

Automated Intralogistics for Industrial Sites

How Wacker Scaled Internal Automation with Starship Shuttle



USE CASE

Autonomous transport of lab samples and internal deliveries on a large-scale industrial site

CLIENT



WACKER Chemie AG

LOCATION



Burghausen, Germany

SECTOR



Chemicals /
Manufacturing

CHALLENGE

WACKER's Burghausen facility is one of the largest chemical production sites in Europe.

With expansive grounds, strict safety requirements and frequent internal logistics needs such as transporting lab samples WACKER sought a reliable automation solution that could improve efficiency, comply with safety standards and integrate seamlessly into daily operations.

The goal was to start small, explore the potential for automation, and scale gradually based on real results.

SOLUTION

In autumn 2021, WACKER began testing Starship's six-wheeled autonomous delivery robots.

These compact robots travel at walking speed (up to 6 km/h), carry smaller items - like lab samples, spare parts, IT equipment, plus post and packages - and are equipped with cameras, radar and ultrasonic sensors for real-time navigation and obstacle detection.

Each robot follows pre-defined virtual tracks mapped in advance, mainly along pedestrian walkways. When necessary such as at busy intersections or rail crossings remote operators from Starship's control center can take over manual control. More than 95% of all trips are autonomous.

FROM PILOT TO OPERATIONS

After a successful test phase, Starship robots are now in regular operation on the Burghausen campus, completing around 100 deliveries each week.

Employees can request a robot via a digital interface and load items into its secure, locked compartment. As the robot travels it can be tracked on a map, after which the recipient is notified when it arrives.

The robots are used especially for transporting lab samples and small equipment. A team of apprentices supported the deployment by mapping routes, installing ramps and helping with awareness and training.

RESULTS

Six robots are currently in active service, with two additional units on standby.

The number of weekly deliveries continues to grow. Based on feedback from Wacker's Automation Engineering team, the system has proved to be technically reliable and positively received by employees.

"The system works extremely reliably," said Tobias Reichl, Digitization Manager at Wacker. "There hasn't been a single system-related incident. The most noteworthy case was a truck driver who didn't see one of the half-meter-tall robots and slightly bumped into it while turning."

The robots have also contributed to a more approachable view of automation across the workforce. Their size, movement and occasional playful features like Halloween-themed decorations or Christmas music upon delivery make them feel like friendly, helpful co-workers.



THE ROAD AHEAD

Following the success in Burghausen, Starship Shuttle has also launched at WACKER's Nünchritz site, with interest from their Charleston, USA plant.

The company is now evaluating broader applications and integration into internal logistics workflows.

TESTIMONIAL

"They help remove vague fears around automation. They are consistently seen in a positive light even by employees."

Dr. Stefan Schneiderbauer, Head of Factory Automation



CONTACT

Learn how Starship robots can help your business.

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