

ITALIAN TEXTILE MACHINERY

Smart, Sustainable, and Competitive: How Italian Textile Machinery is Shaping the Future of Global Manufacturing



Interview With Marco Salvade'
(President Of Acimit)

1. AI in Textile Machinery: How is the Italian textile machinery industry integrating artificial intelligence into its products to enhance operational efficiency, improve precision, and meet the demands of modern textile production?

Artificial intelligence undoubtedly offers great potential for innovation in textile machinery, and Italian manufacturers are closely following its developments. As ACIMIT, we see AI as a promising tool to improve efficiency and sustainability. However, while the benefits are clear, the approach to adoption is measured and cautious. Some companies have begun integrating AI-based features, particularly in areas like predictive maintenance, where real-time data collection helps reduce downtime and optimize production planning. These systems contribute to greater operational efficiency and are a first step

toward smarter, more responsive machines. AI has opened possibilities for machines that can automatically adapt settings based on material characteristics or production requirements. While these solutions show strong potential, broader implementation is still under evaluation, as companies. In conclusion, while Italian textile machinery manufacturers recognize AI as an important factor in the future of the industry, its integration is progressing gradually.

2. Innovations in Technical Textiles Machinery: What recent innovations have emerged from the Italian textile machinery sector to support the growing demand for high-performance technical textiles across industries?

The Italian textile machinery industry has made significant strides in developing technologies

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tailored to the production of technical textiles. Recent innovations focus on advanced web forming, enhanced control systems, and machinery capable of handling high-performance and recycled fibers, crucial for applications in automotive, medical, construction, and protective wear sectors.

Manufacturers are also integrating greater automation and digitalization to increase precision and adaptability, especially in handling complex structures and materials. These developments not only improve performance and quality, but also align with sustainability goals, enabling more efficient use of energy and raw materials.

Italy's leadership in innovation continues to support the evolving needs of technical textile producers worldwide.

3. Sustainability Initiatives: Sustainability is at the forefront of modern manufacturing. How are Italian textile machinery manufacturers advancing sustainable practices, such as energy efficiency, waste reduction, and circular economy initiatives?

Sustainability is a key priority for the Italian textile machinery industry. Manufacturers are investing in technologies that reduce energy consumption, optimize resource use, and minimize waste throughout the production process. From more efficient motors and automation systems to machinery designed for recycling and reusing raw materials, the focus is on reducing environmental impact without compromising performance. One of the pillars of this commitment is the ACIMIT CLIMA (Committed to Low Impact Machinery), a voluntary certification that provides transparent data on the energy and environmental performance of textile machines. It helps

manufacturers track and improve efficiency, while offering customers a clear benchmark for sustainable investment.

Through continuous innovation and projects like CLIMA, our industry is actively supporting the transition to a more circular and responsible textile production process.

4. Global Competitiveness: Italian machinery is known for combining technology and design excellence. What strategies are being adopted to maintain a competitive edge in the global textile machinery market, particularly concerning Industry 4.0 and smart manufacturing?

Italian textile machinery manufacturers are fully embracing the shift toward Industry 4.0 by integrating digital technologies that enable smart, connected, and automated production. Strategies include the development of machines equipped with advanced sensors, remote diagnostics, predictive maintenance systems, and data-driven process optimization.

A key initiative supporting this evolution is the ACIMIT Digital Ready certification. This voluntary certification identifies machinery that is preconfigured for integration into digital production systems. It ensures that the machines can communicate effectively with other equipment and management software, facilitating data exchange and full connectivity across the production line.

By combining technological innovation with Italian design and engineering excellence the Italian textile machinery industry continues to offer cutting edge, intelligent solutions that meet the demands of modern, flexible, and highly efficient textile manufacturing worldwide.