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System Solution Manual

Devoted to Weighing, Committed to Quality



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COMPANY INTRODUCTION



COMPANY PROFILE

Newsense BV, as a memeber of Qianjiang Weighing tech Ltd group, which has over 40 years of excellence in precision weighing & inspection solutions has been a pioneer in the load cell industry for over decades. Through 40 years of independent research and development, we have evolved into a comprehensive one stop solution provider, seamlessly integrating R&D, manufacturing, installation, and after-sales service. Our specialized portfolio features high-precision strain gauge load cells and WIM,Rail Weighbridge, renowned for their accuracy, durability, and ease of maintenance.

We are the formulator of industry standards and the leader of technological innovation: We own a number of national patents, take the lead in drafting national standards, compile industry qualification tutorials, and carry out in-depth industry-university-research cooperation with top universities such as Zhejiang University and China Jiliang University, so that cutting-edge technologies can be continuously applied to products. From railway safety to port logistics, from iron and steel metallurgy to electric power energy, our products, with the advantages of high precision, easy operation and low maintenance, empower industrial metering in thousands of industries.

We always take quality as the foundation and customers as the center, adhere to integrity and dedication, and achieve win-win growth with every partner. In the future, we will continue to take technological innovation as the engine, constantly break through the technical boundaries of weighing detection, inject stronger impetus into the global industrial intelligent upgrading, and join hands with partners to create a new future of high-quality industrial development!

Hangzhou Qianjiang Weighing Technology Co., Ltd. | Founded in 1984
Newsense B.V. | Founded in 2025

- National High-Tech Enterprise
- National Standard Drafting Unit
- Drafter of Zhejiang Made Group Standard
- Hangzhou Enterprise Technology Cente
- Zhejiang Provincial R&D Center
- Specialized, Refined, Distinctive, and Innovative Small and Medium Enterprises in Zhejiang Province

Company Honors































Strategic Partners

盛隆冶金 · 酒钢集团 JISCO · 日照钢铁 RIZHAO STEEL · 鞍钢集团 ANSTEEL · BAOWU 中国宝武

敬业集团 JINGYE GROUP · 德胜集团 DESHENG GROUP · 中信泰富特钢 CITIC PACIFIC SPECIAL STEEL · 河钢集团 HBIS GROUP · 柳钢集团

安钢集团 AN GANG GROUP · 新华冶金 SINOIANT · 方大特钢 · 金鼎钢铁集团 JINDING STEEL GAOUP · 三宝集团 SANBAO GROUP

湖南钢铁集团 · 沙钢集团 · 建龙集团 JIANLONG GROUP · SINOSTEEL 中钢集团 · 中国五矿 MINMETALS

中国铁建 CRCC · 首钢集团 SHOUGANG GROUP · 包钢集团 BAOGANG GROUP · 陕钢集团 Shaan Steel Group

中国中铁 CREC · 南宁铁路 NNR · 中国中车 CRRC · CRSC 通号建设集团有限公司 · 广州铁路

南昌铁路 Nanchang Railway · 武汉铁路局 · 中国铁道科学研究院 CHINA ACADEMY OF RAILWAY



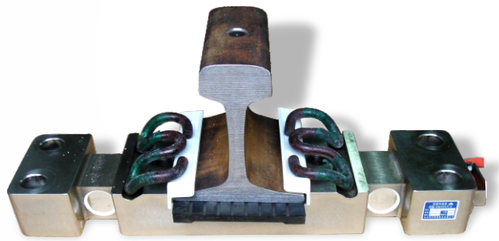
RAILWAY
PRODUCTS
INTRODUCTION

Freight Transport Load Cell

▶ Rail Pad Type Load Cell

The rail pad type weighing sensor developed by our company for the Ministry of Railways features a unique structure, holds multiple independent intellectual property rights, and is protected by national patents.





▶ Rail Insert Type Load Cell

This load cell is a patented product of our company with multiple independent intellectual property rights, and it is also a key scientific and technological project of China Ministry of Railways during the key national building plan and widely used as a key promotion project in China railway network.

▶ Practical Application



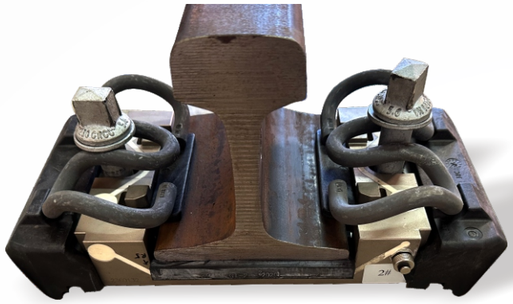
Load Cell Specialized for High-speed Railway Tracks

▶ About the product

Against the general background of the development of domestic high-speed railway technology and high-speed railway industry, as well as the global expansion of China's high-speed railway industry.

The research, development and processing of the GT-2 special sensor for high-speed railways with bidirectional force value output is an important part.

