Industrial Polyurethane Drive Wheel

Title	Industrial Polyurethane Drive Wheel
Thumb	
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Description

The polyurethane drive wheel is mainly used in industrial automation equipment. The hardness ranges from Shore 50A to Shore 85D. It undertakes driving and transmission functions and has high resilience, good dynamic performance and impact resistance, high wear resistance, low internal heat generation, good high-temperature resistance, and other excellent properties. Polyurethane wheels can be divided into flange structure drive wheels, keyway structure drive wheels, sprockets, and expansion sleeve structure rubber-coated wheels. In forklifts, stackers, transport vehicles, and other equipment, the drive wheel provides forward and backward power by contacting the ground or running surface and is a key component for transmitting power.



The Function of the Drive Wheel:

• Power transmission: The drive wheel transfers power from the power source (such as motors, engines, etc.) to the ground or other surfaces to achieve equipment forward or other movement.

• Generate traction: Through friction with the ground or running surface, the drive wheel provides sufficient traction to help the equipment overcome resistance (such as friction, gravity, air resistance, etc.) and move smoothly.

• Steering and braking: By adjusting the speed or torque of different drive wheels, the drive wheels participate in the steering and braking systems to help the equipment complete steering, deceleration, or stopping.

Features of Polyurethane Drive Wheels:

• High wear resistance: Polyurethane materials have very high wear resistance, can maintain good shape and performance in long-term use, reduce wear rate, extend service life, reduce replacement frequency, and thus reduce maintenance costs.

• High load-bearing capacity: Polyurethane drive wheels perform well when carrying heavy objects and are suitable for heavy material handling and transportation equipment. The load-bearing capacity of a single wheel ranges from 300-11500kg, depending on the wheel core and material hardness of the wheel.

• Good elasticity and shock absorption: Polyurethane has good elasticity and impact

absorption capacity, can reduce equipment vibration, and provides a smooth driving experience.

• Good anti-aging: Polyurethane drive wheels have excellent chemical corrosion resistance, high-temperature resistance, grease resistance, chemical corrosion resistance, and long service life. Suitable for use in various complex chemical environments.

• Low-noise operation: Compared with steel drive wheels, polyurethane drive wheels have lower noise and can provide a quieter working space for the environment.

• Excellent grip: Polyurethane has good friction with the ground, which can provide a strong grip, ensuring that the equipment can run stably under different road conditions, not easy to slip, and improves the safety of equipment operation.

Use Scenarios of Polyurethane Drive Wheels

• Logistics handling equipment: widely used in warehousing and logistics industry equipment such as forklifts, pallet trucks, and stackers. Its good elasticity and grip can ensure the stability and safety of this equipment when handling goods. At the same time, low noise and wear resistance can also help improve the efficiency of logistics operations and reduce costs.

• Industrial production equipment: such as conveyor lines in factories, various industrial transportation platforms, automatic guided vehicles (AGVs), etc. Polyurethane drive wheels can adapt to different production environments, provide stable drive and precise operation control for these equipment, and ensure the smooth progress of the production process.

• Heavy machinery: For example, heavy equipment such as large machinery and cranes, polyurethane drive wheels provide strong support and driving functions

• Medical equipment: In some medical carts, beds, and other equipment, the shock absorption and quietness of polyurethane drive wheels can provide patients with a more comfortable experience, and its corrosion resistance also facilitates the cleaning and disinfection of equipment.

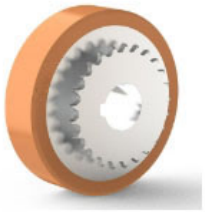
• Cleaning equipment: In cleaning equipment such as sweeping robots, automatic sweepers, industrial cleaning vehicles, etc., the wear resistance, anti-skid, and good steering performance of polyurethane drive wheels enable them to travel flexibly on different surfaces and effectively complete cleaning tasks.



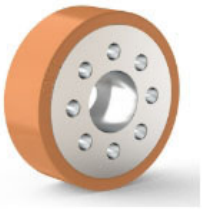
Flange structure drive wheel



Keyway structure drive wheel



Sprocket



PU-coated wheel with expansion sleeve

Philson focuses on providing polyurethane drive wheels for heavy industrial automation production, transportation, lifting, and other industries. The wheel core, hardness, tread pattern material, and size range can be customized according to your actual needs. If you have relevant needs, please contact us.