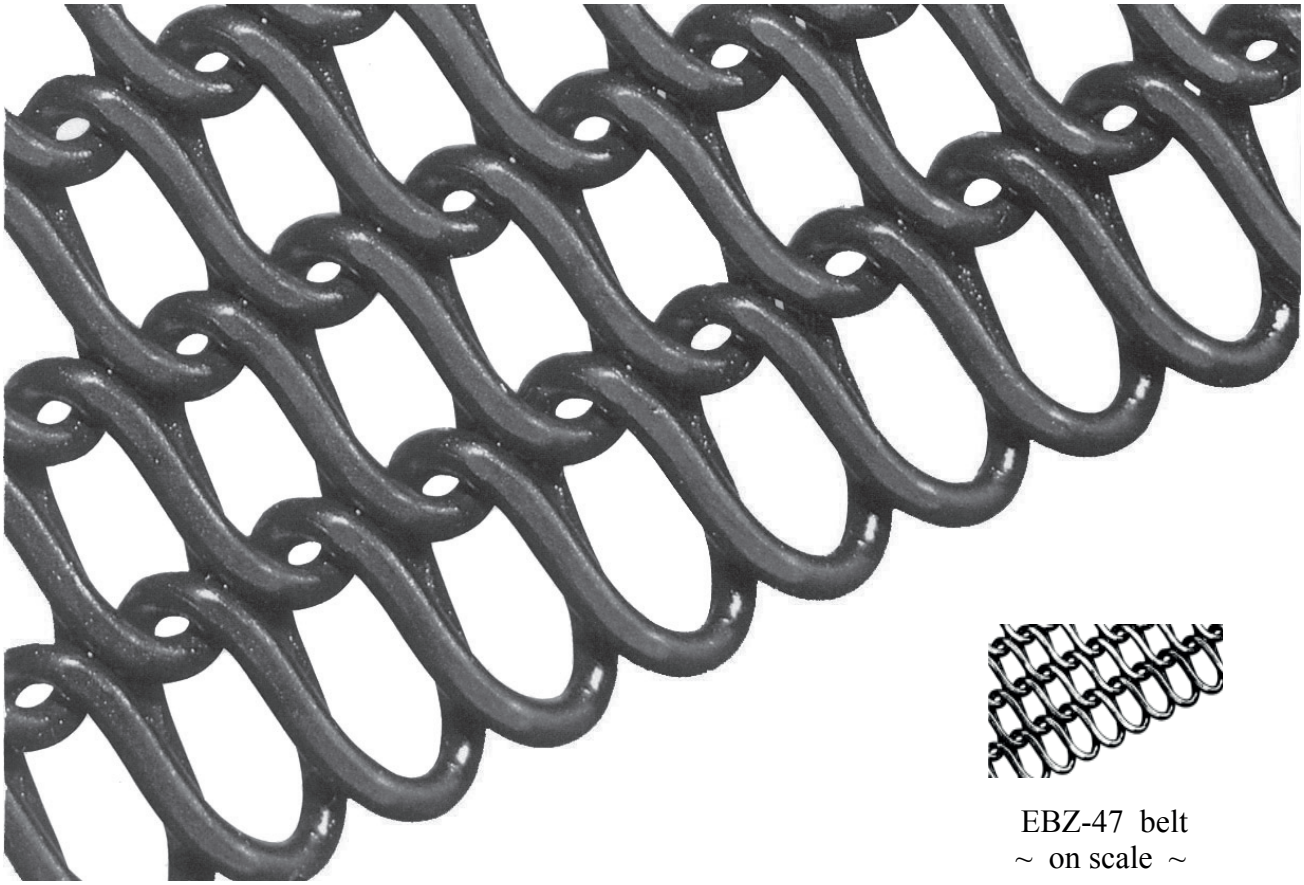
# EBZ
## Biscuit Baking Belt





EBZ-47 belt
~ on scale ~

The ***EBZ-Belt*** is a highly usable conveyor belt for the bakery industry. The belt has been designed especially for baking biscuits directly on the belt in straight feed through ovens. Its name is based on the Z shape of the flattened spirals.

The ***EBZ-Belt*** is a stratified metal spiral belt with a light weight and a reduced thickness. Its design gives the belt low heat inertia, high strength and a good air circulation through the belt. This woven and stratified belt gives a superposition of the wires and an open mesh. The edges are looped.

The ***EBZ-Belt*** is designed to be long lasting and require little maintenance.

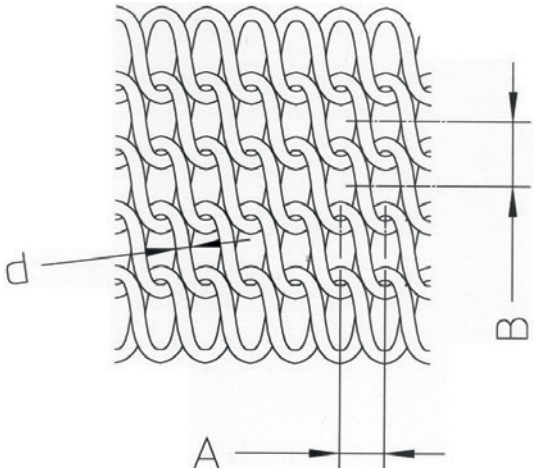
The ***EBZ-Belt*** is made of specially selected Carbon Steel for a good and even baking result and are mostly used in production processes with temperatures of +200°C to +275°C. On request the belt can be made of stainless steel. The ***EBZ-Belt*** can be produced with widths up to ca. 1400 mm and in lengths up to ca. 300 metre.

