

# DISCLAIMER

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*Serving Industry Since 1915*

January 2008

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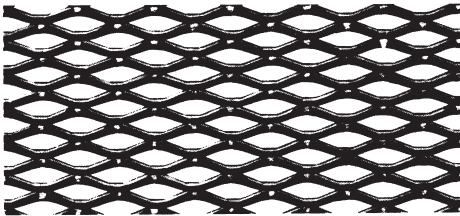
## EXPANDED METAL

Expanded Metal is a single sheet of steel that has been cut and expanded by the action of a special knife which acts as both a cutting shear and forming die. The knife first pierces and slits the steel sheet, then expands these slits into the openings characteristic of Expanded Metal. It is lighter per foot and stronger per pound than the solid sheet of steel from which it is made. Being made from a solid sheet of steel, it can never ravel or fray. Its uses are many and varied: machine guards, storage bins, baskets, tool enclosures, platforms, stair treads, room dividers, lawn furniture, decorative grills, and many more.

### STANDARD EXPANDED METAL

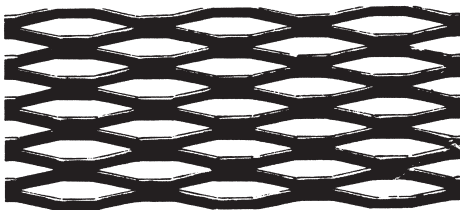
(SAFE-T-MESH)

This is the unflattened form of Expanded Metal. The diamond strands are rectangular and at a sharp angle to the original plane of the metal sheet from which they were formed, allowing maximum air circulation and visibility. It can be cut or formed to almost any size and shape required.



### FLATTENED EXPANDED METAL

Flattened Expanded Metal is formed by the same cutting and expanding operations used in making Safe-T-Mesh, but with the addition of one more step. After the metal is cut and expanded, it is passed through a series of rolls that flatten and smooth the strands and bridges. The resulting sheet of expanded metal is approximately two gauges thinner than the original sheet, although all the original metal is retained.



## REGULAR Manufactured from Mild Carbon Steel

Style Designation	Weight In Pounds Per Sq. Ft.	Standard Sizes In Feet		Size of Openings in Inches		Center to Center of Bond in Inches		Size of Strands in Inches		Number of Diamonds In 12 Inches	Percent Open Area	
		Width	Length	Width	Lgth.	Width	Lgth.	Thickness	Width			
3/8" #24-R 50 lb.	.500	—	2 4	.166	.437	.200	.50	.024	0.50	60	24	55.67
3/8" #22-R 63 lb.	.625	—	2 4	.166	.437	.200	.50	.030	0.50	60	24	54.65
3/8" #20-R 75 lb.	.750	—	2 4	.166	.437	.200	.50	.036	0.50	60	24	46.63
1/2" #20-%	.86	1.29	3-4 8	.172	.719	.255	1.0	.036	0.73	47	12	48.58
1/2" #18-R	1.14	1.71	3-4 8	.172	.719	.255	1.0	.048	0.73	47	12	42.57
1/2" #20-R	.43	.59	3-4-6 8	.438	.938	.500	1.2	.036	0.72	24	10	76.82
1/2" #18-R	.70	.85	3-4-6 8-10-12	.438	.938	.500	1.2	.048	0.88	24	10	74.80
1/2" #16-R	.86	.97	3-4-6 8-10-12	.375	.938	.500	1.2	.060	0.86	24	10	69.73
1/2" #13-R	1.47	1.73	3-4-6 8-10-12	.313	.938	.500	1.2	.092	0.96	24	10	56.60
3/4" #16 H-R	.54	.65	3-4-6 8-10-12	.813	1.750	.923	2.0	.060	0.99	13	6	84.86
3/4" #13-R	.80	.92	3-4-6 8-10-12	.750	1.688	.923	2.0	.092	0.96	13	6	76.80
3/4" #10-R	1.20	1.36	3-4-6 8-10-12	.750	1.625	.923	2.0	.092	1.44	13	6	71.77
3/4" # 9-R	1.80	1.95	4 8-10-12	.688	1.563	.923	2.0	.134	1.48	13	6	65.68
1" #16-R	.44	.51	4 8-10-12	1.000	2.063	1.090	2.4	.060	0.96	11	5	84.88
1 1/2" #18-R	.20	.25	4 8-10-12	1.313	2.625	1.330	3.0	.048	0.67	9	4	93.94
1 1/2" #16-R	.40	.48	3-4-6 8-10-12	1.250	2.625	1.330	3.0	.060	1.07	9	4	86.90
1 1/2" #13-R	.60	.68	3-4-6 8-10-12	1.188	2.500	1.330	3.0	.092	1.04	9	4	84.88
1 1/2" #10-R	.79	.89	3-4-6 8-10-12	1.188	2.500	1.330	3.0	.092	1.37	9	4	84.86
1 1/2" # 9-R	1.20	1.31	3-4-6 8-10-12	1.125	2.375	1.330	3.0	.134	1.42	9	4	74.77
1 1/2" # 6-R	2.50	2.73	to order 8-10-12	1.000	2.313	1.330	3.0	.198	2.01	9	4	61.65
2" #10-R	.68	.75	8-10-12	1.625	3.438	1.850	4.0	.092	1.65	6.5	3	84.89
2" # 9-R	.90	1.02		1.563	3.375	1.850	4.0	.134	1.49	6.5	3	83.87

