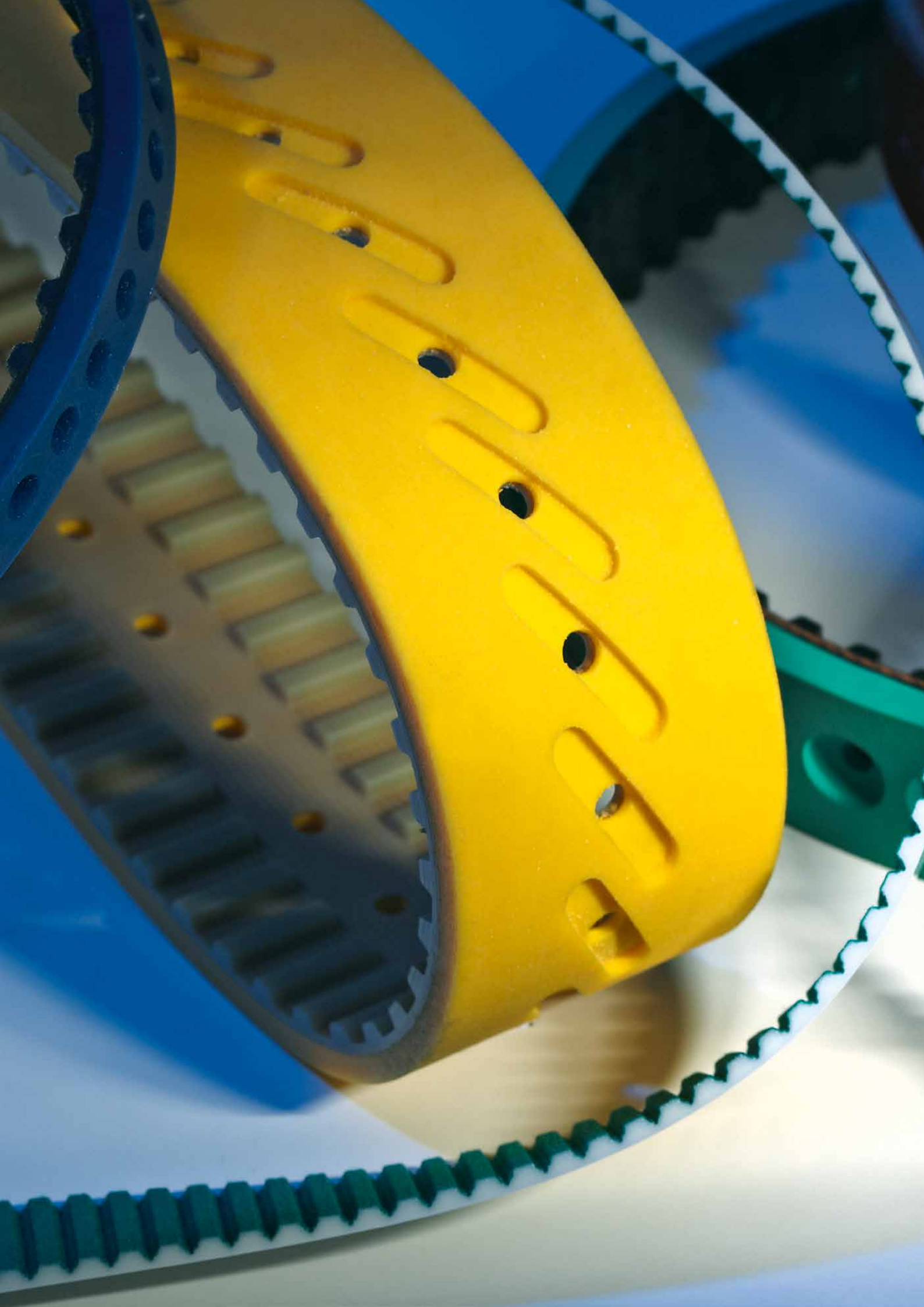


siegling proposition
timing belts

CONVEYING, POSITIONING, SYNCHRONIZING – **THE RIGHT BELT FOR ANY APPLICATION**

Siegling – total belting solutions

forbo
MOVEMENT SYSTEMS



SIEGLING PROPOSITON – THE RIGHT BELT FOR ANY APPLICATION

Timing belts play a key role in contemporary drive and handling technology. They enable efficient and reliable solutions for applications such as driving, positioning, conveying, synchronizing, indexing and singulating.

The Siegling Proposition timing belts enhance our portfolio as high-performance, positive-locking drive and conveyor components.

Made of premium polyurethane with diverse steel or Kevlar-cord tension members, our high-performance timing belts stand apart for their low weight, exceptional tensile strength, quiet tracking and virtually maintenance-free performance. They are ideal for dynamic processes and precise positioning.

With customized coatings, profiles and finishing options, our timing belts are tailor-made solutions for drive, conveying and handling tasks.

