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# Threaded Stem Pitch Guide: UNC vs Metric Threads

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**Quick answer.** Four thread specs cover about 95 percent of threaded stem casters sold in North America: 3/8"-16 UNC, 1/2"-13 UNC, 5/8"-11 UNC, and metric M10-1.5 or M12-1.75. The first number is stem outside diameter; the second is threads per inch or millimeter pitch. UNC and metric threads do not interchange, a cross-threaded stem strips within about 30 days.

## Quick-answer pitch matrix (the only table most buyers need)

Thread spec	OD (in)	TPI / pitch	Typical caster capacity	Common on
3/8"-16 UNC	0.375	16 TPI	75-250 lb	Office chairs, carts, light shelving
1/2"-13 UNC	0.500	13 TPI	250-500 lb	Hospital beds, med carts, warehouse carts
5/8"-11 UNC	0.625	11 TPI	500-1,200 lb	Industrial racks, floor scrubbers, tool boxes
10mm-1.5 metric	0.394	1.5mm pitch	100-300 lb	European furniture, imported equipment
12mm-1.75 metric	0.472	1.75mm pitch	250-600 lb	European industrial, MRO replacements

## Metric thread sizes explained (ISO)

Metric spec	OD (in)	Nearest UNC	Safe to swap?
M8-1.25	0.315"	5/16"-18	NO, different pitch
M10-1.5	0.394"	3/8"-16	NO, looks close, strips in 2-6 weeks
M12-1.75	0.472"	1/2"-13	NO, different pitch
M14-2.0	0.551"	9/16"-12	NO
M16-2.0	0.630"	5/8"-11	NO



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