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CISDI

Technology and Solutions Partner for the Global Metals Industry

FULL-PROCESS SERVICES

CISDI provides full-process services from the bulk material handling yard to the final post-processing line of rolling mill.

FULL-FUNCTION SERVICES

CISDI provides standard and customized consulting, execution, and operations management services.

FULL-LIFE-CYCLE SERVICES

CISDI provides the FEED (front-end engineering & design), implementation, and production and operations management services throughout the entire project life cycle and provides continuous after care services and support.

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Zenith and CISDI join hands to strengthen future partnership

CISDI teams are building the Zenith Nantong Steel and all targets are on-schedule

CISDI's engineering strengths came in for praise from Zenith when the two Chinese steel giants met to discuss progress on Nantong's greenfield project and potential for Changzhou's brownfield project upgrades.

Zenith's chairman, Mr Caiping Dong, described CISDI as its most-reliable strategic partner for Zenith Nantong's greenfield projects.

"Nantong's steel plant is being built to a tight schedule and with crucial quality control. It would not be successful without CISDI's assistance. We will join hands to push onward with construction to create a benchmark state-of-the-art steel base," he commented at the meeting at CISDI HQ in Chongqing.

CISDI's chairman, Mr Xuewen Xiao, pledged to fulfil all schedule and quality targets.

Mr Dong indicated CISDI would be involved in Zenith HQ's upgrade master plan. The site is in Changzhou City in China's Jiangsu Province.

"We believe our HQ plant will grow into a more competitive urban steel producer with CISDI's engineering strengths. More opportunities for working together in China and abroad are expected in our bid to brand Zenith a world-class, modernised steel enterprise," he said.

Mr Xiao expressed a strong interest in the Changzhou plant's master plan and projects. "Co-operation on all sides is CISDI's top priority in its determination to create more values for Zenith," he said.

"We will spare no effort in forging ahead with implementation and new agreements."

Link »»»

Zenith is siting its greenfield base in Nantong City in China's Jiangsu Province. With a total investment value of $15.67 billion USD, Nantong Steel plans to produce 20 million tonnes a year. Construction of its Phase I, which has a projected annual capacity of 8 million tonnes, began in 2020.

It will be built as a high-end, green, coastal industrial park focusing on steel production.

Premium bars, wire rods and full-specification H sections will be produced by Phase I. These products will support circular economies, steel deep processing and the assembly of steel-structured buildings.

CISDI is Nantong steel plant's master planner, general designer and EPCM consortium, and its EPC-based service provider for ten main procedures including the stockyard, blast furnace ironmaking and continuous casting plants.

Partnering with NTS

The partnership agreement is signed by New Tianjin Steel Group and CISDI Group at CISDI Chongqing HQ

New Tianjin Steel Group and CISDI Group are to embark on long-term projects for steels and related industries.

A significant strategic partnership agreement was signed at CISDI's Chongqing HQ with Mr Liguo Ding, chairman of Delong Holdings Limited and NTS, and Mr Xuewen Xiao, chairman of CISDI, present.

NTS and CISDI pledged to use their respective strengths in manufacturing, lean management, engineering, research and development, marketing and industrialisation.

Delong and NTS are embracing the call for ferrous metallurgy to transform to green, intelligent developments, Mr Ding stated.

He emphasised CISDI has been selected as the partner for Delong and NTS because of its rich steel engineering experience, honed from many years of design and construction for major steel plants, and its groundbreaking achievements in master plans and green and intelligent applications.

"This agreement will launch swift, comprehensive interfacing mechanisms in our business sectors. There is huge opportunity for deep collaboration in greenfield and brownfield projects."

"Delong and NST are interested in providing industrial settings for CISDI to co-develop industrial technologies and enable them to be applied. Together we will create greener, smarter steels."

In his speech, Mr Xiao highlighted CISDI's numerous explorations into intelligent and information technological applications. He explained the company had taken a leading role by creating the Shuitu Cloud Industrial Internet Platform and has since created multiple benchmark projects based on this platform, which have delivered huge values to clients and won national awards.

"CISDI will fulfil its position as NTS's partner of choice by providing multi-disciplinary systematic solutions and synergising with NTS to implement projects and R&D programmes," he pledged.

