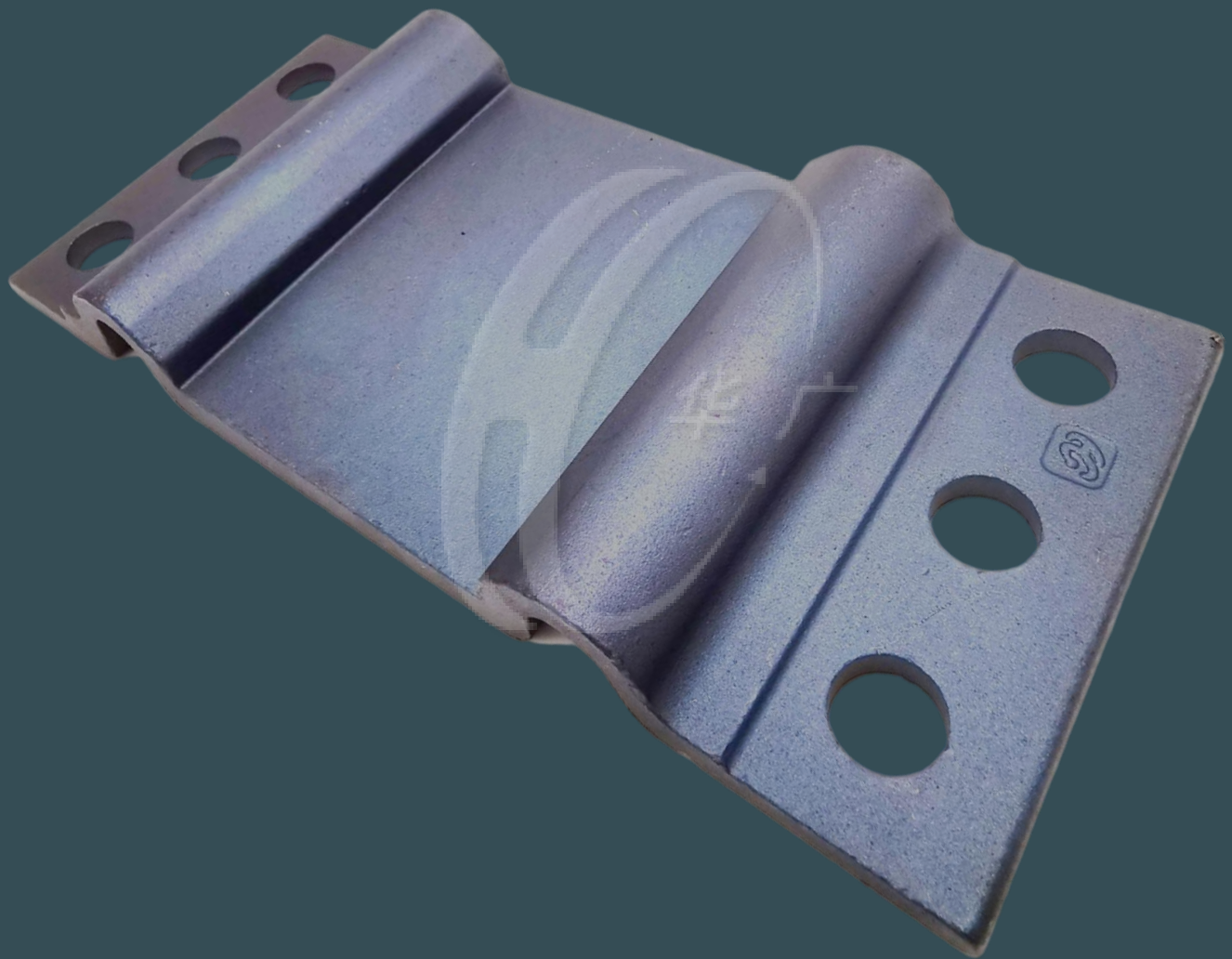


# TIE PLATE



Huaguang Seiko OEM/ODM forged tie plates are designed and manufactured for meeting most of the specific and technical requirements in diverse countries' needs.


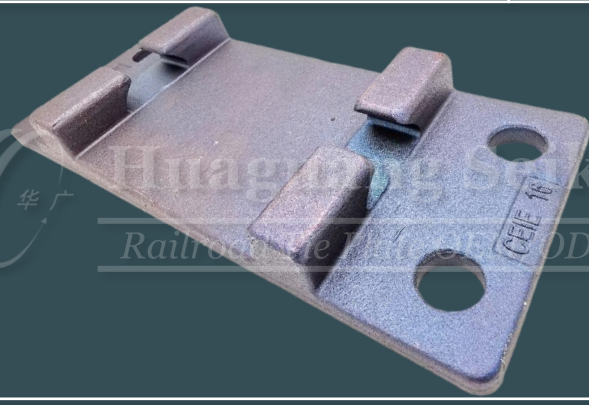

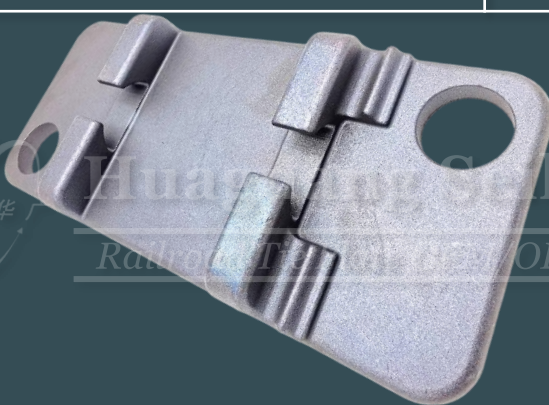
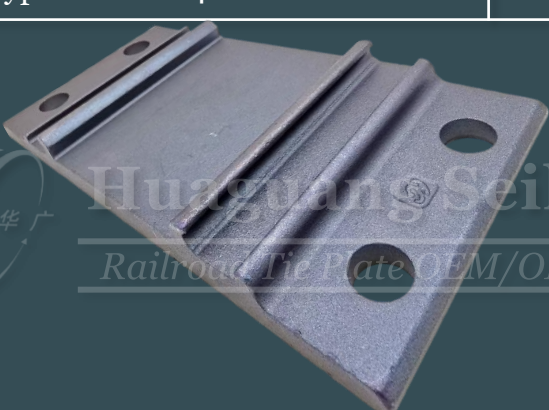
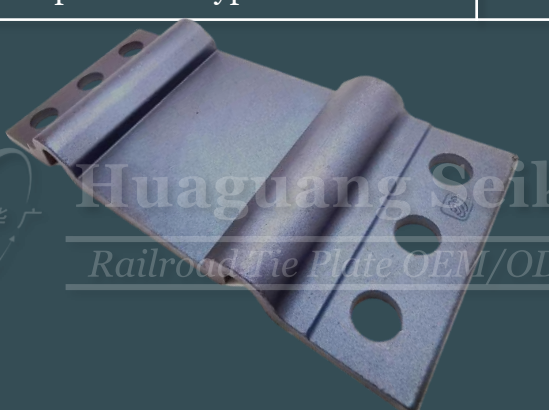


**Huaguang Seiko**

*Railroad Tie Plate OEM/ODM*

# PRODUCT CATALOGUE

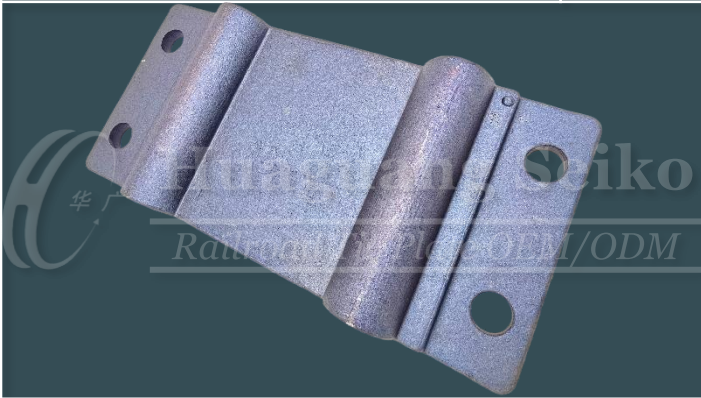
## TIE PLATE

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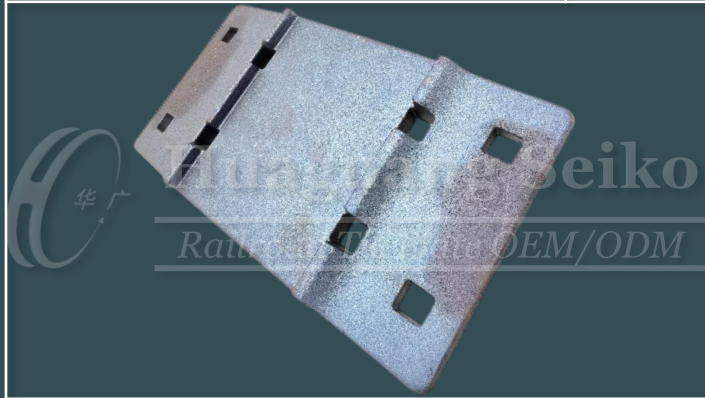
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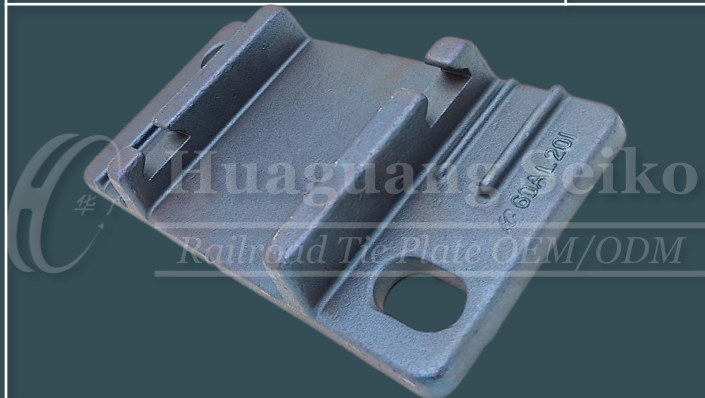
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10. Japanese Bullet Train (Shinkansen) Type: JBT-2O

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11. Japanese Bullet Train (Shinkansen) Type: JBT-4O

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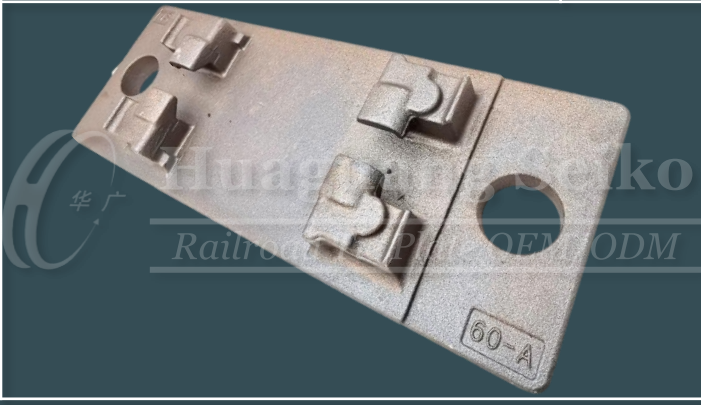


12. Chinese High-speed Railway Type: CHR-2O

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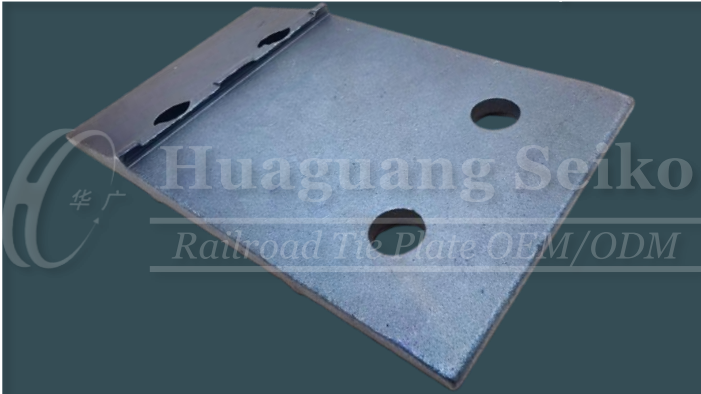
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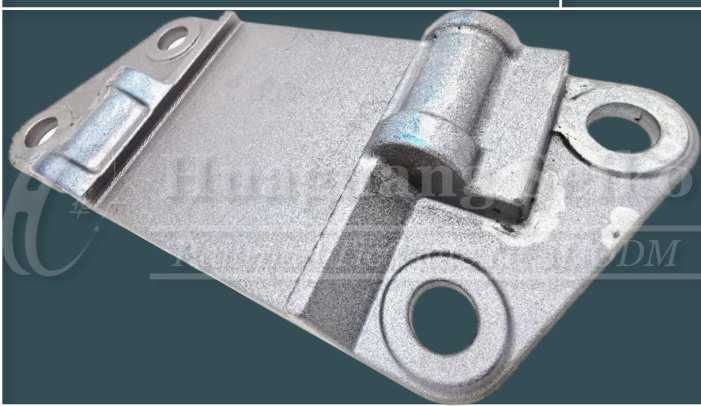
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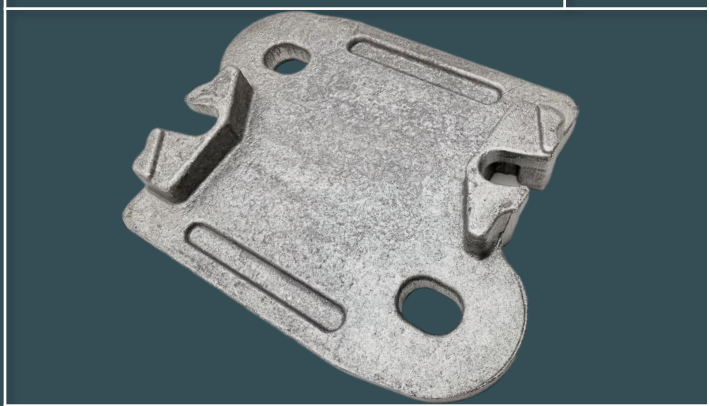
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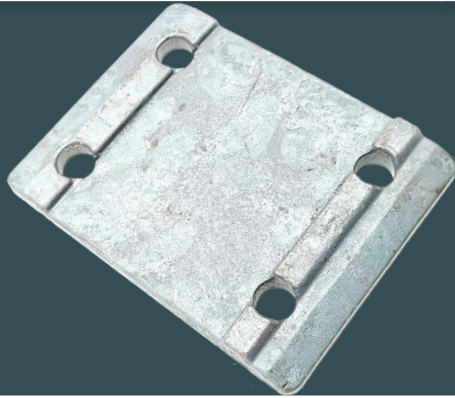
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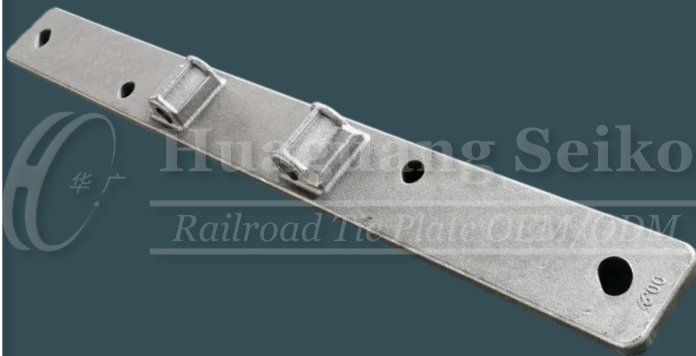
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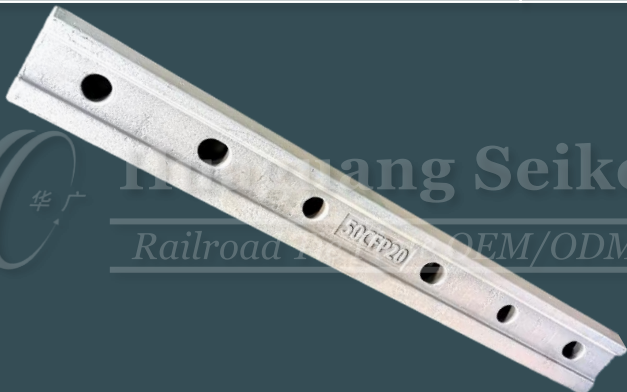
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24. Fishplate Special Type

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# 1. European Standard Railroad Type: S-45 / 49E1 / 54E2



## QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	8.4 kg	10.0 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.5/pc	USD \$0.2/pc	Depend on the country and location	USD \$4.7/pc + (a+d)	USD \$4,670

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

## TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

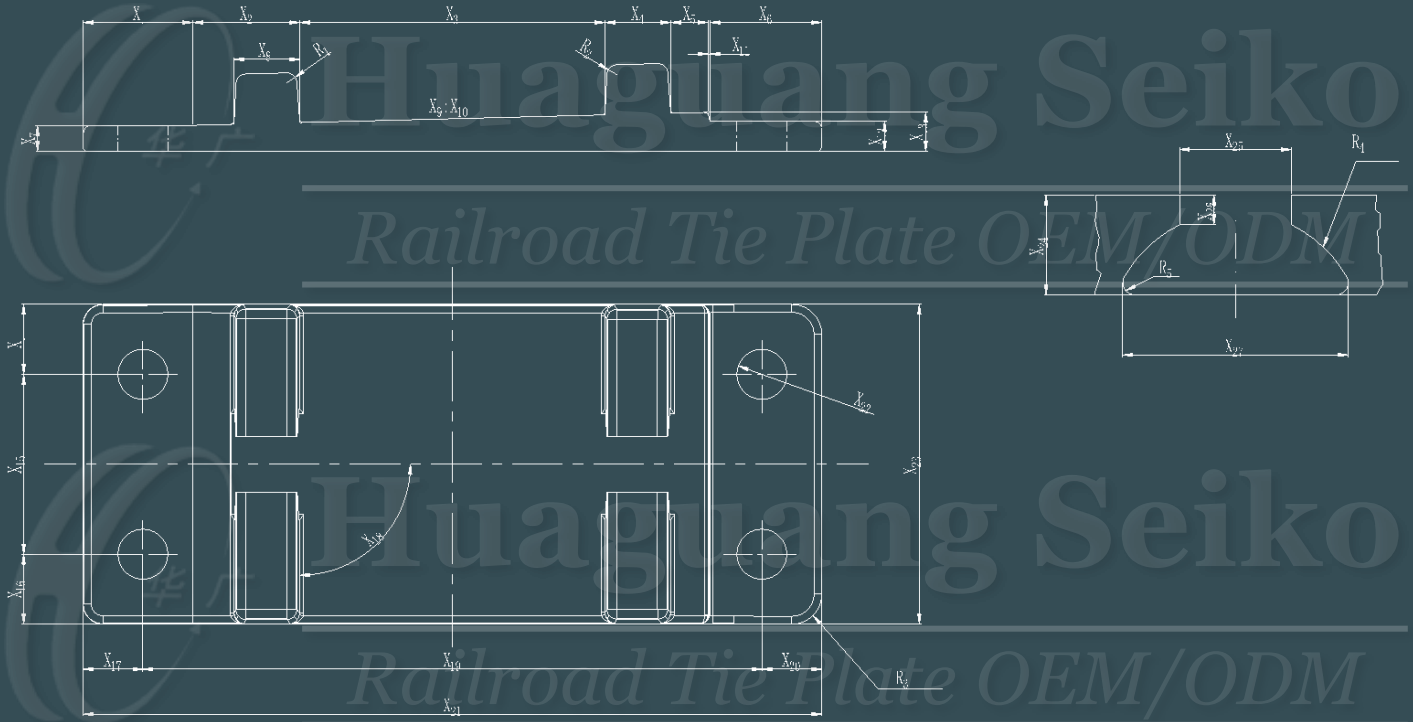
- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.



