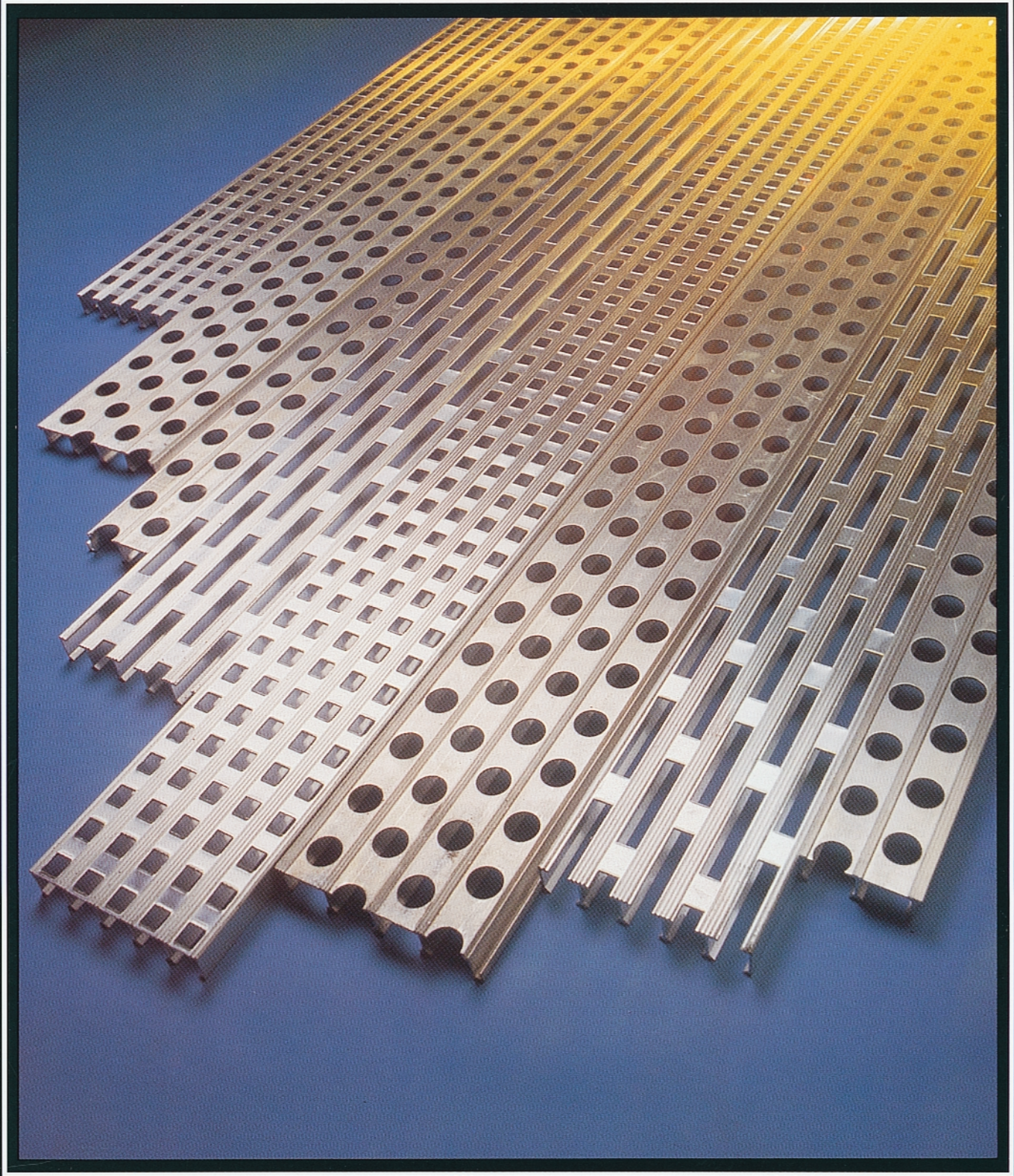


Aluminum Plank Grating



IKE BORDEN®

For installations where light weight, low cost, easy to install flooring is required. IKG Borden aluminum plank may well be the perfect solution.

