



Automated Guided Vehicle (AGV) Weasel®

Application IFOY Award 2016

Weasel® - Innovative, Creative, Connective

The Weasel from SSI Schäfer was designed as an automated guided vehicle (AGV) for internal goods transport. Its high flexibility, scalability and accessibility allow for easy integration into in-house transport processes. From bins and cartons to miscellaneous products in a wide range of sizes, Weasel handles practically any transport requirement.

The System

Weasel is an automated conveyor vehicle for almost all transport requirements up to 35 kg. Despite its small dimensions, Weasel transports goods and loading aids of varying sizes in all temperature ranges between 5°C and 50°C. Weasel can be loaded and unloaded both manually and automatically. It is available with standardized structures, optimized for different applications (e.g. cartons, bins or hanging garments). The structures are variable in height ensuring an ergonomic handling.

Maintenance-free battery packs supply the power for the Weasels to run for up to 18 hours. These can be replaced manually or loaded fully automatically.

The straightforward scalability achieved by including several AGVs as a fleet solution makes this product the optimal system for goods transport that grows with the company, without the access restrictions of permanently installed conveyor technology. Thanks to its compact design, Weasel can even be used in inaccessible zones. The robust vehicles impress not only through their low procurement costs but also, above all, due to their low operating and minimal maintenance costs. The system is therefore very attractive in terms of Total Costs of Ownership.

The Principle

Weasel gets straight to the work stations via an optical guiding line. Speeds of up to 1 m/s on routes with an incline of up to 20 percent can be achieved. The Weasel is requested or sent to its destination manually by operating buttons or fully automated. The determined route controls the Weasel via predetermined waypoints. The goods are transported safely and securely.

The easy integration into existing processes and systems is another advantage. Be it a fixed or needsbased integration for handling peaks in output, the Weasel is flexible in terms of system customisations and extensions. Both manual and automated connections can be quickly established to the internal goods flows.

The Control Software

The standardised control software enables fast integration of entire Weasel fleets without time-consuming IT installations and adaptations. It also can easily be integrated into existing in-house material flows. A fleet controller administers the jobs automatically (ERP system) or manually and allocates these to the respective vehicles once they have been approved.

The Innovation

Unlike conventional AGVs Weasel does not require complex sensor technology or control systems. Considerably reduced investment costs open new customer perspectives in terms of automated transport solutions. Especially companies and startups, whose business and capacity requirements can change quickly, benefit from this system since the benefits of AGVs can be deployed in new sectors.

Due to its high flexibility, its scalability and its accessibility Weasel can be integrated easily into existing transport operations. As mentioned, the AGV gets straight to the work stations via an optical guiding line. This can be installed in a rapid and flexible manner and may be adapted. Changing customer requirements and fluctuations in demand can be managed at any time, both cost-effectively and at short notice. In these times of Industry 4.0 a major advantage as the Weasels connect any operation areas and support all processes in the entire logistics environment.

Technical Data:

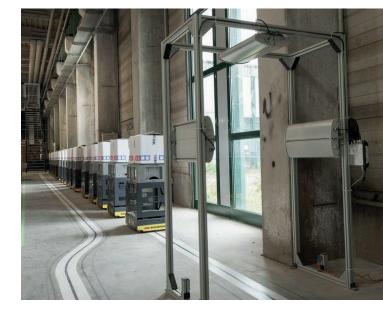


Case Studies

With the new Weasel AGV, SSI Schäfer is once again demonstrating its flair for sustainable innovations and market-driven developments while expanding its broad product portfolio.

NextLevel Logistik® GmbH

The innovative fashion logistics service provider NextLevel Logistik® GmbH with headquarters in Eltmann near Schweinfurt relies on a fleet solution with Weasel driverless transport systems for its inhouse goods transport. The new vehicles from SSI Schäfer combine efficiency with a high degree of flexibility and economic efficiency. This makes them the optimal solution for automated goods transport which grows with the company. Companies and startups whose business areas and capacity requirements can change rapidly particularly benefit from this system. In Eltmann, using the Weasel creates a flexible connection between incoming goods, a wide range of work stations, outgoing goods and waste disposal solutions with no access restrictions. Special feature: in order to meet the desire for automated RFID bulk reading in the area of incoming goods, SSI Schäfer created a system where goods are automatically passed through RFID reading tunnels.



Hermes Fulfilment GmbH

Hermes Fulfilment GmbH, an Otto Group company and provider of international full-service e-commerce solutions, is also tackling new challenges using the Weasel at its Haldensleben site. A flexible link has been generated between various areas with no access restrictions. Hermes Fulfilment now has an innovative fleet solution which can grow with the company and provides automated goods transport, optimisation of processes and a high degree of flexibility.

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