



# Steel Grating Platform Handrail



# Steel Grating Platform Ball Joint Railing

Steel grating platforms are essential in various industrial and commercial settings, providing durable solutions for walkways, staircases, bridges, and offshore walkways. To further enhance safety and functionality, we offer a range of ball joint railings that perfectly complement these platforms.

## Key Features of Ball Joint Railings:

### 1. Material and Durability:

Made from high-quality carbon steel, aluminum, or stainless steel, our railings are treated with corrosion-resistant coatings such as hot-dip galvanizing or painting to ensure long-lasting performance in harsh environments.

### 2. Installation and Flexibility:

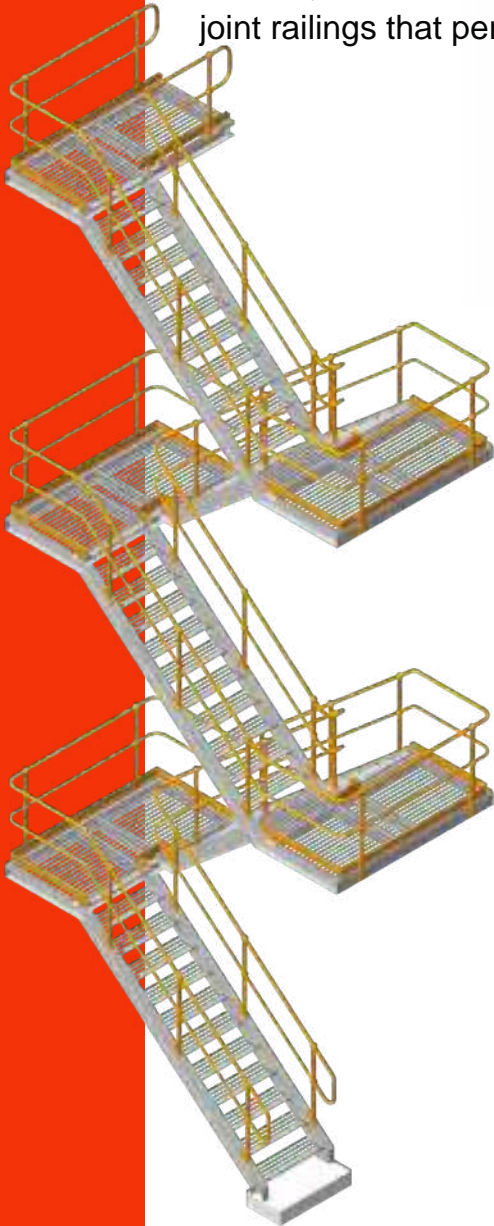
The ball joint design allows for easy on-site installation and adjustments without the need for welding. This not only saves time but also reduces costs, making it a practical choice for various projects.

### 3. Aesthetic Appeal:

With a sleek, modern design, ball joint railings enhance the overall appearance of any platform. The smooth, rounded joints provide a visually appealing and ergonomic finish, suitable for both industrial and commercial applications.

### 4. Versatility:

Our railings are designed to meet diverse needs, including industrial platforms, staircases, bridges, and municipal projects. They are especially ideal for environments where corrosion resistance is crucial, such as water treatment plants and marine settings.



## Conclusion

Ball joint railings are an excellent choice for enhancing the safety and functionality of steel grating platforms. Their durable construction, flexible installation, and aesthetic appeal make them a versatile solution for a wide range of applications. If you're looking to upgrade your platform safety, contact us today to learn more about our ball joint railing solutions.

# Technical Parameter

## Material

- Mild steel – most commonly used material. Available in 3.2 mm (medium duty) and 4.0 mm (heavy duty) wall thickness.
- Aluminum – better corrosion resistant performance make it be used in highly corrosive areas, such as water treatment plants, costal environments and offshore platforms & walkways.
- Stainless steel – the best corrosion resistant performance for highly corrosive environments.