Strong/Versatile

IKG Borden high quality extruded 6063-T6 aluminum plank sections are available in sizes and styles to meet your needs. Plank sections are 6" wide, with lengths up to 26'. Their integral I-beam

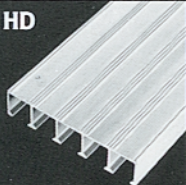
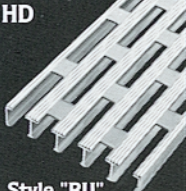
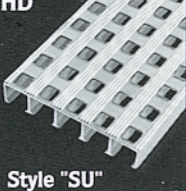
vertical supports provide an excellent strength to weight ratio. They can be fabricated to your specifications at the factory or cut at the job site as needed.

Design and Construction Features

Punched or Unpunched? Plank may be offered either way. Unpunched where a lightweight, solid floor is required, or punched to provide for passage of air & light.

Strength: I-beam sections form integral part of the extrusion, therefore punch outs do not weaken IKG Borden aluminum plank. The strength of IKG Borden aluminum plank comes from the bearing bars. The cut-out portions of the surface provide passage for light, heat and air, but do not reduce the load bearing capacity of the flooring.

IKG Borden aluminum plank meets U.S. Government specification. Type II or IV MIL-G-18015 (SHIPS)

L E E D S		HD	The HD Plank is IKG Universal Plank and is available in depths of 3/4" to 2 1/2". This HD plank is available in unpunched, rectangular and square plain and upset styles. The unpunched style is used for hatchways and areas where odor control is a concern.
		Style "P"	
		HD	Rectangular Upset Punched - 19/32" x 3" openings for use on walkways and water treatment facilities. Very comfortable walking surface. Produces 37.1% open area.
		Style "RU"	
		HD	Square Upset Pattern - 19/32" square openings. Excellent walking surface but with less open area than style "RU". Produces 22.3% open area.
		Style "SU"	
		SL	The "Snap Lock" grating was originally designed for naval shipboard use in refrigerated and dry storage areas. The Snap Lock feature allows for quick assembly on-site. Snap Lock grating is available in 6" male/female sections or in 3" wide male/flush or female/flush sections. This grating is only available in 1" depth. The hole patterns not only provide for air circulation but also allow for BuShip telescoping batten installation
		Style "X"	Style "X" produces 23% open area while style "Y" produces 26.1% open area.
		Style "Y"	

Size	Depth	Sec. Mod Per Ft.	Moment of Inertia/Ft.	Approx. Wts./Sq. Ft.		
				P	R & RU	S & SU
HD - 20	3/4	0.192	0.092	2.1	1.7	1.8
HD - 30	1	0.396	0.232	2.6	2.2	2.3
HD - 40	1 1/4	0.736	0.496	3.3	2.8	3.0
HD - 50	1 1/2	1.116	0.900	3.9	3.4	3.6
HD - 60	1 3/4	1.468	1.340	4.3	3.8	4.0
HD - 70	2	1.854	1.960	4.8	4.3	4.5
HD - 80	2 1/4	2.340	2.708	5.1	4.7	4.9
HD - 90	2 1/2	3.124	3.920	5.4	5.0	5.2

Size	Depth	Sec. Mod. Per Ft.	Moment of Inertia/Ft.	Approx. Wt./Sq. Ft.		
				P	X	Y
SL - 30	1"	.386	.194	2.6	2.4	2.3

Size	Depth	Sec. Mod Per Ft.	Moment of Inertia/Ft.	Approx. Wts./Sq. Ft.	
				P	R
IL - 30	1"	0.451	0.249	3.1	2.6
IL - 40	1 1/4"	0.781	0.502	3.4	3.0
IL - 50	1 1/2"	1.074	0.824	3.7	3.3
IL - 60	1 3/4"	1.490	1.314	4.0	3.5
IL - 70	2"	1.930	1.931	4.2	3.8
IL - 80	2 1/4"	2.351	2.651	4.5	4.1

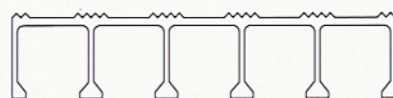
Surface Pattern Designations

- "P" = Unpunched
- "R" = Rectangular Plain
- "RU" = Rectangular Upset
- "S" = Square Plain
- "SU" = Square Upset
- "X" = 13/16 Dia. Holes - 1 1/2" O.C.
- "Y" = 1" Dia. Holes 2" O.C. Stag

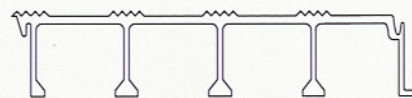
Part Number Designation

HD - 50 - SU

Type ↑ Size ↑ Surface Pattern ↑



STD HD



Snap Lock - SL

Comfortable/Safe

All IKG Borden aluminum plank features flush walking surface for added comfort and safety. Both rectangular and square patterns are available with horizontal or bi-directional ridges to reduce the chance of slipping. The aluminum construction makes it non-magnetic, non-sparking and corrosion-resistant in most environments.

