

PLATES

- HR CARBON
- HR FLOOR PLATE
- ABRASION RESISTANT
- T-1

- HIGH STRENGTH LOW ALLOY
- OTHER ALLOY
- TOLERANCES

WEIGHTS OF HOT ROLLED CARBON STEEL PLATE

STOCK SIZE AVAILABILITY

We specialize in flame cutting; inquire on special shapes of sizes of any thickness

Size in Inches Lbs Per Sq. Ft. Lbs Per Plate Size in Inches Lbs Per Sq. Ft. Lbs Per Plate 3/16 7.66 1/2 20.42 48 x 96 248.00 48 x 96 660.00 48 x 120 310.00 48 x 120 824.00 48 x 240 620.00 48 x 240 1648.00 60 x 96 310.00 60 x 96 824.00 60 x 120 387.00 60 x 120 1030.00 60 x 240 774.00 60 x 240 2060.00 72 x 240 930.00 72 x 240 2472.00 84 x 240 2884.00 1085.00 84 x 240 96 x 240 1238.00 96 x 240 3296.00 1/4 10.21 5/8 25.53 330.00 48 x 96 48 x 96 824.00 48 x 120 412.00 48 x 120 1030.00 48 x 240 824.00 48 x 240 2060.00 60 x 96 412.00 60 x 96 1030.00 60 x 120 60 x 120 1288.00 516.00 60 x 240 1032.00 60 x 240 2575.00 72 x 240 1236.00 72 x 240 3090.00 84 x 240 1442.00 84 x 240 3606.00 96 x 240 96 x 240 4120.00 1648.00 5/16 12.76 3/4 30.63 48 x 96 412.00 48 x 96 990.00 48 x 120 516.00 48 x 120 1236.00 48 x 240 48 x 240 2472.00 1032.00 60 x 96 1236.00 60 x 96 516.00 60 x 120 644.00 60 x 120 1545.00 60 x 240 1288.00 60 x 240 3090.00 72 x 240 72 x 240 3712.00 1547.00 84 x 240 1806.00 84 x 240 4328.00 96 x 240 2064.00 96 x 240 4945.00 3/8 15.32 1 40.84 48 x 96 495.00 48 x 96 1320.00 48 x 120 1648.00 618.00 48 x 120 48 x 240 1236.00 48 x 240 3296.00 60 x 96 618.00 60 x 96 1648.00 60 x 120 773.00 60 x 120 2060.00 60 x 240 1546.00 60 x 240 4120.00 72 x 240 1854.00 72 x 240 4945.00 84 x 240 2163.00 84 x 240 5770.00 96 x 240 2472.00 96 x 240 6595.00

WEIGHTS OF HOT ROLLED CARBON STEEL PLATE

STOCK SIZE AVAILABILITY

We specialize in flame cutting; inquire on special shapes of sizes of any thickness

Size in Inches	Size in Inches	Lbs Per Sq. Ft.	Lbs Per Plate
1-1/8"	96 x 240	45.95	7,352
1-1/4"	96 x 240	51.05	8,186
1-3/8"	96 x 240	56.16	8,986
1-1/2"	96 x 240	61.26	9,802
1-5/8"	96 x 240	66.37	10,619
1-3/4"	96 x 240	71.47	11,435
2"	96 x 240	81.68	13,069
2-1/4"	96 x 240	91.89	14,702
2-3/8"	96 x 240	97.00	15,520
2-1/2"	96 x 240	102.10	16,336
2-3/4"	96 x 240	112.31	17,970
3"	96 x 240	122.52	19,603
3-1/4"	96 x 240	132.73	21,237
3-1/2"	96 x 240	142.94	22,870
3-3/4"	96 x 240	153.15	24,504
4"	96 x 240	163.36	26,138
4-1/4"	96 x 240	173.57	27,771
4-1/2"	96 x 240	183.78	29,405
4-3/4"	96 x 240	193.99	31,038
5"	96 x 240	204.20	32,672
5-1/2"	96 x 240	224.62	35,939
6"	96 x 240	245.04	39,206

GUIDE TO SELECTION STRUCTURAL QUALITY PLATES HOT ROLLED

Manufactured to specific ASTM specifications for use in structures such as bridges and buildings or in railroad cars and other mobile equipment.

