华菱钢铁

2024 ANNUAL SUSTAINABLE DEVELOPMENT REPORT

Hunan Valin Steel Co., Ltd.

About This Report

Report Description

This report is the fifth annual sustainable development report (formerly the annual environmental, social responsibility and corporate governance report) of Hunan Valin Steel Co., Ltd. (hereinafter referred to as "Valin Steel', "the Company", or "we"). This report provides a truthful and objective overview of Valin Steel and its controlled subsidiaries activities in fulfilling their responsibilities in environmental, social responsibility, and corporate governance in 2024. It focuses on disclosing relevant information regarding the Company's performance in social, environmental, and corporate governance aspects. In this report, all monetary amounts are denominated in RMB.

Report Basis

This report is primarily referenced the *Guidelines for the Standard Operation of Main Board Listed Companies, Memorandum on Information Disclosure for Main Board Listed Companies No. 1 – Matters Related to the Disclosure of Regulare Reports, Self-Regulatory Guidelines for Listed Companies No.17: Sustainability Reports* issued by the Shenzhen Stock Exchange; *"Guidelines for Compiling Corporate Social Responsibility Reports in China (CASS-ESG 6.0)"* by the China Enterprise Reform and Development Society, as well as *"Global Reporting Initiative (GRI) Standards"* by the Global Reporting Initiative.

Report Scope

Reporting Period: January 1, 2024 to December 31, 2024 (hereinafter referred to as the "reporting period"). In order to enhance the comparability and completeness of the report, some information may be traced back to 2022 and 2023, and extended to 2025.

This report is an annual report.

Scope of the Report: Unless otherwise specified, this report covers Hunan Valin Steel Co., Ltd. and its major subsidiaries, including Hunan Valin Xiangtan Iron & Steel Co., Ltd. (hereinafter referred to as "Valin Xiangtan Steel"), Hunan Valin Lianyuan Iron & Steel Co., Ltd. (hereinafter referred to as "Valin Lianyuan Steel"), Hengyang Valin Steel Tube Co., Ltd. (hereinafter referred to as "Valin Hengyang Steel Tube"), Valin ArcelorMittal Automotive Steel Co., Ltd. (hereinafter referred to as "VAMA"), and Yangchun New Iron & Steel Co., Ltd. (hereinafter referred to as "Yangchun New Steel").

Report Access

This report is available in Simplified Chinese for readers' reference. The digital version of the report can be downloaded from the CNINFO website (www.cninfo.com.cn) and the Company' s official website (http://www.valin.cn, under the "Investor Relations" section, on the "Company Announcements" page).

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Chairman's Message

Chairman of Hunan Valin Steel Co., Ltd.
Li Jianyu,

As a new cycle begins, everything is renewed. Over the past year, in the face of profound adjustments in the steel industry, all our employees and management have risen to the challenge, united in struggle, and worked together with shared determination to forge ahead. Together, we have written an extraordinary and hard-earned chapter of perseverance. On behalf of Valin Steel, I would like to extend my sincere gratitude to our valued customers, partners, leaders at all levels, and friends from all walks of life for their long-term care and support for our development!

Holding High The Banner To Guide Development

We adhered to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era as the guidance, thoroughly studies and implemented the spirit of the 20th National Congress of the Communist Party of China (CPC) and the Second and Third Plenary Sessions of the 20th Central Committee. Party discipline education and learning activities were carried out in a solid manner, reforms were deepened with practical effectiveness, and the Party-building brand was continuously enhanced. The Party Committee of Valin Xiangtan Steel has made full efforts to build the "Striving Pioneer" Party-building brand to spearhead high-quality development. It has rigorously implemented the "One Lecture, One Film, One Practice" initiative and shared its experiences at the provincial work conference; The Party Committee of Valin Lianyuan Steel implemented the "Party Building + Quality Improvement and Excellence Creation" standardized consolidation initiative for all employees, and launched a "Three Benchmarks, Four Excellence" competition, driving 77 key technical and economic indicators into the industry's top five, with 27 of them ranking first; The Party Committee of Valin Hengyang Steel Tube has deeply explored Hengyang Steel Tube's Party-building case studies, guiding Party members to strive hard in special steel transformation and upgrading, laying a solid foundation for stable and smooth production and operations; The Party Committee of VAMA promoted high-quality enterprise development through "win-win cooperation" Party building, achieving cost savings and efficiency improvements of 50 million RMB, while continuously enhancing the cohesion for high-quality development.

Innovation Leads The Way, Empowering The Brand

We are vigorously advancing new industrialization, adhering to innovation-driven development of new quality productivity. Throughout the year, we obtained 542 new patent authorizations, including 120 invention patents, and received 9 provincial and ministerial-level science and technology progress awards. as well as 13 industry and other science and technology awards, and 5 core technologies have reached internationally leading levels. Aiming at the high-end transformation direction in the field of industrial steel, we achieved the first launch of 26 high-end products such as 7Ni steel and wear-resistant steel X001. Additionally, 18 steel grades, including medium-high carbon steel 60Si2Mn and offshore pipe EO690, have replaced imports, achieving 22 annual metallurgical product quality awards, with 2 of them receiving the highest "Golden Cup Special Excellent Product" recognition. Valin Xiangtan Steel has made a full series breakthrough in nickel-based steel, Valin Lianyuan Steel has grown into a silicon steel pilot base in Hunan Province, and Valin Hengyang Steel Tube successfully developed 15 different specifications of special couplings for the 10,000-meter deep well in the Tarim Oilfield. VAMA's aluminum-silicon coated hot-formed steel won the provincial manufacturing single champion product award. The sales proportion of the company's key specialty steel products reached 65%, marking a further 2 percentage point increase from 2023. These premium steel products have been exported worldwide and extensively applied in mega projects, key national initiatives and emerging industries, demonstrating the core strength of new quality productive forces. The company persists in empowering its steel operations with digital intelligence, having launched the world's first AI large model for the steel industry, which was awarded the ITU Global AI Excellence Award and the company recognized as a National Exemplary Smart Factory in 2024.

Green and Low-Carbon Initiatives Drive Transformation

We remain unwavering in our commitment to ecological priority and green development, resolutely pursuing a low-carbon growth path. We are fully dedicated to pollution reduction and carbon mitigation, striving to build an eco-friendly steel plant with clear skies, green lands, and clean waters, achieving harmonious co-existence between green and high-quality development. We have accelerated ultra-low emission upgrades, with key projects such as sintering machine desulfurization and denitrification, raw material yard enclosure, and blast furnace gas fine desulfurization already completed and operational. The remaining projects are progressing as planned, meeting expected timelines. Yangchun New Steel has taken the lead in completing full-process ultra-low emission upgrades and publicizing evaluation results, while VAMA has achieved Class A environmental performance. Our environmental indicators continue to improve. We are promoting low-carbon transformation and pursuing maximum energy efficiency. We have improved and formulated the "dual carbon" action plan, established a carbon management institution, and clarified the functional division of carbon management. We have improved the comprehensive energy utilization efficiency and the proportion of clean self-generated power by using various methods such as utilizing waste heat, pressure, and energy from various processes, as well as steam recovery for power generation. The annual self-generated electricity reached 9.67 billion kWh, which is equivalent to saving over 1.1 million tons of standard coal consumption and reducing carbon dioxide emissions by over 2.8 million tons annually. Valin Xiangtan Steel and Valin Lianyuan Steel have been selected in the list as industry "Dual Carbon Best Practice Energy Efficiency Benchmark Demonstration Plants" cultivation enterprise, and six types of products released Environmental Product Declarations (EPD).

Upholding Responsibility and Giving Back to Society

We adhere to the principles of a responsible enterprise, and despite the complex and severe market conditions, we continue to give back to our customers, suppliers, employees, shareholders, and the broader society. Embracing a market-oriented mindset of win-win cooperation, we continuously optimize customer service, driving the transformation from mere product sales to an integrated model of "product + technology + service". We are comprehensively advancing transparent and digital procurement, integrating concepts such as legal compliance, ethical business practices, professional ethics, and social responsibility into supply chain management, thereby building a clean and healthy procurement ecosystem. We care for employee development, ensuring their rights and interests, and creating a scientific training system and broad career development channels for our hardworking staff. We also upgrades employee cafeterias, bathhouses, parking spot, and parking space which continuously enhanced their sense of belonging and satisfaction. We maintain frequent communication with investors to enhance returns effectively. In 2024, we facilitated a 2% share increase by the controlling shareholder and announced a cash dividend of 1.00 RMB per 10 shares. The company will also execute a share repurchase and cancellation plan totaling 200-400 million RMB . Combined cash dividends and proposed share repurchases represent 43.83%-53.68% of net profit attributable to parent company shareholders. We organize various volunteer and charitable activities, including donations, education support, blood donation, and community services. Our sustained rural revitalization efforts feature increased funding and consumption assistance, with dedicated development programs for partner villages and practical solutions for local communities - fully demonstrating the social responsibility of a state-owned enterprise.

Looking back at the past and forward to the future, we are filled with confidence and anticipation. In the new year, we will hold high the banner, align with benchmarks, and thoroughly studied and implemented the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, as well as the important speeches and directives made by the General Secretary Xi Jinping during his inspection tour of Hunan. We are firmly anchored to the visionary blueprint of the "Three Highlands and Four New Missions" strategy, demonstrating resolute commitment through decisive actions. We are vigorously cultivating and developing new quality productive forces, committing to overcome challenges and achieve decisive victories in structural adjustment, digital-intelligent transformation, green and low-carbon development, deepening "Five Key Tasks" reforms, striving to build a world-class steel enterprise.

About Us

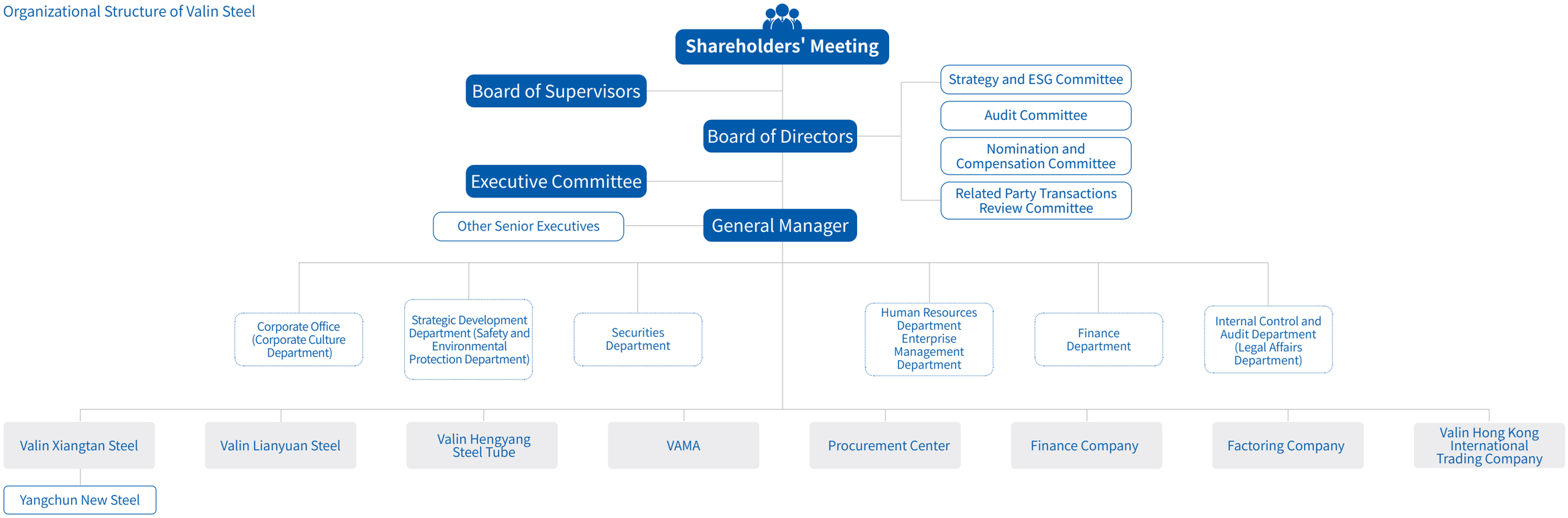
Explore Valin

Company Profile

Valin Steel was established in 1997 as a joint-stock company, primarily initiated by Hunan Iron and Steel Group Co., Ltd., the largest state-owned enterprise in Hunan Province. The company went public on the Shenzhen Stock Exchange in August 1999. Valin Steel is primarily engaged in the production and sales of steel products. It has a full-process technical equipment including coking, sintering, ironmaking, steelmaking, rolling, and steel deep-processing. Its main equipment and production processes are at the global leading level. Headquartered in Changsha, Hunan Province, Valin Steel operates five specialized production bases located in Xiangtan, Loudi, and Hengyang in Hunan Province, as well as in Yangjiang City, Guangdong Province.

According to the provisions of *the Company Law, Transitional Arrangements for the Implementation of Supporting System Rules for the New Company Law,* and the *Guidelines for the Articles of Association of Listed Companies,* the 30th meeting of the eighth Board of Directors has reviewed and approved the *Proposal on Amending the Articles of Association and Not Establishing a Board of Supervisors.* The proposal intends to abolish the Board of Supervisors and rename the original Strategy Committee as the Strategy and ESG Committee. This proposal still needs to be submitted to the company's shareholders' meeting for approval. For details, please refer to the announcement disclosed by the company on the CNINFO website on March 21, 2025.

Organizational Structure of Valin Steel



Main Production Bases

Valin Xiangtan Steel

Location: Xiangtan, Hunan

Vision: Committed to building a modern steel enterprise with international competitiveness and respect.

Valin Lianyuan Steel

Location: Loudi, Hunan

Vision: Committed to becoming a leading domestic and internationally top-tier, highly competitive comprehensive steel service provider.

VAMA

Location: Loudi, Hunan

Vision: Committed to becoming the best comprehensive solution provider for automotive steel in China.

Valin Hengyang Steel Tube

Location: Hengyang, Hunan

Vision: Committed to building a world-class specialized seamless steel pipe enterprise.

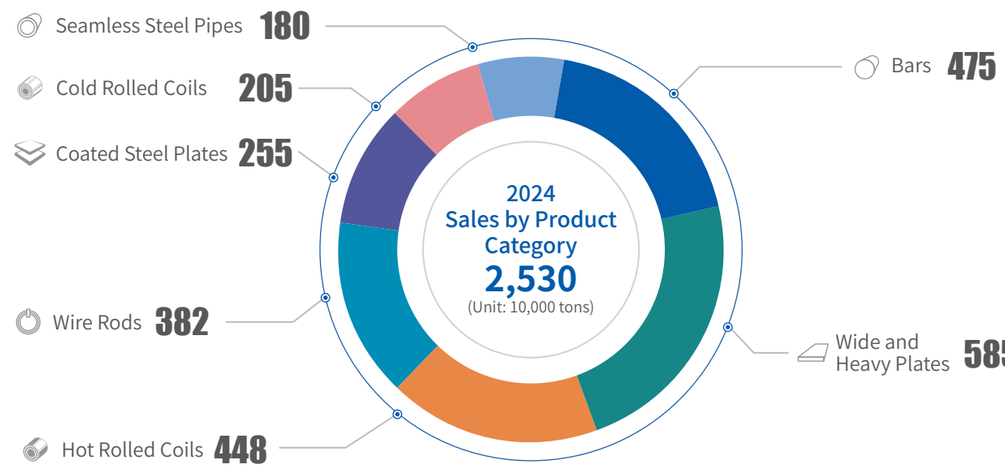
Yangchun New Steel

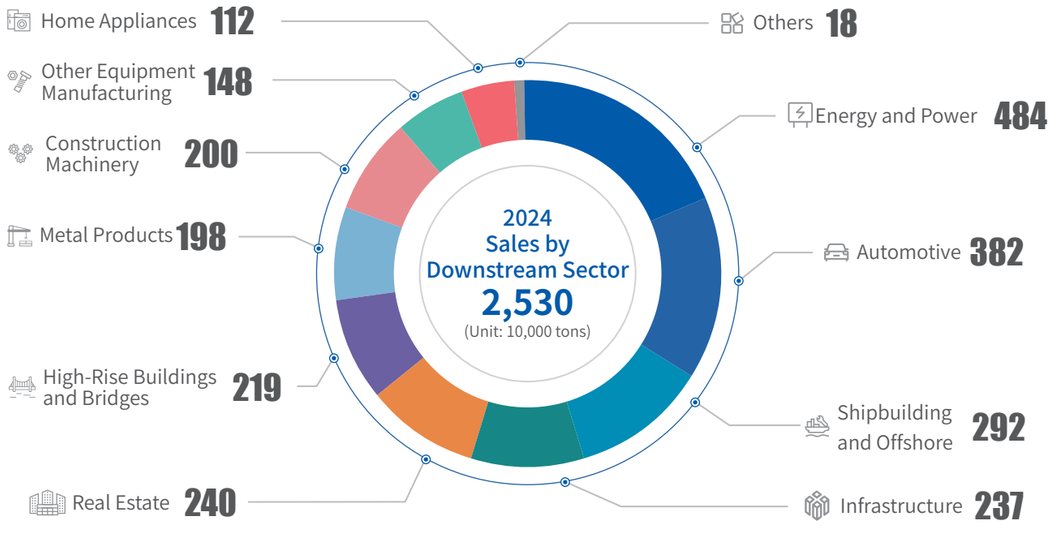
Location: Yangjiang, Guangdong

Vision: Committed to establishing and leading a significant production base for wire rods and bars in South China.

Company Profile

The company adheres to its "Precision and Strength, Regional Leadership" strategy, continuously improving its "Three Strategic Pillar System": lean production, integrated sales-R&D-production, and marketing services. Anchored in niche markets, we target landmark projects and benchmark clients, committed to delivering satisfactory steel products and services to global customers. With a product portfolio primarily focused on steel plates for industrial applications, aligned with the transformation and upgrading of China's manufacturing sector. Our offerings span nearly 10,000 specifications across four major series: wide and heavy plates, hot/cold-rolled sheets, wire rods and bars, and seamless steel pipes.





Key Performance

Among these, wide and heavy plates have been developed into six major series: shipbuilding plates, boiler and pressure vessel plates, bridge and high-rise building plates, pipeline steel, wear-resistant steel, and offshore platform steel. The hot and cold rolled sheet series have successfully developed high-strength thin-gauge engineering machinery steel, wear-resistant steel, medium-high carbon alloy steel, electrical steel, automotive steel, and galvanized steel for home appliances. The seamless steel pipe products cover a full range of sizes, including large, medium, and small diameters, and encompass series for oil and gas pipelines, pressure vessel pipes, and machining pipes. With excellent products, stable quality, and service that exceeds expectations, the company has established a leading advantage in niche markets such as energy and oil & gas, shipbuilding and offshore, engineering machinery and bridges, and automotive sectors.

In 2024, the sales of high-tech, high-value-added, and high-profitability steel products which meet the customized needs of end-customers reached 16.41 million tons, accounting for 65% of the total sales of steel products.

Key Performance

The sales of specialty steel products reached **16.41** million tons.

The sales of specialty steel products accounting for **65%** of the total steel product sales

Product Category (Unit: 10,000 tons)	2024	
	Sales	Percentage
Engineering Machinery Steel	183	11.2%
Automotive Steel	364	22.2%
Energy and Oil & Gas Steel	217	13.2%
Bridge and High-Rise Building Steel	158	9.7%
Shipbuilding and Offshore Steel	170	10.4%
Electrical Steel	198	12.1%
Metal Products Steel	137	8.4%
Equipment Manufacturing Steel	109	6.7%
Home Appliance Steel	90	5.5%
Others	13	0.8%
Total	**1,641**	**100.0%**

Corporate Culture

Valin Steel vigorously explores and promotes the value orientation of "putting strivers first" and the enduring red historical and cultural heritage of Hunan. The company regards corporate culture as the soul and pillar of its construction and development, insisting on adhering to and upholding corporate culture in all business activities, thereby serving as the foundation for uniting and motivating the company.

Valin Steel Corporate Culture

Core Values

Strivers first.

Business Philosophy

Precision and Strength
Regional Leadership

R&D & Marketing Strategy

Deepening industry expertise
Dominating the region
Staying half a step ahead.

Honors of Valin Steel 2024

Over the years, Valin Steel has continuously strived for excellence and gained widespread recognition from the government, institutions, and various sectors of society. In 2024, the company and its subsidiaries achieved numerous honors in product quality, technological innovation, and social responsibility.

Technological Honors

Innovation Platforms

Platform Name	Host Unit	Platform Level
National Enterprise Technology Center	Valin Xiangtan Steel	National Level
National Measurement Data Construction and Application Base (Advanced Steel Materials)	Valin Xiangtan Steel	National Level
Hunan Province Innovation Consortium for R&D and Application of Metal Materials for Special Complex Marine Environments	Valin Xiangtan Steel	Provincial Level
Hunan Province Green High-Performance Silicon Steel Pilot Platform	Valin Lianyuan Steel	Provincial Level
Hunan Province Manufacturing Innovation Center - High-Quality Silicon Steel Manufacturing Process	Valin Lianyuan Steel	Provincial Level

Platform Name	Host Unit	Platform Level
Thin-Gauge High-Frequency Silicon Steel Engineering Research Center of Hunan Province	Valin Lianyuan Steel	Provincial Level
Hunan Province High-Quality Oriented Silicon Steel Innovation Consortium	Valin Lianyuan Steel	Provincial Level
Hunan Province Industrial Design Center	Valin Lianyuan Steel	Provincial Level

Sci-Tech Reform Enterprises

Award Project Name	Award Participating Unit	Award Level
Highest Evaluation in the Special Assessment of "Sci-Tech Reform Enterprises" by the State-owned Assets Supervision and Administration Commission of the State Council	Valin Lianyuan Steel	State Council "Sci-Tech Reform Enterprise"

China Manufacturing Single Champion Enterprises

Award Project Name	Award Participating Unit	Award Level
Steel for Offshore Engineering Structures	Valin Xiangtan Steel	8th National Manufacturing Single Champion

Science and Technology Award

Award Project Name	Award Participating Unit	Award Level
Key Technologies and Applications of Steel Materials for Extreme Condition Oil and Gas Extraction and Transportation	Valin Xiangtan Steel, Valin Lianyuan Steel	Hunan Province Science and Technology Progress First Prize
Key Technologies and Industrial Applications of Functional Design and Precise Control of Inclusions	Valin Lianyuan Steel, Valin Hengyang Steel Tube	Hunan Province Science and Technology Progress First Prize
Key Technology Development and Application of High-Performance Weathering Bridge Steel	Valin Xiangtan Steel	Hunan Province Science and Technology Progress Second Prize
Key Technologies and Applications of Intelligent Regulation for Random Power Generation Stations	Valin Xiangtan Steel	Hunan Province Science and Technology Progress Second Prize
Key Technologies and Industrialization of High-Quality Titanium-Alloyed Atmospheric Corrosion-Resistant Steel	Valin Lianyuan Steel	Hunan Province Science and Technology Progress Second Prize
Key Technology Development and Application of Green and Low-Carbon Processes for High-Performance Medium and High Carbon Special Steel	Valin Lianyuan Steel	Hunan Province Science and Technology Progress Second Prize
Key Technology Development and Application of High-End Engineering Machinery Seamless Steel Pipes	Valin Hengyang Steel Tube	Hunan Province Science and Technology Progress Second Prize
Key Technology Development and Industrialization of High-Quality Cold Forging Steel for Automotive Use	Valin Xiangtan Steel	Hunan Province Science and Technology Progress Third Prize
High-Quality Steel Pipe Multi-Function High-Efficiency Quenching Technology and Equipment	Valin Hengyang Steel Tube	Shaanxi Province Science and Technology Progress Third Prize
Development and Application of Key Green Manufacturing Technologies for High-Performance Wide and Heavy Plates	Valin Xiangtan Steel	Metallurgical Science and Technology Award First Prize
Research and Application of High-Precision Asymmetric Control Technology for Hot Continuous Rolling Mills	Valin Lianyuan Steel	Metallurgical Science and Technology Award First Prize
New Generation Wear-Resistant Steel Technology and Engineering Application Based on TIC Regulation	Valin Lianyuan Steel	Metallurgical Science and Technology Award First Prize
Key Technology Research and Application of High-Quality Steel Continuous Casting and Cooling Precision Manufacturing	Valin Xiangtan Steel	Metallurgical Science and Technology Award Second Prize
Key Technology Development and Industrial Application of High-Performance Large-Tonnage Engineering Machinery Seamless Steel Pipes	Valin Hengyang Steel Tube	Metallurgical Science and Technology Award Second Prize
Development and Application of Threaded Connection Structures for Oil and Gas Pipe Strings in Deep Earth Engineering	Valin Hengyang Steel Tube	Metallurgical Science and Technology Award Third Prize
Development and Application of High-Efficiency Low-Carbon Electric Arc Furnace Steelmaking Control Model	Valin Hengyang Steel Tube	China Invention Association Invention and Innovation Award Second Prize

Award Project Name	Award Participating Unit	Award Level
Engineering Application of Rare Earth Treatment to Improve Corrosion Resistance of High-Strength Steel	Valin Lianyuan Steel	China Society for Corrosion and Protection Science and Technology Award Second Prize
Key Technology Development and Application of High-Strength and Toughness Deep-Sea Submarine Pipeline Pipes	Valin Hengyang Steel Tube	China Steel Construction Society Science and Technology Progress Award Second Prize
Development and Application of High-Efficiency and High-Performance Precision Slab Continuous Casting New Mold Equipment	Valin Lianyuan Steel	Mechanical Industry Science and Technology Progress Second Prize
Construction and Practice of a Supply Collaborative Management Support Platform for High Utilization Coefficient of Blast Furnaces in Iron and Steel Enterprises	Yangchun New Steel	Guangdong Province Metallurgical Science and Technology Achievement Award First Prize
Research on Long-Life and Efficient Production of Yangchun New Steel's No. 1 Blast Furnace	Yangchun New Steel	Guangdong Province Metallurgical Science and Technology Achievement Award First Prize
Research and Application of Nitrogen Blowing in Molten Steel Ladle for Vanadium-Containing Rebar	Yangchun New Steel	Guangdong Province Metallurgical Science and Technology Achievement Award First Prize

Golden Cup Special / High-Quality Products

Award Project Name	Award Participating Unit	Award Level
Cold Rolled Hot Stamping Steel Sheet and Strip LG1500	Valin Lianyuan Steel	Golden Cup High-Quality Product
Weathering Structural Steel Plate for Bridges Q420qDNH(16 ～ 40)×(1500 ～ 4800)(mm)	Valin Xiangtan Steel	Golden Cup High-Quality Product
Guaranteed Hardenability Structural Steel 20CrMnMoHΦ30 ～ Φ160(mm)	Valin Xiangtan Steel	Golden Cup High-Quality Product
Ultra-High Strength Structural Heat-Treated Steel Plate Q1100E(6 ～ 20)×(900 ～ 3600)(mm)	Valin Xiangtan Steel	Golden Cup High-Quality Product

Award Project Name	Award Participating Unit	Award Level
Free-Cutting Steel Hot Rolled Wire Rod XY1215x6.5 ～ Φ28.0(mm)	Valin Xiangtan Steel	Golden Cup High-Quality Product
Hot Rolled Alloy Tube Blank for High-Pressure Boilers 15CrMoGΦ50 ～ Φ100(mm)	Valin Xiangtan Steel	Golden Cup High-Quality Product
Steel Plate for Building Structures Q460GJ(40 ～ 100)×(1800 ～ 3400)(mm)	Valin Xiangtan Steel	Golden Cup High-Quality Product
Hot Rolled Wire Rod for Cold Heading and Cold Extrusion SAE10B21AΦ6.5 ～ Φ24.0(mm)	Valin Xiangtan Steel	Golden Cup High-Quality Product
Weathering Structural Steel Plate for Bridges	Valin Xiangtan Steel	Golden Cup High-Quality Product
High Manganese Austenitic Wear-Resistant Steel Plate MN13	Valin Lianyuan Steel	Golden Cup High-Quality Product
Heat-Treated Steel Plate for Engineering Machinery LC800T	Valin Lianyuan Steel	Golden Cup High-Quality Product
High-Quality Carbon Structural Steel Hot Rolled Steel Sheet and Strip 20	Valin Lianyuan Steel	Golden Cup High-Quality Product
Continuous Hot-Dip Galvanized High-Strength Interstitial-Free Steel Strip HC2207D+Z	Valin Lianyuan Steel	Golden Cup High-Quality Product
Continuous Hot-Dip Galvanized Low Alloy Steel Strip HC340LAD+Z	Valin Lianyuan Steel	Golden Cup High-Quality Product
Low-Temperature Pressure Vessel Steel 16MnDR	Valin Lianyuan Steel	Golden Cup High-Quality Product
Seamless Steel Pipe for High-Pressure Boilers 12Cr1MoVG	Valin Hengyang Steel Tube	Golden Cup High-Quality Product
Steel Pipe for Offshore Engineering X100Q	Valin Hengyang Steel Tube	Golden Cup High-Quality Product
Seamless Steel Pipe for Crane Structures BJ890	Valin Hengyang Steel Tube	Golden Cup High-Quality Product
Steel Pipe for Oil and Gas Well Casing in the Petroleum and Natural Gas Industry P110 (HS110, P110T, HS110T, HS110TT, P110TT, 110V, HS110V)	Valin Hengyang Steel Tube	Golden Cup High-Quality Product
Seamless Steel Pipe for Drill Rods HG850	Valin Hengyang Steel Tube	Golden Cup High-Quality Product
Hot Rolled Ribbed Steel Bars for Reinforced Concrete (Straight Bars)	Yangchun New Steel	Golden Cup High-Quality Product
Hot Rolled Plain Steel Bars for Reinforced Concrete	Yangchun New Steel	Golden Cup High-Quality Product

Metallurgical Science and Technology Award

Valin Xiangtan Steel's Key Technology Development and Application of Green Preparation for High-Performance Wide and Heavy Plates Won the 2024 Metallurgical Science and Technology Award First Prize

Valin Lianyuan Steel's New Generation Wear-Resistant Steel Technology and Engineering Application Based on TIC Regulation Won the 2024 Metallurgical Science and Technology Award First Prize

Valin Lianyuan Steel's Research and Application of High-Precision Asymmetric Control Technology for Hot Continuous Rolling Mills Won the 2024 Metallurgical Science and Technology Award First Prize

Valin Xiangtan Steel's Key Technology Research and Application of High-Quality Steel Continuous Casting and Cooling Precision Manufacturing Won the 2024 Metallurgical Science and Technology Award Second Prize

Valin Hengyang Steel Tube's Key Technology Development and Industrial Application of High-Performance Large-Tonnage Engineering Machinery Seamless Steel Pipes Won the 2024 Metallurgical Science and Technology Award Second Prize

Valin Hengyang Steel Tube's Development and Application of Threaded Connection Structures for Oil and Gas Pipe Strings in Deep Earth Engineering Won the 2024 Metallurgical Science and Technology Award Third Prize

Provincial Science and Technology Award

Valin Lianyuan Steel and Valin Hengyang Steel's Key Technologies and Applications of Steel Materials for Extreme Condition Oil and Gas Extraction and Transportation Won the 2024 Hunan Province Science and Technology Progress First Prize

Valin Lianyuan Steel and Valin Hengyang Steel's Key Technologies and Industrial Applications of Functional Design and Precise Control of Inclusions Won the 2024 Hubei Province Science and Technology Progress First Prize

Yangchun New Steel's Construction and Practice of a Supply Collaborative Management Support Platform for High Utilization Coefficient of Blast Furnaces Won the 2024 Guangdong Province Metallurgical Science and Technology Achievement Award First Prize

Yangchun New Steel's Research and Application of Nitrogen Blowing in Molten Steel Ladle for Vanadium-Containing Rebar Won the 2024 Guangdong Province Metallurgical Science and Technology Achievement Award First Prize

Yangchun New Steel's Research on Long-Life and Efficient Production of No. 1 Blast Furnace Won the 2024 Guangdong Province Metallurgical Science and Technology Achievement Award First Prize

Other Sci-Tech Awards

Valin Xiangtan Steel's "Key Technology Development and Application of High-Performance Weathering Bridge Steel" won the 2024 Hunan Provincial Science and Technology Progress Second Prize

Valin Xiangtan Steel's "Key Technologies and Applications of Intelligent Regulation for Random Power Generation Stations" won the 2024 Hunan Provincial Science and Technology Progress Second Prize

Valin Lianyuan Steel's "Key Manufacturing Technologies and Industrialization of High-Quality Ti-Microalloyed Atmospheric Corrosion-Resistant Steel" won the 2024 Hubei Provincial Science and Technology Progress Second Prize

Valin Xiangtan Steel's "Steel for Offshore Engineering Structures" was awarded the 8th National Manufacturing Single Champion Product

Valin Lianyuan Steel's "Development and Application of New Mold Equipment for High-Efficiency and High-Performance Precision Slab Continuous Casting" won the 2024 Mechanical Industry Science and Technology Award Second Prize

Valin Lianyuan Steel's "Engineering Application of Rare Earth Treatment to Improve Corrosion Resistance of High-Strength Steel" won the 2024 China Society for Corrosion and Protection Science and Technology Award Second Prize

Valin Lianyuan Steel's "Yield Strength 960MPa Grade Quenched and Tempered Steel" was recognized as a 2024 High-Value Patent Product in the Steel Sector

Valin Hengyang Steel Tube's "Key Technology Development and Application of High-End Engineering Machinery Seamless Steel Pipes" won the 2024 Hunan Provincial Science and Technology Progress Second Prize

Valin Lianyuan Steel's "Key Technology Development and Application of Green Low-Carbon Process for High-Performance Medium-High Carbon Special Steel" won the 2024 Hubei Provincial Science and Technology Progress Second Prize

Valin Xiangtan Steel's "Key Technology Development and Industrialization of High-Quality Cold Heading Steel for Automotive Applications" won the 2024 Hunan Provincial Science and Technology Progress Third Prize

Valin Hengyang Steel Tube's "High-Quality Steel Pipe Multi-Function Efficient Quenching Technology and Equipment" won the 2024 Shaanxi Provincial Science and Technology Progress Third Prize

Valin Hengyang Steel Tube's "Key Technology Development and Application of High-Strength Toughness Deep-Sea Submarine Pipeline Pipes" won the China Steel Construction Society Science and Technology Progress Award Second Prize

Product Quality / Management Innovation

- China's Premier Steel Enterprise Brand 2024 — Valin Xiangtan Steel
- National Steel Industry Quality Leadership Brand — Valin Xiangtan Steel
- 2024 Dual-Excellence Brand Management System for Large Steel Enterprises — Valin Xiangtan Steel
- National Quality Inspection Integrity Enterprise — Valin Xiangtan Steel
- China Steel Industry Product Market Development Award — Valin Xiangtan Steel
- 2024 "Triple-Innovation" Brand — Valin Lianyuan Steel
- Wuhan's Most Influential Steel Brand — Valin Lianyuan Steel
- National Quality Inspection Stable-Quality Product — Valin Lianyuan Steel
- Shanghai Steel National Premium Seamless Pipe — Valin Hengyang Steel Tube
- Hunan Manufacturing Quality Benchmark — VAMA
- Hunan Outstanding QC Circle Enterprise — VAMA
- Quality Improvement Achievement Silver Award — VAMA
- The 5th Modern Industrial Enterprise Outstanding Innovation Achievement — Valin Xiangtan Steel
- 2024 Hunan Innovation Consortium Pilot Enterprise — Valin Xiangtan Steel
- 2024 China Steel Enterprise Patent Innovation Potential Enterprise — Yangchun New Steel

Green Production, Smart Safety

- Pangu Large Models Win 2024 ITU "Global Outstanding AI Innovation" Award — Valin Xiangtan Steel
- National First-Batch Exemplary Smart Factory (Cloud+AI Enabled Full-Process Smart Factory for Plate Manufacturing) — Valin Xiangtan Steel
- "Machine Vision-based Belt Smart Monitoring System" Wins 2024 Hunan Top 10 "AI Empowers Enterprises" Application Scenarios — Valin Xiangtan Steel
- "5G+AI Drone Air-Ground Integrated Inspection" Wins 2024 Hunan AI-Enabled Industrialization Benchmark — Valin Xiangtan Steel
- "Digital Twin & Video Fusion-based Smart Monitoring System" - 2024 Hunan Manufacturing Digital Transformation Benchmark Project — Valin Xiangtan Steel
- World-Class Smart Steel Plant Initiative Wins National Management Innovation Gold Award — Valin Xiangtan Steel
- Digital Twin-based Rolling Mill Visual Centralized Control Platform Wins China Equipment Management Association Gold Award — Valin Xiangtan Steel
- Smart Steel Energy Management and Control Platform Wins "2024 Hunan Digital Infrastructure Pioneer" — Valin Lianyuan Steel
- Cold Rolling Lean Digital Production System Achieved 2024 CISA Smart Manufacturing Solution Award — Valin Lianyuan Steel
- Full-Process Quality Control Center Achieved "Hunan Digital Transformation Benchmark" Title — Valin Lianyuan Steel
- Intelligent Equipment O&M System Rewarded 2024 Provincial Administered SOE Digitalization Benchmark Project — Valin Lianyuan Steel
- Hunan Industrial Internet Platform — Valin Hengyang Steel Tube
- Hunan "5G+Industrial Internet" Benchmark Factory — Valin Hengyang Steel Tube
- Steel Industry Green Development Outstanding Enterprise — Valin Xiangtan Steel
- National Industrial Tourism Demonstration Site — Valin Xiangtan Steel
- Listed As Industry "Dual-Carbon Best Practice Energy Efficiency Benchmark Plant" Pilot — Valin Xiangtan Steel
- Listed As Industry "Dual-Carbon Best Practice Energy Efficiency Benchmark Plant" Pilot — Valin Lianyuan Steel
- Officially Certified as Grade-A Environmental Performance — VAMA

External Recognition / Investor Relations

- 2024 Board Secretary Performance Evaluation - Highest "5A" Rating — Valin Steel
- Excellence Board Secretariat Award — Valin Steel
- Outstanding Social Responsibility Case in the Steel Industry (2024) — Valin Steel
- Tonghuashun Best Investor Relations Award — Valin Steel
- The 15th IR Heavenly Horse Award for Listed Companies — Valin Steel
- Top 10 Hunan Listed Companies by Revenue & Profit — Valin Steel
- Top 10 Hunan Listed Companies by Tax & Employment Contribution — Valin Steel
- Top 10 Hunan Listed Companies by Innovation Investment — Valin Steel
- Top 10 Hunan Listed Companies by Dividend Yield — Valin Steel
- Hunan University School of Business Administration "Three Decades of Excellence, Building Glory Together" Award — Valin Steel

Events of 2024

Sustained Enhancement of Brand Influence

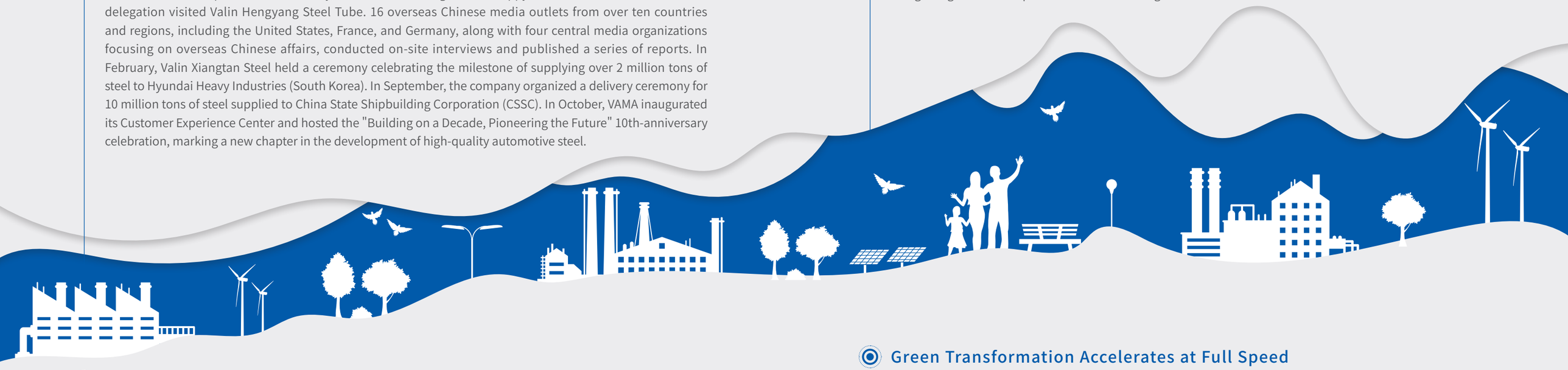
In April 2024, the Ministry of Industry and Information Technology (MIIT) released the eighth batch of National Manufacturing Champion Products, with Valin Xiangtan Steel's "Offshore Engineering Structural Steel" successfully included in the list. In May, the China Metallurgical News unveiled the China Steel Enterprise Brand Ranking, where Valin Xiangtan Steel, Valin Lianyuan Steel, and Valin Hengyang Steel Tube were recognized as "2024 China's Premier Steel Enterprise Brand", while Yangchun New Steel was listed among *"2024 China Excellent Steel Enterprise Brands"*. In July, the "Dream Chasing China · Happy Hunan" overseas Chinese media delegation visited Valin Hengyang Steel Tube. 16 overseas Chinese media outlets from over ten countries and regions, including the United States, France, and Germany, along with four central media organizations focusing on overseas Chinese affairs, conducted on-site interviews and published a series of reports. In February, Valin Xiangtan Steel held a ceremony celebrating the milestone of supplying over 2 million tons of steel to Hyundai Heavy Industries (South Korea). In September, the company organized a delivery ceremony for 10 million tons of steel supplied to China State Shipbuilding Corporation (CSSC). In October, VAMA inaugurated its Customer Experience Center and hosted the "Building on a Decade, Pioneering the Future" 10th-anniversary celebration, marking a new chapter in the development of high-quality automotive steel.

Consolidated Strength Continues to Strengthen

In August 2024, the Fortune China 500 and Fortune Global 500 rankings were released. The company ranked 131st on the China 500 list, advancing two places from the previous year. Its controlling shareholder, Hunan Iron & Steel Group, was again listed on the Global 500 at 475th place, making it the only company from Hunan Province on the list. In June, the Hunan Listed Companies Association released the *2023 Dividend Distribution Ranking of Hunan A-Share Listed Companies*, where the company ranked second among Hunan-based stocks in terms of dividend payout. In September, the *"Hunan A-Share Listed Companies Development Report (2024)"* was published, ranking the company among the top ten in multiple categories, including revenue and profitability, dividend yield, R&D investment (innovation expenditure), employment contribution, and tax contribution.

New Achievements in Digital-Intelligent Transformation

In May 2024, Valin Xiangtan Steel was officially approved to establish China's first National Measurement Data Application Base (for advanced steel materials) in the metallurgical industry, accelerating digital transformation across the steel sector.In the same month, the company's "Pangu Steel Large Models" won the ITU Global Outstanding AI Innovation Award at the "AI for Good Global Summit 2024", standing out among hundreds of international submissions from 38 countries.In April, Valin Lianyuan Steel's Smart Energy Management Platform was listed among Hunan Province's Top 100 Digital Infrastructure Benchmark Projects. In September, Valin Hengyang Steel Tube was designated as a Hunan Provincial "5G+Industrial Internet" Benchmark Factory, recognizing its leadership in smart manufacturing.



Green Transformation Accelerates at Full Speed

In 2024, the Company accelerated its ultra-low emission transformation initiatives, with key projects including sintering machine desulfurization & denitrification systems, raw material yard enclosures, and blast furnace gas precision desulfurization already completed and operational. The remaining projects are progressing at full speed toward the target of full completion by June 2025.Yangchun New Steel has achieved comprehensive ultra-low emission transformation across its entire production chain – covering clean transportation, organized emissions, and fugitive emissions – along with completing the required evaluation, monitoring, and public disclosure processes.In April 2024, Valin Xiangtan Steel released Environmental Product Declarations (EPDs) for three product categories: thick steel plates, wire rods, and hot-formed bars to advance the green and low-carbon steel industry chain. In December, Valin Lianyuan Steel published EPDs for three product lines: continuous hot-dip zinc-coated steel sheets/coils, cold-rolled steel sheets/coils, and hot-rolled steel sheets/coils.

Events of 2024

Tech Innovation Drives Sustainable Growth

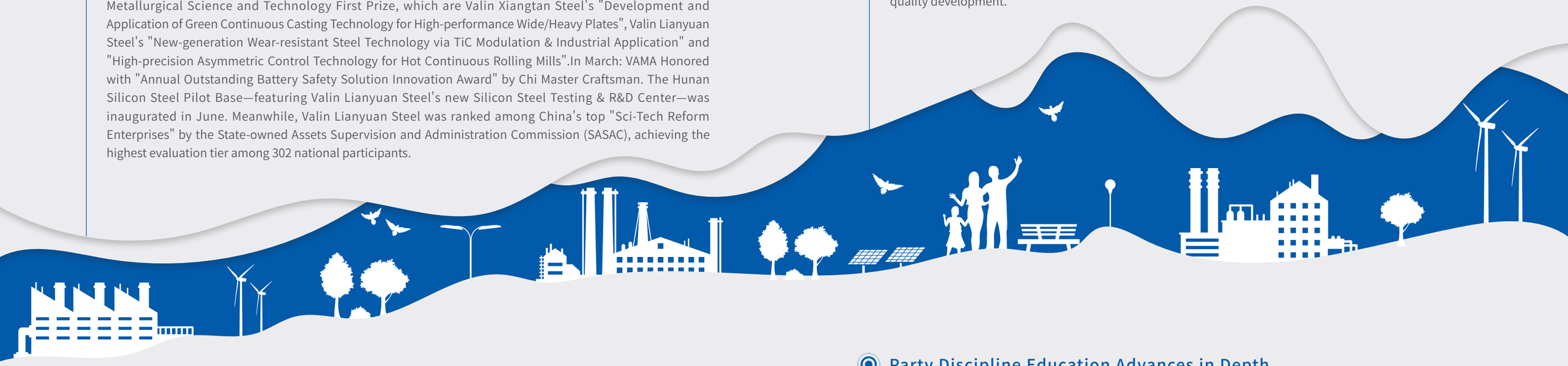
In 2024, the company achieved 9 provincial/ministerial-level Science and Technology Progress Awards, including the first prize for the "Key Technologies and Application of Steel Materials for Extreme Condition Oil/Gas Extraction and Transportation" developed by Valin Xiangtan Steel and Valin Hengyang Steel Tube. Additionally, the company won 13 industry and other sci-tech awards, with three projects receiving the Metallurgical Science and Technology First Prize, which are Valin Xiangtan Steel's "Development and Application of Green Continuous Casting Technology for High-performance Wide/Heavy Plates", Valin Lianyuan Steel's "New-generation Wear-resistant Steel Technology via TiC Modulation & Industrial Application" and "High-precision Asymmetric Control Technology for Hot Continuous Rolling Mills".In March: VAMA Honored with "Annual Outstanding Battery Safety Solution Innovation Award" by Chi Master Craftsman. The Hunan Silicon Steel Pilot Base—featuring Valin Lianyuan Steel's new Silicon Steel Testing & R&D Center—was inaugurated in June. Meanwhile, Valin Lianyuan Steel was ranked among China's top "Sci-Tech Reform Enterprises" by the State-owned Assets Supervision and Administration Commission (SASAC), achieving the highest evaluation tier among 302 national participants.

