

TECHNICAL REFERENCE · PRINT & KEEP

Wheel Diameter for Casters Guide

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

Quick answer. Larger wheel diameter reduces push force, crosses floor discontinuities better, and lasts longer; each 2 inch diameter increase cuts push force 20 to 30 percent. Size the wheel at least 2 times the largest crack it must cross. For most industrial carts, 6 to 8 inch is the baseline; use 8 to 12 inch at docks and cracked floors.

Wheel Diameter and Push Force

Wheel Diameter	Push Force (1,000 lb load)	Ergonomic Fit
3 in	60-80 lb	Fails
4 in	45-60 lb	Borderline
5 in	38-50 lb	OK
6 in	30-40 lb	Good
8 in	22-30 lb	Good
10 in	18-25 lb	Excellent

Wheel Diameter and Overall Caster Height (OAH)

Wheel Diameter	Typical OAH Range	Low-Profile OAH
3 in	4-4.5 in	3.5 in
4 in	5-5.5 in	4.5 in
5 in	6-6.5 in	5.5 in
6 in	7-7.5 in	6.5 in
8 in	9.5-10 in	9 in
10 in	12-12.5 in	11.5 in



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