

 **SilentSync**<sup>®</sup>

## **Conti<sup>®</sup> SilentSync**

A Powerful Solution for Low-Noise  
and Low-Vibration Drive Systems.

## Conti® SilentSync

Self-tracking heavy-duty timing belts for exceptionally quiet, low-vibration running.

Enjoy quieter operation with helical toothing. Thanks to its combination of a helical tooth design, aramid tension member and strong rubber, this belt boasts a wealth of inherent advantages. The SilentSync is self-tracking, has a high power capacity and can withstand high temperatures. This makes it an excellent alternative to both traditional timing belts and V-belts.

### → Up to 19 dB quieter ...

... than a conventional timing belt. This represents a significant reduction in noise exposure for people, particularly in robotics environments where high-speed drives and people operate in close proximity.

### → Far more powerful ...

... than other timing belts thanks to its aramid tension member - without any change in belt width. This offers great potential for making V-belt systems slimmer and reducing system costs.

### → Reduced vibration and high energy efficiency

The helical toothing almost completely eliminates the polygon effect, resulting in an outstanding efficiency factor of up to 98 % and a 20 % reduction in vibration emission.

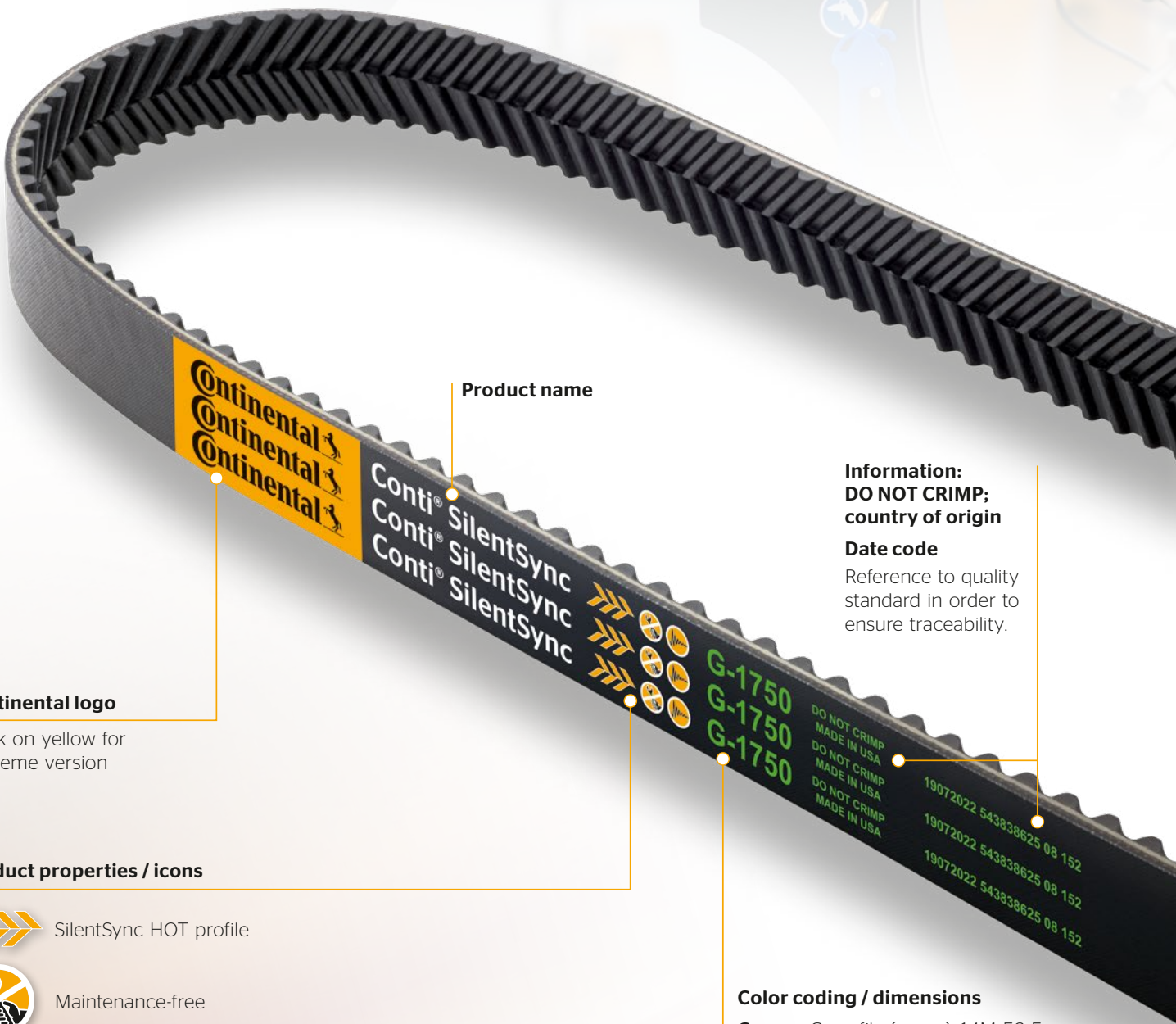
## The advantages of the Conti® SilentSync

