



WORLD STEEL

BUILDING TRUST · ASSURING SUCCESS

EDITION 2026

PRODUCT CATALOGUE

STEEL GRATING & FLOOR PLATE

Bar grating, heavy-duty and serrated grating, stainless grating, stair treads, trench and drainage covers – load-span tables, finishes and ordering guide.

■ BAR GRATING ■ STAIR TREADS ■ TRENCH COVERS ■ GALVANISED

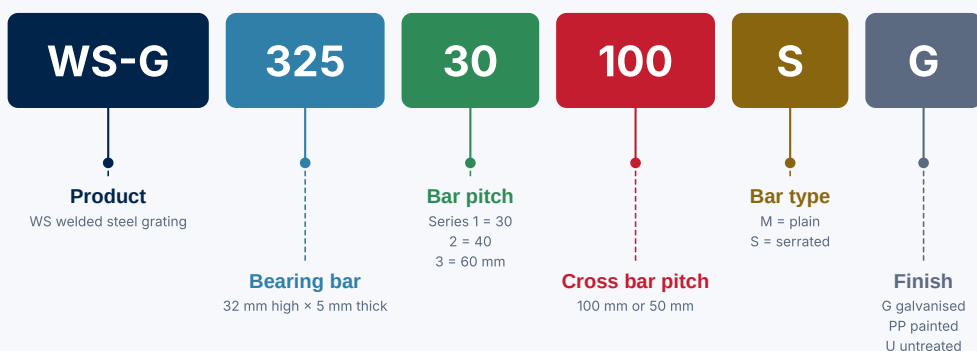
PRODUCT CATALOGUE

WS STEEL GRATING & FLOOR PLATE

World Steel's flagship grating range: WS bar grating 20×3 to 150×8 mm in 30, 40 and 60 mm meshes, load and span tables, heavy-duty, serrated and stainless grating, stair treads T1-T6, GT/GU trench covers, GM pit covers, clips and checkered plate – galvanised and cut to layout.

WS GRATING SPECIFICATION CODE

How to read and order a WS grating



Example: WS-G325/30/100-S-G = 32 × 5 mm serrated bearing bars at 30 mm, cross bars at 100 mm, hot-dip galvanised.

Field	Options
Bearing bar	20×3 · 25×3/5 · 32×3/5 · 35×3/5 · 40×3/5 · 45×5 · 50×3/5 · 55×5 · 60×5 · 65×5 · 75×5/6 · 70–150×6/8
Material	SS400 · ASTM A36 · Q345 (S355-class) · stainless SUS304 / SUS316
Panel	Standard 5800 × 970–1003 mm, or cut to layout with banding

Steel products **WORLD STEEL**

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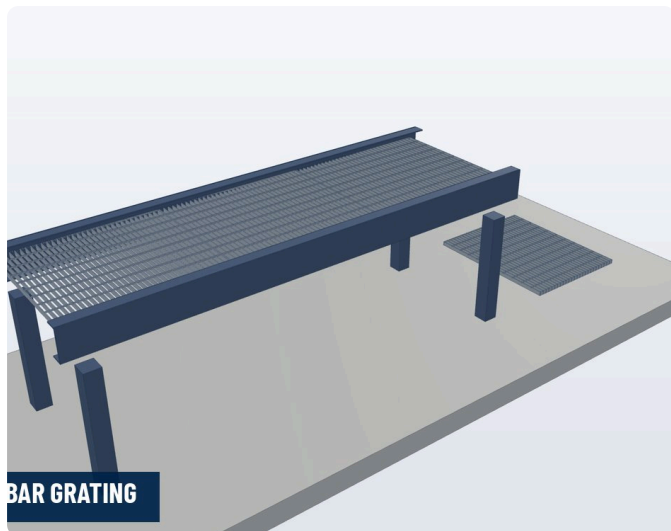
Product	Summary
WS steel bar grating	WS welded bar grating, bars 20×3 to 150×8 mm at 30, 40 or 60 mm pitch – plain or serrated, galvanised and cut to layout for platforms and floors.
WS grating load and span tables	Safe loads, deflections, weights and recommended spans for WS grating with bars at 30, 40 and 60 mm – the tables used to select every panel.
WS heavy-duty steel grating	WS heavy-duty grating, bars 45×5 to 150×8 mm with 8×8 mm cross bars, for 5–7.5 kPa floors, forklifts, vehicle trenches and heavy equipment.
WS serrated steel grating (S)	WS serrated grating with notched bearing bars for slip resistance in wet, oily, icy and outdoor areas – any WS size and mesh, with published load and deflection factors.
WS stainless steel grating (SUS304 / SUS316)	WS stainless grating in SUS304 and SUS316 for food, pharmaceutical, chemical, water and marine areas – pickled and passivated after welding.
WS grating stair treads (T1-T6)	WS grating stair treads T1-T6 – welded or bolted, with no nosing, checker-plate or abrasive anti-slip nosing, in standard widths or to order.
WS trench covers – GT and GU	WS-GT covers in angle seat frames and WS-GU banded covers for U-channels – trenches 100–600 mm wide, classes T-2 to T-25, galvanised.

Product	Summary
WS drainage pit covers – GM	WS-GM grating covers and bedframes for drainage pits 300 × 400 to 700 × 700 mm in load classes T-2, T-14, T-20 and T-25 – supplied as matched, galvanised sets.
WS grating clips and fasteners	WS saddle clips (M and L types), hold-downs, M8 bolts and weld fixing details for installing steel grating – galvanised or stainless, supplied with every grating package.
Checkered floor plate	Checkered steel floor plate to ASTM A786, AS/NZS 3678 and EN 10025-2 – cut, stiffened, drilled and galvanized or painted for export projects.

STEEL GRATING

WS STEEL BAR GRATING

WS welded bar grating, bars 20×3 to 150×8 mm at 30, 40 or 60 mm pitch – plain or serrated, galvanised and cut to layout for platforms and floors.



- ▶ WS code system: WS-G<bar>/<pitch>/<cross bar>-<M|S>-<G|PP|U>
- ▶ Bearing bars 20 × 3 mm up to 150 × 8 mm
- ▶ Bar pitch 30, 40 or 60 mm · cross bars 50 or 100 mm
- ▶ SS400, ASTM A36, Q345 and stainless SUS304 / SUS316
- ▶ Standard 5800 mm panels or cut, banded and marked to layout
- ▶ Load / span tables for every standard size

KEY DATA

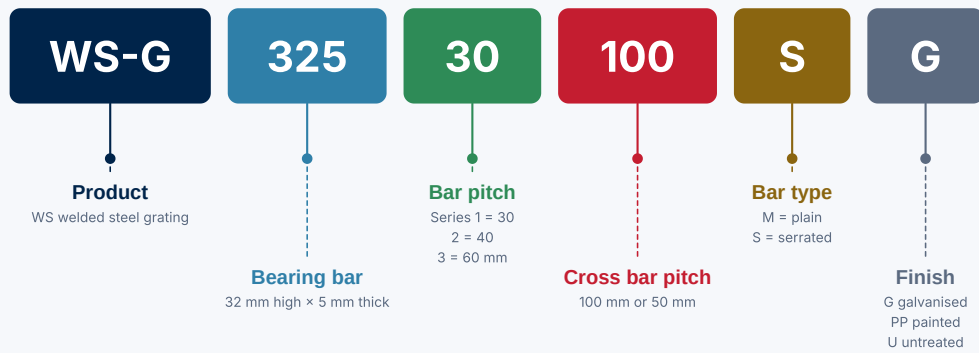
Bearing bars	20×3 · 25×3/5 · 32×3/5 · 35×3/5 · 40×3/5 · 45×5 · 50×3/5 · 55×5 · 60×5 · 65×5 · 75×5/6 · heavy duty 70–150 × 6/8 mm
Bar pitch	Series 1 = 30 mm · Series 2 = 40 mm · Series 3 = 60 mm
Cross bars	Twisted square rod at 50 mm or 100 mm; 8 × 8 mm on heavy duty
Materials	SS400 · ASTM A36 · Q345 · SUS304 · SUS316
Bar type	M plain · S serrated
Finish	G galvanised · PP paint coated · U untreated
Standard panel	5800 × 995 / 1000 / 1003 / 970 mm by mesh
Cut panels	Any size to layout, banded ends and openings, panel marks
Weight	From about 17 kg/m ² (WS-G203/40/100) to 285 kg/m ² (WS-G1508/40/100)
Packing	Timber pallets, strapped, by area / panel mark

WHAT WS GRATING IS

Steel bar grating is an open floor of parallel **bearing bars** that carry the load between supports and twisted **cross bars** that are forge-welded into the top of every bearing bar under heat and pressure. The result is a rigid, light panel that drains, ventilates, lets light through and does not collect dirt – the standard flooring for platforms, walkways, stairs, trench covers and plant floors.

WS GRATING SPECIFICATION CODE

How to read and order a WS grating



Example: WS-G325/30/100-S-G = 32 × 5 mm serrated bearing bars at 30 mm, cross bars at 100 mm, hot-dip galvanised.

Field	Options
Bearing bar	20×3 · 25×3/5 · 32×3/5 · 35×3/5 · 40×3/5 · 45×5 · 50×3/5 · 55×5 · 60×5 · 65×5 · 75×5/6 · 70–150×6/8
Material	SS400 · ASTM A36 · Q345 (S355-class) · stainless SUS304 / SUS316
Panel	Standard 5800 × 970–1003 mm, or cut to layout with banding

Steel product **WORLD STEEL**

How to read a WS grating code: product, bearing bar, bar pitch, cross bar pitch, bar type and finish.

STANDARD MESHES AND PANELS

Five standard meshes cover most projects. Any bearing bar size can be made in any mesh; panels are supplied at the standard size or cut and banded to the layout.