High-End Transformation Projects Commissioned as Scheduled

In August 2024, Valin Hengyang Steel Tube successfully conducted the first hot test of its No.5 Billet Continuous Caster, significantly enhancing steelmaking billet quality.By October 2024, Valin Lianyuan Steel achieved critical milestones in its Phase I Cold-Rolled Silicon Steel Project, with the first coil of non-oriented silicon steel produced by French Fives Group's ultra-precision 20-high rolling mill successfully, marking Valin Lianyuan Steel's leap into high-end cold-rolled products with globally competitive capabilities. No.1 Annealing Furnace of Phase II Silicon Steel Project completed its initial firing and drying successfully, marking a critical breakthrough in oriented silicon steel substrate supply to finished product manufacturing integration.

The Striver Culture Endures

In 2024, Valin Xiangtan Steel's 5m Wide & Heavy Plate Plant Labor Union was awarded the "National Model Worker's Home" title by All-China Federation of Trade Unions (ACFTU), while the Measurement & Standardization Workshop's Length Unit of the Equipment Engineering Department received the "2024 National Women's Pacesetter Collective" honor. Yangchun New Steel's Guo Chunguang was named "Master Craftsman of China Cultivation Candidate".In October, the company recognized 20 outstanding "Strivers" (Model Workers) across diverse departments including production, R&D, supply chain sales, etc.. Some are leaders driving lean manufacturing and benchmark optimization, some are pioneers advancing technological breakthroughs, and some are innovators achieving cost-efficiency and market expansion. These strivers have demonstrated exceptional problem-solving, innovation, and leadership in propelling the Company's high-quality development.



Party Discipline Education Advances in Depth

In 2024, the company's Party Committee prioritized disciplinary education as a key political task, thoroughly studying and implementing the General Secretary Xi Jinping's important directives on strengthening Party discipline. Aligned with our operational realities—multiple frontline branches and shift-working Party members—we executed targeted education initiatives including the original-text study of *CPC Disciplinary Regulations*, engaging in 18,000 personnel warning education sessions, conducted 2,600+ Party lectures, focused on cultivating "discipline awareness, knowledge, clarity, and compliance" among the Party-member leaders.

Highlights of 2024

In 2024, the steel industry continued to undergo profound adjustments, characterized by a "three highs and three lows" operational landscape: high output, high costs, high exports coupled with low demand, low prices, and low profitability. With acute supply-demand imbalances and widening cost-sales price scissors differentials, steel enterprises faced severe challenges. Amid these conditions, the Company maintained strategic resilience, actively seized opportunities presented by the new wave of technological revolution and industrial transformation, and vigorously advanced cost-reduction and efficiency-enhancement initiatives. We accelerated our transformation and upgrading toward high-end, intelligent, and green development, ensuring relatively stable production and operations. During the reporting period, the Company achieved 144.685 billion RMB total operating revenue, 4.141 billion RMB total profit, 3.200 billion RMB net profit and 2.032 billion RMB net profit attributable to parent company owners. These results maintained our position among the top-tier profitability rankings in the steel industry.

Accelerated Optimization of Product Portfolio

We are vigorously adhering to innovation-driven structural transformation, throughout the year, we obtained 542 new patent authorizations (including 120 invention patents), 8 new provincial/national R&D platforms (2 at national level); 5 core technologies reaching global leading standards, and received 9 provincial and ministerial-level science and technology progress awards. as well as 13 industry and other science and technology awards. Valin Xiangtan Steel was approved to establish China's first National Measurement Data Application Base for the Metallurgical Industry, Valin Lianyuan Steel obtained authorization to build Hunan Province's Green High-Performance Silicon Steel Pilot Platform, Valin Hengyang Steel Tube was honored as a Hunan Provincial "Three-Excellence" Benchmark Enterprise in Raw Materials Industry. Aiming at the high-end transformation direction in the field of industrial steel, we achieved the first launch of 26 high-end products, 18 steel grades have replaced imports, the sales proportion of the key specialty steel products reached 65%, marking a further 2 percentage point increase from 2023. Valin Xiangtan Steel achieves breakthrough in nickel-based steel, now supplies full range of grades and specifications, and "Offshore Engineering Structural Steel" designated as a National Manufacturing Single Champion Product. The products apply to "Dream" ocean drilling ship and Huangmaohai Sea-Crossing Bridge multiple "World-record" projects; as well as ultra-thick rack steel for "Hengtong Haiyue" wind power platform, cryogenic steel for world's first Liquid Ammonia-Powered Vessel. Valin Lianyuan Steel's "Cold Rolled Hot Stamping Steel Sheet and Strip" was awarded the "Golden Cup Special Product", the high-corrosion-resistant weathering steel contributed to China's first three-dimensional rights-confirmed offshore photovoltaic project. In collaboration with Sany, the company launched an ultra-high-strength lightweight electric heavy truck, achieving a "lightweight" breakthrough. Partnering with Putian Iron Core, it developed specialized high-temperature thin-gauge low-iron-loss oriented silicon steel grades. The Phase I silicon steel project reached full production capacity, with products certified by leading enterprises in high-end home appliances, high-efficiency industrial motors, and new energy sectors, enabling stable mass supply. Valin Hengyang Steel Tube successfully developed high-grade oil casing products for extreme-depth applications, including tubing for China's 10,000-meter "ShenDi TaKe-1 Well" in the Tarim Oilfield, casing for KOC Deep Well Projects (Kuwait Oil Company) and 15 different specifications of special couplings; as well as offshore engineering tubes that deployed on China's first domestically-built large cruise ship "Adora Magic City". Meanwhile, VAMA has pioneered innovative solutions for the automotive sector, including dual-phase door rings (inner/outer), steel battery enclosures, through advanced Multi-Part Integration ™ combining laser-welded blanks and hot-forming technologies. These breakthroughs address the auto industry's growing demand for high-strength, high-toughness materials, solidifying leadership in vehicle light-weighting trends.

The "Four Modernizations" transformation is being vigorously advanced.

Aligned with Hunan's "4×4" Modern Industrial System, we are developing new quality productive forces through locally adapted approaches, while intensifying efforts toward high-end transformation, intelligent upgrading and green transition. First, high-end manufacturing bolsters comprehensive strengthening. Key projects (including Valin Xiangtan Steel's upgraded premium wire rod & bar finishing improve projects, Valin Lianyuan Steel's 150MW power generation unit, silicon steel testing & R&D center, Valin Hengyang Steel Tube's No.5 continuous caster, and etc.) have been completed and operationalized, providing robust hardware support for advancing our product mix toward the premium segment. Second, digital-intelligent transformation empowers comprehensive implementation. Guided by the principle of practicality and effectiveness, we have advanced digital-intelligent infrastructure through 40+ transformation projects, deployed 228 robotic systems across operations. Notably, Valin Xiangtan Steel, in collaboration with Hunan Mobile and leading domestic communication equipment manufacturers, developed and launched the world's first large-scale AI model for the steel industry. To date, the model has explored 100+ application scenarios, achieved tangible results in 32 implemented cases, won the ITU Global AI Excellence in Innovation Award at the 2024 AI for Good Global Summit (an award initiated by the International Telecommunication Union through open global nominations). Valin Lianyuan Steel has pioneered the steel industry's first integrated full-process intelligent quality control center, building upon its existing Quality Management System (QMS) and incorporating advanced quality management methodologies. This breakthrough achieves end-to-end quality consistency and industry-leading "Quality Industrial Brain". Valin Hengyang Steel Tube's Smart Steelmaking Industrial Internet Platform officially launched, based on industrial internet architecture, the platform has established a data-driven smart manufacturing system that integrates production data across electric arc furnaces, refining, and continuous casting processes, builds a smart manufacturing system featuring data convergence, process synchronization, knowledge-driven optimization and continuous iteration, to replace traditional manual-intensive operations and create a benchmark "Smart Steelmaking" model. Third, green transformation accelerates at full speed. To implement ultra-low emission standards strickly, we have completed the following key environmental upgrade projects: Valin Xingtan Steel's sintering material yard renovation, coke oven gas fine desulfurization; Valin Lianyuan Steel's new C-type material yard construction and blast furnace gas fine desulfurization; Valin Hengyang Steel Tube's sintering flue gas denitrification system, hot-blast furnace & No. 180 plant heating furnace desulfurization and dust removal system upgrades. Currently, Yangchun New Steel has completed full-process ultra-low emission (ULE) upgrades and passed evaluation monitoring. VAMA achieves Grade-A environmental performance certification. Fourth, service excellence strengthens brand leadership. Guided by a customer-centric brand philosophy, we have amplified brand visibility through 5 times CCTV features highlighting our green transition and premium transformation, expanded global presence in high-end markets. Over the year, we have achieved 1.68 million tons of premium steel exports (+7.68% YoY), 8.13% overseas revenue share (+2.33pp YoY).

Precision benchmarking, steadily implemented

We will continuously refine our benchmarking system, enhance precision management practices, and achieve cost reduction and efficiency gains across all operations. First, continuously reduce process costs. We have institutionalized monthly benchmarking meetings, quarterly incentive mechanisms to continuously refine our benchmarking system and optimize technical-economic indicators. We strive to mitigate the cost impact on molten iron production resulting from the strategic shift from a "Premium Raw Materials Policy" to a "Hybrid Premium-Economic Materials Policy". During the reporting period, Valin Xiangtan Steel's converter steelmaking material consumption, Valin Lianyuan Steel's No.7 blast furnace fuel ratio, and Yangchun New Steel's hot metal cost all ranked among the industry's best. Six furnaces won "Energy-Efficient Furnace" and "Innovation Pioneer Furnace" awards in the National Energy Conservation Benchmarking Competition for Key Large-Scale Energy-Consuming Steel Production Equipment. Second, enhance procurement cost competitiveness. We consolidated core supply channels and expanded new resource networks – achieving >96% fulfillment rate for all raw material & fuel categories, and 180 million RMB procurement cost advantage vs. industry average. This has effectively supported production and operational growth. Third, further reduce in energy costs. The company has intensified secondary energy recovery, which achieving annual self-generated power: 9.67 billion kWh (+447 million kWh YoY). Among them, Yangchun New Steel reached the best historical record of self-generation energy, Valin Lianyuan Steel set a new historical record of daily output once the 150MW ultra-supercritical generator operated.

Reform momentum continues to build

The company has continuously improved its market-oriented operating mechanisms, deepened state-owned enterprise (SOE) reforms, and advanced the development of a modern governance model for traditional manufacturing enterprises. First, deepen the institutional reforms. The company has strengthened its "strict constraints, strong incentives" mechanism, implementing market-driven compensation linked to performance metrics. By widening income differentials, we have further unlocked new growth momentum. Deepening the "Three Systems" Reform, we have maintained industry-leading labor productivity in our core steel business. Upholding the "Strivers-Centric" culture, we recognized and honored 2023 Outstanding Strivers, amplifying their inspiring stories. Implementing the "World-Class Value Creation" benchmarking initiative, Valin Lianyuan Steel was selected as one of 58 national benchmark enterprises in the 2023 "Sci-Tech Reform Enterprise" special assessment conducted by the State-owned Assets Supervision and Administration Commission (SASAC). Second, strengthen the "Three Teams" development. We implemented tiered training programs for management, technical, and skilled personnel, organized PhDs and chief engineers "Four Innovations" Knowledge Forum, invited expert lectures on sintering, steelmaking, and digitalization by external specialists. The subsidiaries held the first "Post-90s" Management Training Program, recruited technical authorities, industry experts, PhDs from elite universities to strengthen the talent-tank. Maintained historically strong recruitment of graduates from "Double First-Class" universities. We consistently expanded our media outreach matrix, with in-depth coverage by CCTV's Xinwen Lianbo and Morning News showcasing our achievements in product portfolio upgrading, green transformation, and etc… This has significantly enhanced our corporate cultural cohesion and brand influence.

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Pragmatic and Truth-Seeking Standardized Governance

Valin Steel has consistently prioritized Party-building leadership and firmly shouldered political responsibilities. We adhere to lawful operations and standardized governance, continuously enhancing scientific risk management and effective internal controls. Through strengthened investor communication mechanisms and elevated information disclosure standards, we have reinforced our business ethics culture, making high-quality corporate governance as the foundation of sustainable development.

Strengthen Foundations Through Party Building

Corporate Governance

Business Ethics

Return to Shareholders

Strengthen Foundations Through Party Building

The Company adhered to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era as the guidance, thoroughly studies and implemented the spirit of the 20th National Congress of the Communist Party of China (CPC) and the Second and Third Plenary Sessions of the 20th Central Committee, as well as s the important speeches and directives made by the General Secretary Xi Jinping during his inspection tour of Hunan. We are firmly anchored to the visionary blueprint of the "Three Hubs and Four New Missions" strategy, prioritized Party-building leadership and firmly shouldered political responsibilities, adhered to lawful operations and standardized governance. Proactively responding to the severe challenges of industry-wide restructuring, focus on sharpened our core businesses, intensified reform and innovation initiatives. During the reporting period, the company maintained strong momentum in high-quality development, achieving steady progress in operations while sustaining top-tier profitability within the industry.

Strengthening the Party's Political Construction

The company always put the political construction as the top priority and makes every effort to enhance the political judgment, political comprehension, and political execution of leading cadres. It adheres to the guidance of the Party's innovative theories, thoroughly studies and implements Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and actively carries out a variety of learning and practical activities. Through these measures, it guides the majority of Party members to further strengthen their belief in "listening to the Party and following the Party", enhance their confidence and determination to strengthen, optimize, and expand state-owned enterprises, and earnestly shoulder the political responsibility of strengthening, optimizing, and expanding state-owned enterprises.

Organize and carry out an ecological steel city fitness walking activity, with Party members taking the lead

The "Striving Pioneer" grass-roots Party Branch

Committed to build a Party-building brand characterized by "Mutual Integration and Mutual Promotion"

The company has adhered to Party-building leadership as its cornerstone, integrating theory with enterprise-specific practices to develop a distinctive "Five Ones" Party-building framework and five characteristic Party-building brands. During the reporting period, as part of the "Year of Deepening Party-Business Integration" initiative, the company implemented benchmarking metrics, project-based management, and "Party-building +" programs, conducted "One Lecture, One Film, One Practice" monthly activities, established 1,300+ grassroots Party member demonstration posts and responsibility zones, executed 616 secretary-linked projects and 753 breakthrough initiatives under the "Secretaries Lead Projects, Party Members Pioneer Actions" campaign. These efforts continuously elevated product mix toward premium segments, advanced new quality productive forces under Party-building guidance, and transformed the institutional strengths of SOE Party organizations into competitive advantages.

"Five Ones" Party-building Framework

Clarify	Build	Leverage	Establish	Develop
One Concept	One Base	One Platform	One Mechanism	One Team
Advancing Party-building is advancing production and operations	Integrate project-based Party-building with business operation	Digital platform for grassroots Party-building	Performance-oriented Party-building management mechanism	Refocusing Party affairs professionals on their core duties

Five Distinctive Party-Building Brands

Party Committee's "Five Dual" Integrated Innovation Party-Building Brand
Grassroots Lliaison Point of Provincial Party Committee's Party Building Leading Group

Valin Xiangtan Steel Party Committee's "Striving Pioneer" Party-Building Brand
Provincial SOE Party-Building Demonstration Site

Valin Lianyuan Steel Party Committee's Leadership-Oriented Party-Building Brand
Provincial "Five-Standardization" Party Branch Construction Model Base

Valin Hengyang Steel Tube Party Committee's Goal-Oriented Party-Building Brand
Provincial Advanced Grassroots Party Organization

VAMA Party Committee's "Win-Win Cooperation" Party-Building Brand
National Outstanding SOE Party-Building Innovation Case

"Youth Hearts to the Party, Building Merits in the New Era" New Member Theme Party Day Activity

Strengthen education on Party discipline to solidify the ideological foundation

The Company prioritized ideological development, resolutely upholding the "Two Establishments", Firmly implementing the "Two Upholds". The company through rigorous Party discipline education, the subordinate Party organizations deeply studied the General Secretary Xi Jinping's key discourses on strengthening Party discipline, conducted thematic study sessions, elevating cadres' disciplinary awareness and Party consciousness cultivation.

Valin Xiangtan Steel Party Committee

The Party Committee of Valin Xiangtan Steel adopted an integrated learning model combining centralized and individual, offline and online, as well as theoretical and practical approaches to conduct high-standard Party discipline education. Guided by the Party Committee's theoretical study center group, a total of 196 study sessions were organized across both corporate and subsidiary Party committees. Full coverage of 6,876 Party members was achieved through the "State-Owned Assets E-Learning" platform, with all participants obtaining completion certificates. Multiple training programs were conducted, including 340 personnel visiting warning education bases, providing all Party members and cadres with profound Party consciousness improvement and discipline education. This initiative was recognized as a benchmark practice by the Provincial Party Organization Department and shared as exemplary experience across the province.

Valin Lianyuan Steel Party Committee

Valin Lianyuan Steel Party Committee centered on the theme of "Learning, Understanding, Clarifying, and Abiding by Party Discipline", we implemented "Party-building + Quality Excellence" standardized consolidation campaign. Organized "Three Benchmarks, Four Excellence" competition focusing on quality standardization, safety compliance and equipment optimization. With 285 "Secretary-Linked Projects" executed, 77 key technical-economic indicators ranked top 5 industry-wide (including 27 of them ranking No.1). We established a regularized "Go-Inspect-Refine-Promote" mechanism, which has strengthened corporate cohesion and competitiveness, and achieved a >97% resolution rate for grassroots-level issues.

Valin Hengyang Steel Tube Party Committee

The Party Committee of Valin Hengyang Steel Tube promptly established a dedicated task force to organize company-wide study and discussion sessions, promoting "Learning, Understanding, Clarifying, and Abiding by Party Discipline", thereby fostering a clean and upright environment. By fully leveraging the Party Committee's core leadership role in setting direction, overseeing the broader picture, and ensuring implementation, we deeply explored exemplary Party-building cases, won the SASAC Hunan "Pioneer in SOE Brand Communication" award for our brand microfilm story. During the reporting period, we were honored with "Outstanding Ideological and Political Work Unit", "Advanced Individual in Ideological and Political Work" which issued by the China Metallurgical Employees' Ideological and Political Work Research Association.

VAMA Party Committee

VAMA Party Committee adopted a dual-focused approach to thoroughly study the newly revised "Regulations on Disciplinary Actions of the Communist Party of China", rigorously implement all "required initiatives", solidly advance Party discipline education through "Party Member Pioneering Actions", special task forces, as well as "Party-building +" programs. These efforts have achieved 50 million RMB in cost savings and efficiency gains, continuously strengthened cohesion for enterprise high-quality development. For instance, the Pickling-Rolling Party Branch focused on ideological development to align Chinese operational staff and foreign technical experts, drove production to excel in high-strength steel production with qualified quality, stable rolling performance. Established the "Chinese-Foreign Collaboration, Rolling Pioneers" Party-building brand, and forged a team that can "Fights battles during work, plays ball games after work" but also can captures strategic heights at critical moments.

Yangchun New Steel Party Committee

Yangchun New Steel Party Committee aligned with objectives and requirements, emphasizing practical outcomes, and guided Party members and cadres to strengthen Party consciousness, maintain strict discipline, cultivate exemplary conduct – integrating these into daily practice to build resilience amid severe challenges. The Party Committee of Yangchun New Steel conducted 4 sessions of leadership study, held 1 session of "Regulations" interpretation training, organized 50+ themed Party Day studies, completed 683 State-Owned Assets E-Learning courses, delivered 50+ discipline-focused Party lectures. All departments leveraged Party discipline education as an opportunity to advance full and rigorous Party self-governance in tandem with inspection rectification, thoroughly identify salient issues across all operational domains, management tiers, process segments; strengthen risk prevention mechanisms; and eliminate latent vulnerabilities. These methods have systematically enhanced standardized business operations.




National Advanced Grassroots Party Organization

Hunan Provincial Advanced Unit in Ideological and Political Work

Outstanding Unit in Ideological and Political Work (2023-2024)

Corporate Governance

The company has continuously standardized its corporate governance, treating investors, shareholders, clients, and suppliers with integrity, while fostering deep integration and shared development with stakeholders. The company strictly complies with all applicable laws, regulations, and regulatory requirements for listed companies, established a comprehensive corporate governance system to drive high-quality development. The company board committees have established Strategy Committee, Audit Committee, Nomination & Compensation Committee and Related-Party Transactions Review Committee to plan, oversight, and decision-making for major corporate matters; active engagement with key external stakeholders; regular reporting to the Board. The company has established an independent director system and a dedicated Independent Director Committee. In accordance with the *Company Law*, *The Administrative Measures for Independent Directors of Listed Companies*, and *The Provisions on Strengthening the Protection of Public Shareholders' Rights and Interests*, among other regulations, the independent directors provide independent opinions on significant corporate matters, offer recommendations for business operations. They also fulfill their independent role to safeguard the legitimate rights and interests of all shareholders, protect the overall interests of the Company.

Governance Structure

The company strictly adheres to its Articles of Association and internal control policies in operational decision-making, having established a "Three Meetings & One Tier" mechanism featuring clear division of powers and responsibilities; effective checks and balances between decision-making and supervisory organs; scientific decision-making processes; and coordinated operations among governing bodies and management. To enhance governance capabilities, we actively organize directors, supervisors, and senior management to participate in training programs conducted by Hunan Office of the China Securities Regulatory Commission (CSRC) and Shenzhen Stock Exchange (SZSE). These initiatives promote diligent fulfillment of duties, elevate decision-making and management proficiency.

Key Performance

During the reporting period, the company convened **3** Shareholders meetings, approving a total of **11** proposals.

The company's Board of Directors comprises 9 members, among them 3 are independent directors, 1 external director; all are experts in management, technology, finance, and financial services. The Board has established four specialized committees: Strategy and ESG Committee, Audit Committee, Nomination & Compensation Committee and Related-Party Transactions Review Committee; these committees review and oversee corporate strategy, financial matters, risk control, personnel affairs, performance and compensation, as well as related-party transactions to ensure scientific decision-making by the Board. The 30th meeting of the eighth Board of Directors has reviewed and approved the *Proposal on Amending the Articles of Association and Not Establishing a Board of Supervisors*. As part of this proposal, the original Strategy Committee will be renamed as the Strategy and ESG Committee. This proposal still needs to be submitted to the company's shareholders' meeting for approval. After the renaming, the Strategy and ESG Committee will expand its functions to include sustainability and ESG-related responsibilities, primarily are: in accordance with applicable laws, regulations, and the provisions of the *Articles of Association*, the Committee shall assist the Board in developing and revising ESG policies, conduct studies on sustainability and ESG matters and providing actionable recommendations, monitor the execution of specific ESG initiatives; also submit viable sustainability/ESG proposals to the Board for review and decision-making.

Key Performance

During the reporting period, the company convened **9** the Board meetings, approving a total of **32** proposals.

The Company has established a market-oriented human resources management system, featuring flexible personnel mechanisms and evaluate promotions or demotion based on performance. Employees can be hired or exited according to needs, salaries can increase or decrease with results, and performance-based incentives. Reward mid/senior managers who exceeding targets at subsidiaries, and immediate dismissal for leaders failing to achieve 70% of KPIs. Pay adjustments tied to position changes, enhance weight on performance pay ratio, differentiated performance bonuses (with widened pay gaps).

Promoting board diversity, strengthening board independence

The company values high on enhancing Board diversity, considering multiple factors in director selection, including gender, age, cultural and education background, ethnicity, professional ability, ethics and industry experience, etc··· By evaluating candidates' expertise, we maximize the benefits of a diverse Board composition. We are also committed to increasing the proportion of independent directors, improving gender diversity (e.g., female director representation).

During the reporting period, independent directors diligently fulfilled their responsibilities under *Company Law*, *Guidelines on Establishing Independent Director Systems in Listed Companies*, *Articles of Association* and other relevant laws and regulations, reviewed important matters such as director nominations, executive appointments, profit distribution, related-party transactions, internal controls, the engagement of external audit firms, and external guarantees, thereby effectively safeguarding the legitimate rights and interests of all shareholders, especially minority shareholders.

In the course of performing their duties, the independent directors maintained close communication and exchanges with the company's management and business departments. The company also provided them with regular services and support, including routine research, monthly operational reports, and thematic meetings. The independent directors constituted the majority and served as conveners of the Board's special committees. They provided professional insights across various domains, including macro research, safety & environmental protection, operational synergy, marketing effectiveness, technical quality, and capital operations, which were duly recognized and adopted by the management team.

Key Performance

Number of Independent Directors and External Directors: **4**　　Number of Female Director: **1**

Percentage of Independent Directors and External Directors: **44.4**%　　Percentage of Female Direct: **11.1**%

Zhao Junwu Management Expert

Independent Director and Convener of the Nomination and Remuneration Committee. Currently serves as Co-CEO of Awinic Technology Group, Independent Director of Changsha DIALINE New Material Co., Ltd., and Independent Director of Wuxi Shangji Automation Co., Ltd. Previous positions include Project Manager, R&D Department, BHP Group (Australia); Chief Operating Officer, Jiangsu Huantai Group; Technical Manager, Headquarters, Bekaert Group (Belgium), and Vice President, Lens Technology Group, etc…

Xiao Haihang Technical Expert

Independent Director. Currently serves as Chief Engineer at Dongfang Electric Machinery Co., Ltd. (a subsidiary of Dongfang Electric Group); Deputy Secretary-General of the Core Applications Branch, China Electrical Equipment Industry Association; Member of the Electrical Steel Academic Committee, China Metal Materials Association; Member of the Magnetism Working Group, National Professional Metrology Technical Committee. Previous positions include Deputy Chief Engineer at Dongfang Electric Machinery Co., Ltd. And Deputy Director of the Technology Management Department.

Jiang Yanhui Financial Expert

Independent Director and Convener of the Audit Committee. Currently serves as Professor and Doctoral Supervisor at the School of Business Administration, Hunan University; Director of the MPAcc Education Management Center; Secretary-General of the Hunan Accounting Discipline Alliance; Independent Director of Wanxin Precision (Hunan) Co., Ltd. Previous positions include Assistant Professor at the School of Accounting, Hunan University and Master's Supervisor at the School of Business Administration, etc…

Ma Peiqian Financial Service Professional

External Director and Convener of the Connected Transactions Review Committee. Currently serves as General Manager of the Emerging Industries Investment Department, CCB Financial Asset Investment Co., Ltd. Previous positions include General Manager of the Investment Banking Department and Housing Finance Department, CCB Guangdong Provincial Branch.

During the reporting period, the Company held the following meetings of Board committees:

- Held **1** meeting with Nomination and Remuneration Committee
- Held **6** meetings with Audit Committee
- Held **1** meeting with Strategy and ESG Committee
- Held **4** meetings with Connected Transactions Review Committee

The Supervisory Board comprises 5 members, including 3 employee representatives. It oversees major corporate matters, financial status, and the legality/compliance of directors' and senior management's performance. During the reporting period, the Board held 9 meetings.

The current executive team consists of 3 senior managers, all possessing extensive experience in the steel industry and corporate management.

Internal Control and Risk Management

The Company has formulated the *Internal Control Management Measures* and *Comprehensive Risk Management Regulations* in accordance with the *Basic Standards for Enterprise Internal Control*, *Application Guidelines for Enterprise Internal Control*, *Evaluation Guidelines for Enterprise Internal Control*, and *Guidelines for Comprehensive Risk Management of Central Enterprises*, as well as its Articles of Association. By establishing an internal control system and a comprehensive risk management framework, the Company continuously improves its internal controls and strengthens the coordinated prevention of operational risks and integrity risks. These measures ensure the fulfillment of risk management responsibilities and support the achievement of the Company's business objectives. The Company has established comprehensive internal control systems covering sales management, procurement management, production & inventory, investment management, capital activities, comprehensive budgeting, information systems, contract management, and financial reporting. These include, but are not limited to strategic planning management, fixed asset investment management, equity investment management, contract management, fundraising management, and related-party transaction management, etc… The Company has standardized corresponding approval authorities to effectively implement all internal control measures, thereby preventing and mitigating various risks in daily operations.

Implement Risk Classification and Grading Management

Clearly define the internal control audit department and functional departments as the main responsible departments for "risk management" and "managing risks", and build an overall internal control framework composed of the internal control audit department - management - audit committee - board of directors.

Build a three - level risk management organizational structure of the headquarters - first level enterprises - second level and lower level enterprises, and achieve risks "hierarchical" management according to the risk management priorities at all levels.

In accordance with the principle of risk centralized management, assign different risks to the corresponding business units and functional departments for "classified" management and establish three lines of defense for "risk prevention":

Business units and functional departments are the "first line of defense" for risk management; the risk management department and the management are the "second line of defense" for risk management; the audit committee under the board of directors and the board of directors are the "third line of defense" for risk management.

Audit Committee

Review various internal control systems and the annual internal control management plan, supervise the implementation and report to the board of directors. Guide the company's internal control and risk management work and report to the board of directors.

Internal Control Audit Department

Responsible for conducting process reviews across all departments, with focused oversight on key activities including connected transactions, external guarantees, use of raised capital, significant investments, and information disclosure. Monitors process-related risks to ensure compliance and operational integrity.

Valin Steel's Internal Control System

Board of Directors

Responsible for establishing, improving, and effectively implementing the internal control system. Conducts regular comprehensive inspections and effectiveness evaluations of the company's internal control status.

Management

Responsible for the establishment, improvement and effective implementation of internal controls, conducting regular comprehensive inspections and effectiveness evaluations of the company's internal control systems.

Implement Regular Internal Control Audits and Evaluations with Full Coverage

Engagement of External Professional Firm for Annual Internal Control Audit

The Company engaged Tianjian Certified Public Accountants (Special General Partnership) as the internal control audit firm for 2024. Based on the audit procedures performed, the firm issued an audit opinion on the effectiveness of the Company's financial reporting internal controls, while also reviewing the status of non-financial reporting internal controls. The audit results indicate that, in accordance with the *Basic Standards for Enterprise Internal Control* and relevant regulations, the Company maintained effective financial reporting internal controls in all material respects.

Achieving Full Coverage of Compliance Management and Internal Control Effectiveness Evaluations for Subsidiaries at All Levels

In accordance with the *Implementation Opinions on Strengthening Internal Control System Development and Supervision in Provincial State-Owned Enterprises (Xiang State-Owned Assets [2021] No. 107)* and the *Guidelines for Compliance Management in Provincial State-Owned Enterprises (Trial) (Xiang State-Owned Assets [2022] No. 146)* issued by the Hunan SASAC, the Company has reinforced compliance management and internal control system development. Beyond routine enhancements to internal control policies and their implementation, the Company organizes annual self-assessments and risk evaluations for subsidiaries at all levels, ensuring a full-coverage review of compliance management and internal control effectiveness every three years.

During the reporting period, the company continued to promote internal control and risk management in an integrated manner to lay a solid foundation for high quality development.

Steadily promote institutional construction and improve corporate governance. In 2024, the Company continued to optimize its policies in response to new regulatory requirements, further refining the Valin Steel institutional framework. New and revised regulations were introduced, including the Bulk Raw Material Procurement Pricing Management Measures and the Employee Reward and Disciplinary Measures. Meanwhile, the Company enhanced its digital platform for policy management, streamlining the entire process—from proposal initiation and multi-department review to official issuance—through online approval mechanisms. A comprehensive electronic management system was implemented for the Valin Steel Internal Control Manual and Policy Compendium, significantly improving the applicability, effectiveness, and enforceability of internal controls. All operations strictly adhere to established policies, with business processes and functional controls fully digitized, these measures have standardized corporate management practices and ensured sustained compliance.

Regularize special supervision and evaluation. On the basis of daily supervision of internal control, the company conducts a full-coverage evaluation of the internal control effectiveness of its subsidiaries every three years. The first round of evaluations (2021-2023) has been fully completed. In 2024, the Company strengthened compliance, internal control, and risk management through specialized monitoring methods, including internal audits, targeted reviews, special inspections, and issue investigations. The company focused on special inspections of overseas investments, major risk assessments, compliance risk prevention, fund risk control, contract legal risk prevention, internal self-assessments and risk evaluation audits, and special supervision of bidding to strengthen compliance management. These initiatives have reinforced the integrated risk management framework, enhancing both operational risk controls and anti-corruption safeguards.

Continuously enhance employees' operational and integrity risk awareness, and foster a robust risk culture. The Company has consistently prioritized the cultivation of a risk-aware culture. In 2024, risk management training programs were pragmatically designed, incorporating specialized sessions on risk control, internal controls, finance, legal affairs, and digital governance. These included futures business operation training, legal education seminars, as well as general staff and mid-to-senior management development sessions. In daily work, risk control team actively share superior regulatory documents and internal control risk management materials via enterprise WeChat groups. The OA system's legal education column regularly publishes case studies to demonstrate compliance principles. The subsidiaries routinely issue publications such as Integrity Risk Alerts, Position-Specific Integrity Risk Controls, and Operational & Integrity Risk Bulletins to expose and mitigate risks while using lessons learned to strengthen dual awareness of operational and integrity risks, thereby deepening the organizational risk culture.

Risk Control and Compliance Management Training

Key Perfomance

During the reporting period, a total number of **940** trainees were participated in internal control, risk control, and compliance management training.

Business Ethics

The company upholds a high level of legal awareness and business ethics. It fully implements laws and regulations such as the *Criminal Law of the People's Republic of China*, the *Anti - Unfair Competition Law of the People's Republic of China*, the *Interim Provisions on the Prohibition of Commercial Bribery*, and the *Opinions on Certain Issues Concerning the Application of Law in Handling Criminal Cases of Commercial Bribery*. We enforce strict corporate governance with zero tolerance towards commercial bribery, corruption, fraud, embezzlement, extortion, money laundering, monopoly, and unfair competition. During the reporting period, the company have no incidents involving anti-unfair competition, anti-money laundering, anti-terrorism, conflict of interest, or insider trading – which resulting in regulatory penalties.

Anti-Commercial Bribery and Anti-Corruption

Carry out education on Party discipline

The disciplinary inspection commissions at all corporate levels achieved full coverage of Party discipline education courses. Throughout the year, they organized 94 on-site training sessions through the "Courses to Grassroots Units" program, trained more than 3,200 Party members and cadres. Through forms such as holding warning education conferences, visiting warning education museums, and studying typical cases, 18,000 Party members and cadres received in - depth education, and their awareness of discipline and rules was significantly enhanced.

Keep a Close Eye on the Key Minority

Enhancing oversight of the "Principal Leaders" and Leadership Teams. The company has conducted systematic analysis of the Party Committee's political ecology, developed "integrity profiles" for all leadership team members; implemented robust measures to strengthen supervision mechanisms including regular supervisory dialogues, institutionalized accountability reporting and integrity disclosure procedures to make supervision and management normalized.

Broaden Reporting Channels

The company has effectively leveraged integrated supervisory forces to strengthen oversight mechanisms including enhanced supervision and management, established multi-tiered reporting platforms, fully mobilized all employees oversight role to broaden sources of potential issue leads.

Sustained Rectification of the "Four Forms of Decadence"

Deepening campaign against formalist and bureaucratic practices, the Company has rigorously implemented "Six Reductions + One Advancement" measures, deepened "Dual Leadership with Five Rectifications" campaign against improper conduct and corruption. The company rigorously investigated and punished violations of unauthorized banquets and dining, improper gift/cash exchanges, unapproved travel, gambling activities, drunk driving, etc··· These enforcement actions reinforce our integrity-driven workplace environment.

Strengthen Oversight in Key Areas

Deepen special campaigns against corporate exploitation and related issues, the company carried out targeted inspections including bidding & tendering processes, overseas business travel management. These actions have standardized management practices, prevent risks, and effectively safeguard the interests of the enterprise and its social reputation.

Strengthen Whistleblower Protection

Strengthen the protection of the personal rights, democratic rights, and other legitimate rights and interests of whistle - blowers. Improve the working mechanism to effectively protect the enthusiasm of whistle - blowers to report and complain about disciplinary, illegal, and non - compliant behaviors in business management and ensure the healthy and orderly development of the company's business management work. Strengthen the Protection of Whistle - blowers

Promote Transparent Procurement

Signed the *Sunshine Cooperation Agreement, Integrity & Anti-Corruption Pledges*, and *Declaration Letter* with suppliers, and conveyed the concepts of abiding by national laws, operating with integrity, adhering to professional ethics, maintaining integrity and transparency, and fulfilling social responsibilities to suppliers. Implemented 100% open tender procurement, enhanced supplier certification, selection and assessment, and established real-time risk monitoring for supply chains. Suppliers found in material breach of integrity agreements shall be debarred in accordance with established protocols.

Special supervision and inspection on overseas (cross-border) trips for official purposes

Collective integrity talk

Special supervision and inspection on bidding and tendering

Mobilization and warning conference for deepening "Enterprise-Feeding" corruption rectification

Integrity culture corridor

Compiled editions of operational and integrity risk bulletins

Daily supervision and inspection

Holiday conduct compliance inspection

Anti-unfair Competition

Establish a compliance management system	Set up a dedicated compliance department to oversee internal business practices; conduct regular internal audits and compliance inspections to promptly identify and rectify potential unfair competition activities.
Enhance Industry Self-regulation	Comply with industry self-discipline guidelines, jointly advocate fair competition, and resist unfair practices such as malicious low-price competition, false advertising, and commercial defamation.
Standardizing Pricing Practices	Establish and improve a sound pricing management system to ensure product pricing is based on costs, market supply and demand, and reasonable profits, avoiding any actions that disrupt market prices.
Strengthen Intellectual Property Protection	Respect both our own and others' intellectual property rights, enhance the management and protection of IP, and prevent incidents of technology infringement and trade secret leakage.
Anti-commercial Bribery Measures	Implement open and transparent bidding processes to eliminate commercial bribery; sign integrity agreements with suppliers and clients to ensure ethical business cooperation.
Market Monitoring and Response	Closely monitor market trends and, upon identifying malicious competitive practices, take legal action to protect our legitimate rights and interests while reporting to regulatory authorities to promote a fair competitive environment.
Compliance Training and Education	Conduct regular training sessions to enhance employees' compliance awareness and strengthen their ability to recognize and prevent unfair competition practices.
Promoting Digitalization and Transparent Management	Leverage data sharing and digital platforms to improve the transparency and traceability of business processes, while strengthening operational monitoring to prevent the occurrence of unfair competition.

Enhancing Anti-Money Laundering and Anit-Terrorist Financing Risk Prevention

In compliance with regulatory requirements, the Company's subsidiary Hunan Iron & Steel Group Finance Co., Ltd. has established the following institutional frameworks: *Measures for Freezing Terrorist-Related Funds* (Hunan Steel Finance Document No. [2024] 20), *Implementation Rules for AML/CFT Risk Self-Assessment* (Hunan Steel Finance Document No. [2024] 18), *Interim Measures for AML/CFT Risk Management* (Hunan Steel Finance Document No. [2024] 19), *Internal Control Measures for Anti-Money Laundering* (Hunan Steel Finance Document No. [2025] 1) to strengthen Anti-Money Laundering and Counter-Terrorist Financing controls. During the reporting period, the company has completed the Annual AML Report to regulars, conducted Customer Due Diligence (CDD) and risk classification, performed AML/CFT Risk Self-Assessment and completed Internal Audits on AML/CFT procedures.

Regarding the Annual Anti-Money Laundering (AML) report, the company has established a comprehensive Money Laundering Risk Management System in full compliance with regulatory requirements. Key measures implemented including established an AML Leadership Group to oversee compliance, defined clear AML responsibilities across all business lines, implemented AML Internal Control Policies and Detailed Implementation Rules, AML operations throughout the year met all regulatory standards, and zero money laundering risks identified or reported.

In terms of customer Due Diligent (CCD) and Risk Classification, during the reporting period, the company conducted due diligence on 5 new clients, performed ongoing identification for 118 existing clients and classified risks based on identity verification, geographic location, industry sector, and transaction anomaly indicators, all clients were rated as low-risk. Regarding Large & Suspicious Transaction reporting, the company launched an AML module in the core system that achieved automated monitoring of suspicious transactions, from human detection to Hybrid (human + system) oversight mode. Initial implemented real-time monitoring of bank transactions for subsidiaries, ensured full client identity data coverage and timely suspicious activity alerts. Zero suspicious transactions identified in 2024.

In terms of money laundering and terrorist financing risk self-assessment, the Company conducted a comprehensive and systematic evaluation to identify money laundering and terrorist financing risks, evaluated the effectiveness of existing control measures, and provided a basis for optimizing anti-money laundering (AML) resource allocation and enhancing the AML management framework. This ensures compliance with regulatory requirements and effectively mitigates money laundering risks. Based on the assessment, the overall inherent risk rating for the reporting period is classified as low risk, the overall effectiveness of control measures is rated as highly effective, and the overall residual risk rating is assessed as low risk.

In terms of internal auditing, the company conducted annual internal audits to review the revision of internal control policies, mechanism personnel allocation, customer identity verification, special measures for high-risk customers, preservation of customer information and transaction records, large-value and suspicious transactions report, targeted measures for high-risk businesses, anti-money laundering publicity, and anti-money laundering training organization. An annual anti-money laundering internal audit report was issued. After the audit, no violations of relevant anti-money laundering laws and regulations were found throughout the year.

After self-inspection, all customers of Hunan Iron and Steel Group Financial Co., Ltd. are classified as low-risk. No large-value or suspicious transactions were found, and there are no high-risk customers.

Return to Shareholders

Share Repurchase and Increase

Since the introduction of the 'New Nine Guidelines' in April 2024, which emphasized enhancing the investment value of listed companies, securities regulators and state-owned asset supervision authorities have imposed stricter requirements on market value management for listed companies. The guidelines encourage the lawful and compliant use of share repurchases, increased holdings, and other methods to ensure that a company's investment value accurately reflects its fundamental quality. In response to the policy call and market expectations, Hunan Valin Steel promptly took action by facilitating a shareholding increase by its controlling shareholder and announcing a share repurchase plan.

Promote the Controlling Shareholder's Shareholding Increase

During the period from July to September 2024, the Company's controlling shareholder, Hunan Iron & Steel Group, along with its concert parties, increased their shareholding in the Company by 2% through secondary market purchases. Upon completion of the shareholding increase, the aggregate stake held by the controlling shareholder and its concert parties rose to 45.76%. In accordance with the *Administrative Measures for the Takeover of Listed Companies*, as a controlling shareholder holding between 30% and 50% of the Company's shares, Hunan Iron & Steel Group is restricted from acquiring more than 2% of the total shares within any 12-month period, beyond which a mandatory tender offer obligation would be triggered. Hunan Iron & Steel Group and its concert parties have executed the shareholding increase up to the regulatory limit, which fully demonstrates the controlling shareholder's confidence in the Company's long-term growth and its commitment to safeguarding the Company's market valuation.

Implement Share Repurchase and Cancellation

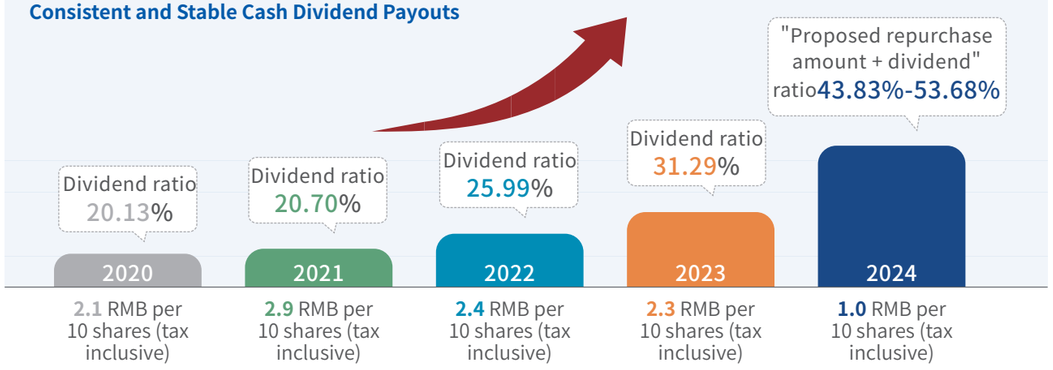
To facilitate a reasonable convergence of the stock price with its intrinsic value, the Company has recently announced its plan to repurchase shares totaling 200-400 million RMB using self-owned funds and/or dedicated share repurchase loans. All repurchased shares will be canceled to reduce registered capital, with the repurchase price not exceeding 5.80 RMB per share. This share cancellation and repurchase plan was disclosed in an announcement dated January 22, 2025, and was subsequently approved at the shareholders' meeting on February 14, 2025. The Company has applied for dedicated share repurchase loans from banks and has duly disclosed the *Announcement on Obtaining Financial Institution Repurchase Loan Commitment Letters* in compliance with regulatory requirements. Going forward, the Company will flexibly formulate trading strategies and execute share repurchase transactions based on market performance and share price movements, while fulfilling disclosure obligations as required. The Company commits to completing the implementation of this repurchase plan within the stipulated 12-month repurchase period.

Profit Distribution

The company has formulated a long-term and stable profit distribution policy. According to the *Hunan Valin Steel Co., Ltd. Shareholder Return Plan for the Next Three Years (2022-2024)* (hereinafter referred to as the "Three-Year Shareholder Return Plan"), under the condition of meeting the profit distribution requirements, the annual cash dividend will be "no less than 30% of the average annual distributable profit realized in the most recent three years" and "no less than 20% of the net profit attributable to the parent company for the respective fiscal year".

In 2024, the company distributed a cash dividend of RMB 1.00 per 10 shares (tax inclusive), amounting to an aggregate cash dividend payment of RMB 691 million. This represents a payout ratio of 33.99% of the Company's 2024 net profit attributable to the parent company shareholders, reflecting a 2.70 percentage point increase compared to 2023. Currently, the Company's announced share repurchase plan and 2024 cash dividend distribution collectively amount to RMB 891 million to RMB 1,091 million, representing 43.83% to 53.68% of the Company's 2024 net profit attributable to the parent company shareholders.

Consistent and Stable Cash Dividend Payouts



Information Disclosure

The Company strictly complies with the provisions of the *Company Law*, *Securities Law*, *Shenzhen Stock Exchange Listing Rules*, and *Guidelines for Fair Information Disclosure of Listed Companies*. We have established a standardized internal review process for information disclosure, continuously improving its efficiency and quality to ensure authenticity, accuracy, completeness, timeliness, and fairness. This prevents any false records, misleading statements, or material omissions, thereby fully safeguarding the legitimate rights and interests of investors.

Through channels such as *China Securities Journal, Securities Times*, the CNINFO website, and the Shenzhen Stock Exchange's official platform, we promptly disclose material information that may influence investor decisions or share prices, ensuring full transparency of potential risks.

Key Perfomance

During the reporting period, the Company prepared and disclosed a total of **84** statutory announcements in compliance with regulatory requirements.

Key Perfomance

For six consecutive years, the Company has been awarded the highest **"Grade A"** rating for information disclosure by the Shenzhen Stock Exchange (SZSE).

