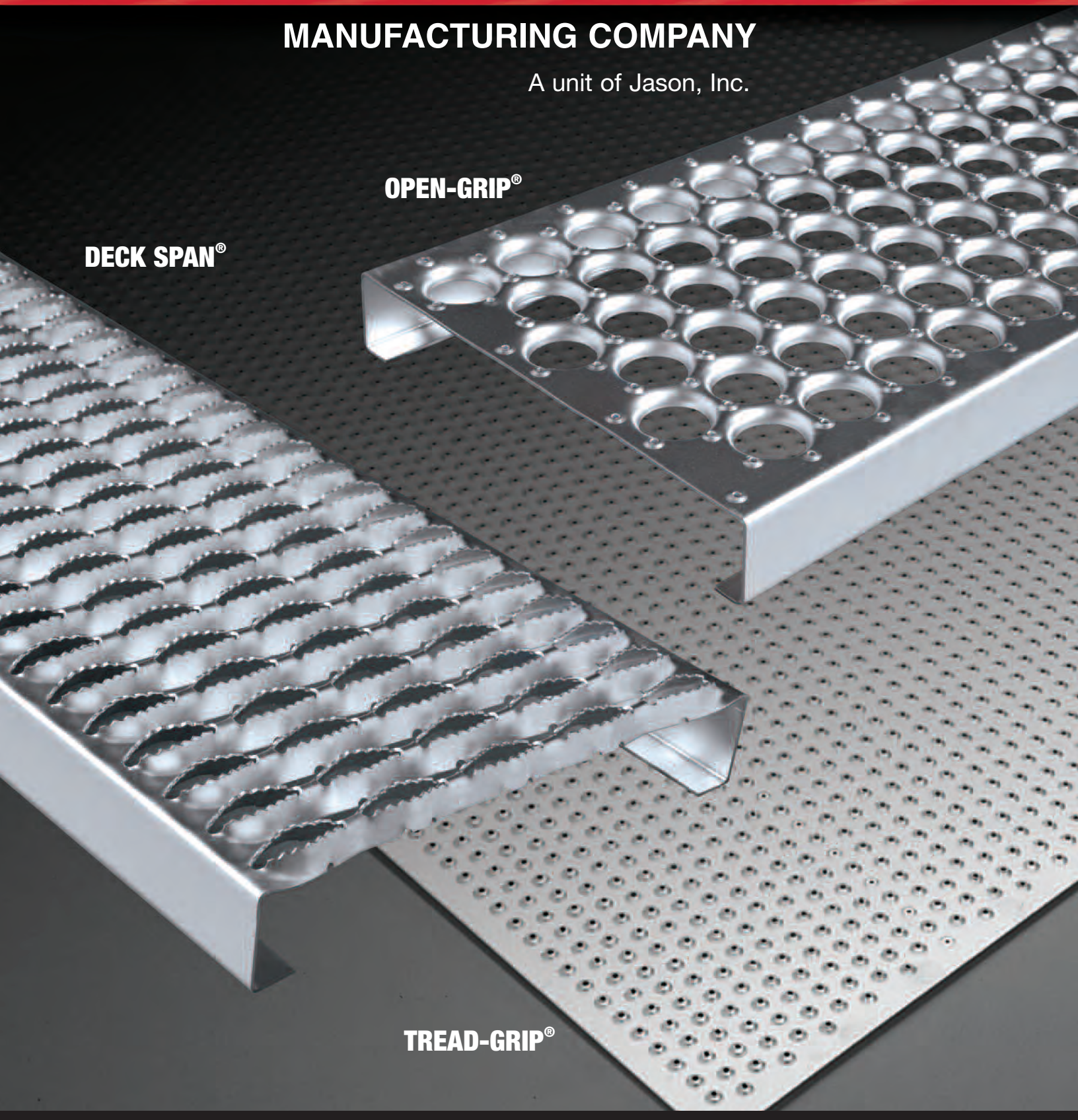
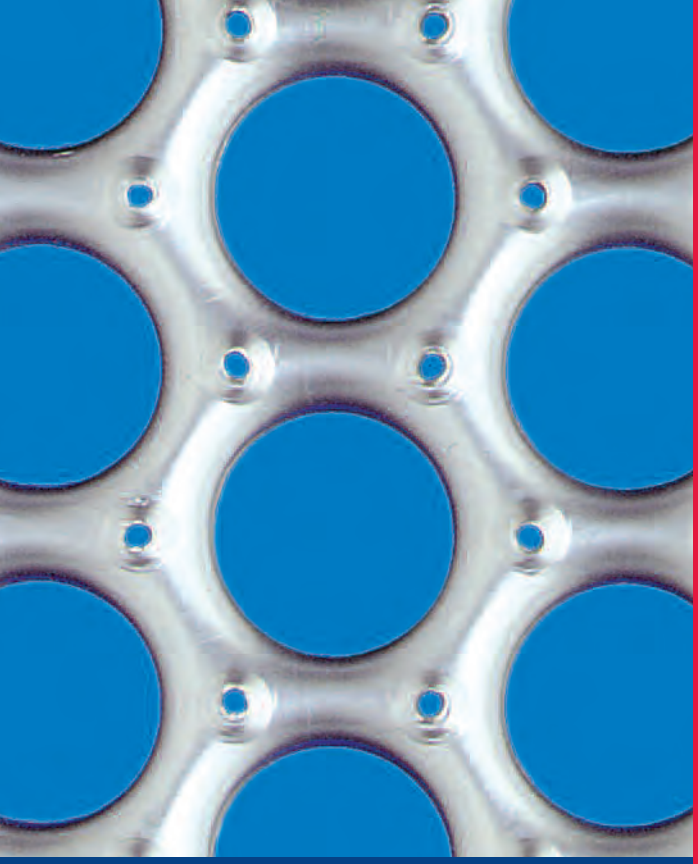
Morton

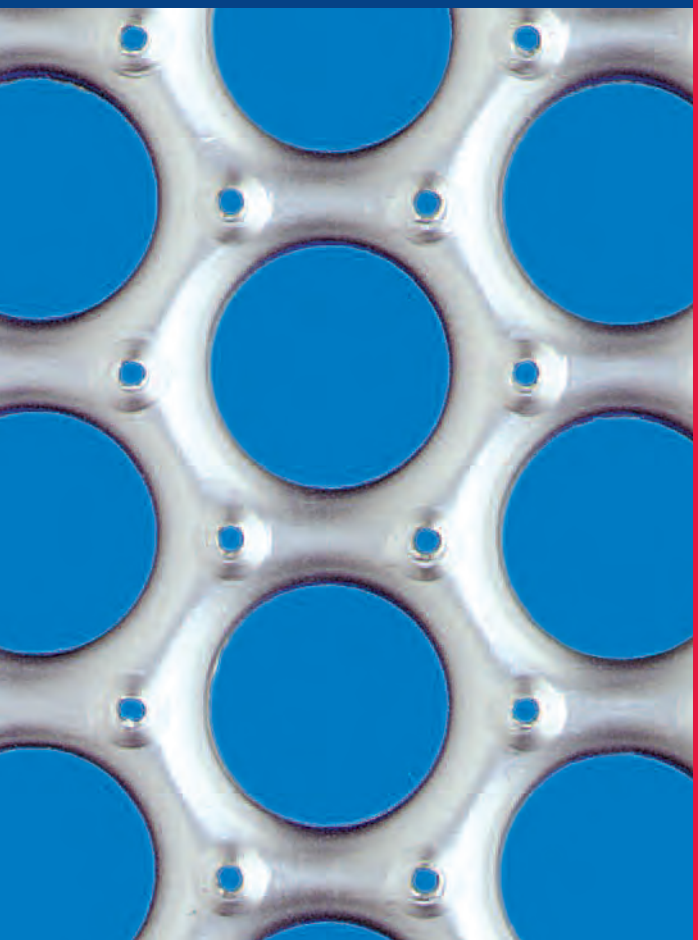
MANUFACTURING COMPANY

A unit of Jason, Inc.

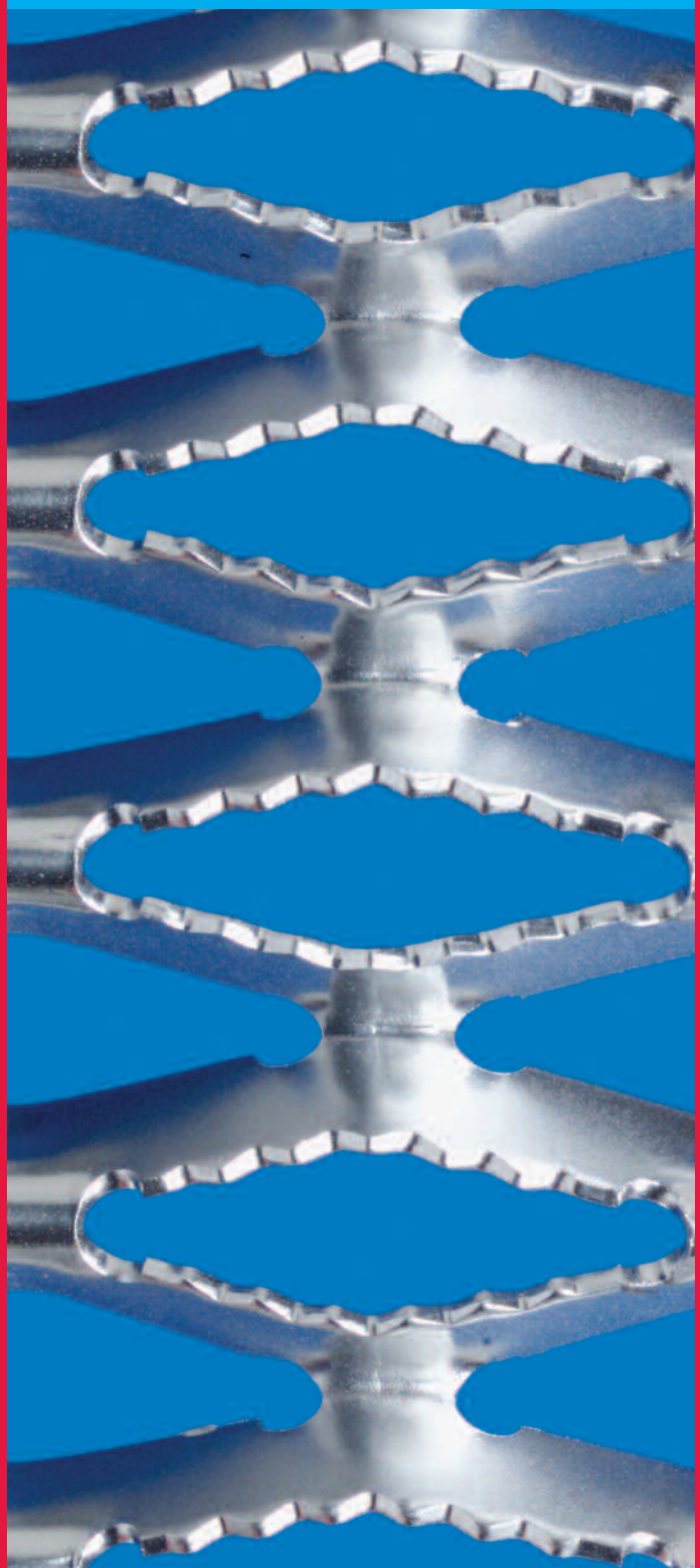




OPEN-GRIP® GRATING

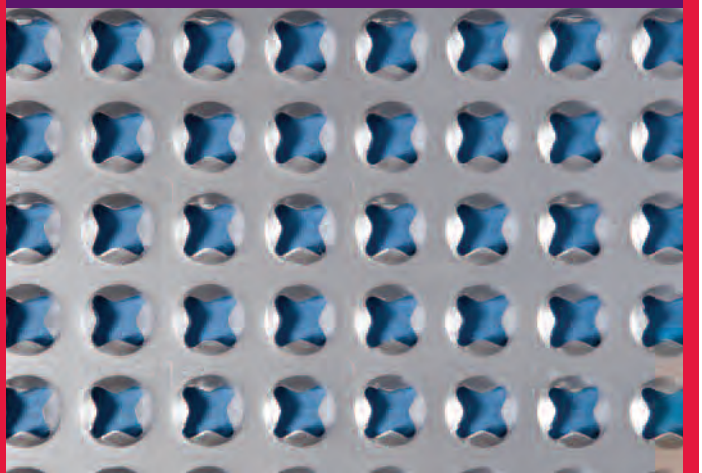


DECK SPAN® GRATING



TREAD-GRIP® FLOORING

STAR-DECK® FLOORING



SAFETY GRATING PRODUCTS FROM MORTON MANUFACTURING COMPANY

Morton's OPEN-GRIP®, DECK SPAN®, TREAD-GRIP® and STAR-DECK® grating products are designed to consistently provide an aggressive slip resistant surface. Available in steel or aluminum, Morton products are specified in countless applications.

DESIGN ADVANTAGES OF MORTON SAFETY GRATING

- Exceeds Federal Specifications for Slip Resistance
- Provides Slip Resistance in All Directions
- Large Open Area
- Self Cleaning, Minimum Maintenance
- One-Piece Construction
- Self Framing
- Lightweight
- Resilient Walking Surface
- Easy to Handle and Install

OPEN-GRIP® GRATING

Morton OPEN-GRIP® is the original round hole debossed grating, and has been widely used in a variety of industrial applications. It is used wherever safe, comfortable, slip resistant footing on open flooring is important. The self-cleaning OPEN-GRIP® pattern is produced by a cold-working process that creates raised, perforated buttons and 1-3/8" debossed holes that permit the flow of air, heat and light. The circular gripping buttons of OPEN-GRIP® are user friendly, retain their slip resistance with wear, and provide excellent slip resistance in all directions.

DECK SPAN® GRATING

Morton DECK SPAN® grating features a unique, one-piece construction that is self framing, lightweight, and offers outstanding load-carrying capabilities. DECK SPAN® safety grating provides in-plant safety in the form of open flooring, catwalks, platforms, mezzanines, stair treads, and walkways. The surface pattern is a diamond configuration created by the cross-hatching of formed and reticulated metal struts which allows for the passage of light and waste materials. The diamond design offers slip resistance in all directions. DECK SPAN® has a relief hole at the point of the diamond.

TREAD-GRIP® FLOORING

Morton TREAD-GRIP® is metal flooring with an important difference – a surface of closely-spaced perforated buttons produced by cold forming. TREAD-GRIP® is most frequently used over existing flooring and for indoor applications. Its circular tread pattern provides high-adhesive friction and long service life which is suitable for many applications.

STAR-DECK® FLOORING

Morton STAR-DECK® is a highly slip-resistant, low profile metal grating. Our unique process allows for countless pattern possibilities in materials up to 11 gauge. Our cold-formed embosses with star shaped holes provide slip resistance in all directions. STAR-DECK® is commonly used on heavy equipment platforms and steps.

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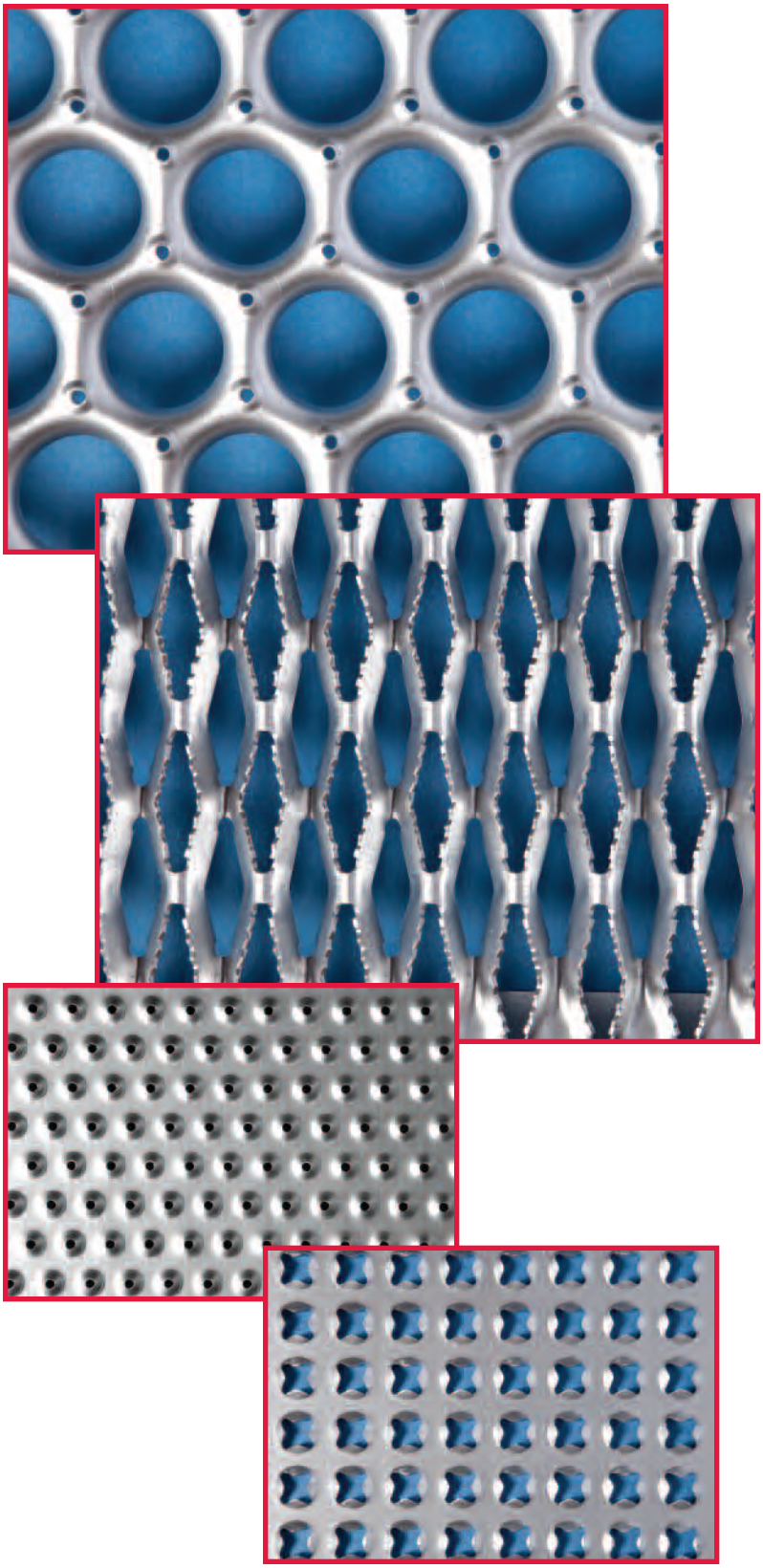
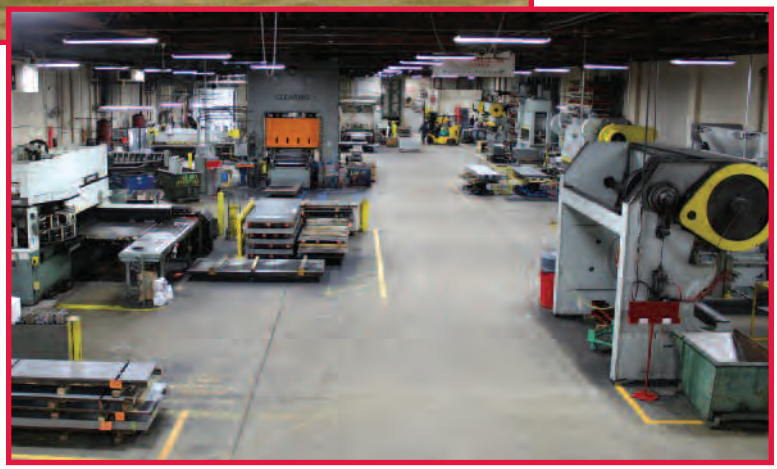


WELCOME TO MORTON



In the work place, employee safety is an issue that cannot be compromised. Since 1903, Morton Manufacturing Company has been the recognized leader in providing various slip resistant walking surfaces in a wide variety of environments with unprecedented quality, service and value.

Morton's OPEN-GRIP® and DECK SPAN® products provide surfaces that exceed all Federal Specifications for slip resistance. For standard safety applications, choose from our comprehensive selection of ready-made steel and aluminum safety grating channels, sheets, steps, ladder rungs, and walkway products. Morton is the industry leader in specialized, value-added applications which we can design and manufacture to your specifications. These may include features such as integral end caps, full end margins, unique patterns or weldments.

Morton is small enough to react to your specific requirements and large enough to effectively and economically service your company's needs. Our in-house production capabilities provide consistency, flexibility, and quick turnaround for even the most stringent just-in-time requirements.

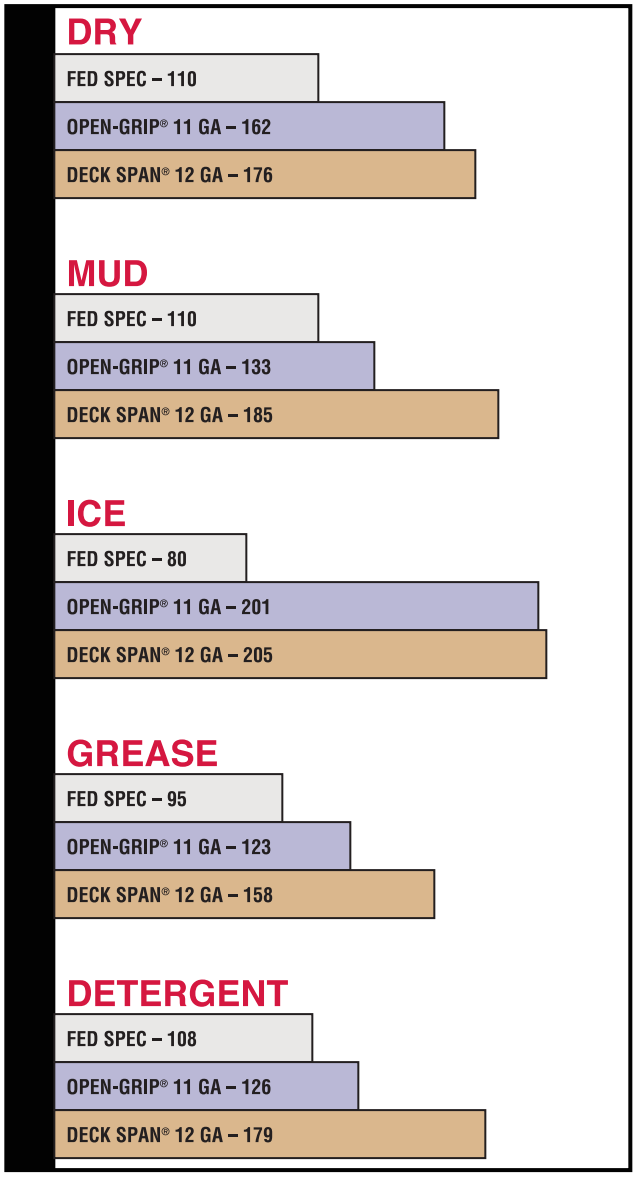
To learn more about how Morton products can enhance employee safety, call 877-667-8634 today or visit our website at **www.mortonmfg.com**

ISO 9001 Certified

SLIP RESISTANCE

PER FEDERAL SPECIFICATION RR-G-1602C

These slip resistant values were determined by an independent testing laboratory, in accordance with the standards established in the Federal Specification RR-G-1602C, as amended June 29, 1989. The values indicated are the average values of tests performed with five shoe sole materials of 3" diameter (leather, boot rubber, shoe rubber, Neolite and Hypolon) as tested on each of five surface conditions (dry, mud, ice, grease & detergent). Each combination of sole material, surface condition and Morton trademarked products were tested in three directions of movement (longitudinal, transverse & diagonal). These values denote the pounds of force necessary to move the sole material loaded with 175 pounds, one inch, at a constant rate of two inches per minute. In all cases Morton OPEN-GRIP® and DECK SPAN® exceed the minimum Federal Specification Requirements. The chart (right) shows examples of product conformance to the specification.