Aluminum Plank Grating

Safe Load Table – Heavy Duty "H.D." Type

SPAN IN INCHES		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
HD-20	U	1536	683	384	246	171	125	96	76	61	51	43	36	31	27	24	21	19	17	15
	D	0.037	0.084	0.150	0.235	0.338	0.458	0.601	0.762	0.932	1.141	1.362	1.571	1.820	2.089	2.404	2.680	3.048	3.386	3.668
	C	768	512	384	307	256	219	192	171	154	140	128	118	110	102	96	90	85	81	77
HD-30	U	3168	1408	792	507	352	259	198	156	127	105	88	75	65	56	50	44	39	35	32
	D	0.030	0.069	0.122	0.192	0.276	0.376	0.491	0.620	0.769	0.931	1.106	1.298	1.513	1.718	1.986	2.227	2.481	2.764	3.103
	C	1584	1056	792	634	528	453	396	352	317	288	264	244	226	211	198	186	176	167	158
HD-40	U	5888	2617	1472	942	654	481	368	291	236	195	164	139	120	105	92	81	73	65	59
	D	0.026	0.060	0.106	0.166	0.240	0.327	0.427	0.541	0.669	0.809	0.964	1.125	1.306	1.507	1.709	1.918	2.172	2.401	2.676
	C	2944	1963	1472	1178	981	841	736	654	589	535	491	453	421	393	368	346	327	310	294
HD-50	U	8928	3968	2232	1428	992	729	558	441	357	295	248	211	182	159	140	124	110	99	89
	D	0.022	0.050	0.089	0.139	0.200	0.273	0.357	0.452	0.557	0.674	0.803	0.941	1.092	1.257	1.433	1.618	1.804	2.015	2.225
	C	4464	2976	2232	1786	1488	1275	1116	992	893	812	744	687	638	595	558	525	496	470	446
HD-60	U	11744	5220	2936	1879	1305	959	734	580	470	388	326	278	240	209	184	163	145	130	117
	D	0.019	0.044	0.078	0.123	0.177	0.241	0.315	0.399	0.493	0.596	0.709	0.833	0.967	1.110	1.265	1.428	1.597	1.777	1.964
	C	5872	3915	2936	2349	1957	1678	1468	1305	1174	1068	979	903	839	783	734	691	652	618	587
HD-70	U	14832	6592	3708	2373	1648	1211	927	732	593	490	412	351	303	264	232	205	183	164	148
	D	0.017	0.038	0.068	0.106	0.153	0.208	0.272	0.344	0.425	0.514	0.612	0.719	0.835	0.958	1.090	1.228	1.378	1.533	1.698
	C	7416	4944	3708	2966	2472	2119	1854	1648	1483	1348	1236	1141	1059	989	927	872	824	781	742
HD-80	U	18720	8320	4680	2995	2080	1528	1170	924	749	619	520	443	382	333	293	259	231	207	187
	D	0.015	0.034	0.062	0.097	0.139	0.190	0.248	0.314	0.388	0.470	0.559	0.657	0.762	0.875	0.997	1.123	1.259	1.400	1.553
	C	9360	6240	4680	3744	3120	2674	2340	2080	1872	1702	1560	1440	1337	1248	1170	1101	1040	985	936
HD-90	U	24992	11108	6248	3999	2777	2040	1562	1234	1000	826	694	592	510	444	391	346	309	277	250
	D	0.014	0.032	0.057	0.089	0.129	0.175	0.229	0.290	0.358	0.433	0.516	0.606	0.702	0.806	0.919	1.036	1.163	1.295	1.434
	C	12496	8331	6248	4998	4165	3570	3124	2777	2499	2272	2083	1922	1785	1666	1562	1470	1388	1315	1250
	D	0.011	0.025	0.045	0.071	0.103	0.140	0.183	0.232	0.286	0.347	0.413	0.484	0.562	0.645	0.734	0.829	0.929	1.035	1.147

