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不锈钢和其他铁合金公差

Stainless Steel & Other Iron Alloy

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修订记录

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1 范围 Scope

不锈钢加工件的允许公差见 B7.1 部分。单独性能文件中的标准偏差表格将在改版过程中删除，改为引用本部分中的对应标准偏差表格的编号。本部分中只包含美国钢铁协会和 ASTM 标准中的标准偏差，特殊的偏差表格仍保留在单独的性能文件中。

Tolerances for stainless steel wrought materials are shown in Section B7.1. Standard tolerance tables will be removed from the individual property sheets as rapidly as each can be reviewed and revised. Reference will be made in each property sheet to the new tolerance table number as shown in this section for the particular tolerance in question. Only those applicable tolerances which are published as standard by the American Iron and Steel Institute or by ASTM will be included in this section. Special tolerances will be continued on individual property sheets.

将不锈钢工件的标准偏差表格进行整理，有助于减少不同单独性能文件中同一表格重复出现的现象，能够减少“B”类性能手册的厚度。将标准偏差表格进行整理，有助于工程中对材料进行比较，选择更加适合与所应用场景的材料。

The grouping of standard tolerances for stainless steel wrought products will make it possible to eliminate much duplication on property sheets and when applied to all metals, will substantially reduce the size of the "B" Property book. It is believed that such grouping of standard tolerances will also be advantageous for comparison purposes to engineers and other concerned with the selection of material.

偏差见表 1。表 1 中的表格应在单独的性能文件引用时应用于 B7 部分的材料。

Product tolerances are shown in the following table and apply only when so referenced in the individual property sheets covering materials in the B7 section.

表 1 Table 1

棒材 Bar:	热成型和冷成型 Hot-finished and cold-finished	表 2.1.1-1 到 2.1.1-20	Tables 2.1.1-1 to 20 incl
线材 Wire		表 2.1.2-1 到 2.1.2-6	Tables 2.1.2-1 to 6 incl
板材 Sheet:	热轧和冷轧 Hot rolled and cold rolled	表 2.1.3-1 到 2.1.3-9	Tables 2.1.3-1 to 9 incl
厚板 Plate		表 2.1.4-1 到 2.1.4-7	Tables 2.1.4-1 to 7 incl
条材 Strip:	热轧 Hot rolled	表 2.1.5-1 到 2.1.5-5	Tables 2.1.5-1 to 5 incl
	冷轧 Cold rolled	表 2.1.6-1 到 2.1.6-6	Tables 2.1.6-1 to 6 incl
	冷轧密封合金 Cold rolled, sealing alloys	表 2.1.7-1 到 2.1.7-4	Tables 2.1.7-1 to 4 incl
管材 Pipe:	无缝和焊接管材 Seamless and welded	表 2.1.8-1 到 2.1.8-5	Tables 2.1.8-1 to 5 incl

2 公差



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表 2.1.1-1 热轧圆形、车削和方形棒材尺寸的允许偏差

Table 2.1.1-1 Permissible variations in size of hot-finished round, turned, ⁽⁴⁾ and square bars

公称尺寸 Specified size, 英寸 inch		公称尺寸的允许偏差 Permissible variation from specified size, 英寸 inch		不圆度或不方度 Out of round or out of square, 英寸 Inch ⁽¹⁾⁽²⁾
>	≤	+	-	
5/16	7/16 ⁽³⁾	0.006	0.006	0.009
7/16	5/8 ⁽³⁾	0.007	0.007	0.010
5/8	7/8	0.008	0.008	0.012
7/8	1	0.009	0.009	0.013
1	1 1/8	0.010	0.010	0.015
1 1/8	1 1/4	0.011	0.011	0.016
1 1/4	1 2/8	0.012	0.012	0.018
1 2/8	1 1/2	0.014	0.014	0.021
1 1/2	2	1/64	1/64	0.023
2	2 1/2	1/32	0	0.023
2 1/2	3 1/2	3/64	0	0.035
3 1/2	4 1/2	1/16	0	0.046
4 1/2	5 1/2	5/64	0	0.058
5 1/2	6 1/2	1/8	0	0.070
6 1/2	8	5/32	0	0.085
8	12 ⁽⁴⁾	3/16	0	3/32
12	15 ⁽⁴⁾	7/32	0	7/64
15	25 ⁽⁴⁾	1/4	0	1/8

(1) 不圆度描述的是同一截面处测得的最大尺寸与最小尺寸的不同。

(1) Out-of-round is the difference between the maximum and minimum diameters of the bar measured at the same cross section.

(2) 不方度描述的是同一截面处测得的两组平行面的距离之间的不同。

(2) Out-of-square section is the difference in the two dimensions at the same cross section of a square bar, each dimension being the distance between opposite faces.

(3) 对于尺寸在 5/16 英寸到 5/8 英寸的由盘条轧制制造的圆棒不适用于本偏差表。

(3) Size tolerances have not been evolved for round sections in the size range of 5/16 inch to approximately 5/8 inch in diameter which are produced on rod mills in coils.

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(4) 尺寸在 2 英寸到 25 英寸的棒材可以使用车削棒，当棒材尺寸大于 8 英寸时，只允许使用车削棒。

(4) Turned bars are generally available from 2 to 25 inch in diameter, over 8 inch only turned bars are available.

其他尺寸允许偏差和从条材、板材切取的条钢的公差见表 2.1.1-20。

Permissible variations in dimensions; for flat bars cut from strip and plate. See Table 2.1.1-20.

表 2.1.1-2 热成型六边形和八边形棒材的公称尺寸允许偏差

Table 2.1.1-2 Permissible variations in size of hot-finished hexagonal and octagonal bar

公称对边距 Specified sizes measured between opposite sides, 英寸 inch		公称对边距的允许偏差 Permissible variation from specified size, 英寸 inch		六边形棒材 3 个对边距测量值的 最大偏差 Maximum difference in 3 measurements for hexagons only, 仅英寸 inch only 英寸 inch
>	≤	+	-	
1/4	1/2	0.007	0.007	0.011
1/2	1	0.010	0.010	0.015
1	1 1/2	0.021	0.021	0.025
1 1/2	2	1/32	1/32	1/32
2	2 1/2	3/64	3/64	3/64
2 1/2	3 1/2	1/16	1/16	1/16

表 2.1.1-3 轧制热成型条钢的厚度和宽度的允许公差

Table 2.1.1-3 Permissible variations in thickness and width for hot-finished flat bars rolled as bars

公称宽度 Specified width, 英寸 inch		在特定宽度 (t) 下的宽度允许偏差，英寸 Permissible variations in thickness for thicknesses (t) given, inch												Permissible variations in width, in	
		1/8≤t≤1/2		1/2<t≤1		12<t≤2		22<t≤4		42<t≤6		62<t≤8			
		+	-	+	-	+	-	+	-	+	-	+	-		
>	≤	+	-	+	-	+	-	+	-	+	-	+	-	+	-
	1	0.008	0.008	0.010	0.010	-	-	-	-	-	-	-	-	0.015	0.015
1	2	0.012	0.012	0.015	0.015	0.031	0.031	-	-	-	-	-	-	0.031	0.031
2	4	0.015	0.015	0.020	0.020	0.031	0.031	0.062	0.031	-	-	-	-	0.062	0.031
4	6	0.015	0.015	0.020	0.020	0.031	0.031	0.062	0.031	0.093	0.062	-	-	0.093	0.062
6	8	0.016	0.016	0.025	0.025	0.031	0.031	0.062	0.031	0.093	0.062	0.125	0.156	0.125	0.156
8	10	0.020	0.020	0.031	0.031	0.031	0.031	0.062	0.031	0.093	0.062	0.125	0.156	0.156	0.187

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表 2.1.1-4 冷成型圆棒的尺寸允许偏差

Table 2.1.1-4 Permissible variations in size of cold-finished round bars
 直径 Diameter:

公称尺寸 Specified size, 英寸 Inch		公称尺寸的允许偏差 Permissible variations from specified size, 英寸 Inch ⁽¹⁾⁽²⁾	
>	<	+	-
1/16	5/16	0.001	0.001
5/16	1/2	0.0015	0.0015
1/2	1	0.002	0.002
1	1 1/2	0.0025	0.0025
1 1/2	4 ⁽³⁾	0.003	0.003

(1) 除有明确要求外，表 7.1.1-4 中的允许偏差为正偏差和负偏差。当有其他要求时，只要允许偏差的范围不小于表 7.1.1-4 中的要求，偏差可以规定全部为正偏差、全部为负偏差或正负偏差的任意组合。

(1) Unless otherwise specified, size tolerances are over and under as shown in the above table. When required, however, they may be specified all over and nothing under, or all under and nothing over, or any combination of over and under, if the total spread in size tolerance for a specified size is not less than the total spread shown in the table.