ASTM A36 - A structural quality carbon steel for use in welded, bolted, or riveted construction of bridges and buildings, and for general structural purposes. Engineered with a minimum yield point of 36,000 psi. Stronger than A283, A36 plates can be used to design lighter weight structures and equipment - and provide good weldability. All thicknesses are stocked descaled and oiled for application requiring this superior finish. Most material is certified to ASTM A709 Gr. 36 bridge specification.

C1045 - A silicon killed plate with higher carbon content for greater strength. Can be heat treated to improve strength. Maintains great machinability but has limited forming and welding properties.

A-572 Grade 50 - A low allow plate with an optimum combination of strength, weldability & notch toughness.

MECHANICAL PROPERTIES

	Minimum Yield Point psi	Tensile Strength psi	Elongation in 2" min	Carbon maximum
A36	36,000	58,000 to 80,000	23%	.25/29*
C1045	45,000	82,000	16%	.43/.50
A-572-50	50,000	65,000	19%"	.23

*Depending on thickness.

STEEL FLOOR PLATE FOUR WAY

STOCK LENGTHS

18 Ga.: 12' 16 Ga. to 14 Ga. Incl.: 8', 10', 12' 12 Ga. to 1/8" Thick Incl.: 8', 10', 12' 3/16" to 5/8" Thick Incl.: 8', 10', 12', 20'

Sizes in Inches		Weight Per Ft. Lbs.	Sizes in Inches		Weight Per Ft. Lbs.
1/8" (6.27 lbs. p	er Sq. Ft.)		3/8" (16.35 lbs	. per Sq. Ft.)	
36		••••• 18.81	30		40.88
48		25.08	36		49.05
60		31.35	42		57.23
72		37.62	48 ••••••		65.40
3/16" (8.70 lbs	s. per Sq. Ft.)		60		81.75
30		••••• 21.75	72 ••••••		98.10
36		26.10	1/2" (21.45 lbs.	per Sq. Ft.)	
42		30.45	30		53.63
48		34.80	36		64.35
60		43.50	42		75.08
72		52.20	48		85.80
1/4" (11.25 lbs	. per Sq. Ft.)		60	•••••	107.25
30		28.13	72		128.70
36		33.75	5/8" (26.55 lbs	s. per Sq. Ft.)	
42		39.38	48		••••• 106.20
48		45.00	72		••••• 159.30
60		56.25			
72		67.50			
5/16" (13.10 lb	s. per Sq. Ft.)				
30		34.50			
36		41.40			
42		48.30			
48		55.20			
60		69.00			
72		82.80			

GUIDE TO SELECTION ABRASION RESISTANT

AR 235 is a medium carbon-manganese steel with a moderate hardness of 212 to 255 BHN to give you an inexpensive abrasive resistant product that outlasts hot rolled carbon steel by a wide margin. Can be machined, drilled and punched and takes a moderate amount of forming and rolling. Used for liners and chutes, grain, sand, gravel, cement and clay handling machinery.

AR 400 is a medium carbon, high-strength, quenched and tempered chrome-moly, boron treated plate especially designed to a minimum hardness of 360 BHN. It offers an exceptional amount of sliding and impact abrasion resistance at a moderate cost. AR400 can be used as a basic component, or as a liner in all types of mining and material handling equipment. An added feature of formability better than most 360 min. BHN products adds to its value.

AR 500 is specifically designed to reach an amazing nominal hardness of 500 BHN. Built-in high strength and superior through-hardness gives 500 exceptional resistance to both impact and sliding abrasion. This combination makes it a good choice as a liner for all types of mining and material handling equipment - off-road dump bodies, chutes, bins, silos, gates, buckets and hoppers. It is hard to find a longer lasting abrasion resistant plate. The longer life means substantial savings - less down time and lower maintenance costs.

