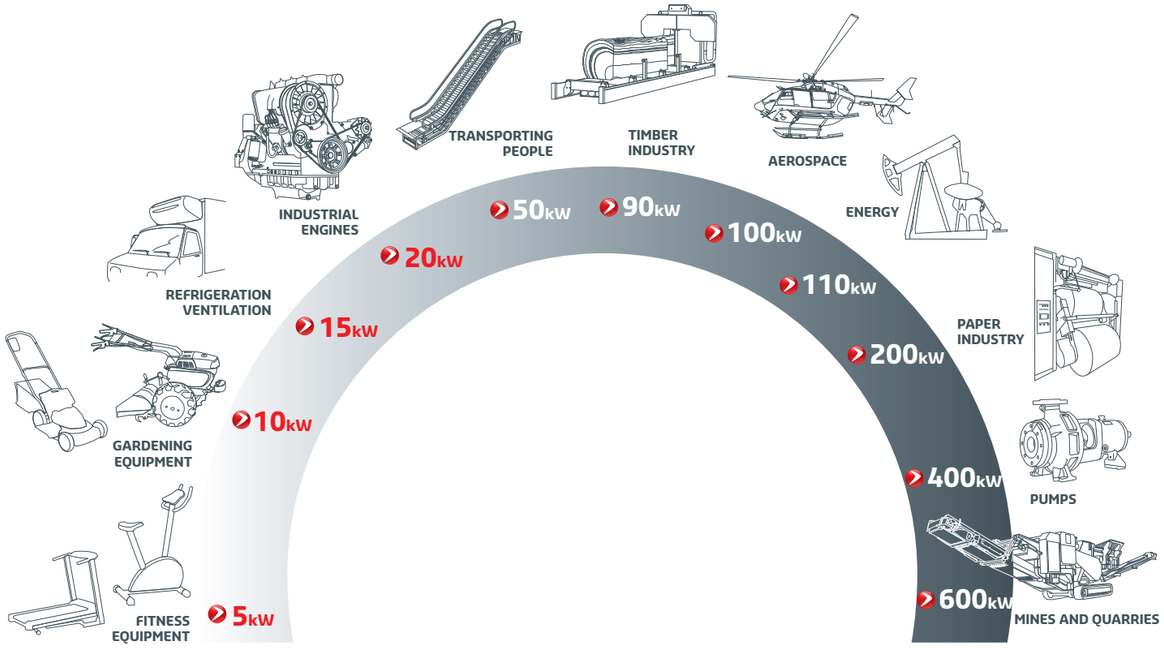
POLY V

APPLICATIONS



RANGE EXTRAS

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

CONTACTS

HUTCHINSON DISTRIBUTOR

HUTCHINSON®

HUTCHINSON BELT DRIVE SYSTEMS
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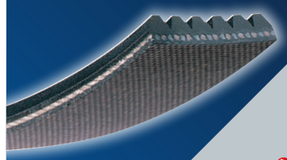
www.hutchinsontransmission.com

We make it ***possible***

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

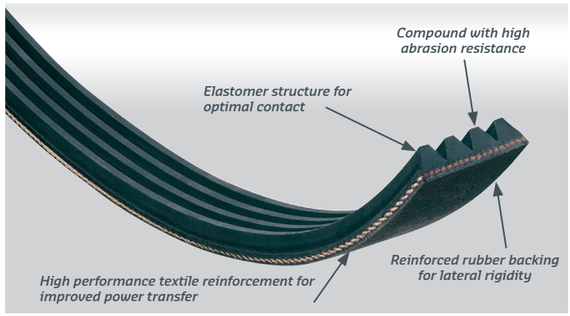
Ribs: compound of high resistance elastomer drives the pulley by wedging in the grooves. Their geometry optimizes the contact surface.

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. (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

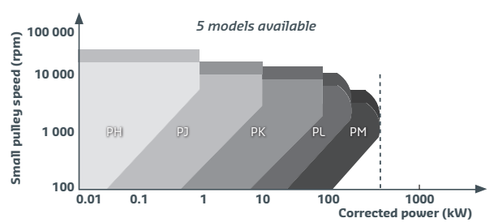
- Molding process: less waste and guaranteed thickness consistency.
- Significant flexion and counter flexion capacity (minimum diameter = 9 mm/PH profile).
- Compounds available for temperature ranges from -45°C to +120°C (EPDM).
- Improved linear speed (up to 80m/s).
- Absorption of torque spikes.
- 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.

