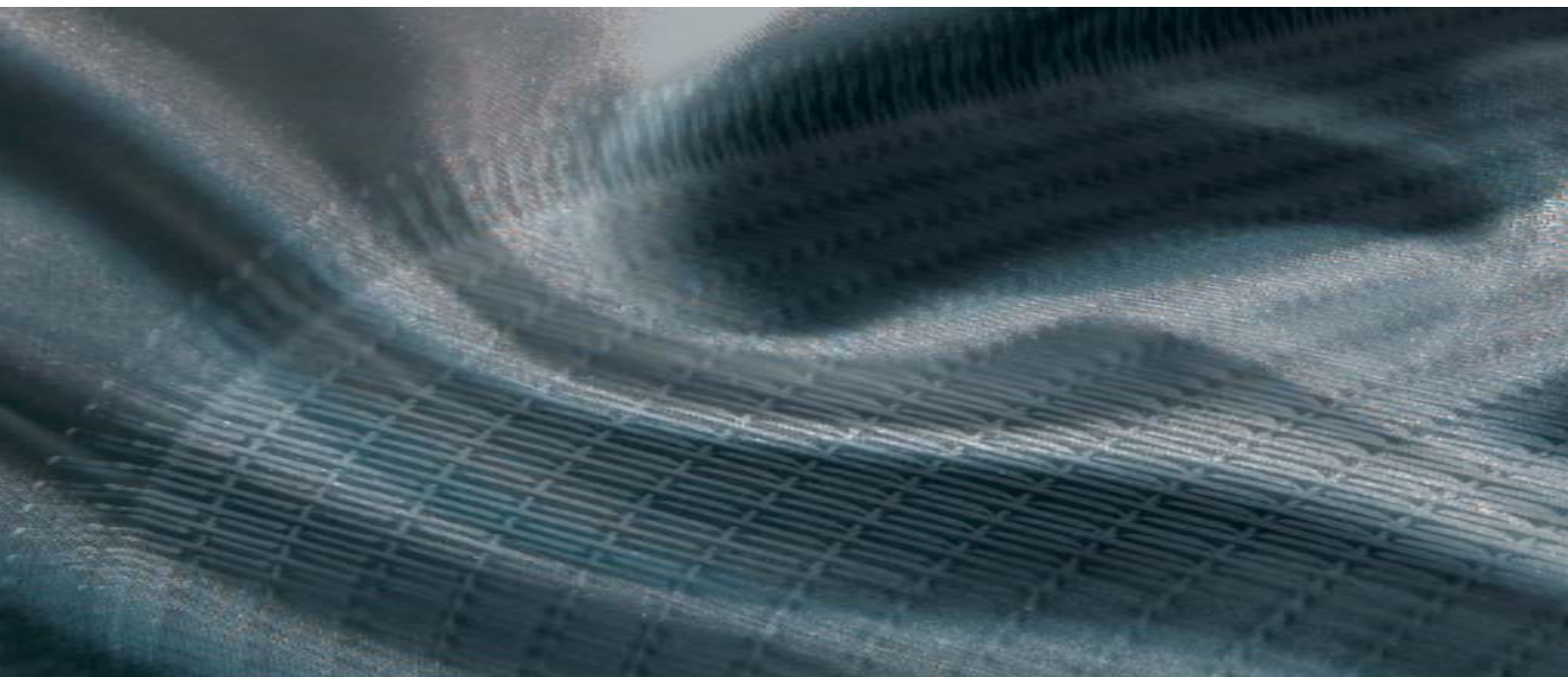


WEAVE**inMotion**

transport processing solution



WORLD WIDE WEAVE



*Metal woven process belts: functionality
and cost-effectiveness*

Innovative spirit and **partnership** Wire mesh – an interdisciplinary **solution**.

High quality technical meshes made of metal and plastic wires or cables and other weavable fibres set worldwide standards in the three business sectors of GKD – Gebr. Kufferath AG: Filtration and Separation, Process and Transport Belt Technology, and Architecture and Design. Our medium-sized enterprise is characterized by its technological leadership, its profound knowledge of the most widely varying industrial requirements and its global market presence through branches in China, France, Great Britain, South Africa and the USA.

The close relationship to our customers which we have upheld for over 75 years is more than just geographical. 600 employees, about 400 of them in the headquarters in Düren, focus their attention strictly on the needs of the user. GKD's holistic orientation of development, planning and service makes it a partner to be relied on, at any time and in any place throughout the world.



*Dr. Stephan and Ingo Kufferath-Kassner
Photo: Jean Ber*



Stretching machine: guarantees absolute flatness of the metal woven belts

Flat hierarchies, customer- and process-oriented forms of organization as well as great innovative power are the foundations on which our business success is built. High-tech filter media for industrial or medical technology, process belt technology for core areas of industrial and municipal applications, or aesthetic-functional wire mesh constructions for the most demanding architectural projects – in each of its three autonomous business units, GKD's interdisciplinary problem-solving competence guarantees tailor-made results.

