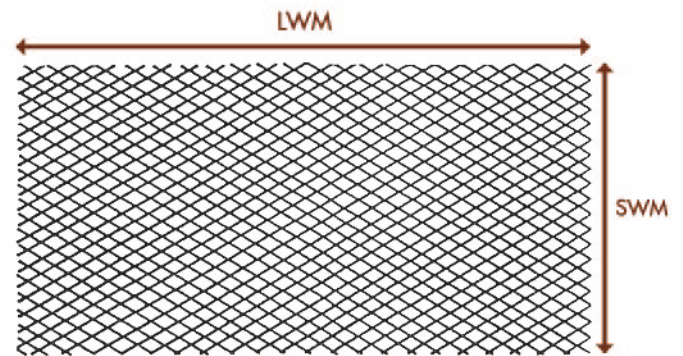
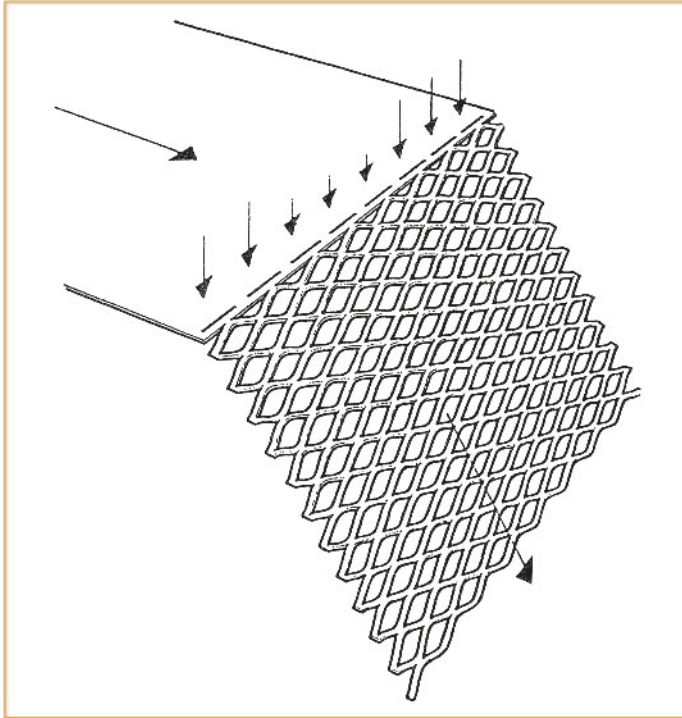
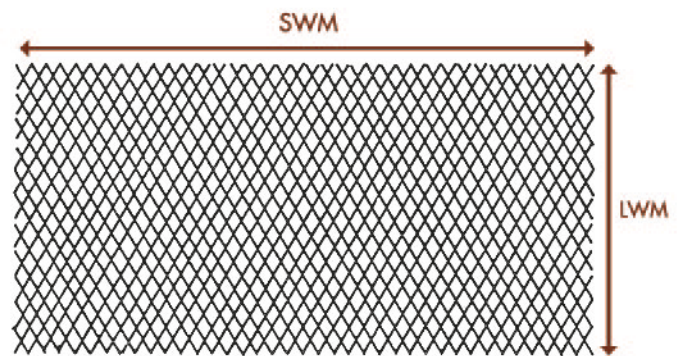


# EXPANDED METAL

Let us first consider a mesh with conventional diamond-shaped apertures. In the expansion process the sheet metal blank is transformed by a continuous shear-and-press action into a lattice-work of undulating strands.

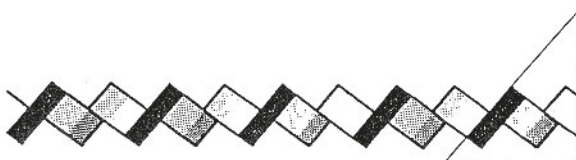


This sheet is  
8'0" (2.44m) LWM x 4'0" (1.22m) SWM



This sheet is  
4'0" (1.22m) LWM x 8'0" (2.44m) SWM

The width and the length of the strands are set at an angle to the plane of the sheet of mesh.



Width of strand at an angle to plane

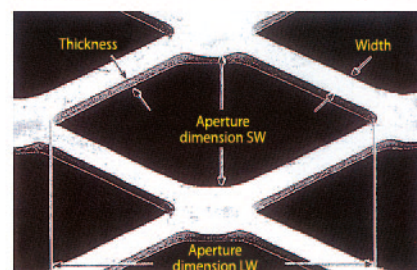
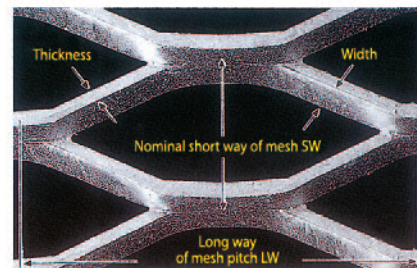


Length of strand at an angle to plane

## Specification of mesh opening

The Long Way (LWM) of the mesh opening is uniform, and the Short Way (SWM) is approximate only and is subject to variation depending on the strand width and material thickness. However, it may not generally alter the overall mesh type during manufacture.

