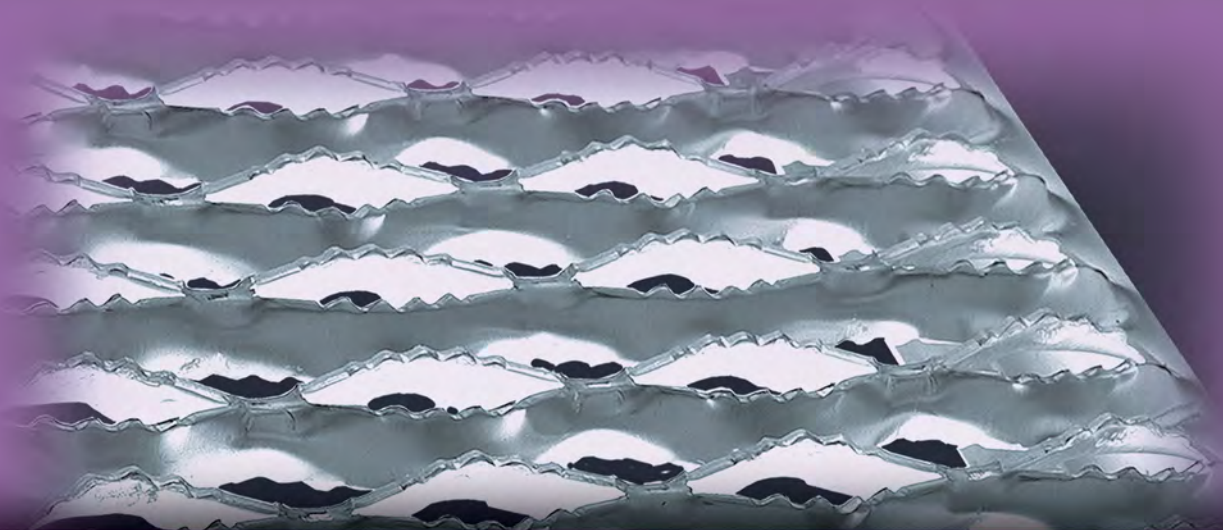
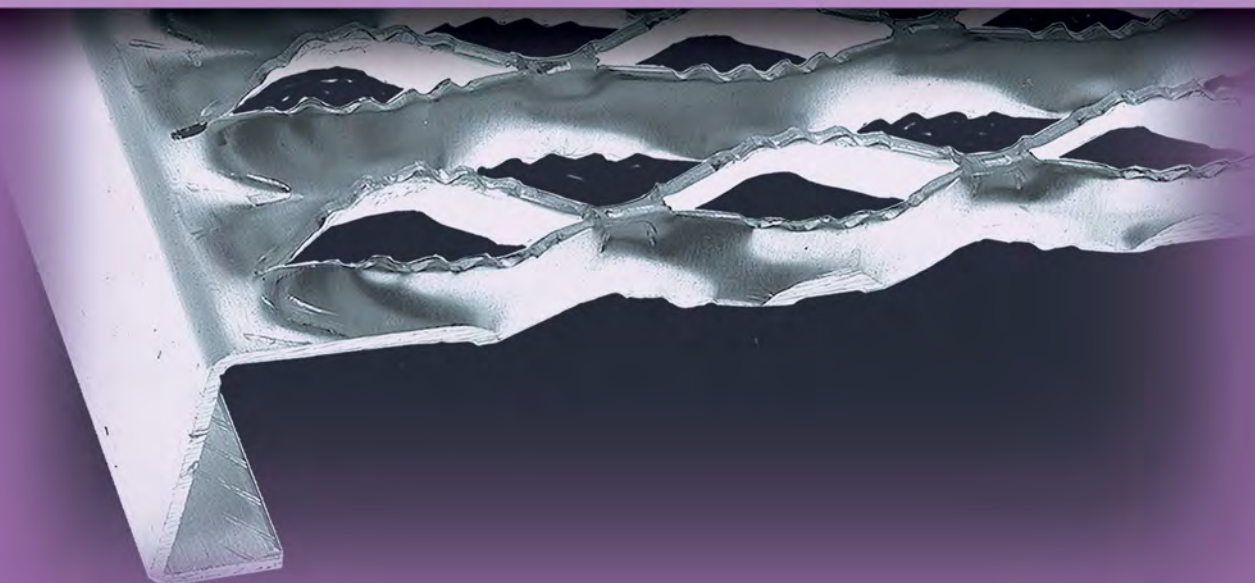


McNICHOLS CO.



**GRIP
STRUT®**



Plank Walkway Treads Rungs

GRIP STRUT® Plank Grating

Safer Serrated Surface

Easy Install

Maintenance Free Design

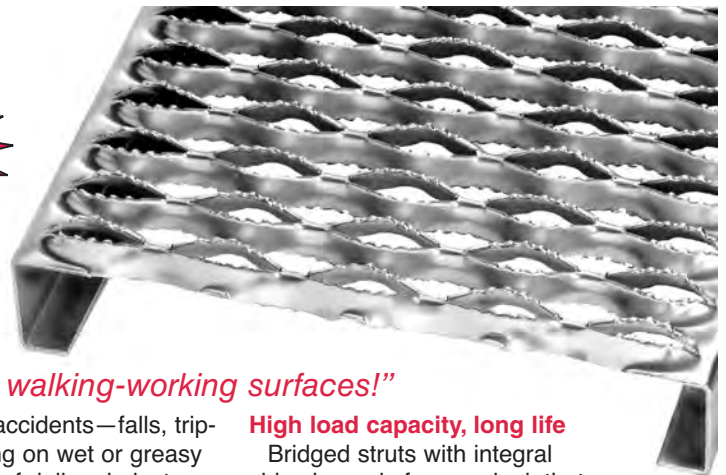
High Load Capacity

Versatile in Application

Long Life

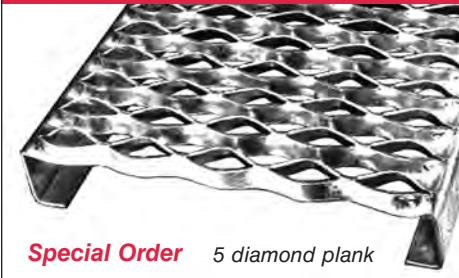


Photo shows serrated surface 5 diamond plank.



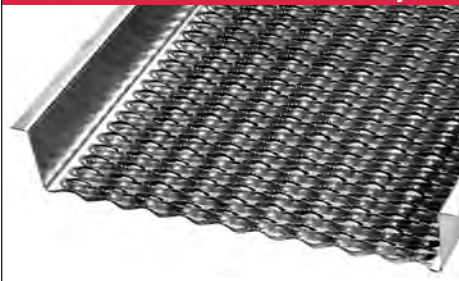
“For the safest walking-working surfaces!”

GRIP STRUT® Non-serrated Surface



Special Order 5 diamond plank

GRIP STRUT® 10-Diamond Walkway



GRIP STRUT® Stair Tread



3 diamond shown

GRIP STRUT® Ladder Rungs

Reverse Diamond Rungs -
Diamonds can also run the opposite direction by special order.



Every year industrial accidents—falls, tripping over debris, slipping on wet or greasy surfaces—cost millions of dollars in lost manhours and production. By reducing accidents, insurance costs can frequently be decreased. GRIP STRUT® Safety Grating helps reduce accident rates by providing a safer walking-working surface than any other available grating product. Its serrated surface gives maximum slip protection and performance under practically all conditions and in every direction.

In addition to safety, the resilient surface of GRIP STRUT cushions the impact of footfalls thereby lessening worker fatigue and increasing efficiency. GRIP STRUT is your best safety buy.

Safer, serrated surface

These non-slip GRIP STRUT surfaces are ideal for inside or outside locations where mud, ice, snow, oil and detergents can create hazardous walking conditions. Openings are small enough to catch most falling tools and other dangerous objects.

Maintenance-free open design

Permits quick drainage of fluids, chips, grease and mud. Any ice accumulation shears easily under normal foot pressure. Open design allows convenient access for cleaning.

High load capacity, long life

Bridged struts with integral side channels form a plank that can support loads with minimum transverse and longitudinal deflection. There are no rivets or pressure joints to break or loosen. This sturdy construction provides the advantages of heavy load carrying capacity with minimal deflection, rugged durability with longer-lasting performance.

With 4-1/2 inch high side channels, GRIP STRUT Walkways meet OSHA requirements for toeboards on elevated structures.

Fast installation

Light, easy-to-handle planks make installation simpler and quicker. They can be handled by one man. Most sections are rapidly bolted, clamped or welded into place, easily field cut at virtually any angle, or fabricated to adapt to field conditions.

Economical to install, use

Standard mill-galvanized finish resists corrosion. High-strength aluminum and Types 304 and 316L stainless steel are available to provide maximum corrosion resistance. Black unpainted steel is available for installations requiring hot dip galvanized finish after fabrication.



GRIP STRUT® planks make safe secure walkways beside train tracks.



GRIP STRUT® rooftop walkway was used to make safe work environment for employees.

GRIP STRUT® Plank Grating

STOCK LIST

CATALOG NO	DIAMOND	WIDTH	HEIGHT
PRE-GALVANIZED STEEL-14 GA.-SERRATED			
11014 Rung*	1	2-1/2"	1-1/8"
21514*	2	4-3/4"	1-1/2"
22014*	2	4-3/4"	2"
31514*	Standard lengths	7"	1-1/2"
32014*	10', 12', or cut-to-size.	7"	2"
41514*	4	9-1/2"	1-1/2"
42014*	Special lengths up to 24 feet available.	9-1/2"	2"
51514*	5	11-3/4"	1-1/2"
52014*	5	11-3/4"	2"
81514*	8	18-3/4"	1-1/2"
82014*	8	18-3/4"	2"
102014*	10	24"	2"
104514-U Walkway	10	24"	4-1/2"

CATALOG NO	DIAMOND	WIDTH	HEIGHT
PRE-GALVANIZED STEEL-12 GA. SERRATED			
21512*	2	4-3/4"	1-1/2"
22012	2	4-3/4"	2"
31512*	3	7"	1-1/2"
32012*	3	7"	2"
41512*	4	9-1/2"	1-1/2"
42012*	4	9-1/2"	2"
51512*	5	11-3/4"	1-1/2"
52012*	5	11-3/4"	2"
52512	5	11-3/4"	2-1/2"
53012	5	11-3/4"	3"
81512*	8	18-3/4"	1-1/2"
82012*	8	18-3/4"	2"
82512	8	18-3/4"	2-1/2"
102012*	10	24"	2"
103012	10	24"	3"
104512-U Walkway	10	24"	4-1/2"

SAME DAY STOCK SHIPMENT

CATALOG NO	DIAMOND	WIDTH	HEIGHT
ALUMINUM-.080" GA.-TYPE 5052 SERRATED			
21512-A (.100)	2	4-3/4"	1-1/2"
22012-A	2	4-3/4"	2"
32012-A**	3	7"	2"
32512-A	3	7"	2-1/2"
41512-A	4	9-1/2"	1-1/2"
42012-A**	4	9-1/2"	2"
42512-A	4	9-1/2"	2-1/2"
51512-A**	5	11-3/4"	1-1/2"
52012-A**	5	11-3/4"	2"
52512-A	5	11-3/4"	2-1/2"
82012-A	8	18-3/4"	2"

Stock items are not carried in all locations and on-hand quantities are subject to change. Stock outages are possible.

CATALOG NO	DIAMOND	WIDTH	HEIGHT
STAINLESS STEEL-16 GA. TYPE 304 SERRATED			
22016-S	2	4-3/4"	2"
42016-S	4	9-1/2"	2"
52016-S	5	11-3/4"	2"

*Also available in "Black" (plain steel)-add "B" to catalog number when ordering.
 **Also available in .100" thickness Aluminum-change last 2 digits in catalog number to "10A" when ordering.

FULL DIAMOND LENGTH CHART									
DIA.	LENGTH	DIA.	LENGTH	DIA.	LENGTH	DIA.	LENGTH	DIA.	LENGTH
1	1-1/8"	26	29-1/4"	51	57-3/8"	76	85-1/2"	101	113-5/8"
2	2-1/4"	27	30-3/8"	52	58-1/2"	77	86-5/8"	102	114-3/4"
3	3-3/8"	28	31-1/2"	53	59-5/8"	78	87-3/4"	103	115-7/8"
4	4-1/2"	29	32-5/8"	54	60-3/4"	79	88-7/8"	104	117"
5	5-5/8"	30	33-3/4"	55	61-7/8"	80	90"	105	118-1/8"
6	6-3/4"	31	34-7/8"	56	63"	81	91-1/8"	106	119-1/4"
7	7-7/8"	32	36"	57	64-1/8"	82	92-1/4"	107	120-3/8"
8	9"	33	37-1/8"	58	65-1/4"	83	93-3/8"	108	121-1/2"
9	10-1/8"	34	38-1/4"	59	66-3/8"	84	94-1/2"	109	122-5/8"
10	11-1/4"	35	39-3/8"	60	67-1/2"	85	95-5/8"	110	123-3/4"
11	12-3/8"	36	40-1/2"	61	68-5/8"	86	96-3/4"	111	124-7/8"
12	13-1/2"	37	41-5/8"	62	69-3/4"	87	97-7/8"	112	126"
13	14-5/8"	38	42-3/4"	63	70-7/8"	88	99"	113	127-1/8"
14	15-3/4"	39	43-7/8"	64	72"	89	100-1/8"	114	128-1/4"
15	16-7/8"	40	45"	65	73-1/8"	90	101-1/4"	115	129-3/8"
16	18"	41	46-1/8"	66	74-1/4"	91	102-3/8"	116	130-1/2"
17	19-1/8"	42	47-1/4"	67	75-3/8"	92	103-1/2"	117	131-5/8"
18	20-1/4"	43	48-3/8"	68	76-1/2"	93	104-5/8"	118	132-3/4"
19	21-3/8"	44	49-1/2"	69	77-5/8"	94	105-3/4"	119	133-7/8"
20	22-1/2"	45	50-5/8"	70	78-3/4"	95	106-7/8"	120	135"
21	23-5/8"	46	51-3/4"	71	79-7/8"	96	108"	121	136-1/8"
22	24-3/4"	47	52-7/8"	72	81"	97	109-1/8"	122	137-1/4"
23	25-7/8"	48	54"	73	82-1/8"	98	110-1/4"	123	138-3/8"
24	27"	49	55-1/8"	74	83-1/4"	99	111-3/8"	124	139-1/2"
25	28-1/8"	50	56-1/4"	75	84-3/8"	100	112-1/2"	125	140-5/8"

A. Above noted even foot incremental material from 7" thru 14" will be shipped at the lengths indicated to a tolerance of -0" +1/4" and will be invoiced as even foot material e.g., 7'0", 8'0", etc.
 B. Lengths for 1/2 Diamond Multiple equals length for full Diamonds plus 9/16", with tolerance of -0" +1/4".

HOW TO ORDER/SPECIFY

Simply call 1-800-237-3820, and we will be ready to help you with your order. Your inquiry or order will process more quickly if you have the following information ready when you call.

CONSIDER:

- Application or use of product
- Physical requirements
 - A. loading B. open area C. slip resistance

PLEASE SPECIFY:

- "GRIP STRUT® Safety Grating"
- Quantity:** number of pieces or planks required
- Material:**
 - Pre-Galvanized Steel 14 or 12 gauge
 - Black (plain) Steel 14 or 12 gauge
 - Aluminum 5052 .080" thick (12 ga.) or .100" (10 ga.)
 - Stainless Steel-Type 304 16 gauge
 - Stainless Steel-Type 316L 16 gauge (special order)

6. Width:

Ladder Rung*	2-1/2"	1-Diamond*
Plank	4-3/4"	2-Diamond
	7"	3-Diamond
	9-1/2"	4-Diamond
	11-3/4"	5-Diamond
	18-3/4"	8-Diamond
	24"	10-Diamond
Walkway	24"	10-Diamond

* Also available as reverse diamond by special order-1-5/8" wide.

