JBL MESH BELT

ENGINEERED · MATCHED · DELIVERED

Engineering-Controlled Metal Conveyor Belt Partner

BUYER'S GUIDE · SPIRAL FREEZER BELT

Spiral Freezer Belt: The Buyer's Guide

A spiral belt is not bought by width and length. What to check before you buy — for new spirals and replacements.

Spring Liu · Sales Director · 16 years in metal conveyor belts



Which part of this guide is for you?

Three kinds of buyer, three different starting points.



Building spirals (OEM): drive and drum
→ page 8



Replacing a worn belt with no drawing
→ page 11



Supplying customers: can it be matched, and arrive neutral?
→ page 19

Projects: Waffle cooling spiral 2026

Send photos or a drawing → page 22

The drive decides which belt details must match

Find where the machine touches the belt. That is where fit is decided.

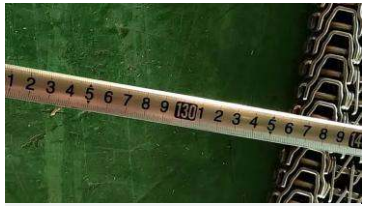


Australia: belt on the turn, guide posts behind

Low-tension (friction)	Drum bars move the inner edge: turn ratio, smooth inner edge
Direct drive	Drum engages the inner edge: edge shape and pitch suit the drum
Side drive	Sprockets on the side links: rod pitch, turn ratio
Edge drive (chain)	Sprockets on roller chains: chain model and pitch
Not sure?	Photo where the drive meets the belt, and the old belt edge



Sprocket teeth on the edge links



Inner edge on the turn



Roller-chain edge, eye link belt

JBL Mesh Belt engineering articles, 2026, photos: Australia, waffle line, Malaysia, Spain

Belt and sprocket matching → Sprocket Matching

Width and pitch alone do not define a spiral belt

What buyers run into when a spiral belt is bought on two numbers.



It does not close evenly on your drum



A worn belt no longer shows its original sizes



The sprockets are worn too



The guide strips get scored

Projects: Malaysia 2026, Waffle cooling spiral 2026, Australia 2023–2024

See: Spiral Freezer Belt Project Cases

What else decides whether a spiral belt runs

Two belts can share width and pitch and differ in all of this.



Malaysia: small radius belt laid out in a full circle

Turn ratio	How tightly it turns. Wrong: lifts or rides up on the turn
Link type	How far the inside edge closes. Wrong: cannot follow the turn
Rod diameter	Fit in links and teeth. Wrong: loose or binding joints
Edge type	How the edge meets drum and guides. Wrong: rubbing, wear
Direction	Which edge is inside. Wrong: the belt runs the wrong way



Edge links, top view



Rod on the original: 5.03 mm (0.198 in)



Link read on the original

JBL Mesh Belt engineering articles, 2026, Malaysia 2026, Australia 2023–2024

See: Spiral Belt Turn Ratio

Five checks before a spiral belt is quoted

If one is missing, it is not guessed.



Inner edge on the turn, checked with a tape

Drum and turn ratio	Drum diameter; radius to the inside edge or the centreline
Running direction	Clockwise or counter-clockwise; up or down
Pitch, rod, link	Caliper readings — new or worn
Edge, drive, sprockets	Edge photos; teeth, bore, keyway
Temperature, cleaning	Lowest and highest; cleaning method



Pitch read on the original



Edge close-up



Sprocket teeth and bore

Photo: Malaysia, 2026, Small Radius Spiral Freezer Belt

See: Spiral Belt Turn Ratio

Five readings from the old belt, and what each decides

Read with a caliper, keep the reading in the photo, and read worn and less-worn places.



Australia: pitch on a worn original, 27.41 mm (1.079 in)

Rod pitch	Rod spacing, sprocket engagement; over ten pitches
Rod diameter	Fit in the links and the sprocket teeth
Wire, spiral pitch	Mesh openness and product support
Link height, thickness	Contact with drum bars and guides
Edge type, finish	How the edge meets drum, guides, product



Link read on the original



Link pitch on the original



Mesh with a tape

JBL Mesh Belt engineering articles, 2026, Australia 2023–2024, waffle line 2026

Measuring an old belt → What to Send for a Quote

Belt and drive are checked as one system

Reviewed on your drawing before a spiral design is released.



Trial run rod pitch against the drawing: 19.05 mm (0.750 in)

Rod pitch, rod, link	Where the drum or tooth meets the belt
Turn ratio, radius	How tightly the belt turns on the drum
Edge type, finish	The inside edge rides on the drum
Sprocket	Same numbers as the belt
Direction, tiers, length	Which edge is inside; the belt path



Link: 2.72 mm



Inside edge on the trial



Sprocket on the belt

Malaysia, 2026, Small Radius Spiral Freezer Belt, drawing prepared from the customer's data

Your drawings are used only for your project

An equipment builder's spiral freezer: the drawing came first, the readings followed it.