OPEN-GRIP® & DECK SPAN®

USE OF THE TABLES FOR PRODUCT SELECTION:

Determine the load and deflection criteria as required in your application. Determine the maximum clear span where safety grating is to be installed, and the material best suited to the project environment. Use the "SAFE ALLOWABLE DESIGN LOAD TABLES" to determine your product selection as outlined in the following example:

CRITERIA:

Maximum clear span of 5′-0″, concentrated load requirement of 250 lb. with a maximum deflection of L/240 or 0.25″ ie,(5′ x 12″) ÷ 240. The material selected for this application is G90 mill galvanized steel.

SELECTION:

In the "DECK SPAN® 8 DIAMOND CHANNEL" table we see a 082514 will carry a safe allowable load of 267 LB with a maximum deflection 0.096″ and satisfies the criteria.

CONSIDERATIONS/OBSERVATIONS:

- To develop the most economic grating project, it is important to pick the largest part width suitable to your layout, with a safe allowable load and deflection performance consistent with your requirements.
- It is more economical to choose a higher side channel height than a heavier gauge.
- Products with the same gauge, same side channel height installed on the same span, in general will carry the approximate same allowable concentrated load and deflection at midspan, regardless of width. Verify that all selections meet your minimum criteria.
- Uniform loads are tabulated in pounds per square foot, which is why smaller widths can carry higher uniform loads. Therefore use the widest width that meets your application's criteria for the most economic choice.

LOAD TABLE PREPARATION:

The OPEN-GRIP® and DECK SPAN® "SAFE ALLOWABLE DESIGN LOADS" are based on the performance of actual load tests conducted by an independent engineering firm, and have been prepared in strict accordance with the American Iron And Steel Institute specification for Cold-Formed Steel, August, 1986 edition.

THE SAFE ALLOWABLE DESIGN LOAD TABLES ARE PREPARED WITH THREE IMPORTANT ASPECTS:

- The first is transverse bending of the grating surface or "Strut Flexure". This results when the grating is loaded with either a uniform load or a mid width concentrated load between the side channels and the grating surface deflects relative to the side channels.
- The second is longitudinal bending or "Side Channel Flexure". This results when the grating's side channels are consequently loaded with either a uniform load or concentrated load resulting in deflection of the side channels relative to the supports.
- The third is of longitudinal shear or "Side Channel Shear". This results when the grating's side channels are consequently loaded with either a uniform load or a concentrated load creating local distortion of the side channels at the supports from resultant loads.

SAFE ALLOWABLE DESIGN LOAD TABLES

SAFE ALLOWABLE UNIFORM LOADS (U) LB./SF.

These values are the lowest of three considerations;

- Maximum safe allowable uniform load in regards to "Side Channel Flexure", "Side Channel Shear" & "Strut Load".

SAFE ALLOWABLE CONCENTRATED LOAD (C) LB.

These values are the lowest of three considerations:

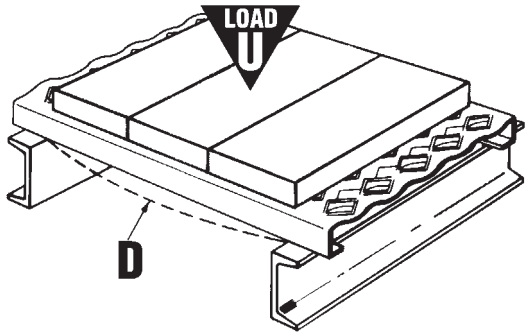
- Maximum safe allowable concentrated load at midspan in regards to "Side Channel Flexure", "Side Channel Shear" & "Strut Load".

MAXIMUM DEFLECTION (D) IN.

This value is the maximum deflection at midspan in inches as a result of uniform or concentrated loading.

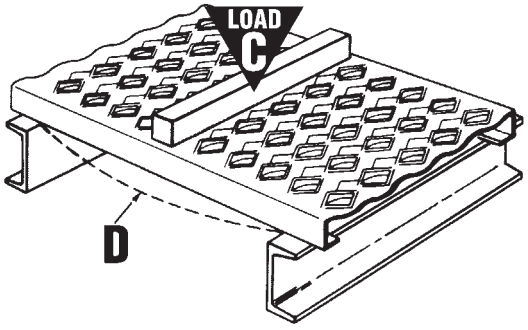
CONCENTRATED LOADS

Since these safety grating products are relatively narrow (12" wide and less), it can be assumed that both side channels will carry the concentrated load distributed across the width of the grating. The load tables for these products reflect the safe allowable concentrated load at midspan for two side channels.



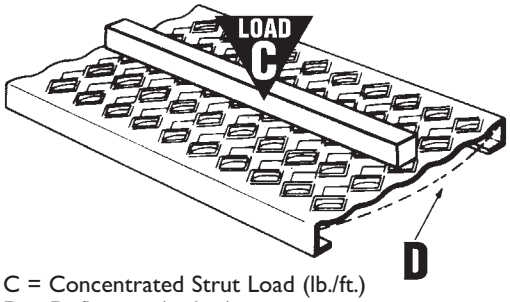
U = Uniform Load (lb./ft.^{2})
D = Deflection (inches)

UNIFORM LOADING



C = Concentrated Load (lb.)
D = Deflection (inches)

CONCENTRATED LOADING



C = Concentrated Strut Load (lb./ft.)
D = Deflection (inches)

CONCENTRATED STRUT LOADING

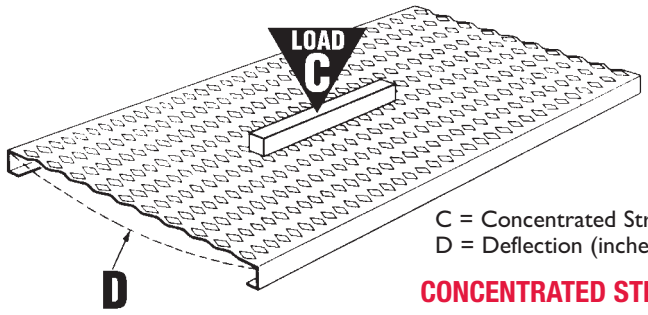
CONCENTRATED LOADS

Since these safety grating products are relatively wide (18" wide and more), it would be assumed that one side channel could be required to carry the entire concentrated load. The load tables for these products reflect the safe allowable concentrated load at midspan for one side channel.

MATERIAL:

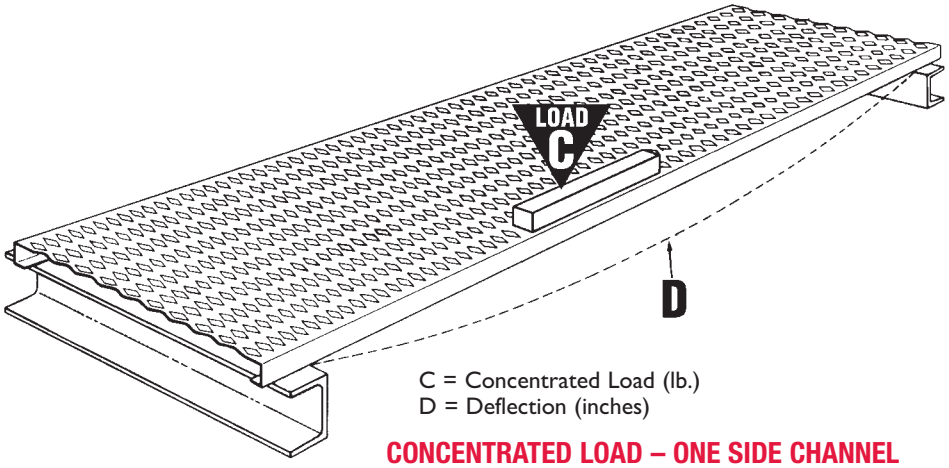
Our load tables are based on the minimum yield strength on each material as follows:

33,000 psi for steels (ASTM A653 & ASTM A1011), 23,000 psi for aluminum (5052-H32), 30,000 psi for stainless steel (AISI type 304).



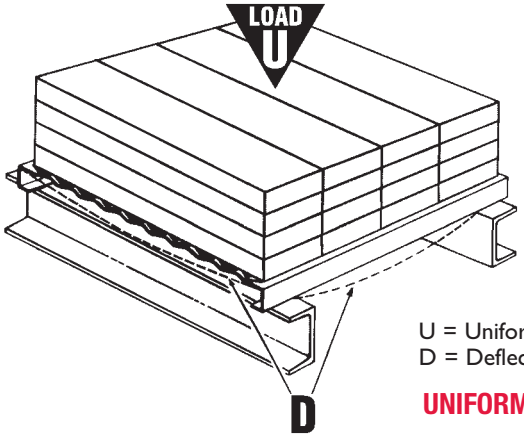
C = Concentrated Strut Load (lb./ft.)
D = Deflection (inches)

CONCENTRATED STRUT LOADING



C = Concentrated Load (lb.)
D = Deflection (inches)

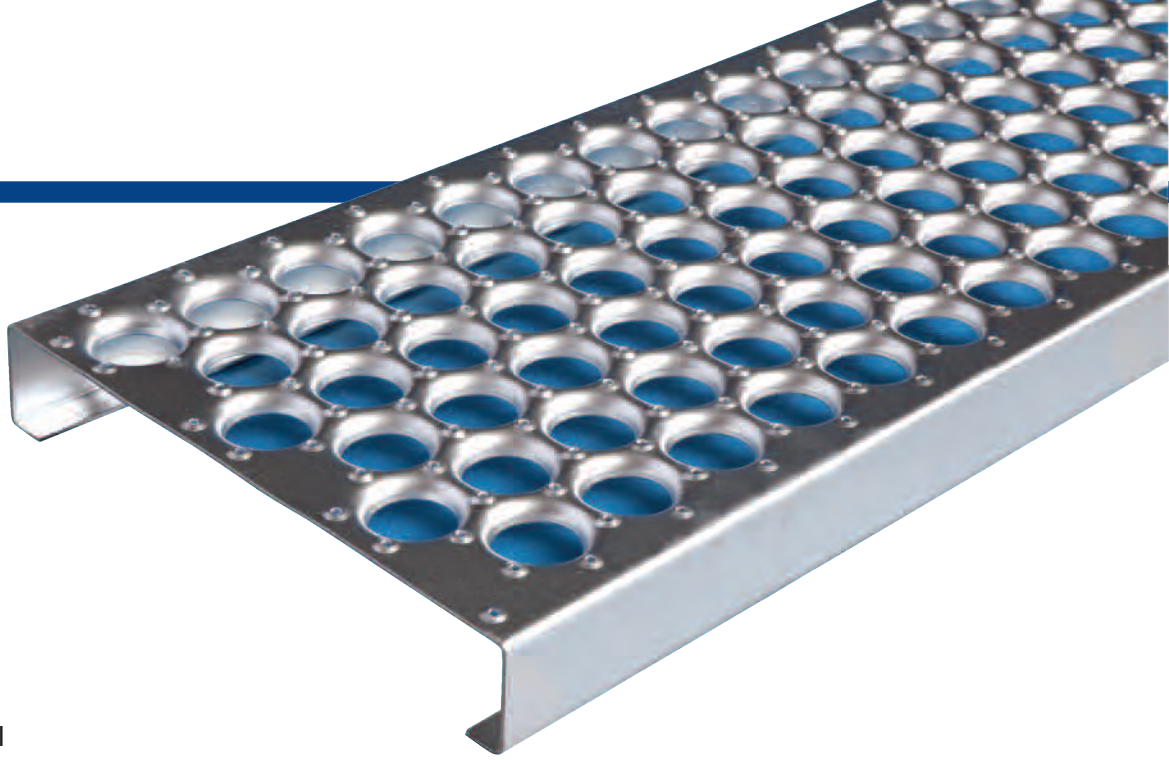
CONCENTRATED LOAD – ONE SIDE CHANNEL



U = Uniform Load (lb./ft.^{2})
D = Deflection (inches)

UNIFORM LOAD – TWO SIDE CHANNEL

OPEN-GRIP®

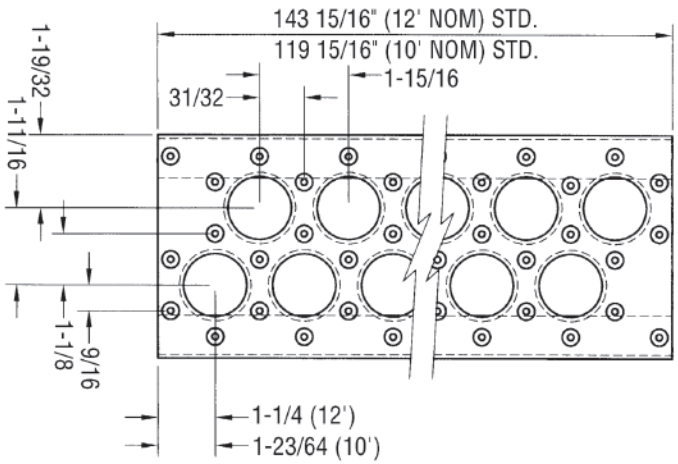


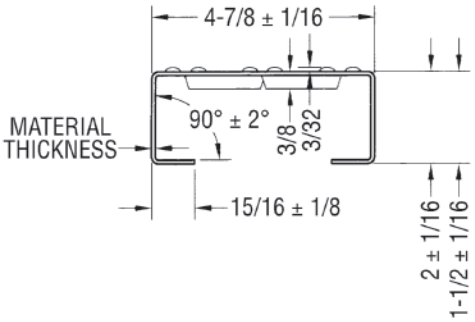
STANDARD STOCK SIZE CHANNELS

STANDARD SIZES:

- Pre-Galvanized or HRP&O Steel
- 13 and 11 Gauge
- .125″ 5052-H32 Aluminum
- 10′ or 12′ Lengths

Width	Channel Height	13 Gauge Steel Wt./Ln. Ft.	11 Gauge Steel Wt./Ln. Ft.	Aluminum Wt./Ln. Ft.
5″	1-1/2″	2.6	3.4	—
	2″	2.9	3.8	1.4
7″	1-1/2″	3.3	4.3	—
	2″	3.3	4.3	1.6
10″	1-1/2″	4.0	5.4	—
	2″	4.0	5.4	1.9
12″	1-1/2″	4.4	5.9	—
	2″	4.4	5.9	2.1
18″	1-1/2″	5.6	7.5	—
	2″	5.6	7.5	2.7





5″ WIDE CHANNEL

2 HOLE

SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4″ or less under a uniform load of 100 lb./sq.ft.

Material	Plank Width in.	Channel Depth in.	Weight lb./lin. ft.		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 13 ga.	5	1-1/2	2.6	U	2228	1426	990	727	557	440	356	295	248	211	182	154	139	110	89	74	62
				D	0.058	0.091	0.130	0.177	0.232	0.293	0.362	0.438	0.522	0.612	0.710	0.837	0.927	1.174	1.449	1.753	2.086
				C	928	743	619	530	464	413	371	338	309	286	265	244	232	206	186	169	155
				D	0.046	0.072	0.104	0.142	0.185	0.235	0.290	0.351	0.417	0.490	0.568	0.669	0.742	0.939	1.159	1.402	1.669
		2	2.9	U	2491	2039	1416	1040	796	629	510	421	354	302	260	221	199	157	127	105	88
				D	0.033	0.065	0.094	0.128	0.167	0.211	0.261	0.316	0.376	0.441	0.511	0.603	0.668	0.845	1.043	1.263	1.503
				C	1304	1043	869	745	652	579	521	474	435	401	372	343	326	290	261	237	217
				D	0.033	0.052	0.075	0.102	0.134	0.169	0.209	0.253	0.301	0.353	0.409	0.482	0.534	0.676	0.835	1.010	1.202
STEEL 11 ga.	5	1-1/2	3.4	U	2832	1812	1259	925	708	559	453	374	315	268	231	196	177	140	113	94	79
				D	0.055	0.086	0.124	0.169	0.221	0.279	0.345	0.417	0.496	0.582	0.676	0.796	0.882	1.117	1.379	1.668	1.985
				C	1172	937	781	670	586	521	469	426	391	361	335	308	293	260	234	213	195
				D	0.044	0.069	0.099	0.135	0.176	0.223	0.276	0.334	0.397	0.466	0.540	0.637	0.706	0.893	1.103	1.335	1.588
		2	3.8	U	4278	2738	1901	1397	1070	845	685	566	475	405	349	296	267	211	171	141	119
				D	0.044	0.069	0.100	0.136	0.178	0.225	0.278	0.336	0.400	0.469	0.544	0.642	0.711	0.900	1.111	1.344	1.599
				C	1738	1390	1159	993	869	772	695	632	579	535	497	457	435	386	348	316	290
				D	0.036	0.056	0.080	0.109	0.142	0.180	0.222	0.269	0.320	0.375	0.435	0.513	0.569	0.720	0.889	1.075	1.280
ALUM. ALLOY 5052 .125″	5	2	1.4	U	3124	1999	1388	1020	781	617	500	413	347	296	255	216	195	154	125	103	87
				D	0.091	0.142	0.204	0.278	0.363	0.459	0.567	0.686	0.817	0.958	1.112	1.310	1.452	1.837	2.268	2.745	3.266
				C	1270	1016	846	725	635	564	508	462	423	391	363	334	317	282	254	231	212
				D	0.073	0.114	0.164	0.223	0.292	0.369	0.456	0.552	0.657	0.771	0.894	1.054	1.168	1.478	1.824	2.207	2.627

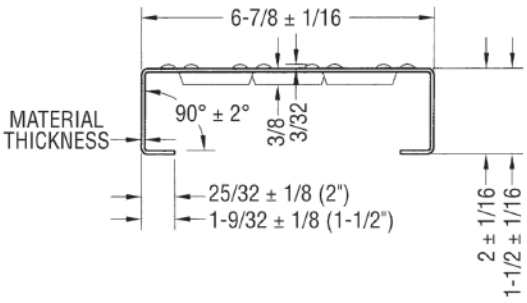
ENGINEERING DATA For Both Channels

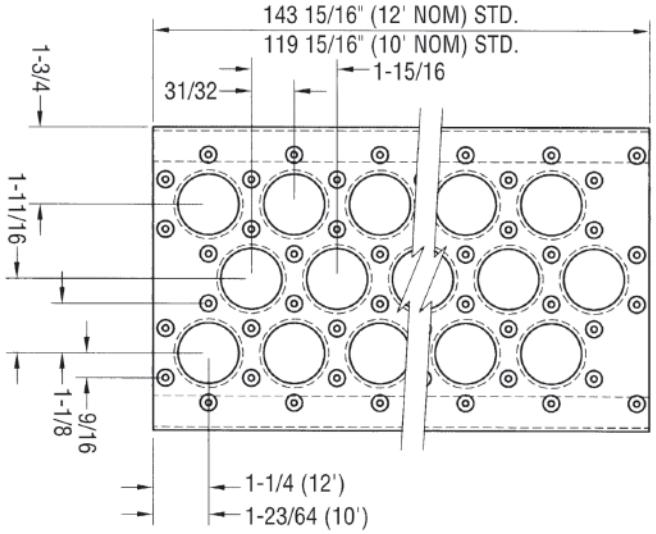
Material		Channel Depth, in.	Sx in^3	Ix in^4
STEEL	13 ga.	1-1/2	0.282	0.199
		2	0.396	0.388
	11 ga.	1-1/2	0.356	0.264
		2	0.528	0.486
ALUMINUM ALLOY	.125″	2	0.553	0.502

STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	13 ga.	U	2491	0.011
		C	1519	0.027
	11 ga.	U	4278	0.012
		C	2557	0.027
ALUMINUM ALLOY	.125″	U	3124	0.032
		C	1821	0.054

7″ WIDE CHANNEL 3 HOLE





SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4″ or less under a uniform load of 100 lb./sq.ft.