Safe Load Table – Snap Lock "SL" Type

SPAN IN INCHES		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
SL-30	U	3088	1372	772	494	343	252	193	152	124	102	86	73	63	55	48	43	38	34	31
	D	0.035	0.080	0.143	0.223	0.322	0.438	0.573	0.722	0.898	1.082	1.292	1.511	1.754	2.018	2.280	2.603	2.891	3.211	3.595
	C	1544	1029	772	618	515	441	386	343	309	281	257	238	221	206	193	182	172	163	154
SL-40	U	4608	2016	1152	720	504	360	270	216	176	144	120	102	88	76	66	58	51	45	40
	D	0.028	0.064	0.114	0.179	0.258	0.350	0.458	0.580	0.716	0.867	1.030	1.212	1.406	1.612	1.833	2.074	2.326	2.593	2.857
	C	2304	1512	1152	928	772	654	564	496	432	386	343	309	281	257	238	221	206	193	182

Safe Load Table – Interlocking "IL" Type

SPAN IN INCHES		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
IL-30	U	3608	1604	902	577	401	295	226	178	144	119	100	85	74	64	56	50	45	40	36
	D	0.032	0.073	0.130	0.203	0.293	0.400	0.522	0.659	0.813	0.983	1.171	1.371	1.605	1.829	2.072	2.358	2.667	2.943	3.253
	C	1804	1203	902	722	601	515	451	401	361	328	301	278	258	241	226	212	200	190	180
IL-40	U	6248	2777	1562	1000	694	510	391	309	250	207	174	148	128	111	98	86	77	69	62
	D	0.028	0.063	0.112	0.175	0.251	0.343	0.448	0.567	0.700	0.848	1.010	1.184	1.377	1.574	1.799	2.012	2.264	2.518	2.778
	C	3124	2083	1562	1250	1041	893	781	694	625	568	521	481	446	417	391	368	347	329	312
IL-50	U	8592	3819	2148	1375	955	701	537	424	344	284	239	203	175	153	134	119	106	95	86
	D	0.023	0.052	0.093	0.146	0.211	0.287	0.375	0.474	0.587	0.709	0.845	0.989	1.147	1.321	1.498	1.696	1.899	2.112	2.348
	C	4296	2864	2148	1718	1432	1227	1074	955	859	781	716	661	614	573	537	505	477	452	430
IL-60	U	11920	5298	2980	1907	1324	973	745	589	477	394	331	282	243	212	186	165	147	132	119
	D	0.020	0.045	0.081	0.127	0.183	0.250	0.326	0.413	0.510	0.617	0.734	0.861	0.999	1.148	1.304	1.474	1.651	1.841	2.037
	C	5960	3973	2980	2384	1987	1703	1490	1324	1192	1084	993	917	851	795	745	701	662	627	596
IL-70	U	15440	6862	3860	2470	1716	1260	965	762	618	510	429	365	315	274	241	214	191	171	154
	D	0.017	0.040	0.071	0.112	0.161	0.220	0.287	0.364	0.450	0.543	0.647	0.759	0.881	1.010	1.150	1.301	1.460	1.622	1.794
	C	7720	5147	3860	3088	2573	2206	1930	1716	1544	1404	1287	1188	1103	1029	965	908	858	813	772
IL-80	U	18808	8359	4702	3009	2090	1535	1176	929	752	622	522	445	384	334	294	260	232	208	188
	D	0.015	0.035	0.063	0.099	0.143	0.195	0.255	0.323	0.398	0.483	0.574	0.674	0.782	0.896	1.022	1.151	1.291	1.437	1.595
	C	9404	6269	4702	3762	3135	2687	2351	2090	1881	1710	1567	1447	1343	1254	1176	1106	1045	990	940
	D	0.012	0.028	0.051	0.079	0.114	0.156	0.204	0.258	0.319	0.386	0.459	0.539	0.625	0.718	0.817	0.922	1.034	1.152	1.276

All of the above tables based on 12,000 P.S.I. Max. Fiber Stress; 10,000,000 P.S.I. Modulus of Elasticity