WS STANDARD GRATING MESHES

WS mesh	Bearing bar pitch (mm)	Cross bar pitch (mm)	Standard panel (mm)	Typical use
WS 30/100	30	100	5800 × 995	Industrial standard
WS 30/50	30	50	5800 × 995	Public areas, heels
WS 40/100	40	100	5800 × 1003	Economical platforms
WS 40/50	40	50	5800 × 1000	Walkways, treads
WS 60/50	60	50	5800 × 970	Light, open screens

STANDARD WS GRATING MESHES

Bearing bar pitch × cross bar pitch, panel sizes in mm

WS 30/100	WS 30/50	WS 40/100	WS 40/50	WS 60/50
bars at 30 mm cross bars at 100 mm	bars at 30 mm cross bars at 50 mm	bars at 40 mm cross bars at 100 mm	bars at 40 mm cross bars at 50 mm	bars at 60 mm cross bars at 50 mm
standard panel 5800 × 995	standard panel 5800 × 995	standard panel 5800 × 1003	standard panel 5800 × 1000	standard panel 5800 × 970
Industrial standard	Public areas, heels	Economical platforms	Walkways, treads	Light, open screens

Panels are supplied at the standard size or cut to the layout, banded and marked – any bar size can be combined with any mesh.

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Standard WS meshes – bearing bar pitch × cross bar pitch.

CHOOSING THE LOAD AND THE BAR SIZE

Start from the design load: 2.5 kPa – maintenance platform; 3.0 kPa – pedestrian; 4.0 kPa – crowded pedestrian; 5.0 kPa – factory & workshop; 7.5 kPa – heavy loading. Then read the bearing bar size for the clear span from the WS load and span tables, or let our engineers select it from the layout. Wheel loads, forklifts and trenches use heavy-duty grating.

TYPICAL APPLICATION LOADING

Choose the load first, then the bar size and span

2.5 kPa	3.0 kPa	4.0 kPa	5.0 kPa	7.5 kPa
Maintenance platform	Pedestrian	Crowded pedestrian	Factory & workshop	Heavy loading
access for inspection and servicing	walkways, catwalks, roof platforms	public walkways, stairs, landings	motor rooms, trolley channels, plant floors	boiler and heavy equipment areas
≈ 255 kg/m ²	≈ 306 kg/m ²	≈ 408 kg/m ²	≈ 510 kg/m ²	≈ 765 kg/m ²

Uniformly distributed design load (UDL). Concentrated loads, wheels and forklifts are checked separately.

The project code (ASCE 7, AS/NZS 1170.1, EN 1991-1-1) and the owner specification govern.

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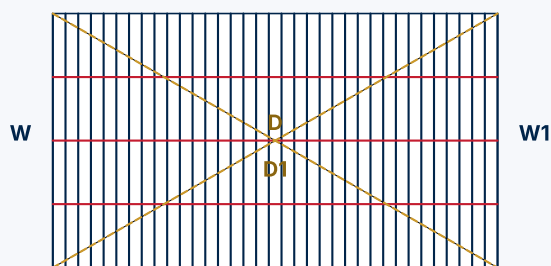
Typical application loading – uniformly distributed design loads.

MAXIMUM RECOMMENDED CLEAR SPAN (MM), BEARING BAR PITCH 30 MM

WS code	Bar (mm)	2.5 kPa	3.0 kPa	4.0 kPa
WS-G203	20 × 3	1190	1060	1060
WS-G253	25 × 3	1410	1350	1250
WS-G323	32 × 3	1700	1620	1510
WS-G403	40 × 3	2010	1920	1780
WS-G205	20 × 5	1350	1290	1200
WS-G255	25 × 5	1600	1530	1420
WS-G325	32 × 5	1930	1840	1710
WS-G405	40 × 5	2280	2180	2030

SIZE, DIMENSION AND TOLERANCE

Every panel is checked for width at both ends (W, W1), squareness by the two diagonals (D, D1), cross bar alignment, bearing bar lean and bow before galvanising.

SIZE, DIMENSION AND TOLERANCE

W, W1 – width at both ends · D, D1 – diagonals

Width W / W1

measured at both ends against the ordered width

Squareness

difference of diagonals D – D1 checked on every panel

Cross bar alignment

≤ 5 mm out of line per 1000 mm of panel width

Bearing bar lean

≤ 1 mm per 10 mm of bar depth

Longitudinal bow

≤ 1/200 of the panel length

Transverse bow

checked across the width with a straight edge

Length

measured over the banded ends; stair treads 0 / –3 mm

Indicative WS shop tolerances – project tolerances per NAAMM MBG 531, RAL-GZ 638 / DIN 24537-1 or the specification govern.

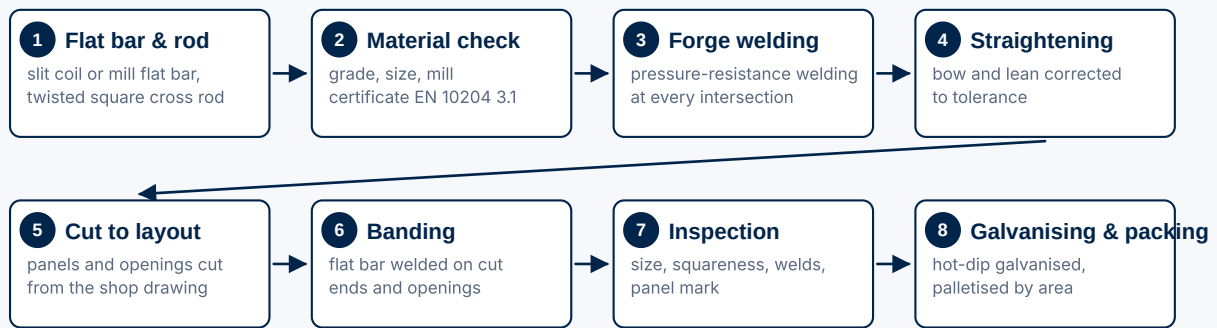
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Size, dimension and tolerance checks on WS grating panels.

FABRICATION AT WORLD STEEL

Flat bars and twisted cross rods are forge-welded on the grating line, straightened, cut to the shop drawing, banded around ends and openings and marked panel by panel. Welds, sizes and squareness are inspected under World Steel's ISO 3834-2 quality system, then panels are hot-dip galvanised and palletised by area so each platform can be installed from one bundle.

HOW WS GRATING IS MADE



Every panel carries a mark that matches the layout drawing – it goes to its place on site without cutting.

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How WS grating is made.

FINISHES

Hot-dip galvanised (G)	ASTM A123 · AS/NZS 4680 · EN ISO 1461
Paint coated (PP)	Blast or pickle + paint system to ISO 12944 / AS/NZS 2312.1 / SSPC
Untreated (U)	Black steel for painting or galvanising by others
Duplex	Galvanised + paint for colour or C5 environments

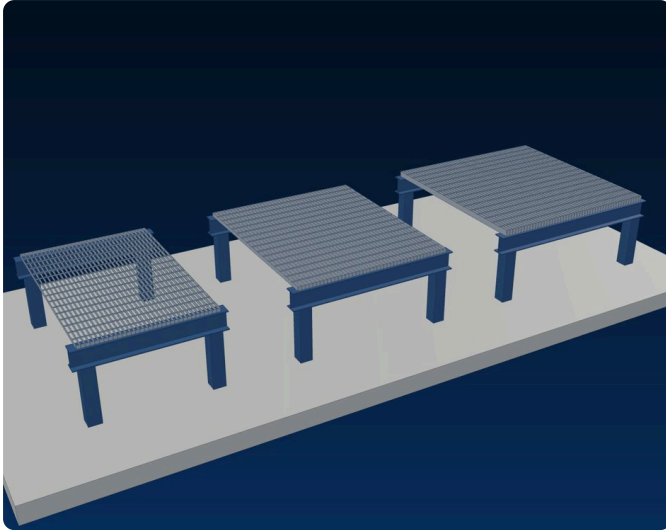
TO QUOTE, PLEASE SEND

- ▶ Layout drawing or IFC model with supports and openings
- ▶ Design load (kPa, kN or wheel load), clear span and deflection limit – or the WS code
- ▶ Mesh, plain (M) or serrated (S), steel grade
- ▶ Finish: G, PP or U, and coating standard
- ▶ Fixing: clips, welding or bolts; toe plates and kick plates
- ▶ Destination, design code and delivery schedule

STEEL GRATING

WS GRATING LOAD AND SPAN TABLES

Safe loads, deflections, weights and recommended spans for WS grating with bars at 30, 40 and 60 mm – the tables used to select every panel.



- ▶ Recommended spans for 2.5, 3, 4, 5 and 7.5 kPa
- ▶ Safe loads U (kPa) and C (kN/m) for spans 600–2000 mm
- ▶ Deflection at the design load
- ▶ Nominal weights for every type
- ▶ Pitch 30, 40 and 60 mm tables

KEY DATA

Load range	2.5–7.5 kPa recommended spans; safe-load tables beyond
Spans	200–3000 mm (pitch 30/40), 150–3600 mm (pitch 60)
Bar sizes	20 × 3 to 65 × 5 mm; heavy duty to 150 × 8 mm
Basis	Simply supported single panel, carbon steel, banded ends
Units	U kPa · C kN/m · D mm · weight kg/m ²

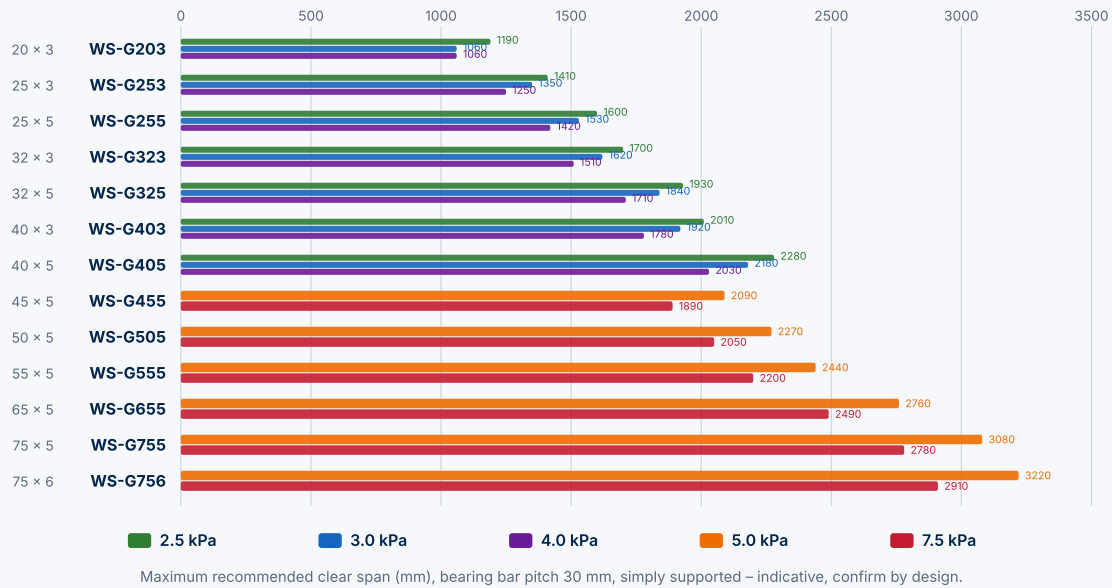
RECOMMENDED SPANS – LIGHT AND MEDIUM DUTY