## CONCEPT DESIGN

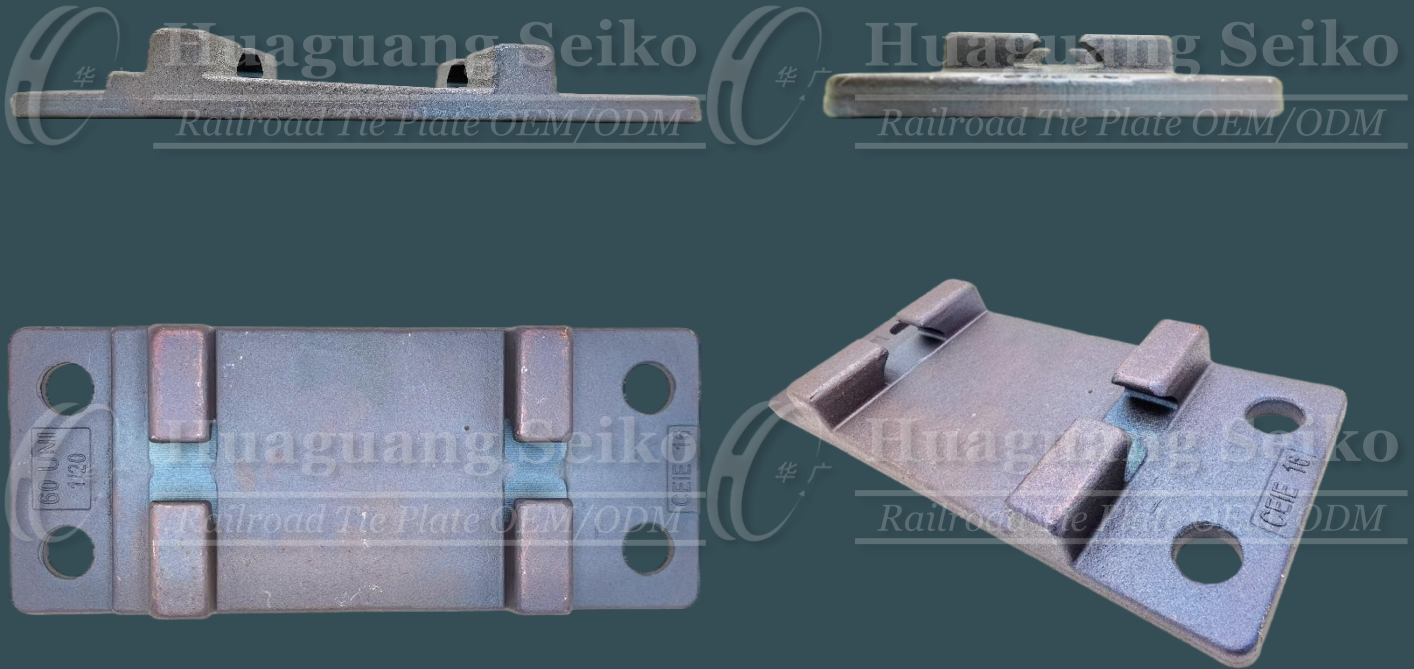


## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 2. European Standard Railroad Type: 60UNI



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	8.8 kg	10.3 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.9/pc	USD \$0.2/pc	Depend on the country and location	USD \$5.1/pc + (a+d)	USD \$4,670

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

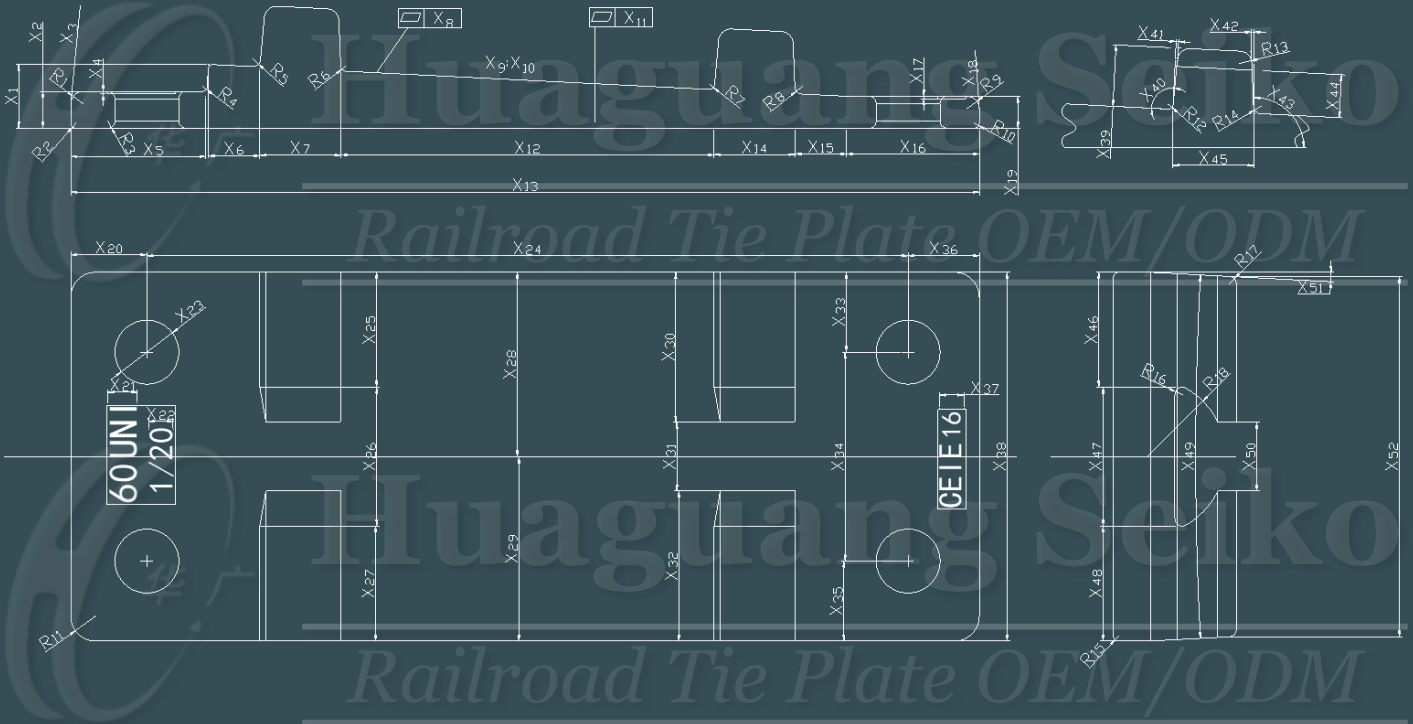
- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.



## CONCEPT DESIGN



## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

### 3. European High-speed Railroad Type: EHR-RP4R



#### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	9.1 kg	10.5 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$5.2/pc	USD \$0.2/pc	Depend on the country and location	USD \$5.4/pc + (a+d)	USD \$4,670

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

#### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

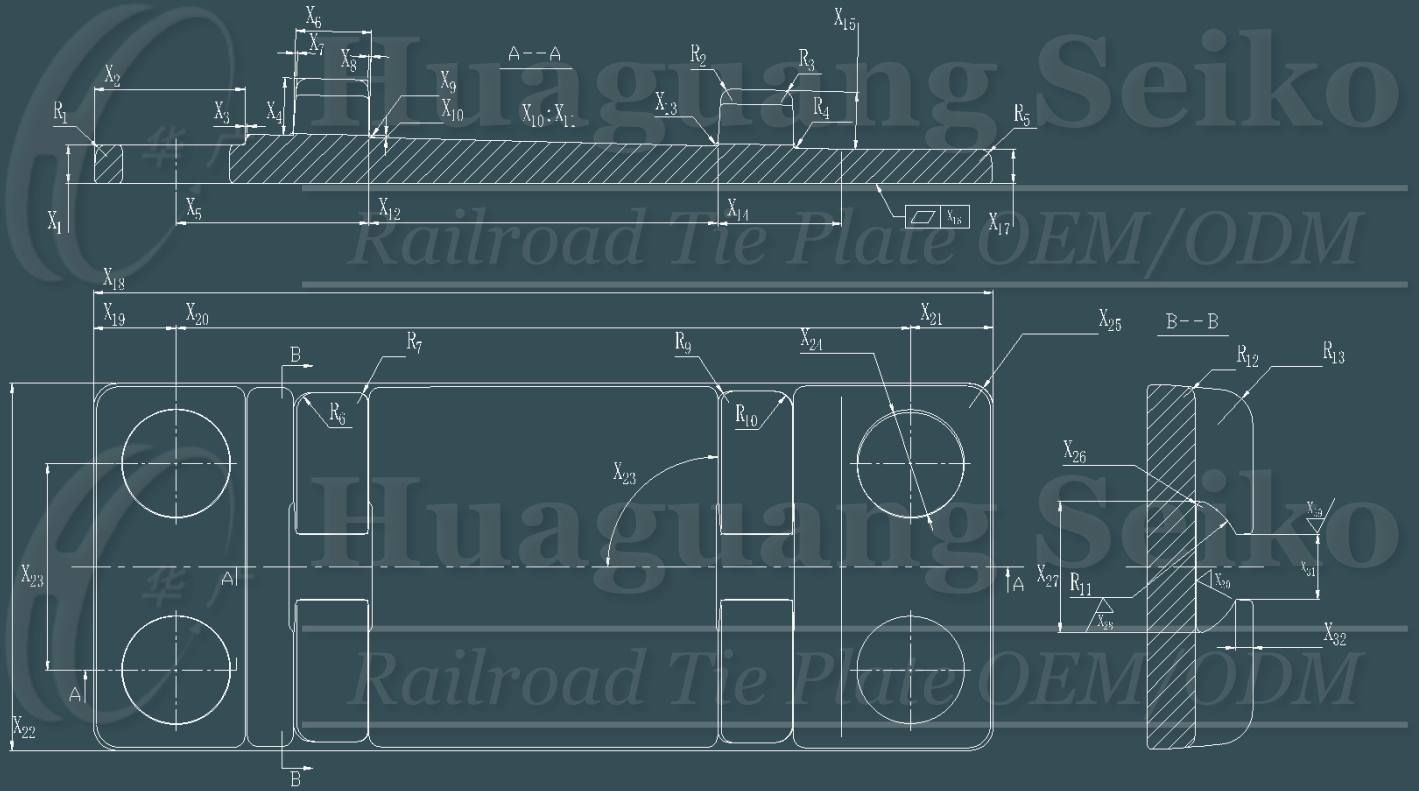
- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.



## CONCEPT DESIGN



## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 4. European High-speed Railroad Type: EHR-HB2R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	8.5 kg	10.0 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.6/pc	USD \$0.2/pc	Depend on the country and location	USD \$4.8/pc + (a+d)	USD \$4,670

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

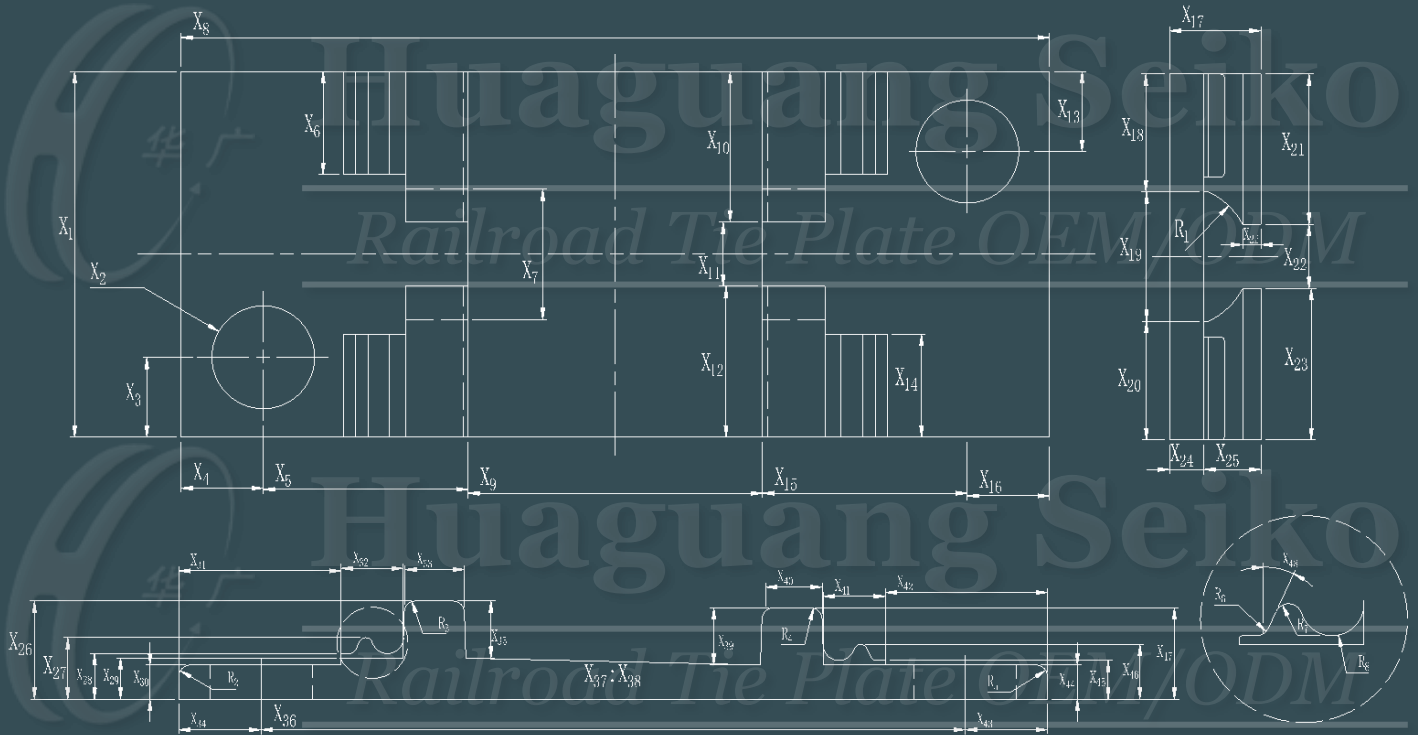
- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.



## CONCEPT DESIGN

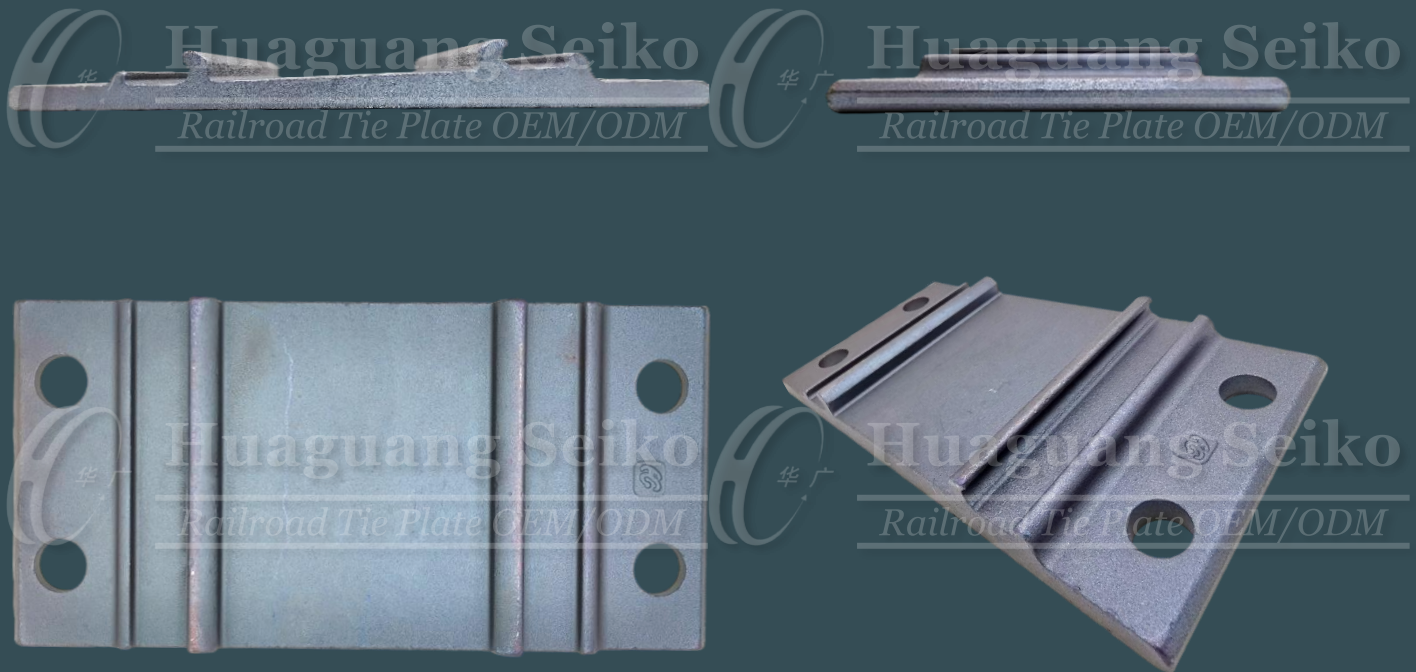


## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 5. European High-speed Railroad Type: EHR-FS4R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	7.3 kg	8.5 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.1/pc	USD \$0.2/pc	Depend on the country and location	USD \$4.3/pc + (a+d)	USD \$4,040

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

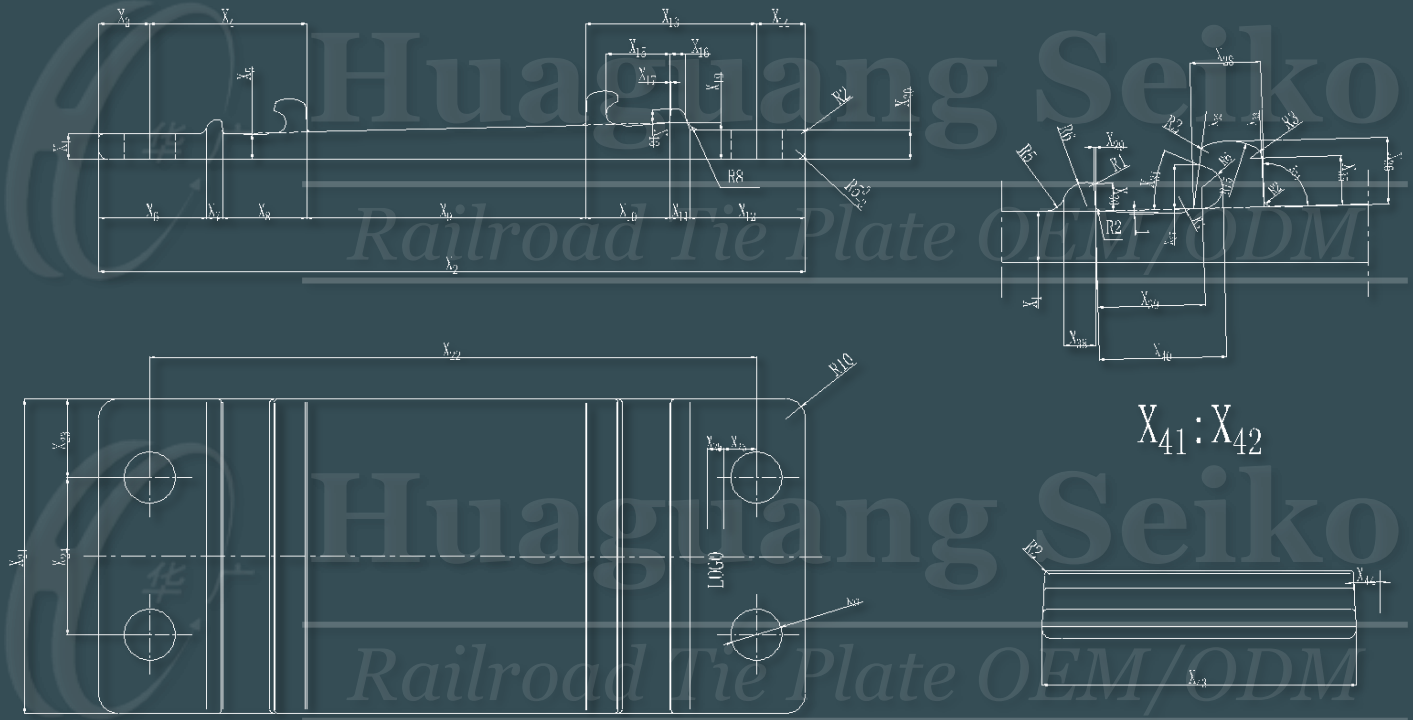
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



