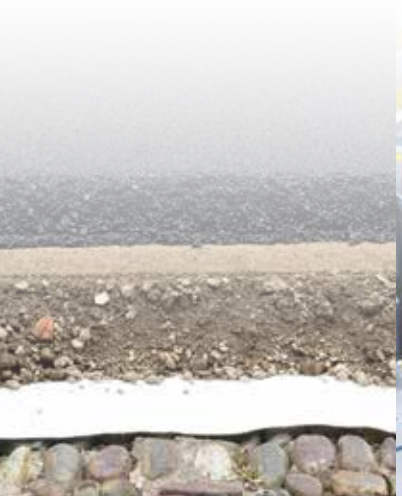
TRÜTZSCHLER NONWOVENS

technical nonwovens




Tensile strength –
the most important
mechanical property of
technical nonwovens

Content

P2304-116_EN230516 · MINT GmbH, Kempen

Technical nonwovens – when durability is a key requirement

Technical textiles have been used for thousands of years. Wherever fabrics have been used for purposes other than clothing or decoration, the term technical textile can be applied.

Today, technical nonwovens are indispensable in many industrial sectors. This brochure focuses on fiber-based nonwovens, i.e. we discuss solutions for carding, carding/crosslapping and subsequent web bonding processes.

Key requirements

One characteristic of technical nonwovens is the long service life. Unlike disposable nonwoven products for hygiene, wiping or medical purposes, industrial applications require high performance throughout their long service life.

Homogeneity of the web and the nonwoven becomes a crucial requirement to prevent early performance losses. Therefore Trützschler Nonwovens pays special attention to the early stages of fiber preparation, carding, blending and web forming. A perfect web is the prerequisite for the subsequent web bonding process.

This brochure also covers through-air bonded nonwovens, some of them being technical textiles, while others deliver functionality to single-use hygiene products.

Needle-punched automotive textile

Needle-punched geotextile

Spunlaced filter media with scrim

Spunlaced coating substrate

Through-air bonded diaper top sheet

Technologies for manufacturing technical nonwovens

Early examples of functional textiles are manually-made felts from entangled animal hair or plant fibers. They were mainly used for clothing to keep people warm and dry. Furthermore they reinforced shoes to protect the feet and insulated tented floors and walls.

Hydroentangling (spunlacing)

Spunlacing, i.e. entangling fibers by pressurized water jets instead of steel needles, is an alternate bonding process suitable for specific technical end-uses. Hydroentangled nonwovens are excellent for coating substrates, automotive interior textiles or hot-gas filter hoses.

Needle-punching

Needle-punching clearly dominates the field of durable, technical nonwovens. The high adaptability of the needling and finishing processes as well as the wide range of materials available result in a large number of different end products.

Needle-punching lines are able to process natural, man-made (PTFE), performance (PPS, aramide...) and even recycled or mineral (glass, basalt...) fibers.

Through-air bonding

In building and construction, thermo-bonded nonwovens are used for various types of insulation and filter media.

However, the main application area is in absorbent hygiene products. High-performing through-air bonded top sheets and ADL (Acquisition and Distribution Layer) are indispensable layers in today's diapers.

Key applications

The largest application areas for fiber-based nonwovens are construction/civil engineering, automotive/transportation as well as air and liquid filtration. Smaller end uses are carpets, furniture and shoes.

Geotextiles

Geotextiles allow for long-term drainage or soil layer separation in dikes, landfills or tunnel constructions. Needle-punched nonwovens from synthetic fibers deliver tensile strength, elongation, shear and puncture resistance as well as resistance to chemical and biological degradation.

Needled natural fiber products are used for temporary road construction, shoreline and coastal protection, and gardening. They are meant to biodegrade over time – no microplastics will enter the environment.

Filtration media

Nonwoven filter media are essential for pollution protection in both air and liquid filtration. Ubiquitous products are needle-punched or through-air bonded nonwovens for air purifiers, automotive cabin air filters and HVAC (Heating, Ventilation and Air Conditioning) systems. Hot-gas filtration in cement kilns and waste incineration plants is made save by needle-punched or hydroentangled nonwovens.

A typical liquid process is belt filtration of cooling lubricants by needle-punched nonwovens in mechanical treatment processes such as grinding.

Automotive textiles

Visible decorative elements such as headliners, trims or mats can be made from needle-punched or hydroentangled nonwovens. Denser needle-punched nonwovens are used for acoustic insulation and as an alternative to structural foam.

Various other applications for virgin and recycled materials

Some ideas: needle-punched materials serve as structural elements in furniture, reinforcement layers in shoes or acoustic insulation. Hydroentangled nonwovens are excellent coating substrates due to their smooth surface.

Functional, non-visible materials in cars, furniture, bedding, etc. often rely on needle-punched nonwovens made from recycled fibers.

