



捷成  
工業

## Jea-Sheng Industry Co., Ltd.

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### Jea Sheng's Profession

We link every sections & details  
to offer you the best casting  
from drawing to delivery.

# Jea Sheng's Strength

Professional casting experience over **35** years.

**Advanced** casting and testing equipment.

**Stable / Fast** delivery.

Casting capacity of **2,500** tons per month

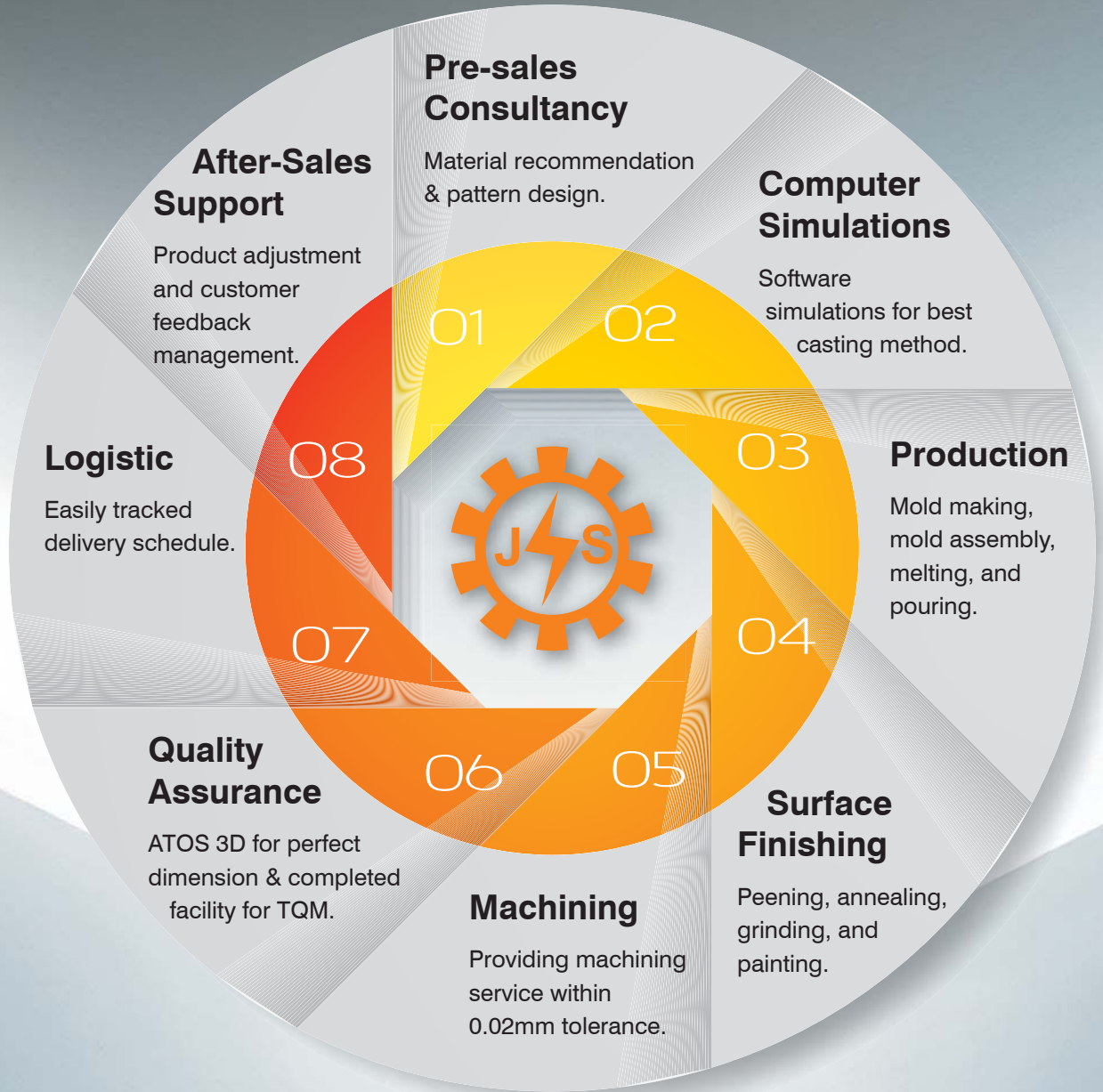
with **0.02** mm machining precision.