Among 4,872 listed companies on the Shanghai and Shenzhen Stock Exchanges, the Company ranks in the top **4.02** percentile for disclosure quality.

Investor Relations

The Company places high priority on investor relations, maintaining effective and consistent communication channels with investors through active participation in investment strategy conferences, investor roadshows, and timely responses to investor inquiries via interactive e-platforms.

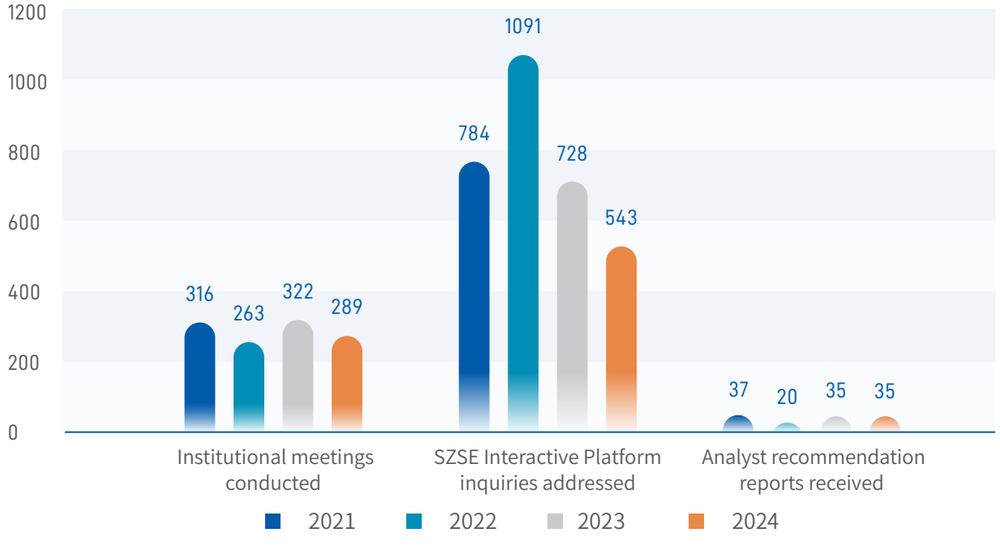
2024 Investor Engagement Report

Received **35** analyst recommendation reports from steel industry research teams

Covered by **289** mainstream institutional investors

Responded to **543** investor inquiries through the SZSE Interactive Platform

Investor Engagement Report from 2021 to 2024



02 Leading Innovation Crafting Excellence

The company concentrates on the R&D of core technologies for advanced steel materials, driving product mix optimization and manufacturing quality enhancement. This has enabled industry-leading achievements in technology patent authorization, industry standard formulation, and scientific & technological achievement evaluation. Adhering to the "Precision Excellence, Regional Leadership" strategy and the "Industry Specialization, Regional Dominance, Half-Step Ahead" operational philosophy, we continuously strengthen three strategic pillars: lean production systems, integrated sales-R&D-production and marketing service excellence. Through premium products, consistent quality, and exceeding-service expectations, we secure premium positioning in niche markets and advance toward becoming a world-class steel enterprise.

Quality First

In compliance with national quality control regulations, including the *Product Quality Law of the People's Republic of China* and the *Standardization Law of the People's Republic of China*, the company has established a comprehensive quality management system with documented process controls. In recent years, the company enhanced raw material oversight, achieved full coverage of internal control standards; meanwhile it vigorously promoted intelligent quality control, built a smart quality data monitoring platform, advanced IT-enabled quality management systems, established an industrial IoT smart platform that integrates market-driven, end-to-end lean production systems with continuous quality improvement mechanisms, driving corporate quality enhancement and transformative development.

Quality System

The company adheres to the principle that "quality is the lifeline of an enterprise", continuously improves product quality, and constantly expands the certification scope. It has built a whole process quality management system covering the entire steel production process to provide customers with high quality products. At present, the company has obtained the following key system and qualification certifications:

- ISO 9001 Quality Management System Certification
- GJB9001C Quality Management System Certification
- ISO10012 Measurement Management System Certification
- JIS Quality Management System Certification
- Certification from Ten Classification Societies
- EU CE Certification
- IATF16949 Quality Management System Certification
- DNV、SCS、JIS、AD2000、COC、APISCT、APISL、APISD, etc…
- IATF 16949 Automotive Quality Management System Certification

The Company has thoroughly implemented the Quality Power Strategy, established a comprehensive customer-oriented quality management system. The "Zero Defect" philosophy has been deeply embedded across our quality practices through initiatives including Zero Defect programs, "Challenge Led" projects, quality breakthrough initiatives, it comprehensively promotes the continuous improvement of product quality. The Company has institutionalized a dual-focus quality philosophy prioritizing "Variety &Quality First" principle and Customer Standard Optimization, through the quality performance orientation, it gives full play to leadership, implements performance models such as the "top leader" in charge of quality and the economic responsibility system to ensure the effective operation of the quality management system. The Company adopted McKinsey advanced management framework, strengthened process auditing and inspection-to-delivery controls, the systematized & standardized quality management have been significantly improved.

Valin Xiangtan Steel

- The company's Weathering Structural Steel Plate for Bridges has been certified as "Golden Cup Special Product". Seven products including the Ultra-High Strength Structural Heat-treated Steel Plate and Hot Rolled Alloy Tube Blank for High-Pressure Boilers have been certified as "Golden Cup High-Quality Product".
- High Heat Input Welding High-Strength Shipbuilding Plate has obtained certification from six international classification societies, demonstrating world-leading technical performance.

Valin Lianyuan Steel

- Cold Rolled Hot Stamping Steel Sheet and Strip has been certified as "Golden Cup Special Product". Six products including Low-Temperature Pressure Vessel Steel and Heat-Treated Steel Plate for Engineering Machinery have been certified as "Golden Cup High-Quality Product".
- High-Manganese Steel has been awarded the Factory Approval Certificate by Det Norske Veritas (DNV).

Valin Hengyang Steel Tube

- 5 products including Steel Pipe for Offshore Engineering and Steel Pipe for Oil and Gas Well Casing in the Petroleum and Natural Gas Industry have been certified as "Golden Cup High-Quality Product".
- Obtained AD2000 Certification and Certificate of Conformity (COC).
- Recognized as a Hunan Provincial "Three-Excellence" Benchmark Enterprise in Raw Materials Industry.

VAMA

- Adhere to and implement the quality policy of "Customer First, Sustainable Development, Pursuit of Excellence, and Industry Leadership", In accordance with the requirements of the IATF16949 standard, a complete and efficient quality management system has been established using the process approach and risk-based thinking.
- Deployed full-cycle quality management through the QMS framework, ensuring robust quality control from NPI (New Product Introduction) to mass production.
- Achieved significant progress in Phase II project product and production line certifications, received technical approvals from multiple mainstream domestic and foreign automobile OEMs.

Yangchun New Steel

- Hot Rolled Ribbed Steel Bars obtained MC Metallurgical Product Certification, and received the 4-Star "Green Product" certification from MCC Testing & Certification Co., Ltd.
- HRB500E straight bars and HPB300 wire rods successfully passed Golden Cup High-Quality Product recertification audit.

Golden Cup High-Quality Product certification for Hot Rolled Alloy Tube Blank for High-Pressure Boilers

Golden Cup High-Quality Product certification for Guaranteed Hardenability Structural Steel

Golden Cup High-Quality Product certification for Weathering Structural Steel Plate for Bridges

Golden Cup High-Quality Product certification for Steel Plate for Building Structures

Golden Cup High-Quality Product certification for Ultra-High Strength Structural Heat-Treated Steel Plate

Golden Cup High-Quality Product certification for Hot Rolled Wire Rod for Cold Heading and Cold Extrusion

Golden Cup High-Quality Product certification for Free-Cutting Steel Hot Rolled Wire Rod

Golden Cup High-Quality Product certification for Continuous Hot-Dip Galvanized High-Strength Interstitial-Free Steel Strip

Golden Cup High-Quality Product certification for High Manganese Austenitic Wear-Resistant Steel Plate

Golden Cup High-Quality Product certification for Continuous Hot-Dip Galvanized High-Strength Interstitial-Free Steel Strip

Golden Cup High-Quality Product certification for Low-Temperature Pressure Vessel Steel

Golden Cup High-Quality Product certification for Heat-Treated Steel Plate for Engineering Machinery

Golden Cup High-Quality Product certification for High-Quality Carbon Structural Steel Hot Rolled Steel Sheet and Strip

Golden Cup High-Quality Product certification for Seamless Steel Pipe for High-Pressure Boilers

Golden Cup High-Quality Product certification for Steel Pipe for Offshore Engineering

Golden Cup High-Quality Product certification for Seamless Steel Pipe for Crane Structures

Golden Cup High-Quality Product certification for Steel Pipe for Oil and Gas Well Casing in the Petroleum and Natural Gas Industry

Golden Cup High-Quality Product certification for Seamless Steel Pipe for Drill Rods

Golden Cup High-Quality Product certification for Hot Rolled Ribbed Steel Bars for Reinforced Concrete (Straight Bars)

Golden Cup High-Quality Product certification for Hot Rolled Plain Steel Bars for Reinforced Concrete

Golden Cup Special Product certification for Weathering Structural Steel Plate for Bridges

Golden Cup Special Product certification for Cold Rolled Hot Stamping Steel Sheet and Strip

Quality Improvement

Quality constitutes the fundamental determinant of corporate sustainability and value preservation. The Company has established an integrated quality management ecosystem spanning raw material procurement, manufacturing processes, and customer service delivery. The company and its subsidiaries have formulated a comprehensive set of quality control and inspection systems around the steel industry chain, such as *Bulk Raw Material Quality Management Procedures, Recycled Steel Procurement Regulations, Product Inspection, Testing & Release Protocols, In-Process Monitoring Standards, etc.*, to ensure that quality control is carried out in accordance with regulations. The company also regularly reviews and optimizes these systems to continuously improve the quality management system. In addition, through various measures such as quality breakthrough projects, special quality optimization, quality culture training, and quality case sharing, the subsidiaries have improved product quality and cultivated employees' quality awareness, comprehensively enhancing the enterprise's quality management level and laying a solid foundation for providing high-quality products to customers in various industries.

Establish a full-process quality control system to achieve intelligent collaboration throughout the quality process

Some subsidiaries have successfully implemented full-process quality management platforms, achieving collection of product quality and process parameters across entire steelmaking-rolling production chain. Based on the full-process product process and quality data, it initially established a closed-loop quality control system including pre-event prediction, in-event monitoring and judgement, and post-event traceability and analysis.

Continuously improve the production quality through programs such as profitability optimization and quality breakthrough projects

It adheres to external benchmarking and internal process reengineering, actively executed policy of "Quality & Efficiency Enhancement", continuously improve product quality. Guided by the "Customer-First" service philosophy, the Company has implemented multi-tiered quality enhancement initiatives across all operational levels, achieving quality awareness campaigns covering 100% workforce, and further improving product quality controllability.

Valin Xiangtan Steel

The "Zero Defect" philosophy has been deeply embedded across our quality practices through initiatives including Zero Defect programs, "Challenge Led" projects, quality breakthrough initiatives, it improved internal quality, reduced internal losses and comprehensively promoted the continuous improvement of product quality. Key quality metrics, such as the surface defect rate of bar products and the unplanned rejection rate of plate products, have shown significant progress. Established a full-process quality control system to achieve intelligent collaboration throughout the quality process. To address product appearance quality issues, industry best practices were benchmarked, and improvement plans such as the *Export Material Appearance Quality Enhancement Plan* and the *Special Action Plan for Product Quality Improvement* were formulated and implemented. These measures have increased issue exposure and accelerated corrective actions, leading to notable improvements in appearance quality.

Valin Lianyuan Steel

Carry out quality improvement at different levels to achieve a rapid response to on-site quality problems. During the reporting period, the quality improvement efforts achieved practical results: 26 quality improvement projects were organized, 21 of which achieved their goals (17 were completed), with a goal completion rate of 81%. Four projects did not achieve their goals but showed progress compared with the status quo. 41 excellent factory-level QC projects were carried out, and all achieved their goals. A full-process quality control and analysis system for each main production line was initially established, enabling the collection of quality data throughout the production process of each production plant. 17,722 data collection points were established, and monitoring of the status of some key quality equipment was newly added. Gradually shift the focus of product judgment and quality management from result management to process monitoring and quality prevention management, and promote the improvement of product quality by strictly controlling the stability of process parameters.

Valin Hengyang Steel Tube

Through measures such as establishing quality red lines, conducting quality publicity, strengthening on-the-job training, and strengthening the responsibilities of positions and management, the awareness of quality and customer service among all employees has gradually increased. A total of 36 special inspections and 26 special meetings were carried out throughout the year. 12 items such as supplier management, tooling, purchased billet inspection procedures, management of reported billets, downgrade and reclassification processes, quality feedback mechanisms, and abnormal condition control requirements were sorted out. 21 procurement standards for metallurgical auxiliary materials and more than 50 process standards were established or optimized. Through the implementation of five special quality improvement actions, the quality of the projects under improvement has gradually improved: the heat treatment qualification rate has increased to 98%, and the hit rate of the steel pipe wall thickness has increased to 86%. Through initiatives such as implementing the standard contract catalog, digitizing full-process composition control, and automating inspection results, we are progressively achieving automatic quality data collection and systematic auto-verification, with real-time blocking of non-conforming products.

Yangchun New Steel

Adhering to the principle that "quality is the lifeline for an enterprise's survival and development", a quality management system covering the entire process flow of pelletizing, sintering, ironmaking, steelmaking, and rolling has been established. Relying on the visual intelligent quality control system for the whole process to collect key data and build a quality indicator monitoring dashboard, it effectively contributes to process stability and energy consumption reduction. Project quality breakthrough has been carried out on key product varieties, enhanced control of composite negative tolerance in finished products, and at the same time increased billet charging temperature for improved process efficiency. Through the function of individual tracking system with virtual numbers for steel billets, cost reduction in the integration of steelmaking and rolling has been achieved, and new breakthroughs have been made in the short-length product metrics.

Case

Efficient Quality Management and Improvement at VAMA

Establish a complete and efficient quality management system

VAMA adhered to and implement the quality policy of "Customer First, Sustainable Development, Pursuit of Excellence, and Industry Leadership". In accordance with the requirements of the IATF16949 standard, a complete and efficient quality management system has been established using the process approach and risk-based thinking. Combining advanced production technologies, management experience, and the joint efforts of all employees, VAMA through a goal-oriented approach to improve quality internally and expand the market externally. It promotes high quality development of the enterprise with high efficiency, achieving continuous and stable business performance. Important technical indicators such as the proportion of automotive steel, on-time delivery rate, and the quality of key products have been steadily improved. New production lines and products have been recognized by many mainstream domestic and foreign automotive OEM customers.

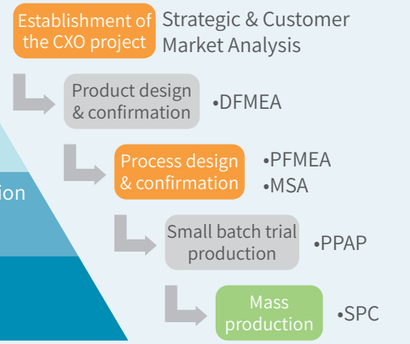
Comprehensively promote process review and standardized operations

VAMA promotes all quality management work in accordance with the full-process of the QMS system. Among them, the Advanced Product Quality Planning (APQP) method is used to ensure quality control from the development to the mass-production stage of new products. In 2024, VAMA comprehensively promoted the process review and optimization work. Through system audits, departmental surveys, document reviews, etc., problems in the process were identified and optimized accordingly to ensure that all business operations are carried out more smoothly and efficiently. A total of 20 quality training sessions were organized throughout the year, covering a series of courses on quality standards, quality tools, and quality improvement. Employees' awareness of quality has been continuously enhanced, and initial results have been achieved in the standardization of processes and equipment.

A multi-level audit mechanism has been established, involving the participation of all employees at the management level (CXO), workshop/department level, supervisor/operation supervisor level, and front-line team leader level, forming a comprehensive audit network that "covers all aspects horizontally and reaches every level vertically". In 2024, all departments of VAMA carried out a total of 8035 hierarchical audits, and a total of 1083 audit findings were proposed, all of which have been closed. The CEO, COO, CTO, and CFO led 4 hierarchical audits, proposing a total of 29 audit findings, 27 of which have been closed, and 2 are under rectification.

VAMA Quality Management System Audit

VAMA layered audit



VAMA Early product quality planning

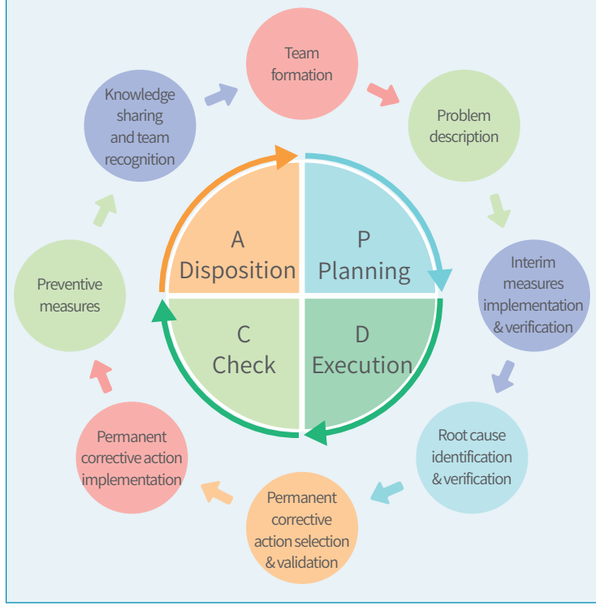
Actively promote the ResponsibleSteel system certification

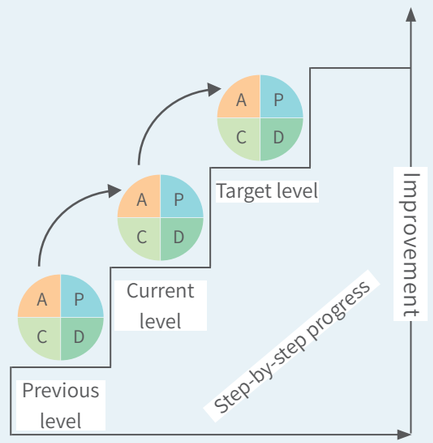
"ResponsibleSteel" refers to ResponsibleSteel™ , , a global non-profit organization aiming to promote the sustainable development of the steel industry through formulating standards and certification programs. As one of the members of the ResponsibleSteel Association, VAMA established and implemented the ResponsibleSteel management system in 2023, continued to operate it in 2024, and actively promoted the ResponsibleSteel system certification. Currently, VAMA has convened 23 stakeholders including environmental protection, energy, marginalized groups, upstream and downstream suppliers, etc. to hold a stakeholder communication and exchange meeting, listened to the needs and expectations put forward by stakeholders, and proposed countermeasures and solutions. In November 2024, VAMA successfully passed the third-party verification of ISO14064 - 1:2018 Greenhouse Gas Emission Management by TUV Rheinland.

VAMA adheres to the principle that "Quality is the lifeline of an enterprise", continuously improves product quality, and constantly perfects the construction of the VAMA Quality Management System. With the improvement of the company's quality assurance ability and the strengthening of employees' quality awareness, VAMA's products have won more and more customer certifications and recognitions. It has successively won the "Annual Excellent Battery Safety Solution Innovation Award" issued by Battery Craftsman and passed the annual supervision audit of the IATF16949/ISO9001 Quality Management System by TUV Rheinland.

Continuously promote the handling of quality objections and quality improvement

Relying on the IATF16949 Quality Management System in the automotive industry, an 8D process for handling customer quality objections has been established in the enterprise to continuously improve the quality of automotive steel products and customer satisfaction.





Quality Training

In order to standardize the operation process, strengthen employees' quality awareness, improve the enterprise's quality management level, and establish a cultural awareness of pursuing quality, the company improves the whole staff quality management awareness through inviting external training, benchmarking learning, and participating in professional academic exchanges. The company formulates annual quality training plans and tasks according to the quality management system and standards, organizes quality-related key positions and key personnel to carry out quality system training, and participates in quality knowledge competitions to improve employees' quality management awareness and level.

Invite external experts for teaching and training

During the reporting period, experts and professors such as Jiang Haitao, researcher at the University of Science and Technology Beijing, and Li Changrong, professor at Guizhou University, were invited to give special lectures on quality technology. Senior API consulting experts were invited to conduct training on the API 5CT 11th standard. Quality and safety training was jointly completed with provincial and municipal market supervision and administration bureaus.

Conduct on-site production training and guidance

During the reporting period, professional engineers conducted training on product standards, production processes, basic theories, etc., targeting the quality risks faced in each stage of the production process and the weak stages in operations, which improved the trainees' ability to solve practical problems.

Technological Innovation

The company adheres to the view that science and technology are the primary productive force and innovation is the primary driving force. It takes the construction of a technological innovation system and the establishment of a mature R&D system as the top priority of its corporate strategic decision-making. It increases R&D investment, introduces outstanding talents, and establishes a market-oriented talent incentive mechanism. The company's scientific research strength has been significantly enhanced, and scientific and technological innovation achievements have emerged continuously.

R&D System

Valin Steel continuously constructs and improves a technology R&D system that guided by the market, driven by innovation, and based on quality. It adheres to a decentralized, non-hierarchical matrix development approach, we have strengthened in-house R&D capabilities at our proprietary technology center, established collaborative innovation ecosystems through strategic integration of external intellectual resources, clear division of labor with complementary advantages and risk-sharing mechanisms among partners. Built diversified innovation platforms that bridge industry, academia and research institutions. We strive to achieve breakthroughs in core industrial technologies, establish industry-wide technical standards, and implement intellectual property sharing mechanisms to accelerate the commercialization of R&D achievements and secure significant advances in pioneering technological innovations.

To strengthen the corporate R&D management system, the company has established a comprehensive set of research governance documents, including *Basic Research Administration Regulations, R&D Control Procedures, Patent Management Regulations, Scientific Project Implementation Guidelines, and R&D Project Management Measures,* to supervise and control each key milestone in the R&D process and ensure the orderly and efficient implementation of scientific research work. Meanwhile, the company places paramount importance on intellectual property (IP) and trade secret protection, having established robust management systems including *Technical Confidentiality Control Regulations*, Intellectual Property Administration Measures, etc. to ensure that the company's trade secrets are strictly supervised and used in a legal and compliant manner.

Special Topic Strengthen the protection of intellectual property rights

The company strictly complies with China's intellectual property laws and regulations, including *Patent Law of the People's Republic of China, Trademark Law of the People's Republic of China and Copyright Law of the People's Republic of China.* It implements supporting systems for the management of intellectual property projects, improves the intellectual property management mechanisms, and strengthens the protection of the company's intellectual property rights such as trademarks, patents, and copyrights. At the same time, through continuous publicity and training, we continuously strengthen employees' awareness of intellectual property management and protection to ensure the effective protection of the company's intellectual property rights.

Valin Lianyuan Steel was recognized as a national intellectual property advantage enterprise, demonstrating that the enterprise has the strategic IP management framework, holistic development in IP creation, utilization, protection and administration, and has outstanding competitive advantages in IP portfolio. It is a demonstration enterprise with industry influence and benchmarking significance. During the reporting period, the company obtained 542 new patent authorizations, including 120 invention patents.

Case Strongly Promote the Integrated Product Development (IPD) Mechanism

The on-site manufacturing advantage does not necessarily translate into a market competitive advantage. How to transform products into valuable commodities? Our strategy is the integration of sales, research, and production, which means centering around customers, taking sales as the leading factor, and effectively combining the enterprise's production, sales, scientific research and other resources to develop products that meet market demand, so as to enhance the market competitiveness of the enterprise's products. Since 2013, the company has strongly promoted the Integrated Product Development (IPD) mechanism, and established an IPD project R&D team integrating R&D, production, sales, and market. The project team is required to achieve results within 3 - 6 months, performing seamless connection from on-site manufacturing advantages to high end products that meet customer needs.

An important feature of the operation mode of Integrated Product Development (IPD) is professional customization and precise supply, which greatly enhances the "stickiness" between users and steel mills. The " À la carte" management of customer orders, ensuring the timely delivery of small batch, multi-variety and multi-specification orders, has multiplied the difficulty of the company's production organization; customers' personalized needs are complex, and more and more unique grades are tailored for them. This means that from product R&D to production scheduling, from production organization to order fulfillment, from product distribution to technical services, all need to be integrated and optimized, which can be described as "nanny style service". The company also needs to continuously carry out product and technological innovation to meet the industrial upgrading needs of downstream customers. One generation of production, one generation of R&D, and one for reservation, together, to jointly create value with customers in the industrial chain.

With the addition of the Integrated Product Development (IPD) mechanism, the proportion of the company's sales of specialty steel products has been continuously increasing. These products already possess characteristics similar to those of special steel products and have established leading advantages in niche markets for products such as wide and heavy plates, cold and hot rolled sheets, seamless steel pipes, and industrial wire rods.

The operation mode of Integrated Product Development (IPD) is characterized by "Three Concentrations"

"Three Concentrations"

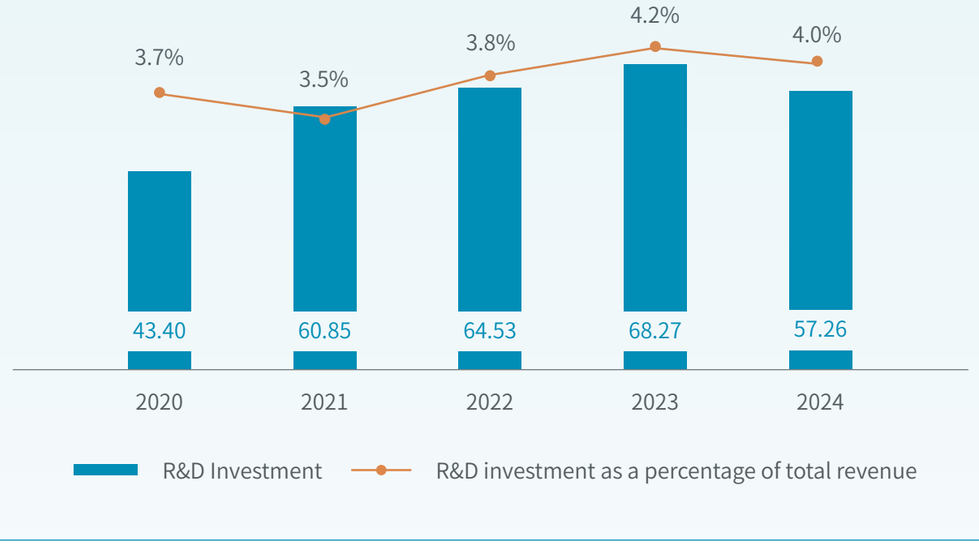
Concentrate on the R&D direction of products to effectively overcome the drawback of the disconnection between R&D and market demand.	Concentrate internal resources. Marketing, technology, production, etc. form cross-departmental and cross-system project teams, which improves the ability to respond quickly to the market.	Concentrate multiple forces to promote new product varieties and intensify market development efforts, ensuring both product quality and price stability.

R&D Investment

Key Performance

During the reporting period, the company significantly increased its R&D investment to **5,726.08** million RMB

Representing **4.0%** of total annual revenue



R&D Personnel

Key Performance

At the end of 2024, the company had **3,300** in-house R&D personnel

R&D personnel accounted for **14.09**% of total workforce

R&D Platforms

To strengthen scientific research and technological support and enhance independent R&D and innovation capabilities, the company, in line with the country's long-term science and technology development strategy, strongly supports the construction of various scientific research workstations and key laboratories and the recruitment of top-notch research-oriented talents.

The company has 11 national-level R&D platforms, including 2 national enterprise technology centers of Valin Xiangtan Steel and Valin Lianyuan Steel, and 2 post-doctoral research stations of Valin Xiangtan Steel and Valin Lianyuan Steel. It also has provincial-level engineering technology research centers such as Hunan Engineering Technology Research Center for High-Strength Structural and Construction Machinery Steel, the provincial-level or above R&D platforms such as Hunan Key Laboratory of Welding Process Technology and the Hunan Engineering Research Center for High-Tech Ship and Offshore Construction Steel.

The company's physical and chemical testing center is a well-known laboratory in China that has passed the certifications and recognitions of the three major systems of ISO, CMA, and CNAS. It is equipped with a large number of advanced and precise testing and analysis instruments and automated testing lines, mainly engaged in the composition analysis of metallurgical raw materials and fuels, steel, and ferroalloys, as well as the mechanical properties, process performance, and metallographic inspection of steel. In 2014, the welding laboratory was named the Model Worker Innovation Studio of Master Ai Aiguo by the All-China Federation of Trade Unions and is equipped with various advanced welding process equipment such as welding machines from the American LINCON Company. On the occasion of the 100th anniversary of the founding of the Communist Party of China, the Party Central Committee awarded the "July 1st Medal" for the first time. Comrade Ai Aiguo was honored with this medal, which was personally presented by General Secretary Xi Jinping. He became the only one in the steel industry and the only one in Hunan Province to receive this honor.

During the reporting period, Valin Xiangtan Steel added **two** national-level research and service platforms, namely the National Industrial Measurement and Testing Center for Medium and Heavy Steel Plates and the National Measurement Data Construction and Application Base (Advanced Steel Materials). Valin Xiangtan Steel also added the Hunan Provincial R&D and Application Innovation Consortium for Metal Materials Used in Special and Complex Marine Environments. Valin Lianyuan Steel added the Hunan Provincial Green High-Performance Silicon Steel Pilot Platform, the Hunan Provincial Engineering Research Center for Thin-Gauge High-Frequency Silicon Steel, and the Hunan Provincial Innovation Consortium for High-Quality Grain-Oriented Silicon Steel. Valin Hengyang Steel Tube added the Hunan Provincial Industrial Design Center, etc., a total of **6** provincial-level research and service platforms.

During the reporting period, the company signed a strategic cooperation framework agreement with the Central Iron and Steel Research Institute and jointly established the National Engineering Research Center for Advanced Steel Materials. It also established joint R&D centers with Wangbian Electric, Hunan Shenyi Machinery, and Zhejiang Fupu Cables, creating a brand-new cooperation model for the steel industry chain. The company actively carried out academic-industrial research project cooperation with many universities and research institutions such as Central South University, Wuhan University of Science and Technology, the Central Iron and Steel Research Institute in Beijing, and the Institute of Metal Research of the Chinese Academy of Sciences. The project contents involve product development, welding process research, optimization of ore blending structure, etc.

High-level diversified innovation platform

11	National-level
22	Provincial-level
N	Enterprise-level

11 national-level

- 2 National Enterprise Technology Centers
- 2 Postdoctoral Research Stations
- 1 National Industrial Measurement and Testing Center for Medium and Heavy Steel Plates
- 1 National Measurement Data Hub (Advanced Steel Materials applications)
- 5 National Accredited Laboratories (Valin Xiangtan Steel, Valin Lianyuan Steel, Valin Hengyang Steel Tube, Yangchun New Steel, VAMA)

22 provincial-level

- 5 Provincial Enterprise Technology Centers (Valin Xiangtan Steel, Valin Lianyuan Steel, Valin Hengyang Steel Tube, Yangchun New Steel, VAMA)
- 2 Expert Workstations (Valin Xiangtan Steel, Valin Lianyuan Steel)

- 6 Provincial Engineering Technology Research Centers

  Hunan Provincial Engineering Research Center for Hull and Marine Engineering Steel

  Hunan Provincial Engineering Technology Research Center for High-Strength Structural and Construction Machinery Steel

  Hunan Provincial Engineering Technology Research Center for Tool and Automotive Component Steel

  Hunan Provincial Engineering Technology Research Center for Green High-Performance Silicon Steel

  High-Quality Special Seamless Steel Tube Engineering Technology Research Center

  Guangdong Provincial Engineering Technology Research Center for Wire Rod and Bar Steel

- 2 Provincial Engineering Research Centers

  Hunan Engineering Research Center for High-Tech Ship and Offshore Construction Steel.

  Hunan Provincial Engineering Research Center for Thin-Gauge High-Frequency Silicon Steel

- 2 provincial new material pilot test bases:

  Hunan Advanced Medium and Heavy Plate Pilot Test Base

  Hunan Green High-performance Silicon Steel Pilot Test Base

- 1 provincial key laboratory:

  Hunan Key Laboratory of Welding Process Technology

- 1 provincial manufacturing innovation center:

  Hunan Manufacturing Innovation Center - High-quality Silicon Steel Manufacturing Process

- 1 provincial industrial design center:

  Hunan Industrial Design Center

- 2 innovation consortia:

  Hunan Provincial R&D and Application Innovation Consortium for Metal Materials Used in Special and Complex Marine Environments

  Hunan Provincial Innovation Consortium for High-Quality Grain-Oriented Silicon Steel

N enterprise-level

- Reporting period:
- Co-established the National Engineering Research Center for Advanced Steel Materials with the Central Iron and Steel Research Institute
- Established joint R&D centers with well-known enterprises such as Wangbian Electric, Putian Iron Core, Hunan Shenyi Machinery, and Zhejiang Fupu Cables

Science and Technology Awards

To enhance R&D personnel motivation, all subsidiaries have implemented research incentive mechanisms in accordance with Science and Technology Progress Reward Regulations, Technological Innovation Award Measures, etc. Provided additional rewards to scientific researchers based on their research contributions and R&D achievements.

Case Valin Lianyuan Steel | The 20th Science and Technology Week Grand Opening

On November 4th, the opening ceremony of the 20th "Science and Technology Week" of Valin Lianyuan Steel and the awarding ceremony of the 2024 Lianyuan Iron and Steel Science and Technology Progress Award and Science and Technology Star were grandly held. Academician Mao Xinping, Professsor Jiang Tao of the Chinese Academy of Engineering, and many technical authorities and well-known experts from universities such as Central South University, Northeastern University, and University of Science and Technology Beijing attended as guests. The conference commended the recipients of the 2024 Lianyuan Iron and Steel Science and Technology Progress Award and Science and Technology Star, with a total bonus exceeding 6 million RMB.

Recognize the "Technology Star" Award

Present the "Science and Technology Progress Award"

Scientific and Technological Innovation Achievements

The company aims at the high-end transformation direction of the industrial steel field, accelerates the construction of a technology R&D and innovation system mainly based on Integrated Product Development (IPD), increases the R&D efforts of high-end products, and actively promotes product structure adjustment and forward-looking process technology R&D. During the reporting period, the company's R&D achievements emerged continuously. There were 542 new patent authorizations, including 120 invention patents; 22 products were rated as "Golden Cup High Quality Products", among which 2 were rated as the highest "Golden Cup Special Products". The Steel Pipe for Offshore Engineering of Valin Xiangtan Steel was included in the list of the 8th batch of national single-champion products in the manufacturing industry, and VAMA won the title of single-champion enterprise in the manufacturing industry in Hunan Province; it won 9 provincial and ministerial science and technology progress awards. Among them, the project "Key Technologies and Applications of Steel Materials for Extreme Condition Oil and Gas Extraction and Transportation" of Valin Xiangtan Steel and Valin Hengyang Steel Tube won the first prize, and 13 industry and other science and technology awards. Among them, three projects of Valin Xiangtan Steel namely "Development and Application of Key Green Manufacturing Technologies for High-Performance Wide and Heavy Plates", and Valin Lianyuan Steel namely "New Generation Wear-Resistant Steel Technology and Engineering Application Based on TIC Regulation" and "Research and Application of High-Precision Asymmetric Control Technology for Hot Continuous Rolling Mills" won the first prize of the Metallurgical Science and Technology Award. The innovation entities have been upgraded in quality. Valin Xiangtan Steel has been approved for the recognition of the national enterprise technology center and the preparation of the national industrial measurement and testing center for medium and heavy steel plates. The company has successfully established national-level R&D platforms for two consecutive years; Valin Lianyuan Steel has been approved to establish the " Hunan Green High-performance Silicon Steel Pilot Test Base", becoming the company's second new-material pilot platform; Valin Lianyuan Steel was selected as one of the 58 benchmark enterprises in the annual special evaluation of the national "Science-Reform Enterprises". The variety structure has been continuously upgraded to the high-end, 26 high-end products were launched for the first time, 18 new steel grades "replaced imports", and the sales proportion of key variety steels increased to 65%.

Valin Lianyuan Steel and Valin Hengyang Steel's Key Technologies and Applications of Steel Materials for Extreme Condition Oil and Gas Extraction and Transportation Won the 2024 Hunan Province Science and Technology Progress First Prize

Valin Xiangtan Steel's "Key Technology Development and Application of High-Performance Weathering Bridge Steel" won the 2024 Hunan Provincial Science and Technology Progress Second Prize

Valin Xiangtan Steel's "Key Technologies and Applications of Intelligent Regulation for Random Power Generation Stations" won the 2024 Hunan Provincial Science and Technology Progress Second Prize

Valin Lianyuan Steel's "Key Manufacturing Technologies and Industrialization of High-Quality Ti-Microalloyed Atmospheric Corrosion-Resistant Steel" won the 2024 Hubei Provincial Science and Technology Progress Second Prize

Valin Xiangtan Steel's Key Technology Development and Application of Green Preparation for High-Performance Wide and Heavy Plates Won the 2024 Metallurgical Science and Technology Award First Prize

Valin Lianyuan Steel's New Generation Wear-Resistant Steel Technology and Engineering Application Based on TIC Regulation Won the 2024 Metallurgical Science and Technology Award First Prize

Valin Lianyuan Steel's Research and Application of High-Precision Asymmetric Control Technology for Hot Continuous Rolling Mills Won the 2024 Metallurgical Science and Technology Award First Prize

Valin Xiangtan Steel's Key Technology Research and Application of High-Quality Steel Continuous Casting and Cooling Precision Manufacturing Won the 2024 Metallurgical Science and Technology Award Second Prize

Valin Lianyuan Steel's "Development and Application of New Mold Equipment for High-Efficiency and High-Performance Precision Slab Continuous Casting" won the 2024 Mechanical Industry Science and Technology Award Second Prize

Valin Lianyuan Steel's Key Technologies and Industrial Applications of Functional Design and Precise Control of Inclusions Won the 2024 Hubei Province Science and Technology Progress First Prize

R&D Achievements of Specialty Steel

In recent years, Valin Xiangtan Steel has vigorously promoted the adjustment of product mix and the high-end development of products. During the reporting period, 37 high-end plate varieties such as high-strength offshore engineering steel, Ni-series low-temperature steel, and rack steel were newly developed. Among them, the ultra-thick rack steel developed was applied to the 3500T Asian largest wind power installation vessel; the normalized low-temperature steel was first applied in the field of marine liquid ammonia fuel tanks; the Q1300 ultra-high-strength structural heat-treated steel plate was first applied in China; and the wind power steel was supplied to the China Resources Lianjiang Offshore Wind Farm, which has the largest single-unit capacity in China. In the field of wire rods and bars, focusing on the high-end demands of construction machinery, new energy and other fields. 67 varieties such as supercritical heat-resistant alloy steel and high-strength flat steel were newly developed. The cold heading steel entered the high-end passenger car market, and the bearing steel and spring steel were successfully supplied to large-scale component manufacturers, accelerating the pace of upgrading the product mix from good to excellent.

Steel for Shipbuilding and Offshore Engineering

Valin Xiangtan Steel positions its offshore engineering steel as mid-to-high-end products and promotes the integration process of technology and high-end products. It has established strategic partnerships with internationally renowned enterprises such as CNOOC and Saudi Aramco. The offshore engineering steel has successively passed the certifications of the world's top 10 classification societies, obtained the American API system certification and the EU 10225 certification. Its market share has continuously ranked first in China and it holds an important position in the international high-end market. It took the lead in formulating the first domestic industry standard for offshore platform steel, Steel Plates for Offshore Platform Structures, and the standard for jacket steel, Steel Plates for Offshore Jackets, filling the gap in the domestic standard for offshore platform structural steel. The overall technology of "Key Technology for Ultra-High Fracture-Resistant Thick Steel Plates" has reached the international leading level.

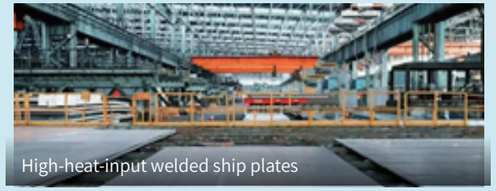
In recent years, Valin Xiangtan Steel has vigorously implemented the high-end strategy of quality and brand, leading the technological iteration and upgrading of offshore engineering steel. It has developed more than 90 high-end varieties such as Ni-series low-temperature steel, crack-arresting steel, rack steel, and high-heat-input welded ship plates. Among them, more than 10 products were globally launched for the first time, replacing imports. The steel for ships and offshore engineering has been applied to many world's best projects such as a certain offshore oil and gas production platform in Qatar, giant offshore wind turbines, the "Dream" ocean drilling vessel, the Huangmaohai Sea-Crossing Bridge, as well as ultra-thick rack steel for "Hengtong Haiyue" wind power platform, cryogenic steel for world's first Liquid Ammonia-Powered Vessel, making positive contributions to the "Made in China" moving towards the middle and high ends of the global value chain. During the reporting period, Valin Xiangtan Steel offshore engineering steel was recognized as a national single-champion in the manufacturing industry, and the 420MPa-grade series of high-strength low-alloy structural steel for offshore platforms won the 2024 China Iron and Steel Industry Product Development and Market Expansion Award from the China Iron and Steel Association.

Full coverage of high-end varieties


Ni 系低温钢


止裂钢


Rack steel


High-heat-input welded ship plates

Ultra-thick rack steel reaches the international advanced level

Ultra-thick rack steel is mainly used in key structures such as wind power installation vessels and jack-up offshore platform legs. The "offshore wind power installation vessel" is a crucial equipment for China's offshore wind power operations to move towards the deep sea. The legs inserted into the seabed need to withstand the harsh environments such as tsunamis, storms, and low temperatures to stably support the vessel. During the reporting period, Valin Xiangtan Steel exclusively supplied 177.8 mm ultra-thick rack steel for the "Hengtong Haiyue" large-scale wind power installation platform. This platform is equipped with a 1,600-ton full-slewing super crane around the pile, and it is the leading fourth-generation self-propelled and self-elevating large-scale wind power installation platform in the deep sea in China, which can be regarded as a new generation of large-scale wind power construction equipment. After that, Valin Xiangtan Steel developed ultra-thick and extra-heavy rack steel plates with a maximum thickness of 210 mm and a maximum single weight of 33 tons, and obtained the certification from six classification societies, which is the maximum thickness certified in China at present.

Valin Xiangtan Steel

High-heat-input high-strength welded ship plates reach the international advanced level

High-heat-input welded steel plates are mainly used in high-end ship types such as large container ships and liquefied natural gas carriers that have an urgent demand for thick high-strength and high-toughness steel plates for welding. Using high-heat-input welded steel plates changes the previous multi-layer and multi-pass welding method for thick plates, which can effectively reduce the filling amount of weld metal, improve welding efficiency, and significantly reduce ship construction costs. As early as 2019, Valin Xiangtan Steel developed high-strength ship plates for high-heat-input welding with a welding heat input of 300 kJ/cm and supplied them for the construction project of a large FPSO (Floating Production Storage and Offloading). It was well-received by users. During the reporting period, the high-strength ship plate E40-W700 for high-heat-input welding developed by Valin Xiangtan Steel successfully passed the certification from six classification societies. The maximum certified thickness reaches 85 mm, and the welding heat input reaches 700 kJ/cm. All performance indicators have reached the international advanced level after testing.

Valin Lianyuan Steel

Valin Lianyuan Steel adheres to maximizing the production of special steel, promotes the R&D and structural upgrading of high-value-added, differentiated and import-substituting products. The adjustment of the product mix has achieved innovative breakthroughs, and the product grade has been upgraded to the mid-high end. It has become an important global production base for high-end medium and thin gauge heat-treated high-strength steel plates. The leading hot-rolled products of Valin Lianyuan Steel form four major series: steel for construction machinery, hot-rolled automotive steel, wear-resistant steel, and acid and corrosion-resistant steel. The leading cold-rolled products form four major series: cold-rolled automotive and special purpose steel, cold-rolled medium and high carbon steel, galvanized steel, and silicon steel. The thin gauge high-strength steel for construction machinery and wear-resistant steel are internationally leading. During the reporting period, Valin Lianyuan Steel newly developed 65 products such as ultra-high strength steel, extra-thick wear-resistant steel, and high-grade silicon steel. Products such as high-copper non-stick pan steel and cold-rolled wide-width coils were launched in China for the first time. The Hunan Green High-performance Silicon Steel Pilot Test Base, Hunan Provincial Engineering Research Center for Thin-Gauge High-Frequency Silicon Steel, and Hunan Provincial Innovation Consortium for High-Quality Grain-Oriented Silicon Steel were successfully established, and the innovation ability has been continuously enhanced.

Silicon steel is an important soft magnetic alloy material indispensable for the country's industry, agriculture, transportation, national defense, and people's lives. It is the cornerstone for the green, low-carbon, and efficient development of the power industry and also the key material for the upgrading of various electrical products. It is widely used in industrial motors, household appliances, new-energy vehicles, transformers, and other fields. Valin Lianyuan Steel is an important domestic producer of silicon steel base materials. The base materials it supplies have the advantages of stable performance and minimal thickness variation across plates. In June 2022, Valin Lianyuan Steel launched a silicon steel finished product construction project with its holding subsidiary as the main body. The project is constructed in two phases, with a cumulative investment budget of 9.114 billion RMB. After reaching full production and efficiency, it will produce 800,000 tons of non-oriented silicon steel finished products and 300,000 tons of grain-oriented silicon steel finished products. Currently, it has the production capacity of high-grade and high-magnetic induction non-oriented silicon steel finished products. With the first-class production management, technology, and equipment level in the industry, it has become one of the few state-owned enterprises that master the full-process production technology of silicon steel. In the future, it will further produce high-grade and high efficiency non-oriented silicon steel, non-oriented silicon steel for new energy vehicle drives, and high magnetic induction grain-oriented silicon steel, covering mainstream grades and achieving advanced industry-level performance.

Silicon Steel Project Phase I, Step 1 Implementation

It was put into operation on June 30, 2023, and has achieved a production capacity of 200,000 tons of non-oriented silicon steel finished products.

Silicon Steel Project Phase II, Step 1 Implementation

It is being accelerated, and it is expected to add a production capacity of 200,000 tons of non-oriented silicon steel finished products and 100,000 tons of grain-oriented silicon steel finished products within 2025.

