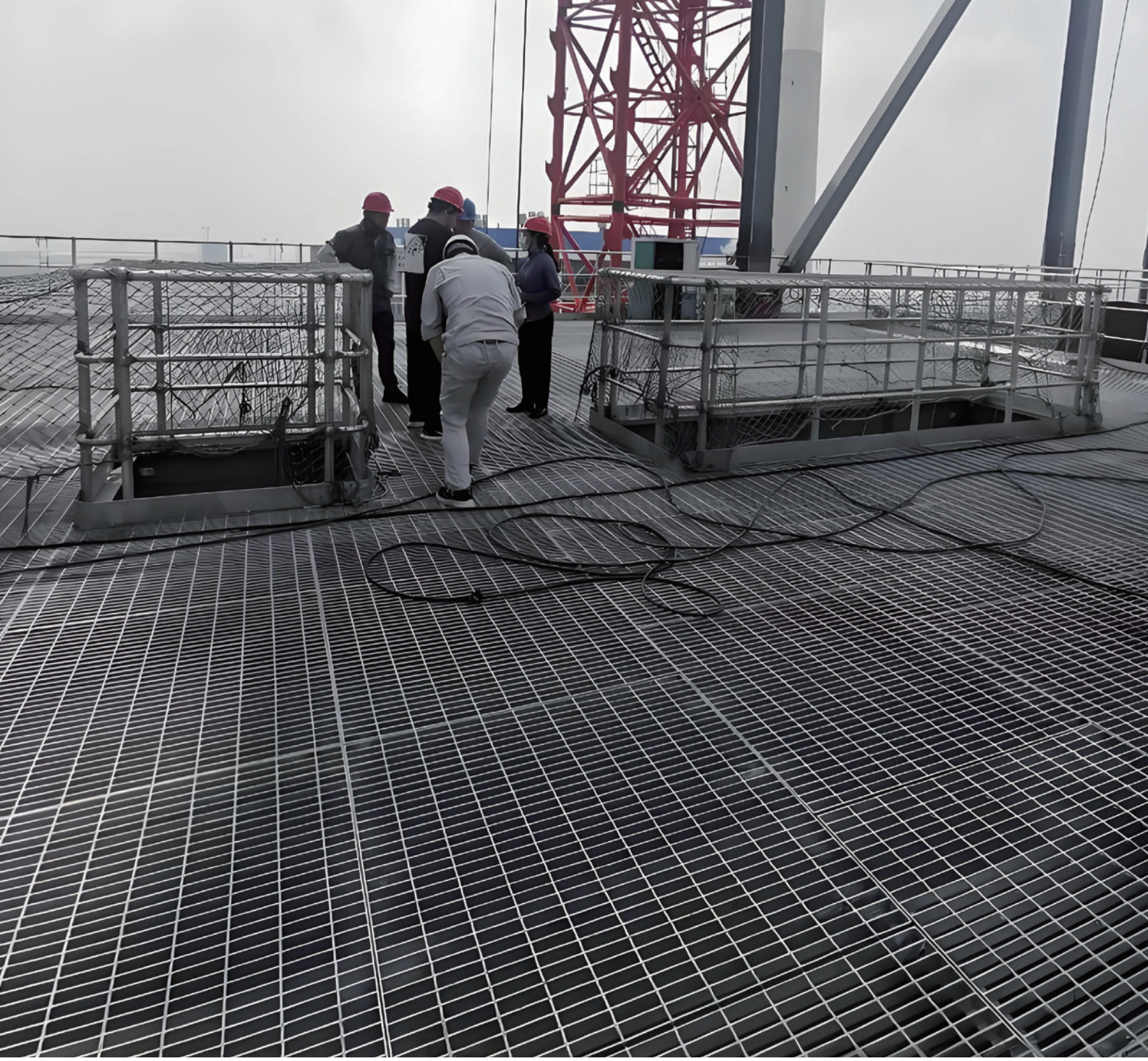

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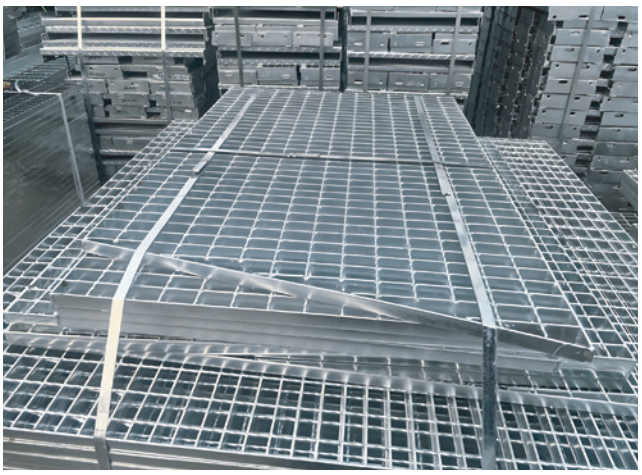
STEEL GRATING

▪ *Steel Grating*

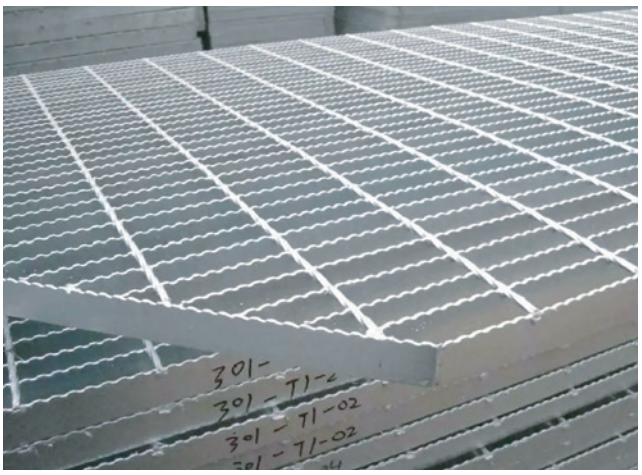
- Steel grating, also known as steel grille, is a grid-like metal component manufactured by welding or press-locking load-bearing flat bars (longitudinal members) with crossbars (transverse members, typically twisted square or round bars). Steel grating offers many advantages, including high load-bearing capacity, excellent ventilation and light transmission, slip resistance, safety, corrosion resistance, and ease of installation. Steel grating is used in various load-bearing, protective, and filtering applications.

▪ *Common Types of Steel Grating*

Press-welded Steel Grating

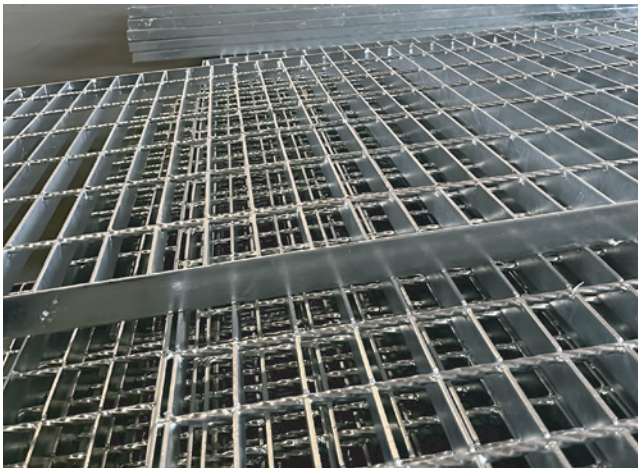


Toothed Steel Grating



Press-locked Steel Grating

Stainless Steel Grating



▪ *Material Selection: Tailored to requirements, balancing performance and cost.*

(1) Base material: Q235 Low-Carbon Steel

Suitable for standard applications, such as factory platforms and parking deck gratings. It offers high cost-effectiveness and 10-15 years of corrosion resistance after hot-dip galvanization.

(2) Corrosion-resistant material: 304/316L stainless steel

Used in the chemical, marine, and food industries. It resists acid and alkali exposure, as well as chloride ion corrosion, and has a service life exceeding 20 years.

(3) High-Strength Material: Q355 manganese steel

It is designed for heavy-duty applications, such as port crane platforms and mining trestles. It offers over 30% greater load-bearing capacity than Q235 steel.

