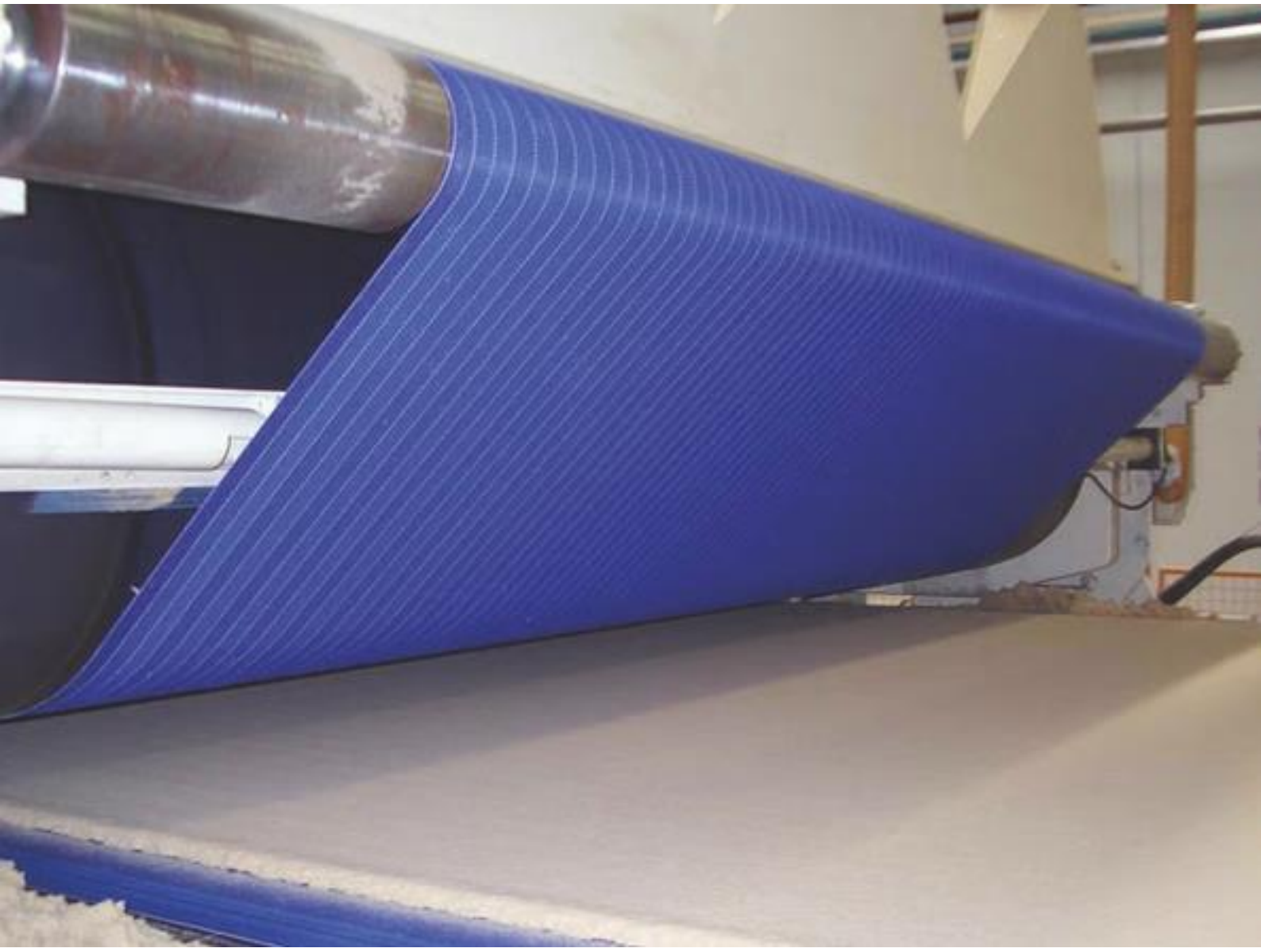


Belts for the Wood Panel Board Industry

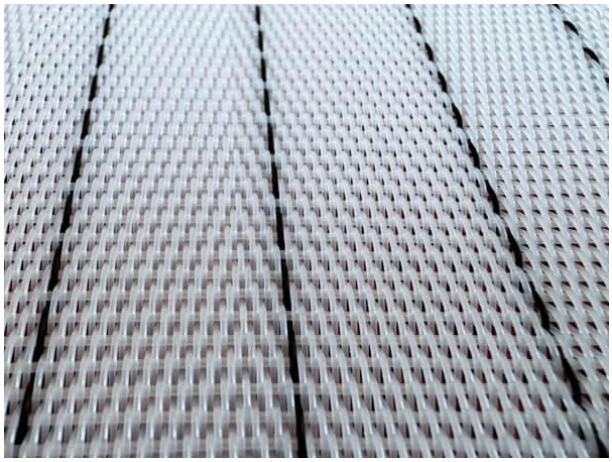
Dryer Mesh Belts for Wood and Biomass Drying

