



# Process belts for the wood industry

---

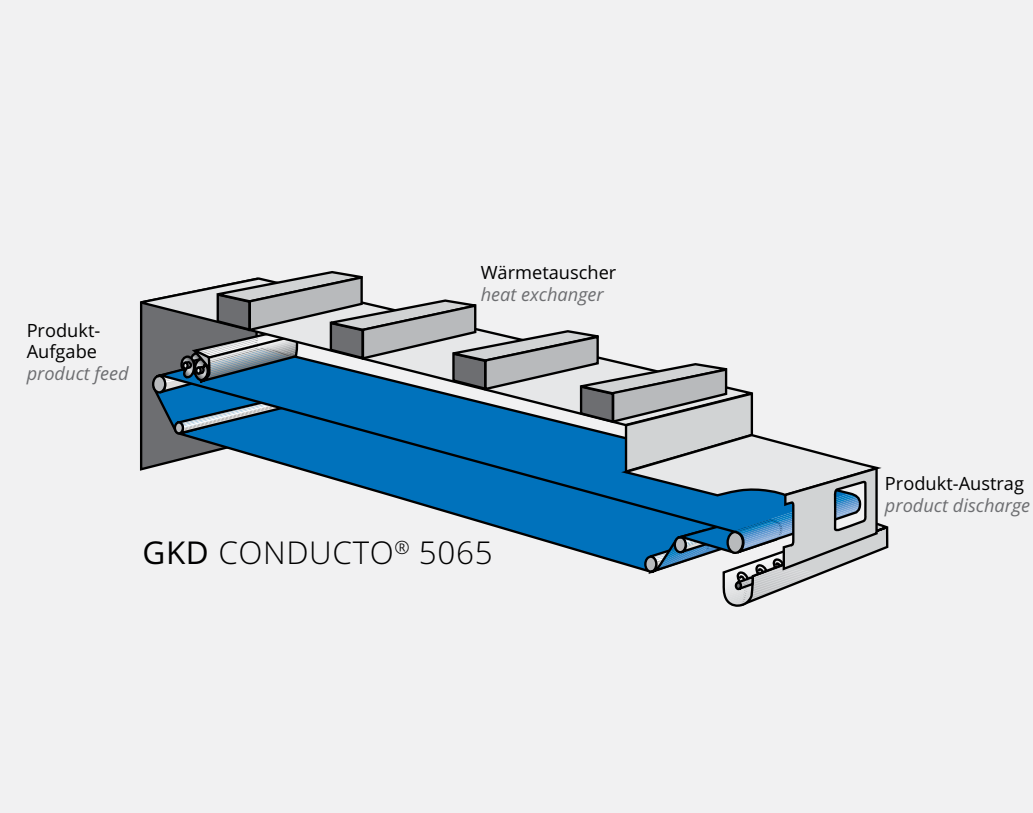
Belts made of woven mesh and spirals

---





1. CONDUCTO® process belts for drying wood shavings 2. PAD seam 3. CONDUCTO® 5065



1. Diagram of belt dryer 2. Tow-in device 3. Pellets



## CONDUCTO® process belts for perfectly dried biomass

Process belts used for drying wood shavings, digestates, or other biomass must overcome particular challenges. The patented CONDUCTO® 5065 from GKD is a woven process belt that has been optimized for these drying processes in low-temperature dryers. CONDUCTO® 5065 mesh supports two key requirements: Its high air permeability means that the biomass is dried both quickly and effectively, while its low mesh opening and special mesh design reliably retain dust. The process belt therefore helps enterprises comply with legally required dust load values.

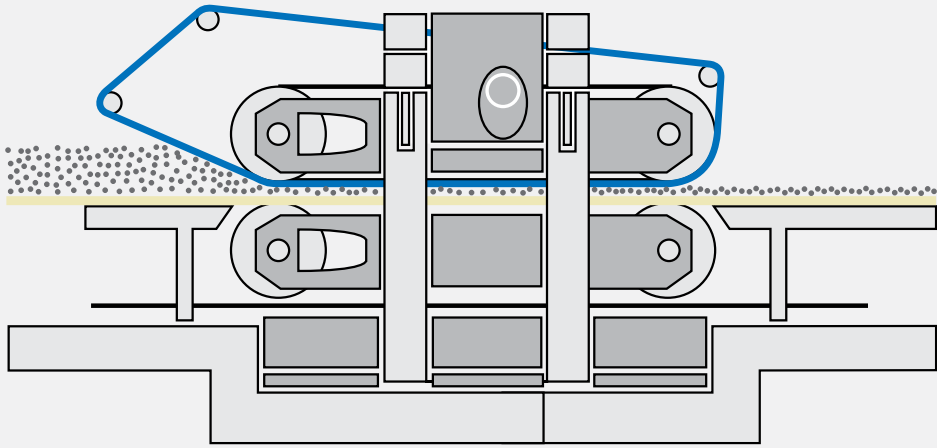
Thanks to its special mesh design, CONDUCTO® 5065 offers excellent lateral stability, stretch resistance, robustness accuracy, and abrasion resistance. The mesh is heat set during production, so that it can also be used at operating temperatures of up to 130°C. Bronze wires interwoven in the running direction permanently prevent electrostatic charges as per the ATEX standard. The process belts are easy to clean thoroughly using brushes or high-pressure belt washing systems – another reason why CONDUCTO® 5065 has proven a hit in the market.

