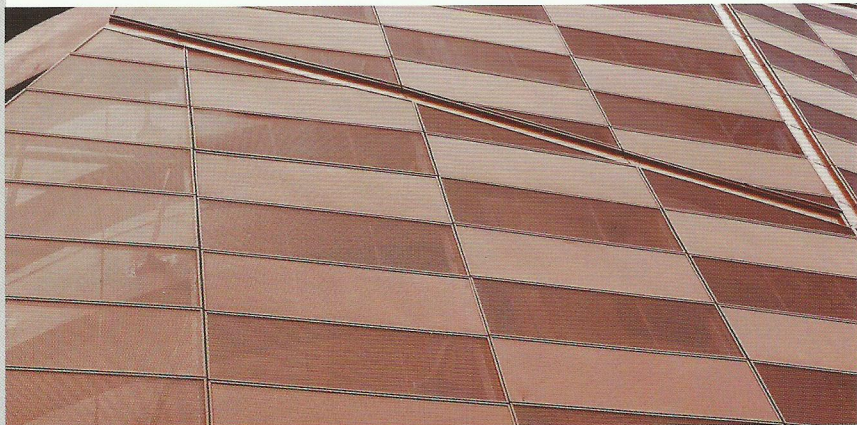
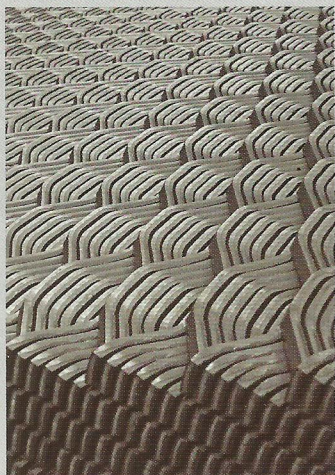
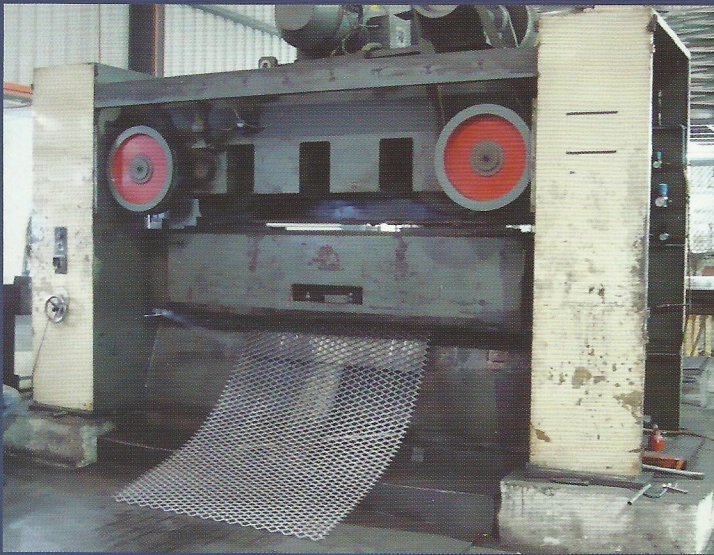


MCO
EXPANDED METAL



DEFINITION

Expanded metal is a form of metal stock made by shearing a metal plate in a press, so that the metal stretches, leaving diamond-shaped voids but is left intact at the "knuckles". The most common method of manufacture is to simultaneously slit and stretch the material with one motion. Available in a variety of thickness with differing sizes and designs of the mesh.



MATERIAL USED

Mild Steel	Manufactured using high quality low carbon steel complying to JIS G 3131 SPHC. Normally hot - dipped galvanised to BS 729:1971 for anti - corrosion.
Stainless Steel	Manufactured using high SS 304 grade for highly corrosive environment.
Aluminium	Manufactured using high commercial grade aluminium sheet grade AA 1100 - H 14.
Powder coated	All expanded metal can be powder coated for decorative and chemical resistance applicator. A wide range of colour selection is available upon request.

EXPANDED METAL AND ITS PROPERTIES

The unique feature of expanded metal is that the mesh formed from the same piece of metal. The "knuckles" where the strand joints create some inherent properties of expanded metal.

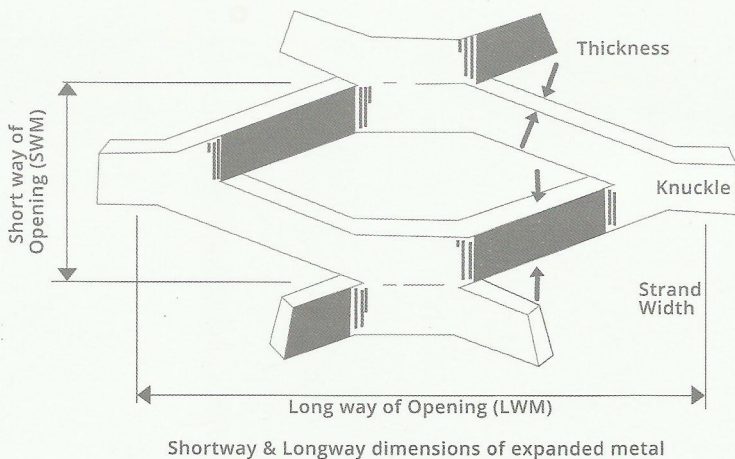
The intact "Knuckles" provides structural support for loading, suitable for withstanding stress and support weight better than joining and welding process. As there are no joints or welds, it distributes load evenly over wider area.