## Available Material



### MILD STEEL

Made from low carbon steel conforming to JIS G3131/SPHC. For non-corrosion, it can be hot dipped galvanised to BS EN ISO 1461 or powder coated.

### ALUMINIUM

Commercial Grade AA 1100 (mill finish). Other Grades of aluminium are also possible upon request.

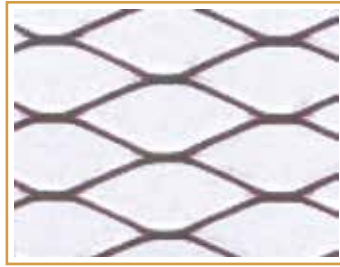
### STAINLESS STEEL

Usually produced from Grade SS 304 and SS 316.

# METAL SIZE



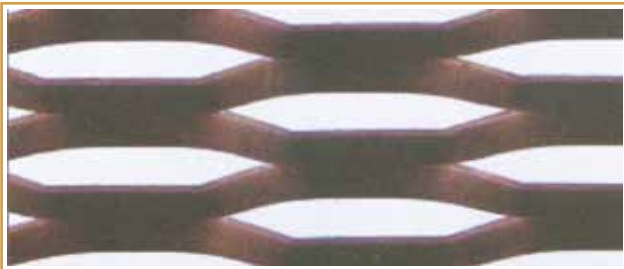
SWM x LWM 10 x 21



SWM x LWM 9 x 29



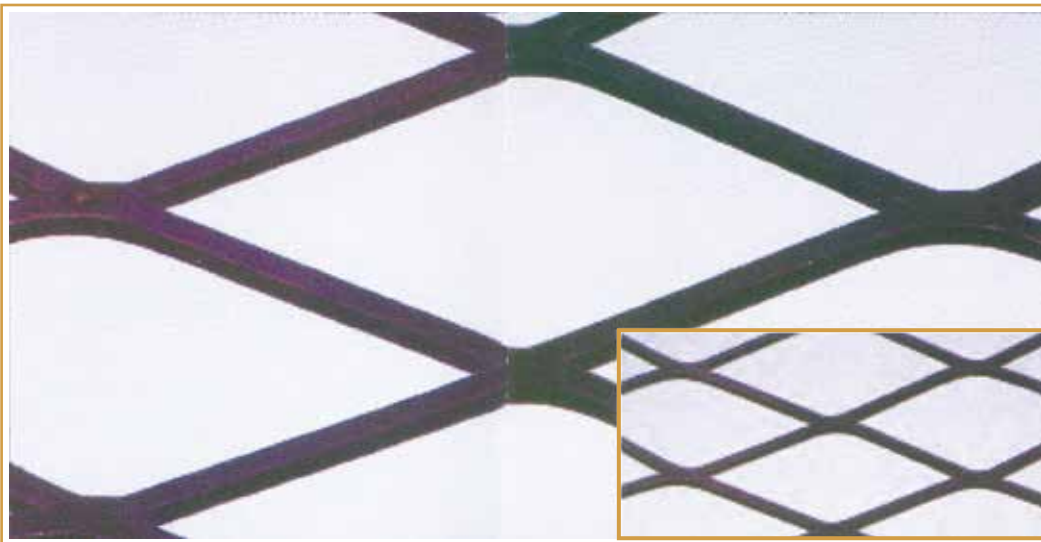
SWM x LWM 16 x 38



SWM x LWM 16 x 76

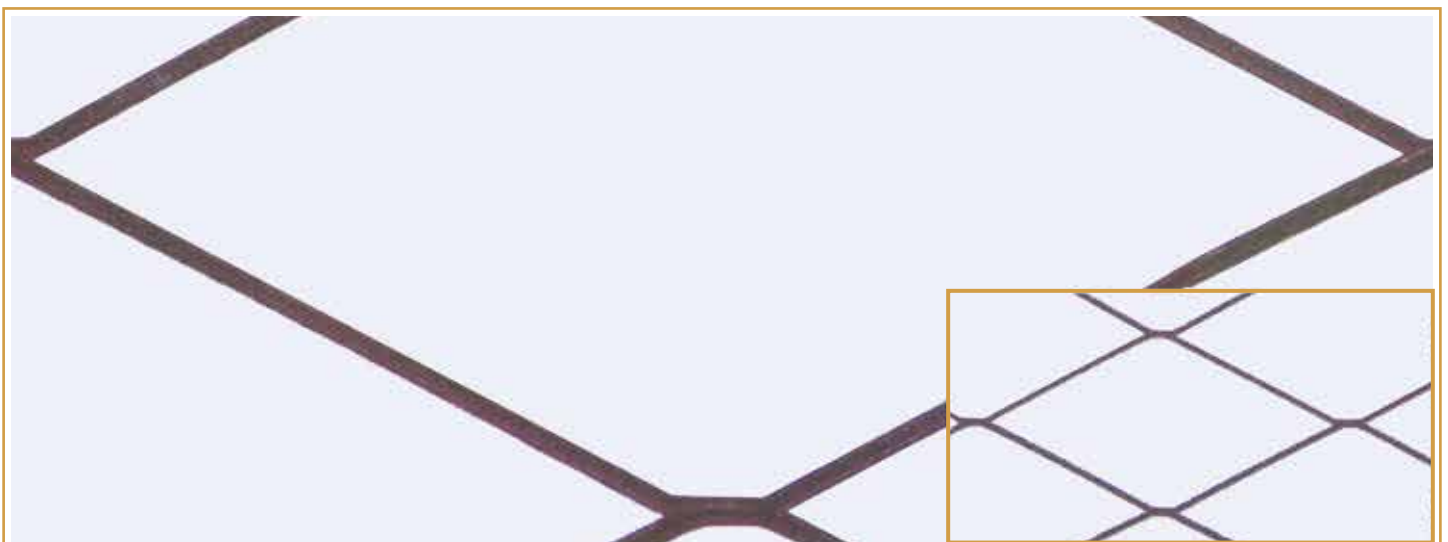


SWM x LWM 22 x 57



SWM x LWM 42 x 115

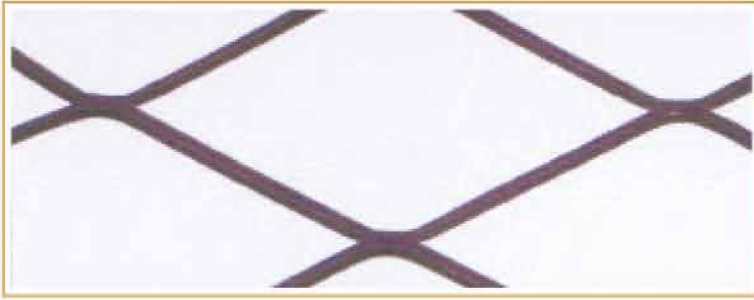
Detail shown at 33% actual size



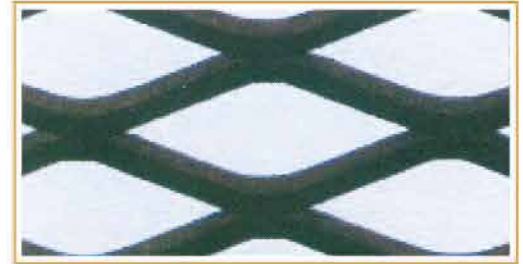
SWM x LWM 95 x 200

Detail shown at 25% actual size