CONDUCTO® 5065 belts can today be found in conventional low-temperature dryers worldwide and are used as the exclusive option by numerous well-known equipment manufacturers worldwide. GKD offers process belts in widths of up to 8 meters and lengths of up to 200 meters. To ensure hassle-free installation, on request GKD can also provide you with a mounting kit for fixing the seam area and a tow-in device to help feed the belt into your system.

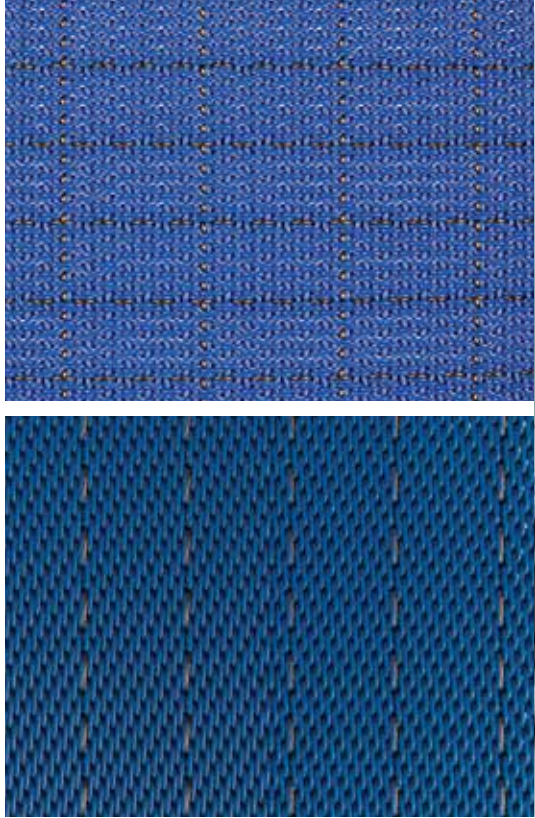
CONDUCTO®	Type 5065
Warp material	PES/bronze
Weft material	PES
Weave	3/2
Tensile strength N/mm	300
Aperture µm	560
Air permeability l/m2s 200 Pa	3250
CFM 127 Pa	500
Tensile strength/breaking force PAD 20 seam	150 N/mm



— GKD CONDUCTO® Entlüfterband / ventilation belt



1. Diagram of prepress 2. CONDUCTO® 2206 3. CONDUCTO® 5090



1. Pressing/embossing belt on the GKD stretching bench 2. Embossed OSB board 3. Diagram of a continuous press



— GKD Press-/Prägeband / Embossing press belt



## CONDUCTO® ventilation belts for ATEX-compliant applications

Safety and productivity are the benchmarks by which all ventilation belts in prepress operations are measured. The patented CONDUCTO® from GKD meets these requirements thanks to its outstanding product properties. The polyester and bronze wire process belt combines high flexibility, robustness, air permeability, and surface smoothness with maximum conductivity. Bronze wires interwoven in the belt in either the warp direction or a grid form permanently prevent electrostatic charging as per the ATEX standard. The mesh design also prevents particulate from adhering to the belt, eliminating the risk of damage to the board surfaces. The highly conductive composite mesh belts are available in widths of up to 3.4 meters. They are designed to match customer-specific processes with a woven-on pin seam, woven seam, GKD PAD seam, or S-seam and can be mounted quickly on site.

CONDUCTO®	Type 2206	Type 5090
Warp material	PES/bronze	PES/bronze
Weft material	PES/bronze	PES
Weave	2/2	3/2
Tensile strength N/mm	210	250
Aperture µm	550	360
Air permeability l/m²s 200 Pa	2,750	2,200
CFM 127 Pa	425	340



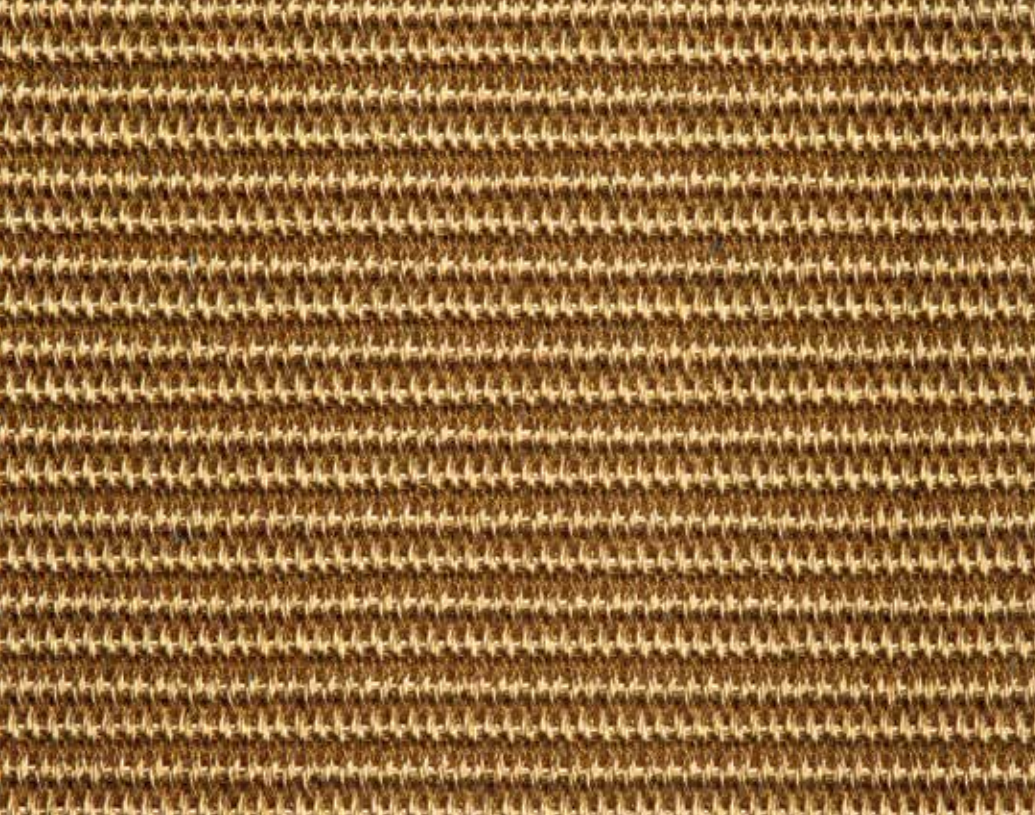
## FLEXOPLAN™ embossing press belts for continuous OSB production

