

G-26-70

MAM 2252
NOTICE 1
24 August 1988



ADOPTION NOTICE

TOLERANCES, METRIC LOW-ALLOY STEEL SHEET, STRIP AND PLATE

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**AEROSPACE
MATERIAL
SPECIFICATION****MAM 2252**Issued 1-1-83
Revised**TOLERANCES, METRIC**
Low-Alloy Steel Sheet, Strip, and Plate

1. **SCOPE:** This specification covers established metric manufacturing tolerances applicable to low-alloy steel sheet, strip, and plate ordered to metric 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 25 mm, at any point not less than 10 mm from a cut edge or not less than 20 mm from a mill edge on widths 25 mm and over, and at a point 10 - 20 mm 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).

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2.1 Hot Rolled Sheets; Coils and Cut Lengths:

TABLE I

Specified Thickness Millimetres	Tolerance, Millimetre, Plus and Minus For Width Ranges, Millimetres					
	Over 300 to 600, incl	Over 600 to 1200, incl	Over 1200 to 1500, incl	Over 1500 to 1800, incl	Over 1800 to 2000, incl	Over 2000
Up to 2.0, incl	0.15	0.18	0.18	0.20	0.20	--
Over 2.0 to 2.5, incl	0.18	0.20	0.20	0.23	0.23	0.25
Over 2.5 to 4.5, incl	0.20	0.23	0.25	0.28	0.30	0.30
Over 4.5 to 6.0, incl	0.30	0.32	--	--	--	--

2.2 Cold Rolled Sheets; Coils and Cut Lengths:

TABLE II

Specified Thickness Millimetres	Tolerance, Millimetre, Plus and Minus For Width Ranges, Millimetres			
	Over 50 to 300, incl	Over 300 to 1800, incl	Over 1800 to 2000, incl	Over 2000
Up to 0.4, incl	0.05	0.05	--	--
Over 0.4 to 1.0, incl	0.08	0.08	0.08	0.15
Over 1.0 to 1.2, incl	0.10	0.10	0.10	0.15
Over 1.2 to 2.5, incl	0.12	0.12	0.15	0.18
Over 2.5 to 4.0, incl	--	0.15	0.18	0.20

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

Specified Thickness Millimetres	Tolerance, Millimetre For Width Ranges, Millimetres						
	Up	Over	Over	Over	Over	Over	Over
	to	to	to	to	to	to	to
	25,	100,	150,	300,	400,	500,	600,
	incl	incl	incl	incl	incl	incl	incl
1.440 to 1.800, incl	+0.13	+0.18	+0.20	+0.23	+0.28	+0.30	+0.30
	-0.13	-0.13	-0.13	-0.13	-0.15	-0.15	-0.15
Over 1.800 to 2.465, incl	+0.13	+0.18	+0.20	+0.23	+0.28	+0.33	+0.33
	-0.13	-0.13	-0.13	-0.13	-0.15	-0.15	-0.18
Over 2.465 to 2.845, incl	+0.13	+0.18	+0.20	+0.23	+0.30	+0.36	+0.36
	-0.13	-0.13	-0.13	-0.13	-0.18	-0.20	-0.20
Over 2.845 to 3.600, incl	+0.13	+0.18	+0.20	+0.25	+0.30	+0.36	+0.36
	-0.13	-0.13	-0.13	-0.15	-0.18	-0.20	-0.20
Over 3.600 to 4.365, incl	+0.13	+0.18	+0.20	+0.25	+0.30	+0.36	+0.38
	-0.13	-0.13	-0.13	-0.15	-0.18	-0.20	-0.23
Over 4.365 to 4.760, incl	+0.15	+0.20	+0.23	+0.25	+0.30	+0.38	+0.38
	-0.15	-0.15	-0.15	-0.15	-0.18	-0.23	-0.23
Over 4.760 to 5.155, incl	+0.15	+0.20	+0.23	+0.25	+0.33	+0.38	+0.38
	-0.15	-0.15	-0.15	-0.15	-0.20	-0.23	-0.23
Over 5.155 to 5.850, incl	--	--	--	+0.28	+0.33	+0.38	+0.38
	--	--	--	-0.18	-0.20	-0.23	-0.23

