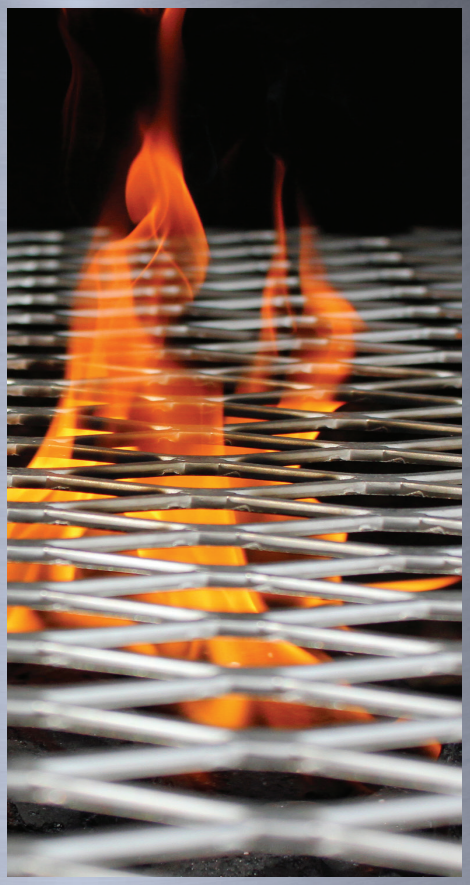
AMICO®

INDUSTRIAL EXPANDED METAL







TRANSFORMING METALS

INTO PRODUCTS THAT MAKE A BETTER WORLD

TABLE OF CONTENTS

◆ Expanded Metal Products Page

Expanded Metal Styles..... 1
Carbon Steel Raised Expanded Metal..... 2
Carbon Steel Flattened Expanded Metal..... 3
Stainless Steel and Aluminum..... 4
Tolerances and Edge Conditions..... 5
How to Order Expanded Metal Products..... 6
Expanded Metal Grating..... 7
Packaging..... 8
Terminology..... 9
AMICO Locations..... back cover

Expanded metal is truly versatile product. Ferrous and non-ferrous metal sheet can be expanded into a wide range of mesh styles. There are standard styles of expanded metal and there are untold variations in strand width and opening sizes that can be produced to create whatever architectural or industrial pattern is required.

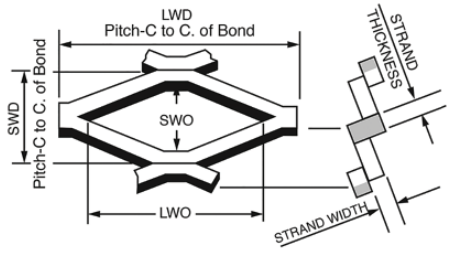
The design, selection and adaptability of expanded metal grating for pedestrain load carrying capacity must be determined by the buyer or specifier's engineer. The guidelines, specifications and information herein are not to be construed as a warranty by the manufacturer or for the fitness of any product for any given use or purpose.



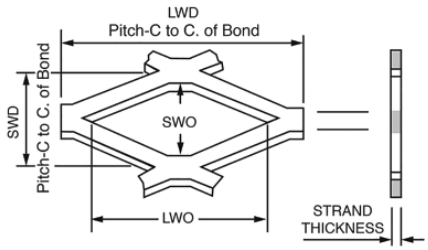


EXPANDED METAL STYLES

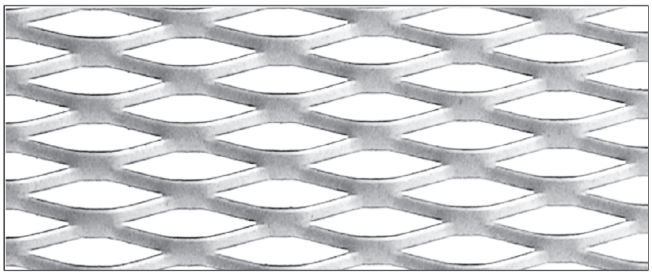
REGULAR EXPANDED METAL is formed by slitting and stretching steel sheet. The illustration below shows that the strands and bonds form a sharp angle to the original plane of the solid sheet.



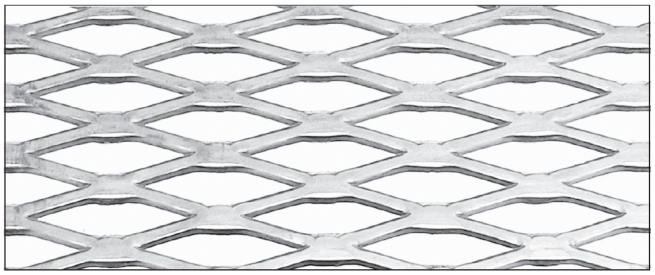
FLATTENED EXPANDED METAL is regular expanded metal that has been cold rolled after being expanded, leaving a flat, and smooth surface. The length of the sheet is elongated usually by 2 to 5% while the width stays virtually the same.