FLEXOPLAN™ 163 Special pressing and embossing belts distribute steam quickly and evenly in the press. This is made possible by a stainless steel mesh construction comprising pre-twisted metal cables. The belts enable the production of boards with a final thickness of up to 15 centimeters, such as OSB beams for wall and ceiling assemblies.

These pressing and embossing belts are break-proof up to 200 N/mm. They can also handle temperatures of up to 250°C and offer both excellent pressure resistance and accurate running, even at long lengths. Thanks to these properties, this mesh is also recommended for presses that run continuously. GKD offers the FLEXOPLAN™ 163 Special as an endless process belt in widths of up to 5 meters and lengths of up to 200 meters.

FLEXOPLAN™ 163 Special (pressing/embossing belts)	
Number	18.35/4.33 p.cm
Warp	0.20/5x + E
Weft	0.30/7x
Material combination	Article no.:
SST, complete	42374304
Version with soldered seam and welded loop pin seam	
Weave type	Plain weave





1. FLEXOPLAN™ 163 Special



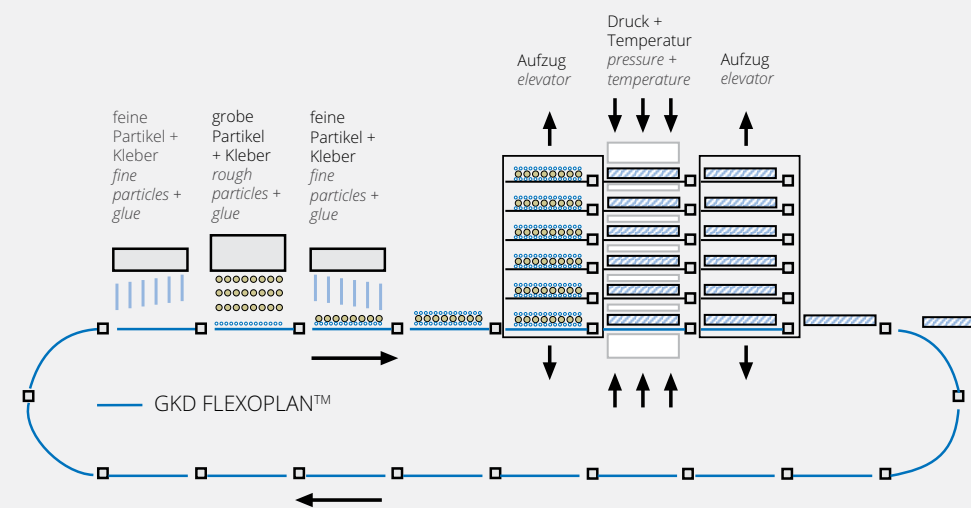
2. OSB for the construction

## FLEXOPLAN™

### Caul screens for OSB boards with grip

GKD manufactures custom FLEXOPLAN™ 163 Special caul screens for its customers to produce OSB boards in stationary single and multi-stage presses. The double-twisted screen type guarantees the defined surface roughness. GKD mesh specialists use this to generate precise pressure and grip. The FLEXOPLAN™ 163 Special, which is produced from high-strength, brass-electroplated wire, is considered an industry standard in North America.

Thanks to an individual guide solution, FLEXOPLAN™ caul screens are proven products that are suitable for use in all standard production equipment. The consistently high quality and reproducibility of the surface is one of the reasons behind the success of the FLEXOPLAN™ caul screens – and not only in North America's construction industry.



