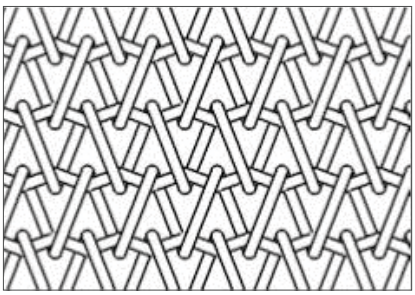
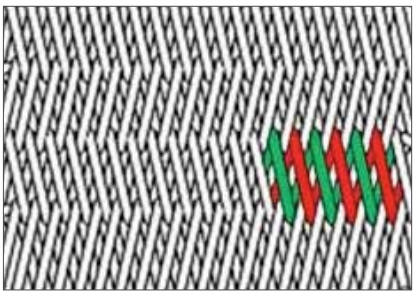
Mesh Types



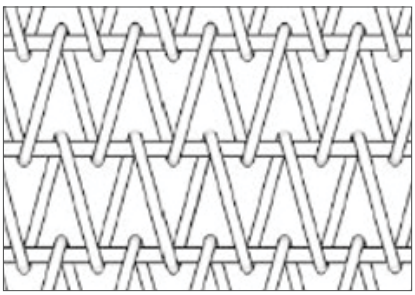
Standard Balanced Spiral (BS)

The assembly consists of alternating left and right hand coils with each coil interconnecting with the next by means of a crimped cross wire.



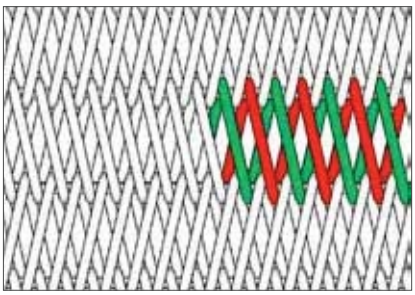
Double Balanced Spiral (DBS)

The double balanced assembly 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.



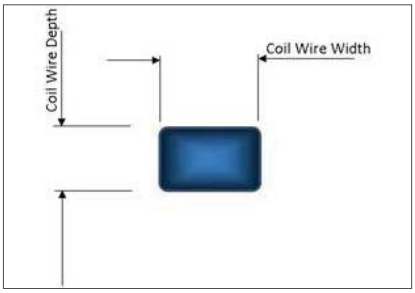
Improved Balanced Spiral (IBS)

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.



Improved Double Balanced Spiral (IDBS)

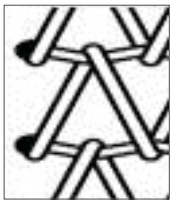
The structure of this belt is similar to “Double Balanced Spiral” but uses a straight cross wire with double intermeshing coils of each handing interconnecting by means of the straight cross wire in a repeat pattern of left hand/right hand coils down the length. This assembly allows for a closer pitching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



Flat Wire alternatives

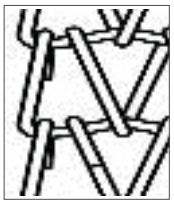
In general, all of the above styles are available with coil wires manufactured using a flattened wire. When identifying the coil wire it is important to confirm the cross section dimensions.

Belt Edge Types



Welded Edge (W) - mesh only

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 (LD) - mesh only

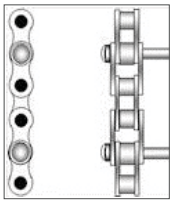
Less common than the welded edge the laddered edge is often used where welds are not desirable for the application. It is also an option in applications where welding facilities are not available. The belt edge is also smooth and allows more belt edge flexibility. It is also more efficient in high temperature 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.

Hook Edge (U) - mesh only

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.

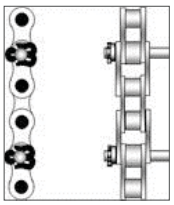
Chain Edge Driven Mesh

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. The types of cross rod finish at the exterior of the side chain are as follows:



With welded washer

This is the most common and economical style of finish to a chain edge belt and comprises of a central mesh carried through the system by means of edge chains with carrier cross rods through both mesh and edge chains. The cross rods are finished at the outside chain edges with a welded washer.



With Cotter Pin & Washer

Although less economical this type of assembly allows the customer or service personnel the ability to replace the edge drive chains when the mesh and rods are still serviceable. The assembly comprises of a central mesh carried through the system by means of edge chains with carrier cross rods through both mesh and edge chains. The cross rods are finished at the outside with a drilled hole to allow the fitment of a washer & cotter pin. It also allows the repair replacement of sections of belt without the need to grind off rod heads and weld back together.

NB: For greater width stability of rods to chain it is the norm, where possible, to supply the cross rods turned down to go through the edge chains.

