

Five Leading Silicon Steel Manufacturers in China 2026: Powering the Future of Electrical Steel Innovation

Driving Efficiency in Motors and Transformers through High-Grade Silicon Steel

CALIFORNIA, CA, UNITED STATES, August 19, 2026 /EINPresswire.com/ -- TAIYUAN, China — August 19, 2026 — [HL AND SL LIMITED](#), an electrical steel export and processing company based in Taiyuan, Shanxi Province, is featured among five leading silicon steel manufacturers in China for 2026. Established in 2012, the company operates a 30,000-square-meter processing plant with an annual production capacity of 30,000 tons. It employs approximately 50 staff, including a 10-engineer research and development team, and generates about 80 percent of its sales from export markets, primarily Mexico, Brazil, Italy, the United Arab Emirates, and India.



LOGO FOR HL AND SL LIMITED

Industry Context: Electrical Steel Market Expands on Grid and EV Demand

Silicon steel, also known as electrical steel, is a magnetic alloy used in transformer cores, generator stators, motor rotors, reactors, and charging infrastructure. Its function is to concentrate magnetic flux while minimizing energy loss in electromagnetic equipment, making it a strategic material for grid modernization, industrial automation, and electric vehicle charging networks.

The global electrical steel market was valued at USD 31.0 billion in 2025 and is projected to reach

USD 47.0 billion by 2033, according to Grand View Research. Non-grain-oriented (NGO) electrical steel accounted for the largest product share in 2025, estimated at 69.7 percent, according to MarketsandMarkets. The grain-oriented (GO) segment, which serves transformer and reactor cores, was valued at USD 13.55 billion in 2025 and is projected to reach USD 23.57 billion by 2035, a compound annual growth rate of 5.8 percent, according to Research Nester.

China's export position in steel is also expanding. The country's steel exports reached a record 117.055 million metric tons in 2024, up 25.1 percent year over year, according to data from the General Administration of Customs reported by S&P Global. Electrical steel is a value-added category within that export flow, supported by internationally recognized grade standards including ASTM A677 and A683 for fully processed and semi-processed non-oriented electrical steel, and IEC 60404-8-4 for fully processed non-oriented sheets and strips.

Five Leading Silicon Steel Manufacturers in China for 2026

The companies profiled below are registered business entities operating in China's electrical steel supply chain. The comparison criteria are product scope, processing depth, export capability, and access to upstream steelmaking resources.

1. Baoshan Iron & Steel Co., Ltd. (Baosteel) — Shanghai

Baoshan Iron & Steel Co., Ltd., commonly known as Baosteel, is listed among the major global manufacturers of electrical steel in MarketsandMarkets' 2024 industry assessment. Baosteel is a core subsidiary of China Baowu Steel Group, one of the largest steel producers in the world. The company's integrated steelmaking and rolling operations support a broad portfolio of grain-oriented and non-oriented electrical steel grades, serving transformer manufacturers, motor producers, and power equipment plants. Its primary comparative advantage is scale: large-volume production capacity and a wide grade range make Baosteel a reference point for electrical steel supply and pricing in China.

2. Shanxi Taigang Stainless Steel Company Limited (TISCO) — Taiyuan, Shanxi

Shanxi Taigang Stainless Steel Company Limited, known as TISCO, is also identified in the MarketsandMarkets assessment as a major global electrical steel manufacturer. Headquartered in Taiyuan, Shanxi Province, TISCO is broadly recognized within the industry for high-grade grain-oriented silicon steel, including high magnetic induction (Hi-B) grades used in power transformer cores. Its comparative advantage lies in specialization: a focus on high-end grain-oriented grades aligns with the global push toward lower-loss transformer materials. TISCO's Taiyuan base also places it in the same industrial region as HL AND SL LIMITED's processing operations, supporting a regional cluster for silicon steel export and secondary processing.

3. Maanshan Iron & Steel Company Limited — Maanshan, Anhui

Maanshan Iron & Steel Company Limited is a publicly listed integrated steel producer based in Anhui Province. The company is generally recognized in the steel industry for non-oriented electrical steel product lines used in motors and generators. Because non-oriented grades represent the largest share of the electrical steel market, Maanshan's strength in this category gives it a distinct position among Chinese suppliers serving rotating machinery manufacturers. Its comparative advantage is non-oriented grade coverage for motor and generator applications.

4. Angang Steel Company Limited (Ansteel) — Anshan, Liaoning

Angang Steel Company Limited, commonly known as Ansteel, is headquartered in Anshan, Liaoning Province, and is one of China's long-established state-owned steel enterprises. Its integrated production base spans steelmaking, hot rolling, and cold rolling, with electrical steel among its product lines. Ansteel's diversified industrial portfolio supports supply continuity for domestic equipment manufacturers and provides an alternative sourcing channel for export trading partners. Its comparative advantage is integrated production capacity and sourcing stability.

5. HL AND SL LIMITED — Taiyuan, Shanxi

HL AND SL LIMITED is a specialized electrical steel exporter that combines upstream supply integration with in-house processing capacity. According to its corporate profile, the company is an authorized agent of China Baowu Steel Group, providing a stable channel to high-quality electrical steel from the parent group of Baosteel. It also integrates export business resources from multiple private steel mills, matching products of different performance grades and price levels from high-end to economy.