CHEMICAL COMPOSITION AND MECHANICAL PROPERTIES

	AR 235	AR 400	AR 500
с	.35/.50	.30 max.	.27/.34
Mn	1.2/2.0	1.15/1.60	.35/.60
Cr	-	.20 max.	.80/1.15
Мо	10 max.		.15/.25
В	-	.0005/.005	.0005 min.
BHN	212/255	360 min.	500 Nominal

ABRASION RESISTANT PLATE

STOCK SIZE AVAILABILITY

We specialize in flame cutting; inquire on special shapes of sizes of any thickness

Size	in Inc	hes	Weight per Sq. Ft. in Lbs.	AR 235	AR 400	AR 500
3/16	x	60	7.660	х	-	-
		72	7.660	х	-	-
		96	7.660	х	х	-
1/4	x	48	10.21	х	-	-
		60	10.21	х	-	-
		72	10.21	х	-	-
		84	10.21	х	-	-
		96	10.21	х	х	-
5/16	x	48	12.76	х	-	-
		60	12.76	х	-	х
		72	12.76	х	-	-
		96	12.76	х	х	-
3/8	x	72	15.32	х	х	-
		84	15.32	х	-	-
		96	15.32	х	х	х
1/2	x	72	20.42	х	-	-
		96	20.42	х	х	х
5/8	x	96	25.53	х	х	-
3/4	x	96	30.63	х	х	х
1	x	96	40.84	х	х	х
1-1/4	x	84	51.05	-	-	-
		96	51.05	-	х	-
1-1/2	x	96	61.26	-	х	-
2	x	96	81.68	-	х	-

GUIDE TO SELECTION (T-1) PLATES

T1 Plates are quenched and tempered high strength alloy steels produced to minimum mechanical properties with a yield strength nearly 3 times that of A36 structural steel. This material offers high strength plus good workability and weldability with minimum preheating. Plus exceptional toughness at low atmospheric temperatures (to -50°F.). Used extensively for component parts and as liners for construction equipment, mining machinery, truck bodies, chutes, and wear plates.

T-1 TYPE A (ASTM A-514 Grade B) - Stocked in thicknesses through 1-1/4". Has a lower alloy content than the original T-1 but the same strength. Lowest priced of the T-1 alloys.

T-1 TYPE B (ASTM A-514 Grade H) - Stocked 1-3/8" through 2" with an alloy content between Type A and the original T-1 while maintaining the same strength.

T-1 STRUCTURAL QUALITY (ASTM A-514 Grade F) - Stocked 2-1/4" through 2-1/2". This is the original T-1 grade.

T-1 TYPE C (ASTM A-514 Grade Q) - Stocked in thicknesses over 2-1/2", Type C is richer in alloy content than the original T-1 with slightly lower strength levels.

**Note - Postweld heat treatment of T-1 steel isn't recommended because cracking may develop in the heat affected zone.

PLATE ASTM A5I4 (T-1) ALLOY STEEL

QUENCHED & TEMPERED • CONFORMS TO ASTM A514 SIZES IN STOCK

Size	in inc	ches	Weight per Sq. Ft. in Lbs.	T-1 Type A A514 Grade B	T-1 Type B A514 Grade H	1-1 Reg. A514 Grade F	Type C A514 Grade Q
3/16	х	96	7.660	Х	-	-	-
1/4	х	72	10.21	Х	-	-	-
		96	10.21	Х	-	-	-
5/16	х	96	12.76	Х	-	-	-
3/8	x	96	15.32	Х	-	-	-
1/2	x	48	20.42	Х	-	-	-
		60	20.42	Х	-	-	-
		96	20.42	Х	-	-	-
5/8	х	96	25.53	Х	-	-	-
3/4	х	72	30.63	Х	-	-	-
		84	30.63	Х	-	-	-
		96	30.63	Х	-	-	-
7/8	х	84	35.74	Х	-	-	-
1	х	72	40.84	Х	-	-	-
		84	40.84	Х	-	-	-
		90	40.84	Х	-	-	-
		96	40.84	Х	-	-	-
1-1/8	х	96	45.95	Х	-	-	-
1-1/4	х	72	51.05	Х	-	-	-
		84	51.05	Х	-	-	-
		96	51.05	Х	-	-	-
1-3/8	х	96	56.16	-	Х	-	-
1-1/2	х	84	61.26	-	Х	-	-
		96	61.26	-	Х	-	-
1-3/4	х	48	71.47	-	Х	-	-
		84	71.47	-	Х	-	-
2	х	84	81.68	-	Х	-	-
		96	81.68	-	Х	-	-
2-1/4	х	96	91.89	-	-	Х	-
2-1/2	х	96	102.1	-	-	Х	-
2-3/4	х	96	112.3	-	-	-	Х
3	х	84	122.5	-	-	-	Х
		96	122.5	-	-	-	Х
3-1/2	х	96	142.9	-	-	-	Х
4	х	96	163.4	-	-	-	Х