MAXIMUM RECOMMENDED CLEAR SPAN (MM) – 2.5 / 3.0 / 4.0 KPA

WS code	Bar (mm)	Pitch 30	Pitch 40	Pitch 60
WS-G203	20 × 3	1190 / 1060 / 1060	1110 / 980 / 980	1000 / 890 / 890
WS-G253	25 × 3	1410 / 1350 / 1250	1310 / 1250 / 1170	1180 / 1130 / 1050
WS-G323	32 × 3	1700 / 1620 / 1510	1580 / 1510 / 1400	1430 / 1350 / 1270
WS-G403	40 × 3	2010 / 1920 / 1780	1870 / 1780 / 1660	1690 / 1610 / 1500
WS-G205	20 × 5	1350 / 1290 / 1200	1260 / 1200 / 1120	1140 / 1090 / 1010
WS-G255	25 × 5	1600 / 1530 / 1420	1490 / 1420 / 1320	1350 / 1290 / 1200
WS-G325	32 × 5	1930 / 1840 / 1710	1790 / 1710 / 1590	1620 / 1550 / 1440
WS-G405	40 × 5	2280 / 2180 / 2030	2120 / 2030 / 1890	1920 / 1830 / 1700

MAXIMUM SPAN BY BAR SIZE AND LOAD

WS grating, bearing bars at 30 mm



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Maximum span by bar size and load, bearing bars at 30 mm.

RECOMMENDED SPANS - HEAVY DUTY

5.0 kPa covers factories, workshops, motor rooms and trolley channels; 7.5 kPa heavy loading areas, boiler and heavy equipment areas.

MAXIMUM RECOMMENDED CLEAR SPAN (MM) - 5.0 / 7.5 KPA

WS code	Bar (mm)	Pitch 30	Pitch 40	Pitch 60
WS-G255	25 × 5	1350 / 1220	1250 / 1130	1130 / 1020
WS-G325	32 × 5	1620 / 1460	1510 / 1360	1360 / 1230
WS-G405	40 × 5	1920 / 1730	1780 / 1610	1610 / 1460
WS-G455	45 × 5	2090 / 1890	1950 / 1760	1760 / 1590
WS-G505	50 × 5	2270 / 2050	2110 / 1910	1910 / 1720
WS-G555	55 × 5	2440 / 2200	2270 / 2050	2050 / 1850
WS-G655	65 × 5	2760 / 2490	2570 / 2320	2320 / 2100
WS-G755	75 × 5	3080 / 2780	2860 / 2590	2590 / 2340
WS-G756	75 × 6	3220 / 2910	3000 / 2710	2710 / 2440

SAFE LOADS - BEARING BARS AT 30 MM

WS-G.../30 - SAFE UNIFORM LOAD U (KPA) BY CLEAR SPAN (MM); C AND D AT 1000 MM

Type	Bar (mm)	kg/m ² (/50 / /100)	U 600	U 800	U 1000	U 1200	U 1400	C 1000 (kN/m)	D 1000 (mm)
WS-G655/30	65 × 5	103.4 / 100.4	443	249	159	110	81	79	2.65
WS-G605/30	60 × 5	95.9 / 92.9	377	212	136	94	69	68	2.89
WS-G555/30	55 × 5	88.4 / 85.4	317	178	114	79	58	57	3.14

Type	Bar (mm)	kg/m ² (/50 / /100)	U 600	U 800	U 1000	U 1200	U 1400	C 1000 (kN/m)	D 1000 (mm)
WS-G505/30	50 × 5	80.9 / 77.9	262	147	94	65	48	47	3.45
WS-G503/30	50 × 3	52.6 / 49.6	157	88	56	39	28	28	3.43
WS-G455/30	45 × 5	73.4 / 70.4	212	119	76	53	39	38	3.83
WS-G405/30	40 × 5	65.9 / 62.9	167	94	60	41	30	30	4.31
WS-G403/30	40 × 3	43.3 / 40.3	100	56	36	25	18	18	4.32
WS-G355/30	35 × 5	58.4 / 55.4	128	72	46	32	23	23	4.94
WS-G353/30	35 × 3	38.6 / 35.6	77	43	27	19	14	13	4.84
WS-G325/30	32 × 5	53.9 / 50.9	107	60	38	26	19	19	5.35
WS-G323/30	32 × 3	35.8 / 32.8	64	36	23	16	11	11	5.41
WS-G255/30	25 × 5	43.4 / 40.4	65	36	23	16	12	11	6.82
WS-G253/30	25 × 3	29.3 / 26.3	39	22	14	9	–	7	6.94
WS-G205/30	20 × 5	36.0 / 33.0	41	23	15	10	–	7	8.73
WS-G203/30	20 × 3	24.6 / 21.6	25	14	9	–	–	4	8.76

SAFE LOADS – BEARING BARS AT 40 MM

WS-G.../40 – SAFE UNIFORM LOAD U (KPA) BY CLEAR SPAN (MM); C AT 1000 MM

Type	Bar (mm)	kg/m ² (/50 / /100)	U 600	U 800	U 1000	U 1200	U 1400	C 1000 (kN/m)
WS-G655/40	65 × 5	81.7 / 78.7	332	187	119	83	61	59
WS-G605/40	60 × 5	75.9 / 72.9	283	159	102	70	52	51
WS-G555/40	55 × 5	70.1 / 67.1	238	133	85	59	43	42
WS-G505/40	50 × 5	64.2 / 61.2	196	110	70	49	36	35
WS-G503/40	50 × 3	42.6 / 39.6	118	66	42	29	21	21
WS-G455/40	45 × 5	58.4 / 55.4	159	89	57	39	29	28
WS-G405/40	40 × 5	52.6 / 49.6	125	70	45	31	23	22
WS-G403/40	40 × 3	35.3 / 32.3	75	42	27	18	13	13
WS-G355/40	35 × 5	46.8 / 43.8	96	54	34	24	17	17
WS-G353/40	35 × 3	31.6 / 28.6	57	32	20	14	10	10
WS-G325/40	32 × 5	43.3 / 40.3	80	45	29	20	14	14
WS-G323/40	32 × 3	29.4 / 26.4	48	27	17	12	8	8
WS-G255/40	25 × 5	35.1 / 32.1	49	27	17	12	9	8
WS-G253/40	25 × 3	24.3 / 21.3	29	16	10	7	–	5
WS-G205/40	20 × 5	29.3 / 26.3	31	17	11	7	–	5
WS-G203/40	20 × 3	20.6 / 17.6	18	10	6	–	–	3

SAFE LOADS – BEARING BARS AT 60 MM

WS-G.../60/50 – SAFE UNIFORM LOAD U (KPA) BY CLEAR SPAN (MM)

Type	Bar (mm)	kg/m ²	U 600	U 900	U 1200	U 1500	U 1800	U 2100	U 2400
WS-G655/60/50	65 × 5	53.9	214.3	95.0	53.2	33.9	23.4	17.1	13.0
WS-G555/60/50	55 × 5	46.6	153.4	67.9	38.0	24.2	16.7	12.1	9.2
WS-G505/60/50	50 × 5	42.9	126.7	56.1	31.4	20.0	13.7	10.0	7.6
WS-G455/60/50	45 × 5	40.0	102.6	45.4	25.4	16.1	11.1	8.1	6.1
WS-G405/60/50	40 × 5	35.5	81.0	35.8	20.0	12.7	8.7	6.3	4.8
WS-G403/60/50	40 × 3	23.9	48.6	21.5	12.0	7.6	5.2	3.8	2.8
WS-G325/60/50	32 × 5	29.7	51.8	22.9	12.8	8.1	5.5	4.0	3.0
WS-G323/60/50	32 × 3	20.4	31.1	13.7	7.6	4.8	3.3	2.4	1.8
WS-G255/60/50	25 × 5	27.5	31.6	13.9	7.7	4.9	3.3	2.4	1.8
WS-G253/60/50	25 × 3	17.3	18.9	8.3	4.6	2.9	2.0	1.4	1.0
WS-G205/60/50	20 × 5	21.0	20.2	8.9	4.9	3.1	2.1	1.5	–

FINISHES

Hot-dip galvanised (G)	ASTM A123 · AS/NZS 4680 · EN ISO 1461
Paint coated (PP)	Blast or pickle + paint system to ISO 12944 / AS/NZS 2312.1 / SSPC
Untreated (U)	Black steel for painting or galvanising by others
Duplex	Galvanised + paint for colour or C5 environments

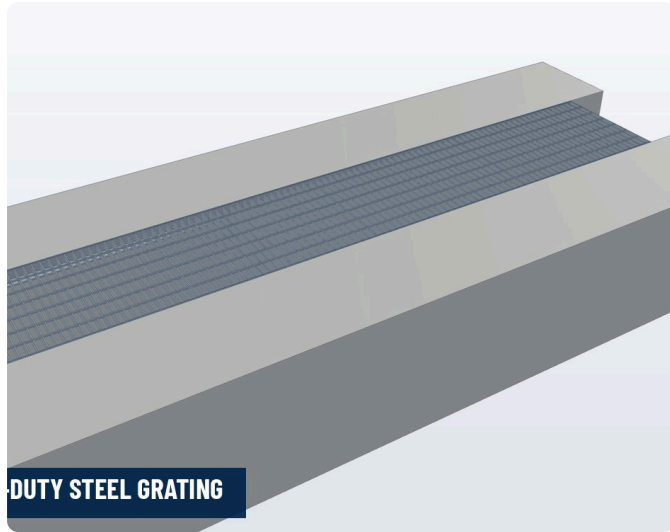
TO QUOTE, PLEASE SEND

- ▶ Layout drawing or IFC model with supports and openings
- ▶ Design load (kPa, kN or wheel load), clear span and deflection limit – or the WS code
- ▶ Mesh, plain (M) or serrated (S), steel grade
- ▶ Finish: G, PP or U, and coating standard
- ▶ Fixing: clips, welding or bolts; toe plates and kick plates
- ▶ Destination, design code and delivery schedule

STEEL GRATING

WS HEAVY-DUTY STEEL GRATING

WS heavy-duty grating, bars 45×5 to 150×8 mm with 8×8 mm cross bars, for 5–7.5 kPa floors, forklifts, vehicle trenches and heavy equipment.



