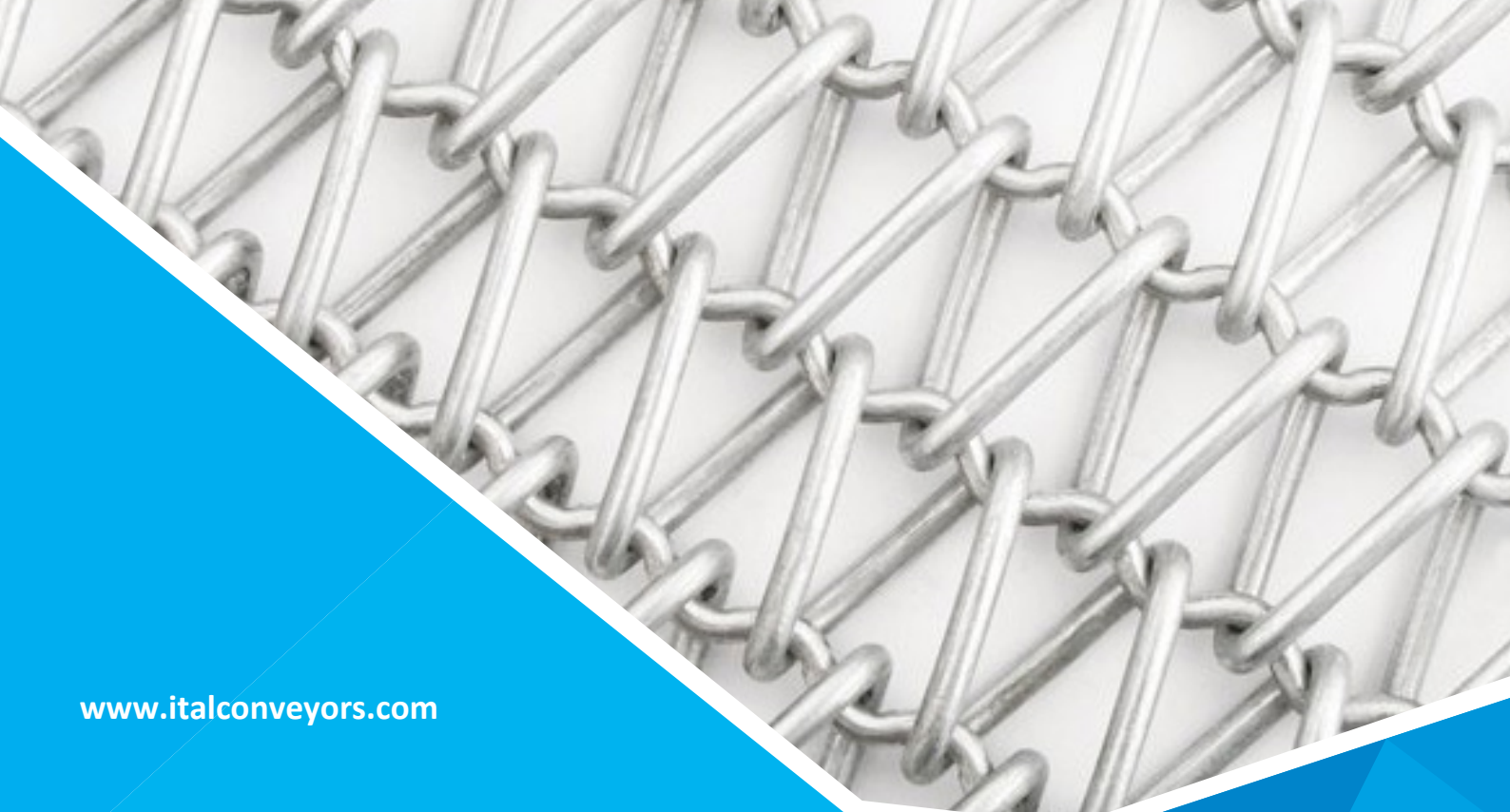




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SPIRAL MESH CONVEYOR BELT

Our conveyor belts are entirely manufactured within the European Union.