Description

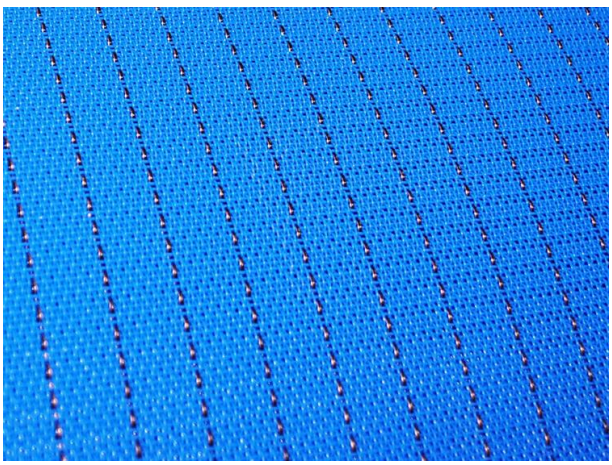
PFM SCREEN's Antistatic Polyester Dryer Mesh Belts are specially designed to cater to the demanding requirements of the wood and biomass drying industries. These belts leverage cutting-edge technology and premium materials to deliver unparalleled drying efficiency, durability, and operational reliability. Their unique design not only enhances drying performance but also minimizes energy consumption and maintenance efforts, making them an eco-friendly and cost-effective solution.

The belts are crafted from high-viscosity polyester slice wire, reinforced with interwoven bronze/carbon wires in the antistatic version to ensure permanent electrostatic discharge. This feature is particularly critical in preventing hazardous static build-up in drying environments that involve combustible materials. The belts operate effectively at low temperatures, preserving essential properties such as lignin content in wood-based products and reducing volatile organic compound (VOC) emissions.

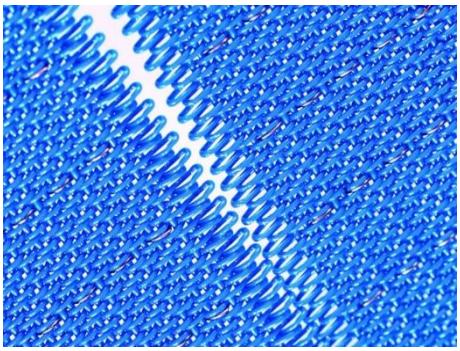
Widely used by global equipment manufacturers, these belts offer a versatile solution for drying applications ranging from particle boards and pellets to biomass and industrial sludge. With their robust construction and precise engineering, PFM SCREEN's Antistatic Polyester Dryer Mesh Belts have become a trusted choice for industries prioritizing efficiency, safety, and sustainability.



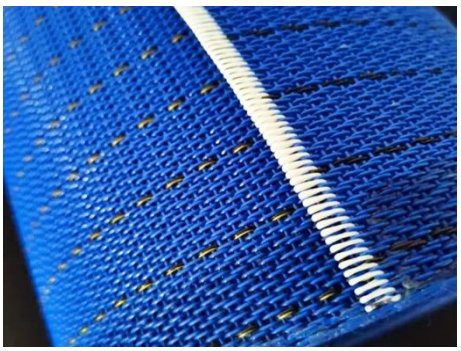
Dryer Mesh Belts with Carbon Wire



Dryer Mesh Belts with Carbon and Bronze Wire



Double Pin Seam



Spiral Seam

Clipper Seam

Feature

Material Durability: Acid-resistant, alkali-resistant, wear-resistant, and capable of withstanding high temperatures up to 130°C.
Antistatic Properties: Equipped with interwoven bronze wires for permanent electrostatic discharge, compliant with ATEX standards.
Energy Efficiency: High air permeability and superior heat transfer efficiency reduce energy consumption and operational costs.
Dimensional Stability: Offers excellent form stability and flexibility for reliable performance.
Customizable Dimensions: Available in widths up to 8 meters and lengths up to 200 meters.
Environmental Compliance: Minimal VOC emissions and superior dust filtering properties contribute to eco-friendly operations.
Easy Maintenance: Designed for quick cleaning and minimal upkeep.

