

AERONAUTICAL MATERIAL SPECIFICATION

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TOLERANCES Alloy Steel Bars

1. **PURPOSE:** To publish established manufacturing tolerances.
2. **APPLICATION:** Tolerances shown herein apply, unless otherwise agreed upon by purchaser and vendor. These tolerances apply to all conditions, unless otherwise noted. The term "excl" is used to apply only to the higher figure of the specified range.
3. **DIAMETER OR THICKNESS:**
 - 3.1 **Cold Finished:**

TABLE I

Nominal Diameter or Thickness Inches	Tolerance, Inch, Minus Only Maximum of Carbon Range, %	
	0.48 and under	Over 0.48 and all Carbons Heat Treated or Strain Relieved

ROUNDS AND HEXAGONS

2 and under	0.004	0.006
Over 2 to 3, incl	0.006	0.008
Over 3 to 6, incl	0.008	0.010

SQUARES AND FLATS

Nominal Thickness or Width Inches	Tolerance, Inch	
2 and under	0.006	0.008
Over 2 to 3, incl	0.010	0.012
Over 3 to 6, incl	0.012	0.014

- Notes: (1) The tolerance for flats applies to both width and thickness.
- (2) When rough turned bars are permitted, the above tolerances shall be doubled.

- 3.2 **Ground and Polished:**

Nominal Diameter Inches	Tolerance, Inch	
Under 2.5	+0.000	-0.002
2.5 and over	+0.000	-0.003

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