(2) 如果圆棒需要在冷加工后进行热处理或热处理+酸洗，允许的尺寸公差为表 7.1.1-4 中规定值的 2 倍。

(2) When it is necessary to heat treat or heat treat and pickle after cold finishing, size tolerances are double those shown in the table.

(3) 直径大于 4 英寸的冷成型棒材的尺寸公差不包含在表 7.1.1-4 中。

(3) Cold-finished bars over 4 inch in diameter are produced; size tolerances for such bars are not included herein.

表 2.1.1-5 冷成型圆棒（冷成型后进行了热处理）

Table 2.1.1-5 Cold-finished - Rounds (heat-treated after cold-finishing)
 直径 Diameter:

公称尺寸 Specified size, 英寸 inch		允许偏差 Tolerance, $\pm$ 英寸 inch
> 1/2	<1	0.004
≥ 1	<1 1/2	0.005
$\geq 1 1/2$	≤ 4	0.006

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表 2.1.1-6 冷成型方棒、六边形棒、八边形棒的尺寸允许偏差

Table 2.1.1-6 Permissible variations in size of cold finished hexagonal, octagonal, and square bars

公称尺寸 Specified size, ⁽¹⁾ 英寸 inch		公称尺寸的允许偏差 Permissible variations from specified size, 英寸 inch	
		>	<
≥ 1/8	< 5/16	0	0.002
≥ 5/16	< 1/2	0	0.003
≥ 1/2	≤1	0	0.004
>1	≤2	0	0.006
>2	≤3	0	0.008
>3		0	0.010
(1) 对边距 Distance across flats.			

表 2.1.1-7 冷成型方棒、六边形棒、八边形棒（冷成型后进行了热处理）

Table 2.1.1-7 Cold-finished-hexagons, octagons, squares (heat-treated after cold-finishing)

对边距 Distance across flats:

公称尺寸 Specified size, ⁽¹⁾ 英寸 inch		公称尺寸的允许偏差 Permissible variations from specified size, 英寸 inch	
		>	<
≥ 1/8	< 5/16	0	0.004
≥ 5/16	< 1/2	0	0.006
≥ 1/2	≤1	0	0.008
>1	≤2	0	0.012
>2	≤3	0	0.016
>3		0	0.020
(1)对边距 Distance across flats.			

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表 2.1.1-8 冷成型条钢宽度和厚度的允许偏差

Table 2.1.1-8 Permissible variations in width and thickness of cold-finished flat bars

宽度 Width, 英寸 inch		宽度允许偏差 Permissible variations in width, ± 英寸 inch ⁽¹⁾	
>	≤	厚度小于等于 1/4 英寸 For thickness 1/4 inch and under	厚度大于 1/4 英寸 For thicknesses over 1/4 inch
1/16	3/8	0.005	0.005
3/8	1	0.004	0.004
1	2	0.006	0.004
2	3	0.008	0.004
3	4 1/2	0.010	0.005
厚度 Thickness, 英寸 inch		厚度允许偏差 Permissible variations in thickness, ± Inch ⁽¹⁾	
>	≤		
	0.029	0.001	
0.029	0.035	0.0015	
0.035	1	0.002	
1	2	0.003	
2	3	0.004	
3	4 1/2 ⁽²⁾	0.005	

(1)如果条钢需要在冷加工后进行热处理或热处理+酸洗，允许的尺寸公差为表 7.1.1-8 中规定值的 2 倍。

(1) When it is necessary to heat treat or heat treat and pickle after cold finishing, size tolerances are double those shown in the table.

(2)直径大于 4 1/2 英寸的冷成型条钢的尺寸公差不包含在表 7.1.1-8 中。

(2) Cold-finished flat bars over 4 1/2 inch wide or thick are produced; width and thickness tolerances for such bars are not included herein.



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表 2.1.1-9 冷成型条钢（冷成型后进行了热处理）

Table 2.1.1-9 Cold-finished - Flats (heat-treated after cold-finishing)

宽度和厚度 Width and thickness:

宽度 Width, 英寸 inch		宽度允许片差 Permissible variations in width, ± 英寸 inch	
>	≤	厚度小于等于 1/4 英寸 For thickness 1/4 inch and under	厚度大于 1/4 英寸 For thicknesses over 1/4 inch
1/16	3/8	0.010	0.010
3/8	1	0.008	0.008
1	2	0.012	0.008
2	3	0.016	0.008
3	4 1/2	0.020	0.010
厚度 Thickness, 英寸 inch		厚度允许偏差 Permissible variations in thickness, ± 英寸 inch	
>	≤		
	0.029	0.002	
0.029	0.035	0.003	
0.035	1	0.004	
1	2	0.006	
2	3	0.008	
3	4 1/2 ⁽¹⁾	0.010	
(1)宽度后厚度大于 4 1/2 英寸的条钢的宽度和厚度允许偏差不包含在表 7.1.1-9 中。			
(1) Cold-finished flat bars over 4 1/2 inch wide or thick are produced; width and thickness tolerances for such bars are not included herein.			

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表 2.1.1-10 热成型或冷成型棒材的长度允许偏差

Table 2.1.1-10 Permissible variations in length of hot-finished or cold-finished bars

注：当对棒材供货长度没有要求是，此公差表格不适用。

Note: These tolerances are not applicable when bars are ordered random length.

圆形棒材、方形棒材、六边形棒材、八边形棒材的公称尺寸和条钢的宽度 Specified size of rounds, squares, hexagons, octagons, and widths of flats, 英寸 inch ⁽¹⁾		长度的允许偏差 Permissible variations in length, 英寸 inch			
>	≤	长度小于等于 12 英尺 For lengths up to 12ft (2),英寸 inch		长度大于 12 英尺小于 25 英尺 For lengths over 12 to 25ft, 英寸 inch	
		+	-	+	-
	0.500	1/16	0	1/8	0
0.500	2	1/2	0	3/4	0
2	4	3/4	0	1	0
4	6	1	0	1 1/4	0
6	9	1 1/4	0	1 1/2	0
9	12	1 1/2	0	2	0
(1) 条钢的最大宽度是 10 英寸。 (1) The maximum width of bar flats is 10 inches. (2) 公称尺寸大于等于 1/2 英寸，长度小于 3 英尺的材料，长度的允许偏差为+1/32 英寸，没有负偏差。 (2) For lengths under 3 ft and sizes up to 1/2 inch, incl, the permissible variation in length is 1/32 inch over and nothing under.					

表 2.1.1-11 热成型，机械矫直

Table 2.1.1-11 Hot-finished, machine straightened

直线度 Straightness:

热成型 Hot-finished:

任意 5 英尺为 1/8 英寸

1/8 inch in any 5 feet;

但不超过 $1/8 \text{ 英寸} \times \frac{\text{棒材长度 (英尺)}}{5 (\text{英尺})}$

but may not exceed $1/8 \text{ inch} \times \frac{\text{No. of feet in length}}{5}$

棒材凹边贴在一条直边上进行测量。

Measurement is taken on the concave side of the bar with a straight edge.

公称尺寸小于 1/2 英寸棒材的直线度没有要求。

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Straightness tolerances have not been established for sizes less than 1/2 inch.