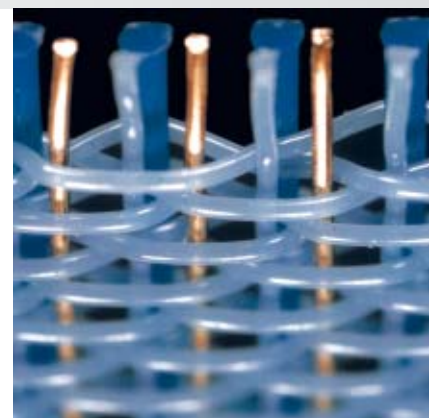
*Planet-m – fascinating symbol of the Expo 2000
Photo: Wolfgang Schwager*



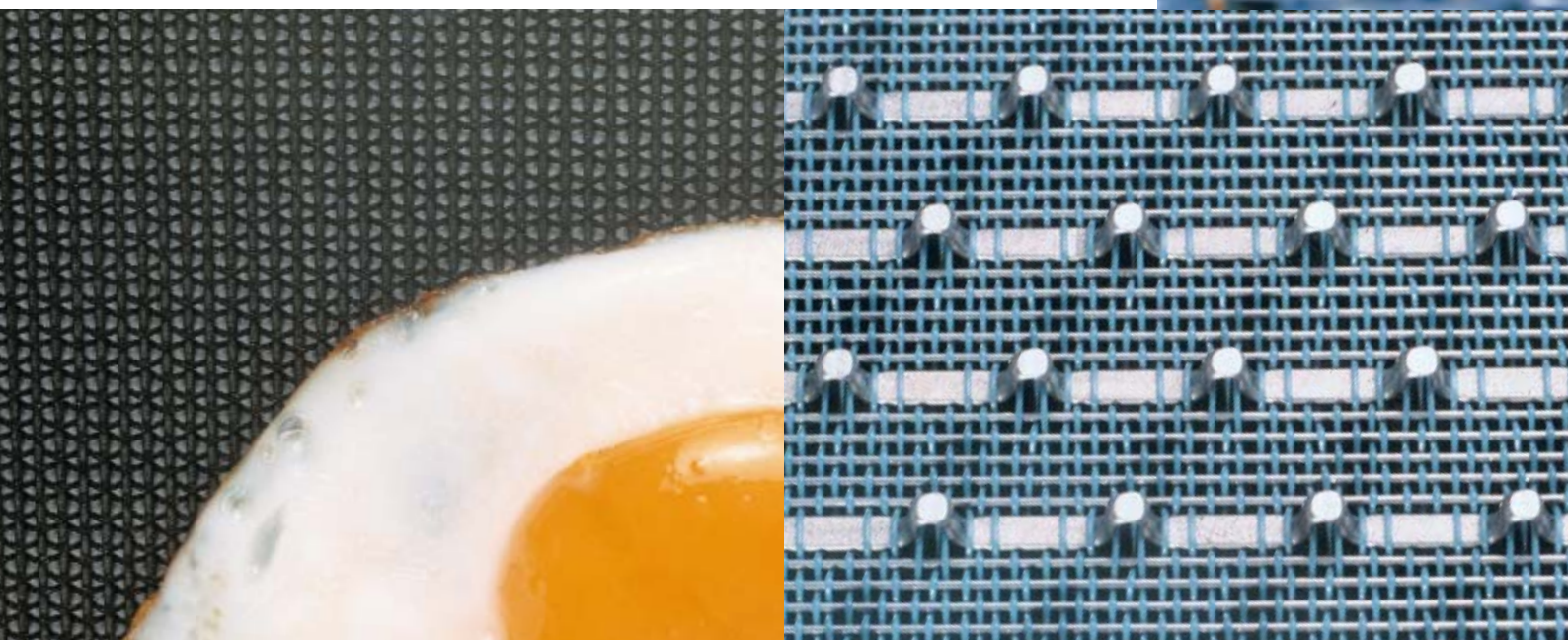
Filter media for industrial and medical technology



transport processing solution



*DUOFIL® embossing belt
for the nonwovens industry*



*Non-stick coating opens new perspectives in
the handling of sticky products*

*Blended meshes of metal and plastic unite
many product advantages*



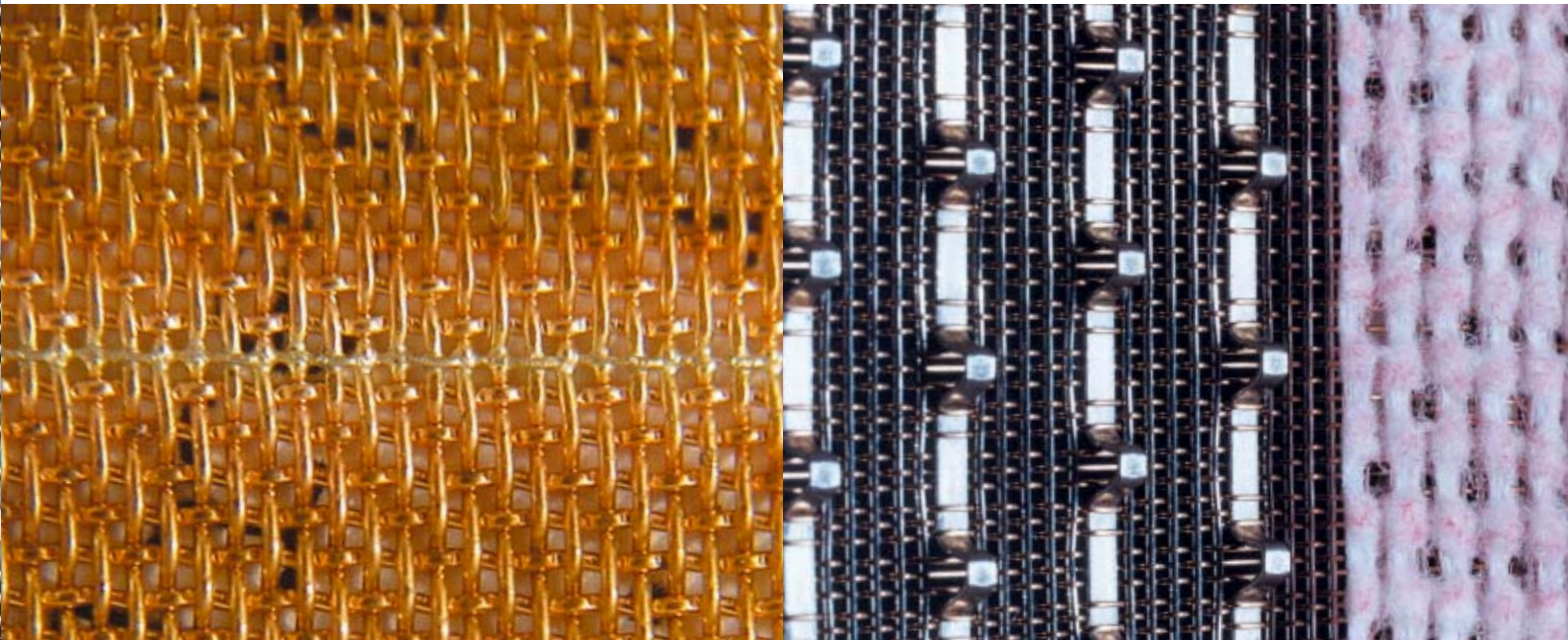
*Ultra-modern weaving technology for
plastic woven meshes*

