

C-7 RUNDU SHENGHE PLAZA,QILLIAN ST. HUANGHE RD. SHIJIAZHUANG(POST CODE: 050000), HEBEI, CHINA

Established: 2002

TEL: +86-311-89640559

FAX: +86-311-85252205

http://www.wanlixin.com

CERTIFIED ISO9001

Company Profile

Founded in May 2002, Shijiazhuang Wanlixin Industrial and Trade Co., Ltd. headquarters in Shijiazhuang, the northern economic powerhouse, which supplies measuring probes and instruments for metallurgy industry. The engineers and professional senior talents constantly improves product system and technology to produce high-quality products. During the development process from single production and management of fast thermocouple, molten steel sampler, to research, develop and produce relevant instruments and probes for oxygen measurement system and hydrogen measurement system, to manufacture equipment in metallurgy industry, the company gradually enlarges and strengthens itself by constant innovation. Our products sell well in about 30 provinces and cities and even in Southeast Asia, Europe, South America and Africa, etc. The company sets up four offices outside Hebei Province, in which 6 professionally trained after-sales teams are equipped. The company occupies a total area of over 46666 square meters. We have 517 employees,

including 32 senior engineering and technical personnel. With strong technical force, the company can meet all customers' demands.

Our company pursues the management policy of "taking talented person at first, ensuring quality through science and technology, striving for the survival by the quality, promoting development through innovation", adheres to the management idea of "promoting development by stable quality, increasing benefit by reducing the cost" and carries forward the enterprise spirit of "integrity, dedication, and progressive". With bold innovation, new technology, new materials, new techniques, new methods are applied to ensure product quality. The company's products have passed ISO9001 certificate of quality system. Through constant progress, the company has become one of the professional suppliers recognized and respected by customers.



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It is always our objective of" everything will meet the customers". We will constantly learn and improve, always offer first-rate products and high-quality service to customers.

Warmly welcome old and new friends to visit our company and for business negotiations! We desire to cooperate with you!

Quality

Our company has always been focusing on quality. Quality service: Some of the fundamental aspects in the relationship with our esteemed customers: Our users are our partners, not just our customers, Continuous focus on standardization and best procedures by means of various applications, technical support provided in various alternative ways (local support, help-desk, availability of technical and safety information...), experienced engineer who regularly visit our customers.

Product Introduction

TEMPERATURE MEASUREMENT LINE

1 STEEL LINE >> SENSORSThermocouples







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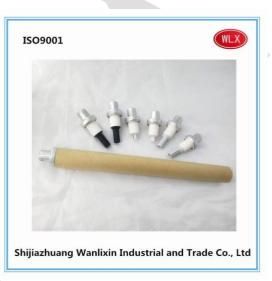
Our company produces a broad range of platinum-platinum/rhodium (Pt-Pt/Rh) and WRe3/25 immersion thermocouples used to measure the full temperature range of molten metal for all applications. The immersion thermocouples are produced pursuant to the YB/T163-2008 and IPTS 68 and ITS 90 standards.

The immersion thermocouples are produced in accordance with quality standard ISO 9001:2000. They are compatible and interchangeable with the most widespread connection and instrument systems on the market.

2 IRON LINE >> SENSORS

Thermocouples





Our company produces a broad range of platinum-platinum/rhodium (Pt-Pt/Rh) and WRe3/25 immersion thermocouples used to measure the temperature of molten metal for all applications. The immersion thermocouples are produced pursuant to the YB/T163-2008 and IPTS 68 and ITS 90 standards.

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connection and instrument systems on the market.

In addition to the traditional thermocouples, we supplies special thermocouples constructed with non-splash material in order to avoid splashes and turbulence during immersion thereby increasing operator safety and quality.

SAMPLING LINE





Samplers

The samplers are designed for fast, safety, and economical molten metal sampling. Various versions are available, so that the most specific and easiest sampling procedure and metal analysis can be achieved for every application. They provide the user with a representative sample of the liquid bath which, after a rapid surface cleaning, is ready for the chemical analysis. The lab preparation time is minimized by the special design of these samplers.