**FLATTENED** Manufactured from Mild Carbon Steel

Style Designation	Weight In Pounds Per Sq. Ft.		Standard Sizes In Feet		Size of Openings in Inches		Center to Center of Bond In Inches		Finished Thickness In Inches	Number of Diamonds In 12 Inches		Percent Open Area
	Plain	Galv.	Width	Length	Width	Lgth.	Width	Lgth.		Width	Lgth.	
3/8" -#24-F 48 lb.	.485	—	2	4	.085	.459	.200	.520	.019	60	23	39.45
3/8" -#22-R 61 lb.	.606	—	2	4	.085	.459	.200	.520	.024	60	23	39.45
3/8" -#20-F 73 lb.	.727	—	2	4	.085	.459	.200	.520	.029	60	23	39.45
1/4" -#20-F	.83	1.24	3-4	8	.094	.688	.255	1.031	.030	47	11.64	46.49
1/4" -#18-F	1.11	1.65	3-4	8	.094	.688	.255	1.031	.040	47	11.64	39.42
1/2" -#20-F	.40	.51	3-4	8	.375	1.000	.500	1.260	.029	24	9.5	70.73
1/2" -#18-F	.66	.88	3-4-6	8-10-12	.281	1.000	.500	1.260	.039	24	9.5	67.70
1/2" -#16-F	.82	1.00	3-4-6	8-10-12	.250	1.000	.500	1.260	.050	24	9.5	59.62
1/2" -#13-F	1.40	1.62	3-4-6	8-10-12	.250	1.000	.500	1.260	.070	24	9.5	55.58
3/4" -#16 H-F	.51	.71	3-4-6	8-10-12	.750	1.750	.923	2.100	.048	13	5.7	74.77
3/4" -#14-F	.63	.75	3-4-6	8-10	.688	1.813	.923	2.120	.061	13	5.62	69.72
3/4" -#13-F	.75	.86	3-4-6	8-10-12	.688	1.782	.923	2.100	.070	13	5.62	72.75
3/4" -# 9-F	1.71	1.86	3-4-6	8-10-12	.563	1.688	.923	2.120	.120	13	5.62	62.65
1" -#16-F	.41	.50	4	8	.875	2.250	1.090	2.562	.048	11	4.684	76.79
1 1/2" -#16-F	.38	.44	4	8	1.063	2.750	1.330	3.200	.048	9	3.8	81.84
1 1/2" -#14-F	.46	.56	3-4-6	8	1.063	2.750	1.330	3.200	.060	9	3.8	81.84
1 1/2" -#13-F	.57	.68	3-4-6	8	1.063	2.750	1.330	3.200	.070	9	3.8	78.81
1 1/2" -# 9-F	1.14	1.28	3-4-6	8-10-12	1.000	2.563	1.330	3.200	.110	9	3.747	75.78

## EXPANDED METAL WALKWAY, SKYWALK & GRATING

This is the most economical way to put strength, safety and non-slip surfaces underfoot. It is not pre-assembled, not welded, but sturdy, solid steel, cut and stretched from a single plate.

Installation is done quickly and easily by welding or bolting. Irregular shapes are easy to cut and place. The neat appearance, long life, and freedom from repair offered by open mesh floorings mean maintenance costs are at a minimum.