GUIDE TO SELECTION HIGH STRENGTH / LOW ALLOY PLATES

HSLA plates offer higher strength than plain carbon steel plates - plus ductility, weldability, formability, toughness and fatigue strength. Can lower your material costs and increase payloads because lighter material obtains the strength needed. Applications include: railroad cars, trucks, trailers, cranes, excavating equipment, buildings, and bridges.

COR-TEN® A, COR-TEN B or A588 MOD. With the combination of high strength and outstanding resistance to atmospheric corrosion, is often used wherever weight reduction or maintenance cost savings are prime considerations. Easily cold formed and welded. Thicknesses to 1/2" incl. (Cor-Ten A) conform to ASTM A242 (Type 1) and SAE J410, Gr. 950D. Over 1/2" (Cor-Ten B) conforms to ASTM A588 (Gr. A). A588 MOD. This 60,000 minimum yield strength steel is a popular choice for mold plattens and other items where minimum distortion under pressure is required.

MINIMUM MECHANICAL PROPERTIES*

Type and Thickness	Yield Point, psi	Tensile Strength, psi	Elong. in 8"
Cor-Ten A (A242)	50,000	70,000	19
Cor-Ten B (A588)	50,000	70,000	19

*Properties vary when plates are annealed, normalized, or severely formed.

HIGH STRENGTH STEEL COR-TEN A • EX-TEN[®] 50

Cor-Ten A (1/2" and Under) ASTM A-242 Type 1 Cor-Ten B (Over 1/2") ASTM A-588 Gr. A ASTM A-242 Type 2

STOCK LENGTHS

Cor-Ten

3/4" Thick and Lighter-8', 10', 12', 20', 30', 40' Over 3/4" Thick-10', 20', 30', 40'

Size	e in ind	:hes	Weight Per Sq. Ft.	Weight Per Ft. Lbs.	Cor-Ten
3/16	х	48	7.65	30.60	Х
		60		38.25	х
		72		45.90	X
		84		53.55	x
		96		61.20	-
1/4	х	48	10.20	40.80	x
		60		51.00	X
		72		61.20	-
		84		71.40	X
		96		81.60	-
5/16	х	48	12.75	51.00	X
		60		63.75	X
		72		76.50	Х
		84		89.25	X
		96		102.00	-
3/8	х	48	15.30	61.20	X
		60		76.50	Х
		72		91.80	X
		84		107.10	Х
		96		122.40	-
1/2	х	48	20.40	81.60	Х
		60		102.00	Х
		72		122.40	Х
		84		142.80	Х
		96		163.20	-
5/8	х	84	25.50	178.50	X
		96		204.00	
3/4	х	84	30.60	214.20	X
		96		244.80	-
7/8	х	84	35.70	249.90	-
		96		285.60	-
1	х	84	40.80	285.60	X
		96		326.40	-
1-1/4	х	84	51.00	357.00	Х
		96		408.00	-
1-1/2	х	84	61.20	428.40	Х
		96		489.60	-
1-3/4	х	84	71.40	499.80	-
		96		571.20	-
2	х	84	81.60	571.20	Х
		96	402.00	652.80	-
2-1/2	х	84	102.00	714.00	-
		96	1	816.00	-

GUIDE TO SELECTION PRESSURE VESSEL QUALITY PLATES

Specific, tightly controlled ASTM specs produce a superior carbon or alloy steel to withstand the pressure found in vessels, boilers, etc. The known, consistent properties of these tightly controlled plates make them desirable for many other applications.

