



## PRODUCT TECHNICAL BULLETIN

### OGBL - Eye-Link Belting

*A positively driven straight running wire link belt.*

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The belt consists of eye links formed from wire positioned at a fixed spacing by a cross wire, creating a panel (module). These panels (modules) are joined with cross rods passing through the eye links and multiple rows of bar links. The ends of the rods are secured with a washer welded to the end of the cross rod.

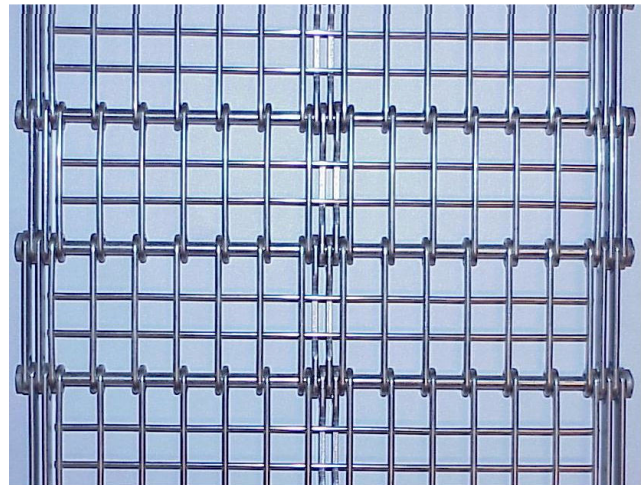
#### DEFINING CHARACTERISTICS

**Belt Pitch:**

- 25,4 mm [1.00 in]
- 30 mm [1.18 in]
- 38,1 mm [1.50 in]
- 50 mm [1.97 in]
- 50,8 mm [2.00 in]
- 75 mm [2.95 in]

**Eye link wire Diameter:**

- 1,5 mm [0.059 in]
- 1,6 mm [0.063 in]
- 1,8 mm [0.071 in]
- 2 mm [0.079 in]
- 2,5 mm [0.098 in]
- 3 mm [0.118 in]
- 3,5 mm [0.138 in]



**Width Limits:** 100 mm [3.937 in] through 6000 mm [236.2 in]

**Variable Mesh:** Minimum: Wire Diameter + 0,2 mm [0.007 in]

**Conveying Surface:** Overall Belt Width – 8 mm [0.315 in]

**Turn Capability:** Straight run only

**Temperature Range:** -40°C [-40°F] to 400°C [752°F]

#### APPLICATIONS

- Tunnel Freezers
- Drying
- Accumulation
- Handling
- Washing
- Sterilizing
- Ovens

#### ADVANTAGES

- Large open area
- Easy to clean
- Positive Drive
- Smooth belt surface
- High allowable belt tension
- No belt slip
- Improved belt design
  - Less contact surface
  - One module thus minimal clearance
  - More even heat/cooling distribution
  - Improved airflow

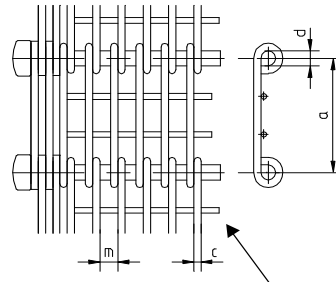
**MATERIALS**

- Carbon steel
- Carbon Spring Steel
- C60
- Stainless steel  
T304 and T316.
- Other materials available on request

**BELT SPECIFICATIONS**

$a \times m / c - d$

a = belt pitch  
 m = distance or gap between eye links  
 c = diameter of eye link wire  
 d = diameter of cross rod



Cross wire(s) – 1 or 2 depending on belt pitch

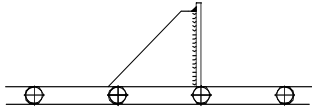
Belt Pitch (a)	Description (m = mesh gap) (mm)	Eye link Dia. (c) (mm)	Number of Cross wires	Cross rod Dia. (d) (mm)	Bar Link thickness (mm)
25,4 [1.00"]	25,4 x m / 1,5 - 5	1,5 [0.059"]	1	5 [0.197"]	2 [0.079"]
	25,4 x m / 1,6 - 5	1,6 [0.063"]	1	5 [0.197"]	2 [0.079"]
	25,4 x m / 1,8 - 5	1,8 [0.071"]	1	5 [0.197"]	2 [0.079"]
	25,4 x m / 2 - 5	2,0 [0.079"]	1	5 [0.197"]	2 [0.079"]
30 [1.18"]	30 x m / 1,5 - 4	1,5 [0.059"]	1	4 [0.157"]	2 [0.079"]
	30 x m / 1,6 - 4	1,6 [0.063"]	1	4 [0.157"]	2 [0.079"]
	30 x m / 1,8 - 4	1,8 [0.071"]	1	4 [0.157"]	2 [0.079"]
	30 x m / 2 - 4	2,0 [0.079"]	1	4 [0.157"]	2 [0.079"]
38,1 [1.5"]*	38,1 x m / 2,5 - 8	2,5 [0.098"]	1	8 [.315"]	2,5 [0.098"]
	38,1 x m / 3,0 - 8	3,0 [0.118"]	1	8 [.315"]	2,5 [0.098"]
50 [1.97"]	50 x m / 1,5 - 5	1,5 [0.059"]	1 or 2**	5 [0.197"]	2 [0.079"]
	50 x m / 1,6 - 5	1,6 [0.063"]	1 or 2**	5 [0.197"]	2,5 [0.098"]
	50 x m / 1,8 - 5	1,8 [0.071"]	1 or 2**	5 [0.197"]	3 [0.118"]
	50 x m / 2 - 5	2,0 [0.079"]	1 or 2**	5 [0.197"]	3 [0.118"]
	50 x m / 2,5 - 5	2,5 [0.098"]	1 or 2**	5 [0.197"]	3 [0.118"]
	50 x m / 3,5 - 7	3,5 [0.138"]	1 or 2**	7 [0.276"]	3 [0.118"]
50,8 [2.0"] *	50,8 x m / 2,5 - 5	2,5 [0.098"]	1 or 2**	5 [0.197"]	2,5 [0.098"]
	50,8 x m / 2 - 8	2,0 [0.079"]	1 or 2**	8 [0.315"]	2 [0.079"]
	50,8 x m / 3 - 8	3,0 [0.118"]	1 or 2**	8 [0.315"]	3 [0.118"]
75 [2.95"]	75 x m / 2,5 - 5	2,5 [0.098"]	1 or 2**	5 [0.197"]	2,5 [0.098"]
	75 x m / 2,5 - 7	2,5 [0.098"]	1 or 2**	7 [0.276"]	3 [0.118"]