Our longstanding experience in light-duty conveyor technology means first-class product quality, skilled support and fast service.

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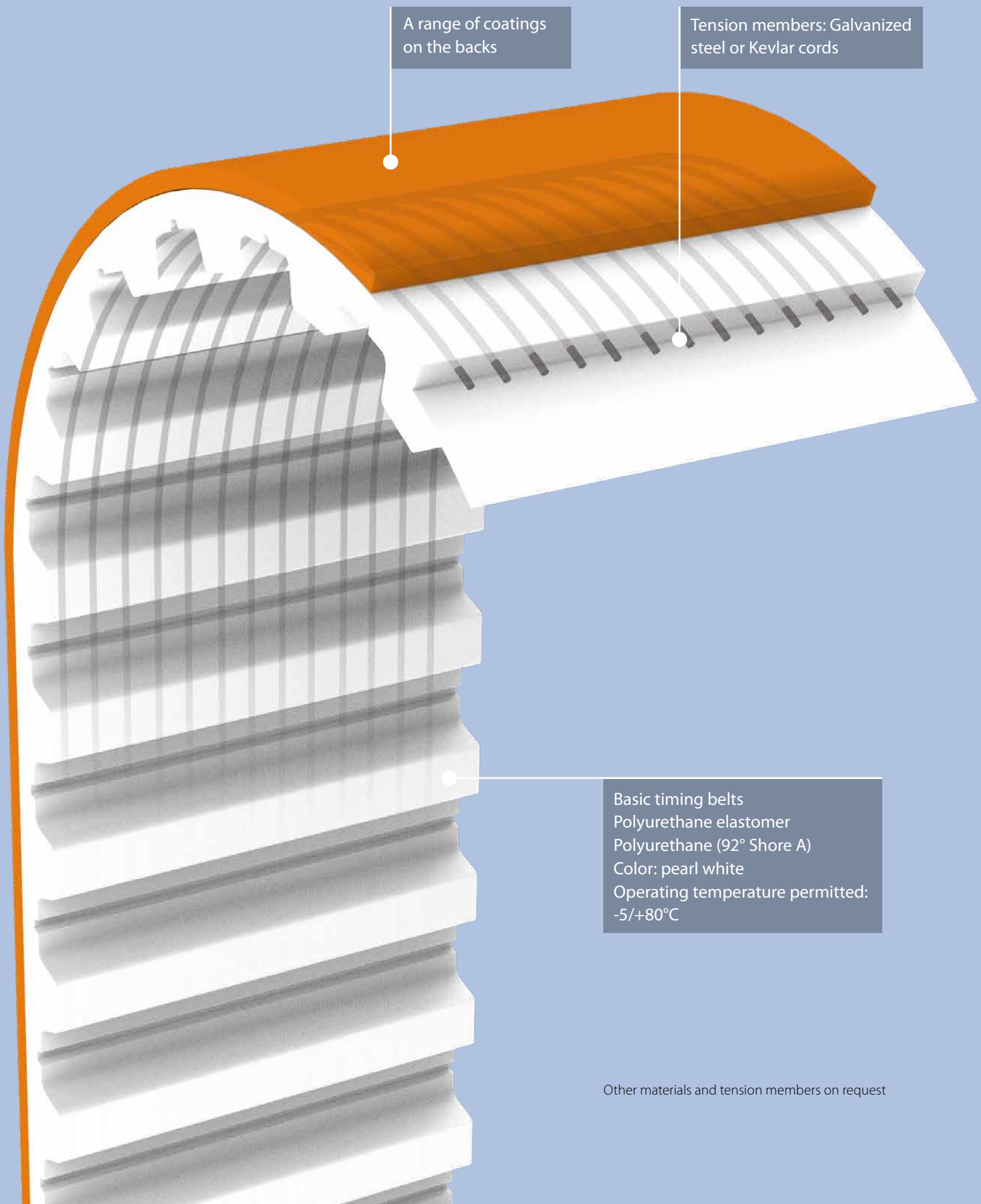
The advantages:

- Durable and low wear
- No maintenance and the associated costs
- Quiet, reliable and product-friendly tracking
- Ergonomic, low-noise workspaces
- Superior flexibility
- Compact, space-saving design