This Load Cell is applicable to the WJ-8 type fastener system and Vossloh fastener system used for high-speed railway safety detection.



▶ Practical Application



Simulated Installation Of Load Cell



Load Cell Fatigue Test



Load Cell on-site installation



High-speed Railway Bridge Monitoring and EMU Maintenance Special Load Cell

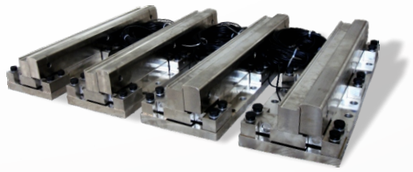
▶ Spoke Type Load Cell

This sensor has the characteristics of low height, stable and reliable installation, high precision, strong impact and overload resistance, etc.; It is applied in the bridge safety detection of high-speed railway EMUs.



▶ Short Rail Type Load Cell

This sensor has good natural linearity and stability, and also features strong lateral impact resistance, convenient installation, etc.; It replaces a certain section of steel rail during use and is installed on a rigid foundation; It is widely used in the lines of EMU bases.





Digital Indicating Track Scale

▶ Digital Indicating Track Scale (Pitless Rail-break Structure)

It has obtained the pattern approval certificate with 20kg division value, and is widely used in railway freight transport.



▶ Technical Advantages

Improve the verification division value to enhance detection accuracy.
The foundation pit-free design reduces construction cost, improves installation efficiency and ensures driving safety.

▶ Practical Application



It is widely used in railway freight yards, factories, mines and other places to improve railway freight efficiency.
It is applicable to railway freight branch lines and freight yards to ensure railway freight safety.

Automatic Track Scale

▶ Continuous Rail Girderless Bogie Weighing Automatic Track Scale

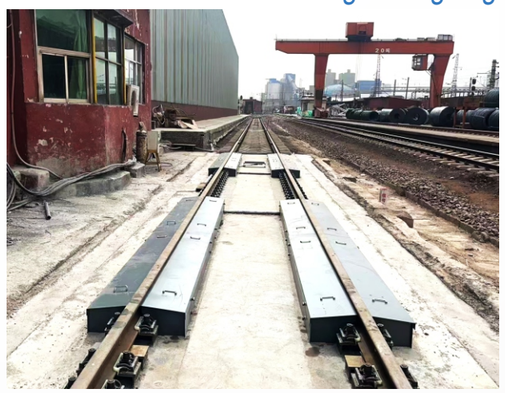


Foundation form with pre-embedded steel plates without foundation pit



Foundation form with special sleepers without foundation pit

▶ Continuous rail girderless automatic railroad track scale for full wagon weighing



Foundation form with pre-embedded steel plates without foundation pit

▶ Continuous rail girder-type automatic railroad track scale for bogie weighing



Shallow foundation pit concrete foundation form

Simple Overload and Unbalanced Load Detection System

High-precision detection

Adopting advanced sensor technology, it has high detection accuracy and small error.
It can accurately measure the weight of goods and the unbalanced load condition, providing guarantee for railway freight safety.

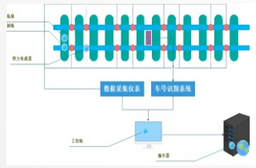
High degree of automation

Fully automatic operation without manual intervention, with fast detection speed.
It improves detection efficiency, reduces manual operation errors and lowers labor intensity.

Easy installation and maintenance

Reasonable structural design, easy installation and low maintenance cost.
The system is stable and reliable, with low failure rate and long service life.

▶ Practical Application



Block Diagram of the System


Foundation construction


Complete machine


Sensor hole machining

EMU (Electric Multiple Unit) Wheel Load Detection Device

▶ Functions of testing equipment

It detects the wheel weight, unbalanced load and overload of railway vehicles, ensures railway transportation safety and reduces accident risks.

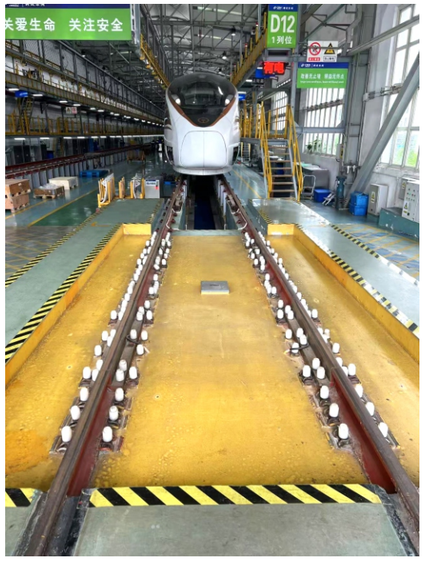


▶ Technical Advantages

It detects the weight of each wheel in real time to ensure even weight distribution of the vehicle.
The detection data is accurate, providing strong guarantee for railway transportation safety.

