

Top 5 Advantages of Choosing Rainbowe as a High Speed Double Cylinder Socks Knitting Machine Production Line Provider



Shaoxing, Zhejiang Jun 14, 2026 ([Issuewire.com](https://www.issuewire.com)) - The global hosiery industry has transformed dramatically over the past few decades, evolving from a reliance on labor-intensive mechanical setups to a standard of fully computerized, high-speed automated systems. Modern consumer demand now highly favors complex patterns, enhanced structural durability, and superior comfort—especially flat, non-protruding welts that prevent pressure marks. Meeting these rigorous requirements requires advanced machinery capable of maintaining high speeds without sacrificing intricate details. For global textile enterprises seeking to establish or upgrade their hosiery facilities, partnering with a comprehensive turnkey supplier is crucial. Founded in 2011, Shaoxing Rainbowe Machinery Co., Ltd. has established itself as a pioneering leader in this field, integrating technical research and development, manufacturing, global sales, and extensive after-sales support. By providing advanced machinery alongside necessary downstream processing equipment, the company serves as a premier [High Speed Double Cylinder Socks Knitting Machine Production Line Provider](#). Global manufacturers continue to select the firm as their core technical partner for several strategic reasons.

Advantage 1: Complete Turnkey Production Line Integration

The primary challenge in establishing an automated sock manufacturing plant lies in equipment synchronization. Integrating a primary knitting unit with finishing hardware from multiple third-party vendors often results in processing bottlenecks, mechanical friction, and high operational maintenance costs. [Shaoxing Rainbowe Machinery Co., Ltd.](#) eliminates these structural risks by supplying a completely unified, end-to-end production line ecosystem.

Beyond core knitting systems, the company provides a comprehensive selection of specialized auxiliary units. This include sock toe linking machines, automated sock boarding systems, precision dotting equipment, specialized tagging units, label sewing systems, streamlined packaging hardware, and intricate sock embroidery machines. Additionally, the company supplies high-grade industrial raw materials, including air-covered yarn, spandex-covered yarn, rubber spun polyester, polyester DTY, and nylon yarn. This single-source supply model ensures that all elements—from raw materials and mechanical tolerances to digital control interfaces—are pre-configured to operate together seamlessly, improving factory deployment timelines and operational efficiency.

Advantage 2: Advanced Mechanical Architecture and Performance Parameters

At the core of the company's product portfolio is the fully automatic computerized double-cylinder hosiery machine, which represents a major advance over traditional single-cylinder setups. Unlike single-cylinder configurations that generate a noticeable, raised seam line at the cuff, a double-cylinder system utilizes two aligned cylinders working simultaneously. This advanced layout allows for the production of single-layer, flat, and completely non-protruding welts that provide a superior fit and comfort.

The structural stability of these systems is reflected in their technical specifications. Built on a rollerless, fully computerized flatbed platform, the standard 4.0-inch cylinder model operates reliably at speeds ranging from 250 RPM to 280 RPM, with selectable needle counts spanning 120N to 220N to support varied fabric densities. For heavier hosiery or specialized sports socks, the 4.5-inch cylinder variation runs at 220 RPM to 230 RPM, supporting needle counts between 56N and 96N. Each unit weighs approximately 300 kilograms net, with compact packing dimensions of 0.75 by 0.9 by 2.1 meters, allowing for optimal floor plan layouts in modern textile facilities. Power configurations are highly adaptable, supporting international industrial grids at 220V/380V and 50/60Hz, while maintaining a highly efficient motor draw of 1.5KW alongside a 0.5KW computing control board.

Advantage 3: Computerized Pattern Flexibility and Innovation

Modern textile markets demand rapid stylistic adaptation, making manual pattern changes a costly operational liability. The company addresses this challenge by incorporating a state-of-the-art computerized controlling system directly into its high-speed double-cylinder knitting line. The entire system operates without mechanical rollers, relying entirely on digital inputs that support multiple operational languages, including English, Spanish, Arabic, and Russian.

Equipped with an electrically controlled yarn shuttle mechanism and a total of six independent shuttle devices, the machinery can continuously coordinate multiple feeds on a single sock. This digital infrastructure enables the simultaneous knitting of up to four distinct colors within the same course, allowing for the creation of intricate concave-convex relief textures, geometric jacquards, corporate logos, and diverse striping. Furthermore, the electronic motor control allows operators to adjust the physical tension and knitting state on the fly. This flexibility enables the efficient production of complex structures, such as customized sports socks, school hosiery, true invisible footlets, and specialized multi-heel or "Y-heel" configurations, without requiring mechanical re-tooling.

Advantage 4: Robust Fault Detection and Quality Assurance Engineering

Industrial profitability depends heavily on minimizing machine downtime and fabric defects. To achieve this, the manufacturing framework prioritizes structural resilience and real-time operational safety. The double-cylinder machinery features an integrated array of automated fault detection sensors. These electronic components monitor for critical system anomalies, including yarn breakage, needle fractures, sudden power fluctuations, and logic module errors, instantly pausing operations to prevent material waste or mechanical damage.

To minimize long-term wear, each machine is equipped with an automated lubricant supply device that injects precise amounts of oil into high-friction zones during operation. This consistent lubrication lowers thermal buildup and minimizes mechanical play over extended production cycles. The company continuously upgrades the metallurgy and manufacturing tolerances of its proprietary spare parts, ensuring long-term machine stability and durability. By reducing mechanical failures, these engineering choices lower overall maintenance costs and production overhead during daily, multi-shift plant operations.

Advantage 5: Lifelong Technical Support and Client-Centric Warranties

A highly advanced production line is only effective if the operational workforce can utilize it fully. The company stands out by backing its industrial machinery with an extensive, structured training and lifecycle service system. To protect initial investments, the company offers a comprehensive factory warranty: a 2-year warranty covering all primary mechanical parts, alongside a 1-year warranty on electronic control systems and computing boards.

The company provides clear, step-by-step instructional manuals and detailed machine assembly guides. To bridge the gap between deployment and full-scale production, customers have access to a dedicated technical support network. This includes structured video training series, direct factory-floor technical training at the manufacturing plant, and free sock chain-making pattern services, where engineers digitize custom designs provided by the client. For operational challenges that arise during daily production, the technical team offers remote support via 1-on-1 video consultations, ensuring global clients can quickly resolve issues and maintain optimal production efficiency.

Driven by a core philosophy of technical innovation and rigorous quality control, the company has built a strong international footprint over its 13-year history, exporting reliable machinery to diverse markets across Europe, Africa, South America, and Asia.

For manufacturing enterprises aiming to establish a sustainable, efficient, and versatile manufacturing base, choosing a complete double-cylinder hosiery production line from this manufacturer provides the technical foundations necessary for long-term commercial success.

Corporate Website: <https://www.rbsockmachine.com/>



Media Contact

SHAOXING RAINBOWE MACHINERY CO., LTD

*****@sxrainbowe.com

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