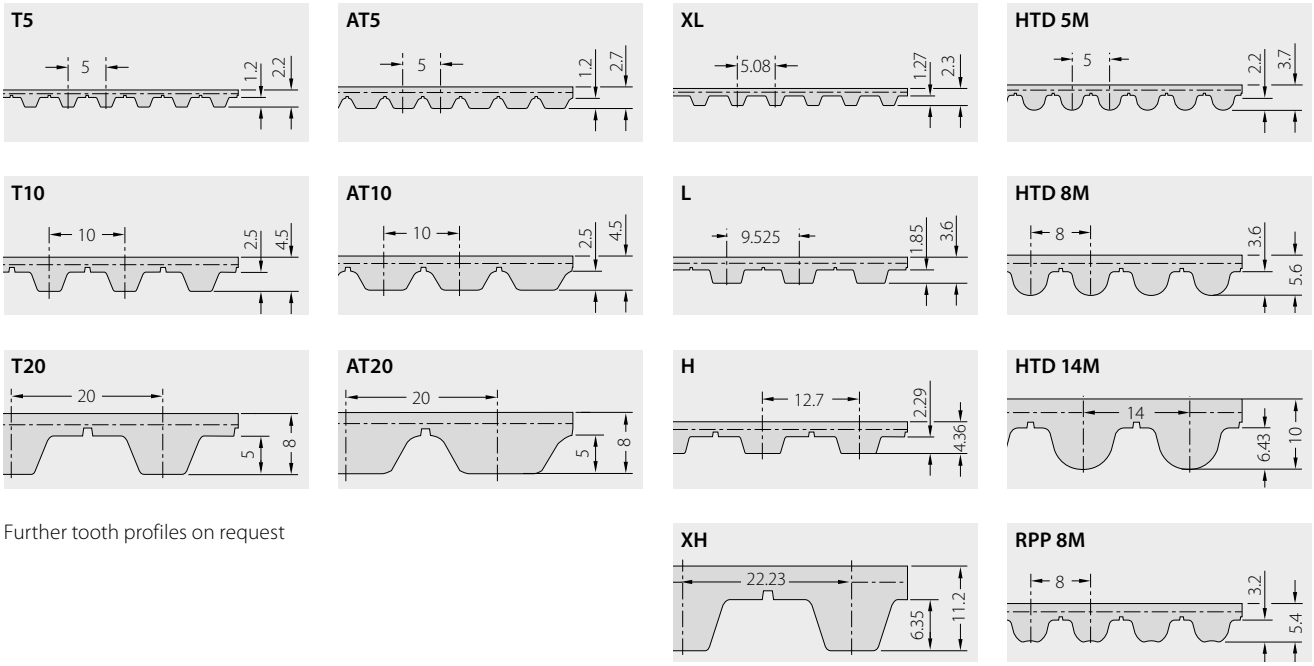
SPECIFICATIONS



Other materials and tension members on request

PRODUCT RANGE

Tooth profiles



Further tooth profiles on request

Timing belts with longitudinal tracking profiles
V-guides on the tooth side ensure straight tracking across the whole length, even when lateral forces occur. Flanged pulleys aren't necessary.
V-guides can also be retrofitted to standard timing belts.

Double-sided timing belts
Double-sided timing belts have teeth on both sides of the belt, enabling them to transmit forces in different directions and reverse the direction of rotation.

Powerbelt
The Forbo Siegling Powerbelt was custom developed for sports and fitness equipment, roll-up doors and blinds. To transmit high tensile forces, it's an alternative to ropes, chains and fabric-based belts.

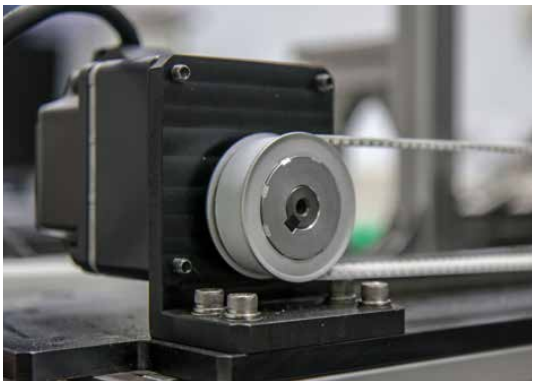
Endless belts
These timing belts are made by casting or extrusion processes and have no splices. They're ideal for power transmission and heavy-duty conveying applications.

Food Line
Our Food Line timing belts meet current FDA and EU/EC regulations and stand apart for their excellent surface quality. Their enclosed belt edges and lack of coiling noses make them very user friendly.

For more information go to:
www.forbo.com/movement/en-gl > products > timing belts

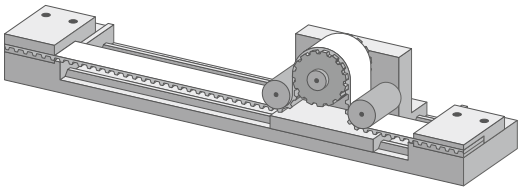
SIEGLING PROPOSITION IN ACTION

In modern automation processes, Siegling Proposition timing belts carry out very accurate movement and conveying tasks. Whether driving, positioning, conveying, synchronizing, indexing or singulating, they guarantee superior precision, reliability and repeat accuracy. Thanks to a range of configuration options, they can adapt to customized applications. As a result, they help make processes efficient and economical.