### Over timing belts

- › Reduced noise
- › Reduced vibration
- › More accurate positioning
- › Wide speed range
- › Self-tracking, pulley flanges no longer required
- › Increased power capacity

### Over V-belts

- › Reduced downtime and maintenance costs
- › No re-tensioning needed
- › Lower belt tension/reduced bearing loads
- › High mechanical efficiency
- › No slippage



Product name


**Information:**  
**DO NOT CRIMP;**  
**country of origin**

**Date code**  
Reference to quality  
standard in order to  
ensure traceability.


**Continental logo**

Black on yellow for  
Supreme version

**Product properties / icons**

 SilentSync HOT profile

 Maintenance-free

 Smooth-running,  
reduced polygon effect

**Color coding / dimensions**

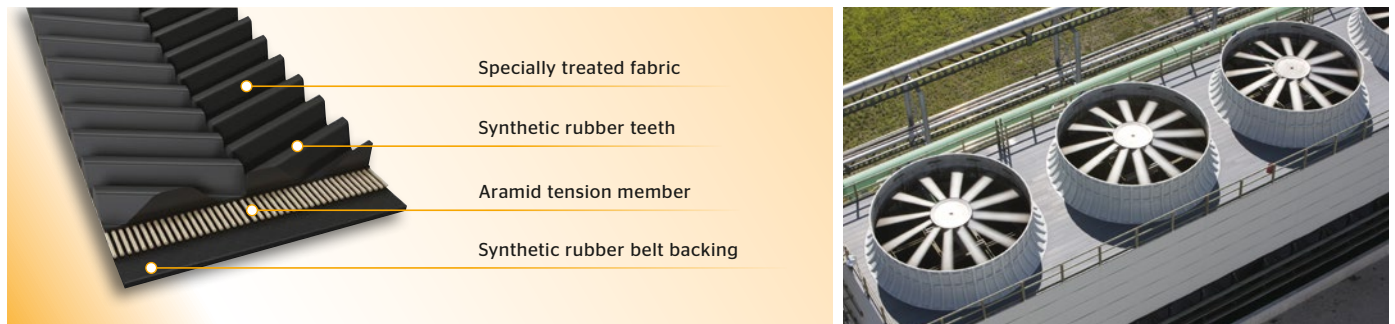
**G** = G profile (green) 14M 52.5  
14M = 14 mm pitch  
52.5 = 52.5 mm width  
**1750** = Belt length in mm

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## Conti® SilentSync

Innovative design developed for energy-efficient operation.

### HOT (Helical Offset Tooth)



### Properties

- › Resistant to temperatures between  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ) and  $+130^{\circ}\text{C}$  ( $266^{\circ}\text{F}$ ), depending on application
- › Very low noise levels
- › Electrically conductive to ISO 9563
- › Limited oil resistance
- › Ozone-resistant
- › Aging-resistant
- › Maintenance-free

