## At the forefront from fibres to finishing

**An extensive range of technologies and services from the UK will be on display at the forthcoming ITMA 2023 in Milan from June 8-14, with over 30 members of the British Textile Machinery Association (BTMA) in attendance.**

“Sustainability, circularity and Industry 4.0 have been the primary themes coming from the market for some time now and our members have responded with innovations spanning the entire supply chain – from fibres to finishing – and with a specific emphasis in many cases on improved software and digitised control solutions,” says BTMA Jason Kent.

**BTMA members will exhibit an extensive range of technologies and services in Milan.**

### Fibres

On the fibres front, Leeds-based Fibre Extrusion Technology (FET) moved into 2023 with a record order book and its globally-installed multifilament, monofilament and nonwoven systems have now been employed by customers to process more than 40 separate polymers.

“The research projects we have collaborated in have become increasingly challenging in terms of technical specifications and this is enabling us to constantly

expand the installations we can offer," says FET managing director Richard Slack. "Following the surge in interest in our spunbond and meltblown technologies over the past few years – many of them to address the PPE shortages during the Covid-19 pamdemic – we are now seeing a lot of interest from the market in bio-based polymers produced from biomass feedstocks."

FET's newly-opened £1.5 million Fibre Development Centre will enable the company, which is at stand A101 in Hall 1 at ITMA 2023, to further accelerate new fibre trials and product R&D.

Meanwhile, Bradford-based Tatham (Hall 10, stand C212) is currently fielding a lot of enquiries for its established machinery for the processing of natural staple fibres – and most notably, its technologies for the decortication, fibre opening and fabric forming of hemp.

"There has been an explosion in the interest in hemp production, from farmers through to fibre production, and a wide range of new potential end-uses are being explored," says Tatham director Tim Porrit. "We look forward to discussing options with any companies looking to enter this field or expand their existing capabilities in Milan."

**Fabrics and composites**

Since making its debut at ITMA 2019, Huddersfield-based Optima 3D (Hall 6, stand A213) has installed a significant number of its new 3D weaving machines that drew such interest in Barcelona four years ago.

The company's looms offer many advanced features over conventional weaving machines, particularly in versatility, as a result of the comprehensive use of digital control systems allowing rapid parameter and sequence changes, coupled with an innovative shuttle system.

"Our aim from the start was to look at 3D weaving machine technology with a fresh pair of eyes and produce a machine that is simply better by design and delivers real benefits to our customers," says managing director Steve Cooper. "The key interest in this technology has been in producing new structures from expensive fibres such as carbon into workable structures, as the essential reinforcements for composites."

Composites production has also been a major area of development for Northwich-based Cygnet Texkimp (Hall 3, stand A107) which has developed an extensive portfolio of technologies for handling fibres and yarns like carbon and glass. The company's latest launch is a multi roll stack developed within the £40 million UK Ascend programme led by Tier-1 aerospace supplier GKN Aerospace. The stack enables high performance prepreg and towpreg materials to be manufactured more efficiently and sustainably without compromising the accuracy of the product, speed, or consistency.

“This space-saving machine offers a way to manufacture towpreg and prepreg materials quickly and accurately while delivering considerable cost and energy benefits,” explains Graeme Jones, wide web product director at Cygnet Texkimp. “It is a more sustainable and cost-effective way to process prepregs which offers the potential for them to be used more widely in high-volume and mainstream applications.”

Leeds-based Roaches International also works closely with the composites sector, supplying a range of autoclave and thermosetting technologies, in addition to its wide range of well-known textile performance testing instruments that are used by many leading fashion brands. Roaches will be highlighting its design and built of innovative machines which integrate into existing manufacturing plants, such as the latest vertical IR (infrared) bonding and chemical application line which can process narrow width yarns or textiles at up to 600 metres per minute on as many as six lanes. Roaches will have its largest stand at ITMA to date this year, at E302 in Hall 4.

**Finishing**

Cambridge-headquartered Alchemie Technology (Hall 7, stand D308) is the latest fast-rising company to join the BTMA.

“With our Endeavour, waterless, low energy dyeing and Novara, low energy textile finishing technologies, we are disrupting manufacturing processes that are responsible for over 3% of global CO2 emissions and 20% of global water pollution,” says Alchemie founder and CEO Dr Alan Hudd. “Our solutions both dramatically reduce the environmental impact and the cost of dyeing and finishing, which has proven to be a compelling combination.”

**Influence**

“These are just a few examples of the textile machinery innovation that’s coming out of the UK right now,” Kent concludes. “It’s very exciting to see the accumulated know-how of our member companies continuing to exert a significant influence in advanced industries such as aerospace and automotive, while leaving no stone unturned in promoting environmental best practices through adapting to the latest demands of the market. BTMA companies have a lot more to unveil at ITMA 2023 and everyone is looking forward to fruitful demonstrations and discussions in Milan.”

Founded in 1940, the British Textile Machinery Association actively promotes British textile machinery manufacturers and their products to the world. The non-profit organisation acts as a bridge between its members and the increasingly diverse industries within the textile manufacturing sector.