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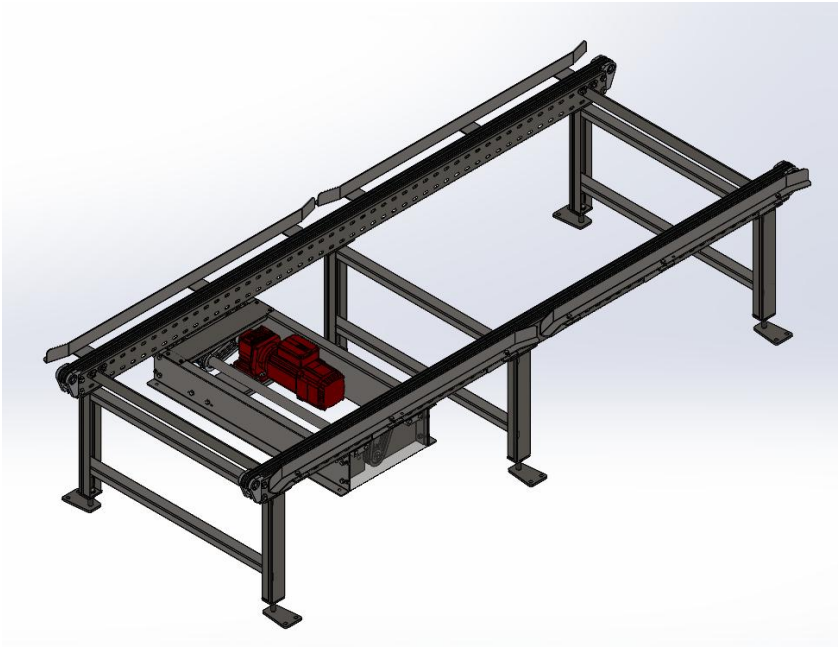
Equipment Description

1.1 Chain Conveyor



Main Structure and Features:

Conveyor Chain:

- C10B-2 straight plate double-row chain with a pitch of P=15.875mm.

Chain Guidance:

- Guided by self-lubricating ultra-high molecular weight polyethylene (UHMW).

Body:

- The frame is made of 120x70x15x4mm carbon steel profiles.
- Welded support legs are bolted to the frame, with M20 screw-adjustable feet for ground fixation.
- Conveyor surface height adjustable by ±25mm.

Guide Rails:

- Configured according to project requirements, with adjustable and outward-folding guardrails.

Drive Unit:

- Mid-drive configuration consisting of a geared motor, drive shaft assembly, drive sprocket set, and motor base.
- The motor drives the drive shaft rotation via sprockets. Sprockets on both ends of the drive shaft drive the C10B-2 double-row conveyor chain.

Accessory Equipment:

- Includes photocell brackets and end limit guard plates.

Surface Coating:

- Parts such as support legs, guardrails, and frame are derusted with wire brushes and sandpaper, degreased with acid, phosphated, and then electrostatically sprayed with epoxy resin powder and baked. The resin thickness is between 60μm-90μm.

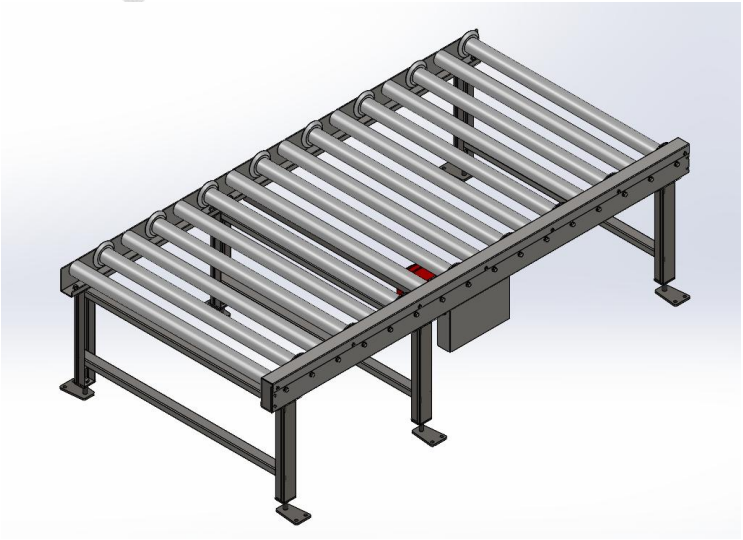
Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua
- Bearings with seat: TR
- Bearings: Harbin

Main Performance and Parameters:

- **Maximum Load Capacity:** 1000kg (including pallet)
- **Conveying Speed:** 16m/min

1.2 Roller Conveyor



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Main Structure and Features:

Rollers:

- φ76x3 single-sided double sprocket galvanized rollers, precision-rolled welded pipes, with roller spacing of P=167mm.
- Single-sided double sprocket: 10A-13T, φ20 cold-drawn carbon steel shaft.
- Installed on the frame with M12 internal threaded bolts, with bearings at both ends of the roller being maintenance-free deep groove ball bearings.