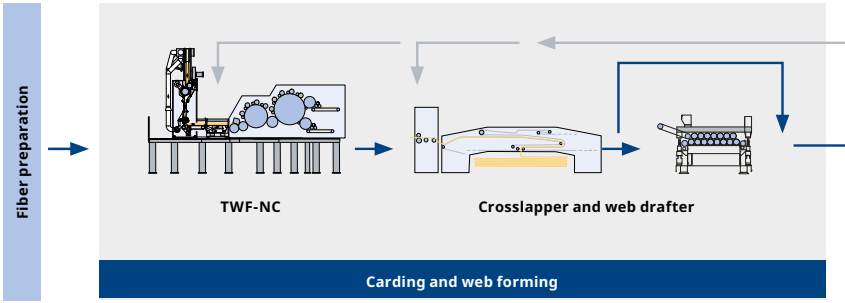






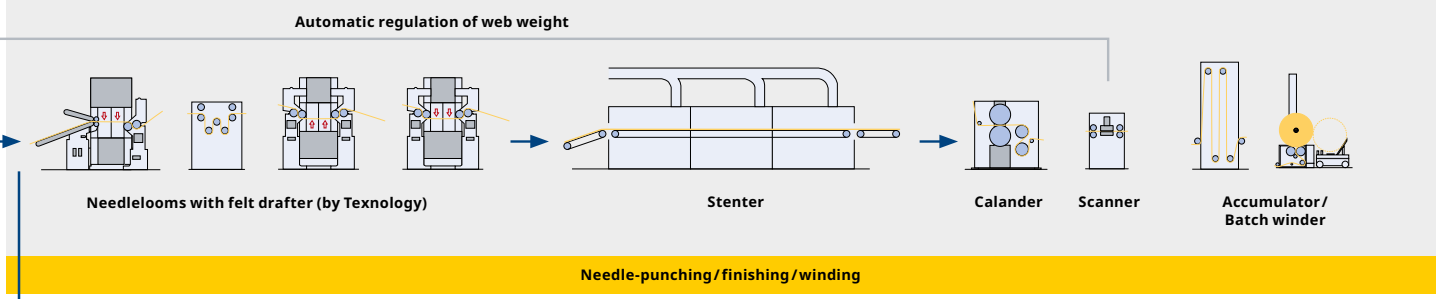
T-SUPREMA NEEDLE-PUNCHING

GEOTEXTILE LINES



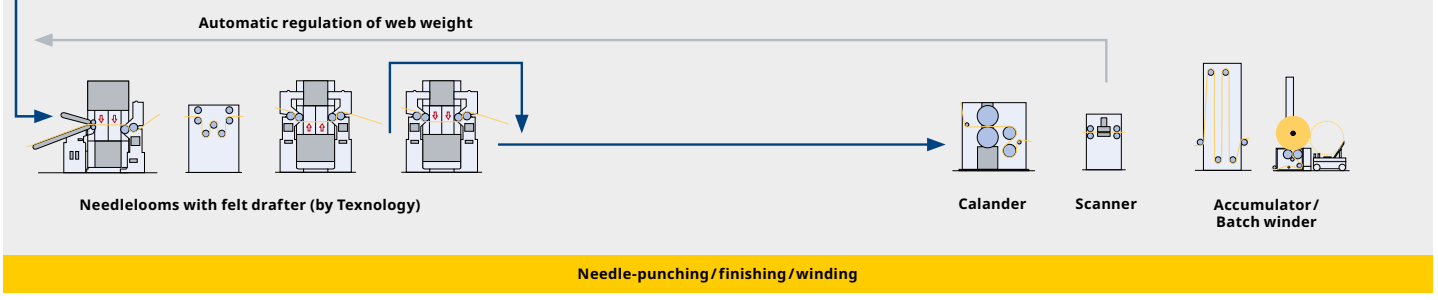
T-SUPREMA line for lighter weight geotextiles:

Web weight:	90 to 300 gsm	Fibers:	mainly PP
Product width:	up to 6,500 mm	Fiber length:	up to 100 mm



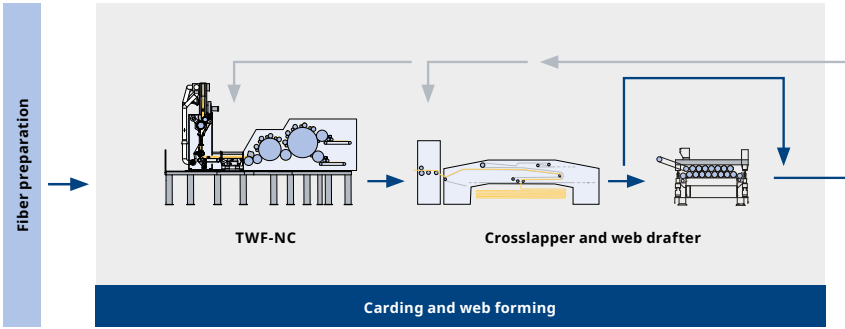
T-SUPREMA line for heavy weight geotextiles:

Web weight:	300 to 1,500 gsm	Fibers:	PET, recycling fibers
Product width:	up to 7,000 mm	Fiber length:	up to 100-120 mm

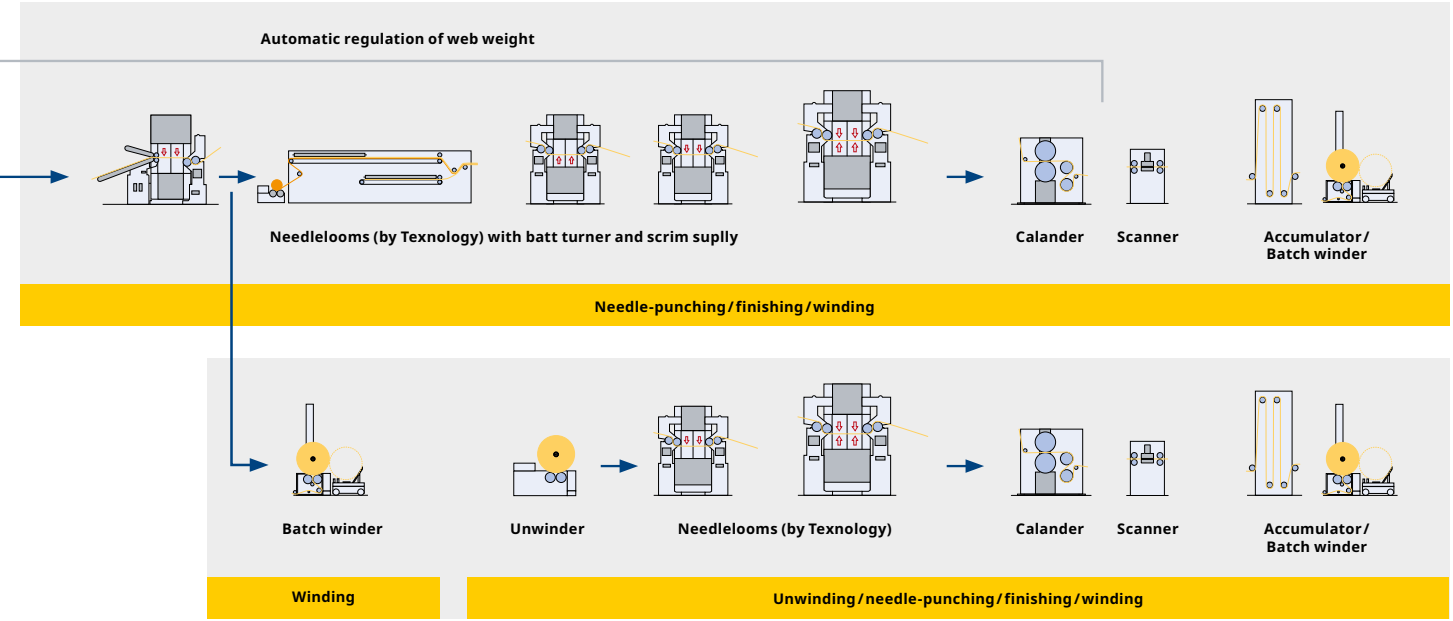


T-SUPREMA NEEDLE-PUNCHING

FILTRATION LINES

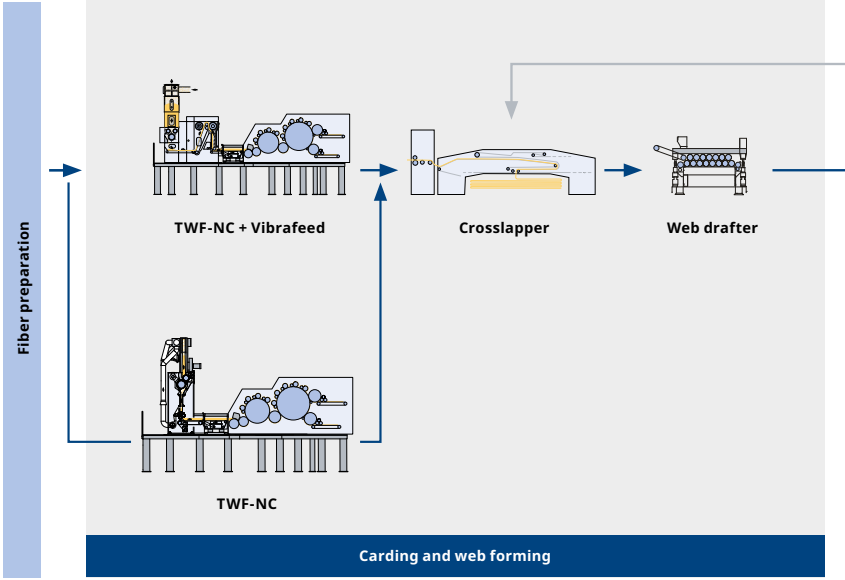


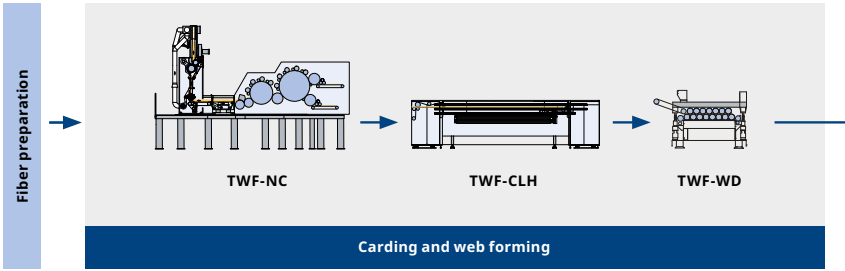
Typical web weights:	below 100 and up to more than 1,000 gsm
Fibers used:	PET, PP, aramide, PPS, PTFE, glass, ceramic fibers