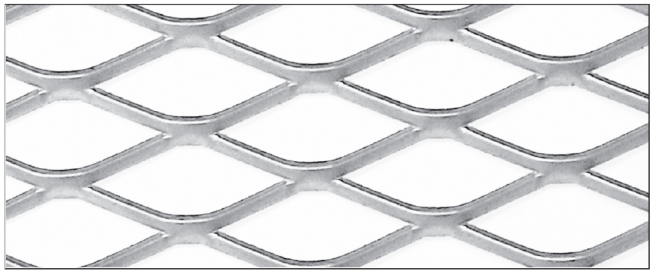
Patterns shown actual size



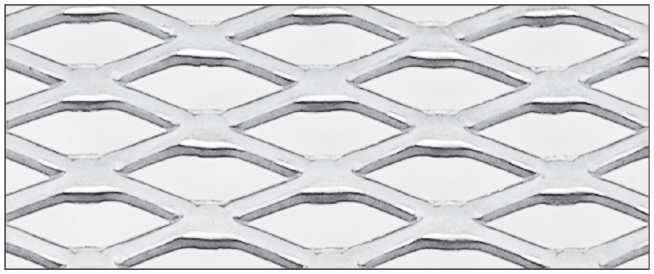
1/4" #20 REGULAR



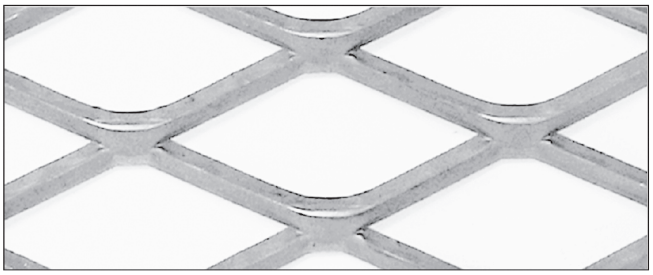
1/4" #20 FLATTENED



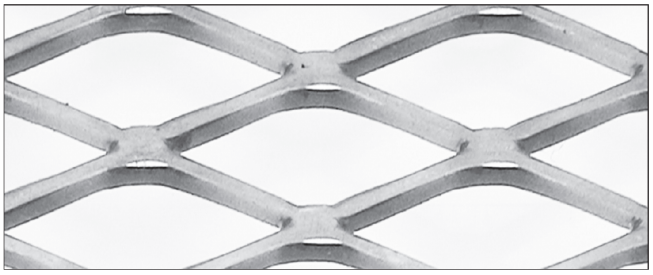
1/2" #16 REGULAR



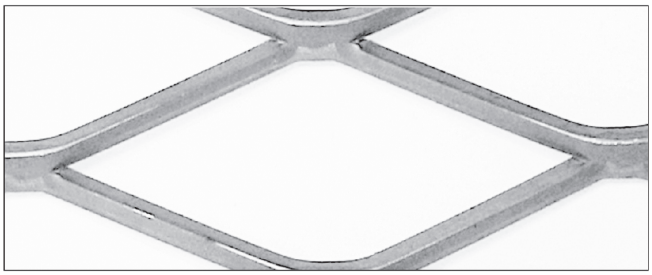
1/2" #16 FLATTENED



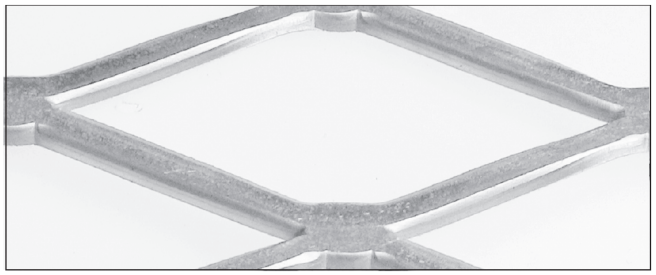
3/4" #9 REGULAR



3/4" #9 FLATTENED



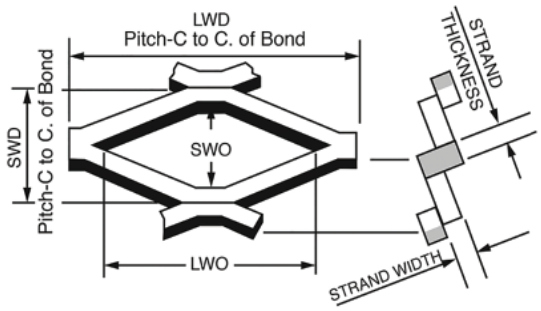
1 1/2" #9 REGULAR



1 1/2" #9 FLATTENED

RAISED EXPANDED METAL

Regular Expanded Metal goes through a process of slitting and stretching metal sheet to form the standard or regular style of expanded metal. The expanded metal now has strands and intersecting strands called bonds forming a sharp angle to the original plane of the solid sheet. This process creates the unique pattern and allows a single sheet of metal to be processed into several sheets of expanded metal.



Nominal Weights and Dimensions

Style	Minimum Thickness (Inches) [A]	Nominal Weight in Lbs. Per 100-Sq.Ft [B]	Design Size (Inches) [C]		Design Size (Inches) [C]		Strand Size (Inches) [C]		Overall Thickness (Inches)	Number of Diamonds Per Foot		(%) Open Area
			SWD	LWD	SWO	LWO	Width	Thickness		SWD	LWD	
STANDARD - (Raised) CARBON STEEL - ASTM A1011												
1/4" - #20	.032	85	.250	1.00	.157	.718	.072	.036	.146	48	12	42
1/4" - #18	.042	113	.250	1.00	.146	.718	.072	.048	.151	48	12	42
1/2"- #20	.032	42	.500	1.20	.407	.938	.072	.036	.146	24	10	71
1/2"- #18	.042	69	.500	1.20	.382	.938	.088	.048	.180	24	10	65
1/2"- #16	.053	85	.500	1.20	.372	.938	.087	.060	.183	24	10	65
1/2"- #13	.083	141	.500	1.20	.337	.938	.096	.090	.212	24	10	62
3/4"- #16	.053	54	.923	2.00	.783	1.750	.101	.060	.208	13	6	78
3/4"- #13	.083	77	.923	2.00	0.760	1.688	.096	.090	.212	13	6	79
3/4"- #10	.083	117	.923	2.00	.718	1.625	.144	.092	.300	13	6	69
3/4"- # 9	.127	178	.923	2.00	.675	1.562	.150	0.134	.329	13	6	67
1"- #16	.053	43	1.00	2.40	.872	2.062	.087	.060	.183	12	5	83
1-1/2"- #18	.042	20	1.33	3.00	1.229	2.625	.068	.048	.144	9	4	90
1-1/2"- #16	.053	40	1.33	3.00	1.184	2.625	.108	.060	.221	9	4	84
1-1/2"- #13	.083	58	1.33	3.00	1.160	2.500	.105	.090	.228	9	4	84
1-1/2"- #10	.083	76	1.33	3.00	1.132	2.500	.138	.090	.288	9	4	79
1-1/2"- # 9	.127	119	1.33	3.00	1.087	2.375	.144	0.134	.318	9	4	78
1-1/2"- # 6	.184	247	1.33	3.00	.979	2.313	.203	0.198	.452	9	4	69
2"- #10	.083	65	1.85	4.00	1.630	3.438	.164	.090	.335	7	3	82
2"- # 9	.127	88	1.85	4.00	1.603	3.375	.149	.134	.327	7	3	84