# Company History



- Future** We're able to provide small casting, and wider product range from 5 kg to 25 tons.
- New plant will be completed in 2019 December and its production will begin in 2020 March. The plant is 51,520 m<sup>2</sup>. It will increase production capacity and expand the product range.
- 2018** Jea-Sheng industry increased capital NTD 332,500,000, total employees 180.
- 2014** Korean railway certified supplier. TAF certified testing laboratory. Meehanite certified casting foundry.
- 2013** Jea-Sheng industry increased capital NTD 270,000,000, total employees 110, plant 29,300 m<sup>2</sup>.
- 2010** **2008** Hornse international was established, capital NTD 53,000,000, plant 19,800 m<sup>2</sup>.
- 2007** 2nd factory established plant 6,000 m<sup>2</sup>.
- 2006** 3rd factory established plant 3,300 m<sup>2</sup>.
- 2003** Successful installation of 50 kg PC sleeper turnout system.
- 2001** Nantou factory established, capital NTD 130,000,000. Plant 20,000 m<sup>2</sup>.
- 2000** Entering Europe, American, and Japan casting market.
- 1990** **1998** Official research of 50 kg-N type turnout system begins.
- 1997** Approved as a certified ISO-9000 supplier of casting good for Taiwan Railways Administration.
- 1984** **1984** Foundry established in Taiping, capital NTD 1,000,000.

# Total Solution



鑄造



**From formless to Formation, extracting the essence of craftsmanship.**

A technique exists over 6,000 years; casting build the foundation of all industries from ancient to modern technology.

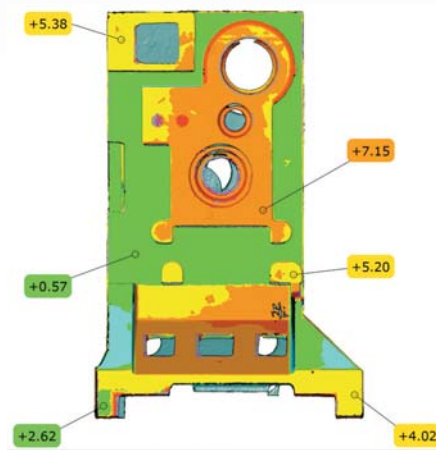


# Quality Control Facility

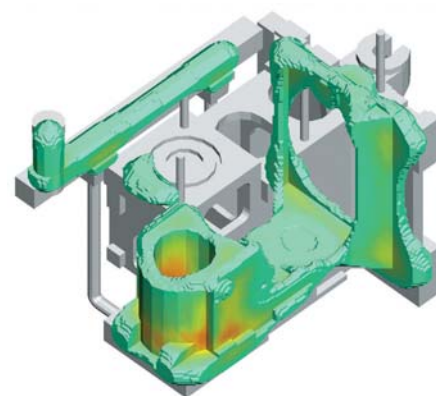


## ATOS

3D scanner allows Jea Sheng to compare the actual casting with the 3D CAD drawing. We can guaranty a perfect size casting in every new project.



With this software, Jea Sheng can simulate possible defects before the casting. We can then modify casting method to ensure low ratio or even zero of deformation, crack, gas hole, and shrinkage cavity.



## OES Analyzer

The OES analyzer quickly analyses the qualitative and quantitative chemical composition for metals, which is used for quality assurance on the composition of the castings before production.



## Endurance Tester

The endurance tester tests the impact endurance of the austenitic manganese steel for the crossing of railway, to confirm that our products meet the specifications.



