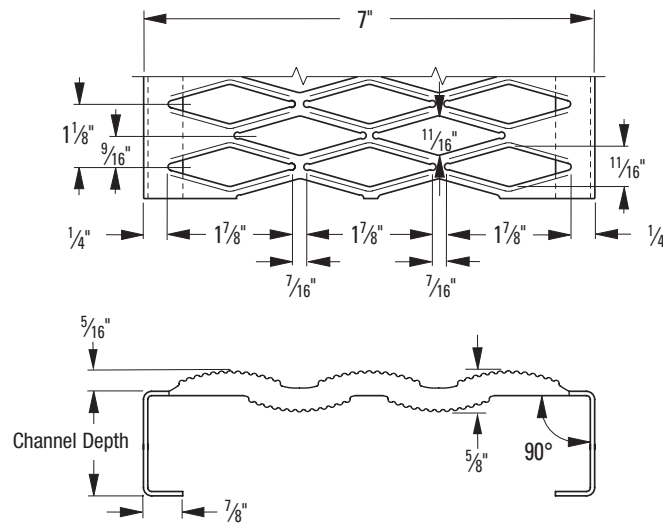


GRIP STRUT® SAFETY GRATING LOAD TABLES

3-DIAMOND PLANK — 7" WIDTH



Grip Strut 3-Diamond Plank — 7" 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"	3.0	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					
				D	.05	.08	.11	.16	.21	.26	.32	.39	.47					
	2"	3.2	32014	U	1492	957	665	490	376	298	242	201	169	145	125	110	97	77
				D	.06	.09	.13	.17	.23	.29	.35	.43	.51	.61	.71	.81	.93	1.19
				C	871	697	582	500	439	391	353	322	296	275	256	240	226	203
				D	.04	.07	.10	.14	.18	.23	.28	.34	.41	.48	.56	.65	.74	.95
	2-1/2"	3.5	32514	U	1712	1097	763	562	431	342	277	230	194	166	144	126	111	89
				D	.04	.06	.08	.11	.14	.18	.23	.27	.33	.39	.45	.52	.59	.76
				C	999	800	668	574	503	448	405	369	340	315	293	275	259	233
				D	.03	.04	.06	.09	.11	.15	.18	.22	.26	.31	.36	.41	.47	.61
Steel 12 ga.	1-1/2"	4.1	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	
				D	.05	.08	.12	.17	.22	.28	.34	.42	.50	.59	.69	.80	.92	
	2"	4.5	32012	U	1896	1216	846	623	478	379	308	256	216	185	160	140	124	99
				D	.05	.08	.11	.16	.20	.26	.32	.39	.47	.55	.64	.74	.85	1.08
				C	1106	886	740	636	558	498	450	410	378	350	327	307	289	260
				D	.04	.06	.09	.12	.16	.21	.26	.31	.37	.44	.51	.59	.68	.87
	2-1/2"	4.9	32512	U	2836	1817	1263	929	712	564	457	379	319	272	235	206	181	144
				D	.04	.06	.09	.13	.17	.21	.26	.32	.38	.44	.52	.59	.68	.86
				C	1654	1325	1105	948	831	740	667	608	558	516	481	450	423	378
				D	.03	.05	.07	.10	.13	.17	.21	.25	.30	.35	.41	.47	.54	.69
	3"	5.2	33012	U	3587	2298	1597	1174	900	712	578	478	403	344	297	259	228	181
				D	.04	.06	.09	.13	.17	.21	.26	.32	.38	.44	.51	.59	.67	.86
				C	1868	1675	1397	1199	1050	935	843	767	705	652	606	567	533	476
				D	.03	.04	.06	.09	.11	.14	.18	.22	.26	.30	.35	.41	.46	.59

GRIP STRUT® SAFETY GRATING LOAD TABLES (3-Diamond plank, 7" Width)

Grip Strut 3-Diamond Plank — 7" 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"	1.06	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						
				D	.08	.12	.18	.25	.32	.41	.50						
	2"	1.15	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		
				D	.06	.10	.15	.20	.27	.34	.42	.51	.59	.69	.80		
	2-1/2"	1.24	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
				D	.05	.08	.12	.17	.22	.28	.35	.42	.50	.59	.68	.78	.89
	3"	1.33	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
				D	.03	.07	.11	.15	.20	.25	.31	.38	.45	.53	.61	.70	.80
Alum. Alloy 5052 .100"	1-1/2"	1.34	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					
				D	.07	.12	.17	.24	.31	.40	.51	.61					
	2"	1.46	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
				D	.07	.11	.16	.22	.29	.37	.46	.56	.66	.78	.90	1.04	1.18
	2-1/2"	1.57	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
				D	.05	.09	.12	.17	.23	.29	.36	.43	.51	.60	.70	.81	.92
	3"	1.68	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
				D	.04	.06	.10	.13	.17	.22	.27	.33	.40	.47	.54	.62	.71

*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"	3"	.625	.722	20.94 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"	3"	.464	.602	6.14 x 10 ⁶
	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
	3"	.627	.911	9.29 x 10 ⁶

Strut Loading

Material Gauge	Type Loading**	Load	Deflection in.
Steel 14 ga.	U	3535	.11
	Cs	1031	.09
Steel 12 ga.	U	6405	.11
	Cs	1868	.09
Aluminum .080"	U	2901	.15
	Cs	846	.12
Aluminum .100"	U	4488	.16
	Cs	1309	.13

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

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