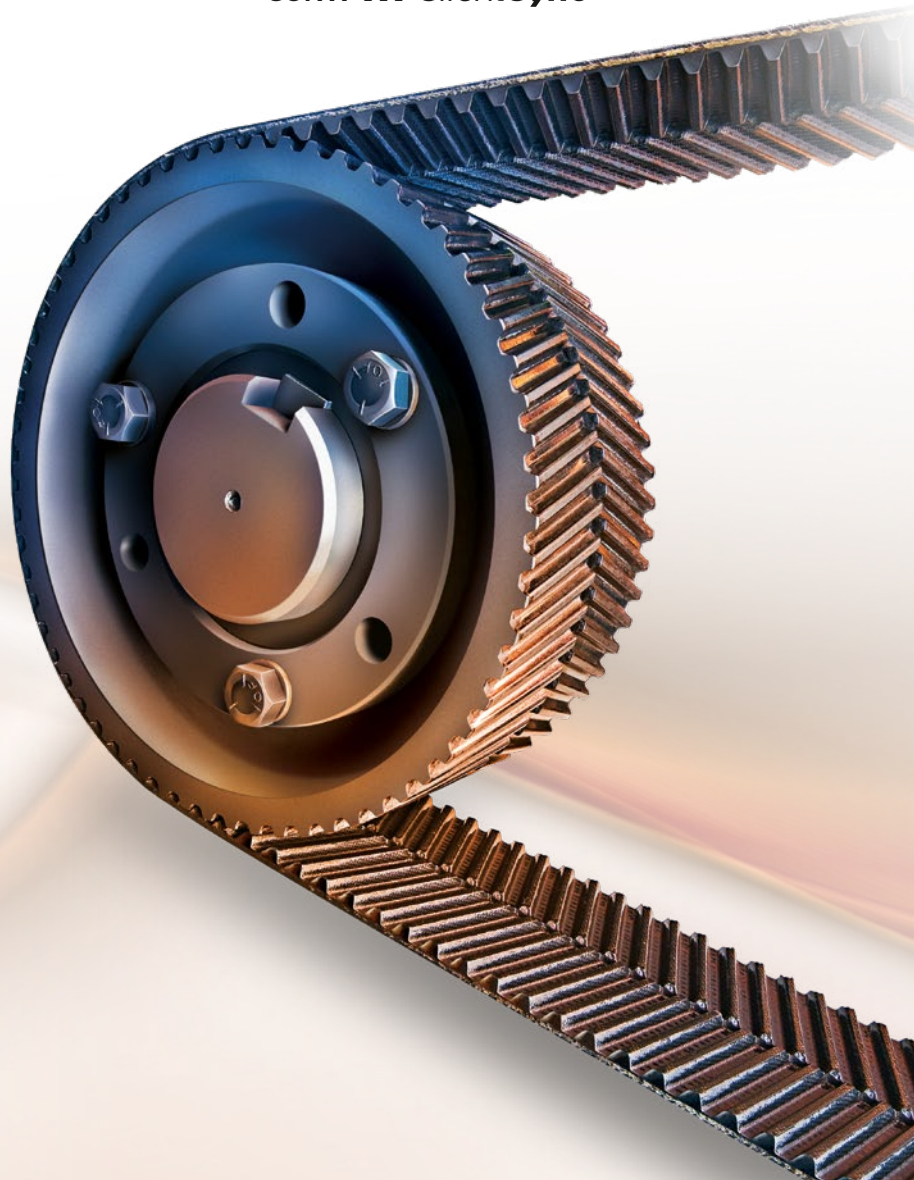
The SilentSync teeth are molded from synthetic rubber and then made resistant to abrasion with a specially treated polyamide fabric. The material offers high strength and dimensional stability and therefore guarantees absolutely synchronous power transmission. The material used also ensures limited resistance to oil, cooling lubricants, heat and ozone.

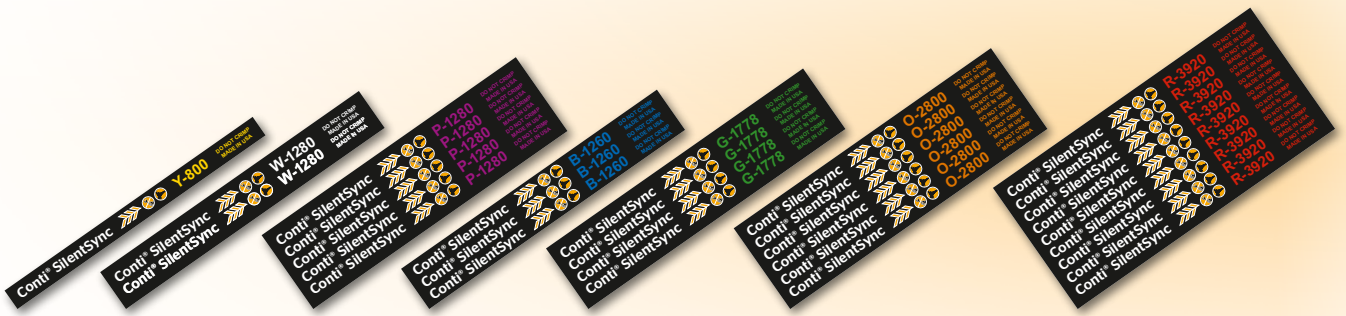
The tension member consists of an aramid cord that is not susceptible to aging or appreciable elongation, meaning there is usually no need for re-tensioning.

