Press Information

Oerlikon Neumag at the Domotex 2015: The road to energy-efficient BCF production

The Future of BCF Technology

Hanover / Neumünster, Germany / 17. January 2015 – With the introduction of the rotating tangle unit RoTac³ at the Domotex 2015 from 17 to 20 January in Hanover, the Oerlikon Segment Manmade Fibers wants to pave the innovative way to the future of BCF technology. Oerlikon Neumag's (hall 5, stand A31) exhibition highlight enables substantial energy savings and creates many further advantages for the production of BCF carpet yarn with the 3-end plant S+.

The tangling or intermingling plays a decisive part in the production of BCF yarns. Through the tangle knots, loop formations are prevented when tufting and weaving the carpets. Furthermore, they also define the colour mixtures of tricolor yarns and thus enable a homogenous appearance of so-called tricolor carpets. The constant increase of productivity respectively, the process speeds implicated increasing demands on the tangling, resulting in higher air pressures and a double tangling unit. The compressed air consumption significantly increased. Additionally, so-called tangle dropouts occurred at very high process speeds.

„The RoTac tangle unit has been the effective solution for the single-end BCF plant Sytec One since 2012. In the meantime, practically all Sytec Ones are sold with the RoTac. However in order to use this technology for our flagship S+, a considerable amount of detailed work was necessary", stated Mathias Stündl, Head of BCF Development at Oerlikon Neumag.

RoTac³: A further plus for the S+

The new RoTac³ is perfectly tuned for the 3-end BCF plant S+. In comparison to conventional tangle units, the RoTac technology forms the tangle knots with a pulsating instead of a continuous air current. The core element of the RoTac is a rotating nozzle jacket which has several holes with a corresponding spacing according to the required number of knots. If a hole is positioned over the compressed air opening, an air blast is released and tangles the yarn. Therefore compressed air is only consumed if a tangle knot is to be formed. The necessary volume flow and therefore the energy consumption are significantly reduced. In comparison to conventional tangle units, the compressed air consumption is reduced by up to 50%. Therefore the RoTac³ has been granted the e-save label for particularly energy-efficient and eco-friendly technologies.

This principle enables the RoTac³ to generate tangle knots with defined distances and controllable strengths. Tangle dropouts are reduced and downstreaming performance improved. A very gentle yarn treatment reduces the yarn tension. The resulting, better process stability is very beneficial for future trends such as fine deniers and demanding polymers.

RoTac³ is immediately available for the BCF plant S+ and can be retrofitted in already existing S+ plants.

Virtual Reality Show for main exhibition subjects: S+ und Sytec One
Furthermore Oerlikon Neumag will also be showing their BCF product portfolio: S+ and Sytec One, at the Domotex 2015. The three-end S+ produces high-quality BCF yarns and serves a very wide titer range (600 to 4000 dtex). All polymers, from polyester to polypropylene up to polyamide 6, can be processed on these multi-polymer plants without conversions being necessary, whereby the machine utilizes the applied raw material to 99%.

Whereas the S+ is convincing for commercial applications, the Sytec One is particularly suitable for the demanding production processes because of the one-end application. With the S+ and Sytec One, we are excellently positioned on the global BCF market and can practically fulfill nearly all the customers' requests ", ensures Martin Rademacher, Sales Director BCF.

Interested professional visitors can experience the production platform of both plants together with the RoTac^3 literally live in a three-dimensional Virtual Reality Show on Oerlikon Neumag's booth at the Domotex. The interactive presentation gives the observer a completely new perspective on sequences, machines and plants.

Premiere: 10 Years BCF Technology Symposium
It is the first time for Oerlikon Neumag's BCF Technology Symposium to take place in Hanover. It will be a special event, as it is the 10th anniversary to be celebrated on Monday, 19.01.2015. This annual forum previously always took place as a one-day event at the company's headquarters in Neumünster, and presented fascinating market subjects such as recycling or the growing significance of PET, to a professional audience from all over the world.

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About Oerlikon
Oerlikon (SIX: OERL) is a leading high-tech industrial group specializing in machine and plant engineering. The Company is a provider of innovative industrial solutions and cutting-edge technologies for manmade fibers manufacturing, drive systems, vacuum, surface solutions and advanced nanotechnology. A Swiss company with a tradition going back over 100 years, Oerlikon is a global player with around 16 000 employees at over 170 locations in 35 countries and pro-forma sales of CHF 3.6 billion in 2013. The Company invested in 2013 CHF 146 million in R&D (pro-forma 2013), with over 1 200 specialists working on future products and services. In most areas, the operative businesses rank either first or second in their respective global markets.

About Oerlikon Segment Manmade Fibers
Oerlikon Manmade Fibers with the product brands Oerlikon Barmag and Oerlikon Neumag is the world market leader for filament spinning systems used for manufacturing manmade fibers, texturing machines, BCF systems, staple fiber spinning systems and artificial turf systems and – as an engineering services provider – offers solutions along the entire textile value added chain. As a future oriented company, the Oerlikon Group segment's research and development is driven by energy-efficiency and sustainable technologies. With the expansion of the product range to include polycondensation systems and their key components, the company now caters to the entire process – from the monomer all the way through to the textured yarn. The primary Oerlikon Barmag markets are in Asia, with Oerlikon Neumag's main markets in the US, Turkey and China. Correspondingly, the companies – with almost 2500 employees – have a worldwide presence in 120 countries as part of the Oerlikon Manmade Fibers network of production, sales and distribution and service organizations. At the R&D centers in Remscheid, Neumuenster and Chemnitz, highly-qualified engineers and technicians develop innovative and technologically-leading products for tomorrow's world.

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