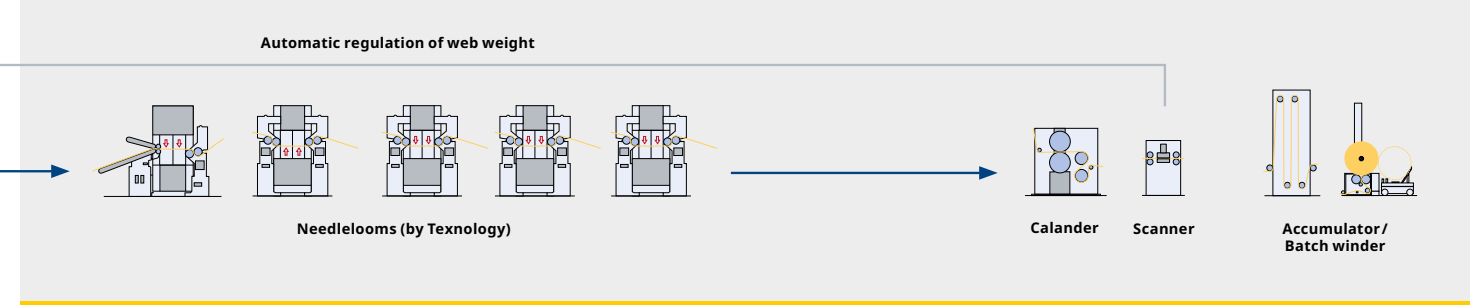

Automatic regulation of web weight
Needlelooms (by Texnology) with batt turner and scrim suplly
Calander
Scanner
Accumulator/
Batch winder
Needle-punching/finishing/winding
Batch winder
Unwinder
Needlelooms (by Texnology)
Calander
Scanner
Accumulator/
Batch winder
Winding
Unwinding/needle-punching/finishing/winding

T-SUPREMA NEEDLE-PUNCHING

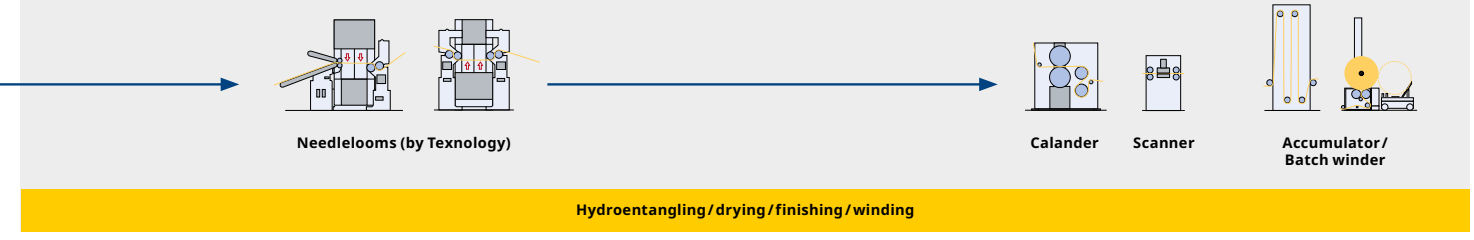
AUTOMOTIVE LINES





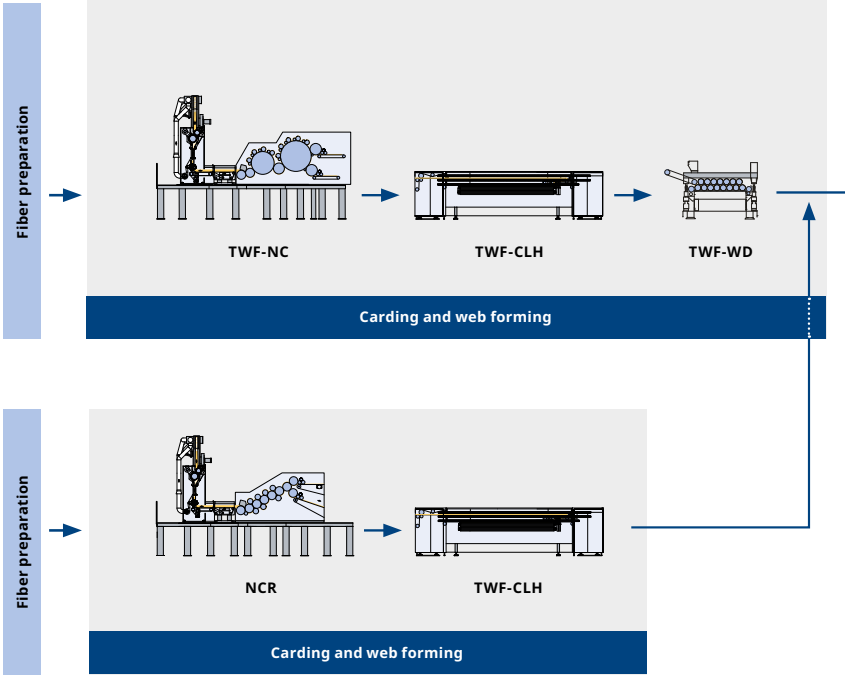


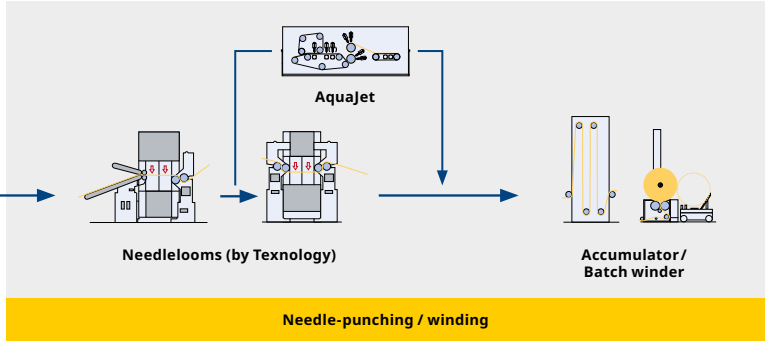
Web weights:	below 100 and up to 1,500 gsm for visible elements up to 2,000 gsm for non-visible components
Fibers used:	PP, PA, PET for visible components hemp, jute, flax, PP, PA, PET, glass fibers and recycled materials for non-visible components
Also possible:	solutions with AquaJet hydroentangling after pre-needling (see page 18)



T-SUPREMA NEEDLE-PUNCHING

LINES FOR SPECIAL APPLICATIONS





Special applications

Often needle-punched nonwovens serve specific requirements in sophisticated applications. We love to find special solutions for your product ideas.

T-SUPREMA NEEDLE-PUNCHING

LINES FOR RECYCLED FIBERS

Solutions for recycled fibers

More than 60 million tons of man-made and natural fibers are produced each year. And millions of tons of used textiles are disposed to landfills every year.