Application

Particle Board Industry: Drying wood for the production of particle boards or panels.
Pellet Industry: Preparing sawdust and wood shavings for pellet production.
Sugar Industry: Drying sugar beet pulp and bagasse for feed and fuel applications.
Feed Industry: Drying grass or alfalfa (lucerne) into high-quality feed.
Biomass Energy: Preparing wet biomass for combustion, pyrolysis, or pelletizing.
Renewable Energy: Ensuring optimal drying for bark, forest residue, and other biomass materials.

Wood Chips

Drying Biomass

Drying Grass Drying

Specifications

Operating Temperature: Maximum 130°C
Maximum Dimensions:
Length: Up to 200 meters
Width: Up to 8 meters
Material Composition: High-viscosity polyester slice wire with interwoven bronze wires (Antistatic version)
Air Permeability: High for enhanced drying efficiency
Filtering Characteristics: Excellent dust control with reduced emission

Model	Wire diameter (mm)		Density (wire/centimeter)		Tensile strength (N/cm)		Conductive thread	Air permeability m3/m2h
	Warp	Weft	Warp	Weft	surface	joint		
14804K	0.65	0.8	14.8	7.2	2000	900	Copper	6800
14804T	0.65	0.8	14.8	7.2	2000	900	Carbon	6800
14804M	0.65	0.8	14.8	7.2	2000	900	Copper & Carbon	6800
L201005T	0.65/0.35	1	20.6	5.1	2000	900	Carbon	7678

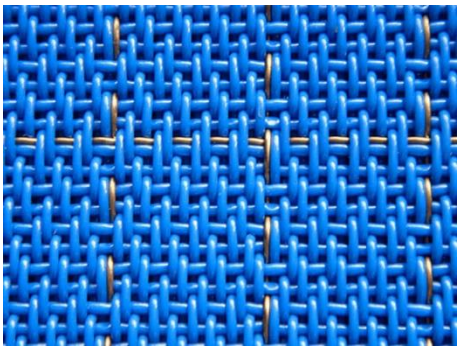
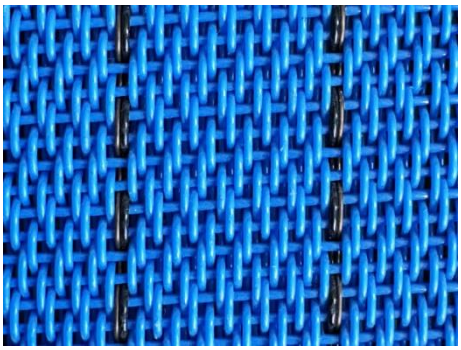
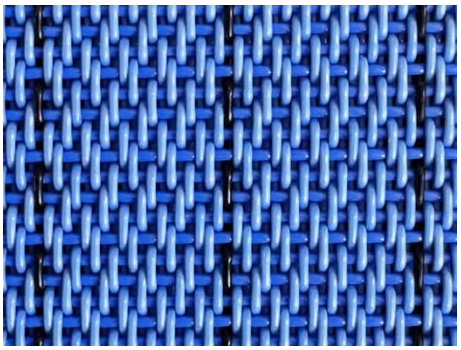
Pre-press and Ventilation Belt

Description

The PFM SCREEN pre-press and ventilation belts are designed for MDF and particleboard manufacturing, ensuring efficient deaeration and uniform pre-compression. With a stable structure, antistatic properties, high chemical and abrasion resistance, and quick splice options, they enhance product quality, reduce downtime, and are ideal for modern continuous pre-press systems.

In modern production facilities, the spread fiber mat or chip mat must undergo precise deaeration to prevent air pockets that can compromise the final product's quality. The PFM SCREEN belts achieve this by expelling air effectively while avoiding lateral displacement of the wood material. Their permeable fabric structure, with mesh sizes tailored to specific wood materials, ensures an optimal balance between ventilation performance and chip geometry.