### Standard Handrails

- 32 mm NB
- 42.4 mm OD
- 3.2 mm Gauge

### Standard Kneerail

- 25 mm NB
- 33.7 mm OD
- 3.2 mm Gauge

### Heavy Duty Handrails

- 32 mm NB
- 42.4 mm OD
- 4.0 mm Gauge

### Heavy Duty Kneerail

- 25 mm NB
- 33.7 mm OD
- 4.0 mm Gauge

### Aluminum Handrail

- 46 mm OD
- 39 mm ID

### Aluminum Kneerail

- 38.1 mm OD
- 34.1 mm ID

## Finish

- Black – for mild steel, no coating
- Galvanized – for mild steel, hot dipped galvanized
- Painted – for mild steel, aluminum or stainless steel, wet or dry (powder) coated to your specific colors
- Mill finish – for aluminum, no coating

## Heights

- Single rail: according to design
- Double rails: 1017 mm (the most popular)
- Triple rails: 1200 mm

## Column spacing

- 1000 mm
- 1200 mm
- 1500 mm
- 2000 mm
- As customers request

## Quantity of horizontal poles

- One horizontal poles
- Two horizontal poles
- Three horizontal poles

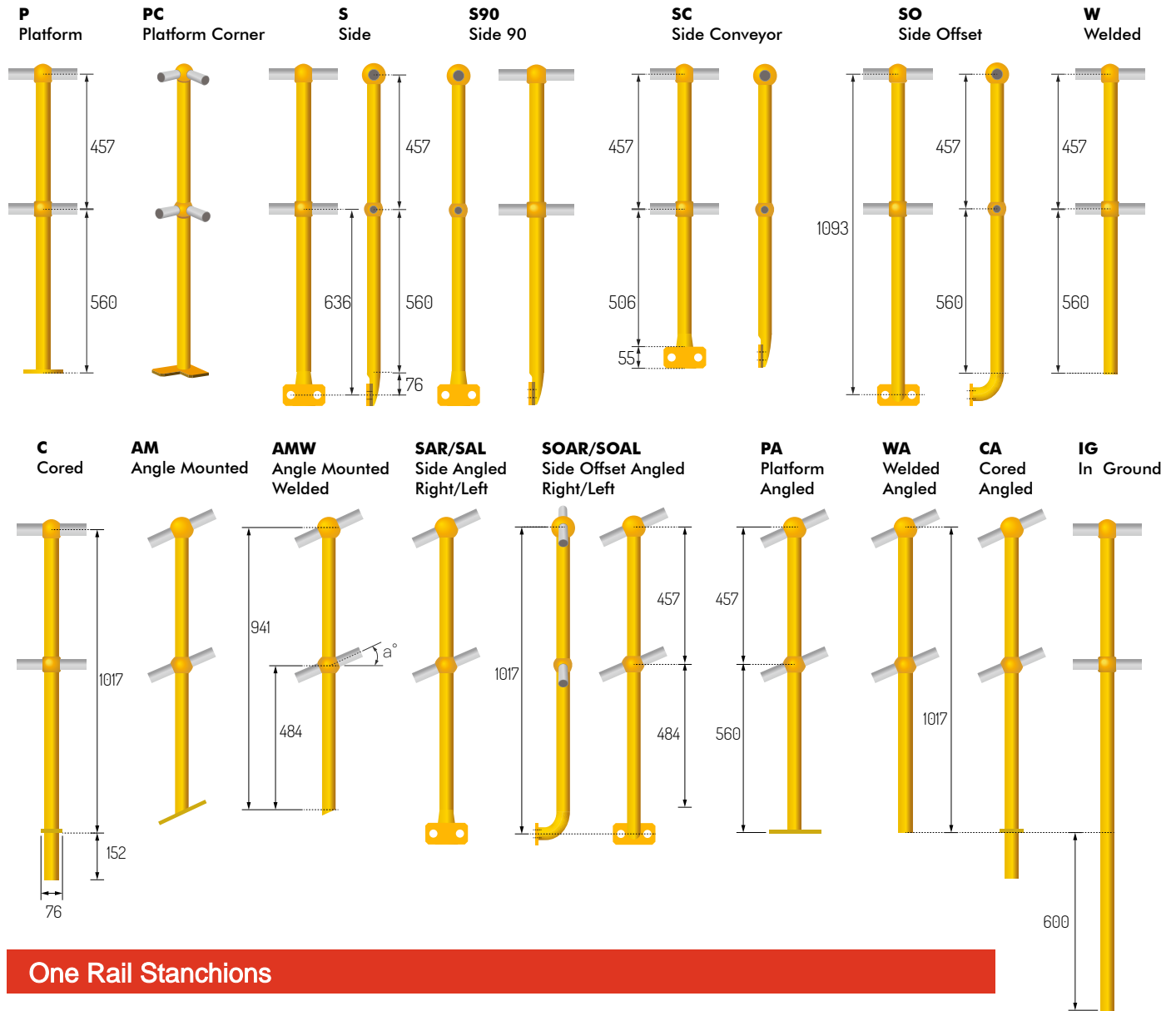
We can provide any style and size to meet your specific requirements. You may also supply details about your application environment or provide technical drawings, and our design team will deliver a tailored solution that fits your needs perfectly.

