



AFORMIC

FL16

FORK OVER LEG PALLET STACKER

An autonomous pallet stacker robot featuring a steerable traction wheel drive, designed to lift loads up to 1.6 (63 in) meters for precise and efficient stacking.

HIGH PAYLOAD CAPACITY

Capable of transporting loads up to 1400 kg (3,100 lb) the FL16 is engineered for demanding industrial applications.

Its durable construction ensures consistent performance under full load, offering a reliable and versatile solution across a wide range of intralogistics environments.

STEERABLE TRACTION DRIVE

Equipped with a steerable traction wheel drive, FL16 offers a precise balance of maneuverability, energy efficiency, and positioning accuracy.

Its intelligent design allows for reliable operation in narrow aisles and dynamic warehouse environments, supporting seamless integration into existing logistics systems and workflows.



ADVANCED SLAM NAVIGATION

Equipped with SLAM technology, the FL16 enables real-time mapping and accurate localization. This supports efficient route planning, dynamic obstacle avoidance, and adaptability to changing environments, ensuring reliable operation in dynamic and complex intralogistics settings.

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COMPREHENSIVE SAFETY SYSTEM

FL16 is equipped with a safety package, including four SICK nano safety scanners, three emergency stop buttons, 360° laser coverage, and blue spot warning lights. Its onboard IMU module ensures stability and precise motion control even in complex environments, making it safe for operation alongside people and machinery.

GENERAL SPECIFICATIONS

- Payload capacity: 1400 kg (3,100 lb)
- Dimensions (L x W x H):
1755 x 1060 x 1900 mm (69.1 × 41.7 × 74.8 in)
- Lifting height: 1600 mm (63 in)
- Weight: 920 kg (2,030 lb)
- Maximum speed: 1.3 m/s (4.3 ft/s)
- Drive type: steerable traction wheel
- Drive power: 1.5 kW

POWER SYSTEM

- Battery type: Lithium-ion (Li-ion)
- Battery capacity: 200 Ah
- Battery voltage: 24 V

TERRAIN CAPABILITIES

- Maximum longitudinal inclination: 2.0°
- Maximum lateral inclination: 3.0°
- Positioning accuracy (+/-): 1.0 cm (0.4 in)

SAFETY FEATURES

- Laser scanner field of view: 360°
- Safety scanners:
 - Sick Nano Scanners: 4 units
- Emergency push buttons: 3 units
- Blue spot lamp: 3 units
- One front and two rear safety bumpers

NAVIGATION SYSTEMS

- SLAM Technology: yes
- Odometry: yes
- IMU (Inertial Measurement Unit): yes

ENVIRONMENTAL CONDITIONS

- Operating temperature: 15°C – 40°C (59–104 °F)
- Relative humidity: >70%

DIMENSIONS [MM]

