The optibelt CONVEYOR POWER range comprises, in addition to V-belts, round belts and timing belts, also elastic and non-elastic ribbed belts. The elastic ribbed belt is described below.

TECHNICAL HIGHLIGHTS OF THE ERB
The optibelt CONVEYOR POWER ERB is a high performance ribbed belt for the field of transport and logistics. The elastic ribbed belts were especially developed to meet the mechanical requirements for fixed distances between centres. The unique tension cords of high-quality polyamide provide the required elasticity for the ribbed belt and consequently increase the permanent resistance also for frequent start/stop cycles. Thanks to the material composition used, the belt is optimally prepared also for the coldest conditions. Laboratory examinations do not reveal any impact on the properties up to $-40^\circ$C. The rubber mixture on the profile side combines a high abrasion resistance with maximum grip.

FIELDS OF APPLICATION
The elastic ribbed belts of the optibelt CONVEYOR POWER RB series are applied in all fields of the transport and logistics industry. Straight roller conveyors – curved paths – accumulating conveyors – continuous conveyors – sorters – transfer lines – outfeed & infeed systems, semi-automatic & fully automatic storage systems, etc. With the optimized performance values, which were especially adjusted to the industry needs, existing drives can be easily upgraded and new systems ideally designed. With an efficiency of up to 97%, the optibelt CONVEYOR POWER is applied with transport weights of 1 to 1200 kg depending on conveying speed and acceleration. Also for the use in curved paths, the optibelt CONVEYOR POWER was further optimized. Thanks to the excellent spring rate, the required pretension is retained.

INSTALLATION AND MAINTENANCE
Due to the elastic characteristic of the belts, general tolerances in the centre distances are likewise no problem. This simplifies the installation and re-tensioning is not necessary.

COST SAVINGS
The design is optimised to suit this type of application, which results in increased operating capability, reduced maintenance costs and longer intervals between servicing. This minimises both work and expenditure and increases the efficiency of the belt, which in turn reduces the electricity consumption of the motor. The number of ribs required can be adapted to suit the weight being conveyed, without having to replace the roller. optibelt CONVEYOR POWER products will shortly be available from our sales partners.

ROUND BELTS (2 MODULES) optibelt CONVEYOR POWER (1 MODULE)

10 rollers 10 rollers 50 rollers
2 motors

Only 1 motor

Thanks to the outstanding mechanical properties of the optibelt CONVEYOR POWER RB belt, savings of at least 30 % per module can be achieved, since only one motor is needed to drive up to 50 rollers.
2 FEATURES

TECHNICAL FEATURES
• Cold-resistant up to –40°C*
• Temperature-resistant up to 80°C
• Following ISO 1813 antistatic
• From 0.1 m/s to 3.0 m/s
• Up to 97% efficiency
• Shock-absorbing
• Suitable for start and stop cycles
• Maintenance-free
• Simple installation
• Optimized tension and elongation features

PRODUCT RANGE

Design

<table>
<thead>
<tr>
<th>Pulley diameter</th>
<th>Ø 43 mm</th>
<th>Ø 56 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveyed weight</td>
<td>1 kg</td>
<td>400 kg</td>
</tr>
<tr>
<td>Number of ribs</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

The applied belt length is crucial for the optimum belt selection. It is decisive for the elongation, the pre-tension and the operating reliability.

A simple rule of thumb is

\[ L = \pi \cdot d + 2 \cdot a \]

\[ = \pi \cdot 43.3 \text{ mm} + 2 \cdot 75 \text{ mm} \]

\[ = 286 \text{ mm} \]

If you do not find the required length in our comprehensive product range, please contact our technical department.

* Constructional measures are to be taken on the application side.

ARNTZ OPTIBELT GROUP, GERMANY 3