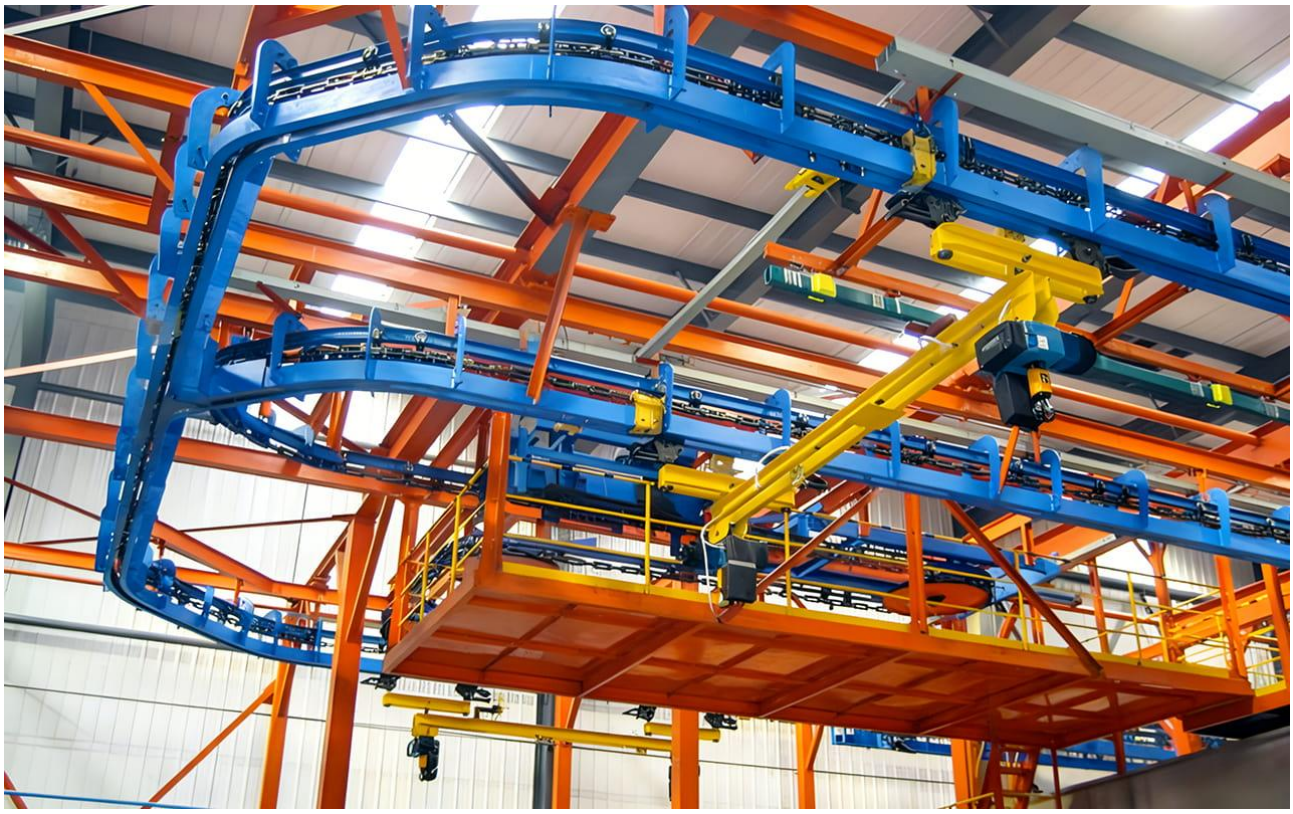
Ji'nan ShengTai Painting Equipment Co.,Ltd.
Address: East of the intersection of Dongwaihuan Road and Wenhua Road in Wenden, Diaozhen Street, Zhangqiu District, Jinan City,Shandong Province
Email: sales@stpowdercoating.com WhatsApp:+8615854139190



Accumulation Conveyor E–Coating Line ST–ELA

The system features an accumulation conveyor line that merges continuous transfer with e–coating processes. Workpieces progress sequentially through the transfer line to the application area, undergoing treatment with an electrophoretic coating.

