swiss
textile
machinery

When the going gets tough...

With the power of innovation, Swiss Textile Machinery members drive success in the yarn manufacturing sector

Yarn producers know that when the going gets tough – as it frequently does – they can depend on the proven quality of machines, key components and services from Switzerland. For both high-volume segments and niches, Swiss Textile Machinery members have the innovative strength and the market focus to drive business success for spinners and synthetic fibre producers worldwide. This article introduces some of the latest solutions for competitive progress in this wide-ranging segment.

Switzerland has historic roots in the yarn spinning business, stretching back more than 200 years. Its thriving mills were among the earliest to embrace industrialization, at the start of the 19th Century – initially importing equipment from Britain, but soon switching to the first Swiss-made spinning frames which were the foundation for the modern successful machine-building sector. Even today, when global yarn production has largely migrated eastwards, Switzerland continues to provide the innovative technology those mills need.

Spun yarns, man-made and synthetic…

The world-leading status of Swiss machinery for yarn production today has recently been demonstrated with the huge contracts secured by the Rieter Group at ITMA 2019. Seven new modernization projects are being planned for the Egyptian textile industry worth a total of 180 million Swiss Francs. For these, Cotton & Textile Industries Holding Company, Cairo, has ordered for the first six projects Rieter ring and compact spinning machinery in the amount of 165 million Swiss Francs.

Other sectors require a more specialized approach, as competitive pressures change the business environment. Viscose production is an example, now centred in China. Swiss Textile Machinery member Maurer is a pioneer in the supply of viscose manufacturing plants and machinery, but nowadays competition from China is an issue. To diversify and establish new fields of business, Maurer has consequently extended its activities to include engineering and consulting services. Its portfolio has also been enhanced by activities in alternative fibres – derived from more sustainable sources – based on eco-friendly processes for application of solvents, and recycling systems.

In synthetic fibres, Swiss Textile Machinery also has a leading player. Retech develops and markets systems for drawing and processing high-performance synthetic fibres and yarns. Specialized components such as godet rolls, heaters and tension controllers are designed to cope with operating temperatures as high as 400°C, with the strength to

withstand the extreme strains of the drawing processes. Retech manages to blend ongoing innovation with cost-optimized production, enabling it to compete at the top level of technology for polyester, polyamide and polypropylene yarns.

Key components play a vital role in every area of yarn production – for both new installations and replacement parts – and Swiss Textile Machinery members such as Bräcker, Graf, Heberlein, Loepfe and Rotorcraft are all class-leading manufacturers. All well-known names in the industry, these companies have based their success on long-term investment in R&D and the development of sophisticated solutions for their customers worldwide.

Digital solutions for the knowledge gap

Changing priorities in the digital age create new challenges for textile producers – and new solutions. One such is the worldwide shortage of qualified and knowledgeable personnel, for which Saurer now offers a way of managing an entire production operation with a single intelligent program. ‘Senses’ is the name of its digital mill management system. It can cover machines from third-party manufacturers as well as Saurer brands. Process automation extends to management of supporting processes (maintenance, workforce, etc.) and interconnection of production and quality data.

Digitalization is essential for profit-oriented quality management in spinning. Ideally data from laboratory testing and in-process quality control should be combined. USTER’s Quality Management Platform integrates information from key production processes. It offers ‘value modules’ which alert textile producers to quality problems but can also provide optimization guidance to prevent the production of poor quality at source.

Steinemann CVS takes care of quality in a more basic, but equally essential way: protecting quality and enhancing profit by ensuring the mill environment is kept clean, by means of central vacuum cleaning. Steinemann’s latest technology ensures that dust and fibers are collected and logistically autonomously transported away from the manufacturing units, so as not to harm the production process. The Central Vacuum System is most suitable for automatic yarn waste disposal from the filter chambers of the end-spin-machinery, as a cost-efficient and more reliable solution than manual methods.

Innovation on every level: powering the future

There are many more illustrations of the contribution Swiss Textile Machinery companies make to modern yarn production and processing, on every level from ingenious manufacturing techniques to essential service solutions. Amsler’s fancy and effect yarn devices and the air conditioning and humidification systems from Luwa Air Engineering, for example, may have differing functional roles in the spinning industry, but both can be key success elements for their customers. They are typical of the products, components and services of Swiss Textile Machinery members: the advantages offered by their innovations make life easier for spinners all over the world. Rieter underlines this statement with the substantial shift from mechanical design towards software and

digitalization, creating the all-in-one spinning mill management system ‘ESSENTIAL’. Among the wide range of beneficial possibilities users can select modules that best suit their requirements and add them individually.

Swiss innovation power is challenged by visionaries like Dirk Weber, CEO of Ing. A. Maurer SA. He says: “Thinking big in scenarios when customers demand products made without solvents, or eco-friendly versions, and fostering investments in highly-automated mills would mean that industries like viscose production would come back to Europe.”

For current export business and any future home markets, there is one certainty: innovation is in the Swiss DNA and that’s why Swiss Textile Machinery companies will shape the future for their customers and the whole spinning industry in the years to come.

About Swissmem and the Swiss Textile Machinery Association

Swissmem is the leading association for SMEs and large companies in Switzerland's mechanical and electrical engineering (MEM) industries and related technology-oriented sectors. Swissmem enhances the competitiveness of its 1100 or so member companies both at home and abroad by providing needs-based services. These services include professional advice on employment, commercial, contract and environmental law, energy efficiency and technology transfer. Swissmem operates a number of strong networks, including 27 specialist groups. The Swiss Textile Machinery Association is the oldest division, founded in 1940. It represents the interests of the Swiss textile machinery manufacturers.

Swissmem and the Swiss Textile Machinery Association are headquartered in Zurich.