1. Multi-stage press

2. FLEXOPLAN™ type 452kp

## FLEXOPLAN™

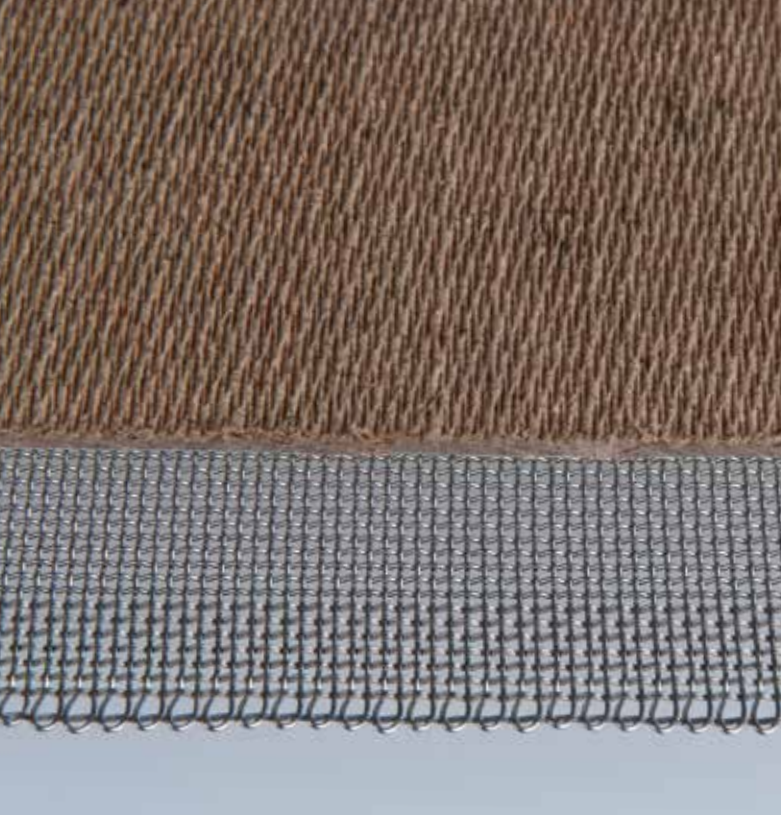
### Caul screens for PB, MDF, and fine surfaces

GKD developed the FLEXOPLAN™ 452kp for production of chip or MDF boards with a smooth surface. This caul screen mesh is woven from fine warp wires and flexible weft wires. The special surface structure ensures that the mesh remains very flexible, even when pressing at high temperatures. The unique composition of brass-electroplated, high-strength wire and smooth surface also improves cleanability, corrosion resistance, heat transfer, and product release. The FLEXOPLAN™ 452kp is manufactured at our production facility in the US using looms that were specially developed for weaving

products with high tensile strength. It is also available in a stainless steel version. All screens are manufactured individually to customer specifications and can be supplied with guides already attached.

Caul screens from GKD are used in the systems of well-known manufacturers such as Becker & van Hüllen, Bison, Dieffenbacher, Metso, Motalla, Raute, Schenck, Siempelkamp, Sunds, and Washington Iron.





1. Press mesh with woven edge



2. Tela Microdur

## Square mesh and Tela Microdur mesh for FB hard particle boards

The square mesh and our Tela Microdur stainless steel mesh have been proven as reliable press draining meshes in countless applications over many years. Manufacturers across the globe – from sectors such as the automotive and furniture industries – use GKD meshes to secure effective and affordable production.

Our square mesh is notable for its plain weave and stable woven edge. It is the ideal choice for manufacturing FB hard particle boards using the wet method. Tela Microdur really plays to its strengths

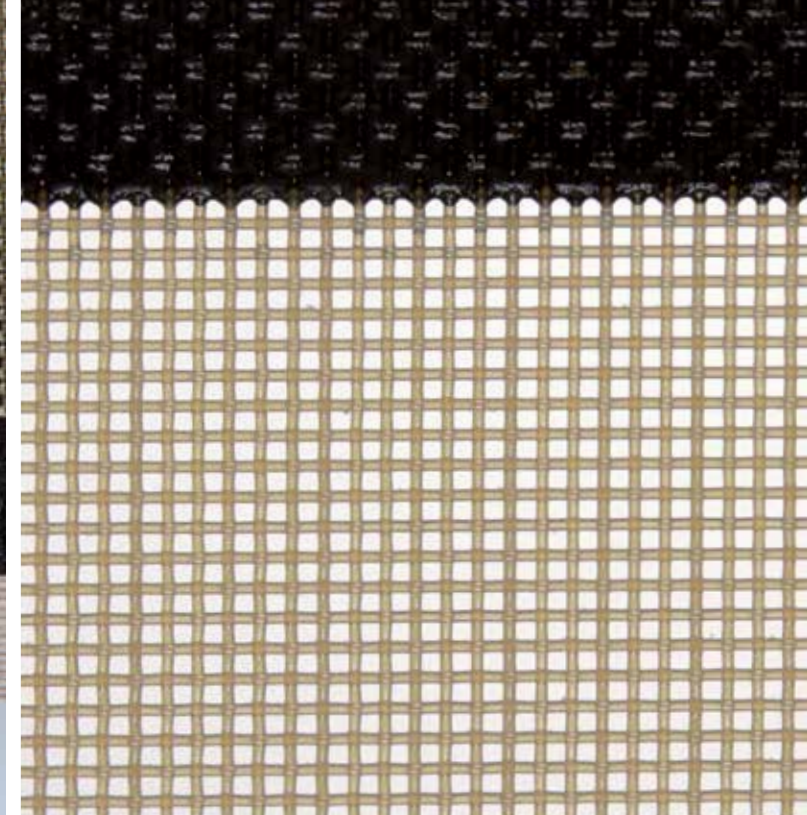
when the end product needs to have a particularly smooth surface. Its smooth surface guarantees optimum product release. Tela Microdur and square mesh excel through their outstanding dewatering performance.

GKD meshes ensure high efficiency in production. Square and Tela Microdur meshes are produced exclusively at our GKD facility in South Africa and, like all of our process meshes, they are manufactured according to the specifications and applications of individual customers.