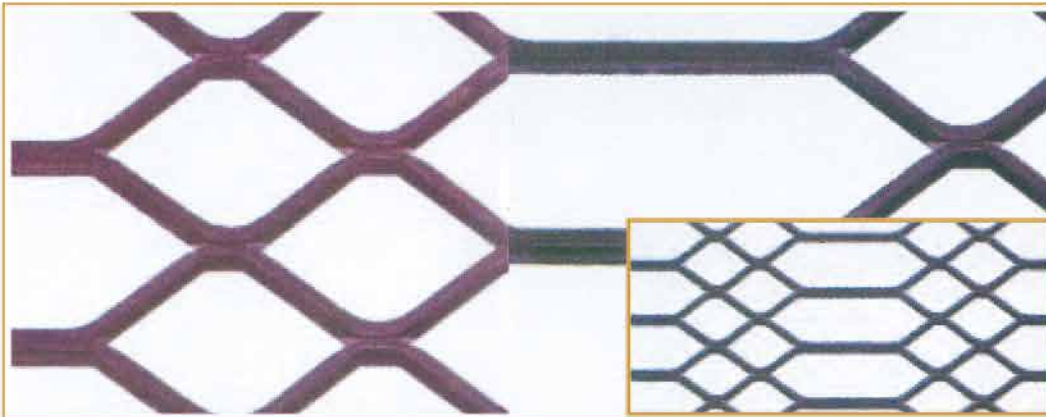
## METAL SIZE



SWM x LWM 35 x 76



SWM x LWM 30 x 75



SWM x LWM 25 x 40/81

Detail shown at 25% actual size

## Product Benefits

- Because there are no welds or joints, it operates as a structural member that distributes loads evenly over a wider area.
- Lighter in weight yet stronger than steel sheet, thus economical applications for walkway platform, security fencing, machine guard, racking, etc.
- The open mesh design allows passage of light, air and sound; used for screenmesh, ventilation and security screen in many industrial buildings.
- The anti-skid surface provides safety and grip suitable for stairtreads, rugged maintenance floor, gratings and catwalks for factories, shipyards and oil refineries.
- Anti-corrosive when hot-dipped galvanised or powder-coated.