Iron Quality Analysis series

Carbon, manganese and siliconanalyzer for hot metal in front of furnace



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Carbon-manganese-silicon analyzer for hot metal in front of furnace is based on the solidification temperature curve of the formation process of cast iron structure. The temperature curve is analyzed. According to the characteristic points of the curve, the properties of hot metal such as carbon equivalent CE%, carbon content C%, silicon content Si%, manganese content Mn% spheroidization SG% are calculated. The detection time is about 1 minute and 30 seconds. The detection can be completed within the waiting time of molten iron. Then the composition of molten iron can be adjusted according to the automatically calculated amount of carburant, ferrosilicon and scrap steel, which can effectively guide production practice.





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The computer-based rapid thermal analyzer in front of the furnace takes the solidification temperature curve of the formation process of cast iron structure as the object of measurement, and the solidification temperature curve is analyzed by the computer. The carbon equivalent (CE), carbon content (C%), silicon content (si%), spheroidization rate (SG%) and tensile strength (RM) of molten iron are calculated automatically. The effect of the amount of carbon- increasing agent, ferrosilicon and scrap on molten iron is calculated automatically. The effective way to realize the optimal quality control of castings is to adjust the composition of molten iron in front of the furnace.



Computer Carbon and Silicon Measuring Instrument is a new generation of hot metal water management instrument with stable performance and high measurement accuracy. It captures a large amount of heat effect information of molten iron solidification quickly and accurately in real time through the cooling curve of molten iron temperature changing with time in the sample cup. Through a series of complex data processing, it can quickly and accurately determine the carbon and silicon content in molten iron. Carbon equivalent, tensile strength, primary crystallization temperature, eutectic temperature.



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Thermal Analysis Cup





Easy to use, the carbon cup can quickly get reliable results. The cooling curve and carbon content in metal melt can be measured by high precision thermocouple K-type (nickel-chromium alloy, nickel-aluminium-gold) or S-type (platinum-platinum/rhodium 10%).

S type cup is used to measure the carbon content, while K type cup measure the cerium content, carbon content, and silicon content in the cast iron.

INSTRUMENTS LINE

The instruments are rugged microprocessor-based units used to determine the temperature of the liquid bath. Three sequential lights are located on the front panel to display the measurement phases for the operator. The instrument is equipped with an auto-test system for greater reliability.

The digital gauge may be equipped with an internal digital printer that automatically prints the measured value as well as the date, hour, and minute of the event. Furthermore, the casting number and the identification code of the measurement location can also be printed.

The internal printed circuit includes a rechargeable battery for the internal clock.



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Temperature measurement device

Wall-mounted temperature measurement device



WK-200A

Wireless temperature measurement device



CW-1

Portable temperature measurement device



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WK-100A

CONTINUOUS TEMPERATURE MEASUREMENTLINE

Continuous temperature measurement system





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Measuring principle of WLX-II type continuous temperature measurement instrument of molten steel is as follows: insert the temperature tube in molten steel of the tundish, specially designed detector receives infrared radiation energy from bottom of temperature tube, convert the infrared radiation energy into electric signal and transmit it to signal processor for disposal. And then measured temperature will be shown on the display screen of the instrument and large screen display. Meantime, temperature data can be transmitted to the computer in main control room for real-time display and record.

Functional characteristics: with high measurement accuracy, fast response speed, strong anti-interference ability, WLX-II type continuous temperature measurement instrument of molten steel has real-time online monitoring molten steel temperature variation, which is the latest generation high-precision molten steel temperature measurement product in China. By application in various steel plants, reliability and stability of the product are sufficiently affirmed. It is surely the ideal product to replace platinum rhodium thermocouple temperature measurement system.

Continuous temperature tube







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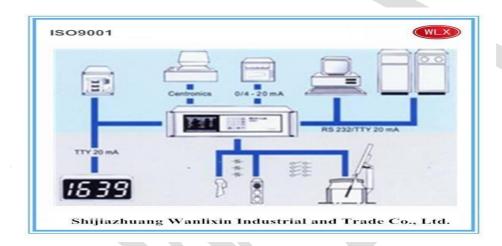
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The continuous temperature tube consists of connecting tube and refractory protective sleeve. The refractory protective sleeve is in connection with the detector via connecting tube. According to different depth of molten steel in the tundish and corrosion of molten steel to temperature tube, length of temperature includes 1100mm, 1000mm and 850mm and so on; the diameter includes ¢85mm and ¢90mm, which also can be customized according to users' needs.

OXYGEN AND HYDROGENMEASUREMENT LINE

Oxygen measurement system



Oxygen measurement system developed by our company can quickly, accurately and directly measure oxygen content in molten steel, simple and convenient, which includes oxygen measurement instrument, oxygen lance, probe, large display and extension wire.