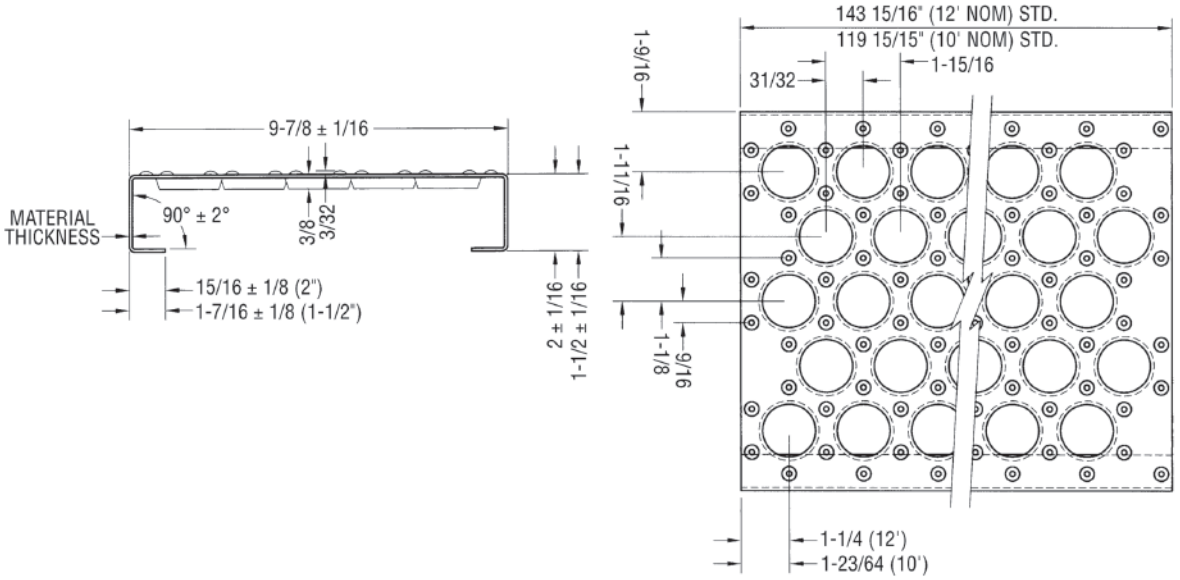
Material	Plank Width in.	Channel Depth in.	Weight lb./lin. ft.		SPAN 2′0″	2′6″	3′0″	3′6″	4′0″	4′6″	5′0″	5′6″	6′0″	6′6″	7′0″	7′6″	8′0″	9′0″	10′0″	11′0″	12′0″
STEEL 13 ga.	7	1-1/2	3.3	U	1760	1177	818	601	460	363	294	243	204	174	150	127	115	91	74	61	51
				D	0.050	0.082	0.118	0.161	0.210	0.266	0.328	0.397	0.472	0.554	0.643	0.758	0.840	1.063	1.312	1.588	1.890
				C	1073	858	715	613	537	477	429	390	358	330	307	282	268	238	215	195	179
				D	0.042	0.066	0.094	0.129	0.168	0.213	0.262	0.318	0.378	0.444	0.514	0.606	0.672	0.850	1.050	1.270	1.512
		2	3.3	U	1796	1466	1018	748	573	453	367	303	255	217	187	159	143	113	92	76	64
				D	0.033	0.067	0.096	0.131	0.170	0.216	0.266	0.322	0.384	0.450	0.522	0.615	0.682	0.863	1.066	1.289	1.534
				C	1016	1016	867	743	650	578	520	473	433	400	371	342	325	289	260	236	217
				D	0.027	0.052	0.077	0.104	0.136	0.173	0.213	0.258	0.307	0.360	0.418	0.492	0.546	0.690	0.852	1.031	1.228
STEEL 11 ga.	7	1-1/2	4.3	U	2356	1508	1047	769	589	465	377	311	262	223	192	163	147	116	94	78	65
				D	0.051	0.080	0.116	0.158	0.206	0.260	0.321	0.389	0.463	0.543	0.630	0.743	0.823	1.042	1.286	1.556	1.852
				C	1350	1080	900	771	675	600	540	491	450	415	386	355	337	300	270	245	225
				D	0.041	0.064	0.093	0.126	0.165	0.208	0.257	0.311	0.370	0.435	0.504	0.594	0.658	0.833	1.029	1.245	1.481
		2	4.3	U	2736	1751	1216	893	684	540	438	362	304	259	223	189	171	135	109	90	76
				D	0.040	0.063	0.091	0.123	0.161	0.204	0.252	0.305	0.363	0.426	0.494	0.582	0.645	0.816	1.008	1.220	1.451
				C	1538	1288	1073	920	805	715	644	585	537	495	460	424	402	358	322	293	268
				D	0.034	0.050	0.073	0.099	0.129	0.163	0.202	0.244	0.290	0.341	0.395	0.466	0.516	0.653	0.806	0.976	1.161
ALUM. ALLOY 5052 .125″	7	2	1.6	U	2270	1453	1009	741	568	448	363	300	252	215	185	157	142	112	91	75	63
				D	0.088	0.137	0.198	0.269	0.351	0.445	0.549	0.664	0.791	0.928	1.076	1.269	1.406	1.779	2.196	2.657	3.163
				C	1056	1056	883	757	662	589	530	482	442	408	378	349	331	294	265	241	221
				D	0.056	0.110	0.159	0.216	0.283	0.358	0.442	0.534	0.636	0.746	0.865	1.020	1.130	1.431	1.766	2.137	2.543

ENGINEERING DATA For Both Channels

Material		Channel Depth, in.	Sx in³	Ix in⁴
STEEL	13 ga.	1-1/2	0.326	0.254
		2	0.395	0.379
	11 ga.	1-1/2	0.410	0.326
		2	0.489	0.496
ALUMINUM ALLOY	.125″	2	0.577	0.541

STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	13 ga.	U	1796	0.032
		C	1016	0.052
	11 ga.	U	2736	0.036
		C	1538	0.055
ALUMINUM ALLOY	.125″	U	2270	0.088
		C	1056	0.112



10″ WIDE CHANNEL

5 HOLE

SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4″ or less under a uniform load of 100 lb./sq.ft.

Material	Plank Width in.	Channel Depth in.	Weight lb./lin. ft.		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 13 ga.	10	1-1/2	4.0	U	1232	968	672	494	378	299	242	200	168	143	123	105	95	75	61	50	42
				D	0.050	0.097	0.139	0.190	0.248	0.313	0.387	0.468	0.557	0.654	0.758	0.894	0.991	1.254	1.548	1.873	2.229
				C	646	646	646	646	630	560	504	458	420	388	360	332	315	280	252	229	210
				D	0.025	0.050	0.086	0.136	0.198	0.251	0.310	0.375	0.446	0.523	0.607	0.715	0.792	1.003	1.238	1.498	1.783
		2	4.0	U	1240	1066	740	544	416	329	267	220	185	158	136	115	104	82	67	55	46
				D	0.030	0.064	0.092	0.125	0.164	0.207	0.256	0.309	0.368	0.432	0.501	0.591	0.654	0.828	1.022	1.237	1.472
				C	544	544	544	544	544	544	544	498	456	421	391	360	342	304	274	249	228
				D	0.013	0.025	0.044	0.070	0.104	0.148	0.203	0.247	0.294	0.346	0.401	0.472	0.523	0.663	0.818	0.990	1.178
STEEL 11 ga.	10	1-1/2	5.4	U	1914	1225	851	625	479	378	306	253	213	181	156	133	120	95	77	63	53
				D	0.062	0.097	0.139	0.190	0.248	0.314	0.387	0.468	0.557	0.654	0.759	0.894	0.991	1.254	1.548	1.873	2.229
				C	1077	1077	1047	897	785	698	628	571	523	483	449	413	393	349	314	285	262
				D	0.034	0.066	0.111	0.152	0.198	0.251	0.310	0.375	0.446	0.523	0.607	0.715	0.793	1.003	1.239	1.499	1.784
		2	5.4	U	2128	1362	946	695	532	420	340	281	236	201	174	147	133	105	85	70	59
				D	0.041	0.064	0.093	0.126	0.165	0.209	0.258	0.312	0.371	0.435	0.505	0.595	0.659	0.834	1.030	1.246	1.483
				C	908	908	908	908	876	778	700	637	584	539	500	461	438	389	350	318	292
				D	0.017	0.033	0.058	0.091	0.132	0.167	0.206	0.249	0.297	0.348	0.404	0.476	0.527	0.668	0.824	0.997	1.187
ALUM. ALLOY 5052 .125″	10	2	1.9	U	1534	982	682	501	383	303	245	203	170	145	125	106	96	76	61	51	43
				D	0.085	0.133	0.191	0.260	0.340	0.430	0.531	0.643	0.765	0.898	1.041	1.227	1.360	1.721	2.125	2.571	3.060
				C	631	631	631	631	631	561	505	459	421	389	361	332	316	281	253	230	210
				D	0.034	0.067	0.115	0.183	0.273	0.346	0.427	0.517	0.615	0.722	0.837	0.987	1.094	1.384	1.709	2.068	2.461

ENGINEERING DATA For Both Channels

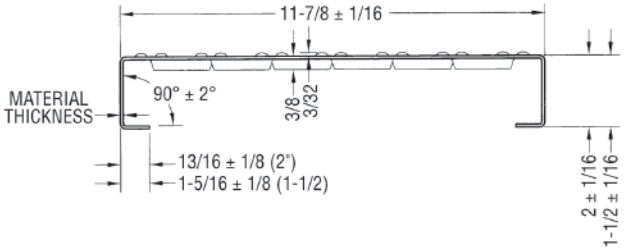
Material		Channel Depth, in.	Sx in³	Ix in⁴
STEEL	13 ga.	1-1/2	0.383	0.253
		2	0.416	0.416
	11 ga.	1-1/2	0.477	0.315
		2	0.532	0.528
ALUMINUM ALLOY	.125″	2	0.550	0.533

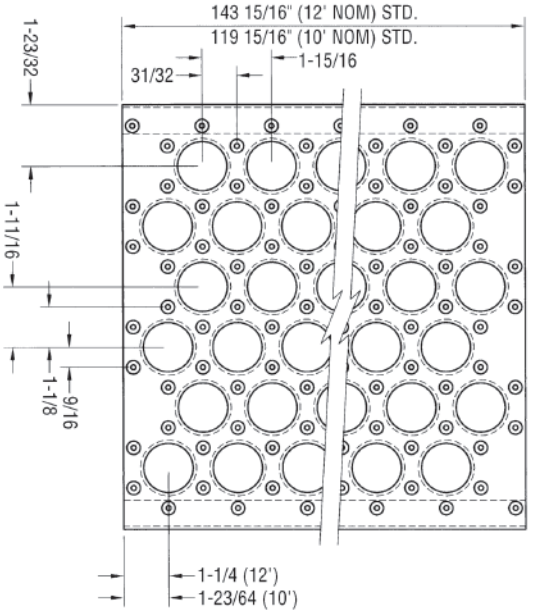
STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	13 ga.	U	1551	0.139
		C	544	0.108
	11 ga.	U	2206	0.136
		C	908	0.108
ALUMINUM ALLOY	.125″	U	1540	0.279
		C	631	0.223

12″ WIDE CHANNEL

6 HOLE





SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4″ or less under a uniform load of 100 lb./sq.ft.

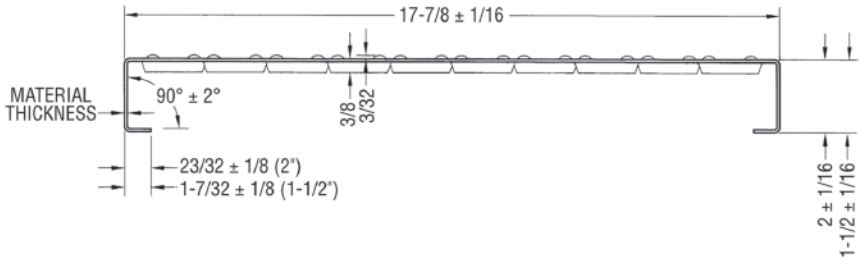
Material	Plank Width in.	Channel Depth in.	Weight lb./lin. ft.		SPAN 2′0″	2′6″	3′0″	3′6″	4′0″	4′6″	5′0″	5′6″	6′0″	6′6″	7′0″	7′6″	8′0″	9′0″	10′0″	11′0″	12′0″
STEEL 13 ga.	12	1-1/2	4.4	U	802	758	527	387	296	234	190	157	132	112	97	82	74	59	47		
				D	0.038	0.088	0.126	0.172	0.225	0.284	0.351	0.425	0.506	0.594	0.688	0.811	0.899	1.138	1.405		
				C	401	401	401	401	401	401	401	401	395	365	339	312	296	263	237		
				D	0.015	0.030	0.051	0.081	0.122	0.173	0.237	0.316	0.405	0.475	0.551	0.649	0.719	0.910	1.124		
		2	4.4	U	756	756	615	452	346	273	221	183	154	131	113	96	86	68	55	46	
				D	0.022	0.054	0.092	0.125	0.163	0.206	0.254	0.308	0.366	0.430	0.499	0.588	0.651	0.824	1.018	1.231	
				C	372	372	372	372	372	372	372	372	372	372	372	362	344	306	275	250	
				D	0.009	0.017	0.030	0.047	0.070	0.100	0.138	0.183	0.238	0.302	0.377	0.470	0.521	0.659	0.814	0.985	
STEEL 11 ga.	12	1-1/2	5.9	U	1357	962	668	491	376	297	241	199	167	142	123	104	94	74	60	50	42
				D	0.052	0.090	0.129	0.176	0.230	0.291	0.359	0.435	0.517	0.607	0.704	0.830	0.919	1.163	1.436	1.738	2.068
				C	684	684	684	684	684	670	603	548	503	464	431	397	377	335	302	274	251
				D	0.021	0.041	0.070	0.112	0.167	0.233	0.287	0.348	0.414	0.485	0.563	0.664	0.735	0.931	1.149	1.390	1.655
		2	5.9	U	1250	1197	831	611	467	369	299	247	208	177	153	129	117	92	75	62	52
				D	0.030	0.069	0.100	0.136	0.178	0.225	0.278	0.336	0.400	0.470	0.545	0.642	0.711	0.900	1.111	1.345	1.601
				C	635	635	635	635	635	635	635	635	630	581	540	497	472	420	378	344	315
				D	0.012	0.023	0.040	0.064	0.096	0.136	0.187	0.248	0.320	0.376	0.436	0.514	0.569	0.720	0.889	1.076	1.280
ALUM. ALLOY 5052 .125″	12	2	2.1	U	901	798	554	407	312	246	200	165	139	118	102	86	78	62	50	41	
				D	0.063	0.137	0.197	0.268	0.350	0.443	0.547	0.662	0.788	0.924	1.072	1.264	1.400	1.772	2.188	2.648	
				C	433	433	443	443	443	443	443	443	416	384	356	328	312	277	249	227	
				D	0.025	0.049	0.084	0.130	0.200	0.285	0.390	0.520	0.633	0.743	0.862	1.016	1.126	1.425	1.760	2.129	

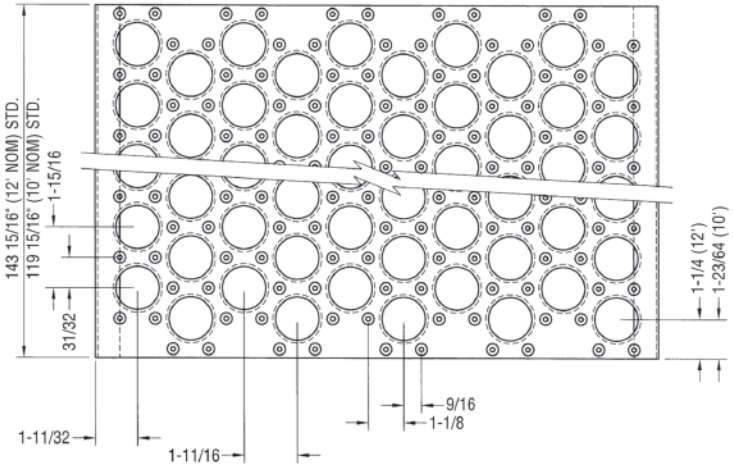
ENGINEERING DATA For Both Channels

Material		Channel Depth, in.	Sx in³	Ix in⁴
STEEL	13 ga.	1-1/2	0.360	0.262
		2	0.418	0.420
	11 ga.	1-1/2	0.458	0.326
		2	0.574	0.528
ALUMINUM ALLOY	.125″	2	0.543	0.511

STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	13 ga.	U	756	0.198
		C	372	0.159
	11 ga.	U	1250	0.204
		C	635	0.164
ALUMINUM ALLOY	.125″	U	901	0.403
		C	433	0.322





18″ WIDE CHANNEL

10 HOLE

SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4″ or less under a uniform load of 100 lb./sq.ft.

Material	Plank Width in.	Channel Depth in.	Weight lb./lin. ft.		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 13 ga.	18	1-1/2	5.6	U	302	302	300	221	169	134	108	89	75	64	55	47	42				
				D	0.024	0.059	0.123	0.167	0.218	0.276	0.341	0.412	0.491	0.576	0.668	0.787	0.872				
				C	226	226	226	226	226	225	203	184	169	156	145	133	127				
				D	0.010	0.019	0.033	0.052	0.078	0.110	0.136	0.165	0.196	0.230	0.267	0.315	0.349				
		2	5.6	U	276	276	276	236	180	143	115	95	80	68	59	50	45				
				D	0.015	0.037	0.077	0.122	0.159	0.202	0.249	0.301	0.358	0.421	0.488	0.575	0.637				
				C	209	209	209	209	209	209	209	199	182	168	156	144	137				
				D	0.006	0.012	0.021	0.033	0.049	0.069	0.095	0.120	0.143	0.168	0.195	0.230	0.255				
STEEL 11 ga.	18	1-1/2	7.5	U	526	526	439	322	247	195	158	130	110	93	81	68	62	49			
				D	0.034	0.083	0.144	0.196	0.256	0.324	0.401	0.485	0.577	0.677	0.785	0.925	1.025	1.298			
				C	392	392	392	392	366	326	293	266	244	225	209	193	183	163			
				D	0.014	0.027	0.046	0.074	0.103	0.130	0.160	0.194	0.231	0.271	0.314	0.370	0.410	0.519			
		2	7.5	U	489	489	418	307	235	186	151	124	105	89	77	65	59	46			
				D	0.021	0.052	0.093	0.126	0.165	0.209	0.258	0.312	0.372	0.436	0.506	0.596	0.660	0.836			
				C	363	363	363	363	353	314	282	257	235	217	202	186	177	157			
				D	0.008	0.017	0.029	0.045	0.066	0.084	0.103	0.125	0.149	0.174	0.202	0.238	0.264	0.334			
ALUM. ALLOY 5052 .125″	18	2	2.7	U	438	434	302	222	170	134	109	90	75	64	55	47	42				
				D	0.057	0.136	0.196	0.267	0.349	0.442	0.546	0.660	0.786	0.922	1.070	1.261	1.397				
				C	324	324	324	290	254	226	203	185	169	156	145	134	127				
				D	0.022	0.044	0.076	0.108	0.140	0.178	0.219	0.265	0.316	0.371	0.430	0.507	0.562				

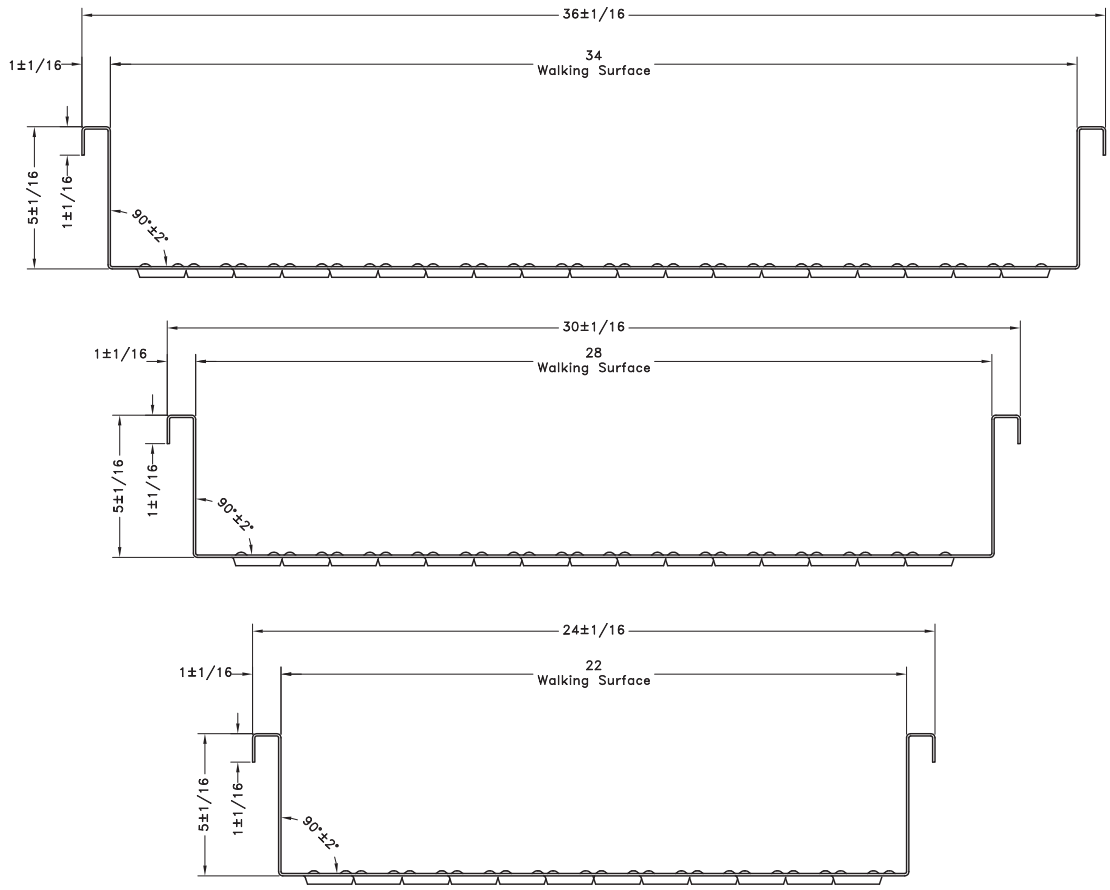
ENGINEERING DATA For Both Channels

Material		Channel Depth, in.	Sx in³	Ix in⁴
STEEL	13 ga.	1-1/2	0.308	0.231
		2	0.332	0.341
	11 ga.	1-1/2	0.445	0.284
		2	0.429	0.425
ALUMINUM ALLOY	.125″	2	0.442	0.417

STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	13 ga.	U	276	0.459
		C	209	0.367
	11 ga.	U	489	0.451
		C	363	0.360
ALUMINUM ALLOY	.125″	U	438	0.919
		C	324	0.735

WALKWAY 24”, 30” and 36”



SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4″ or less under a uniform load of 100 lb./sq.ft.

Material	Plank Width in.	Gauge	Channel Depth in.	Weight lb./lin. ft.		SPAN 2′0″	3′0″	4′0″	5′0″	6′0″	7′0″	8′0″	9′0″	10′0″	11′0″	12′0″
STEEL	24	13	5	9.25	U	169	169	169	169	169	169	169	142	115	95	80
					D	0.001	0.004	0.014	0.033	0.069	0.128	0.218	0.297	0.366	0.443	0.527
					C	167	167	167	167	167	167	167	167	167	167	167
					D	0.000	0.001	0.003	0.005	0.004	0.014	0.022	0.031	0.042	0.056	0.073
		11	5	12.33	U	432	432	432	432	432	375	287	227	184	152	128
					D	0.002	0.008	0.025	0.062	0.129	0.208	0.271	0.343	0.424	0.513	0.610
					C	430	430	430	430	430	430	430	430	430	430	430
					D	0.000	0.001	0.003	0.062	0.009	0.014	0.020	0.029	0.040	0.053	0.068
	30	13	5	10.6	U	107	107	107	107	107	107	107	107	107	92	77
					D	0.001	0.003	0.010	0.025	0.052	0.097	0.165	0.265	0.404	0.449	0.535
					C	134	134	134	134	134	134	134	134	134	134	134
					D	0.000	0.001	0.002	0.004	0.007	0.011	0.017	0.024	0.032	0.043	0.056
		11	5	14.2	U	294	294	294	294	294	294	241	190	154	127	107
					D	0.001	0.007	0.021	0.052	0.109	0.201	0.256	0.324	0.400	0.484	0.576
					C	344	344	344	344	344	344	344	344	344	344	344
					D	0.000	0.001	0.002	0.004	0.007	0.011	0.016	0.023	0.031	0.042	0.054
	36	11	5	15.9	U	170	170	170	170	170	170	170	153	124	102	86
					D	0.001	0.005	0.015	0.036	0.074	0.138	0.235	0.339	0.419	0.507	0.603
					C	264	264	264	264	264	264	264	264	264	264	264
					D	0.000	0.001	0.003	0.006	0.010	0.016	0.024	0.035	0.048	0.063	0.082

ENGINEERING DATA

For Both Channels

Material	W	Ga.	Chan. D, in.	Sx in³	Ix in⁴
STEEL	24″	13	5	1.759	4.911
		11	5	2.792	6.739
	30″	13	5	2.110	5.810
		11	5	2.926	7.482
	36″	13	5	2.196	5.364
		11	5	2.823	6.895

STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL 24″ Width	13 ga.	U	238	1.130
		C	167	0.641
	11 ga.	U	610	1.130
		C	455	0.641
STEEL 30″ Width	13 ga.	U	107	1.251
		C	134	1.001
	11 ga.	U	294	1.251
		C	368	1.001
STEEL 36″ Width	11 ga.	U	215	2.280
		C	264	1.442

Splice plates available upon request...see page 17.
Recommend field drilling holes into the walkway toeboards to accept splice plates.

