FLEXONIC®

INSTALLING THE FLEXONIC®

The **FleXonic®** belts can be installed on all standard Poly V® pulleys (ISO 9982 norm).
In certain cases, smooth pulleys can be used.

Installing the **FleXonic®** can be done in record time.

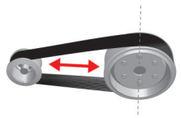
Hutchinson offers a wide range of installation tools.

We can also work with you to develop a custom solution.

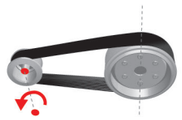
At the installation stage, Hutchinson's **Easytec** tension meter checks the tension of your belt and optimises the lifespan of your transmission.

Various installation methods are possible:

Possible to vary center distance

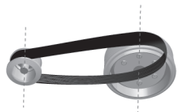


Installation with center distance adjustment.



Installation with an eccentric pulley

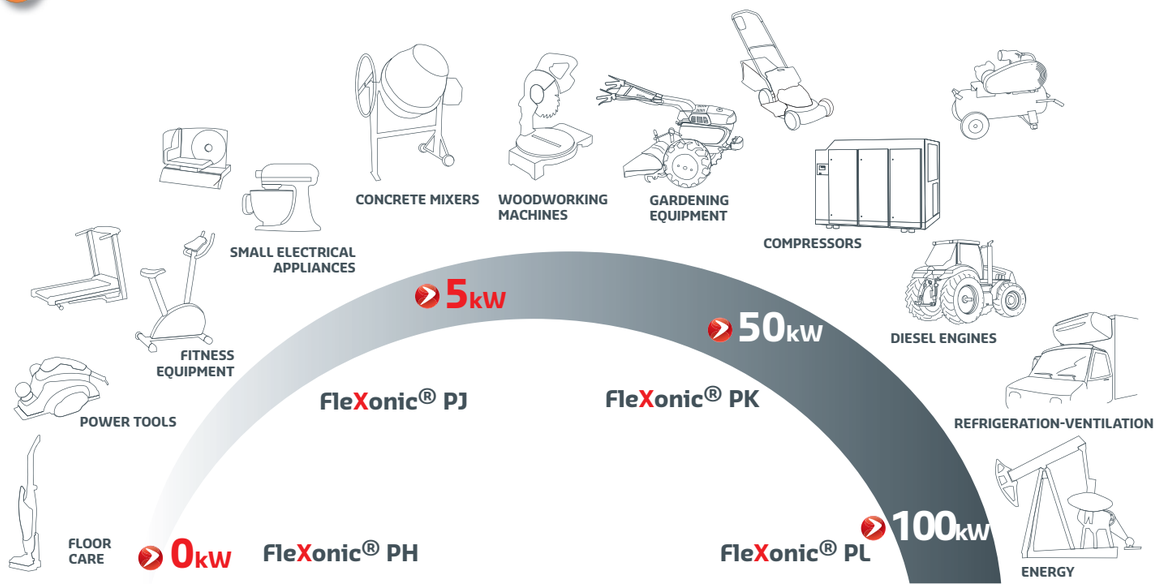
Fixed center distance



Directly fitting the belt to the main pulley without a tool

Fitting the belt to the main pulley with a SNAP ON tool

APPLICATIONS



CONTACTS

HUTCHINSON DISTRIBUTOR

HUTCHINSON®

FLEXONIC®

We make it ***possible***

THE ORIGINAL ELASTIC BELT FOR INDUSTRY

The FleXonic® is a power transmission elastic belt featuring multiple longitudinal ribs.

Each **FleXonic®** belt is custom sized for your application. Our technical teams calculate and decide what belt size you need.

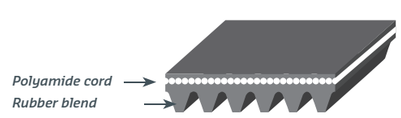
The **FleXonic®** belt can be installed on a fixed center distance. Its elastic polyamide cord gives it unrivalled advantages:

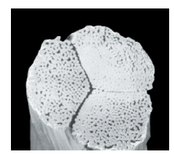
- **Reliability and high quality transmission**
- **Absorbs vibrations and reduces noise levels**
- **No need for a belt tensioner device**
- **Reduced costs**
- **etc.**

STRUCTURE

The **FleXonic®** elastic polyamide cord has better mechanical properties. It can tolerate temperatures of over 100 °C and maintains an identical tension throughout the transmission's lifespan.

Range of main structures (polychloroprene, polybutadiene and EPDM).