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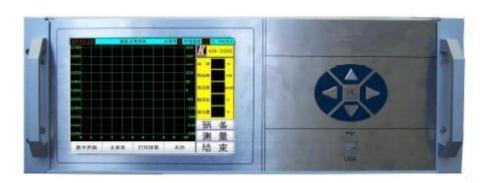
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Front Panel Diagram



Rear Panel Diagram

oxygen measurement device can measure and analyze temperature, oxygen activity(ppm) and carbon content(%) of molten metal in steel and iron production.

Oxygen measurement probe



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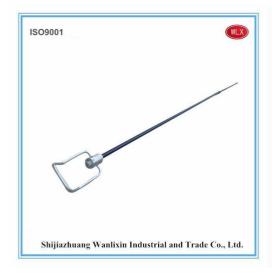
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Our TOX (Temperature & Oxygen) probes measure the temperature and ppm of free oxygen in liquid metal, in less than 10 seconds. The two mV signals generated by the TOX probes are transmitted to the instrument, processed and visualized so as to display the values of temperature and ppm of free oxygen; furthermore, the value of %C or %Al dissolved in the bath of liquid steel is automatically calculated.

OXYGEN LANCE







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The oxygen lance produced by our company consists of rod, lance tip (connector clip), handle and extension wire with simple structure and convenient operations, which can used matching with Graduation S, B and R aluminum and oxygen probes.

COMPENSATING CABLE



Compensating cable is suitable for cold junction compensation of oxygen lance, which connects cold junction of the instrument and oxygen lance. Heat-resisting type is insulated by imported fluoroplastics and protective jacket, with favorable heat-resistant, waterproof, anti-corrosive, acid, alkali and chemical agents resistant, abrasion resistant, ageing resistant and nonflammable performance. The operating temperature is among -60 °C and 205 °C at international advanced level. Correct connection with the matching oxygen probe is to make the reference junction reach to places away from heat source and with constant environment temperature.



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The large display hangs over the working site, which can let workers clearly see measurement results at first time and therefore make judgments to the next operation.

The large display is connected to the oxygen measurement instrument. Data will be transmitted to 4 display windows of the large display via the instrument, in the meantime, showing temperature of molten steel, content of oxygen, carbon and acid soluble aluminum.

Hydrogen measurement system



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Direct and quick determination of the Hydrogen content in molten steel





Combined probes



These probes are a combination of two or more "STANDARD" probes.

The available probes are:



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• CET, Temperature Measurement + Sampling

SUBLANCES



The SUBLANCE probes, used with automatic measurement systems, are designed to reduce the tap-to-tap time in the converter, avoiding direct and indirect costs due to the rotational movement of the converter (tilting). The available SUBLANCE sensors meet all measurement and sampling needs in all possible combinations. Furthermore, they can determine the level of the bath in the converter.

The following versions are available:

- Te Temperature Measurement
- TOS, Temperature measurement+sampling+oxygen detecting
- TCS, Temperature measurement+carbon detecting+sampling
- TO, temperature measurement+oxygen detecting



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• BL, weld pool level

The SUBLANCE sensors are customized according to the specific needs of each customer.

ACCESSORIES LINE

Temperature measurement accessories

Our company supplies, for each line of products, a broad range of spare parts and accessories needed in order to use the measurement systems:





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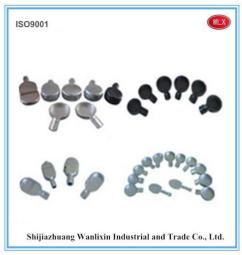
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Contact block, lance, internal compensating cable, external compensating cable, quartz tube, aluminum cap, plastic brackets and so on.





Steel mould, sand head, quartz tube, aluminum cap and so on

Steelmaking fittings series

Sizing nozzle

The sizing nozzle is madeof stabilized zirconia and imported natural zircon by highpressure forming and high temperature firing after special



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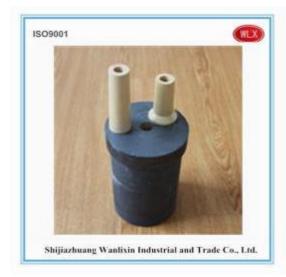
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process stabilization. It has the characteristics of high fire resistance, good thermal shock resistance, corrosion resistance, erosion resistance, small diameter change and long service life. The nozzle number can be set according to different steelmaking environment and operation requirements of users \circ