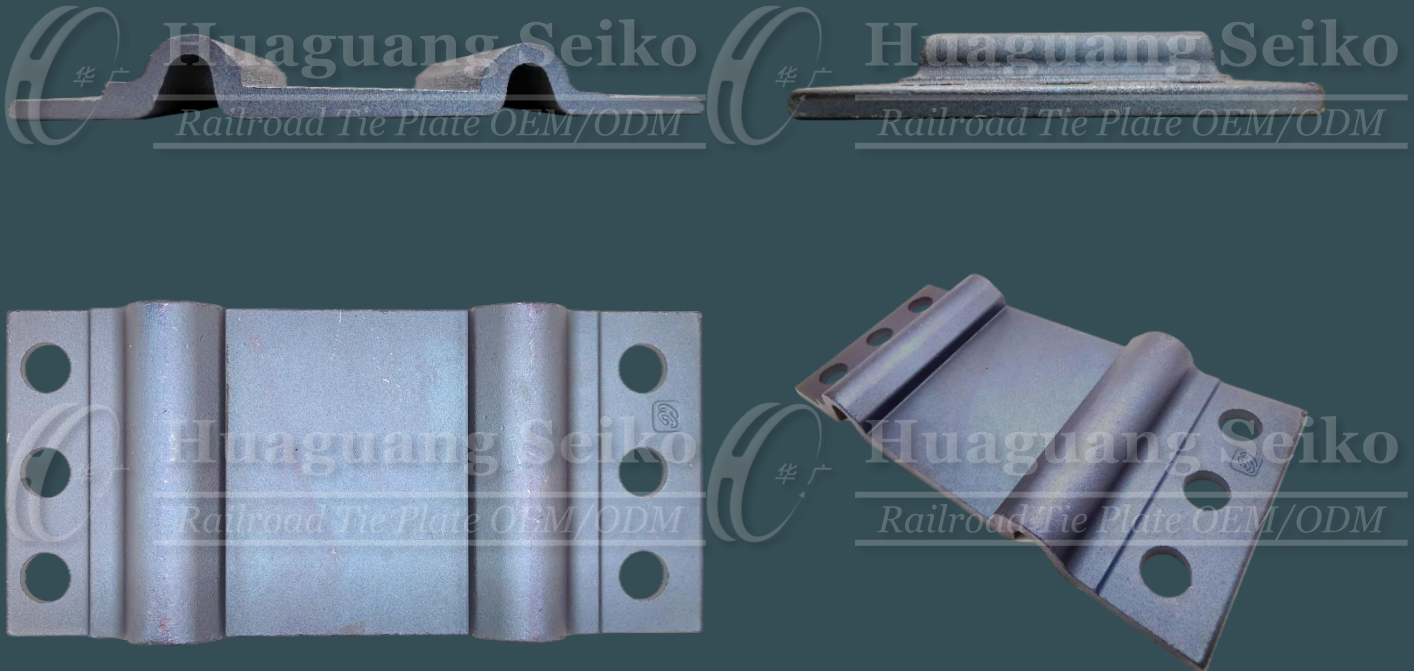
## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.



## 6. North American Metropolitan Transportation Type: NAMT-6R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	8.5 kg	10.0 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.6/pc	USD \$0.2/pc	Depend on the country and location	USD \$4.8/pc + (a+d)	USD \$4,670

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

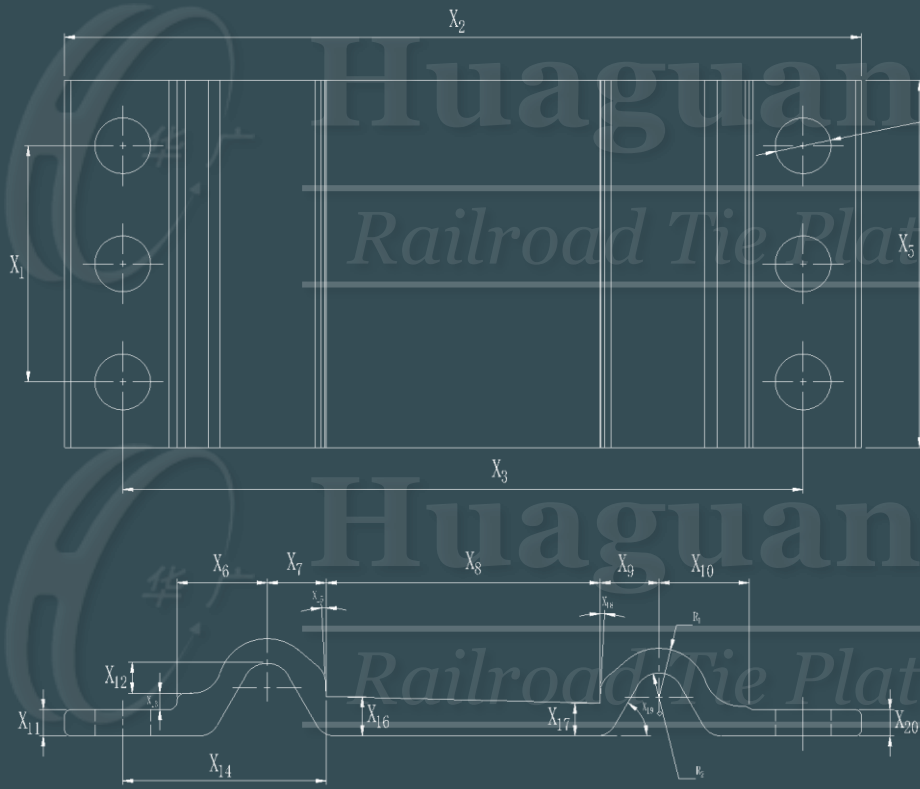
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 7. North American Metropolitan Transportation Type: NAMT-4R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	7.1 kg	8.5 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$3.7/pc	USD \$0.2/pc	Depend on the country and location	USD \$3.9/pc + (a+d)	USD \$4,040

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

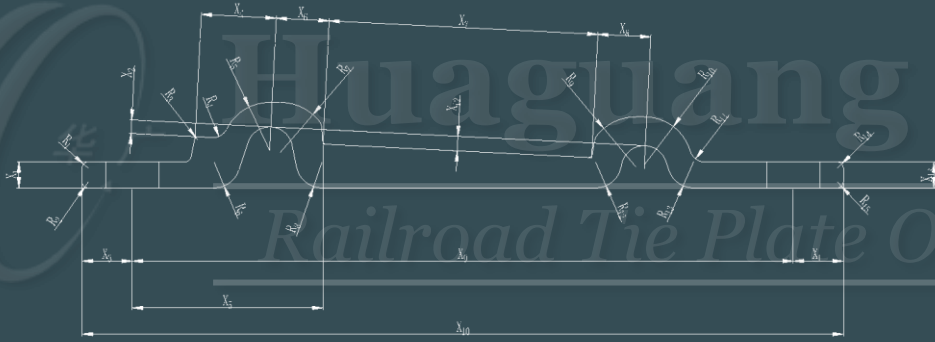
- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.



## CONCEPT DESIGN

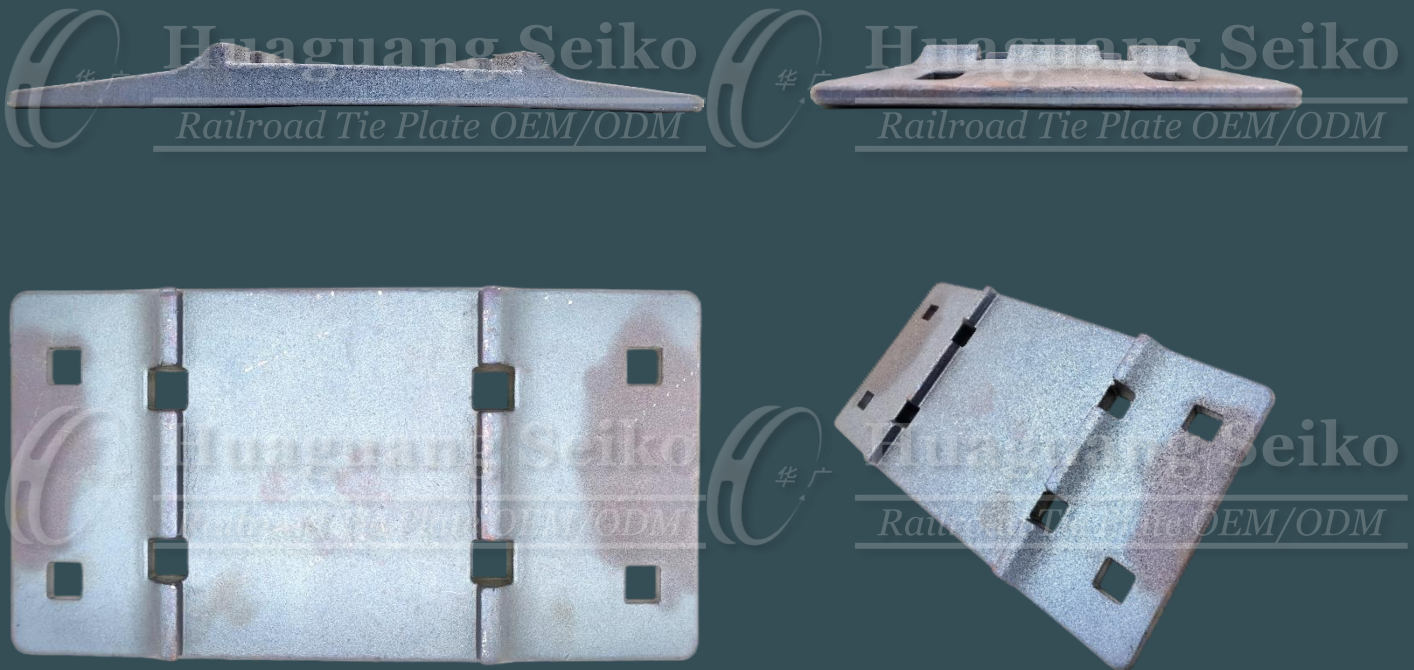


## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 8. North American Standard Railway Type: NASR-8S



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	10.6 kg	12.2 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$6.1/pc	USD \$0.2/pc	Depend on the country and location	USD \$6.3/pc + (a+d)	USD \$4,980

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

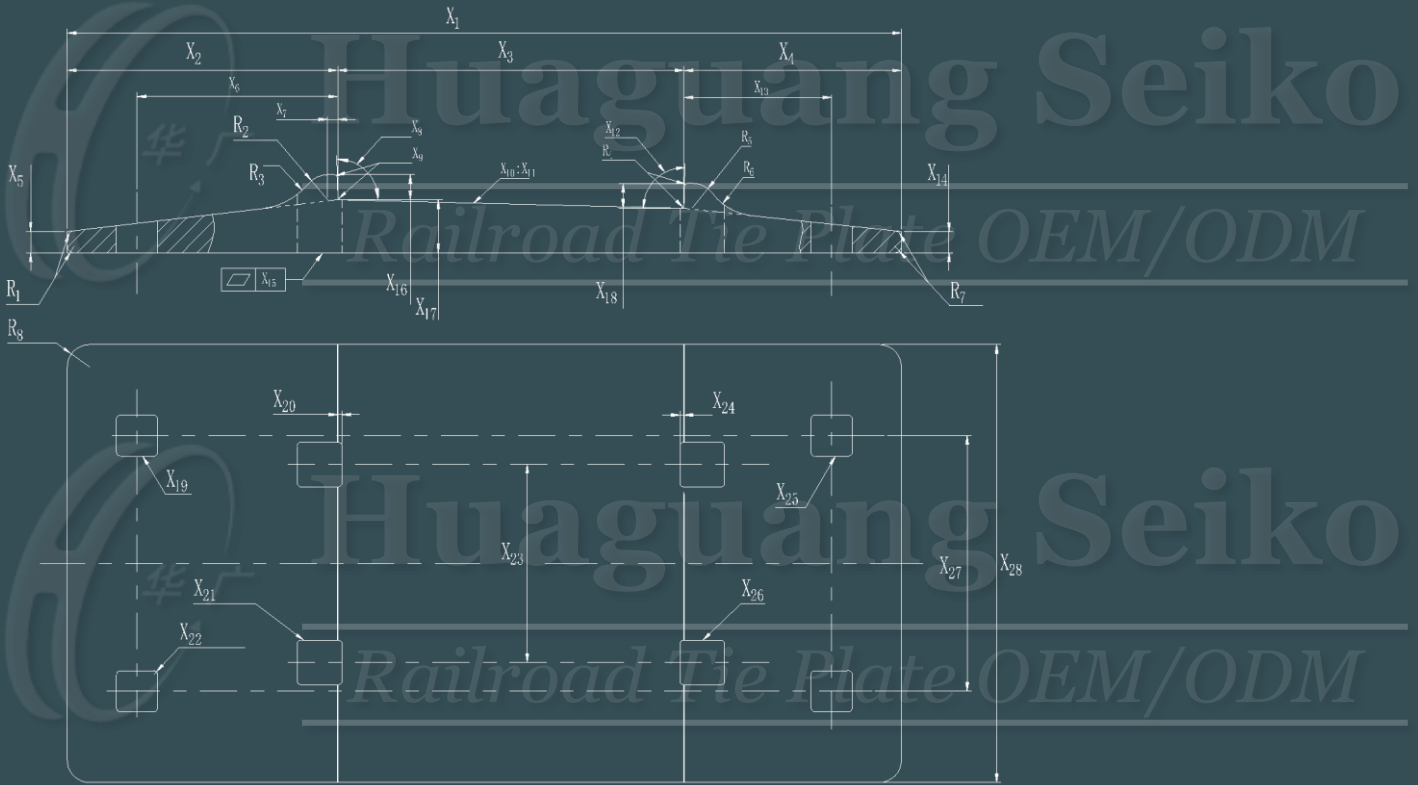
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.



## 9. South American Standard Subway Type: SASS-4R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	7.9 kg	9.2 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.4/pc	USD \$0.2/pc	Depend on the country and location	USD \$4.6/pc + (a+d)	USD \$3,250

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

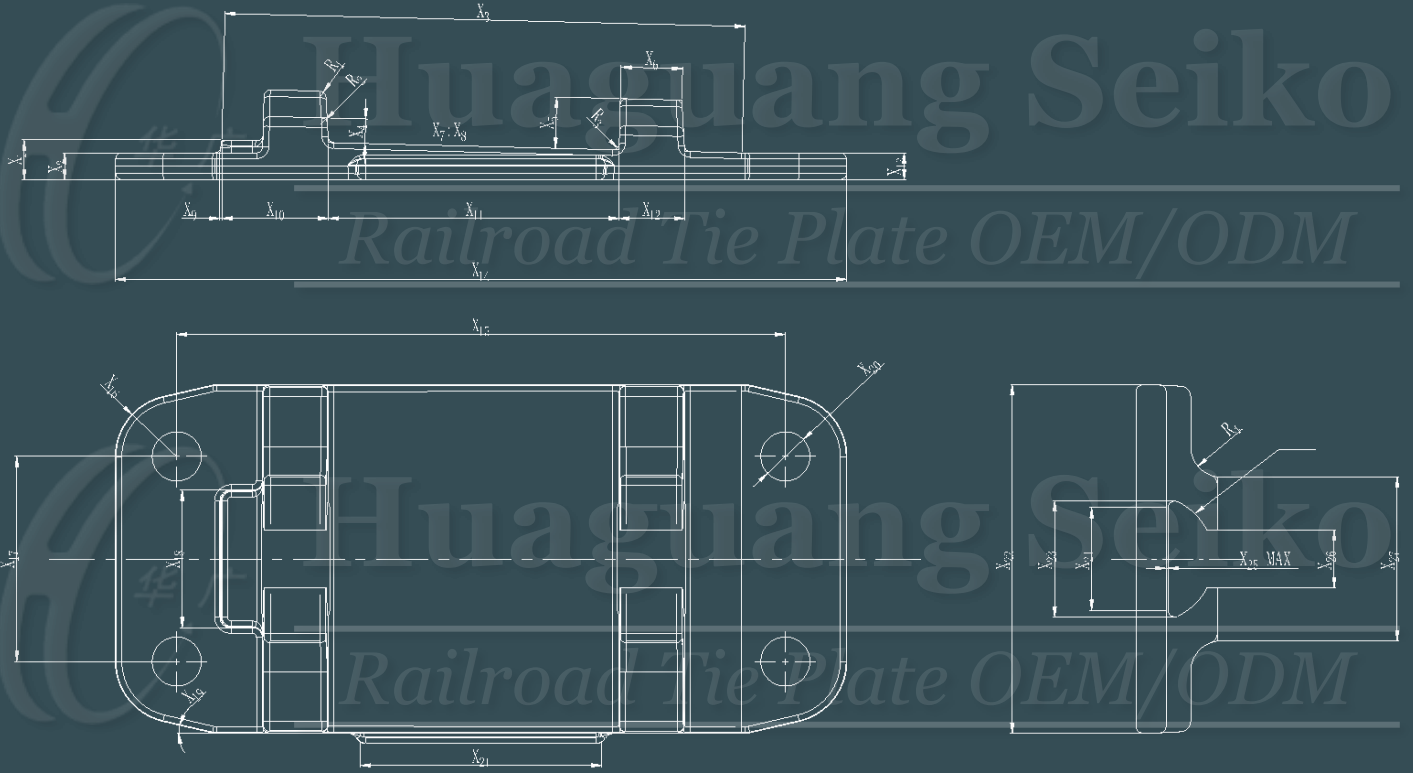
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN

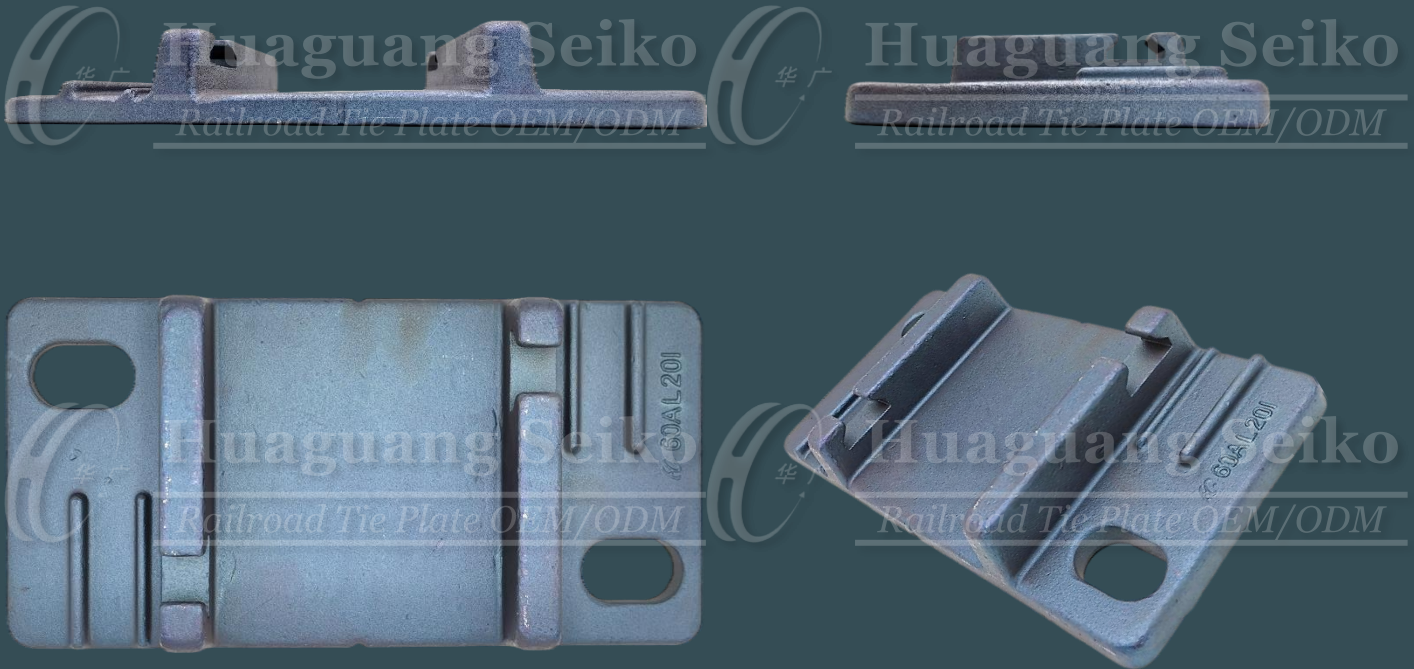


## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 10. Japanese Bullet Train (Shinkansen) Type: JBT-20



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	9.8 kg	11.5 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$5.4/pc	USD \$0.2/pc	Depend on the country and location	USD \$5.6/pc + (a+d)	USD \$4,820

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

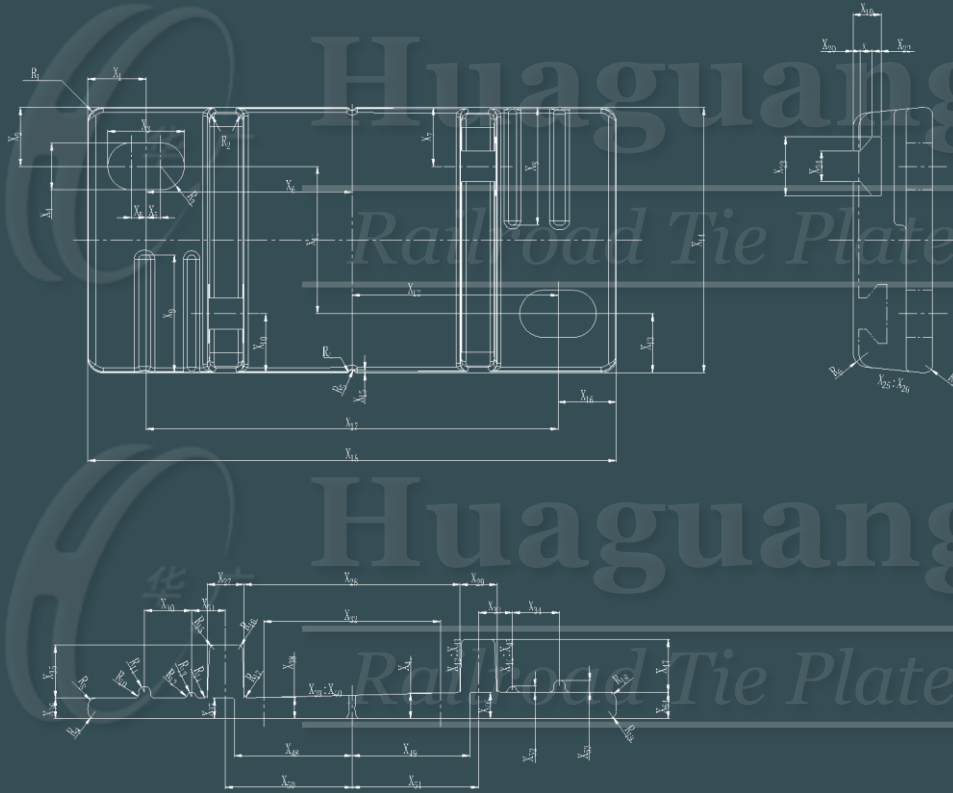
- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.



## CONCEPT DESIGN

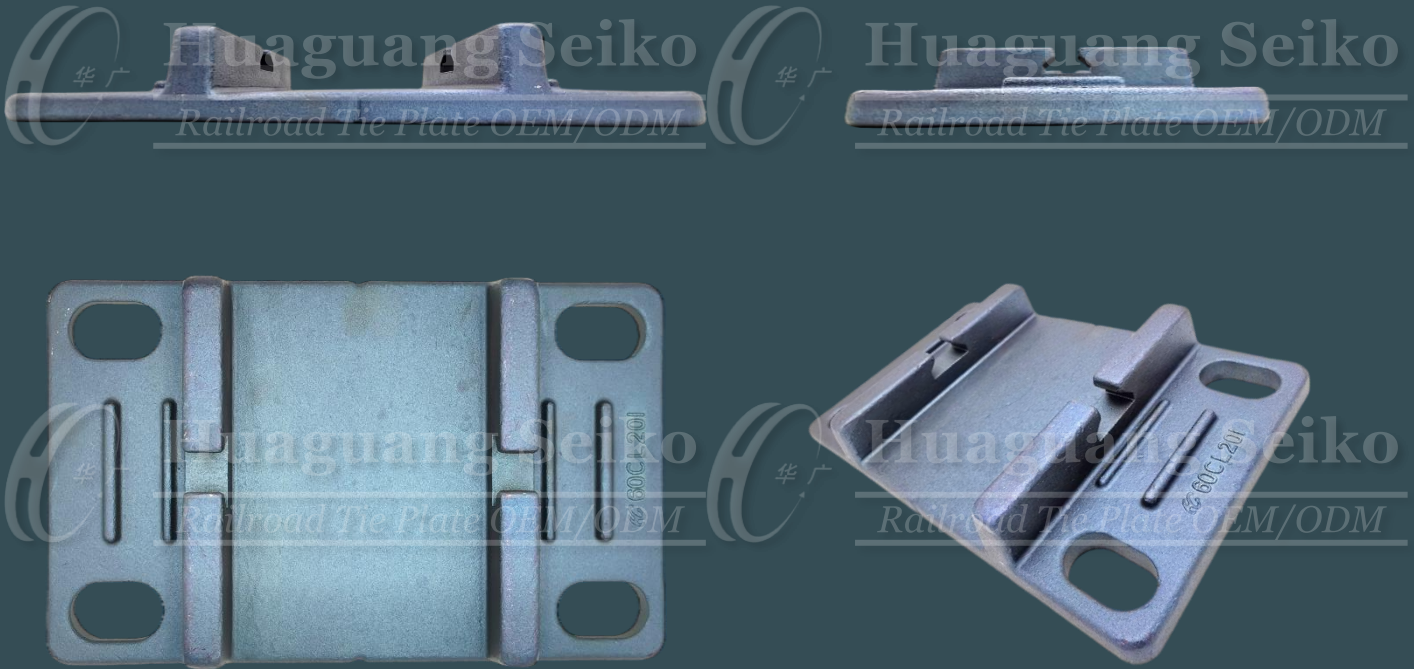


## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 11. Japanese Bullet Train (Shinkansen) Type: JBT-40



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	11.8 kg	13.5 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$6.8/pc	USD \$0.3/pc	Depend on the country and location	USD \$7.1/pc + (a+d)	USD \$5,130

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

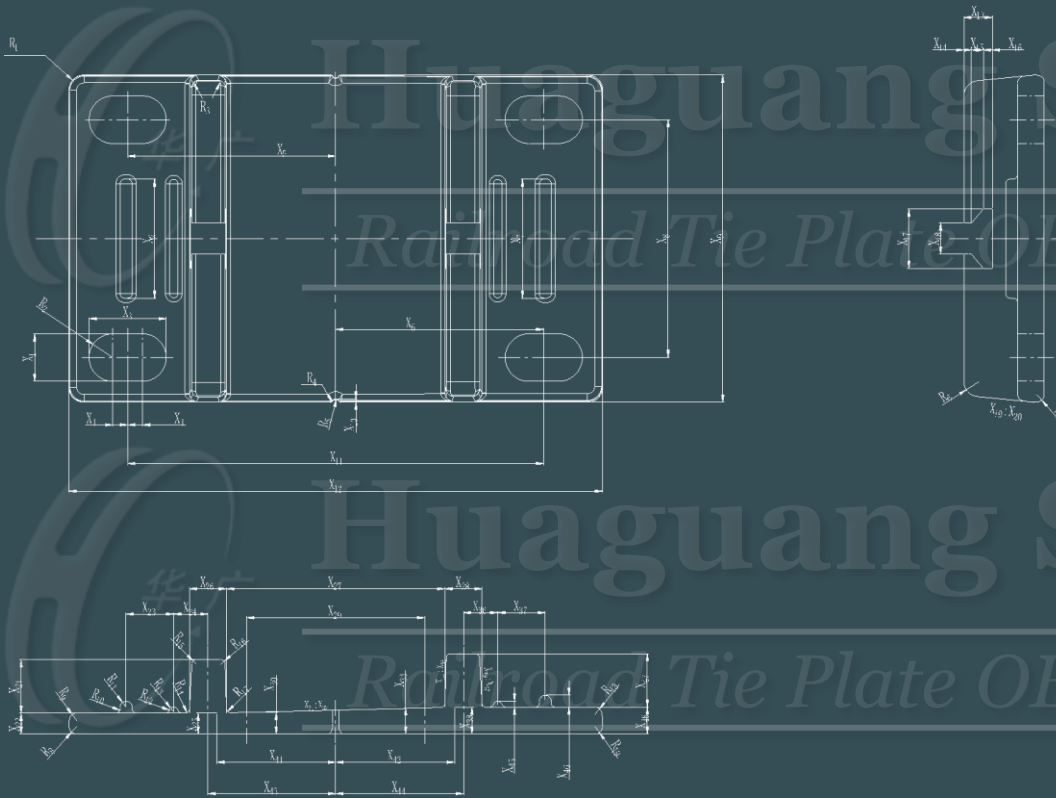
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



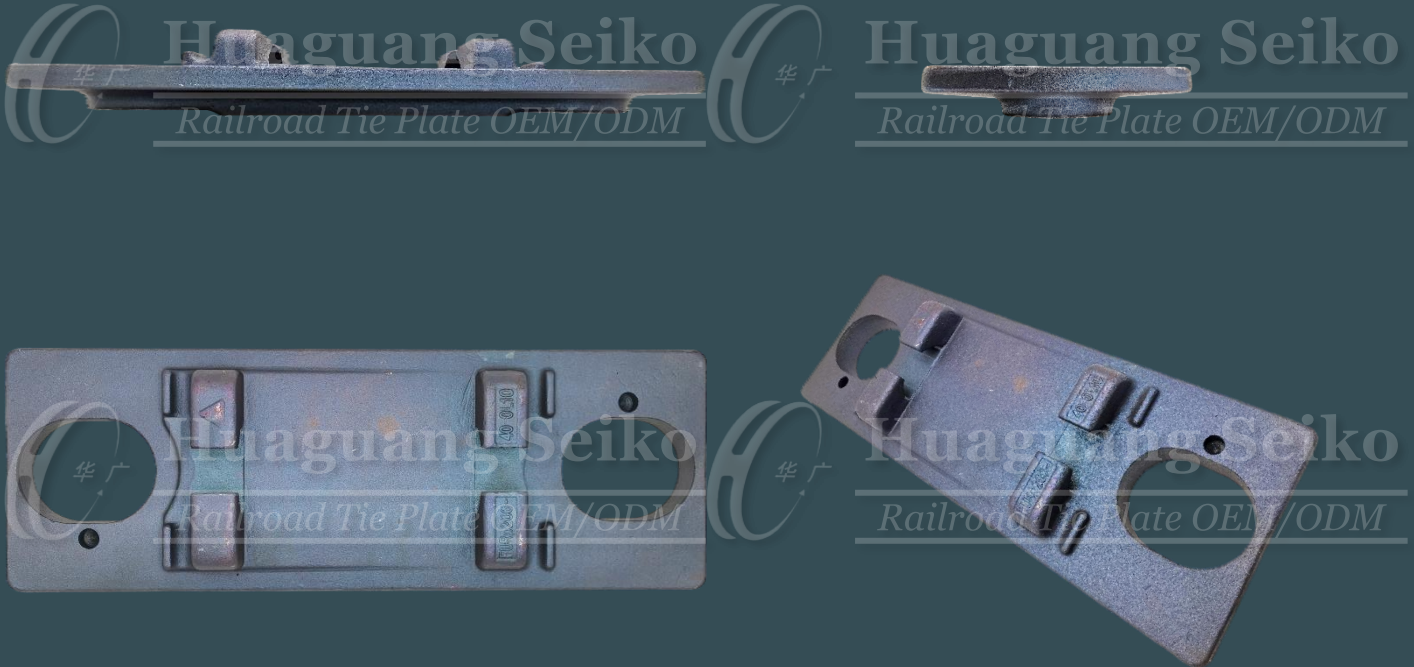
## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.



## 12. Chinese High-speed Railway Type: CHR-20



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	12.0 kg	13.8 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$6.9/pc	USD \$0.3/pc	Depend on the country and location	USD \$7.2/pc + (a+d)	USD \$5,130

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

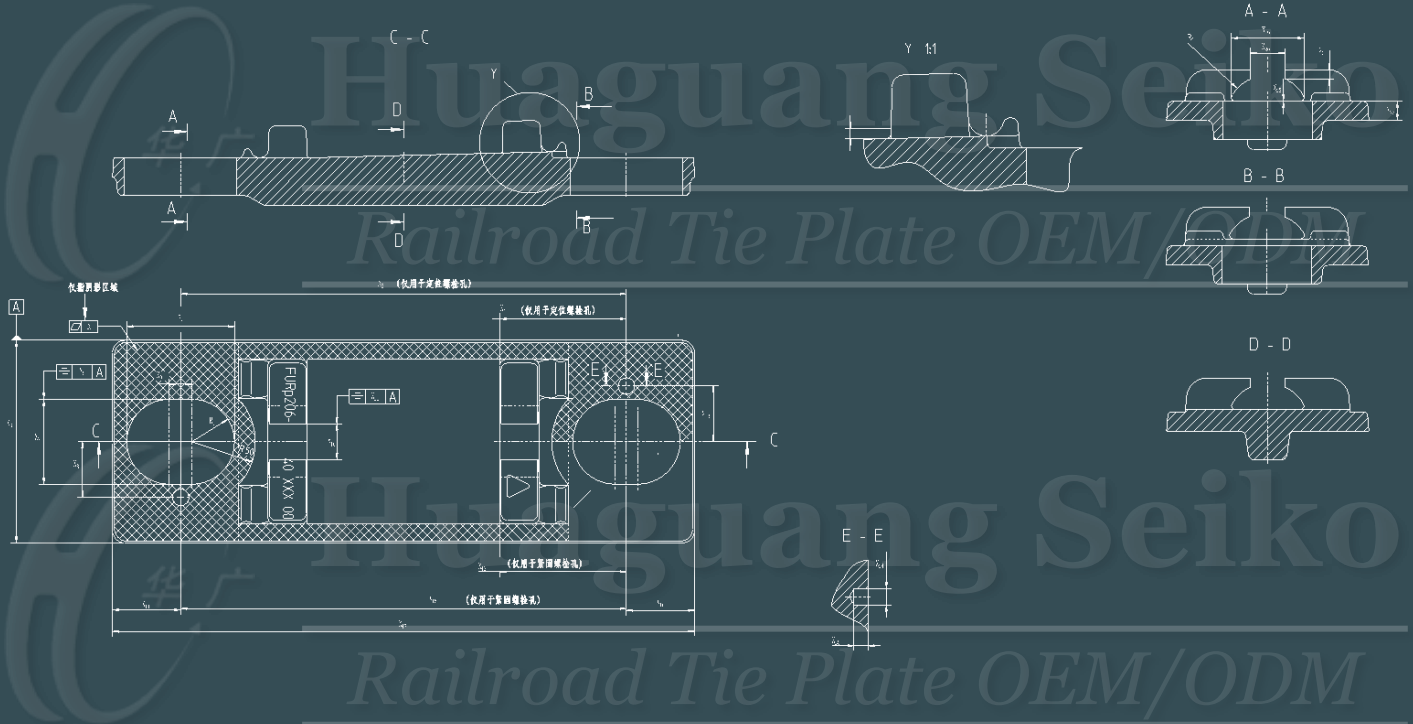
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

### 13. Chinese High-speed Railway Type: CHR-2R



#### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	19.5 kg	21.5 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$12.1/pc	USD \$0.4/pc	Depend on the country and location	USD \$12.5/pc + (a+d)	USD \$6,380

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

#### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

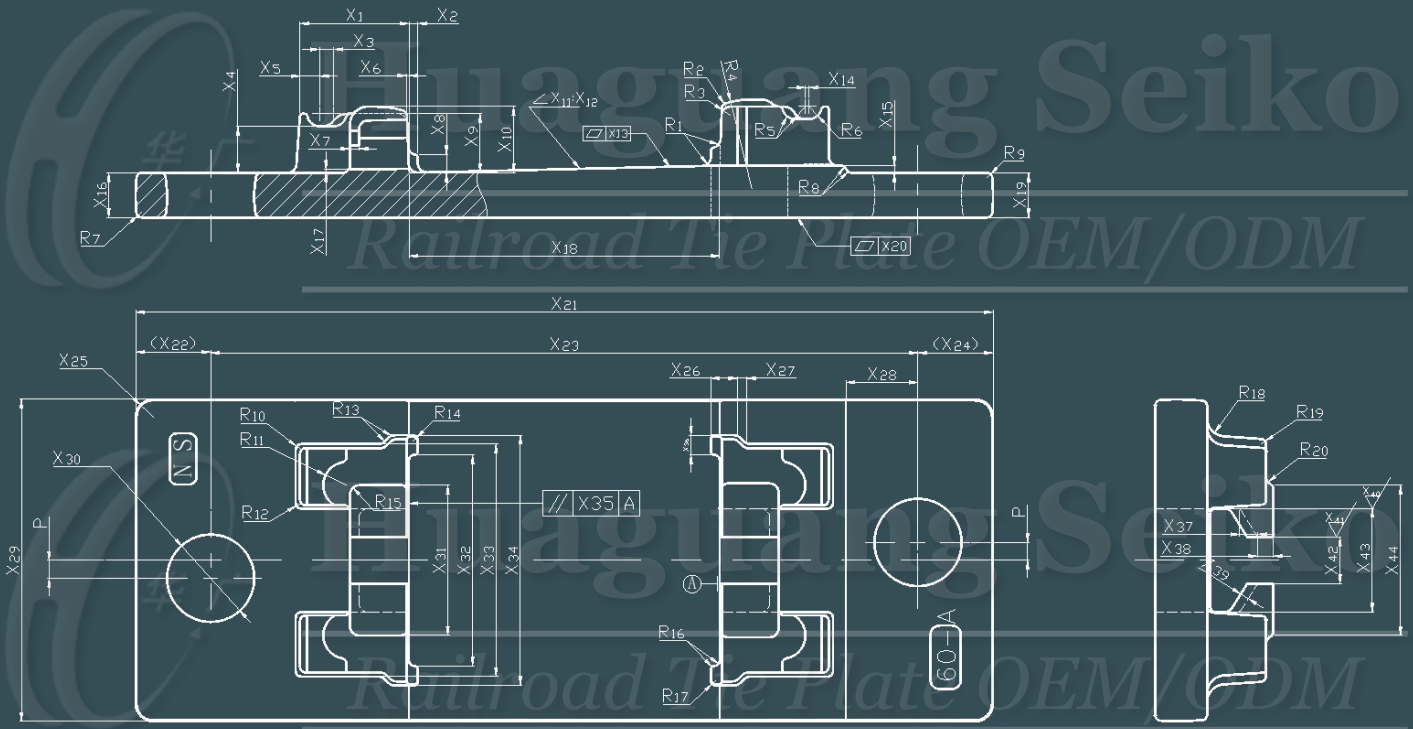
- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.