▶ Practical Application

It is widely used in the safety monitoring and management of high-speed railway transportation to ensure the safety of high-speed railway transportation.
It is applicable to EMU depots and freight stations of railways, improving railway transportation efficiency.



Calibration Device for EMU Weighing Platform

▶ Functions of calibration device





It is used for regular and rapid calibration and maintenance of the dynamic and static weighing platforms for EMUs, as shown in the figure.
It improves calibration efficiency, reduces maintenance workload and ensures railway transportation safety.

▶ Technical Advantages

It is portable, quick to install, easy to operate, stable in structure and high in accuracy.
It improves work efficiency and ensures railway transportation safety.

▶ Practical Application

It is widely applied in safety monitoring and management of railway transportation to ensure railway operation safety.
Suitable for railway freight yards and marshalling stations, it improves the efficiency of railway freight transport.



Scientific Research Achievements of EMU Weighing Platform Calibration Device

▶ Wireless handheld data terminal



Maximum measuring range: One-to-one transmission in the range of 0~20t, with a transmission distance of ⩾50 meters
Battery Capacity: 12580mWh,6800mAh
Temperature range: Normal operation under the temperature of -20~60℃, and easy to operate

▶ Wireless Weighing Load Cell



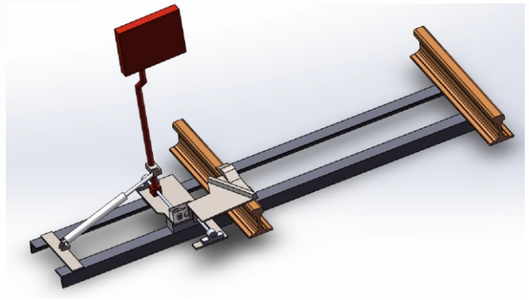
It is used for weighing objects of 0~20t, and supports one-to-one remote parameter setting and data reading.
Sensor accuracy: ⩽0.1%F·S; One-to-one transmission, with transmission distance ⩾ 50 meters
Battery Capacity: 12580mWh,6800mAh
Temperature range: Normal operation (-20~60℃)

Centralized Control System for Safety Protection of Railway Freight Loading Operation Lines

Standard Version

▶ System Composition

It includes subsystems such as centralized control platform, signal acquisition and control, and protection signal control.
The system has a compact structure, is convenient to use and maintain, and meets basic protection requirements.





Electric push rod | Derailer | Customized gearbox

▶ Functional characteristics

It realizes remote setting and cancellation of line protection signals, improving operation efficiency.
Centrally manage and control protection signals to reduce the safety risks of loading and unloading operations.
Record relevant information to facilitate management.

▶ Practical Application

It is applicable to small and medium-sized railway freight yards to reduce the safety risks of loading and unloading operations.
It is applicable to railway freight branch lines to ensure railway freight safety.

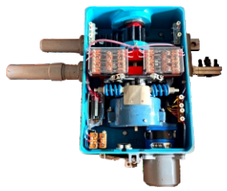
Centralized Control System for Safety Protection of Railway Freight Loading Operation Lines

High configuration version

▶ System Composition

It includes subsystems such as centralized control platform, signal acquisition and control, protection signal control, and intelligent video recognition.
All subsystems work collaboratively to realize remote setting and cancellation of line protection signals, improving the safety of railway freight loading and unloading operations.





Electric point machine



Derailer



Wegsensor

▶ Functional characteristics

Monitor the status of protection signals in real time to ensure operation safety.
Centrally manage and control the protection signals of all operation lines in the freight yard to reduce the safety risks of loading and unloading operations.
Record protection signal status information, operation information, etc. to facilitate management.

▶ Practical Application

It is widely used in railway freight yards and marshalling stations to improve loading and unloading efficiency and reduce labor intensity.
It is applicable to large railway freight hubs to ensure railway freight safety.

Standard Weight Calibration Box

▶ Importance of Weight Calibration Container

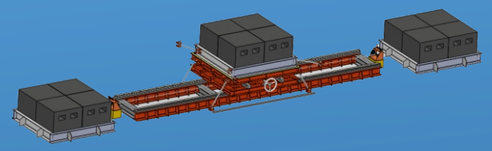
It solves the problems existing in container weighing, as well as the measurement and traceability of overload and unbalanced load detection devices.
It improves the accuracy of container weighing and overload and unbalanced load detection, and ensures the safe transportation of containers.

▶ Collaborative R&D

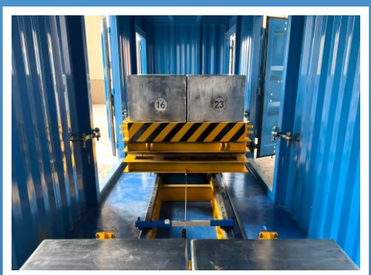
It is jointly developed with the Scientific Research Institute of China Railway Shanghai Group Co., Ltd. to improve measurement accuracy.
Provide technical support for the safe transportation of containers.