Strong **all-rounders** – individual specialists: process belts for every **application**.

WEAVE IN MOTION® – throughout the world, this renowned GKD brand name stands for cutting-edge process belt technology. As integral components of the manufacturing process, the quality, construction and runtime of our belts are decisive factors for efficiency and cost-effectiveness. The sheer variety of industrial and environmental fields of application of GKD's process belts is impressive proof of our wide-ranging and profound know-how.

Our product range comprises four different types of belt:

Woven plastic process belts made of polyester, polyamide, PPS or PEEK are used for solid/liquid filtration in belt filter presses or vacuum filters. Typical areas of application are fruit juice production, phosphoric acid extraction and sewage sludge drainage.



Competence in seaming technology: soldered gold seam in woven bronze mesh

Embossing belt for special nonwovens

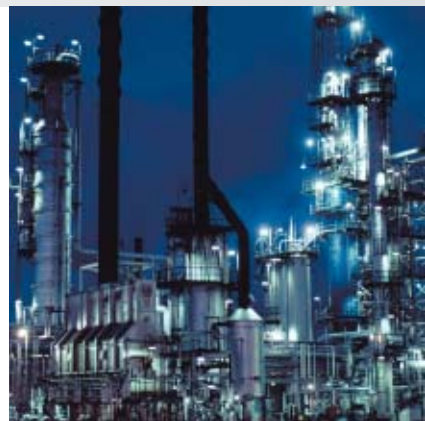
Woven metal process belts made of steel, stainless steel or bronze – also in combination with plastic – are core products for freezing, drying or draining processes.

TRACKMATIC® Belts made of stainless steel or blends of plastic and metal are also being increasingly used in refining, forming and coating processes.

Process meshes for the wood-processing industry made of metal, plastic or material combinations are used in the production of chipboards or fiberboards.

Thanks to production on special looms exclusively developed for us and to our versatile finishing techniques such as thermal fixing, edge welding, individual edge treatments and a wide choice of seams, we provide made-to-measure belt developments right down to the last detail. Whether in production, service or support, the WEAVE IN MOTION® brand is a guarantee for quality.

Refining of chemical elements or filtration of cooling lubricants takes place on GKD woven plastic process belts



GKD process belts: proven in the mining industry for the screening of solids



Drying noodles on a TRACKMATIC® Belt

Unlimited range of application:
robustness and flexibility,
permeability and density.

As universal as are the fields of application, as individual are the development, production and installation of the respective process belts. Profound knowledge of processes, innovative material combinations and weave constructions as well as ultra-modern weaving technologies qualify us as a competent partner, even for the most unconventional requirements.

For minerals and sludges just as for the most sensitive surfaces, for aggressive chemicals or for high-grade foodstuffs, GKD process belts always derive their efficiency from their customer-specific construction. Absolute reliability and excellent running characteristics are the special features of our belts.