**Uses:** Plant runways, catwalks, and working platforms.

### GRATING—REGULAR *Manufactured from Mild Carbon Steel and Type 5052-H32 Aluminum*

Style Designation	Weight In Pounds Per Sq. Ft.		Standard Sizes In Feet		Size of Openings in Inches		Center to Center of Bond In Inches		Size of Strands in Inches		Number of Diamonds In 12 Inches		Percent Open Area
	Plain	Galv.	Width	SWD/Length LWD	Width	Lgth.	Width	Lgth.	Thickness	Width	Width	Lgth.	
3.0 lb.-R	3.00	3.20	3-4-5-6-8-10-12	.938	3.438	5.330	1.83	.261	9	2.25	70-76		
3.14 lb.-R	3.14	3.34	3-4-6 10	1.625	4.875	2.000	6.000	.308	6	2.00	70-74		
4.0 lb.-R	4.00	4.30	3-4-5-6 8-10	.938	3.438	1.333	5.330	.215	9	2.25	62-70		
4.27 lb.-R	4.27	4.46	3-4-6 8-10	1.036	2.969	1.412	4.000	.243	3.00	8.5	56-62		
5.0 lb.-R	5.00	5.50	4-5-6 8-10	.813	3.375	1.333	5.330	.250	3.27	9	49-54		
6.25 lb.-R	6.25	6.85	3-4-6 4-8-12	.813	3.375	1.412	5.330	.312	3.47	8.5	52-60		
7.0 lb.-R	7.00	7.50	4 100"	.813	3.375	1.412	5.330	.312	3.88	8.5	55-64		

### GRATING—REGULAR *Manufacturing from Mild Carbon Steel and Type 5052-H32 Aluminum*

Style Designation	Weight In Pounds Per Sq. Ft.		Standard Sizes In Inches		Size of Openings in Inches		Center to Center of Bond In Inches		Size of Strands in Inches		Number of Diamonds In 12 Inches		Percent Open Area
	Plain	Galv.	Width	SWD/Length LWD	Width	Lgth.	Width	Lgth.	Thickness	Width	Width	Lgth.	
Column Insert	2.69	—	6-8-10 96	1.250	6.125	1.500	5.330	.183	.264	8	—	65	
Railing Insert	2.69	—	36 27	1.250	6.125	1.500	5.330	.183	.264	8	—	65	
Sheets	2.69	—	36-48-72 96	1.250	6.125	1.500	5.330	.183	.264	8	—	65	

## WELDED STEEL GRATING & TREADS

Open steel flooring is manufactured of square-edge strips for your safety. This gives it a non-slip surface and permits light and air to pass through.

It is made in several types: Standard Welded, Heavy Welded, Serrated, and is used universally where strong rigid flooring is desired.

We can supply for immediate delivery. Welded Type in panels 24" and 36" wide and in lengths up to 24'. It can also be furnished in 36' lengths for special applications. Standard stock is painted black, but can easily be galvanized when required.

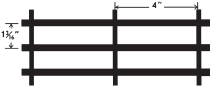

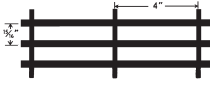

Steel flooring can be cut to specified sizes, as requested.

When ordering open steel flooring, specify the following:

1. Type of grating.
2. Depth and thickness of bearing bars.
3. Dimensions of area or areas to be covered. Unless otherwise specified, our standard tolerance of 1/4" will apply.
4. Span (direction of bearing bars).
5. Finish — mill unless otherwise specified.
6. Type of fasteners — if required.
7. Complete shipping instructions.
8. Drawing showing grating area and supports.
9. Specify whether drawings for approval and/or erection drawings are required.

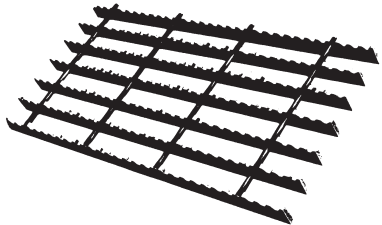
**The best type for use where floors are subject to extreme corrosion or moisture—chemical plants, breweries and other process industries. There are no cracks, open joints, or holes in bars.**

**All/weld gratings are furnished with 5/16" twisted square cross bars.**

STANDARD	Type <b>W/B</b>		Approved for all general purposes.
	Type <b>W/F</b>		Same as Type W/B but with close cross bars for conditions where more steel area is required.
SPECIAL ORDER	Type <b>W/D</b>		Close bearing bars. Best for heavy public traffic, or where smaller openings or increased carrying capacity are required.
	Type <b>W/DF</b>		With closer cross bar and bearing bars. For conditions requiring greatly reduced net opening.