## Sheet Sizes & Tolerance

Expanded metal comes in standard sheet size of 2440mm(SWM) x 1220mm(LWM), other sheet sizes are available upon request. Some light meshes are supplied in roll for easy handling and storage. All sheet and roll sizes are subject to tolerance.

# SPECIFICATIONS

Type	Ref. No	Material	Nominal Size Of Mesh		Thickness* (±10%) (mm)	Strand Width (±10%) (mm)	Weight (±10%) kg/m <sup>2</sup>	Standard Sheet Size SWM x LWM (mm)
			SWM (mm)	LWM (mm)				
Light Mesh	LM 0515 (GI)	Steel	10	21	0.5	1.5	1.24	2440 x 1220
	LM 0715 (GI)	Steel	10	21	0.7	1.5	1.75	2440 x 1220
	LM 0915 (GI)	Steel	10	21	0.9	1.5	2.25	2440 x 1220
	LM 1015 (GI)	Steel	9	29	1.0	1.5	2.70	2440 x 1220
	LM 1515	Steel	9	29	1.5	1.5	4.03	2440 x 1220
	LM 2015	Steel	9	29	2.0	1.5	5.37	2440 x 1220
	LM 1520	Steel	16	38	1.5	2.0	3.0	2440 x 1220
	LM 1528	Steel	22	57	1.5	2.8	3.02	2440 x 1220
	LM 2028	Steel	22	57	2.0	2.8	4.03	2440 x 1220
	LM 2030	Steel	35	76	2.0	3.0	3.02	2440 x 1220
Security & Decorative Mesh	SM 3030	Steel	22	57	3.0	3.0	6.49	2440 x 1220
	SM 3035	Steel	22	57	3.0	3.5	7.3	2440 x 1220
	SM 30045	Steel	22	57	3.0	4.5	9.75	2440 x 1220
	SM 4545	Steel	22	57	4.5	4.5	15	2440 x 1220
	SM 30030	Steel	35	76	3.0	3.0	4.03	2440 x 1220
	SM 3045	Steel	35	76	3.0	4.5	6.05	2440 x 1220
	SM 45050	Steel	35	76	4.5	5.0	10.48	2440 x 1220
	SM 45060	Steel	35	76	4.5	6.0	12.43	2440 x 1220
	SM 6060	Steel	35	76	6.0	6.0	16.58	2440 x 1220
	SM 3545	Steel	42	115	3.0	4.5	5.37	2440 x 1220
	SM 3060	Steel	42	115	3.0	6.0	7.05	2440 x 1220
	SM 4560	Steel	42	115	4.5	6.0	10.41	2440 x 1220
	SM 3050	Steel	50	150	3.0	5.0	4.71	2440 x 1220
	SM 5050	Steel	75	150	5.0	5.0	5.3	2440 x 1220
	SM 3075	Steel	95	200	3.0	7.5	3.8	2440 x 1220
DM 3032	Steel	25	40/81	3.0	3.2	6.05	2440 x 1220	
Walkway Mesh	WM 50080	Steel	45	135	5.0	8.0	14.11	2440 x 1220
	WM 50110	Steel	45	135	5.0	11.0	19.48	2440 x 1220
	WM 30080	Steel	30	75	3.0	8.0	12.55	2440 x 1220
	WM 50075	Steel	30	75	5.0	7.5	23.5	2440 x 1220
	WM 50105	Steel	30	75	5.0	10.5	27.55	2440 x 1220
Louvre Mesh	LOM 1563	Alum	16	76	1.5	6.3	3.4	2440 x 1220
	LOM 2045	Alum	12	65	2	4.5	4.1	2440 x 1220
	LOM 2050	Alum	13.5	45	2	5.0	4.2	2440 x 1220
<b>Expanded Metal to Japan Standard</b>								
	XG11	Steel	34	135.4	4.5	7.0	14.5	2440 x 1220
	XG12	Steel	34	135.4	6.0	7.0	19.4	2440 x 1220
	XG13	Steel	34	135.4	6.0	9.0	24.9	2440 x 1220
	XG14	Steel	34	135.4	8.0	9.0	33.2	2440 x 1220
	XG21	Steel	36	101.6	4.5	7.0	13.7	2440 x 1220
	XG22	Steel	36	101.6	6.0	7.0	18.3	2440 x 1220
	XG23	Steel	36	101.6	6.0	9.0	23.6	2440 x 1220
	XG24	Steel	36	101.6	8.0	9.0	31.4	2440 x 1220

\* Thickness up to 9.0mm (to a maximum of 1525mm LWM Direction)

## General Conditions

1. Standard weight tolerance, subject to ±10%.
2. Nominal sheet size-shortway direction, subject to ±50mm.  
Nominal sheet size-longway direction, subject to ±10mm.
3. Also available in material such as Aluminium and Stainless Steel.
4. Special sheet sizes also available upon request.
5. Short way mesh and strand width may vary ±10% due to manufacturing constraints. Should you need exact opening, you must discuss with our sales staff prior to ordering.