All PVQ plates are subjected to a series of tests to assure consistent, controlled properties. **PVQ-S4** plates are ordered with supplemental S-4 testing (as outlined by ASTM A20) to assure conformance to mechanical property requirements. Steel Cities Steels stocks carbon and alloy steel PVQ plates to the following ASTM specs:

ASTM A285. (ASME SA285) - A popular, moderate strength steel for stationary service vessels and boilers. Stocked up to 2" thick, they have excellent formability and weldability. Stocked in PVQ-S4 Grade C.

ASTM A515. (ASME SA515) - More strength than A285 for intermediate and high temperature service. Weldable with proper recommended techniques, A515 plates have coarse grain structure and are silicon killed. Stocked in Gr. 70 in the as rolled or normalized condition. Sizes of Grade 70 over 2" thick are stocked in the normalized condition.

ASTM A516. (ASME SA516) - Intended for low temperatures where improved notch toughness is required. ASTM A516 has fine grain structure and is silicon killed. Grade 70, stocked in the as rolled or normalized condition.

Additional S-5 testing for selected items in the normalized condition.

MECHANICAL PROPERTIES

ASTM Specification	Minimum Yield, psi	Tensile Strength, psi	Carbon Max.
A285-Gr. C	30,000	55,000 to 65,000	.28
A387-Gr. 11	35,000	60,000 to 85,000	.17
A387-Gr. 22	45,000	75,000 to 100,000	.15
A515-Gr. 70**	38,000	70,000 to 85,000	.31/.35
A516-Gr. 60	32,000	60,000 to 80,000	.21/.27
Gr. 65	35,000	65,000 to 80,000	.24/.29
Gr. 70	38,000	70,000 to 90,000	.27/.31

*Depending on thickness **Normalized or as rolled

PRESSURE VESSEL QUALITY PLATES

ASTM-A-285 GR. C ASME-SA-285 GR. C

Tensile Strength 55,000 to 65,000 PSI

ASTM-A-515 GR. 70. ASME-SA-515 GR.70

As Rolled* (See Notes.) Tensile Strength 70,000 to 85,000 PSI

ASTM-A-516 GR. 70 ASME-SA-516 GR. 70

Normalized Impact Tested ASTM-A-593 • Tensile Strength 70,000 to 85,000 PSI

STOCK LENGTHS

A-285 Gr. C 3/4" Thick and Lighter: 8', 10', 12', 20', 30', 40'

Over 3/4" Thick: 10', 20', 30', 40'

A-515 Gr. 70 All Thicknesses: 10', 20'

A-516 Gr. 70 All Thicknesses: 30'

Size	in in	ches	Weight Per Sq. Ft.	Weight Per Ft. Lbs.	A285 SA285 PVQ S54	A515 SA515 PVQ S4	A516 SA516 PVQ S4, S5
3/16	х	72	7.65	45.90	х	-	-
		84		53.55	×	Х	-
		96		61.20	×	Х	-
1/4	x	48	10.20	40.80	×	-	-
		60		51.00	×	-	-
		72		61.20	x	-	-
		84		71.40	x	Х	-
		96		81.60	х	х	х
		120		102.00	x	-	-
5/16	x	60	12.75	63.75	×	-	-
		72		76.50	x	-	-
		84		89.25	х	Х	-
		96		102.00	x	Х	х
		120		127.50	x	-	-
3/8	x	48	15.30	61.20	×	-	-
		60		76.50	x	-	-
		72		91.80	x	-	-
		84		107.10	х	х	-
		96		122.40	x	Х	х
		120		153.00	×	-	-
7/16	х	72	17.85	107.10	x	-	-
		84		124.95	х	-	-
		96		142.80	x	Х	-
		120		178.50	×	-	-
1/2	х	48	20.40	81.60	x	-	-
		60		102.00	Х	-	-
		72		122.40	Х	-	-
		84		142.80	Х	Х	-
		96		163.20	Х	Х	х
		120		204.00	х	-	-

*Specification requires plates over 2" thick to be treated for grain refinement either by normalizing or heating uniformly for hot forming.

