Perforated Sheet & Expanded Metal

OMEGA STEEL CO.
Istanbul · Dilovası plant

Perforated steel sheet manufactured to order on our punching lines: round (R), square (Q), slotted (LR) and hexagonal (H) patterns with hole sizes 1–50 mm and open areas 10–65%, in cold-rolled, hot-rolled, galvanized, stainless 304/316 and aluminium, 0.5–6 mm thick, sheets up to 1 500 × 3 000 mm; plus raised and flattened expanded metal mesh — for façades, screens, filters, guards, ceilings, sieves and walkways.

Holes 1 – 50 mm · R Q LR H | 0.5 – 6 mm thick | Steel · GI · 304 / 316 · alu | Sheets to 1 500 × 3 000 | Punched to order — own lines

We punch perforated sheet to order in Dilovası — round, square, slotted and hexagonal holes from 1 to 50 mm on straight or staggered pitch, open area 10–65%, in mild steel (DC01, S235JR), galvanized DX51D, stainless 304/316 and aluminium, 0.5 to 6 mm, sheets to 1 500 × 3 000 mm with plain margins to your drawing. Expanded metal (raised and flattened) from 0.5 to 5 mm strand completes the range. Laser-cut outlines, fo

PATTERNS, HOLE SIZES AND OPEN AREA

Designation	Hole	Pitch	Open area	Min. thickness	Typical use
R1 T2	Ø1	2 mm	23%	0.5	Fine filters, speaker grilles
R2 T3.5	Ø2	3.5 mm	30%	0.5–1.0	Sieves, acoustic panels
R3 T5	Ø3	5 mm	33%	0.7–1.5	Ceilings, ventilation
R5 T8	Ø5	8 mm	35%	1.0–2.0	Guards, screens, most ordered
R8 T12	Ø8	12 mm	40%	1.5–3.0	Façades, dryer floors
R10 T15	Ø10	15 mm	40%	2.0–4.0	Silo floors, screens
R20 T28	Ø20	28 mm	46%	3.0–6.0	Vibrating screens, quarry
Q10 U15 (straight)	□10	15 mm	44%	1.5–3.0	Architectural, shelving
LR 3×20 T6×25	3 × 20 slot	6 × 25	40%	1.0–2.0	Sieves, grading
H6 T7	hex 6	7 mm	64%	1.0–2.0	Max open area, ventilation

Open area = 90.7 × (d/t)² for round staggered; hole diameter ≥ sheet thickness (≥ 1.5× for stainless) for clean punching.

MATERIALS AND THICKNESSES

Material	Grade	Thickness	Finish	Where
Cold-rolled steel	DC01	0.5–3.0 mm	Bare (to paint) or powder coated	Indoor, painted panels, guards
Hot-rolled / HRPO	S235JR	2.0–6.0 mm	Bare, primed, galvanized after	Screens, floors, heavy sieves
Galvanized	DX51D+Z140–Z275	0.5–3.0 mm	Pre-galvanized	Outdoor, ventilation, agriculture
Stainless	304 / 316L 2B	0.5–4.0 mm	2B, brushed	Food, marine, chemical, architecture
Aluminium	1050 / 5754	0.8–5.0 mm	Mill, anodised, powder	Façades, light screens

EXPANDED METAL MESH

Mesh	Opening SWD × LWD (mm)	Strand (mm)	Thickness	kg/m² (steel)	Open area	Use
10 × 20	10 × 20	1.5	1.0	4.7	50%	Guards, fencing, plaster lath
16 × 30	16 × 30	2.0	1.5	5.9	58%	Screens, walkways (flattened)
22 × 50	22 × 50	3.0	2.0	7.3	62%	Fencing, security
30 × 60	30 × 60	3.0	3.0	10.5	65%	Walkways, platforms
43 × 100	43 × 100	4.5	4.0	13.8	68%	Heavy walkways, catwalks
62 × 150	62 × 150	6.0	5.0	17.0	70%	Industrial flooring

Raised (standard) or flattened; steel, galvanized, stainless, aluminium; sheets 1 000–1 500 × 2 000–3 000 mm.

PERFORATED SHEET VS EXPANDED METAL VS WOVEN MESH

	Perforated sheet	Expanded metal	Woven wire mesh
Hole shape	Any (round, square, slot, hex, custom)	Diamond	Square
Open area	10–65%	40–80%	30–80%
Flat face	Yes	Only if flattened	No
Stiffness	Medium	High (raised)	Low
Price per m²	1.0	0.6–0.8	0.7–1.5
Best for	Architecture, filters, guards, sieves	Walkways, fences, lath	Sieving, insect screens

STANDARDS

ISO 7806 / DIN 24041 (perforated plate designations R, Q, LR, H) · EN 10130 DC01 / EN 10025 S235JR / EN 10346 DX51D substrates · EN 10088-2 stainless 304 / 316L · DIN 791 / EN 13030 (expanded metal)