## CONCEPT DESIGN

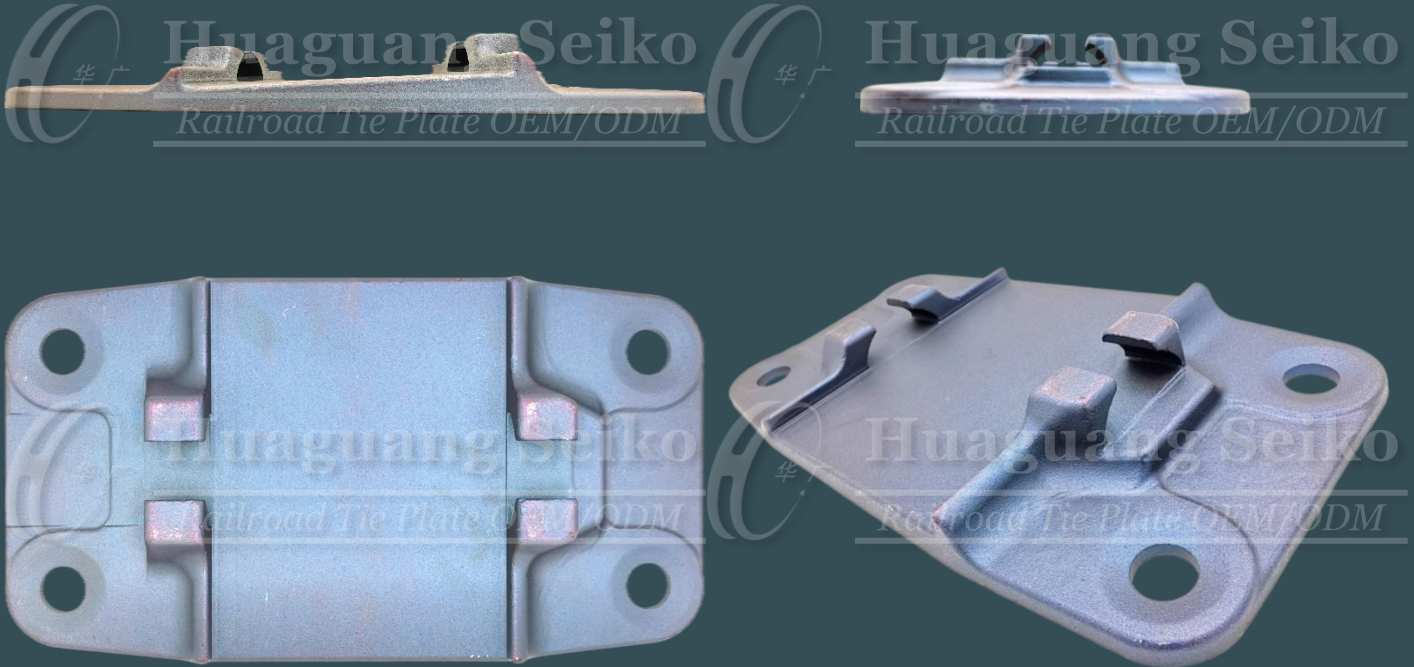


## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 14. Chinese Standard Subway Type: CST-4R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	7.6 kg	8.6 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.5/pc	USD \$0.2/pc	Depend on the country and location	USD \$4.7/pc + (a+d)	USD \$4,040

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

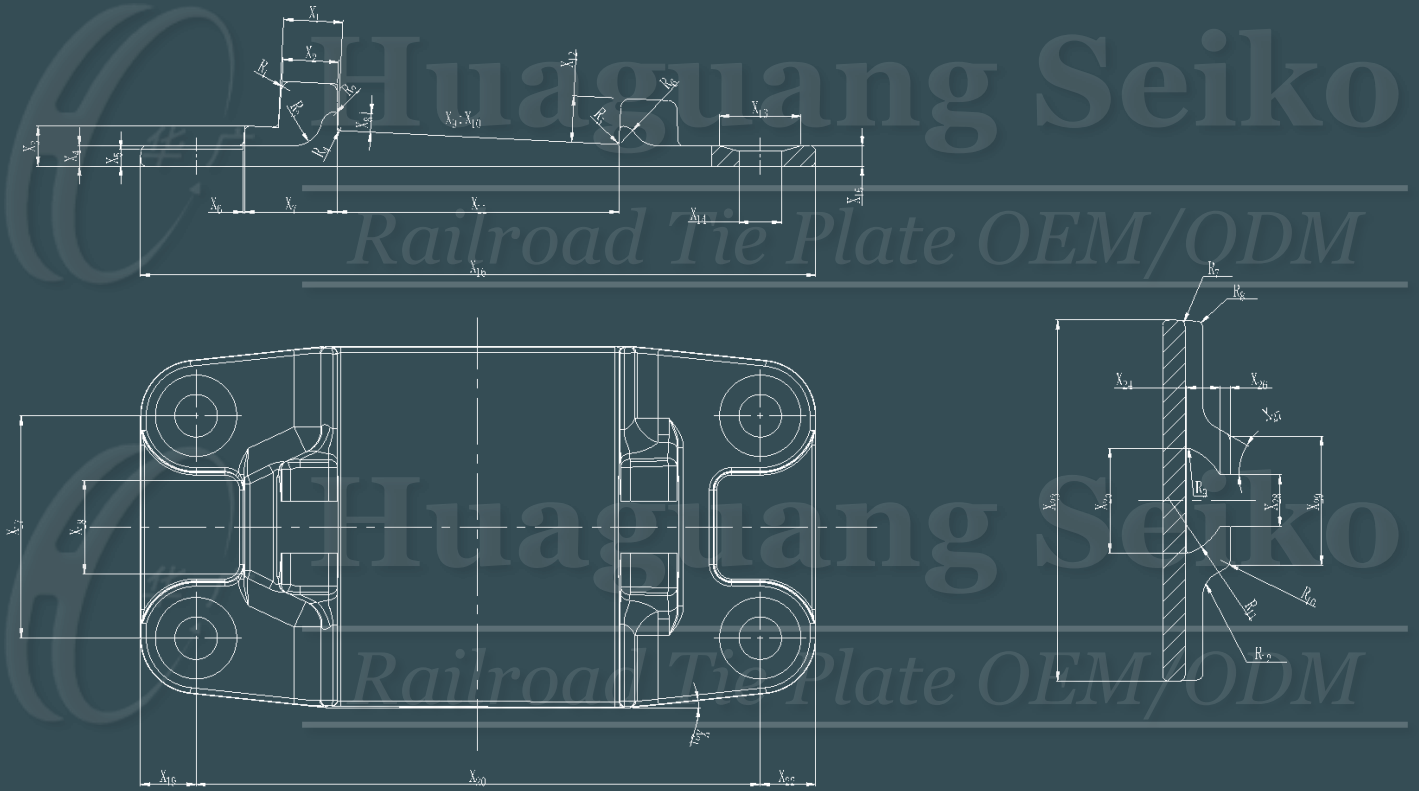
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



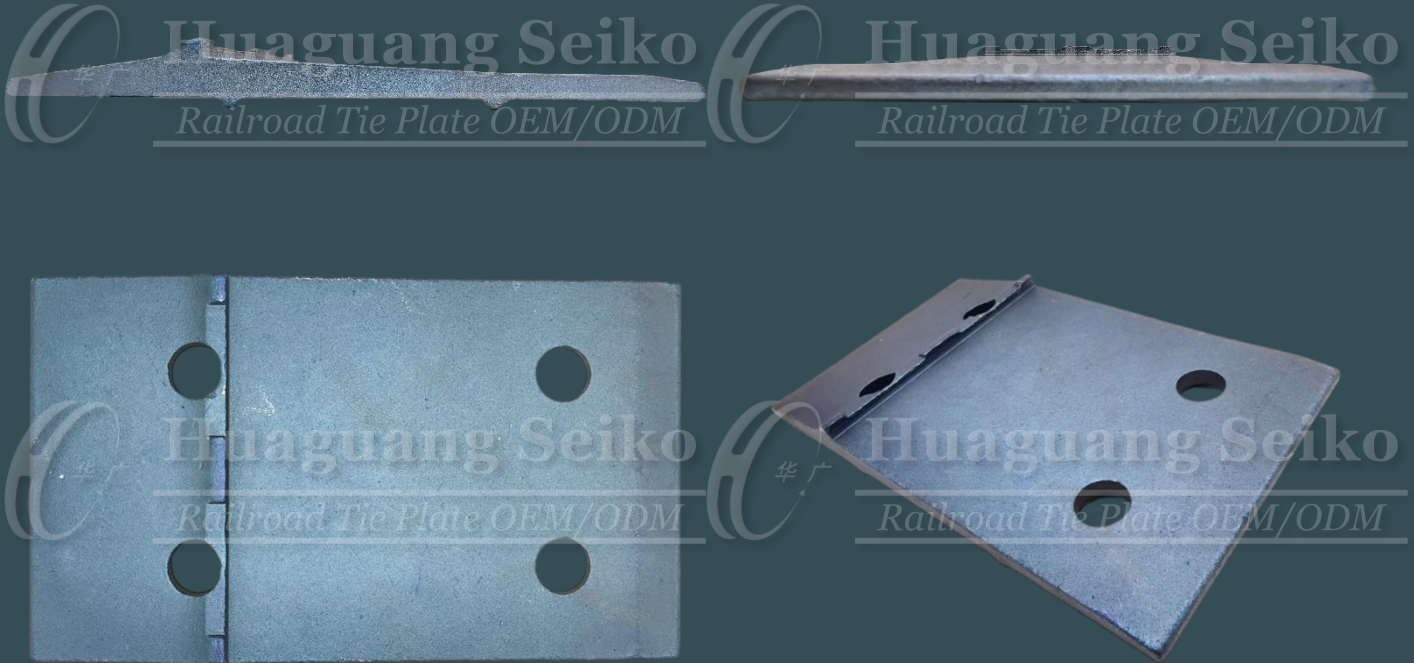
## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.



## 15. Middle Eastern Standard Railway Type: MESR-4R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	5.0 kg	6.2 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$2.4/pc	USD \$0.2/pc	Depend on the country and location	USD \$2.6/pc + (a+d)	USD \$3,410

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

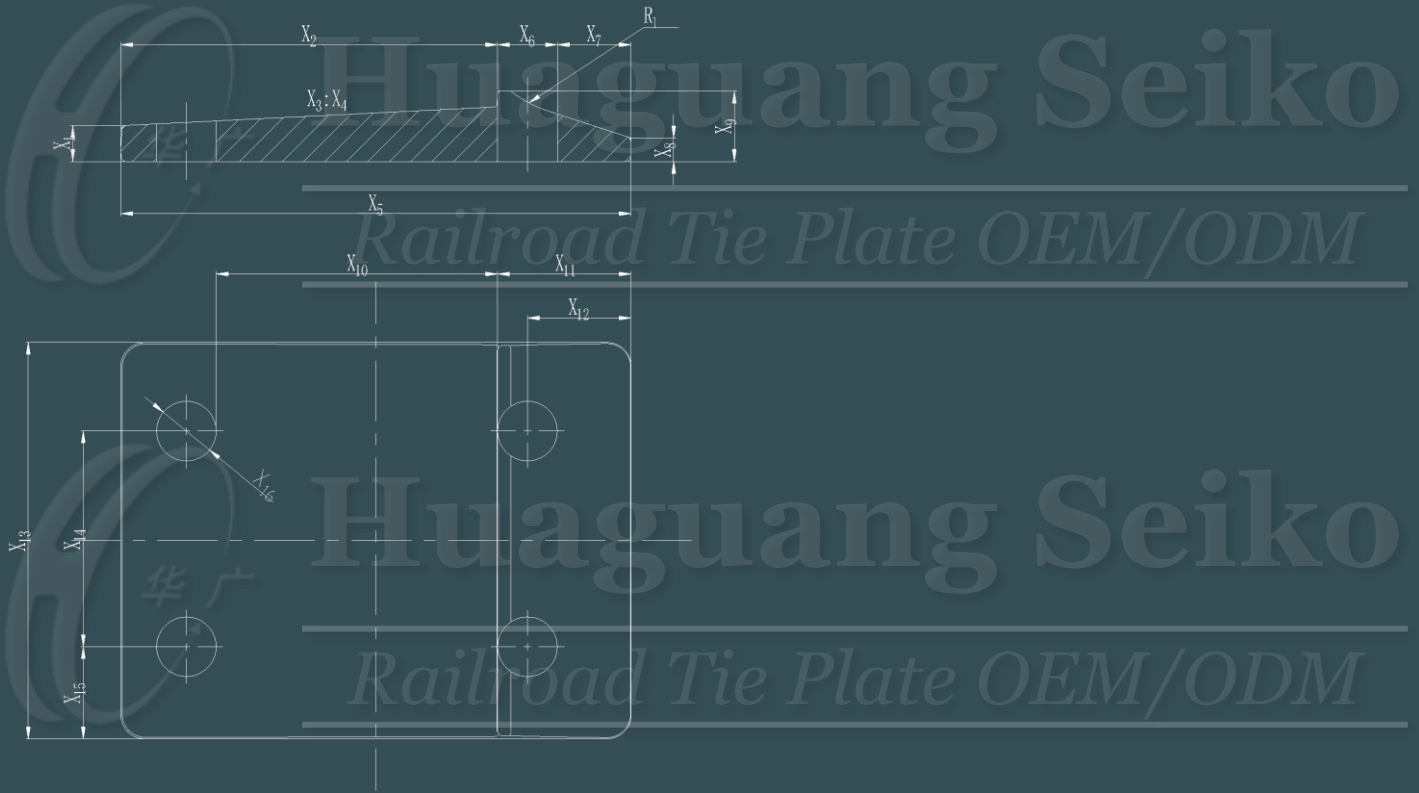
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 16. ASEAN Standard Subway Type: ASS-2R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	8.2 kg	9.7 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.4/pc	USD \$0.2/pc	Depend on the country and location	USD \$4.6/pc + (a+d)	USD \$4,340

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

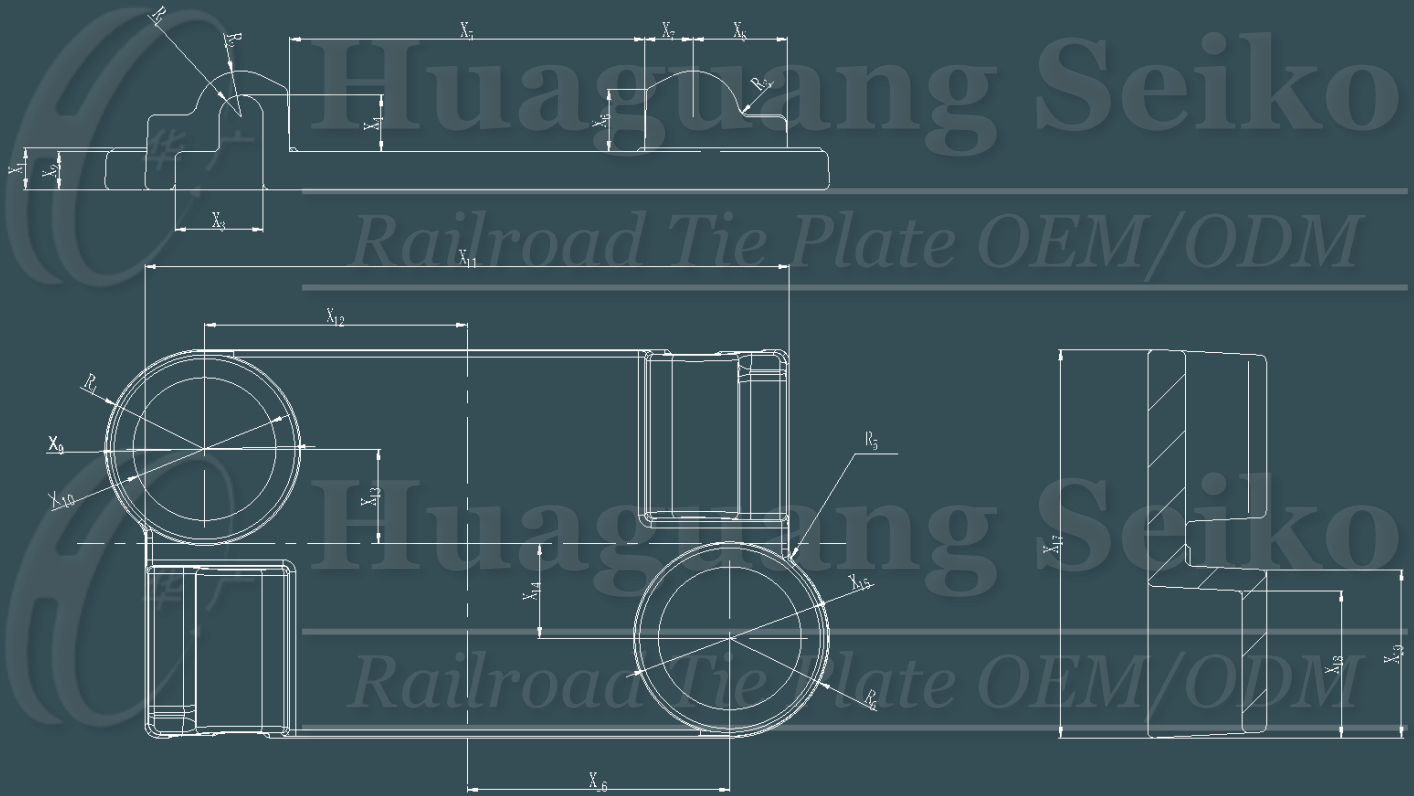
- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.