[A] The minimum thickness is absolute, not subject to minus variation.

[B] A variation in weight per square ft. of ±10 % is permissible, based on the weight of any sheet or bundle.

[C] A tolerance of ±10 % is permitted in dimensions, center to center.

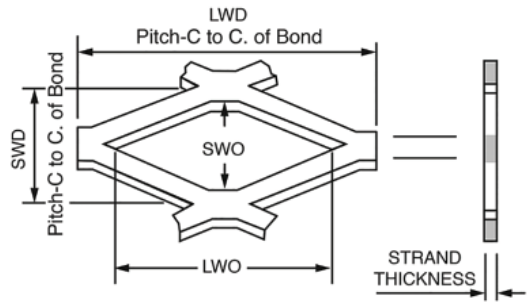
The styles listed may vary by weight and dimension based on the buyers' specifications.
If materials require documentation meeting EMMA or ASTM standards to comply with government and or building codes, advise AMICO sales department at time of inquiry and order. Standard sheet sizes range from 4-ft (SWD) x 8-ft (LWD) up to 6-ft (SWD) x 12-ft (LWD). For non-standard sheet sizes contact AMICO directly.

COATINGS

Because of its adaptability to metal finishing processes, Expanded Metal can be galvanized, anodized, powder coated, painted or plated for a variety of applications. Because of the light lubricant used during the expanding process, the product should be cleaned prior to finishing. When hot-dip galvanizing, there can be some distortion of metal because of high temperatures. Galvanizing does not always produce a smooth and even coating. It is recommended that patterns of less than 1/2-in SWD, thinner than 0.080 in., and large diamond patterns with a light weight per square foot should not be hot dip galvanized. Consideration should be given to producing these items from pregalvanized steel sheet.

FLATTENED EXPANDED METAL

Flattened expanded metal is the process of passing regular or raised expanded metal through a cold rolled reducing mill. This process reduces the overall thickness. The sheet is then sent through a leveler to maintain its flatness creating a smooth flat and level sheet.



Nominal Weights and Dimensions

Style	Minimum Thickness (Inches) [A]	Nominal Weight in Lbs. Per 100-Sq.Ft. [B]	Design Size (Inches) [C] SWD	LWD	Design Size (Inches) [C] SWO	LWO	Strand Size (Inches) [C] Width	Thickness	Overall Thickness (Inches)	Number of Diamonds Per Foot SWD	LWD	(%) Open Area
FLATTENED CARBON STEEL - ASTM A1011												
1/4" - #20	.026	74	.250	1.05	.092	.715	.079	.029	.029	48	11.4	37
1/4" - #18	.034	100	.250	1.05	.090	.715	.080	.038	.038	48	11.4	36
1/2"- #20	.026	37	.500	1.26	.342	1.000	.079	.029	.029	24	9.5	68
1/2"- #18	.034	61	.500	1.26	.306	1.000	.097	.038	.038	24	9.6	61
1/2"- #16	.043	77	.500	1.26	.304	1.000	.098	.048	.048	24	9.5	61
1/2"- #13	.066	126	.500	1.26	.286	1.000	.107	.072	.072	24	9.5	57
3/4"- #16	.043	47	.923	2.10	.701	1.750	.111	.048	.048	13	5.7	76
3/4"- #14	.054	56	.923	2.10	.713	1.760	.105	.060	.060	13	5.7	77
3/4"- #13	.066	67	.923	2.10	.711	1.781	.106	.072	.072	13	5.7	77
3/4"- #10	.066	102	.923	2.10	.603	1.755	.160	.072	.072	13	5.7	65
3/4"- # 9	.101	157	.923	2.10	.593	1.688	.165	.108	.108	13	5.7	64
1"- #16	.043	38	1.00	2.52	.804	2.250	.098	.048	.048	12	4.8	80
1-1/2"- #16	.043	35	1.33	3.15	1.092	2.750	.119	.048	.048	9	3.8	82
1-1/2"- #14	.054	43	1.33	3.15	1.098	2.750	.116	.060	.060	9	3.8	83
1-1/2"- #13	.066	51	1.33	3.15	1.098	2.750	.116	.072	.072	9	3.8	83
1-1/2"- # 9	.101	105	1.33	3.15	1.014	2.563	.158	.108	.108	9	3.8	76

[A] The minimum thickness is absolute, not subject to minus variation.
[B] A variation in weight per square ft. of ±10 % is permissible, based on the weight of any sheet or bundle.
[C] A tolerance of ±10 % is permitted in dimensions, center to center.

