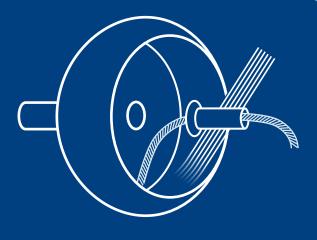
# THE TRUE VVAY TO YOUR ROTOR YARN





# Leading edge for rotor yarns

A sure way to reduce production costs is to shorten the preparation processes. Eliminating unnecessary machines saves investments and operating costs. In the rotor yarn mill, a shortened line with IDF 2 is also associated with an improved yarn quality.

The Truetzschler spinning preparation gives you the unique opportunity to process 100 % waste into a respectable yarn. Take advantage of these benefits, for instance by using a separate small line for processing spinning waste such as noils from a ring spinning installation.

# FROM WASTE TO



30 % lower deflection angle for better fiber guidance on the drafting systems



Stainless steel equipment in the blowroom and TC 19<sup>i</sup> for lower adhesion of finishing agents. Our modular concept offers flexible adaptation to your requirements also for cotton



Multidimensional savings potential in rotor spinning is only possible thanks to the first intelligent card TC 19<sup>i</sup> in combination with the Integrated Draw Frame IDF 2



Reliable separation of foreign parts with the T-SCAN detection models at any time



Maximum good fibre yield with minimum waste thanks to optical monitoring and self-optimisation by means of WASTECONTROL



Reduced personnel requirements due to fewer process stages or larger cans



Everything in view with the remote display T-LED. It provides information on the machine status intuitively at the speed of light.

# Short fiber – great added value

Direct spinning with TC 19<sup>i</sup> and IDF turns 100 % noil waste into a valuable rotor yarn.



# The best process for your yarn

## 100 % cotton waste / reclaimed fibers - shortened

### Increased economic efficiency through process reduction

Spinning the shortest fibers into yarn is only possible with the IDF. For example, 100 % cotton waste such as noils or production waste can be used. However, thanks to the shortened process, "second use" fibers, such as regenerated polyester or cotton fibers, can also be processed directly into a yarn.



Savings potential through the intelligent Card TC 19<sup>i</sup>







TC 19<sup>i</sup> with IDF

## 100 % man-made fibers / blend yarns - shortened

### Perfect preparation for man-made fibers

Man-made fibers are also becoming increasingly important in rotor spinning. At Truetzschler, this trend is taken into account at the card and in the blowroom with stainless steel equipment for the machines. In addition, there is a special version of the TC 19<sup>i</sup> which is explicitly adapted for the processing of man-made fibers.





Blowroom



TC 19<sup>i</sup> with IDE

# EFFICIENCY QUALITY

## 100 % raw cotton, optionally with waste - shortened

### **Shortened to higher quality**

Rotor yarns have different properties than classic ring-spun yarns; they are more voluminous and have a softer handle. The properties allow the addition of short fibers, noils or cleaned waste. In the rotor yarn mill this, in combination with the shortened preparation line, is also associated with an improved yarn quality.







Blowroom

TC 19<sup>i</sup> with IDF 2

### All materials - conventional

### Classic process with innovative machines

If you do not want to do without 1 draw frame passage in your process, Truetzschler naturally also offers the classic process with autoleveller draw frame.

Due to its compactness and intelligent machine functions such as AUTO DRAFT, SMART CREEL and SERVO DRAFT, the TD 10 is ideally suited as a quality filter for your rotor yarn.









Blowroom

TC 19<sup>i</sup>

TD 10

# Flexible production and optimal use of resources

Truetzschler blowroom concepts are ideally suited for rotor yarns thanks to their flexibility and simultaneous focus on resource-saving material use. The basis for better blending is already established in the bale lay-down. Therefore, the Truetzschler Portal Bale Opener BO-P allows a much wider bale inspection of up to 3.5 m.



# Proper protection of installations



Maximum process safety

Adding waste significantly increases the risk of foreign parts in the material. The SP-MF reliably detects heavy parts as well as metal parts and separates them. If required, it can also be equipped with spark detection and extinguishing.



