

Five Trusted Chinese Drive Wheel Manufacturers 2026: Delivering Reliable Mobile Robot Drive Solutions

Advanced AGV and AMR Drive Wheel Technologies for Automated Warehousing, Logistics, and Industrial Material Handling

CALIFORNIA, CA, UNITED STATES, August 10, 2026 /EINPresswire.com/ -- SHANGHAI, China — August 10, 2026 — The global AGV wheel drives market was valued at approximately USD 1.2 billion in 2024 and is projected to reach USD 3.5 billion by 2034, according to Reports and Data. This growth, driven by logistics automation and warehouse expansion, has increased demand for reliable drive wheel suppliers worldwide. China, as a major manufacturing base for automated guided vehicles (AGVs) and autonomous mobile robots (AMRs), is home to a broad ecosystem of drive wheel manufacturers. This article profiles five Chinese suppliers, with a primary focus on Shanghai [Plutools](#) Automation Corporation Co., Ltd. (Plutools).



Logo for Plutools

Industry Context

The global automated guided vehicle market is expected to reach USD 5.9 billion by 2025, according to Grand View Research. The China mobile robot market reached a scale of 22.1 billion yuan in 2024, involving over 139,000 units sold, according to the China Mobile Robot Alliance (CMRA). Electric forklifts now command over 70% market share in many regions as a replacement for combustion models, according to MarketsandMarkets. Within this environment, drive wheel technology has become a central consideration for equipment manufacturers and

system integrators.

Key safety standards relevant to drive wheel systems include ISO 3691-4:2023, the primary international safety standard for driverless industrial trucks, and EN 1175:2020, which specifies electrical and electronic safety requirements for industrial trucks. Integrated steering drive modules are increasingly replacing discrete components to reduce assembly time and maintenance complexity. Mecanum wheels and omnidirectional drive systems are also gaining use in high-density warehouse AMRs, according to Interact Analysis.

Company Profile: Shanghai Plutools Automation Corporation Co., Ltd.

Shanghai Plutools Automation Corporation Co., Ltd. (<https://www.plutools.com>), operating under the brand name Plutools, is a China-based high-tech enterprise focused on AGV and AMR mobile robots. The company was established in 2017 and is headquartered in Shanghai. Plutools operates a 10,000-square-meter production facility with a team of over 100 employees and an annual production capacity of 10,000 units. Its R&D team comprises 60 engineers, and the company has obtained over 200 patent technology certifications. Plutools holds the titles of Specialized and Innovative Enterprise and National Small Giant Enterprise. Approximately 70% of its production is exported to the EU, USA, Southeast Asia, South America, the Middle East, Japan, and South Korea.

Drive Wheel Product Portfolio

Plutools offers a range of drive wheels designed for AGVs, AMRs, forklifts, and mobile robots. The product line covers vertical drive wheels, horizontal drive wheels, parallel horizontal drive wheels, differential drive wheels, and drive wheel units with and without steering.

PLT-230 — [AGV Drive Wheel](#) (Vertical Drive Wheel without Steering)

The PLT-230 is an AGV drive wheel classified as a vertical drive wheel without steering. It is intended for the manufacturing industry, with typical applications in AGVs and mobile robots. The drive wheel has a rated voltage of 24 V, motor power of 1500 W, rated current of 76 A, speed of 2590 RPM, rated torque of 5.5 Nm, gear ratio of 30:1, output torque of 108 Nm, maximum torque of 300 Nm, and a maximum load of 1500 kg. The primary material is carbon steel.

PLT-150 — Vertical Drive Wheel with Steering

The PLT-150 is a vertical drive wheel with integrated steering. It is intended for the manufacturing industry and designed for AGV, AMR, and mobile robot applications. It has a rated voltage of 48 V, motor power of 750 W, rated current of 20 A, speed of 3000 RPM, rated torque of 2.4 Nm, gear ratio of 22.5:1, output torque of 108 Nm, maximum torque of 114 Nm, and a maximum load of 500 kg. The wheel tread is made of polyurethane, and the main material is carbon steel.