Safe production of babies' nappies on a TRACKMATIC® Belt



*Woven metal process belts are
predestined for use in belt dryers*

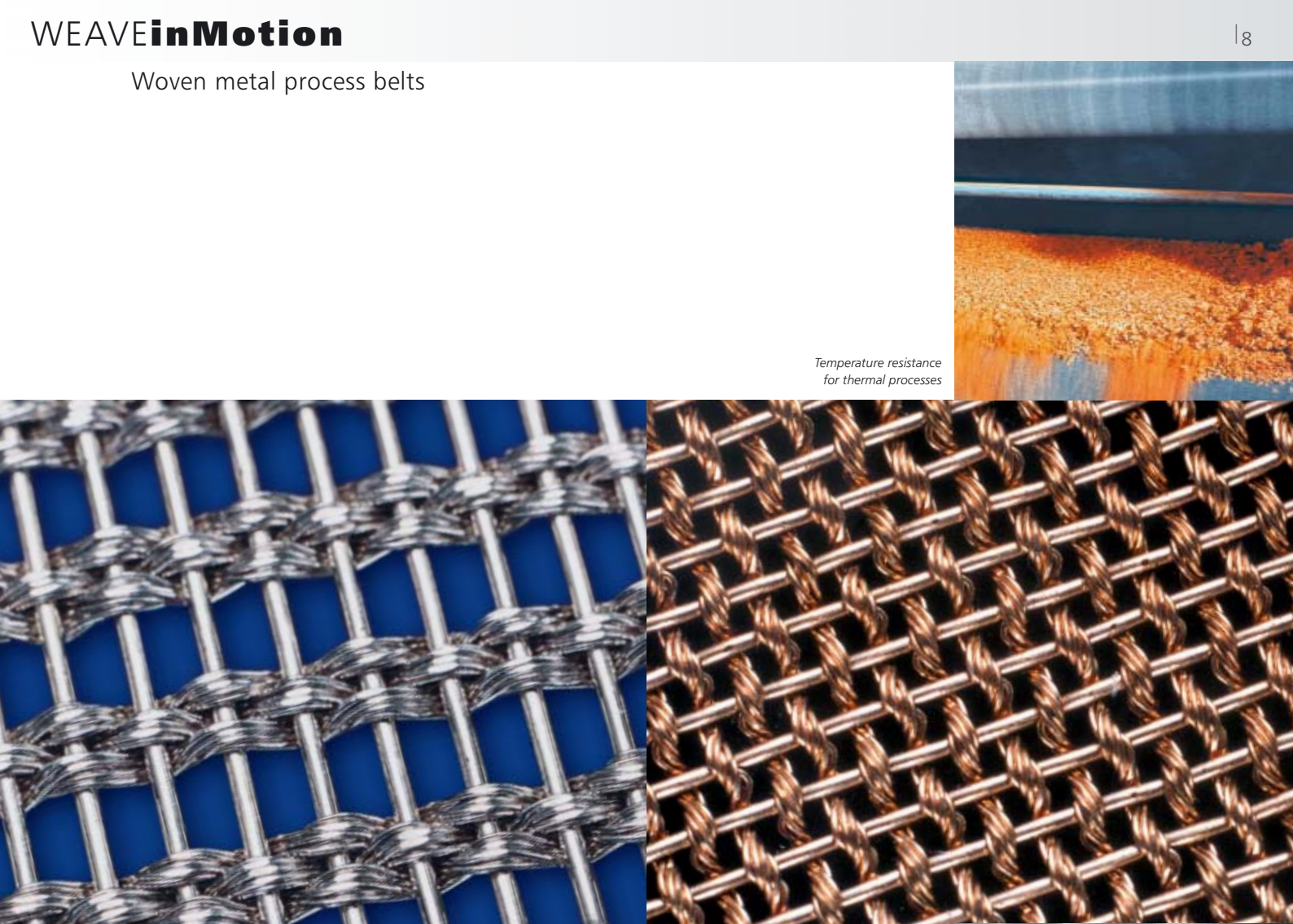


*Chipboards are produced
on GKD Flexoplan® caul screens*

Their operational reliability makes belts of the brand WEAVE IN MOTION® a popular problem solver in the food-processing industry: for drying noodles or mashed potato flakes, for baking pizzas or fish fingers, for freezing meat, fish, fruit or bread rolls, for pressing fruit or for the production of gelatine, gummy bears and liquorice.

In the nonwovens industry, too, the name GKD stands for outstanding knowledge of the technology, competence in innovation and width of product range. As specialists for customized applications, we develop special process belts for the most demanding production processes in close coordination with users from the areas of glass, synthetic, mineral and cellulose fiber nonwovens.

Our process belts and process meshes occupy a leading position worldwide for the wood-processing industry. Metal woven process belts and caul screens are used in the manufacture of MDF-, OSB- or chipboards as well as in the production of wood veneers and laminates.



*Temperature resistance
for thermal processes*


Cross-stable stainless steel process mesh

*Single-twisted bronze mesh: flexible in the
running direction, stable crosswise*

Metal process mesh: the **strong** solution –
cross-stability and **flexibility**
at the same time.

Whether for thermal processes, refining, forming, drying, filtration or transportation, wherever there is a demand for stability coupled with flexibility, our metal woven process belts are a guarantee for reliable production. Warp cables in the running direction and monofilament weft wires are characteristic of these process belts. Mesh openings from 0.1 mm to 24 mm, reliable flow and thermal conductivity rates, non-marking properties and absolute flatness open up a wide range of potential fields of application.

Made from practically all weavable metals like steel, stainless steel, bronze and numerous special alloys, our process belts are highly resistant to abrasion and to chemicals. In addition, they can be used at temperatures of up to 1200° C and down to minus 200° C. Individually designed material combinations for cables and wires make customer-specific applications particularly efficient.



*Delicate textiles thanks to extremely
smooth belt surface*



Stable hold: soldered seam

Closable on location: pin seam

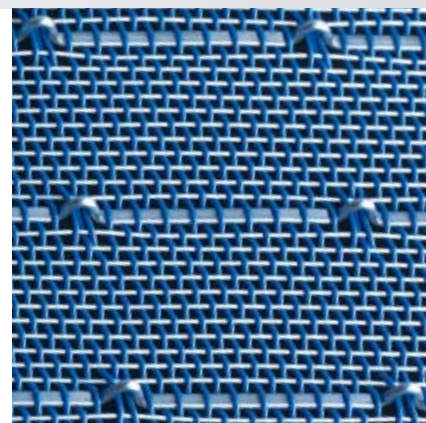
Whether single-twisted for special flexibility in the running direction coupled with cross-stability, twilled for a smooth product side, or a robust woven bar belt construction for particularly heavy products – WEAVE IN MOTION® metal woven process belts ensure a rational material flow for every finishing process.

Our wide range of proven and self-developed seams stand for the greatest reliability and cost-effectiveness: non-marking soldered seams, reopenable pin seams, plasma welded seams, endless woven seams or hook seams – we offer customer-specific solutions to meet the individual demands posed by your production process or your equipment. In addition, our belt edges, particularly stable due to special welding, weaving or coating techniques, also ensure maximum operational reliability. With widths up to eight meters and lengths up to 200 meters, GKD metal woven process belts cover the whole spectrum of industrial applications.