- ▶ Bearing bars up to 150 × 8 mm
- ▶ 8 × 8 mm square cross bars at 100 mm
- ▶ Safe loads to over 1000 kPa on short spans
- ▶ 5.0 and 7.5 kPa span tables
- ▶ For forklifts, trucks and heavy equipment

KEY DATA

Bearing bars	45 × 5 to 75 × 6 mm (pitch 30/40/60) · 70 × 6 to 150 × 8 mm (pitch 30/40)
Cross bars	8 × 8 mm square at 100 mm (heavy series)
Weight	58–285 kg/m ²
Materials	SS400 · A36 · Q345
Finish	Hot-dip galvanised as standard
Accessories	Frames, end plates, lifting holes, lock-down bolts

RECOMMENDED SPANS – 5.0 AND 7.5 KPA

MAXIMUM RECOMMENDED CLEAR SPAN (MM) – 5.0 / 7.5 KPA

WS code	Bar (mm)	Pitch 30	Pitch 40	Pitch 60
WS-G255	25 × 5	1350 / 1220	1250 / 1130	1130 / 1020
WS-G325	32 × 5	1620 / 1460	1510 / 1360	1360 / 1230
WS-G405	40 × 5	1920 / 1730	1780 / 1610	1610 / 1460
WS-G455	45 × 5	2090 / 1890	1950 / 1760	1760 / 1590
WS-G505	50 × 5	2270 / 2050	2110 / 1910	1910 / 1720
WS-G555	55 × 5	2440 / 2200	2270 / 2050	2050 / 1850
WS-G655	65 × 5	2760 / 2490	2570 / 2320	2320 / 2100
WS-G755	75 × 5	3080 / 2780	2860 / 2590	2590 / 2340
WS-G756	75 × 6	3220 / 2910	3000 / 2710	2710 / 2440

HEAVY-DUTY LOAD TABLE

WS HEAVY-DUTY GRATING, CROSS BARS 8 × 8 MM AT 100 MM - SAFE UNIFORM LOAD U (KPA) BY CLEAR SPAN (MM)

Type	Bar (mm)	kg/m ²	U 600	U 1000	U 1400	U 2000	U 2400	U 3000	C 1000 (kN/m)	D 1000 (mm)
WS-G1508/40/100	150 × 8	284.9	2833	1020	520	255	177	113	510	1.15
WS-G1308/40/100	130 × 8	247.6	2128	766	390	191	133	85	383	1.33
WS-G1208/40/100	120 × 8	229.0	1813	653	333	163	113	72	326	1.44
WS-G1008/40/100	100 × 8	191.7	1259	453	231	113	78	50	226	1.73
WS-G908/40/100	90 × 8	173.1	1020	367	187	91	63	40	183	1.92
WS-G808/40/100	80 × 8	154.4	805	290	148	72	50	32	145	2.16
WS-G758/40/100	75 × 8	145.1	708	255	130	63	44	28	127	2.31
WS-G756/30/100	75 × 6	140.1	708	255	130	63	44	28	127	2.3
WS-G756/40/100	75 × 6	110.1	531	191	97	47	33	21	95	2.3
WS-G706/30/100	70 × 6	131.1	617	222	113	55	38	24	111	2.47
WS-G706/40/100	70 × 6	103.2	462	166	85	41	28	18	83	2.46

FINISHES

Hot-dip galvanised (G)	ASTM A123 · AS/NZS 4680 · EN ISO 1461
Paint coated (PP)	Blast or pickle + paint system to ISO 12944 / AS/NZS 2312.1 / SSPC
Duplex	Galvanised + paint for colour or C5 environments

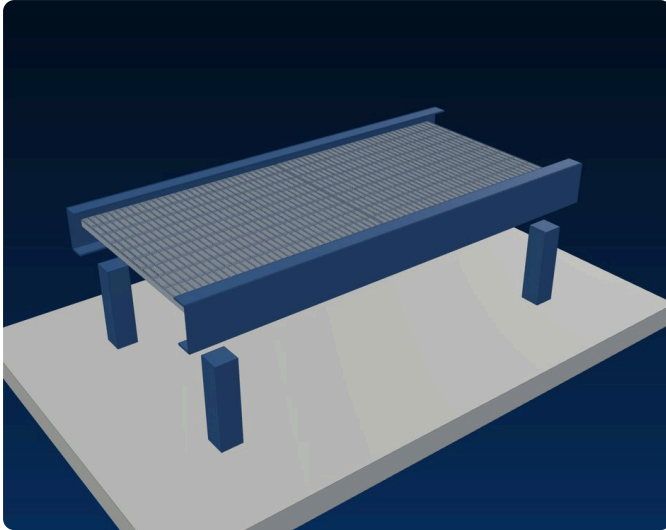
TO QUOTE, PLEASE SEND

- ▶ Layout drawing or IFC model with supports and openings
- ▶ Design load (kPa, kN or wheel load), clear span and deflection limit – or the WS code
- ▶ Mesh, plain (M) or serrated (S), steel grade
- ▶ Finish: G, PP or U, and coating standard
- ▶ Fixing: clips, welding or bolts; toe plates and kick plates
- ▶ Destination, design code and delivery schedule

STEEL GRATING

WS SERRATED STEEL GRATING (S)

WS serrated grating with notched bearing bars for slip resistance in wet, oily, icy and outdoor areas – any WS size and mesh, with published load and deflection factors.



- ▶ Notched top edge on bearing bars
- ▶ Same sizes and meshes as plain grating
- ▶ For wet, oily, icy and sloping floors
- ▶ Published load and deflection factors

KEY DATA

Bars	All WS bar sizes from 25 × 3 mm
Mesh	WS 30/100, 30/50, 40/100, 40/50, 60/50
Finish	G galvanised · PP painted · stainless
Code	S in the WS code

LOAD AND DEFLECTION FACTORS

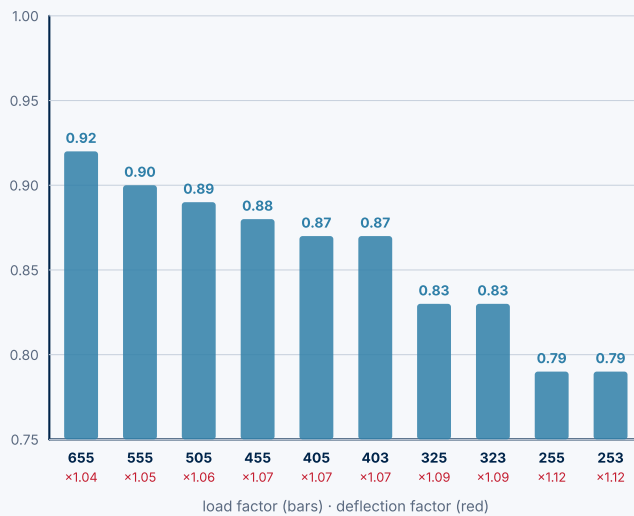
The notches reduce the effective depth of the bar. Multiply the plain-bar safe load by the load factor and the deflection by the deflection factor:

SERRATION FACTORS – BEARING BAR PITCH 60 MM, CROSS BARS 50 MM

WS bar	Bar (mm)	Load factor	Deflection factor
WS-G655	65 × 5	0.92	1.04
WS-G555	55 × 5	0.90	1.05
WS-G505	50 × 5	0.89	1.06
WS-G455	45 × 5	0.88	1.07
WS-G405	40 × 5	0.87	1.07
WS-G403	40 × 3	0.87	1.07
WS-G325	32 × 5	0.83	1.09
WS-G323	32 × 3	0.83	1.09
WS-G255	25 × 5	0.79	1.12
WS-G253	25 × 3	0.79	1.12

SERRATED GRATING – REDUCTION FACTORS

Bearing bar pitch 60 mm, cross bars 50 mm



Serrated (S) bars

Notched top edge grips shoes in wet, oily or icy areas

The notches reduce the effective depth, so the plain load is multiplied by the load factor and the deflection by the deflection factor

Shallow bars lose the most –
20 × 5 serrated: not recommended

Steel products **WORLD STEEL**

Serrated grating – reduction factors.

FINISHES

Hot-dip galvanised (G)	ASTM A123 · AS/NZS 4680 · EN ISO 1461
Paint coated (PP)	Blast or pickle + paint system to ISO 12944 / AS/NZS 2312.1 / SSPC
Untreated (U)	Black steel for painting or galvanising by others
Duplex	Galvanised + paint for colour or C5 environments

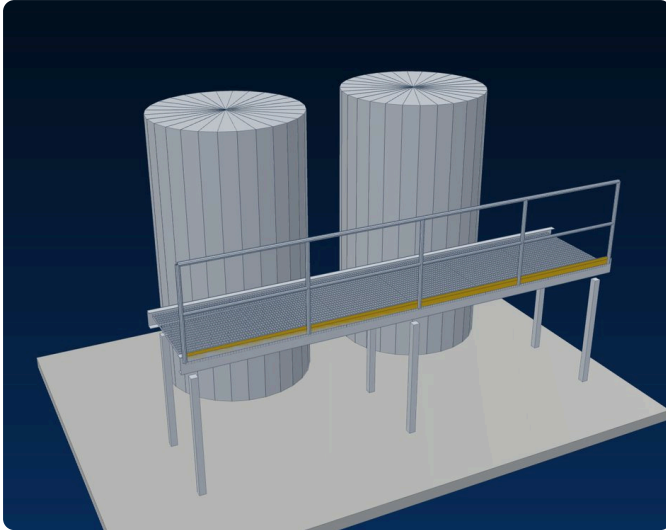
TO QUOTE, PLEASE SEND

- ▶ Layout drawing or IFC model with supports and openings
- ▶ Design load (kPa, kN or wheel load), clear span and deflection limit – or the WS code
- ▶ Mesh, plain (M) or serrated (S), steel grade
- ▶ Finish: G, PP or U, and coating standard
- ▶ Fixing: clips, welding or bolts; toe plates and kick plates
- ▶ Destination, design code and delivery schedule

STEEL GRATING

WS STAINLESS STEEL GRATING (SUS304 / SUS316)

WS stainless grating in SUS304 and SUS316 for food, pharmaceutical, chemical, water and marine areas – pickled and passivated after welding.