Driving and positioning

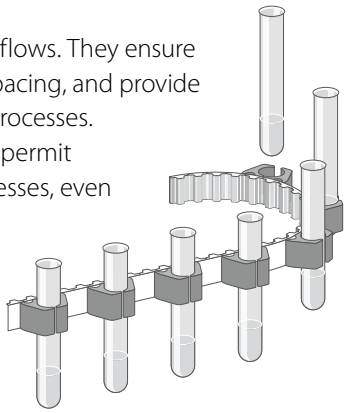
Timing belts are an excellent choice for drive and positioning jobs where precise movement sequences and exact synchronization are a must. Thanks to their positive power transmission, they enable precise positioning, dynamics, and repeat accuracy – making them ideal for linear drives, lifting equipment, gantry robots, and door operators.





Indexing and singulating

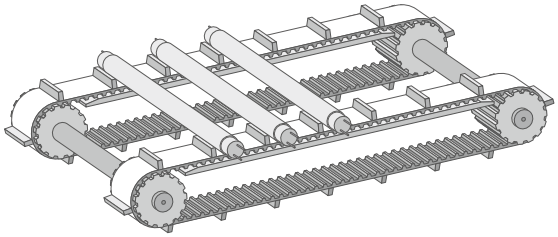
Timing belts permit precise control of process flows. They ensure reliable operation, sequencing, and product spacing, and provide an exact supply of products for downstream processes. Due to their positive power transmission, they permit exceptional repeat accuracy and smooth processes, even at high cycle rates.





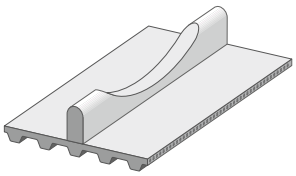
Conveying and synchronizing

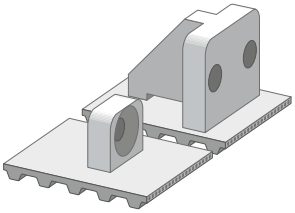
Timing belts are ideal for precise handling and synchronized conveying of products. Diverse coatings, custom-adaptable flights and other configuration options mean dependable and product-friendly conveying, as well as optimum adaptability to requirements. As a result, they are an excellent choice for continuous conveying processes and exactly synchronized movement sequences.

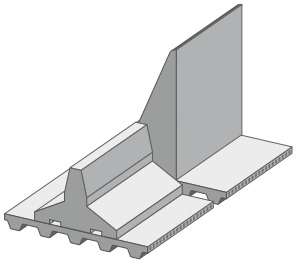


FLIGHTS AND PROFILES

For conveying and many more specific material flow tasks (such as indexing, singulating, positioning), adding flights and profiles mean innovative design solutions. 3D printing can generate any customized shapes. Diverse standard flights are also available as semi-finished products.