### SERRATED ALL-WELD GRATING

Where moisture, oil or grease are present, an extra measure of safety can be provided by using serrated All-Weld grating as pictured here.



## GRATING — Continued

## STEEL:

WEIGHTS PER SQUARE FOOT

SIZE NO.	WELDED				PRESSURE LOCKED										RIVETED				
	W/B	W/D	W/F	W/DF	B	D	F	DF	XX	ZZ	BB	DD	BT	BTL	U	UJ	J	K	
1	3/8 x 1/2	4.1	5.0	5.0	5.9	3.9	4.8	4.6	5.5		7.0	8.6			7.0	7.9	9.0	6.5	
2	3/8 x 3/8	5.8	7.2	6.7	8.1	5.7	7.0	6.4	7.7	7.8	9.0	12.3			8.5	9.7	10.4	8.0	
3	1 x 1/2	5.2	6.4	6.1	7.3	5.2	6.4	6.0	7.2		9.3	11.5			8.0	11.1	10.5	7.5	
4	1 x 3/8	7.5	9.3	8.4	10.2	7.5	9.3	8.3	10.1	10.2	11.9	13.3	16.5	10.5	9.6	9.5	13.2	12.5	9.0
5	1 1/2 x 1/2	6.3	7.9	7.2	8.8	6.3	7.9	7.1	8.7		11.4	14.2			9.0	12.6	12.0	8.5	
6	1 1/2 x 3/8	9.1	11.3	10.0	12.2	9.1	11.3	9.9	12.2	12.7	14.8	16.5	20.7	11.4	10.2	11.0	15.3	14.7	10.5
7	1 1/2 x 1/4	7.4	9.3	8.3	10.2	7.6	9.5	8.7	10.6		13.9	17.2			10.0	14.2	13.5	9.5	
8	1 1/2 x 3/16	10.8	13.5	11.7	14.4	11.0	13.7	12.1	14.8	15.3	17.8	20.0	25.0	12.3	10.9	12.5	17.4	16.8	12.0
9	1 1/2 x 1/8	12.5	15.6	13.4	16.5	12.7	15.8	13.8	16.9	17.8	20.8	23.3	29.4	15.5	13.9	14.0	19.4	18.8	13.5
10	2 x 3/8	14.1	17.7	15.0	18.6	14.3	17.9	15.4	19.0	20.5	23.8	26.5	33.2	16.4	14.5	17.0	23.3	22.9	16.0
11	2 1/2 x 3/8	15.8	19.8	16.7	20.7	16.0	20.0	17.1	21.1	22.7	26.5	29.8	37.3	17.2	15.1	18.5	25.4	25.0	17.5
12	2 1/2 x 1/4	17.4	21.9	18.3	22.8	17.7	22.1	18.8	23.2	25.0	29.3	33.1	41.4	18.0	15.7	20.0	27.8	27.1	19.0

