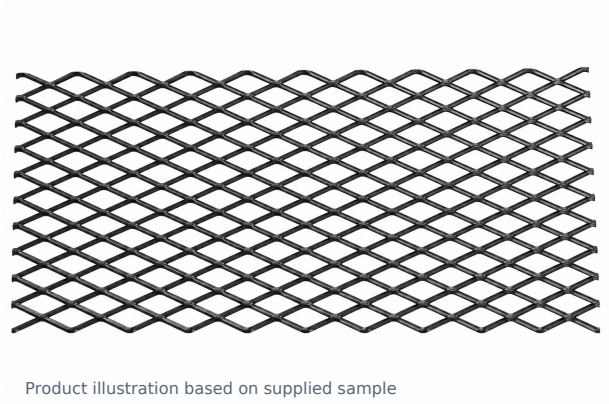
EXPANDED METAL

DIAMOND MESH SHEETS

Steel sheet slit and expanded into a continuous diamond mesh. Available in black steel and galvanized finishes, with four mesh sizes and four thickness options.

S275JR	4 MESH	4 THICKNESS	BLACK / GI
BASE STEEL	SIZES	OPTIONS	FINISHES



Product illustration based on supplied sample

PRODUCT SPECIFICATIONS

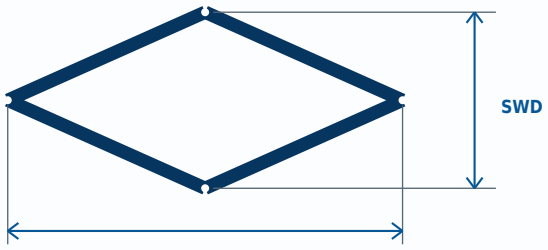
Base material	S275JR steel
Mesh pattern	Diamond
LWD × SWD (mm)	60×30 / 50×25 / 40×20 / 30×15
Measurement basis	Bond centre to bond centre
Sheet dimensions	1220 × 2440 mm
Trade sheet size	4 × 8 ft (nominal)
Available finishes	Black steel / Galvanized

THICKNESS & STRAND WIDTH

Thickness t (mm)	Strand width w (mm)
1.8	1.8
2.5	2.7
3.8	3.8
4.8	4.8

All four thickness / strand-width combinations are available in each of the four mesh sizes.

MESH DIMENSIONS - CENTRE TO CENTRE



Not clear opening dimensions. Schematic only.

RAW MATERIAL - MTC REFERENCE

Supplied MS sheet certificate: S275JR
Certificate HNUM25156-2, dated 10 Oct 2025.

Tensile strength	490 MPa
Yield stress	375 MPa
Elongation	30%
Cold bending	Passed

Reported values apply to the certified raw-sheet batch; they are not finished-mesh test results.

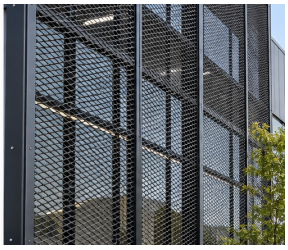
TYPICAL APPLICATIONS



Fencing & Gates



Partitions & Enclosures



Facade Screens

Application illustrations are AI-generated.

KEY FEATURES

- ✓ Continuous expanded sheet
- ✓ Open diamond pattern
- ✓ Black or galvanized finish
- ✓ Standard 1220 × 2440 mm sheets
- ✓ Size selection to suit the project

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THEORETICAL WEIGHTS

UNCOATED STEEL | 1220 × 2440 mm SHEET

Estimated masses for the nominal geometry supplied. These are calculated values, not measured or MTC-certified finished-mesh weights.