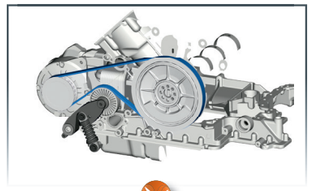


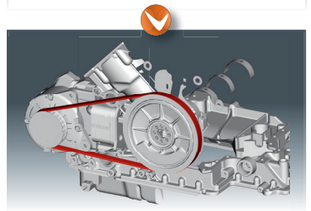


Hutchinson cord, patented technology

CHARACTERISTICS

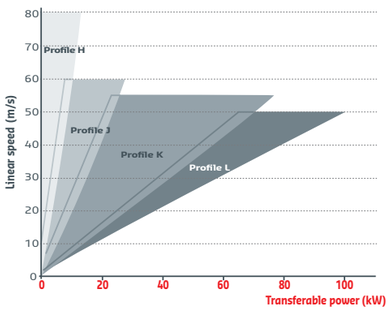
- Level of **tension adapted** to each transmission.
- Due to its composition it can adapt to **temperature variations**: from -40°C to +120°C.
- Wide power range: from **0 to 100 kW.**
- Compatible with **standard Poly V® pulleys** in accordance with the ISO 9982 norm.
- Possible to install on **fixed center distances.**
- No need to re-tension the installation.





POWER RANGE

The different profiles offer a **wide range of power and speed settings.**



	FleXonic® PH	FleXonic® PJ	FleXonic® PK	FleXonic® PL
Thickness*	2.3mm / 2.5mm	3.2mm / 3.3mm / 3.5mm	4.6mm	7mm
Minimum pulley diameter	9mm	18mm	45mm	70mm
Maximum linear speed	80m/s	60m/s	55m/s	50m/s
Setting tension	25 to 35 N/rib/span	35 to 50 N/rib/span	90 to 110 N/rib/span	135 to 200 N/rib/span
Available structures	Polychloroprene Polybutadiene	Polychloroprene Polybutadiene EPDM	Polychloroprene Polybutadiene EPDM	Polychloroprene Polybutadiene

*values for information

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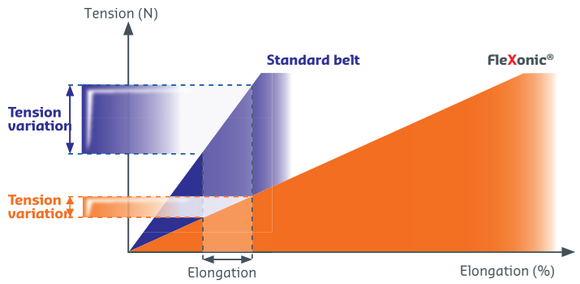
TENSION AND ELONGATION

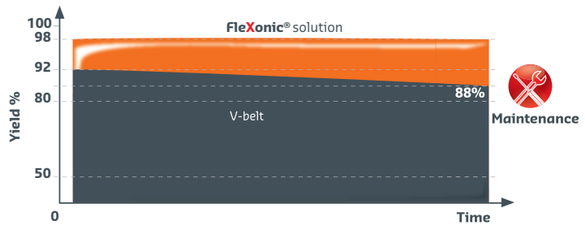
The module which is lower than a standard belt results in (**for identical elongation variations**) a lower tension variation that can attenuate the majority of process dispersions.



STANDARD = 1	PH	PJ	PK	PL
α	7	7	3	2.5

$$\left(\alpha = \frac{\text{variation of tension with a standard belt}}{\text{variation of tension with the FleXonic® belt}}\right)$$

The FleXonic® belt maintains its tension over time and thus **improves** transmission (**98%**).

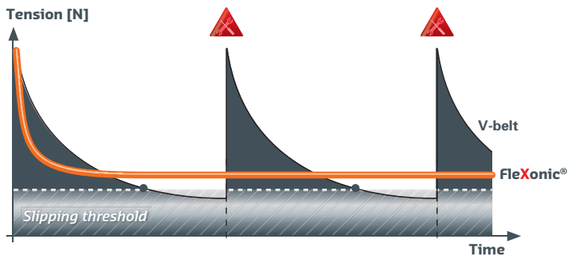


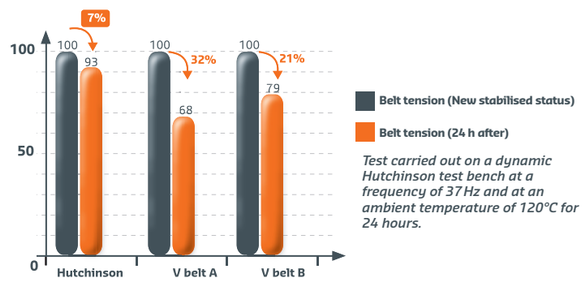
TENSION RELIABILITY AND STABILITY

The FleXonic's® tension can be stabilised after just a few minutes in dynamic performance mode. **Tension will not change throughout the lifetime of the belt.**

No need for maintenance operations to re-tension V-belts.

The FleXonic® belt's elastic properties guarantee automatic and continuous tension.