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2.4 Cold Rolled Strip; Coils and Cut Lengths:

TABLE IV

Tolerance, Millimetre, Plus and Minus
For Width Ranges, Millimetres

Specified Thickness Millimetres	Up to 25, excl	25 to 75, excl	75 to 150, incl	Over 150 to 225, incl	Over 225 to 300, incl	Over 300 to 400, incl	Over 400 to 500, incl	Over 500 to 600, incl
0.25	0.03	0.03	0.03	0.03	0.03	0.03	0.038	0.038
0.28	0.03	0.03	0.03	0.03	0.03	0.038	0.038	0.038
0.30	0.03	0.03	0.03	0.03	0.038	0.038	0.038	0.038
Over 0.30 to 0.40, incl	0.03	0.03	0.03	0.038	0.038	0.038	0.05	0.05
Over 0.40 to 0.50, incl	0.03	0.03	0.03	0.038	0.038	0.05	0.05	0.05
Over 0.50 to 0.65, incl	0.03	0.03	0.038	0.05	0.05	0.05	0.064	0.064
Over 0.65 to 0.70, incl	0.03	0.038	0.038	0.05	0.05	0.05	0.064	0.08
Over 0.70 to 0.85, incl	0.038	0.038	0.05	0.064	0.064	0.064	0.08	0.08
Over 0.85 to 1.00, incl	0.05	0.05	0.064	0.08	0.08	0.08	0.08	0.08
Over 1.00 to 1.25, incl	0.05	0.05	0.064	0.08	0.08	0.08	0.10	0.10
Over 1.25 to 1.75, incl	0.05	0.05	0.08	0.08	0.08	0.08	0.10	0.10
Over 1.75 to 2.50, incl	0.05	0.05	0.08	0.08	0.08	0.10	0.10	0.10
Over 2.50 to 4.00, incl	0.05	0.08	0.08	0.10	0.10	0.10	0.13	0.13
Over 4.00 to 4.75, incl	0.05	0.09	0.10	0.10	0.10	0.13	0.15	0.15

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- 2.5 Rectangular Sheared Plates: Minus tolerance for all sizes shall be 0.25 mm; plus tolerance shall be as specified in Table V.

TABLE V

Specified Thickness Millimetres	Tolerance, Millimetres, Plus For Width Ranges, Millimetres						
	Up to 1200, incl	Over 1200 to 1500, excl	Over 1500 to 1800, excl	Over 1800 to 2100, excl	Over 2100 to 2400, excl	Over 2400 to 2700, excl	Over 2700 to 3000, excl
Up to 6.25, excl	0.40	0.40	0.50	0.50	0.60	0.70	0.80
6.25 to 8.00, excl	0.40	0.50	0.50	0.60	0.70	0.80	0.90
8.00 to 9.50, excl	0.50	0.50	0.60	0.60	0.70	0.80	0.90
9.50 to 11.00, excl	0.50	0.60	0.60	0.70	0.80	0.90	1.00
11.00 to 12.50, excl	0.60	0.60	0.70	0.70	0.80	0.90	1.00
12.50 to 16.00, excl	0.60	0.70	0.70	0.80	0.90	1.00	1.00
16.00 to 19.00, excl	0.70	0.70	0.80	0.80	0.90	1.00	1.10
19.00 to 25.00, excl	0.80	0.80	0.90	0.90	1.00	1.10	1.20
25.00 to 32.00, excl	1.00	1.10	1.20	1.20	1.20	1.30	1.40
32.00 to 38.00, excl	1.30	1.30	1.40	1.40	1.40	1.65	1.75
38.00 to 44.50, excl	1.50	1.50	1.65	1.65	1.65	1.85	2.05
44.50 to 50.00, excl	1.75	1.75	1.85	1.95	1.95	2.20	2.40

- 2.5.1 For thickness measured at any location other than that specified in Section 2, the permissible maximum plus tolerance shall be increased by 75%.

