PFM
PROFESSIONAL WIRE BELTS MANUFACTURER

PFM SCREEN

Specialize In Wire Conveyor Belt Manufacturing And Solution.

Self-Stacking Spiral Belts

www.industrialconveyorbelt.com

PFM
PROFESSIONAL WIRE BELTS MANUFACTURER

PFM SCREEN

Specialize In Wire Conveyor Belt Manufacturing And Solution.

Overview

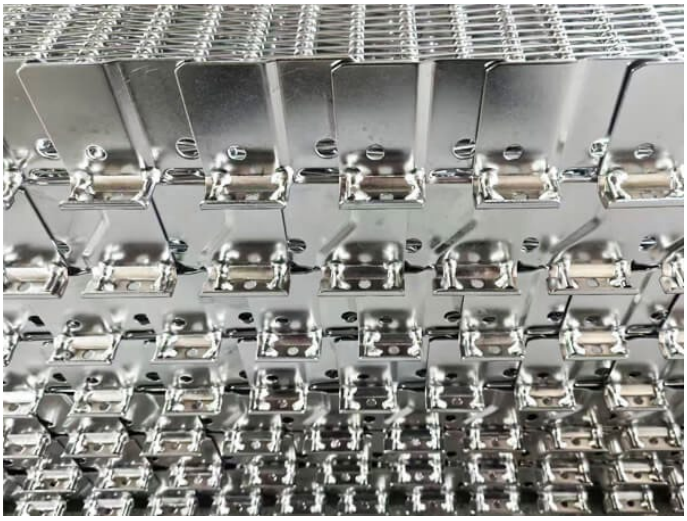
Self-Stacking Spiral Freezer Belts are innovative conveyor solutions designed specifically for use in spiral freezers. With a unique stacking mechanism that eliminates the need for external support, these belts help maximize vertical space, reduce energy consumption, and improve overall freezing efficiency.

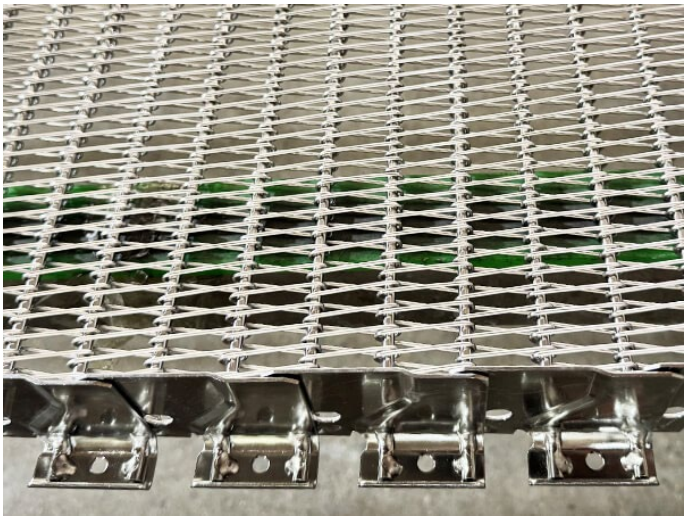
Engineered for high-performance food processing environments, these belts offer superior product handling, longer service life, and minimal maintenance — all while maintaining food quality and system hygiene.

What Is a Self-Stacking Spiral Belts?

Unlike traditional conveyor belts, self-stacking spiral belts are uniquely designed to support their own weight in a helical structure. This allows the belt to stack vertically without external supports, enabling a compact footprint and efficient use of vertical freezer space.

These belts move products along a spiral path, ensuring uniform freezing while maintaining a continuous flow. The design eliminates the need for belt flipping or external guides, improving system reliability and reducing maintenance.





PFM
PROFESSIONAL WIRE BELTS MANUFACTURER

PFM SCREEN

Specialize In Wire Conveyor Belt Manufacturing And Solution.

Self-Stacking Spiral Belts Key Features and Benefits

- **Energy-Efficient Design**
  Reduced Belt Tension: The spiral stacking mechanism lowers belt tension, decreasing wear and improving overall system lifespan.
  Smaller Motor Requirements: Less tension means smaller motors can be used, reducing energy consumption and lowering utility costs.
- **No Belt Flipping or Overstretching**
  The stable structure prevents issues like belt flipping or stretching, offering smoother operation and reducing downtime.
- **Increased Product Throughput**
  Self-stacking belts allow for maximized product intake with consistent spacing, enabling faster freezing cycles and higher production volumes.
- **Compact Footprint**
  By optimizing vertical and horizontal space, these belts enable more efficient freezer layouts, which is ideal for facilities with limited floor space.
- **Enhanced Freezing Efficiency**
  The open belt design ensures optimal airflow and uniform freezing across all product surfaces, preserving food quality and texture.
- **Low Maintenance & Easy Sanitation**
  With fewer moving parts and a hygienic design, self-stacking spiral belts reduce the need for frequent cleaning and maintenance — saving time and operational costs.