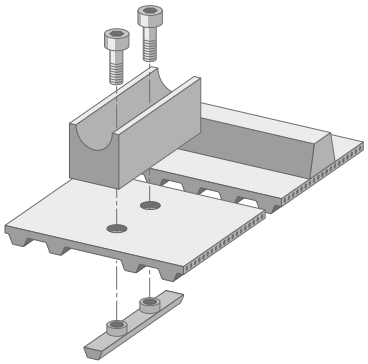


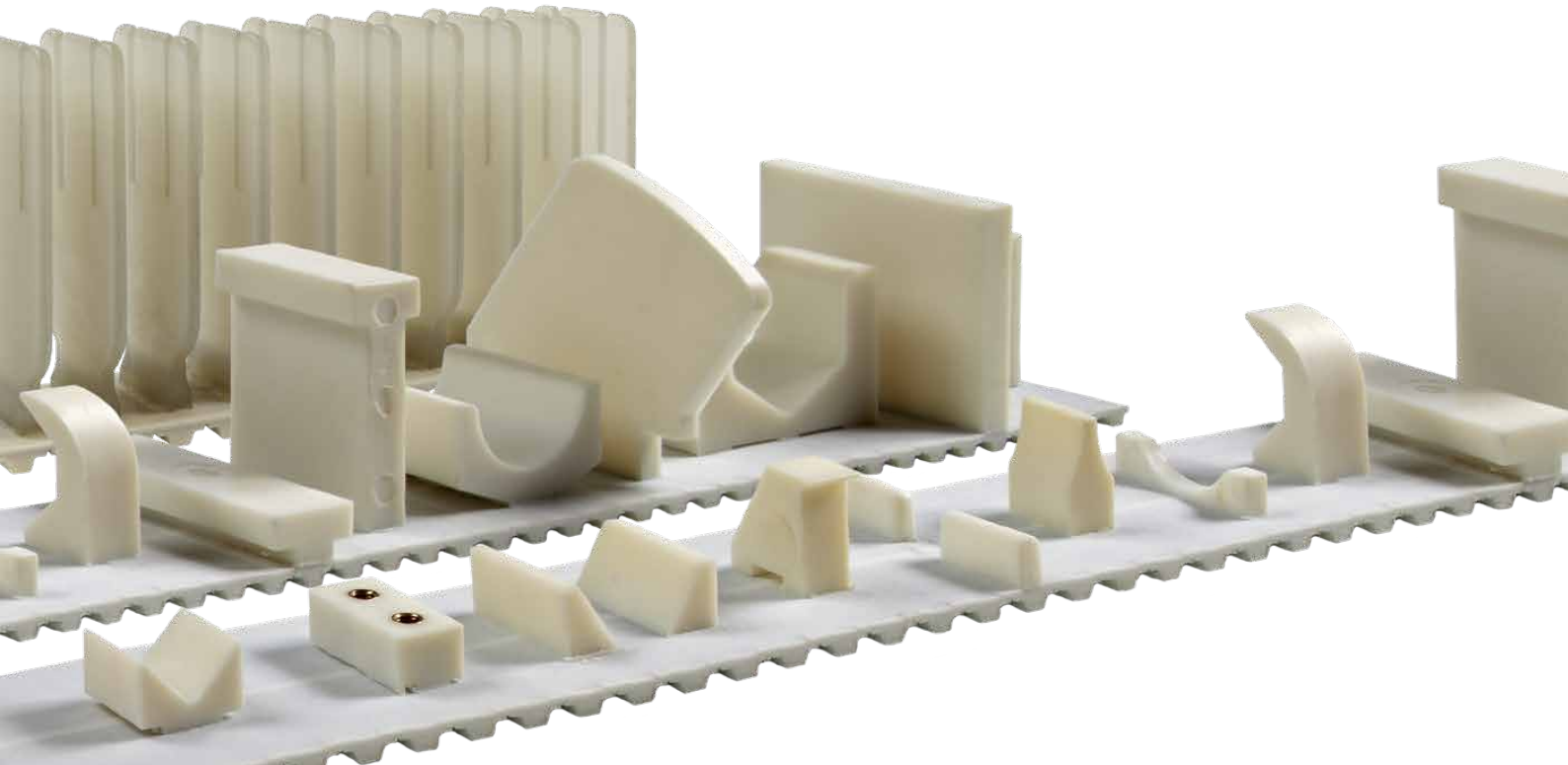
Polyurethane flights – a very strong bond

Just like timing belts themselves, our flights are primarily made of premium polyurethane. When welded, this same material guarantees an outstandingly secure, permanent and hard-wearing bond with the back of the timing belt.
Welding on flights does have an impact on the timing belt's bending characteristics. For good performance, we recommend keeping the flight thickness as low as possible. A sophisticated and durable solution is to weld flights opposite a belt tooth.

Bolted flights – very flexible in real-world operations

Bolted flights are very flexible options for a wide range of applications. In this case, the timing belt's original tooth is removed and replaced with a custom-developed replacement with integrated threads.
This system is a very variable, assembly-friendly – and if required – replaceable solution. It's perfect for applications where adaptability and service friendliness are a mandatory.



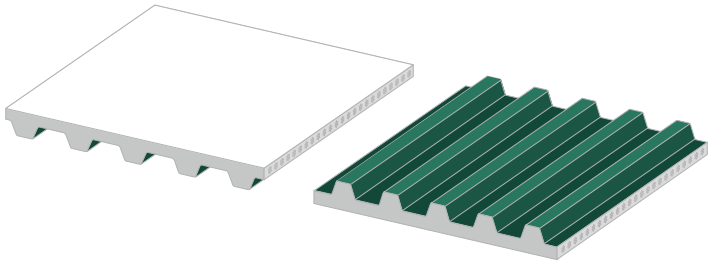


COATINGS

Coatings can be added to all standard types. Polyamide fabric on the tooth side and/or back of the timing belt reduces friction. Better tooth engagement cuts noise emissions.

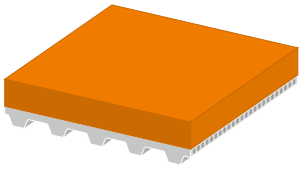
The advantages of other coatings on the back of the timing belt:

- They increase the friction coefficient, therefore improving grip (take-off belts, inclined conveyors),
- They comply with the FDA standard (for food processing),
- They protect the surfaces of sensitive items (glass, furniture components),
- Their toughness increases resistance to rough or sharp items (sheet metal, wood).

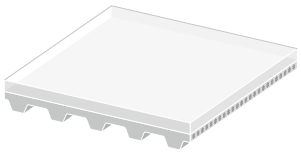


PAZ/PAR: Polyamide fabric (on both sides)
PAZ: Polyamide fabric (tooth side)
Characteristics: Low friction coefficient, wear protecting, noise reducing

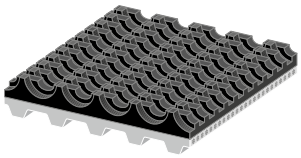
In the case of the PAZ and PAZ/PAR: types, the polyamide fabric is applied during production of the timing belts. Which is why the dimensions are the same as the basic types.



