

EXPANDED METAL GRATING

CATALOG 2022

ADVANCED EXPANDED METAL MANUFACTURER & SOLUTION PROVIDER

YILIDA – NEVER STOP INNOVATING



EXPANDED METAL GRATING

Expanded metal grating is heavy-duty expanded metal produced by slitting and stretching thick steel plate (thickness \geq 3 mm). Compared with standard expanded metal, expanded metal grating has a larger opening and a thicker strand, delivering good anti-skid performance and high load capacity. So, it is perfectly suitable for applications requiring high load capacity or high walk safety requirements, such as industrial platforms, stair treads, walkways and trailers.

Our expanded metal grating products come in a variety of sturdy and durable materials including carbon steel, galvanized steel, stainless steel, etc., to ensure it can maintain its best anti-skid performance and load capacity even working under the harshest environments.

Features

- 3-demensional structure offers good anti-skid performance.
- High open area displaces snow, mud, and dirt underfoot easily and helps to keep walkways clean and provide a firm foothold.
- High strength-to-weight ratio delivers great load capacity and ensures safe passage.
- Sturdy and durable, low maintenance costs.



Available Materials



Carbon Steel

It is one of the most cost-effective metal materials with good rigidity and great durability. It is often galvanized or powered coated to enhance its corrosion resistance. It is widely used in support structures.



Galvanized Steel

It is a type of steel that has been galvanized to enhance its corrosion resistance and anti-aging performance. It is widely used in various industrial applications including walkway gratings, stair treads, greenhouse benches, etc.



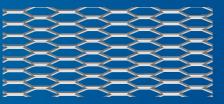
Aluminum

It features easy to form, high strength-to-weight ratio, great corrosion resistance and fire resistance. The surface is usually anodized or PVDF coated. It is an ideal material for architectural decoration applications.

Hole Pattern



Diamond



Hexagonal

Specification

Specifications of Carbon Steel Expanded Metal Grating

| Style | Nominal Weight in Ibs./100 | Design Size (inches) ^c | | Opening Size (inches) ^c | | Strand Size (inches) | | Overall Thickness | Open |
|---------|-------------------------------|-----------------------------------|------|------------------------------------|------|----------------------|-----------|----------------------|------|
| | Sq. Ft. [®] | SWD | LWD | SWO | LWO | Width | Thickness | (inches) | Area |
| 2.0 lb. | 2.00 | 1.33 | 5.33 | 1.000 | 3.60 | 0.235 | 0.135 | 0.460 | 77% |
| 3.0 lb. | 3.00 | 1.33 | 5.33 | 0.940 | 3.44 | 0.264 | 0.183 | 0.540 | 60% |
| 3.14 lb | 3.14 | 2.00 | 6.00 | 1.625 | 4.88 | 0.312 | 0.250 | 0.656 | 69% |
| 4.0 lb | 4.00 | 1.33 | 5.33 | 0.940 | 3.44 | 0.300 | 0.215 | 0.618 | 55% |
| 4.27 lb | 4.27 | 1.41 | 4.00 | 1.000 | 2.88 | 0.300 | 0.250 | 0.625 | 58% |
| 5.0 lb | 5.00 | 1.33 | 5.33 | 0.813 | 3.38 | 0.331 | 0.250 | 0.655 | 50% |
| 6.25 lb | 6.25 | 1.41 | 5.33 | 0.813 | 3.38 | 0.350 | 0.312 | 0.715 | 50% |
| 7.0 lb | 7.00 | 1.41 | 5.33 | 0.813 | 3.38 | 0.391 | 0.318 | 0.740 | 45% |

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

Specifications of Stainless Steel Expanded Metal Grating

| Style | Nominal Weight in Ibs./100 Sq. Ft. ⁸ | Design Size (inches) ^c | | Opening Size (inches) ^c | | Strand Size (inches) | | Overall Thickness | Open Area |
|---------|---|-----------------------------------|-----|------------------------------------|------|----------------------|-----------|----------------------|--------------|
| | | SWD | LWD | SW0 | LWO | Width | Thickness | (inches) | Area |
| 3.3 lb. | 3.32 | 2.00 | 6.0 | 1.625 | 4.88 | 0.312 | 0.250 | 0.656 | 69% |
| 4.5 lb. | 4.25 | 1.41 | 4.0 | 1.000 | 2.88 | 0.300 | 0.250 | 0.625 | 58% |