Body:

- The frame is made of cold-formed steel, with the outer C-type specification being 125x75x30x5mm.
- Welded support legs are bolted to the frame, with M20 screw-adjustable feet for ground fixation, allowing for conveyor surface height adjustment of ±25mm.

Guide Rails:

- The pallets are guided by the retaining rings on the rollers. Side guiding is provided, with the retaining rings welded to the roller barrel.

Drive Chain:

- Utilizes precision roller chain 10A-1 compliant with GB1243 standard.

Drive Unit:

- Uses mid-drive configuration, with the geared motor mounted on a bracket beneath the frame.
- It consists of a pedestal-mounted motor with a drive sprocket. The chain connects the motor sprocket to the adjacent two roller chain sprockets, which in turn are connected to other driven rollers through a closed loop chain.

Protective Covers:

- Enclosed guards for both roller chain and motor chain transmission parts.

Accessory Equipment:

- Includes photocell brackets.

Surface Coating:

- Parts such as the frame, support legs, and photocell bracket mounting plates are derusted with wire brushes and sandpaper, degreased with acid, phosphated, and then electrostatically sprayed with epoxy resin powder and baked. The resin thickness is between 60μm-90μm for fasteners.

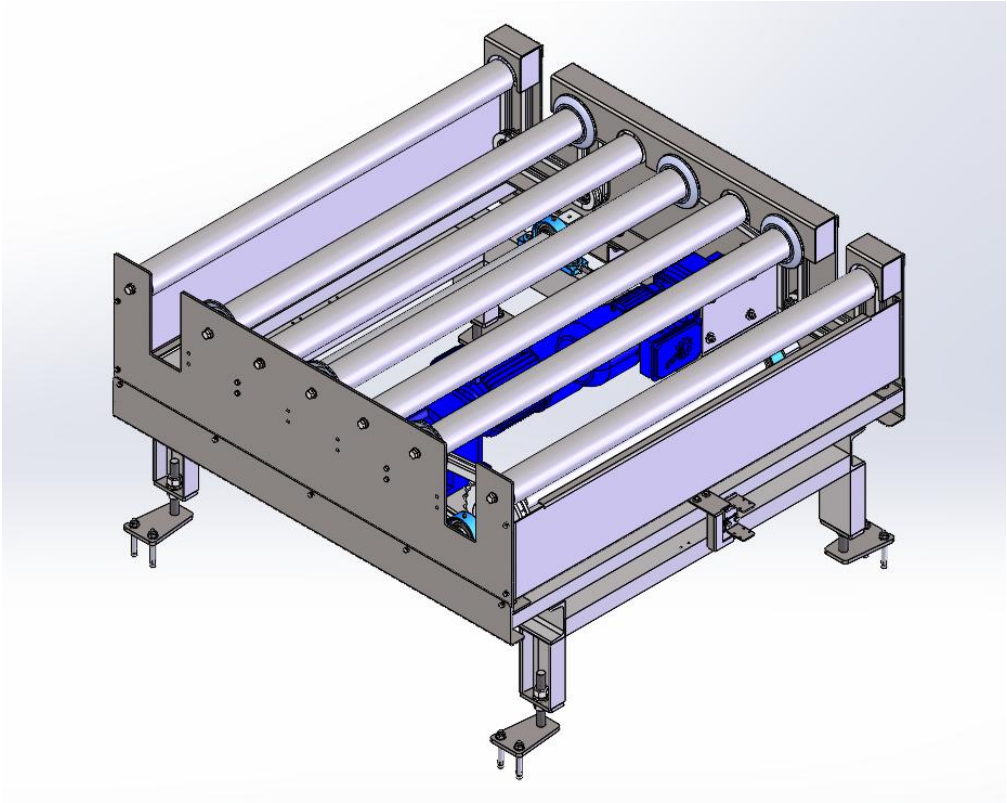
Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua

Main Performance and Parameters:

- **Maximum Load Capacity:** 1000kg (including pallet)
- **Conveying Speed:** 16m/min

1.3 Roller Transfer Conveyor



Main Structure and Features:

Lifting Mechanism:

- Welded bottom frame with height-adjustable feet. The pedestal-mounted geared motor is placed in the middle of the bottom frame.
- Two shafts are connected to the side bearing seats and the bottom frame, respectively. These shafts are linked to the motor via transmission chains.
- Each shaft is equipped with needle roller bearing arms at both ends to form the lifting structure, ensuring even force distribution and smooth lifting.

Transfer Mechanism:

- Utilizes a double-chain roller conveyor, similar in structure to the one described above.