## ALUMINUM

WEIGHTS PER SQUARE FOOT

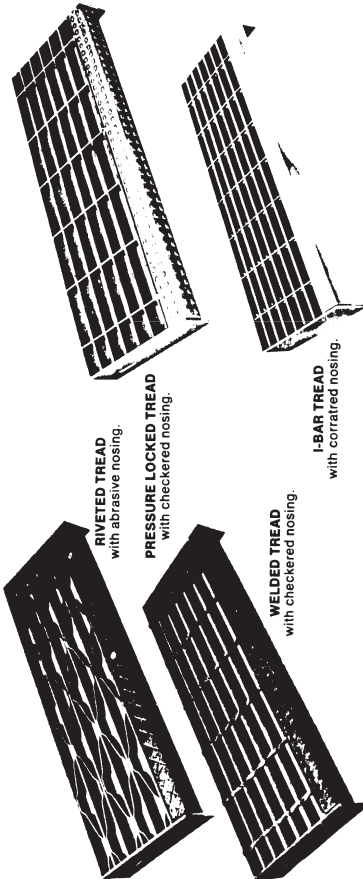
SIZE NO.	WELDED				PRESSURE LOCKED										RIVETED				
	B	D	F	DF	BB	DD	BT	BTL	XX	ZZ	IB	ID	IF	IDF	U	UJ	J	K	
1	3/8 x 1/2	1.4	1.7	1.7	2.0	2.6	3.1		1.9						2.4	2.7	3.3	2.3	
2	3/8 x 3/8	2.0	2.5	2.2	2.7	3.8	4.7		2.7	3.1					2.9	3.3	3.8	2.8	
3	1 x 1/2	1.9	2.3	2.2	2.6	3.4	4.2		2.5						2.7	3.8	3.8	2.7	
4	1 x 3/8	2.6	3.3	2.9	3.5	5.0	6.2	3.7	3.4	3.5	4.1	1.9	2.3	2.1	2.5	3.2	4.5	4.5	3.3
5	1 1/2 x 1/2	2.3	2.8	2.6	3.1	4.2	5.2		3.1						3.1	4.3	4.3	3.1	
6	1 1/2 x 3/8	3.2	4.0	3.5	4.3	6.5	7.6	4.1	3.7	4.4	5.1	2.3	2.8	2.5	2.9	3.8	5.2	5.3	3.8
7	1 1/2 x 1/4	2.8	3.4	3.2	3.8	5.2	6.3		3.7						3.4	4.9	4.9	3.5	
8	1 1/2 x 3/16	3.9	4.8	4.3	5.2	7.4	9.2	4.4	3.9	5.3	6.2	2.6	3.2	2.8	3.4	4.3	6.0	6.0	4.4
9	1 1/2 x 1/8	4.5	5.6	4.9	5.9	8.6	10.8	5.6	4.9	6.1	7.2	3.0	3.7	3.3	3.9	4.8	6.7	6.8	4.9
10	2 x 3/8	5.1	6.3	5.5	6.7	9.8	12.1	5.8	5.1	7.1	8.2	3.4	4.2	3.7	4.4	5.8	8.0	8.0	5.8
11	2 1/2 x 3/8	5.7	7.0	6.1	7.4	11.0	13.5	6.1	5.4	7.8	9.1	3.8	4.6	4.0	4.9	6.4	8.7	8.8	6.4
12	2 1/2 x 1/4	6.3	7.8	6.7	8.1	12.2	14.8	6.4	5.7	8.6	10.0	4.0	4.9	4.2	5.1	7.2	9.7	9.6	7.0

\*3/8 thickness only on all I-bar sizes.




# STAIR TREADS


Stair treads are fabricated in any grating type, complete with carrier plates at each end of tread for bolting to stair stringers. Tread nosing makes the leading edge of each step stand out clearly. Serrated treads are recommended to eliminate hazardous footing conditions.

Treads can be made to any specification required.



**NOSING TYPES**

	1 1/2" Checkered Plate	Steel treads only
	1 1/2" Abrasive	Steel and Aluminum Treads
	1 1/2" Corrugated	Aluminum Treads only



\*Steel Treads  
1 1/2" up to and including  
1 1/2" deep treads  
2 1/2" for others  
Aluminum Treads  
2 1/2" all depths  
1/8" ø hole & slot for 3/8" ø bolt.

**TABLE OF STANDARD TREAD WIDTHS FOR:**  
Steel grating with checkered plate nosing.  
Aluminum grating with corrugated nosing.  
(Treads with abrasive nosings are 1/8" less in width)

RECTANGULAR B W/B IB	(DIMENSION A) HOLE CENTERS	RIVETED TYPE K (% B.B.)
6%	2 1/2"	6%
7 1/2"	4 1/2"	8%
8%	4 1/2"	9%
9%	7"	10%
11 1/2"	7"	12%
12 1/2"	7"	13%



# SAFE LOAD TABLE FOR STEEL GRATING

(Based on a minimum allowable fiber stress of 18,000 P.S.I.)

- U—Safe uniform load in pounds per square foot.
- C—Safe concentrated load in pounds per foot of width.
- D—Deflection in inches.