## High performance dust removal

The efficiency of the rotor spinning machines depends strongly on the dust content of the cotton in the draw frame sliver. Truetzschler therefore uses the Dust Separator DUSTEX SP-DX at the end of the cleaning line. At this point, the cotton is highly opened and the dust removal is most effective.









### **CLEANOMAT CL-C3**

For raw material containing trash, Truetzschler offers a three-roll cleaner, the CEANOMAT CL-C3. With its gradual opening and four cleaning points, it is designed for this application in the rotor yarn mill.

### **Universal Cleaner CL-U**

This cleaner can be used for almost all types of cotton. It features an integrated dust removal that is important for the rotor yarn mill. The standard WASTECONTROL system ensures maximum raw material utilisation and minimum fiber content in the waste.

### **T-SCAN**

A foreign part separator is particularly important when using recycled raw materials. Cleaned fibers can contain many particles that can interfere with the subsequent process. With its 5 detection modules, the TS-T5 reliably separates these particles and thus protects your production.



### 8

# Intelligent cleaning with WASTECONTROL

Optimal raw material utilisation and minimal waste play an increasingly important role in view of rising raw material costs. In addition to the blowroom, WASTECONTROL is now also available on the card, along the Truetzschler spinning preparation.

The influence of WASTECONTROL on the cost-effectiveness of carding is tremendous. Material savings as small as a few tenth of a percent result already in an enormous reduction of raw material costs. Thanks to its networked data, the Card TC 19<sup>i</sup> always operates at optimal economic efficiency.

### **Example of savings**

Enormous savings potentials can be realised with one installation, e.g. 11 cards (100 kg/h each) and one CL-U (1,100 kg/h). Calculated for an example installation for Ne 20 carded, with an annual production of 9,140 t:

Waste without WASTECONTRO		with WASTECONTROL	
Card	3.5 %	3.1%	
Blowroom	3.0 %	2.6%	



annual savings



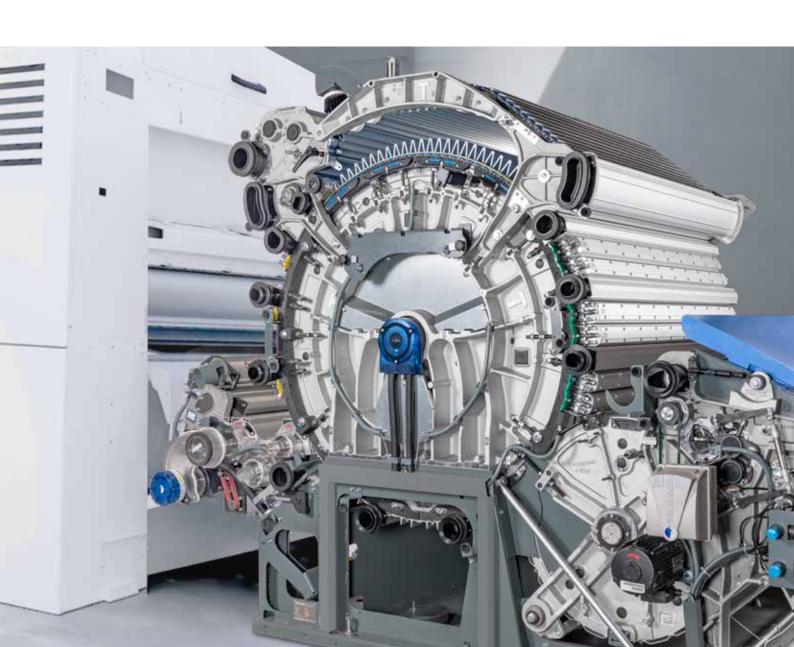


### WASTECONTROL with blowroom and card



# Carding has never been more intelligent

The intelligent Truetzschler Card TC 19<sup>i</sup> is also available in an optimized version for man-made fiber carding. The Gap Optimizer T-GO for self-optimizing carding gap adjustment always ensures an optimal carding gap even with man-made fibers, and thus consistent quality at its best.