The opening mesh design allow passage of light, air and sound: used for screenmesh, ventilator and security screen in many industrial buildings.

Lighter in weight yet stronger than steel sheet, thus economical application for walkway platform, security fencing, machine guards, racking and etc.

Expanded metal mesh does not fray or unravel when cut or left unframed: ensures high degree of security and protection for security prison, military installation, bank vaults and high security fencing.

The anti-skid surface provides safety and grips suitable for stairtreads, rugged, maintenance floor, grating and catwalks for factories, shipyards and oil refineries.



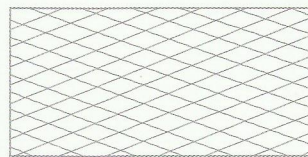
ORDERING:

When ordering of expanded metal, please remember to specify:

- Reference number of mesh
- Thickness preferred
- Type of raw material
- Sheet size
- Quantity required

PRODUCT SPECIFICATIONS

The Long Way (LW) dimension of the mesh is precise and constant but the Short Way (SW) dimension is only approximate. Since it is subject to some variation according to the strand width and the material thickness, it is intended to be generally descriptive only. Expanded Metal is specified first with SWM (Short Way of Mesh) followed by LWM (Long Way of Mesh).



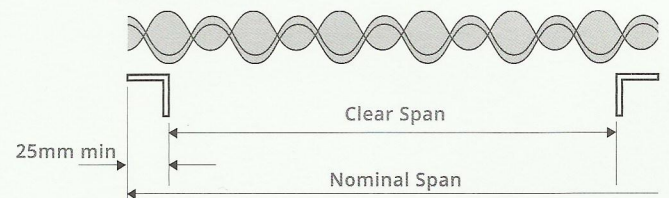
Sheet A
1200mm SWM x 2400mm LWM



Sheet B
2400mm SWM x 1200mm LWM

ASSUMPTION

The selection guide assumes mesh spanning in the direction of long way mesh (LWM) having a minimum of every fourth strand welded on the support and minimum 25mm end bearing.



SPECIFICATIONS

Type	Ref	Mesh opening SW x LW mm	Thk (mm)	Strand Width (mm)	Weight kg/M2	Sheet size (mm) SWM x LWM
Light Mesh	LM 0515	10 x 21	0.5	1.5	1.29	2440 x 1220
	LM 0715		0.7	1.5	1.84	
Light Mesh	LM 1015	9 x 29	1.0	1.5	2.71	2440 x 1220
	LM 1515		1.5	1.5	4.2	
	LM 2015		2.0	1.5	5.56	
Light Mesh	SM 1020	16 x 38	1.0	2.0	1.88	2440 x 1220
	SM 1520		1.5	2.0	3.19	
Security Mesh	SM 1528	22 x 57	1.5	2.8	2.88	2440 x 1220
	SM 2028		2.0	2.8	3.82	
	SM 3030		3.0	3.0	6.4	
	SM 3035		3.0	3.5	7.28	
	SM 30045		3.0	4.5	9.66	
Security Mesh	SM 15030	35 x 76	1.5	3.0	2.02	2440 x 1220
	SM 2030		2.0	3.0	2.6	
	SM 30030		3.0	3.0	4.04	
	SM 3045		3.0	4.5	6.6	
	SM 45060		4.5	6.0	12.2	
	SM 45060(E)		4.5	4.2	8.83	
	SM 45010		4.5	10.0	20.15	
Security Mesh	SM 3530	45 x 115	3.0	3.0	3.34	2440 x 1220
	SM 3545		3.0	4.5	5.05	
	SM 3060		3.0	6.0	8.3	
	SM 4560		4.5	6.0	12.4	
	SM 4575		4.5	7.5	12.65	
	SM 4590		4.5	9.0	15.18	
Walkway Mesh	WM 50080	45 x 135	5.0	8.0	14.9	2440 x 1220
	WM 50110		5.0	11.0	19.5	
Walkway Mesh	WM 30080	30 x 75	3.0	8.0	12.6	2440 x 1220
	WM 50075		5.0	7.5	23.55	
	WM 50105		5.0	10.5	27.9	