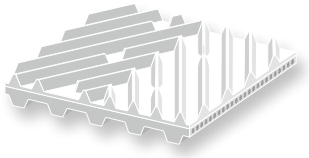
Linatrile
orange · nitrile rubber (NBR)



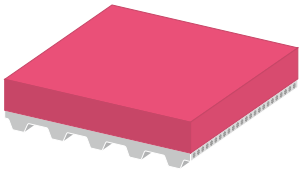
PU 85
transparent · polyurethane (thermoplastic)



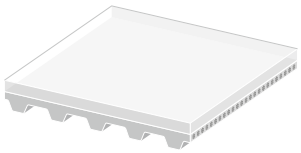
NBR/AR
black · nitrile rubber (NBR)



PVC 65/FG
white · PVC



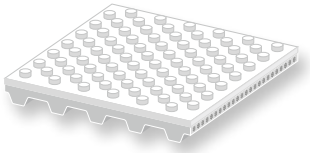
Linatex
red · natural rubber



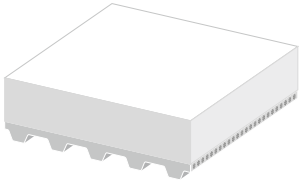
PU 60
transparent · polyurethane (thermoplastic)



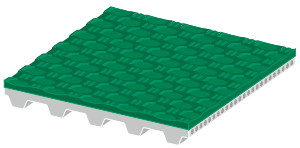
PVC 65
white · PVC



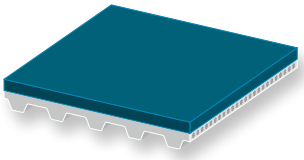
PVC 65/Pimple
white · PVC



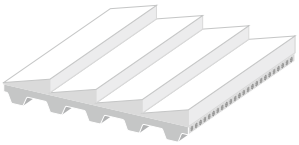
Linard
white · natural rubber



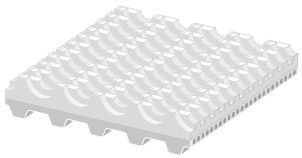
NBR/NSTR
green · nitrile rubber (NBR)



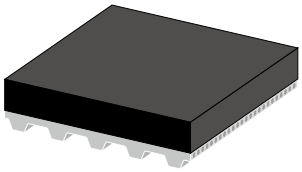
PVC 40
petrol · PVC



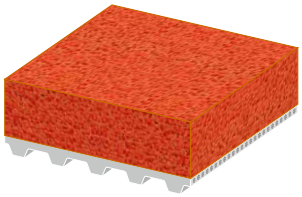
PVC 65/Saw
white · PVC



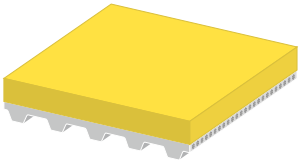
PVC 50/AR
white · PVC



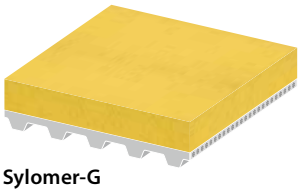
Porol
black · foam rubber



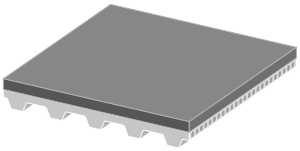
Sponge rubber
orange · foam rubber



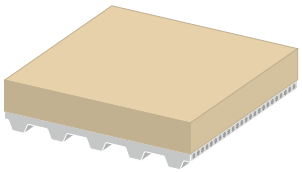
PU 55
yellow · polyurethane (thermoplastic)



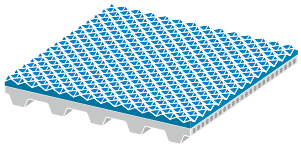
Sylomer-G
yellow · polyurethane foam



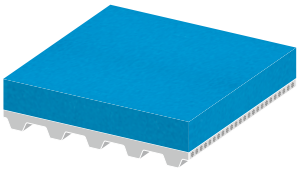
NOVO-HC
black · polyester nonwoven



Correx
beige · natural rubber



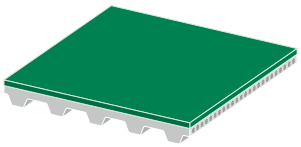
PU 85/NP
blue · polyurethane (thermoplastic)



