









Wire link belt with welded edges Type: **OB-KK**

Wire link belt with chain edges Type: **OB-HK**

Wire link belt with roller edges Type: **OB-RK**

For many decades, *OB* wire link conveyor belts have been successfully used in the food industry, the steel industry and the chemical industry. The reliability and durability of the belt are the main reason for its success, combined with the various ranges of belt materials and the sophisticated design, which makes it relatively simple to make variant types of belts. For example, the belt can easily provided with carriers, flights, side plates or additional small rollers. Furthermore, the opening between the wire links can be tailor-made by de use of wire welded underneath (most common), springs, rings or bushes. In this way, the drain of the belt varies from 10 to 90 per cent. Minimal drain openings of about 0,7 millimetres can be realised by flattening the wire links. The space between the links is then smaller than the diameter of the link itself. The diameter of the wire links can vary from 1.5 millimetres for very light or fine meshed belts to 4 millimetres for heavy-duty applications.

OB wire link belts are available in widths of 50 to 7,000 millimetres and in nearly any desired length and have 3 basic versions.

The **OB-KK** is the version with lamellar or welded edges. The belt edges are generally formed by two ore more rows of plate links. The wire links and plate links are assembled on the cross rod which is fitted on both sides with a welded ring or a butted head.

The **OB-HK** is the version with chain edges. The belt edges are formed by a hollow pin chain. The links and chains are assembled on the cross rod which is fitted on both sides with a welded ring. The chain is mostly kept in place by welding a ring to the outside as well as to the inside of the chain. If the ends of the cross rods are narrowed, the inside of the chain is secured by this narrowing and the inner ring is cancelled.

The **OB-RK** is the version with roller edges. The belt edges are formed by two rows of plate links with a roller in between. The wire links, the plate links and the rollers are assembled on a cross rod fitted with a welded ring

OB wire link belts can be used at conveyor speeds varying between less than 1 metre per minute and 50 metres per minute, depending on the processing situation and the intended working time. The strength of the belt and, to some extent, its ability to resist wear, are determined by the number of plate links and, if present, the chain on the edges. In the belt full plate links are mounted every 250 to 400 millimetres. The belt support can be placed underneath these plate links. In some cases the belts can also be provided with plate links in an eccentric version, which provides additional wear resistance.

OB wire link belts are used in production processes having temperatures from -100°C to +600°C.

OB wire link belts are made of thin round wires with an eyelet on both sides, to which they are hinged by means of a pin. In this way, a thin one-layer belt is created with the following advantages:

-It is impossible for a product to form a deposit in 'hollow spaces' in the belt, which are difficult to reach.

- -The weight of the belt can be kept relatively low.
- -Process fluids and gasses can go easily through the belt

-The belt is easy to clean.

-The belt is positively driven by means of sprockets or driving drum. So there is no belt slip and it is

possible to use relatively small diameters. This all adds to a perfect belt run without steering problems.

-The belt is easy to repair.











- -Sterilizers -Baking Ovens
- -Storage units
- -Drying Units -Washing Machines -Cooling Systems -Assembly Units

-Steel blast units -Packing Machines -Blanching Units -Shrinkage Units

-Sieving Units -Others

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General Information







OB-KK with flattened links (gap 0,7 mm)





OB-KK executed with special hardened cams



Chain belt with wire link flights



OB-HK here with side plates and flights **OB-KK** with pins



OB with special product carriers

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Conveyor Belts

The above drawing shows the schematic construction of the **OB** wire link belt with welded or lamellar edges. The pitch of the wire links (p) shows the construction size of the belt. The preferred opening of the belt is obtained by fitting the links at a certain distance from each other (pitch s). This pitch can be chosen freely, depending on the design and the construction. There are in principal 6 possibilities to keep the wire links at a distance as shown below. You will find the pitches and other sizes on the basic list page 2.3.

In connection with the tensile strength of the belt, one row or several rows of plate links are divided evenly along the width of the belt. Both edges are usually provided with a double row of links. It is customary to fit the belt support underneath these rows of links (size of the plate links: e,h,w, see page 2.3)

- * The distance between the rows of plate links is about 200 to 450 millimetres (size y), depending on the load of the belt.
- ** The tolerance of the width of the belt is 0 d (diameter wire link)
- *** Sizes e to h are the sizes of the links which are centrically but could also eccentrically fitted to the cross rods for extra wear resistance underneath).

