MATERIAL HANDLING

FOOD
As an experienced partner in the food and beverage industry, Optibelt has the ideal drive solution to meet even the most demanding requirements. This means that every processing step – from packaging and sorting through to transport – runs smoothly and with absolute precision. Additional factors that find approval with customers and users alike include exemplary efficiency and minimised maintenance costs. This is why Optibelt's sustainable premium products can be found in use around the globe.

“Always a clean solution.”

Paul, 46, Head of Engineering Design
MIHO, based in northern Hesse in Germany, is a leading manufacturer of empty bottle inspection systems for the beverage industry. The company had been experiencing problems with the open-pore coating of the transport belts in the camera-controlled inspection systems. The coating was absorbing too much moisture, resulting in defective goods and bacteriological contamination. So, in cooperation with Optibelt, a new sandwich coating was developed using a neoprene foam combined with a dimpled PVC membrane. This system has shown itself to be optimally effective in practice.

Whether for pizza or chocolate – these two products have one thing in common: Firstly, they are popular products found in shopping baskets worldwide, and secondly, they come “into contact” with optibelt ELASTOMIT. This is because X-ray protection curtains made of optibelt ELASTOMIT-R FDA 115A are used in quality control in the production lines of renowned food manufacturers (e.g. for protection against fragments of glass or bone) so that you can enjoy your food with peace of mind.
NO COMPROMISE

Speedy, accurate and reliable transport.

1. INSPECTION SYSTEMS
Bottles are checked for cleanliness, fractures etc.

2. BOTTLE SORTING
The right packaging and the product are brought together.

3. BEVERAGE FILLING MACHINES
Flawless performance and hygiene are key.

4. CAPPING MACHINE
Precision piecework at high rotational speeds

5. BEVERAGE VENDING MACHINES
Sophisticated technology performs precision tasks.
The mechanical handling of foodstuffs not only makes high demands with respect to automation technology, but also has to meet stringent hygiene standards. Optibelt offers a special range of timing belts and round belts for this highly sensitive sector. These belts meet the legal requirements and recommendations and are suitable for use in direct contact with food. Further outstanding features of Optibelt’s drive solutions include excellent durability and reliability.
**optibelt ALPHA V**

**TIMING BELTS**

**DIMENSIONS**

- Available in profiles XL; L; H; XH; T5; T10; T20; AT5; AT10; AT20; 5M; 8M; 14M; T5K6; T10K6; T10K13; AT5K6; AT10K6; AT10K13; F2; F2.5; F3; FL3

**ADVANTAGES AND CHARACTERISTICS**

- Lengths can be manufactured according to gradations in pitch
- Can be supplied cost-effectively and at short notice
- Ideal for conveyor drives
- PU also available with FDA approval for food contact
- Direct welding on of cams and cleats possible

**optibelt ALPHA V SPECIAL**

**TIMING BELTS WITH COATINGS**

**DIMENSIONS**

- All belt profiles in the **optibelt ALPHA V** product group are also available as **optibelt ALPHA V SPECIAL** profiles.

**ADVANTAGES AND CHARACTERISTICS**

- With coatings
- With mechanical processing
- With cleats

**optibelt ALPHA TORQUE**

**TIMING BELTS AND SPECIAL BELTS**

**DIMENSIONS**

- T2.5; T5; T10/AT5; AT10/DT5; DT10 120–2250 mm
- MXL; XL; L 2.4–67 inches

**ADVANTAGES AND CHARACTERISTICS**

- Endless casting
- Extremely resistant to oil and abrasion
- Tension cords made of steel, highly flexible steel, stainless steel, aramid or polyester are available

**optibelt RR/RR Plus/HRR**

**PLASTIC ROUND BELTS**

**DIMENSIONS**

- Optibelt round belts are available with various degrees of hardness and different surface structures and can be manufactured with diameters ranging from 2 to 20 mm.

