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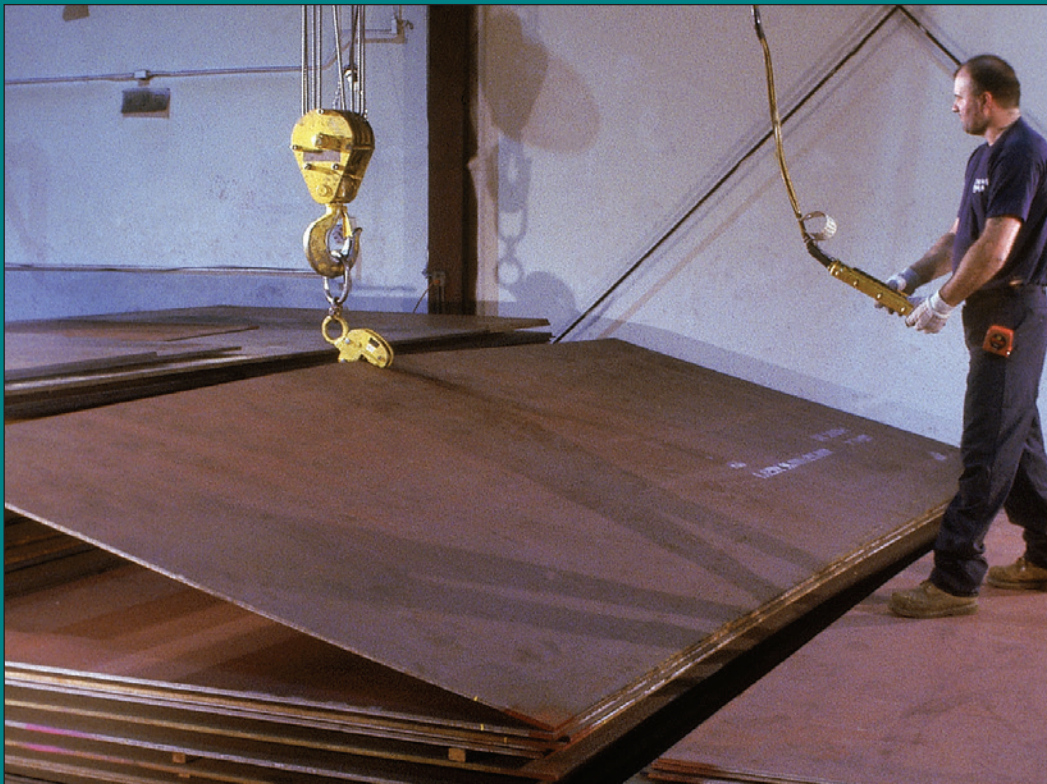
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ASTM A36

A structural quality carbon steel for general structural purposes. Engineered with a minimum yield point of 36 KSI. A36 plates can be used to create lighter weight structures and equipment and provides good weldability.

Mechanical Properties

	Minimum Yield Point ksi	Tensile Strength ksi	Elongation in 2" Min.	Carbon Maximum
A36	36	58 to 80	21%	.25/.29

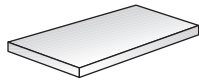


Plate – Structural Quality

Hot Rolled – Carbon Steel
ASTM A36, ASME SA36 ASTM A709 Gr. 36.

Size In Inches	Weight per Sq. Ft. in Lbs.
3/16 x 36	7.660
48	7.660
60	7.660
72	7.660
84	7.660
96	7.660
1/4 x 36	10.21
48	10.21
60	10.21
72	10.21
84	10.21
96	10.21
5/16 x 36	12.76
48	12.76
60	12.76
72	12.76
84	12.76
96	12.76
3/8 x 36	15.32
48	15.32
60	15.32
72	15.32
84	15.32
96	15.32
7/16 x 84	17.87
96	17.87
Continued	