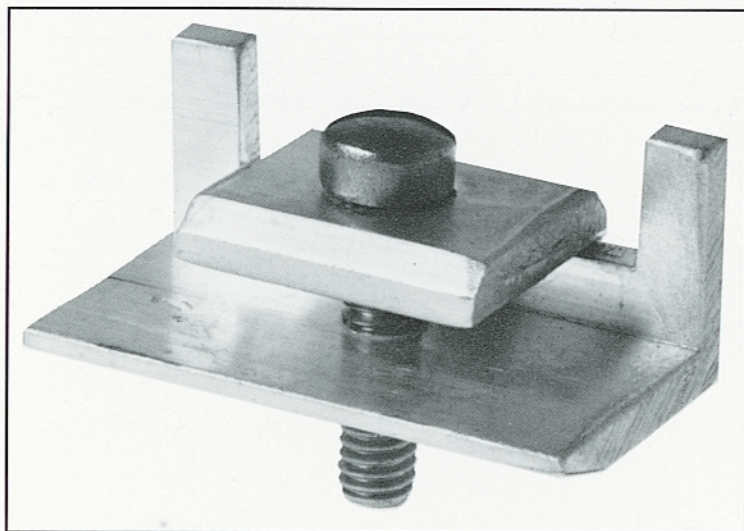
Note: Spans listed in the blue area produce a deflection of 1/4" or less under a uniform load of 100 pounds per sq. ft.

NON-STANDARD ALUMINUM PLANK GRATING PRODUCTS

IKG manufactures upon special request a light duty (LD) aluminum plank grating, subject to special inquiry.

IKG Borden Aluminum Plank Fasteners & Frames

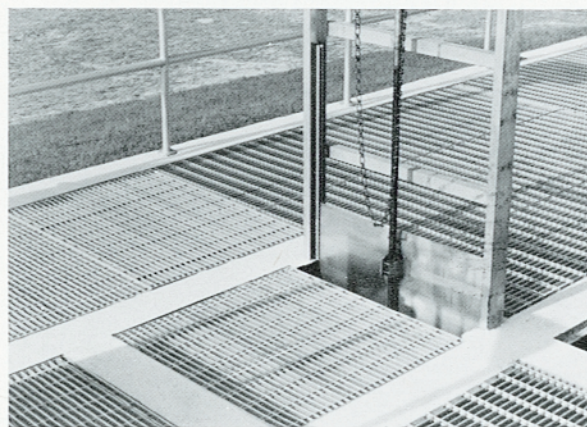
Special Plank Fastener — Type 50



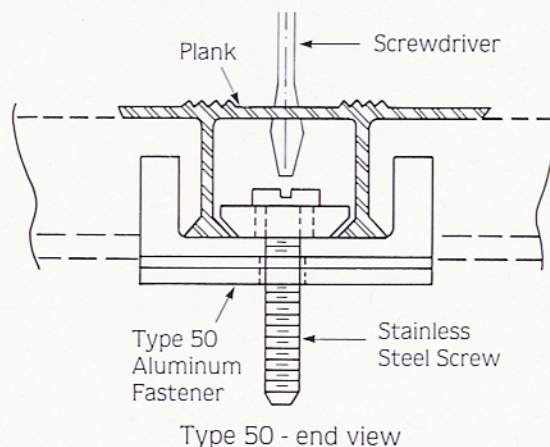
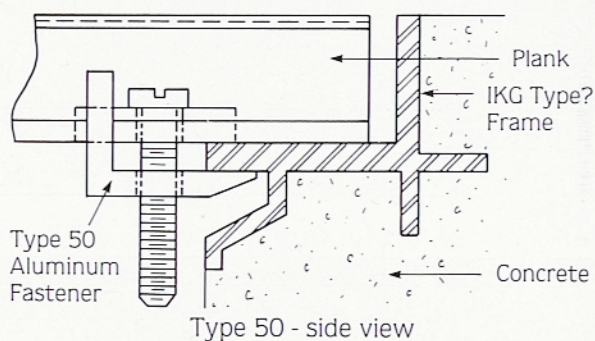
Application — Type 50 fasteners are used with punched plank, where access to tighten screw is permitted through the punched opening in the plank surface. The type 50 fastener is especially designed to be used with the plank frames found on the reverse side of this page. No special tools are required other than a simple screwdriver. These fasteners cannot be used with unpunched plank. A special fastener - (Type 50S) which must be installed from underneath may be used for unpunched plank.

