**AMY provides relief for small loads**

**Transportation is a bottleneck in many production and assembly areas. Staff shortages exacerbate the situation, while at the same time the demands on process reliability and cycle times are increasing. DS AUTOMOTION has developed a new overall concept for this with the AMY product family. The compact mobile robots are designed for small load carriers and can be easily integrated into existing processes.**

A typical area of application is the manufacture of injection-moulded parts. Thousands of plastic parts are produced every day, which have to be moved between machines, warehouses and assembly lines. The distances are too far and too heavy for manual transport, but not economical for the use of forklifts. The same applies to the assembly of electric motors or batteries. Individual crates or boxes with components must be available at the workstations with pinpoint accuracy. Smaller batch sizes and more dynamic processes are making material flow increasingly complex. ‘We have noticed that it is becoming more difficult to find personnel for logistics applications throughout Europe. At the same time, the requirements for process reliability are increasing. We developed the AMY mobile robot precisely for this situation – a simple and economical solution for small load carriers up to 400 by 600 millimeters,’ explains Karl Rapp, Head of Sales, Product Management and Marketing at DS AUTOMOTION.

**Three variants for different requirements**

Not every production facility needs the same solution. That is why AMY is available in three versions.

**• AMY deck** is the entry-level version for companies with manageable transport volumes. The robot travels along fixed routes and is loaded and unloaded manually by employees. It replaces walking distances and reduces the workload for staff.

**• AMY flap** works with a passive load handling device. The robot independently picks up containers from the transfer station and takes them to their destination. The solution does not require any additional sensors or actuators on the vehicle or station.

**• AMY lift** is designed for connection to conveyor technology. An active lifting comb automatically picks up or transfers containers, for example on gravity roller conveyors. This is particularly suitable for high cycle rates and many stations.

**Overall concept with rapid implementation**

All variants are designed for short commissioning times. Standardized interfaces facilitate integration into existing processes. The NAVIOS fleet manager can be used to control the vehicles individually or as a group. Layout data in interchange format can be imported directly, and the VDA-5050 interface ensures compatibility with common systems.

The concept is scalable. Additional vehicles or stations can be easily integrated as demand increases. This allows the system to grow with your requirements. For companies, this means predictable material flows and a future-proof transport concept that noticeably reduces the burden on human resources.

**Exemplary concept flow**

An employee places a box of components on a source station and enters the transport into the system. NAVIOS assigns the order to an AMY. The robot drives to the station, picks up the box and takes it to its destination.

If the destination station is occupied, the AMY lift detects this via its sensors and automatically waits until the station becomes free. The vehicle reports the status via NAVIOS to the employees, who can then remove the load. As soon as the station is free again, the AMY lift continues the transport and delivers the box. The robot is then ready for the next order or moves to the loading position.

This allows many small transports to be handled reliably and without any loss of time. The first users are already employing AMY lift in medical technology and in the series production of inhalers and injectors. There, the robots move thousands of small parts between production, storage and assembly every day. ‘Automated supply to the assembly stations is hardly conceivable without mobile robots,’ says Rapp.

**5.438 Zeichen**

|  |  |
| --- | --- |
|  | AMY proves itself to be a versatile AMR for numerous areas of application – above all thanks to its three different load-bearing devices. |
|  | Changes to the layout can be made quickly and efficiently in the NAVIOS fleet manager. |
|  | DS AUTOMOTION has developed the right LAM for numerous applications. |
|  | AMY with a LAM lift comb for transporting small load carriers |
|  | AMY with a passive LAM using gravity |

**About DS AUTOMOTION**

DS AUTOMOTION is a global leader in mobile robotics for internal logistics and assembly applications. With over 40 years of experience, the company develops mobile robots and fleet management systems such as AGVs and AMRs. The company's core competencies are continuously being developed with a focus on state-of-the-art software solutions. Headquartered in Linz, Austria, with branches in Germany, France and the USA, the company employs over 300 people and is part of the SSI Schäfer Group.

Further information can be found at www.ds-automotion.com.