

MIT For all your
**Expanded metal mesh
Needs**

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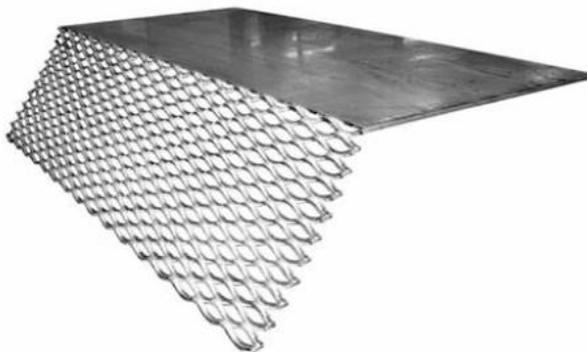
1.Introduction

Expanded metal mesh products are supplied in a variety of size and shapes in black galvanized stainless steel and aluminum etc. Mesh can be supplied in full sheets or fabricated to customer specifications.

Expanded metal mesh has multiple industrial, commercial and architectural applications. The mesh provides a heavy duty barrier yet allows light, heat, air, liquid and sound to pass through.

2.Manufacturing process

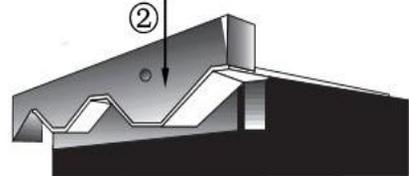
In the expanding process, the sheet is simultaneously slit and stretched, expanding the slits into diamond-shaped holes of uniform size shape and regularity.



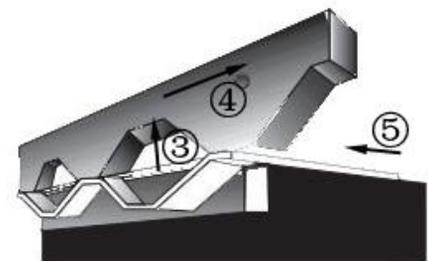
Expanded metal mesh products are manufactured from solid sheets of steel or aluminum. When manufactured, the metal sheet is simultaneously slit and stretched, expanding the slits into diamond shaped trusses of uniform size, shape and regularity. No metal is lost in the expanding process and the final product is stronger per kilogram, and stronger per meter, than the original sheet.



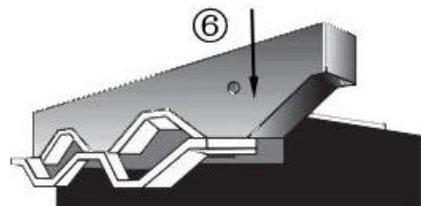
The sheet advances between the knife one strand width beyond the lower knife



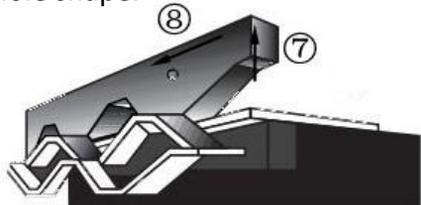
The upper knife presses down and from one half the diamond design.



The upper knife then rises up and traverses on half diamond to the side as the material advances another strand width.



The upper knife presses down again to form another row of half diamonds to complete the hole shape.

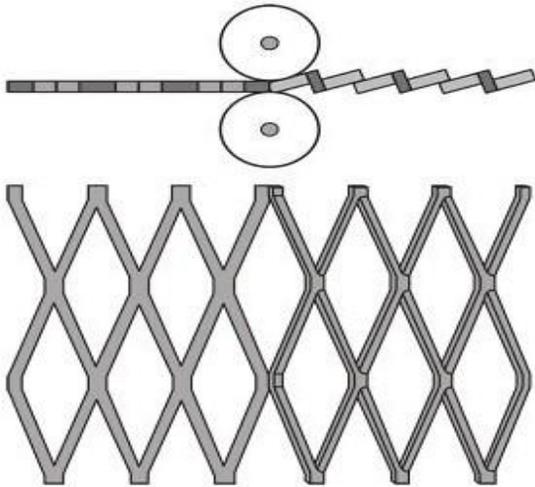


The upper knife rises up again, traversing back in the opposite direction to its original starting position. The cycle continues until the sheet is completely transformed into expanded metal mesh.