Non-oriented silicon steel

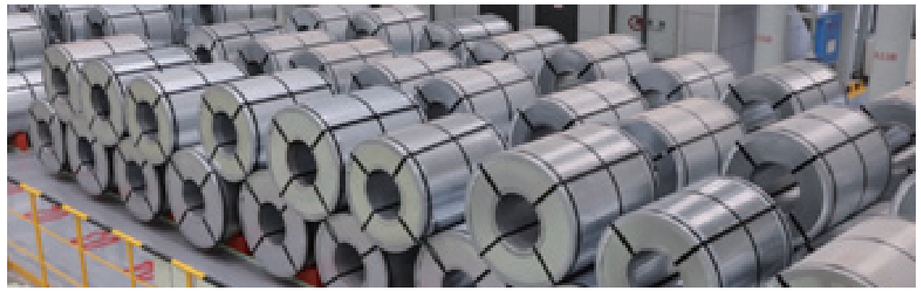
Non-oriented silicon steel, due to its characteristics such as low magnetic hysteresis and low iron loss, is mainly used in large power generation equipment, various industrial drive motors, industrial control motors, electric transportation drive motors (including electric vehicles, electric aircraft, etc.), serve motors of intelligent robots, drive motors of drones, and various household appliance motors. Its application scope is extremely wide and shows a continuous expanding trend. The manufacturing process of non-oriented silicon steel with top-grade performance has also become the key core technology of silicon steel manufacturing enterprises and is protected as core business secrets.

During the reporting period, the product certification and market development work progressed smoothly, quickly opening up the high-end market of leading household appliance enterprises such as Midea, and winning the bid for a well-known leading enterprise in the new energy vehicle industry and achieving mass supply. Throughout the year, on the basis of maintaining a supply scale of 990,000 tons of non-oriented silicon steel base materials, 263,000 tons of non-oriented silicon steel finished products were produced, successfully achieving full production in the first phase of the first step. At present, Valin Lianyuan Steel has successfully produced Hunan's first 0.15mm silicon steel coil for new energy vehicle drive motors, with electromagnetic performance reaching the level of the L15WV1000 grade.

Gain-oriented silicon steel

Grain-oriented silicon steel, due to its characteristics such as high magnetic permeability, low coercive force, and large resistivity coefficient, is widely used in various types of transformers, including main transformers, distribution transformers, and dry-type transformers. The manufacturing technology of grain-oriented silicon steel is highly complex and has a narrow process window. In particular, the technical barriers for high-grade and high-magnetic induction grain-oriented silicon steel are extremely high, representing the highest level of steel manufacturing and being hailed as the "pearl on the crown" of steel products.

During the reporting period, the first step of the second phase construction was accelerated. The No. 1 annular annealing furnace successfully completed its initial ignition and furnace drying in October 2025 On January 17, 2025, the high-magnetic induction grain-oriented silicon steel project broke through the full-process production technology of high-magnetic induction grain-oriented silicon steel, developed premium-grade products such as 20QGH075, and was recognized as one of the "Hunan Top Ten Technological Research Projects in 2025". Phase II, Step 1 is expected to commence formal production in the first half of 2025.



Valin Hengyang Steel Tube

Valin Hengyang Steel Tube continuously strengthens the enterprise's leading position in scientific and technological innovation, pursues development through innovation, and aims at the development trends of specialized, diversified, and premium-grade of seamless steel tubes, promoting the industry to climb towards the "high-end" and move towards the "new frontier". In the field of high-end steel tube applications, Valin Hengyang Steel Tube has developed 19 core technologies, set 21 Chinese and world records, and formulated and revised more than 60 national, industrial, and group standards related to three major key products such as oil and gas pipes, pressure vessel pipes, and mechanical processing pipes, solving many bottleneck technical problems internally and abroad. From the world's largest tonnage cranes to ultra-supercritical thermal power units, from oil extraction sites deep underground to the Shenzhen-Zhongshan Link mega-bridge, Hualing Valin Hengyang Steel Tube continuously promotes the application of new concepts, new technologies, and new methods.

Engineering Machinery Steel Tubes

Valin Hengyang Steel Tube's engineering machinery steel tubes have been widely used in crane load-bearing trusses, rotary drilling rigs, and hydraulic support systems. Its customers include a large number of well-known domestic and foreign enterprises such as XCMG, SANY, Zoomlion, Caterpillar, Sunward Intelligent, Liugong Machinery, Zhengzhou Coal Mining Machinery, Fushun Excavator Manufacturing, Zhengzhou Yutong Heavy Industry, and Shandong Lovol Heavy Industry, and it has won the title of excellent supplier from customers many times.

Crane boom tubes

Valin Hengyang Steel Tube's crane boom tube products have successfully replaced imported products and achieved full coverage in the three market segments of boom tubes for tire cranes, crawler cranes, and port cranes. They are used in cranes with extra-large tonnage and those used in extremely cold conditions such as the Arctic Circle. The crane boom tubes are used in the world's largest 4500-ton crawler crane and the world's largest 4000-ton all-terrain crane.

World's most powerful all-terrain crane

The crane boom tubes of Valin Hengyang Steel Tube have been successfully applied to XCMG 4000-ton all-terrain crane, which can meet the lifting height of 170 meters and the ultimate lifting weight of 230 tons.

Rotary drilling rod pipes

The rotary drilling rod pipes produced by Valin Hengyang Steel Tube have been supplied to many well-known construction machinery companies, successfully replacing imported products and ending the history of complete dependence on imports for rotary drilling rod pipes. This has strongly supported the development of the rotary drilling rig industry and the country's infrastructure construction. The rotary drilling rod pipes are applied to the world's largest 1,600-level rotary drilling rig, achieving a single-hole drilling diameter of up to 7.5m and a depth of 190m, breaking the records for the maximum drilling diameter and the deepest drilling depth.

World's most powerful rotary drilling rig

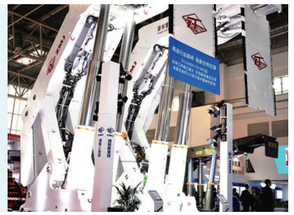
The rotary drilling rod pipes of Valin Hengyang Steel Tube an increase the guaranteed service life of rotary drilling rods from 500 hours to 3,000 hours and have been successfully applied to the world's most powerful rotary drilling rig.

Hydraulic cylinder pipes

The hydraulic cylinder pipes developed by Valin Hengyang Steel Tube have been successfully applied to the hydraulic supports or hydraulic cylinders of Zhengzhou Coal Mining Machinery, Zoomlion, and SANY. They not only meet the customers' requirements for the welding performance of high-strength cylinders but also greatly improve the safety and service life of engineering components. The high-strength hydraulic cylinder pipes are applied to the luffing cylinders of the world's largest 2,600-ton all-terrain crane.

Hydraulic Supports for Coal Mining Machines in Extra-Thick Coal Seams Mining

Valin Hengyang Steel Tube cylinder tubes are applied to the 8.8-meter ultra-high hydraulic supports manufactured by Zhengzhou Coal Mining Machinery, certified as "China's Top Coal Mining Equipment Brand" for the mining of extra-thick coal seam mining.



Oil & Gas Special Threaded Casing

The special thread products of Valin Hengyang Steel Tube have multiple performance indicators such as tensile resistance, compression resistance, internal pressure resistance, and external extrusion resistance reaching or exceeding 100% of the pipe body. Their excellent performance enables the seamless steel pipe products to adapt to various complex environmental conditions such as high temperature, high pressure, and extreme geology, ensuring the products remain stable and reliable under extreme working conditions and reaching the world's advanced level. These products have been widely used in oilfields such as PetroChina, Sinopec, and CNOOC and exported to more than 20 countries around the world, helping large domestic and foreign oil and gas fields to explore ultra-deep formations.

During the reporting period, Valin Hengyang Steel Tube successfully developed the 10,000-meter deep well tubing for the Tarim Oilfield, casing for the KOC Deep Well Project, 298.45×26.59 HS155HC for Daqing Drilling, 184.15 × 15.83 155V high-grade thick-walled casing for the Southwest Oil and Gas Field, 120S and 125S anti-hydrogen sulfide corrosion oil casings for the "Deep Earth Project" of Sinopec, X65QO SCR steel catenary riser by the coil tube method, and 15 different specifications of special couplings. The products have been applied in batches to large-scale projects such as the second deepest vertical well onshore in China - Qingbei 1 Well, the first 10,000-meter scientific exploration well in China - Shendi Take 1 Well in the Tarim Oilfield of Xinjiang, the deepest geothermal scientific exploration well in China - Hainan Fushenre 1 Well, and the first deep-water and deep-layer large oilfield in China - Kaipingnan Oilfield.

VAMA

VAMA focuses on the high-end automotive steel market in China, meeting the higher requirements for safety, lightweight, anti-corrosion, and emission reduction in the automotive industry, and establishing a differentiated competitive advantage in the niche market. Its products have been certified by mainstream automobile manufacturers in Europe, America, Japan, and domestic self-owned brands, and it maintains strategic cooperative relationships with many automobile manufacturers, including global leading new energy vehicle companies and domestic new car-making forces. It has a rich product portfolio such as advanced high-strength steel (AHSS), ultra-high-strength steel (UHSS), and aluminum-silicon coated hot-formed steel. Through innovative exploration of processes such as multi-part integration (Multi Part Integration ™), the combination of laser tailor-welded blanks and hot-forming technology, and innovative applications of components such as inner and outer door rings, integrated rear body skeletons, and steel battery packs, it continuously meets the growing demand of the automotive industry for high-strength and high-toughness materials and leads the lightweight development trend of the automotive industry.

Ten Years of Persistent Efforts, Leading the Automotive Industry Lightweight Development Trend

Since its commissioning in 2014, after ten years' hard work, VAMA has become a leader in the domestic automotive steel industry. It has achieved the development and production of a full range of automotive steel products, from advanced high-strength steel to ultra-high-strength steel, and then to automotive outer panels, with an increasingly improved product structure, many products have filled the gaps in the domestic market. It has established multiple industry product standards, guiding the Chinese automotive industry to benchmark international advanced standards or fill the gaps in domestic product standards. The domestically developed hot-formed steel with the world's highest strength level has the highest market share in the domestic market.

Multi Part Integration Solution

The Multi Part Integration (™) technology can integrate more than a dozen or even more parts together. It combines aluminum-silicon coated hot-formed steel with laser tailor-welded ablation technology for integral forming, significantly reducing the number of parts and assembly steps, simplifying the production process, and remarkably improving production efficiency. This breakthrough delivers significant optimizations across multiple dimensions: lightweighting, material utilization, and cost.

Hot-formed steel and laser tailor welding are a perfect match

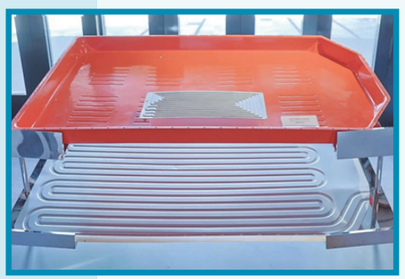
Notably, the combination of laser tailor welding technology and hot-formed steel provides strong technical support for multi-part integration. Laser tailor welding technology can precisely combine materials with different strengths, toughness, and thicknesses based on different parts requirements, making part design more flexible. The introduction of Ablation 3.0 technology integrates the removal of the AlSi coating with the welding process, further improving production efficiency and product quality.

Achieve new breakthroughs in multi-part integration

Successfully developed the hot-formed ultra-large structure for inner and outer double door rings, significantly improving vehicle safety while effectively reducing weight by 20%, greatly contributing to the automobile OEMs' improvement of the production efficiency.

Relying on VAMA profound accumulation and innovation ability in hot-formed steel technology field, VAMA took the lead in launching the solution for the hot-formed ultra-large structure for inner and outer double door rings. On the basis of previous hot-formed laser inner and outer door, as well as the single-side double ring structure for rear door, it was further integrated into a four-ring structure, integrating the side wall structural parts of the entire passenger compartment area, that is, the enclosed area from A pillar to C pillar and the sill, into an ultra-large integral structure. This fundamentally simplifies the supply chain process of the vehicle body side wall assembly and provides all-round protection for passengers, making safer vehicles as an option for a wider range of users.

First launched the Alusi® steel battery pack technology, which meets the overall design requirements of new energy vehicle battery packs. Compared with aluminum battery packs, the cost is reduced by more than 40%. While significantly improving safety performance, and achieving effective weight control.



VAMA has successively launched a series of advanced solutions, constantly refreshed the highest safety level of battery packs. The new steel battery pack design uses the aluminum-silicon coated hot-formed steel Usibor®, including the upper cover, tray, and bottom guard plate. The maximum strength of the parts can reach 2,000 MPa, rise the overall safety level of electric vehicles to a new height. Compared with the cold-formed steel battery pack tray, it shows unparalleled high strength, the better geometric accuracy of hot-formed steel also makes the connection of closed parts closer. Compared with aluminum, it can also significantly reduce costs, bringing more innovation and possibilities to the integrated design of electric vehicles.

Key Projects

The company's product mix strategy closely follows the development needs of equipment enlargement, complex service environments, equipment lightweighting, and high-efficiency energy enhancement. It continuously advancing product portfolios toward the premium end of industrial and value chains, and contributes to the key domestic and international engineering projects. "Valin Manufacturing" supports "The Pillars of a Great Power" and adds luster to "Super Projects". It is used in more than 1,000 key projects and landmark projects around the world, and has established leading advantages in sub-fields such as energy and oil and gas, shipbuilding and marine engineering, high-rise buildings and bridges, engineering machinery, automobiles, and household appliances.

Shipbuilding and Marine Engineering

High-end marine steel plates are supplied to the world's most advanced ocean drilling vessel, the "Dream".

Cryogenic steel applied to world's first liquid ammonia-powered vessel.

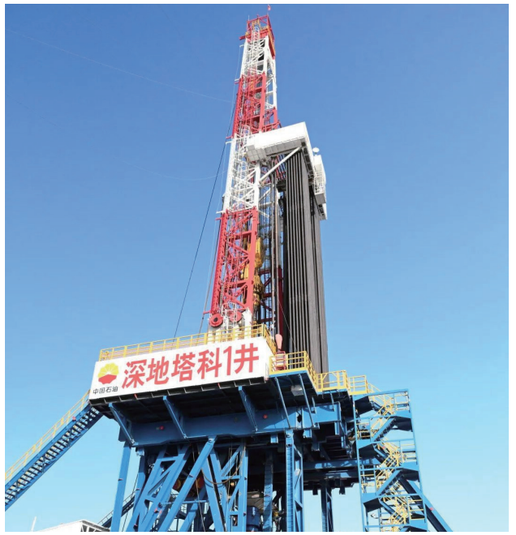
Rack steel is applied to ultra-large container ships.

Structural steel for hulls is applied to the super LNG carrier, known as the "pearl on the crown" of the world's shipbuilding industry.

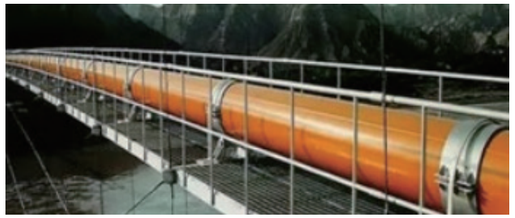
High-strength steel of EH36 grade and above is applied to the world's largest floating storage and offloading platform for natural gas processing.

High-strength steels such as DH36 and EH36 applied to jacket structure of the Liuhua 11-1 platform.

Energy and Oil and Gas



Gas-tight casing supplied to the first ultra-10,000-meter scientific exploration well.



Acid-resistant pipeline steel applied in the UAE WEP project.

Pressure pipes steel supplied to the major Belt and Road hydropower project – Zhen'an Pumped Storage Power Station in Shannxi.

High-end special-threaded casing supplied to the second-deepest onshore vertical well in China. Qingbei 1 Well in Xinjiang Oilfield

High-corrosion-resistant weathering steel for marine photovoltaics supplied to Huaneng Binzhou 850 MW photovoltaic power project.

Steel applied to nuclear power has used to Shandong Shidaowan Nuclear Power Plant, the world's first commercial demonstration project of the fourth-generation nuclear power technology.

Construction Machinery and Equipment Manufacturing

High-strength steel for construction machinery applied to the world's largest mining electric shovel excavator.

High-strength steel for construction machinery applied to the world's largest-tonnage heavy-duty crane.

High-strength steel for construction machinery applied to the world's wheeled crane with the strongest lifting capacity.

High-strength steel for construction machinery applied to aerial work platform booms and forklift frames.

Wear-resistant steel applied to coal mining machinery, agricultural machinery and crushing machinery.

Ultra-high-strength girder steel supplied for electric heavy trucks.

Boom pipes supplied for the world's largest crawler crane.

High-Strength Construction Steel and Bridges

Weathering steel supplied for the Linyi Yellow River Bridge

High-strength construction steel applied in the world's most luxurious airport, Abu Dhabi International Airport in the United Arab Emirates

High-end steel for bridge structures supplied for the Huangmaohai Sea-Crossing Bridge

High-strength construction steel applied in the landmark building in Dubai, "The Mirror of Dubai"

Customer Service

We always adhere to the "customer-centricity" philosophy and are committed to maximizing value creation for our customers. The company creates an intelligent "EVI + CTS" marketing service model integrating supply, production, research, and sales. This deeply integrates resources, and precisely meets customer needs. Customer service covers the main processes such as product R&D, production process, and sales, focusing on building a good and sustainable customer relationship and fully safeguarding customer rights and interests. At the same time, we continuously optimize the customer experience, establish a rapid response mechanism, ensure that the product and service quality meet multi-level, comprehensive, personalized, and customized needs of customers. We determine the height with attitude, continuously optimize the customer experience and satisfaction, and join hands with customers to embark on the road of high-quality development.

Customer Service System

Build a balanced, efficient, and lean production system supported by intelligent manufacturing. Comprehensively improve and optimize production scheduling, manufacturing, quality control, delivery logistics, and arrival accuracy.

From on-site to the market, we implement a consistent quality standard. Adhere to the concept that " Quality Defines Product Excellence, and Customer Feedback Drives Continuous Improvement". We build the sales department into the Voice of customers, and the quality department as the Guardian of customer standards.

Launch the strategic "Year of Product" campaign. R&D and improvement should achieve "Three Alignments": align with customers, align with the market, and align with the site, and meet the personalized needs of customers with varieties that lead competitors and the market.

Build an intelligent, information-based, and digital smart delivery system for sales-R&D-production, provide customers with end-to-end information updates, improve logistics management and efficiency, and ensure that the delivery rate of specialty steel reaches 100%.

Build a 24-hour customer service center. EVI and CTS respond quickly in all aspects such as customer project design, bidding, on-site support, and after-sales service, and act as the "whistle - blowers" for customers.

Safeguarding Customer Rights and Interests

The protection of customer rights and interests has become an important part of enterprise's sustainable development, impacting not only enterprise's reputation but also long-term development and market competitiveness. We prioritize continuous strengthening of customer rights protection through quality control, transparent product information, personalized contract design, supply chain transparency, rapid response mechanism, data protection, and privacy policy.

Product Quality Control

Adhering strictly to national and international quality standards, we implement a comprehensive, multi-tiered quality management system. Each production stage—from raw material procurement to manufacturing processes—undergoes sampling and full inspections. Only products meeting all process requirements are released to the market.

Transparent Product Information

We provide professional technical support to help customers understand product performance characteristics, usage methods, and maintenance requirements. Through initiatives such as technical seminars and training sessions, we enhance customers' knowledge and application capabilities for customized products.

Personalized Contract Design

Tailored to factors such as customer type, collaboration history, and specific needs, we design customized sales contracts. These contracts clearly define quality standards, delivery timelines, after-sales service, and other critical terms to meet diverse customer requirements.

Supply Chain Transparency

Leveraging real-time information management systems, we track key stages including raw material procurement, production progress, and logistics transportation. Proactively sharing this data with customers ensures full supply chain visibility, strengthening their confidence and satisfaction.

Rapid Response Mechanism

We have established the *Product Service Management Procedure and External Product Quality Dispute Resolution Policy*. The Sales Department serves as the centralized hub for receiving customer complaints or quality disputes (submitted via any channel), then escalates them in report form to internal stakeholders for timely corrective action per defined procedures.

Customer Data Security & Privacy Protection

The company prioritizes safeguarding customer intellectual property and trade secrets. We implement confidentiality measures and contractual clauses, continuously improving our data protection management framework to ensure strict supervision and lawful use of customer proprietary information.

Key Performance

During the report period, there is **0** information security breach.

0 incidents of customer privacy leaks.

Measures

Enforced specialized registration and tracking protocols for all electronic/ hardcopy documents and processing materials used in bilateral operations.

Implemented graded authorization controls for customer data, utilizing authenticated encryption and identifiable confidentiality methods.

Mandated NDAs with customers, specifying liabilities for violations to prevent leakage of technical information to competitors.

Responsible Marketing Practices

The company adheres strictly to responsible marketing and advertising content governance, complying with Advertising Law of the People's Republic of China and Consumer Rights Protection Law of the People's Republic of China, established responsible marketing policies with clear operational requirements. Meanwhile, developed compliance guidelines for promotional activities to ensure all advertising is complete, accurate, objective and easily understandable. Strengthened oversight in marketing, pricing, distribution channels, and operational compliance.

Key Performance

During the report period, there is **0** marketing-related lawsuit.

0 incident of regulatory penalties for marketing practices.

Customer Relationship Management

The company consistently prioritizes customer needs, adhering to a customer-first principle. All subsidiaries place high importance on product services, having established a comprehensive and efficient customer feedback mechanism to promptly assess satisfaction levels and gather improvement suggestions regarding product quality and services. We continuously enhance service skills training, optimize service processes, and ensure coordinated follow-up among technical, production, and quality teams to achieve rapid response, swift feedback, and immediate improvements. Guided by the principle of "addressing minor issues promptly and resolving major issues overnight," we deliver efficient solutions. Additionally, we regularly organize customer engagement activities—such as industry seminars and new product launches—to strengthen interaction, foster mutual trust and collaboration, and achieve win-win outcomes that drive sustainable development in the steel industry.

Case Valin Xiangtan Steel | Focus on New Quality Productivity and Cooperate Success for the Future

From November 13 to 15, 2024, Valin Xiangtan Steel hosted a customer conference themed "Focusing on New Quality Productivity, Collaborative Success for the Future." Nearly 700 customer representatives and industry experts nationwide attended, joining Valin Xiangtan Steel in strengthening partnerships and exploring new growth opportunities. Participants highly praised Valin Xiangtan Steel's plate, wire, and bar products, particularly their applications and R&D advancements, reaffirming the company's leadership in innovation and customer collaboration.

- A customer from Guangdong: As a major steel manufacturer in the shipbuilding industry, Valin Xiangtan Steel has ranked first in ship steel production for many years. Its product quality and customer-centered service have always been at the leading level in the industry.
- A customer from Ningbo: Valin Xiangtan Steel has always had a good reputation for its delivery time in the industry. We hope to carry out deeper cooperation with Valin Xiangtan Steel in production-sales connection, logistics and transportation, and digitalization.
- A customer from Shanghai: We have established a relatively mature and regular business communication mechanism with Valin Xiangtan Steel. During this period, the professional ability and dedication shown by Valin Xiangtan Steel's marketing team are an important guarantee for the continuous consolidation of the cooperative relationship between the two parties, which is worthy of our admiration and learning.

Case Valin Hengyang Steel | Always Prioritize Customer Service

- Valin Hengyang Steelpipe has established a Digital Intelligent Marketing Service Platform, leveraging mobile and internet technologies to build a collaborative marketing service system. This platform creates a flattened, grid-based marketing service model, integrating mobile access, service delivery, collaboration tools, communication channels, and operational synergy into a unified innovative mobile marketing service platform. Adhering to the customer-centered philosophy, the Digital Intelligent Marketing Service Platform provides innovative and personalized interaction and services to customers, offers 24/7 online service, improves response speed and customer experience. At the same time, it can help marketing personnel improve work efficiency and strengthen market business development. Furthermore, the platform uses sales data as a driver to synchronize improvements across production, quality control, logistics, and R&D, creating a virtuous cycle that boosts overall operational efficiency.
- More than 550 wells received on-site well technical services throughout the year, including 164 key wells over 7,000 meters, 94 ultra-deep wells over 8,000 meters, and 28 key high-risk wells with high temperature, high pressure, and high sulfur content. It achieved excellent results in well-running in the Southwest Oil and Gas Field. The on-site service was efficient and professional, and all oil casings passed the cementing pressure test without any quality problems. In terms of the number of well-running, the total pipes deployed, the tonnage supplied, and the specifications of oil casings, it ranked first among all suppliers, far ahead of other manufacturers, providing critical support for the capacity release of the Southwest Oil and Gas Field.

- A certain component supplied for the "Yiyang No. 1" project of Dongfang Boiler Group Co., Ltd. was bent during the processing, halting production. To ensure the smooth processing of the pipe material, our technical team collaborated closely with the client to recalculate and adjust machining parameters, conducted small-scale trial processing to identify optimal solutions, successfully completed weld bevel machining on the pipe ends and ensured on-time project delivery, earning high praise from the customer.

Case Valin Lianyuan Steel | Paving a Shared Path of Mutual Growth

On November 18, 2024, Valin Lianyuan Steel grandly convened its 2025 Annual Customer Conference under the theme "Ocean Rhythms, Steel Intelligence – Forging the Future." Over 600 client representatives, partners, and distinguished guests from across China gathered to strengthen ties and collaboratively chart a green, high-quality development path for the steel industry, while building new industrial chain ecosystems. The conference featured five specialized technical sessions, facilitating in-depth exchanges on heat-treated high-strength & wear-resistant steels, high-strength galvanized & hot-formed steels, high-strength rebars & transportation infrastructure materials, advanced shipbuilding steels & high-manganese steels and medium/high-carbon products. These sessions showcased the company's R&D breakthroughs and application achievements, while identifying emerging market opportunities to develop new growth drivers and competitive advantages across the steel value chain.

Case VAMA | Expanding Customer Base and Improving Customer Satisfaction

During the reporting period, VAMA strengthened strategic partnerships with traditional automakers while actively building a diversified cooperation ecosystem. The company has established collaborations with multiple leading domestic EV manufacturers in China, solidifying its position in the new energy vehicle sector. Currently, the company maintains stable long-term strategic cooperative relationships with many customers of automotive sheets and industrial materials in galvanized, zinc-iron, cold-rolled, aluminized and aluminum-silicon hot-formed products. As a premier automotive steel solutions provider, VAMA always adheres to the concept of providing customers with the highest-quality products and services, added several on-site sales and technical support engineer positions to respond to customer needs more efficiently; optimized the mechanism for handling claims without on-site inspection in response to customer complaints, and further delegated the authority for claim settlement to improve the efficiency of handling quality objections, and continuously optimized and improved the customer after-sales service experience; strengthened internal management by establishing the "Project Everest" office, and the important technical indicators such as product on-time delivery rate and key product quality have been steadily improved.

Improve After-Sales Service

To continuously improve service quality and effectively capture customer feedback on products and services, we have implemented standardized management procedures including *Customer Satisfaction Measurement Management Procedure, Customer Satisfaction Monitoring and Measurement Management System, and Product Service Management Procedure*. These protocols regulate service workflows across pre-sales, sales, and after-sales stages. All subsidiaries conduct structured customer satisfaction surveys, with the scoring results enabling us to identify service gaps through quantifiable data, implement targeted improvements for low-scoring areas, and progressively elevate satisfaction levels through closed-loop corrective actions.

Case Valin Xiangtan Steel | Enhancing On-Time Delivery Performance

During the reporting period, despite an expanded product portfolio, the company achieved year-over-year improvements in specialty steel delivery rates. Among them, the average delivery rate of containers increased by 6.21%, high-strength and wear-resistant products increased by 6.31%, offshore engineering products increased by 10.52%, and that of high-rise building products increased by 3.4%. The company improved its intelligent logistics system to provide customers with full-process information push; the proportion of small boats was increased from 8% to 58%, the full-loading cycle of ships was shortened from 6.7 days to 5.4 days, and the achievement rate of shipping from the factory to the customer's port within 15 days was increased from 28% to 65%.

Case Valin Lianyuan Steel | Strictly Fulfills Sales Service Commitments

On-site arrival within 24 hours of request receipt	Quality/quantity disputes acknowledged within 24 hours	On-site resolution: 2 days within prince, 4 days cross-province	Case closure within 7 days of on-site verification

During the reporting period, Valin Lianyuan Steel achieved **97**-point comprehensive evaluation of customer satisfaction, marking a **2**-point year-over-year improvement.

Customer Service Achievements

The company always adheres to the customer-centric approach, builds its brand with integrity, and creates value for customers. With excellent products, stable quality, and service beyond expectations, it has established leading advantages in segmented fields such as energy and oil and gas, shipbuilding and offshore engineering, machinery and bridges, and automobiles and home appliances, and has established in-depth cooperative relationships with benchmark customers in key industries. During the reporting period, the company and its subsidiaries were repeatedly awarded honorary titles such as "Excellent Supplier", "Gold Supplier", and "Strategic Partner" by customers, and received unanimous praise from customers.

Valin Xiangtan Steel held a celebration ceremony for the supply to Hyundai Heavy Industries in South Korea exceeding 2 million tons.

The VAMA Customer Experience Center Inaugurated with "Building on Legacy, Co-Creating the Future" 10th Anniversary Celebration

Partial Honors & Awards

Strategic Partner – Hauste Group
Valin Lianyuan Steel

Outstanding Partner – Sany Group Co., Ltd.
Valin Lianyuan Steel

Excellence Contribution Award – Sany Heavy Lift Business Division
Valin Lianyuan Steel

Excellent Supplier – Sany Pump & Road Machinery Business Division
Valin Lianyuan Steel

Strategic Collaborative Supplier – Sany Commercial Vehicle
Valin Lianyuan Steel

Top Intelligent Agricultural Machinery Supplier – Zoomlion
Valin Lianyuan Steel

Excellent Strategic Partner – China Railway No.4 Engineering Group
Yangchun New Steel

Outstanding Supplier – China Railway Construction Bridge Engineering Bureau Group Co., Ltd.
Yangchun New Steel

Preferred Supplier – Sany Heavy Lift Business Division
Valin Hengyang Steel Tube

Outstanding Supplier – Sinopec
Valin Hengyang Steel Tube

Partial Client Portfolio

Key Strategic Clients

Shell · Chevron · Schlumberger · SAIPEM · TOTAL 道达尔 · Saudi Aramco
Ptt · 中国石油 · Sinopec · 中国海油 CNOOC · 中国船舶重工集团公司 CSIC · COSCO SHIPPING 中国远洋海运集团有限公司
SAMSUNG · HYUNDAI 韓國 現代 · DAEWOO · 中国船舶工业集团公司 CSSC · 沪通集团 HUTONG GROUP · XCMG 徐工集团
SANY · ZOOMLION 中联重科 · LiuGong 柳工集团 · CAT · 中国交通建设 · CECC 中国能建
中国水电 SINOHYDRO · MBEC · 中国建筑 CHINA STATE CONSTRUCTION · BHEL · SNCC 神华宁夏煤业集团 · CIMC 中集
中国一重 CFHI · ALSTOM · 上海电气 SHANGHAI ELECTRIC · DEC 东方电气 DONGFANG ELECTRIC · ADNOC · Ford
哈电集团 · 上汽大众 SAIC VOLKSWAGEN · GAC GROUP · CSR 中国南车 · 中国中车 CRRC · TBEA
上汽通用五菱 SGMW · 东风汽车 · 北汽集团 BAIC GROUP · 长安汽车 CHANGAN · 中国重汽 SINOTRUK · 美的 Midea
Galanz · DINGLI Exceed New Height · 新宏昌重工集团 SUNHUNK · GREE · Baker Hughes · PDVSA
PETROBRAS · Petrofac · Mercedes-Benz · GSI 广船国际 · 兰石重装 LS HEAVY EQUIPMENT · VHST 豪斯特 HOT STAMPING TECH

Supply Chain Management

Supply chain management has become a pivotal element for steel enterprises to ensure stable operations and implement ESG principles. Our supply chain oversight spans from raw material sourcing to end-product delivery, with strict adherence to established management protocols. In procurement business, we adhere to "transparent and standardized operation", comprehensively implement public bidding, and expand channels for high-quality resources. We have issued institutional documents such as the *Authorization (Agency) Management Procedures, Supplier Management System, Bidding/Negotiation Management Measures, Business Operations Management Procedures, Procurement Control Management Program, Supplier Qualification Management Program, and Quality Dispute & Settlement Dispute Resolution Procedures.* These frameworks standardize workflows and drive green, equitable, and efficient development across the industrial chain.

Strengthen Supplier Management

Supplier Qualification Management

The company has established a comprehensive qualified evaluation system for suppliers and strictly implements the review of supplier short-listing. It conducts a comprehensive review of the relevant qualifications and comprehensive service levels of new suppliers to prevent bad suppliers with low credit ratings, poor performance capabilities, and many legal disputes from entering the list of qualified suppliers. Through rigorous supplier access management, it ensures the high-quality and sustainability of the supply chain from the source.

Supplier Qualification Process

1. Procurement department qualification review
2. Submit to marketing department for initiating qualification process
3. On-site audit/Trial testing
4. One-time procurement execution
5. Supplier evaluation committed review & approval
6. Final authorization by corporate leadership

Supplier Tiered Management System

Supplier tiered management is a critical initiative to ensure stable raw material supply, enhance product quality, and drive sustainable development. The company implements dynamic supplier evaluations based on supply quality, pricing competitiveness, contract fulfillment rate, comprehensive capabilities, after-sales service, bidding performance. It conducts comprehensive evaluations and classifications of suppliers on a quarterly and annual basis, and conducts elimination and promotion on an annual basis. According to the comprehensive evaluation results, suppliers are divided into three levels: strategic, key, and general, and tiered management is implemented:

Strategic Suppliers

Priority payment and increase in procurement volume

Key supplier

Regular payment and procurement according to the plan

General supplier

Control procurement volume, strictly approve payments

Rectification/Deletion

For suppliers with average or poor comprehensive evaluations, assist them in improvement or put forward rectification suggestions and set a time limit for rectification. They can continue to supply goods after passing the acceptance. If they cannot improve within the time limit, cooperation will be gradually reduced until the supplier qualification is eliminated.

The company conducts material evaluations at different frequencies according to the importance of the purchased materials. The specific classification is shown in the following figure:

Evaluation at the end of the month

Raw material varieties such as coal, coke, iron ore, pig iron, and scrap steel

Semi-annual evaluation

Important/Critical Purchased Goods, tiered evaluation of other varieties of materials

Annual evaluation

Other varieties

Valin Xiangtan Steel

Valin Xiangtan Steel has put forward mandatory requirements for enterprise qualifications in accordance with the latest national laws and regulations, such as work safety license, national industrial product production license, special equipment production unit license, hazardous chemicals business license, precursor chemicals business license, road transport business license, and the list of road motor vehicle production enterprises. It has sorted out the qualification status of registered enterprises, modified relevant documents on supplier management as required by regulations, and adjusted the basic conditions for supplier access.

Valin Lianyuan Steel

Valin Lianyuan Steel has increased the intensity of market visits, gone deep into mines and suppliers' production sites, collected inventory data of various ports and first-hand market information, and further broadened procurement channels. Through process optimization, it has revised systems such as the *Bulk Raw Material Pricing Management Procedures*, implemented dynamic management of suppliers, evaluated suppliers quarterly, and increased the development of high-quality new resources. In 2024, 129 new suppliers and varieties of bulk raw materials were added, 80 suppliers and varieties were eliminated, and the supply share of direct supply from mines and manufacturers was increased.

Valin Hengyang Steel Tube

In addition to meeting the basic access requirements for non-key service providers, key service providers are required to undergo on-site reviews or verification of compliance with laws and regulations, patents, safety, and environmental protection factors. The hierarchical management of key service providers is further strengthened in the processes of access, formalization, change, performance evaluation, re-evaluation, elimination, and resumption of execution. After strengthening management responsibilities, optimizing processes, and integrating systems, the system document *Hengsteel Supplier Management System (HGSC-GL-0002)* has added classification control of service providers, supply chain management, and re-evaluation requirements, comprehensively realizing the full life cycle management of suppliers.

VAMA

VAMA has focused on increasing the development of new suppliers for key and bottleneck materials that affect supply chain safety, cost, and quality, promoted the generalization of spare parts and materials, broken the exclusive monopoly of suppliers, and reduced the restrictions of single-source suppliers and agents on procurement channels. It has implemented dynamic management of suppliers, comprehensively evaluated suppliers from multiple dimensions such as comprehensive ability, price, supply quality, and service, clearly defined the procurement priority levels corresponding to the four grades of ABCD, resolutely eliminated tier D suppliers, implemented the last-place elimination system, and the annual elimination rate of active suppliers reached 10%, doubling that of the previous year.

Implementation of Transparent Procurement

During the reporting period, the company actively promoted a transparent procurement model, committed to building a fair, open, and integrity-driven supply chain system. Each subsidiary signed the *Sunshine Cooperation Agreements, Integrity and Anti-Corruption Pledges and Ethical Transaction Responsibility Contracts* with suppliers, transmitting the concepts of abiding by national laws, operating with integrity, professional ethics, clean and sunny business practices and fulfilling social responsibilities to suppliers; increased the intensity of public bidding, and used digital platforms such as Hegang Network and Global Ferroalloy Network to release public inquiry information to ensure that suppliers could obtain accurate information in a timely manner and participate in fair competition; strictly regulated the procurement process, strengthened the certification, selection and assessment of suppliers, evaluated suppliers from aspects such as information security, occupational health and safety, and environmental management systems, and effectively prevented potential risks in the supply chain. During the reporting period, in order to promote and standardize the digital procurement of bulk raw fuels, the company formulated the *Coal Digital Procurement Management Guidelines (Trial)*, and conducted online price-comparison procurement of coal resources through the digital procurement platform to achieve an open, transparent, efficient and traceable digital procurement process for coal.

Strengthen the supervision of important links and sensitive positions such as the procurement and bidding process and raw fuels incoming inspection. For example, strengthen the quality control of scrap steel, through measures such as increasing the sampling ratio, changing the sampling method, increasing the punishment intensity, controlling the source quality, and implementing monthly evaluations, effectively combat acts of fraud.

Valve procurement was taken as a pilot item for standardized and refined procurement. The procurement bidding was evaluated from multiple dimensions such as weight, material, model selection, and brand, and refined the sub-item standards. Under the condition that the weight, material, and configuration of the suppliers' bids were basically similar, the price difference was reduced, and the probability of the top domestic manufacturers winning the bid increased greatly, basically achieving cost-effective procurement.

Organize suppliers to sign the *Integrity and Anti-Corruption Agreements* and employees to sign the *Clean Conduct Self-Discipline Commitments*. Heavily punish suppliers for acts of bribing or offering other benefits to win over and corrupt procurement personnel, strive to achieve "zero violations and zero irregularities", and build an impeccable integrity, accountability-driven culture and resilient professional ethics procurement team.

Case Actively Promote Digital Procurement

The company actively responded to the national call for digital transformation and was committed to promoting the digital upgrading of internal and external business. It promoted the construction of an electronic signature service platform to help build a closer and more efficient supply chain ecosystem. At present, the integration of the electronic signature service platform with the existing ERP integrated system has been achieved, realizing seamless docking of business processes.

During the reporting period, the company adhered to the three platform goals of "transparency, fairness, and efficiency". The annual total transaction volume of the digital procurement platform reached 15.71 million tons, with a total transaction value of 14.8 billion RMB. Among them, the transaction volume of imported iron ore was 15.15 million tons, amounting to 13.9 billion RMB; the transaction volume of coking coal was 110,000 tons, amounting to 240 million RMB; and the transaction volume of pulverized coal injection was 450,000 tons, amounting to 660 million RMB.

Digital Platform Procurement Expansion

On January 31, 2024, the company initiated a procurement project on the digital platform, with 5 suppliers participating in the quotation. It finally purchased 10,000 wet metric tons of RTX lump ore, with a transaction price of RMB 1,116/wet ton (tax-inclusive, CIF Jiangyin Port). This block of ore was purchased for the first time.

Case Bulk Raw Fuel Procurement - Implementing Four Principles and Focusing on Five Critical Elements

During the reporting period, the steel industry faced increasing downward pressure. However, the prices of key raw materials such as iron ore and coal remained elevated, imposing significant cost pressures on steel producers. The company's procurement team stabilized supply channels, expanded resource options, and secured logistics support. By implementing four key measures and focusing on five critical elements, the team ensured high-quality supply while reducing costs.

Four Measures

Break conventional minds	During exceptional circumstances, it is imperative to break conventional thinking. This includes re-evaluating inventory control, shared stockpiling, resource channels, customer structures, and accounts payable limits, adopting unconventional strategies as needed.
Systematic Cost Reduction	Conduct in-depth benchmarking, worked on internal comparison (horizontally and vertically). Externally against leading global steel enterprises to identify gaps and implement comprehensive cost-cutting measures.
Collaborative Operations	Strengthen internal and external coordination to enhance the company's industry influence and bargaining power. Subsidiaries must align resource allocation, avoid internal competition for existing supply channels, and prevent resource leakage. Additionally, collaborate with industry associations and peer enterprises to secure favorable terms in negotiations with long-term partners and market players.
Rapid Execution	Ensure prompt implementation of all production- and procurement-related resolutions approved at corporate meetings across all levels.

Five Critical Elements

Price Reduction	Intensify supplier negotiations to lower procurement costs for coal and iron ore.
Structural Cost Optimization	Relax certain material usage standards (without breaching key performance thresholds) to increase the blending of non-mainstream ores, high-sulfur coking coal, and high-sulfur lean coal. Simultaneously, expand procurement channels for cost-effective alternatives.
Inventory Reduction	Maintain coal, coke, and ore inventories at minimum threshold levels. Enhance inter-subsidiary coordination to institutionalize inventory-sharing mechanisms, paving the way for further stockpile reductions.
Logistics Optimization	Reduce logistics costs by optimizing port layouts and increasing the share of waterway transportation.
Capital Cost Reduction	Lower operational capital occupancy and improve cash flow by reducing inventory, increasing accounts payable, and extending payment terms.

Implement Green Procurement

"Lucid waters and lush mountains are invaluable assets." The company actively promotes green procurement to minimize the environmental impact of production activities, reduce resource consumption, and collaborate with suppliers to foster eco-conscious practices and propagate ecological civilization.

For the procurement of environmental protection equipment, safety equipment, labor protection supplies and related materials, select products produced by enterprises with production qualifications in accordance with the requirements of the company's environmental and occupational health and safety management system. It is prohibited to purchase relevant materials that clearly violate environmental protection requirements or safety requirements as stipulated by the state. For special labor protection supplies, the supplier with a labor protection supplies business license is required to provide the production license, product certificate, safety appraisal certificate or inspection report of the products.

For the supply of scrap steel, select suppliers with the qualification to operate waste materials in accordance with the company's environmental and occupational health and safety management requirements. Ensure that the scrap steel purchase and sales contract has provisions to control explosive materials, radioactive materials and other dangerous goods and implement them. Imported scrap steel or other imported waste materials that can be used as raw materials must meet the requirements of the National Environmental Protection Administration and the General Administration of Quality Supervision, Inspection and Quarantine.

For chemicals, oils, and dust-prone materials, suppliers handling transportation must implement anti-leakage, anti-spillage, and anti-breakage measures (fire/explosion-proof measures for flammable/explosive materials). For hazardous materials (flammables, explosives, toxic chemicals, radioactive substances, etc.) procurement require manufacturers to provide Safety Data Sheets (SDS).Toxic and hazardous chemicals must be transported by certified vehicles, operated by licensed drivers, and supervised by professional escorts.

Case VAMA | Promotes Green Supply Chain Practices

To become the premier integrated solutions provider for automotive steel, VAMA is firmly committed to the vision of "leading the trend of lightweighting, empowering automakers to produce vehicles that are lighter, safer, more eco-friendly, and cost-effective." In line with this mission, VAMA prioritizes green and low-carbon products. During the reporting period, VAMA organized second-party audits for 8 suppliers, introduced equipment and materials with the least environmental harm, lowest energy consumption and optimal cost to achieve the ecological and low-carbon development of the enterprise; promoted the establishment of long-term green cooperation relationships with suppliers, and jointly carried out on-site construction and implementation of the green project photovoltaic construction EPC project with suppliers, becoming an example of jointly exploring a more environmentally friendly and efficient production and supply model for automotive steel; utilized the relatively mature technology and strict standards of the shareholders in the green production of automotive steel to promote the introduction of internationally advanced green automotive steel production technology and product standards, and learned from these standards to improve the level of green procurement; in the serial development of energy - saving and environmentally friendly products and efforts to improve material efficiency, VAMA continued to pioneer new areas of technological leadership, expand the enterprise's living space and build competitiveness in the new era of steel.

Industry Collaboration

Actively Promote Industry Cooperation

The company emphasizes inter-industry collaboration and coordinated development, actively participates in industry activities, stays abreast of industry trends, and engages in exchanges and discussions with peers regarding industry advancement and technological innovation.

Case Valin Xiangtan Steel | Jointly Establishment of National Engineering Research Center for Advanced Steel Materials with the Central Iron and Steel Research Institute

During the reporting period, Valin Xiangtan Steel signed a strategic cooperation agreement with the Central Iron & Steel Research Institute to jointly establish the National Engineering Research Center for Advanced Steel Materials. This collaboration will strengthen bilateral cooperation in technological research, scientific innovation, talent cultivation, and achievement commercialization. It will further leverage Valin Xiangtan Steel's industrial advantages in the steel sector and the Institute's technological innovation capabilities, facilitating continuous breakthroughs in key generic steel technologies.

Case Valin Lianyuan Steel | Joint Laboratory for Innovative Applications of Advanced Automotive Steel with CAERI

During the reporting period, Valin Lianyuan Steel joined hands with China Automotive Engineering Research Institute Co., Ltd. to jointly establish an Advanced Automotive Steel Innovation and Application Joint Laboratory. In recent years, the scope of cooperation between the two parties has been continuously expanding, and extensive and in-depth cooperation has been carried out in the fields of automotive steel material and process performance testing, EVI application technology research, CAE digital technology, and standard formulation. The establishment of the joint laboratory will help the two parties share resources, information, and achievements, and will promote the technological progress and innovation development of Valin Lianyuan Steel and China Automotive Engineering Research Institute Co., Ltd. to a new level.

Case Valin Hengyang Steel | Seminar on Special Steel Pipes in Oil & Gas Applications

During the reporting period, Valin Hengyang Steel co-organized the "Beijing International Pipeline Technology Exchange Conference & Seminar on Special Steel Pipes in Oil & Gas Applications," hosted by the China International Petroleum & Natural Gas Pipeline and Storage & Transportation Technology Equipment Exhibition. The seminar showcased cutting-edge technological equipment across the entire pipeline industry chain, including oil & gas exploration and transportation, accelerating the rapid development of the pipeline sector.

Active Participation in Standardization Development

Leveraging its distinctive strengths in advanced manufacturing processes, technological expertise, and standardized systems, the company took a leading role in developing and revising 16 national and industry association standards during the reporting period, contributing to the enhancement of industry regulations and standards.