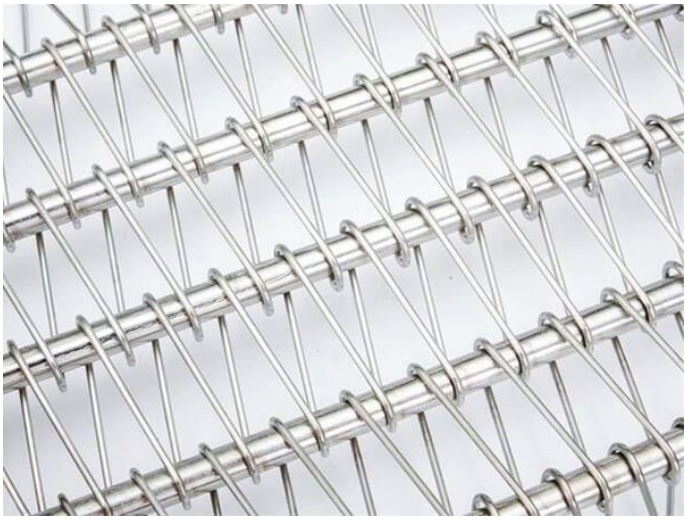
Self-Stacking Spiral Belts Technical Construction

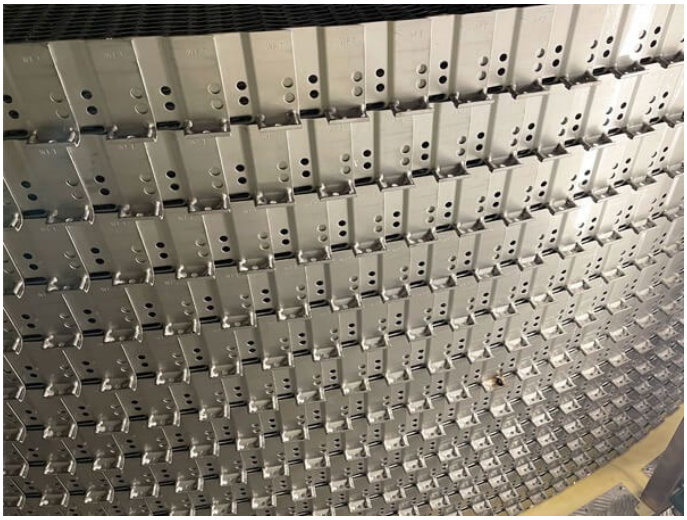
- **One-sided Weave with Right-Hand Wind:** Ensures structural integrity.
- **Interlocking Spirals:** Features both round and oval pigtails that interconnect and attach to connecting rods for added stability.
- **Tension Links:** Strategically placed to reinforce the belt edges.
- **Custom Mesh Configurations:** Available to match existing or OEM systems without requiring structural modifications.
- Belts can be directly spliced into existing systems, making partial replacements easy and cost-effective.

PFM
PROFESSIONAL WIRE BELTS MANUFACTURER

PFM SCREEN

Specialize In Wire Conveyor Belt Manufacturing And Solution.





Self-Stacking Spiral Belts Material Options

Our self-stacking spiral belts are manufactured using high-quality stainless steel materials, including:
SS304 (AISI 304 Stainless Steel)
SS316 (AISI 316 Stainless Steel)
These materials are widely recognized in the food processing industry for their corrosion resistance, strength, and sanitary properties, making them ideal for demanding freezing environments.

