

NOTICE OF
VALIDATION

VALIDATION NOTICE 2
10 October 1991 for
AMS 2252C-83(R90)
1 January 1983

AMS 2252C-83(R90), adopted on 26 July 1984, has been reviewed and determined to be current.

Custodians:

Army - MR
Navy - AS
Air Force - 11

Military Coordinating Activity:
Army - MR

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**AEROSPACE
MATERIAL
SPECIFICATION****AMS 2252C**
Superseding AMS 2252BIssued 7-1-45
Revised 1-1-83**TOLERANCES**
Low-Alloy Steel Sheet, Strip, and Plate

1. **SCOPE:** This specification covers established inch/pound manufacturing tolerances applicable to low-alloy steel sheet, strip, and plate ordered to inch/pound dimensions. 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.
 2. **THICKNESS:** Tolerances apply to measurements made at any point on widths less than 1 in., at any point not less than 3/8 in. from a cut edge or not less than 3/4 in. from a mill edge on widths 1 in. and over, and at a point 3/8 - 3/4 in. from the longitudinal edge of rectangular sheared plates. Regardless of whether thickness tolerances for sheet and strip are specified equally or unequally, plus and minus, the total tolerance shall be equal to the arithmetic sum of the tabular plus and minus tolerances (twice the tabular tolerances when specified equally plus and minus).
- 2.1 Hot Rolled Sheets, Coils and Cut Lengths:

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TABLE I

Tolerance, Inch, Plus and Minus		For Width Ranges, Inches							
		Over 12 to 15, incl	Over 15 to 20, incl	Over 20 to 32, incl	Over 32 to 40, incl	Over 40 to 48, incl	Over 48 to 60, incl	Over 60 to 72, incl	Over 72 to 80, incl
Specified Thickness Inch	0.0710 to 0.0821, incl	0.006	0.007	0.007	0.007	0.007	0.007	0.008	--
	Over 0.0821 to 0.0971, incl	0.006	0.007	0.007	0.008	0.008	0.008	0.009	0.010
	Over 0.0971 to 0.1799, incl	0.007	0.008	0.008	0.009	0.010	0.010	0.011	0.012
	Over 0.1799 to 0.2299, incl	0.007	0.008	0.009	0.009	0.010	--	--	--

2.2 Cold Rolled Sheets; Coils and Cut Lengths:

TABLE II

Tolerance, Inch, Plus and Minus		For Width Ranges, Inches			
		2 to 12, incl	Over 12 to 15, incl	Over 15 to 72, incl	Over 72
Specified Thickness Inch	0.0142 to 0.0194, incl	0.002	0.002	0.002	--
	Over 0.0194 to 0.0388, incl	0.003	0.003	0.003	0.003
	Over 0.0388 to 0.0567, incl	0.004	0.004	0.004	0.004
	Over 0.0567 to 0.0709, incl	0.005	0.005	0.005	0.005
	Over 0.0709 to 0.0821, incl	0.005	0.005	0.005	0.006
	Over 0.0821 to 0.0971, incl	--	0.005	0.005	0.006
	Over 0.0971 to 0.1419, incl	--	0.005	0.006	0.007

2.3 Hot Rolled Strip; Coils and Cut Lengths, Including Crown:

TABLE III

Tolerance, Inch, Plus and Minus		For Width Ranges, Inches				
		Up to 6, incl	Over 6 to 12, incl	Over 12 to 15, incl	Over 15 to 20, incl	Over 20 to 24, excl
Specified Thickness Inch	0.0568 to 0.0709, incl	0.005	0.005	0.006	0.006	0.006
	Over 0.0709 to 0.0971, incl	0.005	0.005	0.006	0.007	0.007
	Over 0.0971 to 0.1120, incl	0.005	0.005	0.007	0.008	0.008
	Over 0.1120 to 0.1718, incl	0.005	0.006	0.007	0.008	0.009
	Over 0.1718 to 0.1874, incl	0.006	0.006	0.007	0.009	0.009
	Over 0.1874 to 0.2030, incl	--	0.007	0.008	0.009	0.009

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2.4 Cold Rolled Strip; Coils and Cut Lengths:

