

# INDUSTRY STANDARDS

MANHATTAN STEEL SUPPLY  
201-795-4060



*All products are produced to the listed standards except as noted*

**Astm A 6/A 6M:** Standard Specification for General Requirements of Rolled Structural Steel Bars, Plates, Shapers and Sheet Piling. Standard covers terminology, ordering information, testing information, quality information, nominal dimensions and permitted variations.

**ASTM A 36/A 6M:** Standard Specification for Carbon Structural Steel.

**ASTM A 328/A 328M:** Standard Specification for Steel Sheet Piling.

**ASTM A 370/A 370M:** Standard Test Methods and Definitions for Mechanical testing of steel products, including tension tests and Charpy impact testing.

**ASTM A 572/A 572M:** Standard Specification for High-Strength Low Alloy Structural Steel, up to 50 ksi Minimum Yield Point, with Atmospheric Corrosion Resistance.

**ASTM A 709/A 709M:** Standard Specification for Structural Steel for Bridges. The grades defined in A709 are the equivalent to other ASTM grades as listed below.

-A709 Grade 36 is same as ASTM A36

-A709 Grade 50 is same as ASTM A572 Grade 50

-A709 Grade 50S is same as ASTM A992

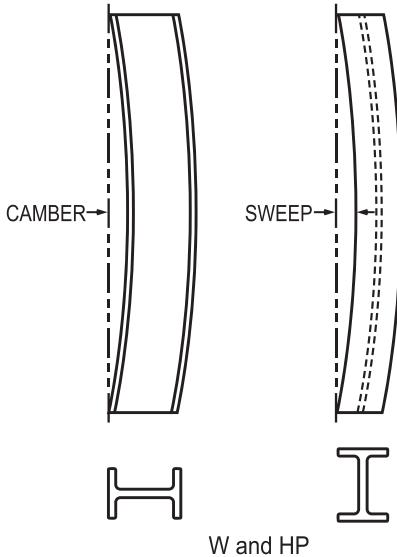
-A709 Grade 50W is same as ASTM A588 Grade B

ASTM A709 also defines Non-Fracture Critical (T) tension component and Fracture Critical (F) tension component impact testing requirements.

**ASTM A 992/A 992M:** Standard Specification for Structural Steel Shapes.

# INDUSTRY STANDARDS

MANHATTAN STEEL SUPPLY  
201-795-4060



Permitted Variation in  
Straightness in Inches  
for W and HP Shapes

Camber and Sweep (inches) =  $1/8 \times (\text{number of feet of total length}/10)$ A

When certain sections with a flange width approximately equal to depth are specified

in the order for use as columns, camber and sweep (inches):

Lengths 45 ft and under =  $1/8 \times (\text{number of feet of total length}/10)$  but not over  $3/8$

Lengths over 45 ft =  $[1/8 \times (\text{number of feet of total length} - 45)/10]$

A For sections with flange width less than 6 in. Permitted variation in sweep (inches) =  $1/8 \times (\text{number of feet of total length}/5)$

B Applies only to:

- 8 in. deep sections 31 lb/ft and heavier,
- 10 in. deep sections 49 lb/ft and heavier,
- 12 in. deep sections 65 lb/ft and heavier,
- 14 in. deep sections 90 lb/ft and heavier,
- 16 in. deep sections 88 lb/ft and heavier and
- 18 in. deep sections 135 lb/ft and heavier.

# SERVICE LOAD TABLES

MANHATTAN STEEL SUPPLY  
201-795-4060



## SERVICE LOAD TABLES

Type	Nominal Thick (in.)	Single Span (ft.)												
		4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00
22	0.030	150	(117)	(88)	(69)	(55)	(46)							
20	0.036	183	145	(110)	(85)	(68)	(56)	(46)						
18	0.048	251	198	(154)	(118)	(94)	(76)	(63)	(53)	(45)				
16	0.060	315	249	(192)	(147)	(115)	(93)	(76)	(64)	(54)	(47)	(41)		
Type	Nominal Thick (in.)	Double Span (ft.)												
		4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00
22	0.030	152	121	98	81	69	59	51	44					
20	0.036	186	148	120	100	84	72	62	54	47	42			
18	0.048	256	203	164	136	114	97	84	73	64	57	51	45	41
16	0.060	318	251	204	168	141	120	104	90	80	70	63	56	51
Type	Nominal Thick (in.)	Triple Span (ft.)												
		4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00
22	0.030	188	148	120	99	83	71	61	53	(46)	(40)			
20	0.036	229	181	146	121	102	87	75	65	(56)	(48)	(42)		
18	0.048	313	247	200	166	139	119	102	89	(76)	(65)	(57)	(50)	(44)
16	0.060	394	312	252	209	175	149	129	(112)	(94)	(80)	(69)	(60)	(53)