CONTINUATION OF PAGE 118

	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	Span	
												8'-0"	9'0"
1½x ¾	U 1608	1028	716	526	403	318	258	213	179	152	131	96	75
	D .057	.090	.129	.176	.231	.291	.358	.433	.520	.608	.704	.587	.674
	C 1608	1285	1073	918	803	716	644	585	536	495	459	386	342
	D .046	.072	.104	.141	.183	.233	.288	.349	.416	.487	.565	.614	.777
1½x ½	U 1544	987	686	505	387	306	248	205	172	149	128	96	75
	D .047	.075	.106	.147	.192	.243	.300	.365	.433	.506	.587	.774	.978
	C 1544	1235	1029	883	772	687	619	563	515	475	441	386	342
	D .038	.059	.087	.117	.154	.195	.241	.289	.347	.406	.470	.614	.777
1½x ¾	U 2321	1485	1031	758	581	458	371	307	260	222	191	145	115
	D .047	.075	.106	.147	.192	.243	.300	.365	.433	.506	.587	.774	.978
	C 2321	1856	1547	1325	1159	1031	928	844	773	714	663	581	515
	D .038	.059	.087	.117	.154	.195	.241	.289	.347	.406	.470	.614	.777
1½x ¾	U 3151	2016	1401	1029	788	622	505	416	351	299	259	197	155
	D .042	.064	.092	.126	.165	.208	.258	.310	.371	.435	.506	.664	.838
	C 3151	2521	2100	1800	1575	1400	1260	1145	1049	969	899	786	700
	D .033	.052	.074	.101	.132	.167	.206	.249	.297	.347	.403	.527	.667
2 x ¾	U 4116	2633	1829	1344	1029	813	659	546	460	393	339	258	204
	D .036	.056	.081	.111	.144	.183	.226	.273	.325	.384	.447	.580	.732
	C 4116	3292	2745	2351	2058	1828	1646	1496	1370	1266	1175	1027	914
	D .029	.045	.064	.088	.115	.145	.180	.217	.259	.303	.353	.460	.583
2½x ¾	U 5209	3332	2314	1670	1302	1028	835	689	583	496	428	327	259
	D .032	.050	.072	.098	.127	.162	.199	.241	.287	.338	.393	.512	.646
	C 5209	4167	3473	2916	2604	2314	2082	1892	1733	1601	1487	1301	1157
	D .026	.039	.057	.079	.102	.129	.160	.194	.230	.270	.314	.410	.518
2½x ¾	U 6432	4115	2858	2099	1609	1271	1029	850	720	613	529	405	320
	D .028	.044	.064	.088	.116	.145	.180	.217	.260	.305	.354	.465	.586
	C 6432	5147	4286	3673	3214	2858	2571	2338	2141	1977	1836	1607	1429
	D .023	.036	.051	.071	.092	.116	.144	.173	.207	.242	.282	.369	.467

Spans to right of vertical line NOT RECOMMENDED.

**WIRE MESH — ROLLS & SHEETS**

Spacing Gauge	Wgt. csf.	Spacing Gauge	Wgt. csf.
6x6-12/12	13	4x12-7/11	31
6x6-10/10	21	4x12-6/10	36
6x6-9/9	25	4x12-5/10	42
6x6-8/8	30	4x12-5/9	43
6x6-7/7	36	4x12-4/9	49
6x6-6/6	42	4x12-4/8	51
6x6-5/5	49	4x12-3/7	59
6x6-4/4	58	4x12-2/6	69
6x6-3/3	68		
6x6-2/2	78	4x16-10/12	18
6x6-1/1	91	4x16-9/12	21
6x6-0/0	107	4x16-8/12	25
		4x16-7/11	30
4x4-14/14	11	4x16-6/10	35
4x4-13/13	14	4x16-5/10	40
4x4-12/12	19	4x16-4/9	48
4x4-11/11	24	4x16-3/8	56
4x4-10/10	31	4x16-2/8	64
4x4-8/8	44		
4x4-7/7	53	3x12-8/12	32
4x4-6/6	62	3x12-7/11	39
4x4-5/5	72	3x12-6/10	46
4x4-4/4	85	3x12-5/9	54
4x4-3/3	100	3x12-4/8	64
		3x12-3/7	75
3x3-14/14	14	3x12-2/6	87
3x3-12/12	25		
3x3-10/10	41	3-16-8/12	32
3x3-8/8	58	3x16-7/11	38
		3x16-6/10	45
2x2-16/16	13	3x16-5/10	52
2x2-14/14	21	3x16-4/9	61
2x2-12/12	37	3x16-3/8	72
2x2-10/10	60	3x16-2/8	83
6x12-6/6	32	2x12-8/12	46
6x12-5/5	37	2x12-7/11	56
6x12-4/4	44	2x12-6/10	66
6x12-3/3	51	2x12-5/9	77
6x12-2/2	59	2x12-4/8	91
		2x12-3/7	107
4x8-12/14	12		
4x8-10/12	20	2x16-8/12	46
4x8-9/12	23	2x16-7/11	56
4x8-8/12	27	2x16-6/10	65
4x8-7/11	33	2x16-5/10	75
		2x16-4/9	89
4x12-10/12	19	2x16-3/8	104
4x12-9/12	22	2x16-2/8	119
4x12-8/12	25		