# LOADING TABLE FOR WALKWAY MESH

## SPECIFICATIONS AND LOAD/ SPAN TABLES

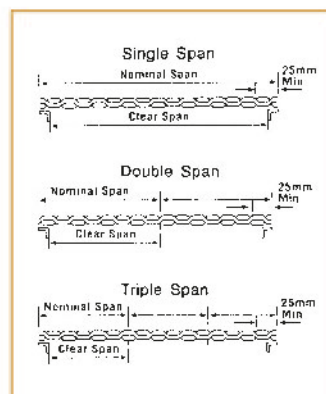
CAT. No.	LOAD CONDITION	LOADING CRITERIA	SIMPLE SPAN-mm				DOUBLE SPAN-mm				TRIPLE SPAN-mm			
			600	750	900	1200	300	380	450	600	200	250	300	400
WM50080	Uniform Load (KN/m <sup>2</sup> )	LOAD CAPACITY	4.9	3.1	2.25	1.22	20	12.6	8.9	5.2	43.85	30.3	21.4	12.14
		DEFLECTION SPAN/240	9.9	5.1	3.0	1.2				12.5				
WM50110	Point Load (KN)	LOAD CAPACITY	1.0	0.85	0.74	0.53	2.5	1.96	1.68	1.27	4	3.17	2.68	2.00
		DEFLECTION SPAN/180	0.99	0.63	0.44	0.25				1.38				
WM50075	Uniform Load (KN/m <sup>2</sup> )	LOAD CAPACITY	5.8	3.7	2.6	1.5	23.4	14.9	10.5	6.0	50.4	35.9	24.9	14.3
		DEFLECTION SPAN/240	11.3	5.9	3.4	1.5				14.1				
WM50105	Point Load (KN)	LOAD CAPACITY	1.3	1.01	0.84	0.63	2.9	2.31	1.93	1.5	4.50	3.74	3.12	2.38
		DEFLECTION SPAN/180	1.14	0.73	0.52	0.29				1.60				
WM30080/F	Uniform Load (KN/m <sup>2</sup> )	LOAD CAPACITY	14.00	4.59	1.54	0.60	14.00	6.22	3.48	1.44	16.41	7.29	2.88	1.19
		DEFLECTION SPAN/360	12.3	6.4	3.7	1.5				15.5				
WM50080/A	Point Load (KN)	LOAD CAPACITY	0.92	0.58	0.24	0.13	1.13	0.76	0.56	0.31	1.22	0.82	0.48	0.25
		DEFLECTION SPAN/240	0.85	0.55	0.38	0.21				1.19				