No.	Standard Name	Standard Code	Standard Type
1	Cold-formed rectangular tubes for tower cranes	GB/T 26080-2024	National standard
2	Determination of silicon content in iron and steel -Gravimetric method	GB/T 223.60-2024	National standard
3	Seamless steel tubes for large-volume gas cylinder	GB/T 28884-2024	National standard
4	Precision seamless steel tubes for hydraulic cylinders of construction machinery	GB/T 43898-2024	National standard
5	Petroleum and natural gas industries—Test procedures for casing and tubing thread connections	GB/T 21267-2024	National standard
6	Full-scale tensile stress corrosion test method for casing and tubing	GB/T 43925-2024	National standard
7	Ultrasonic testing method for pipe ends of seamless steel tubes	GB/T 44152-2024	National standard
8	Steel tubes—Dimensions, shapes, masses and tolerances	GB/T 17395-2024	National standard
9	Hot-rolled rare-earth steel bars for reinforced concrete	GB/T43665-2024	National standard
10	Technical specification for green design product assessment—Steel plates and strips for energy applications	T/CISA 341-2024	Association Standard
11	Technical specification for green design product assessment—High-strength steel plates and strips for construction machinery	T/CISA 344-2024	Association Standard
12	Extra-thick ultra-high-strength steel plates for marine engineering	T/SSEA 0381-2024	Association Standard
13	Acid-resistant wide and heavy steel plates for oil and gas transmission pipelines	T/SSEA 0379-2024	Association Standard
14	Chromium-molybdenum alloy steel plates for hydrogenation equipment T/SSEA?0380-2024 Association Standard	T/SSEA 0380-2024	Association Standard
15	Steel industry—Technical requirements for full-process individual tracking system in hot-rolled seamless steel tube production	T/CISA 418-2024	Association Standard
16	Stainless steel and nickel alloy hollow ingots	T/CISA 439-2024	Association Standard

Intelligent Manufacturing

The company continues to accelerate the in-depth integration of product R&D, manufacturing, and service model innovation with intelligence. It steadily promotes the construction of a number of digital and lean "smart" production lines, workshops, and factories, continuously empowering the improvement of the company's operation quality and efficiency. During the reporting period, the company implemented more than 40 digital and intelligent projects and put into use 228 sets of various robots. In cooperation with a well-known communication equipment manufacturer, it took the lead in deploying and completing the Pangu large model training center in the industry. Currently, more than 100 application scenarios have been explored, and 32 of them have achieved results. The "Full - process Cloud + AI Intelligent Factory for Medium and Heavy Plate Manufacturing" project of Valin Xiangtan Steel was selected as an international-level excellent intelligent factory and won the award for an outstanding innovation case in artificial intelligence at the "Global Summit on the Good Use of Artificial Intelligence" in 2024. The intelligent energy management and control platform of Valin Lianyuan Steel won the title of "Digital New Infrastructure in Hunan Province in 2024", and the full - process quality control center won the title of "Benchmark Project for Digital Transformation in Hunan Province under the 'Empowering Ten Thousand Enterprises with Intelligence' Initiative". Valin Hengyang Steel Tube was rated as a benchmark factory for "5G + Industrial Internet" in Hunan Province in 2024.

Valin Xiangtan Steel | Pioneering the Steel Industry's First AI Model

In January 2024, Valin Xiangtan Steel completed the localized deployment of its proprietary AI steel model—the first large-scale AI model in the global steel industry. Designed to reduce costs, improve quality, and enhance efficiency, the project addresses critical pain points in production through AI-driven solutions.

The Pangu large-scale model of Valin Xiangtan Steel consists of a large-scale model base and a large-scale model platform. The base part includes a resource scheduling platform, a data integration platform, and a AI basic platform. The large - scale model platform part includes a visual large - scale model and a predictive large-scale model. The artificial intelligence large-scale model platform provides unified AI operation and management and can also serve as a resource platform for the company's production, operation, and management needs, with a total computing power of 5.8P. After the completion of the Pangu large-scale model for steel at Valin Xiangtan Steel, scenario - based models can be developed based on the workflow development kit of the large-scale model platform to support the intelligent construction of Valin Xiangtan Steel. The artificial intelligence large-scale model training center of Valin Xiangtan Steel can be promoted on a large scale across the company.

Advancing Automation & Intelligent Transformation

The company mainly implemented the digital coal yard of the coking plant, the second phase of the basic automation upgrade of phenol-cyanide water treatment, and the automation upgrade of the cooling process in the north and south areas of the recycling system. Through the automation upgrade, the on-site operation efficiency was improved.

Promotes Unmanned Transformation Initiative

The unmanned project of the No. 10 casting machine platform of the wide and thick plate plant was implemented and extended to the No. 8 casting machine of the five-meter plate plant to realize the unmanned operation of the continuous casting platform. The belt on the No. 4 blast furnace slot of the ironmaking plant and the oil depot of the high-line plant were implemented.

Industrial Robot Deployment

The total number of new robots was 33 sets, mainly focusing on temperature measurement and sampling, hanging signs, long water nozzles, inspections and other scenes. The robot occupancy rate per thousand people reached 12‰ , reaching the expected 8‰ target.

AI Model Platform Development

The company successfully deployed the Pangu large model training center of steel; compiled the *Xiang Steel Intelligent Manufacturing Technical Specifications and Smart Manufacturing Governance Regulations*, to promote the standardization of intelligent manufacturing implementation.

Valin Lianyuan Steel | Intelligence Boosts the Construction of the Product Quality System and the Improvement of Operational Efficiency

Valin Lianyuan Steel continuously accelerates the transformation pace of steel intelligent manufacturing. Taking digitalization, informatization, and intelligence as the implementation paths, through data - driven and model-supported methods, it realizes autonomous decision-making and continuous optimization, and makes every effort to build a smart steel plant with a modern industrial control system featuring "high efficiency, streamlining, integration, and fewer workers". It has established an intelligent equipment operation and maintenance center, an intelligent collaborative management and control center, and a cloud data center.

During the reporting period, Valin Lianyuan Steel's Smart Energy Management and Control Platform won the title of "Hunan Province's Digital New Infrastructure in 2024", and the Full-process Quality Control Center received the title of "Benchmark Project for Digital Transformation of Enterprises Empowered by Intelligence in Hunan Province". The Equipment Intelligent Operation and Maintenance System Construction Project won the titles of Informatization Benchmark Project and Excellent Project among provincial state-owned supervised enterprises in 2024, achieving intelligent manufacturing results. Meanwhile, the Quality Intelligent Management and Control Platform built based on the integration of mechanism and big data won the second prize in the Hunan sub - competition area of the "Data Wants Numbers X" competition, and the Cold - rolling Lean Digital Production System won the honor of the 2024 Intelligent Manufacturing Solution in the Iron and Steel Industry by the China Iron and Steel Association (Excellence Award in the Raw Materials (Iron and Steel) Industry Track of the 4th Intelligent Manufacturing Innovation Competition).

Build the First Integrated Full-process Quality Intelligent Control Center in the Iron and Steel Industry

Relying on the existing quality control system QMS , build the first integrated full-process quality intelligent control center in the iron and steel industry, realize the consistent quality management horizontally and vertically, and build Valin Lianyuan, Steel's Quality Industrial Brain.

Launch the Integrated Safety and Environmental Protection Management System

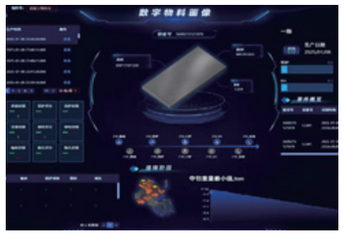
Adopt advanced technologies such as the Internet, 3d modeling, and vision AI to build a leading safety and environmental protection management system integrating "organized emissions + unorganized emissions + clean transportation + daily management" among peers.

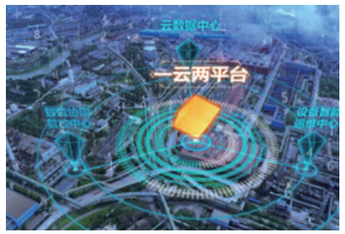
Strengthen Lean Production Management after Steelmaking

Build a lean production management platform, a digital twin platform, and a steel-rolling integrated management and scheduling system after steelmaking, implement planned values and daily cost accounting, etc., to help the company reduce costs, increase efficiency, and improve quality

Promoting Intelligent and Labor-Efficient Ironmaking Zones

By implementing digital solutions such as smart stockyards, intelligent sintering systems, AI-powered blast furnaces, and automated belt conveyor monitoring systems, the ironmaking zone is advancing towards greater intelligence and reduced manpower dependency. Currently, the robot deployment density has reached 94 units per 10,000 workers.





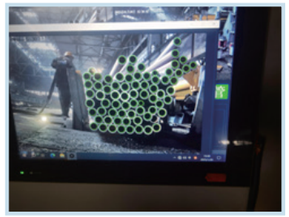
Valin Hengyang Steel Tube | Build a "5G + Industrial Internet" Benchmark Factory

Valin Hengyang Steel has steadily promoted the transformation and upgrading of traditional industries and promoted the intelligence of the production process. As early as 2018, Valin Hengyang Steel's "180 PQF Seamless Steel Tubes Intelligent Factory Transformation was certified as a pilot demonstration project by the Ministry of Industry and Information Technology", becoming the only national-level pilot demonstration project in the steel tube industry and taking the lead in building an intelligent manufacturing benchmark in the steel tube industry.

During the reporting period, the industrial Internet platform of the Steelmaking Plant of Valin Hengyang Steel Tube was officially launched and put into operation. Based on the industrial Internet architecture and production data, the platform is designed for electric furnace, refining, and continuous casting process units. It constructs an intelligent manufacturing system featuring data integration, process collaboration, knowledge-driven operation, and continuous iteration, replacing the traditional production mode that requires frequent manual intervention. It also builds an integrated industrial Internet application platform for steelmaking. Meanwhile, several digital and intelligent projects were put into use, such as the online intelligent inspection system for the hot-surface quality of steel pipes in Plant 89, real-time pipe quantity calculation, the intelligent detection system for mandrel operation status at Plant 180, the online temperature measurement system for casting machines, and the centralized control system in the Ironmaking Plant. These advancements earned the company the title of 2024 Hunan Province "5G + Industrial Internet" Benchmark Factory.

Hot-State Steel Pipe Surface Inspection

Utilizes high-speed cameras to detect surface quality defects on hot steel pipes in real time.

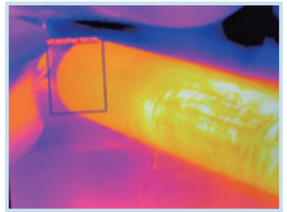


Intelligent Pipe Counting

Employs image recognition to automatically tally loaded steel pipes, significantly improving operational efficiency.

Mandrel Intelligent Detection System

Automatically identifies abnormalities through visual recognition and initiates emergency shutdowns to prevent mandrel ejection and rolling mill jams.



VAMA | Advancing Digital-Intelligent Transformation Initiatives

VAMA is actively driving smart manufacturing upgrades, continuously enhancing the integration of industrial and information technologies. Through the implementation of a comprehensive digital-intelligent transformation plan, the company will optimize its existing IT infrastructure, streamline information system workflows, develop smart manufacturing solutions, and Establish a 3-5 year digital-intelligent development strategy. These measures will provide robust support for VAMA's future growth.

VAMA Digital-Intelligence Strategy — **The "2+3" Implementation Strategy**

2

Advance the Big Data Analytics Platform for Supply Chain Manufacturing

Advance the Big Data Analytics Platform for Decision Making

3

Smart Safety Infrastructure Development (Vision AI)

Smart Quality Control Development (Database AI)

Intelligent Equipment System Deployment (Vision + Sensor AI)

Compute Power & AI Driving High-Quality Growth

· Data middle platform
· Technology middle platform
· Business middle platform (Mathematical Principles, Compliance, Legal Principles, Process Management)

Build VAMA's "Industrial Brain" with unified digital middle platforms to enable advanced manufacturing.

Promote the Development of a Digital Twin Material Management Platform

Build a post-rolling warehouse digital twin system. This system utilizes 3D dynamic visualization to simulate real-time operations of all transportation equipment (such as cranes, ground conveyors, and transfer cars) within the post-rolling warehouse area, as well as real-time tracking of each steel coil's inbound, relocation, and outbound movements. Users can view transportation commands for each vehicle, production schedules of various lines, and detailed data of individual steel coils on the 3D interface. This not only reduces material loss during coil transfers but also lowers the labor intensity of warehouse personnel and mitigates safety risks.

Promote the Development of a Standardized Unified Service Platform

Integrate with customer and supplier management systems. To actively support customer supply assurance and quality control, a Standardized Unified Service Platform (abbreviated as EDI Platform) has been established. By enabling seamless data connectivity with original equipment manufacturers (OEMs) and downstream processing partners, the platform facilitates shared data and information interoperability. This enhances supply chain operational efficiency while strengthening collaboration and synergy across the supply chain. Currently, the EDI Platform supports international standards (e.g., EDIFACT) and regional protocols (e.g., X12 in North America) and has been successfully integrated with multiple clients.

03 Green First Sustainable Development

Green is the foundation of sustainable development. Valin Steel has always regarded the protection of a green homeland with clean skies and waters for the people as its unshirkable responsibility. The company has proposed and established guiding principles and objectives for high-quality green development, building a "City-Enterprise Integration" development model. Adhering to the principle of "Ecological First, Green Development," Valin Steel advocates energy conservation, consumption reduction, and low-carbon emissions. Key initiatives including conducting ultra-low emissions retrofits and efficiency improvements for critical processes such as blast furnaces, steelmaking, sintering machines, and coking; enhancing energy self-recycling rates and reducing fossil fuel consumption; advancing the development of "Garden-Style Factories and Open Factories" to integrate industrial operations with ecological harmony.

Green Environment Protection

Environmental Compliance Management

The company proactively fulfills its environmental responsibilities, strictly complying with laws and regulations including *Environmental Protection Law of the People's Republic of China, Emergency Management Measures for Sudden Environmental Incidents*, etc. We have established a comprehensive environmental compliance management framework in accordance with ISO 14001 Environmental Management System requirements, ensuring full-process coverage of environmental factor identification, impact assessment, preventive control, emergency response, and continuous improvement. The Company Proactively Undertakes Environmental Responsibilities. The company strictly complies with laws and regulations such as the *Environmental Protection Law of the People's Republic of China* and the *Emergency Management Measures for Sudden Environmental Incidents*. In alignment with the ISO14001 Environmental Management System requirements, it has established a comprehensive environmental compliance management framework. This framework ensures full-cycle coverage of environmental factors across all operational activities, including identification, assessment, preventive control, emergency response, and continuous improvement. To further standardize green development practices, the company has formulated institutional policies such as the *Environmental Protection Management Measures and the Contingency Plan for Sudden Environmental Incidents*. These policies regulate construction project environmental protection, waste gas/water management, solid waste disposal, operation of environmental protection facilities, environmental monitoring, emergency management, and performance evaluation. All subsidiaries - including Valin Xiangtan Steel, Valin Lianyuan Steel, Valin Hengyang Steel Tube, VAMA, and Yangchun New Steel - maintain ISO 14001 certification, demonstrating group-wide commitment to standardized green development practices.

During the reporting period, all construction projects of the company have prepared environmental impact reports (forms) and received the approval of the local ecological environment authorities, obtaining approvals. All pollutant discharge permits of pollutant-discharging units are within the validity period, effectively ensuring pollutant discharge with permits and in a legal and compliant manner.

Valin Steel Green Development Principles and Goals

Adhere to the principles of holistic management, pollution prevention, and continuous improvement → Actively advancing cleaner production, green manufacturing, and circular economy to achieve ultra-low emissions and carbon reduction → Achieve full compliance with pollutant emission standards and zero environmental incidents, fostering city-enterprise integration and green, low-carbon development

Environmental Performance Management

In order to further clarify the environmental protection responsibilities of personnel at all levels, the company has established an environmental protection management assessment system to ensure that the deployment, responsibility, and implementation of environmental protection work are all in place. In addition, the company also includes the annual safety and environmental protection work goals in the performance assessment indicators of responsible persons, directly linking them to the performance of the management of each subsidiary.

Valin Steel Environmental Protection Responsibility Management Principles

Environmental Performance Linked to Subsidiary Executive Compensation

The compensation structure for subsidiary management includes base salary, performance-based annual salary, excess profit commission award, three-year term incentive, and special rewards and penalties. Among them, the *Valin Steel Environmental Protection Management Measures* is an important part of the special rewards/penalties. To implement the environmental protection target responsibility of "full and stable compliance of pollutant emissions and no sudden environmental incidents", the company implements an environmental protection responsibility system. Each year, the environmental protection responsibility system goals are included in the annual business plan and economic responsibility system for assessment. The main contents include compliance with national laws and regulations, implementation of central and local environmental protection policies, implementation of the company's various environmental protection rules and regulations, and the environmental protection goals of responsible units. Subsidiaries failing to meet these goals face penalties such as performance deductions and organizational disciplinary actions for their management teams.

In recent years, Valin Steel has pioneered energy-saving, low-carbon development, transformed into an eco-friendly & resource-efficient steelmaker, achieved synergy between green development and high-quality growth. Subsidiaries Valin Xiangtan Steel, Valin Lianyuan Steel, and Valin Hengyang Steel Tube were among China's first batch of steel enterprises certified under the Iron and Steel Industry Standardization Requirements. Valin Xiangtan Steel., Yangchun New Steel, and VAMA have been included in the national-level "Green Factory" list, while Valin Lianyuan Steel and Valin Hengyang Steel Tube have been included in the Hunan provincial-level "Green Factory" list. Yangchun New Steel has won the title of "National Environment - Friendly Enterprise" and has been continuously rated as a green - labeled "Environmentally - Compliant Enterprise" by the Guangdong Provincial Department of Ecology and Environment. Valin Xiangtan Steel has successfully established a "National 3A - level Tourist Scenic Area", sharing a beautiful ecological environment with the city.

During the reporting period, in response to the national ultra-low emissions initiative and the call to "win the battle against pollution", the Company continued to increase environmental investments, comprehensively advanced ultra-low emission upgrades and efficiency improvement initiatives, and reduced pollutant emissions. Yangchun New Steel has completed full-process ultra-low emission retrofits and published its evaluation and monitoring results. Concurrently, the Company accelerated its green and low-carbon transition by formulating a "Carbon Peak and Carbon Neutrality Action Plan", which outlines clear targets, pathways, key initiatives, and support measures for achieving carbon peak and neutrality. Valin Xiangtan Steel released Environmental Product Declaration (EPD) reports for three product categories: thick steel plates, wire rods, and hot-formed bars. Valin Lianyuan Steel published EPD reports for cold-rolled steel sheets & strips, continuous hot-dip galvanized steel sheets & strips, and hot-rolled steel sheets & strips. The Company actively addressed downstream industries' (e.g., automotive, construction machinery) lightweighting and emission reduction needs, delivering a broader portfolio of high-end products and lightweight solutions to support customers' energy-saving and emission-reduction goals. Furthermore, the Company strengthened low-carbon collaboration with industry leaders such as ArcelorMittal, Vale, FMG, and Messer, while continuously exploring innovative decarbonization approaches and next-generation metallurgical technologies.

Key Performance

In 2024, the company invested **3.9** billion RMB in environmental protection.

Zero sudden environmental incidents and incurring no environmental penalties.

Yangchun New Steel

Completed the full process ultra-low emission renovation and the publicity of assessment and monitoring results.

VAMA

Successfully established Grade A environmental performance.

Valin Xiangtan Steel & Valin Lianyuan Steel

Selected for the cultivation list of the "Dual-Carbon Best Practice Energy-Efficiency Benchmark Demonstration Plant".

Intelligent Environmental Protection Management

The company is advancing the development of an intelligent environmental management platform, which establishes an integrated system for environmental operations, data management, and daily office workflows. This platform connects all environment-related business processes. Empowers environmental management through digitalization, informatization, and intelligent technologies, which enable scientific decision-making, precision environmental management, and targeted emission control, drives innovation by digitizing operations and transforming environmental governance. As a key initiative in the company's green transformation, this platform enhances efficiency and sustainability across all environmental management activities.

Currently, the integrated platform for ultra - low emission management, control, and treatment of Valin Lianyuan Steel has been put into use. Valin Xiangtan Steel and Valin Hengyang Steel Tube are accelerating the construction of a real-time environmental protection control platform, which will enable real - time control of important environmental protection management information such as organized and unorganized emission sources, emission information of vehicles entering and leaving the factory, and operation of environmental protection facilities, greatly improving the level of environmental management.

Case Valin Lianyuan Steel | Regulations the integrated platform for ultra-low emission management, control, and treatment of Valin Lianyuan Steel is put into use

Valin Lianyuan Steel uses advanced technologies such as the Internet of Things, 3D digital modeling, and vision AI to create a leading safety and environmental protection management system integrating "organized emissions + unorganized emissions + clean transportation + daily management" among its peers.

In October 2024, Valin Lianyuan Steel officially launched and operationalized the Environment, Health & Safety Management System. With a total investment of 30 million RMB, the system enables integrated ultra-low emission management covering monitoring, control, and mitigation, significantly enhancing the company's digital environmental governance capabilities.

Promotion of environmental protection awareness

The company formulates an annual learning and training plan around the theme of "Green Valin". Internally, it organizes training on basic environmental protection knowledge, including newly issued policies during the reporting period such as the *Measures for the Administration of Pollution Discharge Permits*, the *Interim Regulations on the Administration of Carbon Emission Trading*, and the *Guidelines for Carbon Emission Accounting in the Iron and Steel Industry*, as well as professional training on knowledge related to solid waste disposal, carbon emission management, and pollution discharge permits, to cultivate and improve the environmental risk prevention and environmental protection awareness of each employee. At the same time, it accepts environmental protection supervision and suggestions from all sectors of society.

Case Valin Xiangtan Steel | Conducts environmental protection publicity activities

During the reporting period, Valin Xiangtan Steel aligned with its dual-carbon goal, ultra-low emissions targets, and green manufacturing objectives to organize the "2024 World Environment Day (June 5)" campaign series. Key activities included environmental protection banners, slogans, and promotional balloons were displayed at the main entrance and green plazas of Valin Xiangtan Steel around June 5th. Special Feature in Xiang Steel News (June 1): a dedicated section highlighted Valin Xiangtan Steel's achievements in environmental management and pollution control. Valin Xiangtan Steel's TV station and digital platforms broadcasted documentaries and reports showcasing its pollution mitigation efforts.

Case VAMA | Open to external supervision

During the reporting period, to synchronize the ecological environment with the community and share the environmental achievements with the residents of the surrounding communities, VAMA held an environmental protection publicity event titled "Beautiful VAMA, I'm an Activist". A total of 10 resident representatives from the surrounding Gaoqiao and Chengqing communities were invited to participate in this event. They visited the company's production workshop and wastewater discharge outlets throughout the process, learned about the company's production process, the treatment process of pollutants, and the treatment effects. Through this event, the surrounding residents understood the significance of waste classification, the treatment methods of waste gas and wastewater, and the process disposal procedures. It played a positive role in helping them understand and support the company's environmental protection work and then spreading the message to other surrounding residents.

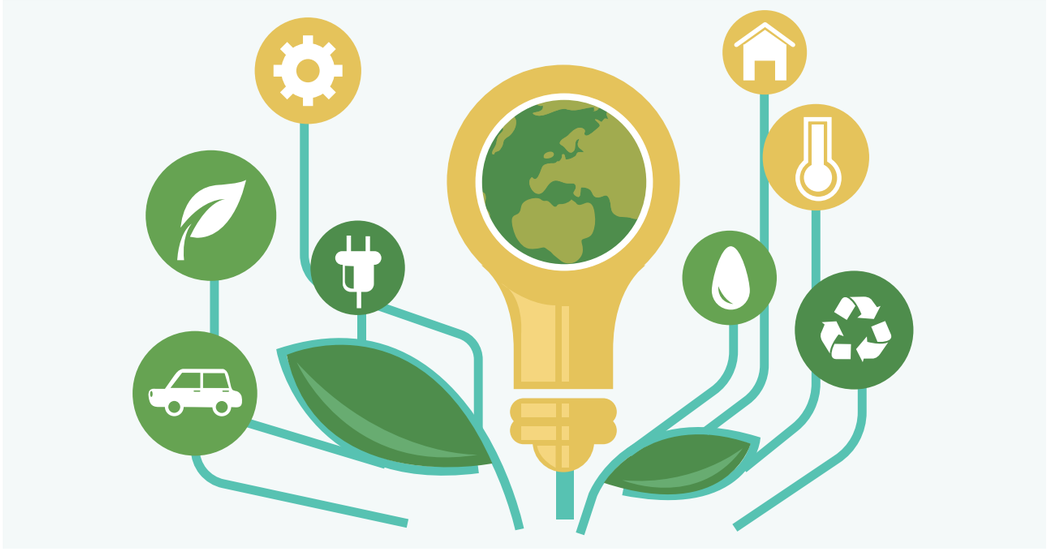
Low-carbon Emission Reduction

Addressing Climate Change

Facing the current high level of attention to the risks and opportunities of climate change in the international context, the company actively responds to the national call to achieve "Carbon Peak by 2030 and Carbon Neutrality by 2060" and proactively addresses climate change. The company has actively identified and analyzed the risks and opportunities related to climate change that affect the company, and formulated climate risk management methods and response measures to enhance the company's adaptability to climate change. It provides guidance for future technological applications, product innovation, and operational model optimization in the green and low-carbon field. It also outlines the company's work on "governance", "strategy", "risk management", and "indicators and targets" related to climate change with reference to the recommended disclosure framework of the Task Force on Climate-related Financial Disclosures (TCFD).

Climate Identification

Climate change is a global issue related to the community with a shared future for mankind and a major challenge for human sustainable development in the 21st century. Actively addressing climate change and firmly pursuing green and low-carbon development are the keys to the transformation, upgrading, and high-quality development of the steel industry. The company identifies and analyzes the possible impacts of climate change-related risks and opportunities on the company's business development through policy research, peer benchmarking, and in combination with expert opinions, and formulates targeted response measures.



Risk/Opportunity Type		Potential Impact	Potential Financial Impact	Coping Measures
Risk	Policies, Laws and Regulations	Under the constraints of the national goals of "carbon peak" and "carbon neutrality", the environmental protection department has increased the supervision of pollution control in the steel industry. Steel enterprises have seen an increase in environmental protection investment and operating costs and are facing greater environmental protection challenges. At the same time, the EU Carbon Border Adjustment Mechanism (CBAM) has come into effect, and the steel industry will soon be included in the national carbon market. The company will face pressures such as rising carbon prices and increased carbon compliance costs in the future.	Operating Revenue ↓ Operating Costs ↑ Credit Risk ↑	A carbon neutrality roadmap has been formulated, and investments are being made in accordance with four key tasks: ultimate energy efficiency, process optimization, technological innovation, and collaborative carbon reduction to ensure that the company reaches its carbon peak before 2030 and strives to achieve carbon neutrality before 2060.
	Technological Risk	Low-carbon technologies are restricted by multiple factors such as technological barriers, production costs, and key components. In the current context of carbon peaking and carbon neutrality, if the company fails to break through specific low-carbon technologies in a timely manner, it will bring certain negative risks to the company's operations and business.	Operating Revenue ↓ R&D Investment ↑	Research and track the application of new low-carbon metallurgical technologies, keep abreast of the latest technological progress and application status, and make relevant technological reserves.
	Market Risk	As the domestic steel demand enters a plateau period, driven by the green and low - carbon development trend of the entire industrial chain, the market demand for green and low - carbon steel products will increase significantly, and market competition will become more intense. If the greening process is too slow, it may lead to a reduction in the company's market share.	Operating Revenue ↓ Credit Risk ↑	Continuously pay attention to the carbon reduction needs of key industries downstream of the industrial chain such as the automotive and machinery industries, and continuously strengthen the market layout of green steel products.
	Reputation Risk	Stakeholders' identification of climate risks and the public's concern about the company's measures to address climate change may bring reputation risks to the company's operations.	Operating Revenue ↓ Operating Costs ↑ Credit Risk ↑	Actively respond to the requirements of stakeholders regarding climate change response; regularly disclose sustainability reports to address the concerns of all stakeholders.
	Acute Physical Risk	Extreme weather events such as extreme precipitation, freezing, and typhoons will affect the normal operation of infrastructure and equipment, product transportation, and supplier deliveries. As a result, the company may be involved in issues such as contract breaches, compensation, and legal liabilities due to business interruptions.	Operating Revenue ↓ Operating Costs ↑ Fixed Asset Value ↓	Develop an emergency management plan for extreme natural disasters; promote the assessment of supplier sustainable development to reduce risks in the supply chain.
	Chronic Physical Risk	Long-term natural pattern changes such as sea-level rise and persistent high-temperature drought may affect the company's normal production.		
Opportunity	Products and Services	The demand from customers for green and low-carbon steel products is gradually increasing. The company has carried out product carbon footprint certification, environmental product declaration certification, etc., which can improve customer recognition. The demand for products in fields such as high - performance thick plates, hot-rolled steel, and silicon steel required for wind, solar, hydro, and nuclear power, as well as UHV power transmission and distribution systems, is growing rapidly, which will bring new market opportunities to the company's operation and open up new growth space for the company.	Operating Revenue ↑ Credit Risk ↓	Closely combine the characteristics of market demand in the region where the company is located and the needs of strategic customers. Implement extended processing of low-carbon steel, increase the supply volume and quality of low-carbon products, and promote the development and application of low - carbon emission steel materials with high performance, high weather resistance, etc. throughout the life cycle.
	Resource Efficiency	Carry out work such as energy efficiency improvement and promote resource recycling to achieve energy conservation and carbon reduction and reduce operating costs.	Operating Costs ↓	Promote energy conservation and carbon reduction through extreme energy efficiency and continuous improvement of self - generated power from comprehensive resource utilization.
	Energy Source	Apply renewable energy, purchase green electricity, etc., to increase the proportion of renewable energy application and reduce the company's energy expenditure.	Operating Costs ↓	Research on self-building or jointly building distributed photovoltaic power generation and biomass energy projects. Increase the proportion of purchased green electricity in a timely manner according to the company's development situation to reduce carbon emission intensity.
	Resilience	Carrying out research on climate-change-related businesses and industry exchanges is conducive to improving the company's ability to cope with climate risks and seize climate opportunities, and enhancing the brand image of fulfilling social responsibilities.	Operating Revenue ↑ Credit Risk ↓	Research and track the application of new low-carbon metallurgical technologies, carry out collaboration in the green industrial chain, deepen exchanges and cooperation with upstream and downstream enterprises in the supply chain, and carry out collaborative carbon reduction.

Dual Carbon Strategy

Under the national "Dual Carbon" policy goals, the company actively responds to relevant policies and environmental protection requirements, practices the concept of low-carbon development, accelerates the pace of green and low-carbon transformation, and continuously enhances its "low-carbon competitiveness". The company systematically reviews the total carbon emissions of the enterprise, formulates the "Action Plan for Carbon Peak and Carbon Neutrality", clearly puts forward the time goals for achieving carbon peak and carbon neutrality, plans a series of key tasks and measures, and formulates a coordinated action plan for its major steel - producing subsidiaries. During the reporting period, Valin Xiangtan Steel and Valin Lianyuan Steel were included in the list of enterprises cultivating the "Dual Carbon Best Practice Energy Efficiency Benchmark Demonstration Plants" in the industry, and their green development image has taken on a new look.

目标指引

The company has formulated phased carbon reduction goals for carbon neutrality: achieving carbon peak before 2030, reducing carbon emissions by 39% compared with the peak value in 2040, reducing carbon emissions by 65% in 2050, and striving to achieve carbon neutrality before 2060.

Before 2030

Carbon Peak

2040

Carbon reduction by **39**%

2050

Carbon reduction by **65**%

Before 2060

Carbon reduction by **5**% strive to achieve carbon neutrality

Carbon Reduction Path

Path	Key tasks						
Extreme energy efficiency	Apply process energy-saving and carbon-reducing technologies	Improve energy processing and conversion efficiency	Adopt high-efficiency power-saving technologies	Adopt intelligent information-based management and control technologies	Optimize raw material resources to ensure low-carbon development from the source	Adjust the blast furnace burden structure and use a large proportion of pellet ore/ lump ore	Increase the proportion of scrap steel
Process optimization	Reform and upgrade existing equipment		Low-carbon transportation inside and outside the plant	Promote the application of green electricity short-process technologies		Extend the industrial chain	
Technological innovation	Apply new low-carbon metallurgical technologies		Develop and produce green products throughout the life cycle	Apply CCS/CCUS technologies			
Collaborative carbon reduction	Self-build or jointly build distributed photovoltaic power generation and biomass energy projects		Resource recycling, pollution reduction and carbon reduction	Increase the purchase of green electricity	Carry out carbon management and carbon sequestration		

Case VAMA | Formulates a Dual Carbon Strategy

VAMA responds to climate change, adhering to the corporate spirit of "One Team, One Dream". Through scientific, reasonable, and sustainable development goals, it accelerates the process of green and low-carbon development. Guided by the "Dual Carbon Goal Plan", it seizes the opportunity of capacity upgrading in the steel industry, correctly interprets policies and regulations, avoids financial risks, takes the utilization and development of green and low - carbon new energy as the development path, is user - demand - oriented, solves users' pain points, continuously optimizes products and services, and improves customer satisfaction.

Aligning with the company's long-term goal of "reaching carbon peak by 2030 and achieving carbon neutrality by 2060", based on its own development advantages and characteristics, VAMA has set "Dual Carbon" goals higher than the company's overall requirements and the industry average, that is, to reach carbon peak by 2030 and strive to achieve carbon neutrality by 2050. Following the set " Dual Carbon" goals, VAMA has further refined and formulated medium- and long-term carbon reduction goals for carbon neutrality:

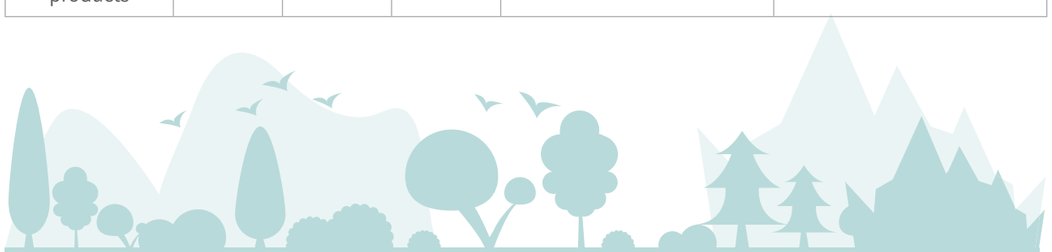
By 2030, carbon emission intensity will be reduced by **50**% compared to 2018.

During the reporting period, VAMA completed the carbon verification ISO 14064 certification; successfully completed the construction of the photovoltaic Phase I project. The total area of the project is about 2500〖 m〗^2, and the total installed capacity of the construction scale is 16MWp. It adopts the power consumption model of "self-generation for self-use, and surplus power fed into the grid". After the project reaches full production, it is expected to generate an annual power of 12.59 million kWh. By 2030, it is expected to save a cumulative total of 60 million kWh of electricity, helping to reduce the carbon emission intensity by 7.2 $kgCO_2/t\text{-}s$.

As of the end of 2024, a **23.6**% reduction target has been achieved.

Indicator	Unit	2018	2019	2,020	2021	2022	2023	2024
Absolute emissions (Scope 1 and Scope 2)	10,000 tons COe_2	12.20	16.92	19.16	20.83	19.85	25.23	27.09

Indicator	Unit	2018	Target for 2030	Target reduction from 2018 to 2030	Emissions reduced as of 2024
Emissions per ton of steel products	$tCOe_2/t\text{-}s$	0.203	0.100	50%	23.6%



Case Valin Xiangtan Steel | Formulating a Carbon Reduction Action Plan

Valin Xiangtan Steel has established more ambitious "Dual Carbon" targets that exceed both corporate-wide requirements and industry averages, aligning with the company's vision of "achieving carbon peak by 2030 and carbon neutrality by 2060". Building on its unique developmental advantages, the company aims to reach carbon peak by 2027 and achieve carbon neutrality by 2060. During this period, from 2028-2040 the total carbon emissions will be reduced by about 36% compared with the peak, and from 2041 to 2050, the total carbon emissions will be reduced by about 63% compared with the peak.

Action measures include:

Extreme Energy Efficiency Improvement

Through the application of in-depth energy-saving technologies and the upgrading and transformation of equipment, achieve refined energy management, fully recover waste heat and residual energy, and achieve extreme energy efficiency across the entire system.

Resource Recycling

Reuse secondary resources that generated from the steel production process, such as solid, liquid, and gas, as well as the scrap steel generated in society through efficient steel recycling.

Process Optimization and Innovation

Based on the existing processes and equipment, adjust and optimize the raw material structure, process structure, and energy-using structure, innovate the steel manufacturing process, and improve process efficiency.

Breakthrough in Smelting Process

Breaking free from the traditional processes and equipment constraints and seeking transformative innovation in key technologies, these are the keys to the company's rapid carbon reduction in the medium- and long-term.

Product Iteration and Upgrade

Based on the full-life-cycle assessment of steel products, develop green steel products with higher performance, enabling steel materials to have higher strength, wear resistance, and corrosion resistance, and extending the service life of steel products.

Capture, Storage, and Utilization

Separate carbon dioxide from steel manufacturing emission sources and store, solidify, or utilize it in a resource-efficient and cost-effective manner. Conduct relevant theoretical research on aspects such as CO_2 cyclic enrichment, low-energy-consumption absorbents, carbon capture processes of different technical routes, CO_2 resource utilization, large-scale CO_2 transportation and storage, etc., achieve key technological breakthroughs, and build pilot demonstration projects. Before 2030, actively explore the ways, technologies, and methods of CO_2 resource utilization, continuously conduct follow-up research on CCS/CCUS technologies, keep abreast of the latest technological progress and application status, and make technological preparations.

Risk Response Capability Building

Improve the Management Structure

Aligned with China's "Dual Carbon" policy objectives, the company has proactively implemented environmental regulations and low-carbon development strategies, accelerated green transition initiatives, and strengthened its "low-carbon competitive" in steel production. The company conducted group-wide carbon footprint assessment, formulated the *Carbon Peak & Neutrality Action Plan*, specifying clear timeline targets for achieving carbon peak and carbon neutrality, key implementation measures, and subsidiary-specific action plans for major production bases.

Conduct Capacity Training

To further improve the company's carbon management ability, strengthen the understanding of the dual-carbon work and the comprehension of policy requirements among employees at all levels, during the reporting period, the company organized a special training program on carbon management capacity. Industry experts were invited to conduct special training for the leaders, relevant department staff, and technical personnel of the company and its major steel-producing subsidiaries in multiple trending areas such as international carbon tariffs, carbon asset management, and product carbon footprint accounting.

Enhancing External Collaboration

The company adopts an open and inclusive approach, actively leveraging external low-carbon resources to strengthen climate risk partnerships. During the reporting period, we engaged with industry associations, enterprises, and academic institutions to evaluate emission reduction technologies in terms of feasibility and economic viability, deepen policy and technical research and identify the industry development opportunities.

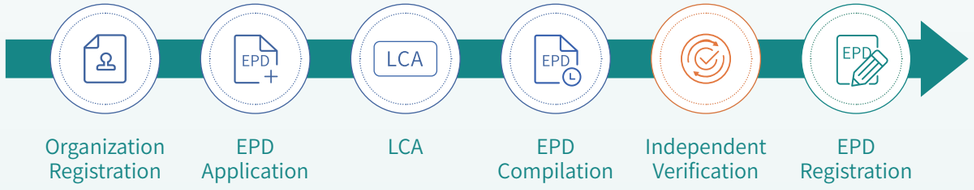
Low-Carbon Development Practices

Measures Carry out EPD (Environmental Product Declaration) Certification

During the reporting period, the company and its major steel subsidiaries actively assumed social responsibilities, responded to the needs of society and downstream customers, actively disclosed the environmental performance information of relevant products, and issued green certification reports for multiple products. For instance, in April 2024, Valin Xiangtan Steel issued the Environmental Product Declaration (EPD) reports for three products: heavy plates, wire rods, and hot-formed bars. In December 2024, Valin Lianyuan Steel issued the Environmental Product Declaration (EPD) reports for three products: continuous hot-dip galvanized coated steel sheets and strips, cold - rolled steel sheets and strips, and hot-rolled steel sheets and strips.

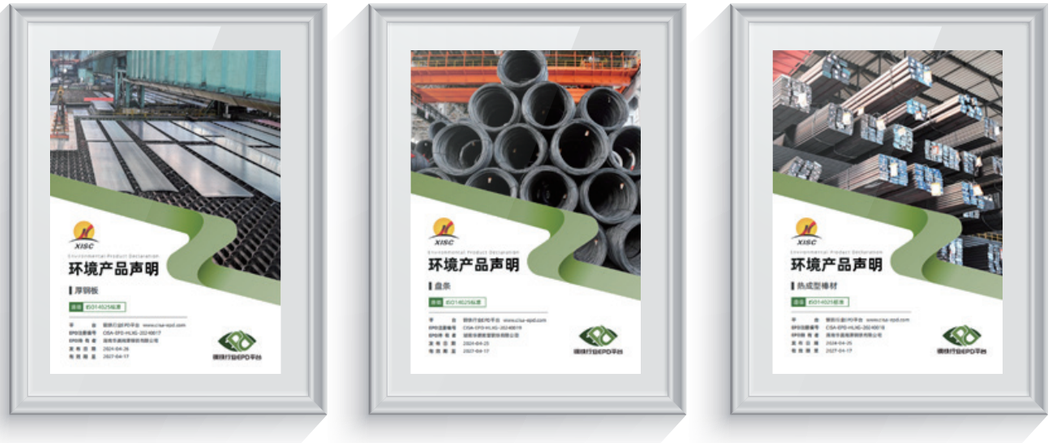
The EPD report document the energy consumption, carbon emissions, and environmental impacts during steel production process. It can help downstream enterprises obtain accurate environmental information of upstream steel materials and achieve green procurement. It will also support the company's subsequent environmental performance assessment of products throughout their life cycles and contribute to the construction of a green and low-carbon steel industry chain. In addition, during the reporting period, Valin Hengyang Steel Tube also obtained the carbon footprint certification certificates for S355J0H/S355J2H fine-grained structural steel pipes and 34CrMo4/37Mn seamless steel pipes for gas cylinders, as well as the green product and LCA (Life Cycle Assessment) certification certificates for casings and tubing for oil and gas exploitation.

EPD Platform Release Process Flowchart



EPD application, after an EPD applicant submits the application, the total process takes approximately 80 working days, under the circumstances that the applicant provide complete and accurate production process data, and the platform-recommended professional LCA service team conducts the lifecycle assessment (LCA) analysis.

EPD Applicant Independent Verifier EPD Platform



Valin Xiangtan Steel Environmental Declaration Report (Heavy Plate, Wire Rod, Hot-Formed Bar)

Valin Lianyuan Steel Environmental Declaration Report (Continuous Hot-Dip Galvanized Coated Steel Sheets and Strips, Cold-Rolled Steel Sheets and Strips, Hot-Rolled Steel Sheets and Strips)

Assist Downstream Customers in Lightweight Emission Reduction

Guided by the national "Dual Carbon" strategy, the company actively pays attention to the lightweight emission reduction needs of downstream industries such as the automotive, engineering machinery, and shipbuilding industries, and provides them with more diverse lightweight solutions. With advanced product technologies, it helps downstream customers reduce their carbon footprint, optimize manufacturing processes, and achieve emission reduction throughout the life cycle.

Case VAMA | High-Quality Automotive Steel Products and Technical Solutions Lead Lightweight Emission Reduction in the Chinese Automotive Industry

The automotive manufacturing industry is a pillar industry of the Chinese economy, with a large economic scale, a long industrial chain, and a wide range of involvements. It plays a driving role in the development of upstream and downstream industries of the automotive industry, such as the steel, petroleum, machinery manufacturing, and finance industries. In 2024, China's automobile production and sales reached 31.28 million and 31.44 million vehicles respectively, with year-on-year growth of 3.7% and 4.5% respectively, ranking first in the world for 16 consecutive years. The production and sales of new energy vehicles reached 12.89 million and 12.87 million vehicles respectively, with year-on-year growth of 34.4% and 35.5% respectively, ranking first in the world for 10 consecutive years, and the market penetration rate exceeded 40% for the first time. The automobile exports exceeded 6.41 million vehicles, and both the quantity and value of China's automobile exports ranked first in the world. With the continuous contribution of the electrification transformation and the increase in exports, China's automobile production and sales are expected to continue to maintain stable growth in the future.

Driven by both technology and environmental awareness, the automotive manufacturing industry is entering a green and high efficiency new era. Driven by the "Dual Carbon" strategic goal, automobile manufacturers are urgently in need of materials with both high strength and lightweight characteristics to achieve energy conservation and emission reduction, which is exactly the advantage of VAMA's products and solutions. As a leading domestic supplier of high-end automotive steel, since its commissioning in 2014, VAMA has been committed to providing leading high-quality automotive steel products and technical solutions such as ultra-high-strength steel and hot-formed steel with aluminum-silicon coating to meet market demand. Through continuous innovation in lightweight solutions, it helps new energy vehicles address the battery range challenge, reduces the carbon emissions of fuel vehicles, and achieves a reduction in the carbon footprint throughout the vehicle's life cycle.

Since the official commissioning of VAMA Phase II Project, the application of ArcelorMittal's Multi-part Integration Solution ™ and innovative S-in Motion® EV Solutions has enabled the provision of advanced lightweight solutions across multiple technical dimensions, including strength grade optimization, formability enhancement, coating combination innovation. These include multi-part integration solutions such as the thermoformed laser-welded integrated rear body frame and inner-outer double door rings, as well as lightweight solutions for pure electric vehicles such as steel battery packs, accelerating the iterative upgrade in the field of new energy vehicle manufacturing and contributing to the sustainable development of China's automotive manufacturing industry.

During the reporting period, leveraging its extensive expertise and innovative capabilities in hot-forming steel technology, VAMA partnered with Benteler and GONVVAMA to successfully develop an ultra-large hot-formed dual door ring system (inner+outer). This milestone represents significant progress in the innovative application of hot-forming technology for automotive safety structures, enabling carbon emission reduction while effectively enhanced drivers and passengers' safety. Compared with traditional designs, VAMA's integrated thermoformed single door ring solution can achieve a weight reduction of approximately 9%, while the thermoformed inner-outer double door rings jointly developed by the three parties this time easily achieve a weight reduction effect of at least 16%. Additionally, the development costs for tooling and molds, welding expenses, and labor costs have been significantly reduced. Furthermore, the footprint of the final assembly line has been optimized, enhancing space efficiency.

New Breakthroughs in Multi-Component Integration

The ultra-large thermoformed inner-outer double door rings have mass production capabilities

Mr. Lakshmi Mittal, Executive Chairman of ArcelorMittal, and Mr. Li Jianyu, Chairman of Valin Steel, jointly witnessed the delivery of 10 million door rings at the "New Chapter Commencement Ceremony" in Loudi

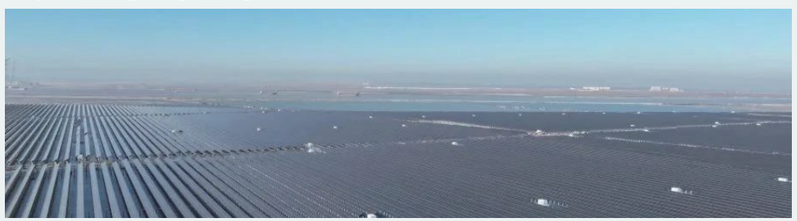
VAMA & GONVVAMA Tech "Solution" Roadshow launches in Shanghai and Beijing, focusing on multi-component integration to redefine lightweight body manufacturing models

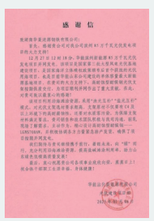
Case Valin Lianyuan Steel | Super Weathering Steel Helps Lightweight and Emission Reduction of Offshore Wind and Photovoltaic Power Bases

Guided by the national "Dual Carbon" goal, the steel industry bears the important responsibility of energy conservation, emission reduction, and green transformation. Valin Lianyuan Steel has adapted to the requirements of the development of new productive forces in the new era, continuously increasing the green and low-carbon products R&D, and launched green and low-carbon products such as high-strength, lightweight, reduced-quantity, weathering steel, and steel for new energy.