## PRODUCT CODE

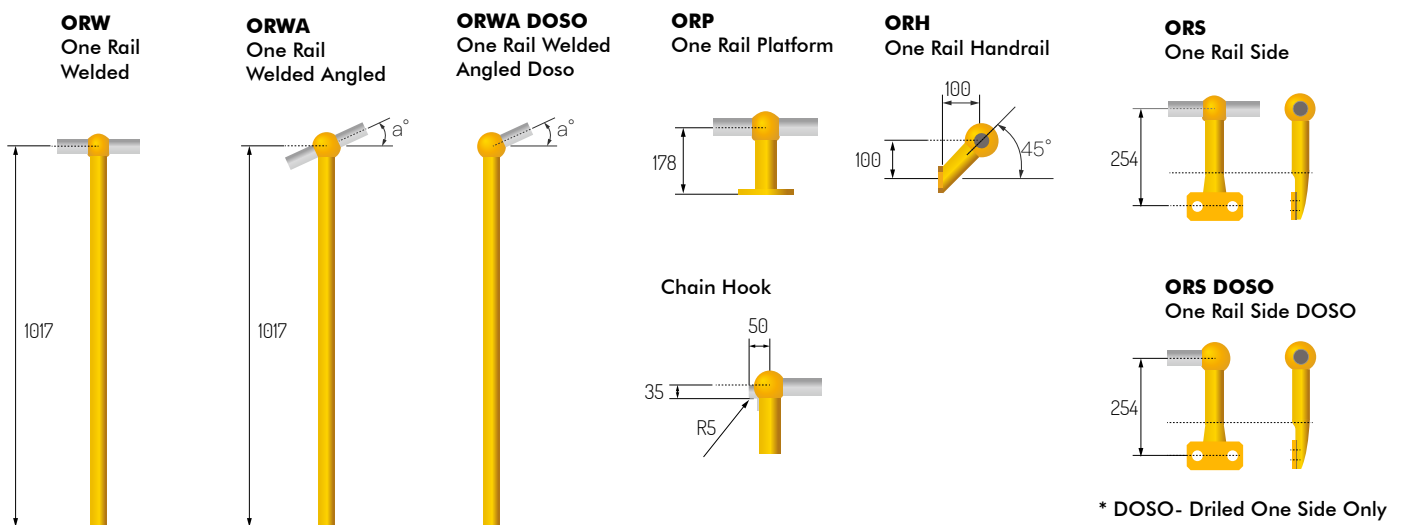
| Item       | Product Code | Description                                  |
|------------|--------------|--|
| Stanchions | P            | Platform                                     |
|            | PA           | Platform Angle                               |
|            | PC           | Platform Corner                              |
|            | C            | Cored  |
|            | CA           | Cored Angle                                  |
|            | W            | Welded                                       |
|            | WA           | Welded Angle                                 |
|            | S            | Side   |
|            | S90          | Side 90                                      |
|            | SC           | Side Conveyor                                |
|            | SO           | Side Offset                                  |
|            | SAL          | Side Angle Left                              |
|            | SAR          | Side Angle Right                             |
|            | SOAL         | Side Offset Angle Left                       |
|            | SOAR         | Side Offset Angle Right                      |
|            | IG           | Inground                                     |
|            | IGA          | Inground Angle                               |
|            | AM           | Angle Mounted                                |
|            | AMW          | Angle Mounted Welded                         |
|            | ORP          | One Rail Platform                            |
|            | ORS          | One Rail Side                                |
|            | ORH          | One Rail Handrail                            |
|            | DOSO         | Left/Right Hand                              |
|            | ORS DOSO     | One Rail Side Left/Right Hand                |
| Bends      | RB32         | Rail Bend 32NB                               |
|            | RB25         | Rail Bend 25NB                               |
|            | RB46         | Rail Bend 46OD                               |
|            | RB38         | Rail Bend 38OD                               |
| Pipe       | P32          | Pipe 32NB                                    |
|            | P25          | Pipe 32NB                                    |
|            | P46          | Pipe 46OD                                    |
|            | P38          | Pipe 38OD                                    |
| Kick plate | K1006        | Kick plate 100×6                             |
| Gate       | HGATE        | single gate no kick plate                    |
|            | HGATEKP –    | Single gate with kick plate                  |
|            | HGATED       | Double gate (up to 3000 mm stanchion centre) |
| Swing      | NW Swing     | Northwest Swing                              |
|            | SW Swing     | Southwest Swing                              |
|            | NE Swing     | Northeast Swing                              |
|            | SE Swing     | Southeast Swing                              |