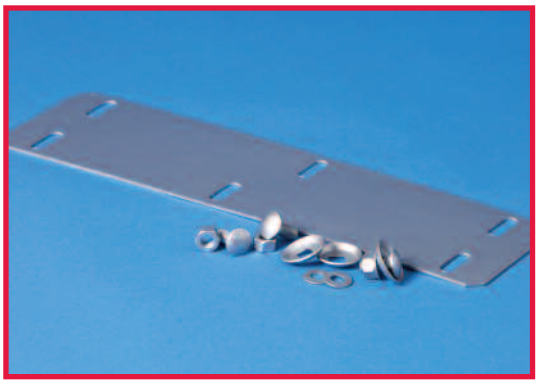
SPLICE PLATES FOR WALKWAYS

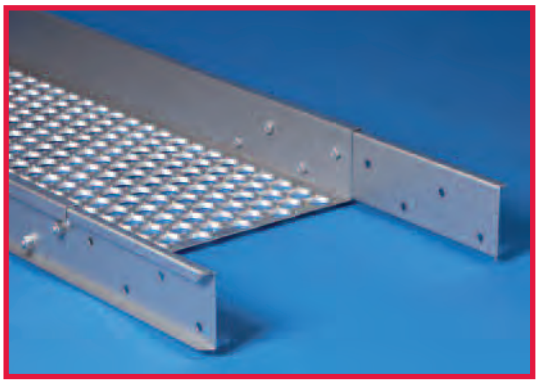
Morton Open-Grip® walkways are an excellent catwalk offering for conveyor applications. Available in 24", 30" and 36" wide with integral toeboards built in so no need for welding. Meets OSHA requirements for toeboards on elevations over 4' high.

Splice plate kits include 2 side plates, 1 bottom plate and fasteners.

Splice plate kit for 24" – Part # 125136-21
Splice plate kit for 30" – Part # 125136-22
Splice plate kit for 36" – Part # 125136-23

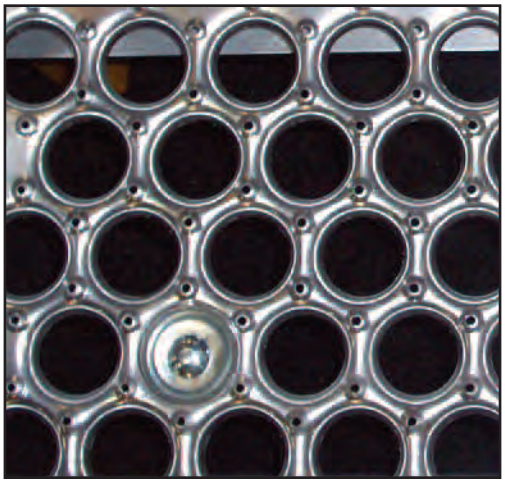
*Contact sales for specific details on kits.





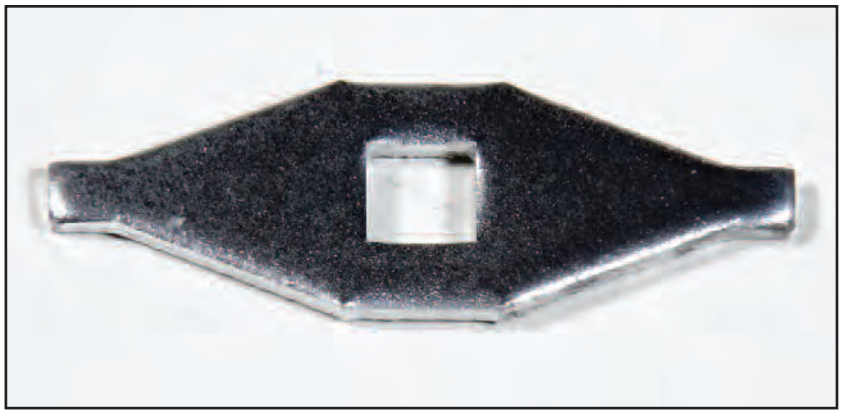
Bolt Seats for OPEN-GRIP®

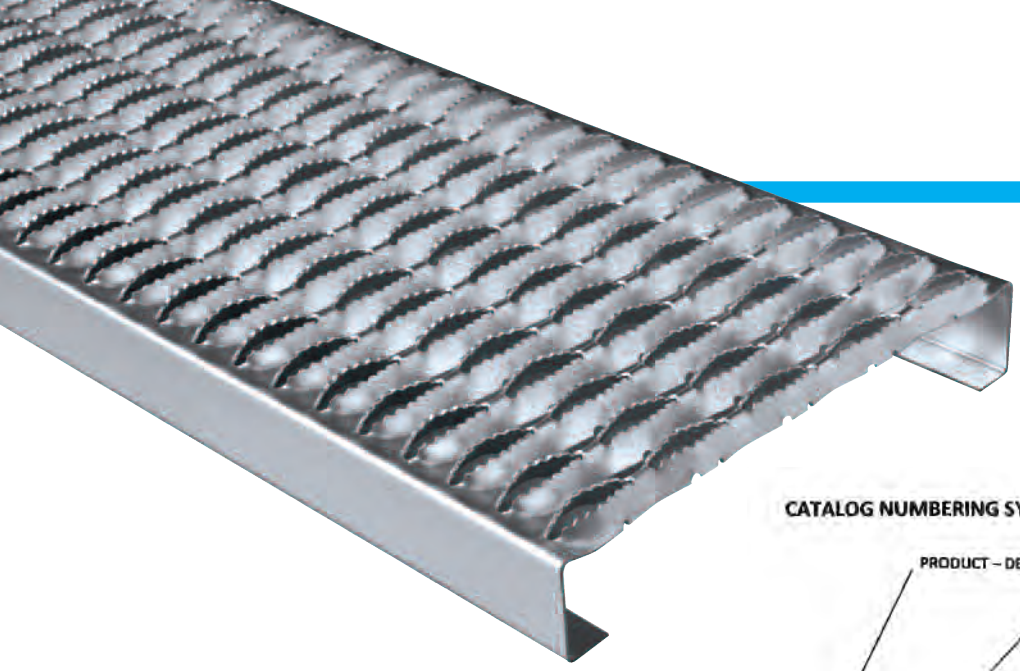
Open-Grip® can be fastened through the debossing with the use of a bolt seat. Bolt seats fit inside the debossing below the walking surface and have an offset slot to ensure lining up with structure below. Available in pre-galvanized material for use with 1/2" carriage bolt (part #701214) or 3/8" carriage bolt (part #701215). Bolts, nuts and washers are not included.



Diamond Washers for DECK SPAN®

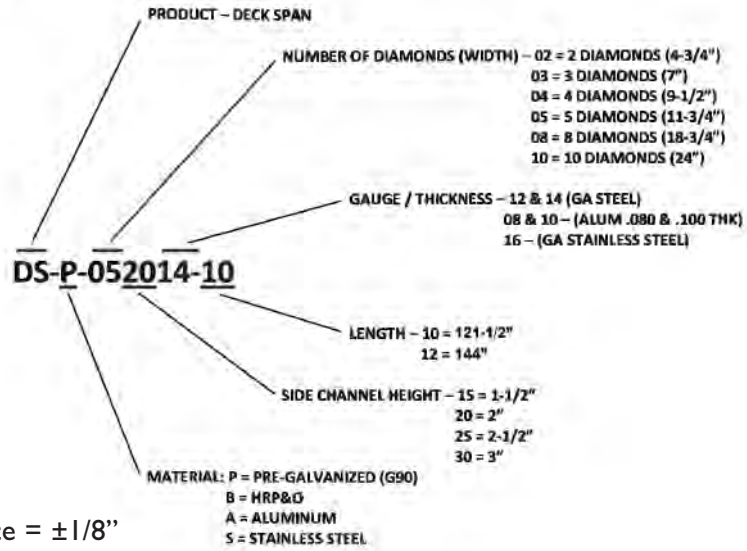
Deck Span® can be fastened through the diamond with the use of a diamond washer. Diamond washers fit between the diamonds and below the walking surface. Available in pre-galvanized (part #DS-P-DW) and aluminum (part #DS-A-DW) for use with 5/16" carriage bolt. Bolts, nuts and washers are not included.





STANDARD STOCK SIZE CHANNELS

CATALOG NUMBERING SYSTEM



STANDARD SIZES:

- Pre-Galvanized or HRP&O Steel
- 14 and 12 Gauge Steel
- .080″ and .100″ 5052-H32 Aluminum
- 16 Gauge Stainless Steel 304-2B
- 121-1/2" or 144" Lengths
- Special saw cut lengths available upon request. Tolerance = ±1/8"
- Recommend saw cutting on half or full diamond only

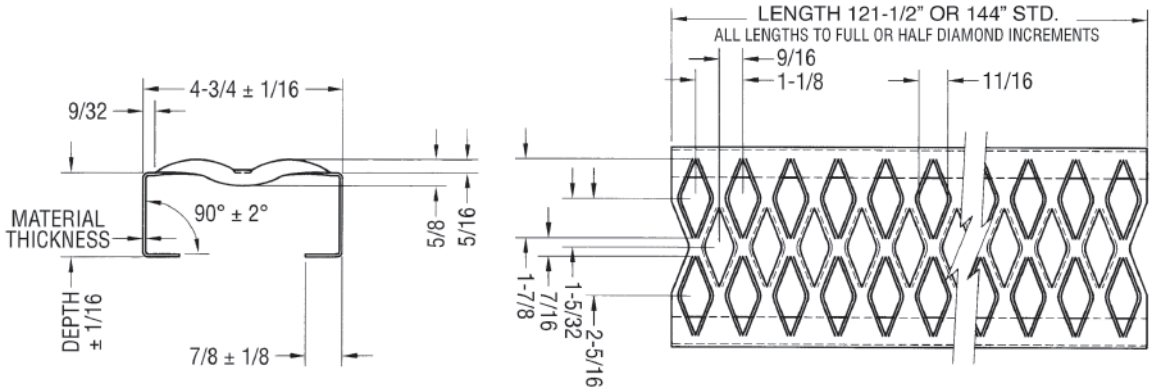
Width	Channel Height	10 Foot Length	12 Foot Length	14 Gauge Steel Wt./Ln. Ft.	12 Gauge Steel Wt./Ln. Ft.	.080 Aluminum Wt./Ln. Ft.	.100 Aluminum Wt./Ln. Ft.	16 Gauge Stainless Wt./Ln. Ft.
4-3/4″ (2 Diamond)	1-1/2″	121-1/2″	144″	2.3	3.2	.8	1.1	—
	2″	121-1/2″	144″	2.6	3.6	.9	1.2	—
7″ (3 Diamond)	1-1/2″	121-1/2″	144″	3.0	4.1	1.0	1.4	—
	2″	121-1/2″	144″	3.2	4.5	1.2	1.5	—
9-1/2″ (4 Diamond)	1-1/2″	121-1/2″	144″	3.6	5.0	1.3	1.6	—
	2″	121-1/2″	144″	3.8	5.4	1.4	1.7	3.2
11-3/4″ (5 Diamond)	1-1/2″	121-1/2″	144″	4.2	5.9	1.5	1.9	—
	2″	121-1/2″	144″	4.4	6.2	1.6	2.0	3.7
18-3/4″ (8 Diamond)	1-1/2″	121-1/2″	144″	6.1	8.5	—	—	—
	2″	121-1/2″	144″	6.3	8.9	—	2.8	—
24″ (10 Diamond)	1-1/2″	121-1/2″	144″		—	—	—	—
	2″	121-1/2″	144″	7.4	10.4	—	—	—

2-1/2" and 3" channel heights and special sizes are available by request.

DECK SPAN®

4 3/4" WIDE CHANNEL

2 DIAMOND



SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4" or less under a uniform load of 100 lb./sq.ft.

Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		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	2.3	021514	U	1447	926	643	472	362	286	232	191	161	137	118	100	90	71	58	48	40
				D	0.068	0.106	0.152	0.208	0.271	0.343	0.424	0.513	0.610	0.716	0.830	0.979	1.084	1.372	1.694	2.050	2.440
				C	573	458	382	327	286	255	229	208	191	176	164	151	143	127	115	104	95
				D	0.054	0.085	0.122	0.166	0.217	0.274	0.339	0.410	0.488	0.573	0.664	0.783	0.867	1.098	1.355	1.640	1.952
	2	2.6	022014	U	1811	1522	1057	777	595	470	381	314	264	225	194	165	149	117	95	79	66
				D	0.042	0.085	0.123	0.167	0.219	0.277	0.342	0.413	0.492	0.577	0.670	0.789	0.874	1.107	1.366	1.653	1.968
				C	941	753	628	538	471	418	377	342	314	290	269	248	235	209	188	171	157
				D	0.044	0.068	0.098	0.134	0.175	0.221	0.273	0.331	0.394	0.462	0.536	0.631	0.700	0.885	1.093	1.323	1.574
	2-1/2 *	2.8	022514	U	1795	1525	1059	778	596	471	381	315	265	226	195	165	149	118	95	79	66
				D	0.038	0.079	0.114	0.155	0.203	0.256	0.316	0.383	0.456	0.535	0.620	0.731	0.810	1.025	1.266	1.532	1.823
				C	941	753	628	538	471	418	377	342	314	290	269	248	235	209	188	171	157
				D	0.041	0.063	0.091	0.124	0.162	0.205	0.253	0.306	0.365	0.428	0.496	0.585	0.648	0.820	1.013	1.225	1.458
STEEL 12 ga.	1-1/2	3.2	021512	U	2071	1325	920	676	518	409	331	274	230	196	169	143	129	102	83	68	58
				D	0.072	0.112	0.161	0.220	0.287	0.363	0.448	0.542	0.645	0.757	0.878	1.036	1.147	1.452	1.793	2.169	2.582
				C	820	656	546	468	410	364	328	298	273	252	234	216	205	182	164	149	137
				D	0.057	0.090	0.129	0.176	0.229	0.290	0.359	0.434	0.516	0.606	0.703	0.828	0.918	1.162	1.434	1.735	2.065
	2	3.6	022012	U	3127	2001	1390	1021	782	618	500	413	347	296	255	217	195	154	125	103	87
				D	0.051	0.080	0.115	0.156	0.204	0.259	0.319	0.386	0.460	0.540	0.626	0.738	0.817	1.034	1.277	1.545	1.839
				C	1238	990	825	707	619	550	495	450	413	381	354	326	309	275	248	225	206
				D	0.041	0.064	0.092	0.125	0.163	0.207	0.255	0.309	0.368	0.432	0.501	0.590	0.654	0.828	1.022	1.236	1.471
	2-1/2 *	3.8	022512	U	3444	2720	1889	1388	1062	839	680	562	472	402	347	294	266	210	170	140	118
				D	0.031	0.060	0.087	0.118	0.154	0.195	0.241	0.291	0.346	0.407	0.471	0.556	0.616	0.779	0.962	1.164	1.385
				C	1682	1346	1121	961	841	748	673	612	561	518	481	443	421	374	336	306	280
				D	0.031	0.048	0.069	0.094	0.123	0.156	0.192	0.233	0.277	0.325	0.377	0.445	0.493	0.623	0.770	0.931	1.108

*** Available on special order.**

Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		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″
ALUM ALLOY 5052 .080″	1-1/2 *	.8	021508	U	1171	750	521	382	293	231	187	155	130	111	96	81	73	58	47		
				D	0.142	0.222	0.320	0.436	0.569	0.720	0.889	1.075	1.280	1.502	1.742	2.053	2.275	2.880	3.555		
				C	464	371	309	265	232	206	186	169	155	143	133	122	116	103	93		
				D	0.114	0.179	0.257	0.350	0.457	0.579	0.715	0.865	1.029	1.208	1.401	1.651	1.830	2.316	2.859		
	2	.9	022008	U	1446	1024	711	523	400	316	256	212	178	152	131	111	100	79	64	53	44
				D	0.084	0.146	0.210	0.285	0.373	0.472	0.582	0.705	0.839	0.984	1.141	1.345	1.491	1.887	2.329	2.818	3.354
				C	634	507	422	362	317	282	253	230	211	195	181	167	158	141	127	115	106
				D	0.075	0.117	0.169	0.229	0.300	0.379	0.468	0.567	0.674	0.791	0.918	1.082	1.199	1.517	1.873	2.267	2.697
	2-1/2 *	1.0	022508	U	1434	1417	984	723	554	437	354	293	246	210	181	153	138	109	89	73	62
				D	0.052	0.124	0.179	0.243	0.318	0.402	0.497	0.601	0.715	0.839	0.973	1.147	1.271	1.609	1.986	2.404	2.860
				C	877	702	585	501	439	390	351	319	292	270	251	231	219	195	175	159	146
				D	0.064	0.100	0.144	0.196	0.256	0.323	0.399	0.483	0.575	0.675	0.783	0.923	1.022	1.294	1.597	1.933	2.300
ALUM ALLOY 5052 .100″	1-1/2 *	1.1	021510	U	1264	809	562	413	316	250	202	167	140	120	103	88	79	62	51	42	
				D	0.141	0.221	0.318	0.433	0.566	0.716	0.884	1.069	1.272	1.493	1.732	2.042	2.262	2.863	3.535	4.277	
				C	500	400	334	286	250	222	200	182	167	154	143	132	125	111	100	91	
				D	0.114	0.178	0.256	0.348	0.455	0.576	0.711	0.860	1.023	1.201	1.393	1.642	1.819	2.302	2.843	3.440	
	2	1.2	022010	U	1145	1295	899	661	506	400	324	268	225	192	165	140	126	100	81	67	56
				D	0.061	0.169	0.243	0.331	0.432	0.547	0.675	0.817	0.973	1.141	1.324	1.561	1.729	2.188	2.702	3.269	3.890
				C	801	641	534	458	401	356	320	291	267	247	229	211	200	178	160	146	134
				D	0.087	0.136	0.196	0.266	0.348	0.440	0.543	0.657	0.782	0.918	1.065	1.255	1.391	1.760	2.173	2.629	3.129
	2-1/2 *	1.3	022510	U	2209	1755	1219	895	686	542	439	363	305	260	224	190	171	135	110	91	76
				D	0.066	0.128	0.184	0.250	0.327	0.413	0.510	0.618	0.735	0.863	1.001	1.179	1.307	1.654	2.042	2.471	2.940
				C	1086	869	724	621	543	483	434	395	362	334	310	286	271	241	217	197	181
				D	0.066	0.103	0.148	0.201	0.263	0.333	0.411	0.497	0.591	0.694	0.805	0.948	1.051	1.330	1.642	1.987	2.365

*** Available on special order.**

ENGINEERING DATA For Both Channels

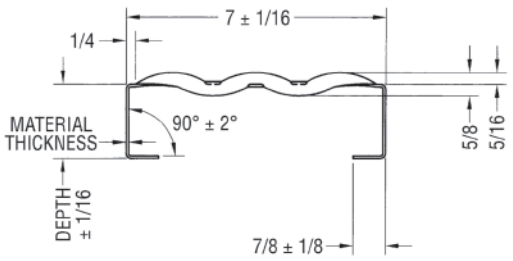
Material		Channel Depth, in.	Sx in³	Ix in⁴
STEEL	14 ga.	1-1/2	0.174	0.105
		2	0.286	0.214
		2-1/2	0.286	0.231
	12 ga.	1-1/2	0.249	0.142
		2	0.376	0.301
		2-1/2	0.511	0.543
ALUMINUM ALLOY	.080″	1-1/2	0.202	0.117
		2	0.276	0.244
		2-1/2	0.382	0.396
	.100″	1-1/2	0.218	0.127
		2	0.349	0.266
		2-1/2	0.473	0.477

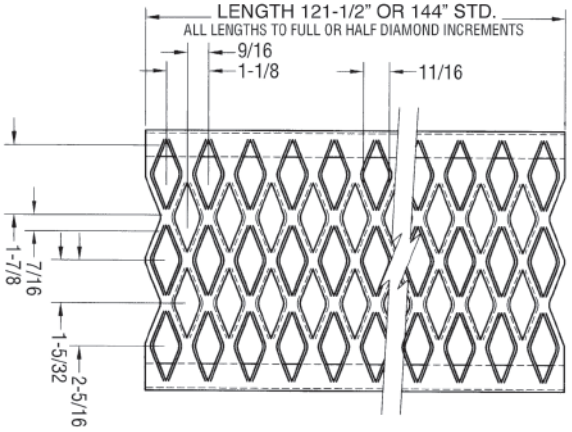
STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	14 ga.	U	1811	0.006
		C	1718	0.022
	12 ga.	U	3444	0.011
		C	3678	0.022
ALUMINUM ALLOY	.080″	U	1446	0.010
		C	877	0.032
	.100″	U	2209	0.016
		C	1086	0.034

DECK SPAN®

7" WIDE CHANNEL 3 DIAMOND





SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4" or less under a uniform load of 100 lb./sq.ft.

Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		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	3.0	031514	U	971	621	431	317	243	192	155	128	108	92	79	67	61	48			
				D	0.067	0.105	0.151	0.205	0.268	0.339	0.419	0.507	0.603	0.708	0.821	0.967	1.072	1.357			
				C	566	453	377	324	283	252	226	206	189	174	162	149	142	126			
				D	0.054	0.084	0.121	0.164	0.214	0.271	0.335	0.405	0.482	0.566	0.657	0.774	0.857	1.085			
	2	3.2	032014	U	1229	1026	712	523	401	317	256	212	178	152	131	111	100	79	64	53	45
				D	0.042	0.085	0.122	0.166	0.217	0.275	0.339	0.410	0.488	0.573	0.665	0.784	0.868	1.099	1.357	1.642	1.954
				C	935	748	623	534	467	415	374	340	312	288	267	246	234	208	187	170	156
				D	0.043	0.068	0.098	0.133	0.174	0.220	0.271	0.328	0.391	0.459	0.532	0.627	0.695	0.879	1.085	1.313	1.563
	2-1/2 *	3.4	032514	U	1218	1218	976	717	549	434	351	290	244	208	179	152	137	108	88	73	61
				D	0.022	0.054	0.089	0.122	0.159	0.201	0.249	0.301	0.358	0.420	0.487	0.574	0.636	0.805	0.994	1.203	1.432
				C	1280	1024	854	732	640	569	512	466	427	394	366	337	320	285	256	233	213
				D	0.032	0.050	0.072	0.097	0.127	0.161	0.199	0.241	0.286	0.336	0.390	0.459	0.509	0.644	0.795	0.962	1.145
STEEL 12 ga.	1-1/2	4.1	031512	U	1377	881	612	450	344	272	220	182	153	130	112	95	86	68	55	46	
				D	0.073	0.115	0.165	0.225	0.293	0.371	0.459	0.555	0.660	0.775	0.899	1.059	1.174	1.486	1.834	2.220	
				C	803	643	535	459	402	357	321	292	268	247	229	211	201	178	161	146	
				D	0.059	0.092	0.132	0.180	0.235	0.297	0.367	0.444	0.528	0.620	0.719	0.848	0.939	1.189	1.467	1.776	
	2	4.5	032012	U	2088	1336	928	682	522	412	334	276	232	198	170	145	130	103	84	69	58
				D	0.052	0.081	0.116	0.158	0.207	0.261	0.323	0.391	0.465	0.545	0.633	0.746	0.826	1.046	1.291	1.562	1.859
				C	1218	974	812	696	609	541	487	443	406	375	348	321	304	271	244	221	203
				D	0.041	0.065	0.093	0.127	0.165	0.209	0.258	0.312	0.372	0.436	0.506	0.597	0.661	0.837	1.033	1.250	1.487
	2-1/2 *	4.7	032512	U	2337	1845	1282	942	721	570	461	381	320	273	235	200	180	142	115	95	80
				D	0.032	0.062	0.089	0.121	0.158	0.200	0.246	0.298	0.355	0.416	0.483	0.569	0.631	0.798	0.986	1.193	1.419
				C	1682	1346	1121	961	841	748	673	612	561	518	481	443	421	374	336	306	280
				D	0.032	0.049	0.071	0.097	0.126	0.160	0.197	0.239	0.284	0.333	0.386	0.455	0.505	0.639	0.789	0.954	1.136
	3 *	4.9	033012	U	2322	2322	1710	1257	962	760	616	509	428	364	314	267	241	190	154	127	107
				D	0.020	0.048	0.073	0.099	0.130	0.164	0.203	0.245	0.292	0.343	0.397	0.468	0.519	0.657	0.811	0.981	1.168
				C	2245	1796	1497	1283	1122	998	898	816	748	691	641	591	561	499	449	408	374
				D	0.026	0.041	0.058	0.079	0.104	0.131	0.162	0.196	0.234	0.274	0.318	0.375	0.415	0.525	0.649	0.785	0.934

*** Available on special order.**

Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		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″
ALUM ALLOY 5052 .080″	1-1/2 *	1.0	031508	U	787	504	350	257	197	155	126	104	87	74	64	54	49				
				D	0.147	0.230	0.331	0.450	0.588	0.745	0.919	1.112	1.324	1.554	1.802	2.124	2.353				
				C	459	367	306	262	230	204	184	167	153	141	131	121	115				
				D	0.118	0.185	0.266	0.362	0.473	0.599	0.739	0.895	1.065	1.249	1.449	1.708	1.893				
	2	1.2	032008	U	981	685	476	349	268	211	171	142	119	101	87	74	67	53	43		
				D	0.087	0.147	0.212	0.288	0.377	0.477	0.588	0.712	0.847	0.994	1.153	1.359	1.506	1.906	2.353		
				C	624	500	416	357	312	278	250	227	208	192	178	164	156	139	125		
				D	0.076	0.118	0.170	0.232	0.303	0.383	0.473	0.573	0.681	0.800	0.927	1.093	1.211	1.533	1.893		
	2-1/2 *	1.3	032508	U	973	947	657	483	370	292	237	196	164	140	121	102	92	73	59	49	41
				D	0.053	0.125	0.181	0.246	0.321	0.406	0.501	0.607	0.722	0.847	0.983	1.159	1.284	1.625	2.006	2.427	2.888
				C	863	691	575	493	432	384	345	314	288	266	247	227	216	192	173	157	144
				D	0.065	0.101	0.145	0.198	0.258	0.327	0.403	0.488	0.581	0.682	0.790	0.932	1.032	1.307	1.613	1.952	2.323
	3 *	1.4	033008	U	965	965	864	635	486	384	311	257	216	184	159	135	121	96	78	64	54
				D	0.031	0.076	0.141	0.191	0.250	0.316	0.391	0.473	0.563	0.660	0.766	0.903	1.000	1.266	1.563	1.891	2.250
				C	971	907	756	648	567	504	454	412	378	349	324	298	284	252	227	206	189
				D	0.043	0.079	0.113	0.154	0.201	0.254	0.314	0.380	0.452	0.531	0.616	0.726	0.804	1.018	1.257	1.521	1.810
ALUM ALLOY 5052 .100″	1-1/2 *	1.4	031510	U	740	473	329	242	185	146	118	98	82	70	60	51	46				
				D	0.129	0.202	0.290	0.395	0.516	0.653	0.807	0.976	1.161	1.363	1.581	1.863	2.065				
				C	432	345	288	247	216	192	173	157	144	133	123	114	108				
				D	0.104	0.162	0.233	0.318	0.415	0.525	0.649	0.785	0.934	1.096	1.271	1.499	1.660				
	2	1.5	032010	U	1373	879	610	448	343	271	220	182	153	130	112	95	86	68	55	45	
				D	0.111	0.174	0.251	0.341	0.446	0.564	0.696	0.843	1.003	1.177	1.365	1.609	1.783	2.256	2.786	3.370	
				C	801	641	534	458	401	356	320	291	267	247	229	211	200	178	160	146	
				D	0.090	0.140	0.202	0.274	0.358	0.454	0.560	0.678	0.806	0.946	1.098	1.294	1.434	1.814	2.240	2.711	
	2-1/2 *	1.6	032510	U	1499	972	675	496	380	300	243	201	169	144	124	105	95	75	61	50	42
				D	0.078	0.122	0.176	0.240	0.313	0.396	0.489	0.592	0.705	0.827	0.959	1.131	1.253	1.586	1.958	2.369	2.819
				C	886	709	591	506	443	394	354	322	295	273	253	233	222	197	177	161	148
				D	0.063	0.098	0.142	0.193	0.252	0.319	0.394	0.476	0.567	0.665	0.771	0.909	1.008	1.275	1.574	1.905	2.267
	3 *	1.7	033010	U	1489	1269	881	647	496	392	317	262	220	188	162	137	124	98	79	66	55
				D	0.048	0.099	0.143	0.195	0.255	0.322	0.398	0.482	0.573	0.673	0.780	0.919	1.019	1.289	1.592	1.926	2.292
				C	1157	926	771	661	579	514	463	421	386	356	331	305	289	257	231	210	193
				D	0.051	0.080	0.115	0.157	0.205	0.259	0.320	0.387	0.461	0.541	0.627	0.739	0.819	1.037	1.280	1.549	1.843

*** Available on special order.**

ENGINEERING DATA For Both Channels

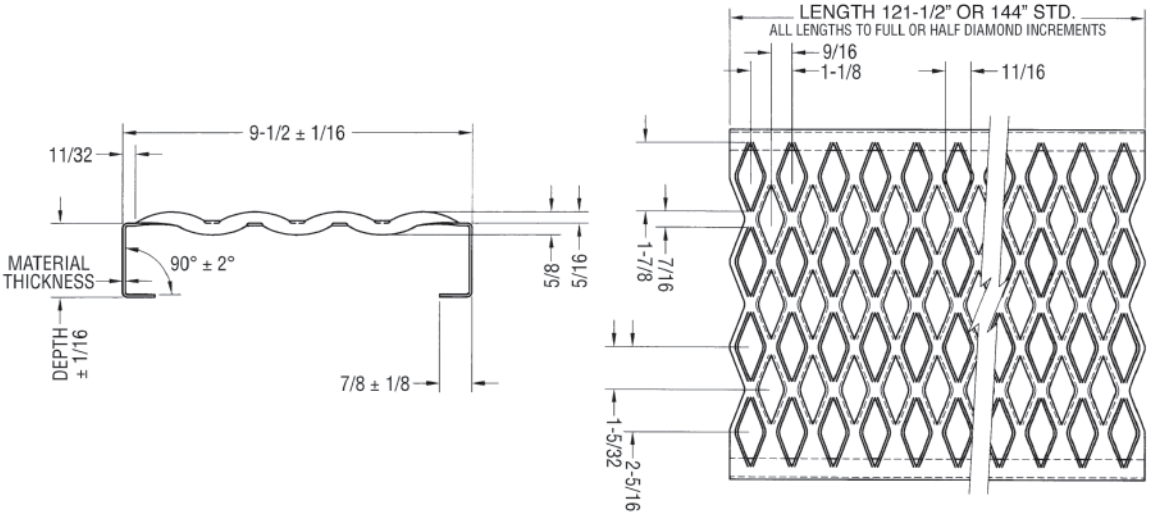
Material		Channel Depth, in.	Sx in³	Ix in⁴
STEEL	14 ga.	1-1/2	0.172	0.105
		2	0.284	0.214
		2-1/2	0.389	0.400
	12 ga.	1-1/2	0.244	0.136
		2	0.370	0.293
		2-1/2	0.511	0.530
		3	0.682	0.860
ALUMINUM ALLOY	.080″	1-1/2	0.200	0.112
		2	0.272	0.238
		2-1/2	0.376	0.386
		3	0.494	0.651
	.100″	1-1/2	0.188	0.120
		2	0.349	0.258
		2-1/2	0.386	0.406
		3	0.504	0.652

STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	14 ga.	U	1218	0.019
		C	1166	0.047
	12 ga.	U	2337	0.015
		C	2496	0.047
ALUMINUM ALLOY	.080″	U	981	0.042
		C	816	0.096
	.100″	U	1499	0.054
		C	981	0.096

DECK SPAN®

9 1/2" WIDE CHANNEL 4 DIAMOND



SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4" or less under a uniform load of 100 lb./sq.ft.

Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		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	3.6	041514	U	748	479	333	244	187	148	120	99	83	71	61	52	47				
				D	0.068	0.107	0.153	0.209	0.273	0.345	0.426	0.515	0.613	0.720	0.835	0.984	1.091				
				C	593	474	395	339	296	263	237	215	198	182	169	156	148				
				D	0.055	0.085	0.123	0.167	0.218	0.276	0.341	0.412	0.491	0.576	0.668	0.787	0.872				
	2	3.8	042014	U	905	769	534	392	300	237	192	159	134	114	98	83	75	59	48	40	
				D	0.040	0.083	0.120	0.163	0.213	0.270	0.333	0.403	0.479	0.562	0.652	0.769	0.852	1.078	1.331	1.610	
				C	859	761	634	544	476	423	381	346	317	293	272	250	238	211	190	173	
				D	0.038	0.067	0.096	0.130	0.170	0.216	0.266	0.322	0.383	0.450	0.522	0.615	0.681	0.862	1.065	1.288	
	2-1/2 *	4.0	042514	U	897	897	748	550	421	333	269	223	187	159	137	117	105	83	67	56	47
				D	0.022	0.053	0.091	0.124	0.162	0.205	0.252	0.306	0.364	0.427	0.495	0.583	0.646	0.818	1.010	1.222	1.454
				C	1333	1067	889	762	667	593	533	485	444	410	381	351	333	296	267	242	222
				D	0.032	0.050	0.073	0.099	0.129	0.164	0.202	0.244	0.291	0.341	0.396	0.467	0.517	0.654	0.808	0.978	1.163
STEEL 12 ga.	1-1/2	5.0	041512	U	1069	684	475	349	267	211	171	141	119	101	87	74	67	53	43		
				D	0.074	0.116	0.167	0.227	0.296	0.375	0.463	0.560	0.666	0.782	0.907	1.069	1.184	1.499	1.850		
				C	846	677	564	483	423	376	338	308	282	260	242	223	211	188	169		
				D	0.059	0.093	0.133	0.181	0.237	0.300	0.370	0.448	0.533	0.625	0.725	0.855	0.947	1.199	1.480		
	2	5.4	042012	U	1609	1030	715	525	402	318	257	213	179	152	131	111	101	79	64	53	45
				D	0.049	0.077	0.111	0.151	0.197	0.250	0.308	0.373	0.444	0.521	0.604	0.712	0.789	0.998	1.233	1.491	1.775
				C	1274	1019	849	728	637	566	510	463	425	392	364	335	318	283	255	232	212
				D	0.039	0.062	0.089	0.121	0.158	0.200	0.247	0.298	0.355	0.417	0.483	0.570	0.631	0.799	0.986	1.193	1.420
	2-1/2 *	5.6	042512	U	1722	1360	944	694	531	420	340	281	236	201	173	147	133	105	85	70	59
				D	0.030	0.057	0.082	0.112	0.146	0.185	0.228	0.276	0.329	0.386	0.448	0.528	0.585	0.740	0.913	1.105	1.315
				C	1682	1346	1121	961	841	748	673	612	561	518	481	443	421	374	336	306	280
				D	0.029	0.046	0.066	0.090	0.117	0.148	0.183	0.221	0.263	0.309	0.358	0.422	0.468	0.592	0.731	0.884	1.052
	3 *	5.8	043012	U	1711	1711	1305	959	734	580	470	388	326	278	240	203	183	145	117	97	82
				D	0.019	0.046	0.072	0.099	0.129	0.163	0.201	0.243	0.290	0.340	0.394	0.465	0.515	0.652	0.805	0.974	1.159
				C	1940	1859	1549	1328	1162	1033	930	845	775	715	664	612	581	516	465	423	387
				D	0.021	0.040	0.058	0.079	0.103	0.130	0.161	0.195	0.232	0.272	0.315	0.372	0.412	0.521	0.644	0.779	0.927

*** Available on special order.**

Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		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″
ALUM. ALLOY 5052 .080″	1-1/2 *	1.3	041508	U	580	371	258	189	145	115	93	77	64	55	47	40					
				D	0.132	0.206	0.297	0.404	0.527	0.667	0.824	0.997	1.186	1.392	1.614	1.903					
				C	459	367	306	262	230	204	184	167	153	141	131	121					
				D	0.106	0.166	0.238	0.325	0.424	0.537	0.662	0.802	0.954	1.119	1.298	1.530					
	2	1.4	042008	U	723	527	366	269	206	163	132	109	91	78	67	57	51	41			
				D	0.084	0.149	0.215	0.292	0.382	0.483	0.597	0.722	0.859	1.009	1.170	1.379	1.528	1.933			
				C	601	522	435	373	326	290	261	237	217	201	186	172	163	145			
				D	0.071	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	0.811	0.941	1.109	1.229	1.555			
	2-1/2 *	1.5	042508	U	717	717	502	369	283	223	181	149	126	107	92	78	71	56	45		
				D	0.049	0.120	0.174	0.236	0.309	0.391	0.483	0.584	0.695	0.816	0.946	1.115	1.236	1.564	1.931		
				C	709	709	597	512	448	398	358	326	298	276	256	236	224	199	179		
				D	0.049	0.096	0.140	0.190	0.248	0.314	0.388	0.470	0.559	0.656	0.761	0.897	0.994	1.258	1.553		
	3 *	1.6	043008	U	711	711	585	430	329	260	211	174	146	125	107	91	82	65	53	44	
				D	0.030	0.074	0.126	0.172	0.225	0.284	0.351	0.425	0.505	0.593	0.688	0.811	0.898	1.137	1.404	1.698	
				C	716	716	695	596	521	463	417	379	347	321	298	274	261	232	208	190	
				D	0.031	0.060	0.102	0.138	0.181	0.229	0.282	0.341	0.406	0.477	0.553	0.652	0.722	0.914	1.129	1.366	
ALUM. ALLOY 5052 .100″	1-1/2 *	1.6	041510	U	580	371	258	189	145	115	93	77	64	55	47	40					
				D	0.137	0.215	0.309	0.420	0.549	0.695	0.858	1.038	1.236	1.450	1.682	1.982					
				C	459	367	306	262	230	204	184	167	153	141	131	121					
				D	0.110	0.173	0.248	0.338	0.442	0.559	0.690	0.835	0.994	1.166	1.352	1.594					
	2	1.7	042010	U	1032	660	459	337	258	204	165	136	115	98	84	71	65				
				D	0.115	0.179	0.258	0.351	0.458	0.580	0.716	0.866	1.031	1.210	1.403	1.654	1.833				
				C	723	654	545	467	409	363	327	297	272	251	234	215	204				
				D	0.081	0.144	0.207	0.282	0.368	0.466	0.576	0.697	0.829	0.973	1.128	1.330	1.474				
	2-1/2 *	1.8	042510	U	1104	878	609	448	343	271	219	181	152	130	112	95	86	68	55	45	
				D	0.063	0.121	0.175	0.238	0.310	0.393	0.485	0.587	0.698	0.820	0.951	1.121	1.242	1.572	1.940	2.348	
				C	966	869	724	621	543	483	434	395	362	334	310	286	271	241	217	197	
				D	0.055	0.098	0.140	0.191	0.250	0.316	0.390	0.472	0.562	0.659	0.765	0.901	0.999	1.264	1.560	1.888	
	3 *	2.0	043010	U	1097	1097	796	585	448	354	287	237	199	170	146	124	112	88	72	59	50
				D	0.039	0.095	0.142	0.193	0.253	0.320	0.395	0.478	0.568	0.667	0.774	0.912	1.010	1.279	1.579	1.910	2.274
				C	945	945	946	811	709	631	568	516	473	437	405	373	355	315	284	258	236
				D	0.034	0.066	0.114	0.156	0.203	0.257	0.317	0.384	0.457	0.536	0.622	0.733	0.813	1.028	1.270	1.536	1.828
STAIN. STEEL 304 16 ga.	2	3.2	042016	U	539	539	402	295	226	179	145	119	100	86	74	63	56	45			
				D	0.032	0.079	0.123	0.167	0.218	0.276	0.340	0.412	0.490	0.575	0.667	0.787	0.872	1.103			
				C	715	572	477	409	358	318	286	260	238	220	204	188	179	159			
				D	0.043	0.068	0.098	0.133	0.174	0.221	0.272	0.330	0.392	0.460	0.534	0.629	0.697	0.883			

*** Available on special order.**

ENGINEERING DATA For Both Channels

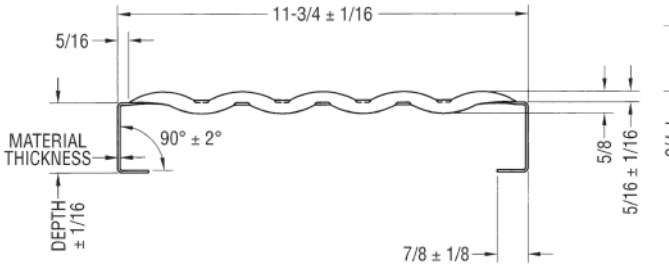
Material		Channel Depth, in.	Sx in³	Ix in⁴
STEEL	14 ga.	1-1/2	0.180	0.108
		2	0.289	0.222
		2-1/2	0.405	0.410
	12 ga.	1-1/2	0.257	0.142
		2	0.387	0.321
		2-1/2	0.511	0.572
		3	0.706	0.897
ALUMINUM ALLOY	.080″	1-1/2	0.200	0.125
		2	0.284	0.245
		2-1/2	0.390	0.416
		3	0.454	0.666
	.100″	1-1/2	0.200	0.120
		2	0.356	0.256
		2-1/2	0.473	0.502
		3	0.618	0.806
STAINLESS STEEL	16 ga.	2	0.239	0.163

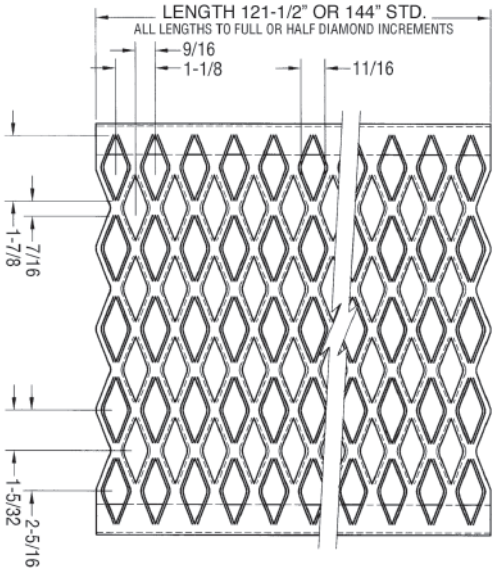
STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	14 ga.	U	905	0.047
		C	859	0.086
	12 ga.	U	1722	0.039
		C	1839	0.086
ALUMINUM ALLOY	.080″	U	723	0.106
		C	601	0.178
	.100″	U	1100	0.134
		C	723	0.178
STAINLESS STEEL	16 ga.	U	539	0.030
		C	777	0.086

DECK SPAN®

11 3/4" WIDE CHANNEL 5 DIAMOND





SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4" or less under a uniform load of 100 lb./sq.ft.

Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		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	4.2	051514	U	598	383	266	195	150	118	96	79	66	57	49	41					
				D	0.069	0.108	0.156	0.212	0.277	0.351	0.433	0.524	0.624	0.732	0.849	1.001					
				C	586	469	391	335	293	260	234	213	195	180	167	154					
				D	0.055	0.087	0.125	0.170	0.222	0.281	0.347	0.419	0.499	0.586	0.679	0.801					
	2	4.4	052014	U	732	622	432	317	243	192	155	128	108	92	79	67	61	48			
				D	0.041	0.085	0.123	0.168	0.219	0.277	0.342	0.414	0.492	0.578	0.670	0.790	0.875	1.108			
				C	692	692	634	544	476	423	381	346	317	293	272	250	238	211			
				D	0.032	0.062	0.098	0.134	0.175	0.222	0.274	0.331	0.394	0.462	0.536	0.632	0.700	0.886			
	2-1/2 *	4.6	052514	U	718	718	598	439	336	266	215	178	149	127	110	93	84	66	54	44	
				D	0.022	0.053	0.090	0.122	0.160	0.202	0.249	0.302	0.359	0.421	0.489	0.576	0.638	0.808	0.997	1.207	
				C	692	692	692	692	658	585	527	479	439	405	376	346	329	293	263	239	
				D	0.017	0.033	0.057	0.090	0.128	0.162	0.199	0.241	0.287	0.337	0.391	0.461	0.511	0.646	0.798	0.966	
STEEL 12 ga.	1-1/2	5.9	051512	U	851	544	378	278	213	168	136	112	95	81	69	59	53	42			
				D	0.073	0.114	0.164	0.223	0.291	0.369	0.455	0.551	0.656	0.770	0.893	1.052	1.166	1.475			
				C	833	666	555	476	416	370	333	303	278	256	238	219	208	185			
				D	0.058	0.091	0.131	0.179	0.233	0.295	0.364	0.441	0.525	0.616	0.714	0.842	0.933	1.180			
	2	6.2	052012	U	1288	824	572	420	322	254	206	170	143	122	105	89	80	64	52	43	
				D	0.050	0.078	0.113	0.154	0.201	0.254	0.314	0.380	0.452	0.530	0.615	0.725	0.803	1.017	1.255	1.519	
				C	1261	1009	840	720	630	560	504	458	420	388	360	332	315	280	252	229	
				D	0.040	0.063	0.090	0.123	0.161	0.203	0.251	0.304	0.361	0.424	0.492	0.580	0.643	0.813	1.004	1.215	
	2-1/2 *	6.4	052512	U	1385	1099	763	561	429	339	275	227	191	163	140	119	107	85	69	57	48
				D	0.030	0.059	0.084	0.115	0.150	0.190	0.234	0.284	0.338	0.396	0.460	0.542	0.600	0.760	0.938	1.135	1.351
				C	1477	1346	1121	961	841	748	673	612	561	518	481	443	421	374	336	306	280
				D	0.026	0.047	0.068	0.092	0.120	0.152	0.188	0.227	0.270	0.317	0.368	0.433	0.480	0.608	0.750	0.908	1.081
	3 *	6.6	053012	U	1380	1380	1041	765	586	463	375	310	260	222	191	162	146	116	94	77	65
				D	0.019	0.046	0.071	0.097	0.127	0.161	0.199	0.240	0.286	0.336	0.389	0.459	0.508	0.643	0.794	0.961	1.144
				C	1563	1563	1530	1311	1147	1020	918	834	765	706	656	604	574	510	459	417	382
				D	0.017	0.034	0.057	0.078	0.102	0.129	0.159	0.192	0.229	0.269	0.311	0.367	0.407	0.515	0.636	0.769	0.915

*** Available on special order.**

Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		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″
ALUM. ALLOY 5052 .080″	1-1/2 *	1.5	051508	U	469	300	208	153	117	93	75	62	52	44							
				D	0.136	0.213	0.306	0.417	0.545	0.689	0.851	1.030	1.225	1.438							
				C	459	367	306	262	230	204	184	167	153	141							
				D	0.109	0.171	0.246	0.335	0.438	0.554	0.684	0.828	0.985	1.156							
	2	1.6	052008	U	586	421	292	215	165	130	105	87	73	62	54	46	41				
				D	0.084	0.147	0.212	0.288	0.377	0.477	0.588	0.712	0.847	0.994	1.153	1.359	1.506				
				C	488	488	429	367	321	286	257	234	214	198	184	169	161				
				D	0.057	0.112	0.170	0.232	0.303	0.383	0.473	0.573	0.681	0.800	0.927	1.093	1.211				
	2-1/2 *	1.7	052508	U	583	582	404	297	227	180	146	120	101	86	74	63	57	45			
				D	0.050	0.122	0.176	0.240	0.313	0.396	0.489	0.592	0.705	0.827	0.959	1.131	1.253	1.586			
				C	578	578	578	506	443	394	354	322	295	273	253	233	222	197			
				D	0.021	0.080	0.138	0.193	0.252	0.319	0.394	0.476	0.567	0.665	0.771	0.909	1.008	1.275			
	3 *	1.8	053008	U	572	572	470	346	265	209	169	140	118	100	86	73	66	52	42		
				D	0.031	0.076	0.129	0.176	0.229	0.290	0.358	0.434	0.516	0.606	0.703	0.828	0.918	1.161	1.434		
				C	573	573	573	573	521	463	417	379	347	321	298	274	261	232	208		
				D	0.013	0.049	0.085	0.136	0.184	0.234	0.288	0.349	0.415	0.487	0.565	0.666	0.738	0.934	1.153		
ALUM. ALLOY 5052 .100″	1-1/2 *	1.9	051510	U	520	333	231	170	130	103	83	69	58	49	42						
				D	0.141	0.220	0.316	0.431	0.563	0.712	0.879	1.064	1.266	1.486	1.723						
				C	510	408	340	291	255	227	204	185	170	157	146						
				D	0.113	0.177	0.255	0.346	0.452	0.573	0.707	0.855	1.018	1.195	1.386						
	2	2.0	052010	U	859	550	382	281	215	170	137	114	95	81	70	59	54	42			
				D	0.105	0.164	0.236	0.321	0.420	0.531	0.656	0.793	0.944	1.108	1.285	1.515	1.679	2.125			
				C	615	615	534	458	401	356	320	291	267	247	229	211	200	178			
				D	0.065	0.126	0.190	0.258	0.337	0.427	0.527	0.638	0.759	0.891	1.034	1.218	1.350	1.709			
	2-1/2 *	2.1	052510	U	893	710	493	362	277	219	177	147	123	105	91	77	69	55	44		
				D	0.065	0.125	0.180	0.244	0.319	0.404	0.499	0.604	0.719	0.843	0.978	1.153	1.277	1.617	1.996		
				C	781	781	724	621	543	483	434	395	362	334	310	286	271	241	217		
				D	0.046	0.090	0.144	0.197	0.257	0.325	0.401	0.486	0.578	0.678	0.786	0.927	1.027	1.300	1.605		
	3 *	2.2	053010	U	897	897	644	473	362	286	232	192	161	137	118	100	91	72	58	48	40
				D	0.109	0.265	0.144	0.196	0.256	0.324	0.400	0.484	0.576	0.676	0.784	0.924	1.024	1.295	1.599	1.935	2.303
				C	773	773	773	773	703	624	562	511	468	432	401	370	351	312	281	255	234
				D	0.077	0.151	0.261	0.414	0.206	0.260	0.322	0.389	0.463	0.543	0.630	0.743	0.823	1.042	1.286	1.556	1.852
STAIN. STEEL 304 16 ga.	2	3.7	052016	U	436	436	325	239	183	144	117	97	81	69	60	51	46				
				D	0.030	0.073	0.112	0.153	0.200	0.253	0.312	0.377	0.449	0.527	0.611	0.720	0.798				
				C	715	572	477	409	358	318	286	260	238	220	204	188	179				
				D	0.040	0.062	0.090	0.122	0.160	0.202	0.249	0.302	0.359	0.422	0.489	0.576	0.639				

*** Available on special order.**

ENGINEERING DATA For Both Channels

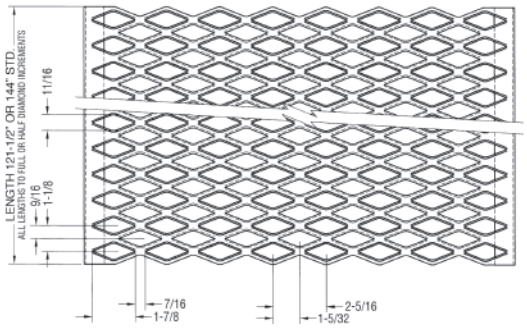
Material		Channel Depth, in.	Sx in^3	Ix in^4
STEEL	14 ga.	1-1/2	0.178	0.105
		2	0.289	0.216
		2-1/2	0.400	0.410
	12 ga.	1-1/2	0.253	0.142
		2	0.383	0.312
		2-1/2	0.511	0.557
		3	0.697	0.897
ALUMINUM ALLOY	.080″	1-1/2	0.200	0.121
		2	0.280	0.245
		2-1/2	0.386	0.406
		3	0.454	0.652
	.100″	1-1/2	0.222	0.130
		2	0.349	0.274
		2-1/2	0.473	0.488
		3	0.612	0.788
STAINLESS STEEL	16 ga.	2	0.239	0.178

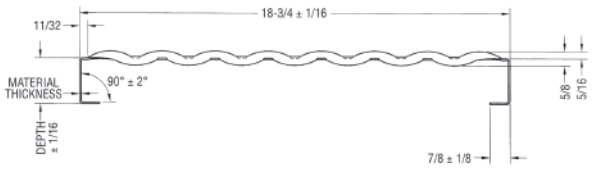
STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	14 ga.	U	1364	0.165
		C	692	0.132
	12 ga.	U	1385	0.075
		C	1477	0.134
ALUMINUM ALLOY	.080″	U	586	0.198
		C	488	0.270
	.100″	U	897	0.209
		C	615	0.246
STAINLESS STEEL	16 ga.	U	436	0.046
		C	777	0.132

18 3/4" WIDE CHANNEL

8 DIAMOND





SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4" or less under a uniform load of 100 lb./sq.ft.

Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		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	6.1	081514	U	417	267	185	136	104	82	67	55	46								
				D	0.070	0.110	0.158	0.216	0.282	0.356	0.440	0.532	0.634								
				C	326	261	217	186	163	145	130	119	109								
				D	0.028	0.044	0.063	0.086	0.113	0.143	0.176	0.213	0.253								
	2	6.3	082014	U	460	361	251	184	141	112	90	75	63	53	46						
				D	0.039	0.076	0.110	0.150	0.196	0.248	0.306	0.370	0.440	0.517	0.599						
				C	401	353	294	252	221	196	176	160	147	136	126						
				D	0.018	0.031	0.044	0.060	0.078	0.099	0.122	0.148	0.176	0.207	0.240						
	2-1/2 *	6.5	082514	U	474	474	395	290	222	176	142	118	99	84	73	62	56	44			
				D	0.020	0.050	0.086	0.118	0.154	0.195	0.240	0.291	0.346	0.406	0.471	0.555	0.615	0.778			
				C	450	450	444	381	333	296	267	242	222	205	190	175	167	148			
				D	0.010	0.020	0.035	0.047	0.061	0.078	0.096	0.116	0.138	0.162	0.188	0.222	0.246	0.311			
STEEL 12 ga.	1-1/2	8.5	081512	U	527	337	234	172	132	104	84	70	59	50	43						
				D	0.070	0.109	0.157	0.214	0.279	0.354	0.436	0.528	0.628	0.738	0.855						
				C	413	330	275	236	207	184	165	150	138	127	118						
				D	0.028	0.044	0.063	0.086	0.112	0.141	0.175	0.211	0.251	0.295	0.342						
	2	8.9	082012	U	805	515	358	263	201	159	129	106	89	76	66	56	50	40			
				D	0.077	0.120	0.173	0.236	0.308	0.390	0.481	0.582	0.693	0.813	0.943	1.111	1.231	1.558			
				C	629	503	419	359	314	279	251	229	210	193	180	165	157	140			
				D	0.031	0.048	0.069	0.094	0.123	0.156	0.192	0.233	0.277	0.325	0.377	0.445	0.493	0.623			
	2-1/2 *	9.2	082512	U	870	696	483	355	272	215	174	144	121	103	89	75	68	54	43		
				D	0.032	0.062	0.090	0.122	0.159	0.202	0.249	0.301	0.358	0.421	0.488	0.575	0.637	0.806	0.995		
				C	740	679	566	485	425	377	340	309	283	261	243	223	212	189	170		
				D	0.014	0.025	0.036	0.049	0.064	0.081	0.100	0.120	0.143	0.168	0.195	0.230	0.255	0.323	0.398		
	3 *	9.6	083012	U	858	942	654	481	368	291	236	195	164	139	120	102	92	73	59	49	41
				D	0.018	0.049	0.071	0.096	0.126	0.159	0.196	0.237	0.282	0.331	0.384	0.453	0.502	0.636	0.785	0.949	1.130
				C	902	902	775	664	581	516	465	423	387	358	332	306	290	258	232	211	194
				D	0.010	0.019	0.028	0.038	0.050	0.064	0.078	0.095	0.113	0.133	0.154	0.181	0.201	0.254	0.314	0.380	0.452

*** Available on special order.**

Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		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″
ALUM. ALLOY 5052 .080″	1-1/2 *	2.2	081508	U	306	196	136	100	76	60	49	40									
				D	0.138	0.215	0.310	0.422	0.551	0.697	0.861	1.042									
				C	240	192	160	137	120	107	96	87									
				D	0.055	0.087	0.125	0.170	0.222	0.280	0.346	0.419									
	2	2.3	082008	U	365	266	185	136	104	82	66	55	46								
				D	0.079	0.141	0.202	0.276	0.360	0.455	0.562	0.680	0.810								
				C	309	261	217	186	163	145	130	119	109								
				D	0.034	0.057	0.081	0.111	0.145	0.183	0.226	0.274	0.326								
	2-1/2 *	2.4	082508	U	361	361	253	186	142	112	91	75	63	54	46						
				D	0.049	0.120	0.174	0.236	0.309	0.391	0.483	0.584	0.695	0.816	0.946						
				C	321	321	298	256	224	199	179	163	149	138	128						
				D	0.022	0.043	0.070	0.095	0.124	0.157	0.194	0.235	0.279	0.328	0.380						
	3 *	2.5	083008	U	358	358	289	212	163	129	104	86	72	62	53	45	41				
				D	0.030	0.074	0.124	0.169	0.221	0.279	0.345	0.417	0.496	0.583	0.676	0.797	0.883				
				C	333	333	333	293	256	228	205	186	171	158	146	135	128				
				D	0.014	0.028	0.049	0.068	0.089	0.112	0.139	0.168	0.200	0.234	0.272	0.320	0.355				
ALUM. ALLOY 5052 .100″	1-1/2 *	2.7	081510	U	351	225	156	115	88	69	56	46									
				D	0.134	0.210	0.303	0.412	0.538	0.681	0.840	1.017									
				C	276	220	184	157	138	122	110	100									
				D	0.054	0.084	0.122	0.166	0.216	0.274	0.338	0.409									
	2	2.8	082010	U	524	336	233	171	131	104	84	69	58	50	43						
				D	0.095	0.148	0.213	0.290	0.379	0.480	0.593	0.717	0.854	1.002	1.162						
				C	410	328	273	234	205	182	164	149	137	126	117						
				D	0.038	0.060	0.086	0.117	0.153	0.193	0.238	0.288	0.343	0.403	0.467						
	2-1/2 *	2.9	082510	U	556	483	335	246	189	149	121	100	84	71	62	52	47				
				D	0.060	0.126	0.182	0.247	0.323	0.409	0.505	0.611	0.727	0.854	0.990	1.167	1.293				
				C	518	475	396	339	297	264	237	216	198	183	170	156	148				
				D	0.028	0.051	0.073	0.100	0.130	0.164	0.203	0.246	0.292	0.343	0.398	0.469	0.520				
	3 *	3.0	083010	U	554	554	442	325	249	197	159	132	111	94	81	69	62	49	40		
				D	0.039	0.095	0.156	0.213	0.278	0.352	0.434	0.526	0.625	0.734	0.851	1.003	1.112	1.407	1.737		
				C	586	586	520	446	390	347	312	284	260	240	223	205	195	173	156		
				D	0.021	0.041	0.063	0.086	0.112	0.141	0.175	0.211	0.251	0.295	0.342	0.403	0.447	0.566	0.699		

*** Available on special order.**

ENGINEERING DATA For Both Channels

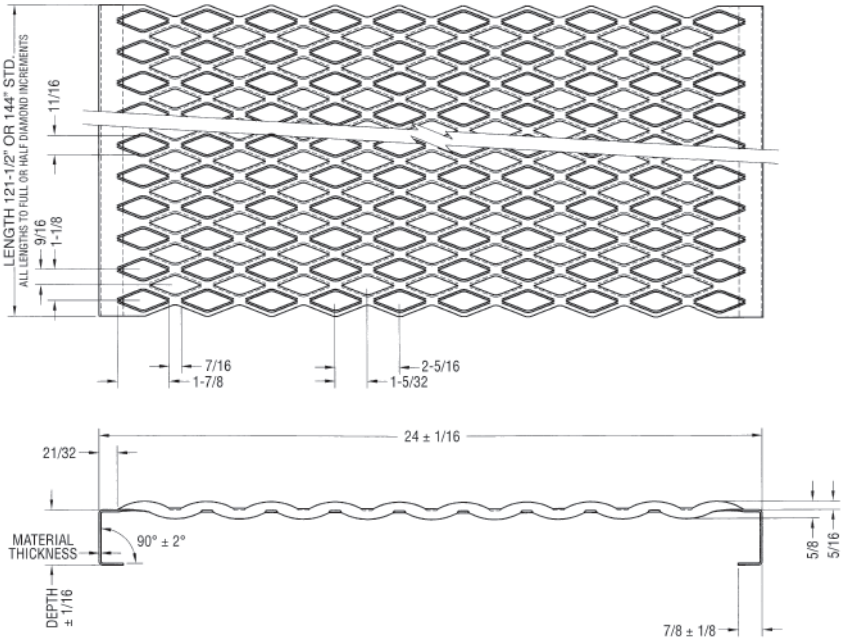
Material		Channel Depth, in.	Sx in³	Ix in⁴
STEEL	14 ga.	1-1/2	0.198	0.115
		2	0.268	0.224
		2-1/2	0.405	0.431
	12 ga.	1-1/2	0.251	0.147
		2	0.382	0.203
		2-1/2	0.516	0.530
		3	0.706	0.920
ALUMINUM ALLOY	.080″	1-1/2	0.209	0.125
		2	0.284	0.260
		2-1/2	0.390	0.416
		3	0.446	0.666
	.100″	1-1/2	0.240	0.147
		2	0.357	0.310
		2-1/2	0.517	0.527
		3	0.680	0.806

STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	14 ga.	U	510	0.418
		C	401	0.335
	12 ga.	U	954	0.424
		C	740	0.339
ALUMINUM ALLOY	.080″	U	381	0.873
		C	309	0.698
	.100″	U	586	0.865
		C	459	0.692

24″ WIDE CHANNEL

10 DIAMOND



SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4″ or less under a uniform load of 100 lb./sq.ft.

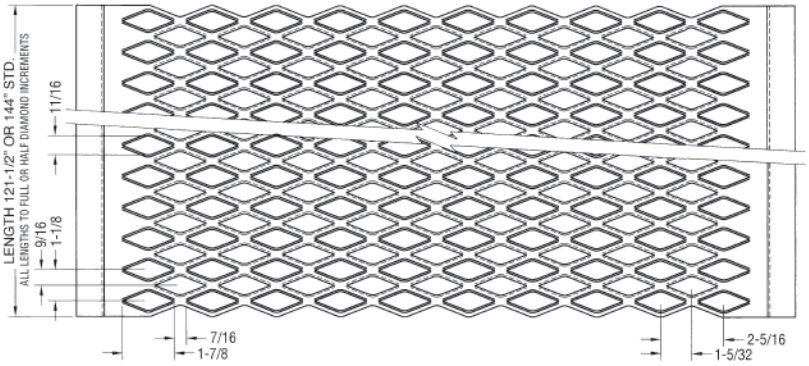
Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		SPAN 2′0″	2′6″	3′0″	3′6″	4′0″	4′6″	5′0″	5′6″	6′0″	6′6″	7′0″	7′6″	8′0″	9′0″	10′0″	11′0″	12′0″
STEEL 14 ga.	2	7.4	102014	U	358	343	238	175	134	106	86	71	60	51	44						
				D	0.029	0.069	0.099	0.134	0.175	0.222	0.274	0.332	0.395	0.463	0.537						
				C	531	429	358	307	268	238	215	195	179	165	153						
				D	0.017	0.027	0.039	0.054	0.070	0.089	0.110	0.133	0.158	0.185	0.215						
	3	7.9	103014	U	304	304	304	243	186	147	119	99	83	71	61	52	47				
				D	0.010	0.024	0.051	0.075	0.098	0.125	0.154	0.186	0.221	0.260	0.301	0.355	0.394				
				C	299	299	299	299	299	299	298	271	249	229	213	196	186				
				D	0.004	0.008	0.013	0.021	0.032	0.045	0.062	0.074	0.089	0.104	0.121	0.142	0.157				
STEEL 12 ga.	2	10.4	102012	U	491	417	290	213	163	129	104	86	72	62	53	45	41				
				D	0.033	0.069	0.099	0.134	0.176	0.222	0.274	0.332	0.395	0.464	0.538	0.634	0.702				
				C	489	489	435	372	326	290	261	237	217	201	186	172	163				
				D	0.013	0.026	0.039	0.054	0.070	0.089	0.110	0.133	0.158	0.185	0.215	0.253	0.281				
	3	11.1	103012	U	653	653	565	415	318	251	203	168	141	120	104	88	79	63	51	42	
				D	0.016	0.049	0.071	0.097	0.126	0.160	0.197	0.239	0.284	0.333	0.387	0.456	0.505	0.639	0.789	0.955	
				C	646	646	646	646	635	565	508	462	424	391	363	334	318	282	254	231	
				D	0.006	0.013	0.022	0.034	0.051	0.064	0.079	0.096	0.114	0.133	0.155	0.182	0.202	0.256	0.316	0.382	

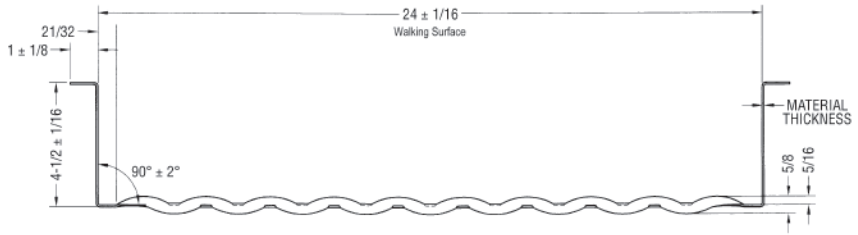
ENGINEERING DATA For Both Channels

Material		Channel Depth, in.	Sx in^3	Ix in^4
STEEL	14 ga.	2	0.326	0.304
		3	0.453	0.753
	12 ga.	2	0.396	0.369
		3	0.772	1.000

STRUT LOADING

Material		Type Load	Load	Defl., in.
STEEL	14 ga.	U	304	0.690
		C	299	0.552
	12 ga.	U	491	0.690
		C	489	0.552





24″ WIDE WALKWAY

10 DIAMOND

SAFE ALLOWABLE DESIGN LOADS

Allowable Loads and Deflections: U – uniform load (lb./sq.ft.) C – concentrated load (lb.) D – deflection (in.)
Spans to the left of heavy line produce a deflection of 1/4″ or less under a uniform load of 100 lb./sq.ft.