Size In Inches	Weight per Sq. Ft. in Lbs.
1/2 x 48	20.42
60	20.42
72	20.42
84	20.42
96	20.42
9/16 x 84	22.97
96	22.97
5/8 x 48	25.53
60	25.53
72	25.53
84	25.53
96	25.53
3/4 x 48	30.63
60	30.63
72	30.63
84	30.63
96	30.63
7/8 x 72	35.74
84	35.74
96	35.74
1 x 48	40.84
60	40.84
72	40.84
84	40.84
96	40.84
Continued	

Size In Inches	Weight per Sq. Ft. in Lbs.
1 1/8 x 60	45.95
84	45.95
96	45.95
1 1/4 x 48	51.05
60	51.05
72	51.05
84	51.05
96	51.05
1 3/8 x 84	56.16
96	56.16
1 1/2 x 48	61.26
60	61.26
72	61.26
84	61.26
96	61.26
1 5/8 x 84	66.37
96	66.37
1 3/4 x 72	71.47
1 3/4 x 84	71.47
96	71.47
2 x 48	81.68
60	81.68
72	81.68
84	81.68
96	81.68
2 1/8 x 96	86.79
2 1/4 x 72	91.89
84	91.89
96	91.89
2 1/2 x 60	102.1
72	102.1
84	102.1
96	102.1
2 3/4 x 72	112.3
84	112.3
96	112.3
3 x 72	122.5
84	122.5
96	122.5
3 1/4 x 84	132.7
96	132.7
3 1/2 x 72	142.9
Continued	

Size In Inches	Weight per Sq. Ft. in Lbs.
3 1/2 x 84	142.9
96	142.9
3 3/4 x 84	153.2
96	153.2
4 x 72	163.4
84	163.4
96	163.4
4 1/4 x 72	173.6
84	173.6
96	173.6
4 1/2 x 72	183.8
84	183.8
96	183.8
4 3/4 x 96	194.0
5 x 60	204.2
72	204.2
84	204.2
96	204.2
5 1/2 x 60	224.6
72	224.6
84	224.6
96	224.6
6 x 72	245.0
84	245.0
96	245.0
6 1/2 x 60	265.5
84	265.5
96	265.5
7 x 84	285.9
96	285.9
7 1/2 x 84	306.3
96	306.3
8 x 72	326.7
84	326.7
96	326.7
9 x 60	367.6
84	367.6
96	367.6
10 x 60	408.4
84	408.4
96	408.4
12 x 84	490.1
Continued	

Medium Carbon Steel Plate

SAG 1045 — Silicon killed with higher carbon content for greater strength.

High Strength/Low Alloy Plates

High Strength Low Alloy plates offer higher strength than plain carbon steel plates and provide ductility, weldability, formability, toughness and fatigue strength.

ASTM A572(50) are available at a strength level of 50 KSI minimum. Provides high strength, good workability and weldability. Corrosion resistance is the same as that of plain carbon steel. Conforms to ASTM A572, SAE J1442 Grade 050X. Also available in Grades 42, 45, 55, 60, and 65.

COR-TEN® A, COR-TEN B provides high strength, outstanding resistance to corrosion and can be easily cold formed and welded. Thickness to 1/2" including (Cor-Ten A) conform to ASTM A242 (Type 1). Over 1/2" (Cor-Ten B) conforms to ASTM A588 (Gr. A).

Minimum Mechanical Properties

Type and Thickness	Yield Point, KSI	Tensile Strength, KSI	Elong. in 8"
A572 Gr. 50	50	65	18
Cor-Ten A (A242)	50	70	19
Cor-Ten B (A588)	50	70	19