Delong and NTS representatives are shown around CISDI's Showroom

CISDI Information Tech Co. and Delong's Dexin Steel Indonesia signed a co-operation agreement for their Industrial Internet plus Smart Factory projects.

Technical discussions were focussed on CISDI's master plan and front-end engineering and intelligent manufacturing businesses.

Link »»»

Delong Holdings Limited is a large-sized, integrated industries group, with steels as its main business, involved in financial investment, smart logistics and energy conservation and environmental protection.

Delong's steel business is comprised of four steel plants and one manufacturer. Annually 15 million tonnes of steel products are achieved and $ 7.8 billion USD proceeds gained.

Held by Delong, the New Tianjin Steel Group is an integrated steel complex with diversified ownership. Ranked in China's top 500 private enterprises, it's an energetic player in ferrous smelting, rolling and coking, metal products, research and development, and trade.

Masteel blast furnace revamp breaks two records

Masteel's blast furnace A shut down for a major revamp in mid September, which is scheduled to take 90 days.

CISDI has taken on the technological leadership and will supply its critical equipment.

The end of September saw the blast furnace's lower hearth successfully moved out of position to make way for its replacement.

The 7,786-tonne, 21.7-metre-high piece of hearth was slid 103.35 metres along wide, long and solid slip beams away from the blast furnace proper, creating two records for China's fast-revamp - the largest and the highest sliding of the old furnace's lower section.

Blast furnace A had been operating at Masteel since 2007. The plant's first 4,000-cubic-metre volume furnace, it had produced 44.70 million tonnes of hot metal over the last 14 years and featured a hot metal output of 11,175 tonnes per unit of furnace volume.

The revamp applies an innovative technology achieving bi-segmental sliding movement, the first of its kind for a Chinese blast furnace with a volume of 4,000 cubic metres.

CISDI's well-prepared team had been able to start designs immediately. Thanks to a 3D coordinated design method, construction designs were completed in just 15 months, half the usual time. This saved costs by reducing the need to re-work steel structures, cables and pipeline designs.

Blast furnace A's lower hearth was slid to the designed position

Masteel's existing blast furnace A before shutdown for its revamp

Highly-skilled ironmaking and structural engineers went to site to carry out surveys and discuss specialised solutions with the client and construction team.

Attention was paid to Masteel's existing production practices and CISDI's innovative technologies were applied to achieve improvements in the furnace's campaign, output, energy conservation, consumption reduction, and low-carbon and intelligent operations.

The procurement team relied on a procurement management system to make precise judgments on the lead time of all equipment.

CISDI's supplies arrived on schedule, and to the right quality standards, well before the furnace shutdown. This was achieved in the face of severe challenges posed by the tight schedule, the pandemic, energy consumption caps and the soaring price of bulk materials.

The new refractory for the furnace proper is now being constructed.

CISDI to supply mega blast furnace to India

A leading Indian steelmaker has turned to CISDI for the supply of its new 5,499-cubic-metre blast furnaces.

Against the backdrop of the pandemic and its effect on global steels, the order from India's JSOL, a core subsidiary of JSPL for Angul Plant, has been hard-won.

It is hoped the order will boost CISDI's reputation for world-class mega blast furnace ironmaking tech and equipment, not only in India but around the world.

CISDI India bridged communications between the client and the bidding team and, alongside CISDI HQ, provided verified, reliable solutions to meet JSOL's strict schedule, quality, intelligent and low-carbon requirements.

Clarifications and optimisations to the technical proposal and commercial offer took two months.

The BIM method is to be applied through all designs, which will improve coordination efficiency across all engineering disciplines while enabling the working set to function well.

BIM designs not only better meet a client's schedule and quality standards, they also lay a solid foundation for implementing future expansion.

CISDI's Universal Mill installed at Yongyang rail-beam line

CISDI's technology and manufacturing teams closely monitored optimisations

A CISDI-supplied Universal Mill has been installed at Yongyang Special Steel's heavy rail and beam rolling line in China's Hebei Province.

The installation has been checked and accepted by both client and supervision company and is now being commissioned.

The Universal Mill (UMCD) is comprised of two universal mills and one edger mill, weighing in at a total of 200 tonnes.

High-rigidity housing structures and an advanced technology control system are highlight features of the UMCD, integrating the automatic roll gap control and the hydraulic position control.