To further enhance operational safety and performance, the belts incorporate copper or carbon threads woven into the polyester yarn. This feature ensures permanent electrostatic discharge in compliance with Atex standards, eliminating risks of sparks or adhesion issues. The belts' robust construction, featuring sealed edges and a stable fabric structure, guarantees long-lasting performance and minimal maintenance. Additionally, their compatibility with continuous pre-press systems ensures the fiber or chip mats remain compressed and stable, reducing the risk of spring-back effects before entering the main press.

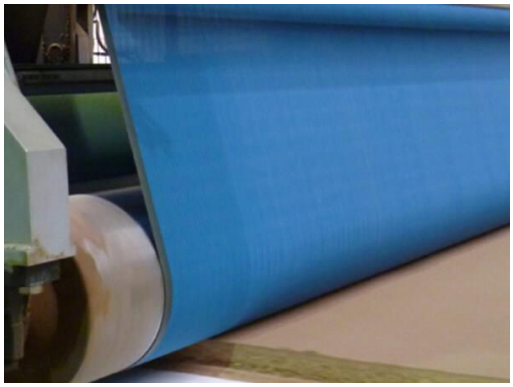
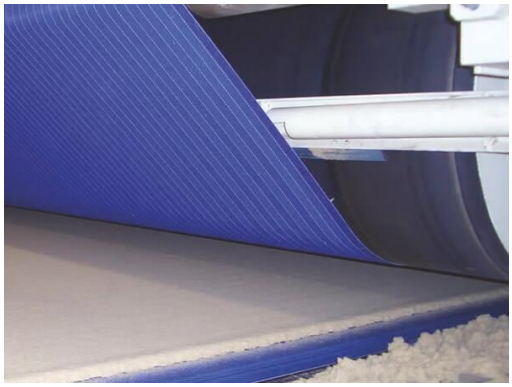
Feature

Stable Fabric Structure with Sealed Edges
Provides uniform ventilation and pre-compression.
Prevents lateral expulsion of material, ensuring precision and quality.
High Airflow Rate
Facilitates excellent deaeration processes.
Enhances top-layer density and increases line speed.
Reduces sanding efforts and boosts overall production quality.
Permanently Antistatic
Incorporates copper or carbon threads for electrostatic discharge as per Atex standards.
Prevents chip and fiber adhesion, ensuring smooth operations and heightened safety.
High Chemical Resistance
Resists chemical alterations, avoiding sticking and accumulation on the belt.
Requires minimal maintenance and ensures a long service life.
High Abrasion Resistance
Made from strong polyester monofilament for durability.
Delivers extended service life under demanding conditions.
Efficient Joining on Site
Offers multiple joining options: Endless Woven, Stainless Steel Fastener, Plastic Pin-seam, and Finger Splice.
Ensures fast, flexible, and strong connections with minimal production interruptions.

Application

PFM SCREEN ventilation belts are designed for use in MDF and particleboard manufacturing, specifically during the pre-press phase. These belts provide effective ventilation and pre-compression for fiber mats or chip mats, making them ideal for:

- Continuous pre-press systems.
- High-speed production lines.
- Facilities requiring enhanced safety and reduced maintenance.

Specifications

Material: Polyester monofilament with interwoven copper or carbon thread.
Delivery Widths: Up to 8000 mm.
Airflow Rate: High and controlled for optimal deaeration.
Splice Options:

Endless Woven
Stainless Steel Fastener
Plastic Pin-seam
Finger Splice Prepared

Standards Compliance: Atex standards for electrostatic discharge.