- ▶ SUS304 (1.4301) and SUS316 (1.4401) grades
- ▶ No coating to chip, flake or contaminate
- ▶ Pickled and passivated after welding
- ▶ Same WS sizes, meshes and codes

KEY DATA

Grades	SUS304 / AISI 304 / 1.4301 · SUS316 / AISI 316 / 1.4401
Bars	20 × 3 to 50 × 5 mm typical
Mesh	WS 30/100, 30/50, 40/50
Surface	Pickled and passivated; plain or serrated
Fasteners	Stainless clips and bolts A2 / A4

FINISHES

Pickled & passivated	ASTM A380 / A967 or equivalent
Electropolished	On request for hygienic areas

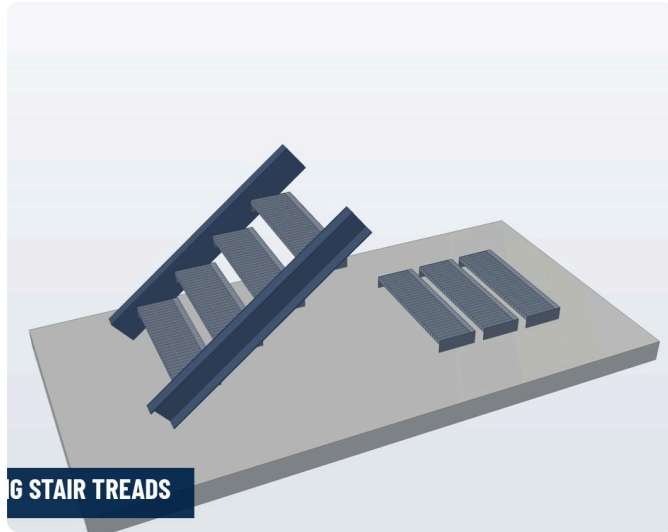
TO QUOTE, PLEASE SEND

- ▶ Layout drawing or IFC model with supports and openings
- ▶ Design load (kPa, kN or wheel load), clear span and deflection limit – or the WS code
- ▶ Mesh, plain (M) or serrated (S), steel grade
- ▶ Finish: G, PP or U, and coating standard
- ▶ Fixing: clips, welding or bolts; toe plates and kick plates
- ▶ Destination, design code and delivery schedule

STEEL GRATING

WS GRATING STAIR TREADS (T1-T6)

WS grating stair treads T1-T6 – welded or bolted, with no nosing, checker-plate or abrasive anti-slip nosing, in standard widths or to order.



- ▶ Six standard types T1-T6
- ▶ Welded (banded ends) or bolted (holed end plates)
- ▶ Checker-plate or abrasive anti-slip nosing
- ▶ Recommended widths 115–325 mm
- ▶ Lengths up to 1600 mm

KEY DATA

Types	T1-T6
Bar pitch	30, 40 or 60 mm
Bearing bars	25 × 3 to 40 × 5 mm
Widths	115–325 mm (see table)
Length	Up to 550–1600 mm by bar size
End plates	65 × 5 mm, Ø14 hole + slot for M10/M12
Nosing	None, checker plate, abrasive anti-slip
Finish	Hot-dip galvanised, painted, duplex

SIX TREAD TYPES

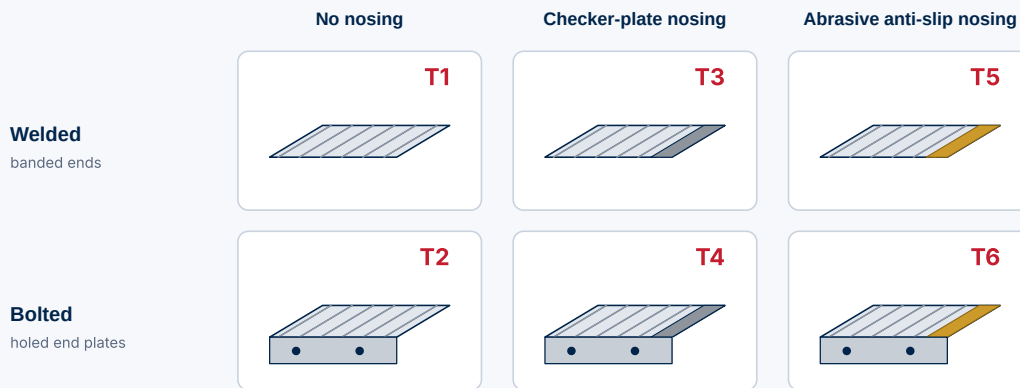
The choice of nosing depends on use: checker plate for robust industrial stairs, abrasive yellow nosing where a visible, high-grip edge is needed – public, outdoor and wet stairs. If you are unsure which to use, our engineers will recommend one.

WS STAIR TREAD TYPES

Type	Fixing	Ends	Nosing
T1	Welded	Banded ends	No nosing
T2	Bolted	Holed end plates	No nosing
T3	Welded	Banded ends	Checker-plate nosing
T4	Bolted	Holed end plates	Checker-plate nosing
T5	Welded	Banded ends	Abrasive anti-slip nosing
T6	Bolted	Holed end plates	Abrasive anti-slip nosing

WS GRATING STAIR TREADS T1–T6

Fixing type × nosing type



End plates 65 × 5 mm with Ø14 holes / slots for M10–M12 bolts; nosing welded at every bearing bar.
Recommended widths and maximum lengths – see the tread tables. Any grating can be made into treads to order.

Steel products **WORLD STEEL**

WS stair treads T1–T6: fixing type × nosing type.

RECOMMENDED WIDTHS

RECOMMENDED TREAD WIDTH (MM) BY BEARING BAR PITCH

Bar pitch	Types	Widths (mm)
30 mm pitch	T1–T6	125 · 155 · 185 · 215 · 245 · 275 · 305
40 mm pitch	T1, T2, T5, T6	125 · 165 · 205 · 245 · 285 · 325
40 mm pitch	T3, T4	115 · 155 · 195 · 235 · 275 · 315
60 mm pitch	T1, T2, T5, T6	185 · 245 · 305
60 mm pitch	T3, T4	155 · 215 · 275

MAXIMUM LENGTH

Side plates use 65 × 5 mm flat bar with a Ø14 hole and a slotted hole for M10 or M12 bolts; the bearing bars can be mitred to the stair angle on request.

MAXIMUM TREAD LENGTH (MM) BY BEARING BAR SIZE

Bar pitch	25 × 3	25 × 5	32 × 5	40 × 5
30 mm	550	900	1300	1600
40 mm	450	750	1200	1500
60 mm	–	550	850	1350

FINISHES

Hot-dip galvanised (G)	ASTM A123 · AS/NZS 4680 · EN ISO 1461
Paint coated (PP)	Blast or pickle + paint system to ISO 12944 / AS/NZS 2312.1 / SSPC
Duplex with coloured nosing	Galvanised + paint; contrasting nosing per project

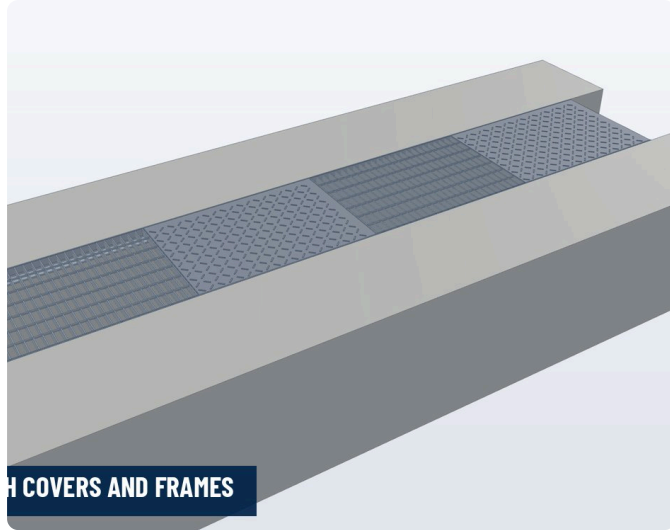
TO QUOTE, PLEASE SEND

- ▶ Stair drawings or stringer details
- ▶ Width, going and number of treads per flight
- ▶ Tread type T1-T6 and bar pitch
- ▶ Finish and design code

STEEL GRATING

WS TRENCH COVERS – GT AND GU

WS-GT covers in angle seat frames and WS-GU banded covers for U-channels – trenches 100–600 mm wide, classes T-2 to T-25, galvanised.