7. Height:

Ladder Rung	1-1/8"
Reversed Diamond Ladder Rung	1-5/8"
Plank	1-1/2", 2", 2-1/2" or 3"
Walkway	4-1/2" depth

(all heights are not available for all gauges/widths—please inquire)

- Length:** 10' or 12' or cut-to-size (special lengths to order up to 24')
- Surface:** Serrated is standard, non-serrated by special order
- Special requirements or fabrication (e.g., flat stock, forming, reconditioned material, etc.) if any
- Specify any required accessories such as clamps, splice plates, etc.
- Catalog number:** generally 5-6 digits, may have a prefix or suffix

1st numeral denotes number of diamonds to width or plank

- 3 = 3-diamond (32012)
- 5 = 5-diamond (52012)
- 10 = 10-diamond (104512 in this case the first 2 numerals)

2nd & 3rd numeral denote height-plank or depth-walkway

- 15 = 1-1/2" height
- 20 = 2" height and so on
- 45 = 4-1/2" depth (walkway only)

4th and 5th numeral denote gauge

- 16 = stainless steel
- 14 = galvanized steel or plain steel
- 12 = galvanized steel or plain steel or .080" thick aluminum
- 10 = aluminum .100" thick (10 ga.)

EXAMPLES:

- 32012 = 3-Diamond Plank 2" height 12 gauge galvanized steel
- 32012-B = 3-Diamond Plank 2" height 12 gauge black (plain) steel
- 32012-A = 3-Diamond Plank 2" height .080" (12 gauge) aluminum
- 42016-S = 4-Diamond Plank 2" height 16 gauge stainless steel type 304
- 104512-U = 10-Diamond Walkway, 4-1/2" depth, 12 gauge, galv. steel
- T-32012-N = 3-Diamond Tread with abrasive nosing, 2" height, 12 gauge, galvanized steel

Prefix:
 "T" = Stair Tread
 "H" = Heavy Duty
Suffix:
 "N" = Tread with Abrasive Nosing
 "B" = Black (plain steel)
 "A" = Aluminum
 "S" = Stainless Steel Type 304
 "SL" = Stainless Steel Type 316L
 "U" = Walkway

TO PLACE AN ORDER CALL:

1-800-237-3820

FAX: See page 2 for nearest service center.





GRIP STRUT® Grating's non-slip properties make it an ideal material choice for industrial walkways and platforms.

MATERIAL:

- Steel 12 & 14 gauge (mill galvanized before fabrication)
- Aluminum .080" 5052-H32 or .100" 5052-H32
- Plain steel (unpainted and oiled steel) 12 & 14 gauge
- Stainless steel 304 16 gauge (316 L special order)

HEIGHTS:

- Plank: 1-1/2", 2", 2-1/2", 3"
- Walkway: 4-1/2" (depth)

WIDTHS:

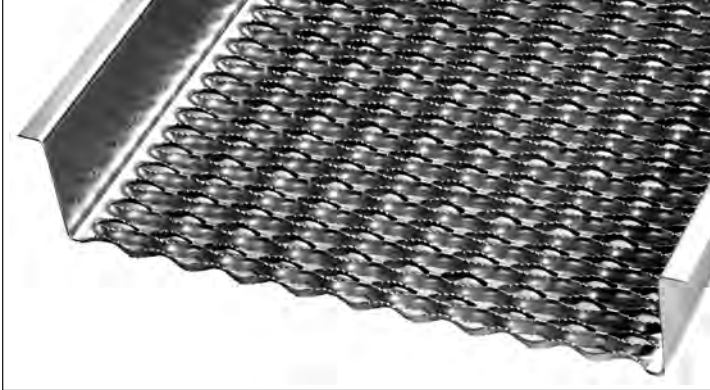
- Plank: 4-3/4", 7", 9-1/2", 11-3/4", 18-3/4", 24"
- Walkway: 24"

LENGTHS:

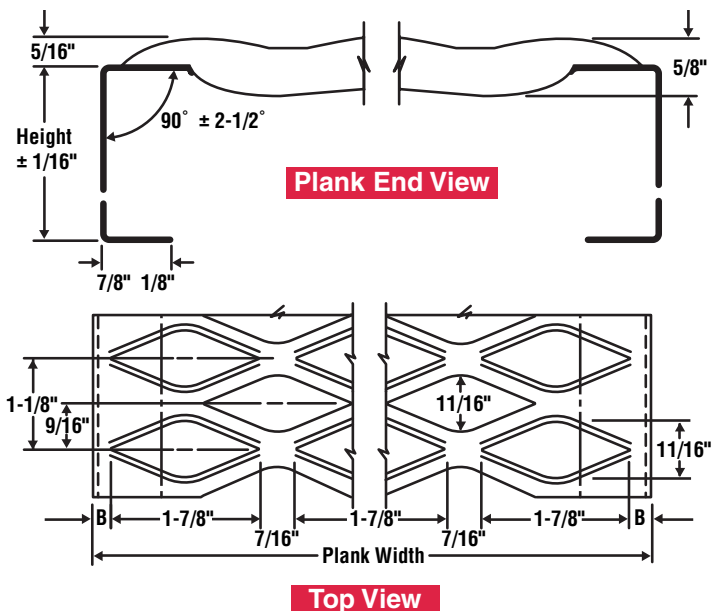
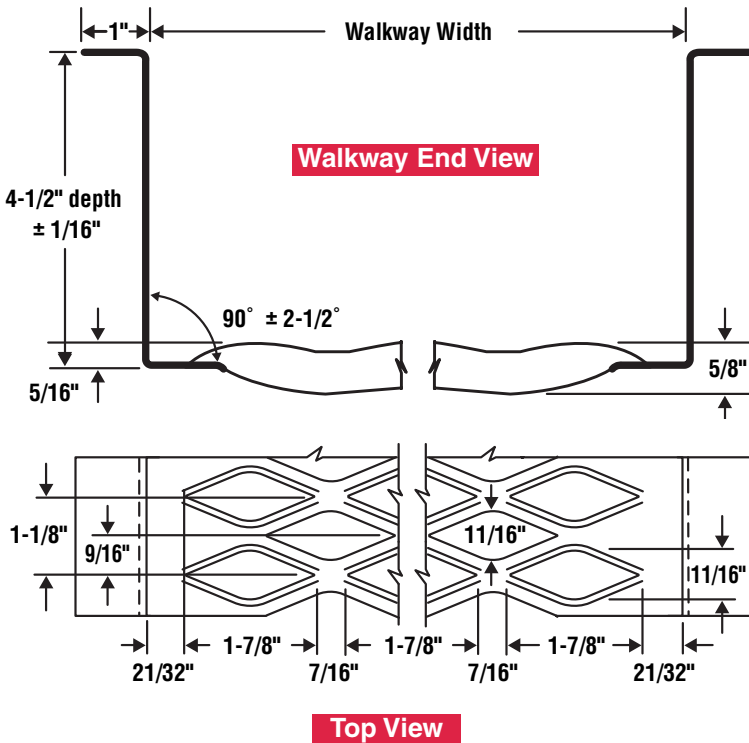
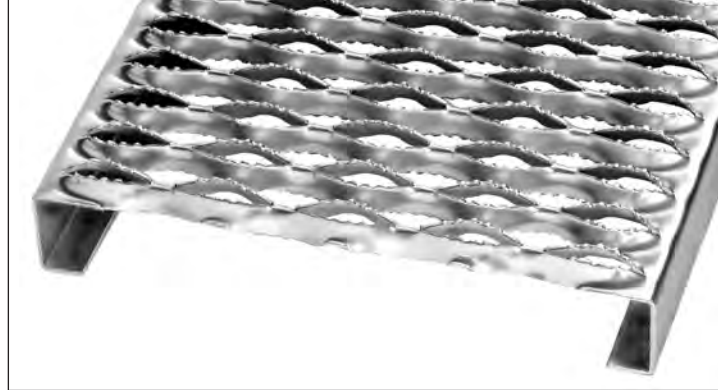
- 10' or 12'
- Cut-to-size

Now available in lengths up to 24' please inquire

GRIP STRUT® 10-Diamond Walkway



GRIP STRUT® 5-Diamond Plank



GRIP STRUT® Plank Details					
Description	Width	"B"	Description	Width	"B"
2-Diamond	4-3/4"	9/32"	5-Diamond	11-3/4"	5/16"
3-Diamond	7"	1/4"	8-Diamond	18-3/4"	11/32"
4-Diamond	9-1/2"	11/32"	10-Diamond	24"	21/32"

GRIP STRUT® Plank Grating

The following information refers to Regular or Heavy Duty GRIP STRUT® Safety Grating or GRATE-LOCK® Grating hereinafter referred to as “grating.”

Load Tables:

GRIP STRUT® p. 51
 Heavy Duty GRIP STRUT® p. 65
 GRATE-LOCK® p. 70

HOW TO READ LOAD TABLES:

To select size of grating, determine load, clear span and deflection requirements. Having this information, select from the appropriate load tables for regular GRIP STRUT, Heavy Duty GRIP STRUT or GRATE-LOCK Grating to find the appropriate plank to meet job requirements.

FOR EXAMPLE: If you require a clear span of 4'-0", concentrated load of 300 lbs. at 0.25" max. deflection and have chosen regular Grip Strut, you would verify the following:

8-Diamond GRIP STRUT, 18-3/4" wide, 2-1/2" height, 12-gauge steel will carry a load of 416 lbs. at a 0.18" deflection. This is one size to do the job. Other sizes will carry more load if necessary. For more economical selection, choose the greatest width that will support the load consistent with job requirements and choose deeper channels rather than heavier steel gauges.

Grating will generally carry similar concentrated loads, tabulated in pounds at mid-span, for a given span, material gauge and height, regardless of width. The uniform load tables are tabulated in lb./sq. ft., which accounts for the difference in load capacity shown for various widths. Deflection is in inches.

To ensure the safety of the tabulated loads, two aspects of grating strength must be considered. The first consideration is transverse bending in the grating surface, which is referred to as “strut flexure.” This occurs when the grating is loaded with either a uniform load or a mid-width concentrated load, and the “struts” (grating surface) deflect rela-

tive to the side channels. To determine the allowable strut loads, samples of each plank material and thickness were tested for each plank width. (see Fig. 3.) The data resulting from these tests was used to prepare “strut loading” tables for regular GRIP STRUT and Heavy Duty GRIP STRUT and “rung loading” tables for GRATE-LOCK Grating, which give allowable loads and deflections considering strut flexure only. These allowable strut and rung loads have been incorporated in the Product Selection/

Design Tables for regular GRIP STRUT and GRATE-LOCK Grating (not Heavy Duty GRIP STRUT).

The second aspect of the grating strength is channel flexure. This occurs when the channels at mid-span of the grating deflect relative to support points. To verify the performance of the side channels, samples were loaded with concentrated and uniform loads at different spans. To approximate the most severe condition, there were no attachments between the channels and the supports. In cases where spans are shorter, channels deeper and grating wider, strut flexure becomes more critical.

With the exception of 8 and 10-Diamond regular GRIP STRUT, it can be assumed that both side channels and all widths of GRATE-LOCK and Heavy Duty GRIP STRUT effectively support the concentrated load, and the grating surface deflection is negligible. Based upon these assumptions, the following values found in the load tables have been determined:

If grating surface deflection should be considered when selecting a product to meet a particular specification, then the deflection of the mid-width of the grating, relative to the side channels, can be calculated using both the data in the Strut Loading Tables and the Load/Deflection Conversion formula.

All load tables show maximum loads, based upon actual load tests. Loads are designated: (U) for uniform in lb./ft.², (C) for concentrated in lbs., (D) for corresponding deflections in inches.

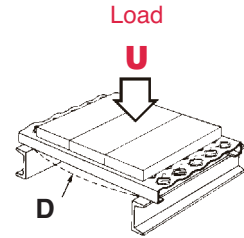


Fig. 1
UNIFORM LOAD (U)
application to all grating: Maximum load (lb./SF) permitted by flexural stress in side rail or grating strut, whichever is lower, applied to entire grating area (full-width by clear span) between supports.

DEFLECTION (D) in all walkways/planks: Deflection (in) corresponding to maximum load (U) or (C) permitted by flexural stress in side rail or grating strut, whichever is lower, applied as defined in Figs. 1 or 2, and 3.

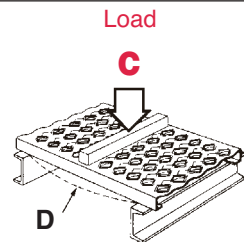


Fig. 2
CONCENTRATED LOAD (C)
application to all walkways/planks: Maximum load (lb) permitted by flexural stress in siderail or grating strut, whichever is lower, applied transversely to total width of grating at mid-span and assumed to be carried equally by both siderails.

DEFLECTION (D) in all walkways planks: Deflection (in) corresponding to maximum load (U) or (C) permitted by flexural stress in side rail or grating strut, whichever is lower, applied as defined in Figs. 1 or 2, and 3.

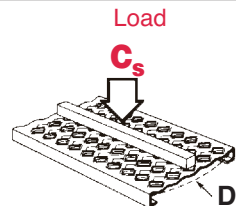


Fig. 3
CONCENTRATED LOAD (Cs)
application to grating surface struts of all walkways/planks: Maximum load (lb./ft.) permitted by flexural stress in grating strut, applied longitudinally to a 1 ft. length of grating at mid-width.

STRUT DEFLECTION (Ds) in all walkways/planks: Deflection (in) corresponding to maximum concentrated strut load (Cs), permitted by flexural stress in grating surface strut, applied longitudinally to a 1 ft. length of grating at mid-width.



Safe, serrated GRIP STRUT® was used for this suspension bridge over the Canadian Tutshi River and Canyon.



GRIP STRUT® provides excellent traction and safety for workers.



See stock list p. 48

GRIP STRUT® Plank Grating



GRIP STRUT® plank serves as an excellent, non-slip step and platform assembly over pipes at this industrial location.

GRIP STRUT® is slip-resistant in all directions.

