

STEEL BAR GRATING TECHNICAL CATALOG

Common metric specifications / Southeast Asia & Middle East / RFQ-ready

Select by operating condition

Environment, span and load determine bar section, pitch, surface and finish before panel detailing.

0
1**Environment**0
2**Traffic / load**0
3**Clear span**0
4**Opening / mesh**0
5**Surface**0
6**Material / finish**

Application	Starting product	Key confirmation
Platforms / walkways	Welded or serrated	Span + pedestrian load
Public / tool zones	Close mesh / ball proof	Opening limit
Forklift / vehicle	Heavy-duty welded	Wheel load + frame
Wet / chemical	FRP / stainless	Compatibility + fire basis
Stairs	Fabricated treads	Width + fixing + nosing
Trenches	Cover + frame system	Clear opening + load class

One model code states material, bearing bar, pitch, surface and finish

WBG-CS-305-30/100-S-HDG

Code	Meaning	RFQ example
WBG	Welded bar grating	Product family
CS	Carbon steel	Material code
305	30 x 5 bearing bar	Section code
30/100	Pitch code	30 mm bearing / 100 mm cross
W	Welded construction	Construction
S	Serrated top	Surface suffix
HDG	Hot-dip galvanized after fabrication	Finish suffix

ORDERING LINE

WBG-CS-305-30/100-S-HDG, 1000 x 1200 mm, 80 panels, banded, clips included.

Welded Steel Bar Grating

PRODUCT



Forge-welded carbon-steel open-mesh panels. Bearing bars must span between supports; cross bars do not carry the main span.

STANDARD MANUFACTURING RANGE

Parameter	Typical range
Bearing bars	25 x 3 to 50 x 5 mm common; heavier by design
Typical sections	25 x 3 / 30 x 3 / 30 x 5 / 40 x 5 / 50 x 5 mm
Pitch	30 or 40 mm bearing pitch; 100 mm cross-bar pitch
Panels	1000 mm wide; length to 6000 mm
Material / finish	Q235B / S275JR / ASTM A36; HDG after fabrication

COMMON

SUPPORT AND PANEL RULES

- Bearing bars span from support to support
- Support seat: bearing-bar height, 30 mm minimum start
- 1000 mm panel width is a common logistics module
- Length, span and cut-outs follow approved drawings
- Confirm uniform load, point load and deflection

MIDDLE EAST DEFAULT

WBG-CS-305-30/100-S-HDG

30 x 5 bearing bars at 30 mm centers, 6 x 6 twisted cross bars at 100 mm centers, serrated and galvanized after fabrication. This matches a common public ADNOC geometry; the project specification remains controlling.

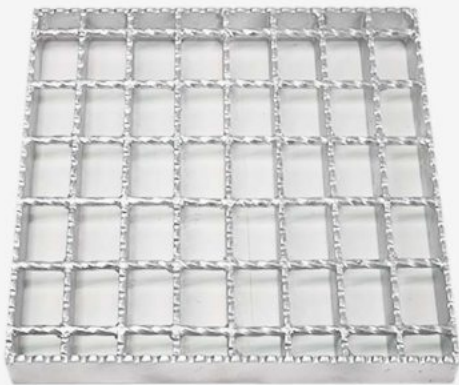
ORDERING INPUT

model code / clear span / loads / panel size / cut-outs / finish / quantity

Standard ranges shown for catalog selection. Final section, span, load, finish and compliance basis must be confirmed against project drawings.

Serrated Steel Bar Grating

PRODUCT



Serrated bearing-bar tops are the default for wet, oily, coastal and outdoor access routes; the required slip-test basis must be stated by the project.

STANDARD MANUFACTURING RANGE

Parameter	Typical range
Bearing bars	30 x 5 / 40 x 5 / 50 x 5 mm
Pitch	30 mm standard; 40 mm optional where allowed
Construction	Welded carbon steel
Material	Q235B / S275JR / ASTM A36
Reference	Project slip-test requirement; no generic R-rating claim

COMMON MODEL

SLIP-RESISTANCE SELECTION

- Serrated bearing bars are the wet/oily starting point
- State smooth or serrated in the model code
- Specify required test method and acceptance class
- Do not infer an R rating from appearance alone
- Final class requires supplier test evidence

WBG-CS-305-30/100-S-HDG

30 x 5 bearing bars / 30-100 pitch / serrated / HDG

Use plain grating for dry controlled areas and serrated grating where water, oil, sand or process residue may be present. Final selection follows the project's slip-risk assessment.

ORDERING INPUT

bar section / pitch / serration / span / finish / quantity

Standard ranges shown for catalog selection. Final section, span, load, finish and compliance basis must be confirmed against project drawings.

Carbon-steel finish routes

State the finish standard, repair method and installation environment in the purchase description.



Self-Colour / Painted Grating

Use self-colour only for controlled indoor service, embedment or a defined field-coating system.

Parameter	Typical range
Base steel	Q235B / S275JR / ASTM A36
Build	Welded / press-locked
Finish	Self-colour or project paint system
Specify	Surface preparation + coating plan



Hot-Dip Galvanized

Complete welding, banding and cut-outs before galvanizing the fabricated carbon-steel article.

