The new Truetzschler card TC 19i for Recycling: Turning textile waste into sustainable success

The market for recycled textiles is growing rapidly – because fashion is faster than ever, environmental regulations are stricter than ever, and the consumer focus on sustainability is sharper than ever. That's why companies around the globe are seeking solutions to the key challenges involved in turning textile waste into high-quality yarn. Truetzschler is now launching an intelligent card that is specifically designed for this application. It's called the TC 19i for Recycling.

Sustainability is transforming every aspect of the way people live and work, from renewable energy or electric vehicles through to packaging-free supermarkets. In the textile industry, the market for recycled fibers is growing at high speed because it taps into two contradictory trends: First, consumers buy more clothes but throw the clothes away much sooner; this is known as "fast fashion". And second, consumers are increasingly eco-conscious and want more sustainable textile products.

Due to this high demand, as well as lower raw material costs and potentially higher profit margins, many companies are now exploring ways of producing high-quality yarns from recycled fibers – but it's a difficult task. Waste from yarn or garment production, as well as used textiles or garments, present a wide range of challenges in spinning preparation, where the later quality of the yarn is being determined. Known as "hard waste", secondary fibers from torn waste contain unwanted yarn or fabric particles that reduce the quality of the final output and can impair the carding performance. They also contain a high amount of short fibers, which can have a negative impact on yarn strength.

An intelligent card for high-quality recycled textiles

"At Truetzschler, we are always seeking solutions to the latest market trends – and we are passionate about sustainability," says Thomas Schmitz, Head of Development Fiber Preparation at Truetzschler. "The TC 19i for Recycling empowers our customers to make the most of recycled material by optimizing opening and cleaning processes. It also offers a gentle, but effective treatment of short fibers and ensures no unnecessary waste is produced."

Here's how the TC 19i is able to achieve these results:

- **Gentle but effective tuft opening**: Our new WEBFEED has components such as the wired licker-in with stationary carding segments and improved profile geometries that are specifically designed for recycling applications. The recycling knife ensures the removal of disruptive particles and minimizes the loss of good fibers.
- **Robustness and reliability**: Secondary fibers from torn waste may adhere to the surfaces of material carrying parts and lead to fiber blockages. With TC 19i for Recycling, this cannot happen because all material carrying parts consist of stainless steel. Moreover, the robust design and innovative coatings of key parts guarantee reliable performance in almost any application.
- **More value from waste**: Our gap optimizer T-GO for Recycling uses sensors and algorithms to monitor and automatically adjust the ideal carding gap for the material involved, even under changing production conditions. In this way, it maximizes quality and productivity during recycling.
- **Flexibility**: Our MULTI WEBCLEAN system enables fast, flexible and customized adjustments to recycling applications. Eight elements in the pre- and post-carding zone can be configurated either as

carding or cleaning element or cover profile. This flexibility empowers customers to achieve the best possible configuration for their specific process.

- **Good advice and hands-on service**: The TC 19i for Recycling, as well as Truetzschler installations for recycling as a whole, stand out due to their high number of possible configurations. Truetzschler supports each customer with recommendations for ideal settings and makes sure that customers' production goals are actually realized.



Card sliver of secondary fibers.



Secondary fibers of torned denim.

Staying ahead of consumer demand and regulations

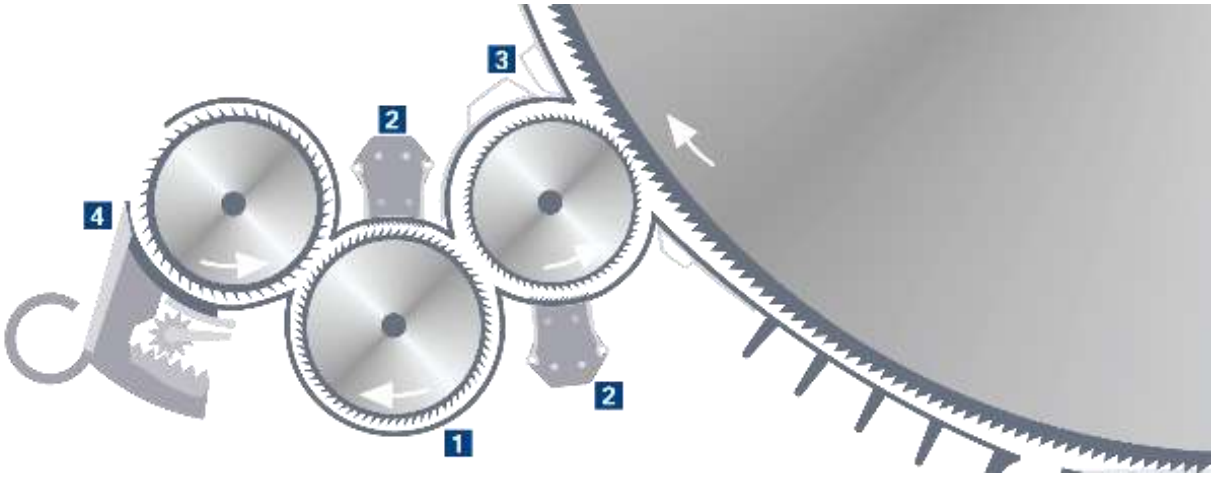
"By producing high-quality sliver from recycled fibers for new yarn, our customers are able to make progress toward their targets for sustainability, while also staying ahead of rising regulatory pressure and increasing consumer demand for eco-friendly products", says Markus Wurster, Head of Global Sales. The TC 19i for Recycling is an intelligent card that helps companies in the textile industry to embrace sustainability and turn this megatrend into a mega opportunity.

About Truetzschler recycling solutions

Truetzschler offers complete solutions for the recycling of cotton waste from spinning preparation, as well as the recycling of secondary fibers from torn textile waste: From blowroom technology for ideal opening, cleaning and blending to advanced carding and draw frame solutions. The TC 19i for Recycling and the integrated draw frame IDF 2 are benchmark in the direct spinning of rotor yarns from recycled materials. Truetzschler also provides a wide portfolio of card clothings specifically developed for recycling applications. Digital solutions and fast, reliable service complete our offer and help customers to turn waste into sustainable quality yarns.



The intelligent card TC 19i for Recycling.



Gentle but effective tuft opening with the new WEBFEED: 1) Three licker-ins with special clothings for recycling 2) Carding segments 3) Coated profiles with improved profile geometries that are specifically designed for recycling applications 4) Special separating recycling knife to ensures the removal of disruptive particles and minimizes the loss of good fibers.

About Truetzschler:

The **Truetzschler Group** is a German textile machinery manufacturer headquartered in Moenchengladbach, Germany. The family business is divided into the business units Spinning, Nonwovens, Man-Made Fibers and Card Clothing. Machines, installations and accessories for spinning preparation, the nonwovens and man-made fibre industry are produced in eight locations worldwide. In addition to four factories in Germany, Truetzschler has production sites in China (Shanghai), India (Ahmedabad), USA (Charlotte) and Brazil (Curitiba) as well as a development location in Switzerland (Winterthur). The company has a worldwide service network with service companies and centres in all important textile processing markets.
Fore more information visit: www.truetzschler.com