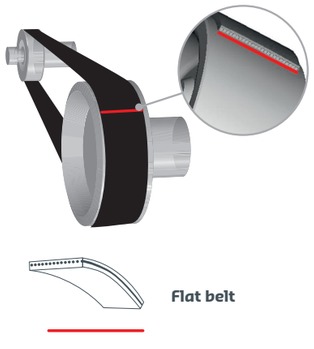


HUTCHINSON®

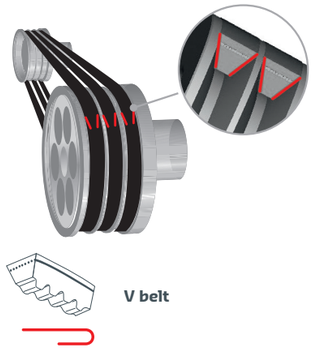
POLY V

COMPACTNESS

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



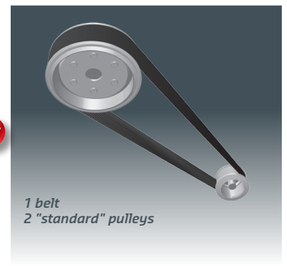
Flat belt



V belt

The Poly V has multiple application benefits:

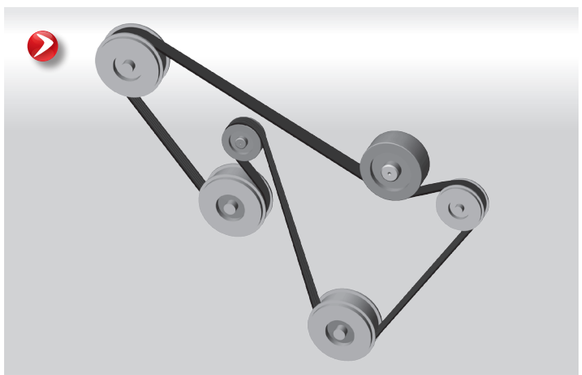
- **Improved transmission ratio is** possible (Poly V 1: 60 vs V belt 1: 20). Does away with the need for stepped pulleys.
- **Reduced diameters** (diameters up to 9mm with the H profile compared to 50mm with V belts).
- **Reduced belt width** for a given geometry and the same power transfer (small ribbed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



1 belt
2 "standard" pulleys

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

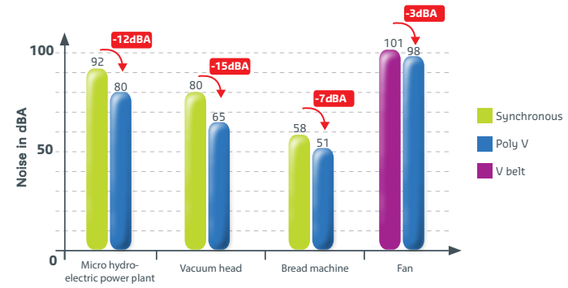
- **A single belt** can drive several accessories: serpentine belt installation.
- **Driving** accessories **from the back of the belt**.



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:

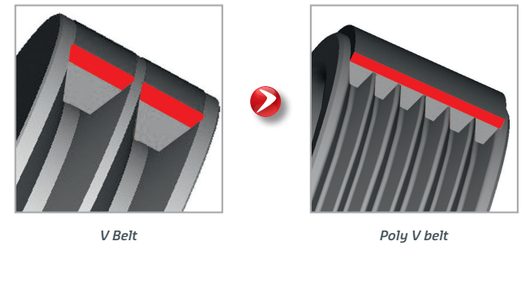
- Less temporary noise (start up, etc.).
- Less chassis vibration.
- No differential belt flapping between V belts (a single Poly V replaces several V belts).
- Reduced noise levels (see opposite).



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.



V Belt

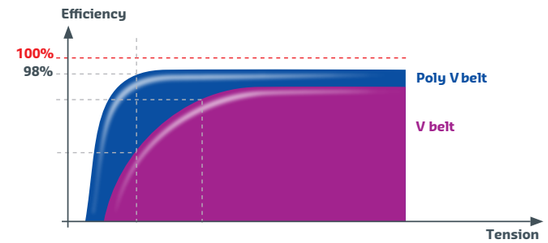
Poly V belt

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.