## CONCEPT DESIGN

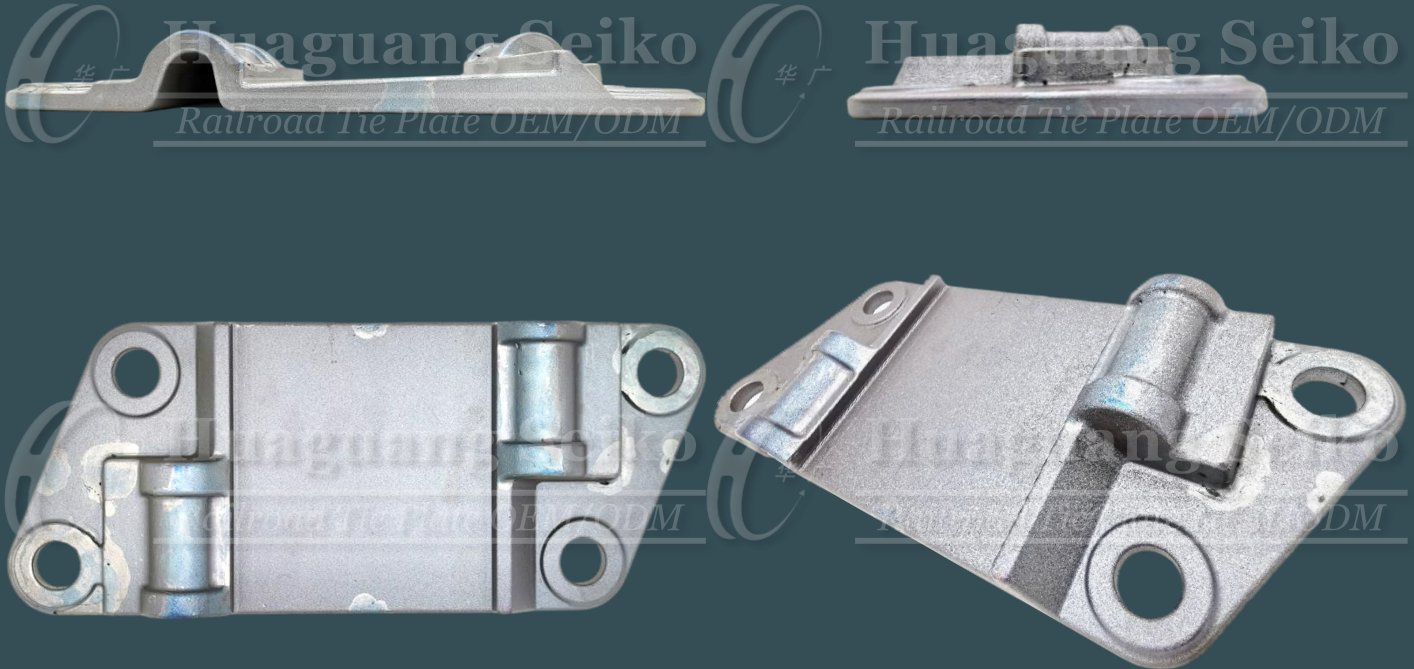


## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 17. ASEAN Standard Subway Type: ASS-4R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	8.8 kg	10.3 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.9/pc	USD \$0.2/pc	Depend on the country and location	USD \$5.1/pc + (a+d)	USD \$4,670

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.





## 18. ASEAN Special Subway Type: ASR-20



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	7.8 kg	9.1 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.3/pc	USD \$0.2/pc	Depend on the country and location	USD \$4.5/pc + (a+d)	USD \$4,340

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

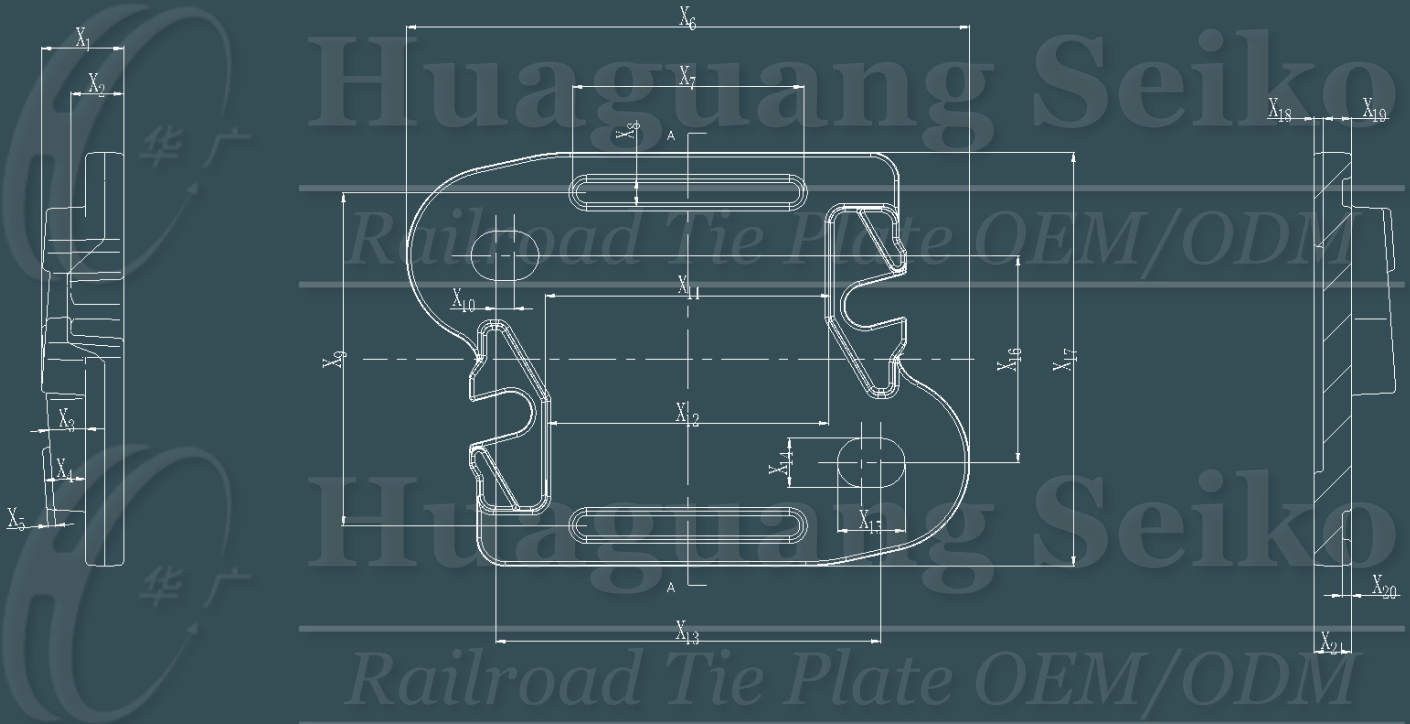
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN

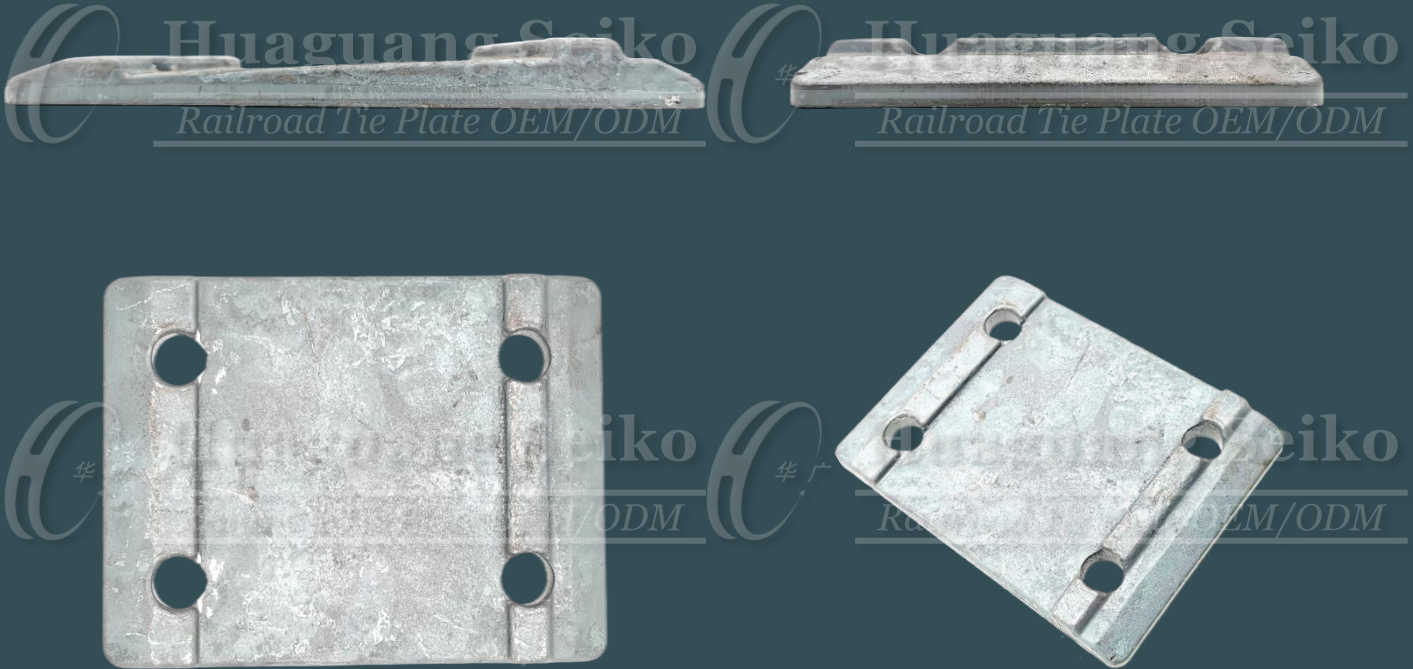


## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 19. ASEAN Standard Railway Type: ASR-4R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	4.6 kg	5.6 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$2.4/pc	USD \$0.1/pc	Depend on the country and location	USD \$2.5/pc + (a+d)	USD \$3,100

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

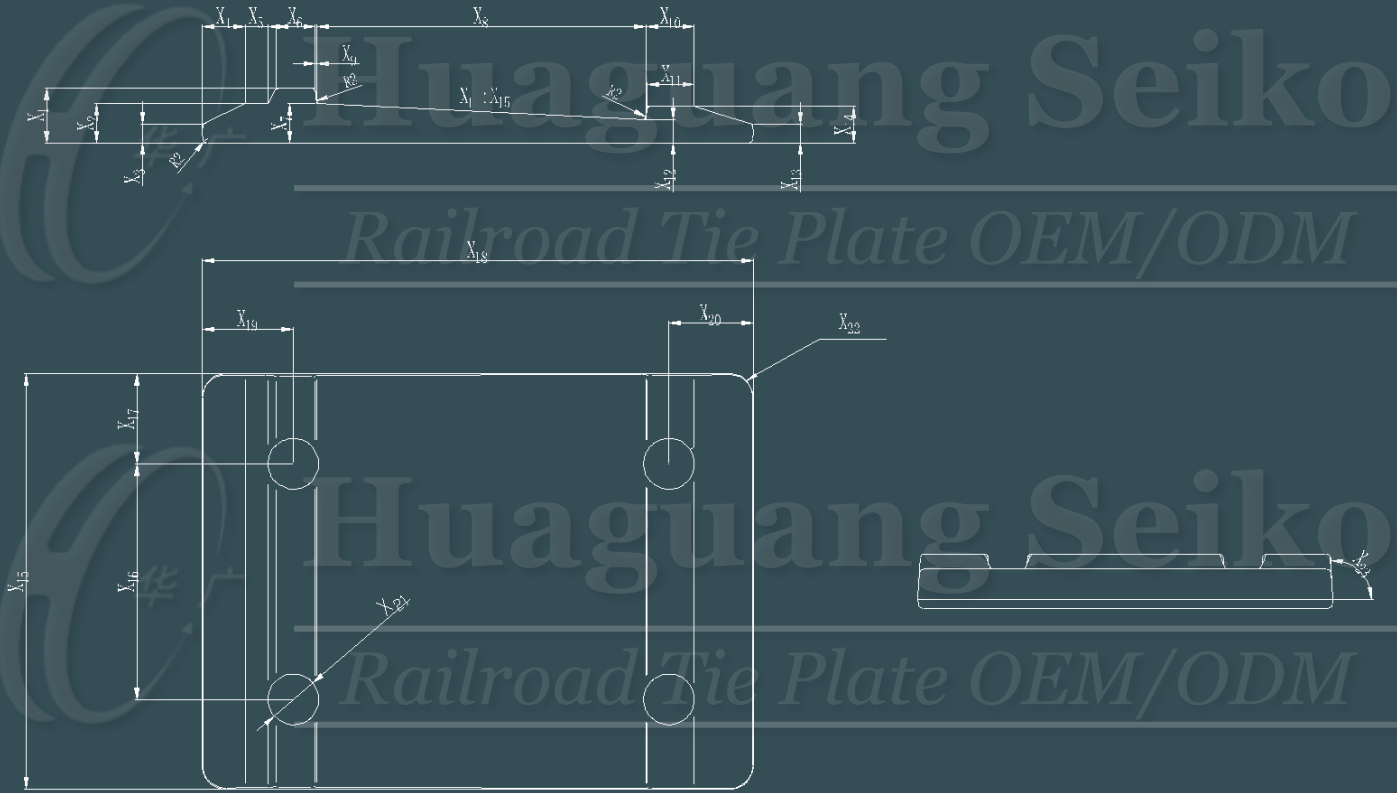
- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.



## CONCEPT DESIGN



## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 20. Oceanian High-speed Railway Type: OHR-4R



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	12.0 kg	13.4 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$7.2/pc	USD \$0.3/pc	Depend on the country and location	USD \$7.5/pc + (a+d)	USD \$5,130

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

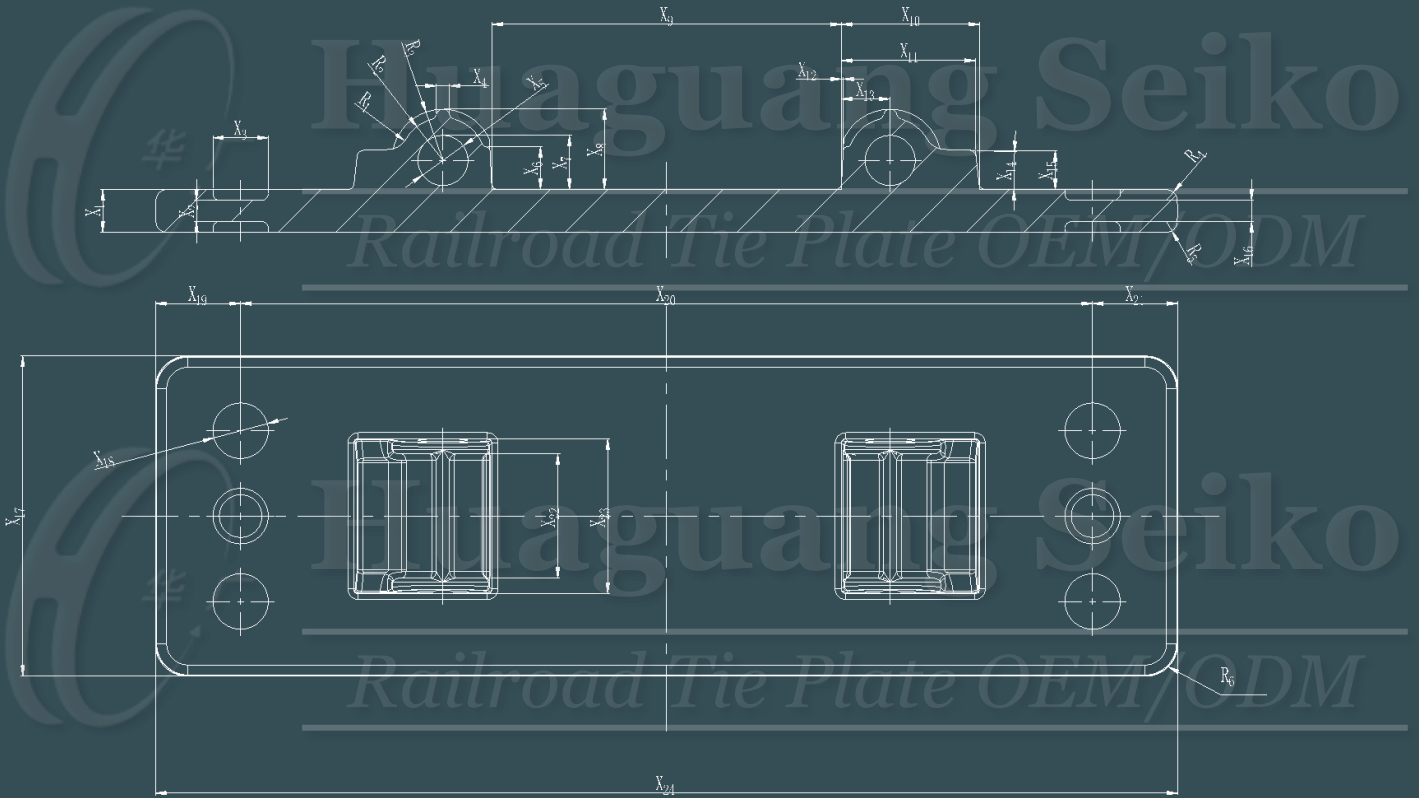
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



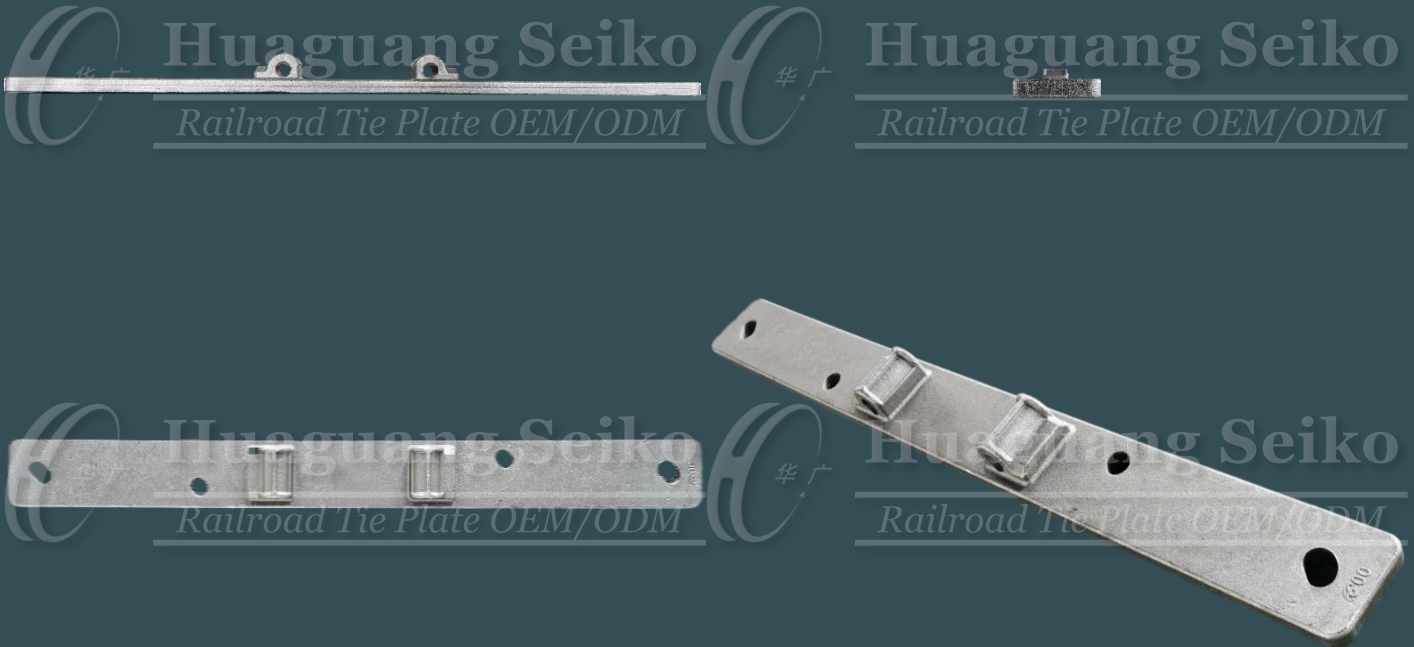
## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.