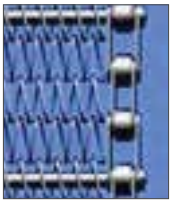
Various other styles of chain edge finish include:

- Cross rod welded flush to the hollow pin of the side chain. This is not a preferred standard but may be necessary where width between conveyor side frames and other structural parts create a limitation where "welded washer" or "washer & cotter pin" cannot be used.
- Cross rod welded flush through drilled hole on inner plates of roller conveyor chain.

In general, the chain edge driven belts as shown above are available with 2 styles of edge chain:

Transmission Chain

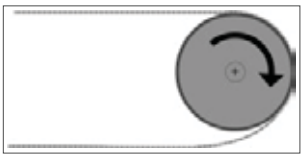
Transmission chain has a small roller. The chain edge can be supported either on the chain side plates or by means of a profiled rail to go between the side plates and support on the roller or alternatively without support where the mesh is supported close to the edge.

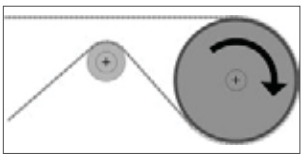


Conveyor Roller Chain

Conveyor Roller Chain has a large roller. The chain edge can then be supported on a flat angle edge wear strip with the chain roller rotating freely along the conveyor length.

Methods of Drive



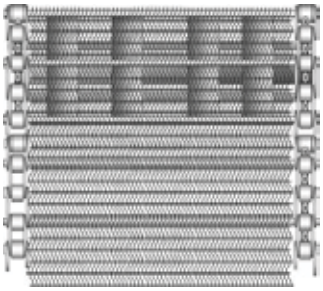


Friction Driven

The most common form of drive is the plain steel parallel roller system. This system depends on the frictional contact between the belt and roller to ensure drive of the belt. Variations of this drive type include the lagging of the roller with such materials as rubber, friction brake lining (for high temperature), etc. The use of such friction lagging materials allow for the operational drive tension in the belt to be reduced, thus increasing the useful life of the belt.

Positive Drive (PD)

The use of specially manufactured sprockets which engage in the mesh of the belt ensures that the belt can be positively driven with the minimum of belt tension and stop belt "Track Off". This range of belts is only available in the standard format of "Balanced Spiral" belts.



Chain Edge Drive

With this assembly of belt, the cross pitch of the belt mesh is manufactured to ensure that the chain edge is the driving medium with the belt mesh being pulled through the circuit by the chains.

Available Specifications

Positive Drive Belt Specifications

Mesh Type	Specification Coding	Nominal Belt Thickness (mm)	Lateral Pitch of Coil Cross wire (mm)	Coil Cross Wire Dia. (mm)	Crimped Cross Wire Pitch down length (mm)	Crimped Cross Wire Dia. (mm)
BSW-PD	18-16-16-16	7.7	16.94	1.63	19.05	1.63
BSW-PD	18-14-16-14	8.9	16.94	2.03	19.05	2.03
BSW-PD	30-17-24-17	7.3	10.16	1.42	12.7	1.42
BSW-PD	30-16-24-16	6.7	10.16	1.63	12.7	1.63
BSW-PD	42-18-36-18	6.0	7.26	1.22	8.47	1.22
BSW-PD	42-17-36-17	6.0	7.26	1.42	8.47	1.42
BSW-PD	42-16-36-16	6.4	7.26	1.63	8.47	1.63
BSW-PD	48-17-48-17	6.1	6.35	1.42	6.35	1.42
BSW-PD	48-16-48-16	6.4	6.35	1.63	6.35	1.63
BSW-PD	60-20-48-18	4.0	5.08	0.91	6.35	1.22
BSW-PD	60-18-48-18	5.2	5.08	1.22	6.35	1.22
BSW-PD	60-18-60-18	5.6	5.08	1.22	5.08	1.22

All specifications are supplied with welded edge only.
Specifications are also available using a flattened coil wire. Please consult with our Technical Sales Engineers for the range and availability.

Standard Material Availability (Mesh Only)

Material	Maximum Wire Operating Temperature °C
Carbon Steel (40/45)	550
Galvanised Mild Steel	400
Chrome Molybdenum (3% Chrome)	700
304 Stainless Steel (1.4301)	750
321 Stainless Steel (1.4541)	750
316 Stainless Steel (1.4401)	800
316L Stainless Steel (1.4404)	800
314 Stainless Steel (1.4841)	1120 (Avoid use at 800-900°C)
37/18 Nickel Chrome (1.4864)	1120
80/20 Nickel Chrome (2.4869)	1150
Inconel 600 (2.4816)	1150
Inconel 601 (2.4851)	1150