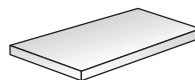


Plate – High Strength Low Alloy

Hot Rolled – Grade 50
A572; A242 and A588

Size In Inches	Weight per Sq. Ft. in Lbs.	Size In Inches	Weight per Sq. Ft. in Lbs.
3/16 x 36	7.660	3/4 x 60	30.63
48	7.660	72	30.63
60	7.660	84	30.63
72	7.660	96	30.63
84	7.660	96	32.16
96	7.660	7/8 x 84	35.74
1/4 x 36	10.21	1 x 72	40.84
48	10.21	x 84	40.84
60	10.21	96	40.84
72	10.21	1 1/8 x 84	45.95
84	10.21	1 1/4 x 84	51.05
96	10.21	96	51.05
5/16 x 48	12.76	1 3/8 x 96	56.16
60	12.76	96	56.28
72	12.76	1 1/2 x 84	61.26
84	12.76	96	61.26
96	12.76	1 3/4 x 84	71.47
3/8 x 48	15.32	96	71.47
60	15.32	2 x 72	81.68
72	15.32	84	81.68
84	15.32	96	81.68
96	15.32	2 1/4 x 96	91.89
96	19.29	2 1/2 x 84	102.10
1/2 x 48	20.42	96	102.10
60	20.42	2 3/4 x 96	112.30
72	20.42	3 x 96	122.50
84	20.42	3 1/2 x 72	142.90
96	20.42	4 x 96	163.40
5/8 x 60	25.53	4 1/4 x 96	173.60
72	25.53	4 1/2 x 96	183.80
84	25.53	5 x 96	204.20
96	25.53	5 1/2 x 96	224.62
Continued			

Abrasion Resistant Plate

AR - A medium carbon-manganese steel providing a moderate hardness of 212 to 255 BHN. Both 400 and 500 plates exhibit an excellent combination of hardness, abrasion resistance, formability, weldability, toughness and flatness. Designed for through-thickness hardness while maintaining minimum carbon, alloy and carbon equivalent contents to improve weldability. These plates are used in the original fabrication, repair and modification of heavy equipment in such applications as truck body liners, chutes, bucket lips, hopper and crusher liners and conveyor troughs. Available in thicknesses from $\frac{3}{16}$ to 2 inches.

Chemical Composition & Mechanical Properties

	AR Medium Hard	T-1 Type A 321 Min. BHN
C	.35/.50	.12/.21
Mn	1.2/2.0	.70/1.00
Cr	--	.40/.65
Mo	--	.15/.25
B	--	.0005 min.
BHN	212/255	321 min.

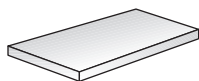


Plate – Abrasion Resistant

Hot Rolled
400 and 500

Sizes in Stock

Size In Inches	Weight per Sq. Ft. in Lbs.	Size In Inches	Weight per Sq. Ft. in Lbs.
$\frac{3}{16}$ x 72	7.660	$\frac{3}{8}$ x 84	15.32
96	7.660	96	15.32
$\frac{1}{4}$ x 48	10.21	$\frac{1}{2}$ x 72	20.42
72	10.21	96	20.42
84	10.21	$\frac{5}{8}$ x 96	25.53
96	10.21	$\frac{3}{4}$ x 96	30.63
$\frac{5}{16}$ x 48	12.76	1 x 96	40.84
72	12.76	$1\frac{1}{4}$ x 84	51.05
96	12.76	96	51.05
$\frac{3}{8}$ x 72	15.32	$1\frac{1}{2}$ x 96	61.26
Continued		2 x 96	81.68

Construction Alloys

With a yield strength nearly 3 times that of A36 structural steel, construction alloys are quenched and tempered high strength alloy steels. This material combines high strength and good workability, weldability and exceptional toughness at low atmospheric temperatures (to -50° F). Used in construction equipment liners, mining machinery, truck fabrication, chutes and troughs.

T-1 Type A (ASTM A514 Grade B) —

Available in thicknesses through $1\frac{1}{4}$ ". Has a lower alloy content than the original T-1 with the same strength.

T-1 Type B (ASTM A514 Grade H) –

Available $1\frac{3}{8}$ " through 2" with an alloy content between Type A and the original T-1. Maintains the same strength as original T-1.

T-1 Structural Quality (ASTM A514 Grade F)

Available over $2\frac{1}{4}$ " through $2\frac{1}{2}$ ".

T-1 Type C (ASTM A514 Grade Q)

Available thicknesses over $2\frac{1}{2}$ " with slightly lower strength.