GRIP STRUT® 2-DIAMOND PLANK (4-3/4" WIDTH)



LOAD TABLE

Material	Height in. (mm)	#/LF (Kg/m)	Catalog Number	Clear Span																			
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"			
STEEL 14 ga.	1-1/2 (38.1)	2.3 (3.42)	21514	U	1324	849	591	435	334	265	215	179	151										
				D	.06	.10	.14	.20	.26	.32	.40	.49	.58										
				C	524	420	351	301	265	236	213	195	179										
				D	.05	.08	.11	.16	.20	.26	.32	.39	.47										
				U	2198	1409	980	721	553	438	356	295	248	212	184	161	142	113	93				
				D	.06	.09	.13	.17	.23	.29	.35	.43	.51	.60	.70	.81	.92	1.18	1.47				
	2	(50.8)	2.6 (3.87)	22014	C	870	697	582	499	438	390	352	321	295	273	255	239	225	201	183			
					D	.04	.07	.10	.14	.18	.23	.28	.34	.41	.48	.56	.65	.74	.94	1.18			
					U	2522	1616	1124	827	634	502	408	338	285	244	211	184	163	130	106	88	75	
					D	.04	.06	.08	.11	.14	.18	.23	.27	.33	.38	.45	.51	.59	.75	.94	1.14	1.38	
					C	998	800	667	573	502	447	404	368	338	313	292	273	257	231	210	193	178	
					D	.03	.04	.06	.09	.11	.15	.18	.22	.26	.31	.36	.41	.47	.60	.75	.92	1.10	
STEEL 12 ga.	1-1/2 (38.1)	3.2 (4.76)	21512	U	1751	1123	782	576	443	351	286	237	200	172	149	131	116						
				D	.07	.11	.15	.21	.27	.35	.43	.52	.62	.74	.86	.99	1.14						
				C	693	556	464	399	350	313	283	258	238	221	206	194	183						
				D	.05	.08	.12	.17	.22	.28	.34	.42	.50	.59	.69	.79	.91						
				U	2792	1790	1245	917	703	557	453	375	317	271	235	205	181	145	119	99	85		
				D	.05	.08	.11	.16	.20	.26	.32	.39	.46	.55	.64	.73	.84	1.07	1.34	1.64	1.98		
	2	(50.8)	3.6 (5.36)	22012	C	1105	886	739	635	557	496	448	409	376	348	325	305	287	258	235	216		
					D	.04	.06	.09	.12	.16	.21	.26	.31	.37	.44	.51	.59	.67	.86	1.07	1.31	1.58	
					U	4179	2676	1860	1368	1049	830	673	557	469	400	346	302	266	211	172	143	121	
					D	.04	.06	.09	.13	.17	.21	.26	.32	.38	.44	.51	.59	.67	.86	1.07	1.30	1.55	
					C	1654	1324	1104	948	830	739	666	606	557	515	479	448	421	376	341	312	288	
					D	.03	.05	.07	.10	.13	.17	.21	.25	.30	.35	.41	.47	.54	.69	.85	1.04	1.24	
ALUM. ALLOY 5052 12 ga. .080"	1-1/2 (38.1)	.85 (1.26)	21512-A	U	998	639	443	326	248	196	159	131	110	94									
				D	.10	.15	.22	.31	.40	.51	.63	.76	.90	1.08									
				C	395	316	263	226	197	175	157	143	131	121									
				D	.08	.12	.18	.25	.32	.41	.50	.61	.73	.85									
				U	1463	937	650	478	366	289	234	194	162	138	119								
				D	.08	.13	.18	.25	.33	.42	.52	.63	.74	.87	1.02								
	2	(50.8)	.92 (1.37)	22012-A	C	579	463	386	331	290	257	232	211	192	177	165							
					D	.06	.10	.15	.20	.27	.34	.42	.51	.59	.69	.80							
					U	2199	1407	977	718	550	434	352	291	244	208	179	156	137					
					D	.07	.10	.15	.21	.28	.35	.43	.53	.63	.74	.85	.98	1.12					
					C	870	696	580	497	435	387	348	316	290	268	249	232	218					
					D	.05	.08	.12	.17	.22	.28	.35	.42	.50	.59	.68	.78	.89					
ALUM. ALLOY 5052 10 ga. .100"	1-1/2* (38.1)	1.08 (1.60)	21510-A	U	1136	727	505	371	284	224	181	149	125	107									
				D	.09	.15	.22	.30	.39	.50	.63	.76	.90	1.08									
				C	450	360	300	257	225	200	179	162	149	137									
				D	.07	.12	.17	.24	.31	.40	.51	.61	.73	.85									
				U	2049	1312	911	669	512	405	328	271	228	194	167	146	128						
				D	.09	.14	.20	.28	.37	.46	.58	.70	.83	.98	1.13	1.30	1.48						
	2*	(50.8)	1.20 (1.78)	22010-A	C	811	649	541	464	406	361	325	295	270	250	232	216	203					
					D	.07	.11	.16	.22	.29	.37	.46	.56	.66	.78	.90	1.04	1.18					
					U	2820	1805	1253	921	705	557	451	373	313	267	230	201	176					
					D	.07	.11	.16	.22	.28	.36	.45	.54	.64	.76	.88	1.01	1.15					
					C	1116	893	744	638	558	496	446	406	372	343	319	298	279					
					D	.05	.09	.12	.17	.23	.29	.36	.43	.51	.60	.70	.81	.92					

Load Table Symbols:
 U-uniform load (lbs./SF)
 C-concentrated load (lb.)
 D-deflection (inches)

Chart Notes:
 1) Spans in colored area produce deflection of 1/4" or less under uniform load of 100 lbs/ft²
 2) *Indicates items available by special order
 3) For "Engineering Data" and "Strut Loading" please see page 58

GRIP STRUT® Plank Grating

Step up or down safely
with GRIP STRUT!



GRIP STRUT® 3-DIAMOND PLANK (7" WIDTH) Plank LOAD TABLE

Material	Height in. (mm)	#/LF (Kg/m)	Catalog Number	Clear Span																		
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"		
STEEL 14 ga.	1-1/2 (38.1)	3.0 (4.46)	31514	U	899	577	402	269	227	180	147	122	103									
				D	.06	.10	.14	.20	.26	.33	.40	.49	.59									
				C	524	421	351	302	265	237	214	196	180									
	2 (50.8)	3.2 (4.76)	32014	U	1492	957	665	490	376	298	242	201	169	145	125	110	97	77	63			
				D	.06	.09	.13	.17	.23	.29	.35	.43	.51	.61	.71	.81	.93	1.19	1.49			
				C	871	697	582	500	439	391	353	322	296	275	256	240	226	203	185			
	2-1/2 (63.5)	3.5 (5.21)	32514	U	1712	1097	763	562	431	342	277	230	194	166	144	126	111	89	73	61	52	
				D	.04	.06	.08	.11	.14	.18	.23	.27	.33	.39	.45	.52	.59	.76	.94	1.16	1.40	
				C	999	800	668	574	503	448	405	369	340	315	293	275	259	233	212	195	181	
	STEEL 12 ga.	1-1/2 (38.1)	4.1 (6.10)	31512	U	1189	763	532	392	301	239	195	162	137	118	102	90	79				
					D	.07	.11	.15	.21	.27	.35	.43	.52	.63	.74	.87	1.00	1.15				
					C	694	556	465	400	352	314	284	260	240	223	208	196	185				
2 (50.8)		4.5 (6.70)	32012	U	1896	1216	846	623	478	379	308	256	216	185	160	140	124	99	82	68	58	
				D	.05	.08	.11	.16	.20	.26	.32	.39	.47	.55	.64	.74	.85	1.08	1.36	1.67	2.01	
				C	1106	886	740	636	558	498	450	410	378	350	327	307	289	260	238	219	203	
2-1/2 (63.5)		4.9 (7.29)	32512	U	2836	1817	1263	929	712	564	457	379	319	272	235	206	181	144	118	98	83	
				D	.04	.06	.09	.13	.17	.21	.26	.32	.38	.44	.52	.59	.68	.86	1.07	1.31	1.57	
				C	1654	1325	1105	948	831	740	667	608	558	516	481	450	423	378	343	314	290	
3 (76.2)		5.2 (7.74)	33012	U	3587	2298	1597	1174	900	712	578	478	403	344	297	259	228	181	148	123	104	
				D	.04	.06	.08	.11	.14	.18	.22	.27	.32	.38	.44	.51	.58	.74	.92	1.12	1.34	
				C	1868	1675	1397	1199	1050	935	843	767	705	652	606	567	533	476	431	395	364	
ALUM. ALLOY 5052 12 ga. .080"	1-1/2* (38.1)	1.06 (1.58)	31512-A	U	667	443	301	221	168	133	108											
				D	.10	.15	.22	.31	.40	.51	.63											
				C	395	316	263	226	197	175	157											
	2 (50.8)	1.15 (1.71)	32012-A	U	993	636	441	324	248	196	159	131	110	93	80							
				D	.08	.13	.18	.25	.33	.42	.52	.63	.74	.86	1.00							
				C	579	463	386	331	290	257	232	211	192	177	165							
	2-1/2* (63.5)	1.24 (1.85)	32512-A	U	1492	955	663	487	373	295	239	197	166	141	122	106	93					
				D	.07	.10	.15	.21	.28	.35	.43	.53	.63	.74	.85	.98	1.12					
				C	812	696	580	497	435	387	348	316	290	268	249	232	218					
	3* (76.2)	1.33 (1.98)	33012-A	U	1833	1173	815	598	458	362	293	242	204	174	150	130	115					
				D	.06	.09	.14	.19	.25	.31	.39	.47	.56	.66	.77	.88	1.00					
				C	846	846	713	611	535	475	428	389	356	329	305	285	267					
ALUM. ALLOY 5052 10 ga. .100"	1-1/2* (38.1)	1.34 (1.99)	31510-A	U	771	494	343	252	193	152	122	101										
				D	.09	.15	.22	.30	.39	.50	.63	.76										
				C	450	360	300	257	225	200	179	162										
	2* (50.8)	1.46 (2.38)	32010-A	U	1391	890	618	454	348	275	223	184	155	132	114	99	87					
				D	.09	.14	.20	.28	.37	.46	.58	.70	.83	.98	1.13	1.30	1.48					
				C	811	649	541	464	406	361	325	295	270	250	232	216	203					
	2-1/2* (63.5)	1.57 (2.34)	32510-A	U	1913	1225	850	625	478	378	306	253	213	181	156	136	120					
				D	.07	.11	.16	.22	.28	.36	.45	.54	.64	.76	.88	1.01	1.15					
				C	1116	893	744	638	558	496	446	406	372	343	319	298	279					
	3* (76.2)	1.68 (2.50)	33010-A	U	2470	1581	1098	807	618	488	395	327	274	234	202	176	154					
				D	.05	.08	.12	.17	.22	.28	.34	.42	.50	.59	.68	.78	.89					
				C	1309	1153	961	823	720	640	576	524	480	443	412	384	360					

Load Table Symbols:
 U-uniform load (lbs./SF)
 C-concentrated load (lb.)
 D-deflection (inches)

Chart Notes:
 1) Spans in colored area produce deflection of 1/4" or less under uniform load of 100 lbs/ft²
 2) *Indicates items available by special order
 3) For "Engineering Data" and "Strut Loading" please see page 58

GRIP STRUT® 4-DIAMOND PLANK (9-1/2" WIDTH)



LOAD TABLE

Material	Height in. (mm)	#/LF (Kg/m)	Catalog Number	Clear Span																					
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"					
STEEL 14 ga.	1-1/2 (38.1)	3.6 (5.36)	41514	U	663	426	296	219	168	134	109	90	77												
				D	.06	.10	.14	.20	.26	.33	.41	.50	.59												
				C	525	421	352	303	266	238	215	197	182												
		2 (50.8)	3.8 (5.65)	42014	U	1100	705	491	362	278	220	179	148	125	107	93	81	72	58	47					
	D				.06	.09	.13	.17	.23	.29	.36	.43	.52	.61	.71	.82	.94	1.20	1.51						
	C				730	698	583	501	440	392	354	323	298	276	258	242	228	205	187						
		2-1/2 (63.5)	4.1 (6.10)	42514	U	1262	809	563	415	318	252	205	170	144	123	106	93	82	66	54	45				
	D				.04	.06	.08	.11	.14	.18	.23	.28	.33	.39	.45	.52	.60	.76	.95	1.17					
	C				730	730	669	574	504	449	406	370	341	316	295	277	261	235	214	197					
					D	.02	.04	.06	.09	.12	.15	.18	.22	.26	.31	.36	.42	.48	.61	.76	.94				
	STEEL 12 ga.	1-1/2 (38.1)	5.0 (7.44)	41512	U	906	581	405	298	229	182	148	123	104	89	77	67	60							
					D	.07	.11	.16	.21	.28	.36	.44	.54	.64	.76	.89	1.02	1.17							
C					718	575	481	413	363	324	292	267	246	228	213	200	189								
		2 (50.8)	5.4 (8.04)	42012	U	1398	896	624	460	353	280	228	189	160	137	119	104	92	74	61	51	43			
D					.05	.08	.11	.16	.20	.26	.32	.39	.47	.55	.65	.75	.85	1.10	1.38	1.69	2.03				
C					1107	887	741	637	559	499	451	412	380	353	329	309	292	264	241	222	206				
		2-1/2 (63.5)	5.7 (8.48)	42512	U	2090	1339	931	685	525	416	338	280	236	201	174	152	134	107	87	73	62			
D					.04	.06	.09	.13	.17	.21	.26	.32	.38	.44	.52	.60	.68	.87	1.08	1.32	1.58				
C					1400	1325	1106	949	832	741	668	609	559	518	482	452	425	380	345	316	293				
		3 (76.2)	6.1 (9.08)	43012	U	2644	1694	1177	866	664	525	426	353	297	254	219	192	169	134	110	91	77			
D					.04	.06	.08	.11	.14	.18	.22	.27	.32	.38	.44	.51	.58	.74	.92	1.12	1.35				
C					1400	1400	1398	1200	1051	936	844	769	706	653	608	569	535	478	434	397	367				
				D	.02	.04	.06	.09	.11	.15	.18	.22	.26	.31	.35	.41	.47	.59	.74	.90	1.08				
ALUM. ALLOY 5052 12 ga. .080"	1-1/2* (38.1)	1.28 (1.90)	41512-A	U	499	319	222	163	124	98															
				D	.10	.15	.22	.31	.40	.51															
				C	395	316	263	226	197	175															
		2 (50.8)	1.37 (2.03)	42012-A	U	732	468	325	239	183	145	117	97	81	69										
	D				.08	.13	.18	.25	.33	.42	.52	.63	.74	.87											
	C				568	463	386	331	290	257	232	211	192	177											
		2-1/2* (63.5)	1.46 (2.17)	42512-A	U	1099	704	489	359	275	217	176	145	122	104	90	78	69							
	D				.07	.10	.15	.21	.28	.35	.43	.53	.63	.74	.85	.98	1.12								
	C				568	568	568	497	435	387	348	316	290	268	249	232	218								
		3* (76.2)	1.55 (2.30)	43012-A	U	1350	864	600	441	338	267	216	179	150	128	110	96	84							
	D				.06	.09	.14	.19	.25	.31	.39	.47	.56	.66	.77	.88	1.00								
	C				568	568	568	568	535	475	428	389	356	329	305	285	267								
				D	.02	.05	.09	.14	.20	.25	.31	.38	.45	.53	.61	.70	.80								
ALUM. ALLOY 5052 10 ga. .100"	1-1/2* (38.1)	1.62 (2.41)	41510-A	U	568	364	253	186	142	112															
				D	.09	.15	.22	.30	.39	.50															
				C	450	360	300	257	225	200															
		2* (50.8)	1.74 (2.58)	42010-A	U	1025	656	455	335	256	202	164	136	114	97	84	73	64							
	D				.09	.14	.20	.28	.37	.46	.58	.70	.83	.98	1.13	1.30	1.48								
	C				811	649	541	464	406	361	325	295	270	250	232	216	203								
		2-1/2* (63.5)	1.85 (2.75)	42510-A	U	1410	902	627	460	352	278	226	186	157	133	115	100	88							
	D				.07	.11	.16	.22	.28	.36	.44	.54	.64	.76	.88	1.01	1.15								
	C				886	886	744	638	558	496	446	406	372	343	319	298	279								
		3* (76.2)	1.97 (2.93)	43010-A	U	1820	1165	809	594	455	360	291	241	202	172	149	129	114							
	D				.05	.08	.12	.17	.22	.28	.34	.42	.50	.59	.68	.78	.89								
	C				886	886	886	823	720	640	576	524	480	443	412	384	360								
				D	.02	.05	.09	.13	.17	.22	.27	.33	.40	.47	.54	.62	.71								
STAINLESS STEEL 304 16 ga.	2 (50.8)	3.2 (4.76)	42016-S	U	720	462	322	238	183	145	118	98	83	71	59										
				D	.05	.08	.11	.16	.20	.26	.32	.39	.47	.55	.61										
				C	570	457	382	329	289	258	234	214	197	184	165										
	3.2* (4.76)	42016-SL	U	626	400	278	204	156	123	100	82	69	59	51											
D			.04	.06	.10	.13	.17	.22	.27	.32	.39	.45	.53												
C			492	397	330	283	248	220	198	180	165	152	141												
				D	.03	.05	.08	.10	.14	.17	.22	.26	.31	.36	.42										