- ▶ GT – grating in a fixed angle seat frame
- ▶ GU – banded cover for precast U-channels
- ▶ Trench widths 100–600 mm, 995 mm modules
- ▶ WS load classes T-2, T-6, T-14, T-20, T-25
- ▶ Bolt-down or hinged options

KEY DATA

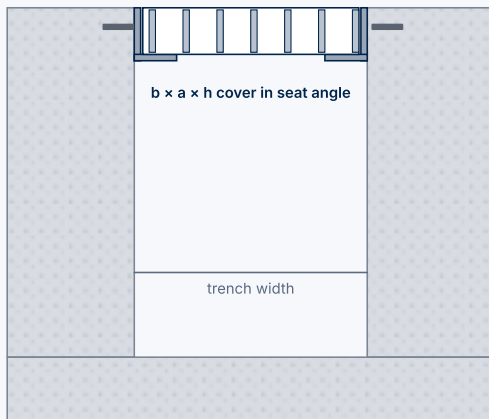
Systems	WS-GT (angle seat frame) · WS-GU (banded angle) · hinged covers
Trench widths	100–600 mm
Module length	995 mm (b)
Load classes	Pedestrian, T-2, T-6, T-14, T-20, T-25
Grating	WS-G.../30/100 typical; 50 mm cross bars for public areas
Finish	Hot-dip galvanised

WHERE TRENCH COVERS ARE USED

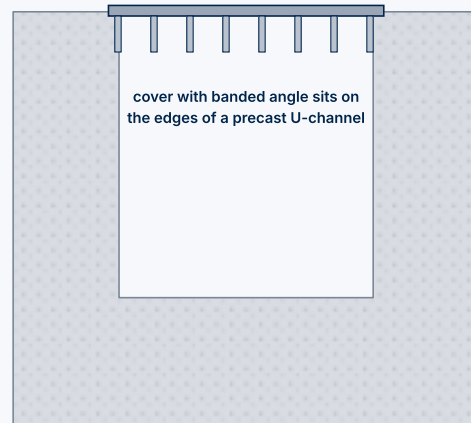
Grating trench covers close drainage trenches, cable and pipe ditches, subway and air pits on walkways, carriageways, courtyards, plants and ports. A system has a fixed frame cast into the concrete and a movable grating cover; hot-dip galvanising protects both. Hinged covers resist theft and are easy to open.

WS TRENCH COVERS – GT AND GU SYSTEMS

WS-GT – angle seat frame (T-ditch)



WS-GU – banded angle (U-channel)



WS load classes T-2, T-6, T-14, T-20 and T-25 are defined by rear single-wheel load: 8, 24, 56, 80 and 100 kN.

Pedestrian covers use 50 mm cross bar pitch in public areas; covers can be bolted down or hinged.

Steel product **WORLD STEEL**

WS-GT angle seat frame and WS-GU banded angle systems.

WS LOAD CLASSES

Except for highways, GT covers suit all roads with moderate traffic; bolting covers down is recommended against displacement. Typical gratings are WS-G.../30/100; for public areas a 50 mm cross bar pitch is recommended. Serrated and I-bar gratings are available on request.

WS TRENCH AND PIT COVER LOAD CLASSES

WS class	Fully laden vehicle (kg)	Rear single-wheel load (kN)	Wheel contact area a × b (mm)
T-25	25,000	100	200 × 500
T-20	20,000	80	200 × 500
T-14	14,000	56	200 × 500
T-6	6,000	24	200 × 240
T-2	2,000	8	200 × 160

WS-GT COVERS – T-2 AND PEDESTRIAN

WS-GT, CLASS T-2

Trench width (mm)	Type	Grating b × a × h (mm)	kg	Seat angle
100	WS-GT100-20	995 × 160 × 20	4.0	L40×25×5
120	WS-GT120-20	995 × 180 × 20	4.4	L40×25×5
150	WS-GT150-20	995 × 210 × 20	5.2	L40×25×5
180	WS-GT180-20	995 × 240 × 20	5.7	L40×25×5
200	WS-GT200-20	995 × 260 × 20	6.0	L40×25×5
240	WS-GT240-25	995 × 304 × 25	13.4	L40×28×3

Trench width (mm)	Type	Grating b × a × h (mm)	kg	Seat angle
300	WS-GT300-25	995 × 364 × 25	15.9	L40×28×3
360	WS-GT360-25	995 × 424 × 25	18.3	L40×28×3
400	WS-GT400-25	995 × 464 × 25	19.7	L40×28×3
450	WS-GT450-32	995 × 544 × 32	28.8	L56×36×4
500	WS-GT500-45	995 × 580 × 45	42.2	L50×50×5
600	WS-GT600-50	995 × 690 × 50	54.8	L56×56×6

WS-GT, PEDESTRIAN

Trench width (mm)	Type	Grating b × a × h (mm)	kg	Seat angle
100	WS-GT100-25	995 × 164 × 25	8.2	L40×28×3
120	WS-GT120-25	995 × 184 × 25	9.2	L40×28×3
150	WS-GT150-25	995 × 214 × 25	10.2	L40×28×3
180	WS-GT180-25	995 × 244 × 25	11.3	L40×28×3
200	WS-GT200-32	995 × 294 × 32	16.6	L56×36×4
240	WS-GT240-32	995 × 334 × 32	18.7	L56×36×4
300	WS-GT300-38	995 × 416 × 38	26.7	L70×45×8
360	WS-GT360-45	995 × 440 × 45	33.0	L50×50×5
400	WS-GT400-50	995 × 490 × 50	40.0	L56×56×6
450	WS-GT450-50	995 × 540 × 50	43.4	L56×56×6
500	WS-GT500-50	995 × 590 × 50	47.4	L56×56×6
600	WS-GT600-55	995 × 700 × 55	60.8	L60×60×5

WS-GT COVERS - T-14, T-20 AND T-25**WS-GT, CLASS T-14**

Trench width (mm)	Type	Grating b × a × h (mm)	kg	Seat angle
100	WS-GT100-25	995 × 164 × 25	8.2	L40×28×3
120	WS-GT120-25	995 × 184 × 25	9.2	L40×28×3
150	WS-GT150-25	995 × 214 × 25	10.2	L40×28×3
180	WS-GT180-32	995 × 274 × 32	15.7	L56×36×4
200	WS-GT200-32	995 × 294 × 32	16.6	L56×36×4
240	WS-GT240-38	995 × 356 × 38	23.2	L70×45×8
300	WS-GT300-45	995 × 380 × 45	28.8	L50×50×5
360	WS-GT360-50	995 × 440 × 50	36.5	L56×56×6
400	WS-GT400-50	995 × 480 × 50	39.3	L56×56×6
450	WS-GT450-55	995 × 550 × 55	48.9	L60×60×5

Trench width (mm)	Type	Grating b × a × h (mm)	kg	Seat angle
500	WS-GT500-60	995 × 610 × 60	58.6	L65×65×5
600	WS-GT600-75	995 × 750 × 75	87.9	L80×80×5

WS-GT, CLASS T-20

Trench width (mm)	Type	Grating b × a × h (mm)	kg	Seat angle
100	WS-GT100-25	995 × 164 × 25	8.2	L40×28×3
120	WS-GT120-32	995 × 214 × 32	12.9	L56×36×4
150	WS-GT150-32	995 × 224 × 32	14.3	L56×36×4
180	WS-GT180-38	995 × 296 × 38	19.7	L70×45×8
200	WS-GT200-38	995 × 316 × 38	21.1	L70×45×8
240	WS-GT240-45	995 × 320 × 45	25.0	L50×50×5
300	WS-GT300-50	995 × 390 × 50	32.6	L56×56×6
360	WS-GT360-55	995 × 400 × 55	41.6	L60×60×5
400	WS-GT400-55	995 × 500 × 55	44.7	L60×60×5
450	WS-GT450-65	995 × 590 × 65	59.3	L70×70×5
500	WS-GT500-75	995 × 640 × 75	75.9	L80×80×5

WS-GT, CLASS T-25

Trench width (mm)	Type	Grating b × a × h (mm)	kg	Seat angle
100	WS-GT100-32	995 × 194 × 32	11.4	L56×36×4
120	WS-GT120-32	995 × 214 × 32	12.9	L56×36×4
150	WS-GT150-38	995 × 266 × 38	18.1	L70×45×8
180	WS-GT180-45	995 × 260 × 45	20.9	L50×50×5
200	WS-GT200-45	995 × 280 × 45	22.2	L50×50×5
240	WS-GT240-45	995 × 320 × 45	25.0	L50×50×5
300	WS-GT300-50	995 × 390 × 50	32.6	L56×56×6
360	WS-GT360-55	995 × 460 × 55	41.6	L60×60×5
400	WS-GT400-65	995 × 520 × 65	54.7	L70×70×5
450	WS-GT450-75	995 × 590 × 75	70.3	L80×80×5

WS-GU COVERS

For concrete trenches without an edge frame – especially precast U-channels – the GU cover is the simplest and most economical choice: the banded angle sits directly on the trench edges. Filling the top edge with angle steel is recommended for T-6 and T-14 loads. GU covers suit side ditches where cars pass occasionally.

WS-GU, CLASS T-2 AND PEDESTRIAN

Trench width (mm)	Type	Grating b × w × h (mm)	Banded angle	kg
100	WS-GU100-20	995 × 90 × 20	L30×3	4.4

Trench width (mm)	Type	Grating b × w × h (mm)	Banded angle	kg
120	WS-GU120-20	995 × 110 × 20	L30×3	5.0
150	WS-GU150-20	995 × 140 × 20	L30×3	5.5
180	WS-GU180-20	995 × 170 × 20	L30×3	6.0
200	WS-GU200-25	995 × 190 × 25	L40×5	12.2
240	WS-GU240-25	995 × 230 × 25	L40×5	13.9
300	WS-GU300-25	995 × 290 × 25	L40×5	16.0
360	WS-GU360-25	995 × 350 × 25	L40×5	18.4
400	WS-GU400-32	995 × 390 × 32	L40×5	23.7
450	WS-GU450-32	995 × 443 × 32	L40×5	26.3
500	WS-GU500-45	995 × 488 × 45	L50×6	41.7
600	WS-GU600-50	995 × 588 × 50	L56×6	53.8

FINISHES

Hot-dip galvanised (G)	ASTM A123 · AS/NZS 4680 · EN ISO 1461
Duplex	Galvanised + paint for colour or C5 environments

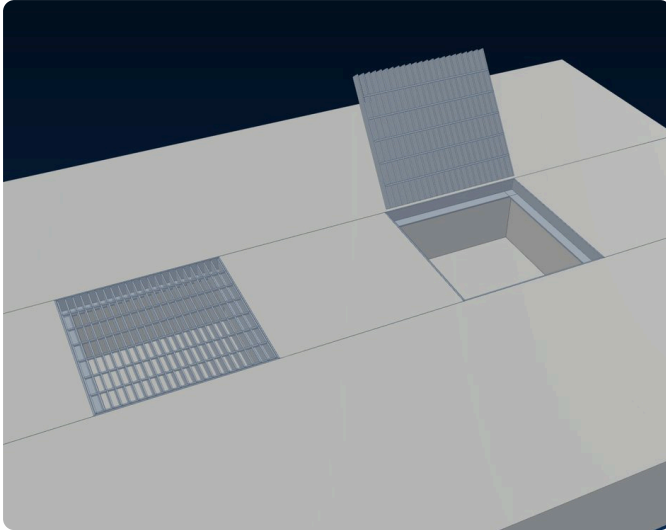
TO QUOTE, PLEASE SEND

- ▶ Trench layout, widths and lengths
- ▶ Load class or wheel load
- ▶ GT, GU or hinged; locking
- ▶ Finish and destination

STEEL GRATING

WS DRAINAGE PIT COVERS – GM

WS-GM grating covers and bedframes for drainage pits 300 × 400 to 700 × 700 mm in load classes T-2, T-14, T-20 and T-25 – supplied as matched, galvanised sets.