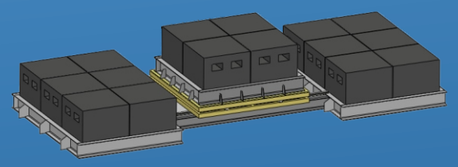
▶ Product Features

The weight calibration container has a reasonable internal structure and is convenient to use and maintain, as shown in the figure.
It provides high-precision measurement standards to ensure the accuracy and reliability of testing equipment.

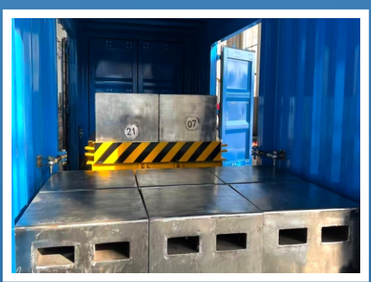


40-foot Weight Calibration Container





20-foot Weight Calibration Container



▶ Product Examples



Weight box used on site at Shanghai Beijiao Freight Yard

On-site acceptance of standard weight boxes



Container Overload and Unbalanced Load Detection Device

▶ Overload Detection

It detects the total weight of the container and determines whether it exceeds the specified maximum load capacity.
It prevents potential safety hazards caused by overloaded transportation and guarantees transportation safety.

▶ Unbalanced Load Detection

It detects the weight distribution of the container in the horizontal and longitudinal directions, and determines whether there is an unbalanced load.
It determines the position of the center of gravity through torque calculation to ensure transportation safety.



▶ Real-time Monitoring and Alarm

When overload or unbalanced load is detected, the device will send an alarm in real time to remind the operators to deal with it in time.
It effectively avoids the occurrence of safety accidents and ensures transportation safety.



Container Overload and Unbalanced Load Detection Device

Data record and analysis ◀

The device can record detection data, including the date, time, container number, weight, unbalanced load condition of each detection, etc., which facilitates subsequent data analysis and management.

Improve Loading and Unloading Efficiency ◀

Through real-time detection during the loading and unloading process, it can ensure that the loading of each container meets the safety standards, reduce reloading and unloading caused by overload or unbalanced load, and improve the efficiency of loading and unloading operations.

Multiple Detection Modes ◀

According to different application scenarios, the container overload and unbalanced load detection device can adopt multiple detection modes, such as ground digital type, suspension type, portable type, etc., to meet the needs of different users.

Main Components of Container Overload and Unbalanced Load Detection Device

▶ Custom-made Weighing Load Cell

This sensor is a tension weighing sensor specially developed for the container overload and unbalanced load detection device. When in use, it can directly replace the lock hook on the spreader without modifying the original structure.





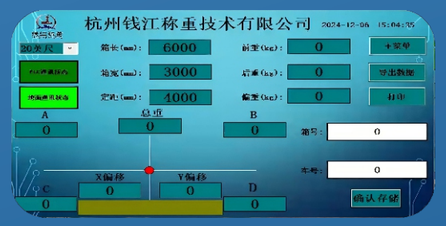
▶ Ground Display Terminal

This set of equipment adopts an embedded touch screen, the shell is made of 304 stainless steel, with reserved USB and network port interfaces on the back, and is equipped with a micro printer.

▶ Wireless Transmission Module

This equipment adopts industrial-grade vehicle-mounted wireless bridge, which has high performance and high bandwidth, supports high-speed roaming, and has a built-in omnidirectional antenna. It is widely used in wireless application scenarios with long distance or dense handover of multiple base stations.





▶ Special Detection Management Software

It can detect the total weight, unbalanced load and partial load of containers to ensure transportation safety. It provides real-time monitoring and alarm, reminding operators to deal with problems in time to avoid accidents.

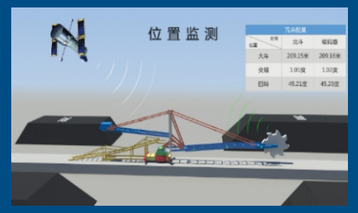
Unattended Bucket Wheel Stacker-Reclaimer System

(Automatic Stockyard Inventory System)

▶ System Introduction

The fully automatic unattended bucket wheel stacker-reclaimer system is a necessary foundation for the construction of intelligent fuel systems, intelligent ports and intelligent power plants. The fully automatic unattended bucket wheel stacker-reclaimer system designed by our company adopts a number of patented technologies such as precise positioning, intelligent control, accurate measurement and constant current control, realizing local unattended operation of the bucket wheel stacker-reclaimer and remote centralized one-button fully automatic control, which improves work efficiency and reduces the impact of the working environment on the health of operators.







System Features ◀

Through industrial-grade Beidou real-time positioning technology (for open-air scenarios), high-precision encoder + non-contact calibration device, non-contact rotation and pitch detection device, etc., it realizes three-dimensional spatial positioning of the bucket wheel stacker-reclaimer gantry and bucket wheel position (the positioning accuracy reaches centimeter level).