1. Screen printing plate with GKD Linear Screen 1300

2. Linear Screen mesh produced from polyphenylene sulphide (PPS) and with special edge coating



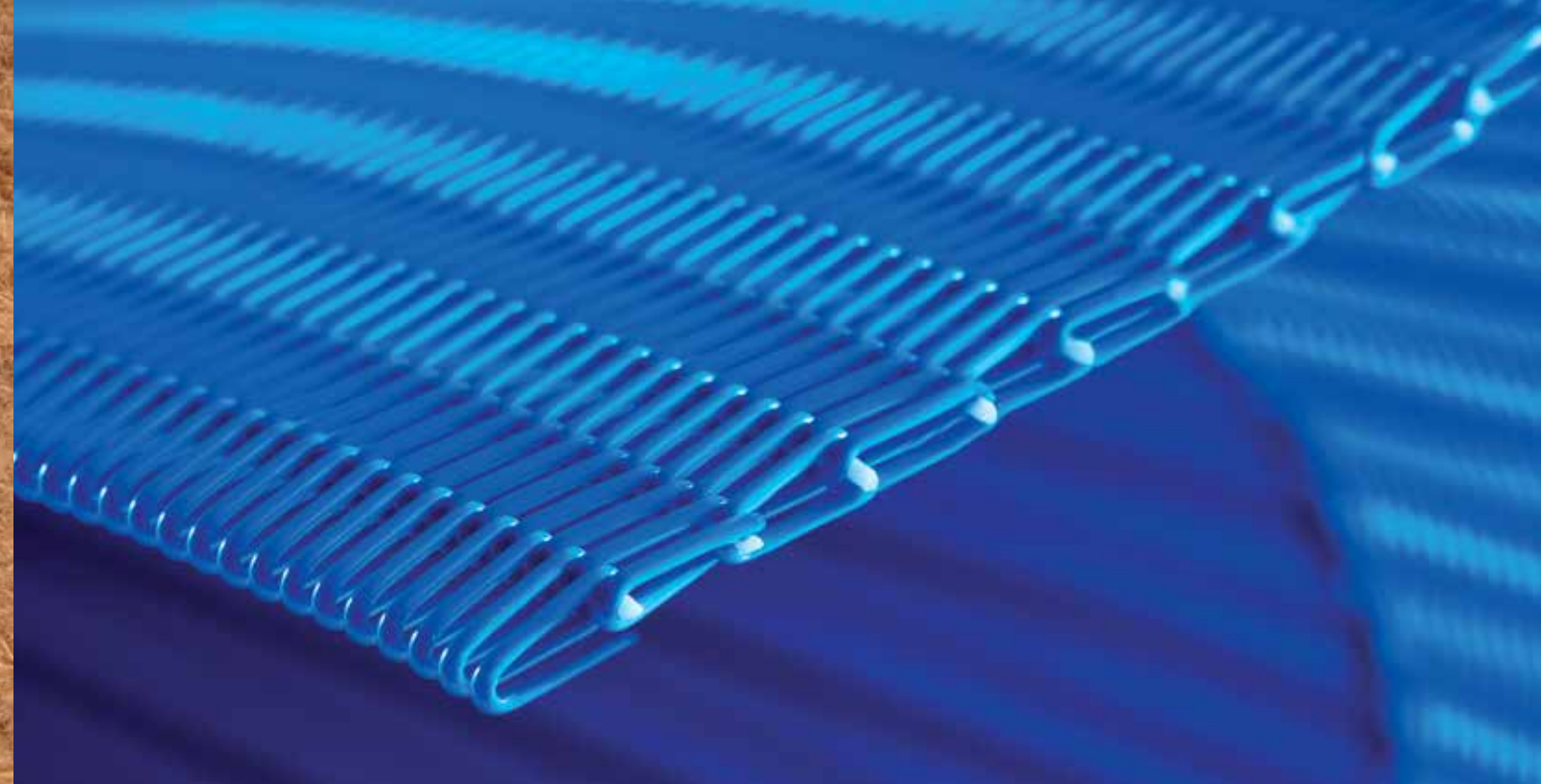
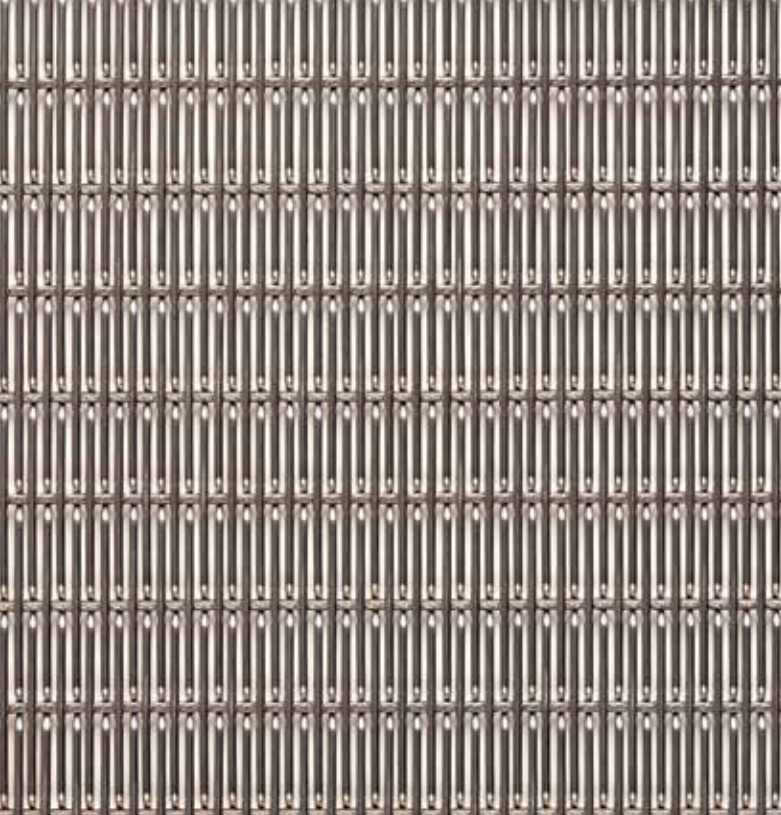
## Linear Screen mesh for pressing veneers