An accumulation conveyor line is an intelligent conveying system with controllable stopping capability. It enables orderly transport and temporary accumulation of materials during conveyance through a continuously running main drive chain and an independently controlled mechanism for the accumulation trolleys.

I. Module Function Description

Main Drive Chain/Track: Provides continuous power, analogous to a "river" or "locomotive"

Accumulation Trolley Carries materials: Able to stop independently without halting the main chain

Connection/Locking Device : Controls the engagement or disengagement of trolleys from the main chain

Electrical Control System Issues: commands to control the timing and location of accumulation

Sensors/Blocking Devices: Achieve precise positioning and trigger accumulation

II. Operational Steps

1. The main drive chain operates continuously (power source remains on).
2. Trolleys move with the chain (normal conveying state).
3. The system issues an accumulation command.
4. The connection device activates (trolley disengages from power or locks).
5. The trolley stops at the designated position (achieving accumulation).
6. Following trolleys continue operation (without affecting the overall process).
7. The trolley re-engages with the main chain when required (resuming conveyance).

III. Key Considerations

Installation Precision Ensure track flatness and chain alignment to avoid irregular "limping" operation.

Maintenance Conduct regular inspections of the power source, locking devices, and sensors.

Control System Programming logic must be rigorous, with stable signal transmission.

Wear Monitoring Locking devices and connection components are prone to wear and require timely replacement.

IV. Safety Assurance

Trolley Structure Designed with anti-slip and anti-fall features, with no sharp edges.

Track Guarding Install guardrails and safety covers to prevent accidental contact by personnel.

Emergency Stop Equipped with emergency stop buttons for immediate shutdown in case of incidents.

Load-Bearing Design Trolley structure must have sufficient strength to prevent material fall.

V. Stability Performance

• Individual actions do not affect the whole: The accumulation or restart of a single trolley does not disrupt the entire E-coating line.

• Stable operation under high load: The system maintains orderly operation even with multiple trolleys accumulating simultaneously.

• Precise control: Electrical and mechanical synergy prevents jamming, shaking, or misoperation.

VI. Core Advantages

High Flexibility Allows for real-time adjustment of accumulation sequence and quantity.

Strong Intelligence Automated control reduces manual intervention.

High Space Utilization Compact structure adapts to complex factory layouts.

Excellent Expandability Modules can be added like "building blocks".

Significant Efficiency Gains Shortens cycle times, reduces waiting periods, and lowers defect rates. The accumulation conveyor line serves as the "intelligent traffic system" in modern industry. It achieves precise stopping and release of materials without halting the flow, making it a key piece of equipment for enhancing efficiency, reducing costs, and ensuring safety in processes like an Electrocoating Line.

Please provide detailed information so that we can provide you with a more accurate solution:

1. What are the Maxminum and Minimum dimensions of your workpieces (L × W × H)?
2. What is the maximum weight of each workpiece? If available, please also provide product photos.
3. How many workpieces do you plan to coat per day (based on 8 or 16 working hours) or per month?
4. Which heating source do you prefer, such as electric power, diesel, fuel oil, or natural gas?
5. What are the dimensions of your workshop (L × W × H)? If possible, could you share a layout or drawing of the facility?
6. Prior to coating, do you require spray pre-treatment to prepare and clean the product surface?

7. What voltage and frequency standards are used in your country?

Please also share your WhatsApp or another instant messaging contact so we can communicate more efficiently.

Website: https://www.stpowdercoating.com
Address: East of the intersection of Dongwaihuan Road and Wenhua Road in Wenden Village, Diaozhen Street, Zhangqiu District, Jinan, ShanDong, China, 250000
WhatsApp: +86–15854139190
WeChat/Telegram: +86–15098917702
Email: sales@stpowdercoating.com