TABLE IV

Tolerance, Inch, Plus and Minus For Width Ranges, Inches										
		1 Up to	3 to	6 to	9 to	12 to	16 to	20 to	23-15/16 incl	Over
Specified Thickness Inch	0.010	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0015	0.0015
	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0015	0.0015
	0.012	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0015	0.0015
	Over 0.012 to 0.016, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0015	0.0015
	Over 0.016 to 0.019, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002
	Over 0.019 to 0.025, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002
	Over 0.025 to 0.028, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002
	Over 0.028 to 0.034, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002
	Over 0.034 to 0.039, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002
	Over 0.039 to 0.049, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002
Over 0.049 to 0.068, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	
Over 0.068 to 0.099, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	
Over 0.099 to 0.160, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	
Over 0.160 to 0.187, incl	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	

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- 2.5 Rectangular Sheared Plates: Minus tolerance for all sizes shall be 0.010 in.; plus tolerance shall be as specified in Table V.

TABLE V

Specified Thickness Inches	Tolerance, Inch, Plus For Width Ranges, Inches						
	Up to 48, incl	Over 48 to 60, excl	60 to 72, excl	72 to 84, excl	84 to 96, excl	96 to 108, excl	108 to 120, excl
Up to 0.250, excl	0.016	0.016	0.020	0.020	0.024	0.028	0.032
0.250 to 0.312, excl	0.016	0.020	0.020	0.024	0.028	0.032	0.036
0.312 to 0.375, excl	0.020	0.020	0.024	0.024	0.028	0.032	0.036
0.375 to 0.437, excl	0.020	0.024	0.024	0.028	0.032	0.036	0.040
0.437 to 0.500, excl	0.024	0.024	0.028	0.028	0.032	0.036	0.040
0.500 to 0.625, excl	0.024	0.028	0.028	0.032	0.036	0.040	0.040
0.625 to 0.750, excl	0.028	0.028	0.032	0.032	0.036	0.040	0.044
0.750 to 1.000, excl	0.032	0.032	0.036	0.036	0.040	0.044	0.048
1.000 to 1.250, excl	0.040	0.044	0.048	0.048	0.048	0.052	0.056
1.250 to 1.500, excl	0.052	0.052	0.056	0.056	0.056	0.064	0.068
1.500 to 1.750, excl	0.060	0.060	0.064	0.064	0.064	0.072	0.080
1.750 to 2.000, incl	0.068	0.068	0.072	0.076	0.076	0.086	0.094

3. WIDTH:3.1 Hot Rolled or Cold Rolled Sheets; Cut Edge, Coils and Cut Lengths:**TABLE VI**Specified Width
Inches

Tolerance, Plus Only, Inch

Over 12 to 30, incl

1/8

Over 30 to 48, incl

3/16

Over 48 to 60, incl

1/4

Over 60 to 80, incl

5/16

Over 80

3/8

3.2 Hot Rolled Strip; Coils and Cut Lengths, Except as Noted:3.2.1 Mill Edge: Width measurements on mill edge strip include the mill edge.

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Specified Width Inches	Tolerance, Inch Plus and Minus
Up to 2, incl	1/32
Over 2 to 5, incl	3/64
Over 5 to 10, incl	1/16
Over 10 to 12, incl	3/32

3.2.2 Slit Edge:TABLE VIII

Specified Width Inches	<u>Tolerance, Inch, Plus and Minus For Thickness Ranges, Inch</u>	
	Up to 0.109, incl	Over 0.109
Up to 2, incl	0.008	0.016
Over 2 to 5, incl	0.008	0.016
Over 5 to 9, incl	0.010	0.016
Over 9 to 12, incl	0.016	0.016

