

# Balanced Weave Conveyor Belts

www.industrialconveyorbelt.com



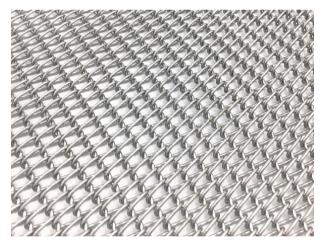
### **Overview**

Balanced Weave Conveyor Belts are also known as Spiral Belts, Spiral Wire Link Conveyor Belts, Wire Link Belt and so on.

PFM Screen' Balanced Weave Conveyor Belts have been successfully used in the food industry, the steel industry, the chemical industry and the glass industry, etc. Its simple design, the big range of dimensions (wire diameters and pitches) and the various ranges of belt materials are the main reason for its success.



Balanced Weave Conveyor Belts are the most versatile and widely used metal conveyor belts, thanks to their characteristics of true travel, good flexibility, excellent strength-to-weight ratio, flat surface and minimal maintenance. These belts are typically friction driven and are popular for conveying a variety of products, particularly those that are small or need a lot of support. Food processing spiral wire link conveyor belts are typically used in product transfer and in baking applications. Balanced Spiral Woven Belts can also be used in industrial product processing, transfer and packaging applications.



The PFM Screen' Balanced Weave Conveyor Belt is a balanced woven belt with left and right-hand wound spirals, connected by crimped cross wires. At the sides of the belt, the cross wire is welded to the spiral wire. Balanced weave belts can be used for a virtually infinite number of applications. Ranging from super strong for conveying heavy loads over large widths or conveying very hot products to very dense weaves for small products, unsorted goods or products requiring stable support.



Balanced Weave Conveyor Belt can be used in the temperature range of  $-50^{\circ}$  to  $+1100^{\circ}$ C. The length and width of the conveyor



belt can be customized according to demand.

For a very tight mesh, the Balanced Weave Conveyor Belt can be multiple woven or compound balanced. In this belt, the spirals are nested and one spiral has 3 or 4 or 5 cross rods instead of 2.

Balanced Weave Conveyor Belts can be executed with chains at both sides. The connection between the chains and the belt is mostly by means of extra cross rods going through the spiral of the belt and trough the chains. The spiral part of the belt will carry the product. The chains will drive and guide the spiral part. Driving this belt is easy by means of chain sprockets.



Balanced Spiral Woven Belts are manufactured in compliance with the latest food safety requirements for food processing equipment such as FDA, GMP and 1935/2004/EC. This ensures our customers a belt that is fit for use in the most demanding food processing applications Spiral wire link belts are suitable for a wide range of active food contact applications such as Baking, Frying, Drying, Cooling, Freezing, Pasteurizing, etc.

Balanced Weave Conveyor Belts can additionally be equipped with edge plates and flights. The pins can be bent upwards in some belt types of the spiral wire link belts which will create a standing edge.



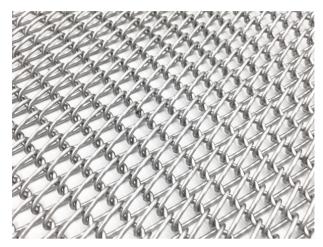
### **Belt Types**

Balanced Spiral Woven Conveyor Belts are available in 4 types of different versions. From corrugated wire link belt that is alternatively woven left and right to create a straight run to rod-reinforced belt structure that is designed for applications that involve high temperatures. PFM Screen offers the following 4 types of belt configurations:



# PFM SCREEN

### Specialize In Wire Conveyor Belt Manufacturing And Solution.

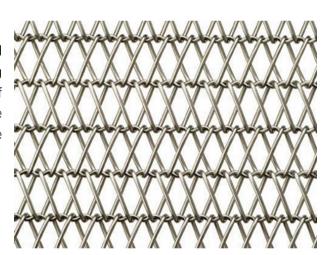


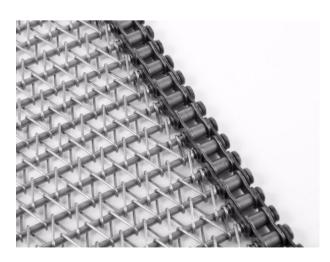
### Standard Balanced Spiral Woven Belt

The Standard Balanced Spiral Woven Belts consists of alternating left and right hand coils with each coil interconnecting with the next by means of a crimped cross wire.