Load Table Symbols:
 U-uniform load (lbs./SF)
 C-concentrated load (lb.)
 D-deflection (inches)

Chart Notes:
 1) Spans in colored area produce deflection of 1/4" or less under uniform load of 100 lbs/ft²
 2) *Indicates items available by special order
 3) For "Engineering Data" and "Strut Loading" please see page 58

GRIP STRUT® 5-DIAMOND PLANK (11-3/4" WIDTH)



LOAD TABLE

Material	Height in. (mm)	#/LF (Kg/m)	Catalog Number	Clear Span																		
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"		
STEEL 14 ga.	1-1/2 (38.1)	4.2 (6.25)	51514	U	536	344	240	177	136	108	88	74	62									
				D	.06	.10	.14	.20	.26	.33	.41	.50	.60									
				C	525	422	353	304	267	239	216	198	183									
	2 (50.8)	4.4 (6.55)	52014	U	890	571	397	293	225	178	145	120	102	87	76	66	59	47				
				D	.06	.09	.13	.17	.23	.29	.36	.43	.52	.61	.71	.83	.95	1.21				
				C	707	699	584	502	440	393	355	324	299	277	259	243	230	207				
	2-1/2 (63.5)	4.7 (6.99)	52514	U	1021	655	456	336	258	204	166	138	116	100	86	76	67	54	44			
				D	.04	.06	.08	.11	.14	.18	.23	.28	.33	.39	.45	.52	.60	.77	.96			
				C	707	707	669	575	505	450	407	371	342	317	296	278	262	236	216			
			D	.02	.04	.06	.09	.12	.15	.18	.22	.26	.31	.36	.42	.48	.62	.77				
STEEL 12 ga.	1-1/2 (38.1)	5.9 (8.78)	51512	U	710	456	318	235	181	144	117	98	83	71	62	55	49					
				D	.07	.11	.15	.21	.28	.35	.44	.53	.64	.76	.89	1.03	1.18					
				C	695	558	467	402	354	317	287	263	244	227	213	201	190					
	2 (50.8)	6.2 (9.23)	52012	U	1131	725	505	372	286	227	185	154	130	111	97	85	75	60	50	42		
				D	.05	.08	.11	.16	.20	.26	.32	.39	.47	.56	.65	.75	.86	1.11	1.39	1.70		
				C	1107	888	742	638	561	501	453	414	382	355	332	312	295	266	243	224		
	2-1/2 (63.5)	6.6 (9.82)	52512	U	1691	1083	753	554	425	337	273	226	151	141	123	109	87	71	59	59	50	
				D	.04	.06	.09	.13	.17	.21	.26	.32	.38	.45	.52	.60	.68	.87	1.09	1.33	1.60	
				C	1115	1115	1106	950	833	742	669	610	561	519	484	453	426	382	347	319	295	
	3 (76.2)	7.0 (10.4)	53012	U	2138	1370	952	701	537	425	345	286	241	206	178	155	137	109	89	74	63	
				D	.04	.06	.08	.11	.14	.18	.22	.27	.32	.38	.44	.51	.58	.74	.93	1.13	1.36	
				C	1115	1115	1115	1115	1052	937	845	770	707	654	609	570	537	480	436	399	369	
			D	.02	.03	.05	.08	.11	.15	.18	.22	.26	.31	.36	.41	.47	.60	.74	.90	1.09		
ALUM. ALLOY 5052 12 ga. .080"	1-1/2* (38.1)	1.49 (2.22)	51512-A	U	403	255	179	132	100													
				D	.10	.15	.22	.31	.40													
				C	395	316	263	226	197													
	2 (50.8)	1.59 (2.36)	52012-A	U	592	379	263	193	148	117	95	78										
				D	.08	.13	.18	.25	.33	.42	.52	.63										
				C	466	466	386	331	290	257	232	211										
	2-1/2* (63.5)	1.67 (2.48)	52512-A	U	889	569	395	290	222	176	142	118	99	84	73	63						
				D	.07	.10	.15	.21	.28	.35	.43	.53	.63	.74	.85	.98						
				C	466	466	466	466	435	387	348	316	290	268	249	232						
	3* (76.2)	1.75 (2.60)	53012-A	U	951	699	485	357	273	216	175	144	121	103	89	78	68					
				D	.05	.09	.14	.19	.25	.31	.39	.47	.56	.66	.77	.88	1.00					
				C	466	466	466	466	466	428	389	356	329	305	285	267						
			D	.02	.04	.07	.11	.17	.24	.31	.38	.45	.53	.61	.70	.80						
ALUM. ALLOY 5052 10 ga. .100"	1-1/2* (38.1)	1.88 (2.79)	51510-A	U	459	294	204	150	115	91												
				D	.09	.15	.22	.30	.39	.50												
				C	450	360	300	257	225	200												
	2* (50.8)	2.00 (2.98)	52010-A	U	829	530	368	271	207	164	133	110	92	78	68	59						
				D	.09	.14	.20	.28	.37	.46	.58	.70	.83	.98	1.13	1.30						
				C	714	649	541	464	406	361	325	295	270	250	232	216						
	2-1/2* (63.5)	2.11 (3.14)	52510-A	U	1140	730	507	372	285	225	182	151	127	105	93	81	71					
				D	.07	.11	.16	.22	.28	.36	.45	.54	.64	.76	.88	1.01	1.15					
				C	714	714	714	638	558	496	446	406	372	343	319	298	279					
	3* (76.2)	2.22 (3.30)	53010-A	U	1458	942	654	481	368	291	235	195	164	139	120	105	92					
				D	.05	.08	.12	.17	.22	.28	.34	.42	.50	.59	.68	.78	.89					
				C	714	714	714	714	714	640	576	524	480	443	412	384	360					
			D	.02	.04	.07	.12	.17	.22	.27	.33	.40	.47	.54	.62	.71						
STAINLESS STEEL 304 16 ga.	2 (50.8)	3.7 (5.51)	52016-S	U	583	374	261	192	148	118	96	80	68	58	48							
				D	.05	.08	.11	.16	.20	.26	.32	.39	.47	.56	.61							
				C	464	458	323	330	290	259	235	215	199	185	165							
STAINLESS STEEL 316 16 ga.	3.7* (5.51)	52016-SL	U	406	324	225	165	126	100	81	66	56	47									
			D	.04	.06	.10	.13	.17	.22	.27	.32	.39	.45									
			C	398	397	330	283	248	220	198	180	165	152									
			D	.03	.05	.08	.10	.14	.17	.22	.26	.31	.36									

Load Table Symbols:
 U-uniform load (lbs./SF)
 C-concentrated load (lb.)
 D-deflection (inches)

Chart Notes:
 1) Spans in colored area produce deflection of 1/4" or less under uniform load of 100 lbs/ft²
 2) *Indicates items available by special order
 3) For "Engineering Data" and "Strut Loading" please see page 58

Plank or walkways—we have it!

GRIP STRUT® Plank Grating

GRIP STRUT® 8-DIAMOND PLANK (18-3/4" WIDTH) **LOAD TABLE**

Material	Height in. (mm)	#/LF (Kg/m)	Catalog Number		Clear Span																	
					2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	
STEEL 14 ga.	1-1/2 (38.1)	6.1 (9.1)	81514	U	337	217	151	112	86	69	56	47										
				D	0.33	0.27	0.26	0.29	0.33	0.38	0.45	0.55										
				C	263	211	178	153	135	121	110	101										
				D	0.16	0.15	0.15	0.16	0.17	0.19	0.22	0.25										
	2 (50.8)	6.3 (9.4)	82014	U	540	358	250	184	142	113	92	76	65	55	48	42						
				D	0.48	0.37	0.34	0.32	0.34	0.38	0.43	0.50	0.58	0.66	0.77	0.87						
				C	437	349	292	251	220	198	179	164	152	141	132	124						
				D	0.24	0.21	0.20	0.19	0.20	0.21	0.23	0.26	0.29	0.32	0.36	0.40						
	2-1/2 (63.5)	6.6 (9.8)	82514	U	540	411	286	211	162	129	105	87	74	63	55	48	43					
				D	0.46	0.39	0.35	0.28	0.27	0.28	0.31	0.35	0.39	0.44	0.50	0.57	0.64					
				C	450	402	335	287	252	225	205	188	173	161	151	142	134					
				D	0.24	0.22	0.20	0.19	0.19	0.19	0.20	0.21	0.23	0.24	0.27	0.29	0.32					
STEEL 12 ga.	1-1/2 (38.1)	8.5 (12.6)	81512	U	446	287	201	148	115	91	75	63	53	46	40							
				D	0.27	0.22	0.22	0.26	0.32	0.39	0.47	0.56	0.67	0.80	0.92							
				C	359	280	235	203	179	161	146	135	125	117	110							
				D	0.12	0.12	0.12	0.14	0.16	0.19	0.22	0.26	0.30	0.35	0.40							
	2 (50.8)	8.9 (13.2)	82012	U	710	456	318	235	181	144	117	98	83	71	62	54	48					
				D	0.31	0.25	0.23	0.25	0.28	0.31	0.37	0.44	0.51	0.60	0.68	0.79	0.90					
				C	554	444	371	319	282	253	229	210	194	181	169	160	151					
				D	0.17	0.15	0.14	0.15	0.16	0.17	0.19	0.22	0.25	0.28	0.32	0.36	0.40					
	2-1/2 (63.5)	9.2 (13.7)	82512	U	810	680	473	348	267	212	172	143	120	103	89	78	69	55	45			
				D	0.33	0.31	0.27	0.26	0.27	0.29	0.32	0.37	0.42	0.49	0.55	0.63	0.72	0.90	1.12			
				C	800	663	553	475	416	371	334	307	282	262	244	229	216	194	177			
				D	0.23	0.20	0.18	0.18	0.18	0.18	0.19	0.21	0.23	0.25	0.28	0.31	0.34	0.41	0.50			
3 (76.2)	9.6 (14.3)	83012	U	810	810	598	440	337	267	217	180	152	130	112	98	87	69	57	47	40		
			D	0.32	0.35	0.30	0.27	0.26	0.28	0.31	0.34	0.39	0.43	0.49	0.56	0.62	0.78	0.96	1.17	1.40		
			C	800	800	699	600	526	468	422	385	353	327	307	288	271	243	221	203	189		
			D	0.22	0.23	0.22	0.20	0.20	0.20	0.20	0.21	0.22	0.24	0.26	0.28	0.31	0.37	0.44	0.52	0.61		
ALUM. ALLOY 5052 12 ga. .080"	1-1/2* (38.1)	2.11 (3.13)	81512-A	U	253	162	112	83														
				D	0.49	0.40	0.39	0.44														
				C	198	158	132	113														
				D	0.24	0.22	0.22	0.24														
	2* (50.8)	2.20 (3.27)	82012-A	U	308	237	165	121	93	73	59	49										
				D	0.54	0.50	0.44	0.44	0.47	0.53	0.61	0.71										
				C	290	232	193	166	145	129	116	106										
				D	0.32	0.28	0.27	0.27	0.28	0.30	0.32	0.36										
	2-1/2* (63.5)	2.29 (3.40)	82512-A	U	308	308	248	182	139	110	89	74	62	53								
				D	0.51	0.57	0.54	0.49	0.50	0.52	0.57	0.65	0.73	0.83								
				C	350	348	290	249	218	194	174	158	145	134								
				D	0.37	0.39	0.35	0.33	0.33	0.34	0.35	0.37	0.40	0.43								
3* (76.2)	2.39 (3.55)	83012-A	U	308	308	308	223	171	135	109	90	76	65	56	49							
			D	0.50	0.54	0.62	0.54	0.52	0.52	0.56	0.61	0.68	0.76	0.86	0.96							
			C	350	350	350	306	268	238	214	195	178	165	153	143							
			D	0.37	0.38	0.41	0.38	0.37	0.37	0.37	0.39	0.40	0.43	0.46	0.50							
ALUM. ALLOY 5052 10 ga. .100"	1-1/2* (38.1)	2.68 (3.98)	81510-A	U	288	184	128	94	72	57												
				D	0.41	0.36	0.36	0.40	0.47	0.56												
				C	225	180	150	129	113	100												
				D	0.18	0.18	0.19	0.21	0.23	0.27												
	2 (50.8)	2.79 (4.15)	82010-A	U	457	332	231	170	130	103	83	69	58	49								
				D	0.59	0.51	0.46	0.47	0.52	0.57	0.67	0.78	0.89	1.03								
				C	406	325	271	232	203	181	163	148	135	125								
				D	0.29	0.26	0.25	0.26	0.28	0.30	0.33	0.37	0.42	0.47								
	2-1/2* (63.5)	2.91 (4.33)	82510-A	U	457	457	317	233	179	141	114	94	79	68	58	51	45					
				D	0.55	0.62	0.51	0.48	0.48	0.52	0.58	0.64	0.73	0.84	0.94	1.07	1.20					
				C	550	447	372	319	279	248	223	203	186	172	160	149	140					
				D	0.37	0.32	0.30	0.29	0.29	0.30	0.32	0.35	0.38	0.41	0.46	0.52	0.55					
3* (76.2)	3.02 (4.50)	83010-A	U	457	457	410	301	231	182	148	122	102	87	75	66	58						
			D	0.53	0.57	0.58	0.51	0.48	0.48	0.51	0.56	0.61	0.69	0.76	0.85	0.95						
			C	550	550	481	412	360	320	288	262	240	222	206	192	180						
			D	0.37	0.39	0.37	0.35	0.34	0.34	0.36	0.38	0.41	0.44	0.48	0.52	0.57						

Load Table Symbols:
 U-uniform load (lbs./SF)
 C-concentrated load (lb.)
 D-deflection (inches)

Chart Notes:
 1) Spans in colored area produce deflection of 1/4" or less under uniform load of 100 lbs/ft²
 2) *Indicates items available by special order



GRIP STRUT® provides a safe work area on this elevated platform.

GRIP STRUT® Plank Grating

Loading Information

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The serrated diamonds on GRIP STRUT® grating provide a safe walking surface for workers.

