

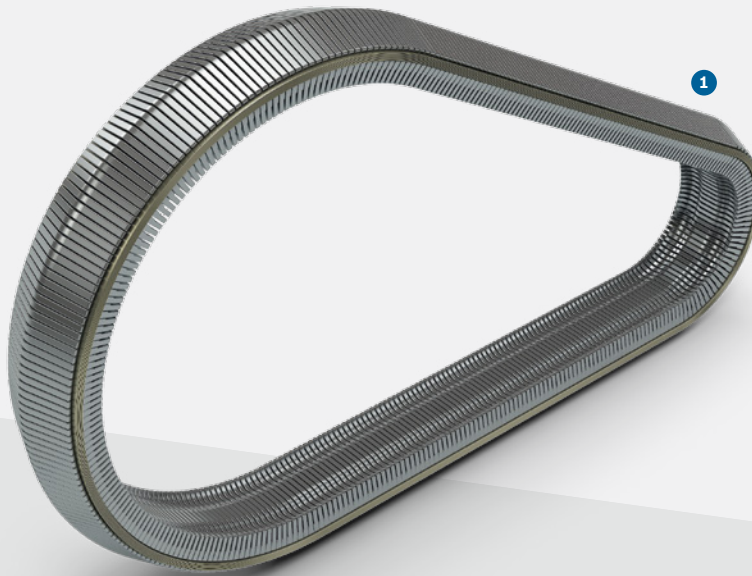
# Transmission technology

Pushbelt



**BOSCH**

Invented for life



## PRODUCT BENEFITS

- ▶ High efficiency
- ▶ No interruption of tractive force by shifting
- ▶ Highly suitable for combination with hybrid power-trains
- ▶ Compact packaging, light weight
- ▶ Easily scaled to power requirements
- ▶ High power density and optimal NVH properties (noise, vibration, harshness)
- ▶ Proven quality thanks to high maturity level

1 Pushbelt



# proven quality

The pushbelt has been produced in high volumes since 1985 and is of tried-and-proven design.

## TASK

The pushbelt is a core element of any continuously variable transmission. In such a CVT, it transmits the engine output to the drive axle.

## FUNCTION

The transmission ratio is continuously variable as the pushbelt rotates between two pulleys consisting of two conical sheaves located on the input and output shaft. These pairs of conical sheaves adjust the running radius of the pushbelt according to speed and torque. This results in an optimal ratio of demanded torque and engine speed at all times. Accordingly, the engine permanently operates under optimal operating conditions. Fuel consumption and CO<sub>2</sub> emissions are reduced.

The pushbelt is made up of hundreds of individual, specially designed steel elements, which are strung together along two high-alloy steel ring packs. By the number of rings in the packs and the width of the steel elements, the pushbelt can be adjusted to the power demand.

# versatile usage

The pushbelt is available for all segments (value to high-feature).

## TECHNICAL CHARACTERISTICS

Element width/ number of rings	CVT torque range (Nm)*					
	0	100	200	300	400	500
24/6	< 150					
24/9	150 – 200					
24/12	200 – 250					
30/10	250 – 350					
30/12	350 – 400					
28/12	> 400					

\*Exact load and speed limits depend on the application

- 1 Input from engine
- 2 Output to wheels
- 3 Secondary pulley
- 4 Primary pulley
- 5 Pushbelt

