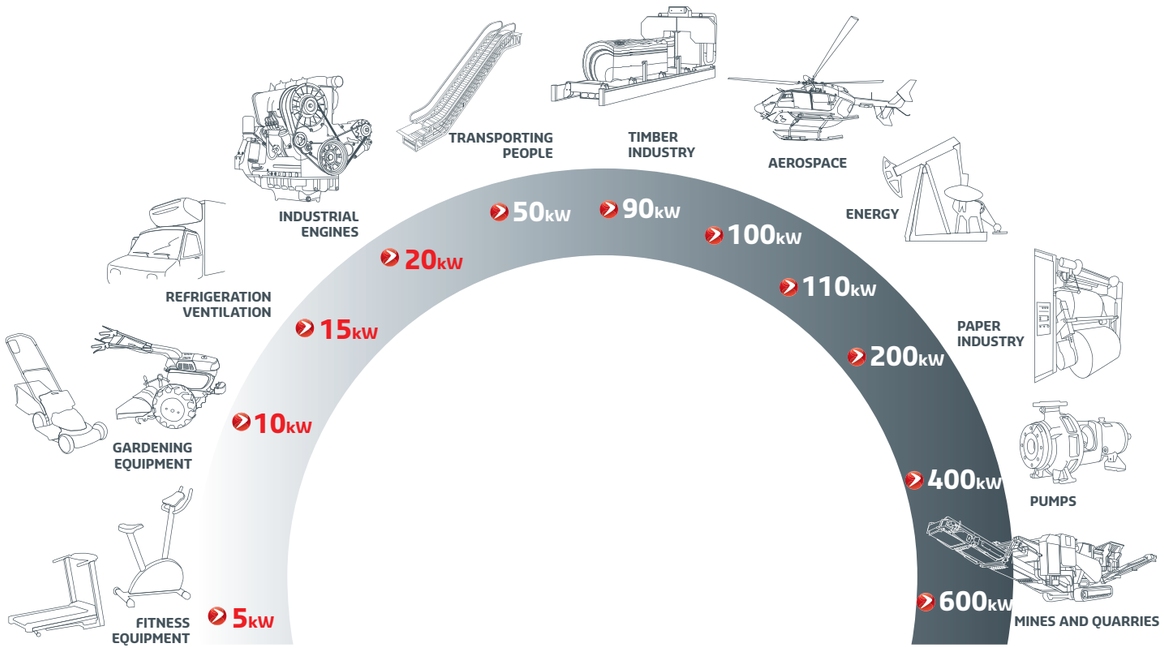
POLY V®

APPLICATIONS



RANGE EXTRAS

- Special compounds and surfaces (anti-oil, anti-static, etc.).
- Double-sided Poly V® .

CONTACTS

HUTCHINSON DISTRIBUTOR

HUTCHINSON®

HUTCHINSON BELT DRIVE SYSTEMS
Rue des Martyrs – BP 423 – 37304 Joué-lès-Tours Cedex – France
Tél. : +33 (0)2 47 48 39 99 – Fax : +33 (0)2 47 48 38 34
belt.drives@hutchinson.fr
www.hutchinsontransmission.com

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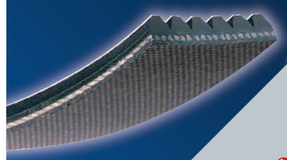
POLY V®

THE BELT FOR ALL APPLICATIONS



The Poly V® is a power transmission belt featuring multiple longitudinal ribs.
It transmits the torque by contact of the belt rib flanks and the pulley grooves.

Its monobloc design guarantees:

- **Compactness**
- **Noise reduction**
- **Tension stability and reliability**
- **High power transmission**
- **Reduced costs**

STRUCTURE

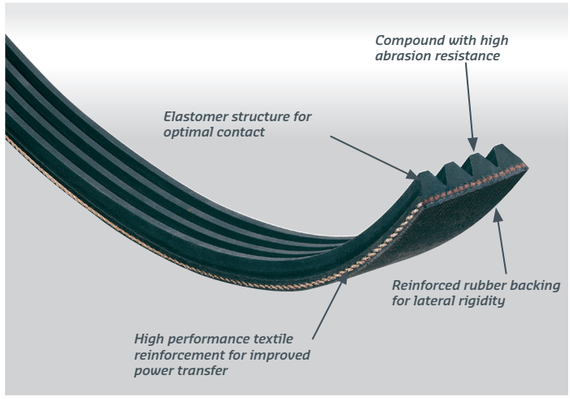
Ribs: compound of high resistance elastomer drives the pulley by wedging in the grooves. Their geometry optimizes the contact surface.