Valin Lianyuan Steel has a full-range of super weathering steel products with tensile strength level 420MPa 800MPa . The hot-rolled steel coils are available in products with a thickness of 1.5 12.0 mm and a width of 900 2000 mm. Since 2017, Lianyuan Steel initiated R&D on super weathering steel and supplied the steel for the Zangmu Bridge project on the Lhasa-Nyingchi Railway in 2018. As of the end of the reporting period, Valin Lianyuan Steel has supplied more than 50,000 tons of Grade 700 - 800MPa super weathering steel, specifically for photovoltaic mounting systems. Currently, Valin Lianyuan Steel can provide an overall green photovoltaic support solution covering material design, structural optimization, and processing and forming. It has formed a complete industrial chain from the production of steel for photovoltaic supports to the deep-processing and distribution of supports, which can cover most domestic and foreign photovoltaic construction bases.

The 850,000-kilowatt photovoltaic power generation project of Huaneng Binzhou is the third-batch of large-scale wind and photovoltaic base construction project in China. It is the first approved photovoltaic project using sea area after the promulgation of the national marine three-dimensional rights confirmation policy, and also the new energy base project with the largest capacity currently under construction by Huaneng Shandong Company. This project utilizes the coastal beach resources and adopts the "fishery-photovoltaic complementarity" and "salt-photovoltaic complementarity" models, which have high requirements for the selection of photovoltaic support materials. It not only requires high corrosion resistance in C4 and above environments but also zero pollution to water quality. To ensure that the support materials meet the requirements, the Valin Lianyuan Steel IPD team stationed at the project site to understand the customer's needs and coordinated all parties' efforts to urgently arrange the production of the LGNS700AW steel grade, ensuring the project was connected to the grid for power generation on schedule. This steel grade is suitable for C4 and above environments, and the supply thickness range of the LGNS700AW product is 1.5-12.0mm. Through the design of special components, the LGNS700AW ensures that the matrix has good corrosion - resistance in C4 and above environments and can be used without painting for 25 years. By refining the microstructure through the rolling process, it ensures excellent processing performance, which not only meets the power generation requirements but also allows for underwater aquaculture at the same time, truly achieving the goal of green and low-carbon.





Valin Lianyuan Steel received official appreciation letter from the client for supplying its marine-grade super weathering steel to the 850MW Huaneng Binzhou Photovoltaic Project

Case Hualing Xiangtan Iron and Steel Co., Ltd.'s hydrogen - blended and hydrogen - transporting pipeline steel helps achieve long - distance hydrogen transportation

The utilization of hydrogen energy is crucial for achieving the "Dual Carbon" goal and is an important strategy for China to promote green development. Currently, road transportation is the mainstream method for long-distance hydrogen transportation in China, with high costs and low efficiency, which restricts the development of the industrial chain. Hydrogen pipelines can achieve large-scale and long-distance hydrogen transportation, and the cost is less than one fifth of road transportation. However, due to restriction issues such as the lack of domestic hydrogen compatibility testing equipment, the absence of unified standard specifications for test operations, and inconsistent understandings of hydrogen embrittlement theory among industry experts, large-scale application of pure hydrogen transportation has not been achieved.

During the reporting period, Valin Xiangtan Steel leveraged its integrated "plate + pipe" R&D capabilities to successfully develop hydrogen-blended transmission line pipe steel using submerged arc welding technology. The process designed a variety of composition comparison tests and carried out trial production with different rolling and pipe-making processes. This achievement positions the company among China's few steelmakers capable of mass-producing such advanced materials, providing critical technical support for large-scale, cost-effective long-distance hydrogen transportation in China.

Circular Economy

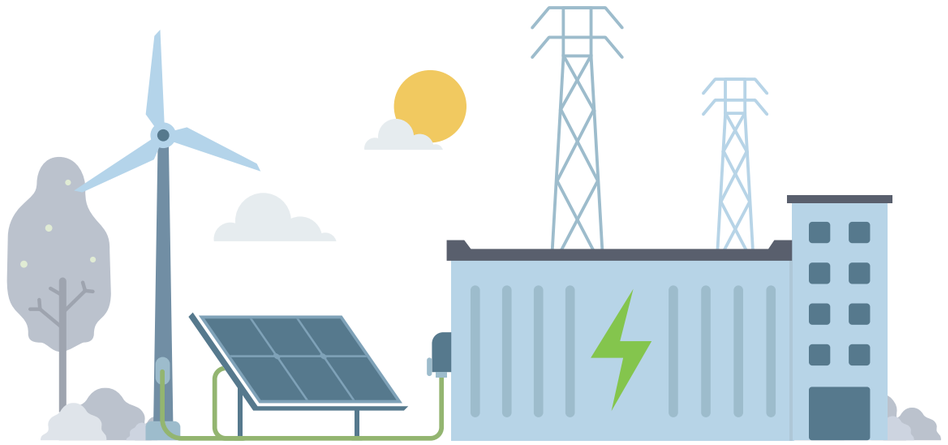
Energy Management

The company continuously strengthens energy management to improve the precision and efficiency of energy management. In recent years, the company has continuously increased its investment in the high-efficiency recovery and utilization technologies of secondary energy, which are key national promotion technologies such as coke dry quenching, top gas recovery turbine (TRT), sintering waste heat power generation, post-steel waste heat power generation, combined cycle power plant (CCPP), ultra-high-pressure and high-temperature power generation, sub-critical power generation, and super-critical power generation. It has improved the energy-saving level in the production and operation process through a series of measures such as equipment transformation and technological improvement. Currently, the company has reached the advanced level in the industry in terms of high-efficiency recovery and utilization of secondary energy such as waste heat, residual energy, and waste gas (steam) for power generation.

During the reporting period, the company intensified its secondary energy recovery and utilization efforts, significantly boosting self-generated power output to 9.66682 billion kWh. This achievement translates to 1.1 million tons of standard coal saved annually, and over 2.8 million tons of CO emissions reduced. Valin Xiangtan Steel and Valin Lianyuan Steel were selected for the industry's "Dual Carbon Best Practices – Energy Efficiency Benchmark Demonstration Plant" cultivation program.

During the reporting period, the company's self-generated power is as follows:

Energy types	Unit	2024	2023	2022
Self-generated electricity	10,000 kWh	966,682	922,286	890,546



Case | Valin Hengyang Steel | Strengthens Energy Management

Improve the Energy Management Structure

Valin Hengyang Steel Tube has established an Energy Management Office led by the company's deputy general manager in the Equipment Engineering Department as a permanent energy management institution. It is fully responsible for the organization, supervision, inspection, analysis, energy assessment, energy metering management, and internal and external energy coordination of the company's daily energy management. Each department and branch factory is equipped with full-time (or part-time) energy staff. The work idea of "relying on technology and management, steadily promoting energy conservation and emission reduction, and building a resource-saving and environment-friendly enterprise" has been established.

Improve the Energy Measurement Standards

Valin Hengyang Steel Tube obtained national Measurement Management System certification in January 2009, meanwhile was recognized as qualified under the General Requirements for Energy Measurement Equipment Allocation and Management in Energy-Consuming Units. Over the past few years, the company has gradually improved the Three-Tier energy management system. The equipping and management systems of Level 1 & Level 2 energy-using metering instruments can meet the requirements of the General Requirements for Energy Measurement Equipment Allocation and Management in Energy-Consuming Units and the equipping of Level 3 energy metering instruments is also being improved.

Improve the Assessment of Energy-Saving Indicators

Valin Hengyang Steel Tube has established a company-level energy management network. Each major energy-using department, energy production department, and energy management department undertakes energy consumption indicators, which are linked to employees' salary income. The company has formulated systems such as the Production Scheduling Regulations & Assessment Methods, Financial Cost Management Evaluation Procedures and Detailed Energy Management Assessment. Corresponding planned indicators for energy consumption of each branch factory are set according to the economic responsibility system, included in the cost evaluation, and assessed and analyzed monthly.

Enhancing Energy Conservation Inspections

Valin Hengyang Steel Tube has further strengthened the inspection mechanism for energy conservation and consumption reduction, and promoted the overall improvement of energy management and control level through refined management. The energy management institution, in conjunction with the finance department, conducts comprehensive and detailed special inspections on "leakage and waste" of each secondary department on a regular weekly basis. Particularly pay attention to energy control during maintenance shutdowns, aiming to nip potential energy waste in the bud. The inspection results are reported weekly to prompt secondary departments to carry out energy-saving rectification work by drawing inferences from one instance.

xtreme Energy Efficiency Management

The company has adopted extreme energy efficiency as a strategic lever, targeting industry-leading benchmarks while maintaining an energy cost-driven approach. Guided by principles of lean control, system integration, and process optimization, it launched Extreme Efficiency Production Line Competitions to drive benchmark compliance. Key equipment, including blast furnaces, coke ovens, and converters, has achieved top-tier energy performance in the industry. During the reporting period, Valin Xiangtan Steel and Valin Lianyuan Steel applied for and were selected as the 3rd batch "Dual-Carbon Best Practice Benchmarking Model Plants" by the China Iron and Steel Association.

3,200m³ Blast Furnace was recognized as a "Top Performer" in the national energy conservation competition for large-scale steelmaking equipment, and 360m² Sintering Machine has been awarded "Innovation Leader" for breakthrough energy-saving performance.

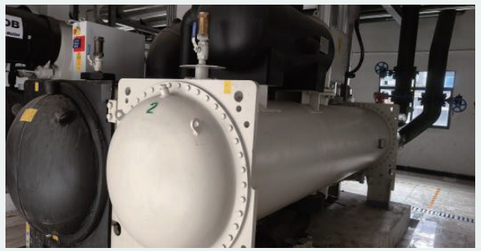
Process-Specific Energy & Carbon Reduction Technologies

Raw material yard	Completely complete the construction of a smart material yard, that is to build a smart material yard integrating continuous and efficient processes and equipment, closed storage technology, raw material mixing technology, and digital and intelligent control technology.
Coking process	Increase the recovery and utilization of waste heat and energy. Fully equip with coke oven riser waste heat recovery devices to recover the waste heat of coke oven flue gas; apply negative pressure distillation technology and build a supporting intelligent heating control system; actively track a batch of coking energy-saving and low-carbon innovation technologies.
Sintering process	Adopt the ultra-high thick material layer sintering process, add fuel pre-screening (multi-frequency screen -C) in the fuel crushing process; strengthen the mixture granulation technology, control the air leakage of the sintering machine seal, and use the waste heat utilization of the sintering machine and circular cooler flue gas, energy-saving ignition technology, and oxygen-enriched sintering, etc.
Ironmaking process	Adopt intelligent stove - burning technology for hot blast stoves, dehumidifying blast technology for blast furnaces, one - key injection technology, big data intelligent control technology for blast furnaces, waste heat recovery technology for slag flushing water, oxygen - enriched large - injection technology, waste heat recovery technology for hot blast stove flue gas, etc.
炼钢工序	采用一罐到底铁钢界面技术，机械真空泵技术，钢（铁）包节能烘烤技术，转炉二段烟道烟气余热回收技术，二氧化碳炼钢技术，废钢预热技术等。
轧钢工序	采用加热炉蓄热节能技术、加热炉烟气余热回收利用技术、加热炉智能燃烧优化控制技术、加热炉强化热辐射节能技术，提高钢坯热装热送比例，对电机实施节能升级改造等。

Case Valin Xiangtan Steel | Accelerates the Implementation of Energy Efficiency Improvement Projects

2 # 3 # Blast Furnace Blower Dehumidification Project

During the reporting period, the subsidiary Valin Xiangtan Steel implemented the 2#3# blast furnace blower dehumidification project. By adding a cold air cooling and dehumidification device at the outlet of the blast furnace electric fan, the air moisture content was reduced and stabilized at around 9.2 g/Nm^3 before entering the blower, which played a positive role in promoting the long-term stable and smooth operation of the blast furnace, stabilizing production and reducing consumption, as well as saving energy and reducing carbon emissions. During the operation of the blast blower dehumidification system, the comprehensive coke ratio of the blast furnace decreased by about 5.62 kg/t, saving about 12,000 tons of standard coal annually and generating an annual economic benefit of about 22 million yuan, showing good energy-saving effects and economic benefits.



Energy-Saving Retrofit Project for Ladle Heating System in Wide & Heavy Plate Rolling Line

During the reporting period, Valin Xiangtan Steel implemented an energy-efficient retrofit of traditional jet-type heating system to meet the requirements of baking temperature and time, reduce the gas consumption of the roaster in the steelmaking plant to save gas, and improve the baking quality at the same time. A total of 10 heating units were renovated, including 2 horizontal ladle heaters in the wide/heavy plate plant, 5 tundish heaters furnaces, 1 regenerative ladle heater, and 2 RH degasser vacuum chamber heaters. After the renovation, the comprehensive energy-saving rate was over 35% , saving a total of 2,200m^3/h gas, generating 30,000 more kilowatt-hours of electricity per day, and generating an annual benefit of 7.89 million yuan.

Case Yangchun New Steel | Implementing Energy Conservation and Carbon Reduction Through " Energy Source Development & Consumption Reduction" Strategy

Energy Source Development

Taking energy-saving projects as the carrier and following the principles of economy, reliability, and stability, by introducing new technologies that suit the characteristics of the enterprise, new breakthrough points for energy conservation and consumption reduction are sought to improve the energy utilization level. Pay attention to the development of new energy-saving technologies, strengthen communication and exchanges with other steel mills, and focus on the efficient utilization of waste heat and pressure to improve efficiency. During the introduction of energy-saving projects, pay attention to coordinating with production units, rely on professional forces, conduct full demonstrations, and ensure obvious energy - saving effects. Follow the principle of pilot first and then promotion. During the reporting period, Yangchun New Steel completed the CO catalytic combustion renovation of the flue gas from the first sintering machine, which not only reduced the CO emission concentration in the "revenue - increasing" flue gas but also significantly reduced the consumption of blast furnace gas for SCR denitration. The pellet project was successfully put into operation, and the energy consumption per unit product of pellets decreased by more than half compared with sinter. At the same time, Yangchun New Steel achieved full self-production of pellet ore, further optimizing the blast furnace burden structure and reducing the energy consumption of the blast furnace.

Consumption Reduction

By means of in-depth exploration of internal potential and quantitative management, do a good job in energy conservation for the enterprise. Strengthen energy supervision and inspection, enhance horizontal communication among production plants, extract effective energy-saving measures from each unit, and replicate and promote them within the enterprise, so as to improve the company's overall energy management level and energy utilization efficiency. Raise the awareness of energy conservation and carbon reduction across the system, deeply integrate energy management into production organization, vigorously promote the optimization of the production organization process, and ensure the implementation and effectiveness of energy conservation and consumption reduction across the system. Heating and pressurizing in the production process consume energy. We should ensure that all ores enter the plant dry, dry the coke, and reduce the moisture content of the materials entering the furnace; increase the temperature of sinter entering the furnace; cover the hot metal ladles and improve their turnover rate; increase the hot - charging rate and the temperature of steel billets entering the furnace.

Promote Circular Power Generation

The company actively promotes new energy-saving technologies, and upgrades equipment and technologies simultaneously, as well as green process technologies. Valin Xiangtan Steel and Valin Lianyuan Steel have successively phased out some medium-temperature and medium-pressure thermal systems at the terminal, and invested in building 4 sets of 150MW ultra-high-temperature generating units, basically achieving zero emission of low-calorific-value blast furnace gas. The self-generated power has increased significantly, and the comprehensive utilization level of secondary energy has been remarkably improved. A large number of energy-saving and carbon-reducing projects and waste heat recovery and utilization projects have been implemented. During the reporting period, a series of energy-saving and carbon-reducing projects promoted by the state have been carried out, such as waste heat recovery from coke oven riser pipes, waste heat recovery from sintering flues, waste heat recovery after steelmaking, waste heat power generation from dry quenching of coke, dehumidification of blast furnace blowing, oxygen-enriched combustion, CO catalytic combustion, and upgrading and transformation of intelligent stockyards.

Case

Valin Lianyuan Steel | "Double-Ultra Power Generation + Waste Heat Recovery" High-efficiency Energy Utilization Practice

Apply Double-Ultra Power Generation Technology to Improve Power Generation Efficiency

Valin Lianyuan Steel has implemented 150MW ultra-high-temperature sub-critical power generation and 150MW ultra-high-temperature super-critical gas power generation technologies. By replacing inefficient generating units and optimizing the energy utilization structure, the power generation efficiency has been significantly improved.

Technology upgrade: Adopt ultra-high-temperature sub-critical and super-critical gas power generation technologies to replace inefficient generating units.

Energy efficiency improvement: During the 14th Five-Year Plan period, the comprehensive standard coal consumption for power generation has decreased from 373gce/kWh to 305gce/kWh, the power consumption rate of the plant has decreased from 7.03% to 6.49%, and the power generation efficiency has increased by 18.23%.

Energy conservation and carbon reduction: During the 14th Five-Year Plan period, the annual self-generated power has increased by 708 million kWh, the annual energy consumption has decreased by 87,000 tce, and the annual carbon emissions have decreased by 394,000 tCO_2 .

Recover All Waste Heat Resources to Avoid Energy Waste

Valin Lianyuan Steel introduced the large flue boiler technology to recover the high-temperature flue gas from the 280 sintering process, making full use of waste heat resources and avoiding energy waste.

Technology application: The large flue boiler technology is adopted to recover the high-temperature flue gas from sintering, and the generated steam is incorporated into the waste heat power generation unit.

Resource utilization: The hourly steam output reaches about 10t/h, and the annual power generation increases by about 16 million kWh.

Energy conservation and carbon reduction: During the 14th Five-Year Plan period, the annual energy consumption will be reduced by 2,000 tce, and the annual carbon emissions will be reduced by 8,900 tCO2 .

Full recovery of equalizing pressure gas, achieving a win-win situation for environmental protection and energy

Valin Lianyuan Steel applied the blast furnace equalizing pressure gas recovery technology during the blast furnace charging process to fully recover and utilize the diffused gas, reducing energy waste and environmental pollution.

Technology application: The blast furnace equalizing pressure gas recovery technology is fully applied in three blast furnaces to recover the diffused gas in the charging tanks.

Resource utilization: The annual recovered gas volume reaches about 36 million m^3 , which can increase the power generation by about 14.4 million kWh.

Energy conservation and carbon reduction: During the 14th Five-Year Plan period, the annual energy consumption will be reduced by 1,800 tce, and the annual carbon emissions will be reduced by 8,100 tCO_2 .

Valin Xiangtan Steel and Valin Lianyuan Steel Newly Commissioned 150 MW Ultra-High Temperature Supercritical Power Units Operate Stably

During the reporting period, Valin Xiangtan Steel and Valin Lianyuan Steel leveraged their newly commissioned 150 MW Ultra-High Temperature Supercritical (UHSC) Power Units as a cornerstone for energy efficiency enhancement, significantly improving self-generated power efficiency through optimized resource utilization. As one of the world's largest, most efficient, and cleanest gas-fired power units, Valin Xiangtan Steel 150MW Ultra-High Temperature Supercritical Power Units achieves approximately 287g of standard coal equivalent (SCE) per kWh, 123g lower than traditional gas-fired power units, annual standard coal equivalent consumption savings approximately 65,000 tonnes, and 35,000 tonnes CO_2 emissions reduction. Valin Lianyuan Steel 150MW Ultra-High Temperature Supercritical Power Units achieves approximately 290g of standard coal equivalent (SCE) per kWh, 120g lower than traditional gas-fired power units, annual standard coal equivalent consumption savings approximately 64,000 tonnes, and 34,000 tonnes CO_2 emissions reduction.

Application of clean energy

Build distributed power generation projects

Pay timely attention to the layout of photovoltaic power generation projects and biomass energy projects

Plan to improve proportion of externally purchased green electricity

During the reporting period, the company actively promoted and applied solar photovoltaic green electricity products. It used resources such as the rooftops of office buildings and factory buildings and the vacant sites in the factory area to build distributed photovoltaic power generation projects, effectively reducing the company's electricity purchase costs from the power grid and lowering the operating costs. It adopted high-efficiency power-saving technologies, carried out the green lighting renovation of the whole factory, and promoted solar lighting street lamps, effectively improving the energy utilization efficiency and continuously optimizing the lighting environment in the factory area. In Hunan Province power structures, the proportion of green electricity such as wind, solar, and hydropower has been increasing. Among the company's outsourced electricity, the annual indirect purchase of green electricity reached about 2.9 billion kWh.

Case Valin Xiangtan Steel and VAMA | Photovoltaic Project Construction Practices

During the reporting period, the heavy plate photovoltaic project of Valin Xiangtan Steel and the Phase I photovoltaic project of VAMA were officially connected to the grid, achieving a "zero" breakthrough in the proportion of green electricity of Valin Steel, and providing support for achieving the goals of energy conservation and carbon reduction and promoting green development. Among them, the total area of the VAMA Phase I photovoltaic project is about 2,500 m^2, with a total installed capacity of 16 MWp. It adopts the power consumption model of "self-generation for self-use, and surplus electricity fed into the grid". The annual power generation reaches 12.59 million kWh. By 2030, it is expected to save about 60 million kWh of externally purchased electricity, helping to reduce the carbon emission intensity by 7.2kgCO_2/t -s. VAMA is promoting the construction of the Phase II and Phase III photovoltaic projects, with a total capacity of 50 MWp. It is planned that by 2030, a 100 MWp photovoltaic project will be completed in the industrial park where VAMA is located.

VAMA Phase I Photovoltaic Project

Valin Xiangtan Steel Roof Photovoltaic Project of Heavy Plate Plant

Case Valin Lianyuan Steel | Green Lighting Transformation Practices

During the reporting period, Valin Lianyuan Steel carried out a plant-wide green lighting transformation, promoted solar-powered street lights, and was equipped with an intelligent lighting control system. In cooperation with the road traffic safety protection department, it promoted solar-powered safety voice assistants at intersections. The assistants are powered by solar photovoltaic panels to provide green electricity and use infrared pyroelectric induction technology. When a person passes through the sensing area, it will immediately trigger the playback of voice and synchronously flash the warning lights, achieving a green, environmentally friendly and efficient upgrade.

Smart Energy Management

The company promotes the smart energy management system, covering major energy media such as water, electricity, wind, and gas. It includes functional modules such as energy monitoring screen, operation management, intelligent decision-making, energy analysis, process refined management, carbon emission management, and energy-saving technologies. It helps to break down departmental and professional barriers. Through the horizontal integration of business and the vertical penetration of data, it realizes lean production and precise energy supply, achieves the integration of energy information across processes, and reduces the cost of power energy through refined production organization and energy plan management.

Energy monitoring

Real-time monitoring to track energy flows and equipment status, achieve visualization management

Operation management

Align energy supply with production schedules, optimize energy allocation

Intelligent decision-making

Leverage big data and intelligent algorithms to forecast energy needs and optimize grid dispatch, achieving zero gas flaring and power generation efficiency

Energy analysis

Deep analyze energy consumption data to provide energy-saving optimization basis

Process management

Implement precision controls for steelmaking processes, improve energy efficiency

Water Resource Management

The company strictly complies with laws and regulations such as the *Water Law of the People's Republic of China*, and has formulated the *Industrial Water Management Regulations to standardize water usage*, enhance efficiency and promote conservation. Each subsidiary adapts to local conditions according to the characteristics of their region, continuously evaluates and optimizes the water resource management of its surrounding environment to ensure the safety and stability of water use. At the same time, it monitors the water quality of the surrounding environment to ensure that water intake and wastewater discharge meet environmental protection requirements. As of the end of the reporting period, Valin Xiangtan Steel, Valin Lianyuan Steel, and Valin Hengyang Steel Tube have all been awarded the title of "Water-saving Enterprise" in Hunan Province.

Adhere to the systematic management concept of water quantity and quality, energy and environmental protection, safety and efficiency

Continue to operate in accordance with the established water management system. Carry out various tasks under the guidance of documents such as the company's *Industrial Water System Management Regulations*, and well-manage the water usage and drainage source control, process control, and standardized discharge. Improve water usage efficiency by ensuring "water quality to ensure that scaling and corrosion of the cooling system are stably controlled, heat exchange efficiency of power generation, oxygen production, compressed air, etc. is improved, water quality in each process meets requirements, and water quality has no objection to product surface quality" as the starting point to ensure efficiency by quality. Formulate annual water use indicators for each process reasonably, strengthen the management of process water use, and strictly assess those who fail to meet the water quota indicators in accordance with the *Energy Management Assessment Measures*.

Strengthen daily tracking of process water usage and comprehensive energy supervision inspections to promote the rational use of reclaimed water

During the reporting period, the product structure upgrading and environmental protection renovation projects of the subsidiaries were put into operation gradually, and the new production lines and processes had high requirements for water quality, resulting in a significant increase in water consumption pressure. To improve water use efficiency, a survey on the internal use of reclaimed water was carried out. The cooling water for fans and water pumps in the metallurgical lime and converter red slag processes was changed from direct flow to circulating water. Starting from the operating conditions of the industrial purified water system, by improving the industrial water metering instruments and conducting online monitoring at the main drainage points, the water quantity and quality of users were tracked in real time to ensure the efficient operation of the water use system. During the reporting period, the total amount of fresh water intake of the company decreased steadily.

Promote the application of new water-saving technologies and equipment to gradually reduce fresh water consumption

During the reporting period, the high-density tank technology was adopted for sewage treatment, which significantly improved the suspended solids index of reclaimed water. The water balance test for the whole process was promoted, the high-efficiency filtration technology was tested, the water resource allocation was optimized, and water-saving actions were carried out step by step to ensure a gradual reduction in fresh water consumption. Pay attention to high-efficiency purification technologies, intelligent water management in the industry, advanced wastewater treatment technologies, equipment, and practices. During the reporting period, in-depth exchanges on water-saving and emission reduction, electrochemical descaling, and advanced sewage treatment technologies were carried out to lay a foundation for future water-saving technology innovation.

During the reporting period, the water use situation of Valin Steel was as follows:

Water use type	Unit	2024	2023	2022
Total amount of fresh water intake	Ton	91,150,352	95,337,685	98,759,616
Reused water volume	Ton	4,112,211,237	4,557,787,501	3,377,578,637

Case Valin Xiangtan Steel| Driving the Optimization of Industrial Water Systems with an Extreme Mindset to Achieve New Breakthroughs in Water Conservation and Consumption Reduction

During the reporting period, in response to the problems of large water treatment volume and low water recycling rate in the industrial water system, Valin Xiangtan Steel guided by an extreme mindset, systematically analyzed the operating conditions of the industrial purified water system and took a series of innovative measures. By improving the industrial water metering instruments and implementing online monitoring at major drainage points to track the water volume and quality data in real-time, completely changed the traditional management mode of checking manhole covers. The company established a real-time balance diagram of the industrial water system, optimized the pipeline network layout, implemented a pricing mechanism based on water quality, encouraged production plants to use good water and less water, and increased the clean circulating water system concentration multiple and mainly completed the key project of water system optimization.

Through the refined management and control of systems such as power generation circulating water, joint water supply stations, and desalinated water stations, as well as the precise guidance on water use in workshops, Valin Xiangtan Steel significantly reduced the process sewage discharge. The incoming water volume at the iron-making water station decreased by 1.1 million m^3/month decrease YoY; saving more than 330,000 RMB/month in electricity and chemical costs on average; the incoming water volume at the Gongnongzha water station decreased by 500,000 m^3/month decrease YoY, saving 45,000 RMB/month in electricity and chemical costs on average. In total, the reclaimed water treatment cost was reduced by 375,000 RMB per month. The reclaimed water treatment volume decreased from 10,000 cubic meters per hour to 7,000 cubic meters per hour, showing significant water-saving effects.

In addition, through the water balance analysis of the fire-fighting water supply system and the evaluation of the redundant operation of the pumping stations, Valin Xiangtan Steel optimized the operation mode of the fire-fighting water pipeline network. After multiple tests and partial renovations, the pump group of the fire-fighting water supply system at the Sixth Water Station was finally shut down, and the entire fire-fighting water pipeline network was supplied by the Gongnongzha and iron-making water stations. This adjustment reduced the daily power consumption by 13,000 kWh and the annual operating cost by 2.65 million yuan, further improving the water resource utilization efficiency.

Case Valin Lianyuan Steel | Optimizing Water Use Management through Multiple Measures to Achieve New Breakthroughs in Water Conservation and Consumption Reduction

The technical indicators of water use in the production process have been significantly improved. The water use efficiency has achieved the dual-control targets of annual total volume and intensity. The reuse rate of sewage and wastewater is 49.32%, the water reuse rate is 98.34% , the water intake per ton of steel is 3.35 m^3/t, the water use per ton of steel is 4.60 m^3/t, and the water use efficiency is close to the advanced level in the industry.

The technology of water conservation and emission reduction has been comprehensively promoted. The dry methods for blast furnace dust removal, converter dust removal, and coke quenching have been fully implemented, and the efficiency of recycled water use has been improved. Zero emissions have been achieved in blast furnace slag flushing, converter red slag pot stewing, and converter dust removal spraying; the accident water of the No. 8 blast furnace is cascaded to the circulating cooling water, the cooling water for power generation sampling is cascaded to the EP, the steel rolling heating furnace, controlled cooling, and laminar flow systems use water according to different qualities, and the desalted water for the vaporization furnace of the 2250 line heating furnace is upgraded. The desalination equipment water production operating cycle has been significantly increased, the salt consumption per ton of soft water preparation has been reduced by 50%, and the self-water consumption rate of desalted water preparation has been decreased.

The daily water usage management has been continuously strengthened. By combining daily tracking of process water use with comprehensive inspections of energy supervision, abnormal problems can be promptly discovered and addressed. The management of water leakage in pipe networks and equipment has been strengthened to ensure the efficient operation of the water use system. Regular water use data analysis is carried out to optimize water use scheduling and reduce water resource waste.

The circulating water system has been comprehensively upgraded. For the cooling water used in fans and water pumps in the metallurgical lime and converter red slag processes, a transformation from direct-flow to circulating water systems was implemented, significantly reducing water consumption. The cooling water system for steel coil temperature reduction in cold rolling was also converted to a circulating water mode, further enhancing water efficiency and reducing wastewater discharge.

New water-saving technologies and equipment are being rapidly adopted. High-density tank technology has been applied in sewage treatment, greatly improving the suspended solids indicators in reclaimed water. Full-process water balance testing has been promoted, along with trials of high-efficiency filtration technology to optimize water resource allocation. In-depth exchanges on water-saving and emission-reduction technologies, electrochemical descaling, and advanced wastewater treatment have been conducted, laying the foundation for future innovations in water conservation.

Circulating cooling water is cascaded to EP

The water from the F pump of the No. 8 blast furnace is reused

High-density tank in sewage treatment

Waste Management

Valin Steel strictly complies with the Law of the *People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste*, implementing controls in accordance with the *Pollution Control Standards for the Storage and Disposal Sites of General Industrial Solid Waste and the Pollution Control Standards for Hazardous Waste Storage*, ensuring that all solid waste is safely and properly utilized or disposed of. The company has established hazardous waste management systems, including the *Hazardous Waste Management Plan*, strictly adhering to national environmental regulations and promptly filing records with local environmental authorities. To efficiently and systematically respond to potential hazardous waste leakage incidents, the company has developed a Hazardous Waste Emergency Response Plan and conducts regular drills. It has also built standardized hazardous waste storage facilities and outsources the recycling or disposal of hazardous waste—such as waste oil and spent lead-acid batteries—to licensed third-party providers.

During the reporting period, the company continuously optimized its production processes and procedures. It reduced the generation of waste through measures such as technological improvement, equipment renovation, and recycling. The company also carried out scientific research on the reuse of solid waste in production to improve the utilization rate of solid waste in production. The disposal volume of hazardous waste and the utilization volume of solid waste of Valin Steel are as follows:

Key Performance

During the reporting period, the company properly disposed of **235,900** tons of hazardous waste in compliance with regulations.The utilization volume of solid waste reached **13** million tons.

The comprehensive utilization rate reached over **99**%.

Waste types	Unit	2024	2023	2022
Hazardous waste disposal	Ton	235,855	199,277	212,053
Utilization amount of solid waste	Ton	12,997,971	12,987,443	12,658,036

Developing Circular Economy

Valin Steel is committed to promoting circular economy practices. Internally, it recycles all iron resources into raw materials for steel production, improves resource utilization efficiency in operations, and reduces the waste caused environmental pressure. Externally, it establishes a direct recycling business of scrap steel with users, classifies social scrap steel more precisely by quality, increases the proportion of scrap steel in high-grade automotive steel, and significantly reduces the carbon footprint of automotive steel.

Case Valin Xiangtan Steel | Implements the Tar Slag Drying Treatment Project to Promote the Resource Utilization of Solid Waste

Valin Xiangtan Steel processes tar slag through physical separation, separating pulverized coal, coke powder, solids, and tar in the tar slag. The tar is sold as a product or processed, and the pulverized coal is used as coking coal. This not only facilitates the recovery of the chemical product tar but also helps stabilize the quality of coke. At the same time, it greatly improves the on-site environment, reduces VOC emissions, meets the ultra-low emission requirements, and achieves the requirements for hazardous waste reduction management. It reduces the annual production of hazardous waste by about 3,000 tons and generates an economic benefit of 4.29 million RMB.

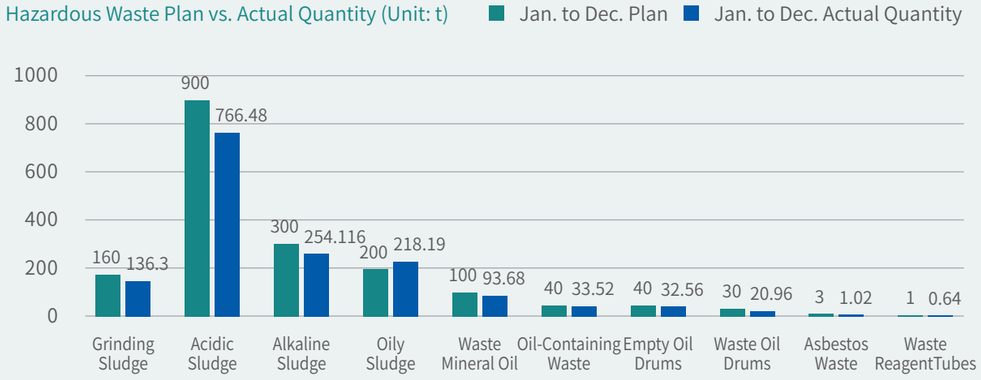
Case Valin Lianyuan Steel | Solves the Steel Slag Solid Waste Disposal Problem and Promotes the Transformation of Solid Waste into Resources

To solve the problem of steel slag solid waste disposal, Valin Lianyuan Steel cooperates with Hunan Provincial Communications Science Research Institute to study the comprehensive application of steel slag. It uses a new low-carbon and environmentally friendly technology to replace the coarse aggregate in asphalt concrete with steel slag produced by itself, turning the steel slag into a valuable resource for use in the company's road paving process.

In Valin Lianyuan Steel cold-rolled high-end household appliance panel project, the asphalt road covers an area of about 20,000〖m〗^2 . The asphalt concrete uses self-produced steel slag to replace the coarse aggregate in asphalt concrete, consuming more than 8,000 tons of steel slag. After pre-treatment, the physical and mechanical properties of the steel slag are similar to those of basalt and diabase gravel commonly used in asphalt pavements, better than limestone gravel, and it has the advantages of high density, high strength, wear resistance, and good adhesion to asphalt. It can not only effectively improve the high-temperature anti-deformation ability and anti-water damage ability of asphalt concrete, enhance its wear resistance and anti-skid performance, but also significantly reduce the construction cost. The project was launched in August 2024, using the four new technologies of low-carbon and environmentally friendly industrial solid waste utilization. It is the first heavy-load factory road in Hunan Province with a full-structure steel slag asphalt pavement, opening a new chapter in the promotion and application of steel slag asphalt pavements in Hunan Province.

Strengthening Hazardous Waste Management

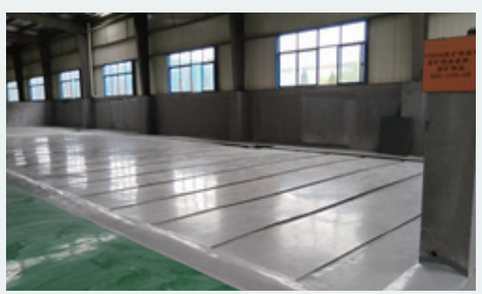
Case VAMA | Establishes a Hazardous Waste Management Roadmap



VAMA establishes an annual hazardous waste reduction management plan and a hazardous waste management roadmap

Case Valin Lianyuan Steel | Stores Hazardous Waste in Compliance

During the reporting period, Valin Lianyuan Steel built a new general hazardous waste warehouse. The location of the new hazardous waste warehouse meets the requirements of the ecological environment zoning control. All hazardous wastes are stored indoors. Different storage areas are set up according to the category, quantity, form, physical and chemical properties, and pollution prevention and control requirements of hazardous wastes. The floor, cofferdam, and walls inside the warehouse are built solidly, and hazardous waste identification signs such as hazardous waste site signs, storage area signs, and hazardous waste labels are set up as required by HJ1276. Technical means such as electronic weighing scales, electronic tags, and electronic management ledgers are used to manage the information of the storage process of hazardous wastes. There are a total of 9 cameras inside and outside the warehouse for full-coverage monitoring. The monitoring pictures are clear, and the records can be saved for 3 months.



In-depth Governance

Pollutant Emission Management

In the course of production and operation, the company strictly complies with China's environmental protection laws and regulations as well as emission standards, including but not limited to *Environmental Protection Law of the People's Republic of China, Air Pollution Prevention and Control Law, Water Pollution Prevention and Control Law, Solid Waste Pollution Prevention and Control Law, Noise Pollution Prevention and Control Law, Soil Pollution Prevention and Control Law, Discharge Standards of Water Pollutants for the Iron and Steel Industry, Emission Standard of Pollutants for Coking Chemical Industry, Emission Standard of Air Pollutants for Steelmaking Industry, Emission Standard of Air Pollutants for Steel Rolling Industry, Emission Standard of Air Pollutants for Iron & Steel Sintering and Pelletizing Industry, Hunan Province Special Emission Limits for Pollutants (First Batch), Emission Standard of Air Pollutants for Thermal Power Plants, Emission Standard of Air Pollutants for Ironmaking Industry, Pollution Control Standard for Hazardous Waste Storage, Pollution Control Standard for General Industrial Solid Waste Storage and Landfill, Guidelines on Implementing Ultra-Low Emissions in the Iron and Steel Industry, and Emission Standard for Industrial Enterprises Noise at Boundary.* To ensure compliance, the company has established a series of pollution control management systems, including Wastewater Pollution Prevention and Control Management Procedures, Air Pollution Prevention and Control Management Procedures, etc.

The company has adopted advanced and reliable treatment technologies for the treatment of pollutants in each process. In terms of the treatment of flue gas from major furnaces, for sintering flue gas, technologies such as head electrostatic precipitation + lime - gypsum wet desulfurization and SCR denitrification treatment are used. For coke oven flue gas, technologies such as SDA desulfurization + SCR denitrification treatment are used to treat the pollution at the source. For coke oven gas, the HPF desulfurization and purification process is adopted, and for blast furnace gas, the hydrolysis + adsorption fine desulfurization process is used. In the process of material transfer and crushing of coal, coke, iron ore, sinter, steel-making raw materials and other materials in each production process, the membrane-covered baghouse dust removal process is used to achieve stable and compliant emission. In terms of wastewater discharge, for coking phenol-cyanide wastewater, technologies such as A_2 O_2 biochemical method and ozone advanced treatment are used, and a large-scale sewage and cold-rolling wastewater treatment system is built, using technologies such as physicochemical flocculation precipitation and sand filtration treatment to guarantee discharge compliance. In terms of the disposal of solid waste and slag, all furnace slag is recycled and disposed of using technologies such as rod-mill dry treatment to eliminate wastewater discharge pollution. The blast furnace dust and converter dust are all handed over to units with corresponding treatment qualifications, and technologies such as zinc extraction by rotary kiln pyrometallurgical are used to realize the reuse of waste resources.

Implement Self-monitoring of the Environment

The company's subsidiaries have formulated self-monitoring plans in accordance with the *HJ 878-2017 Technical Guidelines for Self-Monitoring of Pollution Discharge Units*, and engage accredited testing agencies to conduct self-monitoring of waste gas, wastewater, and plant-boundary noise, ensuring stable and compliant pollutant emissions. Furthermore, the company strictly adheres to the *Measures for Self-Monitoring and Information Disclosure by Key State-Monitored Enterprises,* regularly publishing self-monitoring data for wastewater and exhaust emissions. In cases of data anomalies caused by production malfunctions, equipment shutdowns, or other factors, the company promptly communicates with environmental authorities to ensure uploaded monitoring data remains stable and compliant.

Implement Ultra-low Emission Transformation

The company has established a stable environmental protection funding mechanism and, in accordance with the Ultra-Low Emission (ULE) Action Plan, is implementing ULE and efficiency upgrades for key processes such as ironmaking, steelmaking, sintering, and coking. These upgrades are expected to be fully completed by 2025. During the reporting period, the company advanced the renovation and construction of environmental protection facilities as scheduled under the ULE transformation plan. Among them, Valin Xiangtan Steel has completed environmental protection treatment projects such as hase I of precision desulfurization for coke oven gas in the southern recovery area of the coking plant, VOCs tail gas treatment in the northern chemical production area, desulfurization and dust removal upgrades for coke dry quenching (CDQ) systems at 7# and 8# furnaces, dust removal upgrades for raw material handling at the new No.1 sintering plant, dust control for mixers at the new No.2 sintering plant, new WJ10 coke raw material dust removal system, desulfurization of hot blast stoves at blast furnaces 1-4, thallium removal from desulfurization wastewater at the new No.1 sintering plant, pre-dust removal upgrades for steelmaking raw materials and ULE retrofits for the 135MW power plant boiler. Valin Lianyuan Steel has completed environmental governance projects such as flue gas treatment for blast furnace hot blast stoves, environmental upgrades for the old-line comprehensive stockyard, enclosure retrofits for raw material yards, integrated environmental management and control platform, clean transportation upgrades, including diesel-to-electric conversions and adoption of China VI-compliant vehicles to meet ULE transport requirements. Valin Hengyang Steel Tube has completed environmental governance projects such as ULE desulfurization retrofits for hot blast stove flue gas, recovery and utilization of top-pressure gas from blast furnaces, enclosure of slag yards and fugitive dust control, ULE desulfurization retrofits for the 180 plant's annular furnace flue gas, ULE upgrades for the 180 plant's dust removal system, Phase II of deep treatment for sintering machines (denitrification), fugitive dust control in coke unloading areas at railcar dumpers, and enclosure of conveyor belts and plant buildings. Yangchun New Steel has completed 80 ULE projects covering organized emissions, fugitive emissions, and clean transportation, achieving full-process ULE transformation by March 2025, with assessment monitoring and public disclosure finalized. These projects have delivered significant environmental benefits, substantially improving the performance of pollution control facilities and enhancing regional air quality.

Organized emission retrofit

Non-organized emission retrofit

Clean transportation

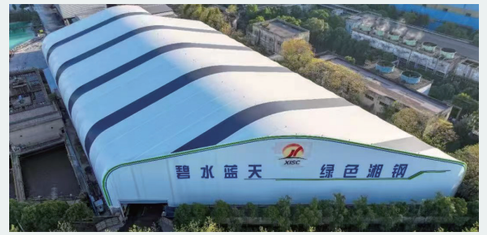
During the reporting period, Valin Steel's pollutant emission indicators are as follows:

Pollutant types	Unit	2024	Permitted emission in 2024	2023	2022
COD	Ton	300	2,054	355	415
Ammonia nitrogen	Ton	14	187	18	22
Sulfur dioxide	Ton	4,537	18,273	5,740	10,392
Nitrogen oxides	Ton	14,438	26,568	15,867	16,219
Particulate matter	Ton	20,005	28,008	21,745	23,996
Wastewater discharge					
Wastewater discharge volume	Ton	25,806,847	/	26,007,761	29,698,544

Case Valin Xiangtan Steel | Ultra-low Emission Retrofit Practice

At Valin Xiangtan Steel, 55 environmental projects have been completed and put into operation, including enclosure of the limestone stockyard, enclosure of the steel slag tailings yard, precision desulfurization for coke oven gas, coke-side enclosure for the 7.3-meter coke oven. Additionally, 61 projects are now in full swing, such as enclosure of the sintering material stockyard, covering of conveyor belt corridors, upgrades to primary dedusting systems for wide-heavy plate steelmaking converters. During the reporting period, compared with the same period last year, emissions were significantly reduced, particulate matter: 16.8% reduction, sulfur dioxide (SO_2): 7.2% reduction, nitrogen oxides (NOx): 4.3% reduction, chemical oxygen demand (COD): 8.6% reduction, ammonia nitrogen: 9.1% reduction. These reductions have made a positive contribution to the continuous improvement of ambient air quality in Xiangtan City.

Valin Xiangtan Steel Coke Oven Gas Fine Desulfurization Project

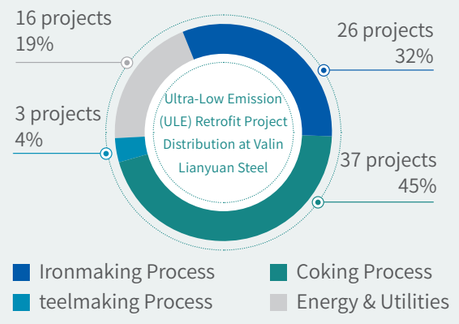


Valin Xiangtan Steel Slag and Tailings Reservoir Project

Case Valin Lianyuan Steel | Ultra-low Emission Retrofit Practice

At Valin Lianyuan Steel, several environmental improvement projects have been completed and put into operation, including flue gas treatment system for blast furnace hot blast stoves, environmental upgrade of the old-line comprehensive stockyard, enclosure renovation of raw material yards, and integrated environmental management and control platform. As of the end of the reporting period, Valin Lianyuan Steel has invested a cumulative total of 5 billion RMB in environmental governance and ultra-low emission upgrades. The company has initiated 82 environmental projects, with 88% of the overall progress completed. During the reporting period, the company achieved significant reductions in air pollutants compared to the previous year: sulfur dioxide (SO): 1,031 tons/year reduction, particulate matter: 829 tons/year reduction, nitrogen oxides (NOx): 562 tons/year reduction. These figures represent approximately 30% reduction compared to the same period last year. The comprehensive air quality index in the region showed a year-on-year decrease of over 10%, demonstrating substantial improvement in ambient air quality in surrounding areas.

