Steel Grating

OMEGA STEEL CO.
Istanbul · Dilovası plant

Press-welded and press-locked steel bar grating from S235JR flat bar (bearing bars 25 × 3 to 50 × 5 mm, pitch 30/100 or 34/38 mm, plain or serrated), hot-dip galvanized to EN ISO 1461 or in 304/316 stainless; standard 1 000 × 6 000 mm panels or platform pieces cut, notched and banded to your drawing, with matching stair treads, drain covers and fixing clips, shipped from Istanbul.

Bearing bar 25×3 – 50×5 mm | Pitch 30/100 · 34/38 · 40/100 | HDG EN ISO 1461 · 304 / 316 | Plain or serrated | Cut to drawing · stair treads

Platform grating, walkway grating, bar grating, floor grating, gitterrost — every open-mesh steel floor in a plant, a substation, a jetty or a water works is the same product: parallel bearing bars locked by cross bars, hot-dip galvanized after welding so the cut edges are protected too. We supply it as full panels, as platform pieces cut to your layout on our own laser and saw lines, and as stair treads with nosing,

TYPES OF STEEL GRATING WE SUPPLY

Type	How it is made	Typical bar / pitch	Use
Press-welded (forge-welded)	Twisted cross bar welded under pressure every 100 mm	30×3 – 50×5 · 30/100, 34/100	Platforms, walkways, pipe racks, mezzanines
Press-locked	Notched cross bars pressed into bearing bars, no weld	25×3 – 40×3 · 33/33, 34/38	Architectural floors, façades, sun screens, drain covers
Heavy-duty	Bearing bars 50–100 × 5–10 mm, pitch 30–60 mm	50×5 – 100×10	Vehicle areas, loading bays, trench covers under trucks
Serrated	Bearing bar top edge notched for grip	any	Oily, wet or icy floors — refineries, food plants, offshore
Stair treads	Panel with checker-plate or serrated nosing and end plates	30×3, 30×5 · 30/100	Stair towers, tank access, platforms
Stainless 304 / 316	Press-welded or press-locked from stainless flat	25×3 – 40×5	Food, pharma, chemical, coastal and pool areas
Compound (grating + checker plate)	Grating with a 3–4 mm checker plate welded on top	30×3 + 3 mm plate	Solid floor with grating stiffness, spill areas

BEARING BAR SIZES AND WEIGHT PER M²

Bearing bar (mm)	Pitch (mm)	Open area	Weight (kg/m²)	Panel 1 000 × 6 000 (kg)
25 × 3	30/100	≈ 78 %	≈ 22	≈ 132
25 × 3	34/38	≈ 75 %	≈ 24	≈ 144
30 × 3	30/100	≈ 78 %	≈ 26	≈ 156
30 × 3	34/38	≈ 75 %	≈ 28	≈ 168
30 × 5	30/100	≈ 72 %	≈ 39	≈ 234
40 × 3	30/100	≈ 78 %	≈ 33	≈ 198
40 × 5	30/100	≈ 72 %	≈ 51	≈ 306
50 × 5	30/100	≈ 72 %	≈ 62	≈ 372
60 × 5	30/100	≈ 72 %	≈ 73	≈ 438
70 × 6	40/100	≈ 75 %	≈ 76	≈ 456

Pitch = bearing-bar centres / cross-bar centres. Other bars (35×3, 40×4, 50×4, 80×6, 100×8) and pitches (25, 40, 60 mm) to order.

LOAD AND SPAN TABLE

Bearing bar	600 mm	800 mm	1 000 mm	1 200 mm	1 500 mm
25 × 3	8.0	4.5	2.9	—	—
30 × 3	11.6	6.5	4.2	2.9	—
30 × 5	19.0	10.9	7.0	4.8	—
40 × 3	20.7	11.6	7.4	5.2	3.3
40 × 5	34.0	19.4	12.4	8.6	5.5
50 × 5	—	30.0	19.4	13.5	8.6
60 × 5	—	—	28.0	19.4	12.4

For orientation only — the bearing bars must span between supports. Walkways to EN ISO 14122-2 need ≥ 2 kN/m² (and a 1.5 kN point load); plant floors 5 kN/m²; trench covers under forklifts need heavy-duty bars sized per axle load. We confirm the section with a DIN 24537 calculation for your span before quoting.

FINISH — HOT-DIP GALVANIZED, STAINLESS OR PAINTED

Finish	Standard	Coating	Typical life (C3 industrial)
Hot-dip galvanized after fabrication	EN ISO 1461	≥ 55 µm (3–6 mm bar), ≥ 70 µm (≥ 6 mm bar)	25–40 years
Black (self-colour)	—	none, mill finish	for painting on site or indoor dry areas
Painted / powder-coated on HDG (duplex)	EN ISO 12944	HDG + 60–80 µm	40+ years, colour to RAL
Stainless 304 (1.4301)	EN 10088-2	pickled and passivated	indefinite in C3, food and pharma
Stainless 316L (1.4404)	EN 10088-2	pickled and passivated	coastal, chemical, chlorinated water

STANDARDS

EN 10025-2 S235JR bearing bar · EN ISO 1461 hot-dip galvanizing (≥ 70 µm on ≥ 6 mm, ≥ 55 µm on 3–6 mm) · DIN 24537-1 / RAL-GZ 638 (load tables, tolerances) · ANSI/NAAMM MBG 531 (US bar grating) · EN ISO 14122-2 (working platforms and walkways)