- ▶ Pits 300 × 400 to 700 × 700 mm
- ▶ Classes T-2, T-14, T-20 and T-25
- ▶ Cover + angle bedframe as one set
- ▶ Anchor lugs for casting in
- ▶ Hot-dip galvanised

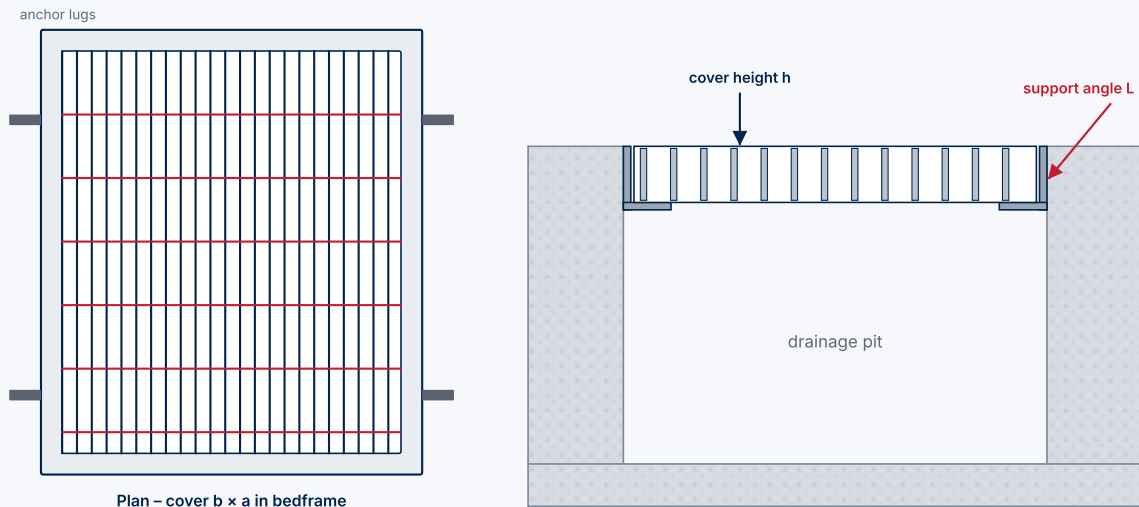
KEY DATA

Pit sizes	300 × 400 to 700 × 700 mm
Classes	T-2, T-14, T-20, T-25
Cover height	32–75 mm
Bedframe	Angle L36 to L80 with anchor lugs
Finish	Hot-dip galvanised

THE SYSTEM

Grating pit covers are used on catch basins, sediment traps, drainage wells and sink holes in roads, parks, plants and civil projects. Each WS-GM set is a grating cover and an angle bedframe with anchor lugs; the type code gives the pit size in decimetres and the cover height – WS-GM45-55 is a 400 × 500 mm pit with a 55 mm cover.

WS-GM DRAINAGE PIT COVER



WS-GM type = W×L of the pit (dm) + cover height, e.g. WS-GM45-55 = 400 × 500 pit, 55 mm cover

Classes T-2 to T-25 · cover and bedframe supplied as a matched, trial-fitted set

Steel product **WORLD STEEL**

WS-GM drainage pit cover and bedframe.

CLASS T-25

WS-GM, CLASS T-25

Pit W × L (mm)	Type	Grating b × a × h (mm)	kg	Bedframe b × a × h (mm)	Angle	Frame kg
300 × 400	WS-GM34-55	305 × 500 × 55	14.2	335 × 520 × 60	L60×5	7.6
400 × 400	WS-GM44-55	395 × 500 × 55	18.3	425 × 520 × 60	L60×5	8.5
500 × 400	WS-GM54-55	485 × 500 × 55	22.5	515 × 520 × 60	L60×5	9.3
300 × 500	WS-GM35-65	305 × 620 × 65	22.8	335 × 640 × 70	L70×5	9.4
400 × 500	WS-GM45-65	395 × 620 × 65	29.5	425 × 640 × 70	L70×5	10.4
500 × 500	WS-GM55-65	485 × 620 × 65	36.2	515 × 640 × 70	L70×5	11.4
300 × 600	WS-GM36-75	305 × 740 × 75	28.6	335 × 760 × 80	L80×5	11.5
400 × 600	WS-GM46-75	395 × 740 × 75	36.4	425 × 760 × 80	L80×5	12.6
500 × 600	WS-GM56-75	485 × 740 × 75	44.3	515 × 760 × 80	L80×5	13.7
500 × 700	WS-GM57-75	485 × 840 × 75	49.9	515 × 860 × 80	L80×5	14.5
700 × 700	WS-GM77-75	695 × 840 × 75	70.6	725 × 860 × 80	L80×5	17.1

CLASS T-20

WS-GM, CLASS T-20

Pit W × L (mm)	Type	Grating b × a × h (mm)	kg	Bedframe b × a × h (mm)	Angle	Frame kg
300 × 400	WS-GM34-50	305 × 490 × 50	12.8	335 × 510 × 56	L56×6	7.7
400 × 400	WS-GM44-50	395 × 490 × 50	16.5	425 × 510 × 56	L56×6	8.6

Pit W × L (mm)	Type	Grating b × a × h (mm)	kg	Bedframe b × a × h (mm)	Angle	Frame kg
500 × 400	WS-GM54-50	485 × 490 × 50	20.3	515 × 510 × 56	L56×6	9.5
300 × 500	WS-GM35-55	305 × 600 × 55	16.7	335 × 620 × 60	L60×5	8.2
400 × 500	WS-GM45-55	395 × 600 × 55	21.7	425 × 620 × 60	L60×5	9.0
500 × 500	WS-GM55-55	485 × 600 × 55	26.6	515 × 620 × 60	L60×5	9.8
300 × 600	WS-GM36-65	305 × 720 × 65	26.2	335 × 740 × 70	L70×5	10.8
500 × 600	WS-GM56-65	485 × 720 × 65	41.6	515 × 740 × 70	L70×5	13.1
600 × 600	WS-GM66-65	605 × 720 × 65	51.9	635 × 740 × 70	L70×5	14.6
500 × 700	WS-GM57-75	485 × 840 × 75	49.9	515 × 860 × 80	L80×5	14.5
700 × 700	WS-GM77-75	695 × 840 × 75	68.0	725 × 860 × 80	L80×5	17.1

CLASS T-14

WS-GM, CLASS T-14

Pit W × L (mm)	Type	Grating b × a × h (mm)	kg	Bedframe b × a × h (mm)	Angle	Frame kg
300 × 400	WS-GM34-45	305 × 480 × 45	11.3	335 × 500 × 50	L50×5	6.5
400 × 400	WS-GM44-45	395 × 480 × 45	14.7	425 × 500 × 50	L50×5	7.2
500 × 400	WS-GM54-45	485 × 480 × 45	18.0	515 × 500 × 50	L50×5	7.8
300 × 500	WS-GM35-50	305 × 590 × 50	15.1	335 × 610 × 56	L56×6	8.2
400 × 500	WS-GM45-50	395 × 590 × 50	19.5	425 × 610 × 56	L56×6	9.2
500 × 500	WS-GM55-50	485 × 590 × 50	24.0	515 × 610 × 56	L56×6	10.1
300 × 600	WS-GM36-55	305 × 700 × 55	19.3	335 × 720 × 60	L60×5	8.7
400 × 600	WS-GM46-55	395 × 700 × 55	25.0	425 × 720 × 60	L60×5	9.6
500 × 600	WS-GM56-55	485 × 700 × 55	34.6	515 × 720 × 60	L60×5	10.4
600 × 600	WS-GM66-55	605 × 700 × 55	38.2	635 × 720 × 60	L60×5	11.5
500 × 700	WS-GM57-60	485 × 810 × 60	38.1	515 × 830 × 65	L65×5	12.7
700 × 700	WS-GM77-60	695 × 810 × 60	54.6	725 × 830 × 65	L65×5	15.2

CLASS T-2

WS-GM, CLASS T-2

Pit W × L (mm)	Type	Grating b × a × h (mm)	kg	Bedframe b × a × h (mm)	Angle	Frame kg
300 × 400	WS-GM34-32	305 × 454 × 32	7.9	335 × 472 × 36	L36×4	4.4
400 × 400	WS-GM44-32	395 × 454 × 32	10.3	425 × 472 × 36	L36×4	4.8
500 × 400	WS-GM54-32	485 × 454 × 32	12.6	485 × 472 × 36	L36×4	5.0
300 × 500	WS-GM35-40	305 × 570 × 40	11.9	335 × 590 × 45	L45×5	5.9
400 × 500	WS-GM45-40	395 × 570 × 40	15.4	425 × 590 × 45	L45×5	6.5
500 × 500	WS-GM55-40	485 × 570 × 40	18.9	515 × 590 × 45	L45×5	7.2

Pit W × L (mm)	Type	Grating b × a × h (mm)	kg	Bedframe b × a × h (mm)	Angle	Frame kg
300 × 600	WS-GM36-40	305 × 670 × 40	13.8	335 × 690 × 45	L45×5	6.3
400 × 600	WS-GM46-40	395 × 670 × 40	17.9	425 × 690 × 45	L45×5	6.9
500 × 600	WS-GM56-40	485 × 670 × 40	21.9	515 × 690 × 45	L45×5	7.5
600 × 600	WS-GM66-40	605 × 670 × 40	27.4	635 × 690 × 45	L45×5	8.3
500 × 700	WS-GM57-45	485 × 780 × 45	28.2	515 × 800 × 50	L50×5	8.6
700 × 700	WS-GM77-45	695 × 780 × 45	40.4	725 × 800 × 50	L50×5	10.2

