

Press release

Trützschler Group SE
Postfach 410164
D-41241 Mönchengladbach

Press Relations Contact:
Maren Schubert
maren.schubert@truetzschler.de
02166 6078052

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TRUECYCLED: A holistic approach to textile recycling success

Trützschler has taken a bold step to tackle the global problem of textile waste: We expanded our portfolio to become the first full-liner in the preparation of textile waste – from mechanical recycling to the spinning preparation of torn secondary fibers. Tearing and spinning preparation are both key processes for achieving the best possible quality from secondary fibers. That means our customers can tap into a competitive advantage by embracing this holistic approach.

Our new complete TRUECYCLED solution is the result of our cooperation with the company Balkan Textile Machinery INC.CO. in Turkey, which we announced at the ITMA 2023 trade event in Milan. Since then, Trützschler has received many inquiries for recycling systems. More and more customers are now producing recycled yarns on a TRUECYCLED line: State-of-the-art recycling installations, configured and fine-tuned by Trützschler experts based on the customer's specific requirements.

Success with a systems approach

Recycling systems face significant technological challenges. On average, torn fibers are much shorter than virgin fibers. The percentage share of short fibers in the fiber mass is much higher. Unopened yarn and fabric particles are also difficult to process. Not surprisingly, much academic and practical research is currently conducted to find solutions for these problems. Dr. Georg Stegshuster, a researcher specializing in textile recycling, believes a systems approach is needed. He is working at the Recycling atelier, a model factory for mechanical recycling in Augsburg, Germany, which is committed to delivering the latest technological insights for textile recycling. "A perfect fine-tuning between tearing and spinning preparation is key for obtaining the best possible quality results and avoiding unnecessary fiber shortening," he says. "This can be achieved if you are in control of both processes – and have the necessary expertise for both processes too."

Gentle but effective

In some cases, for example, it may be advantageous to have less aggressive settings in the tearing line. This can help avoid unnecessary fiber shortening. The remaining higher share of unopened fabric must then be handled in a high-performance spinning preparation line. This starts with the right blow room configuration for perfect opening, cleaning and blending. A card that is specially designed for recycling materials, such as the new TC 30Ri, can also enable gentle but effective treatment of fibers.

A shortened drafting process is also a must. The integrated draw frame IDF 3 can make this possible. The draft is high enough to provide excellent levelling of the numerous short fibers, but low enough to prevent floating fibers. "There is a lot of technological potential for improving the quality of the end-product through

the right configurations and settings,” Stegschuster says. “There’s a growing number of examples that show how higher quality end-products can be achieved from recycled materials, and how the share of pre- or postconsumer waste in yarns can be increased without compromising on quality.” A new chapter in mechanical recycling is now beginning – and Trützschler’s TRUECYCLED system will play a leading role in this exciting story!

First full-liner in mechanical recycling and preparation of textile waste

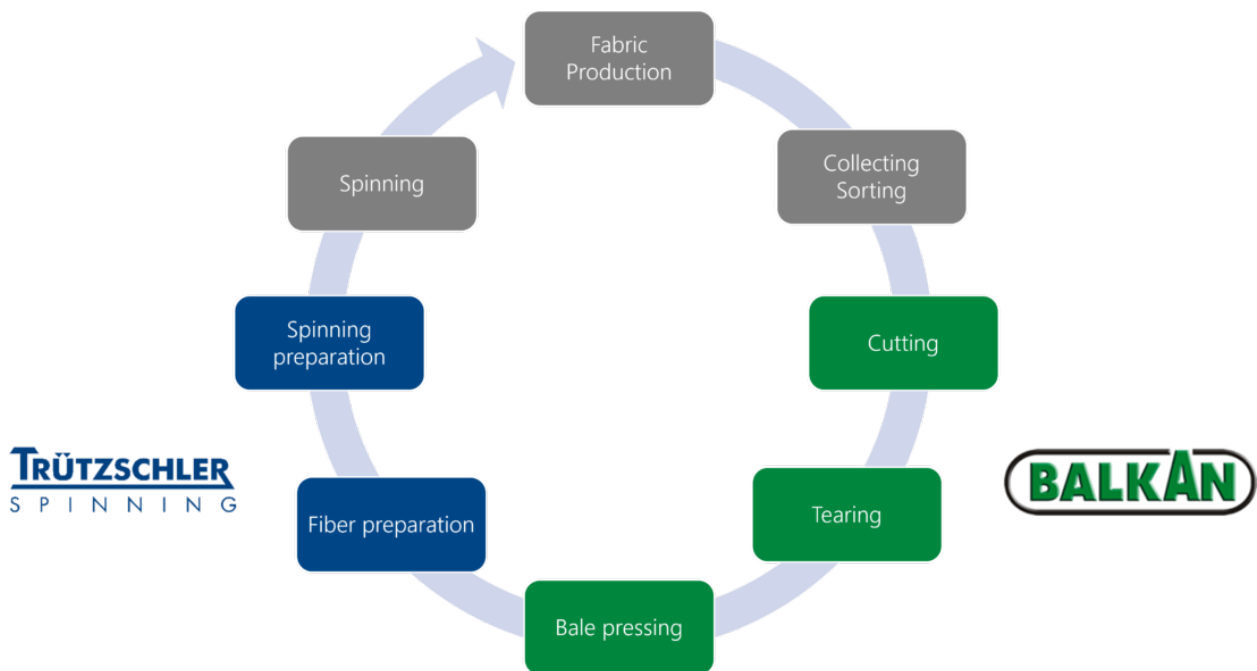
Trützschler now offers a complete system covering the whole process, from cutting and tearing textile waste through to carding and drawing secondary fibers. Thanks to this holistic approach and Trützschler’s expertise for the whole process, manufacturers can avoid unnecessary fiber shortening and achieve the best possible quality results.

Visual Footage:



USHA yarns, a leading Indian yarn manufacturer, is producing recycling yarns in a state-of-the-art TRUECYCLED line - and got a special certificate for this at the ITMA 2023

truecycled®



truecycled concept with balkan

About Trützschler:

The **Trützschler Group SE** is a German textile machinery manufacturer headquartered in Mönchengladbach, Germany. The company is divided into four business units: Spinning, Nonwovens, Man-Made Fibers, and Card Clothing. Trützschler machines, installations and accessories are produced and developed in ten locations worldwide. This includes four factories in Germany (Dülmen, Egelsbach, Mönchengladbach, Neubulach), as well as sites in China (Jiaying and Shanghai), India (Ahmedabad), the USA (Charlotte), Brazil (Curitiba) and Switzerland (Winterthur). Service companies in Türkiye, Mexico, Uzbekistan and Vietnam and service centers in Pakistan, Bangladesh and Indonesia provide customer proximity in key regions for the textile processing industry. For more information visit: www.truetzschler.com.