Made of the same rubber as the teeth but with a polyester fabric, the belt backing is highly flexible, so even reverse flexing is no problem for the SilentSync.

The HOT (Helical Offset Tooth) profile combines all the strengths of an STD profile with the added benefits of an arrow-shaped helical tooth design. The characteristic features of this tooth profile are therefore self-tracking and lower noise levels.

CONTI®  SilentSync



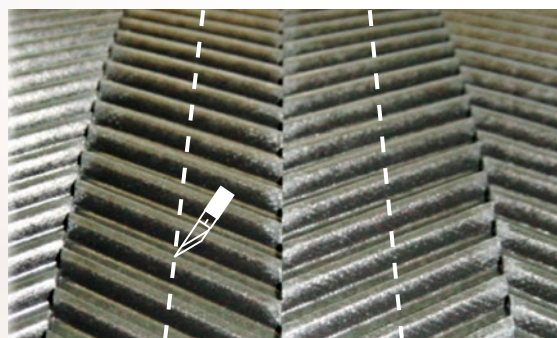


**Product range**

Profile	Y - 8M 16	W - 8M 32	P - 8M 64	B - 14M 35	G - 14M 52,5	O - 14M 70	R - 14M 105
<b>Color</b>	yellow	white	purple	blue	green	orange	red
<b>Pitch</b>	8 mm	8 mm	8 mm	14 mm	14 mm	14 mm	14 mm
<b>Width</b>	16 mm	32 mm	64 mm	35 mm	52,5 mm	70 mm	105 mm
<b>Length range</b>	640 mm	640 mm	720 mm	994 mm	994 mm	1,120 mm	1,260 mm
	720 mm	720 mm	800 mm	1,120 mm	1,120 mm	1,190 mm	1,400 mm
	800 mm	800 mm	896 mm	1,190 mm	1,190 mm	1,260 mm	1,568 mm
	896 mm	896 mm	1,000 mm	1,260 mm	1,260 mm	1,400 mm	1,750 mm
	1,000 mm	1,000 mm	1,120 mm	1,400 mm	1,400 mm	1,568 mm	1,960 mm
	1,120 mm	1,120 mm	1,200 mm	1,568 mm	1,568 mm	1,750 mm	2,100 mm
	1,200 mm	1,200 mm	1,280 mm	1,750 mm	1,750 mm	1,960 mm	2,240 mm
	1,280 mm	1,280 mm	1,440 mm	1,960 mm	1,960 mm	2,100 mm	2,380 mm
	1,440 mm	1,440 mm	1,600 mm	2,100 mm	2,100 mm	2,240 mm	2,520 mm
	1,600 mm	1,600 mm		2,240 mm	2,240 mm	2,380 mm	2,660 mm
	1,792 mm	1,792 mm		2,380 mm	2,380 mm	2,520 mm	2,800 mm
	2,000 mm	2,000 mm		2,520 mm	2,520 mm	2,660 mm	3,136 mm
	2,240 mm	2,240 mm		2,660 mm	2,660 mm	2,800 mm	3,304 mm
	2,400 mm	2,400 mm		2,800 mm	2,800 mm	3,136 mm	3,500 mm
				3,136 mm	3,136 mm	3,304 mm	3,920 mm
				3,304 mm	3,304 mm	3,500 mm	
			3,500 mm	3,500 mm	3,920 mm		
			3,920 mm	3,920 mm			

Sprockets for these profiles are available on request.