GRIP STRUT® 10-DIAMOND PLANK (24" WIDTH) Plank **LOAD TABLE**

Material	Height in. (mm)	#/LF (Kg/m)	Catalog Number	Clear Span																							
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"		8'-0"	9'-0"	10'-0"	11'-0"	12'-0"						
STEEL 14 ga.	2 (50.8)	7.4 (11.0)	102014	U	300	300	228	168	128	102	82	68	57	49	42										Load Table Symbols: U-uniform load (lbs./SF) C-concentrated load (lb.) D-deflection (inches) Chart Notes: 1) Spans in colored area produce deflection of 1/4" or less under uniform load of 100 lbs/ft² 2) *Indicates items available by special order 3) For "Engineering Data" and "Strut Loading" please see page 58		
				D	0.46	.048	0.42	0.38	0.38	0.41	0.44	0.49	0.55	0.62	0.70												
				C	400	400	343	294	257	229	206	187	172	158	147												
				D	0.34	0.35	0.32	0.30	0.29	0.29	0.30	0.31	0.33	0.35	0.37												
STEEL 12 ga.	3 (76.2)	7.9 (11.8)	103014	U	300	300	300	264	202	160	130	107	90	77	66	58	51	40									
				D	0.42	0.43	0.46	0.44	0.39	0.36	0.35	0.36	0.39	0.44	0.45	0.49	0.54	0.65									
				C	400	400	400	400	400	360	324	295	270	249	232	216	203	180									
				D	0.33	0.33	0.34	0.35	0.37	0.35	0.33	0.33	0.32	0.32	0.33	0.34	0.35	0.38									
STEEL 12 ga.	2 (50.8)	10.4 (15.5)	102012	U	475	416	289	212	162	128	104	86	72	62	53	46											
				D	0.40	0.39	0.33	0.31	0.31	0.34	0.38	0.44	0.48	0.56	0.63	0.71											
				C	650	520	434	372	325	289	260	237	217	200	186	174											
				D	0.26	0.22	0.19	0.20	0.20	0.21	0.22	0.23	0.25	0.28	0.31	0.34											
STEEL 12 ga.	3 (76.2)	11.1 (16.5)	103012	U	475	475	475	392	300	237	192	159	133	114	98	85	75	59	48								
				D	0.38	0.39	0.42	0.38	0.36	0.34	0.35	0.37	0.39	0.43	0.47	0.52	0.58	0.70	0.85								
				C	900	900	800	686	600	534	480	437	400	369	343	320	300	267	240								
				D	0.34	0.35	0.33	0.29	0.27	0.26	0.26	0.26	0.26	0.27	0.29	0.30	0.32	0.36	0.41								

GRIP STRUT® 10-DIAMOND WALKWAY (24" WIDTH) Walkway **LOAD TABLE**

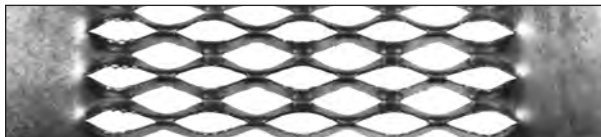
Material	Depth in. (mm)	#/LF (Kg/m)	Catalog Number	Clear Span																						
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"		8'-0"	9'-0"	10'-0"	11'-0"	12'-0"					
STEEL 14 ga.	4-1/2	8.9 (13.2)	104514-U	U	300	300	300	300	300	263	213	176	148	126	109	95	83	66	53	43						
				D	0.41	0.41	0.42	0.45	0.48	0.47	0.42	0.40	0.40	0.41	0.43	0.45	0.47	0.55	0.64	0.75						
				C	400	400	400	400	400	400	400	400	400	380	355	333	296	266	242							
				D	0.32	0.33	0.33	0.33	0.34	0.35	0.36	0.38	0.39	0.41	0.42	0.41	0.41	0.42	0.44	0.44	0.44	0.44				
STEEL 12 ga.	4-1/2	12.5 (18.6)	104512-U	U	475	475	475	475	475	420	340	281	236	201	173	151	133	105	85	70	59					
				D	0.37	0.37	0.38	0.40	0.43	0.43	0.39	0.37	0.37	0.37	0.39	0.41	0.44	0.51	0.59	0.69	0.80					
				C	900	900	900	900	900	900	850	773	709	654	607	567	531	472	425	387	354					
				D	0.34	0.34	0.35	0.35	0.36	0.37	0.37	0.35	0.34	0.33	0.33	0.33	0.33	0.33	0.35	0.37	0.40	0.44				

GRIP STRUT® Special & Fabricated Products

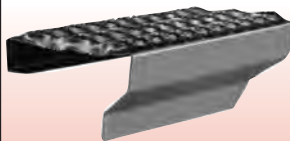
FLAT STOCK

The open matrix is symmetrical about the flat plane. Table indicates the approximate dimensions of flat metal available on each side. Flat Stock can also be manufactured to specified dimensions of flat metal on either or both sides. Consult McNICHOLS for specifications and availability. Flat stock is available in all standard materials and sizes.

Dimensions	Steel and Aluminum
Matrix	Flat metal each side
2-Diamond	2-1/4" to 7-1/2"
3-Diamond	2-1/8" to 6-1/2"
4-Diamond	2-3/8" to 7-5/8"
5-Diamond	2-3/8" to 6-1/2"
8-Diamond	2-3/8" to 5-5/8"
10-Diamond	3-1/4" to 7-5/8"



CUSTOM FORMING



Custom forming is available by special order.

RECONDITIONING MATERIAL

Re-do worn and unsafe floors and stairs by resurfacing with non-slip GRIP STRUT® Reconditioning Material (RM). Serrated, diamond-shaped openings make GRIP STRUT® 10 to 180% safer than conventional gratings. Available by special order. For assistance please consult Customer Service Specialist.



RM-Reconditioning material end view

Note: The data in these comparative performance tables represents the loading performance on both side channels and ignores grating surface performance. These values are not to be used for product selection but should be used for comparisons with other products whose published information does not include grating surface performance.

8-Diamond Plank- Comparative Performance Table - 18-3/4" width Clear Span

Material Gauge	Height (in. (mm))	#/LF (Kg/m)	Catalog Number	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"					
STEEL 14 ga.	1-1/2 (38.1)	6.1 (9.1)	81514	U	337	217	151	112	86	69	56	47	40												
				D	0.06	0.10	0.14	0.20	0.26	.033	0.41	0.51	0.61												
				C	525	421	355	306	270	242	220	202	187												
	2 (50.8)	6.3 (9.4)	82014	U	557	358	250	184	142	113	92	76	65	55	48	42									
				D	0.06	0.09	0.13	0.17	0.23	0.29	0.36	0.44	0.53	0.62	0.73	0.84									
				C	873	698	583	501	440	396	358	328	303	281	264	248									
	2-1/2 (63.5)	6.6 (9.8)	82514	U	639	411	286	211	162	129	105	87	74	63	55	48	43								
				D	0.04	0.06	0.08	0.11	0.14	0.18	0.23	0.28	0.33	0.39	0.46	0.53	0.61								
				C	1003	803	669	574	504	449	410	375	346	321	301	283	267								
	STEEL 12 ga.	1-1/2 (38.1)	8.5 (12.6)	81512	U	446	287	201	148	115	91	75	63	53	46	40									
					D	0.07	0.11	0.15	0.21	0.28	0.36	0.44	0.54	0.65	0.78	0.91									
					C	718	560	470	406	358	321	292	269	249	233	219									
2 (50.8)		8.9 (13.2)	82012	U	710	456	318	235	181	144	117	98	83	71	62	54	48								
				D	0.05	0.08	0.11	0.16	0.21	0.26	0.33	0.40	0.48	0.57	0.66	0.77	0.88								
				C	1107	887	741	637	564	505	458	419	387	361	338	319	302								
2-1/2 (63.5)		9.2 (13.7)	82512	U	1059	680	473	348	267	212	172	143	120	103	89	78	69	55	45						
				D	0.04	0.06	0.09	0.13	0.17	0.21	0.26	0.32	0.38	0.45	0.52	0.60	0.69	0.88	1.10						
				C	1656	1325	1106	949	832	741	668	613	564	523	488	458	431	388	353						
3 (76.2)		9.6 (14.3)	83012	U	1340	858	598	440	337	267	217	180	152	130	112	98	87	69	57	47	40				
				D	0.04	0.06	0.08	0.11	0.14	0.18	0.23	0.27	0.33	0.38	0.45	0.52	0.59	0.75	0.94	1.15	1.39				
				C	2097	1678	1398	1200	1051	936	844	769	706	653	614	575	542	486	442	406	377				
ALUM. ALLOY 5052 12 ga. .080"	1-1/2 (38.1)	2.11 (3.13)	81512-A	U	253	162	112	83																	
				D	0.10	0.15	0.22	0.31																	
				C	395	316	263	226																	
	2 (50.8)	2.20 (3.27)	82012-A	U	371	237	165	121	93	73	59	49													
				D	0.08	0.13	0.18	0.25	0.33	0.42	0.52	0.63													
				C	579	463	386	331	290	257	232	211													
	2-1/2 (63.5)	2.29 (3.40)	82512-A	U	557	357	248	182	139	110	89	74	62	53	46										
				D	0.07	0.10	0.15	0.21	0.28	0.35	0.43	0.53	0.63	0.74	85										
				C	812	696	580	497	435	387	348	316	290	268	249										
	3 (76.2)	2.39 (3.55)	83012-A	U	684	438	304	223	171	135	109	90	76	65	56	49									
				D	0.06	0.09	0.14	0.19	0.25	0.31	0.39	0.47	0.56	0.66	0.77	0.88									
				C	1069	856	713	611	535	475	428	389	356	329	305	285									

For Regular Loading—See Pages 55 & 56

10-Diamond Plank Comparative Performance Table - 24" width Clear Span

Material Gauge	Height (in. (mm))	#/LF (Kg/m)	Catalog Number	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"				
STEEL 14 ga. Plank	2 (50.8)	7.4 (11.0)	102014	U	514	329	228	168	128	102	82	68	57	49										
				D	0.05	0.08	0.12	0.16	0.21	0.27	0.33	0.40	0.47	0.55										
				C	1028	822	685	587	514	457	411	374	343	316	294	274	257	228	206	187	171			
	3 (76.2)	7.9 (11.8)	103014	U	810	518	360	264	202	160	130	107	90	77	66	58	51							
				D	0.03	0.05	0.07	0.09	0.12	0.15	0.18	0.22	0.27	0.31	0.36	0.41	0.47							
				C	1620	1296	1080	926	810	720	648	589	540	498	463	432	405	360	324	295	270			
STEEL 12 ga. Plank	2 (50.8)	10.4 (15.5)	102012	U	650	416	289	212	162	128	104	86	72	62	53									
				D	0.05	0.08	0.11	0.15	0.19	0.24	0.30	0.37	0.43	0.51	0.59									
				C	1300	1040	867	743	650	578	520	473	433	400	371	347	325	289	260	236	217			
	3 (76.2)	11.1 (16.5)	103012	U	1200	768	533	392	300	237	192	159	133	114	98	85	75	59						
				D	0.03	0.05	0.07	0.10	0.13	0.16	0.20	0.25	0.29	0.34	0.40	0.46	0.52	0.66						
				C	2400	1920	1600	1371	1200	1067	960	873	800	738	686	640	600	533	480	436	400			

10-Diamond Walkway Comparative Performance Table - 24" width Clear Span

Material Gauge	Height (in. (mm))	#/LF (Kg/m)	Catalog Number	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"				
STEEL 14 ga. Walkway	4.5 (13.2)	8.9	104514-UD	U	1330	851	591	434	332	263	213	176	148	126	109	95	83	66	53					
				D	0.02	0.04	0.05	0.07	0.09	0.12	0.14	0.17	0.20	0.24	0.28	0.32	0.36	0.46	0.57					
				C	2660	2128	1773	1520	1330	1182	1064	967	887	818	760	709	665	591	532	484	443			
STEEL 12 ga. Walkway	4.5 (18.6)	12.5	104512-UD	U	2125	1360	944	694	531	420	340	281	236	201	173	151	133	105	85	70	59			
				D	0.02	0.03	0.05	0.06	0.08	0.11	0.13	0.16	0.19	0.22	0.26	0.30	0.34	0.43	0.53	0.64	0.76			
				C	4250	3400	2833	2429	2125	1889	1700	1545	1417	1308	1214	1133	1062	944	850	773	708			

LOAD/DEFLECTION CONVERSION FORMULAS

In the elastic range, deflection is proportional to the applied load for both uniform and concentrated loads. This relationship can be used to determine the deflection that any load which is less than the allowable load will produce, as shown in Example A. Also, if desired, the load which will produce a specified deflection can also be determined if the load is in the elastic range as illustrated in Example B.

EXAMPLE A
What deflection will a 300 lb. concentrated load produce on a plank (catalog number 103012) spanning 5'0"?
See page 56 for item 103012 at a span = 5'0" C = 480 lb. D =
D@300 lb. = 0.26" x 300 lb. = 0.16" 480 lb

EXAMPLE B
If a plank (catalog number 103012) is spanning 6'0", what concentrated load will produce a 1/4" deflection?
See page 56 for item 103012 at a span of 6'0"
C = 400 lb. D = 0.26"
C@1/4" = 400 lb. x 0.25" = 385 lb. 0.26"

8 and 10-Diamond comparative performance load table information

As width increases, grating strut flexure becomes more important. Eight and 10-Diamond products are wide enough to require a change in the assumptions used to prepare the 2- and 5-Diamond Product Selection/Design Tables. No longer will it be assumed that both side channels are equally effective in supporting a concentrated load. In fact, to provide a high level of safety, it will be required to carry 100% of a concentrated load.

Also strut deflection for 8 and 10-Diamond products may be significant. The most critical case occurs when a concentrated load is located at mid-span and mid-width. To determine how the struts perform under this loading, 3-ft. long samples of each material and thickness were tested. For these tests the side channels were continuously supported and loads were applied using 1" long and 1" wide bar placed parallel to the side channels mid-width and the longitudinal center.

Results of these tests, proved the performance of these materials when a concentrated load is applied mid-span and mid-width. If a concentrated load is to be applied at mid-width at the end of a plank, consult the "strut loading" table.

The following values have been tabulated for 8 and 10-Diamond grating.

Allowable Uniform Load (U) (For charts at left)
Values are given in the rows labeled "U" and are the lowest of the (1) maximum allowable uniform loads considering channel flexure, and (2) maximum grating surface flexure.

Deflection Corresponding to "U" (For charts at left)
Deflection values appear in the rows labeled "D", below the "U" values, and are maximum deflections the allowable uniform loads would produce. Maximum deflections will occur at mid-span and mid-width and will be the sum of side channel and grating surface deflections. (Fig.3)

Allowable Concentrated Load (C) (For charts at left)
Values tabulated in the rows labeled "C" are the lowest of the (1) maximum allowable concentrated load considering side channel flexure (with one side channel supporting the entire load—Fig. 2) and (2) the maximum allowable strut flexure. (Fig.1)

Deflection Corresponding to "C" (For charts at left)
Deflection values are indicated below the "C" values in the table and are deflections the allowable concentrated loads will produce at mid-span and at mid-width. The deflection is the sum of side channel and grating surface deflections.