Textile recycling is the next big thing to come. Today, a handful of industrial-scale recycling technologies are mature enough to give used textiles a new life.

Our approach

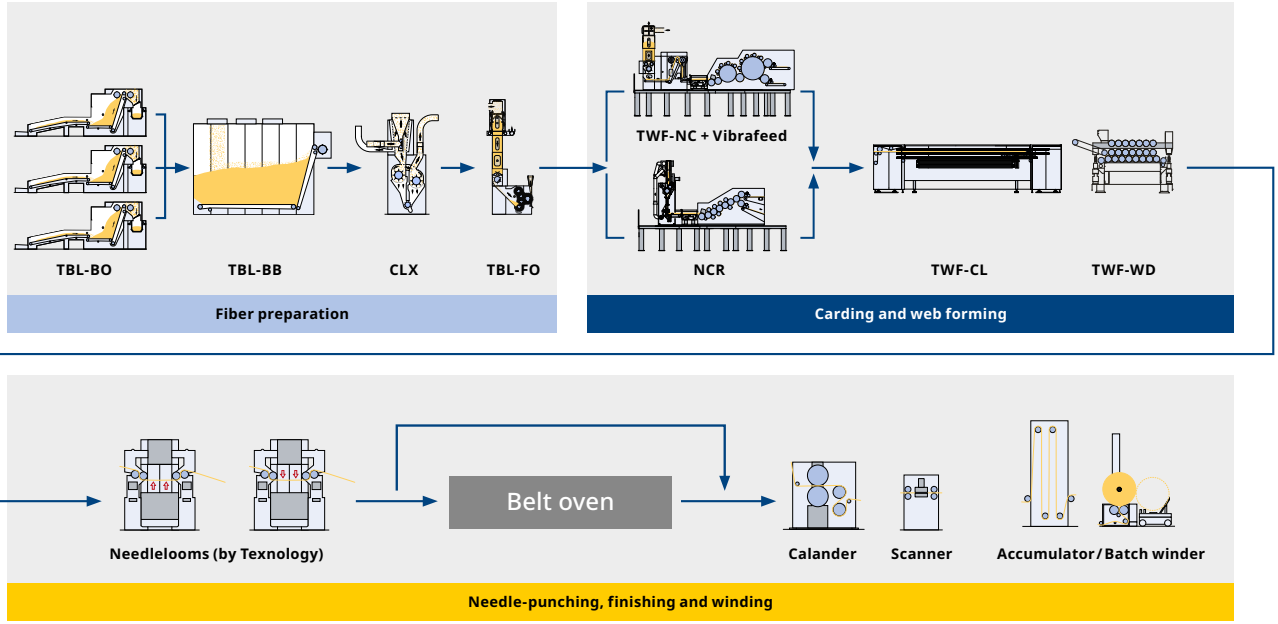
In a first step, Trützschler Nonwovens concentrates on solutions for re-using post-industrial waste, so-called soft waste. T-SUPREMA lines for recycled materials are fed with recycled fiber bales manufactured by our partner's tearing line.

The first step: a tearing line

Post-industrial waste contains neither buttons, zippers or seams. It's just fabric that needs to be cut into small pieces, mixed and fed to the tearing machine. Up to 6 opening sections with powerful filters pre-open the fabric pieces, extract dust and smallest chunks and feed the bale press with high-quality reclaimed fibers.

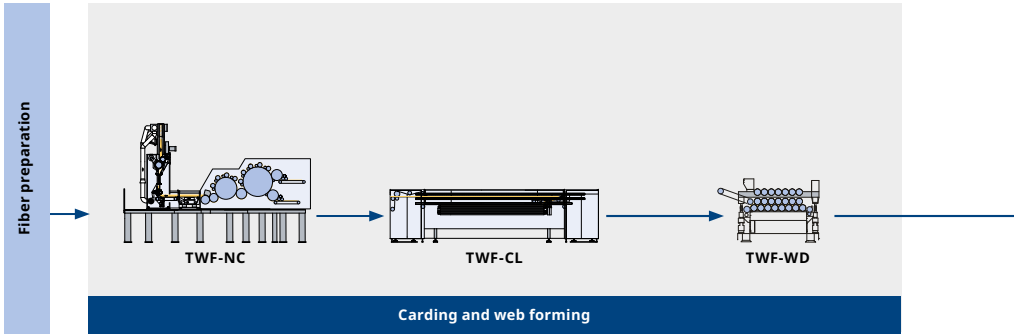
T-SUPREMA line for reclaimed fibers

Web weight: up to 1.500 gsm
Product width: up to 6.000 mm product width
Applications: construction, home interior (insulation, protection)



HYDROENTANGLING (SPUNLACING)

LINES FOR
TECHNICAL END USES



For coating substrates:

Web weight: 100 – 150 gsm
Fiber used: PET

For light/medium weight filtration media:

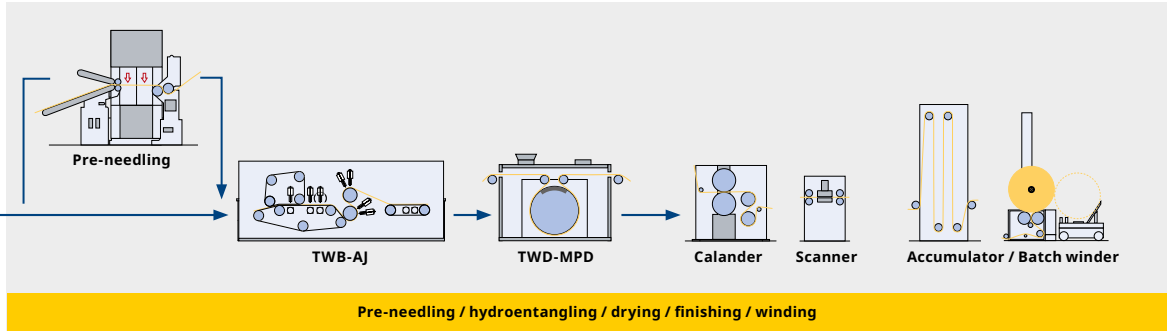
Web weight: up to more than 1,000 gsm
Fibers used: PET, PP, aramide, PPS, PTFE, glass, ceramic fibers

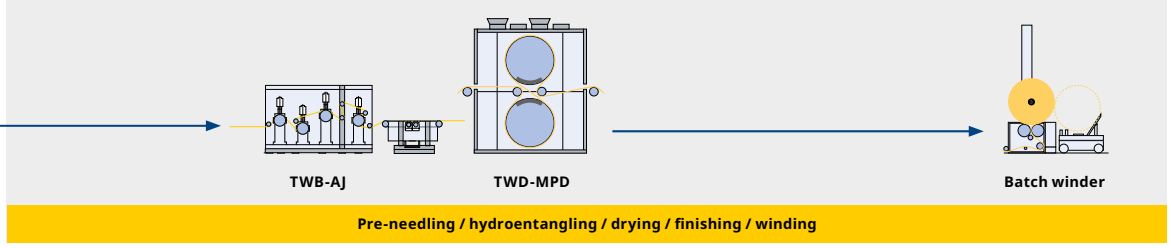
For visible automotive textiles:

Web weight: from below 100 up to 1,500 gsm
Fibers used: PP, PA, PET

For heavy weight filter media (hot-gas filtration):