## 21. Oceanian High-speed Railway Type: OHR-40



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	16.5 kg	18.3 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$10.1/pc	USD \$0.3/pc	Depend on the country and location	USD \$10.4/pc + (a+d)	USD \$5,910

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

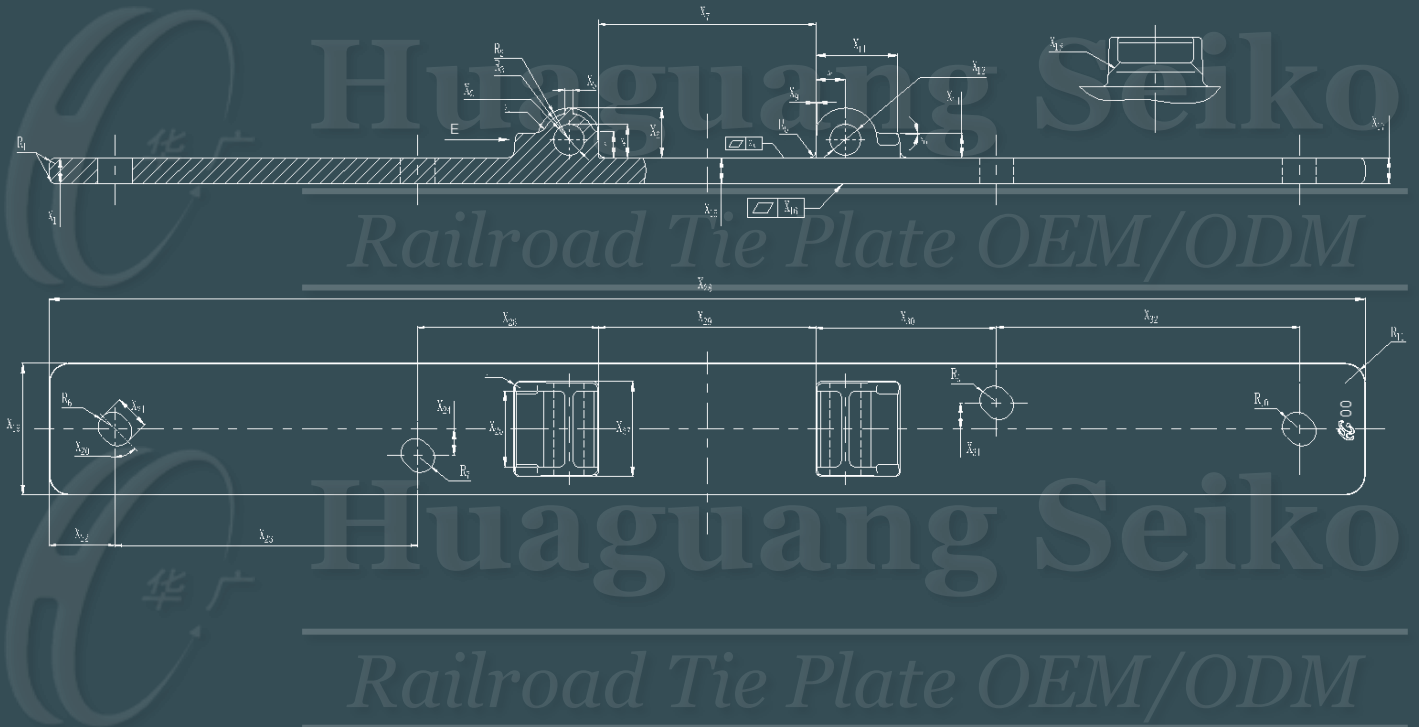
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## 22. Rail Anchor Standard Type



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	1.3 kg	1.5 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$0.7/pc	USD \$0.1/pc	Depend on the country and location	USD \$0.8/pc + (a+d)	USD \$2,490

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

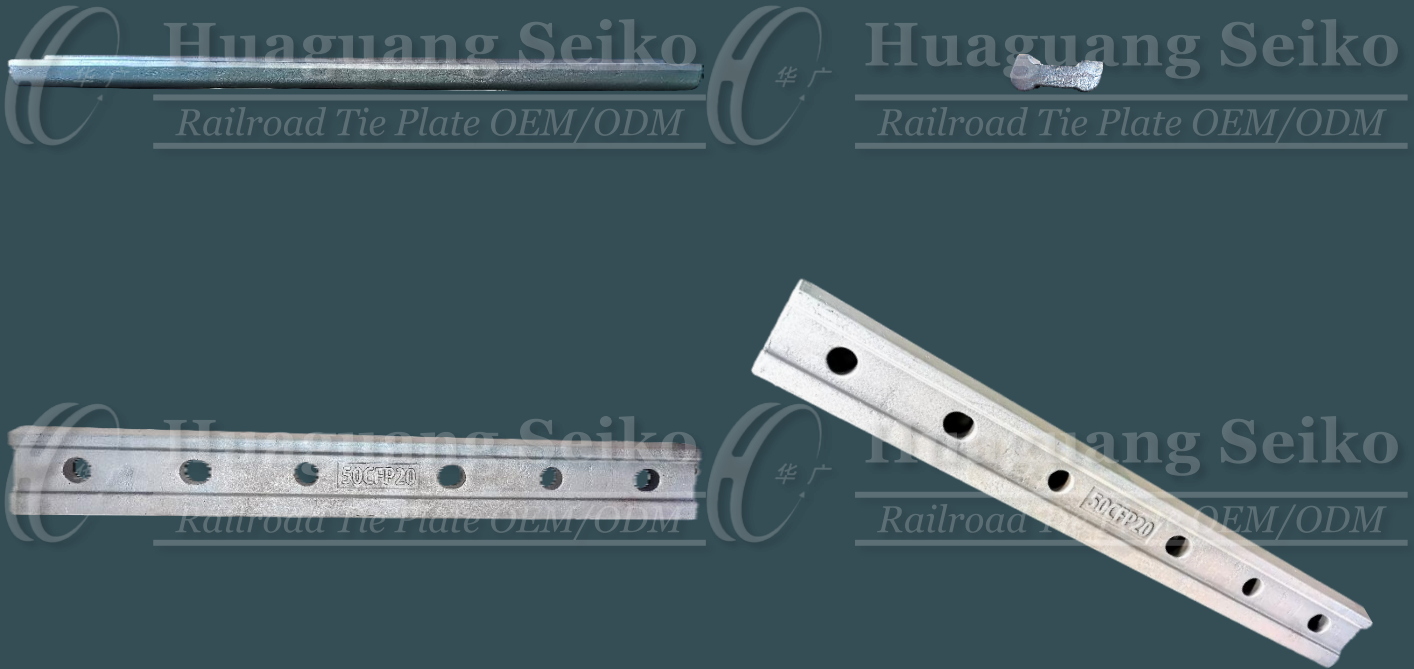
For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.





## 23. Fishplate Standard Type



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	16.1 kg	18.0 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$9.7/pc	USD \$0.3/pc	Depend on the country and location	USD \$10.0/pc + (a+d)	USD \$5,910

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

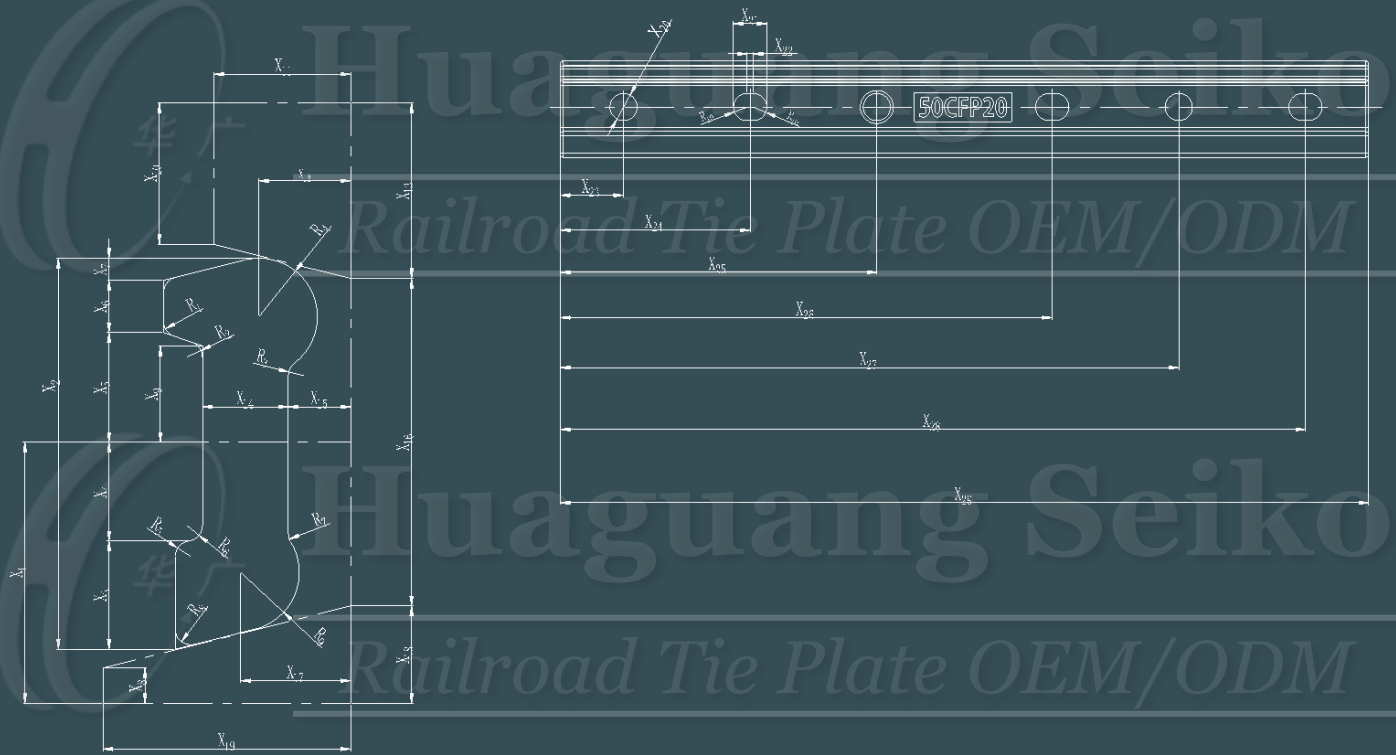
For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.



## 24. Fishplate Special Type



### QUOTATION<sup>(1)</sup>

Material Type <sup>(2)</sup>	Sample Product Weight	Material Weight
Meet product physical performance requirements	8.6 kg	10.1 kg

(a) Material Cost	(b) Production Cost	(c) Packaging Cost	(d) Delivery Cost	(a~d) Unit Price <sup>(3)</sup>	Mould Fee <sup>(4)</sup>
Depend on the steel grade	USD \$4.7/pc	USD \$0.2/pc	Depend on the country and location	USD \$4.9/pc + (a+d)	USD \$4,670

Note:

- 1) The Quotation above is updated on Nov 2021, and only for reference purposes. Please contact us for getting the latest Price, due to different weights in diverse product designs, timely changes in material cost and currency exchange rate, etc.
- 2) Regarding the material type, please refer to *Reference: Worldwide Equivalents Grades of Steel* on Page.53~58.
- 3) The (a~d) Unit Price without Tax.
- 4) If the product orders over 30,000 pieces, the Mould Fee will be returned after the contract is formally signed.

### TECHNICAL SPECIFICATION

For Concept Design & Mould Simulation:

- All dimensions including R angles can be appropriately adjusted according to technical requirements.
- The size of the tolerance can be adjusted according to the client needs.

For Production:

- The product physical performance and surface treatment meet the technical requirements of the drawings.
- The product must have NO burrs, NO crack, and NO pits and NO other defects that affect product use.

## CONCEPT DESIGN



## MOULD SIMULATION



Note: In the interests of product improvement, Huaguang Seiko reserves the right to change the specifications contained herein at any time without prior notice.

## Reference: Worldwide Equivalents Grades of Steel for USA

#	USA AISI, ASTM, UNS	EU EN	Germany DIN, WNr	Japan JIS	France AFNOR	England BS	China GB	Russia GOST	International ISO								
1	02	90MnCrV8 (1.2842)	90MnCrV8		90MnV8	B02			90MnCrV8								
2	1011	C10 (1.0301)	C10 Ck10	S9CK	XC10	045A10	10	10									
3	M1010																
4	1015	S235JR (1.0038(dubl))	RSt37-2 St37-2	SM400A SS400	E24-2	40A 40B	Q235A Q235B Q235D	St2ps St2sp St3ps St3sp	E235B Fe360B								
5	A283C																
6	GradeC																
7	GradeD																
8	SSGrade33																
9	1020	C22E (1.1151)	Ck22	S20C	XC18	070M20 CS22		20									
10	1024	S355J2(+N) (1.0570(dubl))	1.0570 St52-3 St52-3N	SM490 SM490C SS490C	E36-3	50D	16Mn	17G1S 17GS S345	Fe510D								
11	1035	C35R (1.1180)	C35 Cm35		XC38H1u	080M36			C35M2								
		C35E (1.1181)	Ck35	S35C	XC38 XC38H1	080M36 CFS6	35	35	C35E4								
12	Gr.1035	C35 (1.0501)	1.0501 C35	S35C	AF55C35 C35	070M36 40HS	35	35 40	C35 C35E4								
13	1038	C40 (1.0511)	1.0511 C40 Ck40	S40C	AF60C40 AF60C45 XC42H1	070M40 080M40 En8	40	40	C40 C40E4								
14	1040									C40R (1.1189)	Cm40		XC42H1u			C40M2	
										C40E (1.1186)	Ck40	S40C	XC42H1	080M40 CS40		40	C40E4
15	1042	C45 (1.0503)	C45	S45C	AF65C45 C45	070M46 50HS	45	45	C45								
16	Gr.1043																
17	1045	C45E (1.1191)	Ck45	S45C	XC45 XC48H1	080M46 CFS8	45 45H	45	C45E4								
		C45R (1.1201)	Cm45		XC48H1u				C45M2								
18	1049	C50 (1.0540)	C50 Ck50	S50C	XC48H1	070M50 080M50	50	50	C50 C50E4								
19	1050									C50E (1.1206)	Ck50	S50C	XC50	080M50 CS50		50	C50E4
										C50R (1.1241)	Cm50						C50M2
20	1055	C55E (1.1203)	Ck55	S55C	XC54 XC55H1	070M55		55	C55E4								
		C55 (1.0535)	C55	S55C	AF70C55 C54	070M55 50 En9	55	50 55	C55 C55E4								
21	1060	C60 (1.0601)	C60	S58C		070M60	60	60 60G	C60								
22	1075	C76D (1.0614)					75	75									
23	1085	C86D (1.0616)					85	85									
24	1140	35S20 (1.0726)	35S20		35MF6	212M36	Y35		35S20								
25	1392	S315MC (1.0972)	QStE300TM	SPFH490	E315D E335D	43F30 43F35 HR43F35											
26	1527	28Mn6 (1.1170)	28Mn6	SCMn2	35Mn5	120M36 150H19 150M19 150M28	30Mn2	30G 30G2	28Mn6								
27	Gr.1330																
28	201	X12CrMnNiN17-7-5 (1.4372)		SUS201	Z12CMN17-07Az												
29	2HGr.50 2WGr.50/50T	S355G7 (1.8808)				355EM											
		S355G8 (1.8810)				355EMZ											
		S355G11 (1.8806)				355EM											
		S355G12 (1.8809)				355EMZ											
30	2WGr.60	S420G3 (1.8851)															
		S420G4 (1.8859)															
		S460G3 (1.8883)															
		S460G4 (1.8889)															
31	2WGr.60 2YGr.60	S420G1 (1.8830)															



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31	2WGr.60 2YGr.60	S420G1 (1.8830)							
		S420G2 (1.8857)							
		S460G1 (1.8878)					450EM		
		S460G2 (1.8887)					450EMZ		
32	301	X10CrNi18-8 (1.4310)	X12CrNi17-7	SUS301	Z11CN18-08 Z12CN18-09	301S21 302S26		X9CrNi18-8	
33	301LN	X2CrNiN18-7 (1.4318)		SUS301L	Z3CN18-07Az				
34	303	X8CrNiS18-9 (1.4305)		SUS303	Z8CNF18-09	303S31			
35	304	X5CrNi18-10 (1.4301)	1.4301 X5CrNi18-9	SUS304	X5CrNi18-10 Z5CN18-09 Z6CN18-09 Z7CN18-09	304S15 304S31	0Cr18Ni9	08KH18N10	
36	304N								
37	304H								
38	S30409	X6CrNi18-10 (1.4948)		SUS304H	Z6CN18-09			08KH18N10	X7CrNi18-9
39	304L	X2CrNi18-9 (1.4307)		SUS304L	Z2CN18 Z3CN18 Z3CN19-09	304S11		04KH18N10	
		X2CrNi19-11 (1.4306)		SUS304L	Z2CN18-10 Z3CN18-10	304S11		03KH18N11	
40	304LN	X2CrNiN18-10 (1.4311)		SUS304LN	Z3CN18-10Az	304S61			
41	305	X4CrNi18-12 (1.4303)		SUS305J1	Z1CN18-12 Z5CN18-11FF	305S19		06KH18N11	
42	309	X15CrNiSi20-12 (1.4828)	X15CrNiSi20-12	SUH309	Z17CNS20-12	309S24	1Cr20Ni14Si2	20KH20N14S2	
43	309S	X12CrNi23-13 (1.4833)		SUS309S	Z15CN23-13	309S16		20KH23N13	
44	S30908					309S24			
45	310S	X8CrNi25-21 (1.4845)	X8CrNi25-21	SUS310S	Z8CN25-20	310S16	1Cr25Ni20Si2	10KH23N18 20KH23N18	H16
46	S31008					310S24 310S31			
47	3115	16NiCrS4 (1.5715)							
		16NiCr4 (1.5714)				637M17			
48	314	X15CrNiSi25-21 (1.4841)			Z15CNS25-20			20KH25N20S2	
49	316	X5CrNiMo17-12-2 (1.4401)	X5CrNiMo17-12-2	SUS316	Z6CND17-11 Z7CND17-11-02 Z7CND17-12-02	316S31	0Cr17Ni12Mo2	08KH16N11M3	
		X3CrNiMo17-13-3 (1.4436)		SUS316	Z7CND18-12-03 Z7CND18-12-3	316S31 316S33	0Cr17Ni12Mo2		Type20a
50	316L	X2CrNiMo17-12-2 (1.4404)	X2CrNiMo17-13-2	SUS316 SUS316L	Z2CND17-12 Z3CND17-11-02 Z3CND18-12-02	316S11	00Cr17Ni14Mo2 0Cr18Ni12Mo2Ti		Type19
		X2CrNiMo17-12-3 (1.4432)		SUS316L	Z3CND17-13-03 Z3CND18-14-03	316S13		03KH17N14M3	
51	TP316L	X2CrNiMo18-14-3 (1.4435)	X2CrNiMo18-14-3	SUS316L	Z3CND17-12-03 Z3CND18-14-03	316S13 316S14	00Cr17Ni14Mo2	03KH17N14M3	Type19a
52	316LN	X2CrNiMoN17-11-2 (1.4406)		SUS316LN	316S61 Z3CND17-11Az	316S61			
53	S31653	X2CrNiMoN17-13-3 (1.4429)		SUS316LN	Z3CND17-12Az	316S63			
54	316Ti	X6CrNiMoTi17-12-2 (1.4571)	X10CrNiMoTi18-10 X6CrNiMoTi17-12-2	316Ti SUS316Ti	Z6CNDT17-12 Z6CNT17-12	320S31 321S12	0Cr18Ni12Mo2Ti 1Cr18Ni12Mo2Ti	08KH17N13M2T 10KH17N13M2T	
55	317L	X2CrNiMo18-15-4 (1.4438)		SUS317L	Z3CND19-15-04	317S12			
56	317LMN	X2CrNiMoN17-13-5 (1.4439)			Z3CND18-14-05Az				
57	S31726								
58	321	X6CrNiTi18-10 (1.4541)	X10CrNiTi18-9 X6CrNiTi18-10	SUS321	Z6CNT18-10	321S31	0Cr18Ni10Ti 1Cr18Ni11Ti HOCr20Ni10Ti	08KH18N10T 08KH18N12T 12KH18N10T	
59	321H	X8CrNiTi18-10 (1.4878)		SUS321H	Z6CNT18-10	321S12 321S51		12KH18N10T	X7CrNiTi18-10
60	S32109								
61	330	X12NiCrSi35-16 (1.4864)	X12NiCrSi36-16	SUH330	Z12NCS37-18		1Cr16Ni35		H17
62	347	X6CrNiNb18-10 (1.4550)			Z6CENNb18-10	347S31		08KH18N12B	
63	347H	X7CrNiNb18-10 (1.4912)		SUS347H	Z2CND17-11 Z2CND18-13 Z8CENNb18-10				
64	S34709								
65	409	X2CrTi12 (1.4512)		SUS409L	Z3CT12	409S			
66	S40900								

