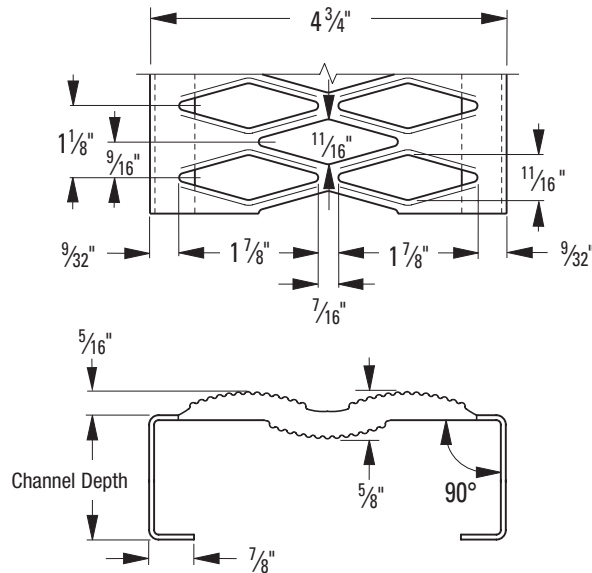




GRATING PACIFIC

GRIP STRUT® SAFETY GRATING LOAD TABLES 2-DIAMOND PLANK — 4-3/4" WIDTH



Grip Strut 2-Diamond Plank — 4-3/4" Width

Allowable loads and deflections: U=Uniform load (lb./ft.²) C= Concentrated load (lb.) D=Deflection (in.)
Spans to the left of heavy red line produce a deflection of 1/4" or less under a uniform load of 100 lb./ft.²

Material Gauge	Channel Depth in.	Weight lb./lin. ft.	Catalog Number	Load/ Defl. Code	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"
Steel 14 ga.	1-1/2"	2.3	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					
	2"	2.6	22014	U	2198	1409	980	721	553	438	356	295	248	212	184	161	142	113
				D	.06	.09	.13	.17	.23	.29	.35	.43	.51	.60	.70	.81	.92	1.18
				C	870	697	582	499	438	390	352	321	295	273	255	239	225	201
				D	.04	.07	.10	.14	.18	.23	.28	.34	.41	.48	.56	.65	.74	.94
	2-1/2"	2.8	22514	U	2522	1616	1124	827	634	502	408	338	285	244	211	184	163	139
				D	.04	.06	.08	.11	.14	.18	.23	.27	.33	.38	.45	.51	.59	.75
				C	998	800	667	573	502	447	404	368	338	313	292	273	257	231
				D	.03	.04	.06	.09	.11	.15	.18	.22	.26	.31	.36	.41	.47	.60
Steel 12 ga.	1-1/2"	3.2	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	
	2"	3.6	22012	U	2792	1790	1245	917	703	557	453	375	317	271	235	205	181	145
				D	.05	.08	.11	.16	.20	.26	.32	.39	.46	.55	.63	.73	.84	1.07
				C	1105	886	739	635	557	496	448	409	376	348	325	305	287	258
				D	.04	.06	.09	.12	.16	.21	.26	.31	.37	.44	.51	.59	.67	.86
	2-1/2"	4.0	22512	U	4179	2676	1860	1368	1049	830	673	557	469	400	346	302	266	211
				D	.04	.06	.09	.13	.17	.21	.26	.32	.38	.44	.51	.59	.67	.86
				C	1654	1324	1104	948	830	739	666	606	557	515	479	448	421	376
				D	.03	.05	.07	.10	.13	.17	.21	.25	.30	.35	.41	.47	.54	.69



GRATING PACIFIC

GRIP STRUT® SAFETY GRATING LOAD TABLES (2-Diamond plank, 4-3/4" Width)

Grip Strut 2-Diamond Plank — 4-3/4" Width

Allowable loads and deflections: U=Uniform load (lb./ft.²) C= Concentrated load (lb.) D=Deflection (in.)

Spans to the left of heavy red line produce a deflection of 1/4" or less under a uniform load of 100 lb./ft.²

Material Gauge	Channel Depth in.	Weight lb./lin. ft.	Catalog Number	Load/Defl. Code	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"
Alum. Alloy 5052 .080"	1-1/2"	.85	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			
	2"	.92	22012-A	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		
				C	579	463	386	331	290	257	232	211	192	177	165		
				D	.06	.10	.15	.20	.27	.34	.42	.51	.59	.69	.80		
	2-1/2"	1.00	22512-A	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 .100"	1-1/2"	1.08	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			
	2"	1.20	22010-A	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
				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
	2-1/2"	1.31	22510-A	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

*Available upon special order.

Engineering Data (for both channels)

Material Gauge	Channel Depth in.	Sx in. ³	Ix in. ⁴	EI lb. x in. ²
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 .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 .100"	1-1/2"	.196	.156	1.59 x 10 ⁶
	2"	.352	.309	3.15 x 10 ⁶
	2-1/2"	.456	.544	5.55 x 10 ⁶

Strut Loading

Material Gauge	Type Loading**	Load	Deflection in.
Steel 14 ga.	U	6268	.10
	Cs	1240	.08
Steel 12 ga.	U	8619	.10
	Cs	1705	.08
Aluminum .080"	U	4677	.12
	Cs	925	.10
Aluminum .100"	U	5847	.12
	Cs	1157	.10

** U = Allowable uniform load (lb./ft.²)

Cs = Allowable concentrated load per ft. of length at mid-width (lb./ft.)