Sheet Tolerance : SWM Dimension +50mm
- 0mm

LWM Dimension +20mm
- 4mm

PRODUCT BENEFITS

- As light, durable and strong as mild-steel sheeting, providing a rigid and permanent frame for receiving plaster, steelwork encasements, interior linings and other reinforced constructions.
- Because there are no welds or joints, it operates as a structural member that distributes loads evenly over a wider area.
- High strength-to-weight ration makes it technically applicable in many engineering, industrial and ornamental applications. These include safety barricades against opposing traffic on highways, walkways, drain gratings, anti-vandal screens and decorative fencing.
- No loose strands or welds means minimal wear through constant exposure to natural elements or other normal movements.
- Fire resistant and vermin proof, it also provides an anti-slip surface for ramps, catwalks and stairtreads.
- Allows good visibility and the easy passage of air, heat, light and sound while ensuring security and protection.
- A good conductor of electricity, magnetic flux and heat through jointless continuity of materials. Good for electromagnetic screening and driveway heating.
- Anti-corrosive when hot-dipped galvanised or powder-coated.

LOADING TABLE FOR WALKWAY MESH

REF NO.	LOADING CRITERIA	SIMPLE SPAN (mm)			DOUBLE SPAN (mm)			TRIPLE SPAN (mm)		
		600	900	1200	300	450	600	200	300	400
WM 50110	UDL (KN/m ²)	6.30	2.85	1.75	26.00	11.60	6.70	54.80	28.15	15.75
	CL (KN)	1.40	0.95	0.70	3.20	2.20	1.65	4.97	3.50	2.65
WM 50105	UDL (KN/m ²)	8.00	3.60	2.00	33.20	15.00	8.50	69.20	35.50	20.00
	CL (KN)	1.78	1.20	0.90	4.11	2.75	2.09	6.30	4.50	3.40
WM 50075	UDL (KN/m ²)	5.65	2.65	1.50	23.50	10.45	6.00	50.25	25.00	14.25
	CL (KN)	1.25	0.85	0.64	2.90	1.92	1.48	4.50	3.13	2.40
WM 50080	UDL (KN/m ²)	4.75	2.20	1.25	19.60	8.85	5.20	43.00	21.00	12.00
	CL (KN)	1.07	0.71	0.53	2.50	1.65	1.25	3.95	2.65	2.00
WM 30080	UDL (KN/m ²)	0.30	-	-	6.30	2.50	0.70	16.40	7.30	2.90
	CL (KN)	0.08	-	-	1.12	0.31	0.20	1.23	0.50	0.16

NOTE : CL = Concentrated Load

UDL = Uniform Distributed Load

1. Recommended spans stated above are based upon the deflection not exceeding span/200 when subjected to the loads shown.

2. Span stated in the table are nominal. Clear spans can be calculated by deducting 25mm from both ends.

3. Load capacities stated in the table are the heaviest loads that will cause no permanent deformation, with a built-in safety factor of 40% if a slight deformation or sag is allowed.

APPLICATION OF EXPANDED METAL

Access panels	Conveyor guard	Gas fire grills	Magazine racks	Tunnel ceilings
Acoustic booth	Decorated ceiling	Glass Reinforcement	Open partitions	Tunnel linings
Acoustic ceiling	Denture reinforcement	Gear box guards	Organ pipe covers	Vehicle radiator guards
Airport jet blast screen	Dipping basket	Grain drying	Panel separators	Ventilation domes
Animal cages	Display trays	Greenhouse shelves	Partitions	Ventilator grills
Animal feeding racks	Driveway heating	Grills	Pedestrian barriers	Water screen
Anti - dazzle panels	Drying trays	Guards	Platforms	Window guards
Armatures for sculpture	Duct for grain drying	Heater grill	Racks	Window ventilators
Asphalt reinforcement	Earthing trays	Heating guards	Screens	Wall shuttering
Baking trays	Electric fire grills	Heating elements	Riot Shields	Wall paper bins
Balustrades	Electrical gasket	Heating panels	Road reinforcement	Wall paper trailers
Bar shutters	Fancy goods	Helmet eye shields	Screens	Wall insulation
Barbecue grills	Farm machine guards	Ice bunkers	Sculptures	Walkways
Basket	Fencing	Infill panels	Shelves	Wall reinforcement
Bird guard	Filters	Incinerators	Shop display	
Bookshelf backing	Fire guards	Instrument earthing grids	Signage background	
Brickwork reinforcement	Fish baskets	Invalid ramps	Snow grip mats for cars	
Burner gauzes	Floor heating	Jigs for anodizing	Snow guards	
Cable trays	Flower pot holders	Kettle plates	Sparks guards	
Car grills	Fluid cooling screens	Leaf containers	Stair balustrades	
Cattle flooring	Fluid control	Lens lapping pads	Stairtreads	
Central heating grills	Fly screen	Light shades	Storage racks	
Chaff guard for tractor	Food trays	Lintel reinforcement	Sump guards	
Clothes locker	Freezing trays	Lockers	Sun screen	
Coffer units	Gas cooker guards	Lorry cab guards	Trays	
Concrete reinforcement	Gates	Machine guards	Tree guards	



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