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67	410	X12Cr13 (1.4006)			Z10C13	Z10C13		12KH13 15KH13L	
68	410S	X6Cr13 (1.4000)	X7Cr14	SUS410S	Z6C13 Z8C12	403S17	0Cr13	08KH13	
69	S41008								
70	Type403								
71	4135	34CrMo4 (1.7220)	34CrMo4	SCM435H	34CD4 35CD4	708A30 708M32	35CrMo ZG35CrMo	35KHM 35KHML	34CrMo4
		34CrMoS4 (1.7226)	34CrMoS4		34CD4u				34CrMoS4
72	4140	42CrMoS4 (1.7227)	42CrMoS4		42CD4u				42CrMoS4
73	4142	42CrMo4 (1.7225)	42CrMo4	SCM440H	42CD4	708M40 CFS11	42CrMo	35KHM 38KHM	42CrMo4
74	416	X12CrS13 (1.4005)			Z11CF13	416S21			
75	420	X30Cr13 (1.4028)	X30Cr13	SUS420J2	Z30Cr13 Z33C13	420S45	3Cr13	30KH13	
76	S42010	X20Cr13 (1.4021)	X20Cr13	SUS420J1	X20Cr13 Z20C13	420S29 420S37	2Cr13 X20Cr13	20KH13	
77	430	X6Cr17 (1.4016)	X6Cr17	SUS430	Z8C17	430S17 430S18	1Cr15	12KH17	
78	S43000								
79	431	X17CrNi16-2 (1.4057)	X17CrNi16-2				1Cr17Ni2 ML1Cr17Ni2	14KH17N2 20KH17N2	
80	4340	34CrNiMo6 (1.6582)	34CrNiMo6 GS-34CrNiMo6V	SNCM447	35NCD6	817M40	34CrNi3Mo 34CrNiMo ZG34CrNiMo	36KH2N2MFA 38KH2N2MA 40KH2N2MA	36CrNiMo6
81	439	X3CrTi17 (1.4510)		SUS430LX	Z4CT17			08KH17T	
82	S43035								
83	444	X2CrMoTi18-2 (1.4521)			Z3CDT18-02				
84	446	X18CrN28 (1.4749)							X15CrN26
85	S44600								
86	52100	102Cr6 (1.2067)	100Cr6	SUJ2	100Cr6 100Cr6RR	534A99 535A99	Cr2 GCr15	KH ShKh15	
87	6150	51CrV4 (1.8159)	50CrV4	SUP10	50CrV4 50CV4 51CrV4	735A50 735A51	50CrVA	50KHGFA	51CrV4
88	631	X7CrNiAl17-7 (1.4568)			Z9CNA17-07	301S81		09KH17N7YU	X7CrNiAl17-7
89	800	X10NiCrAlTi32-21 (1.4876)							X8NiCrAlTi32-21
90	N08800								
91	904L								
92	N08904	X1NiCrMoCu25-20-5 (1.4539)			Z2NCDU25-20	904S13			
93	A2	X100CrMoV5 (1.2363)	X100CrMoV5-1	SKD12	Z100CDV5	BA2	Cr5Mo1V	9KH5VF	X100CrMoV5
94	A204Gr.A	16Mo3 (1.5415)	15Mo3 16Mo3	STBA12	15D3	1503-243B 240 243			F26 P26 TS26
95	A204Gr.B								
96	A242Gr.1	S355J0W (1.8959)		SMA50AW	E36WB3	WR50B		17G1S	Fe355W
97	A588								
98	A709-50W	S355J2W (1.8965)	WTSt52-3	SMA50CP					
		S355K2W (1.8967)							
99	A242Type1	S355J2WP (1.8946)			E36WA4				
100	A283A	S185 (1.0035)	S185 St33	SS330	A33	15HR 15HS S185	Q195	St0 St1ps St1sp	Fe310
101	A283B								
102	Gr.A								
103	A414E	P265GH (1.0425)	1.0425 HII St45.8	SG295	A42AP A42CP A42F	151-400 161-430 161Gr.400 164Gr.400 244Gr.400		16K 20K	F5 F7
104	A516Gr.60								
105	A283D	S275JR (1.0044)	RSt42-2 St 44-2	SS400	E28-2	161-430 43A 43B	Q225A Q275Z	St4ps St4sp	E275B
106	A529								
107	Gr.D								
108	A284C	S235J0 (1.0114)	St37-3U	SM400B	E24-3	40C	Q235C	St3ps St3sp	E235C
109	A284D	S235J2(+N) (1.0116(dubl))	St37-3N	SM400C	E24-4	40D		St3ps St3sp	Fe360D

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110	A285	P235GH (1.0345)	1.0345 ASt35 HI StE255	SB410 SGV410 SPV235 SPV24	A37AP A37CP	141-360 161Gr.360	20	12k	P3
111	A285Gr.C								
112	A36	S235J2 (1.0117)				40EE	Q235D	17G1S	
113	A387Gr.12	13CrMo4-5 (1.7335)	13CrMo4-4	SFVAF12	15CD2.05 15CD4-05 15CD4-5	620 620-440 620Gr.27	12CrMo	12KHM 15KHM	F32 P32
114	Gr.P12								
115	A387Gr.22	10CrMo9-10 (1.7380)	10CrMo9-10	SCMV4	10CD9-10 12CD9-10	622 622Gr.31	12CrMo	10KH2M	F34 P34 TS34
116	Gr.P22								
117	A414Gr.G	P355GH (1.0473)	19Mn6	SPV36	A52CP	224Gr.490			
118	A516Gr.70								
119	A537CL1	P355N (1.0562)	StE355	SM490B	A510AP E355R	223Gr.490 50DD	20	15GF	E355
120	A441	S355J0 (1.0553)	St52-3U	SS490B	E36-3	50C	16Mn		E355C Fe510C
121	A633								
122	A514	S700MC (1.8974)	1.0966 QStE690TM		E690D	75F70			
123	A514F	S690Q (1.8931)	StE690V		E690TR				
124	A516Gr.65	P295GH (1.0481)	1.0436 17Mn4 ASt45	SG365 SPV315 SPV32 SPV32	A48AP A48CP A48FP	224-460B 224Gr.460 224Gr.490 430LT		14G2 18K	P11
125	X46								
126	A537A2	S460Q (1.8908)	TStE460V	SM58	E460T E460TR				
127	A678Gr.A	S355JR (1.0045)	St52-3	SM490A SS490	E36-2	50B	Q345B Q345C		E355C Fe510B
128	SSGrade50								
129	A572	S275J2(+N) (1.0144)	St44-3N		E28-4	43D	Q255	St4kp St4ps	Fe430D
130	A633Gr.A								
131	A572Gr.42	S275NL (1.0491)	TStE285			43EE			
132	A633A	S275N (1.0490)	1.0486 StE285	SM400B		43DD			
133	A662Gr.A	P275NL1 (1.0488)	TStE285			43EE			
134	A572Gr.50	S355N (1.0545)	StE355		E355R	50DD 50E	Q345D	15GF	
135	A945Gr.65	S420M (1.8825)	StE420TM		E420R				
136	A572Gr.60								
137	A633Gr.E	S420NL (1.8912)	TStE420		E420FP	50F	Q420E		
138	A738Gr.C								
139	A633E	S420N (1.8902)	StE420	SM490A SM490C	E420R		Q420D	16G2AF	E420
140	A255Gr.D	S420ML (1.8836)	TStE420TM		E420FP				
141	A633Gr.E	S460ML (1.8838)	TStE460 TStE460TM		E460FP	55EE			
142	A572Gr.65	S460M (1.8827)	StE460 StE460TM	SM570	E460R	55C			
143	A913Gr.65	S355M (1.8823)	StE355 StE355TM		E355 E355R	50D			
144	A572Gr.C								
145	A913Gr.50	S275J0 (1.0143)	St44-3 St44-3U		E28-3	43C	Q275	St4ps St4sp	E275C
146	A588Gr.A	S355J2W(+N) (1.8963)	WSt52.3	SMA570W	E36WB4	WR50C			
147	A600A								
148	A600B								
149	A600C								
150	A600C	DC04 (1.0338)	1.0338 RRSt14 St14	SPCE	ES	1CR 1CS 1HR 1HS CR1		05kp 08kp 08YU	Cr04 CR24
151	A619								
152	DDS								



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153	A621CQ	DD11 (1.0332)	StW22	SPHD	1C	HR3		15kp	HR2
154	CS								
155	A621DQ	DD12 (1.0398)	RRStW23 StW23	SPHE		HR2			
156	A622DQ	DD13 (1.0335)	StW24	SPHE SPHE-AK	3C	HR1		08kp	HR4
157	DS								
158	A633Gr.C	S355ML (1.8834)	TStE355 TStE355TM		E355FP	50EE			
159	A633Gr.D	S355NL (1.0546)	TStE355		E355FP E355FR	50EE	Q345E		
160	A656	S355J2 (1.0577)	1.0577 ASt52 St52-3N	SS490YA	A52FP	224-460	Q345D		
161	A662Gr.C	P355NH (1.0565)	WStE355		A510AP	224Gr.490			
162	A709-100	S690QL (1.8928)	TStE690V		E690T E690TFP S690T				E690
163	A709Gr.50W	S355K2W(+N) (1.8966)			E36WB4				
164	A737Gr.B	P355NL1 (1.0566)	TStE355		A510AP A510FP1 A530AP E355FP	224Gr.490 50EE			E355E
165	EDDS	DC06 (1.0873)	IF18		IF				
166	EV12	X53CrMnNiN21-9 (1.4871)	X53CrMnNiN21-9	SUH35	Z52CMN21-09	349S54	5Cr21Mn9Ni4N	55KH20G9AN4	Type9
167	Gr.1	S355J0WP (1.8945)	9CrNiCuP324	SPA-H	E36WA3	WR50A WR50B WR50C	09CuPCrNi-A		Fe355W-1A
168	Gr.1015	C15E (1.1141)	1.1141 C15 Ck15	S15C	C18RR XC12 XC15	040A15 080M15 CS17	15	15	C15E4
169	Gr.1016								
170	Gr.1108	10S20 (1.0721)	1.0721 10S20		10F1	210M15	Y12		
171	Gr.36	S235JRG2 (1.0038)	RSt37-2 S235JRG2	SS330	E24-2NE	40B	Q235C	St3ps St3sp	Fe360B
172	Gr.45	HC300LA (1.0489)	ZStE300	SPFC440	E280C				
173	Gr.50	S355MC (1.0976)	QStE360TM	SPFH540	E355D E390D	46F35 46F40			
		HC340LA (1.0548)	ZStE340	SPFC490	E315C				
174	Gr.5135	37Cr4 (1.7034)	37Cr4	SCr435H	37Cr4 38C4	530A36 530M36	35Cr	38KHA 40KH	37Cr4
175	Gr.55	HC380LA (1.0550)	ZStE380	SPFC540	E355C				
176	Gr.60	S420MC (1.0980)	QStE420TM	SPFH590	E420D	HR50F45			FeE420
		HC420LA (1.0556)	ZStE420	SPFC590					
		P310NB (1.0437)	1.0437 17Mn4 ASt41	SG325	A42FP1 BS3	224-400 TypeC			
177	Gr.65	S460MC (1.0982)	QStE460TM		E445D	50F45			
		E355 (1.0580)	1.0060 E355 St52 St52-3		E335 E335 TS-47a TU526	CEW5 CF55 E335 ERW5NKM ERW5NZF		St6sp	Fe590
178	Gr.70	S500MC (1.0984)	E490D QStE500TM		E490D				FeE490
179	Gr.80	S550MC (1.0986)	QStE550TM		E560D	60F45 60F55			FeE560
180	Gr.9840	36CrNiMo4 (1.6511)	36CrNiMo4	SCNM439	40NCD3	817A37 817M37		40KH2MA	36CrNiMo4
181	Gr.C		1.0028 1.0036 St34-2 USt37-2	SS330 STKM12A	A34-2 S235JRG1	CEW2BK Fe360B	A3 Q235	16D 18kp St3kp	Fe360B
182	Gr.N1	C18D (1.0416)	GS38	SC37	20-40M	AM1		15L	20-40
183	H10	32CrMoV12-28 (1.2365)	X32CrMoV3-3	SKD7	32CDV12-28	BH10		3KH3M3F	32CrMoV12-28
184	H11	X37CrMoV5-1 (1.2343)	X38CrMoV5-1	SKD6	Z38CDV5	BH11	4Cr5MoSiV	4KH5MFS	X37CrMoV5-1

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185	H21	X30WCrV9-3 (1.2581)	X30WCrV9-3	SKD5	Z30WCV9	BH21	3Cr2W8V	3KH2V8F	X30WCrV9-3
186	L6	55NiCrMoV7 (1.2714)	55NiCrMoV6 56NiCrMoV7	SKT4	55NCDV7	BH224-5	5CrNiMo	5KHNM 5KHNV	55NiCrMoV7
187	M2	HS6-5-2 (1.3339)	HS6-5-2	SKH51	Z85WDCV06-05-04-02	BM2	W6Mo5Cr4V2	R6M5	HS6-5-2
188	N08926	X1NiCrMoCuN25-20-7 (1.4529)							
189	N08367								
190	S1	60WCrV8 (1.2550)	60WCrV7		55WC20	BS1	6CrW2Si	5KHV2S	60WCrV8
191	S30415	X6CrNiSiNce19-10 (1.4818)							
192	S30430	X3CrNiCu18-9-4 (1.4567)		SUSXM7	Z3CNU18-09FF Z3CNU18-10 Z3CNU18-10FF	304S17			
193	S30815	X9CrNiSiNce21-11-2 (1.4835)							X7CrNiSiNce21-11
194	S310050	X1CrNiMoN25-22-2 (1.4466)			Z2CND25.22Az				
195	S31254	X1CrNiMoCuN20-18-7 (1.4547)							
196	S32205	X2CrNiMoN22-5-3 (1.4462)			Z3CND22-05Az	318S13			
197	S32304	X2CrNiN23-4 (1.4362)			Z3CN23-04Az			03KH23N6	
198	S32654	X1CrNiMoCuN24-22-8 (1.4652)							
199	S32750	X2CrNiMoN25-7-4 (1.4410)			Z3CND25-06Az				
200	S32760	X2CrNiMoCuWN25-7-4 (1.4501)							
201	S34565	X2CrNiMnMoN25-18-6-5 (1.4565)							
202	S35315	X6NiCrSiNce35-25 (1.4854)							
203	S40977	X2CrNi12 (1.4003)							
204	S41500	X3CrNiMo13-4 (1.4313)			Z6CN13-04				
205	S43932	X2CrTiNb18 (1.4509)							
206	S43940								
207	SAE1008	DC01 (1.0330)	FeP01 St12	SPCC	C F12 FeP01	CR4 FeP01	08 08F	08kp 08ps	Cr01 CR22
208	SAE1010								
209	SAE1020	C22 (1.0402)	1.0402 C22	S20C S22C		070M20	20	20	C25
210	SAE1030	C30 (1.0528)	1.0528 C30 Ck30	S30C	AF50C30 XC32	080M32 En5	30	30	C30 C30E4
211	SAE4130	25CrMo4 (1.7218)	25CrMo4	SCM420 SCM430	25CD4	708A25 708M25 CFS10	30CrMo	20KHM 30KHM 30KHMA	25CrMo4
212	SAE5115	16MnCr5 (1.7131)	16MnCr5		16MC5	527M17 590M17	15CrMn 16MnCr 20CrMnTi	18KHG	16MnCr5
213	SAE5120	20MnCr5 (1.7147)	20MnCr5	SMnC420H	20MC5		20CrMn 20CrMnTi 20MnCr	18KHG	20MnCr5
214	T1	HS18-0-1 (1.3355)	HS18-0-1	SKH SKH2	Z80WCV18-04-01	BT1	W18Cr4V	R18	HS18-0-1
215	Type420	X39Cr13 (1.4031)	X39Cr13		Z40C13	X39Cr13	4C13	40KH13	
216	W1-7	C70U (1.1520)	1.1620 C70W2	SK6 SK7	C70E2U		T7	U7	C70U
217	W110	C90U (1.1535)	C105W2	SK4 SK5	C105E2U		T10	U10	
218	W5	C105U (1.1545)	C105W1	SK3	C105E2U	BW1B	T10A	U10A	C105U
219	WCC	G17Mn5 (1.1131)	GS-16Mn5		20M5M	G17Mn5			
220	X42	L290NB (1.0484)	StE290.7						
		L290MB (1.0429)	StE290.7TM						
221	X52	S355G14 (1.1184)							
		L360NB (1.0582)	StE360.7						
		L360MB (1.0578)	StE360.7TM						
222	X60	L415NB (1.8972)	StE415.7						
		L415MB (1.8973)	StE415.7TM						
223	X65	L450MB (1.8975)	StE445.7						
224	X70	L485MB (1.8977)	StE480.7TM						
225	X80	L555MB (1.8978)							

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Huaguang Seiko refers to the Zhejiang Huaguang Seiko Manufacture Co., Ltd. and/or Zhejiang Huaguang Precision Manufacturing Co., Ltd. in China. Both of the names are the English translation of “浙江华广精工制造有限公司”.

Please see [www.huaguangseiko.com](http://www.huaguangseiko.com) for further details.