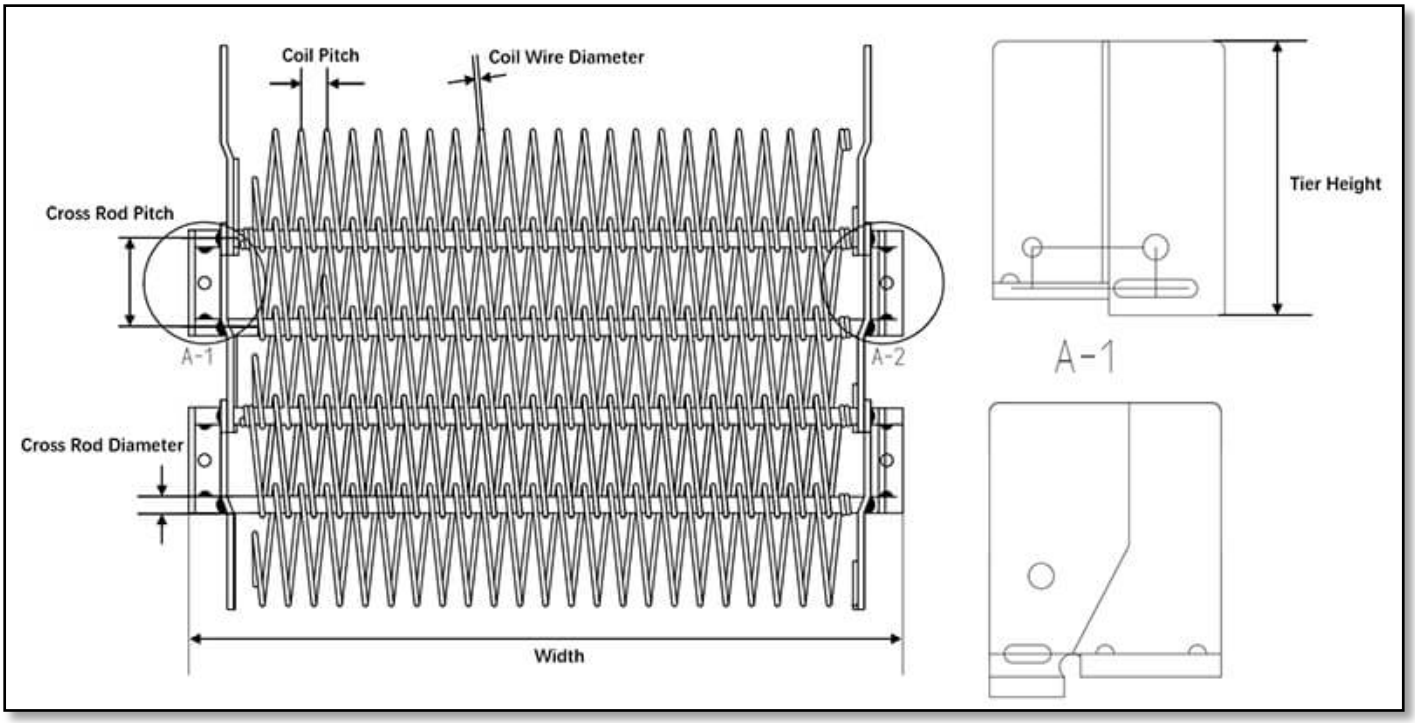
Self-Stacking Spiral Belts Technical Specifications

Coil Wire Diameter	1.5mm, 1.6mm, 1.7mm, 1.8mm
Coil Pitch	6.0 – 20.0 mm
Cross Rod Diameter	5.0mm, 6.0mm, 7.0mm
Cross Rod Pitch	30mm
Tier Height	60mm, 80mm, 100mm, 120mm
Available Widths	420mm, 580mm, 640mm, 760mm, 920mm, 1060mm, etc
Edge Finish	Welded
Operation Direction	Clockwise, Counter-clockwise, dual direction
Material	Stainless steel 304, Stainless steel 316L

PFM
PROFESSIONAL WIRE BELTS MANUFACTURER

PFM SCREEN

Specialize In Wire Conveyor Belt Manufacturing And Solution.



Self-Stacking Spiral Belts Applications

Self-stacking spiral belts are ideal for a wide range of frozen food processing lines, including:

Vegetables & Fruits: Lock in color, taste, and nutrients.

Meat & Poultry: Freeze cuts, nuggets, and processed meat products quickly.

Seafood: Maintain texture and flavor in shrimp, fillets, and more.

Bakery Products: Freeze dough, cakes, and pastries without drying out.

Ice Cream & Dairy: Smooth texture preservation and efficient hardening.

Ready-to-Eat Foods: Pizza, meals, and snacks benefit from rapid freezing.