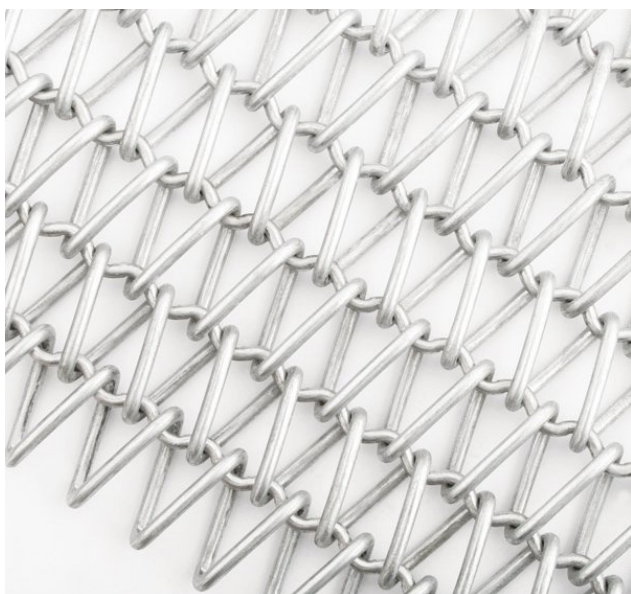
Stainless steel belts in AISI 304 and AISI 316 fully comply with European Regulation EC 1935/2004 on materials intended for direct contact with food products

These belts are produced by forming spirals from steel wires of different materials depending on the application — AISI 304 stainless steel, AISI 316 stainless steel, carbon steel, galvanized steel, or special alloys for high-temperature service.

The spirals are mounted on connecting rods, which may be straight or waved

SPIRAL WIRE WOUND ON WAVED CROSS RODS

Alternate left- and right-hand spirals
Enhanced balance and uniform opening between spirals



SPIRAL WIRE WOUND ON STRAIGHT CROSS ROD

Alternating left- and right-hand spirals
Reduced pitch with a more compact spiral configuration



EDGE TYPES

WELDED: Most common; typically used with waved rods. Good overall strength for general applications

CRIMPED: No welding; excellent thermal expansion resistance due to minimal stresses on the belt

REINFORCED: For heavy loads, high thermal expansion, and superior wear resistance from sliding friction

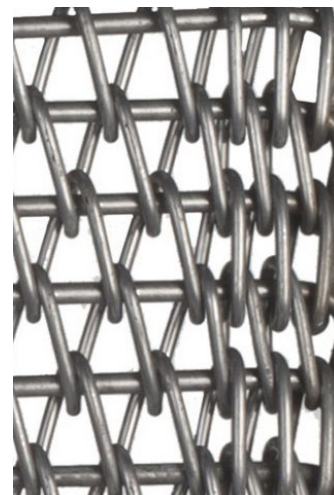
WELDED



CRIMPED



REINFORCED



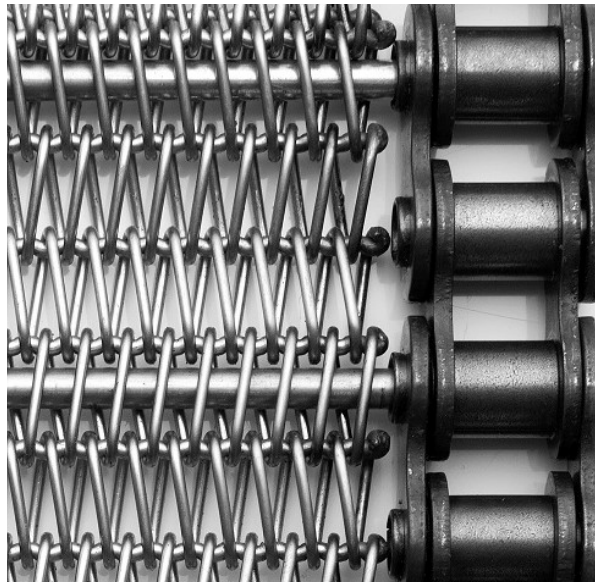
BELTS WITH SIDE CHAINS

Side chains improve movement precision and stability

Drive is transmitted by sprockets engaging the chains, which can have pitches of $\frac{1}{2}$ ", $\frac{3}{4}$ ", or 50 mm