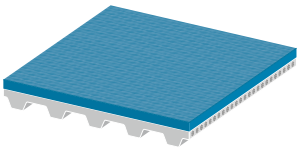
Sylomer-R
blue · polyurethane foam



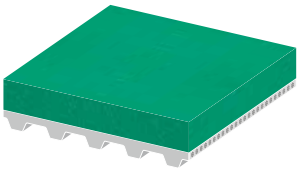
NOVO
white · polyester nowoven



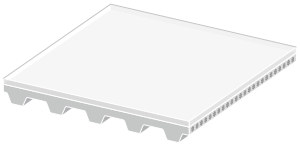
NBR/FSTR
green · nitrile rubber (NBR)



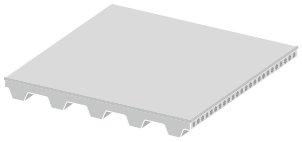
R 60
blue · thermoplastic elastomer with excellent grip



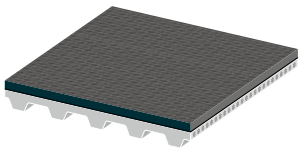
Sylomer-L
green · polyurethane foam



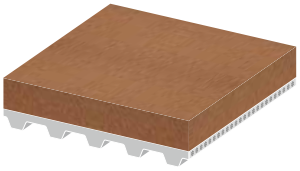
Silicone
white · silicone



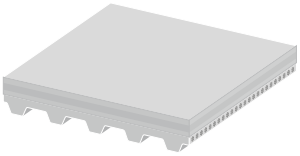
PTFE
gray· polytetrafluorethylene (PTFE)



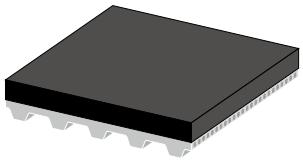
PU 85-HC+
black · polyurethane (thermoplastic)



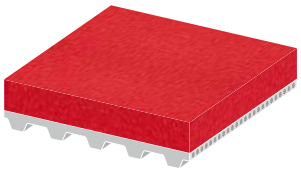
Sylomer-M
brown · polyurethane foam



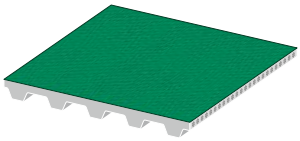
Leather
gray · chrome leather



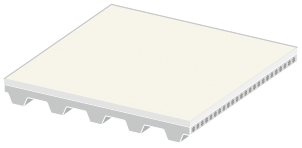
Viton
black · fluorine-rubber mixture



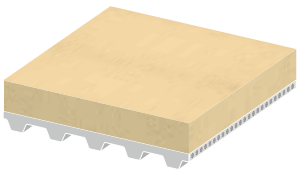
Sylomer-P
red · polyurethane foam



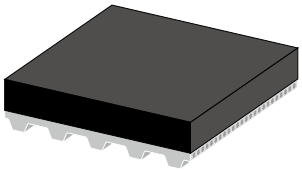
PA fabric
green · fabric, polyamide



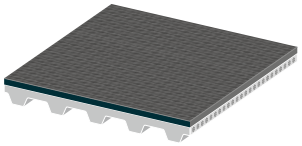
PU 85/FSTR
white · polyurethane (thermoplastic)



Vulcocell
beige · polyurethane foam



EPDM
black · synthetic rubber (EPDM)



PU 85/NSTR
black · polyurethane (thermoplastic)



For more information go to:
www.forbo.com/movement/en-gl > products > timing belts > coatings

CUSTOM MODIFICATIONS AND ACCESSORIES

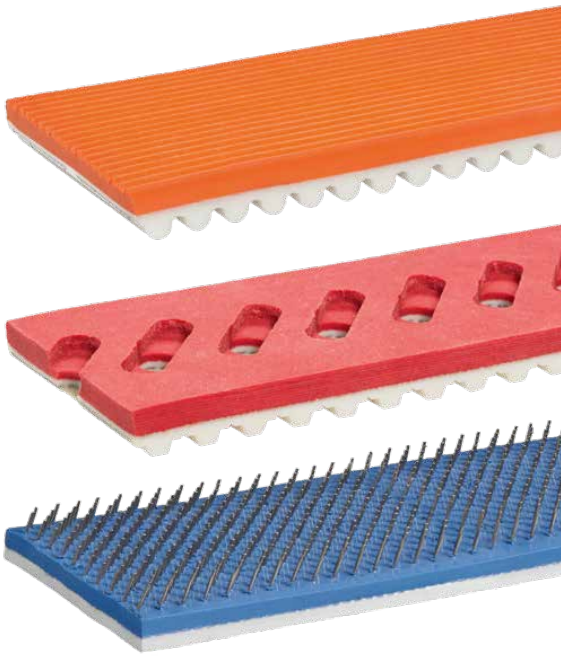
Upgrading uncoated and coated timing belts means true tailor-made solutions for material flow tasks. Due to the variety of options and combinations, we can only show you a small selection here.
If you are interested, please contact your Forbo Siegling partner.

Customized options

Timing belts made of special materials
Special PU is used in special areas (e.g. for a different temperature range). Available on request.