Cord: Made of polyester or aramid; it is the belt's textile reinforcement.

The polyester cord is suitable for most applications.

The aramid cord can handle greater tension and increase power transfer by around 30%. (Please contact us for more information about the dynamic properties of these two cord materials.)

Backing: the backing protects the cord and the radial stability of the monobloc structure. It can also transfer power onto the smooth pulley.



CHARACTERISTICS

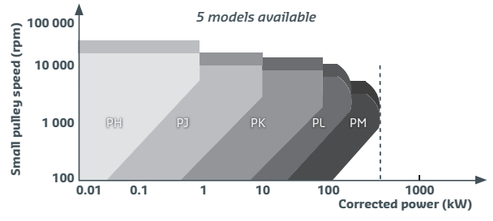
- Molding process: less waste and guaranteed thickness consistency.
- Significant flexion and counter flexion capacity (minimum diameter = 9 mm/PH profile).
- Compounds available for temperature ranges from -45°C to +120°C (EPDM).
- Improved linear speed (up to 80m/s).
- Absorption of torque spikes.
- Profile complies with ISO9982 standard.
- Possible use on smooth pulley (receiver) (transmission ratio > 4).

	Poly V® PH	Poly V® PJ	Poly V® PK	Poly V® PL	Poly V® PM
Thickness	2.6 mm	3.3 mm	4.9 mm	7.0 mm	12.0 mm
Minimum pulley diameter	9 mm	18 mm	50 mm	70 mm	180 mm
Maximum linear speed	80 m/s	60 m/s	55 m/s	50 m/s	40 m/s
Linear mass	0.0042 kg/m/rib	0.008 kg/m/rib	0.020 kg/m/rib	0.032 kg/m/rib	0.110 kg/m/rib
Setting tension	25 to 35 N/rib/span	35 to 50 N/rib/span	90 to 110 N/rib/span	140 to 200 N/rib/span	450 to 550 N/rib/span
Materials	BR+CR	BR+CR+EPDM	BR+CR+EPDM	BR+CR	BR+CR

Length from 132mm to 15,500mm
**values for information*

POWER RANGE

- From 0.1 kW to several hundred kW.



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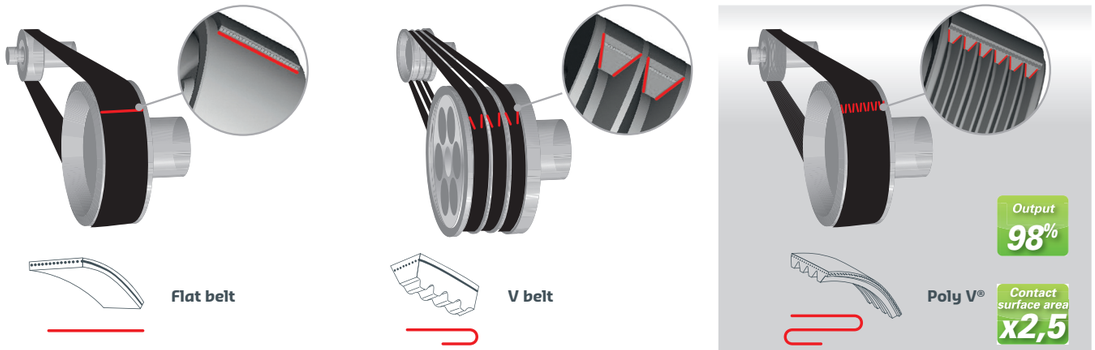
POLY V®

COMPACTNESS

The Poly V® has been designed with a **larger contact surface area** than V belts or flat belts.