## Others

- Optical Microscope , OM
- Universal testing machine
- Brinell hardness tester
- Sand mold strength testing machine
- Leeb hardness tester
- Wear test machine



Optical Microscope , OM



Universal testing machine



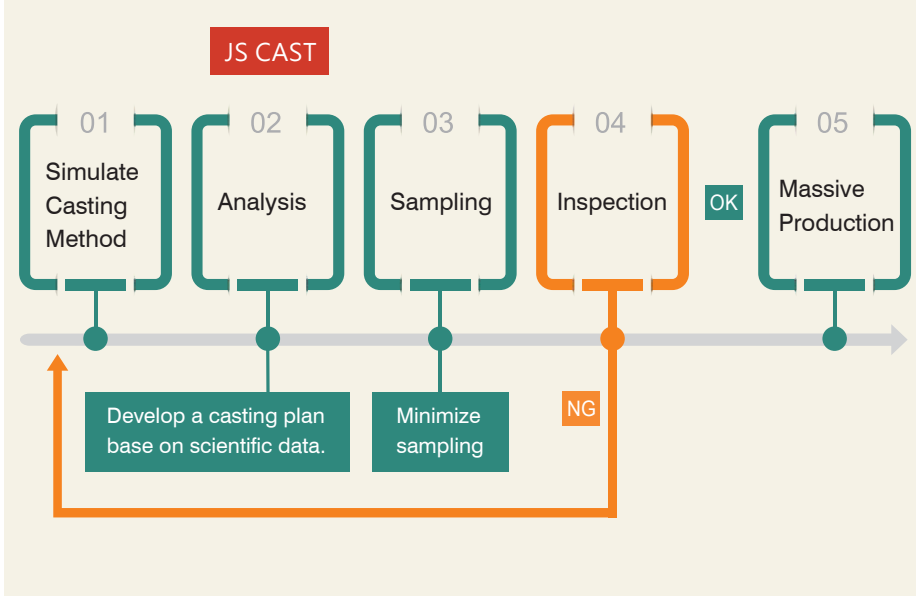
Brinell hardness tester




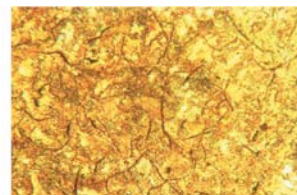
Sand mold strength testing machine

## JS CAST CAE Simulation Software

### JS CAST Flow Chart



## Material Analysis

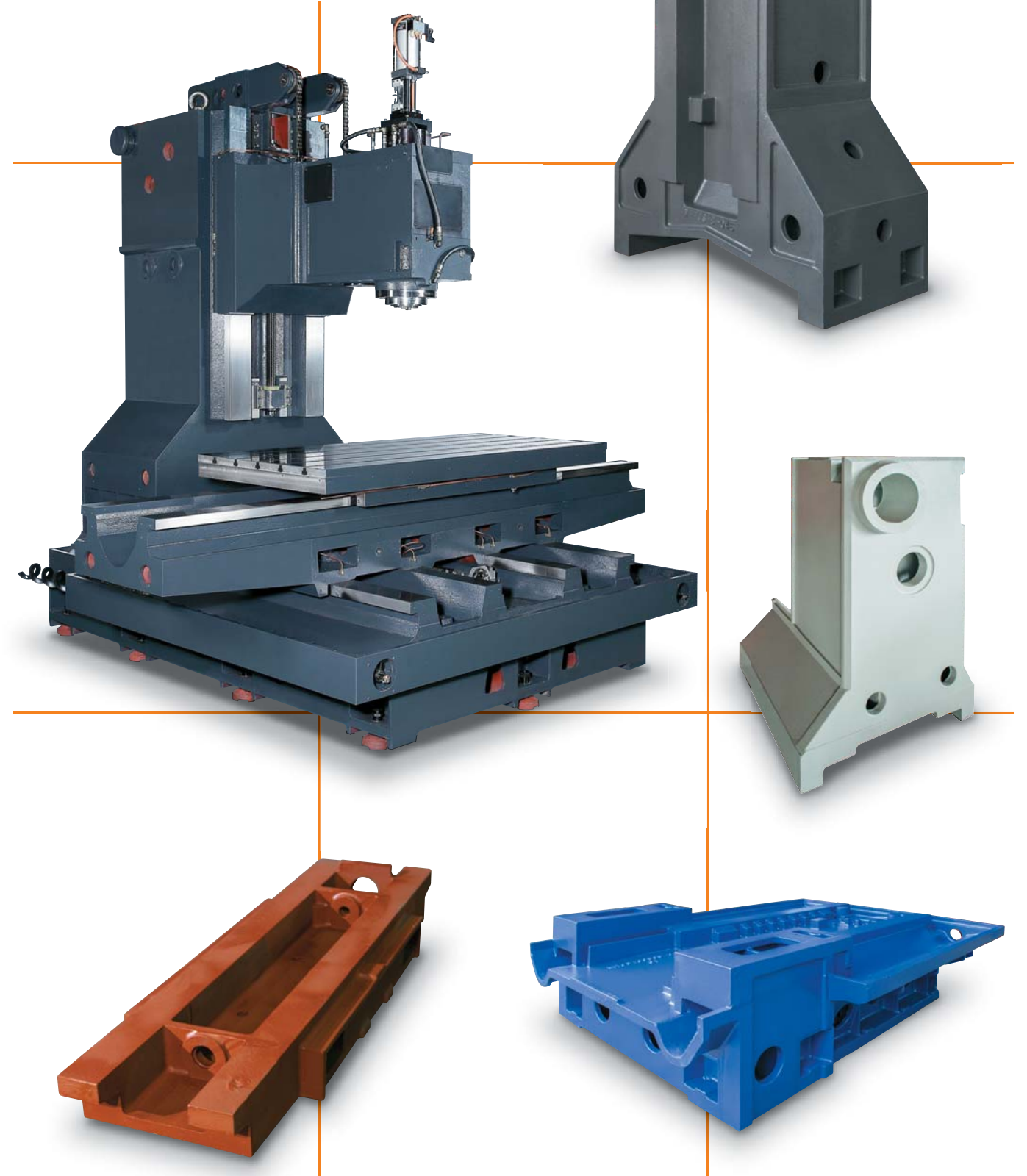
Chemical Composition %					
溶解温度 : 1524 °C					
炭素 (C)	ケイ素 (SI)	マンガン(MN)	クロム (CR)	硫黄 (S)	リン (P)
3.05~3.15	1.70~1.80	0.75~0.85	0.10	0.04以下	
<b>3.08</b>	<b>1.77</b>	<b>0.83</b>	<b>0.10</b>	<b>0.07</b>	<b>0.03</b>