Web weight: several hundred to more than 1,000 gsm
Fibers used: PET, PP, aramide, PPS, PTFE, glass, ceramic fibers


Pre-needling
TWB-AJ
TWD-MPD
Calander
Scanner
Accumulator / Batch winder
Pre-needling / hydroentangling / drying / finishing / winding

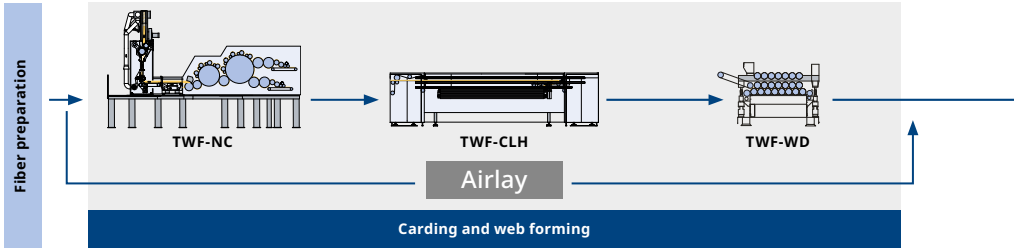

TWB-AJ
TWD-MPD
Batch winder
Pre-needling / hydroentangling / drying / finishing / winding

THROUGH-AIR BONDING

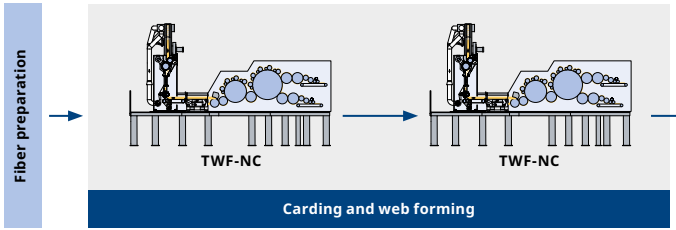
LINES FOR HYGIENE, HIGH-LOFT AND FILTRATION

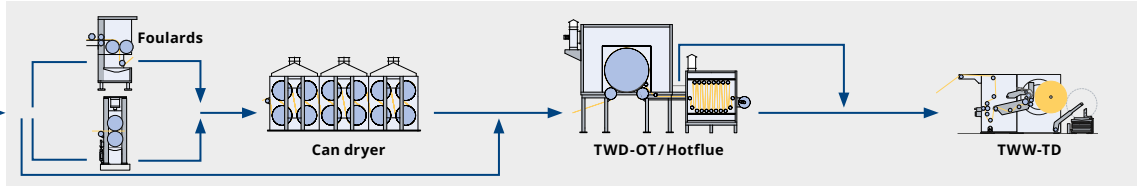
Flexible through-air and chemical bonding line for hygiene textiles

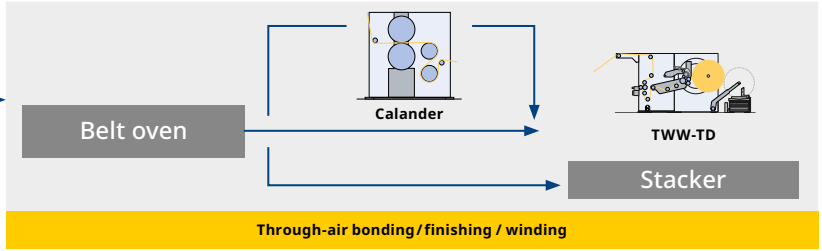
Through-air bonding line for high-loft textiles

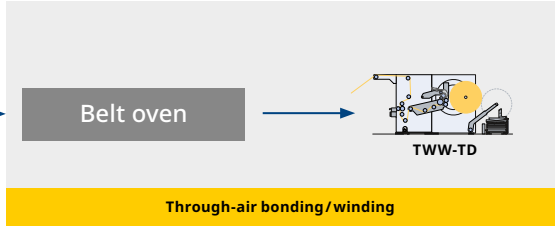


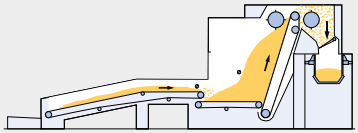
Through-air bonding line for HVAC filter applications



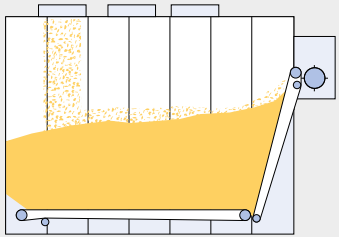

Foulards
Can dryer
TWD-OT / Hotflue
TWW-TD
Through-air or chemical bonding / winding


Belt oven
Calander
TWW-TD
Stacker
Through-air bonding / finishing / winding

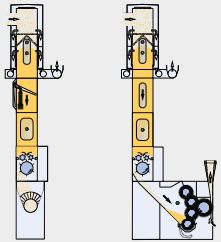

Belt oven
TWW-TD
Through-air bonding / winding



Bale opener TBL-BO with weighing pan or weighing belt



Blending bin TBL-BB



Feed box TBL-FB for man-made fiber lines and fine opener TBL-FO for cotton lines

Fiber preparation – the T-BLEND system

The modular T-BLEND system allows for high line throughput. Various components – bale and fine openers, weighing and blending systems as well as accessories for reliable fiber transport – open the door to individual installations that exactly meet the requirements.

Advantages:

- Throughput up to 1,000 kg/h per bale opener
- All components are easy to start up
- Various executions depending on process and/or fiber requirements
- "Clean Concept" with various types of sealings, directed air flows and smart aspirations to keep fibers away from critical machine parts
- Easy access for fast cleaning and efficient waste fiber removal
- Modular built to speed up the startup process and to ensure both extensibility and upgradability

Bale opener TBL-BO is adjustable to a wide range of fibers

Weighing pan TBL-WP for high accuracy and high performance

Blending bin TBL-BB: a fiber blender and material buffer

Feed box TBL-FB for fine opening in man-made fiber lines

The fine opener TBL-FO for natural fiber processing

Consistent high blending quality

In high performance lines, the blending chamber is used as a fiber storage to ensure a continuous flow of fibers to the web forming machinery. When blending fibers of different types, lengths and colors, the chamber provides maximum homogeneity. It is easy to operate, safe and reliable.

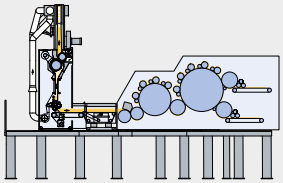
The TBL-FB feed box

This box is more than a material buffer between the blending bin and the card feeder. Equipped with feed rolls and a pinned opening roller, it generates a uniform flow of small tufts to the card feeder. The opening through the feed box is clamp-free to prevent stress on the fibers. The speed of the feed rolls is continuously adjusted via a pressure monitoring system that monitors the filling level in the downstream card feeder (CONTIFEED).

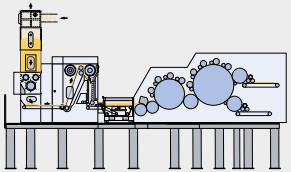
The fine opener TBL-FO

The high demands of cotton, natural and recycled fibers require the inclusion of the fine opener in the production line.

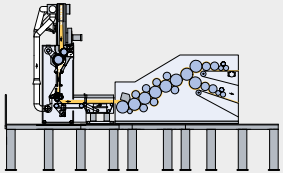
TBL-FO works clamp-free with several opening rolls. It gently opens coarse fiber tufts into finest tufts or even single fibers to facilitate carding.