## SPECIFICATIONS AND LOAD/ SPAN TABLES

CAT. No.	LOAD CONDITION	LOADING CRITERIA	SIMPLE SPAN-mm				DOUBLE SPAN-mm				TRIPLE SPAN-mm			
			600	750	900	1200	300	380	450	600	200	250	300	400
WM50080/A	Uniform Load (KN/m <sup>2</sup> )	LOAD CAPACITY	4.5	3.0	2.0	1.1	18.4	11.7	8.5	4.7	40.2	28.4	19.8	11.4
		DEFLECTION SPAN/240	3.8	2.0	1.1	0.5				4.8				
WM50110/A	Point Load (KN)	LOAD CAPACITY	1.00	0.85	0.74	0.53	2.5	1.95	1.68	1.27	3.65	2.97	2.48	1.87
		DEFLECTION SPAN/180	0.99	0.63	0.44	0.25				1.38				
WM50075/A	Uniform Load (KN/m <sup>2</sup> )	LOAD CAPACITY	5.4	3.6	2.5	1.4	22.3	16.6	11.9	6.7	49.1	34.4	24.1	13.9
		DEFLECTION SPAN/240	6.4	3.3	1.9	0.8				8.1				
WM50105/A	Point Load (KN)	LOAD CAPACITY	1.21	0.97	0.81	0.60	2.79	2.21	1.87	1.49	4.38	3.60	3.00	2.29
		DEFLECTION SPAN/180	0.64	0.41	0.29	0.16				0.81				
WM50080/A	Uniform Load (KN/m <sup>2</sup> )	LOAD CAPACITY	1.1	0.86	0.72	0.54	2.49	1.97	1.67	1.24	3.98	3.20	2.69	2.02
		DEFLECTION SPAN/240	0.43	0.28	0.19	0.11				0.60				
WM50105/A	Point Load (KN)	LOAD CAPACITY	0.32	0.21	0.14	0.08	1.78	1.12	0.79	0.45	3.45	2.39	1.69	0.95
		DEFLECTION SPAN/180	0.67	0.44	0.30	0.17				0.92				
WM50075/A	Uniform Load (KN/m <sup>2</sup> )	LOAD CAPACITY	6.5	4.4	3.0	1.7	27.5	17.3	12.3	7.0	58.1	42.3	29.6	17.0
		DEFLECTION SPAN/240	6.6	3.5	2.0	0.9				8.5				
WM50105/A	Point Load (KN)	LOAD CAPACITY	4.4	2.3	1.4	0.6	43.5	22.1	13.0	5.6	108.0	72.2	42.1	17.9
		DEFLECTION SPAN/360	4.4	2.3	1.4	0.6				5.6				
WM50080/A	Uniform Load (KN/m <sup>2</sup> )	LOAD CAPACITY	1.5	1.19	1.00	0.74	3.41	2.71	2.29	1.72	5.31	4.40	3.69	2.78
		DEFLECTION SPAN/180	0.67	0.44	0.30	0.17				0.92				
WM50110/A	Point Load (KN)	LOAD CAPACITY	0.50	0.32	0.22	0.13	2.75	1.73	1.22	0.70	4.96	3.69	2.58	1.49
		DEFLECTION SPAN/240	0.50	0.32	0.22	0.13				0.70				

### Assumption

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



### NOTE:

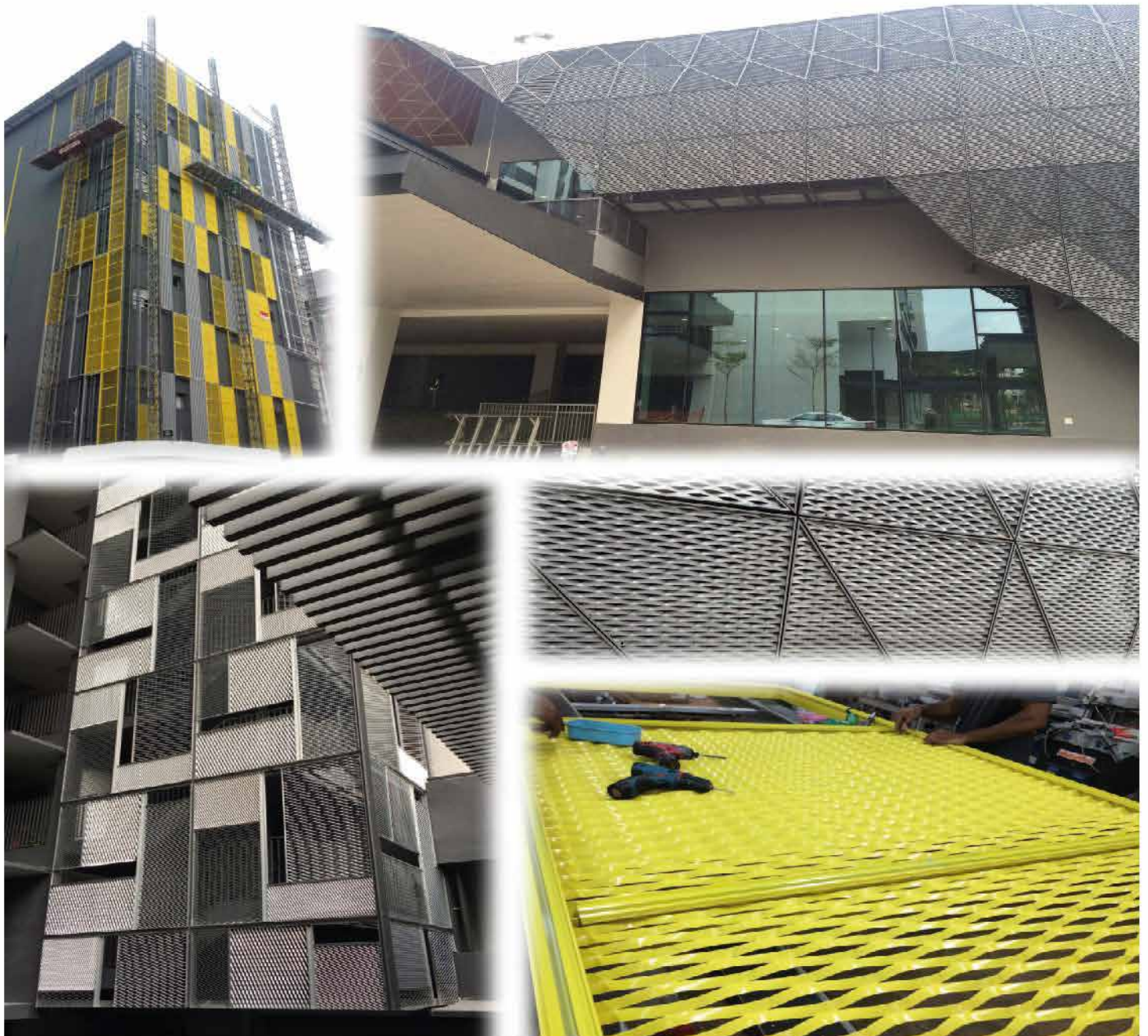
1. Load capacities given in the table are heaviest loads that will cause no permanent deformation with safety factor of 1.4 times. If some permanent deformation is allowed, loads can be increased by 40%.
2. The load table is applicable base on spanning in LWM direction and spot-weld at every 4 strand on support and minimum 25mm landing on both ends.
3. Spanning recommended based on assumption that deflection is not greater than span /200.
4. Spanning stated in table are nominal. Clear spans are obtained by deducting 25mm landing on both ends.