3.Terminology

Raised Expanded Metal Mesh

Raised expanded metal mesh is the form the product takes when it goes through the expanding process described earlier. The strands and knuckles are set at a uniform angle to the plane of the sheet. This adds strength and rigidity, allows air circulation, and distributes the load on the metal to the supporting frames. No additional pressing operations are needed.



Flattened Expanded Metal Mesh

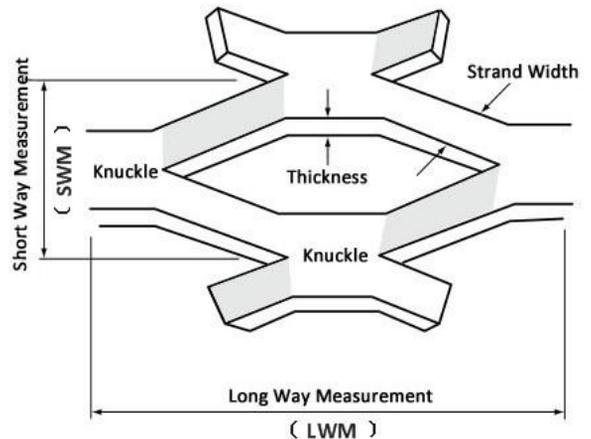
Flattened expanded metal mesh is manufactured by passing a raised expanded metal sheet through an additional cold roll reducing mill process. By flattening the sheet the knuckles and strands are turned down to produce a smooth and flat surface, reducing the overall thickness and elongating the diamond pattern.

SWM

SWM is the distance from a point on a knuckle to a corresponding point on the following knuckle measured across the short way of the diamond shape hole. This distance is also sometimes referred to as “pitch” SWM.

LWM

LWM is the distance from a point on a knuckle to a corresponding point on the following knuckle measured across the long way of the diamond shaped hole. This distance is also sometimes referred to as “pitch” LWM.

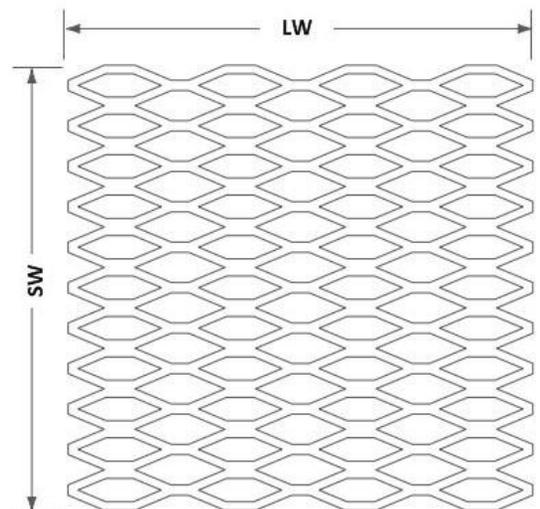


Knuckle

A knuckle is the intersection of two strands and is always the width of two strands.

Thickness

Thickness is the actual measurement of the thickness of the mesh material measured at the knuckle



SW

SW is the overall dimension of the expanded metal mesh sheet measured in the same direction as the short way measure(SWM)

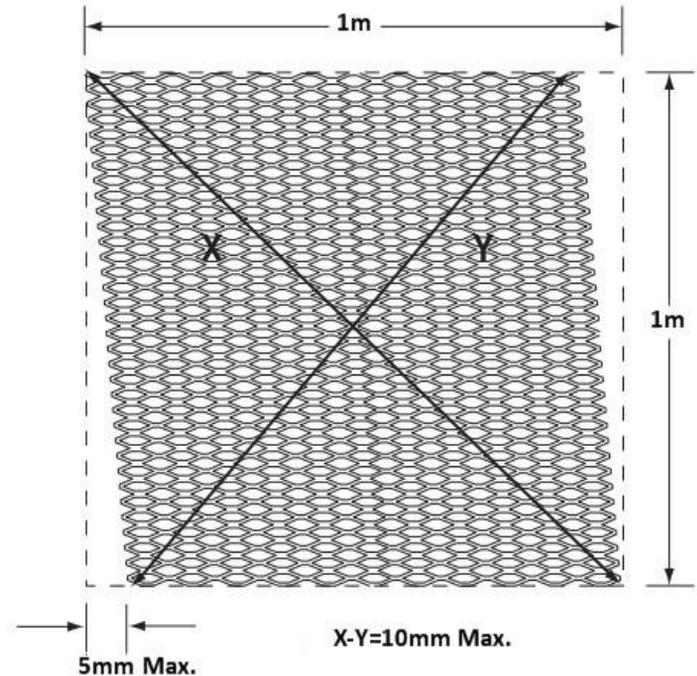
LW

LW is the overall dimension of the expanded metal mesh sheet measured in the same direction as the long way measure(LWM).