Parameter	Typical range
Process	Dip after fabrication
Coating	ISO 1461:2022 or ASTM A123/A123M
Typical use	Outdoor / coastal / industrial access
Confirm	Project standard + repair method

ORDER DESCRIPTION

WRITE THE FINISH IN FULL

- HDG after fabrication
- ISO 1461 or ASTM A123/A123M by project
- State repair and touch-up requirement
- Stainless: grade plus pickling/passivation scope
- Duplex coating: zinc system plus topcoat specification

WRITE THE FINISH IN FULL

Hot-dip galvanized after fabrication to ISO 1461:2022 or ASTM A123/A123M, as specified.

Do not use HDG as a substitute for material selection in strong chemical service. Confirm exposure, coating compatibility, venting, drainage and touch-up requirements.

Panel Fixings, Banding & Toe Plates

Match the fixing to the grating geometry, support flange and removal requirement.

FIXING STARTING POINT

- Saddle / hold-down / joining clips
- M8 or M10 hardware commonly sourced
- Minimum 4 clips per panel is a catalog start
- Increase near cut-outs, joints and uplift zones
- Final type must match mesh and support flange

BANDING AND TOE PLATE

- Banding depth normally matches bearing-bar depth
- 100 x 5 mm toe plate is a common project baseline
- Confirm edge gaps, openings and removable sides
- Welded or bolted detail must be stated
- Match finish to the fabricated panel

Panel Fixings

Hold-down, saddle and joining clips secure panels without site welding.

Banding & Toe Plates

Edge bars reinforce panels, close perimeter openings and provide fixing interfaces.

Parameter	Typical range
Types	Hold-down / saddle / joining
Materials	Carbon steel / SS 304 / 316
Finish	HDG / painted / stainless
Spacing	4 per panel typical; increase by design

Parameter	Typical range
Banding	Flat bar to panel depth
Toe plate	Project dimension; 100 x 5 common
Install	Welded / bolted
Finish	Match assembly

RELEASE BEFORE FABRICATION

- Bearing-bar span direction
- Support flange width and panel seat
- Cut-outs, removable panels and lifting access
- Clip material, finish and installation method
- Panel marks and packing sequence

MANUFACTURED + SOURCED PACKAGE

Banding / toe plates: manufactured with panels. Clips / bolts: selected and supplied to project requirements.

Fixing type must match the support flange, grating pitch, removability and finish. Final quantity and spacing follow the approved installation drawing.

Select material and finish from the operating environment

Carbon steel

Q235B / S275JR / ASTM A36

HDG / painted / untreated

Stainless steel

304 / 316; supplier certificate

As-fabricated / passivated scope

Aluminum - sourced

6063-T6 / 6061-T6

Mill / anodized

FRP - sourced

Isophthalic / vinyl ester

Concave / grit top

Environment	Starting point	Confirm
Dry indoor	Carbon steel / paint system	Maintenance coating
Outdoor	HDG after fabrication	Coating standard
Coastal / hygienic	304 / 316 by exposure	Grade + cleaning
Chemical / wet	FRP or stainless by compatibility	Compatibility + fire
Low mass rooftop	Aluminum / FRP sourced option	Wind + roof reaction

Inspection and turnover records follow the purchase specification

PRODUCT INSPECTION

- Material certificate / heat traceability
- Bearing-bar size, pitch and span direction
- Length, width, diagonals and flatness
- Cut-outs, banding, toe plates and weld details
- Surface finish and coating certificate

TURNOVER PACKAGE

- Approved drawing and panel mark schedule
- Material and coating records
- Inspection report and deviation closure
- Packing list linked to panel marks
- Supplier documents for sourced components

Inspection point	Typical evidence
Base material	Material certificate / traceability
Panel geometry	Length, width, diagonals, flatness
Bar pattern	Bar section, pitch, direction, alignment
Fabrication	Banding, cut-outs, tread details
Finish	Galvanizing or coating certificate
Release	Panel mark schedule + packing list

Common references: ISO 14122-2/-3 / ANSI-NAAMM MBG 531-24 / YB/T 4001.1 / ISO 1461:2022 / ASTM A123/A123M / project specification. Legacy EPC specifications may cite BS 4592-1.

Inputs for a comparable quotation

Send drawings when available. If they are not available, the following ten inputs are enough to start a controlled selection.

01 Application and operating environment

02 Clear span and support layout

03 Uniform / point / wheel load

04 Product type or known designation

05 Material, surface and finish

06 Panel or component dimensions

07 Cut-outs, frames, fixings and marking

08 Required standard and documentation

09 Quantity, destination and Incoterms

10 Required schedule

info@wibergmetal.com

WhatsApp +86 132 9058 8615

WhatsApp +86 132 7317 7087

Shanghai, China / UTC+8

Mon-Sat / 09:00-18:00



[REQUEST A QUOTE](#)

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wibergmetal.com
info@wibergmetal.com
WhatsApp +86 132 9058 8615
Shanghai, China



WEBSITE