# SERVICE LOAD TABLES

MANHATTAN STEEL SUPPLY  
201-795-4060



## SERVICE LOAD TABLES

Type	Nominal Thick (mm)	Single Span (mm)												
		1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
22	0.76	7.42	5.86	(4.41)	(3.43)	(2.75)	(2.27)							
20	0.91	9.04	7.15	(5.50)	(4.25)	(3.39)	(2.77)	(2.31)	(1.97)					
18	1.21	12.38	9.78	(7.72)	(5.92)	(4.67)	(3.78)	(3.12)	(2.63)	(1.95)				
16	1.52	15.59	12.32	(9.61)	(7.34)	(5.76)	(4.64)	(3.81)	(3.18)	(2.34)	(2.04)			
Type	Nominal Thick (mm)	Double Span (mm)												
		1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
22	0.76	7.52	5.97	4.85	4.02	3.39	2.89	2.50	2.18	1.92				
20	0.91	9.19	7.30	5.93	4.92	4.14	3.53	3.05	2.66	2.34	2.07			
18	1.21	12.67	10.01	8.11	6.70	5.63	4.80	4.14	3.53	3.05	2.66	2.34	2.07	
16	1.52	15.72	12.42	10.06	8.32	6.99	5.95	5.13	4.47	3.93	3.48	3.11	2.79	2.52
Type	Nominal Thick (mm)	Triple Span (mm)												
		1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
22	0.76	9.27	7.33	5.94	4.91	4.12	3.51	3.03	2.64	(2.29)	(1.99)			
20	0.91	11.31	8.93	7.24	5.98	5.02	4.28	3.69	3.22	(2.79)	(2.41)	(2.10)		
18	1.21	15.47	12.23	9.90	8.18	6.88	5.86	5.05	4.40	(3.82)	(3.26)	(2.82)	(2.47)	(2.19)
16	1.52	19.49	15.40	12.47	10.31	8.66	7.38	6.36	5.54	(4.69)	(3.99)	(3.43)	(2.99)	(2.63)

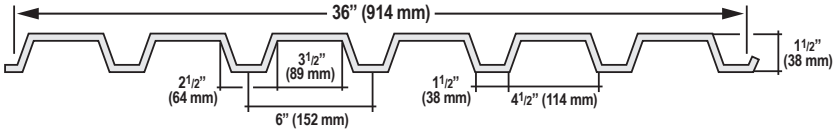
# DECKING

MANHATTAN STEEL SUPPLY  
201-795-4060



## CORRUGATED STEEL DECKING

### Dimensions



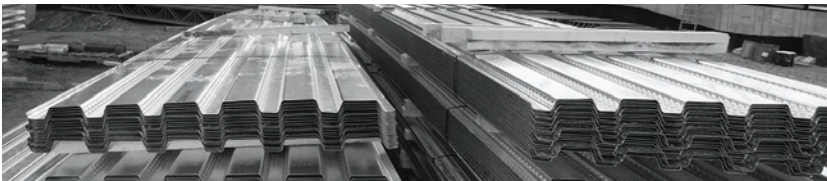
Our steel deck is rook-formed to cover 36 in. (914 mm) in width. The flutes are 1.5 in. (38 mm) deep and are spaced at 6 in. (152 mm) on center. The deck can be rolled to lengths from 6ft (1,800 mm) to 42 ft 6 in. (13,000 mm) and stacked in bundles that will not exceed 4,000 pounds (1,800 kg) unless requested otherwise by the customer.

These decks are readily available with steel galvanized according to ASTM standard A 653 with zinc thicknesses corresponding to G90 (Z275), G60 (Z180) or A25 (ZF75).

We also offer gray painted deck.

Other finishes are available upon request;  
please check with our sales department for availability.

Nominal thicknesses range from 0.030 in. (0.76 mm) to 0.060 in. (1.52 mm).