\* The 25.4 [1"], 38.1 [1-1/2"] and 50.8 [2.0"] pitch belts typically used with a hollow-pin chain fitted to the belt edges.

\*\*Standard is 2 cross wires

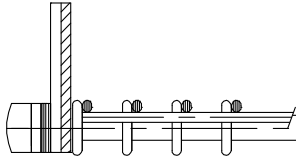
Standard all eye link modules (panels) are the same width. Different panel (module) widths are possible on request.

## BELT OPTIONS



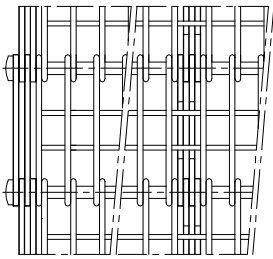
### Cross flights

Prevent product from sliding or rolling down. Typical construction includes a support plate along each belt edge with a flat bar welded onto the edge of the plates, extending across almost the full width of the belt.



### Side plates

Prevent product from falling off edges of belt. Standard construction is a plate extending 41, 51 or 61 mm above the belt's surface. Non-standard side plates are possible from 10 up to 200 mm and are manufactured per order. Side plates replace one bar link at the belt edge.



### Hollow Pin chain

Commercially available hollow pin chain can be fitted on the following belt pitches 25.4, 38.1 and 50.8 mm.

### Loose chain

All belt types can be fitted with a chain made from bar links and oversized or undersized rollers.

### Bar links

Provide the tension carrying capacity. They also prevent excessive cross rod and module deflection.

Additional bar links may be added to strengthen the belt. The belt should be supported under the bar links only. PLUS style inner bar links are cut out in the middle to provide room for a continuous panel (module).

## SPROCKETS

The belt is positively driven with sprockets across the width of the belt. Sprockets should be positioned 15 mm offset each side of all bar links rows. For all OGBL belts 12 tooth sprockets are standard in stock. Other sprockets can be machined in almost every suitable/available material. The number of teeth can vary from 8 to 30 teeth. For wide belts the use of tube drums or varieties on this principle are recommended based on the maximum allowable deflection of the drum. For freezing environments a special self-cleaning sprocket is available to prevent ice buildup. A cage drum is typically used for wide belts in a freezing environment. Large ice buildup should be avoided.

## WEARSTRIP PLACEMENT

The recommended belt supports for temperatures from -40 degrees Celsius up to 60 degrees Celsius [-40 to 140 degrees Fahrenheit] is PE1000 [UHMW] plastic strips underneath the bar links. The strips should be at least 30 mm [1-3/16"] wider than the total width of one bar link packet.

For temperatures over 60 degrees Celsius up to 400 degrees Celsius [140 to 750 degrees Fahrenheit], the recommended material is for non-food applications, Inoxyda [self-lubricating bronze] and for food applications, stainless steel.

To prevent excessive wear the hardness of the support strip should be significantly different than the hardness of the belt material (> 60 HV or 15 points HRB). The hardness of the belt material is 110 – 180 HV (60-87 HRB).

## SYSTEM REQUIREMENTS

- The OGBL does not normally need a take-up unit. Preferably, belt return should take place over rollers. If in doubt, contact our engineering department.
- Reverse bends are not recommend and should be avoided, as they will damage the eye links.
- Heavy products should not be dropped onto the belt as this will result in damage of the eye links and cross wires.
- The drive and return drum should be placed 2 mm (0.080") higher than the support strips.
- All drums and rollers must be parallel to each other.
- The support bed must be horizontal to prevent mis-tracking of the belt.
- A support bed with longitudinal rails under the bar links is recommended with belts having multiple rows of bar links. A herringbone slider bed is recommended to evenly distribute loading over all the eye links on belts constructed with bar links only on the outside edges.
- The maximum recommended belt speed is 25 m/min (82 ft/min) depending on belt width, load and system layout.

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