▪ *Core Processes: Two mainstream processes tailored to different requirements*

Process Type	Technical Features	Applicable Scenarios	Customer Value
Press Welding Process	The load-bearing flat steel and crossbars are joined by high-temperature, high-pressure resistance welding. The weld penetration depth is ≥3 mm, ensuring there are no cold welds or weld separation and providing high overall rigidity.	Long-Term Load-Bearing Scenarios: (such as equipment platforms and walkways) are preferred for areas subject to heavy loads and frequent use.	Reduce long-term maintenance costs and prevent safety hazards caused by solder joint failure.
Press Locking Process	The crossbar is mechanically pressed into the flat steel channel without welding, enabling quick installation and easy modification.	Temporary structures requiring frequent disassembly (e.g., maintenance platforms)	Reduce installation time, enable flexible retrofitting, and lower construction costs.

▪ *Custom specifications: Precisely tailored to application requirements*

(1) Load-Bearing Flat Steel: Thickness: 3-10 mm

Width: 20-100 mm

(Selected based on load calculations. For example, 30 mm wide flat steel supports a uniformly distributed load of 500 kg/m² within a 2-meter span.)

(2) Cross bars: Round, square, or twisted square steel. Common specifications include 5×5, 6×6, and 8×8 mm.

(3) Mesh spacing: Standard: 30 x 100 mm (balances drainage and slip resistance); 50 x 50 mm (prevents small animal intrusion; e.g., substation gratings); 100 x 100 mm (large-span, light-load applications).

(4) Surface Treatment: Hot-dip galvanizing (preferred for outdoor corrosion resistance; zinc coating thickness ≥85 μm), electrogalvanizing (light corrosion protection for indoor use), spray painting (custom colors; e.g., municipal landscaping projects), and stainless steel natural finish (food and medical industries).

▪ *Application Scenarios: We don't just sell products; we provide "scenario solutions."*

In the mining industry:

(1) Safety Passages and Work Platforms: These are used for screening machines, crushers, conveyor belt corridors, equipment operation platforms, maintenance passages, and derrick platforms. They provide safe and reliable walking and working surfaces for personnel and equipment.

(2) High-Efficiency Screening Applications: They are used as screen plates in certain vibrating screens, such as bar screens and step screens, for the primary screening or dewatering of large, high-impact materials, such as raw ore, coal, and crushed stone. They demonstrate exceptional strength and impact resistance.

(3) Storage and Drainage Systems: Employed as grating in material silos, drainage channels, and wastewater treatment plant steps to enable ventilation and drainage while supporting heavy loads.

(4) Protection and Isolation: They are used as protective covers for mining equipment, ventilation grilles, and isolation barriers, combining functionality with safety.

Other industries:

(1) Industrial Manufacturing: - Platforms, walkways, staircases, and maintenance platforms for industrial equipment. They provide slip-resistant, safe walking surfaces. The open structure facilitates ventilation and light penetration while reducing dust accumulation. They are highly strong and can bear heavy loads.

(2) Environmental Protection & Water Services: Operating platforms, stair treads, and overflow grating in wastewater treatment plants. It offers exceptional corrosion resistance in highly corrosive environments, a long service life, and slip-resistant safety.

(3) Power and Energy: Inspection walkways in power plants and substations and boiler platforms. High safety (insulation and slip resistance). The open structure facilitates heat dissipation and observation of the underlying equipment.

(4) Other fields: Offshore oil platforms, ship decks, petrochemical plants, and refinery areas. Features include corrosion resistance, slip resistance, high load capacity, and weight reduction.

▪ *How to Select Steel Grating*

When selecting steel grating, consider the following key factors to ensure it meets your environmental and operational needs:

(1) Load-Bearing Capacity: Choose the appropriate specifications based on the load demands of the application environment (e.g., pedestrian traffic, vehicle passage, or equipment placement).

(2) Material and corrosion resistance: Select materials such as hot-dip galvanized carbon steel, stainless steel (e.g., 304 or 316), or aluminum alloy based on the level of environmental corrosion (e.g., normal air, humid conditions, or chemical exposure).

(3) Slip Resistance: For stairs, ramps, or wet areas, use serrated flat bars, checkered plates, or perforated plates.

(4) Aperture and Spacing: Determine the grid size and flat bar spacing based on safety requirements (e.g., fall prevention) and drainage and ventilation efficiency needs.

(5) Dimensions and Shape: Accurately measure the installation location and consider whether secondary processing, such as cutting or hole punching, is needed to adapt to site conditions.