PRESSURE VESSEL QUALITY PLATES

Size	in in	ches	Weight Per Sq. Ft.	Weight Per Ft. Lbs.	A285 SA285 PVQ S54	A515 SA515 PVQ S4	A516 SA516 PVQ S4, S5
5/8	x	60	25.50	127.50	х	-	-
		72		153.00	×	-	-
		84		178.50	х	х	-
		96		204.00	X	Х	х
		120		255.00	х	-	-
3/4	x	60	30.60	153.00	X	-	-
		84		214.20	х	х	-
		96		244.80	X	Х	х
		120		306.00	х	-	-
7/8	х	84	35.70	249.90	×	-	-
		96		285.60	×	x	-
		120		357.00	×	-	-
1	x	84	40.80	285.60	х	х	-
		96		326.40	x	х	х
		120		408.00	х	-	-
1-1/8	х	84	45.90	321.30	x	-	-
		96		367.20	x	-	-
1-1/4	x	84	51.00	357.00	x	-	-
		96		408.00	x	х	-
1-3/8	x	84	56.10	392.70	x	-	-
		96		448.80	×	-	-
1-1/2	x	84	61.20	428.40	x	-	-
		96		489.60	x	х	-
1-5/8	х	96	66.30	530.40	-	х	-
1-3/4	x	84	71.40	499.80	х	-	-
	~	96	7 11 10	571.20	X	х	-
2	x	84	81.60	571.20	X	-	-
-	~	96	01100	652.80	X	х	
2-1/4	x	96	91.80	734.40	-	x	
2-1/2	x	96	102.00	816.00	_	x	-
2-1/2	x	96	112.20	897.60	_	X	_
2-3/4	x	96	122.40	979.20	-	x	_
3-1/4	x	96	132.60	1060.80	_	X	-
3-1/4	x	96 96	142.80	1142.40	-	X	-
3-1/2			142.80	1224.00	-	X	-
3-3/4	x	96					-
-	x	96	163.20	1305.60	-	X	-
4-1/4	x	96	173.40	1387.20	-	X	-
4-1/2	х	96	183.60	1468.80	-	X	-
4-3/4	x	96	193.80	1550.40	-	X	-
5	x	96	204.00	1632.00	-	Х	-
5-1/2	x	96	224.40	1795.20	-	Х	-
6	х	96	244.80	1958.40	-	Х	-

*Specification requires plates over 2" thick to be treated for grain refinement either by normalizing or heating uniformly for hot forming.

GUIDE TO SELECTION OTHER ALLOY PLATES

THROUGH HARDENING - ANNEALED

4140 Stress-Relieved Annealed plate is produced to a controlled 4140 chemistry, vacuum degassed for superior cleanliness, and produced to fine grain practice. Offers uniform, consistent response to heat treatment; superior cleanliness, internal soundness and improved service life for machined parts.

4340 Fineline Normalized and Tempered is a vacuum degassed nickel-chrome-moly steel. Sulphur level is controlled to .010 max. improving the internal soundness and mechanical properties. Can be further heat treated for higher properties.

CASE HARDENING

8620 is ideal for applications requiring a hard case and high core property. Advantages over ordinary carbon steel: more uniform case depth, improved hardness, toughness and wear characteristics, higher core properties, less distortion.