表 2.1.1-12 冷成型，机械矫直

Table 2.1.1-12 Cold-finished, machine straightened

任意 5 英尺为 1/8 英寸

1/8 inch in any 5 feet;

但不超过 $1/8 \text{ 英寸} \times \frac{\text{棒材长度 (英尺)}}{5 (\text{英尺})}$

but may not exceed $1/8 \text{ inch} \times \frac{\text{No. of feet in length}}{5}$

棒材凹边贴在一条直边上进行测量。

Measurement is taken on the concave side of the bar with a straight edge.

公称尺寸小于 1/2 英寸棒材的直线度没有要求。

Straightness tolerances have not been established for sizes less than 1/2 inch.

表 2.1.1-13 热成型或冷成型

Table 2.1.1-13 Hot-finished or cold-finished

长度，随机 Length, random:

所有公称尺寸 ±12 英寸

All sizes Plus or minus 12 inches

表 2.1.1-14 机械矫直后机械切割的热成型或冷成型棒材的长度允许偏差

Table 2.1.1-14 Permissible variations in length of hot-finished or cold-finished bars machine cut after machine straightening

注：当对棒材供货长度没有要求是，此公差表格不适用。

Note: These tolerances are not applicable when bars are ordered random length.

圆形棒材、方形棒材、六边形棒材、八边形棒材的公称尺寸和条钢的宽度 Specified size of rounds, squares, hexagons, octagons, and widths of flats, 英寸 inch ⁽¹⁾		长度的允许偏差 Permissible variations in length, 英寸 inch			
		长度小于等于 12 英尺 For lengths up to 12ft, 英寸 inch		长度大于 12 英尺小于 25 英尺 For lengths over 12 to 25ft, 英寸 inch	
		+	-	+	-
>	≤	1/8	0	3/16	0
3	6	3/16	0	1/4	0
6	9	1/4	0	5/16	0
9	12	1/2	0	1/2	0

(1) 条钢的最大宽度是 10 英寸。The maximum width of bar flats is 10 inch.

表 2.1.1-15 热成型角钢的允许公差

Table 2.1.1-15 Permissible variations for hot-finished angles

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注：对于不等边角钢，以长边公差为准。

Note: For unequal leg angles, the longer leg determines the tolerance for the length of each leg.

质量 Weight:

对于小于等于 6 lb/ft 的角钢，质量允许偏差不应超过 $\pm 7 \frac{1}{2}\%$ 。对于大于 6 lb/ft 的角钢，质量允许偏差不应超过 $\pm 4 \frac{1}{2}\%$ 。

For angles of 6 lb/ft or less, the weight tolerances shall not exceed $\pm 7 \frac{1}{2}\%$. For angles over 6 lb/ft, the weight tolerance shall not exceed $\pm 4 \frac{1}{2}\%$.

腿长 Length of legs:

对于边长小于等于 6 英寸的角钢，长度公差不得超过 $\pm 1/8$ 英寸。对于边长超过 6 英寸的角钢，长度公差不得超过 $+3/16$ 英寸和 $-1/8$ 英寸。

For angles having legs or flanges up to 6 inch, incl, the length tolerance shall not exceed $\pm 1/8$ inch. For angles having legs or flanges over 6 inch, the length tolerance shall not exceed $+3/16$ inch and $-1/8$ inch.

垂直度 Squareness of legs:

边之间的直角允许偏差为 $\pm 2^\circ$ 。

The tolerance for the right angle between the legs is $\pm 2^\circ$.

表 2.1.1-16 热成型槽钢尺寸允许偏差

Table 2.1.1-16 Permissible variations in size of hot-finished channels

槽钢公称尺寸 Specified size of channel, 英寸 inch		尺寸允许偏差 Size tolerance, ±, 英寸 inch				
		高度 Depth of section (1)	腿宽度 Width of flanges	腰厚度偏差 Thickness of web for thickness given		任意腿的外缘斜度（英寸/腿宽 度的英寸数） Out-of square ⁽²⁾ of either flange, inch/inch of flange width
				≤3/16	>3/16	
	≤1 1/2	3/64	3/64	0.015	0.023	3/64
>1 1/2	<3	3/32	3/32	0.023	0.030	3/64

(1) 高度在腰的背面进行测量。

(1) Channel depth is measured at back of web.

(2) 对于高度小于等于 5/8 英寸的槽钢，外缘斜度为 5/64 英寸/高度的英寸数。测量外缘斜度时，用直角样板紧靠腰的背面，测量腿外侧与样板之间的距离。高度和腿宽度应测量全长。

(2) For channels 5/8 inch and under in depth, the out-of-square tolerance is 5/64 inch/inch of depth. Out-of-squareness is determined by placing a square against the bottom surface of the web and measuring the amount of toe-in or toe-out of either flange. Measurements for depth of section and width of flanges are over-all.

表 2.1.1-17 热成型 T 型钢的尺寸允许偏差

Table 2.1.1-17 Permissible variations in size of hot-finished tees

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T 型钢公称尺寸 Specified size of tee, Inch ⁽¹⁾		宽度或高度 Width or depth, ⁽²⁾ 英寸 inch		翼缘厚度 Thickness of flange, 英寸 inch		腹板厚度 Thickness of stem, 英寸 inch		腹板脱方度 Stem out-of square, ⁽³⁾ 英寸 inch
		+	-	+	-	+	-	
	≤1 1/2	5/64	5/64	0.015	0.015	0.008	0.030	3/64
>1 1/2	≤2	3/32	3/32	0.018	0.018	0.015	0.030	3/62
>2	<3	9/64	9/64	0.023	0.023	0.023	0.030	9/64

(1) T 型钢中宽度或高度较大的者决定其尺寸的允许偏差。

(1) The longer member of an unequal tee determines the size for tolerances.

(2) 宽度和高度应测量全长。

(2) Measurements for both width and depth are over-all.

(3) 腹板脱方度是指腹板顶端偏离其中心线的距离。

(3) Stem out-of-square is the variation from its true position of the center line of stem measured at the point.

表 2.1.1-18 热挤压型材尺寸的允许偏差

Table 2.1.1-18 Permissible variations in size of hot-extruded shapes

公称尺寸 Specified size, 英寸 inch		截面公差 Section tolerances, 英寸 inch	
		+	-
	<1	0.020	0.020
≥1	<3	0.031	0.031
≥3	≤4	0.046	0.046
>4		0.062	0.062

表 2.1.1-19 挤压型材长度的允许公差

Table 2.1.1-19 Length tolerances for extruded shapes length^{(1) (2)}

公称尺寸 Specified size	长度小于等于 12 英尺 For lengths up to 12ft, incl		长度大于 12 英尺 For lengths over 12ft	
	+	-	+	-
<3	3/16 英寸 inch	0	1/4 英寸 inch	0

(1) 倍尺长度：除非另有规定，定尺长度的允许公差为 1/4 英寸/单位长度。

(1) Multiple lengths - Unless otherwise specified, 1/4 inch is added to the total length of each piece for each multiple contained.

(2) 不定尺长度：允许偏差为 6 英尺。

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(2) Random lengths - Permissible variation is 6 ft.

