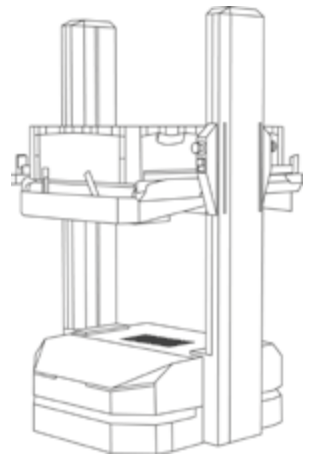# Open Shuttle
The new flexibility

Automate the increasing number of transport processes with our autonomous mobile robots, the Open Shuttles.

As an alternative or complement to classic conveyors, the Open Shuttles provide new opportunities for making your flow of goods even more flexible. The autonomous mobile robots move containers, cartons, trays and pallets around the warehouse. What makes these intelligent helpers special is that they don't require any artificial landmarks or other aids, instead they find their way using intelligent software and sensor technology. This means there is no need to change or build anything new before installing the system and installation is done within a few days, making Open Shuttles highly suitable for integration into existing systems. Because of their flexibility and ability to work as an intelligent swarm, autonomous mobile robots can be used for a range of tasks.

Thanks to the fleet management system, orders are distributed across the entire fleet in a smart and flexible way. The software allocates orders and perfectly coordinates the traffic flow, even when the robots meet other vehicles. The intelligent fleet management, applies the right amount of transport capacity in a smart and agile way, at exactly the right time and in exactly the right place. The Open Shuttles are therefore perfectly suitable not only for the just-in-time supply of work stations and production lines, but also for any other type of internal transport.

Advantages

- Supports the VDA 5050 interface
- Robust, autonomous, deterministic navigation
- Safe interaction between human and machine thanks to 3D obstacle detection
- Free floors
- Intelligent management of orders and transport resources
- Flexible connection of all warehouse areas
- Easy integration into an existing system without any structural modifications
- Simple control and adaptation of the layout, processes and fleet
- Fast amortization of the investment costs through low startup costs
- Low maintenance and servicing costs
- Communication is possible with all host systems
- Efficient and autonomous energy management

Open Shuttle

Facts and figures

	Open Shuttle 50	Open Shuttle 50 with integrated width adjustment	Open Shuttle 100	Open Shuttle 50 for the ASM Material Tower	Open Shuttle Fork
Max. speed in m/s (ft/s)	1.5 (4.92)	1.5 (4.92)	1.5 (4.92)	1.5 (4.92)	1.5 (4.92)
Load-handling device	Roller conveyor system	Roller conveyor system	Roller conveyor system	Telescopic unit for ASM Material Tower	Lifting forks
Transport objects	Containers, cartons, trays	Circuit board magazines, containers, cartons, trays	Containers, cartons, trays	Cassette for ASM Material Tower	Pallets, stillages, racks, special load carriers
Max. dimensions of transport object in mm (in)	600 x 400 (23.62 x 15.75)	355 x 320 (13.98 x 12.60) bis 800 x 400 (31.50 x 15.75)	800 x 600 (31.5 x 23.62)	Dimensions of cassette, L x W x H: 405 x 456 x 609 (15.94 x 17.95 x 23.98)	1,200 x 1,000 (47.24 x 39.37)
Max. working load in kg (lb.)	50 (110.23)	50 (110.23)	100 (220.46)	50 (110.23) (incl. weight of cassette)	1,300 (2,866)
Integrated lifter (extras)	Yes / No	Yes / No	Yes / No	Yes / No	Yes
Loading and unloading height in mm (in)	550 to 1,500 (21.65 to 59.06) / 500 to 1,000 (19.69 to 39.37)	550 to 1,500 (21.65 to 59.06) / 500 to 1,000 (19.69 to 39.37)	550 to 1,500 (21.65 to 59.06) / 500 to 1,000 (19.69 to 39.37)	550 to 1,500 (21.65 to 59.06) / 650 (25.59	0 to 1200 (47.24)
Battery life in h*	> 6	> 6	> 6	> 6	8
Communication	WLAN b/g/n Standard				
Configuration	Server laptop, charging station, positioning triangle, remote control				Server laptop, charging station, remote control
Software	Fleet manager, user interface, host interface, VDA 5050				
Installation	Carried out by KNAPP, self installation				
Extras	Light stack, location sensor, integrated lifter, blue light, side scanner			Location sensor, integrated lifter, blue light	Blue light, 3D obstacle detection, additional localization scanner
Accessories	Flow racks, transfer locations			Transfer locations	-

*without Opportunity Charging