PLATE - ALLOY STEEL

THROUGH HARDENING - SIZES IN STOCK

Ci	ter ter e	haa	Weight Des Co. De in Hes	4440 Charles Delland American	
	in Inc		Weight Per Sq. Ft. in Lbs.	4140 Stress- Relieved Annealed	434012 Normalized & Tempered
1/4	x	90	10.21	X	-
		96	10.21	X	-
3/8	x	84	15.32	X	-
1/2	х	84	20.42	X	-
		96	20.42	Х	-
5/8	х	84	25.53	Х	-
		96	25.53	Х	-
3/4	х	94	30.63	Х	-
		96	30.63	Х	-
7/8	х	96	35.74	Х	-
1	х	84	40.84	Х	-
		90	40.84	Х	-
		96	40.84	Х	-
1-1/4	x	84	51.05	Х	-
		90	51.05	X	-
		96	51.05	X	-
1-1/2	x	84	61.26	Х	-
		90	61.26	х	-
		96	60.26	Х	-
1-3/4	х	84	71.47	x	-
		96	71.47	х	-
2	х	84	81.68	Х	-
		90	81.68	X	-
		96	81.68	х	Х
2-1/4	x	84	91.89	х	-
		96	91.89	Х	-
2-1/2	x	84	102.1	х	-
		96	102.1	Х	х
2-3/4	x	84	112.3	х	-
		96	112.3	х	-
3	x	84	122.5	x	-
		96	122.5	х	х
3-1/4	x	96	132.7	x	-
3-1/2	x	84	142.9	X	-
		96	142.9	x	x
4	x	90	163.4	X	-
		96	163.4	X	x
4-1/4	x	96	173.6	x	-
4-1/2	x	96	183.8	x	x
5	x	90	204.2	x	-
		96	204.2	x	x
6	x	84	245.0	x	-
Ū	~	96	245.0	x	-
6-1/2	x	96	245.0	-	×
8	x	98 84	326.7	×	-
8	x	84 96	326.7	x	-
10	v		408.4	X	-
10	x	60	408.4	· ·	-

PLATE - ALLOY STEEL

8620 - CASE HARDENING • E6150 - THROUGH HARDENING

SIZES IN STOCK

			BIZES IN STOCK	
Siz	e in Inc	hes	Weight Per Sq. Ft. in Lbs.	8620
1/2	х	84	20.42	Х
		90	20.42	-
		96	20.42	x
5/8	х	84	25.53	×
		96	25.53	x
3/4	х	84	30.63	x
		90	30.63	-
		96	30.63	×
1	х	84	40.84	x
		90	40.84	-
1-1/8	х	72	45.95	-
		84	45.95	Х
1-1/4	х	84	51.05	×
		90	51.05	-
1-3/8	х	84	56.16	×
1-1/2	х	84	61.26	×
		90	61.26	-
1-5/8	х	72	66.37	-
1-3/4	х	84	71.47	×
2	х	84	81.68	×
		90	81.68	-
2-3/16	х	72	89.34	-
2-1/4	х	84	91.89	×
2-1/2	х	84	102.1	×
		90	102.1	-
2-3/4	х	84	112.3	×
3	х	84	122.5	×
		90	122.5	-
3-3/16	х	72	130.2	-
3-7/16	х	72	140.4	×
3-1/2	х	84	142.9	×
		90	142.9	-
4	х	84	163.4	Х
		90	163.4	-
4-1/2	х	84	183.8	х
5	х	84	204.2	Х
6	х	72	245.0	-
		84	245.0	Х

[†]4340 NORMALIZED & TEMPERED STOCKED AS MTS QUALITY.

CARBON and ALLOY PLATE TOLERANCES

Permissible variations in width for Mill Edge Strip Mill Carbon and High-Strength Low-Alloy Plate

Specified (inches)	Width Variations Over Specified Width (inches)*
35 up to 50	1-1/4
50 up to 60	1-1/2
60 up to 65	1-5/8
65 up to 70	1-3/4
70 up to 80	1-7/8

CARBON and ALLOY PLATE TOLERANCES

Permissible variations in width for Mill Edge Strip, Mill Carbon and High-Strength Low-Alloy Plate

Specified (inches)	Variations Over Specified Width (inches)*
35 up to 50	1-1/4
50 up to 60	1-1/2
60 up to 65	1-5/8
65 up to 70	1-3/4
70 up to 80	1-7/8

* No permissible variation under specified width.

Permissible variations in width and length for Rectangular Plate When Gas Cutting Is Specified or Required

Specified Thickness (inches)	ALLOYS Variations Over for All Specified Widths or Lengths (inches)	CARBON Variations Over for All Specified Widths or Lengths (inches)
Up to 2	3/4	1/2
2 up to 4	1	5/8
4 up to 6	1-1/8	3/4
6 up to 8	1-5/16	7/8
8 up to 15	1-1/2	1

Note*: These variations may be taken all under or divided over and under, if so specified.

* No permissible variation under specified width.