バナジウム (V)	銅 (CU)	チタン(TI)	アルミニウム (AL)	窒素 (N)	スズ (SN)
0.00	0.30	0.009	0.004	0.007	0.000
Tensile Strength (N/mm <sup>2</sup> )			Hardness Test (油圧)		
<b>310</b>			<b>4.30 mm</b>		<b>197 HB</b>
Metallurgical analysis					
Magnification : 100 Graphite Type : A Graphite Size : 3.2 mm ( No.6)			Magnification : 400 Pearlite : 98.1 Ferrite : 1.9		
					

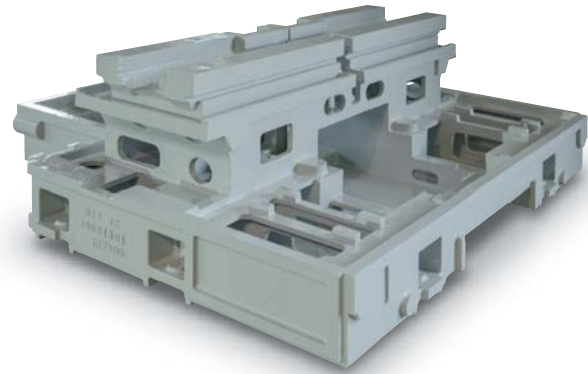
# Machine Tool Casting



- Vertical Machining Center
- Gantry Type Machining Center
- Double-Column Machining Center
- Horizontal Machining Center
- 5 Axis Machining Center
- Vertical Lathe
- PCB Drilling Machine
- PCB Routing Machine
- CNC Lathe Machine
- Multi-Tasking Machine
- Lathe Machine
- Tapping Center
- Boring Machine