A New Rotary Sliding Nozzle

High Quality Sliding Nozzle



Zirconium Core



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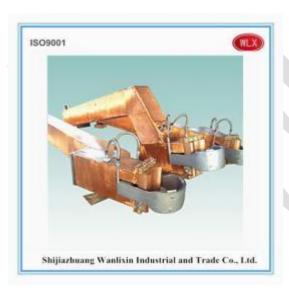
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Electric Furnace Accessories Series

Electric furnacetransformer, short net, electrode lifting device, electrode arm, furnace cover, furnace cover lifting and rotating device, furnace body, furnace body tilting device, ladle, tapping car, cooling water system, compressed air system, hydraulic system, feeding system, high voltage power supplysystem, low voltage electrical control system, basic automatic and computer control system, etc.

Conductive cross arm

The conductive arm of water-cooled copper-steel composite plate has the advantages of good water-cooling effect, reasonable structure, low failure rate and convenient maintenance. It can significantly reduce power consumption and increase output.





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Electrode holding ring

The design and production of the electrode ring, there are two types of non-water-cooled and water- cooled. Made of non-magnetic stainless material and ceramicspraying treatment with international advanced technology at insulation. The whole embracing ring has the advantages of stable performance and long service life. It can be widely used in LF furnaces and various electric arc furnaces.



water cooled cable

High- quality oxygen-free copper strand and joint are made by cooling and extrusion processing, which has good electricalconductivity and mechanical strength, small bending radius and compact layout. Flame-retardant rubber is used in the outer layer to ensure long service life of cable even in harsh environment.



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Forging copper tile

Our company's coppertile is made of T2 copper plate by forging, mechanical processing, heat treatment and other processing technology. It overcomes the defects of poor cooling, low strength, shrinkage and slag inclusion of common tile, and greatly improves the conductivity, cooling effect, anti-cracking and anti-blocking performance. Its service life is more than 2 times that of common copper tile.





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Stainless steel microwire series





In the practical application of metal wire, stainless steel wire is the most widely used. Because of its unique characteristics, stainless steel wire is increasingly

replacing traditional metal wire such as iron wire, copper wire and so on. It is widely used in aviation, aerospace, navigation, militaryindustry, chemical industry, metallurgy, power, communications, vehicle manufacturing, household appliances, pharmaceuticals, food, wine-making, paper-making, textiles, instruments, water. Air purification, liquid filtration and solid screening operations in various fields such as aquaculture, ceramic industry, sewage treatment, underground engineering, etc. Especially in textile fabrics, porous fiber filter, stainless steel microwire reinforced composite materials and stainless steel microwire reinforced metal composite products can see the use of stainless steel wire. 0.008mm—0.050mm 0.008mm-0.050mm stainless steel microfilaments of various specifications for textiles are made from 316L imported from Japan. The surface of the microfilaments is smooth, clean, metallic luster, uniform color, good handle, regular and solid filament arrangement, good elongation and high tensile strength.



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INDUSTRIAL THERMOCOUPLE LINE

Intelligent Digital Display Instrument



This series of intelligent digital display instruments have multi-type input programmable functions. One instrument can be equipped with different input signals (thermocouple/thermal resistance/line-generated voltage/linear current/linear resistance/frequency, etc.). At the same time, display range and alarm control can be set by the user on-site, and can be used in conjunction with various sensors and transmitters to achieve temperature control. Pressure. Measurement, display, adjustment, alarm control, data acquisition and recording of physical quantities, such as liquid level, capacity and force, are widely used.

Fabricated thermocouple





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The assembled thermocouple used in industry as a temperature transducer is usually used in conjunction with display instrument, recording instrument and electronic regulator. It can directly measure the surface temperature of liquid, vapor and gas media and solids in various production processes ranging from 0 to 1800C. Our company can produce B, S, R, K, E thermocouples.

Sheathed Thermocouple



Armoured thermocouple has the characteristics of flexibility, high temperature resistance, fast thermal response time and durability. Like assembled thermocouple used in industry, it is used as a temperature sensor. It is usually matched with display instrument, recording instrument and electronic regulator. At the same time, it can also be used as a temperature sensor of assembled thermocouple. It can directly measure the temperature range from 0 ~800 C in various production processes. Temperature of the liquid, vapor and gas media and the solid surface inside. Our company can produce E, K, T thermocouples