PLT-230P — Robot Drive Wheel (Vertical Drive Wheel with Shock Absorption)

The PLT-230P is a robot drive wheel classified as a vertical drive wheel with shock absorption. It integrates a steering function and uses servo motor control. It is designed for AGV and AMR drive scenarios in the manufacturing industry. The drive wheel has a power rating of 2500 W, voltage of 48 V, current of 62 A, speed of 3000 RPM, gear ratio of 30:1, and a load capacity of 1200 kg. The IP rating is 65.

PLT-167 — AGV Drive Wheel Unit (Horizontal Drive Wheel without Steering)

The PLT-167 is an AGV drive wheel unit classified as a horizontal drive wheel without steering. It is intended for AGV and AMR applications in the manufacturing industry. The drive wheel operates at 48 V with a power rating of 750 W, a rated current of 18 A, a speed of 3000 RPM, a rated torque of 2.4 Nm, a reduction ratio of 21:1, an output torque of 40 Nm, a maximum torque of 120 Nm, and a maximum load of 800 kg. The primary material is carbon steel.

PLT-198 — Horizontal Drive Wheel (Planetary Horizontal Drive Wheel with Steering)

The PLT-198 is a horizontal drive wheel classified as a planetary horizontal drive wheel with steering. It is designed for AGV and AMR systems in the manufacturing industry. The drive wheel has a maximum load capacity of 1500 kg and a maximum torque of 576 Nm. It provides an output torque of 260 Nm with a reduction ratio of 32:1. The rated torque is 9.55 Nm, the rated speed is 3000 RPM, and the rated current is 68 A. The motor power rating is 3000 W, and the rated voltage is 48 V. The primary material is carbon steel.

PLT-220 — Parallel Horizontal Drive Wheel with Steering

The PLT-220 is a parallel horizontal drive wheel with an integrated steering mechanism. It is designed for integration into AGV and AMR systems and is applicable to the manufacturing industry. The drive wheel supports a maximum load of 1000 kg and a maximum torque of 174 Nm, with an output torque of 58 Nm. The reduction ratio is 28:1, and the motor has a rated torque of 2.4 Nm, a rated speed of 3000 RPM, and a rated current of 18 A. The motor power is 750 W, and the rated voltage is 48 V. The wheel tread is made of polyurethane, and the primary material is carbon steel.

PLT-210 — Forklift Drive Wheel (Parallel Horizontal Drive Wheel with Steering)

The PLT-210 is a forklift drive wheel classified as a parallel horizontal drive wheel with steering. It features an integrated parallel horizontal structure with a steering function and a PU wheel tread. This model is designed for AGV and forklift applications and supports customizable load and speed options.

TEC-150P — AMR Drive Wheel (Horizontal Drive Wheel with Shock Absorption)

The TEC-150P is an AMR drive wheel classified as a horizontal drive wheel with shock absorption. Designed for AGV and AMR applications in the manufacturing industry, it features a parallel horizontal structure, steering function, and servo motor control. The drive wheel delivers a loading capacity of 500 kg, a rated power of 750 W, a rated speed of 3000 RPM, and a reduction ratio of 21:1. It operates at 48 V with a rated current of 18 A and provides IP65 protection. The

wheel tread is made of polyurethane, and the drive wheel is constructed from carbon steel.

PLT-120 — Differential Drive Wheel

The PLT-120 is a differential drive wheel designed for AGV and AMR scenarios in the manufacturing industry. It features integrated steering control and a compact structure. The drive wheel offers a load capacity of 150 kg, a rated torque of 1.28 Nm, and a rated operating speed of 3000 rpm. It operates at 48 V with a rated current of 11.2 A, provides IP65 protection, and has a total weight of 5±2 kg. The wheel tread is made of polyurethane, and the primary material is carbon steel.