It scans the outer contour of the coal pile through laser, and establishes a real-time three-dimensional model of the coal pile, which serves as the basic data for the fully automatic control system and real-time coal inventory.

Intelligent control technology realizes one-button start-stop control of the bucket wheel stacker-reclaimer, with no manual intervention required in the whole process. The flow rate is constant during the reclaiming process, and manual/automatic two-way undisturbed switching is available.

Redundant configuration of key signal points is adopted to ensure the safe operation of the system.

Centralized high-definition video real-time monitoring, one person can operate multiple bucket wheel stacker-reclaimers at the same time, reducing the number of driver positions.

Unattended Bucket Wheel Stacker-Reclaimer System
(Automatic Stockyard Inventory System)

▶ Provision of Core Equipment

• Stockpile scanning device

Function: It conducts three-dimensional scanning of the outer contour of the stockpile on the working face, and completes three-dimensional modeling through modeling software.
Features: Adopt the laser scanner from German SICK AG, and the scanning device is designed with an electric opening and closing protective cover, which adapts to the harsh environment of the stockyard with high dust, heavy vibration, high temperature and high humidity.

• Laser flow detection device

Function: Scan the cross-section of the belt in real time to complete the real-time detection of the flow of the cantilever and the tail car.
Features: Adopt the laser scanner from German SICK AG, and the scanning device is designed with an electric opening and closing protective cover, which adapts to the harsh environment of the stockyard with high dust, heavy vibration, high temperature and high humidity.

• Material level detection device

Function: The material level signal is used for the fully automatic stacking process and the detection of the cantilever pitching down to the position during automatic positioning.
Features: Adopt German VEGA Ps series radar level meter, encapsulated in 304 stainless steel cylinder, which can effectively prevent the radar level meter from colliding with surrounding objects.

• Rotation angle detection device

Function: Used for detecting the rotation angle of the bucket wheel machine cantilever.
Features: Adopt 16-bit high-precision Kübler encoder, with secondary encapsulation protection made of 304 stainless steel, and the detection accuracy reaches ±0.1°.

• Pitch angle detection device

Function: Used for detecting the pitch angle of the bucket wheel machine cantilever.
Features: Adopt high-precision Kübler inclination sensor, with secondary encapsulation protection made of 304 stainless steel, and the detection accuracy reaches ±0.1°.

• Obstacle detection device

Function: Used for safety anti-collision detection of the gantry crane.
Features: The component adopts Turck ultrasonic sensor, with secondary encapsulation protection made of 304 stainless steel, which is suitable for high-dust environments.

• Cantilever anti-collision device

Function: Realize anti-collision detection between the cantilever and the material pile.
Features: The component adopts Turck ultrasonic sensor, with secondary encapsulation protection made of 304 stainless steel, which is suitable for high-dust environments.

• Gray bus positioning equipment

Function: Used for detecting real-time position information of the gantry crane.
Features: Non-contact, continuous absolute position detection, with high accuracy, good working condition adaptability, extremely long service life and rich interfaces.

• Rotary encoder and tag positioning equipment

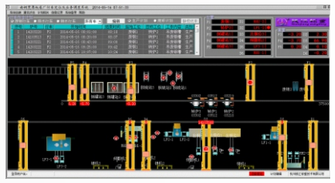
Function: Used for detecting real-time position information of the gantry crane.
Features: The equipment is easy to install and applicable to most occasions.

Intelligent Crane Positioning System

(Water Slag Crane Intelligent Operating System)

▶ System Introduction

Accurately judge the loading and unloading processes of the crown block, provide real-time data for the host computer, and the high-precision positioning improves work efficiency and production safety. Visually and dynamically display the real-time positions, running trajectories and action status of the crane's large and small trolleys: Assist dispatchers to fully monitor the on-site situation and command production; visually and dynamically display the real-time position and operation actions of the crane, and the client does not need to install software, and can directly browse the production site data through the web page.







Real-time 3D positioning of vehicle positions •

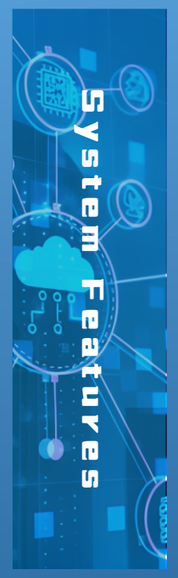
Gray bus technology + rotary encoder, 3D positioning real-time monitoring, improved equipment utilization.

Equipment networking •

Full coverage of wireless network, fast and excellent information transmission.

Unmanned operation •

Truly realize unmanned operation of cranes and completely liberate labor force.



- **Vehicle anti-collision**

Real-time positions are fully known, and anti-collision alarms are very reliable.

- **Process flow optimization**

Scheduling plans are automatically generated, production processes are fully tracked, information and data are stored and recorded, and functions of addition, deletion, query and modification can be customized individually.