# MAIN STRUCTURES

## Stanchions

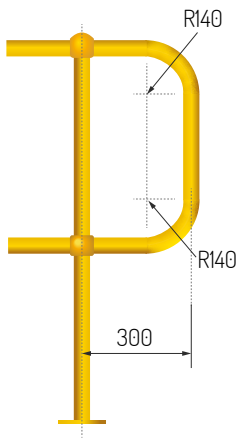


## One Rail Stanchions



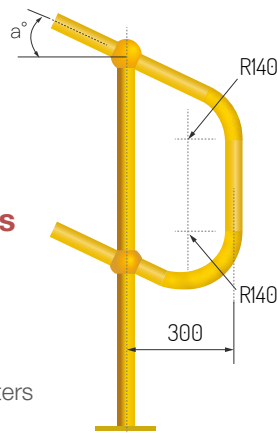
# MAIN STRUCTURES

## Bends



### Horizontal Closure Bends

- Wall thickness: 3.2 mm
- 90° closure bends
- 140 mm radius
- 300/260 mm legs at 457 mm centers

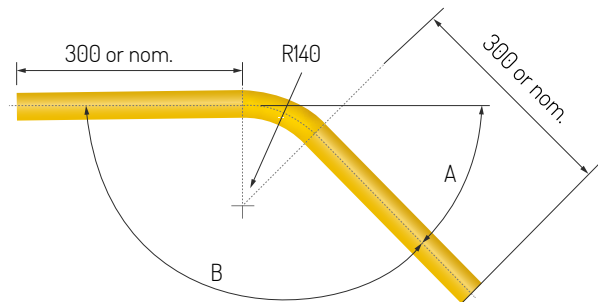
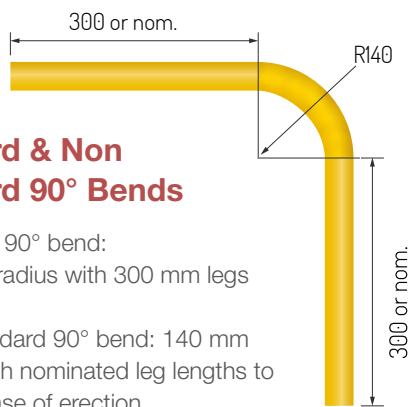


### Angle Closure Bends

- 140 mm radius bends
- 300/200 mm legs at 457 mm centres
- Angle closure bends are made to order between 1° and 45°.

### Standard & Non Standard 90° Bends

- Standard 90° bend: 140 mm radius with 300 mm legs
- Non-standard 90° bend: 140 mm radius with nominated leg lengths to enable ease of erection



### Standard & Non-Standard Bends

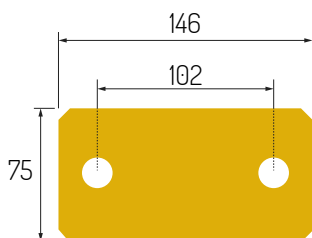
Special angles are made to suit customer's requirements. Always specify angles as shown, either A or B.

## Base Plates

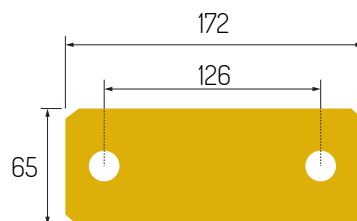
All base plates are 10 mm thickness.