The styles listed may vary by weight and dimension based on the buyers' specifications.
If materials require documentation meeting EMMA or ASTM standards to comply with government and or building codes, advise AMICO sales department at time of inquiry and order. Standard sheet sizes range from 4-ft (SWD) x 8-ft (LWD) up to 6-ft (SWD) x 12-ft (LWD). For non-standard sheet sizes contact AMICO directly.

COATINGS
Because of its adaptability to metal finishing processes, Expanded Metal can be galvanized, anodized, powder coated, painted or plated for a variety of applications. Because of the light lubricant used during the expanding process, the product should be cleaned prior to finishing. When hot-dip galvanizing, there can be some distortion of metal because of high temperatures. Galvanizing does not always produce a smooth and even coating. It is recommended that patterns of less than 1/2-in SWD, thinner than 0.080 in., and large diamond patterns with a light weight per square foot should not be hot dip galvanized. Consideration should be given to producing these items from pregalvanized steel sheet.

Nominal Weights and Dimensions

Style	Minimum Thickness (Inches) [A]	Nominal Weight in Lbs. Per 100-Sq.Ft [B]	Design Size (Inches) [C] SWD	LWD	Design Size (Inches) [C] SWO	LWO	Strand Size (Inches) [C] Width	Thickness	Overall Thickness (Inches)	Number of Diamonds Per Foot SWD	LWD	(%) Open Area
STANDARD - (Raised) STAINLESS STEEL - ASTM A240 TYPE 304 (Available in T-304L, T-316, T-316L)												
1/2"- #18	.044	69	.500	1.20	.383	.937	.087	.048	.178	24	10	65
1/2"- #16	.055	87	.500	1.20	.372	.937	.087	.060	.183	24	10	65
1/2"- #13	.085	143	.500	1.20	.418	.876	.096	.090	.254	24	10	62
3/4"- #18	.044	46	.923	2.00	.790	1.750	.106	.048	.212	13	6	77
3/4"- #16	.055	57	.923	2.00	.779	1.760	.106	.060	.217	13	6	77
3/4"- #13	.085	87	.923	2.00	.751	1.687	.107	.090	.232	13	6	77
3/4"- # 9	.128	194	.923	2.00	.666	1.562	.16	.135	.347	13	6	65
1-1/2"- #16	.055	43	1.33	3.00	1.179	2.750	.115	.060	.234	9	4	83
1-1/2"- #13	.085	65	1.33	3.00	1.152	2.625	.115	.090	.246	9	4	83
1-1/2"- # 9	.128	130	1.33	3.00	1.077	2.500	.155	.135	.338	9	4	77
FLATTENED - STAINLESS STEEL - ASTM A240 TYPE 304 (Available in T-304L, T-316, T-316L)												
1/2"- #18	.037	66	.500	1.26	.304	1.000	.098	.041	.041	24	9.5	61
1/2"- #16	.047	84	.500	1.26	.302	1.000	.099	.051	.051	24	9.5	60
1/2"- #13	.072	136	.500	1.26	.236	.915	.107	.076	.076	24	9.5	57
3/4"- #18	.037	43	.923	2.10	.687	1.812	.118	.041	.041	13	5.7	74
3/4"- #16	.047	54	.923	2.10	.687	1.812	.118	.051	.051	13	5.7	74
3/4"- #13	.072	83	.923	2.10	.683	1.750	.120	.076	.076	13	5.7	74
3/4"- # 9	.108	185	.923	2.10	.593	1.687	.179	.114	.114	13	5.7	61
1-1/2"- #16	.047	41	1.33	3.15	1.074	2.750	.128	.051	.051	9	3.8	81
1-1/2"- #13	.072	62	1.33	3.15	1.070	2.625	.130	.076	.076	9	3.8	80
1-1/2"- # 9	.108	124	1.33	3.15	.960	2.625	.174	.114	.114	9	3.8	74
STANDARD - (Raised) ALUMINUM - ASTM B209 ALLOY 3003 H14 (Available in 5005 H34)												
1/2"-.050	.045	26	.500	1.20	.376	.937	.093	.050	.190	24	10	63
1/2"-.080	.074	43	.500	1.20	.346	.937	.096	.080	.208	24	10	62
3/4"-.050	.045	17	.923	2.00	.786	1.750	.109	.050	.219	13	6	76
3/4"-.080(Lt)	.074	31	.923	2.00	.741	1.680	.129	.080	.268	13	6	72
3/4"-.080(HVY)	.074	40	.923	2.00	.711	1.680	.165	.080	.333	13	6	64
3/4"-.125	.118	64	.923	2.00	.667	1.680	.169	.125	.359	13	6	63
1-1/2"-.080	.074	22	1.33	3.00	1.149	2.500	.128	.080	.266	9	4	81
1-1/2"-.125	.118	43	1.33	3.00	1.080	2.500	.162	.125	.346	9	4	76
FLATTENED - ALUMINUM - ASTM B209 ALLOY 3003 H14 (Available in 5005 H34)												
1/2"-.050	0.034	22	0.500	1.26	0.292	1.000	0.104	0.380	0.038	24	9.5	58
1/2"-.080	0.056	35	0.500	1.26	0.292	1.000	0.105	0.060	0.060	24	9.5	58
3/4"-.050	.034	14	.923	2.10	.679	1.812	.122	.038	.038	13	5.7	74
3/4"-.080(Lt)	.056	26	.923	2.10	.637	1.750	.143	.060	.060	13	5.7	69
3/4"-.080(HVY)	.056	33	.923	2.10	.561	1.750	.181	.060	.060	13	5.7	61
3/4"-.125	.089	53	.923	2.10	.549	1.750	.187	.094	.094	13	5.7	59
1-1/2"-.080	.056	18	1.33	3.15	1.044	2.750	.143	.060	.060	9	3.8	78
1-1/2"-.125	.089	36	1.33	3.15	.968	2.750	.181	.094	.094	9	3.8	73

[A] The minimum thickness is absolute, not subject to minus variation.
[B] A variation in weight per square ft. of ±10 % is permissible, based on the weight of any sheet or bundle.
[C] A tolerance of ±10 % is permitted in dimensions, center to center.