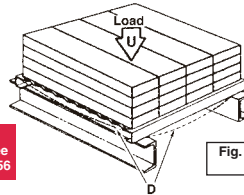


Fig. 3 Uniform Load

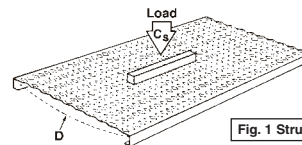


Fig. 1 Strut Load

3-ft long sample
10-Diamonds wide
Long-Way of Diamonds

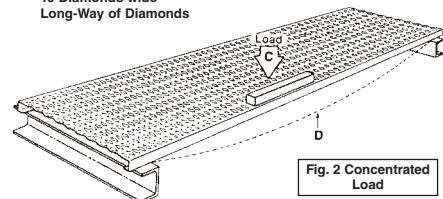


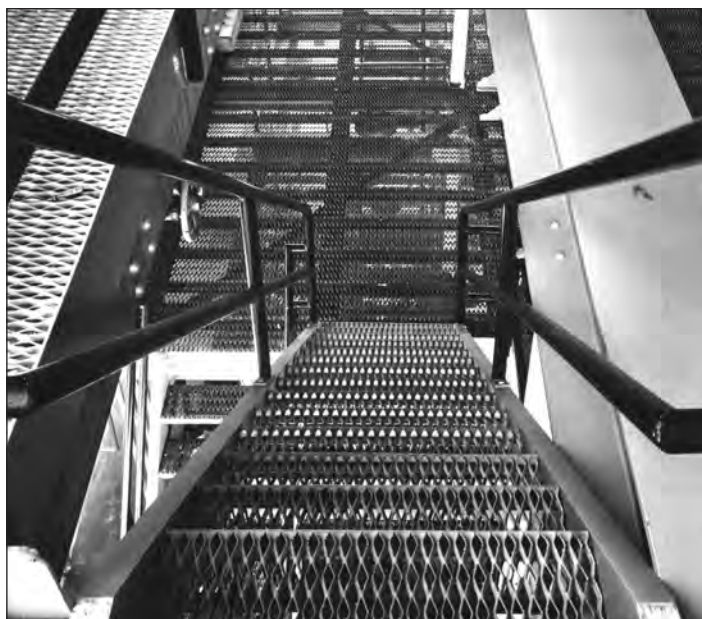
Fig. 2 Concentrated Load

GRIP STRUT® Strut Loading					
Description	Material	Loading	Load	Deflection	
2 Diamond Plank 4-3/4" Wide	STEEL 14 ga.	U	6268	.10"	
		C _s	1240	.08"	
	STEEL 12 ga.	U	8619	.10"	
		C _s	1705	.08"	
3 Diamond Plank 7" Wide	STEEL 14 ga.	U	3535	.11"	
		C _s	1031	.09"	
	STEEL 12 ga.	U	6405	.11"	
		C _s	1868	.09"	
4 Diamond Plank 9-1/2" Wide	STEEL 14 ga.	U	1844	.15"	
		C _s	730	.11"	
	STEEL 12 ga.	U	3537	.14"	
		C _s	1400	.11"	
5 Diamond Plank 11-3/4" Wide	ALUMINUM 12 ga.-.080"	U	1435	.19"	
		C _s	568	.15"	
	ALUMINUM 10 ga.-.100"	U	2238	.23"	
		C _s	886	.15"	
	STAINLESS 304 16 ga.	U	1450	.29"	
		C _s	574	.19"	
	8 Diamond Plank 18-3/4" Wide	STEEL 14 ga.	U	1444	.18"
			C _s	707	.15"
STEEL 12 ga.		U	2277	.15"	
		C _s	1115	.12"	
ALUMINUM 12 ga.-.080"		U	951	.24"	
		C _s	466	.20"	
10 Diamond Plank 24" Wide	ALUMINUM 10 ga.-.100"	U	1458	.27"	
		C _s	714	.22"	
	STAINLESS 304 16 ga.	U	947	.38"	
		C _s	464	.31"	
10 Walkway 24" Wide	STEEL 14 ga.	U	812	.31"	
		C _s	398	.25"	
10 Diamond Plank 24" Wide	STEEL 14 ga.	U	540	.43"	
		C _s	422	.35"	
	STEEL 12 ga.	U	810	.30"	
		C _s	633	.24"	
10 Diamond Plank 24" Wide	ALUMINUM 12 ga.-.080"	U	308	.48"	
		C _s	241	.39"	
	ALUMINUM 10 ga.-.100"	U	457	.51"	
		C _s	357	.41"	
10 Diamond Plank 24" Wide	STEEL 14 ga.	U	300	.49"	
		C _s	300	.40"	
10 Diamond Plank 24" Wide	STEEL 12 ga.	U	475	.45"	
		C _s	475	.36"	
10 Walkway 24" Wide	STEEL 14 ga.	U	300	.49"	
		C _s	300	.40"	
10 Walkway 24" Wide	STEEL 12 ga.	U	475	.45"	
		C _s	475	.36"	

U = Allowable Uniform Load (lb./s.f.)
C_s = Allowable Concentrated Load per ft. of length of mid-width (lb./ft.)

GRIP STRUT® Engineering Data				
2, 3, 4, 5, & 8 Diamond Planks				
Material	Height	S x in ³	I x in. ⁴	El lb. x in ³
STEEL 14 ga.	1-1/2"	.174	.102	2.96 x 10 ⁶
	2"	.270	.193	5.60 x 10 ⁶
	2-1/2"	.307	.335	9.71 x 10 ⁶
STEEL 12 ga.	1-1/2"	.216	.125	3.62 x 10 ⁶
	2"	.342	.264	7.66 x 10 ⁶
	2-1/2"	.504	.488	14.09 x 10 ⁶
ALUMINUM 12 ga. .080"	1-1/2"	.171	.137	1.40 x 10 ⁶
	2"	.251	.246	2.51 x 10 ⁶
	2-1/2"	.379	.441	4.50 x 10 ⁶
ALUMINUM 10 ga. .100"	1-1/2"	.196	.156	1.59 x 10 ⁶
	2"	.352	.309	3.15 x 10 ⁶
	2-1/2"	.486	.544	5.55 x 10 ⁶
STAINLESS 304 16 ga.	1-1/2"	.627	.911	7.25 x 10 ⁶
	2"	.165	.1425	4.13 x 10 ⁶
	3"	.165	.1425	4.13 x 10 ⁶
STAINLESS 316L 16 ga.	2"	.165	.1425	4.13 x 10 ⁶
	3"	.165	.1425	4.13 x 10 ⁶
	4"	.165	.1425	4.13 x 10 ⁶
10-Diamond Plank				
STEEL 14 ga.	2"	.303	.232	6.73 x 10 ⁶
	3"	.484	.713	20.68 x 10 ⁶
STEEL 12 ga.	2"	.387	.346	10.03 x 10 ⁶
	3"	.715	.959	27.81 x 10 ⁶
10-Diamond Walkway				
Material	Height	S x in ³	I x in. ⁴	El lb. x in ³
STEEL 14 ga.	4.5"	.806	1.43	41.47 x 10 ⁶
	4.5"	1.29	2.42	70.18 x 10 ⁶

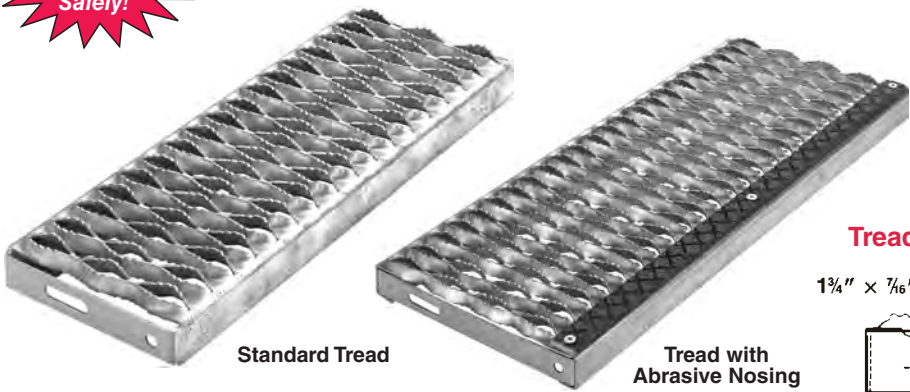
*NOT APPLICABLE TO 2-DIAMOND
**NOT APPLICABLE TO 2, 3 or 8-DIAMOND



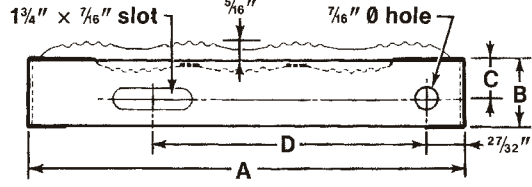
GRIP STRUT® allows safe walking on platforms, stairs and walkways.

GRIP STRUT. Plank Grating Treads

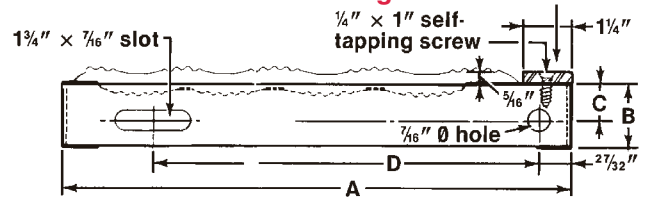
"Step Up or Down Safely!"



Standard Tread



Tread with Abrasive Nosing

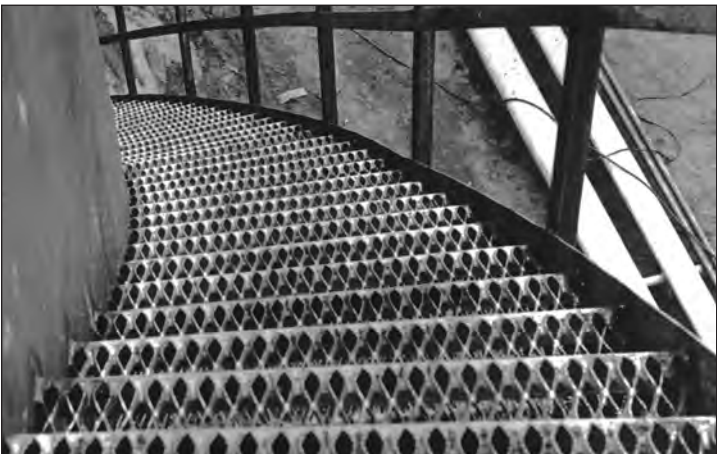


Standard Sizes and Recommended Spans					
Span	Height	Standard		With Abrasive Nosing	
		Catalog #	Size	Catalog #	Size
STEEL-14 Gauge					
Up to 48"	1-1/2"	T-21514	2-Dia. - 4-3/4"	—	—
		T-31514	3-Dia. - 7"	T-31514-N	8-1/8"
		T-41514	4-Dia. - 9-1/2"	T-41514-N	10-1/2"
		T-51514	5-Dia. - 11-3/4"	—	—
Up to 48"	2"	T-22014	2-Dia. - 4-3/4"	—	—
		T-32014	3-Dia. - 7"	T-32014-N	8-1/8"
		T-42014	4-Dia. - 9-1/2"	T-42014-N	10-1/2"
		T-52014	5-Dia. - 11-3/4"	—	—
STEEL-12 Gauge					
Up to 48"	1-1/2"	T-21512	2-Dia. - 4-3/4"	—	—
		T-31512	3-Dia. - 7"	T-31512-N	8-1/8"
		T-41512	4-Dia. - 9-1/2"	T-41512-N	10-1/2"
		T-51512	5-Dia. - 11-3/4"	—	—
Up to 48"	2"	T-22012	2-Dia. - 4-3/4"	—	—
		T-32012	3-Dia. - 7"	T-32012-N	8-1/8"
		T-42012	4-Dia. - 9-1/2"	T-42012-N	10-1/2"
		T-52012	5-Dia. - 11-3/4"	—	—
ALUMINUM - .080"					
Up to 36"	2"	T-32012-A	3-Dia. - 7"	T-32012-A-N	8-1/8"
		T-42012-A	4-Dia. - 9-1/2"	T-42012-A-N	10-1/2"
		T-52012-A	5-Dia. - 11-3/4"	—	—
STAINLESS STEEL - Type 304 - 16 Gauge					
Up to 36"	2"	T-42016-S	4-Dia. - 9-1/2"	—	—
		T-52016-S	5-Dia. - 11-3/4"	—	—

Recommendations are based on approx. min. loads of 300 lb. concentrated; 100 lb. uniform. Specific performance criteria may vary by municipality/building code body and should be locally checked prior to finalizing specifications.

Steel, Aluminum and Stainless Steel-Product Data							
STANDARD				WITH ABRASIVE NOSING			
A	B	C	D	A	B	C	D
4-3/4" (2-Dia.)	1-1/2" 2"	3/4" 1"	2-5/8" 2-5/8"	—	—	—	—
7" (3-Dia.)	1-1/2" 2"	3/4" 1"	3-3/8" 3-3/8"	8-1/8" (3-Dia.)	1-1/2" 2"	3/4" 1"	4-1/2" 4-1/2"
9-1/2" (4-Dia.)	1-1/2" 2"	3/4" 1"	5-7/8" 5-7/8"	10-1/2" (4-Dia.)	1-1/2" 2"	3/4" 1"	6-7/8" 6-7/8"
11-3/4" (5-Dia.)	1-1/2" 2"	3/4" 1"	8-1/8" 8-1/8"	—	—	—	—

1) Stainless steel not available in 2- and 3-Diamond widths. A, B, C, D dimensions have a tolerance of +/- 1/16"



GRIP STRUT® stair treads make safe, sure surfaces for pedestrians.

Stair Treads - Load Table

Load data below takes eccentric loads into consideration. Although load values include allowances for normal impact conditions and usual pedestrian traffic, be sure to make provisions in the structural design for special uses and loads involving unusual impact forces or vibratory forces. Load-carrying capacity of stair treads increases as side channel height and gauge of material increase.

Steel Gauge	Span	Height	2-Diamond		3-Diamond		4-Diamond		5-Diamond																	
			U	C	U	C	U	C	U	C																
2'-0"	1-1/2"	14	1191	472	1576	624	761	443	1006	587	549	435	750	595	434	425	575	563								
		12	1978	783	2513	995	1262	737	1604	936	911	604	1158	917	721	573	916	897								
2'-6"	1-1/2"	14	764	378	1011	500	488	356	645	470	353	349	481	476	278	342	369	452								
		12	1268	611	1611	797	810	590	1029	750	584	578	742	734	463	566	587	719								
3'-0"	1-1/2"	14	532	315	703	418	340	300	450	393	245	300	335	398	194	300	258	378								
		12	882	524	1121	665	563	492	716	626	407	483	517	614	322	473	409	601								
4'-0"	2"	14	498	394	633	501	318	372	404	472	230	364	292	463	182	356	232	454								
		12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—								
Material Gauge	Span	Height	2 DIA.	3 DIA.	4 DIA.	4 DIA.	5 DIA.	5 DIA.	Alum.	Alum.	Alum.	Stainless	Alum.	Stainless	Alum.	Stainless	Alum.	Stainless								
			.080"	.080"	.080"	.080"	.080"	304	.080"	304	U	C	U	C	U	C	U	C	U	C						
2'-0"	2"	14	1328	526	862	503	607	481	610	483	396	388	394	386	850	420	551	402	388	392	390	387	253	388	252	381
			590	350	383	335	270	327	271	323	176	321	175	319	332	263	215	252	152	245	152	244	99	241	98	241

Intermediate stringer is recommended for spans over 4'

Installation Information



GRIP STRUT® Safety Grating is easily installed by one or two persons.

Anchor and clamp assembly for side to side installation

Clamp prevents grating from shifting on supports. Holds pieces together with or without clearance between panels. All bolts are below top surface of grating. No holes are drilled in supporting members.

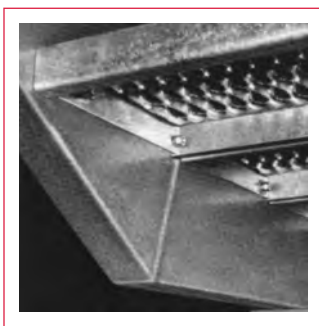
Assembly consists of anchor plate, 2 J-bolts, nuts and washers, all hardware is electro zinc plated. Anchor plate is hot dip mill-galvanized before fabrication. Option: anchoring device can be cadmium plated on special order.

What you need—when you want it!

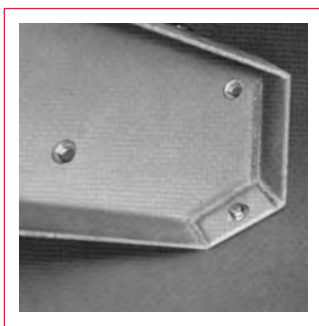
Height	Catalog #	Height	Catalog #
1-1/2"	ACA-15	2"	ACA-20
2-1/2"	ACA-25	3"	ACA-30



GRIP STRUT™ is used for an attractive and safe floor treatment for this sidewalk cafe.



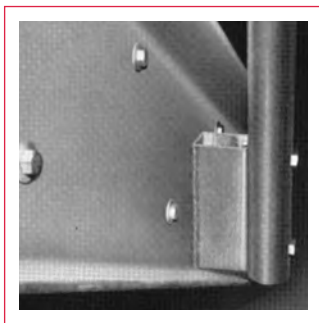
Standard GRIP STRUT® Stair Treads in place to form landing. Rectangular column supports stringer.



