

THE CHALLENGE

To take its operations to the next level, GST took part in joint testing with Lectra, enabling definition of its specifications for worldwide deployment of next-generation laser airbag cutting solution FocusQuantum.

LECTRA'S RESPONSE

Following agreement of specifications and testing in Poland, the two companies certified manufacturing standards for mass production of OPW airbags using FocusQuantum on a global scale, culminating in rollout in China.

RESULTS

The unique collaboration has enabled GST to gain a competitive advantage by significantly lowering overall cost per airbag and tripling production capacity compared to the previous generation of Focus cutters.

LECTRA SOLUTIONS

FocusQuantum®

GST Achieves Sustainable Competitive Advantage through Unique Partnership with Lectra

A unique partnership enabled Lectra to test its revolutionary laser-cutting technology in a real production environment while delivering sustainable competitive advantage to the world's leading supplier of airbag cushions.



REACHING THE NEXT LEVEL OF GROWTH AND PERFORMANCE

Global Safety Textiles (GST) is the leading independent producer of airbag fabric and airbag cushions and supplier to the majority of airbag manufacturers. Recognized for its long tradition of research and development, GST uses state-of-the-art technology to manufacture technical textiles for a variety of passive safety applications.

With operations on four continents, the German group has a workforce of more than 5,000. The company's worldwide operations and resources enable it to fulfill high volumes of orders promptly, providing the global automotive industry with a steady supply of airbag fabrics and cushions.

To address GST's main business challenges and meet their demanding manufacturing specifications, the group evaluated the performance of FocusQuantum OPW for one-piece-woven (OPW) airbag fabric together with Lectra in the pre-launch phase of the advanced laser airbag cutting solution. Following successful testing of Lectra's advanced airbag cutting technology in a real production environment in Poland, the group then decided to acquire FocusQuantum OPW for implementation in China.

A ONE-OFF JOINT TESTING COLLABORATION ON CUSTOMER PREMISES

"We long anticipated the launch of a new generation of laser airbag technologies from Lectra. Naturally, we jumped at the opportunity to test it on our premises and provide input to improve and perfect the new solution. Lectra is the leading authority on operational excellence in the cutting room."

Christophe Dervyn
GST CEO,
GST

The result of a mutually beneficial collaboration between Lectra and its longstanding customer, specifications for laser OPW airbag cutting solution FocusQuantum took into account GST's exacting requirements. Once the development of FocusQuantum OPW was completed, both companies agreed to conduct joint testing. "We came to the idea of joint testing when we visited Lectra's R&D center in Bordeaux," says Uwe Zimmermann, COO, GST. "We discussed taking validation of our specifications to the next level. The idea came up to do it directly in a manufacturing environment."

The extensive testing enabled GST's experts to certify FocusQuantum as a proven technological platform for the mass production of airbags. "Process capability was a formal part of validations at GST Poland," recalls Piotr Siwek, Manufacturing Engineering Manager. "It was verified and confirmed that FocusQuantum meets GST's targets. The biggest improvement over the previous solution was the software, which we also helped Lectra develop. FocusQuantum Suite is one of the biggest advantages."

WORLDWIDE STANDARDIZATION AND ROLLOUT IN CHINA

As a result of the successful joint testing, GST decided to proceed with implementation in China. "Because GST aims to become a major player in Asia, implementation of FocusQuantum in China is the next logical step for us," explains Zimmermann. "Standardization of all our equipment worldwide is mandatory for us. That's why we decided to work with a global player like Lectra."

With more than twice the productivity of the previous solution, FocusQuantum has exceeded GST's performance targets. The significantly higher level of process capability has both improved cutting quality and reduced the number of defective cut parts.

"When we compare the unit output and unit cutting cost, we see a real improvement over the previous generation, so we are quite satisfied with the machine," notes Sky Yang, General Manager, GST China. "It's more reliable and productivity is significantly higher."

About Global Safety Textiles (GST)

Founded in 1836 in Bad Säckingen, Germany, Global Safety Textiles (GST) is the leading independent supplier of automotive occupant protection systems. The company develops and manufactures airbags, airbag textiles and technical textiles for a variety of applications, using state-of-the-art technology. GST runs production facilities in Germany, the United States, China, Poland, Romania, Mexico and South Africa.



About Lectra

Lectra is the world leader in integrated technology solutions (software, automated cutting equipment, and associated services) specifically designed for industries using fabrics, leather, technical textiles, and composite materials to manufacture their products. It serves major world markets: fashion and apparel, automotive, and furniture as well as a broad array of other industries. Lectra's solutions, specific to each market, enable customers to automate and optimize product design, development, and manufacturing. With more than 1,600 employees, Lectra has developed privileged relationships with prestigious customers in more than 100 countries, contributing to their operational excellence. The company is listed on Euronext.

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