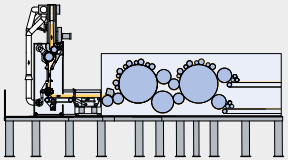
Multi-purpose TWF-NC card with basic doffing section



NC card with Vibrafeed for processing special materials



NCR random card: the specialist for natural fibers



NCT card for excellent blending

Carding with TWF-NC multi-purpose card

Whether standard, coarse or extremely long fibers – the combination of fiber-specific NC card configuration and appropriate card feeder ensures homogeneous fiber feeding, carding and blending.

The NC card works perfectly with our various types of crosslappers to produce isotropic webs.

TWF-NCR: processing fibers of different lengths

A row of similar sized cylinders allows for gentle carding. Nep generation – an issue with natural or reclaimed fibers – is minimized.

The special doffing design rearranges the fibers during transfer to produce a highly random, voluminous web.

TWF-NCT: excellent blended webs

NCT's layout with two equally sized, large cylinders and a double transfer ensures excellent carding and blending results.

Proven in many lines: TWF-NC multi-purpose card

CONTIFEED: automatic process control

The closed-loop CONTIFEED control system implements a continuous material flow from the blending bin to the feed box and the card feeder.

It ensures the delivery of a homogeneous fiber mat to the belt weigher – a nearly impossible task for stop-and-go systems.

Roller Card TWF-NC

Fiber fineness	0.7–100 dtex
Fiber length	14–150 mm
Output	< 450kg/hm
Working width	≤ 4,200 mm

Highspeed Card TWF-NCT

Fiber fineness	1.0–3.0 dtex
Fiber length	< 60 mm
Web weight	14–55 gsm
Line speed	≤ 300 m / min
Working width	≤ 4,000 mm

Random Card TWF-NCR

Fiber fineness	0.7–17 dtex
Fiber length	14–60 mm
Web weight	25–140 gsm
Output	< 260kg/hm
Working width	≤ 3,800 mm

NCT high-speed card: no compromise on web quality

TWF-NCT advantages

- Increased carding power due to a total of nine worker-stripper pairs
- Better blending due to double intermediate transfer
- Reduced fiber fly and air turbulence due to optimized roller diameters and undercasings

Making the difference: Card clothings by Trützschler Card Clothing

Optimum card performance
Roller cards in nonwoven lines as well as flat-top cards depend on the quality of the clothing to ensure top-class products. Wires differ with regard to the tooth contour and the profile cross section, the structure or the surface treatment.

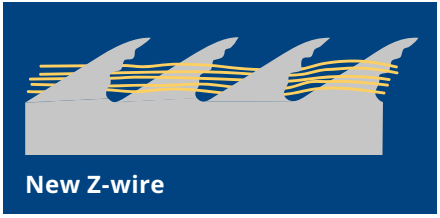
We supply tailored clothings for each roll. These are based on the roll type, the raw material, the production speed and other processing parameters.

Global availability and service
For decades, TCC has been providing worldwide locally organised, customer-oriented service – and this service is continuously expanding. It ranges from one-off visits for trouble-shooting to maintenance contracts and tailormade clothing management.

Latest development: the Z-wire for high-speed nonwoven lines
At higher speeds, the rotational forces of the rolls increase and single fibers can eventually fly away. The special contour of the new Z-wire holds the fibers in place. It is therefore the perfect clothing for the worker / stripper rollers of high-speed roller cards:

Quality assured: All production steps are subjected to permanent online monitoring

State-of-the-art diagnostics minimize standstill times



High operational reliability in high-speed processing of viscose or man-made fibers

Partnering up with Texnology for T-SUPREMA lines

Trützschler Nonwovens and Texnology joined their respective strengths to offer high-performance, but easy to use needle-punching machinery. Our target: to make operations easier than ever before..

A cooperation between

TRÜTZSCHLER NONWOVENS

TEXNOLOGY®

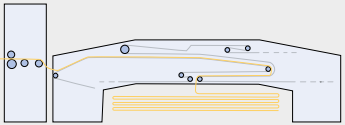
About Texnology s.r.l.

The Italian company is a leading manufacturer of next-generation needlelooms, felt drafter, profiling and high speed crosslapper systems. The product portfolio is completed off by accessories, tools and spare parts.

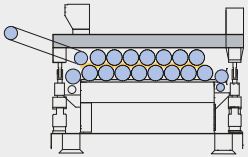
Texnology is also able to supply complete nonwoven production lines – up to now some 180 plants for needle-punching, thermobonding, hydroentangling and chemical bonding have been delivered to customers all over the world.

The foundation dates back to the 1950s when Vani Olivo started a nonwoven business. With a 40-year background in nonwovens production, Texnology successfully began constructing nonwoven machinery in the 90's.

TWF-CLH crosslapper for target materials



Crosslapper with Stirovelo unit by Texnology



The web drafter TWF-WD in an 4 trio configuration

Crosslapping and web drafting

To produce webs that are particularly wide, thick or virtually isotropic, the crosslapper precisely folds the web and lays it down in several layers at high speed.

Numerous variations in machine widths, web width and heights allow customized solutions for different line configurations.
In T-SUPREMA needle-punching lines, the type of crosslapper is chosen on a case-by-case basis.

Crosslapper CLH

Trützschler CLH crosslapper	
Output	over 140 m/min
Laying width	< 8,000 mm
Number of layers	4–76 layers

Trützschler's CLH crosslapper

- Safe web transport without floating draft zones
- Reduced load during acceleration and braking due to weight reduction
- Increased energy efficiency due to latest drive technology

Web profiling with CROSSMASTER

The TWF-CLH crosslapper features a control system that works with specific drafts. Unwanted side effects of processing, for instance increased web density at the edges, are monitored and automatically corrected.

Enabling T-SUPREMA's high product widths by layering of up to 8,500 mm

The art of product correction: constant automatic regulation without operator intervention.

Giving a crosslapped web the final touch: TWF-WD web drafter

Texnolgy's crosslappers

The new crosslapper series guarantees web homogeneity, increased productivity by the eliminating bottlenecks and low energy consumption. The machines are equipped with antistatic, smooth PVC/PA or PU coated aprons that are reinforced with scrims.

Closed-loop profiling

Stirovelo is a web profiling unit separating the crosslapper from the card. The Card and crosslapper keep constant speeds while Stirovelo generates variations in the web weight to correct the CV of the finished nonwoven. X-ray scanner data is used to monitor web density and make appropriate corrections.

4/6/8 web drafter: measurable increase in speed

A crosslapper usually pairs up with a web drafter to finally give the web the desired characteristics. The drafter reorients the web's fibers and adjusts both web weight and thickness. It also increases the line speed especially when processing lightweight webs.

