



PRODUCTION & QUALITY CONTROL

# SPIRAL FREEZER BELT

Manufacturing processes  
and project inspection

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# Manufacturing and project control

## Ningjin Yiyi Mesh Belt Co., Ltd.

A manufacturer of metal conveyor belts and related conveyor components based in Ningjin, Shandong, China.

Manufacturing experience since 1998.  
Current company established in 2008.

Core belt forming, assembly, welding and inspection are managed in-house. Selected surface treatments and supporting components use external suppliers.



**YIYI MESH BELT manufacturing site**

## Approval and inspection sequence

| Stage                           | Control point                                           |
|---------------------------------|---------------------------------------------------------|
| <b>01 Drawing approval</b>      | Confirm dimensions, materials and equipment interfaces. |
| <b>02 Trial production</b>      | Inspect the first article before mass production.       |
| <b>03 Matching verification</b> | For applicable projects, check approved drum geometry.  |
| <b>04 Mass production</b>       | Check formed components, assembly and weld condition.   |
| <b>05 Final inspection</b>      | Inspect the finished belt before shipment.              |
| <b>06 Packing and records</b>   | Confirm packing requirements and retain order records.  |

Project drawings define the final configuration and inspection requirements.

# Stainless steel wire drawing



## In-house wire preparation

Dedicated wire-drawing equipment supports the preparation of stainless steel wire for belt manufacture.

## Project requirement

Confirm the material grade and wire diameter against the approved specification.

# Round-bar drawing



## In-house rod preparation

Round-bar drawing is part of YIYI MESH BELT's material preparation capability.

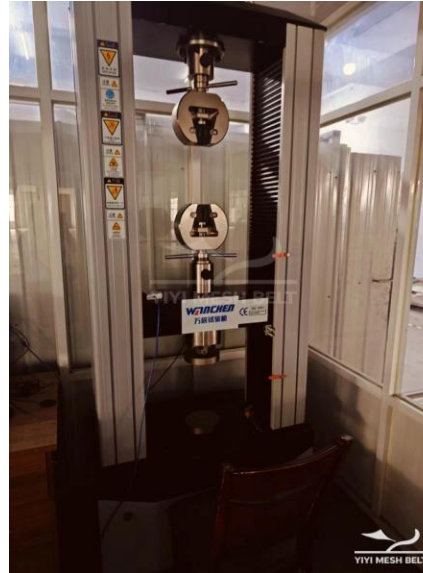
## Project requirement

Rod material and diameter are selected for the belt design and approved drawing.

# Material inspection equipment



**Alloy composition screening**



**Tensile testing equipment**



**Hardness testing equipment**

Confirm the applicable test method, acceptance criteria and required material records for each project.

## Wire and rod diameter checks



**Wire diameter measurement**



**Rod diameter measurement**

Check wire and rod diameters against the approved specification. Agree dimensions and tolerances in mm / in for the project.

# Spiral wire forming



**Spiral forming equipment**



**Production workshop**

Wire is formed into the spiral elements used in the belt. Confirm the required mesh geometry before batch production.

# Spiral forming inspection



**Formed spiral measurement**



**Spiral geometry check**

Trial pieces are checked against the approved geometry before continuing production.

## Link dimensional inspection



Component dimensions are checked during production. Acceptance dimensions and tolerances follow the approved drawing.

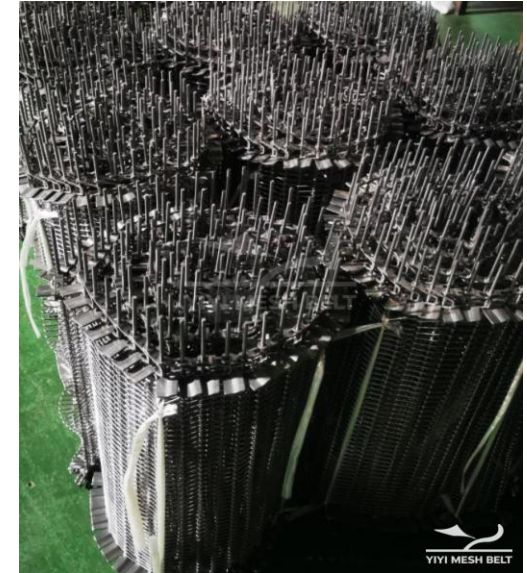
# Belt assembly and straightening



**Formed components**



**Rod-and-spiral assembly**



**Assembled belt**

Spiral elements and rods are assembled, then adjusted for belt flatness. Final geometry follows the approved specification.

## Robotic edge welding



### Welding under in-house control

YIYI MESH BELT operates 9 automatic welding robots across its manufacturing operations.

### Project requirement

Weld configuration and inspection requirements follow the selected belt construction. The equipment count is company-wide.

# Trial production and first-article inspection



Customized orders undergo trial production and first-article inspection before mass production. Photographs show measurement examples; use the approved drawing for acceptance values.

## Drum geometry and matching verification



**Drum geometry measurement**



**Belt arrangement for geometry review**

For applicable projects, verify approved drum geometry before mass production. Confirm the belt width, turn geometry and equipment interfaces together.

# Finished belt dimensional inspection



Finished belt geometry is checked against the approved specification. Measurement photographs show project examples, not universal belt dimensions.

## Edge finish inspection



**Welded edge detail**



**Edge consistency check**

Inspect the selected edge construction for weld condition, consistency and burrs against the agreed requirements.

## Additional edge construction details



**Edge construction detail**



**Finished edge detail**

Edge finish and connection details must match the approved belt design. Select the configuration with the equipment application in mind.

## Final inspection and surface-treatment review



All YIYI MESH BELT mesh belts undergo 100% final inspection before shipment. Where surface treatment is specified, re-inspection follows treatment; selected treatments use external suppliers.

## Protective packing and supplied accessories



**Protected belt ready for packing**



**Accessories packed with the belt**

Confirm the supplied accessories and packing requirements against the order before shipment.

## Wooden-case packing



### Packed shipment



### Wooden-case protection

Packing is arranged for the agreed transport route and destination requirements. Wooden-case fabrication uses external suppliers.

## Project records and repeat-order support

| Record                             | Purpose for the buyer                                           |
|------------------------------------|-----------------------------------------------------------------|
| Approved drawing and revision      | Maintain the agreed specification for manufacture and reorders. |
| Material and production records    | Support order traceability and review of manufacturing history. |
| Inspection records and photographs | Review recorded checks against the agreed requirements.         |
| Customer confirmations             | Retain technical decisions and approved changes.                |

### Agree the inspection documents you need before production.

For replacement projects, include existing belt details, equipment geometry and operating conditions.



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## Metal Conveyor Belt Manufacturer

for OEMs & Professional Distributors

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## Send Your Drawing for Production Review

- Belt dimensions (mm / in)
- Equipment / drum geometry
- Material and operating conditions
- Inspection requirements
- Existing belt photos / sample

**Request an Engineering Review**