表 2. 1. 1-20 尺寸允许偏差和从条材、板材切取的条钢的公差

Table 2. 1. 1-20 Permissible variations in dimensions; for flat bars cut from strip and plate

订货厚度 Order thickness		厚度允许偏差 Permissible variation in thickness, 英寸 inch		宽度允许偏差 Permissible variation in width ⁽¹⁾				长度允许偏差 Permissible variation in length ⁽²⁾	
				宽度小于等于 4 Width to 4		宽度大于 4 Width over 4			
		+	-	+	-	+	-	+	-
>0.114	≤0.130	0.010	0.010	0.094	0.031	0.094	0.094	0.188	0
>0.130	≤0.145	0.012	0.012	0.094	0.031	0.094	0.094	0.188	0
>0.145	<3/16	0.014	0.014	0.094	0.031	0.094	0.094	0.188	0
≥3/16	<3/8	0.050	0.010	0.094	0.031	0.094	0.094	0.188	0
≥3/8	<3/4	0.060	0.010	0.094	0.031	0.094	0.094	0.188	0
≥3/4	<1	0.065	0.010	0.094	0.031	0.094	0.094	0.188	0
≥1	<2	0.075	0.010	0.094	0.031	0.094	0.094	0.188	0
≥2	<3	0.150	0.010	0.125	0.062	0.125	0.125	0.250	0
≥3	<4	0.210	0.010	0.125	0.062	0.125	0.125	0.250	0
≥4	<6	0.300	0.010	0.125	0.062	0.125	0.125	0.250	0
≥6	<8	0.420	0.010	0.125	0.062	0.125	0.125	0.250	0
≥8	<10	0.540	0.010	0.125	0.062	0.125	0.125	0.250	0
(1)经供需双方协商，可在全部正公差和全部付公差之间选取任意的正负公差组合。 (1) By agreement between purchaser and seller, tolerances can be shifted as desired to any combination of plus-minus tolerance between all minus and all plus. (2)不适用于不定尺长度的棒材。 (2) Not applicable when bars are ordered random length.									

表 2. 1. 2-1 圆线的直径允许偏差和不圆度

Table 2. 1. 2-1 Permissible variations in diameter and out-of-round for round wire

(1) (2) (3)

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直径 Diameter:

公称直径 Specified diameter, 英寸 inch		直径偏差 ±, 英寸 inch
≥	<	
0.0030	0.0048	0.0001
0.0048	0.0080	0.0002
0.0080	0.0120	0.0003
0.0120	0.0240	0.0004
0.0240	0.0330	0.0005
0.0330	0.0440	0.0008
0.0440	0.3125	0.001
0.3125	0.500	0.0015
0.500	1.000	0.002
1.000		0.0025

(1) 圆线的最大不圆度为表 7.1.2-1 中尺寸偏差的一半。

(1) The maximum out-of-round for round wire is one half of the total size tolerance given in this table.

(2) 尺寸偏差不适用于冷轧线材。

(2) Size tolerances have not been evolved for wire produced by cold rolling.

(3) 公差适用于小直径的矫直和切头的线材（尺寸小于约 1/16 英寸）。

(3) These tolerances apply to small diameter straightened and cut wire (sizes below approximately 1/16 inch).

表 2. 1. 2-2 通过表面处理去除氧化皮和拉伸润滑剂的线材

Table 2. 1. 2-2 Wire for which the final operation is a surface treatment for the purpose of removing scale or drawing lubricant

直径、厚度和宽度 Diameter, thickness and width:

公称直径 Specified diameter, 英寸 inch		直径偏差 ±, 英寸 inch
≥	<	
0.0030	0.0048	0.0002
0.0048	0.0080	0.0004
0.0080	0.0120	0.0006
0.0120	0.0240	0.0008
0.0240	0.0330	0.0010
0.0330	0.0440	0.0016
0.0440	0.3125	0.0020
0.3125	0.500	0.0030

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公称直径 Specified diameter, 英寸 inch		直径偏差 ± Diameter tolerances ±, 英寸 inch
≥	<	
0.500	1.000	0.0040
1.000		0.0050

表 2. 1. 2-3 圆形线和异形线, 矫直和切头, 精密长度线

Table 2. 1. 2-3 Round and shape, straightened and cut, exact length re-sheared wire
 长度 Length:

直径 Diameter, 英寸 inch		长度(L)Length, 英尺(L)feet	长度 Length, 只允许正公差 tolerance, plus, inch, no tolerance minus
	≤0.125	L ≤ 12	1/16
		L > 12	1/8
>0.125	≤0.500	L < 3	1/32
		3 ≤ L ≤ 12	1/16
		L > 12	1/8

表 2. 1. 2-4 扁钢丝厚度的允许偏差

Table 2. 1. 2-4 Permissible variations in thickness for flat wire
 厚度 (冷成型扁线) Thickness (cold-finished flat wire)

厚度 Thickness, 英寸 inch		厚度允许偏差, ±, 英寸 Permissible variation in thickness, ±, inch ⁽¹⁾
	≤0.029	0.001
>0.029	≤0.035	0.0015
>0.035		0.002

(1)当冷成型后进行热处理或热处理+酸洗时, 尺寸允许偏差应为表 7.1.2-4 中的两倍。
 (1) When it is necessary to heat treat or heat treat and pickle after cold finishing, size tolerances are double those shown in the table.

表 2. 1. 2-5 扁钢丝的宽度允许偏差

Table 2. 1. 2-5 Permissible variations in width for flat wire
 宽度 (冷成型扁线) Width (cold-finished flat wire)

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宽度 Width, 英寸 inch		宽度允许偏差, ±, 英寸	
		Permissible variation in width, ±, Inch ⁽¹⁾	
		厚度小于等于 1/4 英寸 For thickness 1/4 inch and under	厚度大于 1/4 英寸 For thickness over 1/4 inch
≥1/16	≤3/8	0.004	0.004
>3/8	≤1.0	0.005	0.004
>1.0		0.006	0.005
(1)当冷成型后进行热处理或热处理+酸洗时, 尺寸允许偏差应为表 7.1.2-5 中的两倍。 (1) When it is necessary to heat treat or heat treat and pickle after cold finishing, size tolerances are double those shown above.			

表 2. 1. 2-6 拉制四角、六角、八角线材的尺寸允许偏差

Table 2. 1. 2-6 Permissible variations in size for drawn wire in hexagons, octagons, and squares⁽¹⁾

对边距 Distance across flats:

公称尺寸 Specified size ⁽²⁾ , 英寸 inch		尺寸偏差 Size tolerance, 英寸 inch	
		+	-
≥1/8	<5/16	0	0.005
≥5/16	<0.500	0	0.004
≥0.500	<1.000	0	0.003
≥1.000		0	0.002
(1)当冷成型后进行热处理或热处理+酸洗时, 尺寸允许偏差应为表 2.1.2-6 中的两倍。 (1) When it is necessary to heat treat or heat treat and pickle after cold finishing, size tolerances are double those shown above. (2)对边距 (2) Distance across flats.			

表 2. 1. 3-1 定尺长度的热轧薄钢板、定尺长度的冷轧薄钢板、冷轧薄钢板卷的厚度允许公差

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Table 2.1.3-1 Permissible variations in thickness for hot-rolled sheets in cut lengths, cold-rolled sheet in cut lengths and coils

厚度 Thickness:

公称厚度 Specified thickness, 英寸 inch		公差 Tolerance ±, 英寸 inch
>	≤	
	0.005	0.001
0.005	0.007	0.0015
0.007	0.016	0.002
0.016	0.026	0.003
0.026	0.040	0.004
0.040	0.058	0.005
0.058	0.072	0.006
0.072	0.083	0.007
0.083	0.098	0.008
0.098	0.114	0.009
0.114	0.130	0.010
0.130	0.145	0.012
0.145	0.187	0.014

表 2.1.3-2 非精密长度的冷轧、热轧薄钢板，冷轧钢卷的宽度允许偏差

Table 2.1.3-2 Permissible variations in width for hot-rolled and cold-rolled sheets
 not resquared and cold-rolled coils

宽度 Width:

公称厚度 Specified thickness, 英寸 inch	公称宽度(W)的允许偏差，英寸 Tolerance, inch, for specified width(W)			
	24 ≤ W < 48		48 ≤ W	
<3/16	+1/16	-0	+1/8	-0

表 2.1.3-3 精密长度冷轧和热轧薄板的宽度和长度允许公差（薄板具有经拉伸矫直的平整度）

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Table 2.1.3-3 Permissible variations in width and length for hot-rolled and cold-rolled resquared sheets (stretcher leveled standard of flatness)

宽度 Width:

注：抛光处理达到 4 号及以上表面质量的薄钢板的允许公差见下表。

Note: Polished sheets with Finishes No. 4 and higher are produced to tolerances given in this table.