South Asia: SUS304 spiral belt, electropolished

Starting point	The equipment builder's approved drawing; a new belt
Material, finish	SUS304, electropolished
Rod pitch, spiral pitch	27.4 mm; 12 mm
Link	24 × 2.5 mm
Orders	220 m in 2025, then repeat orders of 145 m, 122 m and 178 m



Rod pitch: 27.40 mm (1.079 in)



Spiral pitch read, 12 mm



Link thickness: 2.50 mm (0.098 in)

South Asia, 2025, Spiral Freezer Belt, OEM

Send your drawing → page 22

Spiral Freezer Belt — reference specification

Starting values. Final dimensions follow your confirmed drawing.



Spiral Freezer Belt

Material	SUS304 / SUS316
Rod pitch	19.05 / 25.4 / 27 / 27.4 / 38.1 / 40 mm (0.750 / 1.000 / 1.063 / 1.079 / 1.500 / 1.575 in)
Rod diameter	5.0 / 6.0 mm (0.197 / 0.236 in)
Belt width	300–2900 mm (11.81–114.17 in)
Turn ratio	1.15–2.5



Spiral Freezer Belt



Spiral Freezer Belt



Spiral Freezer Belt

Reference values: JBL Mesh Belt Spiral Freezer Belt Technical Specification, 2026-10-02

Full specification → Technical Specification

No drawing? Start from what you have

Most replacements start from the old belt, sample or photos.



A buyer's original belt, measured with a tape

Original drawing	Drawing review, then a sample
Old belt or a section	Measured with a caliper, checked against your equipment
Photos only	Estimated price; formal price needs more readings
Belt name or code	Used to identify it; dimensions still confirmed



Old belt read with a caliper



Sample next to the original



Photos of the belt on the line

Photo: waffle cooling spiral, 2026, Projects: Waffle cooling spiral 2026, Australia 2023–2024

Measuring an old belt → What to Send for a Quote

An old belt shows today's condition, not the design

Wear, stretch and old repairs change what the caliper reads.



Waffle line: worn edge links on the original

Link wear	Links read thinner than the design
Wire wear	Smaller wire diameter where it rubs
Stretch	Longer pitch, often uneven along the belt
Bent rods	Pitch looks irregular
Old repairs	A section with different rods, wire or welds



Read in more than one place



Australia: worn original

JBL Mesh Belt engineering articles, 2026, waffle line 2026, Australia 2023–2024

Worn readings, identified → next page

Copying a worn belt copies the wear

Worn values are identified, then confirmed with a sample.



Original link, worn: 2.42 mm (0.095 in)



New link: 2.71 mm (0.107 in)

	Worn original	New
Link thickness	**2.42 mm**	**2.71 mm**
	0.095 in	**0.107 in**
Rod	**4.99 mm**	**matched**

The trial run was linked into the original belt and approved from photos before bulk.

Waffle cooling spiral 2026

Send details → page 22

Inspect the parts around the belt before you reorder

A new belt cannot make up for a worn drive system.



Waffle line: worn sprocket teeth

Drum or cage	Grooved or loose bars: edge wear, tracking
Drive, idler sprockets	Hooked or thinned teeth: jumping, rod wear
Wear strips, rails	Scored or bent: belt not flat, edge damage
Take-up, tension	Setting drifted: too much or too little tension
Bearings, shafts	Worn or misaligned: tracking off, uneven load



Australia: scored guide strips



Australia: nylon sprocket measured

JBL Mesh Belt engineering articles, 2026, waffle line 2026, Australia 2023–2024

See: Sprocket Matching

Belt, machine or the match? Sort the symptom first

Photos of the damage, the whole belt and the drive usually show which one.



Edge links and rod heads, read before packing

Tracking off, riding up	Flatness and pitch; drum wear; turn ratio, direction
Jumping at the sprocket	Stretched pitch; hooked teeth; belt vs sprocket pitch
Broken rods or welds	Weld fusion; overload or jams; edge for the drive
Scratches, dark residue	Edge finish; worn drum bars or guides
Rust on one rod	Rod material



Wear on the original edge



Trial run: edge welds checked

JBL Mesh Belt engineering articles, 2026, Projects: Waffle cooling spiral 2026

Send photos and a running video → page 22

What to ask any spiral belt supplier

Five questions for any supplier.

Ask	A good answer	In this book
What do you need to quote?	Drum, turn ratio, direction, drive	 **Page 6**
How do you read a worn belt?	Worn values identified, not copied	 **Page 13**
Can we trial a short length?	Quoted for each project; compared with the original	 **Page 17**
What do I see before shipment?	Drum test, readings, photos, video	 **Page 19**
Will a repeat order match?	The confirmed specification is the reference	 **Bulk = trial: 19.05 mm**

Projects: Malaysia 2026, Waffle cooling spiral 2026

See: How an Order Runs

Spiral projects: what was checked before bulk

Three projects, three starting points.



