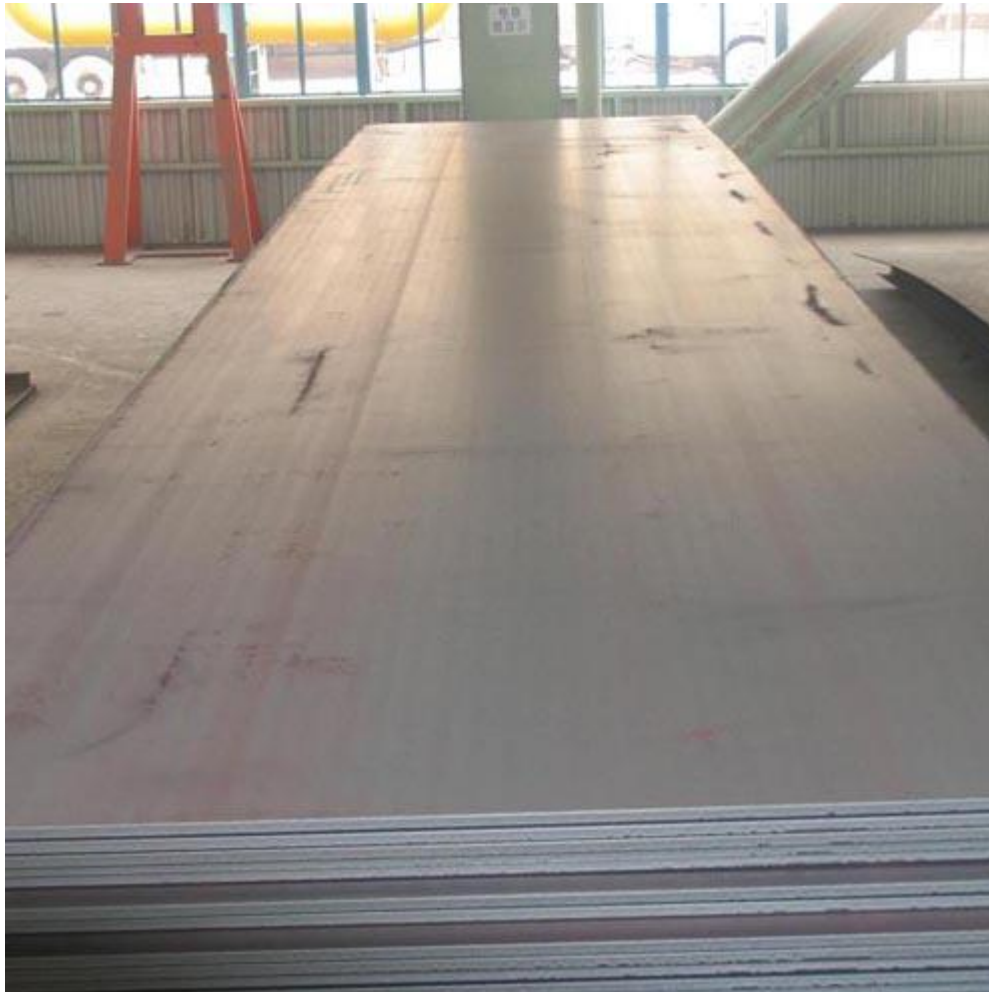


## ASTMA537/A537M

ASTM A537/A537M Standard Specification for Pressure Vessel Plates, Heat-Treated, Carbon-Manganese-Silicon Steel



ASTM A537/A537M Standard Specification for Pressure Vessel Plates, Heat-Treated, Carbon-Manganese-Silicon Steel. ASTM A537/A537M standard main steel grade: ASTM A537 Class 3 (A537CL3), Class 2 (A537CL2), Class 1 (A537CL1)

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Standard:ASTM A537/A537M
Grade :A537 Class 1, 2, 3
Thickness : 8mm -260mm
Width : 1000mm-4000mm
Length : 1000mm-20000mm
MOQ: 1 PC
Product type : Steel plate
Delivery time : Promptly ( Stock) or 10-40 days (Production)
Stock : Available
MTC: Available
Delivery condition: Class 1 Normalized
Class 2 Q+T
Class 3 Q+T

**TABLE 1 Chemical Requirements**

Element	Composition, %
Carbon, max <sup>A</sup>	0.24
Manganese:	
1½ in. [40 mm] and under in thickness: <sup>B</sup>	
Heat analysis	0.70–1.35
Product analysis	0.64–1.46
Over 1½ in. [40 mm] in thickness:	
Heat analysis	1.00–1.60
Product analysis	0.92–1.72
Phosphorus, max <sup>A</sup>	0.025
Sulfur, max <sup>A</sup>	0.025
Silicon:	
Heat analysis	0.15–0.50
Product analysis	0.13–0.55
Copper, max:	
Heat analysis	0.35
Product analysis	0.38
Nickel, max: <sup>B</sup>	
Heat analysis	0.25
Product analysis	0.28
Chromium, max:	
Heat analysis	0.25
Product analysis	0.29
Molybdenum, max:	
Heat analysis	0.08
Product analysis	0.09

<sup>A</sup> Applies to both heat and product analyses.

<sup>B</sup> Manganese may exceed 1.35 % on heat analysis, up to a maximum of 1.60 %, and nickel may exceed 0.25 % on heat analysis, up to a maximum of 0.50 %, provided the heat analysis carbon equivalent does not exceed 0.57 % when based upon the following equation:

$$CE = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$$

When this option is exercised, the manganese and nickel contents on product analysis shall not exceed the heat analysis content by more than 0.12 % and 0.03 %, respectively.

**TABLE 2 Tensile Requirements**

	Class 1	Class 2	Class 3
	ksi [MPa]	ksi [MPa]	ksi [MPa]
Tensile strength:			
2½ in. and under [65 mm and under]	70–90 [485–620]	80–100 [550–690]	80–100 [550–690]
Over 2½ to 4 in., incl [Over 65 to 100 mm, incl]	65–85 [450–585]	75–95 [515–655]	75–95 [515–655]
Over 4 to 6 in., incl [Over 100 to 150 mm, incl]	<sup>A</sup> <sup>A</sup>	70–90 [485–620]	70–90 [485–620]
Yield strength, min:			
2½ in. and under [65 mm and under]	50 [345]	60 [415]	55 [380]
Over 2½ to 4 in., incl [Over 65 to 100 mm, incl]	45 [310]	55 [380]	50 [345]
Over 4 in. to 6 in., incl [Over 100 to 150 mm, incl]	<sup>A</sup> <sup>A</sup>	46 [315]	40 [275]
Elongation in 2 in. [50 mm], min, % <sup>B</sup>			
4 in. [100 mm] and under Over 4 in. [100 mm]	22 <sup>A</sup>	22 20	22 20
Elongation in 8 in. [200 mm], min, % <sup>B</sup>			
	18	<sup>C</sup>	<sup>C</sup>

<sup>A</sup> Product is not available in this size range.

<sup>B</sup> See Specification **A20/A20M** for elongation adjustments.

<sup>C</sup> There is no requirement for elongation in 8 in.

We are a professional ASME SA537 and ASTM A537 steel stockist and supplier. We can supply different product type and grades of ASME SA537 . If you have any need of ASME SA537 steel please do not hesitate to contact us .

ASTM A537

ASME SA537 CLASS 1

ASME SA537 CLASS 2

ASME SA537 CLASS 3

ASTM A537 CLASS 1

ASTM A537 CLASS 2

ASTM A537 CLASS 3

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