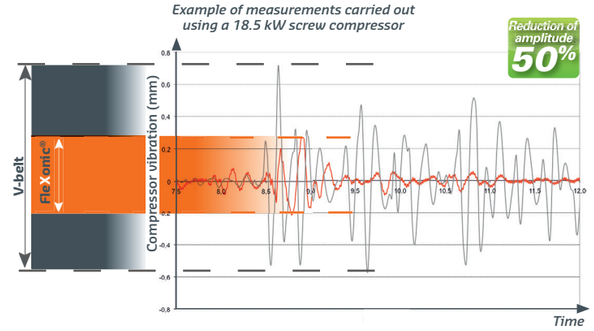


Test carried out on a dynamic Hutchinson test bench at a frequency of 37 Hz and at an ambient temperature of 120°C for 24 hours.

ABSORBS VIBRATIONS AND REDUCES NOISE LEVELS

The cord's elastic properties ensure a good level of absorption of the dynamic of the installation and NVH (Noise, Vibration and Harshness).

Example of measurements carried out using a 18.5 kW screw compressor



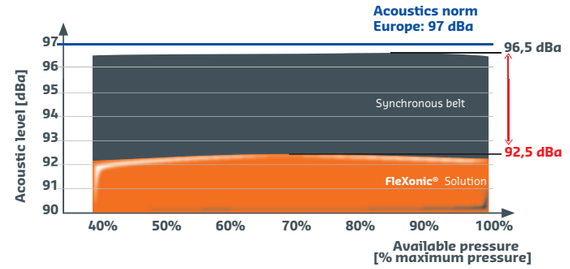
Comparison of the FleXonic® belt and a V-belt:

The FleXonic® monoblock belt replaces several V-belts, absorbs shocks and eliminates belt flapping.

Noise pollution -4dBa

Comparison of the FleXonic® belt and a synchronous belt for a portable compressor:

The **FleXonic® belt absorbs vibrations and eliminates operating noises** (e.g. squealing) common to synchronous belt transmissions.



REDUCED COSTS

1. **Reduced development time.**

2. **Reduced acquisition costs**, no need for tensioning device.
   - Reduced weight and compactness of transmission.
   - Reduced pulley diameter.

3. **Standardisation and rationalisation of references.**

4. **Simplified installation on site:** saves time and increases productivity.
   - Installed on fixed center distance with standard grooved pulleys (‚Poly V®).
   - Auto matic tensioning.

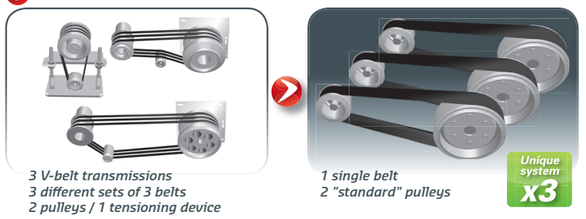
5. **Increased lifespan of transmission components.**
   - Using the **FleXonic®** belt avoid the need to adjust the tension. Over-tensioning due to repeated maintenance operations and adjustment errors is also eliminated.

6. **Reduced energy costs** (better transmission efficiency). Energy savings -5%

7. **Reduced maintenance budget:** Maintenance costs -10%
   - No need for re-tensioning and verification operations.
   - Increased lifespan of the belt.

2 *Example on an industrial engine*

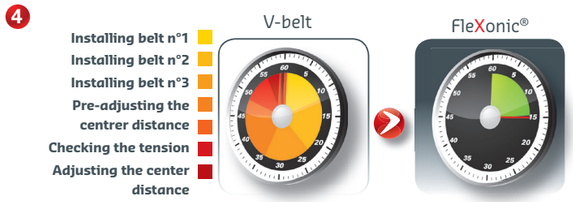
3



3 V-belt transmissions
3 different sets of 3 belts
2 pulleys / 1 tensioning device

1 single belt
2 "standard" pulleys

4



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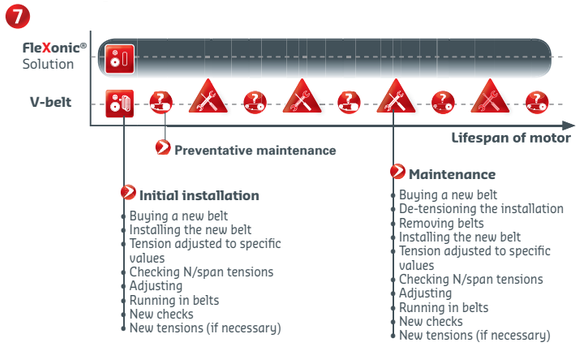

CAPTIVE AFTERMARKET

As the **FleXonic®** belt is specially dimensioned for your application, you can reinforce your position in the spare parts market as well as improving customer follow-up.