# EXPANDED FACADE MESH

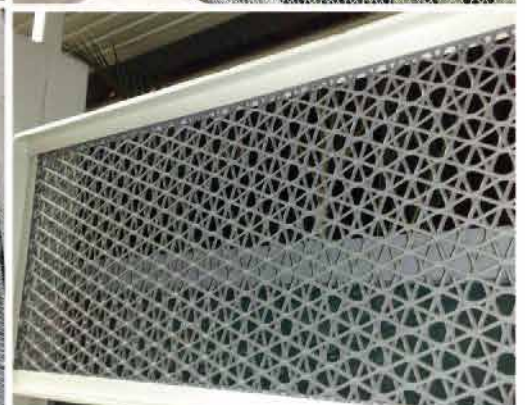
Aluminium Expanded Metal Facade Mesh can be custom make to provide a unique appealing architectural look for commercial & residential buildings.

## ALUMINIUM FACADE MESH: SPECIFICATION

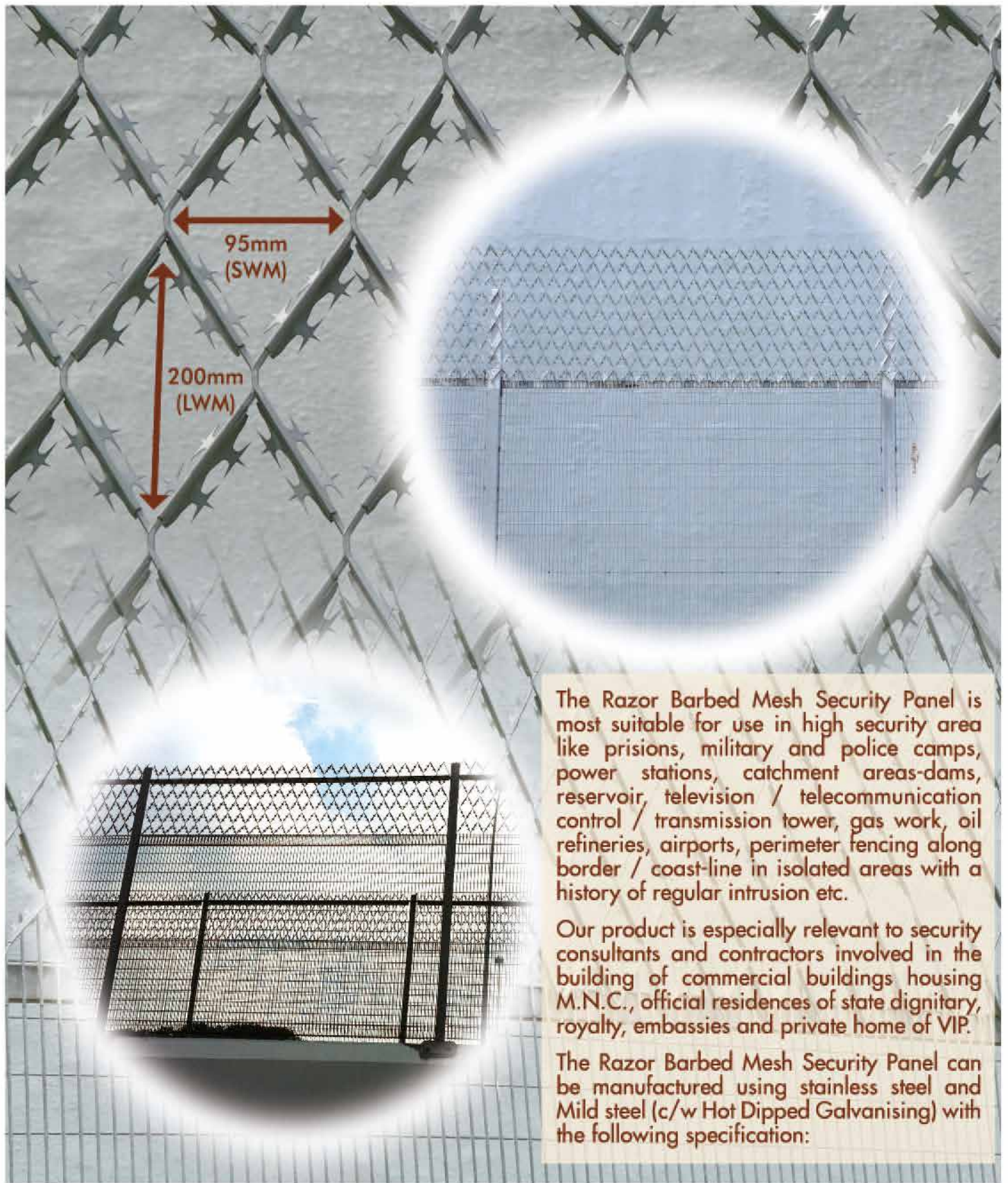
Ref. No	Material	Nominal Size Of Mesh		Thickness (±10%) (mm)	Strand Width (±10%) (mm)	Weight (±10%) kg/m <sup>2</sup>	Standard Sheet Size SWM x LWM (mm)
		SWM (mm)	LWM (mm)				
SM15016A	Aluminium	42	115	1.5	16	3.1	2440 x 1220
SM20016A	Aluminium	42	115	2.0	16	4.2	2440 x 1220
SM20015A	Aluminium	45	135	2.0	15	3.9	2440 x 1220
SM30016A	Aluminium	48	135	3.0	16	5.5	2440 x 1220
SM20030A	Aluminium	70	150	2.0	30	4.7	2440 x 1220
SM30030A	Aluminium	70	150	3.0	30	7	2440 x 1220