ESTIMATED MASS PER SQUARE METRE (kg/m²)

t (mm)	w (mm)	60 × 30	50 × 25	40 × 20	30 × 15
1.8	1.8	1.70	2.03	2.54	3.39
2.5	2.7	3.53	4.24	5.30	7.07
3.8	3.8	7.56	9.07	11.34	15.11
4.8	4.8	12.06	14.47	18.09	24.12

ESTIMATED MASS PER SHEET (kg) - 2.9768 m²

t (mm)	w (mm)	60 × 30	50 × 25	40 × 20	30 × 15
1.8	1.8	5.05	6.06	7.57	10.09
2.5	2.7	10.52	12.62	15.77	21.03
3.8	3.8	22.50	26.99	33.74	44.99
4.8	4.8	35.89	43.07	53.84	71.79

Mesh sizes in column headings are LWD × SWD in mm, measured centre to centre. t = base-sheet thickness; w = strand width. All combinations are available in black or galvanized finish.

CALCULATION BASIS & USE

Approximate expansion model: mass (kg/m²) ≈ 15.7 × t × w ÷ SWD, with dimensions in mm and steel density assumed as 7,850 kg/m³. Sheet mass = mass per m² × 2.9768.

The model assumes nominal strand width represents the cutting/feed width, with an approximate expansion ratio of SWD ÷ (2w). Forming geometry, bonds, edge trimming and dimensional tolerances can affect actual mass. Verify against a weighed production sample before using these estimates for supply quantities.

Before galvanizing: coating mass is excluded. The raw-sheet MTC does not certify these calculated mesh masses. Supplied manufacturing thicknesses are retained; unlisted sizes are not presented as separately tested in the MTC.

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APPLICATIONS & INSTALLATION

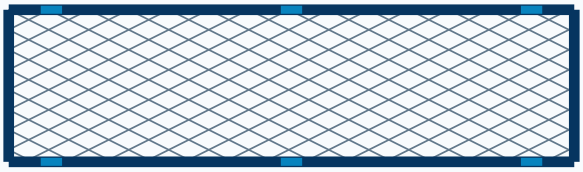
Typical locations and indicative fixing methods for framed expanded metal panels.

WHERE IT IS USED

APPLICATION	TYPICAL LOCATIONS / PURPOSE
Fences and gates	Factory boundaries, warehouses and outdoor storage yards.
Partitions and cages	Stores, workshops and equipment enclosures with visibility and airflow.
Architectural screens	Building facades, service-area screens and decorative partitions.
Ventilated infill panels	Plant enclosures and framed screens around building services.
Walkways / stair infill*	Industrial access areas, only with project-specific structural design.

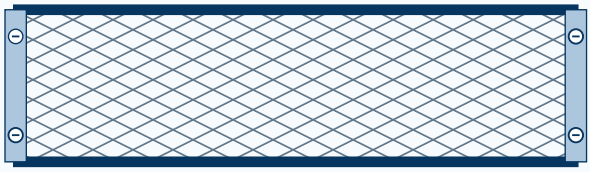
*Flooring, stairs and protective barriers require load/span and opening-size checks. No load rating is declared by this datasheet.

A. WELDED TO A STEEL FRAME



Weld mesh strands/bonds to the frame using the approved weld pattern and procedure.

B. MECHANICAL CLAMP FIXING



Flat bar / proprietary clamp bridges the mesh and is bolted to the supporting frame.

Schematic fixing concepts only; frame, welds and fasteners are not sized.

TYPICAL INSTALLATION SEQUENCE

1 SET OUT & PREPARE — Confirm mesh size, orientation and finish. Cut to the approved panel dimensions and remove burrs and exposed sharp edges.

2 FIX THE SUPPORT FRAME — Install the steel angle, channel or hollow-section frame to the approved drawing. Check alignment and provide the designed intermediate supports.

3 POSITION & SECURE — Seat the mesh on its supports and clamp it square. Weld to the frame, or use designed bolted clamps / flat retaining bars that cannot pull through the openings.

4 RESTORE THE FINISH — Apply the specified protective finish to black steel. Repair cuts, welds and damaged galvanized areas with the specified compatible zinc-repair system.

5 FINAL CHECK — Check welds or bolt tightness, secure edges, panel alignment and coating coverage. Remove sharp projections and confirm the installation is firm.

Frame sections, support spacing, weld size/pitch, bolt size/spacing and anchors must follow the approved project design. For galvanized welding, use suitable fume controls and restore the coating.

Application / fabrication references: The Expanded Metal Company

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