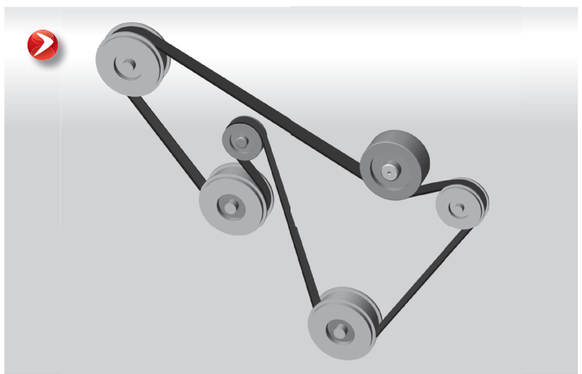


The Poly V® has multiple application benefits:

- **Improved transmission ratio is** possible (Poly V® 1: 60 vs V belt 1: 20). Does away with the need for stepped pulleys.
- **Reduced diameters** (diameters up to 9mm with the H profile compared to 50mm with V belts).
- **Reduced belt width** for a given geometry and the same power transfer (small ribbed pulley) .

Moreover, the Poly V® can operate in **flexion and counter flexion** with the following benefits:

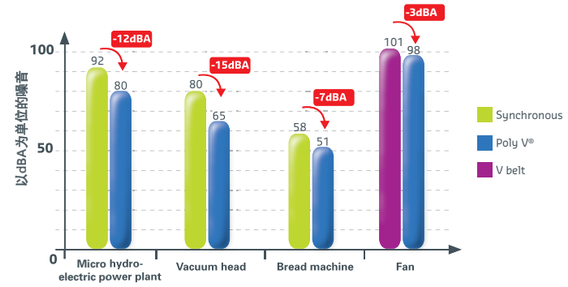
- **A single belt** can drive several accessories: serpentine belt installation.
- **Driving** accessories **from the back of the belt**.



NOISE REDUCTION

The Poly V® is molded. Its profile is regular and its thickness is constant. It has been sized to guarantee under 2% slipping. This results in:

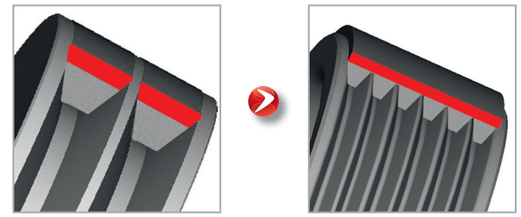
- Less temporary noise (start up, etc.).
- Less chassis vibration.
- No differential belt flapping between V belts (a single Poly V® replaces several V belts).
- Reduced noise levels (see opposite).



TENSION STABILITY AND RELIABILITY

The uniform positioning of the cord across the entire width of the belt also guarantees tension stability and consistency.

- **No need for matching thanks to the monobloc belt.**
- **No differential flapping thanks to monobloc belt.**
- **Reduced maintenance:** no need to adjust the tension after the belt has been run in.
- **Increased lifespan** (up to 4 times longer than a V belt).
- The Poly V® works with identical power transfer and geometry and lower tensions than those required for V belts.

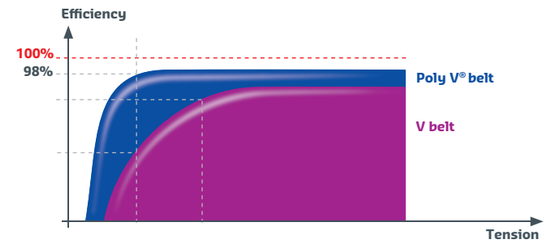


HIGH OUTPUT

Output 98%

Smaller carbon footprint

Iso-tension and iso-geometry technical tests show that the Poly V® can achieve an output several percent higher: over **98%**, which can reduce energy consumption and sometimes even engine size.



REDUCED COSTS

Benefits:

- Reduced diameter and pulley width.
- Reduced belt length.
- No need for inertia flywheels in some cases.
- Machining of pulleys is facilitated: the Poly V® can be used on smooth pulleys (receivers).

Maintenance:

- Rapid set up (1 Poly V® can replace up to 15 V belts).
- No need for matching.
- Increased lifespan.

Operating:

- Reduced consumption due to high output.