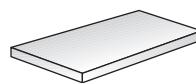


Plate – T1 Alloy Steel

ASTM A514
Quenched and Tempered

Size In Inches	Weight per Sq. Ft. in Lbs.	Size In Inches	Weight per Sq. Ft. in Lbs.
$\frac{3}{16}$ x 96	7.660	$1\frac{1}{4}$ x 96	51.05
$\frac{1}{4}$ x 96	10.21	$1\frac{3}{8}$ x 96	56.16
$\frac{5}{16}$ x 96	12.76	$1\frac{1}{2}$ x 96	61.26
$\frac{3}{8}$ x 96	15.32	2 x 96	81.68
$\frac{1}{2}$ x 96	20.42	$2\frac{1}{4}$ x 96	91.89
$\frac{5}{8}$ x 96	25.53	$2\frac{1}{2}$ x 96	102.1
$\frac{3}{4}$ x 96	30.63	$2\frac{3}{4}$ x 96	112.3
1 x 96	40.84	3 x 96	122.5
$1\frac{1}{8}$ x 96	45.95	$3\frac{1}{2}$ x 96	142.9
Continued		4 x 96	163.4

Pressure Vessel Quality Plates

ASTM A285 (ASM SA285) — A moderate strength steel available up to 2" thick. Provides excellent formability and weldability. Used for vessels and boilers. Available in Grade C.

ASTM A516 (ASME SA516) Silicon killed with a fine grain structure for use in low temperatures where improved notch toughness is required. Grade 70, available in the as rolled or normalized condition.

Mechanical Properties

ASTM Specification	Minimum Yield, KSI	Tensile Strength, KSI	Carbon Maximum
A285 – Gr.C	30	55 to 65	28
A516 – Gr.60	32	60 to 80	.21/.27
A516 – Gr.65	35	65 to 80	.24/.29
A516 – Gr.70	38	70 to 90	.27/.31

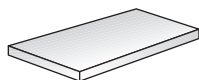


Plate – Pressure Vessel Quality

Hot Rolled – Carbon Steel
ASTM A285 Gr. C and
ASME SA285 Gr. C

Size In Inches	Weight per Sq. Ft. in Lbs.	Size In Inches	Weight per Sq. Ft. in Lbs.
$\frac{3}{16}$ x 72	7.660	$\frac{5}{8}$ x 96	25.53
84	7.660	$\frac{3}{4}$ x 60	30.63
72	10.21	72	30.63
84	10.21	84	30.63
96	10.21	96	30.63
$\frac{5}{16}$ x 72	12.76	1	40.84
84	12.76	84	40.84
96	12.76	96	40.84
$\frac{3}{8}$ x 60	15.32	$1\frac{1}{8}$ x 84	45.95
72	15.32	$1\frac{1}{4}$ x 72	51.05
84	15.32	84	51.05
96	15.32	$1\frac{3}{8}$ x 96	56.16
$\frac{1}{2}$ x 72	20.42	$1\frac{1}{2}$ x 72	61.26
84	20.42	84	61.26
96	20.42	$1\frac{3}{4}$ x 72	71.47
$\frac{5}{8}$ x 72	25.53	84	71.47
84	25.53	2 x 60	81.68
Continued		96	81.68