### Perfectly adaptable clothings

Just as varied as the fibers used in the rotor yarn mill are the clothings of Card TC 19<sup>i</sup>. We use robust and durable clothings made of special steels, especially when processing regenerates and waste in combination with very high card productions.

### The first self-optimizing card

The carding gap is optimally adjusted at all times. The intelligent concept is made possible by the three components:

Gap Optimizer T-GO – optimum carding gap even under changing production conditions WASTECONTROL – best raw material utilisation and minimum waste Reliable NEPCONTROL – continuous monitoring of the nep level in the card sliver



### **WEBFEED**

The cotton cards for the rotor yarn mill are always designed with the WEBFEED system with three licker-ins. The increased degree of opening prior to actual carding also has a positive effect on regenerates or addition of waste.



### **DIRECTFEED**

On Truetzschler cards, high production rates during rotor spinning are already taken into account by DIRECTFEED, the large-volume upper and lower trunk. The unique direct feeding without delivery rolls ensures a trouble-free web feed at the card.





# No compromise on the spinning plan

The Truetzschler Card TC 19<sup>i</sup> can also achieve very high delivery speeds with regular sliver counts. The draft at the Integrated Draw Frame IDF 2 can be kept in the technologically advantageous low range.



Everything in view with the remote display T-LED. It provides information on the machine status intuitively at the speed of light.

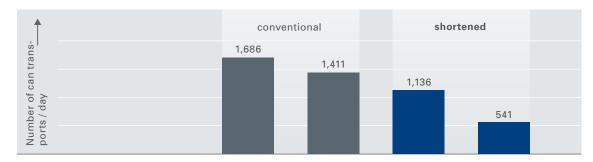
# The shortest way for rotor yarns

Direct spinning with the Truetzschler IDF technology significantly reduces operating costs: Savings are achieved in building costs, power consumption and above all in can transports. The can transports can be cut in half once more if rectangular cans are used.



### Rotor yarn mill

4,000 t/year = 600 kg/h

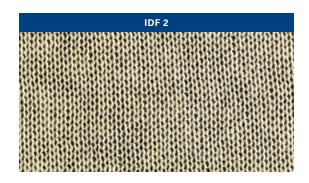


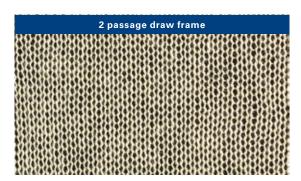
Card	JUMBO CAN	JUMBO CAN		
Breaker draw frame	JUMBO CAN			
Autoleveller draw frame	Ø 450 mm	Ø 450 mm		
IDF 2			Ø 450 mm	
IDF 2R				200 x 900
Number of persons needed	14	12	10	5

### Improve quality at the same time

The IDF process also always means a quality increase at two levels: By reducing the number of sliver piecings (in this example approx. 400,000 less per year), yarn defects and yarn clearer cuts are reduced.

The better sliver structure of the integrated draw frame reduces imperfections in the yarn and significantly improves yarn count variation.





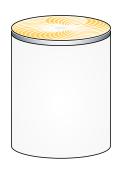
The comparison of the knitted fabrics shows a more uniform knit pattern and a nicer surface with the IDF process. Here, Ne 12 with 50 % raw cotton and 50 % noils was spun.

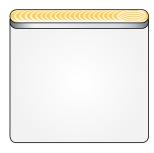
### Significant personnel savings

One can transport cycle always means:

- Transporting the full can
- Piecing the sliver
- Returning the empty can

At approx. 4 min per cycle, up to 9 persons can be saved with IDF 2 and rectangular cans in this example. Added to this are the savings by eliminating the draw frame passages.

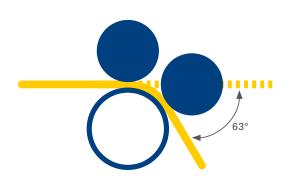






# High production – low IPI's

With the Truetzschler Draw Frames TD 9T and TD 10 you always make the right choice!