公称尺寸 Specified dimensions, 英寸 inch		公差 Tolerances	
		+	-
厚度小于等于 0.131 For thicknesses under 0.131	宽度小于 48 Widths up to 48 excl	1/16	0
	宽度大于等于 48 Widths 48 and over	1/8	0
	长度小于 120 Lengths up to 120 excl	1/16	0
	长度大于等于 120 Length 120 and over	1/8	0
厚度大于等于 0.131 For thicknesses 0.131 and over	所有宽度和长度 All widths and lengths	1/4	0

表 2.1.3-4 非精密长度的热轧和冷轧薄板的长度允许偏差

Table 2.1.3-4 Permissible variations in length for hot-rolled and cold-rolled sheets not resquared

长度 Length:

长度 Length, 英尺 ft		允许偏差 Tolerance, 英寸 inch	
	≤10	+1/4	-0
>10	≤20	+1/2	-0

表 2.1.3-5 规方、拉伸矫直的平板（公差见 2.1.3-3）

Table 2.1.3-5 Resquared sheet, stretcher level standard of flatness -Tolerances are included in Table 2.1.3-3

表 2.1.3-6 非精密长度的冷轧和热轧薄钢板和热轧板卷镰刀弯的允许偏差

Table 2.1.3-6 Permissible variations in camber for hot-rolled and cold-rolled sheets not resquared and cold-rolled coils ⁽¹⁾

镰刀弯 Camber: ⁽¹⁾

(1) 镰刀弯是指一边偏离直线的最大距离。将长 8 英尺的直边放置在凹边，测量两者之间的最大距离。

(1) Camber is the greatest deviation of a side edge from a straight line, and measurement is taken by placing an eight-foot straight edge on the concave side and measuring the greatest distance between the sheet edge and the

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straight edge.

公称宽度, 英寸 Specified width, inch		任意 8 英尺长度上的允许偏差, 英寸 Tolerance, inch per unit length of any 8 feet
≥24	≤36	1/8
>36		3/32

表 2.1.3-7 没有要求达到拉伸矫直平整度的热轧和冷轧薄板的平面度允许偏差（不包括硬化回火的 2XX 和 3XX 系极软薄板和深冲薄板）

Table 2.1.3-7 Permissible variations in flatness for hot-rolled 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)

平面度 Flatness:

厚度, 英寸 Thickness, inch		宽度, 英寸 Width, inch		平面度公差, 英寸 Tolerance from flat, inch ⁽¹⁾
	<0.062		≤36	1/2
		>36	≤60	3/4
		>60		1
≥0.062	<0.1875		≤60	1/2
		>60	≤72	3/4
		>72		1

(1)与水平面的最大偏离值。

(1) Maximum deviation from a horizontal flat surface.

表 2.1.3-8 2XX 和 3XX 系经 1/4 和 1/2 硬化回火的冷轧薄板的平面度允许偏差

Table 2.1.3-8 Permissible variations in flatness for cold-rolled sheets of 2XX and 3XX series specified to 1/4 and 1/2 hard tempers

公称厚度, 英寸 Specified thickness, inch		宽度 Width, 英寸 inch		平面度公差, 英寸 Flatness tolerance ⁽¹⁾ inch		
				1/4 硬化 1/4 hard	1/2 硬化 1/2 hard	
	≤0.016	≥24	≤36	1/2		3/4
>0.016	≤0.030			5/8		7/8
>0.030				3/4		7/8
	≤0.016	≥36	<48	5/8	1	
>0.016	≤0.030			3/4	1	1/8
>0.030				1	1	1/8

(1)与水平面的最大偏离值。Maximum deviation from a horizontal flat surface.

表 2.1.3-9 热轧和冷轧圆环板的直径的允许偏差

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Table 2.1.3-9 Permissible variations in diameter for hot-rolled and cold-rolled sheets, sheared circles

公称厚度 Specified thickness, 英寸 inch		公称直径的正偏差, 英寸 Tolerance over specified diameter (D) (no tolerance under), inch		
		D<30	30≤D≤48	48<D
	≤0.0567	1/16	1/8	3/16
≥0.0568	≤0.0971	3/32	5/32	7/32
≥0.0972		1/8	3/16	1/4

表 2.1.4-1 (废弃——见表 2.1.4-6)

TABLE 2.1.4-1 (Obsolete - See Table 2.1.4-6)

按厚度订货时每批的厚度和重量

THICKNESS AND WEIGHT PER LOT WHEN ORDERED TO THICKNESS

表 2.1.4-2 (废弃——见表 2.1.4-6)

TABLE 2.1.4-2 (Obsolete - See Table 2.1.4-6)

按厚度订货时每一张厚板的厚度和重量

THICKNESS AND WEIGHT PER SINGLE PLATE WHEN ORDERED TO THICKNESS

表 2.1.4-3 轧制和直角剪切厚板

TABLE 2.1.4-3 UNIVERSAL MILL AND RECTANGULAR SHEARED PLATES

宽度和长度 WIDTH AND LENGTH:

公称尺寸 Specified dimensions, 英寸 inch		宽度和长度的正公差, 英寸 Width and length tolerance, over, inch ⁽¹⁾						
		厚度小于 3/8 英寸 Up to 3/8 inch thick,excl		厚度大于等于 3/8 小 于等于 1/2 英寸 3/8 to 1/2 inch thick, incl		厚度大于 1/2 小于等 于 1 英寸 Over 1/2 to 1 inch thick, incl		
宽度 Width		长度(L) Length(L)	宽度 Width	长度 Length	宽度 Width	长度 Length	宽度 Width	长度 Length
	≤48	L≤144	1/8	3/16	3/16	1/4	5/16	3/8
>48	≤60		3/16	1/4	1/4	5/16	3/8	7/16
>60	≤84		1/4	5/16	5/16	3/8	7/16	1/2
>84	≤108		5/16	3/8	3/8	7/16	1/2	9/16
>108			3/8	7/16	7/16	1/2	5/8	11/16
	≤48	144<L≤240	3/16	3/8	1/4	1/2	5/16	5/8
>48	≤60		1/4	7/16	5/16	5/8	3/8	3/4
>60	≤84		3/8	1/2	7/16	11/16	1/2	3/4

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公称尺寸 Specified dimensions, 英寸 inch		宽度和长度的正公差, 英寸 Width and length tolerance, over, inch ⁽¹⁾						
		厚度小于 3/8 英寸 Up to 3/8 inch thick, excl		厚度大于等于 3/8 小 于等于 1/2 英寸 3/8 to 1/2 inch thick, incl		厚度大于 1/2 小于等 于 1 英寸 Over 1/2 to 1 inch thick, incl		
		宽度 Width	长度(L) Length(L)	宽度 Width	长度 Length	宽度 Width	长度 Length	宽度 Width
>84	≤108			7/16	9/16	1/2	3/4	5/8
>108				1/2	5/8	5/8	7/8	11/16
	≤48			1/4	1/2	5/16	5/8	3/8
>48	≤60			5/16	5/8	3/8	3/4	1/2
>60	≤84			7/16	11/16	1/2	3/4	5/8
>84	≤108			9/16	3/4	5/8	7/8	3/4
>108				5/8	7/8	11/16	1	7/8
	≤60			7/16	1 1/8	1/2	1 1/4	5/8
>60	≤84			1/2	1 1/4	5/8	1 3/8	3/4
>84	≤108			9/16	1 1/4	3/4	1 3/8	7/8
>108				3/4	1 3/8	7/8	1 1/2	1
	≤60			7/16	1 1/4	1/2	1 1/2	5/8
>60	≤84			1/2	1 3/8	5/8	1 1/2	3/4
>84	≤108			5/8	1 3/8	3/4	1 1/2	7/8
>108				3/4	1 1/2	7/8	1 5/8	1
	≤60			1/2	1 3/4	5/8	1 7/8	3/4
>60	≤84			5/8	1 3/4	3/4	1 7/8	7/8
>84	≤108			5/8	1 3/4	3/4	1 7/8	7/8
>108				7/8	1 3/4	1	2	1 1/8

(1) 公称宽度和长度以下的允许公差为 1/4 英寸
 (1) The tolerance under specified width and length is 1/4 inch.

