# THICKNESS TOLERANCES

## Cold Rolled Sheets in cut Lengths and Coils Stainless and Heat Resisting Steels

| Specified Thickness,[a] in (mm) | Permissible Variations, Over and Under [b] in | mm |
|---|---|---|
| 0.005 (0.13) | 0.001 | 0.03 |
| Over 0.005 to 0.007 (0.13 to 0.18), incl. | 0.0015 | 0.04 |
| Over 0.007 to 0.016 (0.18 to 0.41), incl. | 0.002 | 0.05 |
| Over 0.016 to 0.026 (0.41 to 0.66), incl. | 0.003 | 0.08 |
| Over 0.026 to 0.040 (0.66 to 1.02), incl. | 0.004 | 0.10 |
| Over 0.040 to 0.058 (1.02 to 1.47), incl. | 0.005 | 0.13 |
| Over 0.058 to 0.072 (1.47 to 1.83), incl. | 0.006 | 0.15 |
| Over 0.072 to 0.083 (1.83 to 2.11), incl. | 0.007 | 0.18 |
| Over 0.083 to 0.098 (2.11 to 2.19), incl. | 0.008 | 0.20 |
| Over 0.098 to 0.114 (2.49 to 2.90), incl. | 0.009 | 0.23 |
| Over 0.114 to 0.130 (2.90 to 3.30), incl. | 0.010 | 0.25 |
| Over 0.130 to 0.145 (3.30 to 3.68), incl. | 0.012 | 0.30 |
| Over 0.145 to 3/16 (3.68 to 4.76), excl. | 0.014 | 0.36 |

a. Thickness measurements are taken at least 3/8 in (9.52 mm) from the edge of the sheet.

b. Cold rolled sheets in cut lengths and coils are produced in some type numbers and some widths and thicknesses to tolerances less than those shown in the table.

c. The tolerances shown are based on ASTM A480.

# WIDTH TOLERANCES

## Hot Rolled Sheets and Cold Rolled Sheets Not Resquared And Cold Rolled Sheets in Coils Stainless and Heat Resisting Steels

| | Tolerances, in (mm) for Specified Width | |
|---|---|---|
| **Specified Thickness, in (mm)** | **24 to 48 (610 to 1,219), excl.** | **48 (1,219) and Over** |
| All thicknesses | 1/16 (1.59) over, 0 under | 1/8 (3.8) over, 0 under |

NOTE: Tolerances shown are based on ASTM A480.

# CAMBER TOLERANCES

## Hot Rolled Sheets and Cold Rolled Sheets Not Resquared and Cold Rolled Sheets in Coils Stainless and Heat Resisting Steels (ASTM A480)

**Camber is the greatest deviation of a side edge from a straight line, and measurement is taken by placing an 8 ft. (2,438 mm) straight edge on the concave side and measuring the greatest distance between the sheet edge and the straight edge.**

| Specified Width, In (mm) | Tolerance, in (mm) per Unit Length of 8 ft (2,438 mm) |
|---|---|
| 24 to 36 (610 to 914), incl. | 1/8 (3.18) |
| Over 36 (914) | 3/32 (2.38) |



# LENGTH TOLERANCES

## Hot Rolled Sheets and Cold Rolled Sheets Not Resquared Stainless and Heat Resisting Steels (ASTM A480)

| Length, in (mm) | Tolerance, in (mm) |
|---|---|
| Up to 120 (3,048), incl. | 1/4 (6.35) over, 0 under |
| Over 120 to 240 (3,048 to 6,096) | 1/2 (12.70) over, 0 under |

# FLATNESS TOLERANCES

## Hot Rolled Sheets and Cold Rolled Sheets, Specified to Stretcher Leveled Standard of Flatness, Not including Hard Tempers of 2xx and 3xx series Stainless and Heat Resisting Steels

| Specified Thickness, in (mm) | Width, in (mm) | Length, in (mm) | Flatness Tolerance,[a] in (mm) |
|---|---|---|---|
| All | To 48 (1,219), incl. | To 96 (2,438), incl. | 1/8 (3.18) |
| All | To 48 (1,219), incl. | Over 96 (2,438) | 1/4 (6.35) |
| All | Over 48 (1,219) | To 96 (2,438), incl. | 1/4 (6.35) |
| All | Over 48 (1,219) | Over 96 (2,438) | 1/4 (6.35) |

a. Maximum deviation from a horizontal flat surface.
NOTE: Tolerances shown are based on ASTM A480.

# FLATNESS TOLERANCES

## Hot Rolled Sheets and Cold Rolled Sheets, Not Specified to Stretcher Leveled Standard of Flatness, Not Including Hard Tempers of 2xx and 3xx Series, Dead Soft Sheets and Deep Drawing Sheets Stainless and Heat Resisting Steels (ASTM A480)

| Specified Thickness, in (mm) | Width, in (mm) | Flatness Tolerance,[a] in (mm) |
|---|---|---|
| Under 0.062 (1.57) | To 36 (914), incl. | 1/2 (12.70) |
| incl. | Over 36 to 60 (914 to 1,524), | 3/4 (19.05) |
| | Over 60 (1,564) | 1 (25.40) |
| 0.062 (1.57) and over | To 60 (1,524), incl. | 1/2 (12.70) |
| | Over 60 to 72 (1,524 to 1,829), incl. | 3/4 (19.05) |

a. Maximum deviation from a horizontal flat surface.

# RECOMMENDED MACHINING ALLOWANCES FLAME CUT PLATES

## Including Circles, Rings and Sketched Stainless and Heat Resisting Steels (ASTM A480)

| Specified Thickness, in (mm) | Machining Allowance per Edge, in (mm) |
|---|---|
| 2 (51) and under | 1/4 (6.35) |
| Over 2 to 3 (51 to 76), incl. | 3/8 (9.52) |
| Over 3 to 6 (76 to 152), incl. | 1/2 (12.70) |

NOTE: The above minimum recommended machining allowances are to be added by the purchaser to each edge on all flame cut plates.