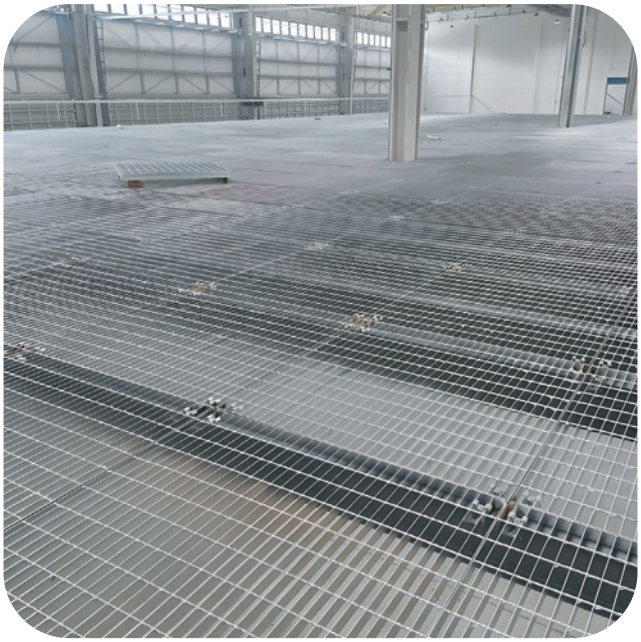
▪ *Application Cases*

- **Steel Grating Applications in Wastewater T Treatment Plants 01**

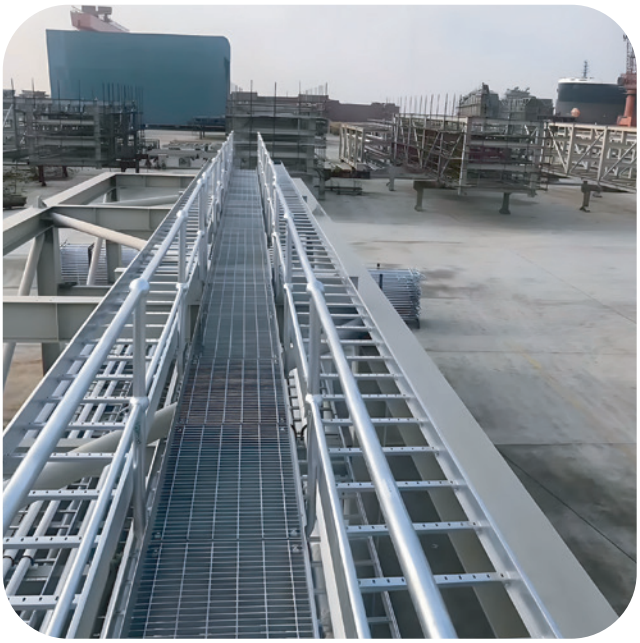
- **Steel Grating Applications in Wastewater Treatment Plants 02**

