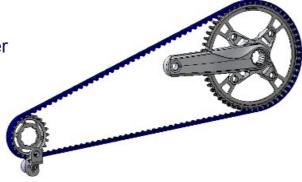
#### **OUR STRENGTHS**

Since 1890, HUTCHINSON<sup>®</sup> is a well-known French brand and manufacturer in the cycling world

A complete offer : Belt / front sprocket / rear sprocket / snubber





- > System adapted for all main e-bike motor models
- Compatible with mid-drive and rear hub motor designs
- **Strong know-how** of the manufacturing process and materials used (worldwide expertise in the automotive market)
- Partnerships with well known e-bike part manufacturers European suppliers preferred
- Worldwide support: localized technical-sale offices.



#### **HUTCHINSON BELT DRIVE SYSTEMS**

Tel.: +33 (0)2 47 48 39 99 / beltdrives@hutchinson.com www.hutchinsontransmission.com





# **CROSSDYN®**

# DISCOVER THE HUTCHINSON® BELT DRIVE BUILT FOR THE CYCLING WORLD.

Hutchinson's CROSSDYN® belt is built on an innovative patented concept. This unique architecture enables efficient power transmission through synchronous teeth, while the central V-profile ensures optimal belt retention on the pulleys.



Compared to traditional chain transmissions, this solution offers numerous advantages: zero maintenance, enhanced pedaling comfort, and longer lifespan.

Our current range includes belts, sprockets, and snubbers.

Hutchinson® is committed to the continuous development of this range, while providing tailored technical support based on customer specifications, including pre-studies and the provision of samples.









#### STRUCTURE & PERFORMANCES

Optimized Mixed profile guaranteeing the lateral guidance of the belt, allows debris and water to be expelled and high torque transmission.

Cord

Reinforced back

Timing tooth

- Timing teeth suited for high torque values (ribs pitch 11mm)
- · Self-centered belt thanks to its longitudinal rib
- Belt teeth moulded with high performance rubber specially developed for bike application
- Rib surface belt in high performance polyamid fabric
- High module cord to transmit power
- Reinforced back with specific fiber rubber compound

### Belt drive in accordance with ISO 4210 (torque max. 250N.m) and NF EN 15194 standards

#### **HUTCHINSON®: AN INNOVATIVE OFFER**

- A unique belt design **Patented**
- Easy to handle Not fragile, compact storage
- **Delivery leadtime** Automotive market reliability
- Range Large possibilities of gear ratios and belt lengths
- Large variety of materials used for the sprockets Depending on the customer specification (aluminium, steel)

- **Belt marking** Personalised on demand
- Sustainability
  - Material to be re-used in our manufacturing process
  - Small & compact packaging reducing our carbon footprint

#### **ADVANTAGES OF THE E-BIKE BELT DRIVE VS CHAIN**



**MAINTENANCE FREE** 

**Detension Cleanliness** 



**COMFORT RIDING** 



**MATERIALS AUTO-EJECTED** 



**EXTENDED** LIFETIME



Self-Centered

Rib surface











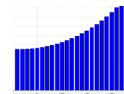


Freeze / Rain

## **HUTCHINSON PARTNERSHIP: A GUARANTEE**

System & collaborative design

Our specific simulation tools allow us to match customer specifications





Force on tooth rear sprocket

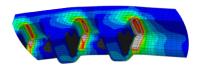
Force on tooth front sprocket

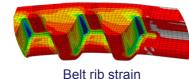
**Measurements & validation** 

Special bike test rigs (torque capacity, durability, contamination, misalignment...)

Belt design

CAD & finite element analysis calculation tools





Shear stress on belt rib