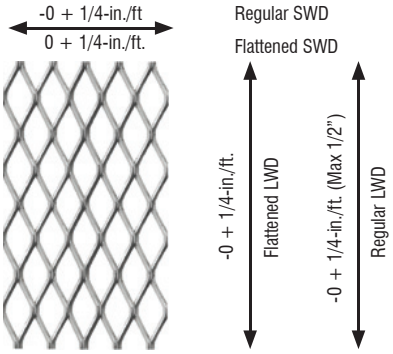
EXPANDED METAL TOLERANCES

REGULAR
SWD – Shall not vary greater than -0 + 1/4-inch per foot of width.
LWD – Shall not vary greater than -0 + 1/4-inch per foot of length (maximum of 1/2").

FLATTENED
SWD – After Flattening and
LWD – After Flattening shall not vary from the nominal dimension more than -0 + 1/4-inch per foot of dimension.

CLOSED DIAMONDS ALL FOUR SIDES

SKETCH "A"

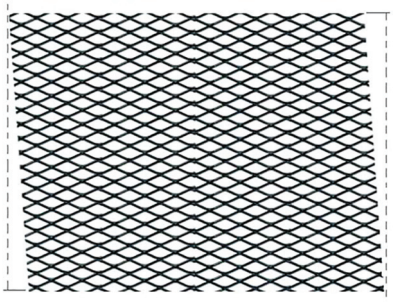


Flatness (Levelness) – Sheets shall be free from waves or buckles that are in excess of 1-1/2 inch from a plane surface.

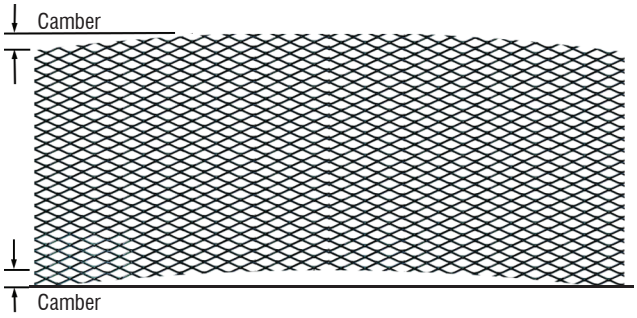
Sketch "A" illustrates the edge conditions of a normal standard size sheet as it emerges from the expanding press. It is simply expanded to size and is characterized by closed diamonds on all four sides.

REGULAR EXPANDED METAL SQUARENESS – Edges shall be such that any intersecting sides shall not be out of square in excess of 1/8-inch per foot in either direction, to a maximum of 1/2-inch overall.

SQUARENESS AFTER FLATTENING – Ends shall not be more than 1/8-inch per foot out of square or 3/8-inch overall in relation to the side of the sheet used to square the shear.



Camber – The greatest deviation of a side edge from a straight line shall not exceed 1/16-inch per foot of dimension, SWD and LWD. Regular.
Camber After Flattening – The greatest deviation of a side edge from a straight line after flattening shall not exceed 3/32-inch per foot of dimension.



RANDOM SHEARED TOLERANCE

SKETCH "B"



Random sheared one side and one end ± 1/4-in, causing open diamonds on one side SWD and one side LWD.

Random Sheared Tolerance
Expanded Metal Grating ±1/2-in

SKETCH "C"



Random sheared LWD ends ± 1/8-in, causing open diamonds on LWD.

Random Sheared Tolerance
Expanded Metal Grating ± 1/4-in

SKETCH "D"



Random sheared SWD and LWD ±1/8", causing open diamonds all four sides. This process will eliminate the out of square and camber conditions found in stock size sheets.

Random Sheared Tolerance
Expanded Metal Grating ±1/4-in

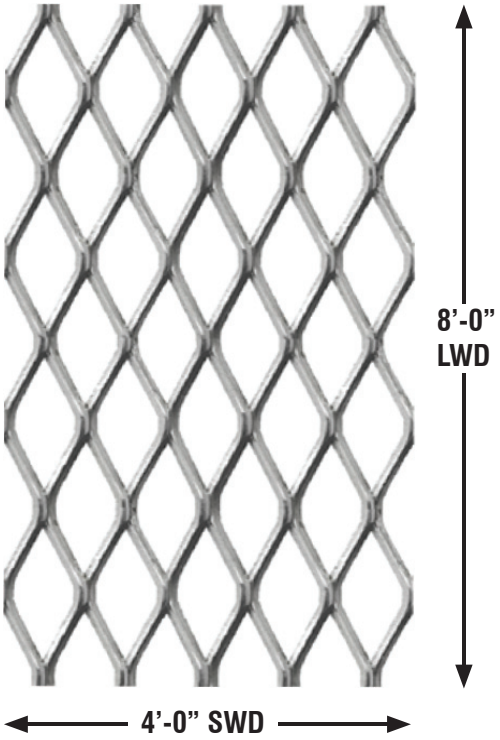
ORDERING EXPANDED METAL

HOW TO ORDER EXPANDED METAL

Advise...