表 2.1.4-4 切边和轧制的厚板

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TABLE 2.1.4-4 SHEARED AND UNIVERSAL MILL PLATES

镰刀弯 CAMBER: (1)

最大镰刀弯=1/8 英寸/任意 5 英尺

Maximum camber = 1/8 inch in any 5 feet.

(1) 镰刀弯是指一边偏离直线的最大距离。将长 8 英尺的直边放置在凹边，测量两者之间的最大距离。

(1) Camber is the deviation of a side edge from a straight line, and measurement is taken by placing a 5 foot straight edge on the concave side and measuring the greatest distance between the plate and the straight edge.

表 2. 1. 4-5

TABLE 2. 1. 4-5

平面度 FLATNESS: (1)

公称厚度 Specified thickness, 英寸 inch		公称宽度(w)Specified width(w), 英寸 inch								
		w≤48	48<w<60	60≤w<72	72≤w<84	84≤w<96	96≤w<108	108≤w<120	120≤w<144	w≥144
≥	<	平面度公差 Flatness tolerance, 英寸 inch								
3/16	1/4	3/4	1 1/16	1 1/4	1 3/8	1 5/8	1 5/8	1 7/8	2	-
1/4	3/8	11/16	3/4	15/16	1 1/8	1 3/8	1 7/16	1 9/16	1 7/8	-
3/8	1/2	1/2	9/16	11/16	3/4	15/16	1 1/8	1 1/4	1 7/16	1 3/4
1/2	3/4	1/2	9/16	5/8	5/8	13/16	1 1/8	1 1/8	1 1/8	1 3/8
3/4	1	1/2	9/16	5/8	5/8	3/4	13/16	15/16	1	1 1/8
1	1 1/2	1/2	9/16	9/16	9/16	11/16	11/16	11/16	3/4	1
1 1/2	4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1
4	6	3/8	7/16	9/16	5/8	3/4	15/16	1 1/8	1 1/4	1 1/4

(1) 允许公差适用于长度小于等于 15 英尺的厚板，或厚板中任意 15 英尺长的部分。

(1) Permissible tolerances apply to plates up to 15 ft in length, or to any 15 ft of longer plates.

如果最长的尺寸小于 36 英寸，最大允许公差不应超过 1/4 英寸。

If the longer dimension is under 36 inches, the permissible tolerance is not greater than 1/4 inch.

较短长度是指宽度，宽度方向的平面度偏差应不超过表中对该方向不平度的规定。

The shorter dimension specified is considered the width and the flatness deviation across the width does not exceed the tabular amount for that dimension.

与水平面的最大偏差不应超过表中长尺寸的偏差规定。

The maximum deviation from a horizontal flat surface does not customarily exceed the tabular tolerance for the longer dimension specified.

表 2. 1. 4-6

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TABLE 2. 1. 4-6

厚度 THICKNESS: ⁽¹⁾

公称厚度 Specified thickness, 英寸 inch		公称宽度(w)Specified width(w), 英寸 inch			
		w≤84	84<w≤120	120<w≤144	W>144
≥	<	公称厚度的正公差, 英寸 Tolerance over specified thickness, inch ⁽²⁾			
3/16	3/8	0.045	0.050	-	-
3/8	3/4	0.055	0.060	0.075	0.090
3/4	1	0.060	0.065	0.085	0.100
1	2	0.070	0.075	0.095	0.115
2	3	0.125	0.150	0.175	0.200
3	4	0.175	0.210	0.245	0.280
4	6	0.250	0.300	0.350	0.400
6	8	0.350	0.420	0.490	0.560
8	10	0.450	0.540	0.630	-

(1)从距边部 3/8 英寸到 3 英寸的位置开始测量厚板沿长度方向的厚度。
 (1) Thickness is measured along the longitudinal edges of the plate at least 3/8 inch, but not more than 3 inches, from the edge.

(2)对于环板, 表中公称宽度对应环板的直径。
 (2) For circles, the over thickness tolerances in this table apply to the diameter of the circle corresponding to the width ranges shown.

对于不规则形状的厚板, 以最大宽度的数值作为判定公差的公称宽度。
 For plates of irregular shape, the over thickness tolerances apply to the greatest width corresponding to the width ranges shown.

对于厚度小于等于 10 英寸的厚板, 小于公称厚度的板材的允许公差为 0.010 英寸。
 For plates up to 10 inches, inclusive in thickness, the tolerance under the specified thickness is 0.010 inch.

表 7. 1. 4-7 TABLE 7. 1. 4-7

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直径（环板）DIAMETER: (FOR CIRCULAR PLATES)

公称直径 Specified diameter, 英寸 inch		公称直径和公称厚度的正公差，英寸 Tolerance over specified diameter for given diameter and thickness, no tolerance, under, inch		
		厚度小于等于 3/8 英寸 To 3/8 inch thick, excl	厚度大于 3/8 英寸小于 5/8 英寸 3/8 to 5/8 inch thick, excl	厚度大于等于 5/8 英寸 5/8 inch thick, and over
				(1)
>	≤			
	60	1/4	3/8	1/2
60	84	5/16	7/16	9/16
84	108	3/8	1/2	5/8
108	180	7/16	9/16	11/16

(1)厚度超过 5/8 英寸的圆形和异型板一般不剪断，而是通过机加工切断或火焰切割切断。

(1)Circular and sketch plates over 5/8 inch in thickness are not commonly sheared but are machined or flame cut.

作废部分：热轧不锈钢条不在商业供货

SECTION OBSOLETE - HOT-ROLLED STAINLESS STEEL STRIP NO LONGER COMMONLY AVAILABLE

表 2.1.5-1 Table 2.1.5-1

厚度（公差含顶部）Thickness: (tolerances include crown) ⁽¹⁾

公称厚度 Specified thickness, 英寸 inch		公称宽度(w) Specified width(w), 英寸 inch		
		3/16<w≤6	6<w≤12	12<w<24
>	≤	定宽度和厚度的厚度公差，±，英寸 Thickness tolerances, for the thickness and widths given, ±, inch		
≥0.005	0.010	10%	10%	10%
0.010	0.011	0.0015	0.0015	0.0015
0.011	0.013	0.0015	0.0015	0.002
0.013	0.017	0.0015	0.002	0.002
0.017	0.020	0.0015	0.002	0.0025
0.020	0.029	0.002	0.0025	0.0025
0.029	0.035	0.002	0.003	0.003
0.035	0.050	0.0025	0.0035	0.0035
0.050	0.069	0.003	0.0035	0.0035
0.069	0.100	0.003	0.004	0.005
0.100	0.125	0.004	0.0045	0.005
0.125	0.161	0.0045	0.0045	0.005
0.161	3/16	0.005	0.005	0.006

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(1) 厚度测量应从距边部至少 3/8 英寸的位置开始, 如果宽度小于 1 英寸, 条材的所有位置的厚度公差都应满足表中要求。

(1) Thickness measurements are taken at least 3/8 inch in from edge of the strip, except that on widths less than 1 inch the tolerances are applicable for measurements at all locations.

