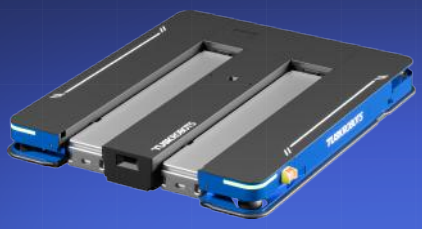
TUSKROBOTS
EUROPE

TUSK ES TITAN

Heavy-load pallet-handling robot



Technical specifications

Basic parameters

Overall dimensions	**1,286 × 1,102 × 170 mm**
Maximum lifting weight / self-weight	**1,500 kg / 331 kg**
Fork height / extension distance	**110 mm / 1,400 mm**
Maximum lift / turning width	**≤330 mm / 1,800 mm**
Display screen	**5 inches**
Wireless communication	**2.4 / 5 GHz dual-band; IEEE 802.11a/b/g/n**
Operating temperature	**0-45 °C**

Movement capability

DM-only navigation	**DM code**
SLAM + DM navigation	**SLAM + DM code**
DM-only stop accuracy	**±5 mm / ±1°**
SLAM + DM stop accuracy	**±20 mm / ±2°**
Speed (unloaded / loaded)	**1.5 / 1.2 m/s**
Movement mode	**Two-wheel differential**
Gap / slope / step	**40 mm / 4° (7%) / 15 mm**
Slope at full fork extension	**2° (3.5%)**

Safety protection

Obstacle detection	**Dual front + dual rear laser sensors; 360° coverage**
Front laser range	**0-3 m**
Mechanical protection	**Emergency stop, reset button and full-body protection strip**
Alarm functions	**Voice and visual alarms**
Fork tip protection	**Photoelectric sensor; 100 mm detection range**

Lithium battery performance

Battery type	**LFP ($LiFePO_4$)**
Rated voltage / capacity	**51.2 V / ≥28 Ah**
Battery endurance	**≥6 h**
Charging time	**≤2 h**
Battery life	**1,500 full charge cycles**

Pallet compatibility

Industrial pallet format	**1,000 × 1,200 mm**
Width W1	**≤190 mm**
Width W2	**700-950 mm**
Pallet length L	**≤1,400 mm**
Opening height H1	**120-130 mm**