GKD developed the Linear Screen 1300 mesh from polyphenylene sulphide (PPS) for the production of multiplex/screen printing plates. Multiplex/screen printing plates are often used as non-slip bases in industrial systems or truck and trailer production.

Trimmed to size as per customer specifications, the mesh gives plates their familiar structure. To achieve this non-slip surface, high temperatures and serious pressing powers are needed. Conventional plastics and adhesives can quickly reach their limits here. GKD therefore uses an

individually extruded synthetic material, produced from polyphenylene sulphide and a special adhesive for edge coating, for its Linear Screen 1300 for the veneer industry. After weaving, the meshes are also subjected to a complex heat setting treatment in order to prevent shrinkage during the tough production processes of our customers. The edges of all Linear Screen meshes also receive an innovative and highly heat-resistant edge coating. In this way, GKD ensures efficient and long-term use in production operations.





---

## GKD metal and synthetic meshes

### Process belt solutions for producing insulation materials

---

GKD offers both metal and synthetic mesh process belts for forming and bonding all common insulation materials. The spectrum of applications ranges from processing of sheep wool, through cellulose fibers and synthetic materials such as polystyrene, all the way up to mineral fibers.

Both single-belt and double-belt air-through ovens can be equipped with process belt solutions from GKD. Offerings range from antistatic synthetic mesh belts for forming applications through to metal mesh belts for various bonding processes. GKD's portfolio also includes belts produced from

combined materials such as TRACKMATIC™ belts or PPS-DUOFIL® belts.

#### Properties

- ◆ Exact tracking thanks to high dimensional and form stability
  - ◆ Optimum belt solutions for forming and bonding processes
  - ◆ Electrostatic discharge as per the ATEX standard
  - ◆ Pin seam – can be sealed on site by the customer
  - ◆ Stable edge coating on synthetic mesh belts
  - ◆ Welded edges on metal mesh belts
- 