PFM
PROFESSIONAL WIRE BELTS MANUFACTURER

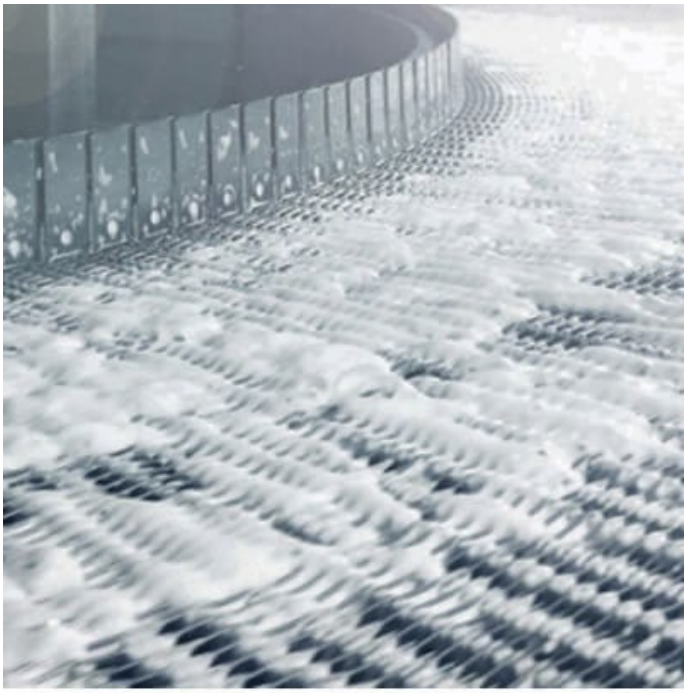
PFM SCREEN

Specialize In Wire Conveyor Belt Manufacturing And Solution.

Self Stacking Spiral Belts for Meat & Poultry Freezing

Self Stacking Spiral Belts for Proofing and Freezing

Self Stacking Spiral Belts for Ready-to-Eat Foods



Self Stacking Spiral Belts for Seafood Freezing

PFM
PROFESSIONAL WIRE BELTS MANUFACTURER

PFM SCREEN

Specialize In Wire Conveyor Belt Manufacturing And Solution.

METAL CONVEYOR BELTS

Balanced Woven Conveyor Belts

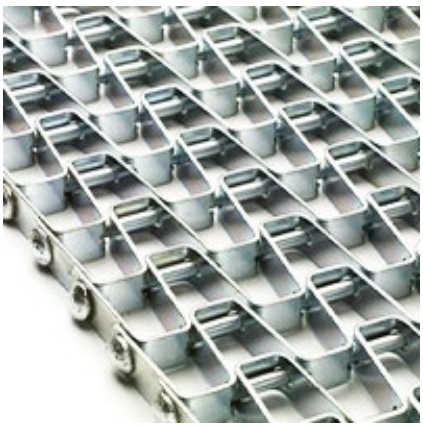
Compound Weave Conveyor Belts

Chain Link Conveyor Belts

Flexible Rod Conveyor Belts

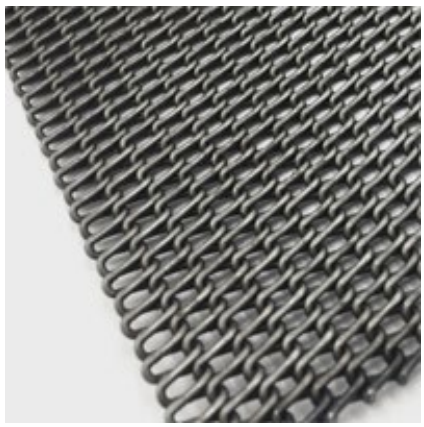
Flat Flex Conveyor Belts

Eye Link Conveyor Belts



Honeycomb Conveyor Belts

Plate Link Conveyor Belts



Biscuit Baking Belts

PFM
PROFESSIONAL WIRE BELTS MANUFACTURER

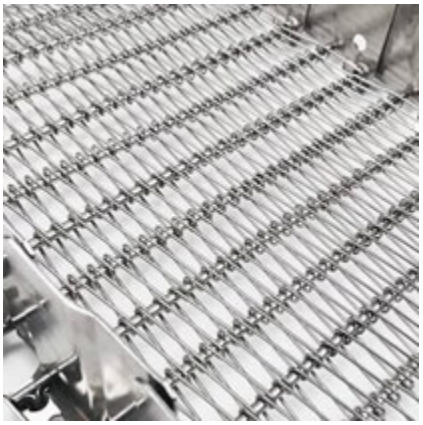
PFM SCREEN

Specialize In Wire Conveyor Belt Manufacturing And Solution.

Ladder Conveyor Belts

Woven Rod Bar Conveyor Belts

Wire Mesh Lehr Belts



Self-Stacking Spiral Freezer Belts

PFM
PROFESSIONAL WIRE BELTS MANUFACTURER

PFM SCREEN

Specialize In Wire Conveyor Belt Manufacturing And Solution.

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

Add: No.1107, Floor 11, Dazhong Plaza, Yinhe Road, Guangyang District, Langfang, Hebei, China 065000
Factory Add: Industrial Park Zone of South Anping County, Hebei Province, China 053600
Tel: +86-2188808 **Mobile:** +86-15369679157
E-mail: info@pfmscreen.com **Website:** www.industrialconveyorbelt.com