Without distance keepers: wire links close together, gap is always the same as the wire diameter d.	With single wire welded underneath: wire links kept at a distance by welding 1 wire underneath the wire links, $(1 \times \emptyset f)$	With double wire welded underneath: wire links kept at a distance by welding 2 wires underneath the wire links, $(2 \times \emptyset f)$	With wires welded on top: wire links kept at a distance by wires welded on top of the wire links	By means of springs: wire links kept at a distance by a spring between the wire links	By means of sleeves: wire links kept at a distance by a sleeve between the wire links
execution: GE	execution: EO	execution: DO	execution: BB	execution: VE	execution: BU

There are in principal 6 possibilities to keep the wire links (pitch s) at a distance:





The drawing shows the construction of a wire link belt with roller edges. The construction of the *OB-RK* is similar to that of the *OB-KK*. The belt has the same basic sizes and distance keepers to the same design. The distinction between these two is the roller between the two outer plate links. The roller sizes are basically free to choose.

OB – **RK**: Wire link belt with roller edges

Conveyor Belts



the construction of a wire link belt with chain edges. The basic construction of the **OB-HK** is similar to that of the **OB-KK**. The belt has the same design of the distance keepers. The distinction between the two is that the outer rows of the plate links are replaced by a hollow pin chain. In this way the pitch (p) of the belt is connected to the chain pitch.

The above drawing shows

OB – **HK:** Wire Link belt with chain edges

Wire link belts with chain and roller edges are used in particular when:

- Reduction of friction is wanted

- Extra guarantee for moving evenly is asked for

- Constructions are used with negative bends

Hollow pin chains are available in roller chain design (as shown) and in bushing chain design, depending on the type of pitch and chain. A great many varieties are possible. Frequently used types of chains are the ASA and ANSI B.29.1 DIN and ISO conveyor chains. Possible pitches are ³/₄", 1", 1,5", 2", 50 mm, 3", 75 mm en 100 mm

Chains are available for example in stainless steel or steel (galvanised or nickel-plated).





Basis data Wire Links	Corresp. Plate Links		
pitch Pitch: Diam. Diam. wire Cross Wire Cross- link Rods Link rod (mm) (mm) (mm) (mm) s: p: d: c:	Width Height Position Plate Plate hole Link Link (mm) (mm) (mm) w: h e		
OB: s 19,05 / 1,6 - 5 OB: s 19,05 / 2,0 - 5	PL: 2,0 9 4,5		
OB s 25,4 / 1,5 - 4 OB: s 25,4 / 1,6 - 4 OB: s 25,4 / 2,0 - 4	PL: 2,0 8 4		
OB: s 25,4 / 1,6 - 5 OB: s 25,4 / 2,0 - 5	PL: 2,0 11 5,5 PL: 2,0 11 4,5		
Flattened Wire Links with pitch (opening 0,7 mm or 3,5 mm) OB: 2,7 25,4 / 2,0 - 5 OB: 3,5 25,4 / 2,0 - 5	PL: 2,0 11 4,5 PL: 2,0 11 4,5		
OB: s 30 / 1,5 - 4 OB: s 30 / 1,6 - 4 OB: s 30 / 2,0 - 4	PL: 2,0 8 4		
OB: s 38,1 / 2,5 - 8 OB: s 38,1 / 3,0 - 8	PL: 2,5 17 7		
OB: s 50 / 1,5 - 5 OB: s 50 / 1,6 - 5	PL: 1,5 11 5,5 PL: 2,0 11 5,5		
OB: s 50 / 2,0 - 5	PL: 2,0 11 5,5 PL: 2,5 11 5,5		
OB: s 50 / 2,5 - 5	PL: 2,5 11 5,5 PL: 2,5 13 6,5		
OB: s 50 / 2,0 - 7 OB: s 50 / 2,5 - 7	PL: 2,5 13 6,5		
Flattened Wire Links with pitch (opening 0,7 mm or 3,5 mm) OB: 2,7 50 / 2,0 - 5 OB: 3,5 50 / 2,0 - 5	PL: 2,0 11 5,5		
OB: s 50,8 / 1,6 - 8 OB: s 50,8 / 2,0 - 8 OB: s 50,8 / 2,5 - 8 OB: s 50,8 / 3,0 - 8 OB: s 50,8 / 4,0 - 8	PL: 2,5 17 8,5 PL: 2,5 17 7		
OB: s 75 / 2,5 - 5	PL 2,5 11 5,5		
OB: s 76,2 / 3,0 - 13 OB: s 76,2 / 4,0 - 13			
OB: s 100 / 3,0 - 8	PL 2,5 17 7		

The data mentioned above are a broad selection of the many possible varieties.

The left column gives the standard pitch dimensions of the Wire Links Including the possibilities of wire diameters and cross rods diameters

The gap between the wire links are more a less free to choose.

The right column gives the possible standard plate links.

Depending the pitch and cross rod diameter there is the possibility to choose different kinds of plate links.

The shaded sizes are preferable. Please contact our specialists for deviating sizes, designs and materials to enable us to make an appropriate design for you.

Utilisable belt materials: Steel, galvanised steel, SS AISI 304, SS AISI 316, heat-resistant steel, otherwise

Utilisable roller materials: Steel, SS AISI 304, SS AISI 316, heatresistant steel, synthetic, otherwise