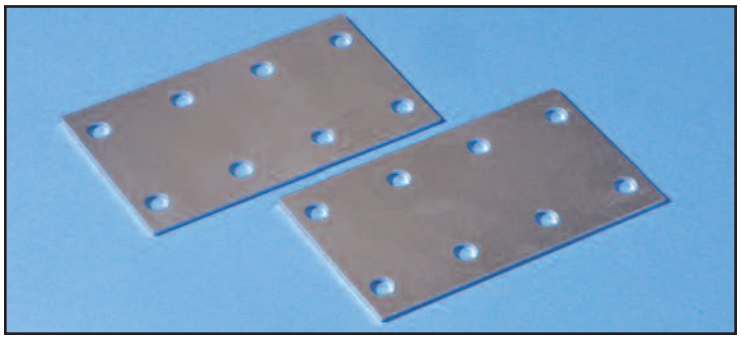
Material	Channel Depth in.	Weight lb./lin. ft.	Catalog Number		SPAN 2′0″	2′6″	3′0″	3′6″	4′0″	4′6″	5′0″	5′6″	6′0″	6′6″	7′0″	7′6″	8′0″	9′0″	10′0″	11′0″	12′0″
STEEL 14 ga.	4.5	8.9	104514	U	342	342	342	342	307	243	197	163	137	116	100	85	77	61	49	41	
				D	0.004	0.010	0.020	0.037	0.057	0.072	0.088	0.107	0.127	0.150	0.173	0.204	0.227	0.287	0.354	0.428	
				C	358	358	358	358	358	358	358	358	358	358	351	324	307	273	246	224	
				D	0.002	0.003	0.006	0.009	0.013	0.019	0.026	0.034	0.044	0.057	0.069	0.082	0.091	0.115	0.142	0.171	
STEEL 12 ga.	4.5	12.0	104512	U	664	664	664	593	454	359	291	240	202	172	148	126	114	90	73	60	50
				D	0.005	0.013	0.028	0.045	0.059	0.075	0.092	0.111	0.132	0.155	0.180	0.213	0.235	0.298	0.368	0.445	0.530
				C	703	703	703	703	703	703	703	661	606	559	519	478	454	404	363	330	303
				D	0.002	0.004	0.008	0.012	0.018	0.026	0.036	0.045	0.053	0.062	0.072	0.085	0.094	0.119	0.147	0.178	0.212

ENGINEERING DATA For Both Channels

Material		Channel Depth, in.	Sx in³	Ix in⁴
STEEL	14 ga.	4-1/2	0.747	2.158
	12 ga.	4-1/2	1.104	3.068

STRUT LOADING

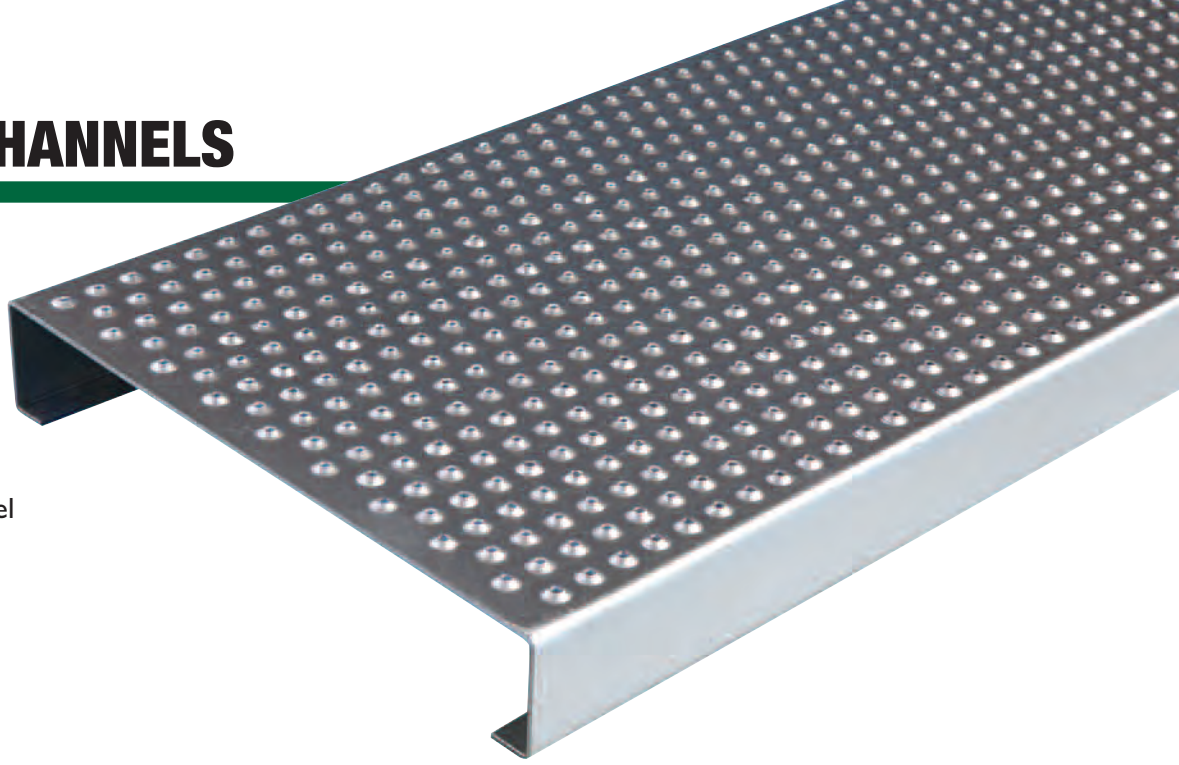
Material		Type Load	Load	Defl., in.
STEEL	14 ga.	U	362	0.690
		C	358	0.552
	12 ga.	U	695	0.690
		C	703	0.552



Reference Morton part number 133004 (4” x 7”). Includes splice plate only – no fasteners included.

Recommend field drilling holes into the walkway toeboards to accept splice plates.

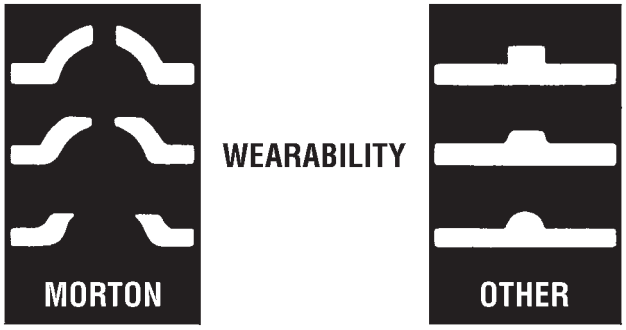
TREAD-GRIP® CHANNELS



STANDARD SIZES:

- Pre-Galvanized or HRP&O Steel
- 13 and 11 Gauge
- .125″ 5052-H32 Aluminum
- Low Open Area – Debris and Tools Will Not Fall Through
- Custom Sizes Available
- Channels Also Available In Button-Hole® Patterns
- 10′ or 12′ Lengths

Width	Channel Height	13 Gauge Steel Wt./Ln. Ft.	11 Gauge Steel Wt./Ln. Ft.	Aluminum Wt./Ln. Ft.
7″	1-1/2″	3.6	4.8	—
	2″	3.6	4.8	1.7
10″	1-1/2″	4.6	6.1	—
	2″	4.6	6.1	2.2
12″	1-1/2″	5.1	6.9	—
	2″	5.1	6.9	2.4



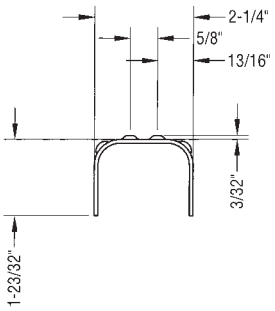
Morton's perforated-button treads make the difference. Because of the way these treads are designed and produced, Open-Grip® grating and Tread-Grip® flooring retain a larger percent of their original non-slip characteristics over a longer period of time than other types of surfaces that relay on "outside" corners to provide friction.

STANDARD LADDER RUNGS:

- Stock Sizes: 16″, 18″, 48-3/4″, 60″ Lengths
- Pre-Galvanized or HRP&O Steel, 13 and 11 Gauge
- .125″ Aluminum
- 16 Gauge 304-2B Stainless Steel
- Safe Allowable Design Loads Shown Are Concentrated at Center of Span on Simple Beam

4 ROW STOCK LADDER RUNGS

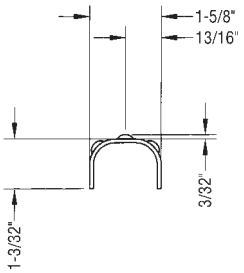
Material	Safe Allowable Concentrated Load (Lb.) 16″ Span	18″ Span	20″ Span	24″ Span	Weight Lb./Ln. Ft.
11 Gauge Steel	1138	1012	911	759	1.9
13 Gauge Steel	862	766	689	574	1.4
.125″ Aluminum	810	720	649	540	0.7
16 Gauge Stainless Steel	580	516	464	387	1.1



3 ROW STOCK LADDER RUNGS

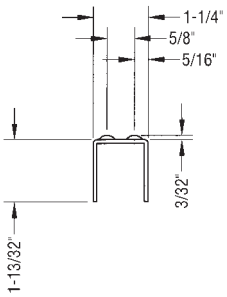
Material	Safe Allowable Concentrated Load (Lb.) 16″ Span	18″ Span	20″ Span	24″ Span	Weight Lb./Ln. Ft.
11 Gauge Steel	474	422	379	316	1.2
13 Gauge Steel	375	334	300	250	0.9
.125″ Aluminum	337	299	269	224	0.5
16 Gauge Stainless Steel	260	231	208	◆	0.7

◆ Does Not Meet OSHA 1910.26/1910.27 (Minimum Concentrated Load 200 Lb. Live Load) in Applications of This Span



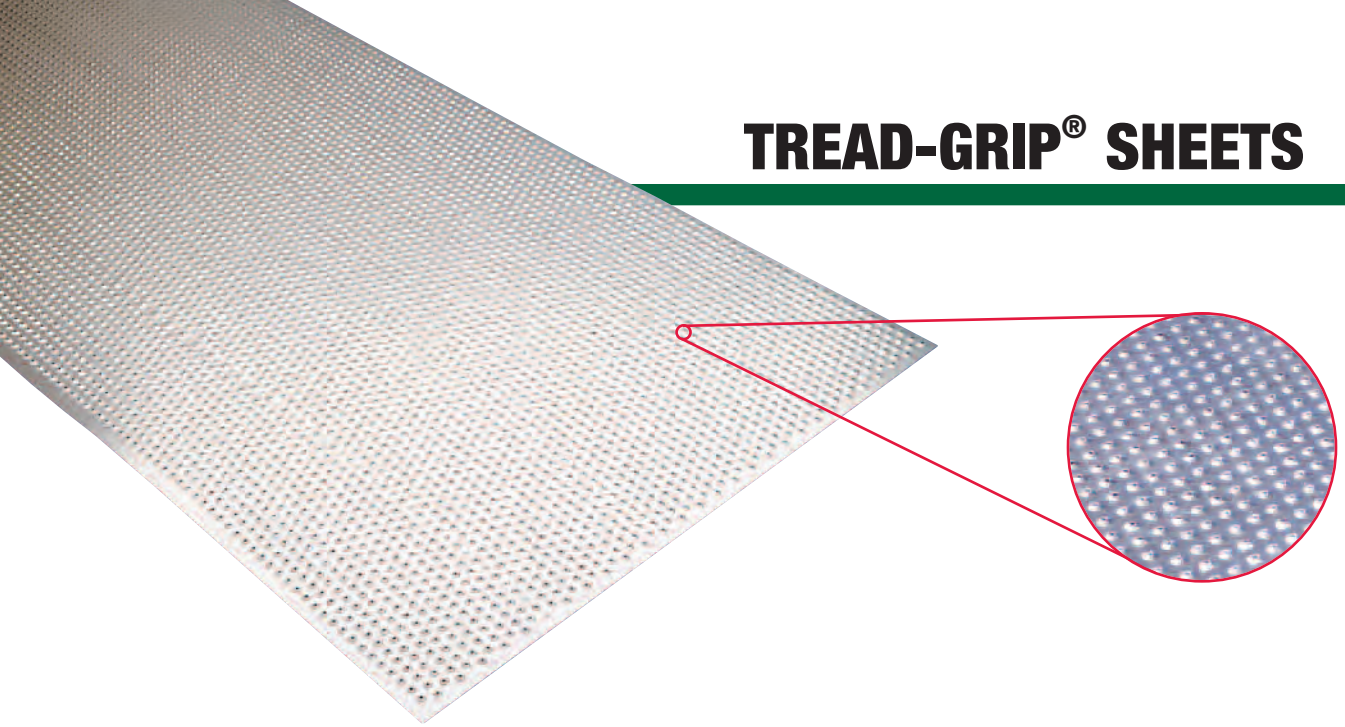
2 ROW STOCK LADDER RUNGS

Material	Safe Allowable Concentrated Load (Lb.) 16″ Span	18″ Span	20″ Span	24″ Span	Weight Lb./Ln. Ft.
11 Gauge Steel	664	590	531	443	1.5
13 Gauge Steel	508	451	401	338	1.1
.125″ Aluminum	471	418	377	314	0.5
16 Gauge Stainless Steel	345	306	276	230	0.8



- These Loads Are Based on Simple Beam Calculation
- The Minimum Safety Factor = 1.67
- Maximum Deflection Does Not Exceed L/240

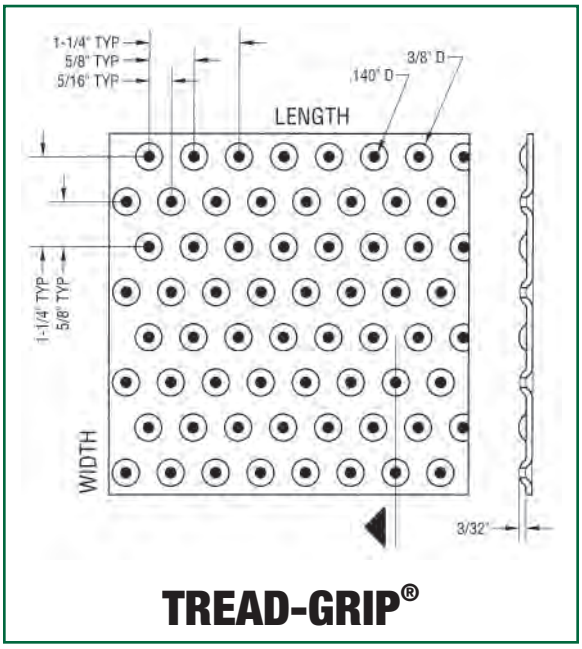
TREAD-GRIP® SHEETS



STOCK SIZES:

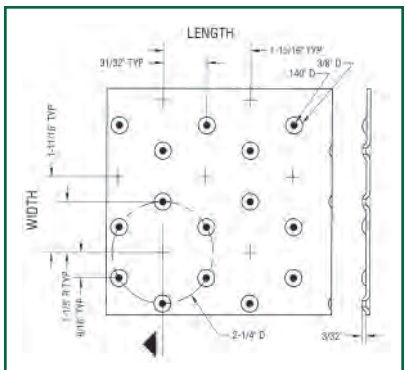
- HRP&O Steel 11, 12, 13, 14 and 16 Gauge
- .125" 5052-H32 Aluminum
- 36" Wide x 120" Long
- Other Finishes and Sizes Available on Special Order
- 304-2B Stainless – 16 Gauge in the Chevron or 1-1/4" Square Patterns Only

Material	lb./sq. ft.
16 Gauge HRP&O Steel	2.4
14 Gauge HRP&O Steel	3.0
13 Gauge HRP&O Steel	3.6
12 Gauge HRP&O Steel	4.2
11 Gauge HRP&O Steel	4.8
.125" Aluminum	1.7

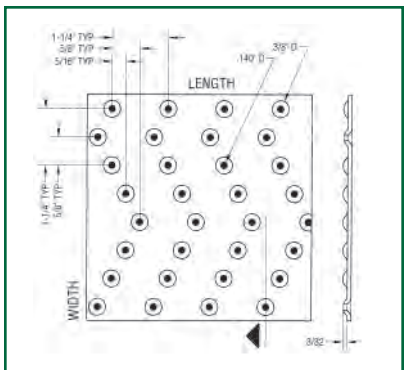


TREAD-GRIP®

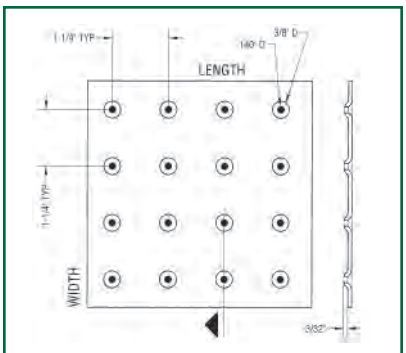
OPTIONAL PATTERNS AVAILABLE



SAFE-DECK™

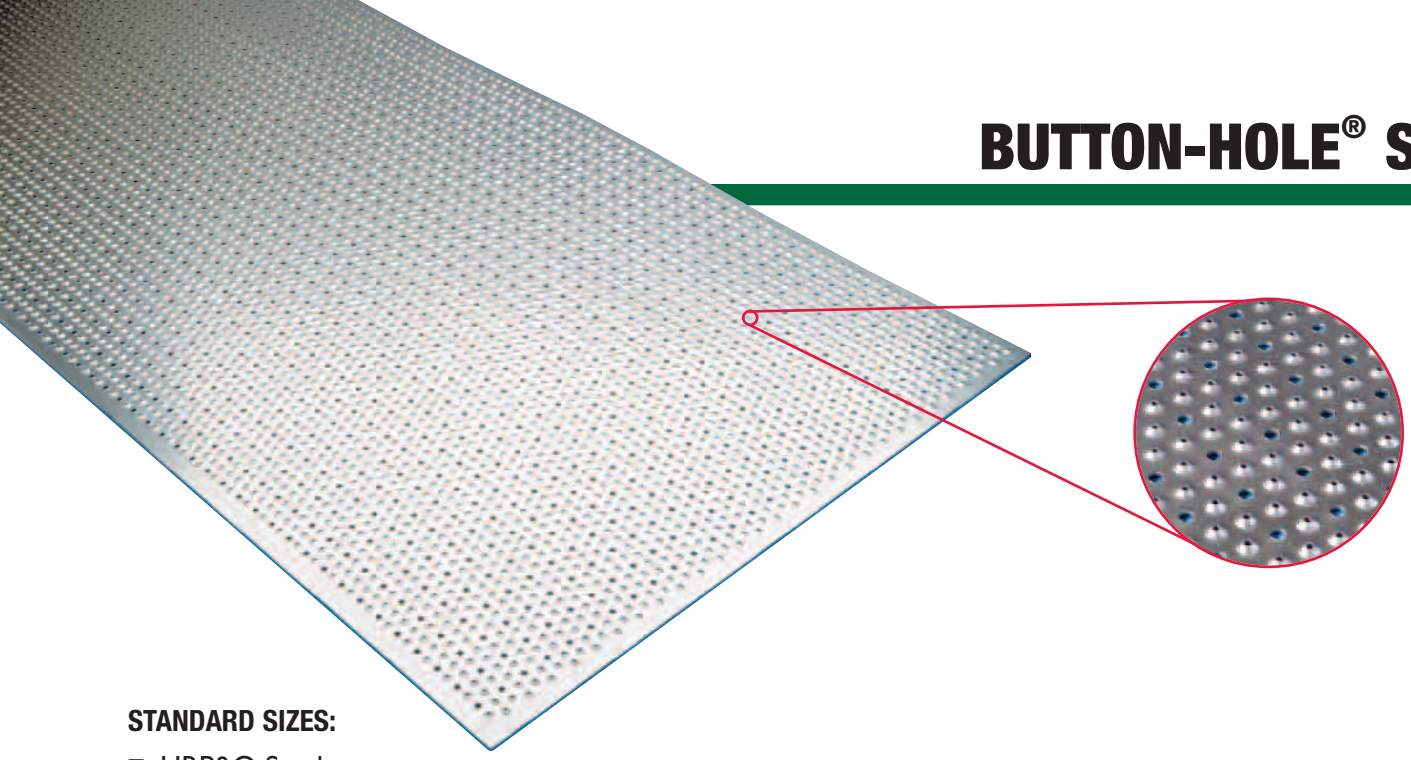


CHEVRON



1-1/4" SQUARE

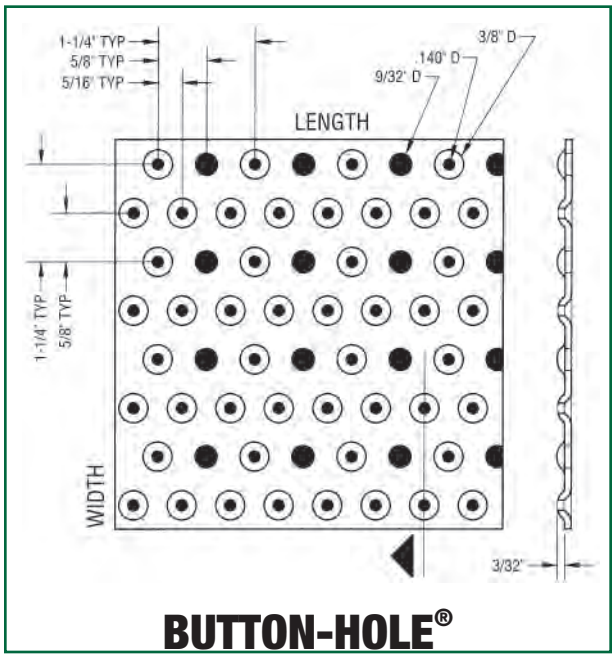
BUTTON-HOLE® SHEETS



STANDARD SIZES:

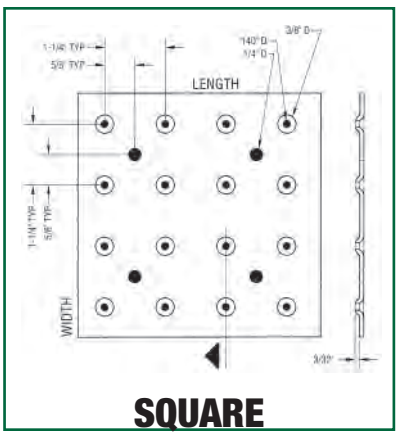
- HRP&O Steel
  11, 12, 13, 14 and 16 Gauge
- .125″ 5052-H32 Aluminum
- 36″ Wide x 120″ Long
- Other Finishes and Sizes Available on Special Order
- 304-2B Stainless – 16 Gauge in the 1-1/4″ Square Pattern Only

Material	lb./sq. ft.
16 Gauge HRP&O Steel	2.3
14 Gauge HRP&O Steel	2.9
13 Gauge HRP&O Steel	3.5
12 Gauge HRP&O Steel	4.1
11 Gauge HRP&O Steel	4.7
.125″ Aluminum	1.6

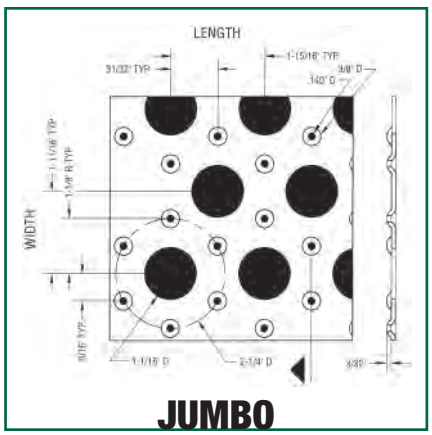


BUTTON-HOLE®

OPTIONAL PATTERNS AVAILABLE

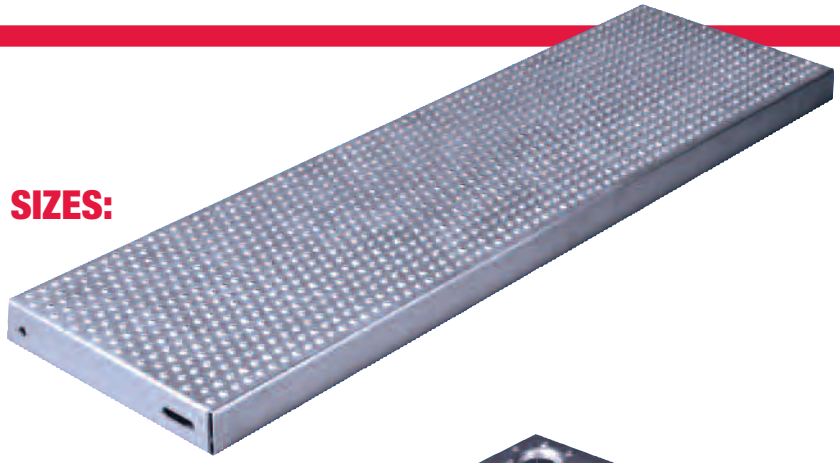


SQUARE



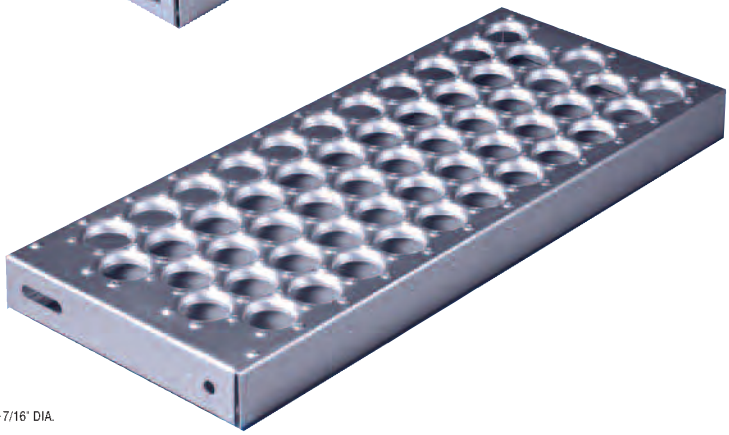
JUMBO

STAIR TREADS



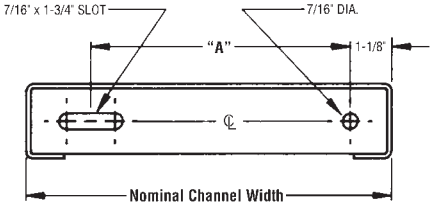
OPEN-GRIP® AND TREAD-GRIP® STANDARD SIZES:

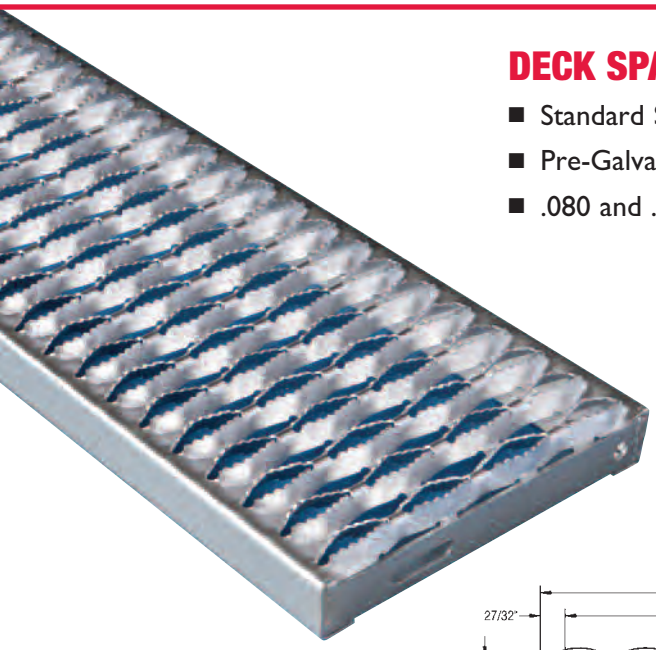
- Pre-Galvanized or HRP&O Steel – 13 and 11 Gauge
- .125″ 5052-H32 Aluminum
- Margins All Sides
- Integral End Caps with Mounting Holes and Slots
- Custom Sizes Available



Length	Widths	Height
24″	10″ & 12″	2″
30″	10″ & 12″	2″
36″	10″ & 12″	2″
48″	10″ & 12″	2″

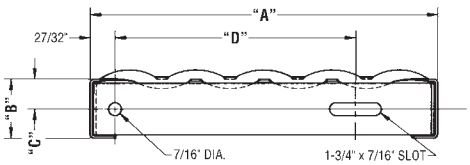
Nominal Channel Width	Dimension "A"
5″	2″
7″	4″
10″	7″
12″	9″
18″	15″



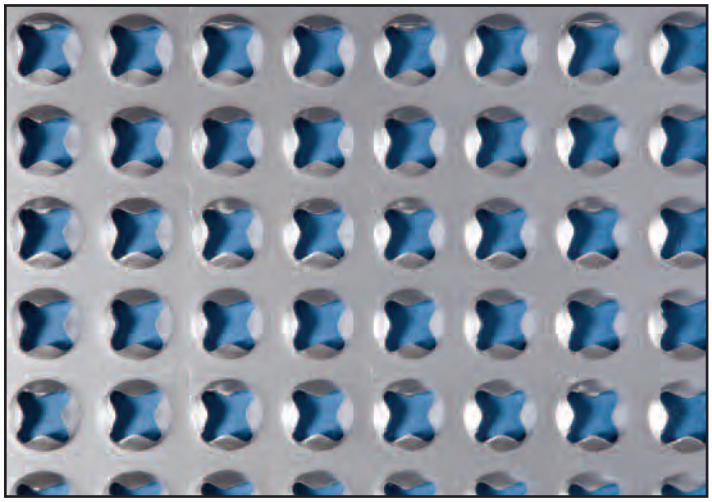


DECK SPAN® STANDARD SIZES:

- Standard Sizes: 24″, 30″, 36″ and 48″ Lengths
- Pre-Galvanized or HRP&O Steel – 14 and 12 Gauge
- .080 and .100″ 5052-H32 Aluminum



A	B	C	D
4-3/4″ (2 Diamond)	1-1/2″	3/4″	2-5/8″
	2″	1″	2-5/8″
7″ (3 Diamond)	1-1/2″	3/4″	3-3/8″
	2″	1″	3-3/8″
9-1/2″ (4 Diamond)	1-1/2″	3/4″	5-7/8″
	2″	1″	5-7/8″
11-3/4″ (5 Diamond)	1-1/2″	3/4″	8-1/8″
	2″	1″	8-1/8″



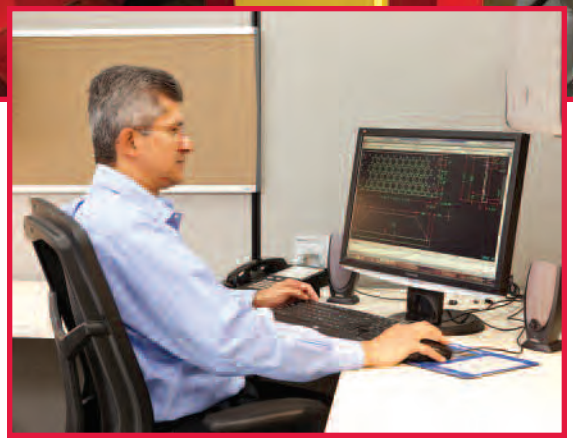
Morton STAR-DECK® is a highly slip resistant, low profile metal grating. Our unique process allows for countless pattern possibilities in materials up to 11 gauge. Our cold-formed embosses with star shaped holes provide slip resistance in all directions. STAR-DECK® is commonly used on heavy equipment platforms and steps.

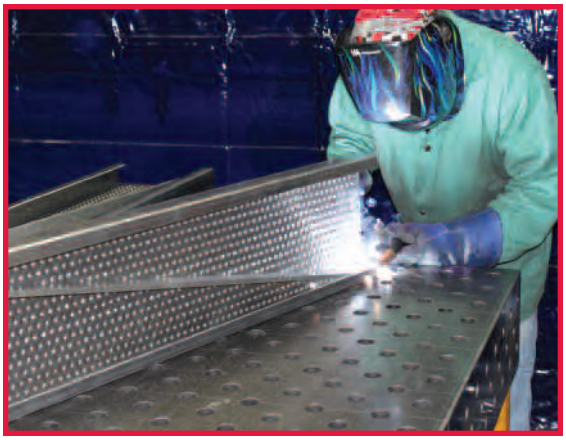
Standard size: 11 gauge, hot rolled, pickled & oiled, 48”x100”. Reference Morton part number 140013.

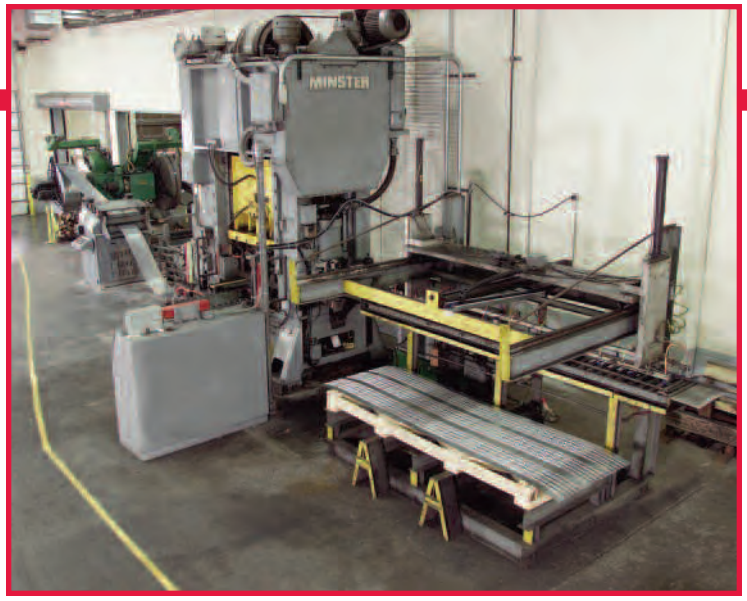
Other sizes, finishes and gauges available on special order. Consult Morton sales.

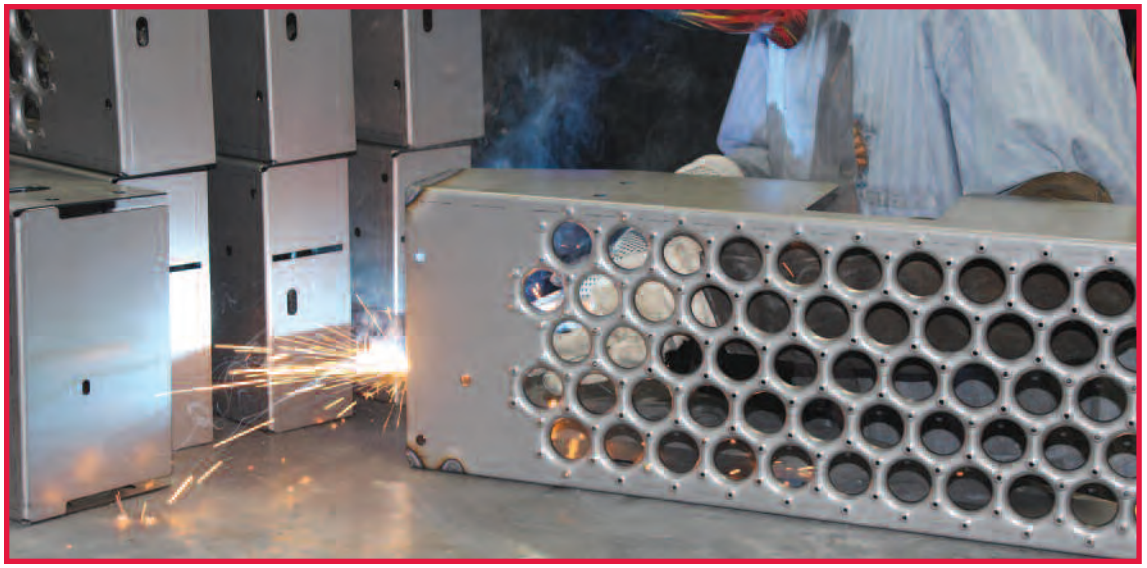
MORTON MANUFACTURING CAPABILITIES

Morton Manufacturing Company offers the industry's most extensive line of manufacturing capabilities, including CAD, laser cutting, punching, and forming. Morton has the resources to manufacture standard stock items and unique value-added, special custom products to meet virtually any customer requirement.






MINSTER



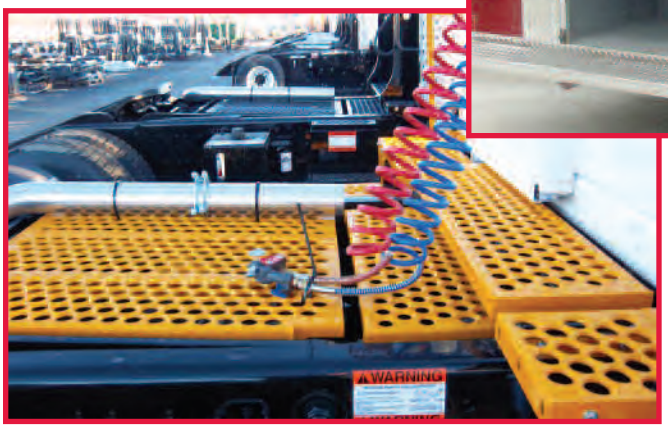
APPLICATIONS

This represents some of the many applications where Morton safety grating is used throughout industries to ensure a safe working environment.

Grain Dryer

Cell Tower

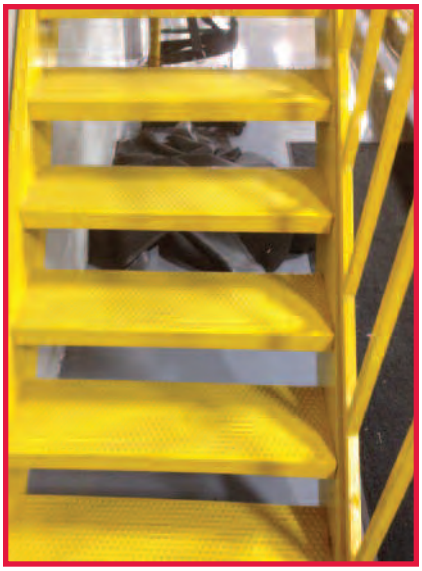
Truck Bumpers



Terminal Tractor

Rolling Ladder

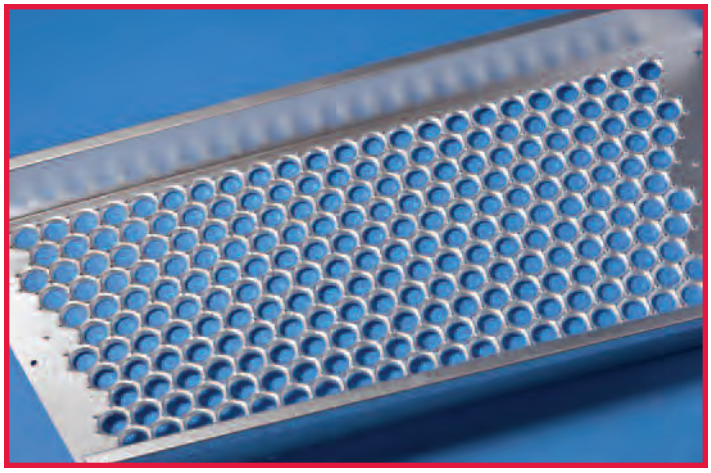
AG Equipment

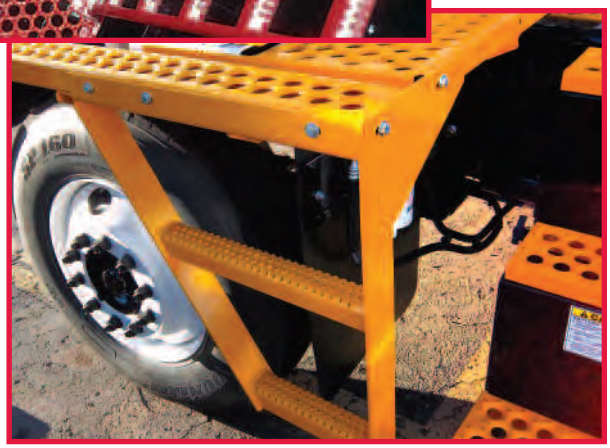


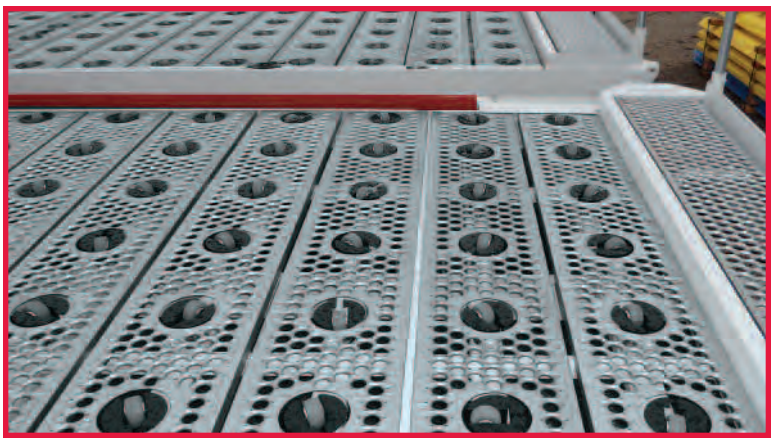
Industrial Stairs

CUSTOM PRODUCTS

Morton Manufacturing specializes in custom products. Our unique ability to "interrupt" the grating pattern, provide end margins, wiped ends and leading edge holes offers the end user unlimited design flexibility. Additional value added features such as MIG, TIG and spot welding allow Morton to supply a ready to assemble product.







HOW TO SPECIFY SAFETY GRATING

Part 1: General

1.1 Scope

A. Purpose: These specifications are presented as a general guide to the architect or structural engineer in preparing project specifications.

B. OPEN-GRIP®, DECK SPAN® and TREAD-GRIP® Safety Grating and Stair Treads:
   1. Do not use these products without prior structural design by a qualified engineer or architect.
   2. Furnish and install as specified in all areas where shown on the drawings.

C. Intended Use:
   1. OPEN-GRIP®, DECK SPAN® and TREAD-GRIP® Safety Grating:
      a. For general purpose use in plants and process facilities by industry, commerce, and public utilities.
      b. For mobile and stationary equipment.
   2. OPEN-GRIP®, DECK SPAN® and TREAD-GRIP® Safety Grating Stair Treads:
      a. For utility stairs and fire escapes in commercial, and private buildings when permitted by local building codes.
      b. Not for staircases used regularly by the general public where flat closed surfaces are desired.

1.2 Qualifications

A. OPEN-GRIP®, DECK SPAN® and TREAD-GRIP® Safety Grating and Stair Treads, and accessories:
   1. Manufactured by Morton Manufacturing Company.
   2. Installed in accordance with its current printed directions.
   3. Safety Grating:
      a. Meet safe allowable loads and deflections as required by qualified engineer or architect.
      b. Slip Resistance: Federal Specification RR-G-1602C, Section 4.4.3.

1.3 Contractor Submittals

A. Erection drawings of grating layout, framing and supports, unit dimensions, type and location of fasteners and welds.

B. Manufacturer's shop details, including section, cut outs, and banding details.

C. Catalog cuts or calculations verifying performance to safe allowable loads and deflection criteria.

1.4 Storage and Handling

A. Store and handle materials to avoid damage.

B. Remove damaged and deteriorated materials from the premises. Dented material can jeopardize structural integrity of product.

Part 2: Products

2.1 Grating Materials

A. Safety Grating and Walkways: OPEN-GRIP®, DECK SPAN®, TREAD-GRIP® and STAR-DECK®

B. Material:
   1. Carbon Hot Rolled, Pickled and Oiled Steel: ASTM A1011
   2. Mill Galvanized Steel: ASTM A653 and A924
   3. Stainless Steel Alloy: Type 304-2B (DECK SPAN® and TREAD-GRIP® only).
   4. Aluminum Alloy: 5052-H32

C. Material gauge or thickness:
   1. DECK SPAN®: 14 gauge steel, 12 gauge steel, 16 gauge stainless steel, .080″ or .100″ thick aluminum.
   2. OPEN-GRIP®: 13 gauge steel, 11 gauge steel and .125″ thick aluminum.
   3. TREAD-GRIP®: 13 gauge steel, 11 gauge steel and .125″ thick aluminum.
   4. STAR-DECK®: 11 gauge steel (other material available upon request).

D. Selection Width:
   1. OPEN-GRIP®:
      a. Channels: 5″, 7″, 10″, 12″, 18″
      b. Walkway: 24″, 30″, 36″
   2. DECK SPAN®:

a. Channels:	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)
b. Walkway:	24″	(10 diamond)

   3. TREAD-GRIP®:

a. Channels:	7″, 10″, 12″	
b. Sheets:	36″ maximum	
c. Ladder Rungs:		2 Row (1-1/4”)
		3 Row (1-5/8”)
		4 Row (2-1/4”)

   4. STAR-DECK®:
      a. Sheets: 48” maximum

HOW TO SPECIFY SAFETY GRATING

E. Selection Height:
   1. OPEN-GRIP®:
      a. Channels: 1-1/2″, 2″
      b. Walkway: 5″
   2. DECK SPAN®:
      a. Channels: 1-1/2″, 2″, 2-1/2″, 3″
      b. Walkway: 4-1/2″
   3. TREAD-GRIP®:
      a. Channels: 1-1/2″, 2″

F. Selection Length:
   1. OPEN-GRIP®:
      a. Standard length: 10′ or 12′.
      b. Special order available.
   2. DECK SPAN®:
      a. Standard length: 10′ (121-1/2″) or 12′ (144″).
      b. Special order available. To order in full or half diamond length increments only.
   3. TREAD-GRIP®:
      a. Standard length channels: 10′ or 12′.
      b. Standard length sheets:10′
      c. Standard length ladder rungs: 16”, 18”, 48-3/4” and 60”
      d. Special order available.
   4. STAR-DECK®:
      a. Standard length: 100”.
      b. Special order available.

G. Open Area:
   1. OPEN-GRIP®, DECK SPAN® and TREAD-GRIP® provide maximum open area for drainage and ventilation.

H. Slip Resistance: Federal Specification RR-G-1602C.

Part 3: Execution

3.1 General

Install grating in accordance with manufacturer’s recommendations, structural drawings, and approved erection and shop drawings.

3.2 Condition of Surfaces

A. Prior to grating installation:
   1. Inspect supports for correct size, layout and alignment.
   2. Verify that surfaces to receive grating are free of debris, burrs, bridging, welds, and other irregularities.
   3. Bearing surfaces:
      a. Recommended minimum: 1-1/2″.
      b. Smooth and level so adjoining sections provide a safe, even walking surface.
   4. Notify the design or consulting engineer or owner’s agent in writing of defects detrimental to proper application of grating so defects can be remedied before grating is applied.

3.3 Grating Installation

A. Recommended Clearance:
   1. Steel:
      a. Perimeter: 1/4″ minimum.
      b. End joints: 3/8″ maximum.
      c. Between panels: 1/8″ general use; 1/4″ maximum.
   2. Concrete:
      a. Perimeter: 1/2″.
      b. Between panels: 1/4″ maximum.

B. Positioning and banding:
   1. Position flat and square with ends bearing min. 1-1/2″ on supporting structure.
   2. Band random cut ends, diagonals, and coped corners:
      a. With a minimum 1/8″ thick bar.
      b. Equal to overall grating thickness.
      c. Welded at contact point at the discretion of the design engineer.
      d. When additional supports are required, do not use banding as a replacement.

3.4 Grating Attachment

A. Attach grating to supports without warp or deflection.

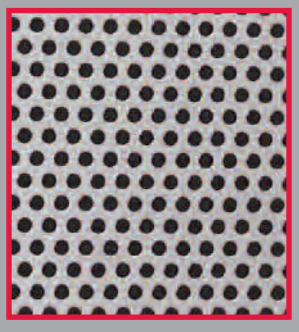
B. With anchoring device or welding, attach planks at every point of contact with supporting structure.

C. Multiple-width applications:
   1. In field of platform, attach plank to supporting structure with a minimum of one attachment at each end of plank on alternate sides.
   2. Spans exceeding 8 ft: Weld or bolt side channels of adjacent planks together at midpoint of span.

D. Fastener Attachments: Secure each end to supporting members and at every point of contact:
   1. OPEN-GRIP®: Use two bolt seat washers and 1/2″ or 3/8″ carriage bolts & nuts.
   2. DECK SPAN®: Use two diamond washers and 5/16″ carriage bolts and nuts.

E. Weld Attachment:
   1. Weld channels between supports to provide uniform deflection in adjacent panels.
   2. Side channel: Secure to supports by fusion welding with 1/8″ fillet welds 1″ long.
   3. Adjacent planks: Weld together with 1/8″ fillet welds 1″ long, 24″ on center staggered top and bottom.

Expanded Metal & Perforated Products



For inquiries on expanded metal and/or perforated products, contact Metalex, a sister company of Morton and part of the Jason, Inc. family of companies.

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