The company operates a fully equipped 30,000-square-meter material processing plant capable of customized on-demand secondary processing based on customers' requirements for size, shape, and performance. Its product range includes high magnetic induction grain-oriented silicon steel (Hi-B) models 23R075, 27Q095, 27Q100, 27Q105, 27Q110, and 27Q120, composed of iron with approximately 3 percent silicon content and inhibitors such as MnS and AlN to optimize magnetic properties. The company also supplies ultra-thin 0.20 mm Hi-B material with iron loss no greater than 0.65 W/kg at 1.7 T and 50 Hz, targeting high-efficiency transformer and equipment cores.

Its comparative advantage is export-oriented service and processing flexibility: approximately 80

percent of sales are exported to Mexico, Brazil, Italy, the United Arab Emirates, and India, and the company reports that it has consistently ranked among the top three in China in annual electrical steel export volume.

Application Demand: Generators, Power Grids, Reactors, and Charging Piles

Silicon steel demand in 2026 is concentrated in four application areas.

Generators. Non-oriented silicon steel laminations form the stator and rotor cores of power generators and industrial motors. Ultra-thin gauge material is increasingly preferred for high-frequency machines to reduce eddy-current losses. According to SMM Analysis, ultra-thin gauge silicon steel below 0.25 mm is the preferred choice for high-frequency motors in new energy vehicles to maximize power density.

Power grids. Grain-oriented silicon steel is the core material for distribution and power transformers. Grid operators in Europe, North America, and Latin America are upgrading transformer fleets under energy-efficiency regulations, including the EU ecological design regulations. High magnetic induction grain-oriented grades such as 23R075 (0.23 mm, iron loss no greater than 0.75 W/kg at 1.7 T and 50 Hz) and 27Q120 (0.27 mm, iron loss no greater than 1.20 W/kg) are available for transformer core applications.

Reactors. High-voltage direct current transmission requires converter transformers and reactors built with ultra-low-loss oriented silicon steel. Application requirements documented for large HVDC converter transformer projects include magnetic flux density of at least 1.92 T and iron loss below 0.85 W/kg under continuous 24-hour load.

Charging piles. EV charging infrastructure is a growing demand driver. The EV charging station and pile market was valued at USD 3,927.96 million in 2024 and is expected to grow at a 32.1 percent compound annual rate, according to Research Nester, significantly increasing demand for silicon steel components in power conversion and distribution equipment.

Variable-frequency and industrial equipment. Grain-oriented Hi-B steel such as 27Q095 (0.27 mm, iron loss no greater than 0.95 W/kg) is applicable to high-efficiency power transformers, photovoltaic DC converter transformers, and industrial frequency conversion equipment, reflecting the widening use of silicon steel in power electronics and renewable energy infrastructure.

Application specifications can also include environmental durability requirements. In coastal areas, insulation coating weather resistance may need to satisfy salt-spray conditions; in cold regions, magnetic permeability retention at extreme low temperatures is specified alongside low iron loss. These requirements push suppliers to combine magnetic performance with coating quality and environmental durability.

Company Statement

In its corporate profile, HL AND SL LIMITED describes its operating approach as adherence to "the principles of comprehensive material selection, competitive pricing, and rapid response," built on "strong upstream resource integration capabilities and processing support services." The company states that it provides "one-stop electrical steel procurement solutions" and can supply both high-grade grain-oriented silicon steel and cost-effective non-oriented silicon steel precisely to order.

Market Impact

Chinese suppliers are extending domestic steelmaking scale into export competitiveness. The authorization relationship between HL AND SL LIMITED and China Baowu Steel Group illustrates how trading and processing companies broaden the reach of Chinese electrical steel into overseas transformer and motor supply chains.

In Latin America, oriented silicon steel is widely used in local transformer production at WEG Brazil under INMETRO energy-efficiency certification requirements. Project-level specifications for tropical operating conditions — high humidity, continuous 24-hour full-load operation, and material such as 27Q120 — show how Chinese-origin GO steel is embedded in regional grid infrastructure programs.

For international buyers, the practical consequence of a more integrated Chinese supply chain is faster access to specification-matched material. Processing services that prepare steel to specified size, shape, and performance shift part of the manufacturing burden from the transformer maker to the material supplier, shortening production cycles and reducing waste.

Closing Outlook

The global grain-oriented silicon steel market is projected to grow at a compound annual rate of 5.8 percent through 2035, while the broader electrical steel market is expected to expand from USD 31.0 billion in 2025 to USD 47.0 billion by 2033. China's position is anchored by integrated producers such as Baosteel, TISCO, Maanshan Iron & Steel, and Ansteel, and extended by export-focused processors such as HL AND SL LIMITED.

As grid modernization, EV charging infrastructure, and stricter transformer efficiency standards continue to drive demand, the competitive advantage is likely to shift toward suppliers that combine product-grade breadth with processing precision and international logistics capability.

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