Special drafting system technology ideal for sliver count and optimum fiber integration.
Reliable guidance of the edge fibers leads to optimum fiber integration, even at the highest speeds.

- Excellent fiber integration mainly on the web edges
- Reliable fiber guidance at high speeds
- Fewer laps on top rolls to protect the roll coatings



The TWIN BUT INDEPENDENT concept of the breaker Draw Frame TD 9T results in higher efficiency and simultaneously increased flexibility. This means higher production and this is what's most important with breaker draw frames.









# Intelligent individual sliver monitoring

The new individual sliver sensors in the creel reliably detect sliver breaks, as a distinction can be made between motionless sliver, no sliver and running sliver. In contrast to contact rolls, the optical Truetzschler sensors protect against operating errors, as they function even when the pressure rolls are not used.

# Operating states always in view

With the Truetzschler remote display T-LED, the quality is always in view. Here you can see the visualisation of the sliver count variation A% with freely selectable quality limits. If there is a warning for a possible pending machine stop or a machine malfunction, the machine automatically switches to the corresponding status displays.



# Digital Solutions: Always and everywhere informed

With Truetzschler technology, you can further extend your lead – also in the course of digitisation. Our digital solutions enable you to generate profits faster, bundle resources, optimize processes and save costs with little effort. They are as easy to use as an app and work even if you do not use only Truetzschler technology.



The all-in-one platform: Whether information about your production, quality, maintenance or simply a complete overview - with My Mill your possibilities are almost limitless.

### My Production

Knowing what is going on at home: The extension to My Mill is the ideal companion for managers on the go. You are fully informed practically anywhere on earth and can intervene as necessary.

### My Wires

Your digital clothings management: Digitise your clothings and their condition in just a few minutes! Receive automatic notification of pending repeat orders and maintenance.



Our digital offers are cloud-based and extremely secure. We rely solely on the highest security standards because data security is just as important to us as it is to you.



# The true way to your yarn quality

On the way to yarn quality and economic efficiency, spinning mills are facing increasing challenges: shortage of specialists, high flexibility in production, optimal application of resources, etc.

Since the foundation of our company we have been using our values to offer you what is of importance: "The true way to your yarn quality." We are continuously developing new technological solutions that allow you to address the rapid market changes, thus ensuring the success of your business. To support you in pursuing "The true way to your yarn quality", we are providing practical innovations and self-optimizing functions here and now as well.



### The creation of true yarn quality involves the entire process:

- BO-P new bale opener with more bales in the blend and increased performance
- TC 19<sup>i</sup> optimal carding gap with T-GO
- T-LED the quality always in view via the remote display



### Key positions where resources are conserved:

- SP-MF energy savings due to adapted fan speed according to BO-P position
- WASTECONTROL raw material savings during cotton cleaning on the card and in the blowroom
- TD 10 24 h cleaning intervals due to large-scale filter box



### Innovative, self-optimizing technology:

- A continuous material flow at all times with CONTIFEED 2
- TC 19<sup>i</sup> the Gap Optimizer T-GO automatically sets the revolving flat to the ideal point and permanently checks this setting
- TD 10 AUTO DRAFT for the automatic calculation of the perfect break draft











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Fiber preparation installations: Tearing line · Bale openers · Mixers

Cleaners/Openers · Foreign part separators · Dust separators · Tuft blenders

Waste cleaners | Cards | Draw frames | Combing machines |

Digital Solutions

## TRÜTZSCHLER

Bale openers  $\cdot$  Mixers | Card feeders | Cards  $\cdot$  Crosslappers | Hydroentangling  $\cdot$  Needle-punching  $\cdot$  Through-air- and chemical bonding lines | Wet-laying lines | Finishing  $\cdot$  Drying  $\cdot$  Winding machinery | Digital Solutions

## TRÜTZSCHLER

Metallic wires: Cards · Cards long staple · Cards Nonwovens Rotor spinning | Flat tops | Fillets | Carding segments Service machines | Digital Solutions | Service 24/7