# GRATING

MANHATTAN STEEL SUPPLY  
201-795-4060



## FLATTENED EXPANDED STOCK LIST

Style	#Sq. Ft.	Design Size		Opening Size		Strand Size		Overall Thickness	Meshes Per Ft.		Open Area
		SWD	LWD	SWO	LWO	Thickness	Width		SWD	LWD	
3/16 #22 F	.43#	.20"	.51"	.115"	.300"	.024"	.040"	.024"	60	23	55%
1/4 #20 F	.82#	.25"	1.05"	.110"	.715"	.030"	.079"	.030"	48	11.6	35%
1/4 #18 F	1.08#	.25"	1.05"	.118"	.715"	.040"	.080"	.040"	48	11.6	35%
1/2 #20 F	.40#	.50"	1.25"	.375"	1.00"	.029"	.079"	.029"	24	9.5	65%
1/2 #18 F	.66#	.50"	1.25"	.312"	1.00"	.039"	.097"	.039"	24	9.5	60%
1/2 #16 F	.82#	.50"	1.25"	.312"	1.00"	.050"	.096"	.050"	24	9.5	63%
1/2 #13 F	1.40#	.50"	1.25"	.265"	1.00"	.078"	.107"	.078"	24	9.5	52%
3/4 #16 F	.51#	.923"	2.10"	.750"	1.75"	.048"	.111"	.048"	13	5.7	74%
3/4 #14 F	.63#	.923"	2.10"	.688"	1.813"	.061"	.105"	.070"	13	5.7	74%
3/4 #13 F	.75#	.923"	2.10"	.688"	1.781"	.078"	.106"	.070"	13	5.7	74%
3/4 #9 F 10ga.	1.71#	.923"	2.10"	.563"	1.688"	.120"	.165"	.120"	13	5.7	63%
1 #16 F	.41#	1.00"	2.50"	.813"	2.250"	.050"	.098"	.050"	12	4.68	78%
1-1/2 #16 F	.38#	1.33"	3.20"	1.062"	2.750"	.048"	.119"	.048"	9	3.75	83%
1-1/2 #13 F	.57#	1.33"	3.20"	1.062"	2.750"	.078"	.116"	.078"	9	3.75	80%
1-1/2 #9 F 10ga.	1.14#	1.33"	3.20"	1.000"	2.563"	.110"	.158"	.110"	9	3.75"	75%

# GRATING

MANHATTAN STEEL SUPPLY  
201-795-4060



## BAR GRATING

Series	GW, SGW	GHB	GAL, SFT Flush Top, I-Bar GIA, Safe- T-Grid	GAA, GCM
Materials	Plain Steel, Galvanized Stainless	Plain Steel, Galvanized	Aluminum Stainless	Plain Steel, Galvanized Aluminum
Surface	Smooth or Serrated	Smooth or Serrated	Smooth, Grooved or Serrated	Smooth or Serrated
Bar Thickness	1/8", 3/16"	1/4" 5/16", 3/8" special order	1/8", 3/16", 1/4", .94" Safe-T-Grid	3/16"
Bar Heights	3/4" to 2-1/2"	1" to 3"	1" to 2-1/2"	1" to 2"
Standard Sizes	2'x20' 3'x20' 2'x12' 3'x12' 2'x24' 3'x24'	3'x20'	2'x20' 2'x24' 3'x20' 3'x24'	3'x12', 3'x24' (GAA Only)

**Quality Bar Grating is the top choice for Strength, Safety and Overall Value!**

Bar Grating provides a load bearing surface but allows air, light, heat, sound and fluid pass through. Bar Grating is strong, durable and virtually maintenance free.

# STEEL REBAR

MANHATTAN STEEL SUPPLY  
201-795-4060



## STEEL REBAR SIZES & REBAR STOCK

Imperial Bar Size	"Soft" Metric Size	Weight per unit length (lb/ft)	Mass per unit length (kg/m)	Nominal Diameter (in)	Nominal Diameter (mm)	Nominal Area (in <sup>2</sup> )	Nominal Area (mm <sup>2</sup> )
#3	#10	0.376	0.561	0.375	9.525	0.11	71
#4	#13	0.668	0.996	0.500	12.7	0.2	129
#5	#16	1.043	1.556	0.625	15.875	0.31	200
#6	#19	1.502	2.24	0.750	19.05	0.44	284
#7	#22	2.044	3.049	0.875	22.225	0.6	387
#8	#25	2.67	3.982	1.000	25.4	0.79	509
#9	#29	3.4	5.071	1.128	28.65	1	645
#10	#32	4.303	6.418	1.27	32.26	1.27	819
#11	#36	5.313	7.924	1.41	35.81	1.56	1006
#14	#43	7.65	11.41	1.693	43	2.25	1452
#18	#57	13.6	20.284	2.257	57.33	4	2581

We stock a wide variety of rebar sizes from #3-#10; grades: 40, 60 and A706 (weldable); lengths: 20', 30', 40' and 60'; and finishes: black, epoxy, or A1035 (MMFX). We are committed to having what our customers need when they need it. As a subsidiary of Nucor, we have access to rebar across the US and internationally through Nucor Trading. We can find what you're looking for, whatever it is.