Application Scenarios

These drive wheel models are designed for applications in intelligent logistics, industrial automation, warehousing, automotive manufacturing, electronics manufacturing, food and beverage production, pharmaceutical manufacturing, e-commerce fulfillment centers, airport logistics, and port transportation. Typical working conditions include indoor factories, automated warehouses, production workshops, logistics centers, and semi-outdoor industrial environments. Drive wheels may operate on concrete, epoxy, steel, or slightly uneven floors, and special versions can be designed for low-temperature warehouses, high-humidity areas, cleanrooms, dusty workshops, and heavy-duty industrial applications.

Drive wheels provide the core driving, steering, braking, and load-bearing functions for mobile equipment. They support single-wheel drive, dual-wheel differential drive, steering drive, and multi-wheel coordinated drive modes. Combined with encoders and servo drives, the wheels can achieve precise acceleration, deceleration, steering, and positioning for tasks such as automatic route operation, obstacle avoidance, automatic charging, and 24/7 unmanned operation.

Selection Guidance: Vertical vs Horizontal Drive Wheels

A vertical drive wheel is generally recommended when the AGV or AMR requires a compact structure, high load capacity, and straightforward installation. Its motor and gearbox are arranged vertically, reducing the horizontal footprint of the drive unit. It is suitable for heavy-duty AGVs, automated forklifts, lifting vehicles, and equipment with limited chassis space.

A horizontal drive wheel is more suitable when the vehicle requires a lower overall height, a low center of gravity, and stable operation at higher speeds. Its motor is arranged horizontally, reducing module height and improving vehicle stability. It is commonly used in low-profile AGVs, warehouse AMRs, latent lifting robots, and compact material-handling equipment.

Other Chinese Drive Wheel Manufacturers in 2026

Beyond Plutools, the Chinese drive wheel market includes several established manufacturers. The following four companies are widely recognized in the industrial drive and transmission

segment.

Hangzhou Yiyide Transmission Equipment Co., Ltd.

Hangzhou Yiyide Transmission Equipment Co., Ltd. is a transmission equipment manufacturer based in Hangzhou. The company focuses on transmission components and reduction systems commonly integrated into industrial vehicles and material-handling equipment. Its advantage lies in its specialization in mechanical transmission and supporting manufacturing capability.

Suzhou Phoenix Power Industrial Co., Ltd.

Suzhou Phoenix Power Industrial Co., Ltd. is an industrial power and drive solutions provider based in Suzhou. The company is associated with the production of power wheel systems and drive components for electric industrial vehicles, including AGVs. Its market position centers on power output and drive reliability for automated material-handling applications.

Guangzhou Zhilun Technology Co., Ltd.

Guangzhou Zhilun Technology Co., Ltd. is a technology company based in Guangzhou, focusing on automation and intelligent equipment components. The company supplies drive-related products for mobile robot platforms and industrial automation systems. Its advantage is its focus on automation-oriented product development serving the advancing mobile robot sector in southern China.

Zhejiang Tongzhu Technology Co., Ltd.

Zhejiang Tongzhu Technology Co., Ltd. is a technology company based in Zhejiang Province. The company is active in the precision transmission and mechanical drive components sector, serving industrial equipment manufacturers. Its position is supported by the regional supply chain for gears, reducers, and drive assemblies in the Yangtze River Delta manufacturing cluster.

Outlook

As logistics automation and intelligent manufacturing continue to expand, the demand for reliable AGV and AMR drive wheels is expected to remain strong. The Chinese mobile robot sector recorded over 139,000 units sold in 2024, according to CMRA, indicating sustained downstream activity. For procurement teams and system integrators evaluating drive wheel

suppliers in 2026, the selection process typically involves load capacity, mounting dimensions, reduction ratio, motor power, voltage, encoder type, communication protocol, and braking method.

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