Scientific Planning and Governance



Case Valin Lianyuan Steel | Ultra-low Emission Retrofit Practice

300,000 m^3/h Blast Furnace Gas Fine Desulfurization Project

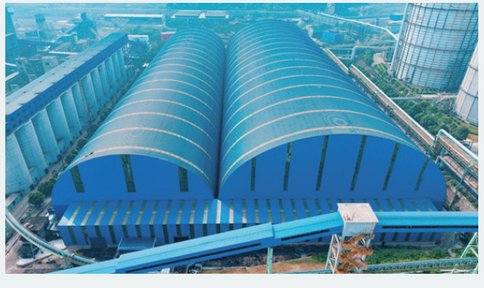
With an investment of 130 million RMB, this project achieves ultra-low sulfur dioxide emissions from steel rolling heating furnace flue gas through hydrolysis purification of gas sulfides for source treatment.

6m Coke Oven Machine-Side Dedusting Project

With an investment of 60 million RMB, this project upgrades dedusting facilities for coke pushing and coal charging at existing #1 and #2 coke ovens, significantly reducing fugitive emissions during coke pushing operations.

300,000 m^3/h Blast Furnace Gas Fine Desulfurization Project

With over 300 million RMB investment and operational since June 2024, this project reduces annual pollutant emissions by nearly 1,000 tons.



Coking Coal Yard Environmental Upgrade Project

Total renovation investment of 70 million RMB includes installation of standard wheel washers and mist cannon dust suppression systems in the coal storage shed.

Case Valin Hengyang Steel Tube | Ultra-low Emission Retrofit Practice

During the reporting period, Valin Hengyang Steel Tube completed the construction of desulfurization and denitrification systems, including the flue gas desulfurization for hot blast stoves, the flue gas desulfurization for the 180 Plant's annular furnace, and the denitrification project for sintering flue gas, achieving ultra-low emission standards for sulfur dioxide (SO) and nitrogen oxides (NOx) at all organized emission outlets. The 180 Plant's dust removal system, as well as upgrades to the sintering machine tail and particle sizing dust collectors, were completed, meeting ultra-low emission requirements. Additionally, numerous unorganized emission control projects were put into operation, such as the enclosure of raw material yards, ironmaking conveyor galleries, slag storage areas, and dust removal for scrap steel cutting, significantly reducing unorganized dust from material storage and transportation. Projects currently underway include the construction of scattered-point dust removal systems in the steelmaking area, the development of an environmental management platform, and clean transportation upgrades. These upgrades are expected to be largely completed by the first half of 2025.

180 Plant Annular Furnace Flue Gas Desulfurization Project

This project employs calcium-based dry fixed-bed desulfurization technology to treat flue gas from the annular heating furnace. It became operational in August 2024.

Ultra-Low Emission Upgrade for Ironmaking Sintering Machine Heads

Using selective catalytic reduction (SCR) denitrification technology, this project reduces NOx emissions in treated flue gas to below 50 mg/Nm^3. It was completed in December 2024.

Case Yangchun New Steel | Ultra-low Emission Retrofit Practice

In recent years, Yangchun New Steel has accelerated the construction of organized emission control, unorganized emission management, and clean transportation systems. The company has successively completed ultra-low emission upgrade projects, including blast furnace top dust removal, sintering electrostatic precipitator upgrades, a 150MW ultra-high-temperature subcritical power generation unit with supporting environmental protection facilities, and primary dust removal upgrades in steelmaking. By the end of the reporting period, the ultra-low emission upgrades for both organized and unorganized emissions had been completed, with on-site verification pending. Several ultra-low emission projects have won awards for technological and management innovation, including two first prizes—the "Guangdong Provincial Enterprise Management Modernization Innovation Achievement Award" and the "Guangdong Provincial Metallurgical Science and Technology Achievement Award."


Car washer

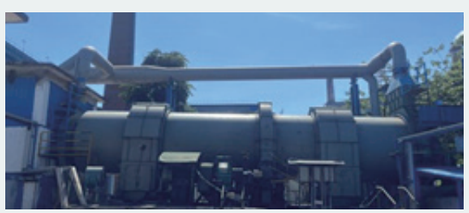

Sintering machine head electrostatic dust collector


Enclosure of the belt corridor


Dust removal above the trough


Dust removal at the taphole


Water seal dust removal of the sintering circular cooler mixer


Mixer dust removal


Desulfurization for hot blast stoves

Implement Clean Transportation

Valin Steel implemented clean transportation transformation, including measures such as optimizing logistics routes, increasing the proportion of water transportation, gradually phasing out old vehicles and non-road mobile machinery that do not meet ultra-low requirements, and renewing new energy vehicles to improve the proportion of clean transportation. During the reporting period, the ultra-low emission transformation of clean transportation of its subsidiary Yangchun New Steel has been publicly announced by the China Iron and Steel Association. The proportion of clean transportation of bulk materials in Valin Xiangtan Steel and Valin Lianyuan Steel has remained above 80%. Among them, the ultra-low emission transformation of clean transportation in Valin Xiangtan Steel has officially entered the evaluation period.

Case Yangchun New Steel | Clean Transportation Practice

Bulk Material Transport Vehicles

For the vehicles transporting bulk materials in Yangchun New Steel (only including iron concentrate, coal, coke, scrap steel, purchased pellet ore, lime, limestone, alloy, steel, steel slag, water slag, etc.), only those meet the clean transportation emission stage, namely, National VI or electric heavy trucks, are allowed to enter and leave the factory. Currently, there are 161 electric vehicles and 963 National VI vehicles.

In-plant Transport Vehicles and Non-road Mobile Machinery

Yangchun New Steel currently has a total of 41 in-plant transport vehicles, all of which are diesel vehicles. Among them, 34 meet the National V standard and 7 meet the National VI standard. During the reporting period, 2 new added vehicles meet the National V standard and 3 new added vehicles meet the National VI standard.

Yangchun New Steel currently has a total of 74 in-plant non-road mobile machinery, all of which meet the National III and above emission standards. Among them, 50 are of the National III standard, 6 are of the National IV standard, and 18 are new energy machinery. During the reporting period, 3 machinery meet the National IV standard and 4 new energy machinery were newly added.

List of the Configuration of In-plant Transport Vehicles and Non-road Machinery in Yangchun New Steel

No.	Type	Unit	Current quantity	Newly added during the reporting period
1	In-plant transport vehicles	Vehicle	41 (34 vehicles meet China V emission standards, 7 vehicles meet China VI emission standards)	2 more vehicles meet China V emission standards and 3 more vehicles meet China VI emission standards were newly added
2	In-plant non-road machinery	Vehicle	74 (50 vehicles meet China III emission standards, 6 vehicles meet China IV emission standards, 18 new energy vehicles)	3 more vehicles meet China IV emission standards and 4 more new energy vehicles were added

Electric heavy truck charging station

Independent charging station

On-site use of charging devices

On-site use of charging devices

Electric heavy trucks

Non-road machinery license plates and environmental protection codes

Beautiful Ecology

Valin Steel is committed to building a green and ecological steel city. It continuously increases investment in greening, actively promotes new models of greening projects and greening management, transforms the factory environment into an ecological garden, and creates a beautiful ecological environment with "One Factory, One Scenery", "One road, One feature", and "Year-round floral vibrancy".

Rectify the Factory Environment

Case Valin Xiangtan Steel | Builds a National Industrial Tourism Demonstration Base

In 2021, Valin Xiangtan Steel Industrial Tourism Park was successfully designated as a National AAA-Level Tourist Attraction, and in 2023, it was listed as a National Industrial Tourism Demonstration Site. The park has developed an immersive industrial tourism model combining "sightseeing + hands-on experience" and "sightseeing + science education", featuring 13 unique attractions, including Xiangtan Steel History Museum, Five-Meter Steel Rolling Production Line, Ai Aiguo Welding Technology Laboratory, etc. These sites have attracted numerous red education programs, student study tours, and corporate team-building groups, offering visitors a firsthand look at the evolution of modern steel manufacturing and the achievements of industrial tourism. During the reporting period, in order to advance its application for 4A-Level Scenic Spot certification, Valin Xiangtan Steel has implemented several greening projects, covering new premium wire rod production area (Phase II), slag steel plant ball mill stockyard, 150MW power generation area of the power plant, and chemical byproduct recovery zone and former tractor platform in the coking plant. These initiatives have added over 20,000 m^2 of green space, raising the park's green coverage rate to over 50%.

Protect Biodiversity

Conduct biodiversity training and practice

We conduct biodiversity education programs and hands-on conservation activities. This includes publishing special features like "World Environment Day - Biodiversity Awareness Bulletin" to enhance staff knowledge, while organizing participatory biodiversity protection events. Evaluate the impact of project construction on the ecological environment.

Conduct Biodiversity Surveys and Assessments

Evaluate the impact of project construction on the ecological environment before starting project construction to avoid building projects in ecologically fragile areas; continuously monitor the surrounding ecological environment during the project operation period and actively carry out biodiversity protection, etc.

Developing Urban Green Factories

Implement environmental improvement projects such as greening around the factory's production facilities, beautifying and lighting the office buildings, and renovating the cultural and sports facilities in the living area to continuously increase the green plant coverage rate of each subsidiary's factory area and constantly pursue the balance between industrial and natural elements.

Case VAMA | Biodiversity Protection Practices

There are as many as 56 species of birds and reptiles such as hares, pheasants, and weasels in the VAMA area. VAMA has specifically established a biodiversity management plan, such as providing grains and corn to feed migratory birds during the winter.

华菱安赛乐米塔尔汽车板有限
公司 2025 年度生物多样性管理计划

编制：李云超

审核：张东兴

批准：刘哲

华菱安赛乐米塔尔汽车板有限公司

2025 年 1 月 13 日

Biodiversity management plan

Provide grains and corn

04

Unite and Progress Together Strive for the Future

Valin Steel has consistently implemented the strategy of "strengthening the enterprise through talent," adhering to the principle of the Party overseeing key personnel decisions, cultivating talent internally while attracting it externally, enhancing vitality through institutional reforms, and fostering unity through cultural guidance. The company continuously optimizes mechanisms for talent recruitment, development, utilization, and motivation, increasing investment and innovating methods to safeguard employee rights, enhance employee care, and ignite their passion for innovation. By creating a more comfortable working environment for employees, Valin Steel has laid a solid talent foundation for its high-quality development and transformation and upgrading.

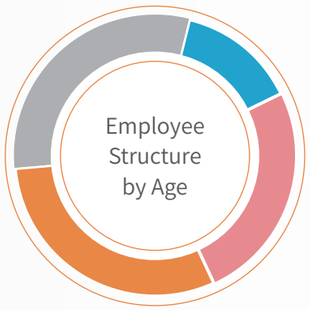
Employee Employment

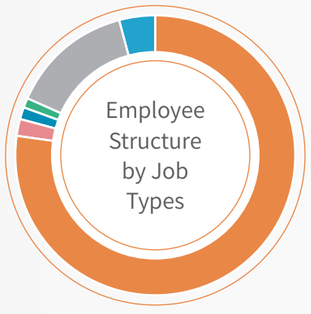
Compliant Employment

The company respects and safeguards all lawful rights and interests of its employees, strictly complies with labor laws and regulations such as the *Labor Law, the Labor Contract Law*, and the *Regulations on the Implementation of the Labor Contract Law*, and signs labor contracts with employees based on the principles of equality, voluntary participation, and mutual agreement through consultation.

Total numbers of employees **23,419**

- Proportion of employees under 30 13.92%
- Proportion of employees between 30-40 25.51%
- Proportion of employees between 40-50 30.31%
- Proportion of employees above 50 30.25%





- Production staff 18,094
- Sales staff 490
- Purchasing staff 297
- Financial staff 282
- Technical staff 3,304
- Administrative staff 952

- Ph.D.s 70
- Bachelors 7,312
- Masters 669
- Others 15,368

Diversity and equality

The company places high priority on safeguarding employees' interests in terms of wages, working hours, and welfare benefits. We are committed to fostering a diverse, equitable, and inclusive employment environment, including supporting the development of disabled individuals by providing job opportunities and actively helping them enhance their professional skills to create value for both the enterprise and society.

The company strictly prohibits any non-compliant practices such as child labor or forced labor. With diversity, equity, and inclusion as our core objectives, we firmly oppose discrimination based on race, social class, nationality, religion, physical disability, or gender.

We are dedicated to maintaining a positive workplace atmosphere and expressly prohibit managers from subjecting employees to physical punishment, psychological coercion, or verbal abuse, thereby ensuring the lawful rights and interests of all employees.

The company values the advancement of disabled individuals by offering employment opportunities and actively supporting their professional development, enabling them to contribute value to both the enterprise and society.

Key Performance

Number of disabled people supported in employment **327**

Number of female employees **2,739**

Number of ethnic minorities **451**

Proportion of disabled people supported in employment **1.4**%

Proportion of female employees **12**%

Proportion of ethnic minorities **1.9**%

Human Rights Protection

We strictly comply with Chinese labor laws and regulations, including but not limited to the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, the *Law on the Protection of Minors*, the *Law on the Protection of Women's Rights and Interests*, the *Trade Union Law*, and *the Special Provisions on the Labor Protection of Female Employees*. In alignment with international standards such as the *Universal Declaration of Human Rights and the Declaration on Human Rights*, we have established internal policies, including our *Fundamental Human Rights Policy*, to define core principles in employee management, workplace practices, and welfare benefits. We continuously refine our human rights management processes to ensure full respect and protection for all employees and stakeholders. During recruitment, we rigorously verify candidates' identity documents and strictly adhere to the legal employment age requirements of the respective country or region. We categorically prohibit the hiring of individuals below the legal working age. Regarding forced labor, the company strictly prohibits entering into any contractual agreements involving slavery, forced labor, bonded labor, or indentured labor. We are fully committed to complying with all applicable local laws and regulations and firmly oppose any form of involuntary labor.

Valin steel Arrangements for Human Rights Due Diligence

Preparation for Sharing and Evaluation

Through organizing symposiums, collecting employees' opinions and suggestions and providing timely feedback, as well as conducting research on the implementation of collective contracts, we will gain an in-depth understanding of the current situation of human-rights-related issues.

Human Rights Impact Assessment

The Security Department conducts specialized inspections on operational safety, workplace conditions, and occupational health management. Meanwhile, the Human Resources Department implements routine oversight of working hours, wage disbursements, social insurance contributions, and labor contract compliance. Additionally, employee engagement surveys are administered to assess potential workplace impacts, focusing on core dimensions such as job satisfaction, work-life balance, professional development, and diversity & inclusion.

Prevention and Mitigation Measures

The company delivers regular human rights and labor rights training to all employees through internal programs and awareness campaigns, ensuring 100% training coverage biennially. A grievance mechanism is established, allowing employees to report issues – either anonymously or identifiably – via hotline, mail, email, in-person meetings, or digital platforms to the labor union, administration office, or disciplinary supervision department.

External Audits

Biennial social responsibility audits aligned with Responsible Business Alliance (RBA) standards are conducted across all manufacturing facilities, covering human rights and labor practices. Identified non-conformities trigger corrective action plans with periodic performance tracking.

Key Performance

Child labor, forced labor, and human trafficking: **0** cases

Discrimination and harassment: **0** cases

Talent Recruitment

We firmly believe that talent is the key driver of corporate development and consistently prioritize the cultivation and management of human capital. The company is committed to building a robust talent ecosystem, scientifically designing positions, and establishing an efficient talent management model to advance our strategic objectives through talent-centric initiatives.In collaboration with Central South University, Hunan University, and Wuhan University of Science and Technology, we have strengthened process management for master's degree programs (equivalent academic status) in management science, mechanical engineering, automation, metallurgy, and materials science, achieving remarkable learning outcomes and enhancing participants' professional competencies.

Talent Demand Assessment

Platform evaluation

We collaborate with leading HR partners to streamline recruitment processes and enhance hiring efficiency.

Personnel evaluation

Comprehensively evaluate candidates from multiple aspects such as professional knowledge, learning potential, communication skills, teamwork ability, and stress-coping ability to assess the fit between their comprehensive qualities and job requirements.

Requirement assessment

To cope with future changes such as personnel flow and production line optimization, through in-depth on-site production research, close cooperation with the employment departments, and benchmarking against advanced enterprises in the industry, we accurately calculate the personnel requirements and formulate a scientific and reasonable recruitment plan accordingly.

The company prioritizes the fundamental mission of "mentoring successors and ensuring sustainable talent pipelines," continuously optimizing its talent structure and actively recruiting top professionals. During the reporting period, the company received 3.29 million RMB in talent development funding from the Hunan SASAC.

Valin Xiangtan Steel

During the reporting period, Valin Xiangtan Steel expanded its recruitment channels to support new product R&D, quality improvement, and smart manufacturing initiatives. The company on-boarded 153 university graduates, including 5 Ph.D. holders and 66 master's degree holders (46% of total hires), marking its first recruitment collaborations with Xi'an Jiaotong University, Northwestern Polytechnical University, and Communication University of China. Additionally, 9 technical and marketing experts were hired (6 full-time, 3 contracted). These high-caliber professionals provide strong support for high-quality development.

Valin Lianyuan Steel

Focusing on high-level, mission-critical, and key reserve talent, Valin Lianyuan Steel attracts specialists through competitive compensation and well-designed mechanisms. During the reporting period, it recruited 3 Ph.D. holders, 13 master's graduates, and 168 bachelor's degree holders. Ph.D. recruits receive contract-based salaries, 288 m^2 luxury furnished residences, relocation allowances, and dedicated research studios with funding and autonomous project direction. The "Nurturing Excellence Initiative" provides a robust platform for top talent development.

Valin Hengyang Steel Tube

Valin Hengyang Steel Tube enhanced its recruitment mechanisms and benefits packages to strengthen talent acquisition. In 2024, it hired nearly 100 university graduates, including 13 postgraduates and 33 undergraduates—70% from Double First-Class or higher-tier institutions which breaks a historical record. Many recruits have assumed critical roles, injecting vigorous momentum into the company's high-quality development.

Key Performance

Total new hires **435**

Proportion of total new hires **2**%

Numbers of fresh graduate recruitment **618**

Proportion of fresh graduate recruitment **3**%

Recruitment of Fresh College Graduates

The company earnestly implements the employment stabilization directives and requirements set forth by the CPC Central Committee, the State Council, and provincial authorities, fully embracing its social responsibilities as a provincial state-owned enterprise. Through talent recruitment initiatives like the "Elite Cultivation Program" and other policy measures, we on-boarded 618 fresh graduates during the reporting period. Among them, 32 candidates were selected for the provincial SASAC's "Elite Cultivation Program", demonstrating our commitment to advancing high-quality employment opportunities for university graduates as a responsible state-owned enterprise.

Valin Xiangtan Steel 2024 New Graduate Red-Themed Education Program

Valin Lianyuan Steel 2024 New Employee Welcome Gala

Valin Hengyang Steel Tube 2024 New Graduate Outdoor Team-Building Activities

Valin Xiangtan Steel 2024 New Graduate Orientation

Valin Lianyuan Steel 2024 New Employee Training Opening Ceremony

Valin Hengyang Steel Tube 2024 New Graduate Roundtable Discussion

Compensation & Benefits

The company improves the modern enterprise system and continuously optimizes the "strict constraints, strong incentives" mechanism. It implements a market-oriented salary system where income is linked to performance indicators. It establishes a salary system based on positions, driven by capabilities, and performance-oriented. It also establishes an efficient employee performance management system to create a high-performance corporate culture. The company's strategic indicators are decomposed layer by layer to each position. The results of employee performance appraisals serve as important bases for human resources decisions such as performance - based salary calculation, salary adjustment, position adjustment, training, and labor contract renewal. The company continuously optimizes the internal motivation mechanism of distribution according to contributions, improves the assessment and incentive mechanism that favors strivers and front - line employees, and reasonably widens the income distribution gap. It implements the principle of salary change with position change, highlights the proportion of performance - based salary, and widens the performance - based salary distribution gap. It implements a differentiated salary system for high-end, sophisticated, and scarce talents and lists them separately to ensure that talents can be attracted, retained, and well-utilized.

Key Performance

Social insurance coverage rate: **100**%

Personalized Salary System

Valin Xiangtan Steel

Adhere to the principles such as linking the salary level to overall efficiency and effectiveness, and implement a personalized salary system. Core executives at the chief level will receive an annual salary system; urgently needed talents will be offered contractual wages; technical and skilled personnel will receive project-based commission incentives; employees winning competitions will be granted additional rewards of up to **50,000** RMB matching their award amounts; and those obtaining professional certifications for specific positions will receive allowance incentives—all designed to encourage continuous improvement in professional competencies.

Incentive Mechanism for High-tech Talents

Valin Lianyuan Steel

To stimulate the vitality of top-tier talents and build an innovation hub, Valin Lianyuan Steel has established specialized positions including Chief Scientist and Scientist, along with corresponding special allowances - up to **1** million yuan/year for Chief Scientists and **500,000** yuan/year for Scientists. Currently, the company has appointed **2** "Lianyuan Scientists", while also providing comprehensive support for high-end talent development through research funding, dedicated doctoral research studios, and employment opportunities for family members.

Adhere to "Putting Strivers First" Compensation and Incentive System

Valin Hengyang Steel Tube

We implement "customized packages for individual talents", offering regionally competitive compensation including housing subsidies. Core management and technical professionals are placed on an annual salary system, while frontline technical staff receive special allowances. Focusing on production bottlenecks, we vigorously promote project-based incentives and labor competition rewards. Active participation in competitions, achievement applications and patent filings is encouraged through various special awards. These multi-pronged measures collectively stimulate innovation and value creation across our talent pool.

Implement a dual-track incentive system combining company-wide performance incentives and key project incentives

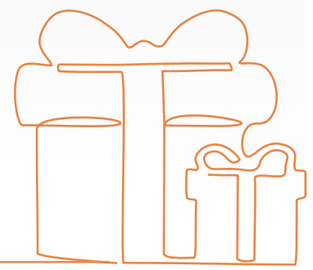
VAMA

The performance incentive applies to all employees and is directly linked to their income through performance-based pay and year-end bonuses. The project incentive focuses on four core areas: sales growth, inventory control, equipment reliability, and delivery assurance. Special rewards are established, with flexible bonuses disbursed upon reaching project milestones, creating a sustainable driving mechanism where "all employees share strategic goals while making breakthroughs in key initiatives."

Guided by the philosophy of "attracting talent through corporate culture and rewarding talent with competitive benefits," the company continues to implement its corporate pension plan, during the reporting period, leveraging its deferred compensation and long-term incentive functions. Subsidiaries continuously improve salary packages for university graduates based on operational needs, adopting a dual-track probation salary system distinguishing between regular and "Double First-Class" university graduates. For Ph.D. and high-end talent recruitment, special policies are in place, including assistance with spouse employment and children's education. Additionally, the company provides excellent living and working conditions, including single apartments and free meals, relocation allowances – for Ph.D. graduates: **¥200,000**, with additionally a **140–320** m^2 house, plus ¥**1,000**/m^2 renovation subsidy; for Master's graduates relocation allowances are **¥50,000**; and Bachelor's graduates are ¥**10,000**. This comprehensive approach ensures a supportive environment for talent retention and development.

Diversified Welfare System

Statutory Benefits	Additional Benefits	Special Benefits
· Five Social Insurances and Two Housing Funds · Paid Annual Leave · Statutory Holidays · Parental Leave	· Meal Allowance · Housing Allowance · Mobile Communication Expense Reimbursement (with limit) · Transportation Expense Reimbursement (with limit) · Supplementary Commercial Insurance · Holiday Benefits · Women's Day Care · Newborn Baby Gift · Wedding Gift · Employee Health Checkup · Hospitalization Care Package · Birthday Greetings	· Employee High-Cost Supplementary Medical Insurance · Group Accidental Injury Insurance



Employee Development

Career Path

To inspire employees' enthusiasm and broaden their career development paths, we have established an employee career path that conforms to the long - term development strategy, helping employees achieve sustainable development on the career platform. At strategic level, the company prioritizes leadership development, talent cultivation, and institutional innovation as key drivers of internal reform. We implement a dynamic management mechanism where "leaders can be promoted or reassigned, and employees can be recruited or dismissed," ensuring continuous organizational vitality. "Flowing water never stagnates; a moving hinge never rusts." Only through constant motion can an organization sustain its vigor and vitality.

◆ Talent Echelon Development

We revised and issued the *Employee Career Development Pathway Management Guidelines* to optimize the "top-level design" for technical and skilled talent, breaking career growth ceilings and bridging the gap between technical and managerial tracks. This provides expanded development opportunities while systematically building a multi-tiered talent pipeline. For example, Valin Xiangtan Steel has refined selection criteria and corresponding ranks for positions such as Chief Expert, Senior Chief Expert, Chief Craftsman, Senior Chief Craftsman, Master Craftsman, while clearly defining promotion requirements for principal-level roles.

◆ Green Interaction

We have established seamless transition pathways across career development tracks, diversifying growth options to enable versatile talent to navigate freely among management, technical, skilled, and operational channels. This eliminates the "thousand troops crowding a single-log bridge" phenomenon, ensuring every talent type can realize their unique value within the enterprise. For instance, Valin Lianyuan Steel build a "1+3" Career Advancement System (integrating management, technical, skilled, and operational paths), which actively expands development space for multidisciplinary professionals.

◆ Rotation and Exchange

We have implemented diversified job rotation initiatives to broaden development pathways for young employees, enhance their strategic perspective and comprehensive capabilities, and build a multi-skilled talent pool. For instance, Valin Hengyang Steel has introduced institutional regulations such as *Employee Rotation & Exchange Management Policy*, *Selection and Appointment Guidelines for Section-Level Personnel*; developed a digital case management platform covering five core disciplines, like steelmaking, pipe rolling, mechanical engineering, electrical systems and integrated management, to achieve in-depth knowledge sharing and effective corporate wisdom transfer.

Provide a Value Platform for Strivers

The company has launched the "Shining Steel, Striving Forward" campaign column to showcase the achievements and dedication of Valin Steel's "Strivers of the Month". By following these role models' footsteps and promoting the striver spirit, we inspire all employees to strengthen their conviction and forge ahead, accelerating our journey to build a world-class steel enterprise and contribute to the realization of "Three Highs & Four News" strategic blueprint. Comrade Guo Chunguang has been selected as a candidate for the national "Master Craftsman of China" cultivation program.

Shi Shuhua, Director of Plate Product Section at Technology Center of Valin Xiangtan Steel

He led his team to complete the R&D and certification of 29 product varieties, including 210 mm rack steel, 7Ni steel, and 100 mm crack-arrest steel, helping Valin Xiangtan Steel's heavy plates achieve full coverage of high-end product specifications. Among them, seven products such as the 150mm FH36 extra-thick low-temperature ship plate were launched in China for the first time and replaced imports. The newly developed Q690GJC high-strength building steel was applied in batches for the first time in China at the Bao'an Workers' Cultural Palace; 420MPa ultra-high-strength offshore engineering steel was exclusively supplied to the Haiji No. 2 project, Asia's first deep-water jacket, promoting the extension of the plate product structure to the high end of the industrial and value chains.

Nie Xianfeng, Minister of Procurement Department of Valin Lianyuan Steel

Nie Xianfeng led his team to actively respond to the severe market challenges and boldly innovated the procurement model. All annual indicators have made comprehensive progress. Among them, the procurement prices of domestic ore, pellet ore, and scrap steel have significantly improved compared with the industry average. The cost reduction of equipment and materials procurement has achieved obvious benefits compared with the same period last year, yielding good results. He measured the market with his footsteps and set an example with his actions. He visited more than 100 key and strategic customers throughout the year, increasing the supply channels by more than 30%. He went to the site more than twice a week to understand the usage effects, achieving synergy among market resources, on-site usage, and system cost reduction.

Liu Gongwei, Deputy Section Chief of Technical Service Department of Valin Hengyang Steel Tube Sales Company

Liu Gongwei has been deeply involved in the field of oil drilling. With his professional skills, he ensures the stable operation of Valin Hengyang Steel Tube's high-end oil casings under complex geological conditions. Valin Hengyang Steel Tube's products have continuously broken the limits of deep-well drilling, setting milestone records such as the domestic 10,000 - meter deep well and the "Underground Everest" of the large-inclination carbonate rock well in Asia. He has written several monographs on oil pipes and efficiently solved technical problems in domestic and foreign oilfields. He has helped Valin Hengyang Steel Tube continuously increase its market share in the oil casing market, ranking first in the country in CNPC's oil casing tenders, and has achieved a leading position in the industry in the R&D and application of non-API ultra-deep well oil casing technology.

Diversify Training

The company focuses on the strategic goal of building a world-class steel enterprise, prioritizes "four modernizations" transformation which are premiumization, digitalization, greening, and servitization – by implementing tiered, diversified, and targeted training programs. Focuses on building three teams to provide strong support for the high-quality development of the enterprise. Among them, it scientifically and systematically constructs a leadership training system, vigorously conducts training for senior/middle managers to improve their political acumen, business management ability, and digital transformation capabilities; closely follows the company's management reform and innovation to conduct training for professional management talents to improve their professional ability; focuses on cultivating innovative thinking, craftsmanship spirit, and professional ability to conduct training for technical and skilled talents to improve their technological innovation ability. It adheres to the combination of individual self-directed learning with organizational programs, organizes employee training, and actively selects outstanding employees to participate in external training to meet the personalized training needs of employees.

- Corporate strategy and culture education. Strengthened dissemination of corporate strategy and culture, conducting crisis awareness training during industry downturns.
- Safety awareness education. Organized comprehensive safety training for safety management personnel, special operation personnel, new employees, etc.
- Customer and quality awareness education. Extensive rotation training on customer and quality awareness, quality knowledge lectures, etc. were carried out.
- Environmental awareness education. Delivered training on energy and environmental protection business processes and relevant systems, carbon emission management, new environmental protection technologies, etc.
- Confidentiality and legal awareness education. Actively organized confidentiality knowledge education, general science legal knowledge lectures, etc.

Key Performance

Training duration **277,731** hours	Number of training programs **1,425**
Employee training coverage rate **100**%	Employees regularly receiving performance and career development assessments **100**%

Valin Steel

During the reporting period, the company conducted corporate-level technical training programs, management training, and skills-based training, providing 1,600 training sessions for key personnel in areas such as system management standards, production process standards, and equipment knowledge.Additionally, the company organized 25 vocational skill certification training courses across various proficiency levels. The company won Team Third Place in the 11th "Shagang Cup" National Steel Industry Vocational Skills Competition, with all four participating specialists awarded the title of "National Steel Industry Technical Expert"; also won Team Second Prize in the 2nd Metallurgical Industry Metrology and Calibration Personnel Skills Competition.

Valin Lianyuan Steel

Overseeing the entire technical renovation project training process to facilitate production and efficiency targets: The training process management of technical renovation projects such as the 150MW super-critical power generation project of the Energy General Plant and the environmental protection upgrade project of the stockyard in the Iron-making Plant was supervised respectively. Through a combination of internal and external training, employees were enabled to familiarize themselves with and master new processes and skills. Among them, the Energy General Plant sent two batches of more than 23 people to Leiyang Power Plant in Hengyang and Guangxi Shenglong Iron and Steel for one month on-site follow-up internships respectively, and the Iron-making Plant sent two batches of 49 people to Kunming Iron and Steel for nine-day on-site follow-up internships respectively, providing effective support for the technical renovation projects.

Valin Hengyang Steel Tube

Adhere to the "Three Horizontal and Three ertical" layout for cultivation work. Horizontally, it covers three major sequences of "business management, professional technology, and operational skills"; vertically, it meets the three levels of "beginner, intermediate, and advanced" for the improvement of employees' qualities and performance abilities. Gradually clarifies job responsibilities and "set standards" for performance abilities. At the same time, conduct talent inventory for key positions and "implement standards" for key targets, and promote "meeting standards" through three-dimensional training and cultivation.

VAMA

Through the implementation of tiered thematic training, the professional skills and knowledge levels of employees have been significantly improved, laying a solid talent foundation for the advancement of VAMA's sustainable development strategy. To continuously enhance the professional capabilities and knowledge levels of VAMA employees and strengthen talent cultivation and talent team building, VAMA constructed and implemented learning maps for the management sequence and electrical engineer positions in 2024. Through activities such as professional position competitions, skill certifications, and mentoring programs, the personal growth of employees has been effectively promoted, achieving the goal of common development between the enterprise and employees.

Employee Care

Right and Interests Protection

The company upholds the core value of "employee-centricity" and safeguards employees' fundamental rights. By establishing diverse and open communication channels, implementing long-term performance-based incentive systems, and continuously improving the employee benefits and care framework, the company enhances workforce engagement and fosters a strong sense of belonging among employees.

The Company respects employees' freedom of association and speech. In accordance with the *Trade Union Law of the People's Republic of China* and the *Collective Contract Provisions*, we have implemented a constructive two-way communication mechanism and established diversified democratic platforms for employee engagement. The Company's labor union serves as an effective channel for communication between employees and management. Through various avenues such as employee congresses and staff representative proposals, we actively address employee concerns and grievances. During the reporting period, Valin Steel convened the 2025 Collective Contract Negotiation Meeting, successfully completing all procedures including contract negotiations, signing, anonymous voting, regulatory submission, and public announcement. The Company holds regular employee forums to listen to staff feedback, collects quarterly feedback on logistics and union services, processed 232 insurance claims with an 80% settlement rate. Facilitated mutual aid agreements between active and retired employees to enhance medical coverage, providing dual-layer health protection

Key Performance

Proportion of Valin Steel active employees among union members **100**%

Collective agreement participation coverage rate **100**%

Labor contract execution rate **100**%

Democratic Management

The company facilitates democratic employee representation through fair elections, empowering staff to actively participate in corporate governance. To safeguard employees' rights to information, participation, expression and oversight, we maintain multiple feedback channels including anonymous suggestion boxes, dedicated hotlines, regular satisfaction surveys, ad-hoc employee forums and enhanced whistleblowing mechanisms. These unimpeded grievance channels foster collaborative labor relations, ensuring all concerns receive prompt attention.

Widely Listen to Employees' Opinions and Implement the Rights and Obligations of the Employees' Congress

The company makes every effort to promote grass-roots democratic management, establishes and improves a grass-roots democratic management system with the employees' congress as the basic form. For hot and difficult issues that employees are concerned about, such as capital construction, leadership appointment, and salary treatment, as well as matters related to employees' immediate interests, the company listens to employees' opinions in advance and accepts employees' supervision afterwards, ensuring employees' right to know and right to participate to the greatest extent.

Effectively safeguard the rights and interests of employees. Conduct equal consultations and sign the collective wage negotiation agreement and collective contract for the year 2025. Actively carry out the mediation work of employees' labor disputes and provide legal aid in a timely manner. The trade union of the 5-meter Heavy Plate Mill won the title of "National Model Workers' Small Family", and Comrade Wang Chunhua won the title of "National Outstanding Trade Union Worker".

Implement and conduct employee satisfaction surveys

The company comprehensively investigates and understands employees' feelings from aspects such as corporate culture, career planning, and office and living environment. The purpose of the survey is to discover the achievements and deficiencies of the company in employee care work. For the items with low scores in the survey, the company plans to carry out corresponding improvement and adjustment work to continuously create a more comfortable and user-friendly working environment for employees. During the reporting period, the employee satisfaction of the company increased year-on-year.

Conduct equal consultations and sign the annual collective wage negotiation agreement and collective contract

Employee representatives conduct democratic evaluations and score the leading leaders of their respective units

Employees exercise their legal rights at the employees' congress

The subsidiaries voted to elect the members of the 7th Female Employees' Committee of the trade union

Employee care

Condolences to employees in difficulty

The company wholeheartedly serves as the caring person for employees, does good deeds and practical things well, and further enhances employees' sense of gain, happiness and security. Through activities such as home visits and care to send warmth, and the establishment of subsidies for employees in difficulty and to send warmth, the company helps employees tide over difficulties. During the reporting period, the company carried out home visits and condolence to send warmth activities, condoling nearly a thousand times to model workers, craftsmen, united front objects and employees in difficulty.

Support to employees in difficulty

Warmly organize employee assistance

Care for female

The company strictly complies with relevant local laws, regulations, and international conventions, upholds workforce diversity, and ensures employment equity between male and female employees. It actively implements the *Special Provisions on Labor Protection for Female Employees in Hunan Province* to safeguard women's rights such as maternity leave and breastfeeding leave. During the reporting period, the company organized a "Knowledge Competition on Female Employees' Rights Protection and Occupational Safety & Health" to enhance women's understanding of relevant laws and regulations. This initiative played a significant role in empowering the Women's Committee to protect female employees' legitimate rights and fostered a positive atmosphere of care for female workers. Additionally, the company held specialized events such as the "Female Employees' Rights Protection Action Month", International Women's Day celebrations, and healthcare knowledge lectures for female employees. It also arranged gynecological and breast cancer screenings for female staff and encouraged their participation in mutual aid programs for special diseases affecting women. These efforts have built a protective barrier for female employees against major health risks.

Organized "Charming Reading · Wonderful Steel City" female employee family theme forum

Participate in the quality education improvement course for female employees

Hold a safety production meeting for female employees

Carry out a health lecture for female employees titled "A Healthy Life Starts from the Heart"

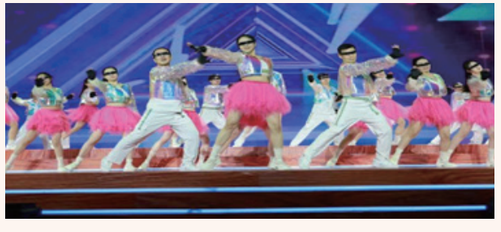
Enriching Recreational Activities

The company is committed to sharing its development achievements with employees by increasing investments to improve the working environment, building facilities such as staff recreation centers and eco-friendly parking lots, and organizing a variety of cultural and sports activities. These efforts continuously enhance employees' sense of happiness, fulfillment, and belonging.

During the reporting period, the company hosted traditional events such as basketball and badminton tournaments, as well as employee fitness runs. These activities effectively strengthened communication among staff, fostered a positive atmosphere, and boosted team vitality.

Participated in the Hunan Provincial employee reading program "The Reader" Grand Showcase Event

Organized the 2025 Spring Festival Fellowship Gala



Performed a dance routine at Xiangtan City's Spring Festival Gala

Won Third Prize in the "Chinese Dream · Labor's Beauty" National Employee Workplace Exercise Competition

Successfully defended the championship title at the 2024 Zhuzhou Factory BA Basketball Tournament

Claimed Second Prize in the 2024 Provincial Nonferrous Metallurgy, Machinery & Building Materials Industry Employees' Gas Volleyball Competition

Competed in the 7th 2024 Loudi Municipal Directly-affiliated Units Employees' Volleyball Tournament

Participate in the 2024 Employees' Table Tennis Competition

Participated in the 2024 Soccer Friendly Match

Joined the 2024 "Greeting the New Spring" Greenway Mini Marathon Race

Hosted the "Striving for Excellence, Celebrating the Anniversary" Employees' Calligraphy & Painting Competition

Held a National Day Staff Variety Show with singing and dancing to celebrate the holiday

Organized the "Saluting the Motherland, Singing the Anthem of Endeavor" Lawn Choral Concert

Health and Safety

Health Management

The company has always regarded ensuring the occupational health and safety of employees as the top priority in its production and business activities. The company continuously improves the construction of its internal system. Its subsidiaries, Valin Xiangtan Steel, Valin Lianyuan Steel, Valin Hengyang Steel Tube, Yangchun New Steel, and VAMA, passed the certification of the GB/T45001 or GB/T28001 Occupational Health and Safety Management System in 2018, 2003, 2002, 2011, and 2015 respectively.

The company prioritizes the life safety and occupational health of every employee. In accordance with the "One List, Four Mechanisms" requirements for major accident hazard management, we have developed and implemented rigorous hazard control plans. Key focus areas include specialized rectification efforts for hazardous chemicals, high-temperature molten metals, gas-related risks, and confined spaces, as well as enhanced safety measures during critical periods covering production safety, fire safety, traffic safety, and hazardous waste management. These initiatives effectively safeguard frontline production employees' occupational safety and minimize potential hazards.

During the reporting period, the company carried out safety inspections, organized an all-year-round campaign to combat illegal behaviors, and investigated and rectified major potential safety production accidents; deepened the "Ankang Cup" competition, carried out safety standardization and safety benchmark team competition activities to further enhance the safety awareness of teams; set up a bulletin board for occupational disease hazards, regularly organized training on occupational disease knowledge, and conducted occupational disease physical examinations for newly recruited and departing employees to effectively screen for occupational diseases; established occupational health monitoring files for employees, timely tracked the occupational health status of employees, and organized employee health examinations, female employee examinations, occupational health examinations, and psychological health consultations in stages; increased the summer high-temperature allowance, carried out activities such as sending coolness and condoling difficult employees; increased labor protection supplies and carried out relevant emergency rescue drills to enhance employees' ability to respond and self-protect in emergencies.

Key Performance

Occupational health examination coverage rate **100**%

Recognized as "Advanced Unit in Occupational Health Management" for 2024

Conducted "Summer Cooling Care" initiative for employees

Organized corporate campaigns including the "Occupational Disease Prevention Awareness Month", featuring promotional events, specialized training, and knowledge competitions

Work Safety

Ensuring the safety of employees and production is the primary task that Valin Steel adheres to. The company always maintains 100% compliance with regulations, strictly abides by the requirements of laws and regulations such as the *Work Safety Law of the People's Republic of China*, the *Regulations on Work Safety of Hunan Province*, and the *Law of the People's Republic of China on Prevention and Control of Occupational Diseases*. It always adheres to the principles of "visible leadership, line responsibility, and full-staff participation" and firmly shoulders the main responsibility for enterprise work safety. During the reporting period, the company has taken strict measures in work safety, strengthened the work safety responsibility system, introduced decisive measures for work safety, and effectively carried out the investigation and rectification of potential hazards in areas such as engineering projects, hazardous chemicals, and fire protection. The work safety situation has gradually stabilized, and no major or above work safety accidents have occurred. VAMA has created a safety record with a lost - time injury frequency of 0.25 per million working hours. It has won honors such as the Advanced Unit in Work Safety and the Advanced Unit in Occupational Health Management awarded by the Hunan Occupational Safety and Health Association and the Hunan Work Safety Society, and the "Good Unit in Safety and Law - Abiding" in Loudi City. The high - speed wire rolling workshop of Yangchun New Steel has won the "National Youth Work Safety Demonstration Post".

- Carry out in-depth investigation and governance of potential hazards and risk classification management and control to promote the complete elimination of major potential hazards. Conduct a comprehensive re-identification of hazard sources, division of work activities, and pre-prediction and pre - control of work activities.
- Regularly organize the business management department to review the work safety qualifications and conditions of contracting and subcontracting units, and strengthen the safety management of external contractors.
- Carry out special safety rectifications for belt conveyors, scaffolding climbing facilities, lifting equipment, and isolation of dangerous areas to improve the intrinsic safety level of the site.
- Strengthen safety education and training, implement internal qualification certification for safety management of shift supervisors, duty officers, inspectors, and supervisors. Conduct safety education and training by profession and category to enhance safety awareness and skills.

Key Performance

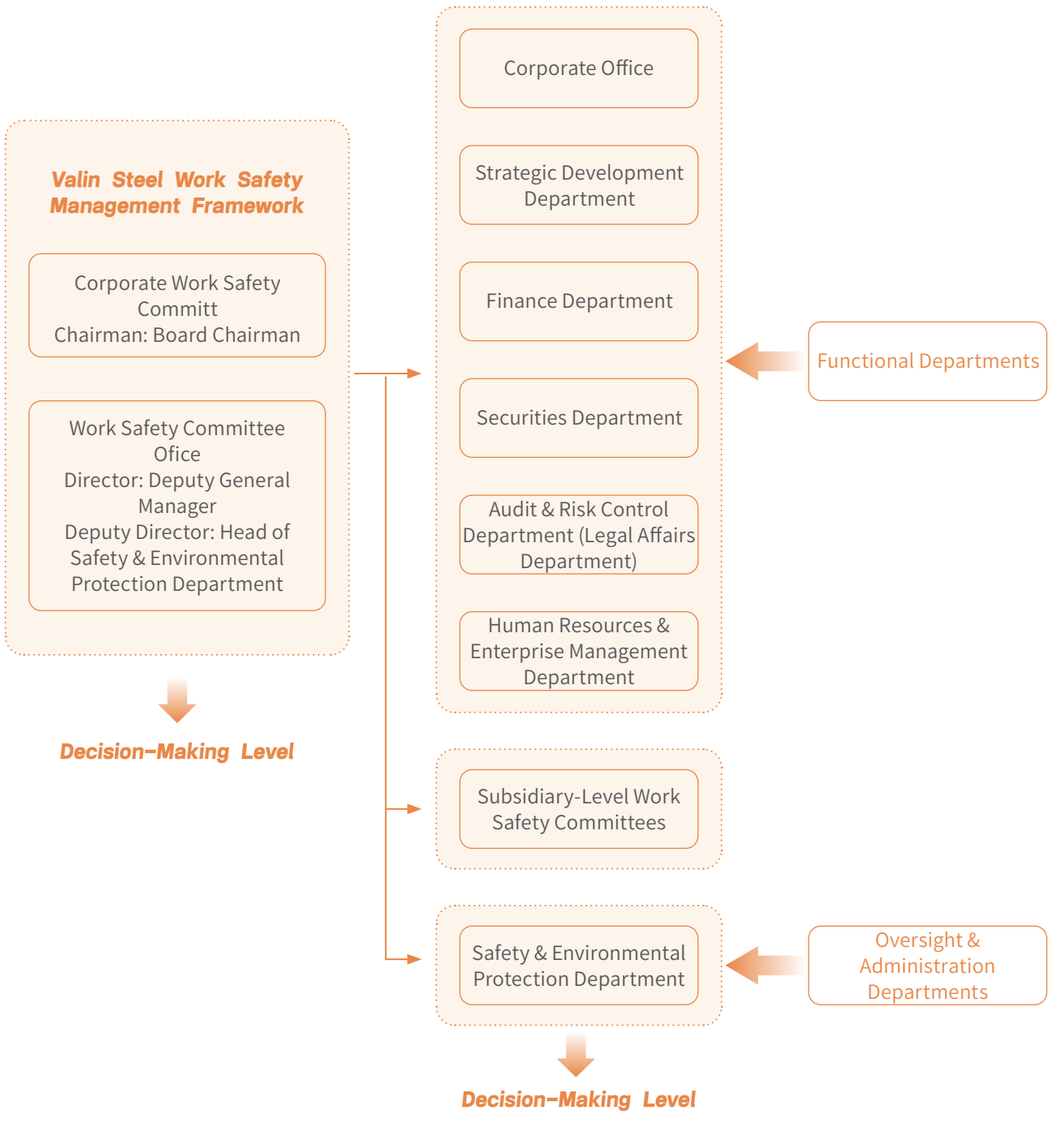
Major or above-level production safety incidents: **0**

Work safety training rate **100**%

Work safety liability insurance invested **1,009** million RMB

Work Safety Management Structure

The company has established a Work Safety Management Committee, with the chairman as the director, the deputy general manager in charge as the deputy director, and the deputy general managers in charge of each subsidiary as members, effectively strengthening the organization and leadership of work safety. The company has signed the Work Safety Target Responsibility Letter with each subsidiary, conducts monthly assessments, effectively implements the work safety responsibility system, links safety performance with monthly and annual performance, and forms a work safety management network that runs through vertically and is connected horizontally within the company.