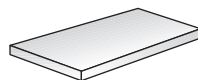


Plate – Pressure Vessel Quality

Hot Rolled – Carbon Steel
ASTM A516 Gr. 70 and
ASME SA516 Gr. 70

Sizes in Stock

Size In Inches	Weight per Sq. Ft. in Lbs.	Size In Inches	Weight per Sq. Ft. in Lbs.
$\frac{3}{16}$ x 84	7.660	$1\frac{1}{4}$ x 60	51.05
96	7.660	96	51.05
$\frac{1}{4}$ x 72	10.21	$1\frac{3}{8}$ x 96	56.16
96	10.21	$1\frac{1}{2}$ x 60	61.26
$\frac{5}{16}$ x 70	12.76	96	61.26
72	12.76	$1\frac{5}{8}$ x 96	66.37
84	12.76	$1\frac{3}{4}$ x 60	71.47
96	12.76	x 96	71.47
$\frac{3}{8}$ x 70	15.32	2 x 96	81.68
72	15.32	$2\frac{1}{4}$ x 96	91.89
84	15.32	$2\frac{3}{8}$ x 96	97.00
96	15.32	$2\frac{1}{2}$ x 96	102.1
$\frac{7}{16}$ x 96	17.87	$2\frac{3}{4}$ x 96	112.3
$\frac{1}{2}$ x 54	20.42	3 x 96	122.5
84	20.42	$3\frac{1}{4}$ x 96	132.7
96	20.42	$3\frac{1}{2}$ x 96	142.9
$\frac{5}{8}$ x 84	25.53	4 x 96	163.4
96	25.53	$4\frac{1}{2}$ x 96	183.8
$\frac{3}{4}$ x 60	30.63	96	183.8
96	30.63	5 x 96	204.2
$\frac{7}{8}$ x 96	35.74	$5\frac{1}{2}$ x 96	224.6
1 x 60	40.84	6 x 96	245.0
96	40.84	7 x 96	285.9
$1\frac{1}{8}$ x 96	45.95	8 x 96	326.7
Continued			

Free Machining Steels

Case Hardening Grades

C1119 is a high manganese, low carbon steel with a controlled sulphur addition. It provides time savings when machining compared to low carbon steel plate. Used for jigs, rubber molds and die bases.

Through Hardening Grades

C1144 is a resulphurized medium carbon, steel that polishes to plating smoothness, responds to heat treating, welds easily and machines faster than 1045.

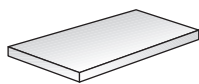


Plate – Free Machining
Hot Rolled- Carbon Steel

Size In Inches	Weight per Sq. Ft. in Lbs.
1/4 x 96	10.21
5/16 x 96	12.76
3/8 x 96	15.32
1/2 x 84	20.42
96	20.42
5/8 x 84	25.53
96	25.53
11/16 x 96	28.08
3/4 x 84	30.63
96	30.63
7/8 x 84	35.74
96	35.74
1 x 84	40.84
96	40.84
1 1/8 x 84	45.95
96	45.95
1 1/4 x 84	51.05
96	51.05
1 3/8 x 84	56.16
96	56.16
1 1/2 x 84	61.26
96	61.26
1 5/8 x 84	66.37
96	66.37
Continued	

Size In Inches	Weight per Sq. Ft. in Lbs.
1 3/4 x 84	71.47
96	71.47
2 x 84	81.68
96	81.68
2 1/8 x 96	86.79
2 1/4 x 84	91.89
96	91.89
2 3/8 x 96	97.00
2 1/2 x 84	102.1
96	102.1
2 3/4 x 96	112.3
2 7/8 x 96	117.4
3 x 84	122.5
96	122.5
3 1/4 x 96	132.7
3 1/2 x 96	142.9
4 x 96	163.4
4 1/4 x 96	173.6
4 1/2 x 96	183.8
5 x 96	204.2
5 1/4 x 96	214.4
5 1/2 x 96	224.6
6 x 96	245.0
6 1/2 x 96	265.5

Alloy Steel Plates

4140 Stress-Relieved Annealed plate has superior cleanliness from vacuum degassing. 4140 provides uniform response to heat treatment, internal soundness and improved service life for machined parts.

8620 features a more uniform case depth, improved hardness, wear characteristics, higher core properties and less distortion than ordinary carbon steel. Used in applications requiring a hard case and high core property.

