

STAIR ACCESS SYSTEMS

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

Typical standard configuration

SYSTEM BASELINE

STAIR BASELINE - CATALOG START

- Clear width: 900 / 1000 mm common
- Tread depth: 240 / 275 / 305 mm common
- Industrial stair angle: 30-45 degrees typical
- Tread floor: 30 x 5 mm at 30 / 100 mm common
- Serrated or checker-plate nosing for wet routes
- Treads/landings made by Wiberg; stringers/rails sourced
- Final rise, going and code checked from elevation

900 / 1000 mm

Common clear stair width

240 / 275 / 305 mm

Common tread depths

30-45 degrees

Typical industrial stair angle

Elevation-based

Treads, landings, connections

Wiberg manufactures grating treads and landings and integrates project-sourced stringers, guardrails, anchors and fasteners to the approved stair arrangement.

Select the stair geometry

Floor height, rise, going, width and governing access code determine treads, landings and guardrails.

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
Floor height	30-45 degree stair	Rise + going + angle
Clear width	900 / 1000 mm	Traffic + evacuation basis
Standard tread	WST-B-305-305S-HDG	Stringer holes + nosing
Wet / outdoor	Serrated tread	Slip-test basis
Landings	Grating + framed platform	Elevation + rail returns
Connections	M12 bolted typical	Drawing + bolt access

Standard Grating Stair Treads

PRODUCT



WST series treads use 30 x 5 bearing bars at 30 mm centers, 6 x 6 cross bars at 100 mm centers, end plates and anti-slip nosing.

STANDARD MANUFACTURING RANGE

Parameter	Typical range
Bearing bars	30 x 5 mm common
Depth	240 / 275 / 305 mm
Width	600 / 750 / 900 / 1000 / 1200 mm
Nosing	Serrated or abrasive anti-slip nosing
Standards	ISO 14122-3 / project specification

COMMON MODELS

COMMON TREAD SCHEDULE

- Depths: 240 / 275 / 305 mm
- Widths: 600 / 750 / 900 / 1000 / 1200 mm
- Bearing bar: 30 x 5 mm common
- Pitch: 30 / 100 mm common
- End plates plus anti-slip nosing
- Wider or heavier treads require span check

WST-B-240 / 275 / 305-305S-HDG

Bolted end plates / 30 x 5 serrated grating / anti-slip nosing / HDG

Use WST-B for bolted replacement and WST-W where a welded connection is specified. Final width, holes and end plates follow the stringer drawing.

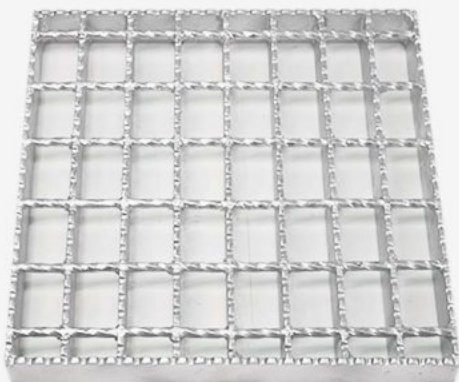
ORDERING INPUT

stair width / tread depth / rise/going / end plate / nosing / finish

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

Serrated Stair Treads

PRODUCT



Serrated bearing bars are used where weather, oil or process moisture raises slip risk.

STANDARD MANUFACTURING RANGE

Parameter	Typical range
Connection	WST-B bolted / WST-W welded
Bearing bars	30 x 5 serrated
Depth	240 / 275 / 305 mm
Materials	Q235B / S275JR / A36; HDG
Typical use	Outdoor / refinery / cooling tower

COMMON MODELS

SERRATED TREAD SELECTION

- Wet, oily, refinery and cooling-tower access
- Serrated bearing bar plus anti-slip nosing
- State smooth/serrated and finish in model code
- Required R class needs test evidence
- Confirm maximum opening and governing stair code

WST-B-305-305S-HDG

305 mm depth / 30 x 5 serrated / anti-slip nosing / bolted

Serrated treads are the common choice for outdoor, refinery, cooling-water and sandy service. The project slip-test basis still controls.

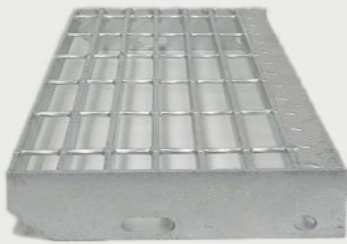
ORDERING INPUT

tread type / width / depth / serration / nosing / fixing

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

Bolted Stair Treads

TECHNICAL ILLUSTRATION



Bolted end plates allow installation and replacement without site welding; the hole pattern must match the approved stringer detail.

STANDARD MANUFACTURING RANGE

Parameter	Typical range
Fixing	65 x 5 mm end plates; drawing controls
Fasteners	M12 grade 8.8 HDG; 14 mm holes typical
Tread grating	30 x 5 at 30/100 pitch
Surface	Serrated + anti-slip nosing common
Materials	Q235B / S275JR / A36; HDG

CONNECTION RULE

BOLTED TREAD CONNECTION

- 65 x 5 mm end plates are a common starting detail
- M12 grade 8.8 HDG bolts commonly specified
- 14 mm holes typical for M12; drawing governs
- Hole centers match released stringer geometry
- Allow installation tool access

STRINGER DRAWING CONTROLS

Confirm hole centers, edge distance, bolt access and nosing projection.

Do not finalize tread width or end-plate drilling from a catalog dimension alone. Coordinate the tread schedule with the stair GA and stringer fabrication drawing.