# APPLICATION



# RAZOR BARBED MESH



The Razor Barbed Mesh Security Panel is most suitable for use in high security area like prisons, military and police camps, power stations, catchment areas-dams, reservoir, television / telecommunication control / transmission tower, gas work, oil refineries, airports, perimeter fencing along border / coast-line in isolated areas with a history of regular intrusion etc.

Our product is especially relevant to security consultants and contractors involved in the building of commercial buildings housing M.N.C., official residences of state dignitary, royalty, embassies and private home of VIP.

The Razor Barbed Mesh Security Panel can be manufactured using stainless steel and Mild steel (c/w Hot Dipped Galvanising) with the following specification:

TYPE	REF. NO	MESH OPENING SWM X LWM (mm) (mm)	THICKNESS (±10%) (mm)	STRAND WIDTH (±10%) (mm)	*STAND S
RBM	953530	95 X 200	3.0	3.5	3000 X 2440

Barb Thickness :- 0.6mm(GI)

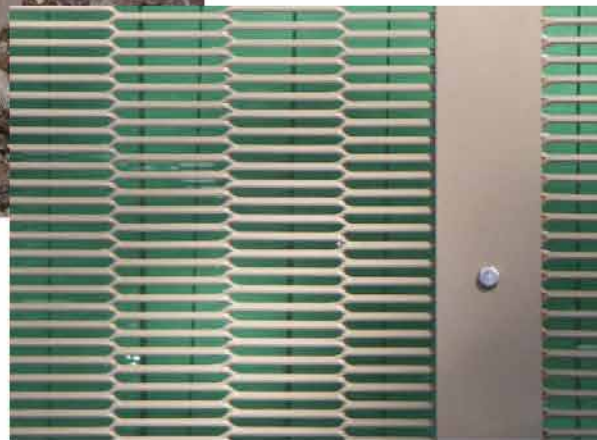
\* Note: All sheet size can be customize according to requirements subject to production constrain.



# ANTI-CLIMB EXPANDED METAL



Expanded metal anti-climb is developed for perimeter fencing along coastal line and military camps. The 12.5mm short way spacings do not allow gripping of hands or legs. The sharp razor edges will further deter intrusion.



REF. NO	MATERIAL	NOMINAL SIZE OF MESH SWM X LWM (mm)	THICKNESS (±10%) (mm)	STRAND WIDTH (±10%) (mm)	*STANDARD SHEET SIZE SWM X LWM (mm)
A3030	Steel	12.5 x 75	3.0	3.0	2440 x 1220

\*Note: Other sheet size available upon request.