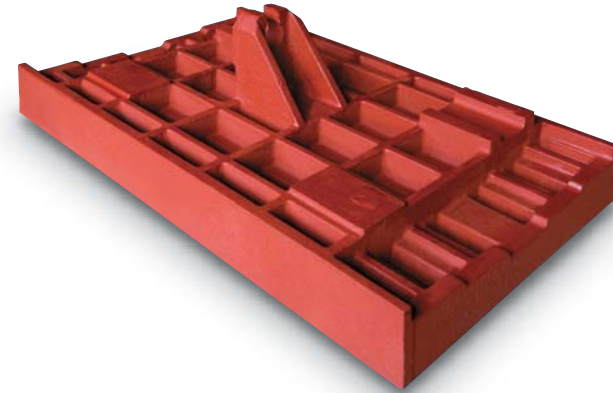
A perfect machine tool is built on good castings





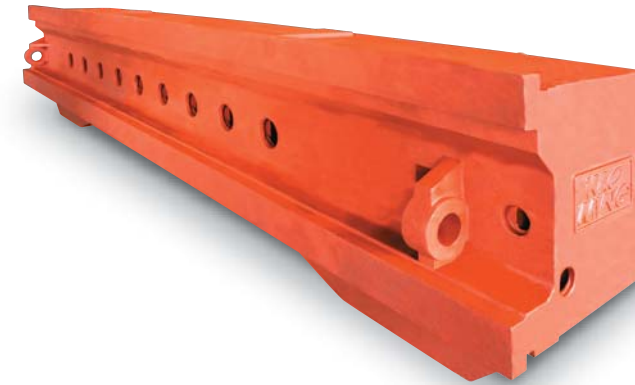
**CNC Lathe Machine - Base**

L x W x H 1,900 × 1,780 × 660 mm  
 Weight 2,180 kg



**Vertical Machining Center - Table**

L x W x H 860 × 520 × 240 mm  
 Weight 237 kg



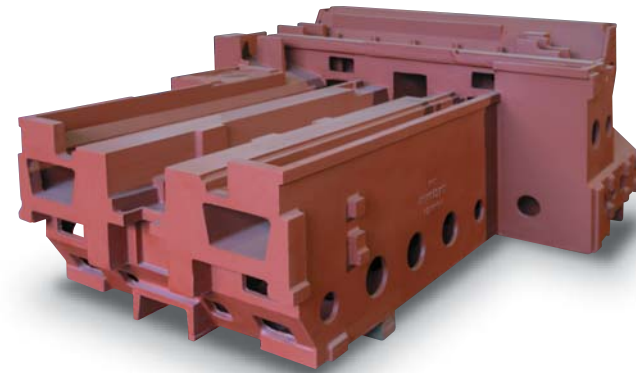
**Double-Column Machining Center - Beam**