In good form: nonwovens on a metal woven process belt (above)

The right step: metal process mesh for foam products (below)



Flexible and self-guiding: Lightweight TRACKMATIC® Belt made of DUOFIL®



Secure tracking thanks to V-crimped weft wires



Light, flexible, resistant: Lightweight TRACKMATIC® Belt made of metal



Double-eyelet pin seam in the TRACKMATIC® Belt

A plus for **operational** reliability: self-guiding **belts**.

Demanding tasks call for technological solutions which can be relied on. Thanks to their absolute track-holding property, our TRACKMATIC® and Lightweight TRACKMATIC® Belts guarantee the highest level of operational reliability. These single-twisted metal process meshes have cams in the running direction on the underside of the belt. These fit exactly into the corresponding grooves of the drive, deflection or support rollers and thus ensure that the belt steers itself.

With mesh openings from 0.1 mm to 15 mm, highly smooth upper surfaces and belt sizes of up to eight meters in width and over 100 meters in length, these special process meshes, our own development, are universally applicable. They have proven themselves in textile finishing and in nonwovens production, in the coating of self-adhesive collar inlays, in the production of foodstuffs and animal fodder, and in the processing of wood and ceramics.



Heat-resistant and hygienic



Proven time and again in noodle steamers


Flexibility in spite of the robustness required of the belts is of special relevance for a long service life. Thanks to their flexible warp cables, these all-rounders in our range of process belts permit considerably more reverse bending. TRACKMATIC® Belts are suitable for roller diameters from 180 mm upwards. Constructed of pure stainless steel or combinations of stainless steel with PES, PEEK or PPS, this type of belt meets the demands of a wide range of applications. The abrasion, temperature and chemical resistance of our non-marking TRACKMATIC® and Lightweight TRACKMATIC® Belts are your guarantee for smooth and trouble-free production runs, even in large-scale plants.



Operational reliability in the production of composites (above)

Outstanding reverse side: TRACKMATIC® Belt (below)

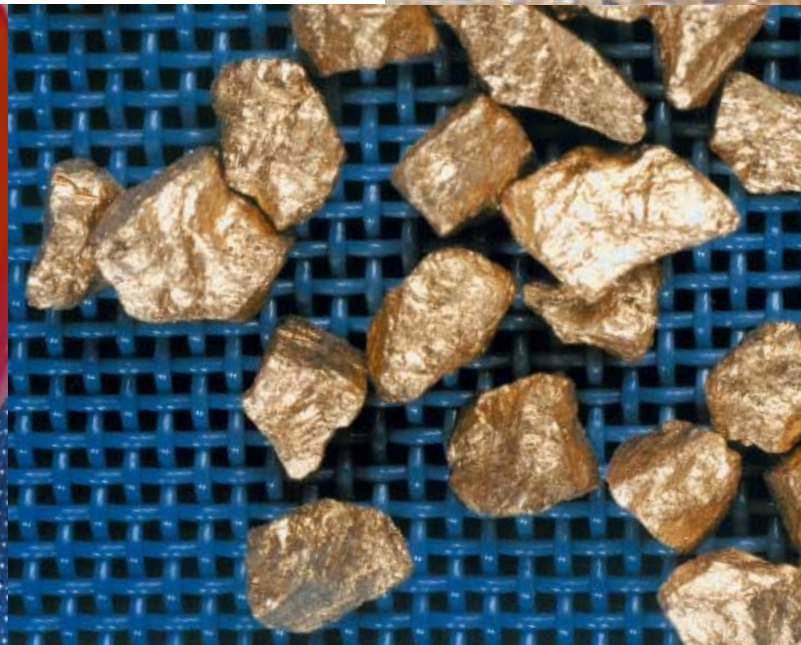
Woven plastic process belts



PPS for applications with
extreme chemical and/or thermal strain



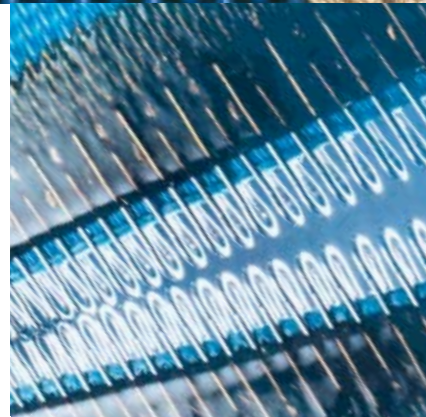
Mechanical juice extraction puts great
demands on belt stability