表 2.1.5-2 取消 (公差见表 7.1.5-1)

Table 2.1.5-2 Canceled (tolerances included in Table 7.1.5-1)

表 2.1.5-3 Table 2.1.5-3

宽度 Width:

边缘标号 1-5 Edge numbers 1 to 5							
边缘编号 Specified edge number	公称宽度, 英寸 Specified width, inch		公称厚度, 英寸 Specified thickness, inch		给定厚度和宽度的宽度公差, ± Width tolerance, thickness and width given ±		
1 和 and 5		≤9/32		≤1/16	0.005		
1 和 and 5	>9/32	≤3/4		≤3/32	0.005		
1 和 and 5	>3/4	≤5		≤1/8	0.005		
5	>5	≤9	≥0.008	≤1/8	0.010		
5	>9	≤20	≥0.015	≤0.105	0.010		
5	>20	<24	≥0.023	≤0.080	0.015		
边缘编号 3Edge number 3							
公称厚度 Specified thickness, 英寸 inch		公称宽度 Specified width, 英寸 inch					
		负公差 Under 1/2-3/16	1/2-6	>6-9	>9-12	>12-20	>20-24
		给定厚度和宽度的宽度公差, ± Width tolerance, over and under for thickness and width given, inch					
	≤0.068	0.005	0.005	0.005	0.010	0.016	0.020
>0.068	≤0.099	0.008	0.008	0.010	0.010	0.016	0.020
>0.099	≤0.160	0.010	0.010	0.016	0.016	0.020	0.020
>0.160	<3/16	-	0.016	0.020	0.020	0.031	0.031

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表 2.1.5-4 Table 2.1.5-4

长度 Length:

公称长度 Specified length, 英寸 inch		公称长度的正公差, 英寸 Tolerance, over specified length, no tolerance under, inch
>	≤	
	60	3/8
60	120	1/2
120	240	5/8

表 2.1.5-5 Table 2.1.5-5

镰刀弯 Camber:

镰刀弯是指一边偏离直线的最大距离。将长 8 英尺的直边放置在凹边, 测量两者之间的最大距离。

Camber is the deviation of a side edge from a straight line, and measurement is taken by placing an eight-foot straight edge on the concave side and measuring the greatest distance between the strip edge and the straight edge.

公称长度 Specified length, 英寸 inch	任意 8 英尺长度上的允许偏差, 英寸 Tolerance, per unit length of any 8 feet, inch
≥1 1/2	1/2
>1 1/2	1/4

表 2.1.6-1 热轧定尺长度钢带卷厚度的允许偏差

Table 2.1.6-1 Permissible variations in thickness for cold-rolled strip in coils and cut lengths

厚度 (定尺长钢带卷) Thickness ^{(1) (2)} (Coils and cut lengths):

公称厚度 Specified thickness, 英寸 inch		对于给定长度和宽度的厚度公差, ± Thickness tolerances, for the thicknesses and widths given, ±		
		宽度(w) width(w)		
>	≤	3/16<w≤6 英寸 inch	6<w≤12 英寸 inch	12<w<24 英寸 inch
0.005	0.010	10%	10%	10%
0.010	0.011	0.0015	0.0015	0.0015
0.011	0.013	0.0015	0.0015	0.002
0.013	0.017	0.0015	0.002	0.002
0.017	0.020	0.0015	0.002	0.0025
0.020	0.029	0.002	0.0025	0.0025
0.029	0.035	0.002	0.003	0.003
0.035	0.050	0.0025	0.0035	0.0035
0.050	0.069	0.003	0.0035	0.0035

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公称厚度 Specified thickness, 英寸 inch		对于给定长度和宽度的厚度公差, ± Thickness tolerances, for the thicknesses and widths given, ±		
		宽度(w) width(w)		
>	≤	3/16<w≤6 英寸 inch	6<w≤12 英寸 inch	12<w≤24 英寸 inch
0.069	0.100	0.003	0.004	0.005
0.100	0.125	0.004	0.0045	0.005
0.125	0.161	0.0045	0.0045	0.005
0.161	<3/16	0.005	0.005	0.006

(1)厚度测量应从距边部至少 3/8 英寸的位置开始, 如果宽度小于 1 英寸, 条材的所有位置的厚度公差都应满足表中要求。

(1) Thickness measurements are taken at least 3/8 inch in from edge of the strip, except that on widths less than 1 inch the tolerances are applicable for measurements at all locations.

(2)上述公差包括顶部公差。

(2) Above tolerances include crown.

表 2.1.6-2 端部公差包含在表 2.1.6-1 中

Table 2.1.6-2 Crown tolerances are included in Table 2.1.6-1

表 2. 1. 6-3 冷轧定尺条材卷边部质量 No. 3 的宽度允许偏差

Table 2. 1. 6-3 Permissible variations in width for cold-rolled strip in coils and cut length for edge No. 3

宽度: 切边 (No.3 边) Width: Slit (No. 3 edge)

厚度, 英寸 Thickness, inch		宽度允许偏差, ±,英寸 Tolerance, width, ±, inch					
≥	≤	3/16<w<1/2	1/2≤w≤6	6<w≤9	9<w≤12	12<w≤20	20<w≤24
	0.068	0.005	0.005	0.005	0.010	0.016	0.020
0.069	0.099	0.008	0.008	0.010	0.010	0.016	0.020
0.100	0.160	0.010	0.010	0.016	0.016	0.020	0.020
0.161	3/16	-	0.016	0.020	0.020	0.031	0.031

表 7. 1. 6-4 定尺长度冷轧条材的长度允许公差

Table 2. 1. 6-4 Permissible variations in length for cold-rolled strip in cut lengths
长度 Length:

公称长度 Specified length, 英尺 ft		正公差, 英寸 Tolerance, inch, plus only
>	≤	
	5	3/8
5	10	1/2
10	20	5/8

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表 7.1.6-5 定尺长度冷轧钢条卷的镰刀弯

Table 7.1.6-5 Permissible variations in camber for cold-rolled strip in coils and cut lengths

镰刀弯 Camber⁽¹⁾

公称宽度 Specified width, 英寸 inch	公差 Tolerance
$\leq 1 \frac{1}{2}$	任意 8 英尺, 1/2 英寸 1/2 inch in any 8 feet
$> 1 \frac{1}{2}$	任意 8 英尺, 1/4 英寸 1/4 inch in any 8 feet

(1) 镰刀弯是指一边偏离直线的最大距离。将长 8 英尺的直边放置在凹边，测量两者之间的最大距离。

(1) Camber is determined by placing an eight foot straight edge on the concave edge of the strip and measuring the greatest distance between the strip edge and the straight edge.

表 2.1.6-6 定尺长度钢条卷边部质量为 No. 1 和 5 的宽度允许偏差

Table 2.1.6-6 Permissible variations in width for cold-rolled strip in coils and cut lengths for edge Nos. 1 and 5

宽度 Width:

边缘编号 Specified edge No.	宽度 Width, 英寸 inch	厚度 Thickness, 英寸 inch	对于给定厚度和宽度的宽度公差, $\pm$, 英寸 Width tolerance, for thickness and width given, $\pm$, inch
1 和 and 5	$\leq 9/32$	$\leq 1/16$	0.005
1 和 and 5	$> 9/32$	$\leq 3/32$	0.005
1 和 and 5	$> 3/4$	$\leq 1/8$	0.005
5	> 5	$\leq 1/8$	0.010
5	> 9	≤ 0.105	0.010
5	> 20	≤ 0.080	0.015

表 2.1.7-1 对于给定厚度和宽度的冷轧条材的厚度公差

Table 2.1.7-1 Thickness tolerance^{(1) (2) (3)} for cold-rolled strip for the thicknesses and widths given

公称厚度 Specified thickness		宽度 (w) Width (w), 英寸 inch							
		$0.187 \leq w \leq 1$	$1 \leq w \leq 3$	$3 \leq w \leq 6$	$6 \leq w \leq 9$	$9 \leq w \leq 12$	$12 \leq w \leq 16$	$16 \leq w \leq 20$	$20 \leq w \leq 24$
$>$	$\leq$	厚度偏差 Thickness tolerance, 英寸 inch							
0.160	< 0.187	0.002	0.003	0.004	0.004	0.004	0.005	0.006	0.006
0.099	0.160	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.005
0.068	0.099	0.002	0.002	0.003	0.003	0.003	0.004	0.004	0.004
0.049	0.068	0.002	0.002	0.003	0.003	0.003	0.003	0.004	0.004