3. WIDTH:

- 3.1 Hot Rolled or Cold Rolled Sheets; Cut Edge, Coils and Cut Lengths:

TABLE VI

Specified Width Millimetres	Tolerance, Plus Only Millimetres
600 to 750, incl	3.2
Over 750 to 1200, incl	4.8
Over 1200 to 1500, incl	6.4
Over 1500 to 2000, incl	7.9
Over 2000	9.5

MAM 2252**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.TABLE VII

Specified Width Millimetres	Tolerance, Millimetres Plus and Minus
Up to 50, incl	0.8
Over 50 to 100, incl	1.2
Over 100 to 200, incl	1.6
Over 200 to 300, incl	2.4

3.2.2 Slit Edge:TABLE VIII

Specified Width Millimetres	<u>Tolerance, Millimetre, Plus and Minus For Thickness Ranges, Millimetres</u>	
	Up to 2.5, incl	Over 2.5
Up to 50, incl	0.2	0.4
Over 50 to 100, incl	0.2	0.4
Over 100 to 200, incl	0.3	0.4
Over 200 to 300, incl	0.4	0.4

3.2.3 Sheared Edge, Cut Lengths Only: Tolerance shall be +3 mm, -0 for all sizes.**3.3 Cold Rolled Strip; Coils and Cut Lengths, No. 3 Slit Edge:**TABLE IX

Specified Width Millimetres	<u>Tolerance, Millimetre, Plus and Minus For Thickness Ranges, Millimetres</u>			
	Over 0.250 to 1.70, incl	Over 1.70 to 2.50, incl	Over 2.50 to 4.00, incl	Over 4.00 to 4.75, incl
Up to 13, incl	0.13	0.20	0.25	--
Over 13 to 150, incl	0.13	0.20	0.25	0.40
Over 150 to 225, incl	0.13	0.25	0.40	0.50
Over 225 to 300, incl	0.25	0.25	0.40	0.50
Over 300 to 500, incl	0.40	0.40	0.50	0.80
Over 500 to 600, incl	0.50	0.50	0.50	0.80

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- 3.4 Hot Rolled or Thermally Treated Plate; Sheared or Gas Cut: Minus tolerance shall be 6.2 mm for all sizes; plus tolerance shall be as specified in Table X.

TABLE X

Specified Width Millimeters	Specified Length Millimetres	Tolerance, Millimetres, Plus For Thickness Ranges, Millimetres			
		Up to 9.5, excl	9.5 to 16.0, excl	16.0 to 25.0, excl	25.0 to 50.0, excl
Up to 1500, excl	Up to 3000, excl	9.5	11.0	12.5	15.7
1500 to 2100, excl	Up to 3000, excl	11.0	12.5	15.7	19.0
2100 to 2700, excl	Up to 3000, excl	12.5	15.7	19.0	25.0
2700 and over	Up to 3000, excl	15.7	19.0	22.0	28.0
Up to 1500, excl	3000 to 6000, excl	9.5	12.5	15.7	19.0
1500 to 2100, excl	3000 to 6000, excl	12.5	15.7	19.0	22.0
2100 to 2700, excl	3000 to 6000, excl	14.0	17.1	20.3	25.0
2700 and over	3000 to 6000, excl	15.7	19.0	22.0	28.0

4. LENGTH:4.1 Hot Rolled or Cold Rolled Sheet:

TABLE XI

Specified Length Millimetres	Tolerance, Millimetres, Plus Only		
	Hot Rolled	Cold Rolled Width Ranges, Millimetres	
		50 to 300, incl	Over 300
Over 300 to 600, incl	6	--	6
Over 600 to 900, incl	8	15	6
Over 900 to 1500, incl	12	15	6
Over 1500 to 3000, incl	20	20	20
Over 3000 to 4000, incl	25	25	35
Over 4000 to 5000, incl	35	25	35
Over 5000 to 6000, incl	40	25	35
Over 6000	45	--	45