L x W x H 5,207 × 1,100 × 905 mm  
 Weight 7,240 kg



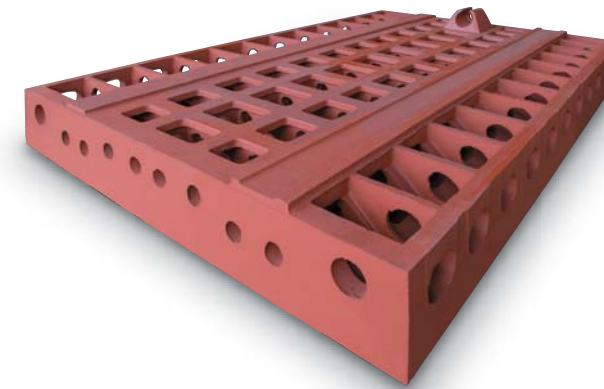
**Turning and Milling Center - Base**

L x W x H 2,680 × 1,270 × 935 mm  
 Weight 4,750 kg



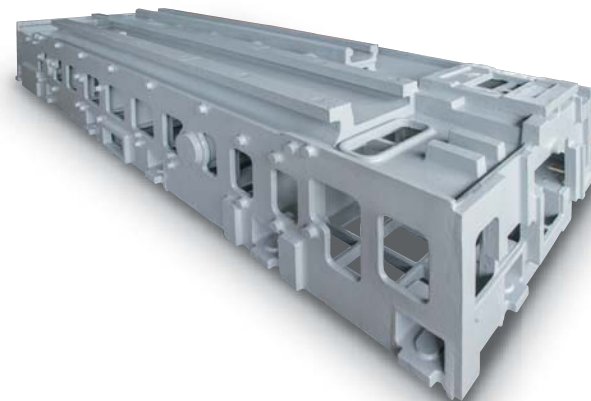
**Horizontal Machining Center - Base**

L x W x H 2,702 × 1,960 × 988 mm  
 Weight 4,160 kg



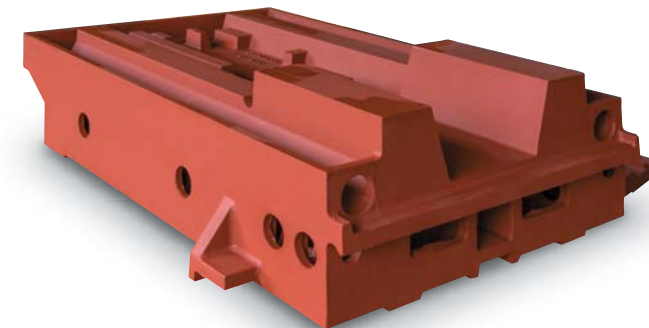
**Double-Column Machining Center - Table**

L x W x H 3,000 × 2,100 × 485 mm  
 Weight 5,980 kg



**CNC Lathe Machine - Base**

L x W x H 4,095 × 1,280 × 767 mm  
 Weight 4,695 kg



**Vertical Machining Center - Base**

L x W x H 1,723 × 1,240 × 453 mm  
 Weight 1,708 kg



**Double-Column Machining Center - Table**

L x W x H 4,200 × 2,200 × 301 mm  
 Weight 7,500 kg





**Electric Manhole Cover A**

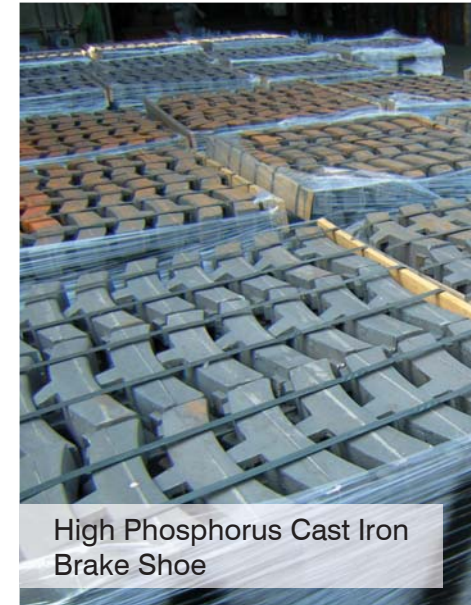
Diameter 1,200 mm    height 150 mm  
 Weight 419 kg