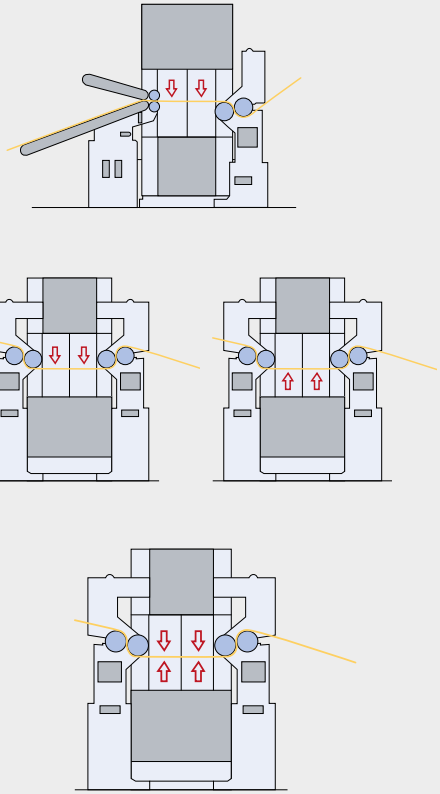
Scan the code for detailed information

Scan the code for detailed information

Web Drafter

Drafting zones 4–8

1 transfer roll between each trio



Various double-board needlelooms for needling from above or/and below

Needlelooms by Texnology s.r.l.

T-SUPREMA lines are equipped with Texnology's cutting edge needlelooms. High output combines with low energy consumption and the lowest vibration and noise on the market.

Six single and double board needleloom types, as well as executions with a revolutionary elliptical needling movement serve any application. Different needle densities, stroke amplitudes and stroke frequencies etc. ensure perfect adaptability to customer requirements.

Keeping up-time and product quality high

- Smart designs, e.g. mechanical constraints, minimize stress on components and vibrations
- Low wear and tear extends maintenance intervals
- Optional features such as suction units for the needling zone keep uptime high
- Minimized vibrations prevent leakage of the automatic grease lubrication system and thus product contamination

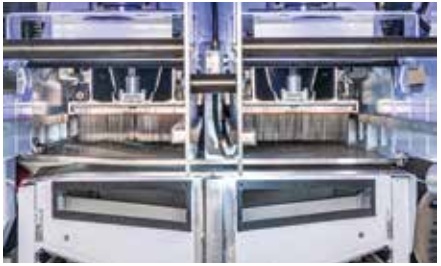
Scan the code for detailed information on

Texnology's pre-needlers

Texnology's needlelooms

Or visit the website https://texnology.it/en

High productivity thanks to working widths up to 8,2 meters



Available as single, double or quadro board machine

Ingenious design details save time and worry

Ease of use

The modular built of Texnology's needlelooms allows for easy accessibility and effortless maintenance:

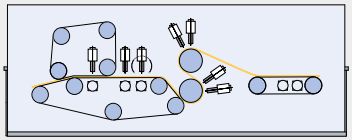
- Whatever the working width, inlet and outlet press are movable on linear guides.
- The suction system is located on the side for full access.

A wide range of needlelooms

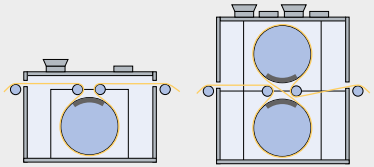
Working width	up to 8,200 mm
Maximum speed	up to 1,800 rpm
Stroke amplitude	30/40/60/70 mm
Needle pattern	up to 7,000 dls/m

Quick and easy needle board change

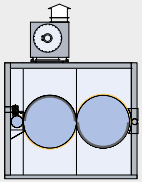
- Easy to open and close couplings between boards
- Rollers for easy insertion
- Easy centering and clamping
- Tailor-made storage racks with easy access for needle board organisation and safety



AquaJet for spunlacing lines with speeds of up to 200 m/min



The new Modular Performance Dryer (MPD): high drying capacity in a small footprint



The MDD horizontal dryer series is proven in spunlacing lines all over the world

Hydroentangling (spunlacing) and drying

Hydroentangling with the AquaJet is a versatile and proven bonding technology for many fiber materials and all types of thin or thick, carded, carded / cross-lapped, wet-laid and even spunlaid webs. AquaJet sounlacing lines for technical textiles such as geotextiles, hot gas filter media and coating substrates are already proven in installations worldwide.

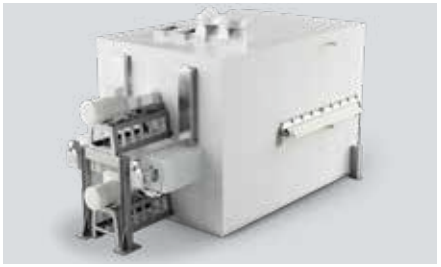
For drying the moist, spunlaced nonwovens, we rely on efficient drum dryers based on the through-air drying principle.

AquaJet: trendsetting design
Patented jet head design for a turbulence-free water flow:

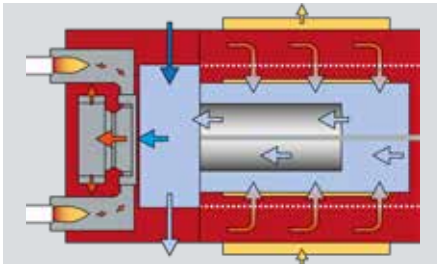
- For up to 400 bar water pressure (needed for technical nonwovens such as filter and coating materials)
- Optimized water outlet for focused water jets
- Bent-proof, thin-walled spunlace drum shell with some 50 % open surface for efficient water suction

AquaJet is integrated in a comprehensive water treatment system comprising high-pressure water jet generation, dewatering, air / water separation and filtration.

AquaJet in a carding / spunlacing line



Space-optimized MPD: high drying uniformity over the entire working width.



The intermediate chamber minimizes heat loss and saves up to 10 % energy.

Easy to use

AquaJet's components are easy to access, clean and maintain:

- Easy to change drum shells (sleeves)
- Quick to change jet strips and spunlace drum's suction bars
- All filters are placed outside the jet head for easy access.

The new MPD vertical dryer

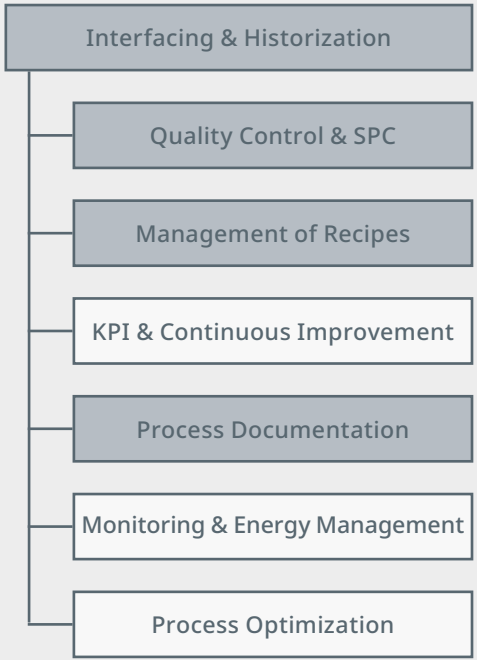
This new, modular design offers highest evaporation capacities, a small footprint and low energy consumption. The Building block is a 1-drum module, that can be stacked to build a two-drum vertical dryer.

MPD features various heating systems: natural gas, hydrogen, biogas, electrical heating, steam or thermal oil-based heat exchangers.

Built-in energy efficiency

An intermediate chamber is the core of all our vertical, multi-drum and Omega dryers. Its benefits include:

- No heating of exhaust air
- Significant reduction of thermal energy consumption
- Reduced air turbulence caused by air extraction
- High drying uniformity over the entire working width
- Opportunity to integrate heat recovery from the beginning or to retrofit an HRS system at a later time



T-ONE modules for systematic and digitalized work routines

basic package

T-ONE - increasing production performance

T-ONE delivers direct benefits to line operators, quality engineers, product developers and the management.

