



SCOUT® ACTIVE

Autonomous mobile robot
for the transport and handling of
various materials and products

The SCOUT® active is an automated guided vehicle with a 6-axis robot system for the flexible transportation and handling of materials in semiconductor fabs and other clean production environments. It navigates autonomously and does not require any kind of guidance system on the floor or on the ceiling. Its compact size and extreme agility make it very flexible, and thanks to its reliable sensor technology, it can even be used safely in areas where people and machines work very closely together. It may also be adjusted at any time to suit the production environment without construction procedures. The transport jobs of several vehicles in the same bay or area are coordinated by the Fabmatics Fleet Manager (HSFM).

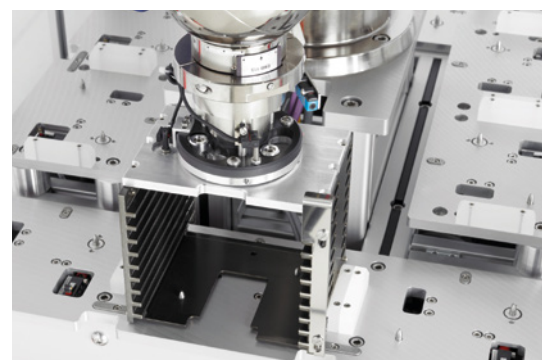
Key Features

- **3D sensor technology** ensures the recognition and bypassing of obstacles
- For **transport goods up to 6 kg**, e.g. open wafer cassettes (up to 200mm), trays, workpiece carriers
- Proven cleanroom suitability up to **ISO class 3/US FED class 1**
- **Charging on-the-fly** during handling enables 24/7 operation
- **Short commissioning** times at customer site and **low adaptation effort** to changes in the production environment

Further versions of SCOUT®

Various attachments enable the SCOUT® to be adjusted to different conditions according to the desired use and industry

- **SCOUT®roro**
roll-on roll-off handler
- **SCOUT®triax**
triple linear axis handler
- **SCOUT®substrate**
passive transporter for large glass substrates
- **SCOUT®cargo**
passive transporter for various boxes



Application example: SCOUT® active
with nine buffer positions

Technical data

SCOUT®active

Dimensions (length x width x height)	820 x 650 x 1,930 mm (Customizable dimensions due to scalable driving platform)
Reach of robot	500 - 800 mm depending to material weight
Weight	185 kg
Payload	Up to 6 kg
Speed	Up to 1.4 m/s depending to payload and size of safety area
Min. aisle width	800 mm (depending to dimensions)
Type of drive	Differential drive
Positioning accuracy	± 0.25 mm
Clean room class	ISO 3/US FED 1
Loading voltage	49 V
Operating time	24/7 (charging on-the-fly)
Battery charging	Automatically via the docking station with charging function in front of the loading/unloading station during handling
Battery type	LFMP (Lithium Iron Manganese Phosphate)
Safety (driving & handling)	360° monitoring via 2 horizontal laser scanners; 3D camera, bumper, safety enclosure
Navigation	Based on laser scanner data and additional sensors
Communication	
Command interface	E82/IBSEM via WiFi
Equipment interface	E84 optical
Un-/Loading times	
W/o positioning	20 s
With positioning of vehicle	38 s
Swap with positioning	58 s



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