Hole size is typical  $\text{Ø}17.5$  mm

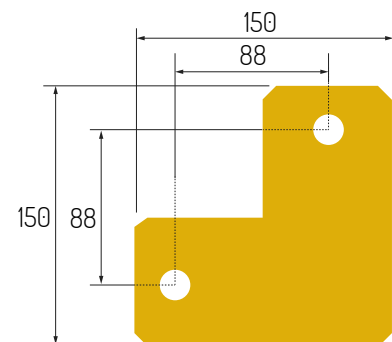
All base plates have pre-drilled drain holes



Standard



Angle Mounting Only



Corner

# MAIN STRUCTURES

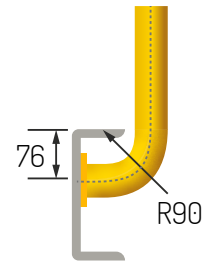
## Offset

### CHANNELS

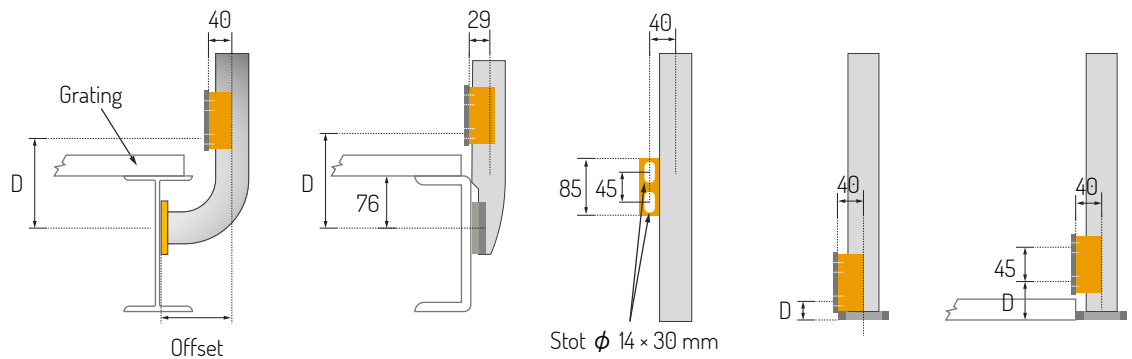
| SIZE      | OFFSET |
|-----------|--------|
| 150 × 75  | 110 mm |
| 180 × 75  | 110 mm |
| 200 × 75  | 110 mm |
| 230 × 75  | 110 mm |
| 250 × 90  | 115 mm |
| 300 × 125 | 115 mm |
| 380 × 100 | 125 mm |

### UNIVERSAL BEAMS

| SIZE   | OFFSET |
|--------|--------|
| 200 UB | 110 mm |
| 250 UB | 110 mm |
| 310 UB | 110 mm |
| 360 UB | 115 mm |
| 410 UB | 125 mm |
| 460 UB | 125 mm |
| 530 UB | 135 mm |



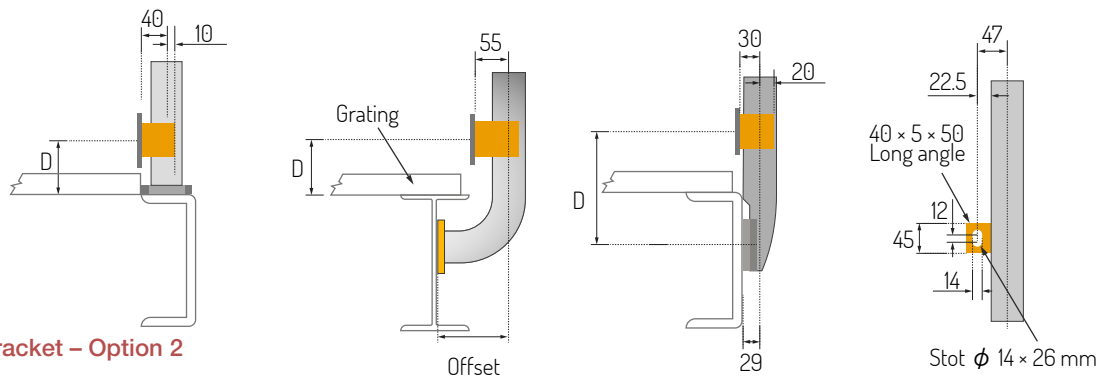
## Kick Plate



### Kick plate Mounting Bracket – Option 1

Dimension 'D' for various stanchion types

| Grating Height (mm) | Nil   | 20/25/32 | 40/45/50 | 60/65 |
|---------------------|-------|----------|----------|-------|
| P, W, C             | D=40  | D=65     | D=80     | D=100 |
| S & SO              | D=115 | D=140    | D=160    | D=175 |



