

TECHNICAL REFERENCE · PRINT & KEEP

Powered Caster Applications: Industrial Use Cases &

One-page quick reference · Full engineering guide + live tools at the QR codes below

Quick answer. Powered casters integrate a 24V or 48V brushless DC motor, planetary gear reduction, and a polyurethane drive wheel into one mounting assembly that replaces standard casters on existing equipment. Onboard 20 to 100 Ah battery packs give four to eight hours of continuous operation. They suit heavy cart movement in warehouses, manufacturing, and automation retrofits.

Powered Caster Application Comparison

Application	Typical Load	Recommended Type	Key Spec	Floor Type
Assembly line	2,000 – 20,000 lbs	Dual-drive differential	Polyurethane wheel, 24V/48V	Sealed concrete
Hospital beds	800 – 1,500 lbs	Single powered + 3 swivel	Non-marking rubber, IP54	Vinyl/epoxy
Warehouse carts	500 – 5,000 lbs	Retrofit drive kit	Line-follow sensor compatible	Sealed/polished concrete
Aerospace tooling	10,000 – 80,000 lbs	Heavy-duty planetary drive	Creep speed <1 mph, forged steel	Epoxy-coated concrete
Heavy die/mold transport	5,000 – 100,000 lbs	Multi-wheel powered platform	48V system, omnidirectional	Reinforced concrete



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