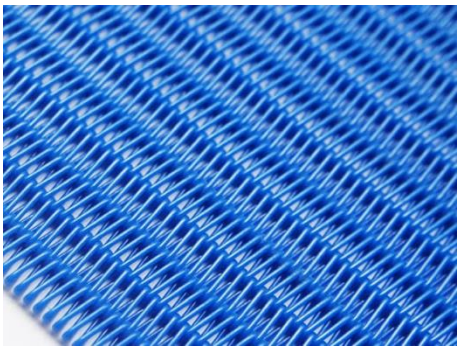
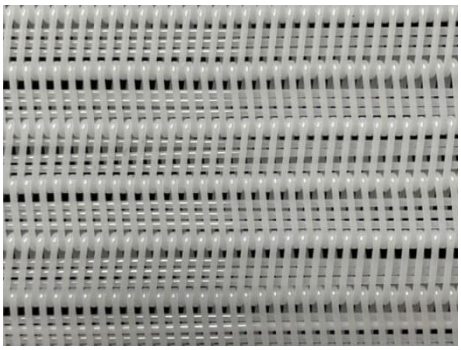
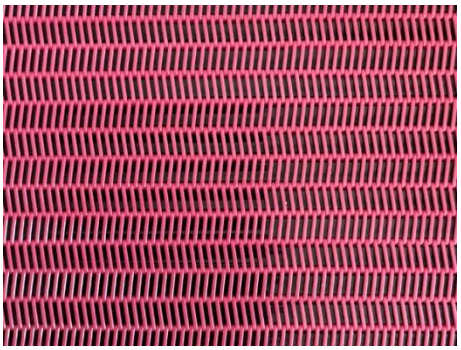
Model	Wire diameter (mm)		Density (wire/centimeter)		Tensile strength (N/cm)		Conductive thread	Thickness	Air permeability m3/m2h	Air permeability L/m2/S(200Pa)
	Wrap	Weft	Wrap	Weft	surface	joint				
14804K	0.68	0.8	14.8	7.2	2000	900	Copper	1.95	6800	430
14804T	0.68	0.8	14.8	7.2	2000	900	Carbon	1.95	6800	430
14804M	0.68	0.8	14.8	7.2	2000	900	Copper & Carbon	1.95	6800	430

Steam Pre-heater Spiral Belts

Description

PFM SCREEN's Steam Pre-heater Spiral Belts are meticulously designed to enhance the efficiency and performance of modern wood-based production plants. These specialized belts are integral components of pre-heating units, which play a crucial role in preparing pre-pressed chip or fiber mats before they enter the continuous press. By employing advanced steam injection technology, the belts ensure uniform and effective heating, significantly reducing production times and enabling throughput improvements of 10-30%.

Crafted with precision and utilizing high-quality materials, PFM SCREEN's spiral belts are tailored to meet the demanding requirements of the artificial board industry. Their robust construction ensures excellent tracking stability, while their flexible design allows them to accommodate even the tightest roller diameters. Furthermore, customizable air permeability options, achieved through specialized filler wires, make these belts adaptable to diverse customer needs. Trusted by manufacturers worldwide, PFM SCREEN's steam pre-heater belts are synonymous with durability, consistency, and exceptional performance, making them an indispensable asset in the wood-based panel production process.

Feature

Features:

- Made from high-performance materials such as polyester and PPS plastic for excellent thermal resistance and hydrolysis handling.
- Spiral construction with customizable filler wires for optimized air permeability and robust structure.
- Available in widths up to 8 meters and endless lengths, sealed to size for enhanced stability.
- Superior tracking stability and mechanical integrity for seamless operation.

Functions:

- Pre-heats chip and fiber mats using steam injection, reducing production times.
- Ensures uniform temperature distribution for consistent pre-heating.
- Curves around tight roller diameters due to its flexible design.

Benefits:

- Speeds up production processes by 10-30%, maximizing efficiency.
- Delivers high throughput rates and excellent release properties.
- Reduces energy costs by optimizing the heating process.
- Long-lasting and easy to maintain, ensuring minimal operational disruptions.

Application

PFM SCREEN's Steam Pre-heater Spiral Belts are widely used across various sectors of the wood-based panel industry, including:

- Medium-density fiberboard (MDF) production.
- High-density fiberboard (HDF) manufacturing.
- Particleboard and oriented strand board (OSB) production.
- Plywood and other engineered wood panel applications.

Specifications

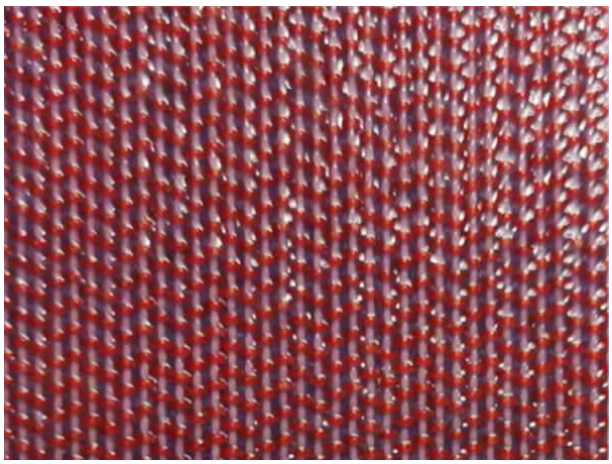
Material Options: Polyester, PPS plastic (for high-temperature applications)
Width: Up to 8 meters
Length: Endless, sealed to size
Operating Temperature: Up to 200°C (depending on material choice)
Air Permeability: Customizable through filler wires
Tracking Stability: Optimized for smooth and consistent operation
Durability: Designed for long-term use in demanding production environments

