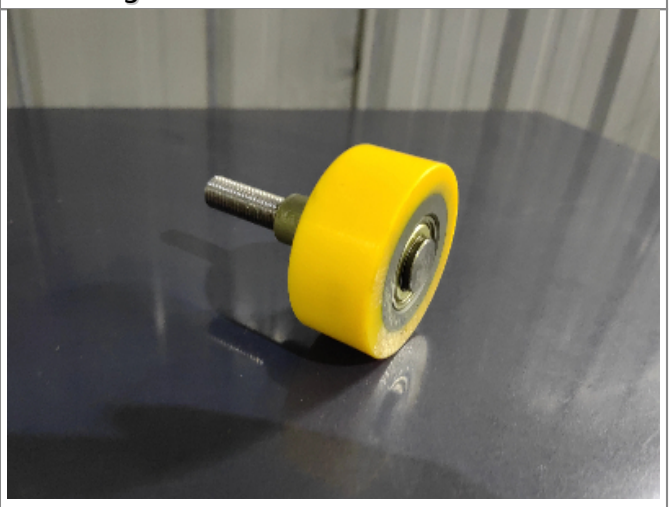
Durable PU Guide Wheels for Warehouse Handling

Title	Durable PU Guide Wheels for Warehouse Handling
Thumb	
Address	Anfeng Industrial Park, Dongtai City, Jiangsu, China
Website	https://www.poly-wheels.com/
Email	sale06@kfqizhongji.com

Description

In automated storage and retrieval systems (AS/RS), the smooth and precise operation of stacker cranes relies heavily on high-performance guide wheels. Philson specializes in engineering industrial-grade polyurethane guide wheels that ensure stability, precision, and longevity for high-speed, high-load warehousing equipment.

Working Principle & Design

Philson guide wheels are secured to the stacker crane's travel mechanism or upper guide frame using high-strength fasteners, working in coordination with travel wheel boxes or polyurethane drive wheels.

1. Dual-Sided Constraint: Arranged symmetrically on both sides of the rail to counteract

lateral horizontal thrust caused by inertia and shifting loads. This prevents equipment swaying, crabbing, or derailment.

2. Track Adaptability: Fully compatible with both heavy-duty load-bearing ground rails and top-mounted sky rails (high-level guide rails).

Core Material Advantages

We utilize a proprietary formulation of modified polyurethane elastomer, striking an optimal balance between load capacity and toughness:

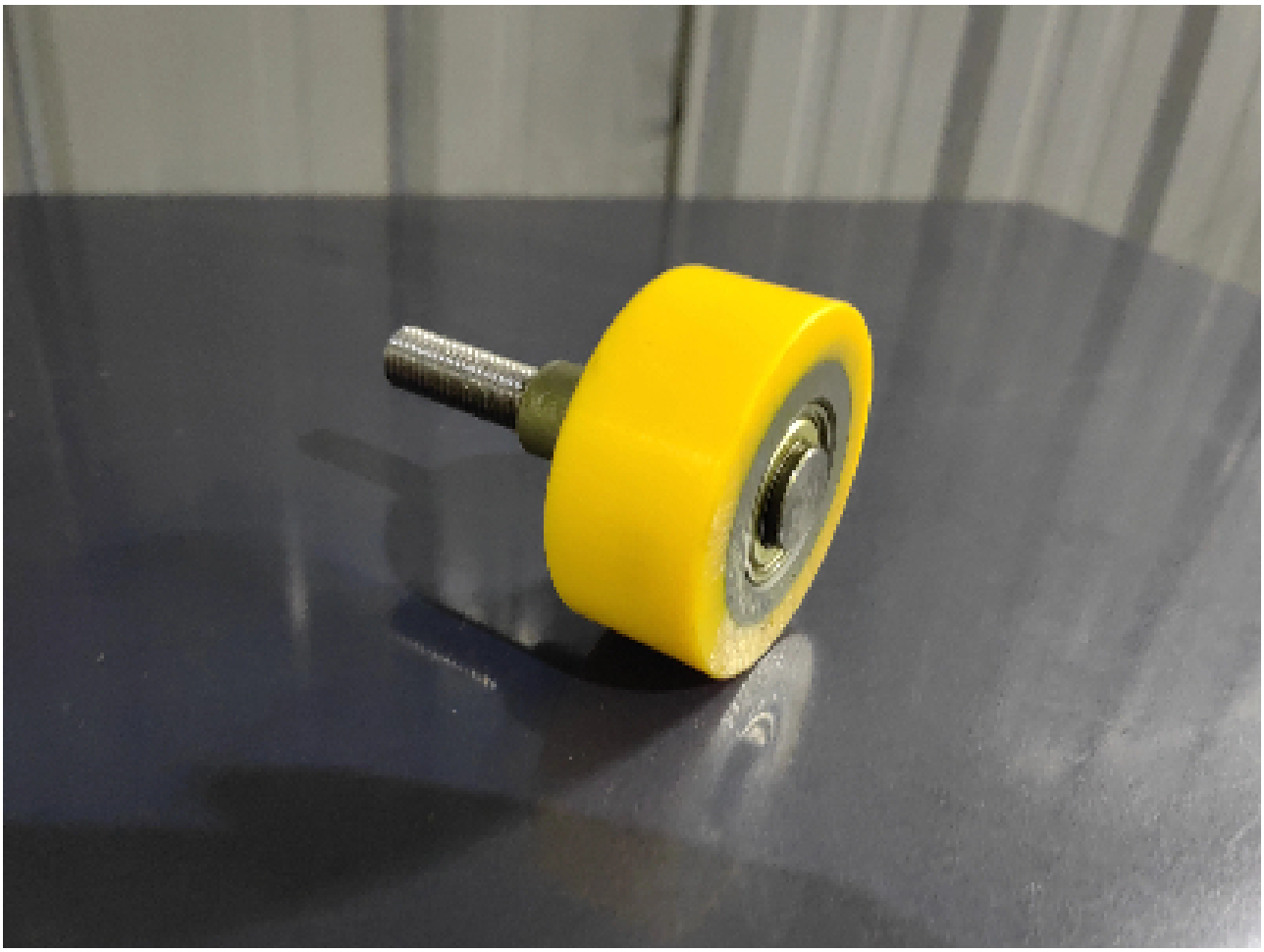
1. Low Internal Heat Generation: Extremely low hysteresis loss prevents heat accumulation during 24/7 continuous operations, eliminating premature fatigue wear.

2. Ultra-Quiet & Clean: Superior acoustic damping reduces workshop decibels and prevents metal microparticle shedding, ideal for cleanrooms.

3. High Resilience: Excellent anti-creep properties prevent the formation of "flat spots" or localized deformations under prolonged static loads.

4. Superior Wear & Tear Resistance: Exceptional resistance to abrasion, cuts, and tearing, even when operating on rails with trace dust or iron filings.

5. Precise Hardness Calibration: Provides robust lateral support while cushioning wheel-rail impacts, reducing long-term rail maintenance costs.



Main Application Areas

Philson high-performance polyurethane guide wheels are widely utilized in several core automated transport scenarios:

1. AS/RS Automated Storage and Retrieval Systems: Guidance systems for various single-unit and double-unit heavy-duty stacker cranes.

2. Ultra-Tall Stacker Cranes in High-Bay Warehouses: Resolving severe swaying issues at the top of stacker cranes in ultra-high automated warehouses exceeding 30 meters.

3. High-Speed Logistics Conveying and Sorting Platforms: Lateral precision guidance for automated handling equipment such as shuttles, RGVs, and AGVs.

4. Cold Chain Warehousing and Food-Grade Material Handling: Rail constraints for rack operations inside ultra-low temperature cold storage facilities.

Conclusion

In the era of modern smart warehousing, where maximum efficiency and stability are paramount, the failure of even a minor component can stall an entire production line. Philson stacker crane guide wheels perfectly blend cutting-edge material science with deep industrial manufacturing expertise, ensuring your material handling systems run stably, position precisely, and last longer under any harsh environment.

Please feel free to contact the Philson engineering team. Based on your equipment weight, operating speed, and ambient temperature, we will provide you with a dedicated, customized, integrated logistics wheel solution.