FINISHES

Hot-dip galvanised (G)	ASTM A123 · AS/NZS 4680 · EN ISO 1461
Duplex	Galvanised + paint for colour or C5 environments

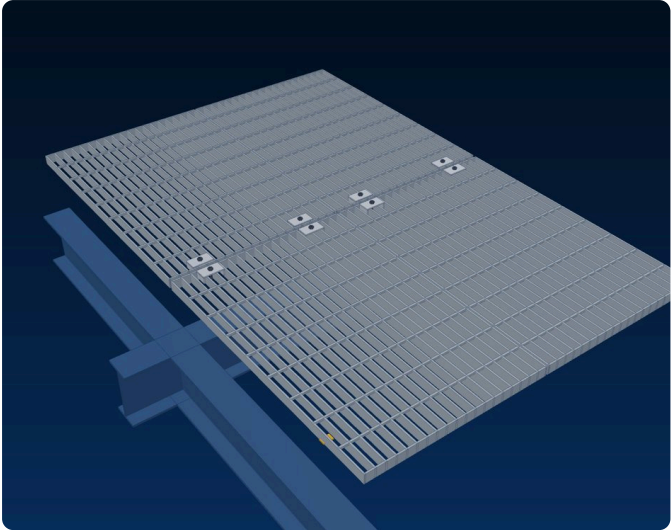
TO QUOTE, PLEASE SEND

- ▶ Pit sizes and quantities
- ▶ Load class
- ▶ Hinged or lockable
- ▶ Finish and destination

STEEL GRATING

WS GRATING CLIPS AND FASTENERS

WS saddle clips (M and L types), hold-downs, M8 bolts and weld fixing details for installing steel grating – galvanised or stainless, supplied with every grating package.



- ▶ Saddle clip: top plate + hold-down + M8 bolt
- ▶ Type M and L clips for different flanges
- ▶ Weld fixing details
- ▶ Galvanised or stainless
- ▶ Min. 4 clip sets per panel

KEY DATA

Clip types	Type 1 welding · Type 2 saddle clip M / L with bolt · Type 3 drilled
Bolt	M8 standard; M10 / M12 for treads and heavy duty
Material	Galvanised steel or stainless A2 / A4
Quantity	Min. 4 sets per panel

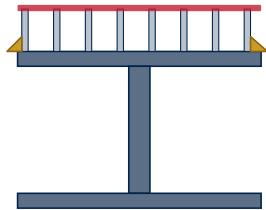
THREE WAYS TO FIX GRATING

INSTALLING WS GRATING

Welded, clipped or bolted fixing

1 · Welding

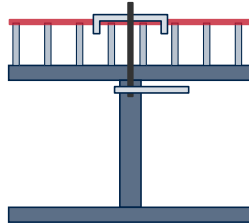
Permanent floors around machines – no removal



Fillet weld at the first bearing bar of every corner: ≥ 20 mm long, ≥ 3 mm
Touch up zinc after welding

2 · Saddle clip (M / L)

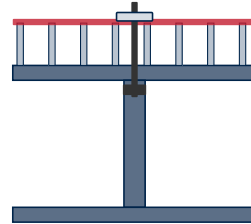
Removable, no damage to zinc – suits all gratings



Top plate + hold-down + M8 bolt
Min. 4 clips per panel, more on long spans and vibrating floors

3 · Drilled & bolted

Through-bolt where clips cannot reach the flange



Hole drilled in the flange, clip plate + bolt + nut
Galvanised or stainless fasteners

Leave about 10 mm between panels and at walls; bearing bars always span between supports.

Minimum bearing on the support: about 25 mm (light duty) and more for heavy-duty panels, per design.

Steel products **WORLD STEEL**

Welding, saddle clips and drilled fixing.

FINISHES

Hot-dip galvanised (G)

ASTM A123 · AS/NZS 4680 · EN ISO 1461

Stainless

A2 / A4 for stainless grating

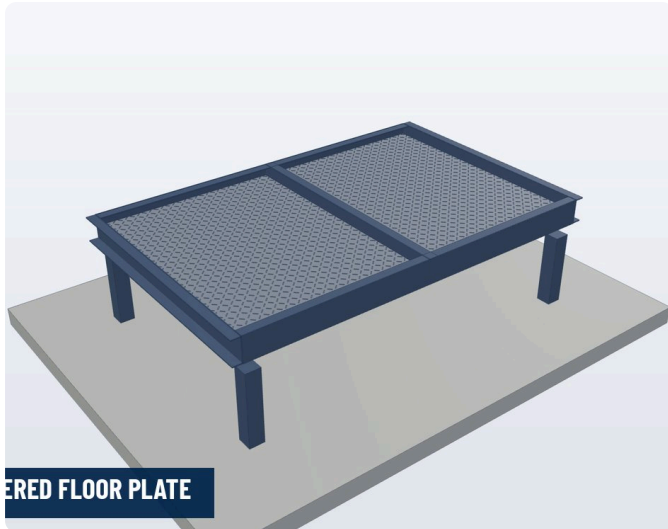
TO QUOTE, PLEASE SEND

- ▶ Number of panels and support flange thickness
- ▶ Clip type and material

STEEL GRATING

CHECKERED FLOOR PLATE

Checkered steel floor plate to ASTM A786, AS/NZS 3678 and EN 10025-2 – cut, stiffened, drilled and galvanized or painted for export projects.



- ▶ Raised-pattern plate for solid, slip-resistant steel floors
- ▶ ASTM A786, AS/NZS 3678 and EN 10025-2 / DIN 59220 plate
- ▶ Cut to layout with stiffeners, lifting holes and hatches
- ▶ Galvanized, painted or duplex finish by region
- ▶ Panels marked to match shop drawings and IFC model

KEY DATA

Materials	ASTM A786 / A36 · AS/NZS 3678 floorplate · EN 10025-2 S235/S275 (DIN 59220 pattern)
Thickness	Typical 3–12 mm (1/8–1/2 in) base thickness
Pattern	Diamond, multi-bar or teardrop, per mill availability
Stiffeners	Flat bar or angle, intermittent or continuous welds
Finishes	Hot-dip galvanized, painted, duplex
Typical loads	Floor loads per ASCE 7, AS/NZS 1170.1 or EN 1991-1-1 and project design
Fixings	Countersunk bolts, clips, welded
Packing	Flat on timber bearers, marked by area
Lead time	Project-specific

TYPES AND OPTIONS

Material is specified by region: ASTM A786 rolled floor plate (with A36 or a similar mechanical grade) in the US, AS/NZS 3678 floorplate in Australia and New Zealand, and EN 10025-2 steel such as S235 or S275 with a chequer pattern to DIN 59220 in Europe.

CHECKERED FLOOR PLATE OPTIONS

Option	Choices	Notes
Pattern	Diamond, multi-bar (lentic), teardrop	Pattern depends on the producing mill and the regional product standard
Thickness	Typical 3–12 mm (1/8–1/2 in) base thickness	Measured on the base plate, excluding the raised pattern
Stiffening	Flat bar or angle stiffeners welded underneath	Reduces plate thickness and deflection on larger spans
Openings	Drain holes, lifting holes, hinged hatches	Hatches can be framed and hinged for access to valves or pits

Option	Choices	Notes
Fixing	Countersunk bolts, clips, welded	Removable panels bolted; permanent floors may be stitch-welded

FABRICATION AND FINISHING AT WORLD STEEL

Plates are CNC-cut to the layout, drilled or countersunk for fixings, and stiffeners are welded underneath with intermittent or continuous welds as detailed. Continuous sealing welds are preferred where panels will be galvanized, to avoid trapped pickling acid between stiffener and plate; vent and drain holes are added to hollow details. Welding follows AWS D1.1, AS/NZS 1554.1 or EN ISO 3834-2 procedures.

FINISHES BY REGION

Galvanizing, paint and duplex systems with their standards

Finish	United States	Australia / NZ	Europe
Hot-dip galvanizing	ASTM A123 / A153	AS/NZS 4680	EN ISO 1461
Galvanizing design	ASTM A385	AS/NZS 2312.2	EN ISO 14713-2
Surface preparation	SSPC-SP 6 / SP 10	AS 1627.4, Sa 2½	ISO 8501-1 Sa 2½
Paint systems	SSPC / project spec	AS/NZS 2312.1	EN ISO 12944-5
Duplex (HDG + paint)	ASTM D6386 / D7803	AS/NZS 2312.1 + 4680	EN 15773, ISO 12944
Repair of zinc	ASTM A780	AS/NZS 4680	EN ISO 1461

Finish selection follows the corrosivity category of the site and the required durability.

Steel product **WORLD STEEL**

Finish options: hot-dip galvanizing, paint and duplex systems by region.

FINISHES

Hot-dip galvanized	ASTM A123 · AS/NZS 4680 · EN ISO 1461
Painted	SSPC-SP 6 / SP 10 · AS/NZS 2312.1 · EN ISO 12944 (Sa 2½ to EN ISO 8501-1)
Duplex (galvanized + paint)	ASTM A123 + paint · AS/NZS 2312.2 + 2312.1 · EN ISO 1461 + EN ISO 12944

TO QUOTE, PLEASE SEND

- ▶ Layout drawing or IFC model of the floor and supports
- ▶ Design load and deflection limit, or required plate thickness
- ▶ Pattern and material standard
- ▶ Openings, hatches and lifting points
- ▶ Finish and fixing type

STEEL GRATING & FLOOR PLATE - CATALOGUE

TALK TO WORLD STEEL

dang.victor@worldsteelgroup.com
+84 902 881 833 · WhatsApp · Zalo
worldsteelgroup.com

IAS AC472

AS/NZS 5131 CC3

EN 1090 EXC3 · CE

ISO 3834-2

HO CHI MINH CITY, VIETNAM

Ho Chi Minh City, Vietnam

Tan Phu, Ho Chi Minh City

TAY NINH, VIETNAM

Tay Ninh, Vietnam

Lot Q9-10-15-16, Road No. 7, Hai Son
Industrial Park (Phases 3+4), Duc Hoa,
Tay Ninh Province

CALIFORNIA, USA

California, USA

Westminster, California