VAMA won the title of Advanced Unit in Work Safety in 2024

Formulate and issue the Notice on Strengthening the High-Risk Operations

Successfully passed the second-level work safety standardization review organized by the Hunan Emergency Management Department.

Work Safety Responsibility Evaluation

The company has refined its work safety accountability system and evaluation mechanism, implementing a linked-point working system for the Safety Committee to strengthen supervision, guidance, and support for subsidiaries and secondary units in work safety and occupational health. A grid-based safety management approach has been adopted to reinforce accountability at the most granular operational levels. During the reporting period, the company continued to focus on work safety, strengthened the work safety responsibility system, introduced decisive measures for work safety, and effectively carried out hidden danger investigation and rectification in areas such as engineering projects, hazardous chemicals, and fire protection. The work safety situation has gradually stabilized.

Special Topic

Linking Work Safety Performance with the Performance of Subsidiary Management

The compensation package for the leadership team of subsidiaries consists of a base annual salary, performance-based annual bonus, excess profit incentive, three-year tenure incentive, and special rewards/penalties. Among these, the *Hunan Valin Steel Co., Ltd. Work Safety Management Measures* serve as a key component of the special rewards/penalties. To achieve work safety objectives, the company implements a work safety target responsibility system. An annual Work Safety Target Responsibility Agreement is signed, effective from January 1 to December 31 each year. The agreement primarily includes compliance with national safety laws and regulations, implementation of the company's work safety responsibility system and various safety management policies, as well as the work safety targets of the responsible units. If a subsidiary fails to meet the work safety responsibility targets assigned by the company, the assessment of the subsidiary's management will be determined by the company's board of directors. Disciplinary actions may include performance penalties or organizational measures.

Third-Party Units Safety Management

The company has established corresponding safety regulations for contractors or third-party units undertaking business, including the Related Party Management Procedures, Labor Employment Safety Management Measures, and Outsourced Projects and Labor Safety Management System. These measures aim to implement and strengthen third-party management in key areas such as fulfillment of primary safety production responsibilities, development of safety production management systems, management processes and qualification reviews for related parties, performance evaluation of related parties, documentation and record-keeping management, and safety technical training management.These systems ensure comprehensive oversight and accountability for all external partners engaged in the company's operations.

Standardize Third-Party Qualification Review

Conduct strict audits of third-party safety qualifications and professional capabilities to ensure compliance with legal and regulatory requirements.

Enhance Safety Training and Education

Provide systematic safety training for third-party personnel to improve their safety awareness and operational skills.

Strengthen On-Site Safety Supervision

Assign dedicated supervisors at third-party work sites to ensure proper implementation of safety measures.

Safety Training and Emergency Drills

To enhance employees' awareness of safety precautions and improve their safety knowledge, the company formulates an annual safety training plan and regularly organizes training. By implementing the main responsibilities of each department and at each level, it ensures that safety investment, safety training, safety management, emergency rescue, and assessment implementation are all in place. It constructs a long-term mechanism for work safety, continuously conducts warning education on safety accidents, reduces and eliminates major safety accidents, correctly handles the relationship between safety and benefits, protects the safety and health of employees at the production site, and realizes a safe Valin.

Case Implementing Immediate Rectification for Safety Hazards

On April 25-26, the Loudi Municipal Emergency Management Bureau organized experts from the Wuhan Safety and Environmental Protection Research Institute of China Metallurgical Group Corporation to conduct a "diagnostic-style" inspection of major accident hazards at Valin Lianyuan Steel ironmaking plant, 210 converter plant, No. 1 steelmaking and rolling plant, coking plant, and energy complex. A total of 165 hazards were identified (including 9 major accident hazards and 156 general hazards). Valin Lianyuan Steel promptly held a work meeting to clarify responsible units for rectification, assigned tasks item by item, and carried out corrections in strict accordance with requirements to eliminate hazards in a timely manner. As of now, all 9 major accident hazards have been rectified, and 150 out of the 156 general hazards have been addressed. The remaining issues will be resolved during the medium repair of the No. 8 blast furnace and its auxiliary facilities.

Safety Management Special Lecture

Training on relevant requirements for hazardous operations and accident cases

"Bringing Workplace Safety Laws, Regulations, and Typical Accident Case Studies to the Grassroots Level and Work Teams" Initiative

Gas holder emergency drill & emergency response skills competition

Positive incentives for the safety short-video activity during the Safety Production Month

Emergency drill

05

Gather Goodwill
Spread Warmth

Valin Steel consistently upholds high social responsibility and strong business ethics as core operational standards. While driving robust business growth, the company actively explores pathways for harmonious coexistence between enterprise and society. We take proactive steps to fulfill corporate social responsibilities by supporting rural revitalization initiatives, act as a responsible corporate citizen, meeting all societal obligations, encourage employee participation in diverse public welfare and volunteer programs, contribute meaningfully to building a more equitable and sustainable society

Rural Revitalization

The company remains steadfast in shouldering, internalizing, and acting upon its social responsibilities. We actively contribute to the national "Rural Revitalization" Strategy, rigorously implement the major directives of the CPC Central Committee and provincial authorities, and fully execute the "Eight Key Initiatives" to drive development for assisted villages with genuine commitment, deliver tangible benefits for local communities, establish a new development framework that unites communities through Party-building leadership, enriches households via industrial development, ensures welfare through enhanced safeguards, revitalizes villages with environmental upgrades, and secures livelihoods via effective governance. Through these efforts, we have solidified our frontrunner position in rural revitalization, demonstrating the exemplary role of state-owned enterprises.

During the reporting period, the company continued to dispatch a work team to assist Tongxihe Village, Xupu County, Huaihua City, further strengthening the bottom-line prevention against returning to poverty, developing and expanding industries, and improving the living environment. Tongxihe Village has shown great vitality with "strong infrastructure, prosperous industries, and beautiful villages". In August, after a catastrophic flood caused by Typhoon Gaemi in Zixing City, Chenzhou City, according to the arrangements of the provincial Party committee and the provincial government, the company immediately dispatched a work team to Lianping Village. Aiming at the goal of "Four Connectivities and Three Availabilities", focusing on "Six Assistances", and launching "Three Actions", it carried out rescue and disaster - relief work and post - disaster reconstruction in an orderly manner, and the normal production and life in the village quickly resumed.

Case Valin Steel | On-site Assistance for Rural Revitalization in Tongxihe Village

A diversified assistance system covering poverty assistance, industrial development, facility improvement, and environmental remediation has been gradually established. In 2024, the collective operating income of the assisted village reached 2.049 million RMB, a 101% increase compared with the previous year, doubling for two consecutive years. The on-site assistance work has been fully affirmed by the special research group on "High-quality Development of County-level Economy" of the Policy Research Office of the provincial Party committee.

Adhere to Diversified Assistance to Build a Bottom-line and Further Consolidate the Foundation for Rural Revitalization

Focusing on preventing people from returning to poverty, it strengthens real-time dynamic monitoring. It conducts direct assistance through the annual anti-poverty return fund and special funds for industrial assistance. At the same time, it mobilizes Party organizations at all levels within the company, mass organizations, and all sectors of society to continuously carry out public welfare activities such as love - based student assistance and poverty relief to supplement the assistance, and makes every effort to create a diversified and regularized assistance mechanism.

Focus on the strong engine of industrial development to further activate the vitality of rural revitalization

Always adhere to making the characteristic industries bigger and stronger as the key measure. Through joint village construction and promoting consumption assistance, effectively serve the operation of the agricultural product exhibition and sales center platform built with donated funds. In 2024, the total sales of agricultural products exceeded 1 million yuan. Support the expansion project of the ecological cattle-raising base of the economic cooperative in Tongxihe Village, coordinate the construction of the barbecue seasoning ingredient processing factory and the rooftop distributed photovoltaic power generation project, and further promote the development and growth of the village-level collective economy.

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Build a trial planting demonstration base for fungus

Plan and promote the creation of a demonstration village for the living environment with high standards

Case Valin Steel | Counterpart support for post-disaster reconstruction in Lianping Village

Actively implementing the Hunan Provincial Government's work plan for providing counterpart support to Zixing City in flood relief efforts, a 16-member disaster relief and reconstruction task force was dispatched, equipped with 11 sets of large-scale emergency construction machinery. The team worked in Lianping Village of Bamian Mountain Yao Ethnic Township in Zixing City to carry out disaster relief and post-disaster reconstruction. Three major initiatives—the "Hundred-Day Risk Elimination Campaign," "Warming Thousands of Disaster-Affected Households," and "Boosting Enterprise Efficiency and Income"—were proactively planned and executed. These efforts significantly advanced the orderly restoration of production and daily life in Lianping Village, with the "Steel Speed" of progress earning unanimous recognition from government authorities at all levels and the local villagers.

Implementing the "Hundred-Day Risk Elimination Campaign" to Rapidly Restore Infrastructure

Through round-the-clock efforts by the reconstruction task force, local governments, and departments, the village's canals, roads, and residential areas—buried under nearly two meters of silt—were swiftly cleared, removing over 10,000 cubic meters of sand and mud. These restored basic necessities such as electricity, water supply, road access, and communication ("Four Essentials"). Additionally, township and village authorities conducted comprehensive safety inspections of all road and bridge infrastructure, organizing centralized repairs through labor-for-relief programs. These measures effectively ensured safe passage for villagers, facilitated the resumption of operations for local businesses, and supported income generation for residents.

Carrying Out the "Warming Thousands of Disaster-Affected Households" Initiative to Safeguard Basic Livelihoods

The team undertook the renovation and construction of 52 temporary housing units for displaced villagers, completing tasks such as debris removal, wall cleaning, installation of utilities and doors/windows, and interior painting. Public facilities including shared kitchens, restrooms, and shower rooms were added to enhance living conditions. In response to near-total crop failure caused by the floods, two rounds of relief supplies—including rice, oil, and flour—were distributed to over 340 households in Lianping Village. After emergency repairs to drinking water facilities in densely populated areas, a safe drinking water upgrade project was launched, with full water supply restored before the Lunar New Year.

Executing the "Boosting Enterprise Efficiency and Income" Drive to Revitalize Production

Active assistance and coordination were provided to address challenges faced by local enterprises such as the bamboo products factory in resuming operations, supporting their self-recovery efforts. Simultaneously, risks such as road collapses and washouts were swiftly addressed, with repairs made to village and forest access roads, ensuring smooth raw material transport and accelerated production recovery. Following the principle of "early investment, early construction, early benefit," the team facilitated the expedited launch of a distributed photovoltaic power generation project on the rooftop of the former township government office. With an installed capacity of 156 kW, the project passed final inspection and is expected to generate annual collective income of 70,000 yuan for the village.

Case Valin Lianyuan Steel | Conducts Targeted Assistance to Xikou Village and Shuangyuan Village

During the reporting period, Valin Lianyuan Steel continued to assist Xikou Village and Shuangyuan Village in Xingzipu Town, Shuangfeng County in rural revitalization. It invested 1.4 million RMB in assistance funds, mainly used for improving infrastructure construction, developing rural tourism industries, consolidating the achievements of poverty alleviation, and vigorously promoting the rural revitalization strategy, achieving good results and benefiting 903 households with 2,578 people. The assisted villages were successfully rated as the provincial-level "Shuifu Xikou Tourism Resort", and were highly evaluated by the local government and praised by the villagers.

The rural road is being widened

Case VAMA | Conducts Targeted Assistance to Hetang Village

During the reporting period, VAMA actively fulfilled its social responsibilities and invested 150,000 RMB in assistance funds. It carried out cultivation and management of the economic fruit forest in Hetang Village, repaired the water canals, strengthened the water storage capacity of the mountain ponds, and newly repaired and renovated 92 street lamps. It coordinated project funds to complete the "white-to-black" transformation of the main village-level road in Hetang Village and the guardrail project, significantly improving the road traffic capacity and the travel experience of villagers. It created a development model of "agriculture + culture + tourism", and Hetang Village was awarded the title of the sixth batch of Key Rural Tourism Villages in Hunan Province.

Widen and harden partial road sections

Case Yangchun New Steel | Actively Contributes to Rural Revitalization

During the reporting period, Yangchun New Steel actively fulfilled its social responsibilities, implemented the arrangements of higher-level authorities, and coordinated the promotion of various rural revitalization work. It participated in the "6.30" activity to support rural revitalization in Yangchun City and donated 100,000 RMB. It implemented the "Attracting Talents Back Home" strategy to help rural areas attract funds and talents back, promoting the growth, quality improvement, and efficiency enhancement of industries, and received unanimous praise from the local government and the assisted village committees.

Donations for rural revitalization work

Social Welfare

Leveraging its resources and platform advantages, Valin Steel organizes various volunteer and charitable initiatives, including donations, educational support, blood drives, and community services. The company encourages employees to actively participate in community development, fostering a mutually beneficial cycle with surrounding neighborhoods and promoting sustainable community growth.

During the reporting period, the company championed progressive social values as an advocate, practitioner, and role model, vigorously promoting the volunteer spirit of "dedication, friendship, mutual assistance, and progress." Initiatives included one-on-one educational assistance, campaigns inspired by Lei Feng's spirit, public awareness activities on voluntary blood donation, and organized blood drives. Through diverse philanthropic efforts, Valin Steel contributed its strength to society.

Community convenience services

Poverty Alleviation & Education Support Initiatives

Providing haircut services for community residents

Love-for-Learning Assistance Programs

"Golden Autumn Aid" initiative helps employees' children pursue their educational dreams

Launching the "Orange Care, Mystery Box Education Support" campaign

Public Welfare Volunteer Activities

Conducting Children's Day safety education public welfare events

Young league members participate in "March 5th Learn-from-Lei-Feng Day, Youth Talent Jointly Plants 'Youth Forest'" activity

Voluntary Blood Donation Drives

Organizing group unpaid blood donation charity events

ESG Management

Stakeholder Engagement

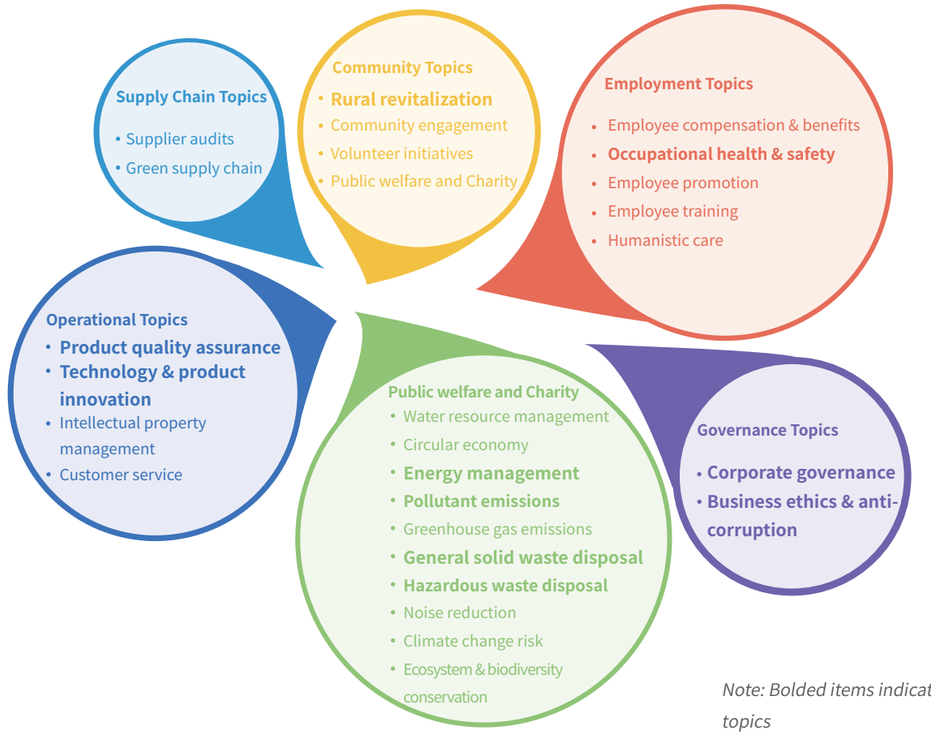
Hunan Valin Steel consistently adheres to the management philosophy of "Progress Leads the Future," continuously enhancing the company's ESG governance while actively addressing the needs and expectations of various stakeholders to promptly adjust its development strategies.

Currently, we have identified six key stakeholder groups that maintain close ties with the company and possess significant decision-making influence. The company has established regular communication mechanisms to listen to stakeholders' opinions and provide responsive feedback through multiple channels. During the reporting period, Valin Steel's engagement approaches and responses to issues of concern for different stakeholders were as follows:

Stakeholders	Focused Topics	Communication & Engagement
Shareholders / Investors	Corporate Governance Business Ethics & Anti-Corruption Product Quality Assurance Technology & Product Innovation	Shareholders' Meetings / Extraordinary General Meetings Earnings Briefings Press Releases / Announcements / Annual Reports Roadshows Investor Exchange Events
Employees	Employee Compensation & Benefits Occupational Health & Safety Career Advancement Employee Training Humanistic Care	Employee Congress Employee Satisfaction Surveys Employee Dialogues Staff Activities
Suppliers / Partners	Business Ethics & Anti-Corruption Supplier Audits Green Supply Chain Intellectual Property Management	Supplier Training Supplier Audit / Evaluation Industry Conference Participation
Customers	Product Quality Assurance Technology & Product Innovation Customer Service	Customer Satisfaction Surveys Customer Complaint
Government / Regulatory Authorities	Corporate Governance Business Ethics & Anti-Corruption Pollutant Emissions Resource & Energy Usage Greenhouse Gas Emissions Waste Disposal	On-site Inspections / Field Research Regular Communication Periodic Disclosure Reporting
Community	Rural Revitalization Community Engagement Volunteer Activities Philanthropy & Charity	Press Releases / Public Notices Volunteer Services Scheduled & Ad-hoc Community Dialogues

Identification Key Topics

Aligned with our ESG development strategy and stakeholder expectations regarding environmental, social responsibility, and corporate governance, we conducted an in-depth analysis of industry priorities to identify and categorize 25 key ESG topics. Among these, 10 high-priority issues – including corporate governance, business ethics & anti-corruption, and energy management – will receive focused disclosure and response in this report.



Note: Bolded items indicate high-priority topics

Future Outlook

General Secretary Xi Jinping pointed out that the manufacturing sector serves as the lifeblood of a nation's economy, the foundation of national strength, and the cornerstone of prosperity. It must remain robust, as China can never afford to be without a strong manufacturing base. China's steel industry possesses formidable global competitiveness, producing "high-quality yet affordable" products that empower Chinese manufacturing to go global. Currently, adverse impacts from changing external conditions are intensifying, with China's economic operations still facing multiple challenges. Nevertheless, the fundamentals of China's economy remain stable—boasting multiple advantages, remarkable resilience, and vast potential. The supporting conditions and overarching trend of long-term growth remain unchanged. From an industry perspective, the sector is undergoing profound restructuring, with the "three highs and three lows" pattern persisting. The future will involve prolonged stock competition and contractionary development, accompanied by intensifying industry rivalry. Simultaneously, new trends are emerging - green and low-carbon transition has become an imperative path, with pollution reduction, carbon mitigation, and green transformation forming the main thrust of steel enterprises' development. Digital and intelligent transformation presents enormous potential and remains a key focus for progress. Steel demand is shifting from structural to functional requirements, with needs for higher strength, superior corrosion resistance, and enhanced wear resistance becoming mainstream.

In 2025, the company will maintain its strategic focus and further refine its three strategic pillars – lean production, integrated sales-R&D-production, and marketing services. Continuing to target high-end, green, and intelligent development, we will strive to lead and set benchmarks in product R&D, brand building, technological innovation, and internal reform, securing our position in the industry's top tier. Aligned with the phased objectives of our 14th Five-Year Plan, the company's key priorities for 2025 include:

Focus on product upgrading and enhance core competitiveness through innovation.

Adhering to the principles that "science and technology are the primary productive forces, talent the fundamental resource, and innovation the key driver," we will continuously cultivate new momentum for high-quality development.First, further give play to the role of the industry-academia-research collaboration platform. Strengthen the integration across industry, university, research and application, gather internal and external intellectual resources, promote the research on forward-looking, fundamental and key common technologies in steel manufacturing, upgrade the quality of innovation platforms, strengthen the protection of intellectual property rights, and improve the quality of patents.Second, accelerating "High-End + Differentiated" R&D innovation. Deepen the IPD-based integrated sales-R&D-production system, focus on demands from major equipment manufacturing and strategic emerging industries, accelerate development of high-end products such as steel for shipbuilding & offshore engineering, cryogenic pressure vessel steel, high-grade electrical steel, ultra-deep well threaded connections, as well as high-end special-purpose and special-use products. Develop 10-15 import-substituting premium steel grades, increase sales proportion of key high-end products.Third, further strengthen the construction of the technical and high-skilled talent team. Improve the talent management mechanism, increase the introduction of high-level talents, innovate the talent cultivation and utilization models, improve the evaluation system for R&D talents, and optimize the talent growth channels. Promote craftsmanship sipirit and make preparations for the industry skills competition.

Strengthen lean production and comprehensively improve production quality and efficiency.

Accelerate the implementation of digital and intelligent upgrading and iterative renewal of production line equipment, promote stable production and high efficiency, and provide strong support for high-quality development with extreme cost reduction and extreme energy efficiency.The first is to leverage technological renovation projects as a driving force to boost production quality and efficiency to first-class standards. This includes accelerating the construction of key projects such as the sheet finishing and surface treatment center at Valin Xiangtan Steel, the third phase of the bar finishing line, the first stage of the second phase of silicon steel production at Valin Lianyuan Steel, the high-end home appliance steel sheet production in the cold-rolling plant, and the extra-large diameter continuous rolling pipe project at Valin Hengyang Steel Tube. These initiatives aim to swiftly achieve full production capacity and desired outcomes, enhance premium manufacturing capabilities, and drive continuous improvement in product variety, quality, and efficiency.Second, focusing on Digital-Intelligent Transformation to achieve high-level smart manufacturing. Supported by the steel industry's large-scale model, we will accelerate the implementation of smart manufacturing projects, expand the application of digital-intelligent scenarios, and promote the adoption of over 10 new digital-intelligent use cases. We will systematically advance the development of a digital ecosystem, strengthen data management and utilization, and further improve the digitalization rate.Third, leveraging extreme benchmarking to enhance production line capabilities. By benchmarking against historical bests and industry leaders, we will target weaknesses and shortcomings with precision, strengthen lean production and process management, and strive to achieve best-in-class energy efficiency in key processes. We aim to keep hot metal costs below the industry average, continuously optimize technical and economic indicators, and drive underperforming areas to catch up while pushing high-performing areas to excel further. Additionally, we will persistently reduce procurement costs while ensuring supply stability, optimize sourcing structures, expand resource channels, improve centralized procurement information systems, and enhance procurement quality and efficiency.

Emphasize strengthening the foundation and improving the level of work safety and green and low-carbon development.

Work safety and stability are the foundation of development, and green and low-carbon are the guarantee of sustainability. Emphasize strengthening the foundation to build a safe and stable environment for high-quality development.First, strive to promote continuous improvement in work safety. Strictly implement the work safety responsibility system, strengthen work safety awareness, and improve the intrinsic safety level. Improve the construction of the work safety information management platform, strengthen the management and investigation of safety hazards, and achieve a comprehensive upgrade of human, physical and technical defenses. Keep a close eye on key areas and important links, increase the safety supervision of technological transformation construction, inspection and maintenance, and external contractors, strengthen the management of the "blacklist" of relevant parties, and maintain a safe and stable production environment.Accelerating the pace of green and low-carbon development. We will concentrate financial and technological resources to achieve ultra-low emissions upgrades, ensuring high-quality completion and public disclosure of projects on schedule while maintaining the economic and safe operation of environmental protection facilities. Resolute efforts will be made to address environmental issues, ensuring the effective implementation of all corrective measures. To advance low-carbon development, we will leverage the Green and Low-Carbon Research Center to accelerate roadmap studies, strengthen carbon asset management, and promote green product certification, thereby further enhancing the outcomes of sustainable and low-carbon initiatives.

Continuously deepen reforms and continuously stimulate the driving force and vitality of development.

Thoroughly implement the arrangements for state-owned enterprise reform made by the Third Plenary Session of the 20th Central Committee of the Communist Party of China, continuously deepen the reform, and inject strong impetus into high-quality development.First, enhancing corporate governance efficiency to create value. While maintaining strong profitability and growth prospects, we will continue to strengthen information disclosure and investor relations management. In line with the State Council's "New Nine Guidelines" and the CSRC's requirements on market value management, we will formulate and implement a plan to enhance the market value of listed companies, invigorating market dynamism and boosting investment value. Furthermore, adhering to the revised Company Law regarding corporate governance optimization, we will advance the reform of the board of supervisors, improve internal audit and oversight mechanisms, and ensure effective fulfillment of supervisory functions in listed companies.Second, deepening institutional reforms to enhance vitality. We will strengthen the principle of reform serving production and operations, adhering to "rigid constraints and strong incentives" and "eliminating the bottom performers." By adopting a "categorized, tiered, and customized" approach to formulate performance evaluation indicators, we will optimize the performance management system and unleash the innovative potential of all employees. Furthermore, we will continue to advance the "Three Systems" reform to improve labor productivity.

Attachment: Honor Display of Valin Steel in Previous Years (2021 - 2023)

Product manufacturing		
2021	The high-strength wear-resistant steel for construction machinery passed the certification review of Hyundai Construction of South Korea	Valin Xinagtan Steel
2021	"Outstanding Supplier Award" of Zoomlion Engineering Crane Company	Valin Lianyuan Steel
2021	The title of "Excellent Supplier of Zoomlion Construction Machinery in 2021"	Valin Lianyuan Steel
2021	An appreciation letter of "Reliable Partner" from SAIC-GM-Wuling Automobile	Valin Lianyuan Steel
2021	"Excellent Supplier" Award of Sany Heavy Industry Pumping Division	Valin Lianyuan Steel
2021	National Leading Brand in Quality in the Steel Industry	Valin Lianyuan Steel
2021	National Benchmark Enterprise for Quality and Integrity	Valin Lianyuan Steel
2021	Model for Key Project Construction	Valin Lianyuan Steel
2021	"2021 High-quality Customer Revenue Contribution Award" of Guangzhou Railway Group	Valin Lianyuan Steel
2021	"Enterprise Abiding by Contracts and Valuing Credit in Hunan Province in 2020"	Valin Hengyang Steel Tube
2021	The title of "High-quality Supplier" of Sinoma Science & Technology Jiujiang Co., Ltd.	Valin Hengyang Steel Tube
2021	The certificate of "Director Unit" of China Steel Structure Association	Valin Hengyang Steel Tube
2021	Excellent Brand of Chinese Special Steel Enterprises	Valin Hengyang Steel Tube
2021	Excellent Brand of Chinese Iron and Steel Enterprises	Valin Hengyang Steel Tube
2021	The tube for crane boom won the "Single Champion" title	Valin Hengyang Steel Tube
2021	Golden Cup High-quality Product: Cold-rolled Steel Strip for Industrial Chains 40Mn (LGLT - 3)	Valin Lianyuan Steel
2021	Golden Cup High-quality Product: Ultra-high-strength Quenched and Tempered Steel Plate for Construction Machinery LG1100QT	Valin Lianyuan Steel
2021	Golden Cup High-quality Product: Steel Plate and Strip for High-strength Automotive Structures QSTE700TM	Valin Lianyuan Steel
2021	Golden Cup Special Product: Wear-resistant Steel Plate for Concrete Mixer Drum NM300TP	Valin Lianyuan Steel
2021	Grade A Excellent Supplier of Dongfang Electric Corporation	Valin Hengyang Steel Tube
2021	Quality Management System Certificate	Valin Xiangtan Steel

Product manufacturing		
2021	Measurement System Certificate	Valin Hengyang Steel Tube
2021	Outstanding Contribution Award of Dongfeng Nissan CSP	VAMA
2021	Selected as the "Leader" of Enterprise Standards in 2021	VAMA
2022	The structural steel for bridges won the title of "Leader of Enterprise Standards"	Valin Xiangtan Steel
2022	Obtained the Quality Management System Certificate – IATF	Valin Xiangtan Steel
2022	Obtained the QMS - ENGUS - ENAC EU certification	Valin Xiangtan Steel
2022	Obtained the QMS - ENGUS - UKAS UK certification	Valin Xiangtan Steel
2022	Won the title of "Gold Supplier" from Guangzhou Shipyard International	Valin Xiangtan Steel
2022	Won the title of "Strategic Partner" from Beijing China Railway Construction Engineering Group	Valin Xiangtan Steel
2022	Won the title of "Strategic Supplier" from Zhanghua Machinery Co., Ltd.	Valin Xiangtan Steel
2022	Won the title of "Strategic Cooperation Unit" from Zhengzhou Yuguang Co., Ltd.	Valin Xiangtan Steel
2022	Won the title of "Gold Supplier" from Sunward Intelligent Equipment Co., Ltd.	Valin Xiangtan Steel
2022	Won the title of "Gold Supplier" from CSSC (China State Shipbuilding Corporation)	Valin Lianyuan Steel
2022	Won the title of "Best Strategic Partner" from Hong Kong Jinlijin Industrial Co., Ltd.	Valin Lianyuan Steel
2022	Won the "Outstanding Contribution Award" from Zoomlion Heavy Industry Science & Technology Co., Ltd.'s Construction Crane Company	Valin Lianyuan Steel
2022	Won the honor of "Outstanding Contribution Award" from Sany Heavy Industry's Crane Division	Valin Lianyuan Steel
2022	Lang Steel Network's Top Ten High - quality Brand Enterprises of State - owned Construction Steel among the National Gold Suppliers in 2022	Valin Lianyuan Steel
2022	Won the title of "Class A Excellent Supplier" from Dongfang Boiler Group Co., Ltd. of Dongfang Electric Corporation	Valin Hengyang Steel Tube
2022	Won the honor of "High - quality Partner" from China National Petroleum Technology & Development Corporation	Valin Hengyang Steel Tube
2022	Won the title of "First - level Strategic Supplier" from China Huanqiu Contracting & Engineering Corporation	Valin Hengyang Steel Tube
2022	Won the title of "Excellent Supplier" from Guangdong Huajin Automobile Parts Manufacturing Co., Ltd.	Valin Hengyang Steel Tube
2022	Received a thank - you medal from Dongfeng Honda for the localization and supply guarantee of imported projects	VAMA
2022	Won the title of "Annual Strategic Partner" from the Guangzhou Branch of China Railway No.4 Engineering Group Material and Trade Co., Ltd.	Yangchun New Steel
2022	Won the honor of "Annual Strategic Partner" from the 15th Engineering Bureau of PowerChina	Yangchun New Steel

Product manufacturing		
2022	Obtained the CNAS certificate for the physical and chemical testing laboratory accreditation	Valin Xiangtan Steel
2022	The project "Development and Serialization of Import - substituted Steel for Crane Booms" was listed in the 7th China Industry Awards	Valin Lianyuan Steel
2022	The high - strength wear - resistant steel plates and strips for construction machinery won the title of "Leader of Enterprise Standards"	Valin Lianyuan Steel
2022	Obtained the ISO9001:2015 Quality System Certification	Valin Lianyuan Steel
2022	Obtained the QMS - Lloyd's Quality System Certificate	Valin Lianyuan Steel
2022	Won the title of China's Outstanding Steel Enterprise Brand	Valin Lianyuan Steel
2022	Recognized as a National Demonstration Enterprise for Quality Integrity of Products and Services	Valin Lianyuan Steel
2022	National Leading Enterprise in Steel Industry Quality	Valin Lianyuan Steel
2022	National Product with Stable and Qualified Quality Inspection	Valin Lianyuan Steel
2022	National Product Trustworthy in Quality Inspection	Valin Lianyuan Steel
2022	Won the National Leading Brand in Steel Industry Quality	Valin Lianyuan Steel
2022	National Product with Quality Reputation Guarantee	Valin Lianyuan Steel
2022	National Benchmark Enterprise for Quality Integrity	Valin Lianyuan Steel
2022	National Enterprise with Integrity in Quality Inspection	Valin Lianyuan Steel
2022	China's Outstanding Steel Enterprise Brand	Valin Hengyang Steel Tube
2022	Obtained JISQ19001 and JIS3444 Structural Pipe Certificates	Valin Hengyang Steel Tube
2022	Obtained APIQ1 (American Petroleum Institute) Certificate	Valin Hengyang Steel Tube
2022	The 6th "China Industry Grand Prize Commendation Award"	Valin Hengyang Steel Tube
2022	The cold-rolled hot-stamped steel sheets and strips for automobiles won the 2022 Standard Leader Award from the State Administration for Market Regulation	VAMA
2022	The testing center obtained the CNAS National Laboratory Accreditation Qualification	Yangchun New Steel
2023	Golden Cup High-quality Product: Alloy Cold Heading Steel	Valin Xiangtan Steel
2023	Golden Cup High-quality Product: Pressure Vessel Quenched and Tempered 07MnMoVR Steel Plate	Valin Xiangtan Steel
2023	Golden Cup High-quality Product: Hot-rolled Alloy Tube Billet for Boilers and Heat Exchangers	Valin Xiangtan Steel
2023	Golden Cup High-quality Product: Wide and Thick Steel Plate for Oil and Gas Transmission Pipes	Valin Xiangtan Steel

Product manufacturing		
2023	Golden Cup High-quality Product: Ultra-high Strength Steel for Ships and Offshore Engineering Structures	Valin Xiangtan Steel
2023	Golden Cup High-quality Product: Hot-rolled Wire Rod for Prestressed Steel Wires and Strands	Valin Xiangtan Steel
2023	Golden Cup High-quality Product: High-strength Wear-resistant Steel Plate for Construction Machinery	Valin Lianyuan Steel
2023	Golden Cup High-quality Product: Hot-rolled Ribbed Bars for Reinforced Concrete (Straight Bars)	Valin Lianyuan Steel
2023	Golden Cup High-quality Product: Hot-rolled Alloy Structural Steel Strip	Valin Lianyuan Steel
2023	Golden Cup High-quality Product: Hot-rolled Steel Strip for Diamond Welded Saw Blade Substrates	Valin Lianyuan Steel
2023	Golden Cup High-quality Product: Continuously Hot-dip Galvanized Dual-phase Steel Strip	Valin Lianyuan Steel
2023	Golden Cup High-quality Product: Cold-rolled Steel Sheets and Strips for Hot Stamping	Valin Lianyuan Steel
2023	Golden Cup High-quality Product: Seamless Steel Tubes for Gas Cylinders	Valin Hengyang Steel Tube
2023	Golden Cup High-quality Product: Seamless Steel Tubes for Casing Pipes in Oil and Gas Wells in the Oil and Gas Industry	Valin Hengyang Steel Tube
2023	Golden Cup High-quality Product: Hot-rolled Ribbed Bars for Reinforced Concrete	Yangchun New Steel
2023	China's Outstanding Steel Enterprise Brand	Valin Xiangtan Steel
2023	China's Outstanding Steel Enterprise Brand	Valin Lianyuan Steel
2023	China's Outstanding Steel Enterprise Brand	Valin Hengyang Steel Tube
2023	China's Excellent Steel Enterprise Brand	Yangchun New Steel
2022-2023	Major Steel Mill Brands in Hunan Province for Circulation	Valin Xiangtan Steel
2023	Annual Gold Supplier of Sunward Intelligent Equipment Co., Ltd.	Valin Xiangtan Steel
2023	Annual Gold Supplier of CSSC	Valin Xiangtan Steel
2023	Class A Supplier (Nantong COSCO KHI Ship Engineering Co., Ltd., Qidong COSCO Shipping Offshore Co., Ltd.)	Valin Xiangtan Steel
2023	Key Supplier (China Railway Baqiao Group Co., Ltd.)	Valin Xiangtan Steel
2023	National High-quality Production Enterprise for Wind Power Steel	Valin Xiangtan Steel
2023	Excellent Supplier of Guangzhou Shipyard International Co., Ltd.	Valin Xiangtan Steel
2023	Excellent Supplier of COSCO Shipping	Valin Xiangtan Steel
2023	Excellent Supplier of the Pump and Pipeline Division of Sany Heavy Industry Co., Ltd.	Valin Xiangtan Steel

Product manufacturing		
2023	Excellent Supplier of the Hoisting Machinery Division of Sany Heavy Industry Co., Ltd.	Valin Xiangtan Steel
2023	Strategic Partner of China Merchants Industry Holdings Co., Ltd.	Valin Xiangtan Steel
2023	Best Support Award from Zoomlion Heavy Industry Science & Technology Co., Ltd.	Valin Xiangtan Steel
2023	Commemorative Cooperation for the 15th Anniversary of Lausheng Quality Certification	Valin Xiangtan Steel
2023	Outstanding Unit in Quality Standardization Work in the Steel Industry	Valin Lianyuan Steel
2023	Enterprise Standard "Leader"	Valin Lianyuan Steel
2023	National Benchmark Enterprise for Quality and Integrity	Valin Lianyuan Steel
2023	National Product with Quality and Credit Guarantee	Valin Lianyuan Steel
2023	National Integrity Enterprise in Quality Inspection in the Steel Industry	Valin Xiangtan Steel
2023	Quality Leading Enterprise	Valin Lianyuan Steel
2023	National Product with Stable and Qualified Quality Inspection	Valin Lianyuan Steel
2023	National Leading Quality Brand in the Steel Industry	Valin Xiangtan Steel
2023	National Product with Reputation Guarantee for Quality Inspection	Valin Lianyuan Steel
2023	National Benchmark Enterprise for Quality and Integrity	Valin Lianyuan Steel
2023	Excellent Supplier of Sany Heavy Equipment Co., Ltd.	Valin Hengyang Steel Tube
2023	National High - quality Seamless Tube Manufacturer by Shanghai Steel Union	Valin Hengyang Steel Tube
2023	Leading Brand of Chinese Engineering Pipes	Valin Hengyang Steel Tube
2023	Ford Global Q1 Quality System Medal	VAMA
2023	Excellent Supplier Award from Ningbo Huaxiang Co., Ltd.	VAMA
2023	"Most Innovative Award" at the 3rd Lightweight Conference and Advanced Technology Exhibition of SERES	VAMA
2023	Excellent Supplier of China Railway Seventh Group Co., Ltd.	Yangchun New Steel

Innovation and R&D		
2021	The "High-performance Weather-resistant Bridge Steel Project" was certified at the internationally advanced level by the Chinese Society for Metals	Valin Xiangtan Steel
2021	Second Prize of Metallurgical Science and Technology	Valin Xiangtan Steel
2021	Third Prize of Metallurgical Science and Technology	Valin Xiangtan Steel
2021	The "High-performance Weather-resistant Bridge Steel Project" was certified at the internationally advanced level by the Chinese Society for Metals	Valin Xiangtan Steel
2021	The ship plates and offshore engineering steels were rated A+ by the Ministry of Industry and Information Technology of the People's Republic of China.	Valin Xiangtan Steel
2021	First Prize of China Invention and Entrepreneurship Innovation	Valin Lianyuan Steel
2021	First Prize of Metallurgical Science and Technology	Valin Lianyuan Steel
2021	Second Prize of Metallurgical Science and Technology	Valin Lianyuan Steel
2021	Third Prize of Metallurgical Science and Technology	Valin Lianyuan Steel
2021	Established a joint innovation laboratory for automotive lightweighting in cooperation with Hoerst Automotive	Valin Lianyuan Steel
2021	The testing center passed the review of the CNAS National Accreditation Laboratory	Valin Hengyang Steel Tube
2021	Recognized as a provincial enterprise technology center	VAMA
2021	Third Prize of Metallurgical Science and Technology	Yangchun New Steel
2022	First Prize of Metallurgical Science and Technology Award	Valin Xiangtan Steel
2022	First Prize of Hunan Provincial Technological Invention Award, Jiangxi University of Science and Technology	Valin Xiangtan Steel
2022	First Prize of Marine Science and Technology Award	Valin Xiangtan Steel
2022	Second Prize of Hunan Provincial Science and Technology Progress Award	Valin Xiangtan Steel
2022	National Technology Center	Valin Lianyuan Steel
2022	First Prize of Hunan Provincial Advanced Technology Transformation and Application Competition	Valin Lianyuan Steel
2022	First Prize of National Metallurgical Science and Technology Progress Award	Valin Lianyuan Steel
2022	Third Prize of National Metallurgical Science and Technology Progress Award	Valin Lianyuan Steel
2022	First Prize of Science and Technology of Chinese Society for Corrosion and Protection	Valin Lianyuan Steel
2022	First Prize of Hunan Provincial Science and Technology Progress Award	Valin Lianyuan Steel
2022	Third Prize of Science and Technology Progress of China National Machinery Industry	Valin Hengyang Steel Tube

Innovation and R&D		
2022	First Prize of Guangdong Provincial Metallurgical Scientific and Technological Achievements	Yangchun New Steel
2023	National Enterprise Technology Center	Valin Xiangtan Steel
2023	Special Prize, First Prize and Third Prize of Metallurgical Science and Technology Award	Valin Xiangtan Steel
2023	First Prize, Second Prize and Third Prize of Science and Technology Award	Valin Lianyuan Steel
2023	First Prize of Jiangxi Provincial Science and Technology Progress in Metallurgy	Valin Xiangtan Steel
2023	First Prize of Invention and Entrepreneurship Award of China Invention Association	Valin Xiangtan Steel
2023	Second Prize and Third Prize of Hunan Provincial Patent Award	Valin Lianyuan Steel
2023	First Prize of Shanghai Technological Invention Award	Valin Lianyuan Steel
2023	First Prize of Science of Chinese Society for Corrosion and Protection	Valin Lianyuan Steel
2023	Second Prize of Science and Technology Award of China Steel Structure Association	Valin Hengyang Steel Tube
2023	Commendation Award of the 7th China Industry Awards	Valin Lianyuan Steel
2023	Bronze Prize of the 5th China Advanced Technology Transformation and Application Competition	Valin Lianyuan Steel
2023	First Prize of Hunan Provincial Advanced Technology Transformation and Application Competition	Valin Lianyuan Steel
2023	First Prize of Science and Technology Award of China Metallurgical Group Corporation	Valin Lianyuan Steel

Green production		
2021	Creation of a national AAA - level scenic spot	Valin Xiangtan Steel
2021	First prize in the final of the Smart Energy Special Competition of the 4th "Blossoming Cup" 5G Application Collection Contest	Valin Xiangtan Steel
2021	Water - saving enterprise in Hunan Province	Valin Lianyuan Steel
2021	Water - saving enterprise in Hunan Province	Valin Lianyuan Steel
2021	Outstanding enterprise in green development	Valin Lianyuan Steel
2022	Won the title of "Benchmark enterprise in green development of the steel industry" in the selection of "Searching for the Most Beautiful Green Steel City" by China Metallurgical News	Valin Lianyuan Steel
2022	"Green Factory" in Hunan Province	Valin Lianyuan Steel

Green production		
2022	"Green Factory", a demonstration unit of the green manufacturing system in Hunan Province	Valin Lianyuan Steel
2022	Won the title of "Benchmark water - saving enterprise in Hunan Province"	Valin Lianyuan Steel
2022	Recognized as a green-labeled "Environmentally - compliant enterprise" by the Guangdong Provincial Department of Ecology and Environment for five consecutive years	Yangchun New Steel
2022	The rebar product obtained the "Certificate for Products Selected for Green Buildings"	Valin Lianyuan Steel
2022	The rebar product was included in the "Guiding Catalog for Products Selected for Green Buildings" and obtained the certificate	Valin Lianyuan Steel
2022	Won the title of "National Demonstration Enterprise for Safety Culture Construction"	VAMA
2022	Benchmark enterprise for intelligent manufacturing in Hunan Province	Valin Xiangtan Steel
2022	The "5G + AI Bar Surface Quality Inspection" project was included in the excellent scenarios of national intelligent manufacturing in 2022	Valin Xiangtan Steel
2022	The "Automatic Slab Turning" case was included in the intelligent manufacturing solutions of the steel industry in 2022	Valin Xiangtan Steel
2022	Outstanding enterprise in the construction of a smart steel city	Valin Lianyuan Steel
2023	Green factory of national steel enterprises	Valin Xiangtan Steel
2023	National intelligent factory	Valin Xiangtan Steel
2023	Demonstration factory for intelligent manufacturing of medium and heavy plates in Hunan Province	Valin Xiangtan Steel
2023	Benchmark enterprise in green development of the steel industry by China Metallurgical News	Valin Lianyuan Steel
2023	"5G + Industrial Internet" demonstration factory in Hunan Province	Valin Lianyuan Steel
2023	The treatment and application of high-efficiency reuse of circulating water in steel enterprises won the first prize of Guangdong Metallurgical Science and Technology Achievement	Yangchun New Steel

Corporate Governance/Investor Relations		
2021	Won the Annual Outstanding Secretary of the Board of Directors Award from Hunan Listed Companies Association	Valin Steel
2021	China Listed Companies Luneng Award - "The Most Favored Listed Company by Foreign Capital in 2021"	Valin Steel
2021	China Listed Companies Luneng Award - "The Most Valuable Company for Investor Relations in 2021"	Valin Steel
2021	Top 100 High - quality Development Listed Companies in China	Valin Steel
2021	"Excellent Case of Listed Company Governance in 2021" by Hunan Listed Companies Association	Valin Steel
2022	Ranked first on the 2022 Scale List of Hunan A-share Listed Companies	Valin Steel
2022	Listed among the top ten on the 2022 Innovation Ability List of Hunan A-share Listed Companies	Valin Steel
2022	Listed among the top ten on the 2022 Social Responsibility List of Hunan A-share Listed Companies	Valin Steel
2022	The 16th China Listed Companies Growth Top 100	Valin Steel
2022	Listed on the 2022 A-share Listed Companies Cash Dividend List - The List of Listed Companies with Generous Returns	Valin Steel
2022	Won the "Pioneer Award for Investor Relations" honor	Valin Steel
2022	Won the Classic Case of Capital Market Risk Resolution by China Association of Listed Companies	Valin Steel
2023	ESG Best Practice Award for Value Creation	Valin Steel
2023	The highest - level "5A" in the Evaluation of Secretary of the Board's Performance	Valin Steel
2023	"Best Practice Award for the Secretary's Office"	Valin Steel
2023	The Top 100 of The Paper's 2023 China Listed Companies Value List	Valin Steel
2023	Top Ten on the Scale List of Hunan Listed Companies	Valin Steel
2023	Top Ten in Innovation Ability of Hunan Listed Companies	Valin Steel
2023	Top Ten in Social Responsibility of Hunan Listed Companies	Valin Steel
2023	Ranked 82nd on the Fortune China 500 List of Listed Companies	Valin Steel

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