The ***EBZ-Belts*** are used in biscuit ovens all over the world. The most used and well known Z-belt is the 'EBZ-47'. Beside this EBZ-47 there are also other EBZ-specifications. The different EBZ-types differ in wire thickness, mesh opening and weight.

# EBZ
## Biscuit Baking Belt

The ***EBZ-Belt*** knows the following different versions in order to optimise your choice and is available as:

| Type: | Tooling: pitch (mm) P: | Wire Diameter (mm) d: | Belt Pitch: (mm) A: | Belt Pitch: (mm) B : | Belt Thickness (mm) C: | Weight (kg/m2) | |
|---|---|---|---|---|---|---|---|
| **EBZ-47** | *8.2* | *1.2* | *4* | *5.4* | *2.4* | *7.0* | . |
| **EBZ-47-R** | *8.5* | *1.5* | *4.5* | *5.2* | *3* | *12.2* | . |
| **EBZ-48** | *8.2* | *1.3* | *4.3* | *6.8* | *2.6* | *7.4* | . |
| **EBZ-48-S** | *8.2* | *1.4* | *4.4* | *6.7* | *2.8* | *8.2* | . |
| **EBZ-28** | *6.3* | *1.0* | *3.2* | *3.9* | *2* | *6.5* | . |
| **EBZ-28-R** | *7.0* | *1.2* | *3.65* | *3.9* | *2.4* | *9.0* | . |




*Note:*
*-The dimensions above are subjected to production tolerances.*
*-Tooling Pitch (P) is the dimension of a single not flattened spiral and is therefore not to be measured in the belt.*
*-The given dimensions are to be measured in a non-tensioned belt.*
*-Beware that used belts can differ a little from the dimensions above because*
- *elongation of the belt can make the dimension B a little bigger and the dimension A a little lesser.*
- *oxidation of the wire and a residue of product and grease can make the wire diameter looks bigger.*

## Oven-construction.

Z-Belts are driven by plain cylindrical drums (diam. appr. 1 mtr). Toothed driving wheels/drums are not possible. Consequently, therefore is the need to have the belt set up with a certain tension. In normal use, the reverse drum will be forced mechanical, hydraulically or pneumatically to give the belt its tension and prevent it of slipping and to handle the elongation of the belt. Elongation caused by a difference in temperature, product load or weariness. Because of the plain drums the belt has to be steered all the time. This has to be done by plain steering rollers just for and or after the driving drum. The position of the belt in the oven has to be controlled all the time. Sometimes the driving drum itself is in use as a steering roller. The driving gear must be positioned in such a way that the loaded part, usually the upper part, is pulled off the belt. A pushing driving gear must be avoided.

The upper part of the belt usually is supported by wearing profiles attached in a frame across the belt . An often-used material for these profiles is cast iron. The return part can be supported by bearing-mounted rollers. The belt will sag slightly between the rollers.

In the oven belt obstruction points must be prevented. This means that the supporting be bevelled off sufficiently. In the horizontal direction the belt should not be allowed to catch on sharp pieces or supports.

In order to have the belt running well and to contribute substantially to the belt's life span, it is important that the frame with the sliding profiles is level and width wise horizontal, and that the driving and reverse shafts are properly aligned in relation to the supporting frame. These shafts must be mounted at right angles to the running direction of the belt and should be in the same horizontal plane as the support. Both shafts must be assembled parallel to each other.

## Belt Installation

The belt can best be pulled in by means of the driving motor. The rolled-up belt is placed centrally in front of the driving shaft. The initial point of the belt is fixed to a cross-slat by several links. A cable runs from the cross-slat to the reversing shaft and back to the driving shaft. The cable is twisted around this driving shaft a couple of times. The belt is pulled over the guide of the returning part (rollers) by running the motor and pulling the cable tight. At the end of the oven the cable and cross slat can be pulled over the reversing drum and the belt can be pulled over the support of the upper part. The cable can be removed when the initial point of the belt has reached the driving drum. The belt can be closed by twisting two connecting spirals/windings in the belt endings. The twisted spirals have to be flattened.

## Maintenance

The EBZ-Belt needs minimal maintenance. Belt cleaning is most effective when raising the oven temperature up to ca. 350 degrees C. and than brushing the 'product' out of the belt with a rotating brush. In case of the carbon steel belts do not use water or steam with or without detergents for cleaning. This will make the belt rusty and the live time will be effected negatively. Beware that during production or cleaning, the belt never runs direct into a flame. The high temperature of the flame gives the belt partly a much higher temperature and it will affect its quality.