The SilentSync is manufactured in sleeves. On a sleeve with an offset of, for example, 64 mm (purple) between the arrow directions, it is therefore possible to produce either belt widths of 64 mm or, using two sections, three belts that are each 32 mm wide. One 48 mm wide belt and two measuring 16 mm in width can also be made in this way.



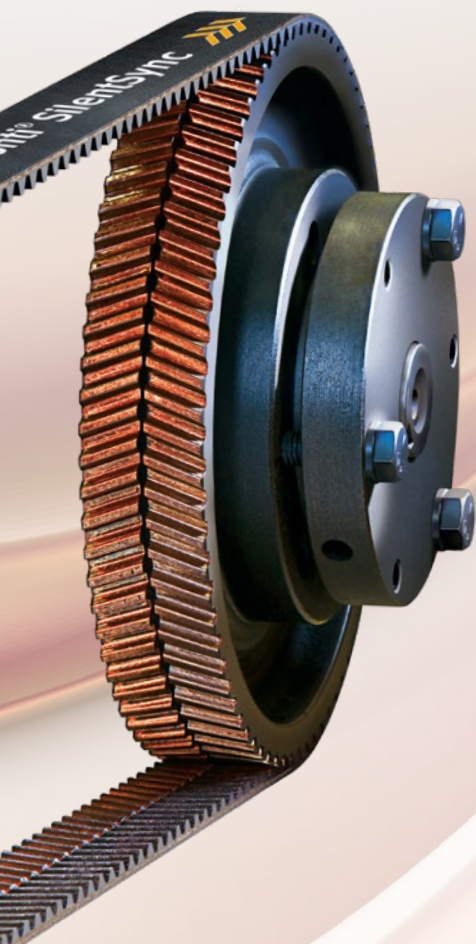
# Conti® SilentSync

## High performance with measurable results.

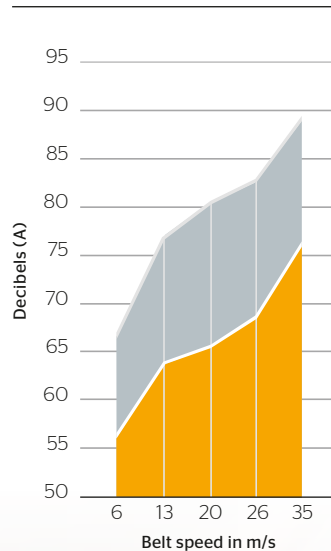
The SilentSync is more than just a timing belt. Offering an increase in power transmission of up to 80% and electrical conductivity\*, it is a high-performance upgrade on standard timing belts.

The SilentSync is up to 19 dB quieter than straight-toothed belts in operation, its Helical Offset Tooth (HOT) design merging belt and sprocket into one of the quietest, smoothest and most compact timing belt drives available. The result is continuous tooth engagement that reduces vibration and improves overall system efficiency.

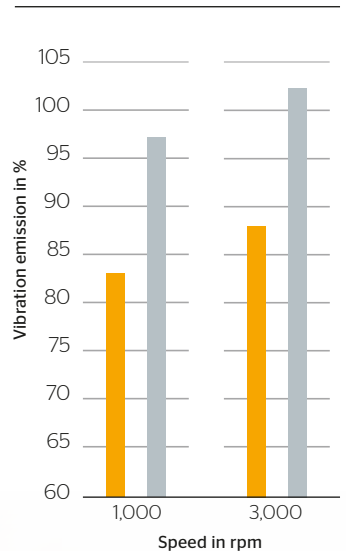
Thanks to the helical toothing, SilentSync belts and sprockets are able to provide greater resistance to ratcheting, more precise alignment, increased power capacity and improved tension distribution - all to better withstand the shearing action of high-performance drives. SilentSync sprockets are additionally available in over 1,500 combinations, making it easy to find a drive configuration that matches your system. The wide range of possible transmission ratios allows for more design flexibility and lighter, more compact drives.