It can be applied to occasions such as crane positioning, operation management, storage area management and unmanned operation in steelmaking workshops, slag grabbing cranes, cold rolling workshops, etc.



▶ Provision of Core Equipment

- **Gray bus positioning equipment**

Function: Used for detecting real-time position information of the gantry crane.
Features: Non-contact, continuous absolute position detection, with high accuracy, good working condition adaptability, extremely long service life and rich interfaces.

- **Rotary encoder positioning equipment**

Function: Used for detecting the height information of the crane hook.

Features: The equipment is easy to install and applicable to most occasions.

- **Crane scale**

Function: Provide information on the weight of materials lifted by the crane.

Features: Stable in use, high in accuracy and long in service life.

Unmanned Control System for Coke Oven Locomotives

▶ System Introduction

Realize automatic furnace number identification, coke pushing action interlocking, coal charging action interlocking and coking process computer management system for coke oven locomotives (coke pusher, coke guide car, coke quenching car and coal charging car). Prevent or completely eliminate coke oven production accidents, reduce repeated manual operations, improve efficiency and ensure work quality. On the basis of the four-locomotive interlocking, automatic control is added to realize unmanned production and improve the automation level of the enterprise.





▶ System Features

01 By installing coded cable or coded plate detection equipment on the coke pusher, coke guide car, coal charging car and coke quenching car, reliable position detection of the four major locomotives is realized.

02 Each on-board station of the vehicle collects and controls the interlocking signals of the vehicle through the CPU with built-in Ethernet interface of Siemens S7-1200 series.

03 Realize the safety interlock for coke pushing and coal charging operations of the four major vehicles.

04 Adopt configuration software to realize the host computer management function, and reserve open interfaces. Allow remote access from the office

05 Realize automated production and unmanned operation on the basis of four-vehicle interlocking

▶ Provision of Core Equipment

• Gray bus positioning equipment

Function: Used for detecting real-time position information of the gantry crane.
Features: Non-contact, continuous absolute position detection, with high accuracy, good working condition adaptability, extremely long service life and rich interfaces.

• Coding board positioning equipmen

Function: Used for detecting real-time position information of the gantry crane.
Features: Non-contact type, high accuracy, made of 304 stainless steel, with extremely long service life

• Rotary encoder and tag positioning equipment

Function: Used for detecting real-time position information of the gantry crane.
Features: The equipment is easy to install and applicable to most occasions.

• Coal tower weighing equipment

Function: Track the information of coal charging weight
Features: Stable in use, high in accuracy and long in service life.

• Hot coke weighing equipment

Function: Track the information of coke discharging weight
Features: Stable in use, high in accuracy and long in service life.

Full-automatic Positioning System for Discharge Trolley

(Automatic Discharging System for Discharge Trolley)

▶ System Introduction

This system adopts the internationally advanced Gray bus precise positioning technology to detect the position of the reversible belt discharge trolley in real time, and accurately controls the reversible belt discharge trolley to run to the designated position for distribution and unloading through PLC, so as to realize the remote interlocking control and monitoring of the reversible belt discharge trolley, eliminate the accidents of wrong bin and coal mixing, improve batching efficiency, save costs, and ensure output and quality.





▶ System Features

01 The system positioning accuracy is ±2 mm, the obtained address is stable and reliable, and it has the characteristics of "non-contact, continuous absolute position detection", with good working condition adaptability and extremely long service life

02 Reduce labor costs and improve production efficiency

03 Reduce the health impact of dust and noise environment on workers

▶ Provision of Core Equipment

• Gray bus positioning equipment

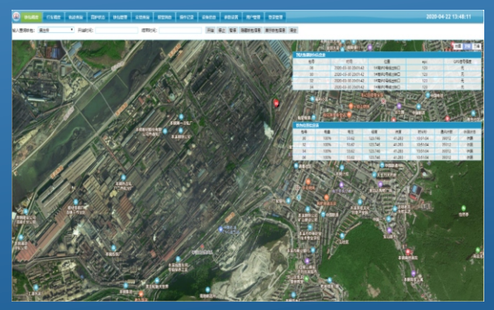
Function: Provide the real-time address of the distribution trolley
Features: Non-contact, continuous absolute position detection, with high accuracy, good working condition adaptability, extremely long service life and rich interfaces.