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

Specifications of Aluminum Expanded Metal Grating

| Style | Nominal Weight in Ibs./100 Sq. Ft. ^B | Design Size (inches) ^c | | Opening Size (inches) ^c | | Strand Size (inches) | | Overall Thickness | Open |
|---------|---|-----------------------------------|------|------------------------------------|------|----------------------|-----------|----------------------|------|
| | | SWD | LWD | SWO | LWO | Width | Thickness | (inches) | Area |
| 2.0 lb. | 2.0 | 1.33 | 5.33 | 0.940 | 3.44 | 0.387 | 0.250 | 0.730 | 48% |

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

Carbon Steel - Concentrated Load Deflection Tables for a Fixed-Fixed Span

| Style (lbs. per sq. ft) | | 24-Inch Span | 36-Inch Span |
|-------------------------|--|--------------|--------------|
| 3.0# | Concentrated Load Capacity (lb./ft.) | 274 | 126 |
| | Deflection Under Allowed Concentrated Load (in.) | 0.25 | 0.25 |
| 3.14# | Concentrated Load Capacity (lb./ft.) | 340 | 117 |
| | Deflection Under Allowed Concentrated Load (in.) | 0.25 | 0.25 |
| 4.0# | Concentrated Load Capacity (lb./ft.) | 468 | 201 |
| | Deflection Under Allowed Concentrated Load (in.) | 0.25 | 0.25 |
| 4.27# | Concentrated Load Capacity (lb./ft.) | 419 | 196 |
| | Deflection Under Allowed Concentrated Load (in.) | 0.25 | 0.25 |

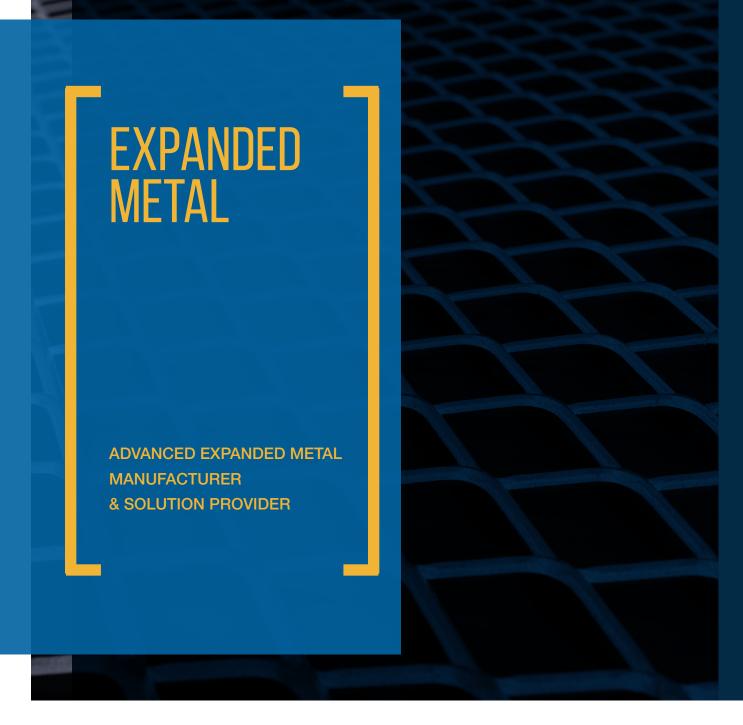
Aluminum - Concentrated Load Deflection Tables for a Fixed-Fixed Span

| Style (lbs. per sq. ft) | | 24-Inch Span | 36-Inch Span |
|-------------------------|--|--------------|--------------|
| 2.0# | Concentrated Load Capacity (lb./ft.) | 320 | 136 |
| | Deflection Under Allowed Concentrated Load (in.) | 0.25 | 0.25 |

* The test specimens on which this table is measured were welded at alternate strands to an angle fixture. Testing shows that if the ends are not so welded, the capacity of the grating is drastically reduced.

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