They enable the UMCD to be intelligent and highly rigid, which improves the rolling automation level and raises product quality and line productivity.

There were numerous challenges posed by the installation at Yongyang, which is based in Handan City.

While working hard to keep a very tight delivery schedule on-track, CISDI's manufacturing team optimised the UMCD's liners and sliders based on the CISDI-supplied UMCD for Yongyang's light rail rolling line. These optimisations made assembly of these critical components more precise.

An innovative approach to the UMCD's ex-works inspection enhanced the stand's assembly verticality, levelness and parallelism, resulted in a higher testing efficiency.

The UMCD for Yongyang's heavy rail and beam rolling line had been assembled at CISDI's manufacturing subsidiary in Jiangjin before heading to the steel plant

Zenith Nantong Steel's coal yard now up and running

CISDI's team is pictured at the Zenith Nantong Steel coal yard

A major step has been achieved at Zenith Nantong Steel's greenfield plant, which is being created in China's Jiangsu Province.

Its integrated coal yard is now receiving coals for storage and handling. It is the first major process unit to become operational at the plant, for which CISDI is EPC-based service provider. It means the sprint is now on for Nantong Steel to commission and operate major procedures.

A critical fuel storage and charging procedure, the coal yard features CISDI's patented ECIA green, smart stockyard technology.

It has one standardised model C coal yard with a span of 105 metres, three coke silos each with a diameter of 32 metres, and the relevant transfer towers and corridors.

Design started last July. Challenges posed by a tight design and construction schedule and complicated interfaces were exacerbated by the pandemic and threats of typhoons.

But CISDI's team planned ahead, analysing site conditions, optimising the process arrangement and perfecting complex and detailed requirements.

Their unstinting effort and solutions ensuring a smooth and efficient construction which met quality standards.

Fulfilling contracts: CISDI teams battle against the pandemic on overseas projects

The COVID-19 pandemic has posed severe challenges for the global steel sector. CISDI has gone to great lengths to protect the health of its staff and co-workers when working on projects overseas, while ensuring its contractual responsibilities are met.

The following projects are being achieved successfully:

HPG Hai Duong Steel's high-temperature, ultra-high-pressure power plant in Vietnam

The Hoa Phat Group placed an order for a 50MW high-temperature, ultra-high-pressure power generator unit with CISDI in October 2019.

The power plant is located at HPG's Hai Duong Steel and applies the excess heat boiler fuelled by high-parameter steam recovered from the coke oven and by-product gas from the steel production process.

CISDI's team has been working on-site from June 2020.

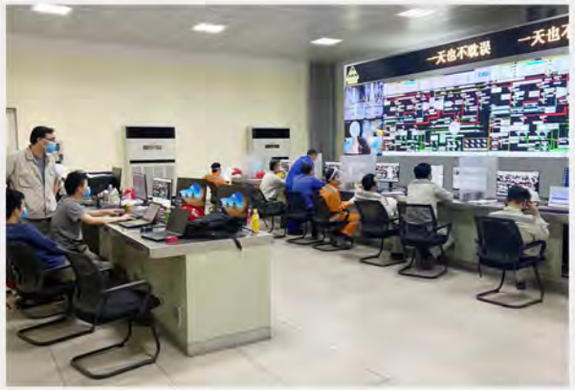
The power plant was put on grid for generation in April 2021 and the team is remaining on-site for a further period to ensure it is operating smoothly.

CISDI's on-site team at HPG's Hai Duong Steel power generation plant

CISDI and the client check the equipment running status

Teams from CISDI and HPG regularly met on-site to discuss the construction schedule

CISDI Vietnam fulfilled its responsibilities to protect the health of all CISDI staff and sub-suppliers onsite



CISDI engineers are pictured commissioning software for the 50MW power generator at HPG's Hai Duong Steel

CISDI engineers check construction details onsite

HPG's Dung Quat Steel reheating furnaces in Vietnam

Last April CISDI won the contract to supply two reheating furnaces for HPG's Dung Quat Steel plant.

Two furnaces were put into operation in 2021, one for an existing bar rolling line and the other for a new high-speed wire-rod rolling line.

The transporting equipment at each line's slab warehouse, reheating furnace inlet and outlet and approaching section to the descaler had been also supplied by CISDI.