ORDERING INPUT

stringer detail / hole centers / width / depth / bolt grade / finish

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

Custom Stair Treads

PRODUCT

CUSTOM GEOMETRY INPUT

- Curved, tapered, spiral or irregular plan
- Inner/outer width and walking line
- Rise, going, angle and landing elevations
- Stringer hole centers and rail returns
- CAD profile is required before fabrication

Curved, tapered, winder and spiral treads are fabricated directly from the stair-layout drawing.

STANDARD MANUFACTURING RANGE

Parameter	Typical range
Geometry	Curved / tapered / spiral
Construction	Welded or bolted
Bar / surface	30 x 5 plain or serrated common
Materials	Carbon steel HDG; stainless sourced option
Basis	Not a stock item - drawing required

MANUFACTURING

CUSTOM RELEASE CHECK

- Bearing-bar direction and clear span
- Nosing profile and leading-edge position
- End-plate thickness and hole pattern
- Panel marks and matched-pair packing
- No stock-size assumption for curved treads

DRAWING REQUIRED

Curved, tapered, winder or spiral geometry is not a stock size.

Provide plan radius, centerline angle, inner/outer width, fixing, nosing and panel marks. Wiberg fabricates treads to the approved layout.

ORDERING INPUT

layout drawing / radius/angle / width / fixing / nosing / panel marks

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

Stair Handrails & Guardrails

PRODUCT

STAIR RAIL BASELINE

- 1100 mm top rail common for industrial access
- 42.4 / 48.3 mm OD tube commonly sourced
- 100 x 5 mm toe plate at exposed landings
- Returns and transitions coordinated at landings
- Governing code controls gaps and loads

Project-sourced tubular edge protection integrated to the approved platform, walkway or stair drawing.

STANDARD MANUFACTURING RANGE

Parameter	Typical range
Tube OD	42.4 / 48.3 mm common
Wall	2.6 / 3.2 / 4.0 mm typical; verify load
Base plate	150 x 150 x 10 mm typical; design controls
Top rail	1100 mm common; OSHA 42 in if specified
Post spacing	<=1500 mm typical; verify design load

PROJECT SOURCED

SOURCED ASSEMBLY DATA

- Post/base/rail tube grade and wall thickness
- Base plate and anchor hole pattern
- Bolt grade and corrosion protection
- Supplier load basis and certificate
- Field-weld repair method if permitted

INTEGRATED AND SUPPLIED BY WIBERG

Rail posts / top rail / midrail / toe plate / bases / fasteners

The nominated component supplier's certified data controls tube grade and capacity. Wiberg coordinates dimensions, interfaces, finish, panel marks and submittal documents.

ORDERING INPUT

rail height / post spacing / tube OD / base detail / toe plate / finish

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

Stair Landings

PRODUCT

LANDING DIMENSIONS

- Typical depth: 750 / 900 / 1000 / 1200 mm
- Typical width: 600 / 750 / 900 / 1000 / 1200 mm
- Plain, serrated or close-mesh infill
- Support frame and elevation by drawing
- Toe plate and rail returns at open edges

Intermediate platforms connect stairs, rails and adjacent structures as a coordinated fabricated assembly.

STANDARD MANUFACTURING RANGE

Parameter	Typical range
Typical depth	750 / 900 / 1000 / 1200 mm
Widths	600 / 750 / 900 / 1000 / 1200 mm
Infill	Plain / serrated / close mesh
Frame	Engineered angle or channel frame
Options	Toe plate + prepared connections + marks

SYSTEM

LANDING INTERFACES

- Stringer and adjacent-structure connection
- Support reactions and clear bearing seat
- Removable panels and access openings
- Drainage, panel marks and packing sequence
- Guardrail transition and gate swing

INTEGRATED AND SUPPLIED BY WIBERG

Landing grating: manufactured by Wiberg. Frame, rails and anchors: project-sourced unless included.

Landing depth, elevation, rail returns and stair connections must be coordinated on the system drawing before fabrication.

ORDERING INPUT

stair width / landing depth / elevation / connections / infill / rail code

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

Anchors & Stair Connections

Bolt grade, hole pattern and base material must be coordinated before fabrication.

ANCHOR INPUTS

- Concrete strength and available edge distance
- Mechanical or chemical anchor system
- M10-M24 common sourced range
- Shear/tension reactions and corrosion class
- Engineer acceptance before procurement

STRINGER CONNECTIONS

- 50 x 50 x 6 mm brackets common starting point
- 10-16 mm plates and M12-M20 bolts common
- Bolt grade 8.8 / 10.9 by design
- Confirm wrench access and erection sequence
- Released hole pattern controls fabrication

Anchors

Cast-in, wedge, chemical and plate-welded anchors for frames and rail bases.

Parameter	Typical range
Typical sizes	M10-M24 common
Anchor type	Mechanical / chemical / cast-in
Bolt grades	8.8 / 10.9
Materials	HDG / SS 304 / 316L

Stair Connections

Tread brackets, base plates and landing gussets are fabricated to the stair drawing.

Parameter	Typical range
Brackets	50 x 50 x 6 angle typical
Plates	10-16 mm
Bolts	M12-M20
Finish	HDG / SS 316L

ELEVATION CONTROL

- Finished-floor levels and landing elevations
- Rise/going consistency across the full flight
- Headroom and clearance to adjacent equipment
- Rail returns and top/bottom transitions

INTEGRATED AND SUPPLIED BY WIBERG

Anchor manufacturer data, base material and design load control selection.

Wiberg coordinates bolt size, hole pattern, edge distance, coating and connection marks to the approved stair 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	Floor-to-floor height and stair location	02	Clear width, rise, going and stair angle
03	Design load and governing access code	04	Tread depth, grating and nosing type
05	Bolted or welded tread connection	06	Landing sizes and elevation references
07	Handrails, guardrails and toe plates	08	Required standard and document package
09	Quantity, destination and Incoterms	10	Required delivery sequence

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