### **Double Balanced Spiral Woven Belt**

Double Balanced Spiral Woven Belts is similar to standard balanced spiral but uses coil pairs of each handing intermeshing and then link by means of the crimped cross wire with pairs of intermeshing opposite hand coils on a repeat pattern down the length. This style allows for closer pitching of coils across the width for small product handling.





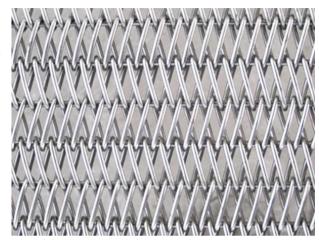
### Standard balanced Spiral Woven Belt with straight cross wire

The structure of this belt is similar to "Standard Balanced Spiral" but uses a straight cross wire with single interconnecting coils in a repeat pattern of left hand/right hand down the length. This assembly allows for a closer pitching of single coils across the width for small product handling.

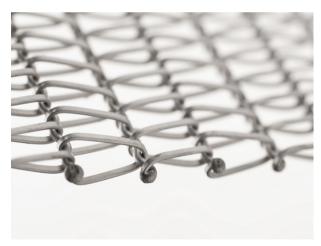


### Double Balanced Spiral Woven Belt with straight cross wire

The structure of this belt is similar to "Double Balanced Spiral" but uses a straight cross wire with double intermeshing coils of each handing interconnecting by means of the straight cross wire in a repeat pattern of left hand/right hand coils down the length. This assembly allows for a closer pitching of coils across the width for small product handling.



### **Edge Availability**



### Welded Edge

This is the most common and economical edge finish. With welding together of both the coil and crimp wires there are not cut wire ends.

#### **Laddered Edge**

Less common than the welded edge the laddered edge is often used where welds are not desirable for the application. It is also an option in applications where welding facilities are not available. The belt edge is also smooth and allows more belt edge flexibility. It is also more efficient in high temperature applications as the laddered edge is not under operational strain in use and therefore less prone to fracture. Generally this edge finish is only available for meshes with a relatively large crimp wire pitch down the length.



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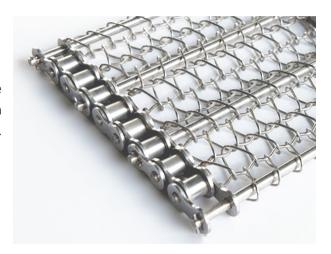


### **Hook Edge**

Also less common than the welded edge type the hook edge is often used where welds are not desirable for the application. It is also an option in applications where welding facilities are not available. The belt edge is also smooth and allows more belt edge flexibility. Generally, this edge finish is only available for meshes with a relatively large crimp wire pitch down the length.

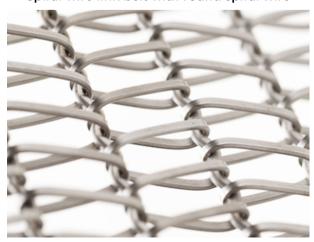
### **Chain Edge Driven Mesh**

Along with the above mesh edge finishes these meshes can be driven by side chains using cross rods which are located through the mesh coils and then through chains at the edges of the mesh.



# Wire type

Spiral wire link belt with round spiral wire



Spiral wire link belt with flat spiral wire



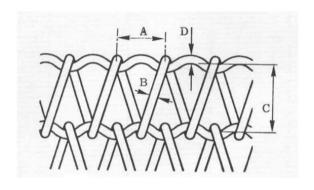


# **Material Availability**

| Material              | Maximum Operating Temperature °C |  |
|-----------------------|----------------------------------|--|
| Carbon Steel          | 550                              |  |
| Galvanized Mild Steel | 400                              |  |
| Chrome Molybdenum     | 700                              |  |
| 304 Stainless Steel   | 750                              |  |
| 321 Stainless Steel   | 750                              |  |
| 316 Stainless Steel   | 800                              |  |
| 316L Stainless Steel  | 800                              |  |
| 314 Stainless Steel   | 1120                             |  |
| 37/18 Nickel Chrome   | 1120                             |  |
| 80/20 Nickel Chrome   | 1150                             |  |
| Inconel 600           | 1150                             |  |
| Inconel 601           | 1150                             |  |

If you have other material requirements, please contact us.

