

TECHNICAL REFERENCE · PRINT & KEEP

Casters for Washdown & Corrosive Environments: Why

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

Quick answer. Washdown and corrosive environments require stainless steel caster rigs, sealed stainless bearings, and chemical-resistant polymer wheels. Food processing washdown runs 120 to 180 degrees F water at 500 to 1500 psi, which destroys standard zinc-plated casters within weeks. Specify 304 stainless for general washdown, 316 for chlorides and acids, plus FDA or USDA compliant wheel materials.

Stainless Rig Selection: 304 vs 316

Stainless Grade	Chloride Resistance	Acid Resistance	Cost Premium	Best Use
304	Low	Medium	Baseline	Freshwater washdown, dry corrosive
316	High	High	+25-35%	Food processing, chemical, marine
316L (low carbon)	High	High	+30-40%	Welded applications, high-temp sanitize
2205 duplex	Very high	High	+50-70%	Saltwater marine, concentrated chloride
Electropolished 316	High + FDA smooth	High	+50-80%	Pharmaceutical, medical device

Chemical-Resistant Wheel Materials

Wheel Material	Chemical Resistance	Max Temp	Floor Protection	Best Use
Nylon (Type 6/6)	High	200°F	Medium	General washdown, freezer
Ultra-high-density polyethylene (UHMW)	Very high	180°F	Medium-high	Chemical handling, wet rooms
Polypropylene	Very high	190°F	Medium	Dairy, pharmaceutical autoclave
Phenolic (sealed)	Medium	225°F	Low	High-temp oven/drying
Polyurethane (FDA grade)	Medium-high	180°F	High	Food carts, light corrosion
Stainless steel wheel	Maximum	1000°F+	None	Sterile, heavy industrial



SCAN · THIS GUIDE

Reopen the full guide and interactive tools on your phone. Always current.



SCAN · ALL 18 FREE TOOLS

Load & derating calculators, push and ramp force, bolt pattern identifier, wheel material selector, failure diagnosis tool, AGV sizing + more.

WHY ENGINEERS USE CASTERHQ

Free application engineering review
Same-day RFQ response & shipping
Albion · Hamilton · Colson · P&H in stock
Ships from Mansfield, TX

844-439-4335