

TECHNICAL REFERENCE · PRINT & KEEP

Offset for Casters Guide

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Quick answer. Swivel offset, the horizontal distance between the swivel raceway centerline and the wheel centerline, should be roughly 20 to 30 percent of wheel diameter for general industrial use. A typical 4 inch wheel runs 1.0 to 1.25 inches of offset. Too little offset causes shimmy; too much widens turning radius and raises plate moment.

Offset vs Turning Radius

Wheel Diameter	Typical Offset	Cart Turning Radius Delta
3 in	0.75-1.0 in	Baseline
4 in	1.0-1.25 in	+0.5 in
5 in	1.3-1.6 in	+1.1 in
6 in	1.5-1.8 in	+1.5 in
8 in	2.0-2.5 in	+2.4 in
10 in	2.5-3.0 in	+3.0 in

Offset by Caster Size (Reference Table)

Duty Class	Wheel	Typical Offset	Typical Capacity
Light	3-4 in	0.75-1.25 in	100-500 lb
Medium	4-5 in	1.0-1.6 in	500-1,200 lb
Heavy	5-6 in	1.3-1.8 in	1,000-2,500 lb
Extra heavy	6-8 in	1.8-2.5 in	2,000-5,000 lb
Super duty	8-12 in	2.5-3.5 in	5,000-20,000 lb



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