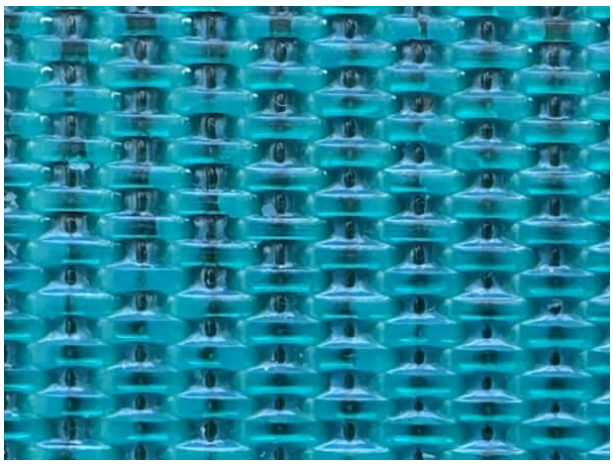
Type	Spiral loop width (mm)	Filament diameter (mm)			Strength (N/cm)	Weight (Kg/m2)	Thickness (mm)	Air permeability (m3/m2h)	CFM (127/pa)
		Spiral ring monofilament	Connection Wire	filler material monofilament					
Small loop 5080A1	5.2	0.5	0.8	0.60*3	1800	1.5	2.1	4480	280
Medium loop 6890A1	8	0.68	0.9	0.80*4	2000	2	2.45	6080	380
Medium loop 6890B1	7.15	0.68	0.9	0.90*3	2000	1.9	2.45	5760	360
Medium loop 6890B2	7.15	0.68	0.9	0.80*3	2000	1.85	2.45	7750	484
Medium loop 6890B3	7.15	0.68	0.9	Flat Wire 2.1*0.80	2000	1.8	2.45	9000	563
Medium loop 6890B4	7.15	0.68	0.9	Flat Wire 2.1*0.88	2000	1.85	2.45	8000	500
Large loop 9090A1	8	0.9	0.9	0.90*3	2300	2.3	3.03	7500	468
Large loop 90110A1	10	0.9	1.1	1.0*4	2000	2.4	3.15	6240	390
Large loop 10090A1	8	1	0.9	1.0*3	2000	2.5	3.6	5000	315
Large loop 120130A1	12	1.2	1.3	1.2*3	2600	2.85	4.3	7500	468

Silicon Coating Polyester Press Infeed Belts

Description

The Silicon Coating Polyester Press Infeed Belt, also known as an Intermediate Belt, is designed specifically for the entrance position of wood-based panel production lines. Manufactured by PFM SCREEN, these belts are crafted from high-quality imported polyester monofilament and impregnated with durable silicone coating. Engineered for superior performance, these belts ensure stability even on small-diameter pulleys, enabling seamless operation and minimizing downtime during production. The innovative design allows for quick installation without the need to disassemble machinery, saving both time and operational costs.





Feature

- **Durable Material:** Made from imported polyester monofilament for long-lasting performance.
- **Silicone Coating:** Provides enhanced grip and wear resistance.
- **Small Pulley Compatibility:** Stable performance even on small-diameter pulleys.
- **Quick Installation:** No need to disassemble the machine, reducing downtime.
- **Cost-Effective:** Minimizes maintenance time and costs.

Application

The Silicon Coating Polyester Press Infeed Belts are widely used in the entrance section of continuous press machines in wood-based panel production lines. These belts are suitable for various types of wood-based panels, including:

- Particleboard
- MDF (Medium-Density Fiberboard)
- OSB (Oriented Strand Board)
- Laminated panels

Specifications

- **Material:** polyester monofilament
- **Coating:** Silicone
- **Compatibility:** Suitable for small-diameter pulleys
- **Installation:** Quick installation without machine disassembly
- **Application Area:** Entrance position of press machines in wood-based panel production
- **Belt thickness:** 1.9mm
- **Temperature range:** -40 to +180°C
- **Max width:** 4000

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: 00862188808 Mobile/WhatsApp/WeChat: 008615369679157
E-mail: polyestermeshbelts@pfmscreen.com Website: www.polyestermeshbelts.com