on space and impacting handling safety and quality. Automation will not only in-

crease cargo throughput, but also save space and maximize the utility of existing infrastructure.

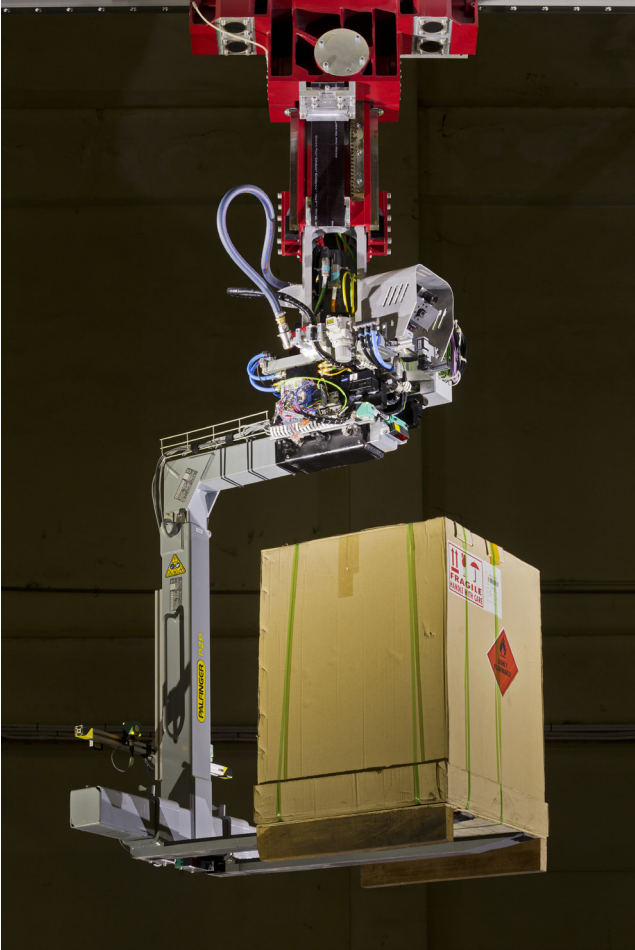
Lastly, automation establishes consistency and safety in quality handling. The existing handling process depends on trained and experienced handlers on the ground to ensure quality and consistency in cargo build-up. With processes that rely on human labour, errors and delays are inevitable, especially with a fluctuating labour force and space constraints. Automating the cargo handling process will ensure consistent, safe and quality handling with continuous 24x7x365 operations.

**“As wages rise and labour shortages worsen, air freight handling will become increasingly automated. Our partnership with Speedcargo allows us to take advantage of the potential of pick-and-place applications when combined with artificial intelligence.”**

*Matthias Vogelsanger, CTO Güdel Group*



The new robotic system is expected to change the way air freight ground handlers store and move cargo at airports around the world.



This robotic system is capable of handling cargo of a variety of sizes and weights, even odd-shaped cargo.

## About Speedcargo Technologies Pte Ltd

Speedcargo Technologies brings innovative solutions that use computer vision technologies, robotics and advanced algorithms to transform the air cargo industry. Speedcargo's suite of products help Airlines and Ground Handlers improve their revenue realization, optimize capacity utilization, upgrade cargo handling and maximize efficiency in operations. Based in Singapore, Speedcargo is a spin out from Technical University of Munich (Germany) (TUM) – CREATE and its products have been developed, tested and deployed in live operations. [www.speedcargo.sg](http://www.speedcargo.sg)

## Güdel Group AG

The Güdel Group, a Swiss manufacturer of high-precision machine components and provider of sophisticated turnkey automation solutions, offers in-depth experience in intralogistics and material handling. The product spectrum ranges from linear guideways, racks, pinions and drives right through to linear tracks for robots and gantries. Güdel's technology is characterised by innovation, quality and modularity. The Güdel Group is headquartered in Switzerland and has a strong footprint with around 20 locations worldwide. [www.gudel.com](http://www.gudel.com)

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