3.2.3 Sheared Edge, Cut Lengths Only: Tolerance shall be +1/8 in., -0 for all sizes.

3.3 Cold Rolled Strip; Coils and Cut Lengths, No. 3 Slit Edge:TABLE IX

Specified Width Inches	<u>Tolerance, Inch, Plus and Minus For Thickness Ranges, Inch</u>			
	Over 0.0099 to 0.068, incl	Over 0.068 to 0.099, incl	Over 0.099 to 0.160, incl	Over 0.160 to 0.187, incl
Up to 1/2, incl	0.005	0.008	0.010	--
Over 1/2 to 6, incl	0.005	0.008	0.010	0.016
Over 6 to 9, incl	0.005	0.010	0.016	0.020
Over 9 to 12, incl	0.010	0.010	0.016	0.020
Over 12 to 20, incl	0.016	0.016	0.020	0.031
Over 20 to 24, excl	0.020	0.020	0.020	0.031

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- 3.4 Hot Rolled or Thermally Treated Plate, Sheared or Gas Cut: Minus tolerance shall be 1/4 in. for all sizes; plus tolerance shall be as specified in Table X.

TABLE X

Specified Width Inches	Specified Length Inches	Tolerance, Inches, Plus For Thickness Ranges, Inches			
		Up to 3/8, excl	3/8 to 5/8, excl	5/8 to 1, excl	1 to 2, incl
Up to 60, excl	Up to 120, excl	3/8	7/16	1/2	5/8
60 to 84, excl	Up to 120, excl	7/16	1/2	5/8	3/4
84 to 108, excl	Up to 120, excl	1/2	5/8	3/4	1
108 and over	Up to 120, excl	5/8	3/4	7/8	1-1/8
Up to 60, excl	120 to 240, excl	3/8	1/2	5/8	3/4
60 to 84, excl	120 to 240, excl	1/2	5/8	3/4	7/8
84 to 108, excl	120 to 240, excl	9/16	11/16	13/16	1
108 and over	120 to 240, excl	5/8	3/4	7/8	1-1/8

4. LENGTH:

- 4.1 Hot Rolled or Cold Rolled Sheet:

TABLE XI

Specified Length Inches	Tolerance, Inches, Plus Only
24 to 30, incl	1/4
Over 30 to 60, incl	1/2
Over 60 to 120, incl	3/4
Over 120 to 156, incl	1
Over 156 to 192, incl	1-1/4
Over 192 to 240, incl	1-1/2
Over 240	1-3/4

AMS 2252C**4.2 Hot Rolled Strip:****TABLE XII**

Specified Length Inches	Tolerance, Inches, Plus Only For Width Ranges, Inches		
	Up to 3, incl	Over 3 to 6, incl	Over 6 to 24, excl
Up to 60, incl	1/4	3/8	1/2
Over 60 to 120, incl	3/8	1/2	3/4
Over 120 to 240, incl	1/2	5/8	1
Over 240 to 360, incl	3/4	3/4	1-1/4
Over 360 to 480, incl	1	1	1-1/2
Over 480	1-1/2	1-1/2	1-3/4

4.3 Cold Rolled Strip:**TABLE XIII**

Specified Length Inches	Tolerance, Inch, Plus Only For Width Ranges, Inches	
	Up to 12, incl	Over 12 to 24, excl
24 to 60, incl	1/4	1/2
Over 60 to 120, incl	1/2	3/4
Over 120 to 240, incl	3/4	1

4.4 Hot Rolled or Thermally Treated Plate, Sheared or Gas Cut: Minus tolerance shall be 1/4 in. for all sizes; plus tolerance shall be as specified in Table XIV.**TABLE XIV**

Specified Width Inches	Specified Length Inches	Tolerance, Inches, Plus For Thickness Ranges, Inches			
		Up to 3/8, excl	3/8 to 5/8, excl	5/8 to 1, excl	1 to 2, incl
Up to 60, excl	Up to 120, excl	1/2	5/8	3/4	1
60 to 84, excl	Up to 120, excl	5/8	11/16	7/8	1
84 to 108, excl	Up to 120, excl	3/4	7/8	1	1-1/8
108 and over	Up to 120, excl	7/8	1	1-1/8	1-1/4
Up to 60, excl	120 to 240, excl	3/4	7/8	1	1-1/8
60 to 84, excl	120 to 240, excl	3/4	7/8	1	1-1/4
84 to 108, excl	120 to 240, excl	7/8	1-1/8	1-1/4	1-3/8
108 and over	120 to 240, excl	1	1-1/8	1-1/4	1-3/8