### Kick plate Mounting Bracket – Option 2

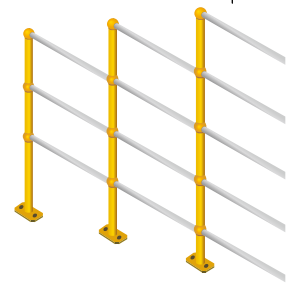
Dimension 'D' for various stanchion types

| Grating Height (mm) | Nil   | 20/25/32 | 40/45/50 | 60/65 |
|---------------------|-------|----------|----------|-------|
| P, W, C             | D=60  | D=85     | D=100    | D=120 |
| S & SO              | D=135 | D=160    | D=180    | D=195 |

# MAIN STRUCTURES

## Multi Rail Applications

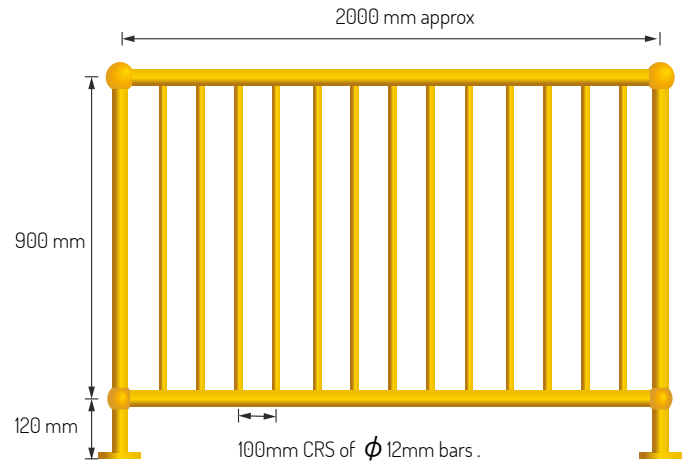
Standard stanchions are 2 balls, and multi ball stanchions are also available, just tell us your requirements, we will customize them for you. Please note that the minimum ball centers are 295 mm.



## Balustrade

The 12 mm vertical bars at 100 mm centers are designed to prevent children from climbing or falling through the panel.

Fabricated to exact project specifications.



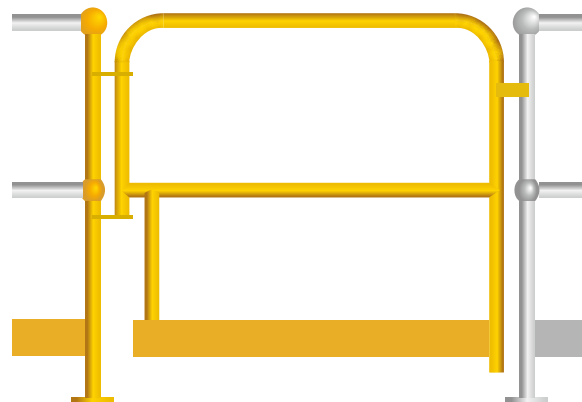
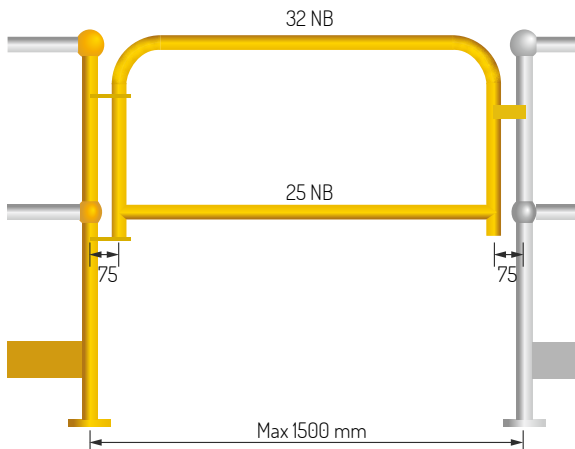
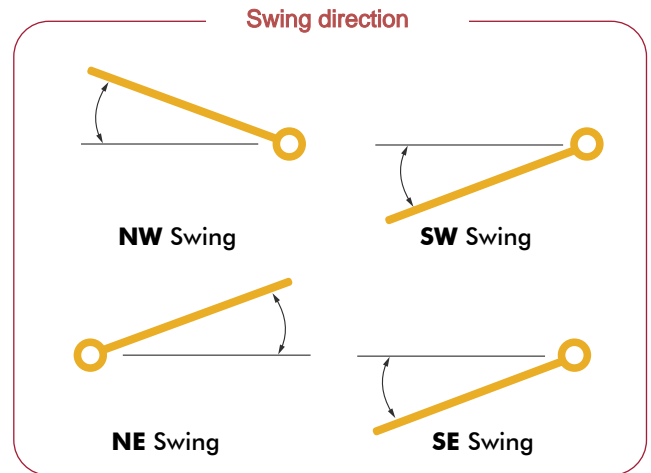
## Self Closing Gates