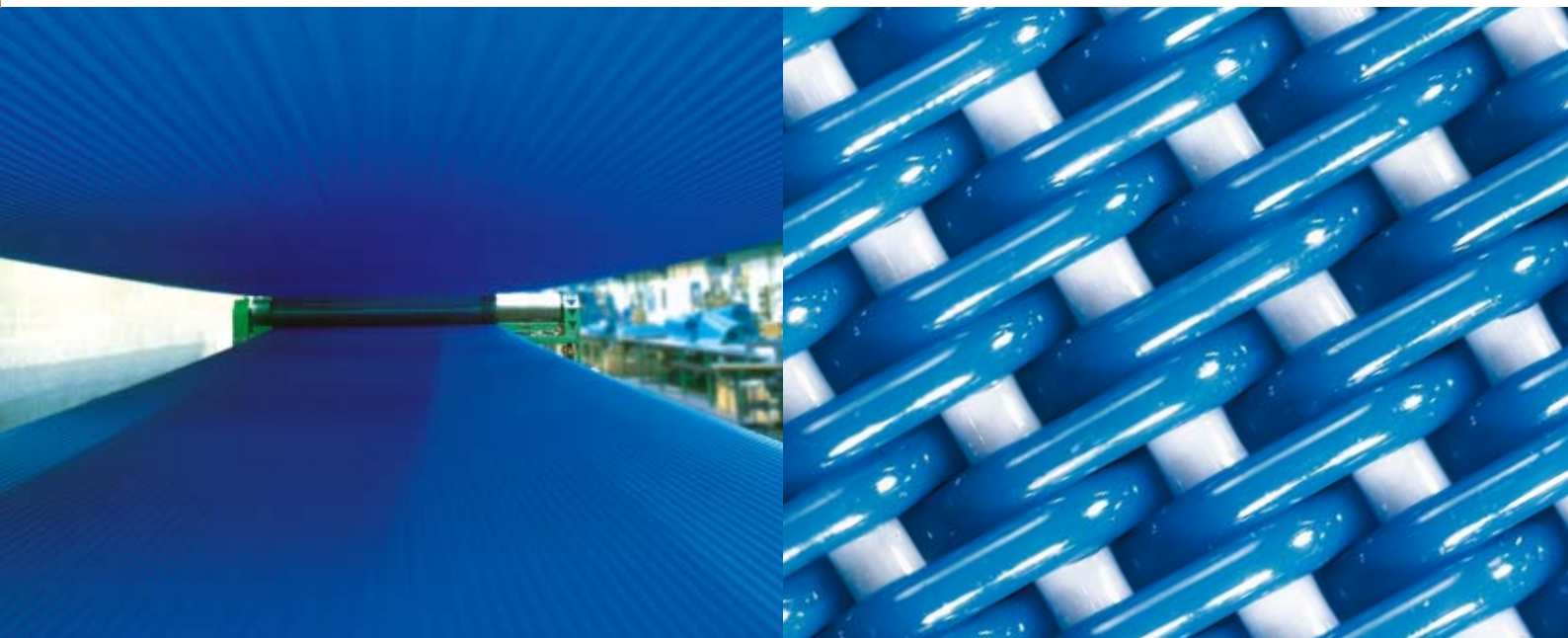
High-performance process mesh for the
efficient processing of minerals and ores

Plastic process mesh with extra **stability**:
robust, **reliable**, efficient.

Process reliability and cost-effectiveness are convincing arguments for the use of our woven plastic belts in numerous fields of application. Their secret of success is their mechanical stability. Produced on technical looms designed for the production of metallic meshes, they are considerably more stable and more robust than belts woven on textile looms. Whether for press belts, press-sieving or filter belts – you can rely on WEAVE IN MOTION® plastic process meshes. That is why these dependable products are preferred for applications ranging from municipal sewage plants to the chemical, textile and food-processing industries. Our woven plastic process belts also traditionally play an important role in the extraction of gold and phosphor.



Hook seam for special tensile strength



Thermal fixing machine

It's all in the mix: polyamide and polyester for abrasive applications

The combination of our weaving technology and the specific thermal fixing procedure for the working materials polyester, polyamide, PPS or PEEK ensures that GKD belts maintain their high levels of durability and cross-stability. The belts set standards in terms of their endurance tensile strength: the process mesh can take up to 310 N/mm without breaking; the pin seams up to 120 N/mm. Our belts can thus withstand even the greatest strain.

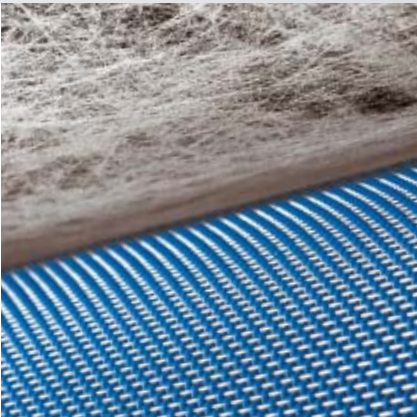
With mesh openings ranging from 20 micron to 3000 micron, easy cleaning of the highly smooth surface and heat resistance, our belts are designed for a high degree of efficiency. And we love challenges! Our experienced engineers can develop special constructions to provide reliable solutions even to apparently insoluble problems.



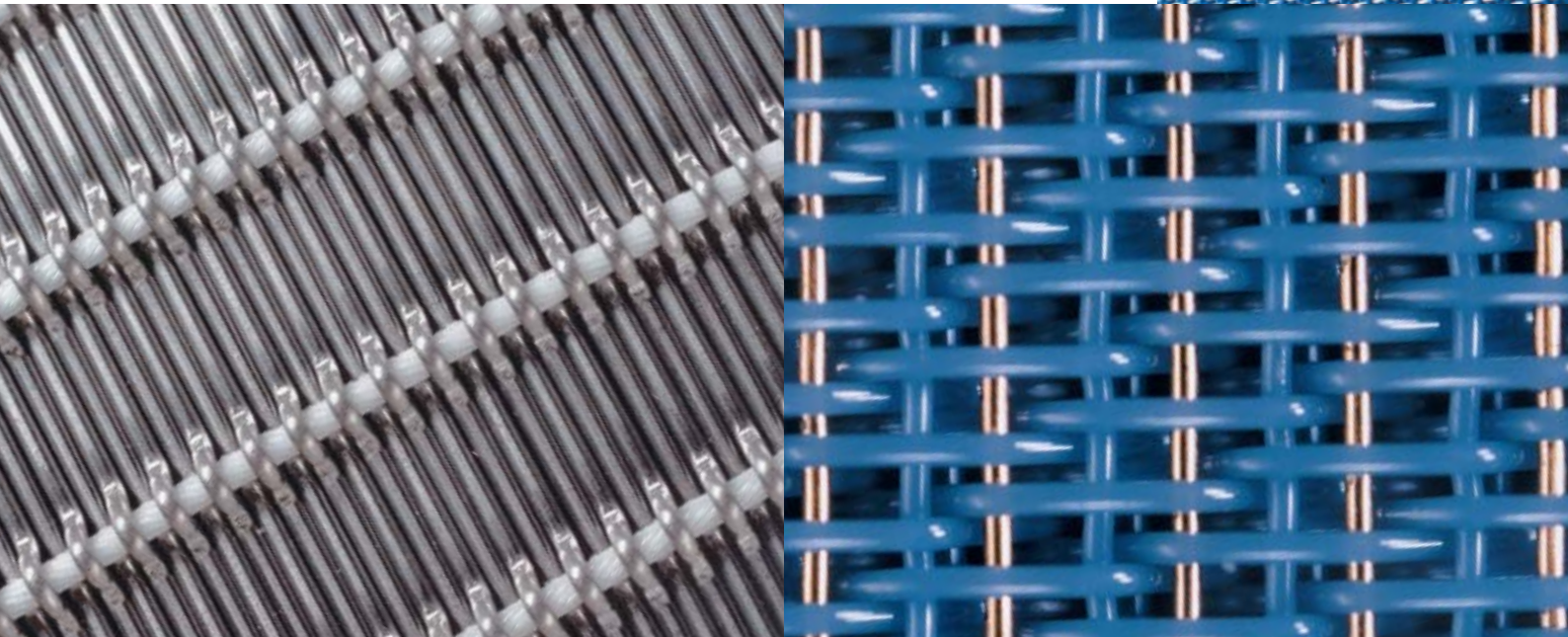
Economic draining of sewage sludge (above)