4.Manufacturing tolerance

General Tolerances

All references to sheet size, strand width, thickness and mass are approximate .Every effort has been made to ensure there figures are accurate however the manufacturing process is subject to standard tolerances

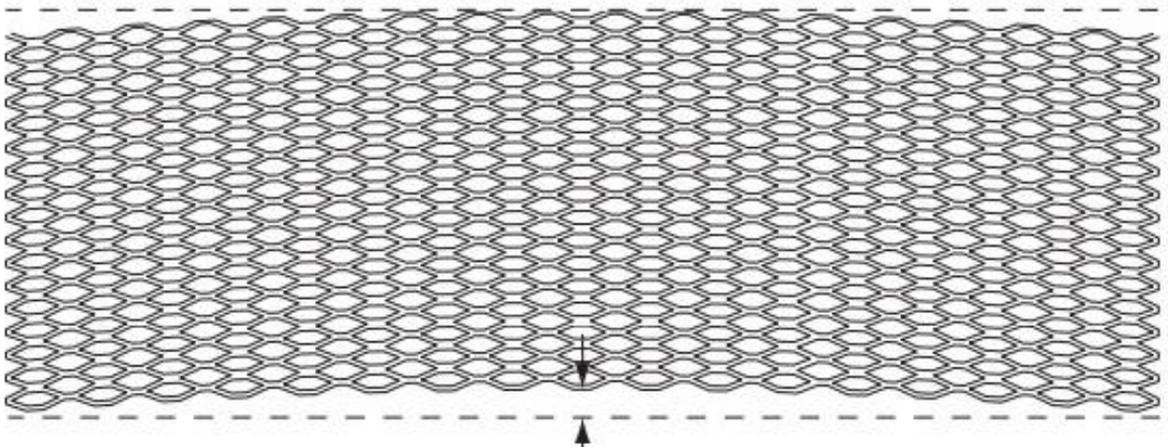


Camber

Camber refers to the bow in a sheet .It is measured by placing a straight edge along the concave side of the sheet parallel to LW, touching both ends of the sheet ,The maximum distance between the edge of the expanded metal and the straight edge is the camber. The tolerance for standard expanded mesh is 5 mm per 1 metre of length. For flattened expanded metal it is 7mm per 1 metre of length

Out of Square

The nature of the manufacturing process means expanded metal sheet have a degree of out of squareness. The tolerance for out of squareness. The tolerance for out of square is a maximum of 5mm per 1 metre of length, or 10mm per square metre on diagonals. These tolerances are for both standard stock and made-to-order sizes. Sheets can be re-squared by shearing on all sides.



5. Specification

Thickness (mm)	SWD (mm)	LWD (mm)	Strand Width (mm)	Width (mm)	Length (mm)	Weight (kg/m ²)
0.5	2.5	4.5	0.5	0.5	1	1.8
0.5	10	25	0.5	0.6	2	0.73
0.6	10	25	1	0.6	2	1
0.8	10	25	1	0.6	2	1.25
1	10	25	1.1	0.6	2	1.77
1	15	40	1.5	2	4	1.85
1.2	10	25	1.1	2	4	2.21
1.2	15	40	1.5	2	4	2.3
1.5	15	40	1.5	1.8	4	2.77
1.5	23	60	2.6	2	3.6	2.77
2	18	50	2.1	2	4	3.69
2	22	60	2.6	2	4	3.69
3	40	80	3.8	2	4	5.00
4	50	100	4	2	2	11.15
4	60	120	4	2	7.5	4.0
4	80	180	4	2	10	3.0
4	100	200	4	2	12	2.5
4.5	50	100	5	2	2.7	11.15
5	50	100	5	1.4	2.6	12.39
5	78	150	5	2	10	3.0
6	50	100	6	2	2.5	17.35
8	50	100	8	2	2.1	28.26

6. Packing



Expanded metal mesh in panels wrapped with iron pallet and waterproof plastic or wooden case.