Mechanical configuration
Virtually any textures, such as longitudinal grooves (LG patterns), can be milled, ground, and punched onto timing belts and coatings within tight tolerances. CNC machines and waterjets are used to do so.

Custom coatings
Coatings with very temperature-resistant materials can also be added.



Toothed pulleys

To ensure the belt operates smoothly and lasts a long time, the toothed pulley needs to match the timing belt in question.



Forbo Siegling can provide the right toothed pulley for all types of timing belt offered:

- Standard version with bore hole
- Special attachments on request
- Special teeth with reduced and zero backlash on request
- Drawing-based option also possible

Aluminum is the standard material for general applications. We recommend steel pulleys for heavier loads.

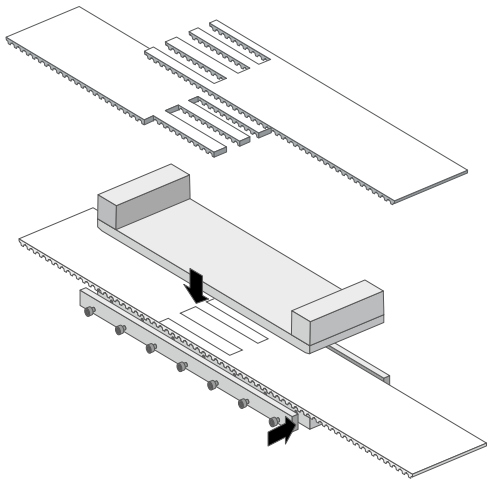
Clamping plates

Clamping plates for affixing open-ended timing belts can be supplied in all the usual dimensions for all timing belt types.



SPLICES

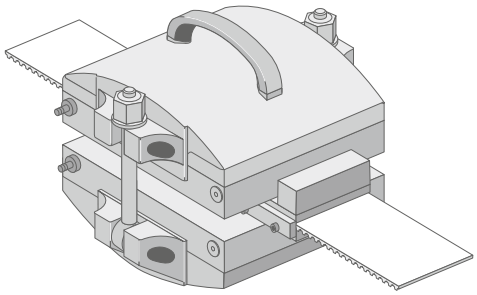
Meander or Z-splices are used for open-ended Siegling Proposition timing belts. This tried-and-true splicing method enables fast and efficient fabrication to customer specifications.
This method achieves around 50% of the tensile strength of an endless timing belt. Due to these characteristics, belts made in this way are ideal for conveying and positioning jobs, but not for traditional drive tasks.



Welded splices

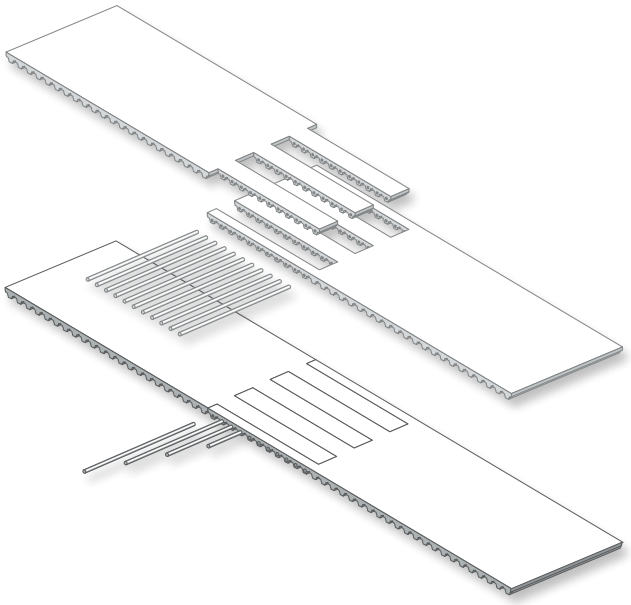
Our heating presses allow fast and easy heating of prepunched timing belts on site. This method saves time-consuming fitting on the conveyor itself.

The SMX-HP 150/120-PP and SMX-HP 150/120-PP heating presses can (with the appropriate splicing guide) be used for all timing belt types in all widths.



Mechanical fasteners

Appropriately prepared timing belts (teeth with bores) can be spliced with connecting pins.
This method is designed for maximum uptime during belt replacements or maintenance.



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Siegling – total belting solutions

Committed staff, quality oriented organization and production processes ensure the constantly high standards of our products and services.

Forbo Movement Systems complies with total quality management principles. Our quality management system has ISO 9001 certification at all production and fabrication sites. What's more, many sites have ISO 14001 environmental management certification.





Our service – anytime, anywhere

Forbo Movement Systems employs around 2,300 people in its group of companies. Our products are manufactured in ten production facilities across the world.
You can find companies and agencies with warehouses and workshops in over 80 countries.
Service points are located in more than 300 places worldwide.

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MOVEMENT SYSTEMS

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