

TECHNICAL REFERENCE · PRINT & KEEP

Plate vs Stem Casters: Which Mounting Type Is Right

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

Quick answer. Spec a plate caster for any heavy-duty industrial cart, OEM platform, or application above 500 lb per caster; plate mounts are the North American industrial default and allow field replacement. Spec a stem caster for tube-frame or threaded-hole mounting in light-to-medium duty institutional and retrofit applications. Load rating, frame construction, and service environment drive the choice, not preference.

Load Rating Comparison

Duty Class	Plate Caster Range	Stem Caster Range
Light	100-350 lb	70-300 lb
Medium	300-800 lb	250-600 lb
Heavy	500-1,400 lb	600-1,400 lb (select stems)
Extra heavy	1,000-2,500 lb	Not typical
Super duty	2,500-10,000+ lb	Not available

Retrofit Rules: Replacing Existing Casters

Existing Mounting	Replacement Rule	Common Error
Plate	Match plate size + bolt pattern	Wrong bolt pattern
Threaded stem	Match thread + diameter + length	Pitch mismatch (UNC vs metric)
Grip-ring stem	Match stem OD + tube ID	Ring pops out of loose hole
Expanding stem	Match tube ID + wall thickness	Expander does not grip
Round / smooth	Match stem OD + retention	Stem too short to retain



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