---

## Spiral belts for the wood industry

### for optimum steaming

---

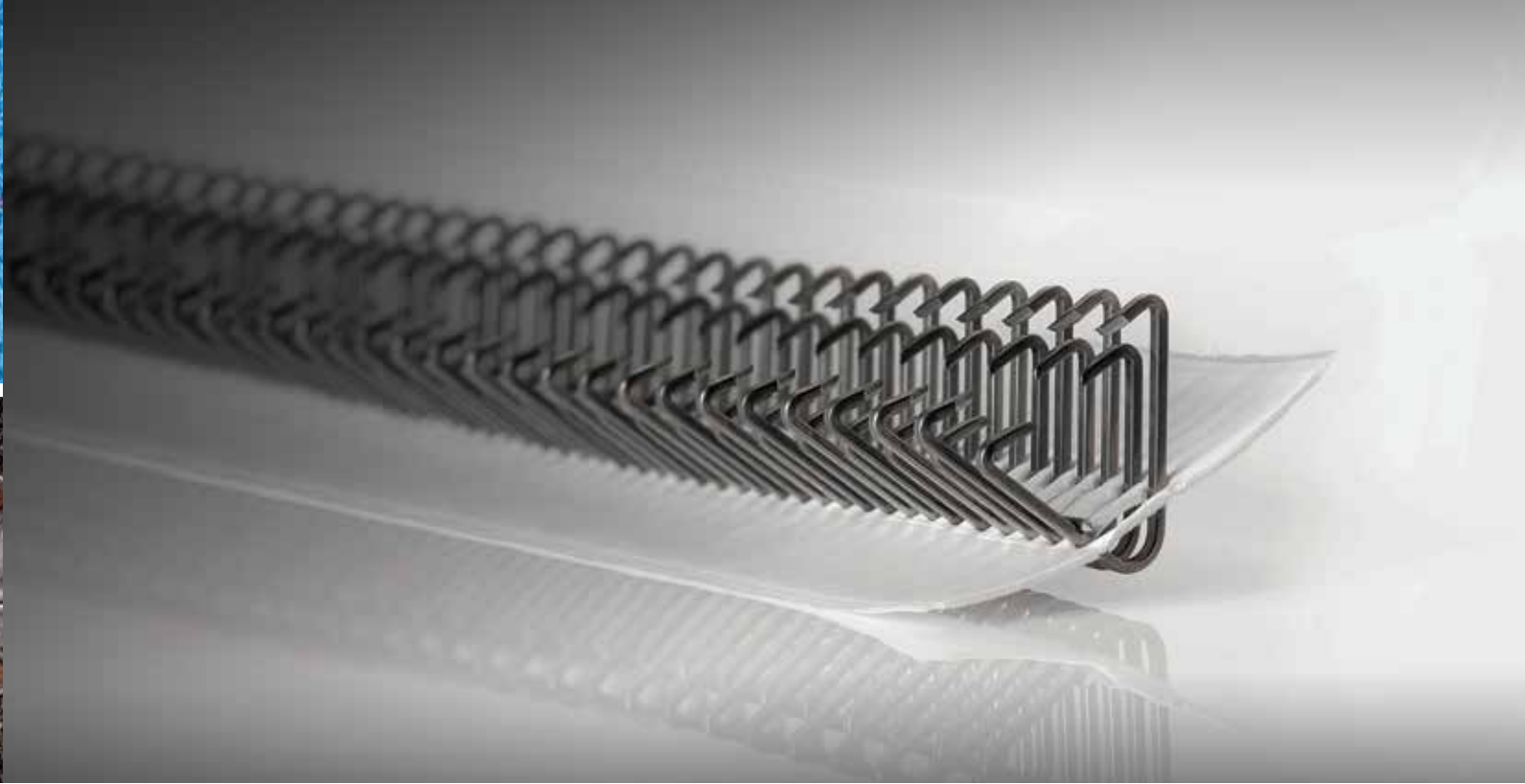
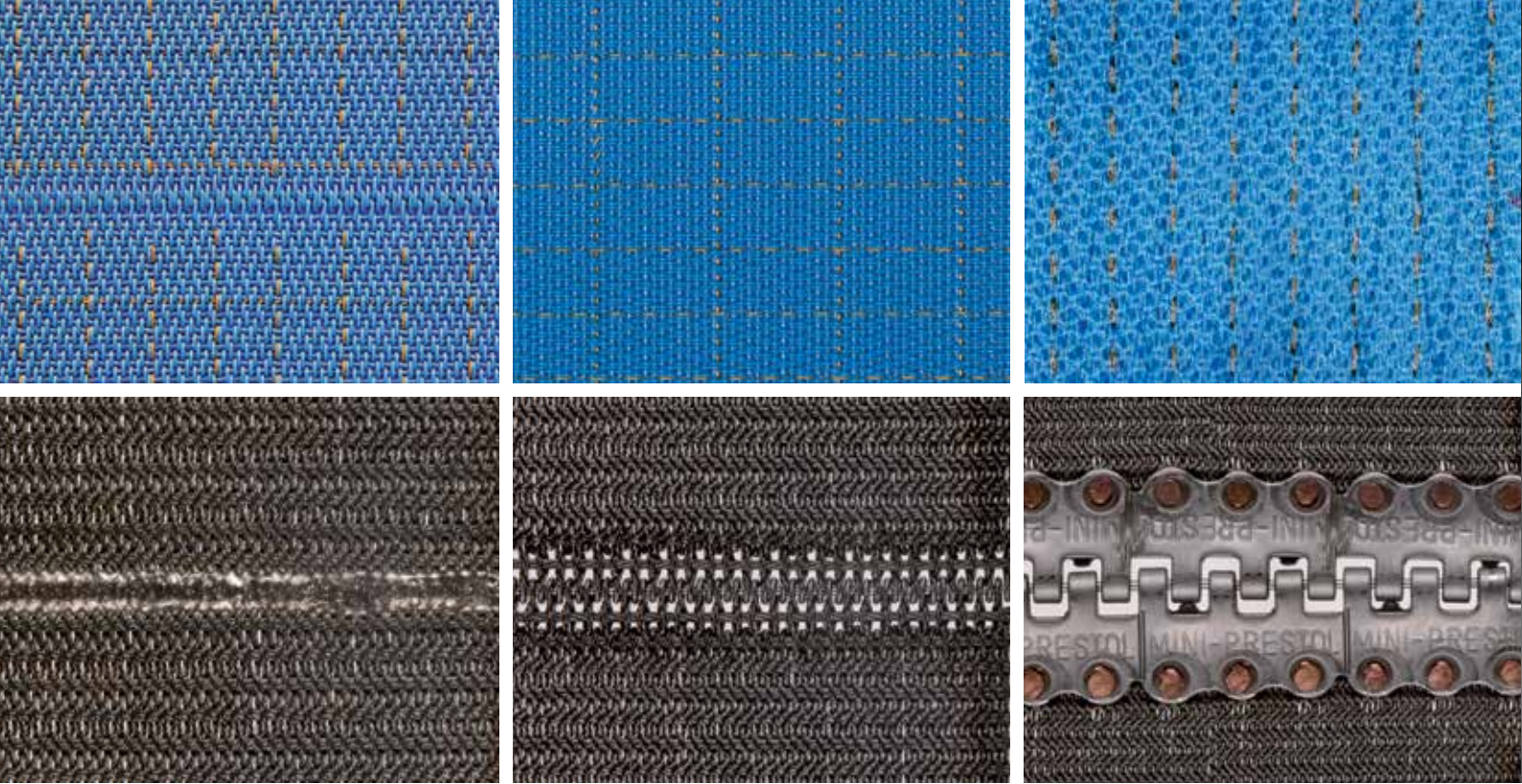
It is hard to imagine the timber industry without GKD spiral belts. Thanks to their flexibility, these belts can also be curved around even the tightest roller diameters. Spaces in the spirals are filled in with a filler wire to ensure consistent air permeability. GKD spiral belts can be matched individually to the respective customer wishes.