Logistics Tracking and Management System for Iron and Steel Ladles

▶ System Introduction

This system is applied to the information-based management of the logistics tracking of iron and steel ladles on the way from ironmaking to steelmaking and in steelworks in iron and steel enterprises, displays the ladle numbers of iron ladles accurately, matches the ferrite flow information efficiently and automatically, tracks the complete production performance data of each ladle of molten iron, so as to optimize management and improve efficiency





▶ System Features

01 Realize real-time collection of molten steel output, track the online and offline status of iron and steel ladles and all their turnover processes, and automatically count the ladle age

02 Realize the release of real-time data of the furnace front and casting machine on the network, and establish a strict molten steel trading relationship between workshops, processes and teams

03 Accurate, efficient and automatic matching of ferrite flow information, and clear display of the status and distribution of hot metal ladles

04 Easy statistics of production performance

05 Assist in the optimization of production management

▶ Provision of Core Equipment

• Medium temperature tags and identification hosts

Function: Used to identify the frame number
Features: Easy to install and accurate in positioning

• Wheel Sensors

Function: Used for vehicle passing and positioning judgment
Features: Modular design, and the interface module can be customized

• Vehicle-mounted tracking host

Function: Used for position detection of torpedo ladles
Features: Provide a charging interface, and detection can be carried out even when power is off

• High temperature tags

Function: Used to identify hot metal ladles and steel ladles
Features: Adapt to high temperature and harsh environments

High-precision Positioning Gray Bus

▶ Product Introduction

Industrial high-precision positioning equipment, which meets the on-site positioning requirements. The millimeter-level physical address is obtained through the cooperation of corresponding supporting equipment, and the antenna box and address detection unit decode the address and send it to the control terminal.





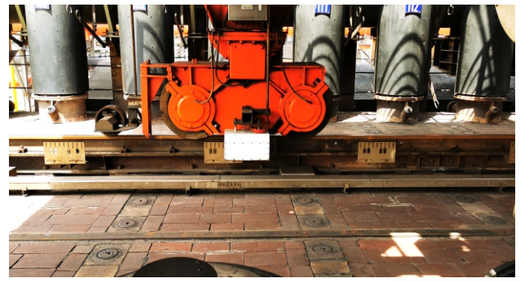
▶ Product Features

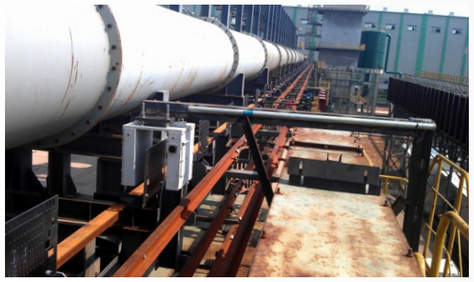
Operating temperature -40°C ~ +250°C (resistant to 350°C with an additional fireproof cover)	Address detection accuracy ±2mm; Accurate measurement of absolute addresses within the range of 1000m is available; Static state ⩽ ±2mm		Positioning response time ⩽50ms
High real-time performance of address detection	High address resolution	Continuous absolute address, non-contact detection, adaptable to harsh working conditions and environments	Provides important address data for vehicle positioning and dispatching

High-precision Coded Positioning Plate

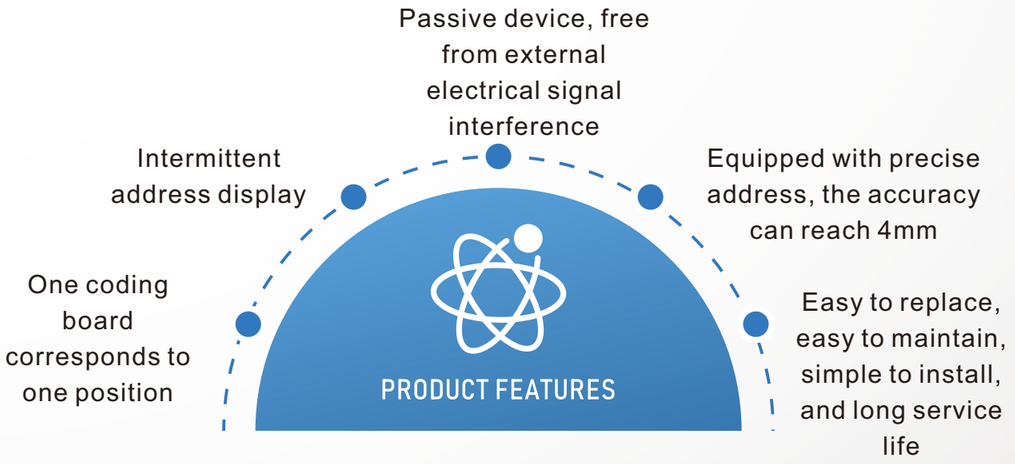
▶ Product Introduction

It is an industrial high-precision positioning equipment, suitable for use in harsh production environments, resistant to high temperature and corrosion, simple and easy to operate for installation and replacement, and the address is obtained by decoding through the corresponding code reader and address detection unit.





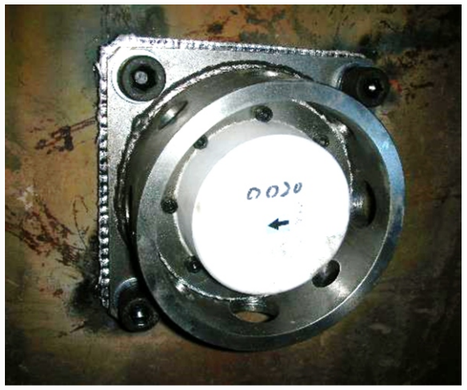
▶ Product Features



High-temperature Electronic Tag

▶ Product Introduction

It is an information identification and data writing storage device used for high-temperature containers such as molten iron ladles and molten steel ladles, and the high-temperature tag can continuously provide data under high-temperature conditions.