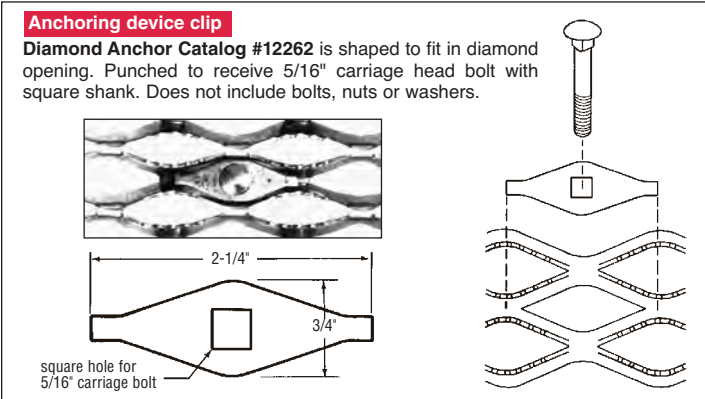
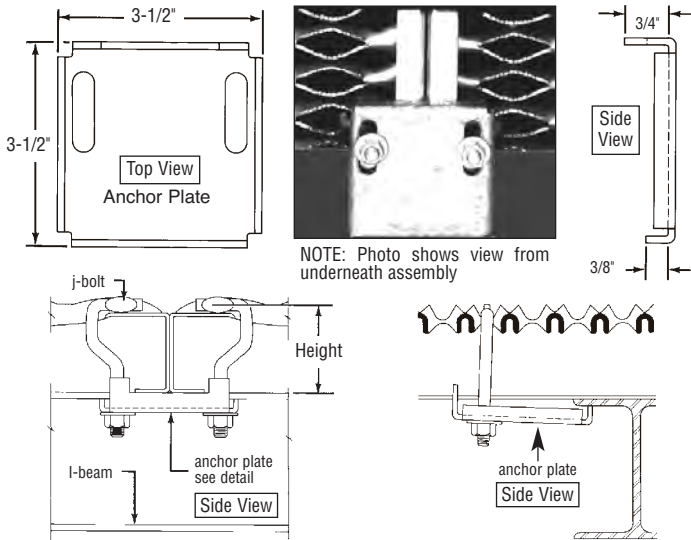
Stringer firmly anchored to floor by bolts.



Stringer bolted solidly to top support.



Bolted handrail attachment.



GRIP STRUT® Ladder Rungs



Catalog No. 11014



Reverse diamond

MATERIAL:

Steel 14 gauge galvanized or plain steel

HEIGHT:

1-1/8"; Rev. Diamond 1-5/8"

WIDTH:

2-1/2"; Rev. Diamond 1-5/8"

LENGTHS:

10' maximum or cut-to-size; Rev. Diamond 23.125" length

WEIGHT:

1.13 lbs./ft.

SAFETY FACTOR:

1.5 (steel)

Ladder rungs made of GRIP STRUT provide safer, more dependable footing indoors and out, in all weather. Serrated open diamond pattern in the web of the channel lets stones, mud, snow, and debris fall through. Even hard ice crumbles underfoot for non-slip footing.

GRIP STRUT® Ladder Rung

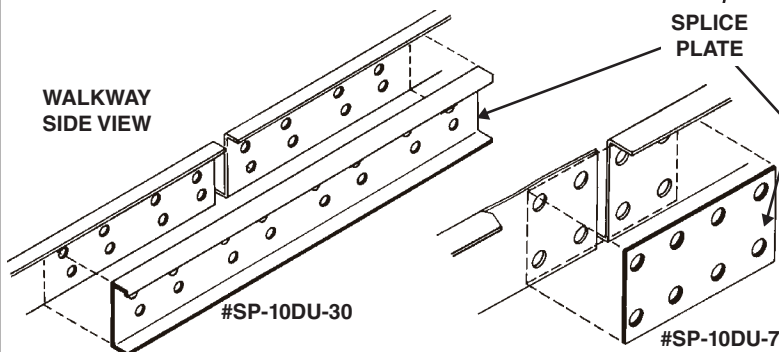
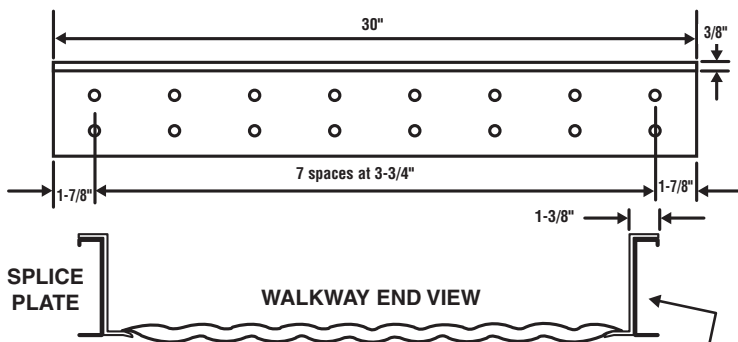
14 Gauge Steel Load Table

Span	16"	18"	20"	24"	30"	36"
C	528	469	422	352	281	234
D	.058	.074	.092	.132	.206	.297

Values are based on concentrated load placed at mid-span.

Walkway Splice Plate Kits

(Pre-drilled holes in panels are available by special order only)



Splice plate kit—30 in.—Catalog #SP-10DU-30

Includes: GRIP STRUT Grating cut to length (if required), eight 9/16" dia. holes in each corner of up-turned kick-plate, two 16-hole, 12 ga. 4-1/2" x 30" C-channel splice plates with 32 ea. 1/2" x 1-1/4" hex head cap screws (galv. S.A.E. Grade 5, lightly oiled), washers and hex nuts. Kit joins continuous sections in run over clear spans to act as one continuous unit. Any combination of 12 and 10 ft. planks can be joined with splice plate package. Recommended bolt torque: 72 ft./lb. min.

Splice plate package—7 in.—Catalog #SP-10DU-7

Includes: GRIP STRUT Grating cut to length (if required), four 1/2" dia. holes in each corner of up-turned kickplate, two 8-hole 10 ga. 4" x 7" splice plates, with 16 ea. 7/16" x 1-1/4" bolts, washers and hex nuts. Kit joins continuous sections together in a run only over supports. Recommended bolt torque: 55 ft./lb. min.

Walkway Splice plates are also available for Heavy Duty GRIP STRUT—ask us!

Installation Details



General installation recommendations

Recommended clearance

STEEL: 1/4" minimum is recommended at perimeter and 3/8" maximum at end joints. Maximum between panels is 1/4"; 1/8" is generally used.

CONCRETE: Concrete form deflection calls for slightly greater perimeter clearance. 1/2" is recommended (Maximum between panels 1/4").

Bearing surfaces

Recommended minimum bearing 1-1/2". Surfaces supporting GRIP STRUT Grating must be smooth and level to insure that adjoining sections provide a safe, even walking surface.

Permanent installation

GRIP STRUT Safety Grating is easily welded to supports for permanent installations. Channels are quickly welded together between supports to provide uniform deflection in adjacent panels.

For welded attachment, secure side channels to supports by fusion welding with 1/8" fillet welds 1" long. Weld adjacent planks together with 1/8" fillet welds 1" long, 24" o.c. staggered top and bottom.

Install GRIP STRUT Safety Grating according to details as shown on individual job drawings or as follows:

(1) *Single width applications.* Utilizing the anchoring device or weldings, attach GRIP STRUT Grating plank at every point of contact with supporting structure around perimeter of plank.

(2) *Multiple width applications.* Utilizing the GRIP STRUT Safety Grating anchoring device or welding as recommended by A.I.S.I. attach grating plank around the perimeter at each point of contact with supporting structure. In field, attach plank to supporting structure with a minimum of one attachment at each end of plank on alternate sides.

When span exceeds 8 ft. weld or bolt side channels of adjacent planks together at midpoint of span. (When spans exceed 6 ft., consider similar treatment.)

GRIP STRUT® Rooftop Walkway System

“Keeps your roof leak-free and extends roof life!”

- **Roof performance**—protects membrane, optimizes roof performance by:
 - (1) *saving the roof from abuse* of walking and equipment (with walkways, abuse never sets foot on your roof again)
 - (2) *minimizing abrasion, walkway pressures on membrane* (larger rubber pads distribute support-stand loads)
 - (3) *relieving membrane thermal stresses* (no fasteners, low bearing stress permit membrane movement)
 - (4) *maximizing direct, free-flow drainage* (elevated planks, open supports, waffle pads)
 - (5) *preserving membrane integrity* (leaks often start at fastener or other membrane penetrations)
- **Versatility**—designed for all roofing systems: built-up (BUR), single-ply (SPR), inverted, and spray-on
- **Economy**—long life, low maintenance on roof *and* walkway
- **Flexibility**—innovative design easily adapts to changing traffic patterns, accommodates level and roof slope changes
- **Traffic control**—raised level discourages “shortcuts”
- **Safe, year-round use**—raised level stays above snowfalls, renowned GRIP STRUT Safety Grating drains snow, stays slip-resistant in three directions (exceeds other gratings by 10 - 180%)
- **Easy installation**—goes down fast without fasteners, stays where you want it until it's time to move



Typical GRIP STRUT® Rooftop Walkway installation.

GRIP STRUT® ROOFTOP WALKWAY SYSTEM COMPONENTS

Item	Cat#	Gauge	Steel	Weight#	Supplied With	Purpose
Plank 10' Regular GS	102014	14	Galvanized	7.4 LF	—	Walkway surface—Choose length & gauge according to live load/deflection requirements.
Plank 12' Regular GS	102012	12	Galvanized	10.4 LF		
Nosing Cap	RTW-N	16	Galvanized	1.06	2 sets flat counter sunk slotted head cap screws/hex nuts & anchor #12262	Place across cut edge of GRIP STRUT plank: trim ends of walkway runs and step-ups to protect shins. To be installed only where full diamond exists as exposed ends of grating plank.
Splice Plates—Flat	RTW-FSP	12	Galvanized	.25	Appropriate hardware for attachment.	Level runs.
Splice Plates—Angle	RTW-ASP	12	Galvanized	.25		Level runs to bottoms of slopes.
Splice Plates—Modified	RTW-MAS	16	Galvanized	2.36		Level runs to tops of slopes and to eliminate tripping hazards.
Side Channel Connector	RTW-SC	16	Galvanized	.37	Appropriate hardware for attachment.	Connecting planks side-by-side; one connector each end to provide work surfaces or wide walkway runs.
Support Stand Standard 21"	RTW-SS-5	14	Galvanized	8.93	Appropriate hardware for attachment.	5-13/16" walkway height, 3-1/2" clearance—for basic-run level-walkway support, adaptable to “T” intersection.
Support Stand Standard 21"	RTW-SS-8	14	Galvanized	11.35	Appropriate hardware for attachment.	9-1/8" walkway height, 6-13/16" clearance. Open for free-flow drainage, use to support plank lengths at mid-stand, support/splice/self-align plank ends at joints. Standard-level support adaptable to “T” intersections for level changes.
Support Stand Adjustable 21"	RTW-AS-8	14	Galvanized	14.00	Appropriate hardware for attachment.	2-way and 6-level adjustability in each leg of walkway support adaptable to roof-sloping in any direction.
T-Junction Bracket	RTW-TJ	12	Galvanized	3.79	Appropriate hardware for attachment.	To connect the plank run at “T” intersections on elevated continuous runs.
Step Support Bracket	RTW-SB	14	Galvanized	.74	Appropriate hardware for attachment.	Mount four on plank ends as risers, and a length (4' max.) of plank as tread, for a step change walkway level or bridge obstructions such as piping, etc.
Protective Pad	RTW-PAD	—	—	8.50	25" x 11" - 1/2" Durable hard rubber	Use directly on roof membrane (unless PVC roof) under support stands and/or plank ends to protect roof from shock of traffic and spread loads over larger areas.
Carriage Bolt Component Kit	RTW-CK	1-1/4"	Galvanized		Nylon nut, flat washer, diamond washer	To connect planks to accessories and support stands.



HOW TO ORDER/SPECIFY

Simply call 1-800-237-3820 and we will be ready to help you with your needs. Your inquiry or order will process more quickly, if you have the following information available when you call.

CONSIDER:

1. Application or use of product
2. Physical requirements
 - A. Loading requirements
 - B. Open Area
 - C. Slip resistance



PLEASE SPECIFY:

3. **“Heavy Duty GRIP STRUT® Safety Grating”**
4. **Quantity:** number of panels or pieces required
5. **Material:**
 - Pre-galvanized Steel 10 gauge (9 & 11 gauge by special order)
 - Black (plain steel) 10 gauge (9 & 11 gauge by special order)
6. **Width:**

Plank	Walkway
9-1/4" 2-Diamond	24" 5-Diamond
13-3/4" 3-Diamond	30" 6-Diamond
23-1/4" 5-Diamond	36" 8-Diamond
27-3/4" 6-Diamond	
36" 8-Diamond	
7. **Height:**
 - Plank 2", 2-1/2", 3", or 4"
 - Walkway 5" depth
8. **Length:**
 - 10', 12' or cut-to-size
 - Walkway—maximum 24' (special order)
9. **Surface:** Serrated (standard) or Non-Serrated (special order)
10. Special fabrication or products—please ask for assistance
11. Specify any required accessories such as clamps, splice plates, etc.
12. **Catalog number:** generally 4-5 digits, may have a prefix or suffix; 1st numeral denotes number of diamonds to width of plank or walkway
 - 3 = 3 diamond
 - 5 = 5 diamond

2nd and 3rd numerals denote channel height-plank, depth of walkway

 - 20 = 2" height
 - 25 = 2-1/2" height . . . and so on
 - 50 = 5" depth (walkway only)

4th and 5th numerals denote gauge

 - 11, 10, or 09 = galvanized steel or plain steel

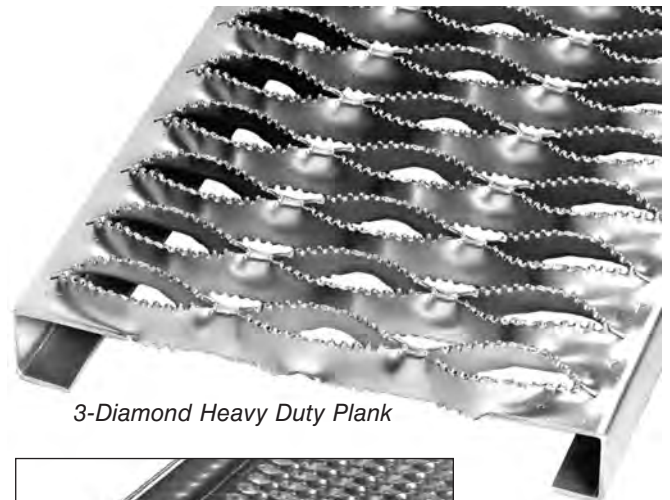


Prefix:
 "HT" = Heavy Duty Stair Tread
 "H" = Heavy Duty
Suffix:
 "B" = Black (plain steel)
 "U" = Walkway

EXAMPLES:

- H-22010 = Heavy Duty, 2-Diamond Plank, 2" height, 10 gauge, Galvanized Steel
- H-22010-B = Heavy Duty, 2-Diamond Plank, 2" height, 10 gauge, Black (plain) steel
- H-85010-U = Heavy Duty, 8-Diamond Walkway, 5" depth, 10 gauge, Galvanized Steel
- HT-22010 = Heavy Duty, 2-Diamond Tread, 2" height, 10 gauge, Galvanized

Accessories have specific catalog numbers that are found on the product detail pages.