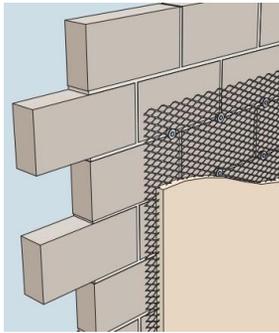
Expanded metal mesh In rolls wrapped with waterproof paper or plastic bags then with wooden pallet package.

7.Application

Expanded metal mesh can be used in a variety of areas. Such as filter, architecture and building , screen and fence , flooring and furniture. And it also can be used in many areas you can't guess.

Architecture & Building

- Backgrounds
- Balustrading
- Room Divider
- Trellis Work
- Ventilating Panels
- Wall & Ceilings



Screen

- Glare Reduction
- Privacy Screens
- Wind Breaks
- Sunscreens



Flooring

- Fixed Platforms
- Flooring
- Ramps
- Stairways
- Platforms
- Sheet Floor Materials



Filtration

- Air filter
- Filter basket



Furniture
 Table
 Chair
 Cabinet
 Magazine Rack



Security
 Fence
 Wall
 Handrail
 Gates



Other
 Car Grilles
 Sound box cover
 Window Screen



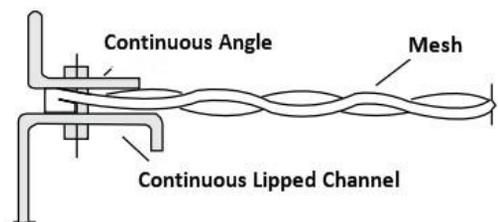
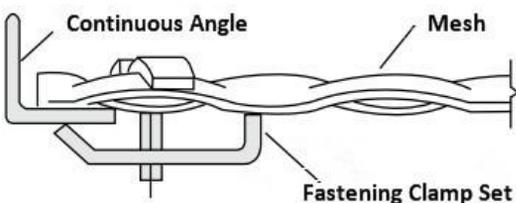
8. Installation

Galvanized steel fastening clamp sets are available for type GM and GR gridmesh expanded metal. The clamp set consists of a top and bottom plate and bolt.

All steel surfaces in contact with aluminum gridmesh should be painted with Zinc chromate.

Clamping method for mesh type GM and type GR.

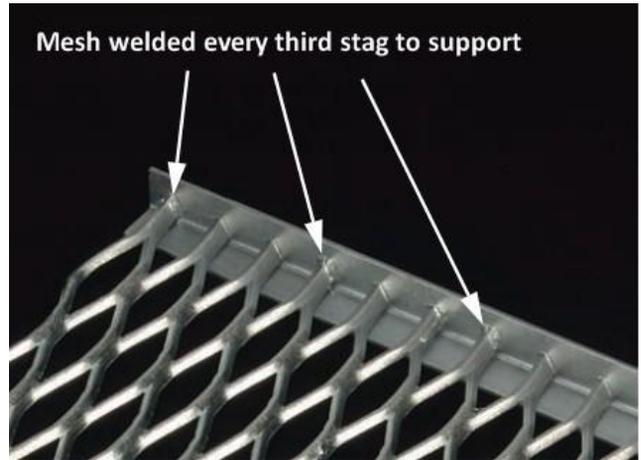
Alternative clamping method for all mesh types



Welding to Support

Mesh should be welded to the support at a minimum of every third stag.

Overlapping expanded mesh can produce a raised edge. It is recommended that expanded mesh be butt joined with the joint positioned over a support.



Welding Sheets

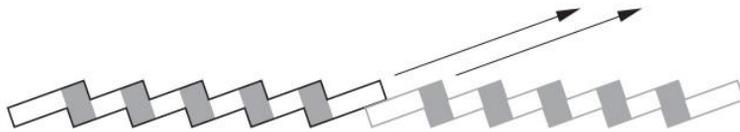
Adjoining (butting or lapped) sheets can be welded together or a support can be welded beneath the joint.



Placement of Adjacent Sheets

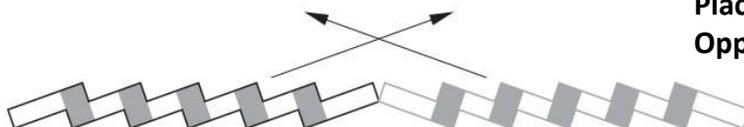
Correct Placement

Adjacent mesh panels correctly Placed with their slopes aligned



Incorrect Placement

Adjacent mesh panels incorrectly Placed with their slopes pointing in Opposite directions.





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