The CISDI team, pictured at Dung Quat Steel's reheating furnace site

CISDI engineers are pictured checking the dry-off situation

The operational reheating furnace added to the existing bar rolling line at HPG's Dung Quat Steel

CISDI engineers are pictured commissioning the furnace software onsite

Empresa Siderúrgica del Mutún Steelworks in Bolivia

CISDI has dispatched a specialist team to the Empresa Siderúrgica del Mutún Steelworks to provide total process consulting services.

The first integrated steelworks in Bolivia, the plant's projected annual capacity is 194,000 tonnes. Its target market focuses on domestic hot rolled non-flat products.

Construction of the steelworks began in 2019 but was suspended during the pandemic.

The project recommenced in June 2021 and the plant is scheduled to start up in 2023.

The CISDI team investigates construction progress on-site

CISDI engineers cross-check the alignment between construction and drawings

OBI nickel-cobalt plant in Indonesia

CISDI is providing total process consulting services for a nickel-cobalt production park in Indonesia's OBI islands, a major project for the country.

Over the past two years, since construction began, a number of CISDI teams have worked on construction management, cost and equipment manufacturing consulting tasks.

Their skill and support will ensure the world's first nickel-cobalt production process is a success – integrating nickel-bearing laterite mining, concentration, wet and pyrogenic solutions. Production will have a major impact on the world's new energy and stainless steel sectors.

An engineer from CISDI Engineering Consulting Co. checks the measurement result

CISDI's OBI team at a meeting to ensure COVID-19 health protection policies are maintained on-site

A CISDI engineer assists a worker with recording onsite measurements

CISDI's working group at OBI's nickel-cobalt production park in Indonesia

CISDI Intelligent and Green Stockyard

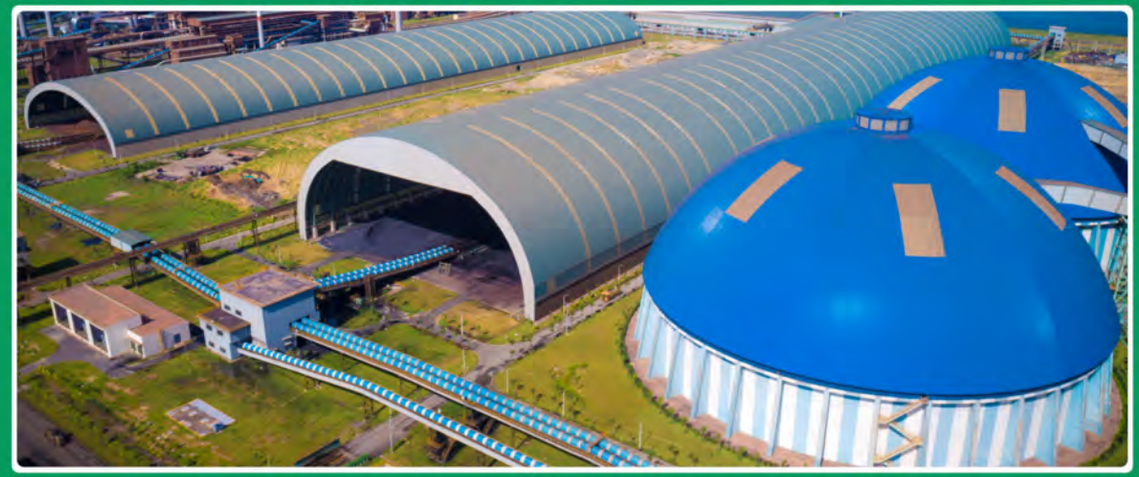
Over the last decade, our world-leading stockyard solutions have helped 70 per cent of the steel world's stockyards to operate with greater efficiency, improved economics and green credentials.

The 170-plus new and rebuilt stockyards created through CISDI's expertise have a total production capacity of nearly 500 million tonnes a year.

They feature eco-friendly storage, clean production methods and intelligent control.

The stockyard at Formosa Ha Tinh Steel in Vietnam, the new and the largest green stockyard beyond China

Baosteel Shanghai's green stockyard rebuild, the largest of its kind in the world



Baosteel Zhanjiang's coastal stockyard, the world's most intelligent and greenest

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