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公称厚度 Specified thickness		宽度 (w) Width (w), 英寸 inch							
		$0.187 \leq w \leq 1$	$1 \leq w \leq 3$	$3 \leq w \leq 6$	$6 \leq w \leq 9$	$9 \leq w \leq 12$	$12 \leq w \leq 16$	$16 \leq w \leq 20$	$20 \leq w \leq 24$
>	≤	厚度偏差 Thickness tolerance, 英寸 inch							
0.039	0.049	0.002	0.002	0.0025	0.003	0.003	0.003	0.004	0.004
0.034	0.039	0.002	0.002	0.0025	0.003	0.003	0.003	0.003	0.003
0.028	0.034	0.0015	0.0015	0.002	0.0025	0.0025	0.0025	0.003	0.003
0.025	0.028	0.001	0.0015	0.0015	0.002	0.002	0.002	0.0025	0.003
0.019	0.025	0.001	0.001	0.0015	0.002	0.002	0.002	0.0025	0.0025
0.016	0.019	0.001	0.001	0.001	0.0015	0.0015	0.002	0.002	0.002
0.012	0.016	0.001	0.001	0.001	0.0015	0.0015	0.0015	0.002	0.002
0.011	0.012	0.001	0.001	0.001	0.001	0.0015	0.0015	0.0015	0.0015
0.010	0.011	0.001	0.001	0.001	0.001	0.001	0.0015	0.0015	0.0015
0.010		0.001	0.001	0.001	0.001	0.001	0.001	0.0015	0.0015

(1)对于宽度小于等于 16 英寸,厚度大于等于 0.005 小于 0.010 英寸的材料,厚度允许偏差为 10%;对于宽度大于 16 英寸小于 24 英寸,厚度大于等于 0.005 小于 0.010 英寸的材料,厚度允许偏差为 15%;对于宽度大于等于 24 英寸,厚度小于 0.005 英寸的材料,厚度允许偏差由供需双方协商确定。

(1) For thickness under 0.010 to 0.005 inch, inclusive, in widths up to and including 16 inch, a tolerance of $\pm 10\%$ of the thickness applies. For thicknesses under 0.010 to 0.005 inch, inclusive, in widths over 16 to 24 inch, exclusive, a tolerance of $\pm 15\%$ of the thickness applies. For thickness tolerances on thicknesses under 0.005 inch in widths up to 24 inch, exclusive, the producer should be consulted.

(2)厚度应在距带材边缘至少 3/8 英寸位置测量。对于宽度小于 1 英寸的带材厚度可在任意位置测量。

(2) Thickness measurements are taken 3/8 inch in from the edge of the strip, except that on widths less than 1 inch the tolerances are applicable for measurements at all locations.

(3)上表中的偏差不包含头部偏差。

(3) The tolerances in this table do not include crown tolerances.

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表 2. 1. 7-2 冷轧条材的头部偏差

Table 2. 1. 7-2 Crown tolerances for cold-rolled strip

头部 Crown:

公称厚度 Specified thickness, 英寸 inch		公称宽度(w), 英寸 Specified width (w),inch		
		w≤5	5<w≤12	12<w≤24
>	≤	满足前表厚度公差的条材宽度方向厚度的允许最大偏差, 英寸 Maximum variation in thickness across width of strip within thickness tolerances listed above, inch		
0.005	0.010	0.00075	0.001	0.0015
0.010	0.025	0.001	0.0015	0.002
0.025	0.065	0.0015	0.002	0.0025
0.065	<3/16	0.002	0.0025	0.003

表 2. 1. 7-3 定尺厚度和宽度的宽度公差

Table 2. 1. 7-3 Width tolerance for thickness and width given

宽度-成卷 Width - in coils:

公称厚度 Specified thickness, 英寸 inch		公称宽度 (w) Specified width (w), 英寸 inch					
≥	≤	3/16≤w<1/2	1/2≤w≤6	6<w≤9	9<w≤12	12<w≤21	21<w≤24
	0.068	0.005	0.002	0.005	0.010	0.016	0.020
0.069	0.099	0.008	0.008	0.010	0.010	0.016	0.020
0.100	0.160	0.010	0.010	0.016	0.016	0.020	0.020
0.161	0.187	-	0.016	0.020	0.020	0.031	0.031

表 2.1.7-4 Table 2.1.7-4

扁带宽度 Width-flat strip:

切到定尺材料公差为±0.005。

Plus or minus 0.005 inch on material slit to size.

厚度大于等于 0.020 英寸剪到定尺的材料公差为±1/32。

Plus or minus 1/32 inch for 0.020 inch and heavier sheared to size.

标准宽度薄板公差±1/8

Plus or minus 1/8 inch for standard width sheet.

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表 2.1.8-1 焊接不锈钢管和无锈不锈钢管的尺寸

Table 2.1.8-1 Dimensions of welded and seamless stainless steel pipe

注：表中小数代表管材平均公称壁厚

Note - The decimal thickness listed for the respective pipe sizes represents their nominal or average wall dimensions.

标识 NPS designation	外径 Outside diameter, 英寸 inch	公称壁厚, 英寸 Nominal wall thickness, inch			
		美标 SCH5 Schedule 5S ⁽¹⁾	美标 SCH10 Schedule 10S ⁽¹⁾	美标 SCH40 Schedule 40S	美标 SCH80 Schedule 80S
1/8	0.405	-	0.049	0.068	0.095
1/4	0.540	-	0.065	0.068	0.119
3/8	0.675	-	0.065	0.091	0.126
1/2	0.840	0.065	0.083	0.109	0.147
3/4	1.050	0.065	0.083	0.113	0.154
1	1.315	0.065	0.109	0.133	0.179
1 1/4	1.660	0.065	0.109	0.140	0.191
1 1/2	1.900	0.065	0.109	0.145	0.200
2	2.375	0.065	0.109	0.154	0.218
2 1/2	2.875	0.083	0.120	0.203	0.276
3	3.500	0.083	0.120	0.216	0.300
3 1/2	4.000	0.083	0.120	0.226	0.318
4	4.500	0.083	0.120	0.237	0.337
5	5.563	0.109	0.134	0.258	0.375
6	6.625	0.109	0.134	0.280	0.432
8	8.625	0.109	0.148	0.322	0.500
10	10.750	0.134	0.165	0.365	0.500 ⁽²⁾
12	12.750	0.156	0.180	0.375 ⁽²⁾	0.500 ⁽²⁾
14	14.000	0.156	0.188 ⁽²⁾	-	-
16	16.000	0.165	0.188 ⁽²⁾	-	-
18	18.000	0.165	0.188 ⁽²⁾	-	-
20	20.000	0.188	0.218 ⁽²⁾	-	-
22	22.000	0.188	0.218 ⁽²⁾	-	-
24	24.000	0.218	0.250	-	-
30	30.000	0.250	0.312	-	-

(1)按美标(ANSI B1.20.1), SCH5 和 SCH10 壁厚的管材不允许攻螺纹。

(1) Schedule 5S and 10S wall thickness do not permit threading in accordance with the American National

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Standard for Pipe Threads (ANSI B1.20.1).

(2)与美标 ANSI B36.10-1979 不一致。

(2) These do not conform to the American National Standard for Welded and Seamless Wrought Steel Pipe (ANSI B36.10-1979).

表 2.1.8-2 重量偏差

Table 2.1.8-2 Weight tolerance

管道工程尺寸, 英寸 Nominal pipe size, inch	公差 Tolerance, 百分比 percent	
	+	-
≤12	6.5	3.5
>12	10	5

表 2.1.8-3 外径公差

Table 2.1.8-3 Outside diameter tolerance

管道工程尺寸, 英寸 Nominal pipe size, inch		外径公差 Tolerance in outside diameter	
>	≤	+	-
1/8	1 1/2	1/64	1/32
1 1/2	4	1/32	1/32
4	8	1/16	1/32
8	18	3/32	1/32

表 2.1.8-4 Table 2.1.8-4

厚度 Thickness:

任意一点的壁厚都不允许比公称壁厚低 12.5%以上。

The minimum wall thickness at any point is not more than 12.5 percent under the nominal wall thickness specified.

表 2.1.5-5 Table 2.1.8-5

长度 (定尺长度订货) Length: (when ordered to definite cut lengths)

通用单位和米制单位 Customary Units and Reference Metric Units

长度 Length	公差 Tolerance, 英寸 inch, 仅正公差 plus only
所有 All	1/4