- **Steel Grating Applied in Bridge Safety Passageway 03**

- **Steel grating applications in industrial plants 04**

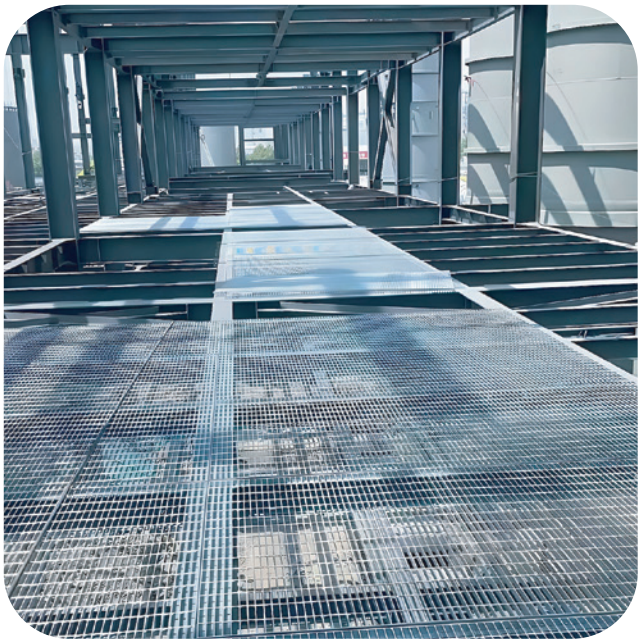


- **Steel grating applied in equipment passageway 05**

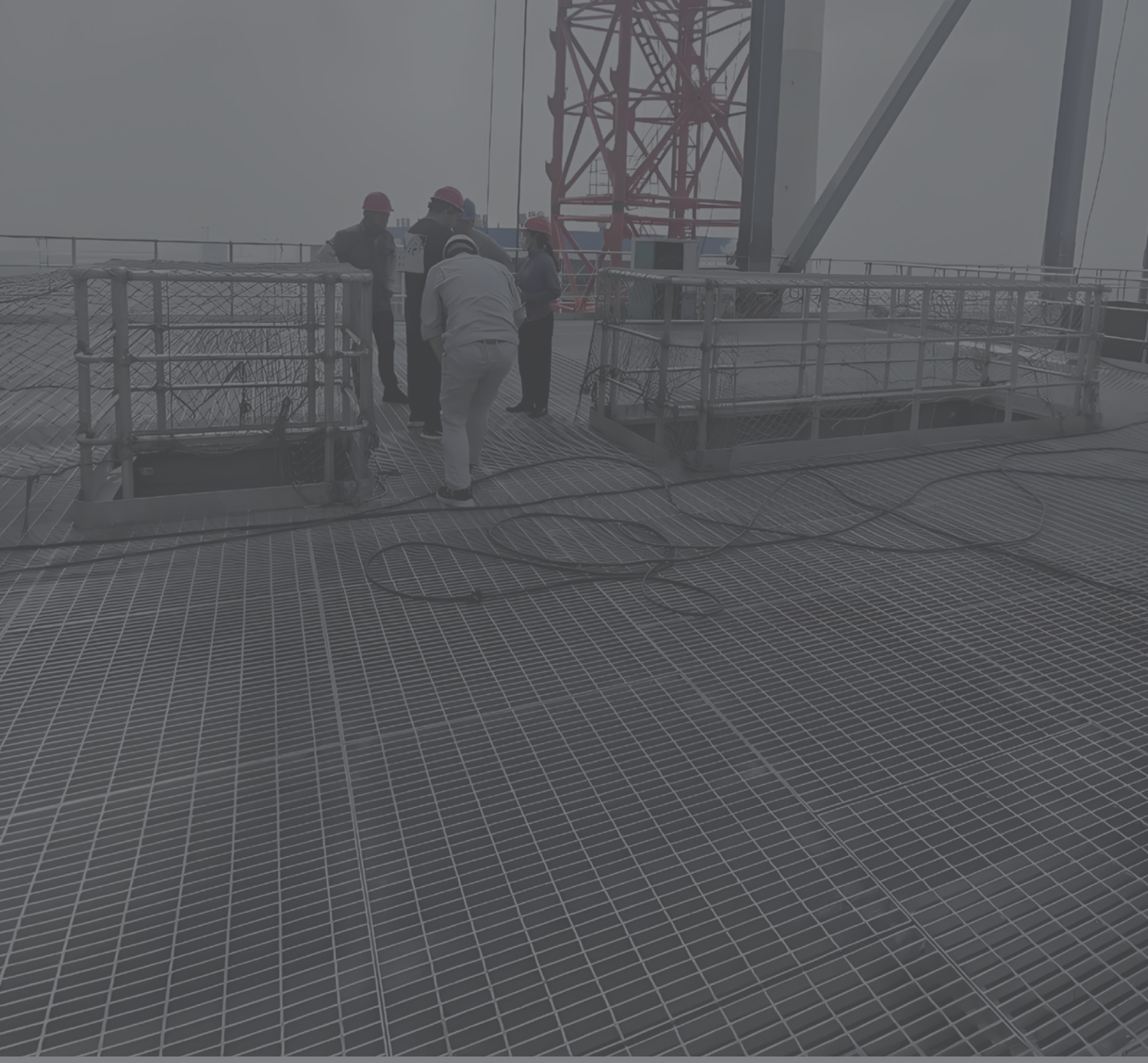


- **Steel Grating Applications in Equipment Safety Protection 06**

- **Steel grating applied in steel structure platforms 07**



- **Steel grating applied to stair landing 08**



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