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# Heavy Duty Polyurethane Bearing Wheels

Title	Heavy Duty Polyurethane Bearing Wheels
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## Description

Polyurethane-covered bearing wheels are the industry standard for combining heavy-load durability, noise reduction, and floor protection.



## Understanding Dynamic vs. Static Load Capacities

To prevent tread delamination or flat-spotting, it is crucial to understand load limits:

**Dynamic Load Capacity:** The maximum weight a polyurethane wheel can support while in motion. (Crucial for electric pallet trucks, automated guided vehicles, and factory automation).

**Static Load Capacity:** The maximum weight the wheel can sustain while stationary. Polyurethane elastomers are highly resistant to compression sets, preventing permanent flat spots when parked under heavy machinery.

## Core Application Scenarios

**Material Handling & Warehousing:** Heavy-duty steel-core PU wheels are utilized for electric pallet jacks, stacker cranes, and automated sorting systems.

**Medical & Cleanroom Environments:** Aluminum or stainless steel core wheels bonded with non-marking Vulkollan or MDI polyurethane ensure sterile, noise-free mobile lab operations.

**Extreme & Outdoor Heavy Industries:** Specialized polyurethane bonding on wide treads is deployed on mining monorail cranes and TBM (Tunnel Boring Machine) shield rollers.

## Custom Polyurethane Wheel Manufacturing

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From massive steel-core drive wheels moving tons of equipment to flexible, non-marking medical caster rollers, custom cast polyurethane wheels are a long-term investment in safety and productivity.

If you are an OEM, system integrator, or industrial procurement manager, contact our engineering support team today. We provide custom wheel load calculations, custom core machining, and material datasheets to keep your operations rolling smoothly.