Ultracompact and Cost-efficient: NXS 300 Drives the Next Generation of Automated Small Load Carriers

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Autonomous Mobile Robot (AMR) automates touchless transport of small load containers without requiring infrastructural changes

- Future-proof and immediately deployable: Seamless VDA 5050 integration into existing AMR fleets, supported by 24/7 service, local maintenance teams and regular software updates

- Malte Kersten, head of Continental Mobile Robots:

> The new NXS 300 expands our portfolio with a flexible small-load solution and strengthens our position as a reliable partner for Industry 4.0 – aligned with our mission of ‘Making Things Easy’

Frankfurt, Germany, July 2, 2025. Continental has developed an ultracompact transport robot that transports stacked small load containers (SLCs) of up to 300 kg fully automatically. The NXS 300 ensures immediately deployable automation: no infrastructure modifications to existing floor-roller tracks are needed, and thanks to native VDA 5050 integration, the NXS 300 plugs seamlessly into existing AMR fleets. It delivers top speeds of up to two m/s and safe omnidirectional movement thanks to its 360-degree view. The NXS 300 comes in two versions: the base version with a 600 mm fork length for classic 400 x 600 mm SLCs on carts and the extended version with an 800 mm fork length for half-pallets to effectively double the capacity per trip. Unveiled at LogiMAT 2025 in Stuttgart, it will be available in early 2026. The NXS 300 is currently being piloted in internal projects at Continental locations in Rheinböllen (Germany) and Sibiu (Romania), with more to follow until the end of the year. First project evaluations indicate a return on investment within well

under two years.

> With this small-load solution, we are further expanding our AMR portfolio for Industry 4.0 applications. Tighter floor plans, increasing product variants and cost pressures are among the most pressing problems facing production and logistics managers. With its versatility and compact build, the NXS 300 provides an answer," says Malte Kersten, head of Continental Mobile Robots. "It expands our portfolio with a flexible small-load solution and strengthens our position as a reliable partner for Industry 4.0 – aligned with our mission of 'Making Things Easy'

Ultracompact design for maximum flexibility

Real-time data and increasing product variants are driving the pace in smart factories. Production managers and logistics leaders must adapt material flow quickly for new products and batch sizes. Consequently, conventional Automated Guided Vehicles (AGVs) are hitting their limits – they remain static and are not flexible enough to change and scale with production layouts. The NXS 300 bridges this gap with an ultracompact design (1,100 × 405 × 1,025 mm) and broad adaptability. The base version, with a fork height of only 110 mm, is compatible with over 80 percent of carts available in the market. It lifts them via an integrated lift platform at sources and sinks, enabling highly efficient material flow. Omnidirectional drives allow on-the-spot rotations, while 360-degree sensors with obstacle detection ensure safe maneuvers even in mixed-traffic scenarios in narrow aisles. Continental's new AMR combines AGV and AMR modes for great versatility. Its flexible system configuration allows seamless adaptation to various process requirements and production layouts.

Extended version doubles the transport volume per trip

The extended version builds on this mature base system, adding a fork extended by 200 mm. This enables it to handle stacked half-pallets (800 × 600 mm) or combinations of different SLC types – doubling the transport volume per trip and maximizing transport efficiency. Beyond their technical capabilities, the NXS 300 variants deliver a compelling return on investment (ROI). By automating the transport of SLCs, they reduce manual handling, minimize process interruptions and enhance overall efficiency. Companies can expect a significant reduction in operational costs and an ROI within six to 24

months, depending on the specific application and deployment scale.

> Thanks to full VDA 5050 interoperability, the system integrates seamlessly into existing intralogistics environments. Our strong focus on cost-effectiveness enables customers to achieve a rapid return on investment. Backed by our deep expertise in robotics and automotive engineering and our global track record in industrializing complex technologies, we provide an innovation for scalable, future-proof automation,

says Alessandro Castagnotto, head of Product Line Intralogistics at Continental Mobile Robots.

Comprehensive service to facilitate operations

The ergonomic, user-friendly human-machine interface (HMI) enables intuitive operation and maintenance, while local service teams and a 24/7 hotline guarantee maximum system availability. Proactive maintenance cycles minimize downtime and ensure continuous operation.

To help customers stay ahead of evolving production requirements, future extensions of the NXS300 family are already in development, such as a top-roller variant with an active conveyor to take and deliver SLCs directly from conveyors. These will broaden the range of applications covered by the platform and enable users to address future automation needs and maximize intralogistics efficiency – all within the same familiar system architecture and service environment.

Media Spokesperson Safety and Motion

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