Whether filled or unfilled – spiral belts from GKD have been proven in many applications. They impress with excellent tracking stability, a high throughput rate, good release properties, and usage-optimized air permeability rates. Spirals

produced from polyester are ideal for standard applications. For use in steam applications, GKD employs a material capable of handling hydrolysis. Spirals made of PPS plastic are also available for use at high temperatures.

Spiral belts from GKD are available in widths of up to 6 meters and in endless lengths. They are all sealed to size. In day-to-day production operations, they impress with their consistently rugged design, and a high degree of both lateral and mechanical stability.





Seam types for synthetics (1-3) and metal (4-6)

## Individual seam solutions for all areas of application

How well a process belt performs is not only a question of the mesh selected. The right seam is also critical. Depending on the area of application, we combine one of our many seam types with the optimum mesh for our customers' production operations.

Besides ensuring high rotational accuracy, the technological challenge for process belts is also preventing imprints in the end product. This is where the belt's design and seam play a vital role. Just like the process belts themselves, these seams take a lot of punishment such as mechanical tension, bending cycles, temperature fluctuations, and abrasion caused by the pressure elements and heating pads.

We are happy to support and advise you in selecting the right seam for your particular requirements.

Seams for synthetic belts (images 1-3)	
Woven pin seam	Low-marking, air permeable, can be sealed by customers themselves
Woven seam	Non-marking, constant end-to-end air flow
S-seam	Low-marking, can be sealed on site using a hot press
Seams for metal belts (images 4-6)	
Soldered seam	Prepared for soldering into the system by GKD fitters or available as an endless belt marking, with high tensile strength
Welding loop pin seam	Enables customers to seal belts themselves on site
Miniprestol belts	Robust seal joint for FLEXOPLAN™ mesh seam

## The patented PAD seam

The particularly flat PAD seam is available to customers exclusively from GKD and its selected partners. It is technically superior to other seams and can be reproduced in consistently high quality. Using a hot melting procedure, a unique pad is melted into the belt mesh and pressed together with seam clippers.

The flat PAD seam allows pressing systems to glide over the seam area far more easily than with conventional clipper seams. Not only is this seam stronger and more durable, it also delivers better running characteristics. The risk of seam damage is also reduced to a minimum.

### All properties at a glance:

- ♦ High strength and durability
- ♦ Optimized belt running characteristics
- ♦ Ease-of-use (handling)
- ♦ Quality that can be precisely reproduced on site
- ♦ Flat, low-marking clipper seam
- ♦ The closed form of the PAD seam prevents staples from coming loose
- ♦ Protection of the hooks thanks to the PAD layer





# Research and Development

## New solutions for special challenges

Besides our large range of standard GKD products, we also develop all kinds of custom conveyor and process belts in partnership with our customers. We always use detailed analyses of existing or planned applications as the basis for the development of innovative and efficient solutions. Our engineers combine their expertise in production, materials, and equipment with extensive practical knowledge of process technologies. These processes are supported by digital simulations. In GKD's in-house laboratory, we employ the latest

technologies and are in continuous exchange with professionals from the fields of testing technology and science.

This all results in custom process belts that are ideally suited to the requirements of the market and come with the characteristic GKD quality. In addition to the worldwide production of individual process belts, we also help our customers achieve long-term production reliability.

# Individual consulting

## and technical service

Alongside individual customer consulting, at GKD we place great emphasis on providing a personal technical service. Whether belt installation, troubleshooting, or other challenges in production, a large team of service technicians and engineers is always ready to assist our customers. All over the world. After all, we believe that only a combination of sales and service will allow us to successfully support our customers in the long term.

# Around the clock,

## around the globe:

Europe	+49 2421 803 308
USA	+1 443 477 4119
China	+86 105 165 9618
South Africa	+27 82 445 6827
Chile	+56 2 2929 7159
For all other countries	+49 2421 803 308





**FOR A HEALTHIER,  
CLEANER, SAFER WORLD**



## The technical weavers for industry and architecture

As a privately owned technical weaving mill, **GKD – Gebr. Kufferath AG** is the global market leader for metal mesh, synthetic mesh, and spiral mesh solutions. With its solutions, the company caters to a large number of application areas in the fields of: Architecture & Design, Industry & Filtration, Process Belts, and Mining Equipment. In all of these sectors,

GKD strives to make a key contribution to securing a **healthier, cleaner, and safer** world. With headquarters in Germany, six other production sites in the US, South Africa, China, India, and Chile, as well as branches in France, Spain, and representatives all over the world, GKD is never far from its customers or markets.

**GKD – products and service close to our customers, worldwide.**

- 01 **GKD Germany** Düren
- 02 **GKD USA** Cambridge (MD)
- 03 **GKD USA** Star City (AR)
- 04 **GKD Chile** Santiago de Chile
- 05 **GKD South Africa** Johannesburg
- 06 **GKD India** Jaipur
- 07 **GKD China** Qufu



**GKD – Gebr. Kufferath AG**  
Metallweberstraße 46  
52353 Düren  
Germany

T +49 2421 803 0  
F +49 2421 803 182  
processbelts@gkd-group.com  
gkd-group.com