Press Release

WINGS HD and eAFK Big V: efficient production of high-titer products using the POY and DTY process

Home textiles made from bulky polyester filament yarn

Remscheid, May 21, 2020 – home textiles directly influence the feel-good factor of our personal surroundings. Being pleasant to the touch, soft and extremely aesthetic, highly-bulky upholstery fabrics for furniture, decorative fabrics and wall textiles, drapes and pleated curtains and even carpets can support and express our lifestyles and personalities. High-quality textiles for our beds, bathrooms and tables are frequently matter-of-fact for many of us. And high-end yarns are also used in the automobile industry – for seat upholstery, interior cladding and floor covering in cars. Often, they have to withstand heavy demands. For this reason, the yarn quality of the high-titer yarns must be correspondingly high.

To date, DTY yarns up to 1200 den and with up to 784 filaments have, as standard, been plied from four POY 300d/192f bobbins using DTY machines. However, this process has a fundamental disadvantage: half of the texturing machine's available winder positions are not used. And – in terms of machine efficiency – this is an unsatisfactory state of affairs.

Here, Oerlikon Barmag offers yarn manufacturers a highly-efficient solution: the spinning concept with WINGS HD winding unit in conjunction with an automatic eAFK Big V Multispindle texturing machine is currently the only system on the market for manufacturing excellent-quality high-titer yarns with maximum machine efficiency.

WINGS HD – superb efficiency and functionality

12 POY packages of up to 600d/576f (final) are produced in the spinning process using WINGS HD 1800. This is made possible as a result of an additional godet, which ensures that the high yarn tensions developing in the process are reduced to the yarn tensions common in the case of the winding process to date. At the same time, the newly-developed suction unit with the accompanying yarn cutting device (yarn collecting system) ensures – both during string-up and in the event of a yarn break – reliable handling of the yarn with an overall titer of 7,200 den (final) and 6,912 filaments.

With this, the Oerlikon Barmag eAFK Big V Multispindle machine uses all winder positions and hence has the full production capacity at its disposal for manufacturing DTY yarns of 1200 den with up to 1152 filaments. Multiple plying of individually-spun filaments to create a high overall titer fundamentally impacts yarn quality. With the Oerlikon Barmag concept, this is minimized by plying the highest titers possible.

eAFK Big V Multispindle – productive and yarn-gentle

The eAFK Big V Multispindle texturing machine is based on the tried-and-tested eAFK Multispindle concept, with two individual friction rows. The high individual titers of up to 600 den per single filament can be textured using more powerful godet motors, a more powerful friction unit and a 2.5-m heater. The straight configuration of heater and cooling unit ensures particularly gentle yarn handling with a simultaneous drawing/crimping process. This is especially important for producing delicate microfilament yarns of the best quality. Thanks to this multiple configuration, 576 texturing positions can be efficiently utilized when manufacturing high-titer yarns, which are then taken up using all 288 positions. And the machine is particularly efficient in the high titer range of between 900 and 1200 den. Here, the operating window of between 30 and 1200 den offers yarn manufacturers maximum flexibility. The eAFK Big V texturing concept was launched in 2018, and has already convinced numerous yarn manufacturers with its performance.

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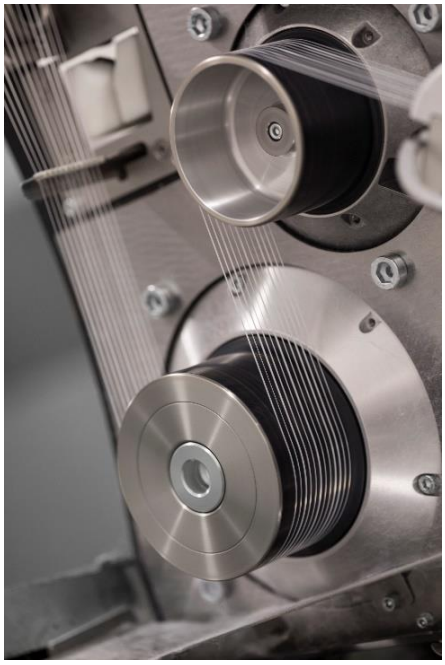

Caption:
Superbly suited to the efficient production of high-titer yarns: the Oerlikon Barmag concept comprising WINGS HD and eAFK Big V.

For further information:

Ute Watermann
Marketing, Corporate Communications
& Public Affairs
Tel. +49 2191 67 1634
Fax +49 2191 67 1313
ute.watermann@oerlikon.com

Susanne Beyer
Marketing, Corporate Communications
& Public Affairs
Tel. +49 2191 67 1526
Fax +49 2191 67 1313
susanne.beyer@oerlikon.com

About Oerlikon

Oerlikon (SIX: OERL) develops modern materials, systems and surface technologies and provides specialized services aimed at securing high-performance products and systems with long lifespans for customers. Supported by its technological core competencies and its strong financial footing, the corporation continues its medium-term growth plan by implementing three strategic factors: focusing on attractive growth markets, ensuring structural growth and expanding through targeted M&A activities. Oerlikon is a globally-leading technology and engineering corporation, operating its business in two segments (Surface Solutions and Manmade Fibers) and employing around 11,000 members of staff at 182 sites in 37 countries worldwide. In 2019, Oerlikon generated sales of CHF 2.6 billion and invested more than CHF 120 million in research & development.

For further information: www.oerlikon.com

About the Oerlikon Manmade Fibers segment

With its Oerlikon Barmag, Oerlikon Neumag and Oerlikon Nonwoven brands, the Oerlikon Manmade Fibers segment is one of the leading providers of manmade fiber filament spinning systems, texturing machines, BCF systems, staple fiber systems and solutions for the production of nonwovens and – as a service provider – offers engineering solutions for the entire textile value added chain.

As a future oriented company, the research and development at this division of the Oerlikon Group is driven by energy-efficiency and sustainable technologies (e-save). With its range of polycondensation and extrusion systems and their key components, the company caters to the entire manufacturing process – from the monomer all the way through to the textured yarn. The product portfolio is rounded off with automation and Industrie 4.0 solutions.

The primary markets for the product portfolio of Oerlikon Barmag are in Asia, especially in China, India and Turkey, and – for those of Oerlikon Neumag and Oerlikon Nonwoven – in the USA, Asia, Turkey and Europe. Worldwide, the segment – with just under 3,000 employees – has a presence in 120 countries with production, sales and distribution and service organizations. At the R&D centers in Remscheid, Neumünster (Germany) and Suzhou (China), highly-qualified engineers, technologists and technicians develop innovative and technologically-leading products for tomorrow's world.

For further information: www.oerlikon.com/manmade-fibers