Australia · about 400 m · from a worn section: pitch 27.41 → 27.40 mm (1.079 in)



Waffle cooling · about 200 m + sprockets: trial linked into the original



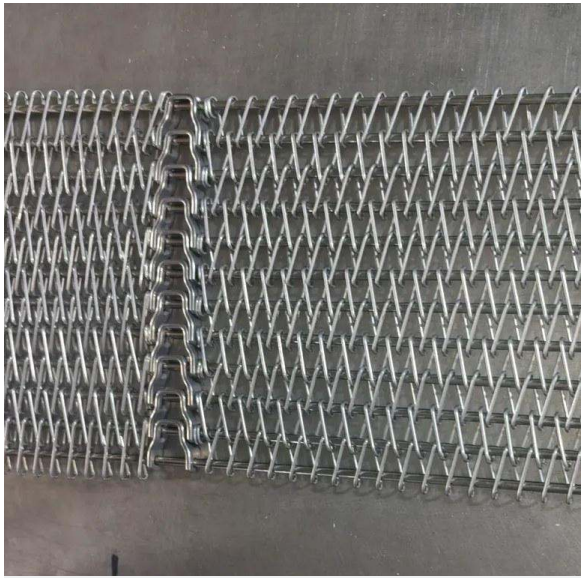
Malaysia · about 130 m · small radius: full-circle turn test

Projects: Australia 2023–2024, Waffle cooling spiral 2026, Malaysia 2026

See: Spiral Freezer Belt Project Cases · Small Radius Spiral Belt Project Case

Commissioning: a slow run without load first

Confirm direction and orientation first; load comes after a clean slow run.



Malaysia: trial run joined to the original

Tracking	Good: same place tier after tier. Stop: drifts or climbs
Turn	Good: inner edge closes evenly. Stop: lifting, tight spots
Sprocket	Good: teeth seat between rods. Stop: jumping, clicking
Noise	Good: steady. Stop: knocks or rhythmic clicks
Contact	Good: none. Stop: marks or shavings



Sections numbered for installation



Trial run: edge links, top

JBL Mesh Belt engineering articles, 2026, Malaysia 2026

See: Receiving Your Belt

What you receive after you order

From the order confirmation until the goods are collected.















1 Order

PI and the confirmed specification

2 Payment

Written payment confirmation and production start notice

3 Production

Every Thursday, you receive a progress update on your order

4 Before shipment

Test drum matched to your drum and turn ratio; photos or video

5 Packing

3.3 m numbered sections; 0.3 m spare; neutral packing

6 Documents

Invoice, packing list, material certificate, export documents; certificate of origin where it applies

7 Transit

Thursday freight status; Shipping, Arrival and Pick-up Notices; customs documents

Courier, air or sea freight is chosen with you; lead time is confirmed in writing in each quotation.

Terms confirmed by JBL Mesh Belt, 2026, Projects: Malaysia 2026, USA 2024

See: Payment & Payment Safety · Shipping → Shipping & Thursday Tracking

Questions buyers ask about spiral belts

Short answers on spiral belts, with the evidence pages.



No original drawing?

Old belt, sample or photos are measured, then sample-confirmed.



Trial a short length first?

Samples and trial lengths are quoted for each project. On the waffle line, the trial was linked into the original.



Checked before it ships?

Yes: turned on a test drum matched to your drum and turn ratio; photos or video. Sprockets run on the belt when supplied.



Material documents?

Batch-traceable material certificate; third-party tests (e.g. GB 4806.9) can be quoted.

Projects: Waffle cooling spiral 2026, Malaysia 2026

See: Material & Food-Contact Documents

Working with JBL Mesh Belt

Who you work with, and how each project runs.



Spring Liu

Sales Director · 16 years in metal conveyor belts

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JBL Mesh Belt is a brand of Jin Bei Li Metal (Suzhou) Co., Ltd. — Suzhou, China, since 2015.

1. Drawing or old belt reviewed before quoting
2. Sample or trial section confirmed before production
3. Readings and photos until delivery



Reviewed: the buyer's old belt



Confirmed: trial next to the original



Reported: turn test before shipment

Projects: Waffle cooling spiral 2026

Send details → page 22

Spiral belt? Send us these

Six items to start a spiral belt review.



1 Edge and mesh photos, with a tape or caliper



2 Pitch over 10 pitches, rod, link



3 Drum diameter, turn ratio, direction



4 Width and total length



5 Sprocket teeth, bore, keyway



6 New belt, or joining your old one?

Send it on WhatsApp

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info@jblmeshbelt.com

Your drawings and photos are used only for your project.

Scan to chat

Projects: Waffle cooling spiral 2026

Full quote checklist → What to Send for a Quote

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START A PROJECT WITH JBL

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Send your drawing, old-belt photos or required dimensions.

We review the fit dimensions with you before you order.

RELATED BOOKS

- Spiral Freezer Belt Technical Specification
- Spiral Freezer Belt — Project Cases
- Turn Ratio
- What to Send for a Quote

GET IN TOUCH

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