Permissible variations in width and length for Rectangular Plate When Gas Cutting Is Specified or Required

Specified Thickness (inches)	ALLOYS Variations Over for All Specified Widths or Lengths (inches)	CARBON Variations Over for All Specified Widths or Lengths (inches)
Up to 2	3/4	1/2
2 up to 4	1	5/8
4 up to 6	1-1/8	3/4
6 up to 8	1-5/16	7/8
8 up to 15	1-1/2	1

Note: These variations may be taken all under or divided over and under, if so specified.

CARBON and ALLOY PLATE TOLERANCES

	Tolerance Over Specified Thickness for Widths Given (inches)								
Specified Thickness (inches)	Up to 48	Over 48 up to 60	60 up to 72	72 up to 84	84 up to 96	96 up to 108	108 up to 120	120 up to 132	
Up thru 1/4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
Over 1/4 up to 5/16	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	
5/16 up to 3/8	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	
3/8 up to 7/16	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	
7/16 up to 1/2	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	
1/2 up to 5/8	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	
5/8 up to 3/4	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	
3/4 up to 1	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.05	
1 up to 2	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.10	
2 up to 3	0.09	0.09	0.09	0.10	0.10	0.11	0.12	0.13	
3 up to 4	0.11	0.11	0.11	0.11	0.11	0.13	0.14	0.14	
4 up to 6	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
6 up to 10	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	
10 up to 12	0.29	0.29	0.33	0.33	0.33	0.33	0.33	0.33	
12 thru 15	0.29	0.29	0.35	0.35	0.35	0.35	0.35	0.35	

*Permissible variations in thickness for rectangular carbon, high strength, low alloy, and alloy-steel plates, when ordered to thickness.

Note 1: Permissible variation under specified thickness - 0.01".

Note 2: Thickness to be measured at 3/8 to 3/4" from the longitudinal edge.

Note 3: For thickness measured at any location other than that specified in Note 2, the permissible maximum over tolerance shall be increased by 75%, rounded to the nearest 0.01".

CARBON and ALLOY PLATE TOLERANCES

Specified Dimensions (inches)		Variations over Specified Width and Length* for Thickness, In., and Equivalent Weights, Lb./ft. ² , Given							
		up to 3/8		3/8 up to 5/8		5/8 up to 1		1 thru 2	
Length	Width	Width	Length	Width	Length	Width	Length	Width	Length
Up to 120	Up to 60	3/8	1/2	7/16	5/8	1/2	3/4	5/8	1
	60 up to 84	7/16	5/8	1/2	11/16	5/8	7/8	3/4	1
	84 up to 108	1/2	3/4	5/8	7/8	3/4	1	1	1-1/8
	108 and over	5/8	7/8	3/4	1	7/8	1-1/8	1-1/8	1-1/4
120 up to 140	Up to 60	3/8	3/4	1/2	7/8	5/8	1	3/4	1-1/8
	60 up to 84	1/2	3/4	5/8	7/8	3/4	1	7/8	1-1/4
	84 up to 108	9/16	7/8	11/16	15/16	13/16	1-1/8	1	1-3/8
	108 and over	5/8	1	3/4	1-1/8	7/8	1-1/4	1-1/8	1-3/8
240 up to 360	Up to 60	3/8	1	1/2	1-1/8	5/8	1-1/4	3/4	1-1/2
	60 up to 84	1/2	1	5/8	1-1/8	3/4	1-1/4	7/8	1-1/2
	84 up to 108	9/16	1	11/16	1-1/8	7/8	1-3/8	1	1-1/2
	108 and over	11/16	1-1/8	7/8	1-1/4	1	1-3/8	1-1/4	1-3/4
360 up to 480	Up to 60	7/16	1-1/8	1/2	1-1/4	5/8	1-3/8	3/4	1-5/8
	60 up to 84	1/2	1-1/4	5/8	1-3/8	3/4	1-1/2	7/8	1-5/8
	84 up to 108	9/16	1-1/4	3/4	1-3/8	7/8	1-1/2	1	1-7/8
	108 and over	3/4	1-3/8	7/8	1-1/2	1	1-5/8	1-1/4	1-7/8

*Permissible variation under specified width and length - 1/4".