### Reduced noise



### Reduced vibration



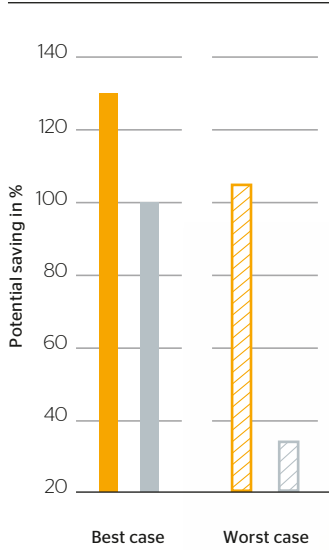
■ SilentSync belt    
 ■ Standard HTD belt

- › The SilentSync improves working conditions and lowers running costs.
- › The belts and sprockets reduce noise by as much as 19 dB compared to conventional timing belt drive systems.
- › Smoother, more precise power transmission thanks to helical toothing.
- › Vibrations can be reduced by as much as 20% compared to conventional timing belt drive systems.

\* Drive system conditions and environmental factors can lead to a loss of electrical conductivity over time. It is therefore recommended that a conductivity check be incorporated into the maintenance schedule if electrical conductivity is a necessary requirement. For further information, visit us at [www.continental-industry.com](http://www.continental-industry.com)

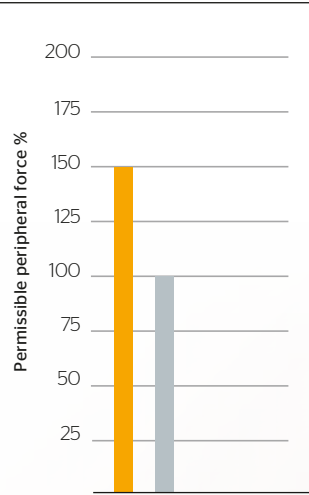


### Energy savings



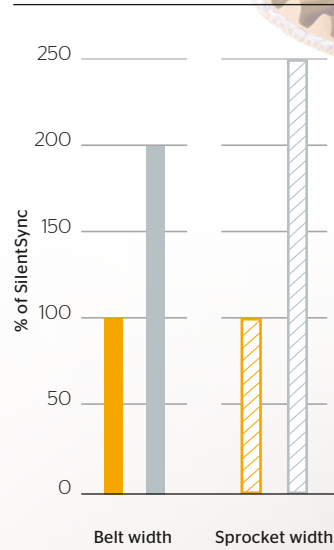
- › The SilentSync achieves a top-class efficiency rating of 98% - an impressive 5% higher than conventional V-belt drives.
- › This translates into significant energy savings.
- › This effect is particularly noticeable in drives running up to 24 hours a day.

### Belt strength

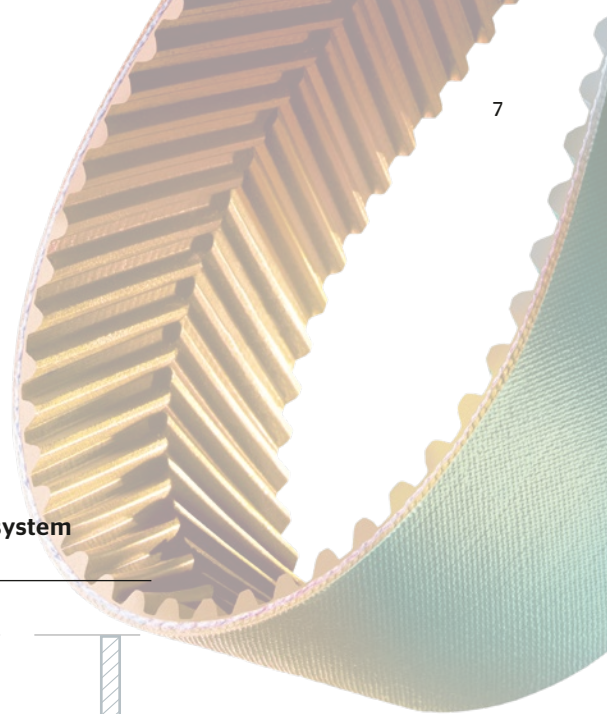


- › The special materials used for the SilentSync belt make it possible to reduce belt width and weight without compromising on transmission performance or service life.
- › The belt's self-tracking capability eliminates the need for flanges, leading to a further reduction in width and weight.

### Slimmer drive system



- › When subject to high torque loads, the SilentSync belt's aramid tension member provides optimum resistance to fatigue fractures, elongation and shock.



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