When ordering a self closing gate the following information is required:

- Gate type
- Swing direction
- Stanchion type
- Stanchion centers
- Plan view of gate in-situ showing rail direction

### Gate types

- HGATE – single gate no kick plate
- HGATEKP – single gate with kick plate
- HGATED – double gate (up to 3000 mm stanchion centre)



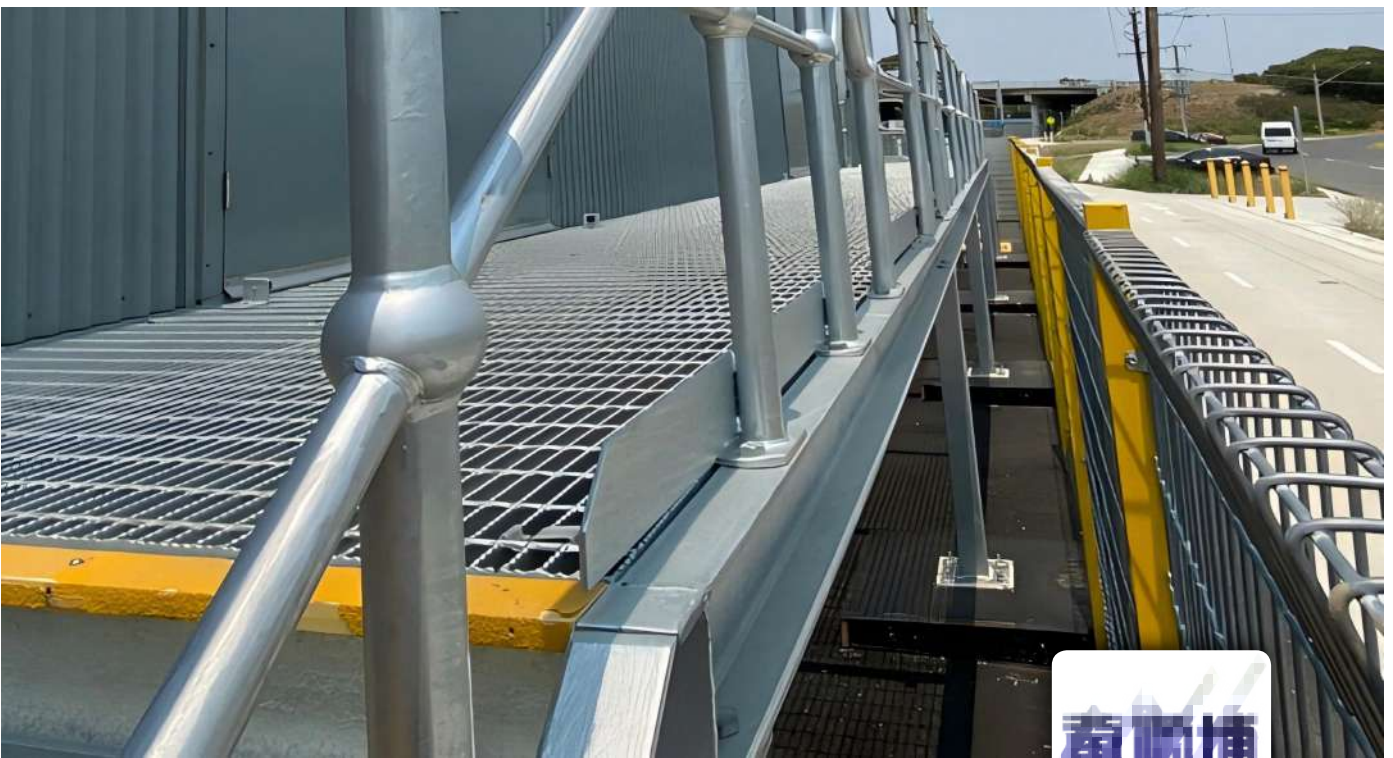


# Application of ball joint railing





# Steel Grating Platform Handrail ShunBo Company



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