PTFE belt run with guiding knobs (below)

Blended mesh process belts/METALLOPLAST®



*The right belt for each type of nonwoven
– as a standard product
or as a customized construction*



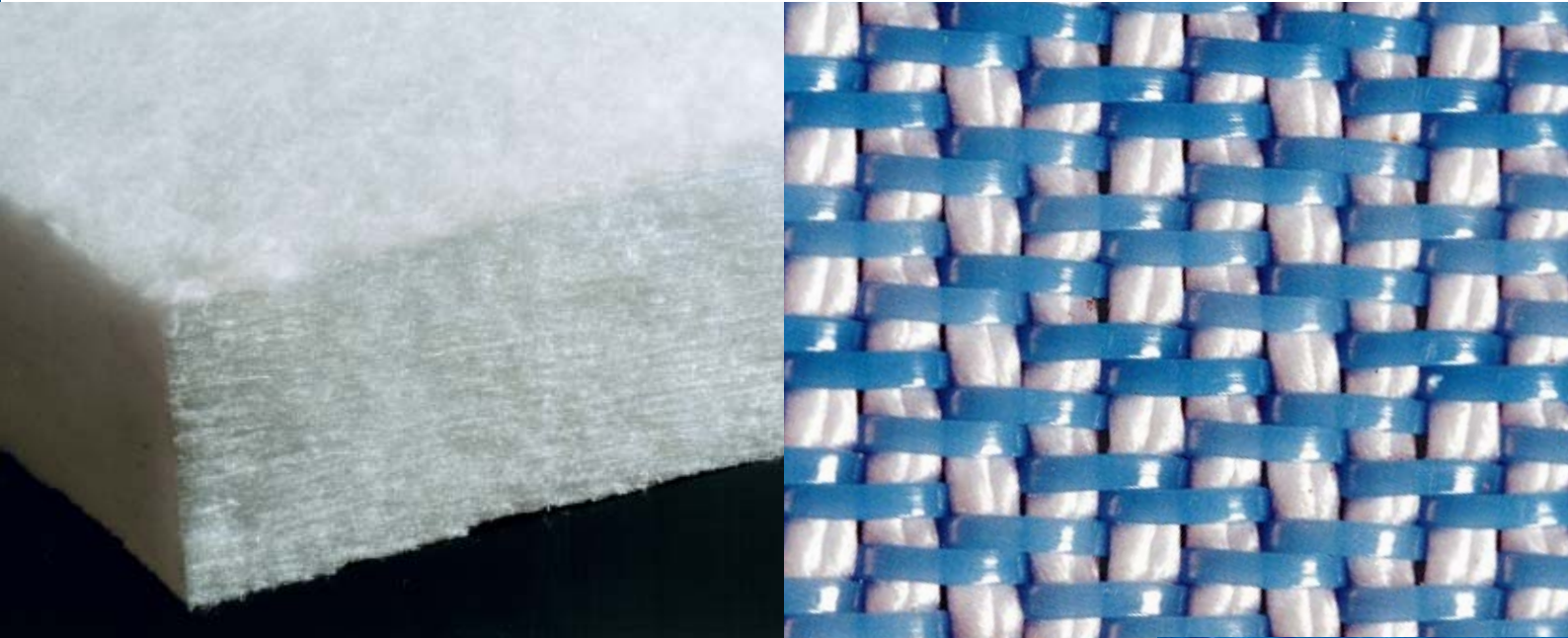
TRACKMATIC® Belt with polyester cable

*Two-layered CONDUCTO® for
nonwovens forming belts*

The sum of all **advantages**: blended
mesh opens new **possibilities**.

It's all in the mix. Our process mesh types DUOFIL® and CONDUCTO® unite the robustness, heat and chemical resistance, electrical conductivity or the magnetic effect of metal with the flexibility, efficiency and durability of plastic.

The highest weaving precision for belts up to eight meters wide and 200 meters long is characteristic of our process meshes. Various combinations of materials including stainless steel, [carbon] steel, bronze, PES, PVDF, PPS and PEEK are used, as well as options of wire, cable, monofilament, multifilament and spun yarn constructions are possible. These guarantee reliable flatness, mechanical stability and high reverse bending frequency even on fast-running machines with small roller diameters.