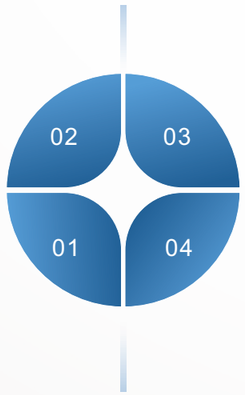
▶ Product Features

It can still work normally under the most extreme high-temperature conditions:
Normal operating temperature is 380℃, and the limit operating temperature can reach 500℃

The maximum reading distance at 500°C is 20m

Installed at the bottom and side of the tank body

Anti-interference and anti-collision protection ring



Furnace Top Pressure Compensation Weighing Display Instrument



▶ Product Introduction

QJ1024-A8 (PC) is an instrument specially developed for the blast furnace top charging system, which is used for furnace top pressure compensation, and finally realizes the accurate weighing and metering of the charging tank under high pressure, so as to meet the requirements of stable and reliable weight-based burden distribution of the blast furnace, and effectively improve the production efficiency and smelting quality of the blast furnace. This instrument has leading performance, powerful functions and high reliability, and is the best choice for solutions in this field.

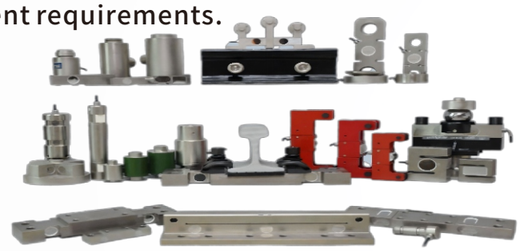
▶ Product Features

- A/D input signal range: -20mV/V+20mV/V
- DC5V, I>200mA, can connect 6 sensors of 350Ω
- Pressure compensation: Receives 4~20mA or 0~20mA pressure signals, with an ultra-wide compensation range
- Multi-point nonlinear correction function
- Input and output resources: 4/8 channels of digital input, 4/8/12 channels of relay/OC gate/BCD output, 4~20mA, 0~10V analog output, RS232 and RS485 serial communication ports, RJ45 network communication, USB communication interface
- Supports remote login and parameter setting via Ethernet IE browser
- Programmable display: The display content supports customization (such as weight, pressure, compensation, etc.)
- Operating temperature: -10℃～50℃; Storage temperature: -25℃～85℃
- A/D Linearity <0.003%FS
- Protection grade: Ip65

Weighing And Force-measuring Load Cell

▶ Product Introduction

The structures and types of resistance strain type weighing and force measuring sensors include: Pin shaft type, rail insert type, bridge type, wheel spoke type, plate ring type, shear plate ring, S type, shear S type, cantilever beam type, parallel beam type, box type, column type, cylinder type, cushion plate type, rail pad type, tension type, torque, moment, etc. Users can select products with appropriate structure type, range specification, accuracy grade, appearance size, etc. that meet their own needs from these numerous varieties according to different requirements.



▶ Product Features

Dimensions

Change the size according to on-site requirements to meet on-site needs

Measuring range

The range of a single sensor is 50KG-100T, and a sensor with an appropriate range should be used according to the on-site situation

Customized

Special sizes can be customized according to customer requirements / digital type and high-temperature type are optional

Alignment Detector for Hot Metal Ladle Tapping

▶ Product Introduction

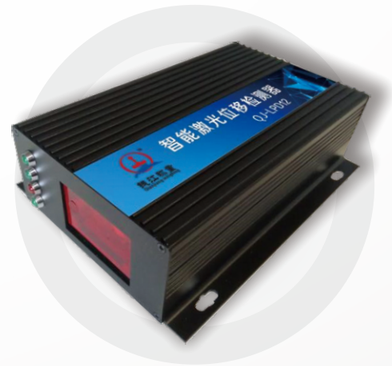
Adopt high-temperature resistant high-precision detection and high-temperature tank number identification technology to accurately judge whether the molten iron tank car is aligned under the iron tapping spout. It can conveniently remind the driver and the tilting funnel operator of the alignment status, and can also carry out alignment interlocking through the system to effectively ensure the safety of iron tapping production and prevent the occurrence of major accidents.





▶ Product Features

Operating temperature range of high-temperature tag: -40℃～380℃
Maximum identification distance: 3000mm
Allowable identification speed: 50km/h
Identification bit error rate: ⩽0.01%
With anti-collision protection design



Positioning Precision: 50mm-300mm
Maximum detection distance: 6m
Detection speed: 100 times/second
Acquisition resolution: 12 bits
Protection grade of detection device: Ip67
Serial port communication type: RS232, Rs485