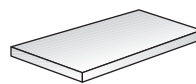


Plate – Alloy Steel 4140 SR/A

4140 SR/A vacuum degassed, fine grain. Material is stress relieved or full annealed
Meets ASTM A829.

Size In Inches	Weight per Sq. Ft. in Lbs.
1/4 x 90	10.21
96	10.21
3/8 x 84	15.32
1/2 x 84	20.42
96	20.42
5/8 x 84	25.53
96	25.53
3/4 x 84	30.63
96	30.63
7/8 x 96	35.74
1 x 84	40.84
96	40.84
1 1/4 x 84	51.05
96	51.05
1 1/2 x 84	61.26
96	61.26
1 3/4 x 84	71.47
96	71.47
2 x 84	81.68
96	81.68
Continued	

Size In Inches	Weight per Sq. Ft. in Lbs.
2 1/4 x 84	91.89
96	91.89
2 1/2 x 84	102.1
96	102.1
2 3/4 x 84	112.3
96	112.3
3 x 84	122.5
96	122.5
3 1/4 x 96	132.7
3 1/2 x 84	142.9
96	142.9
4 x 96	163.4
4 1/4 x 96	173.6
4 1/2 x 96	183.8
5 x 96	204.2
6 x 84	245.0
96	245.0
8 x 84	326.7
96	326.7
10 x 60	408.4

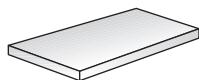


Plate – Alloy Steel

8620 – Case Hardening
As Rolled Meets ASTM A829

Size In Inches	Weight per Sq. Ft. in Lbs.
1/2 x 84	20.42
96	20.42
5/8 x 84	25.53
3/4 x 84	30.63
96	30.63
1 x 96	40.84
1 1/8 x 96	45.95
Continued	

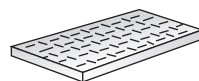
Size In Inches	Weight per Sq. Ft. in Lbs.
1 1/4 x 96	51.05
1 1/2 x 96	61.26
1 3/4 x 96	71.47
2 x 96	81.68
2 1/4 x 96	91.89
2 1/2 x 96	102.1
2 3/4 x 96	112.3
3 x 96	122.5



Diamond Tread Pattern

Diamond Tread Aluminum Floor Plate

Available in bright reflective finish and mill finish. Raised lugs are on approximately 1" centers.



Floor Plate Medium Pattern

Low Carbon Steel
Conforms to ASTM A786

Size In Inches	Weight per Sq. Ft. in Lbs.
16 x 36	3.000
48	3.000
14 x 36	3.750
48	3.750
12 x 48	5.250
60	5.250
1/8 x 36	6.160
48	6.160
60	6.160
72	6.160
3/16 x 36	8.710
48	8.710
Continued	

Size In Inches	Weight per Sq. Ft. in Lbs.
3/16 x 60	8.710
72	8.710
96	8.710
1/4 x 36	11.260
48	11.260
60	11.260
72	11.260
5/16 x 48	13.810
60	13.810
72	13.810
3/8 x 48	16.370
60	16.370
72	16.370

Stainless Diamond Tread Floor Plates

Type 304 – Available



Our lasers provide flexibility, fast turnaround and eliminate the need for most finishing operations.

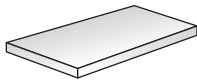


Plate – Chapin Laser Quality Plate

Plate that is specified to facilitate cutting by a Laser. Special attention given to cleanliness and flatness.

ASTM A36, A709-36, ASME SA 36 AASHTO. M270-36

Size In Inches	Weight per Sq. Ft. in Lbs.	Heading Title	
.250	10.21	60 X	120
.375	15.32	48 X	96
.375	15.32	60 X	120
.500	20.42	48 X	96
.500	20.42	60 X	120
.625	25.53	48 X	96
.625	25.53	60 X	120



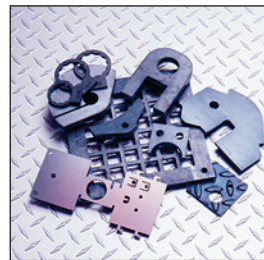
The lasers have full integration with CAD, nesting, DXF files, and common line cutting.



The lasers are capable of tolerances of +/- .004.

Laser Specifications

- Cuts Steel up to 3/4" Thick
- Cuts Stainless Steel up to 5/8" Thick
- Cuts Aluminum up to 3/8" Thick
- 84" x 240" Transfer Tables
- Capable of Tolerances of +/- .004
- Etch bend lines or other information on parts.
- Integration with CAD, nesting, DXF files, and common line cutting.



Some examples of the precision finishing the lasers provide.