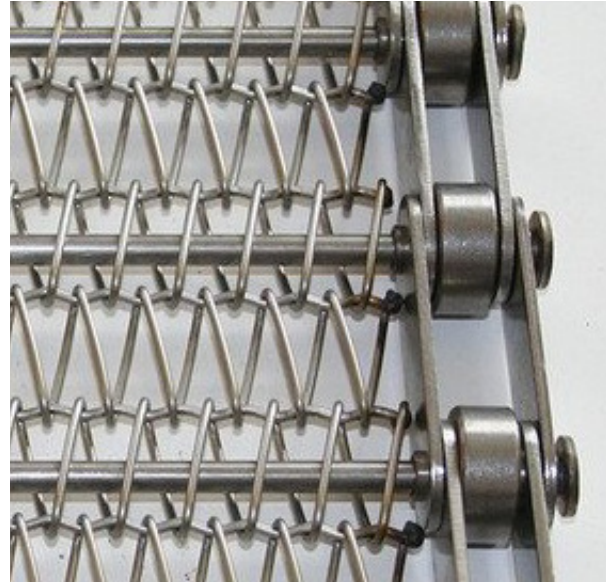
$\frac{1}{2}$ ", $\frac{3}{4}$ ", 25,4 mm PITCH CHAINS:

Connecting rod $\varnothing$ 4-5 mm



50 MM PITCH CHAINS:

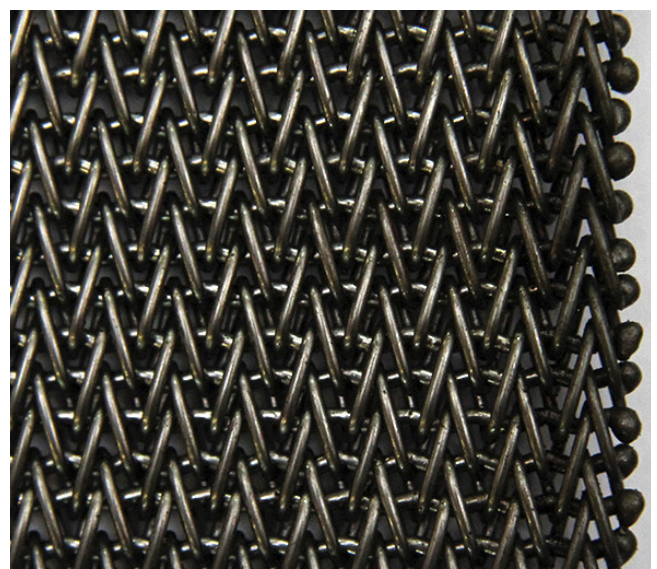
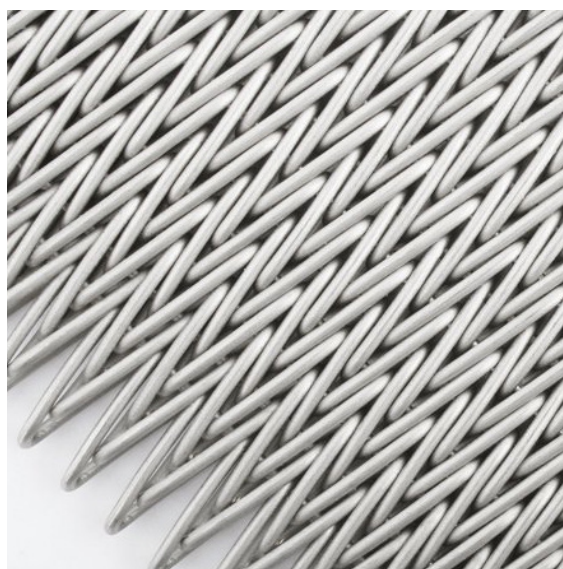
Connecting rod $\varnothing$ 5–5.4 mm; idler wheels $\varnothing$ 25 mm