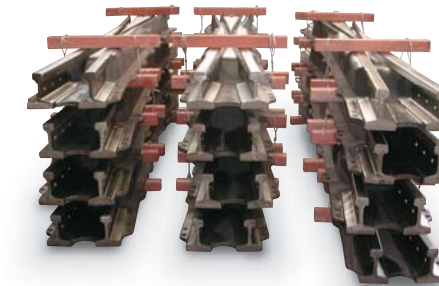
**Electric Manhole Cover B**

L x W x H 1,210 x 810 x 150 mm  
 Weight 401 kg

## Brake Shoe and Crossing Product



High Phosphorus Cast Iron  
 Brake Shoe



50kg-Class  
 High-Manganese Steel Crossing



60kg-Class  
 High-Manganese Steel Crossing



60kg-K Shape  
 High-Manganese Steel Crossing



50kg-N Shape  
 High-Manganese Steel Crossing



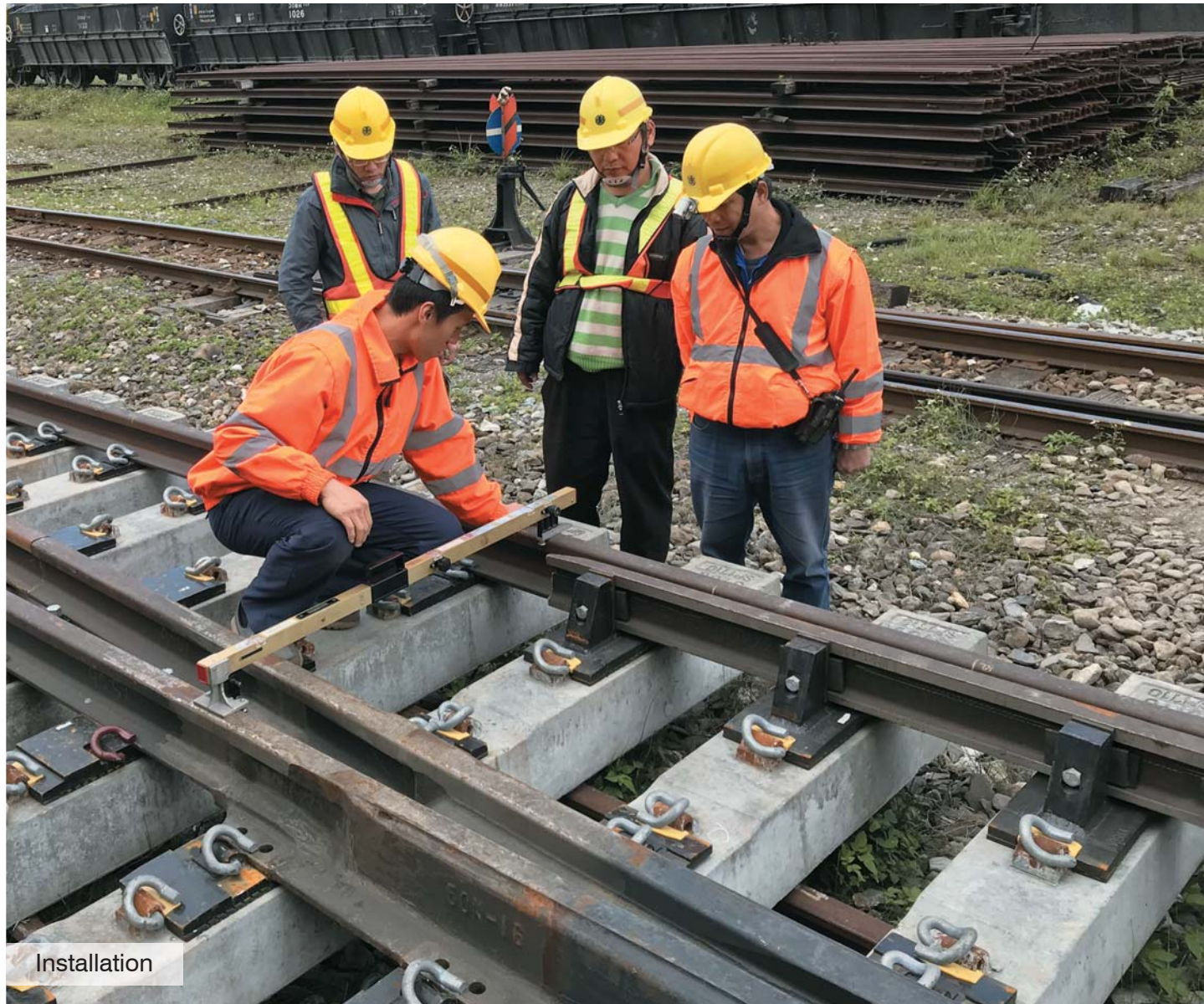
60kg-Class High-Speed Railway  
 High-Manganese Steel Crossing



