

Pipe & Tube Supply - 501.372.6556

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STANDARD MANUFACTURING TOLERANCES Cold Finished Carbon Steel Bars

Tolerances are Minus
Undersize variations in inches
There are no standard tolerances for straightness of cold finished bars.

COLD DRAWN OR TURNED AND POLISHED ROUNDS

Size Range in Inches	Max Carbon Range .28% or less	Max Carbon Range over .28% to .55% incl.	Max Carbon Range to 0.55% incl. Stress Relieved or Annealed after Cold Finishing	Max Carbon Range over .55% or all Grades Quenched and Tempered or Normalized and Tempered before Cold Finishing.
1-1/2 or under	.002	.003	.004	.005
Over 1-1/2 to 2-1/2, incl	.003	.004	.005	.006
Over 2-1/2 to 4, incl	.004	.005	.006	.007
Over 4 to 6, incl	.005	.006	.007	.008
Over 6 to 8, incl	.006	.007	.008	.009
Over 8 to 9, incl	.007	.008	.009	.010
Over 9	.008	.009	.010	.011

COLD DRAWN HEXAGONS

3/4 or under	.002	.003	.004	.006
Over 3/4 to 1-1/2, incl	.003	.004	.005	.007
Over 1-1/2 to 2-1/2, incl	.004	.005	.006	.008
Over 2-1/2 to 3-1/8, incl	.005	.006	.007	.009

COLD DRAWN SQUARES

3/4 or under	.002	.004	.005	.007
Over 3/4 to 1-1/2, incl	.003	.005	.006	.008
Over 1-1/2 to 2-1/2, incl	.004	.006	.007	.009
Over 2-1/2 to 4, incl	.006	.008	.009	.011

COLD DRAWN FLATS

Tolerances for flats apply to thickness as well as width

Width in inches				
To 3/4 incl	.003	.004	.006	.008
Over 3/4 to 1-1/2, incl	.004	.005	.008	.010
Over 1-1/2 to 3, incl	.005	.006	.010	.012
Over 3 to 4, incl	.006	.008	.011	.016
Over 4 to 6, incl	.008	.010	.012	.020
Over 6	.013	.015		

TURNED, GROUND and POLISHED ROUNDS

COLD DRAWN, GROUND and POLISHED ROUNDS
Undersize Variations in Inches

Size range in inches	Turned, Ground & Polished Rounds	Cold Drawn, Ground and Polished Rounds
1-1/2 and under	.001	.001
Over 1-1/2 to less than 2-1/2	.0015	.0015
2-1/2 to 3, incl	.002	.002
Over 3 to 4, incl	.003	.003
Over 4 to 6, incl	.004*	
Over 6	.005*	

*For nonresulphurized steels (steels specified to maximum sulphur limits under 0.08%) or for steels thermally treated, the tolerance is increased by .001".