TIGHT WEAVE SPIRAL BELTS

Nearly closed, flat surface achieved through dense interlacing of wires, ideal for very small or unstable products.

Also used in ovens, where the homogeneous thermal mass ensures even heat distribution to the product



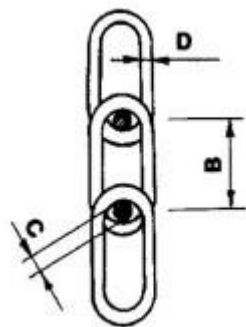
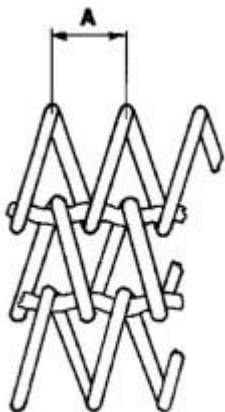
CURVED SPIRAL BELTS WITH WITH SIDE CHAINS

Chain pitch: 19.05 mm or 27.4 mm

Minimum inner radius: $1.7 \times$ belt width (to be confirmed- Maximum width for curves: 600 mm)



DATA REQUIRED TO IDENTIFY A SPIRAL BELT



A = Cross pitch of the spirals (mm): 3–33 mm with crimped rods; 2.2–5 mm with straight rods

B = Pitch of cross rods: 6.5–40 mm with crimped rods; 10–27 mm with straight rods

C = Cross rod diameter (1.5–5 mm)

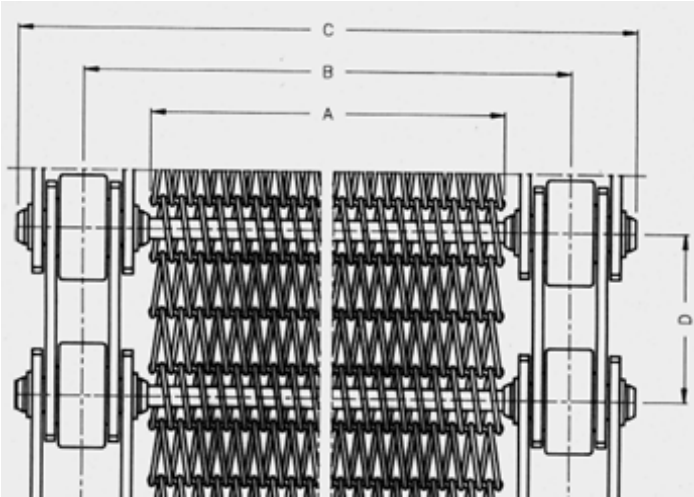
D = Coil wire diameter 1–4 mm

La = Belt width (mm)

Lu = Total belt length (mm)

Belt material (specify according to application)

KEY SPECIFICATION FOR SPIRAL BELTS WITH SIDE CHAINS:



- Belt working width **A** (mm)
- Chain type and pitch ($\frac{1}{2}$ ", $\frac{3}{4}$ ", 50 mm, etc.)
- Chain material (stainless steel or carbon steel)
- Distance **D** between connecting rods (e.g., every chain pitch, every 2 pitches, etc.) and their diameter (4, 5... mm)
- Chain center distance **B**
- Maximum overall belt width **C** (mm)

MAXIMUM RECOMMENDED TEMPERATURES FOR COMMON MATERIALS:

Carbon Steel	300-350°C	Good mechanical strength, prone to oxidation in humid environments
Galvanized Steel	180-200°C	Lower temperature resistance; zinc coating provides long-term protection against oxidation
AISI 304 Stainless Steel	700°C	18/08 stainless steel offering excellent chemical, mechanical, and temperature resistance; widely used across industries
AISI 316 Stainless Steel	720°C	Superior chemical and mechanical resistance for applications requiring the highest quality standards
AISI 314 Stainless Steel	1050°C	Exceptional temperature resistance, ideal for material heat treatment applications

DRIVE DRUM

Spiral mesh belts without side chains are mounted on two drums – one fixed and one movable – and are driven through friction between the belt and the drive drum. To generate the necessary friction, the belt must be tensioned using take-up devices on the movable drum, ensuring increased contact on the drum surface



Selecting the correct drive drum diameter is essential for efficient belt performance under the intended operating conditions

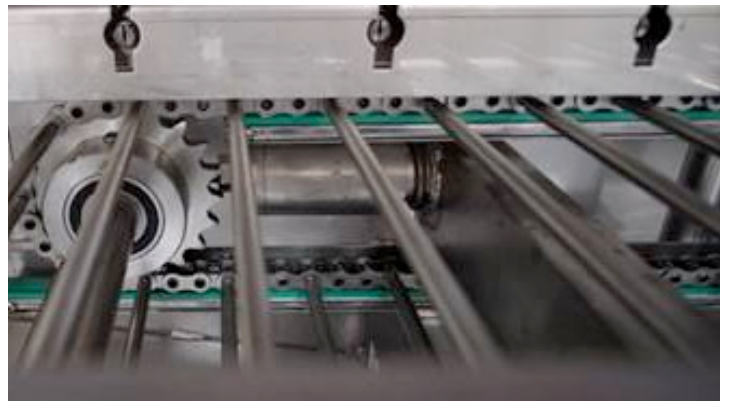
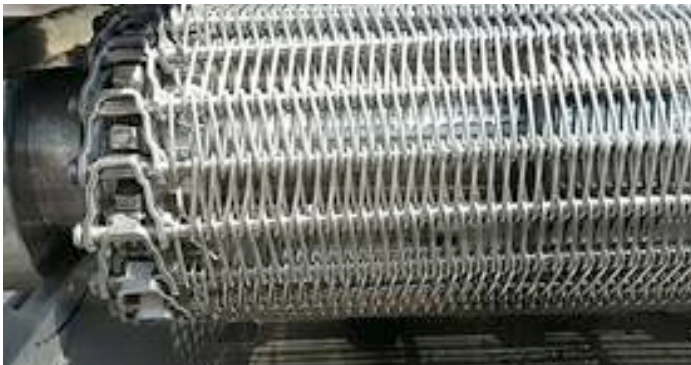
MINIMUM DRIVE DRUM DIAMETER – GUIDELINES:

- Medium load and temperature:** at least 10 × belt pitch
- High load / high tension:** at least 20 × belt pitch
- High temperature:** at least 20 × belt pitch
- Positive drive (side chains):** sprocket/drum diameter at least 5 × belt pitch

MAIN APPLICATION SECTORS

Spiral mesh belts provide outstanding durability and reliability, making them suitable for a wide range of industries:

- **Food industry** Extensively used not only for fresh product processing, but also in high-temperature applications such as pasteurization, baking, grilling, and drying, as well as in low-temperature processes from cooling to deep-freezing
- **Packaging** – Shrink-wrapping and thermo-shrinking lines
- **Mechanical industry** – For conveying heavy, hot metal parts, chips, and small components, either dry or immersed in oil
- **Dirty or abrasive environments** – Waste recycling, operations in the presence of oils, fumes, paints, and similar conditions



We supply an extensive range of shapes and configurations

Contact us for tailored solutions and for any information

Contatti



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