- The number of sheets required.
- The opening size and decimal thickness required or specified; such as 0.923" x 2.000"; 0.108"
- Regular or Flattened expanded metal
- The "Style" name from the nominal weights and dimension tables; such as 3/4"-#9F.
- The size sheet required, listing SWD first; such as 4'-0 SWD x 8'-0 LWD.
- The type of metal required; such as carbon steel, Stainless steel or aluminum.ish such as galvanized or mill finish.

Example of Typical Order
100 Sheets of Expanded Metal
Style 1/2"-#13R
4'-0" SWD x 8'-0" LWD
Carbon Steel
Mill Finish

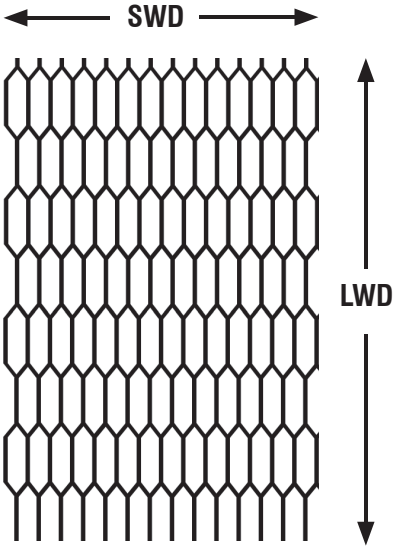


HOW TO ORDER EXPANDED METAL GRATING OR LONG LENGTH GRATING

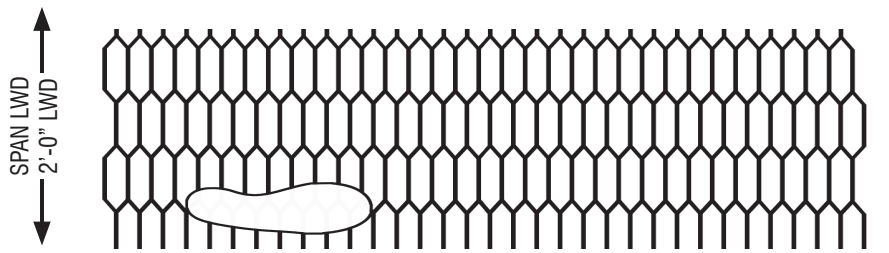
Advise...

- The number of sheets or pieces required.
- The style of grating; the style is the same as the weight per square foot; such as 3# grating.
- The type of expanded metal grating; Standard or Reverse Diamond (Catwalk).
- Catwalk is the reverse of Standard grating. The LWD runs the short dimension of the sheet. Catwalk is structurally stronger because the long way of the diamond runs across the shorter supported span. See detail below.
- State the sheet size required, listing the SWD first; such as 4'-0 SWD x 8'-0 LWD or with Catwalk 10'-0" x 2'-0".
- The type of metal required such as carbon steel, Stainless steel or aluminum.
- The finish such as galvanized or mill finish.

Standard Grating



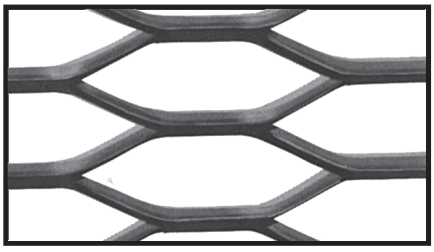
Long Length Expanded Metal Grating SWD (Short Way of Diamond)



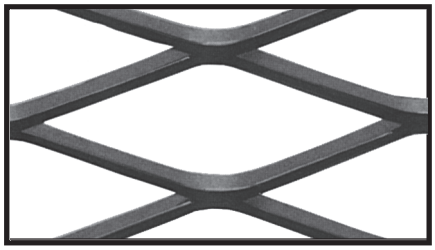
EXPANDED METAL GRATING

Nominal Weights and Dimensions

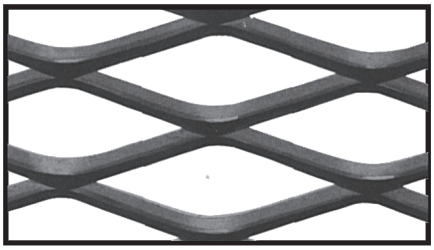
Style	Nominal Weight in Lbs. Per Sq. Ft. [B]	Design Size (Inches) [C] SWD	Design Size (Inches) [C] LWD	Design Size (Inches) [C] SWO	Design Size (Inches) [C] LWO	Strand Size (Inches) [C] Width	Strand Size (Inches) [C] Thickness	Overall Thickness (Inches)	Number of Diamonds Per Foot SWD	Number of Diamonds Per Foot LWD	(%) Open Area
Expanded Metal Grating - Carbon Steel to ASTM A1011											
2.0 lb.	2.00	1.33	5.33	1.000	3.60	0.235	0.135	0.460	9	2.25	77
3.0 lb.	3.00	1.33	5.33	0.940	3.44	0.264	0.183	0.540	9	2.25	60
3.14 lb.	3.14	2.00	6.00	1.625	4.88	0.312	0.250	0.656	6	2.00	69
4.0 lb.	4.00	1.33	5.33	0.940	3.44	0.300	0.215	0.618	9	2.25	55
4.27 lb.	4.27	1.41	4.00	1.000	2.88	0.300	0.250	0.625	8.5	3.00	58
5.0 lb.	5.00	1.33	5.33	0.813	3.38	0.331	0.250	0.655	9	2.25	50
6.25 lb.	6.25	1.41	5.33	0.813	3.38	0.350	0.312	0.715	8.5	2.25	50
7.0 lb.	7.00	1.41	5.33	0.813	3.38	0.391	0.318	0.740	8.5	2.25	45
Expanded GRATING - STAINLESS STEEL to ASTM A240 Type 304											
3.3 lb.	3.32	2.00	6.00	1.625	4.88	0.312	0.250	0.656	6	2.00	69
4.5 lb.	4.25	1.41	4.00	1.000	2.88	0.300	0.250	0.625	8.5	3.00	58
EXPANDED GRATING - ALUMINUM to ASTM B209											
2.0 lb.	2.0	1.33	5.33	.940	3.44	.387	.250	.730	9	2.25	48