A digital working environment for the entire production

The various software modules not only digitalize work routines but also collect and file all relevant production data (specifications, roll measurements, recipes and changes, line performance KPIs, sensor data etc.). Moreover, T-ONE implements powerful AI-based algorithms for line simulation and optimization.

An open client-server system

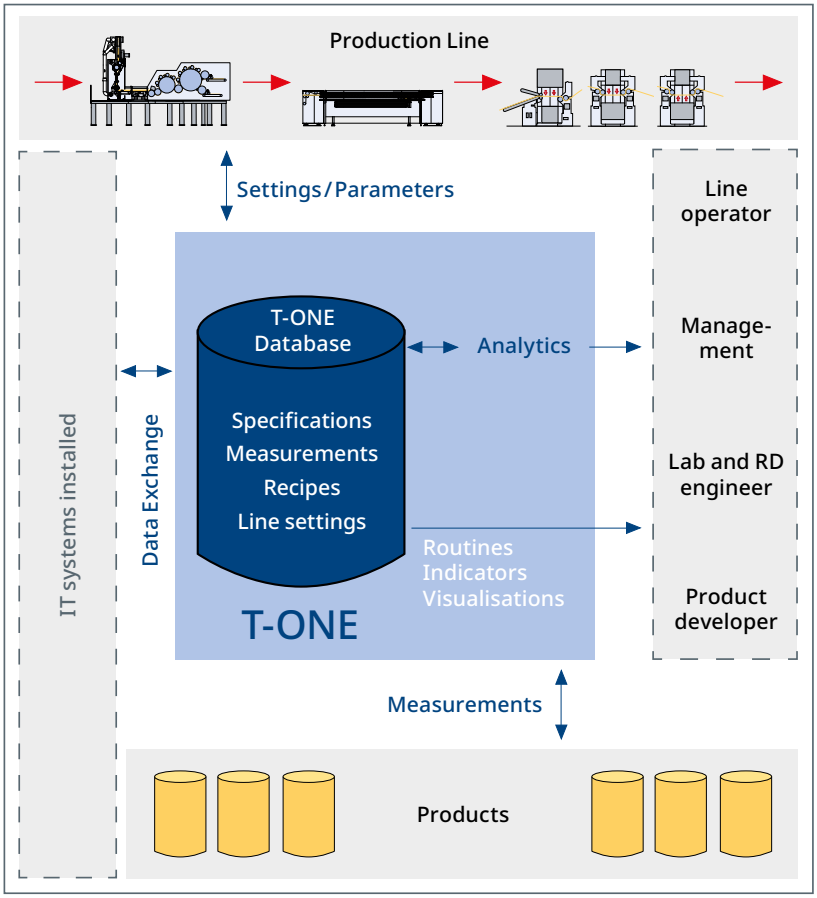
T-ONE's architecture and its refined user management give you 100 % control over all data. The heart is a database installed on one of your (virtual) servers. The clients are Windows-based computers. As an open system, T-ONE not only neatlessly fits into your existing IT environment but is also able to communicate with every open machine in the production line.

Setting up a T-ONE project

The software will be customized to your production line and your specific requirements, to the IT solutions already installed in your production and even to your ERP system if desired.

Benefits of working with T-ONE

- Save money – by systematically reducing energy consumption
- Save resources – support routine tasks (e.g. quality control) and save up to 40 % time by the digitalized recipe management
- Focus on important things – continuously monitor line efficiency, take action and keep track of improvement work
- Stay informed – visualize product quality and detect rising issues in advance
- Accelerate complex work – analyze line settings, simulate line behavior and get advise on better machine settings
- Get access to all production-related data – the complete history of product specifications, quality data, recipes and line settings



Welcome to NCTC! (Nonwovens Customer and Technology Center)

In Egelsbach, Germany, your ideas become reality. Fast and reliable. Just 15 kilometers away from Frankfurt / Main Airport more than 20 multi-functional line configurations await you.

Fully equipped playground
NCTC – the largest nonwovens trial center of its kind – is equipped with laboratory and testing capabilities. Moreover, it features a showroom with hundreds of nonwoven materials.

On the playground
More than 5,000 square meters are dedicated to two independent nonwoven lines for:

- Crosslapped / needle-punched
- Carded / spunlaced
- Wet-laid / spunlaced (WLS)
- Spunlaced carded / pulp (CP)
- Through-air bonded nonwovens

Both lines feature the full range of Trützschler Nonwovens' equipment.

Opportunities galore!

Running to full capacity?
Bring your own raw material, process and product ideas to NCTC. Together, we'll make the most out of it.

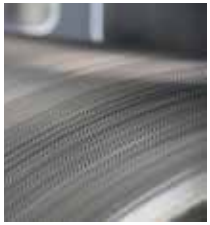
In doubt about performance promised?
Visit NCTC and put our machines through their paces.

Pressed for optimized processes?
Discuss with experienced experts and develop the optimum manufacturing process.

No time to train new employees?
Send them to NCTC for thorough qualification and focused hands-on training.

In search for future-fit products?
Take advantage of our profound knowledge and partnerships.

In need for test material?
If you are considering entering new markets, Trützschler Nonwovens can provide you with roll goods for testing.




We are always by your side

Your equipment has a high utilization and sometimes operates under tough operating conditions; therefore, we recommend regular inspection, maintenance, and repair to keep its performance high.

Trützschler service offers specialized solutions to help maintain your operations. The provision of original parts, repair and maintenance maximizes uptime and performance. Engineers in the worldwide Trützschler service network have the specialized skills and expertise to save you time and resources.

Moreover, let us give you peace of mind. With Trützschler service contracts maintenance and maintenance costs become predictable. We will take care of your service schedule to keep your equipment running at peak efficiency.

Contact us directly at spareparts-tnw@truetzschler.de
or contact your local Trützschler service organisation

After Sales Service
Choose our individual and specialized services:

- Inspections and assessments
- Plant efficiency consulting
- Service agreements
- Smart remote services
- Upgrades and modernizations
- Original spare and wear parts
- Trainings on-the-job and inhouse

It’s your choice

Inspections, audits and repair services

To reduce future unplanned downtime, we recommend regular mechanical and operational inspections. Our engineers work in accordance to original supplier manuals and help debottleneck the line. Our global service network is happy to support your plant manager.

Service contracts

Setting up a regular scheduled service, including remote support, not only guarantees an efficient and reliable production. Service contracts also make maintenance costs transparent and predictable.

Modifications

Our nonwoven lines are designed to last for decades. But technology advances open up new opportunities. To keep your system up-to-date, we offer various upgrades.

Trainings

Our NCTC Technical Center in Egelsbach allows for training your staff even before your new line has been started up. We offer comprehensive on-the-job training before the line is handed over – and at any time thereafter.

Original parts

We believe in original parts to keep line performance high. Let’s talk about your individual needs. Our high-quality parts packages ensure the machines retain their value over time.

TRÜTZSCHLER
SPINNING

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
NONWOVENS

Bale openers / mixers | Card feeders | Cards / crosslappers
Wet-laying lines | Hydroentangling, needle-punching, thermo- and
chemical bonding lines | Finishing, drying, winding machinery |
Digital Solutions

TRÜTZSCHLER
MAN-MADE FIBERS

Carpet yarn systems (BCF) · Industrial yarn systems |
Digital Solutions

TRÜTZSCHLER
CARD CLOTHING

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

www.truetzschler.com