Instruction for Installation

- Place 3-piece Type 50 fastener on underside of panel, as per illustration. Do not tighten screw.
- Place panel in frame. Slide fastener into position with screwdriver through punched slot in top of plank panel.
- Tighten screw.
- Use 4 fasteners per panel, or install on about 4 ft. centers.



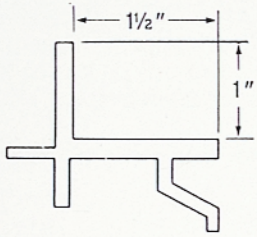
IKG Plank Grating



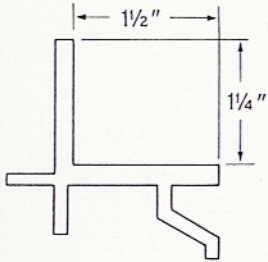
Note: For unpunched plank with access from below panel, specify Type 50 A, Inverted Fastener — Nonstandard

IKG Borden Frames for Aluminum Plank or Bar Grating

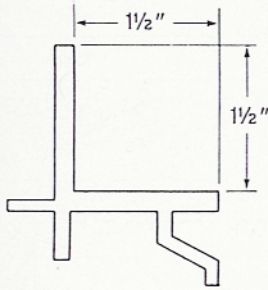
IKG Borden "stocked" frame sections:



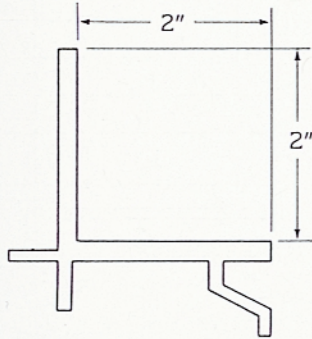
FRAME A100
(for 1" deep plank or grating)



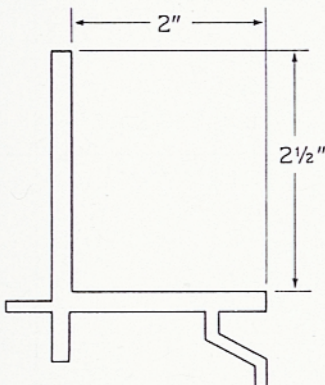
FRAME A125
(for 1 1/4" deep plank or grating)



FRAME A150
(for 1 1/2" deep plank or grating)

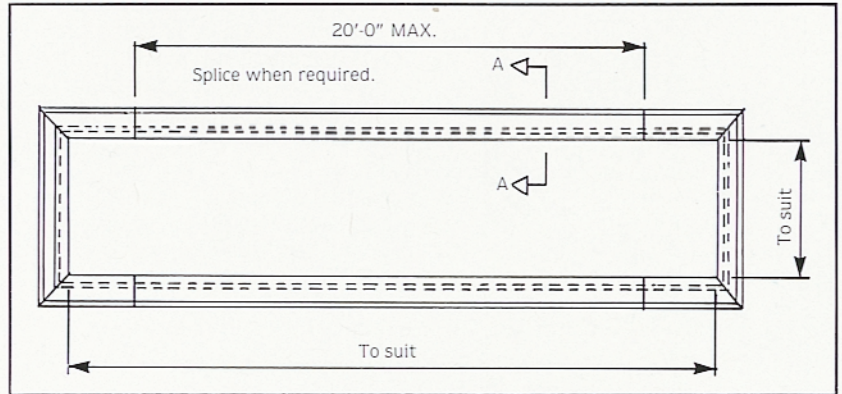


FRAME A200
(for 2" deep plank or grating)



FRAME A250*
(for 2 1/2" deep plank or grating)

*Note — for 2 1/4" deep plank or grating, specify A225, which is fabricated from the A250 section.



The bearing angles of the IKG Borden Frames provide a continuous slot to accommodate most types of friction style grating fasteners. The frame extrusion provides a continuous anchor when embedded in concrete.

Frames can be given a shop coat of zinc chromate where contact with concrete is present if so requested.

Frames are supplied with welded, mitered corner. May be shipped loose for field assembly, or as fully fabricated frames.

IKG Borden Frames are constructed of aluminum alloy 6063 — T6, mill finish, caustic cleaned.