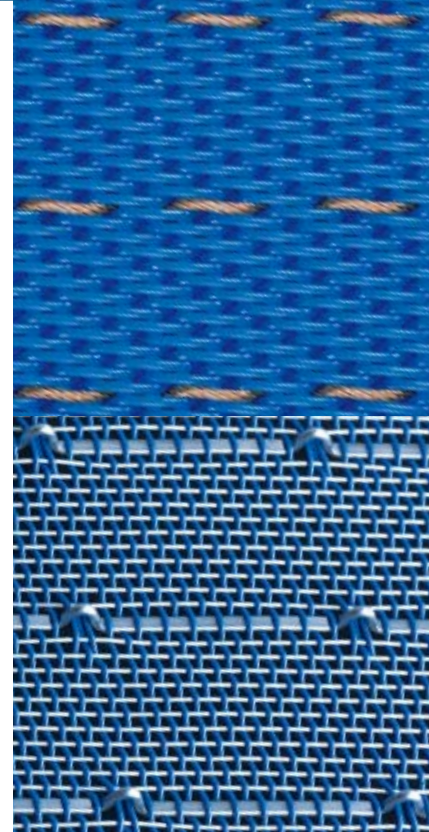


Insulating mats like these are made on DUOFIL® process belts

Blended mesh of polyester multifilaments and monofilaments for the draining of gypsum from flue-gas desulphurization

Wire diameters from 0.3 to 1.2 mm and mesh openings of 20 micron to 2000 micron make our METALLOPLAST® process meshes particularly easy and efficient to use. Incorporating PEEK, DUOFIL® is suitable even for applications in nonwovens dryers operating at temperatures up to 240° C. In its magnetic variant, DUOFIL® ensures good holding and tracking of the belt for the dependable production of a defined thickness of the nonwoven. As a Lightweight TRACKMATIC® construction, DUOFIL® belts also prove their worth in applications where reliability of running and belt tracking is called for.




Wherever electrostatic charging poses a threat to product and process reliability, CONDUCTO® is the right choice of belt. Metal wires woven into the warp and/or the weft are the characteristic feature of this innovative GKD process mesh. The high conductivity puts a permanent stop to electrostatic charging and thus provides longterm protection against hazards like adhesion of the product to the belt or even the danger of explosion (ATEX norm). As a two-layered construction, CONDUCTO® stands for trend-setting security, especially as a forming belt in the nonwovens industry.



100 percent antistatic and flexible: CONDUCTO® (above)

Self-guiding DUOFIL® – Lightweight TRACKMATIC® Belt (below)

FLEXOPLAN®/process mesh for the wood-processing industry

*Secure and robust: miniprestolseam**Reliable pressing of worktops on GKD compensation meshes**Connection guide riveted or welded – in all standard types*

A good principle: **process reliability** through appropriate **technology**.

WEAVE IN MOTION® process meshes are used all over the world in the chip-board, fiberboard, laminating and veneering industries. Thanks to decades of experience with these processes, we are much in demand as process mesh specialists in all conventional areas of application.

Depending on the production process, we also supply our high-quality process mesh for single- or multi-stage presses or steam presses as endless belts, if the equipment requires this. Whether as press draining meshes or caul screens, the properties of FLEXOPLAN®, in the standard sizes we can supply from stock or as customized special productions, meet even the highest demands. We deliver the process mesh ready to install and already fitted with connection guides in all conventional types or with tow bars according to the individual specifications of the equipment manufacturers.

*Fiber boards on a press belt with selvages*



*Security in the prepress thanks to
CONDUCTO® ventilation belt*



*OSB boards produced on
GKD FLEXOPLAN® process mesh*

Woven of steel, stainless steel, plastic or of combinations of these working materials, our process meshes are also established products in the wood-processing industry for compensation belts, forming belts, heating belts or embossing belts. Thanks to high temperature and pressure resistance, easy screen replacement and fast repair services, they guarantee maximal service life in every application. Our profound knowledge of this technology allows us to tune our products precisely to the process in question. For this reason, GKD process meshes are leading products when it comes to the production of ultra-smooth, coarse or even embossed surface structures according to individual specifications.

It has become a tradition for us to set new standards with innovative technologies in the wood-processing industry. Our latest product development, the highly conductive blended mesh ventilation belt CONDUCTO®, puts a permanent stop to electrostatic charging and all associated risks.



*Special mesh type 163 for
OSB-boards (above)*

*Mesh type 452 KP for chipboards
and MDF-boards (below)*



Precision right down to the last detail



Individual advisory services is a major success factor

Partners from the **very start:**
customer satisfaction is the
measure of all things.

As leaders in the development and production of high-quality process belt technology, we feel responsible for your success. We design tailor-made solutions down to the last detail in close coordination with users and equipment manufacturers. WEAVE IN MOTION® stands for first-hand know-how – both in development and production and on the customer's premises for installation and repair. Thanks to our all-round competence, we are reliable problem-solvers at every stage – at any time, if necessary around the clock, and anywhere in the world.



Customer-specific production cell for pressure belts for the corrugated cardboard industry



Our service team – always ready to help

We are just as committed to the further development of our products, seams or coatings as we are to our comprehensive service. Repairs within the shortest time, immediate belt calculations, process and materials analyses – fast help with consideration of all influential factors is characteristic of our advisory competence.

To keep on increasing the long-term added value of our customers, we constantly seek out new challenges, questioning and improving what is already there, and developing new technologies and procedures. All this calls for the highest degree of process know-how – and competence. From buying the wire through to planning, production and installation – we coordinate all stages optimally with each other and to the special requirements profile of our customers. Best mesh qualities and reproducible product characteristics are the result – your guarantee for longterm planning security, optimal success and reliable production.



Video microscope (above)



Tensile strength testing machine (below)

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