**ADVANTAGES AND CHARACTERISTICS**

- Welding takes place on site. This also applies to the **optibelt RR Plus** version.
- No disassembly of the drive/shafts
- Quick rectification of breakdowns
- Short downtimes
- Immediate availability
- Even faster installation thanks to the **optibelt HRR** connector system
**optibelt OMEGA HP**

**HIGH PERFORMANCE TIMING BELTS**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Version</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2M HP</td>
<td>74–1224 mm</td>
<td></td>
</tr>
<tr>
<td>3M HP</td>
<td>111–1569 mm</td>
<td></td>
</tr>
<tr>
<td>5M HP</td>
<td>180–2525 mm</td>
<td></td>
</tr>
<tr>
<td>8M HP</td>
<td>288–3600 mm</td>
<td></td>
</tr>
<tr>
<td>14M HP</td>
<td>966–4578 mm</td>
<td></td>
</tr>
</tbody>
</table>

**ADVANTAGES AND CHARACTERISTICS**

- Suitable for low and high speed drives with high dynamic loading
- Shear-resistant fabric with minimised wear and friction
- Up to twice the power transmission capability of the optibelt OMEGA Standard version
- Not suitable for direct contact with or transport of foodstuffs

**optibelt ALPHA TORQUE SPECIAL/ZR SPECIAL**

**COATED AND MECHANICALLY PROCESSED TIMING BELTS**

**PRODUCT SPECIFICATIONS**

optibelt SPECIAL belts have a coating on the top surface and undergo additional mechanical processing.

The wide range of coatings and finishing options combined with the features of the timing belt allow innovative solutions to be developed for conveyor applications.

**ADVANTAGES AND CHARACTERISTICS**

- FDA conformity in accordance with test 21 CFR 177.2600 (e) and 177.26000 (f)
- Good temperature resistance
- High flexibility
- High wear resistance thanks to extremely smooth surface
- Coated on both sides
- With reinforcing fabric inlay

**optibelt ELASTOMIT-R FDA 115A**

**X-RAY PROTECTION SHEET**

**PRODUCT SPECIFICATION**

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matrix</td>
<td>Rubber</td>
</tr>
<tr>
<td>Colour</td>
<td>Black and blue</td>
</tr>
<tr>
<td>Surface finish</td>
<td>Coated</td>
</tr>
<tr>
<td>Lead equivalent</td>
<td>From 0.12 mm Pb</td>
</tr>
<tr>
<td>Mass per unit area</td>
<td>Min. 2000 g/m²</td>
</tr>
<tr>
<td>Tear resistance</td>
<td>60 daN/25 mm</td>
</tr>
<tr>
<td>Temperature resistance</td>
<td>-40°C to +70°C</td>
</tr>
</tbody>
</table>

**ADVANTAGES AND CHARACTERISTICS**

- FDA conformity in accordance with test 21 CFR 177.2600 (e) and 177.26000 (f)
- Good temperature resistance
- High flexibility
- High wear resistance thanks to extremely smooth surface
- Coated on both sides
- With reinforcing fabric inlay

**optibelt OPTIMAT PKR**

**OPEN ENDED V-BELTS**

**VERSIONS**

Z/10; A/13; B/17; C/22; 25*; D/32*

*Special versions are available only in fabrication lengths of 50 m ±10%.

**ADVANTAGES AND CHARACTERISTICS**

- Quick and easy installation
- Manufactured to any length
- Stock of spare parts is reduced
- Classic V-groove power transmission
- Can be used with DIN/ISO V-belt pulleys
- Not suitable for direct contact with or transport of foodstuffs

**V-GROOVED PULLEYS**

all standard pulleys, special pulleys on request

For profiles 25 and D/32, only a top surface height of 5 mm is possible.
COMPREHENSIVE SERVICE WITH THE OPTIBELT TEAM

CLEAT SELECTOR
Optibelt provides quick and clearly structured access to its comprehensive range of cleats via the cleat selector on the company’s website. This tool can be used to search for or adapt the right transport solution according to the type of application, with a standard range of more than 300 different cleat models to choose from. The search results show all of the available cleat versions with detailed illustrations and the relevant technical data. Each match can then be downloaded with all of the associated information in the form of PDF or CAD files.

DATA SHEET SELECTOR
The data sheet selector provides a detailed overview of the Optibelt range of PU timing belts for “POWER TRANSMISSION” and “MATERIAL HANDLING”. This online tool, available on the Optibelt website, can be used to download PDF files giving technical details of the required timing belts. The search can be narrowed down according to product, profile group and profile in order to find the ideal drive solution more directly. The corresponding data sheet provides precise information on dimensions, construction, nominal transmittable power, tensile force and length tolerances.

PRODUCT FINDER
An overview of our products and their combination with tension cords and fabrics. Selectable by dimensions, industry sector and belt section.

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