Availability:

- Stocked in straight lengths (20 ft.)
- Custom fabricated frames
- Custom fabricated, loose components for field welding

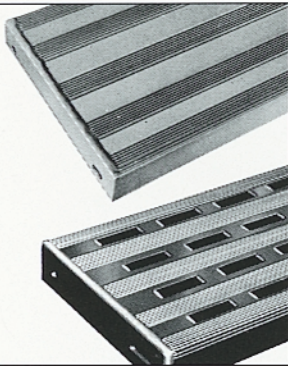
IKG BORDEN

How to Specify Plank Grating

Grating to be aluminum plank extruded from aluminum alloy 6063-T6 as manufactured by IKG Industries, a division of Harsco Corporation. Plank to be Type HD 1" inch deep made from 6 inch wide sections. Plank grating is to safely sustain a uniformly distributed load of 100 pounds per square foot on a 36 inch span and deflect less than .250 inches. Top surface shall be provided with 3" x 1⁹/₃₂" rectangular openings (unpunched or square openings) and have continuous raised longitudinal ridges for skid resistance. Material shall be provided with [Mill or Anodized] Finish. Overall dimensions and span in accordance with plans [or sketch]. [Indicate cut-outs, support locations, banding, etc.] Product must meet requirements of Government Spec. # MIL-G-18015 (SHIPS).

ALUMINUM PLANK TREADS

For stairs and ladders IKG Borden plank treads are engineered for maximum safety and serviceability. They are produced from high-strength (6063-T6) aluminum alloy. Completely non-sparking, non-magnetic, slip-resistant and corrosion resistant.



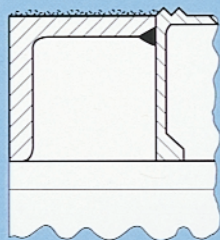
RECOMMENDED TREAD LENGTHS

Max. Length of Tread	Bearing Bar Depth
2'-0"	1"
3'-0"	1 ¹ / ₄ "
4'-0"	1 ¹ / ₂ "
5'-0"	1 ³ / ₄ "

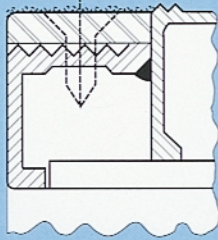
TABLE OF STD. TREAD WIDTHS

Tread Width	(Dimension A) Hole Centers
6 ⁵ / ₁₆ "	2 ¹ / ₂ "
7 ¹ / ₄ "	4 ¹ / ₂ "
8 ¹¹ / ₁₆ "	4 ¹ / ₂ "
9 ⁷ / ₈ "	7"
11 ¹¹ / ₁₆ "	7"
12 ⁵ / ₁₆ "	7"

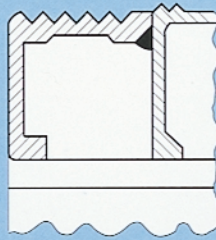
NOSING TYPES



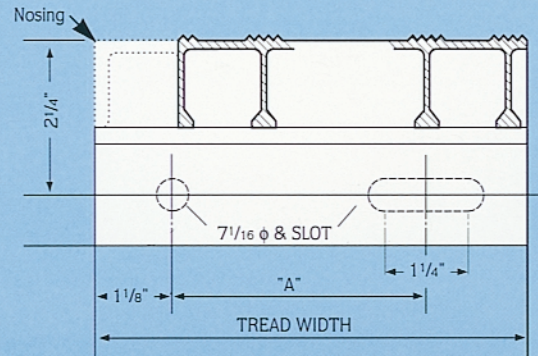
1¹/₄" Mebac



1¹/₄" Abrasive



1¹/₄" Corratread



NOTE: 7/16" Dia. Hole & Slot for 3/8" Bolts.

For more information on IKG Borden Products call or write the sales office below for our brochure on:

- IKG Borden Grating
- IKG Borden Fiberglass Systems
- IKG Borden Mebac—Slip Resistant Surface
- IKG Deckspan Safety Grating
- IKG Fiberglass Structures
- IKG Borden Safe-T-Grid
- IKG Borden Stair Tread Nosings
- IKG Greulich Bridge Flooring Systems
- IKG Borden Grid Steel Floor Armor

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P.O. Box 100930
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800-467-2345
Fax: 615-256-7881

P.O. Box 310
Channelview, TX 77530
281-452-0709
Fax: 281-457-6054

1033 Herman St.
Nashville, TN 37018
615-782-4700
Fax: 615-726-2023

4325 Steeles Avenue West
Downsview, Ontario M3N 1V7 Canada
416-739-9597
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