

**Process belts** 

## Self-guiding TRACKMATIC™ belts





TRACKMATIC<sup>™</sup> belt on a grooved roll

TRACKMATIC<sup>™</sup> belt with polyester warp wire

## Self-guiding TRACKMATIC<sup>™</sup> belts for drying / freezing / steaming / washing / bleaching / forming

Today's TRACKMATIC<sup>™</sup> belt types are based on a GKD-patented mesh belt that has rows of V-shaped crimps (V-crimps) on the bottom side, lending it self-guiding properties. The rows of V-crimps are

guided on grooved drive and deflecting rollers and supported over the distance between the shafts by slide bars or supporting rollers. This enables simple machine designs.



Production of chemical fibers



Further processing of chemical fibers

### **TRACKMATIC<sup>™</sup>** belts are notable for these key features:

- Smooth running with accurate tracking
- High degree of cross stability
- Flat product side
- Low weight

- Variable mesh openings
- Non-marking seam capability
- Various edge finishes
- Capable of high running speeds







TRACKMATIC<sup>™</sup> belt in the chemical industry

## Broad spectrum of applications

in a wide range of industries such as chemicals and food

TRACKMATIC<sup>™</sup> belts are used in a wide variety of processes. Customer requirements and process conditions determine the selection. GKD advises you based on your specific application case. There are many possible applications in process engineering plants: drying, roasting, steaming, cooling, transporting, washing, pressing, freezing and many more.



In a washing system for textiles

Washing and dewatering of textiles

### Process advantages for every user:

- Simplified plant layout
- No costly belt control systems
- Driven by friction only between belt and roller
- No additional drive elements causing product contamination
- Made from high-grade stainless steels as standard
- Simple belt change
- Able to withstand variable thermal loads
- Low wear and long service life





Closing the pin seam with preformed loops

Reclosable pin seam

## Belt track: roller arrangement

An optimum belt track (1), as shown, with a roller wrap of 180 degrees results in a long belt life. A trapezoidal belt track is also possible. Counterbends (2) reduce the service life of the belt. GKD recommends a minimum roller diameter of 200 mm. The simplest way to join the belt is with a pin seam. With this type of join, there are loops at each end of the belt. The loops are pushed together in the same way as a zipper and then joined using a connecting wire (pintle wire).



1. Optimum belt track

2. Belt track with counterbend

Depending on the application, TRACKMATIC<sup>™</sup> belts can also be produced with an endless joint (soldered or sewn). The system must be designed accordingly to use these endless joints. For tightly woven belt types, seam covers can be selected to reduce product loss in the case of fine bulk materials while also evenly distributing air flow. TRACKMATIC<sup>™</sup> belts can be tensioned with mechanical, hydraulic, and pneumatic belt tensioning devices. The type of belt tensioning device depends on the customer requirements. The belt tensioning device must ensure parallel tensioning of the belt.





With edge joint welding

With a splint loop pin seam

### Belt support systems

Depending on the requirement, either slide bars (4) or supporting rollers (3) are used to support TRACKMATIC<sup>™</sup> belts. A combination of both systems is also possible. While the rollers are mostly made of metal, the slide bars can be either synthetic or metal depending on the process temperature.



3. TRACKMATIC<sup>™</sup> belt with supporting rollers

### Advantages of supporting rollers:

- Generally lower friction than support bars
- Reduced belt pretension and longer belt life
- Enable larger distances between rollers
- Even wear on the underside of the TRACKMATIC<sup>™</sup> belts



4. TRACKMATIC  $^{\rm M}$  belt with slide bar supports in the upper run

### Advantages of slide bar supports:

- Better belt flatness compared to rollers
- Less maintenance required (no bearing lubrication)
- Almost no belt sagging



TRACKMATIC<sup>™</sup> belt on grooved roller, **ridge in the center** (even number of V-crimps)

## 1. Grooved roller with even number of V-crimps (example)



Systems with TRACKMATIC<sup>™</sup> belts require drive rollers and deflecting rollers with grooves. With larger distances between the rollers, we recommend applying guiding elements to some of the

supporting rollers, too, for additional belt guidance. GKD provides a schematic diagram for the design of grooved rollers on request.

# Consulting, assembly, and repair service

GKD offers you extensive technical support. Our experienced technicians install the belts with you



TRACKMATIC<sup>™</sup> belt on grooved roller, **groove in the center** (uneven number of V-crimps)

## 2. Grooved roller with uneven number of V-crimps (example)



The required belt width is used to calculate the number of V-crimps.

With an even number of V-crimps, a ridge of the

grooved roller is in the center of the belt (symmetrical axis). With an uneven number of V-crimps, a V-crimp is in the center (symmetrical axis).

and join them professionally. Should it be necessary, we carry out repairs directly on site in order to get

your production working again as quickly as possible. We perform more involved belt repairs in our factory.

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