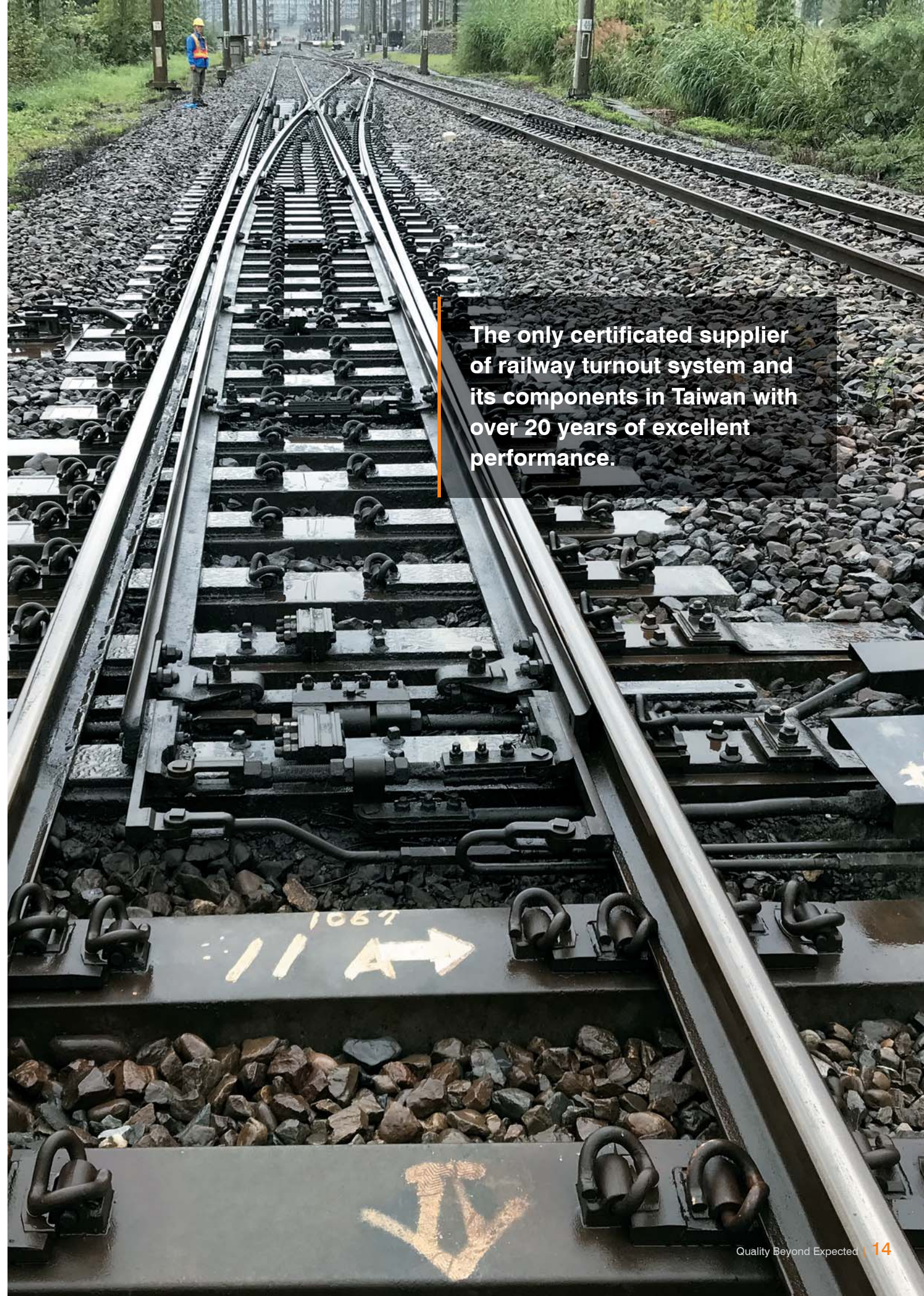
60kg High-Manganese Steel  
 Diamond Crossing



On Site Records



Installation



The only certificated supplier of railway turnout system and its components in Taiwan with over 20 years of excellent performance.