Transforming mall maintenance at Bremen Waterfront

A case study on Soeffge's adoption of autonomous cleaning robots

BACKGROUND

In the ever-evolving field of facilities management, Soeffge, founded in 1955 and now with a workforce of almost 3,000 people, stands out as a pioneer in leveraging advanced technologies to help optimize cleaning operations. Collaborating with Tennant Company, Soeffge has successfully integrated autonomous cleaning robots to transform maintenance at the Bremen Waterfront Mall.

CHALLENGE

The Bremen Waterfront Mall, a bustling retail hub with a cleanable floor area spanning 12,000 square meters, presented a formidable challenge for traditional cleaning methods. The extensive floor area, coupled with seasonally-changing debris and dirt and the need for quiet operation in a busy and dynamic shopping environment, demanded an innovative solution.

THE DEPLOYMENT

Soeffge selected the Tennant T16AMR, an autonomous scrubber equipped with BrainOS, a leading AI-enabled operating system. The T16AMR was chosen for its proven track record in the US market, where it has been deployed in over 5,000 locations since 2021. Following a successful test phase, the T16AMR was deployed at the Bremen Waterfront Mall in September 2023.

Michael Dannen, Strategic Account Manager at Tennant, commented: "Having such a large number of T16AMRs in the market has allowed us to gain a huge amount of valuable operational insight which we're able to use to continuously enhance their capabilities. Autonomous cleaning has proven to be highly effective, and our German customers are now reaping the benefits of our extensive experience."

KEY FEATURES

The Tennant T16AMR offers several advanced features tailored to meet the unique needs of the mall:

- **3D and LiDAR sensors:** Designed to help ensures safe and efficient navigation through the mall's complex layout and amongst employees and shoppers.
- **Teach and Repeat System:** Allows easy programming of efficient cleaning routes.
- **Dual operation modes:** Can be used both manually and autonomously, providing flexibility.
- **Powerfully intelligent:** Utilizes BrainOS®, a leading AI-enabled robotic automation platform.
- **Low noise level:** Operates at 71 decibels, helping to minimize disruption to shoppers from noise.
- **Fewer chemicals than traditional cleaning methods:** Utilizes ec-H2O NanoClean® technology which helps reduce the overall need for chemical usage by the cleaning machine.

LEADERSHIP AND VISION

The deployment was spearheaded by Herr Boris Soeffge, who emphasized the importance of innovation in facilities management.

"We view the robot as a cobot, with its ability to support and make things easier for our human workforce. Being able to achieve our goal of 300 days cleaning a year from one machine is remarkable,"

said Herr Soeffge, highlighting the T16AMR's ability to improve cleaning quality while allowing staff to focus on higher-value tasks. "Our partnership with Waterfront was an important factor too, as the management team were keen to be at the forefront of new technologies."

Michael Dannen adds "Soeffge has been very open to new ideas and enthusiastic about the deployment. They are a very innovative company."

BENEFITS AND RESULTS

1. **Overcoming staff shortages:** The T16AMR has alleviated the strain of staff shortages, enabling more efficient allocation of human resources.
2. **Operational efficiency:** A visible, consistent and precise cleaning routine enhances overall productivity and safety.
3. **Environmental sustainability:** Reduced chemical usage aligns with Soeffge's sustainability goals.
4. **Improved reporting:** The BrainOS® Mobile app provides real-time data on cleaning performance, ensuring thorough and trackable cleaning processes.
5. **Positive reception:** Shoppers and mall management have responded positively, appreciating the innovative approach and improved cleanliness.

SEAMLESS INTEGRATION AND FUTURE PROSPECTS

Training and deployment were straightforward, with strong support from Tennant. The "Teach and Repeat" method facilitated smooth integration, allowing Soeffge's team to quickly adapt to the new technology. The success at Bremen Waterfront Mall has set the stage for further deployments, with plans to introduce additional machines for smaller spaces and other clients.

CONCLUSION

The introduction of the Tennant T16AMR at the Bremen Waterfront Mall highlights the transformative potential of autonomous cleaning robots in the facilities management sector. By addressing labor shortages, enhancing cleaning quality, and promoting sustainability, Soeffge has demonstrated its leadership and commitment to innovation. This successful deployment not only improves mall maintenance but also sets a benchmark for future technological advancements in the industry.