2.0-lb. 3.0-lb. 4.0-lb. 5.0-lb. 6.25-lb. 7.0-lb.



3.14-lb.

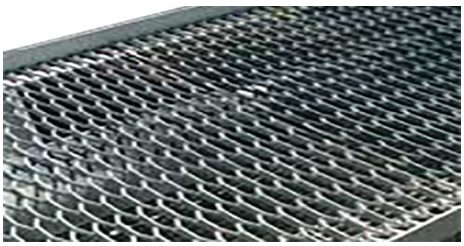


4.27-lb.

Concentrated Load and Deflection Tables for Spans Fixed on Both Ends

Carbon Steel Style	Weight (lbs. / ft²)	Load & Deflection	24-inch Span	36-inch Span
3.0#	3.0#	C	274	126
		D	0.25	0.25
3.14#	3.14#	C	340	117
		D	0.25	0.25
4.0#	4.0#	C	468	201
		D	0.25	0.25
4.27#	4.27#	C	419	196
		D	0.25	0.25

Aluminum Style	Weight (lbs. / ft²)	Load & Deflection	24-inch Span	36-inch Span
2.0#	2.0#	C	320	126
		D	0.25	0.25



LOAD CRITERIA:

1. Concentrated load is applied at mid-span and is in units of pounds per foot of grating width.
2. Deflection is at the mid-span, and is measured in inches.
3. The test specimens on which this table is measured were welded at alternate strands to an angle fixture.
4. Testing has shown that if the both ends are not welded in place the capacity of the grating is drastically reduced.

[A] A variation in weight per square ft. of ±5 % is permissible, based on the weight of any sheet or bundle.
[B] A tolerance of ±5% is permitted in dimensions, center to center.

PACKAGING

100 PCS PER PALLET		
MESH	R&F	SIZE
1/4" - #20	R&F	4 x 8
1/4" - #18	R&F	4 x 8

1/2"- #20	R&F	4 x 8
1/2"- #18	R&F	4 x 8
1/2"- #16	R&F	4 x 8
1/2"- #16	R&F	6 x 8
1/2"- #16	R&F	4 x 10

3/4"- #16	R&F	4 x 8
3/4"- #16	R&F	4 x 10
3/4"- #16	R&F	6 x 8
3/4"- #14	F	4 x 8
3/4"- #13	R&F	4 x 8
3/4"- #13	R&F	6 x 8
3/4"- #13	R&F	4 x 10
3/4"- #10	R	4 x 8

1"- #16	R&F	4 x 8

1-1/2"- #16	R&F	4 x 8
1-1/2"- #13	R&F	4 x 8
1-1/2"- #13	R&F	6 x 8
1-1/2"- #13	R&F	4 x 10
1-1/2"- #13	R&F	4 x 8
1-1/2"- #10	R	4 x 8
1-1/2"- #10	R	6 x 8
1-1/2"- #10	R	4 x 10

50 PCS PER PALLET		
MESH	R&F	SIZE
1/2"- #16	R&F	6 x 10
1/2"- #13	R&F	4 x 8

50 PCS PER PALLET		
1/2"- #13	R&F	6 x 8
1/2"- #13	R&F	4 x 10

3/4"- #16	R&F	6 x 10
3/4"- #13	R&F	6 x 10
3/4"- #10	R	6 x 8
3/4"- #10	R	4 x 10
3/4"- # 9	R	6 x 10
3/4"- # 9	R&F	4 x 8
3/4"- # 9	R&F	6 x 8
3/4"- # 9	R&F	4 x 10
3/4"- # 9	R&F	6 x 10

1-1/2"- #10	R	6 x 10
1-1/2"- # 9	R&F	4 x 8
1-1/2"- # 9	R&F	6 x 8
1-1/2"- # 9	R&F	4 x 10
1-1/2"- # 9	R&F	6 x 10

30 PCS PER PALLET	
MESH	SIZE
1-1/2"- # 6R	4 x 8

2.0 lb Grating	4 x 8
2.0 lb Grating	4 x 10
3.0 lb Grating	4 x 8
3.0 lb Grating	4 x 10
3.14 lb Grating	4 x 8
3.14 lb Grating	4 x 10
4.0 lb Grating	4 x 8
4.0 lb Grating	4 x 10
4.27 lb Grating	4 x 8

R (Regular) **F (Flattened)**

25 PCS PER PALLET	
MESH	SIZE
1-1/2"- # 6R	6 x 8
1-1/2"- # 6R	4 x 10
1-1/2"- # 6R	6 x 10

3.0 lb Grating	6 x 8
3.0 lb Grating	6 x 10
3.14 lb Grating	6 x 8
3.14 lb Grating	6 x 10
4.0 lb Grating	6 x 8
4.0 lb Grating	6 x 10
4.27 lb Grating	6 x 8
4.27 lb Grating	4 x 10
4.27 lb Grating	6 x 10
5.0 lb Grating	4 x 8
5.0 lb Grating	6 x 8
5.0 lb Grating	4 x 10
5.0 lb Grating	6 x 10

20 PCS PER PALLET	
MESH	SIZE
6.25 lb Grating	4 x 8

15 PCS PER PALLET	
MESH	SIZE
6.25 lb Grating	6 x 8
6.25 lb Grating	4 x 10
6.25 lb Grating	6 x 10
7.0 lb Grating	4 x 8

EXPANDED METAL TERMINOLOGY

TERMINOLOGY

BOND- The point where adjacent strands intersect. The bond is always twice the width of the strand.