# **Specifications**



A: Spiral Wire Pitch (mm)

B: Spiral Wire Diameter (mm)

C: Cross Rod Pitch (mm)

D: Cross Wire Diameter (mm)



| Balanced Weave Conveyor Belts specifications |                   |                 |                      |                     |
|--|-------------------|-----------------|----------------------|---------------------|
| Item No.                                     | Spiral wire pitch | Cross rod pitch | Spiral wire diameter | Cross wire diameter |
|  | mm                | mm              | mm                   | mm                  |
| BWCB-001                                     | 4                 | 4               | 0.9 to 1.2           | 1.2 to 1.6          |
| BWCB-002                                     | 5                 | 6.4             | 0.9 to 1.2           | 1.2 to 1.6          |
| BWCB-003                                     | 5                 | 5               | 0.9 to 1.6           | 1.2 to 1.6          |
| BWCB-004                                     | 6                 | 6               | 0.9 to 1.6           | 1.2 to 1.6          |
| BWCB-005                                     | 6                 | 8               | 0.9 to 1.2           | 1.2 to 1.6          |
| BWCB-006                                     | 6                 | 10              | 0.9 to 1.6           | 1.2 to 1.6          |
| BWCB-007                                     | 8                 | 12              | 1.2 to 2.0           | 1.2 to 2.5          |
| BWCB-008                                     | 8                 | 13              | 1.2 to 2.0           | 1.2 to 2.5          |
| BWCB-009                                     | 8                 | 15              | 1.2 to 2.0           | 1.2 to 2.5          |
| BWCB-010                                     | 11                | 15              | 1.2 to 2.0           | 1.2 to 2.5          |
| BWCB-011                                     | 11                | 20              | 1.6 to 3.0           | 1.6 to 3.0          |
| BWCB-012                                     | 11                | 25              | 1.6 to 3.0           | 1.6 to 3.0          |
| BWCB-013                                     | 11                | 27              | 1.6 to 3.0           | 1.6 to 3.0          |
| BWCB-014                                     | 15                | 20              | 1.6 to 3.0           | 1.6 to 3.0          |
| BWCB-015                                     | 15                | 25              | 1.6 to 3.0           | 1.6 to 3.0          |
| BWCB-016                                     | 22                | 23              | 1.6 to 3.0           | 1.6 to 3.0          |
| BWCB-017                                     | 22                | 33              | 1.6 to 3.0           | 2.0 to 4.0          |

NOTE: 1. If flat wire, please give us cross section.

<sup>2.</sup> Custom specification is available if you can't find the suitable size.



# **Applications**

Industrial Product Processing, Transfer and Packaging Belts

- Annealing Oven Conveyor Belts
- Fryer Conveyor Belts
- Cooling Conveyor Belts
- Take over Conveyor Belts
- Biscuit ovens
- Decoration ovens

- Cooker Conveyor Belts
- Drying Conveyor Belts
- Washing Conveyor Belts
- Baking ovens
- Glass ovens
- Hardening ovens



Balanced Weave Conveyor Belts for Cooking





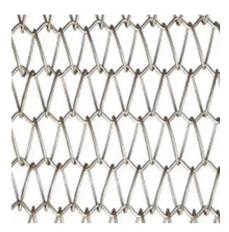
Balanced Weave Conveyor Belts for Baking

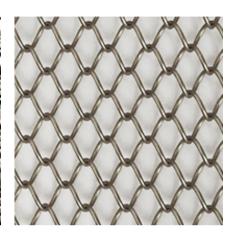


Balanced Weave Conveyor Belts for Transfer



# **METAL CONVEYOR BELTS**





Balanced Woven Conveyor Belts Compound Weave Conveyor Belts

Chain Link Conveyor Belts



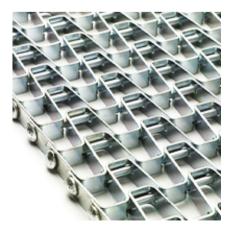
Flexible Rod Conveyor Belts



Flat Flex Conveyor Belts



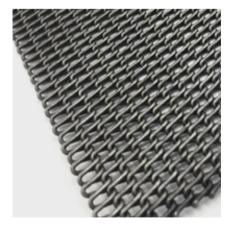
Eye Link Conveyor Belts



Honeycomb Conveyor Belts



Plate Link Conveyor Belts



Biscuit Baking Belts





Ladder Conveyor Belts

# **CONVEYOR BELT ACCESSORY**





Sprockets

Chain links

Our policy is one of continuous improvement and we reserve the right to change specifications at any time and without notice or modify these to suit manufacturing processes

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