3-Diamond Heavy Duty Plank



6-Diamond Heavy Duty Walkway

Walkway Meets OSHA Toeboard Requirements

- MATERIAL:** Steel 10 gauge (mill galvanized before fabrication) (9 & 11 gauge special order) Black (plain) steel (unpainted and oiled steel) 10 ga.
- HEIGHTS:** Plank: 2", 2-1/2", 3", 4"
Walkway: 5" depth
- WIDTHS:** Plank: 9-1/4", 13-3/4", 23-1/4", 27-3/4", 36"
Walkway: 24", 30", 36"
- LENGTHS:** 10' or 12' stock lengths or cut-to-size
Walkways available up to 24' (special order)
- OPEN AREA:** 52%

Heavy Duty GRIP STRUT Safety Grating products are designed for applications of greater than ordinary load and/or longer span. Basic design is the same as regular GRIP STRUT, but diamond openings are larger and metal is thicker. Heavy Duty Grating is available in many of the same configurations, materials and finishes. A variety of standard plank widths and channel heights can be combined to meet any application requirement. High strength-to-weight performance is achieved through section depth and integral side channel design. Bridged struts form a rigid, strong plank surface that carries large loads with minimum deflection.

Material cost is low, erection cost nominal. Long lasting, corrosion-resisting finishes provide long service life to all GRIP STRUT Gratings: steel or aluminum. These brawny planks, walkways and stair treads permit substantial reduction in supporting structural materials. Planks are light, simply installed by 1 or 2 persons. Sections are easily field cut, adapted; connections are rapidly made with bolts, clamps or welding. Disassembly can be just as rapid.

Heavy Duty GRIP STRUT Walkways meet OSHA toeboard requirements for elevated structures with upturned, 5-in. high integral side channels.



TO PLACE AN ORDER CALL:

1-800-237-3820

FAX: See page 2 for nearest service center.

Heavy Duty GRIP STRUT® Grating

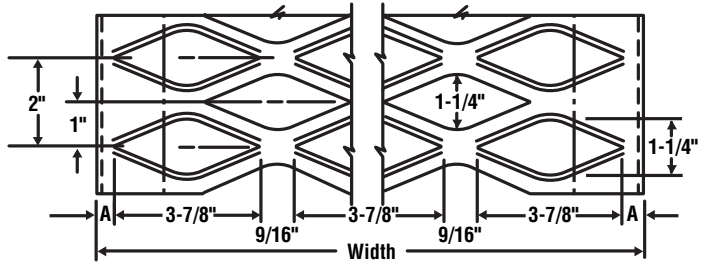
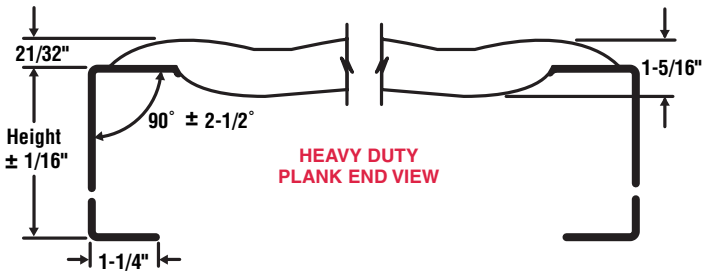
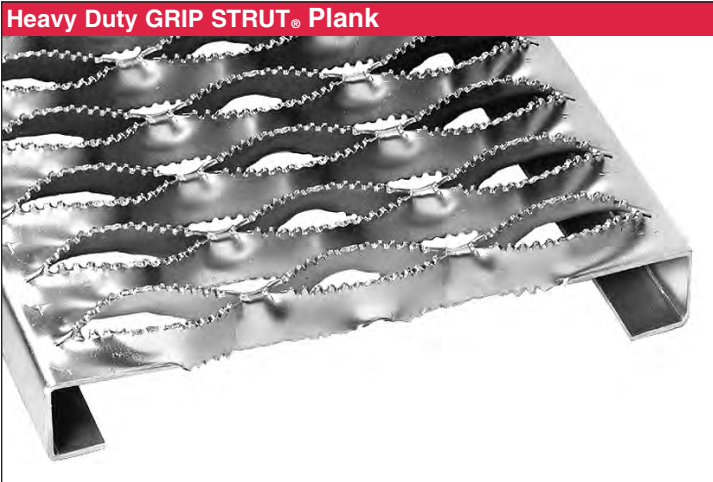
- Long Service Life**
- High Load Capacity**
- Slip-Resistant Surface**
- Low Maintenance**
- Ease of Installation**

Product Details

For Regular GRIP STRUT® See Pages 47-59

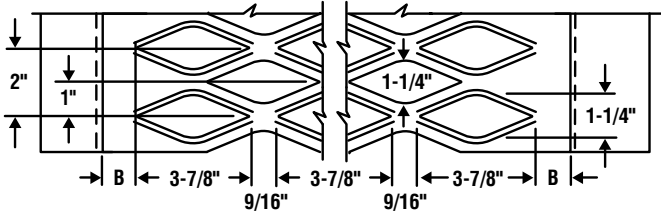
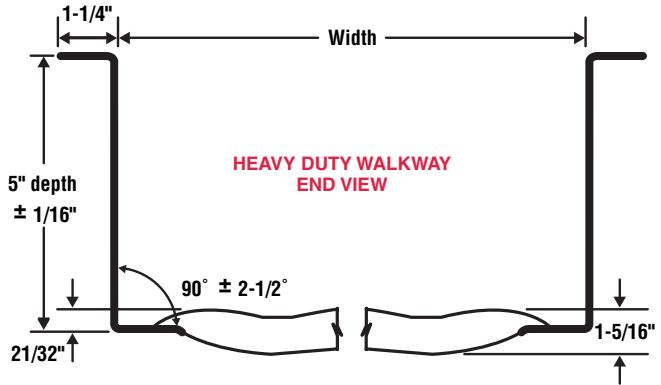


Safe, sure footing on Heavy Duty GRIP STRUT® 8-Diamond Walkway.



TOP VIEW ■ STOCK

HEAVY DUTY PLANK DETAIL			
Description	Width	A-Size	Material
2-Diamond	9-1/4"	15/32"	Galv. & Black (Carbon)
3-Diamond	13-3/4"	1/2"	Galv. & Black (Carbon)
5-Diamond	23-1/4"	13/16"	Galv. & Black (Carbon)
6-Diamond	27-3/4"	27/32"	■ Galv. & Black (Carbon)
8-Diamond	36"	17/32"	Galv. & Black (Carbon)



TOP VIEW ■ STOCK

HEAVY DUTY WALKWAY DETAIL			
Description	Width	B-Size	Material
5-Diamond	24"	1-3/16"	Galv. & Black (Carbon)
6-Diamond	30"	1-31/32"	■ Galv. & Black (Carbon)
8-Diamond	36"	17/32"	Galv. & Black (Carbon)

6-Diamond Walkway Loading
6-Diamond Plank Loading

10 Gauge Only

Heavy Duty GRIP STRUT® Grating

HEAVY DUTY GRIP STRUT Strut Loading			
WIDTHS	GAUGE	U	C ₂
36" Plank Serrated	10 ga. steel	343	515
	9 ga. steel	391	586
27-3/4" Plank Serrated	10 ga. steel	682	788
	9 ga. steel	767	887
23-1/4" Plank Serrated	10 ga. steel	971	941
	9 ga. steel	1093	1059
13-3/4" Plank Serrated	10 ga. steel	2354	1348
	9 ga. steel	2678	1534
9-1/4" Plank Serrated	10 ga. steel	5201	2004
	9 ga. steel	5917	2281
36" Walkway Serrated	10 ga. steel	343	515
	9 ga. steel	391	586
30" Walkway Serrated	10 ga. steel	494	618
	9 ga. steel	563	703
24" Walkway Serrated	10 ga. steel	912	912
	9 ga. steel	1026	1026



FREE 2008 Gratings Catalog available now!

Grating's serrated surface grips soles securely in all directions—ideal for both indoor and outdoor locations. Heavy Duty GRIP STRUT Grating products may be painted, hot dip galvanized after fabrication, anodized, plated, plastic coated or specially finished in other ways to fit service requirements. Finish coatings are economically applied since all surfaces are accessible to brush or spray.



Larger diamonds and thicker metal of Heavy Duty GRIP STRUT® is designed for greater load and/or longer span.

Heavy Duty GRIP STRUT® 6-DIAMOND PLANK (27-3/4" WIDTH) **Walkway** **LOAD TABLE**

Material	Height Inches	#/LF	Catalog Number	Load Type	CLEAR SPAN																
					2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
STEEL 10 ga.	2	16.2	H-62010	U	923	590	410	301	230	182	147	122	103	87	75	66	58	46	37	31	25
				D	0.05	0.08	0.11	0.15	0.19	0.24	0.30	0.35	0.41	0.47	0.54	0.62	0.69	0.85	1.04	1.24	1.45
				C	2067	1653	1378	1181	1033	919	827	752	689	636	590	551	517	459	413	376	344
				D	0.04	0.06	0.09	0.12	0.15	0.19	0.24	0.28	0.33	0.38	0.44	0.49	0.55	0.68	0.81	0.98	1.16
	2-1/2	16.7	H-62510	U	1398	894	621	457	349	276	224	185	156	132	114	99	87	70	56	47	39
				D	0.05	0.07	0.10	0.14	0.18	0.23	0.27	0.32	0.36	0.42	0.49	0.55	0.62	0.79	0.96	1.15	1.35
				C	3133	2507	2089	1790	1567	1393	1253	1139	1044	964	895	836	783	696	627	570	522
				D	0.04	0.06	0.08	0.11	0.14	0.18	0.22	0.25	0.29	0.34	0.39	0.44	0.50	0.63	0.76	0.91	1.08
	3	17.2	H-63010	U	1488	952	662	486	372	293	239	197	164	141	122	106	93	74	59	49	42
				D	0.04	0.06	0.08	0.11	0.15	0.18	0.22	0.26	0.30	0.34	0.39	0.44	0.48	0.58	0.68	0.80	0.95
				C	3333	2667	2222	1905	1667	1481	1311	1212	1111	1026	952	889	833	741	667	606	556
				D	0.03	0.05	0.07	0.09	0.12	0.15	0.17	0.21	0.24	0.28	0.31	0.35	0.39	0.47	0.55	0.64	0.76
4	18.2	H-64010	U	2440	1561	1805	797	611	482	391	323	270	232	200	174	153	120	98	80	67	
			D	0.03	0.05	0.07	0.09	0.12	0.14	0.17	0.20	0.23	0.27	0.31	0.35	0.39	0.47	0.56	0.66	0.78	
			C	5467	4373	3644	3124	2733	2430	2187	1988	1822	1682	1562	1458	1367	1215	1039	994	911	
			D	0.03	0.04	0.06	0.07	0.09	0.11	0.14	0.16	0.19	0.22	0.25	0.28	0.31	0.38	0.45	0.53	0.63	

Heavy Duty GRIP STRUT® WALKWAY (24", 30" & 36" WIDTH) **Walkway** **LOAD TABLE**

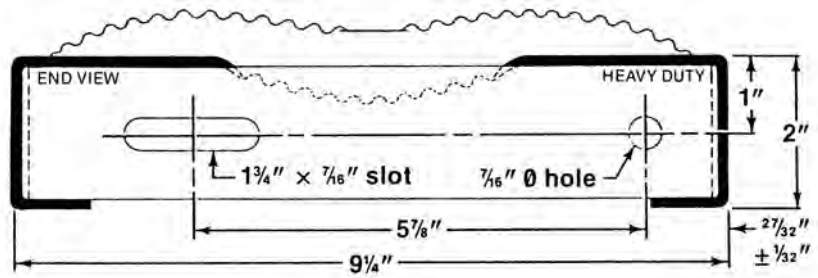
Width	Gauge	Depth in.	#/LF	Catalog Number	Load Type	CLEAR SPAN																
						4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
24"	10	5	17.5	H-55010-W	U	937	600	417	306	234	185	150	124	104	89	77	67	59	46	38	31	26
					D	0.38	0.39	0.42	0.38	0.38	0.38	0.39	0.47	0.56	0.66	0.77	0.88	1.01	1.26	1.59	1.89	2.25
					C	3750	3000	2500	2143	1875	1667	1500	1364	1250	1153	1071	1000	938	833	750	682	625
					D	0.30	0.31	0.34	0.31	0.30	0.30	0.31	0.38	0.45	0.53	0.61	0.70	0.80	1.01	1.25	1.51	1.80
30"	10	5	19.9	H-65010-W	U	916	586	407	299	229	182	146	121	102	87	75	65	57	45	36	30	25
					D	0.37	0.43	0.40	0.40	0.46	0.42	0.41	0.41	0.49	0.57	0.66	0.75	0.86	1.09	1.33	1.62	1.92
					C	4584	3666	3056	2619	2291	2037	1834	1667	1528	1410	1309	1222	1146	1019	916	834	763
					D	0.30	0.34	0.32	0.32	0.37	0.34	0.33	0.33	0.39	0.45	0.53	0.61	0.69	0.87	1.08	1.30	1.55
36"	10	5	22.7	H-85010-W	U	556	356	247	181	139	110	89	73	62	53	45	39	35	27	22	18	15
					D	0.39	0.39	0.33	0.32	0.33	0.36	0.39	0.42	.051	0.60	0.69	0.79	0.91	1.15	1.40	1.67	1.98
					C	3330	2667	2222	1905	1667	1481	1333	1212	1111	1026	952	889	833	741	667	606	556
					D	0.31	0.31	0.26	0.26	0.26	0.29	0.31	0.34	0.41	0.48	0.55	0.64	0.72	0.92	1.13	1.37	1.63

Heavy Duty GRIP STRUT®

Stair Tread Accessories

MATERIAL: Steel—10 gauge, galvanized
HEIGHT: 2"
WIDTH: 9-1/4"
LENGTH: 24", 30", 36", 48"

Nowhere is sole-gripping design more critical than on stairs, where feet are more prone to slip, often with severe consequences. Heavy Duty GRIP STRUT Treads provide extra safety two ways: multi-directional scraping action of tiny-toothed surfaces keeps shoes clean; open design rids surface of debris. Treads are available in standard nosing style only. They are ideal for new construction, easily attached to stringers for rehabilitation of existing stairs.



Heavy Duty Stair Tread

Material	Height	#/LF	Catalog#	Load Type	Clear Span			
					2'0"	2'6"	3'0"	4'0"
Steel-10 ga.	2"	7.4	HT-22010	U	2412	1544	1026	629
				C	1860	1487	1240	929

Maximum allowable tread loads. See "Load Information" p. 50 for complete explanation.

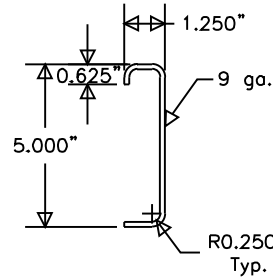
Hold-Down Clip



Stainless steel; use with 3/8" square-shank carriage bolts, nuts and washers obtained locally.

Walkway Splice Plate

9 gauge mill-galvanized steel, prepunched and supplied with 1/2" hex bolts, nuts and washers. Torque to 40 ft lbs.



McNICHOLS



Pipe Sleeve/Handrail Bracket

Catalog No. HRB-P-__ - Designed for use with pipe style handrail post (Max. 2" O.D.) which allows for simple installation of handrail post. Secure post by tightening two allen head set screws. Handrail Bracket is sold in plain steel but may be ordered as galvanized by special order. All hardware for mounting Handrail Bracket to Heavy Duty Steel Walkway is included.

PLANK	A	B	"A" measurement is center of bolt holes on one bracket to centerline of bolt holes on opposite bracket.
8-Diamond	41-1/8"	4-13/16"	
6-Diamond	35-1/8"	6-1/4"	
5-Diamond	29-1/8"	5-3/8"	

Clip Angle/Handrail Bracket

Catalog No. HRB-A-__ - Designed for use with all types of Handrail Post: Pipe, Angle, Tube etc. Handrail Post may be conveniently mounted to Handrail Bracket with two 1/2" bolts and nuts (not included) to predrilled holes. Brackets are sold in plain steel but may be ordered as galvanized by special order. All hardware for mounting Handrail Bracket to Heavy Duty Steel Walkway is included.