CAMBER- Bow in sheet. It is easily measured by placing a straight edge along the concave side of the sheet parallel to LWD, touching both ends of the sheet. The maximum distance between the edge of the expanded metal and the straight edge is the camber. A sheet may be within a width tolerance and still have camber.

C.S.F- (100 square feet) the unit of measure for price and weight.

DIAMOND OR OPENING- This is the description of the open area formed by strands and bonds. Normally the open area is diamond shaped.

FORMABILITY- Each piece should be able to withstand a 90 degree bend with a ¼-inch inside radius in either direction, without fracture.

LEVELING- All expanded metal products except grating are leveled after having been expanded.

LWD OR LWO- Long way of diamond or long way of opening is the dimension measured across the sheet in a direction parallel to the largest dimension of the diamond.

MESH- Description of the expanded metal diamond design.

MESH OPENING SIZE- The area enclosed by bonds and strands.

OUT OF SQUARE- Expanded metal sheets are generally not perfectly square when finished. Sheets must be sheared on all sides for perfect squareness.

OVERALL HEIGHT- This is the finished height of the mesh after expanding or expanding and flattening.

PERCENT OF OPEN AREA- The relation of solid metal to open diamond allowing light, liquids and air to pass.

PITCH- The measurement from a point on one diamond to the same point on an adjacent diamond.

REVERSE DIAMOND- Expanded metal sheets that have their LWD, long way of diamond, coinciding with the short dimension of the sheet; such as with catwalk grating.

STRAND- The single metal strip which forms the border of the diamond, or opening. Strand width is the amount of material advanced for expanding as differentiated from strand thickness which is the thickness of metal from which the expanded metal is produced.

STYLE- Is the name for a specific expanded metal diamond pattern such as 3/4"-#9. When measured this style has no dimension equal to 3/4" and the thickness is not a decimal equivelant to 9-gauge.

Expanded metal grating styles such as 3-lb. is the weight per square foot of grating.

SWD OR SWO- Short way of diamond or short way of opening is the dimension measured across the sheet in a direction parallel to the smallest dimension of the diamond.

THICKNESS- Begins with the thickness of the base metal. When describing the thickness of expanded metal it should be stated as a decimal not by gauge. Gauge is a marketing term and varies by manufacturer. Flattening expanded metal will further reduce the thickness of the sheet.

PRODUCT DEFINITIONS

EXPANDED METAL GRATING- A heavier load carrying product produced from thicker steel plate. It is typically used for walkways and platforms. Not suitable for vehicular loads.

FINISHING- Most commonly carbon steel is hot-dip galvanizing or pre-galvanized. Special finishes such as anodizing, enameling, and plastic coatings can be provided.

REGULAR EXPANDED METAL- Steel is simultaneously slit and stretched into a rigid, non-raveling open mesh panel. It is readily available in carbon steel, aluminum and stainless steel.

FLATTENED EXPANDED METAL- Manufactured by processing regular expanded metal through a rolling mill. This rolling process reduces the thickness and provides a smooth flat sheet.

SHEET SIZE- Expanded metal can be manufactured in many varying sheet sizes. Most common is carbon steel 4'-0" SWD x 8'-0" LWD. Larger sheet sizes can be made up to 7'-0" x 12'-0" on special request and with additional lead time.

PRODUCT SELECTION

The first step in the design of a product or fabricated assembly incorporating expanded metal is to select the appropriate expanded metal pattern, keeping in mind various product characteristics.

The strength and rigidity of expanded metal material is determined by Long Way of Design. On a walkway, for example, the LWD should run perpendicular to the walkway support.

Diamond direction also affects air deflection and diffusion, concealment properties and aesthetic appearance. Consult your supplier for suggestions.

AMICO can and do routinely furnish expanded metal in special ("non-standard") sheet sizes when requested. In this event, it is important for the specifier to give some consideration to the edge configuration of the sheet as it relates to any particular requirement since the cost may be affected by the manufacturing operations necessary to shear the edge desired. See page 5, Expanded Metal Tolerances for an explaination of edge conditions.

Metals commonly expanded and not limited to…
Cold Rolled Steel (CRS)
Hot Rolled Steel (HRS)
Electro Galvanized Steel
Stainless Steel
Aluminum
Titanium
Brass
Copper

AMICO Locations

UNITED STATES

Birmingham, AL
Bourbonnais, IL
San Bernardino, CA
Lakeland, FL

800-366-2642

CANADA

Burlington, ON
800-663-4474

Montreal, QC
800-463-3255

Vancouver, BC
800-665-4474

Expanded Metal Website

Visit amicoglobal.com to view or download data sheets, request a catalog, request LEED information or receive technical assistance.

AMICO®

AMICO reserves the right to improve or otherwise change a product design without notice.
This catalog is effective 9.30.23 and supersedes all previous information.

9.30.23