Product liability, application considerations

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Covers, profiles and modifications to the conveying and tooth sides of HabaSYNC® timing belts can enhance performance of your conveying and linear-positioning application.

Covers in a variety of sizes and material characteristics offer a wide range of performance features to help move your products. Profiles, added with thermal-bonding processes or mechanical attachment, allow unique positioning and adjustment means. Modifications can enhance product performance too. Special machining to covers and profiles can further assure the most efficient means of moving your product or positioning your belt.

Additional machining steps are common such as holes for vacuum draw, pockets for product reading and deposit recognition, slots for handling and lateral grooves for venturing. Habasit’s high investment in automated processes assures products with consistently tight precision.

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<th>Your needs</th>
<th>How we serve</th>
<th>What is done</th>
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<td>Accurate belt tracking for narrow or side-loaded belts</td>
<td>Tracking guides</td>
<td>Longitudinal profiles added on tooth-side take-up lateral forces</td>
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<td>Product positioning, spacing, pushing, lifting</td>
<td>Profiles</td>
<td>Thermally welded or mechanically attached on the conveying side</td>
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<tr>
<td>Quieter performing</td>
<td>Polyamide</td>
<td>Polyamide fabric added to the tooth side (PT)</td>
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<tr>
<td>Elimination of static charge</td>
<td>Antistatic fabric</td>
<td>AA fabric added to the tooth and conveying side</td>
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<tr>
<td>Product-handling issues like friction, release, shock, and wear resistance</td>
<td>Various material types and surface structures</td>
<td>Cover attached to the conveying side. Extruded, laminated or added with adhesives; dependant on material selection</td>
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<td>Quick exchange of various designed profile shapes and locations</td>
<td>Mechanical mounting of profile inserts</td>
<td>Partial removing of teeth on the tooth side and mechanical addition</td>
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<td>Precision thickness tolerance, adaption of roughness and friction</td>
<td>Grinding</td>
<td>Surface modification on the conveying side</td>
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<td>Grooves and contours for specific handling, water release, or mounting needs</td>
<td>Milling</td>
<td>Cover modifications</td>
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<td>Gentle but firm product manipulation, pockets and holders for products</td>
<td>Cutting of slots and sipes</td>
<td>Machined modification to the conveying side</td>
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<td>Perforation for vacuum applications; holes for mechanical attachments</td>
<td>Punching</td>
<td>Precise hole modifications added to the conveying side</td>
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<td>Fast and easy belt replacement without dismantling of the machine</td>
<td>Hinge Joint</td>
<td>Patent-pending mechanical joining method</td>
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Cover solutions

There are many options to customize a standard HabaSYNC® timing belt to enhance your conveyance design. Habasit provides a wide range of fabrication techniques and materials to fulfill even the extraordinary application need.

A broad range of cover materials offer the right friction to handle your product effectively. The choice of cover material and surface structure depends on your specific needs and the material properties.

Covered timing belts are used in various applications and feature the following attributes:

- Abrasion resistance
- Compressibility
- Ease of release
- Electrostatic discharge – antistatic features
- Food conveying
- Gentle movement
- Heat resistance
- High or low coefficient of friction
- Shock absorption
Profile solutions

Thermoplastic profiles as well as mechanically mounted profiles can be added to assist in conveying and product placement. Profiles are common design solutions on single- and multiple-belt lines that are required to feed line content in a perfectly synchronized fashion. Standard as well as custom shape profiles can be added for sorting and separation, feeding, and indexing or actuation of products.

Thermoplastic profiles are welded to the conveying side of HabaSYNC® timing belts in order to accommodate special handling needs. Our standard profiles are made with 92 Shore A TPU – the same polyurethane hardness as our standard base belt. Other hardness and TPU types are available on request.

Thermoplastic profiles are obtained in several manners: extrusion, injection molding or machining. The choice of profile sourcing is dependent on shape, dimensions and quantities required. We are very interested in creating a specific design unique to the requirement of your application. In order to select the right shape, dimension and process for your application, contact your local Habasit partner to discuss your specific need.

Additionally, we offer the HabaSYNC® mechanical partial tooth for application where ease of profile installation is needed and frequent relocation is required.
Integrated guide belts and weld-on tracking guides are available to assure proper straight tracking.

The tracking guide is placed on the tooth side of the timing belt. This provides true belt tracking in applications where long narrow belts are used to move products. Tracking guides are also common where products are side loaded, which can place a lateral shift on the belt’s direction of travel.

The tracking guides can be integrally extruded or added with notches or longitudinal grooves to provide maximum flexibility around pulleys. Standard HabaSYNC® tracking guides are available in 92 Shore A hardness white thermoplastic polyurethane.

Modifications to the conveying and tooth sides of HabaSYNC® timing belts can enhance performance for your conveying and linear-positioning applications. Machine grinding or punching provide countless possibilities to adapt our timing belts to your specific application requirements.
Patent-pending Hinge Joint – the mechanical timing belt fastener

In many synchronous-conveying applications, timing belts must be frequently replaced. Habasit’s new mechanical Hinge Joint fastening system makes the job easy. For the fast and easy exchange of installed timing belts, the patent-pending HabaSYNC® Hinge Joint has been developed. Assembly and disassembly with this simple and quick method cuts down standstill periods due to belt replacement.

The stainless-steel pivot parts are fully embedded within the cut-to-length belt ends. These are just brought together and a metal pin interlocks the hinges. Immediately, the belt is ready to run. Therefore, neither machine disassembling nor cumbersome joining procedures are required to install spare timing belts.

When preparing the belt ends for this type of joining all teeth remain unaffected and no voids are visible. Just a small cut can be seen on the conveying side of the timing belt afterwards. Furthermore, frictional covers in a large variety of sizes and characteristics can be added. Also modifications or the application of profiles are possible as usual.