Accessory Equipment:

- Photocell brackets for position detection during lifting and to detect when the lifting process is completed.

Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua
- Seat bearings: TR
- Axle bearings: HA axle

Surface Coating:

- Parts such as the frame and photocell bracket mounting plates are derusted with wire brushes and sandpaper, degreased with acid, phosphated, and then electrostatically sprayed with epoxy resin powder. The coated parts are baked to achieve a resin thickness between 60μm-90μm.

Main Performance and Parameters:

- **Maximum Load Capacity:** 1000kg (including pallet)
- **Lifting Stroke:** 80mm
- **Lifting Time:** 3 seconds
- **Conveying Speed:** 16m/min

1.4. Chain Transfer Conveyor

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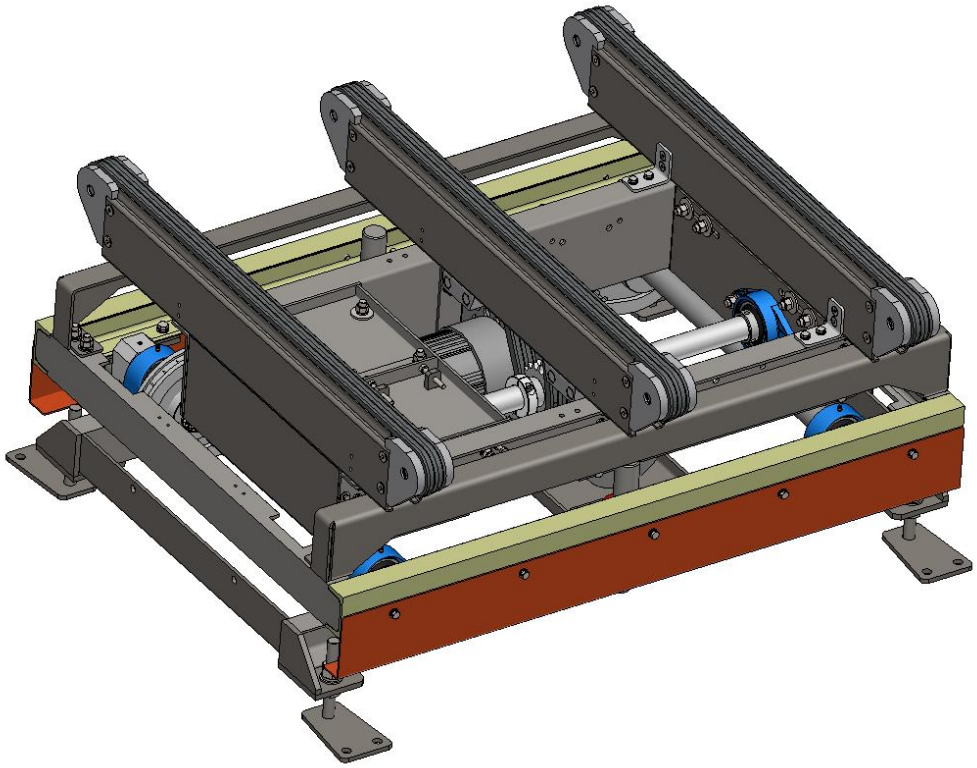
Main Structure and Features:



Lifting Mechanism:

- Welded bottom frame with height-adjustable feet. The pedestal-mounted geared motor is placed in the middle of the bottom frame.
- Two shafts are connected to the side bearing seats and the bottom frame, respectively. These shafts are linked to the motor via transmission chains.
- Each shaft is equipped with needle roller bearing arms at both ends to form the lifting structure, ensuring even force distribution and smooth lifting.

Transfer Mechanism:

- Utilizes a chain conveyor, with a structure similar to the one described above.

Accessory Equipment:

- Photocell brackets for position detection during lifting and to detect when the lifting process is completed.

Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua
- Seat bearings: TR
- Axle bearings: HA axle

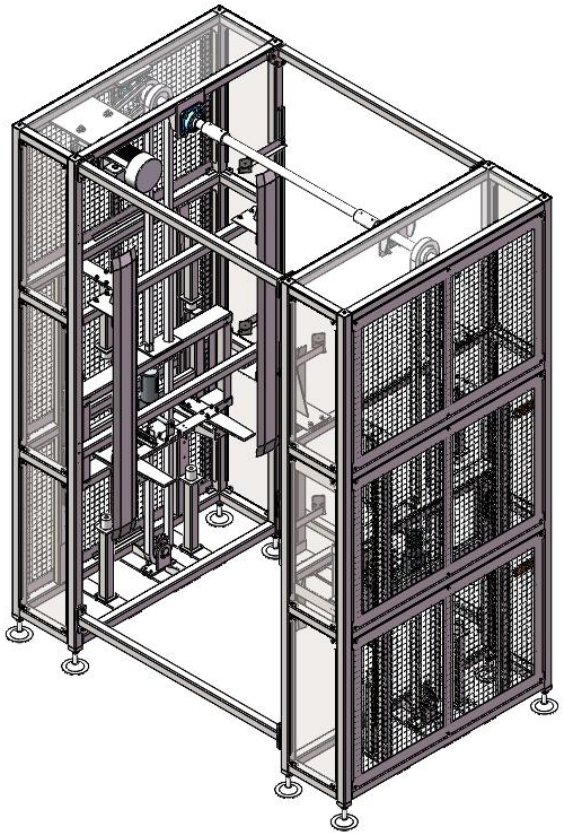
Surface Coating:

- Parts such as the frame and photocell bracket mounting plates are derusted with wire brushes and sandpaper, degreased with acid, phosphated, and then electrostatically sprayed with epoxy resin powder. The coated parts are baked to achieve a resin thickness between 60μm-90μm.

Main Performance and Parameters:

- **Maximum Load Capacity:** 1000kg (including pallet)
- **Lifting Stroke:** 80mm
- **Lifting Time:** 3 seconds
- **Conveying Speed:** 16m/min

1.5. Unstacking/Stacking Machine



Main Structure and Features:

Frame:

- Modular frame installed on the side of the chain conveyor. The frame is equipped with forked devices, and metal mesh screens are installed on the outer side of the motor.

Drive Chain:

- Utilizes precision roller chains compliant with GB1243 standards.

Drive Mechanism:

- The drive mechanism employs chain and gear transmission. Both the motor and the drive shaft have adjustment devices to regulate the tension of the drive chain.
- The movable frame is suspended by chains, and the guiding device consists of two sets of bearings sliding up and down within guide rails.
- The adjustable nature of the frames on both sides ensures that they move on the same horizontal plane during operation, guaranteeing smooth operation and accurate stacking/unstacking positions.

Accessory Equipment:

- Photocell brackets are included for additional functionality.

Surface Coating:

- Parts such as the frame undergo derusting with wire brushes and sandpaper, degreasing with acid, phosphating, and then electrostatically spraying with epoxy resin powder. The coated parts are baked to achieve a resin thickness between 60μm-90μm.

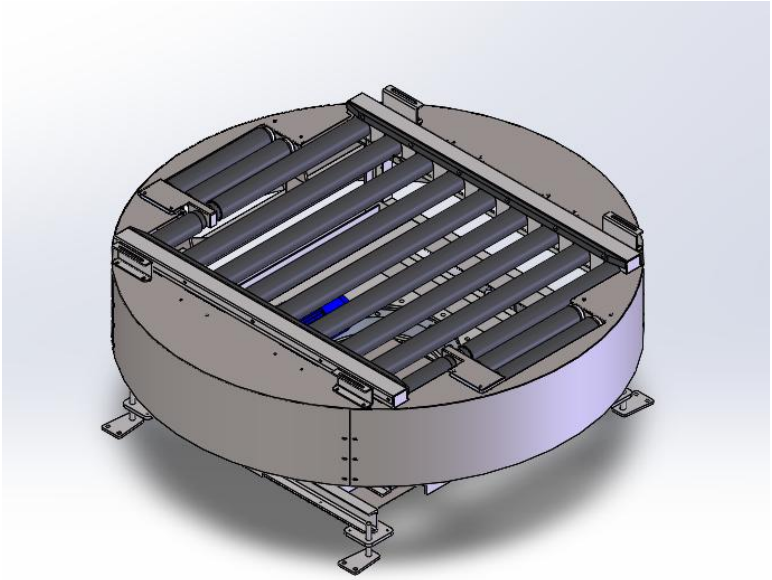
Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua
- Seat bearings: TR
- Axle bearings: HA axle

Main Performance and Parameters:

- **Number of Unstacking/Stacking Trays:** 10
- **Single Machine Capacity:** 300 trays/hour
- **Maximum Load Capacity:** 500kg

1.6 Roller Turntable



Main Structure and Features:

Rotation Mechanism:

- The rotation mechanism utilizes a gear-type turntable bearing, known for its simple structure, high precision rotation, resistance to axial and radial forces, and smooth operation. The gear-type turntable bearing is positioned in the middle of the base frame, with its outer ring fixedly connected to the upper roller conveyor and its inner ring fixedly connected to the base frame. The outer ring of the gear-type turntable bearing is driven by a gear attached to a geared motor installed on the frame.

Transfer Mechanism:

- It employs a double-chain roller conveyor, similar in structure to the one described earlier.

Accessory Equipment:

- Photocell brackets are included for rotation speed reduction position detection and precise positioning detection.

Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua

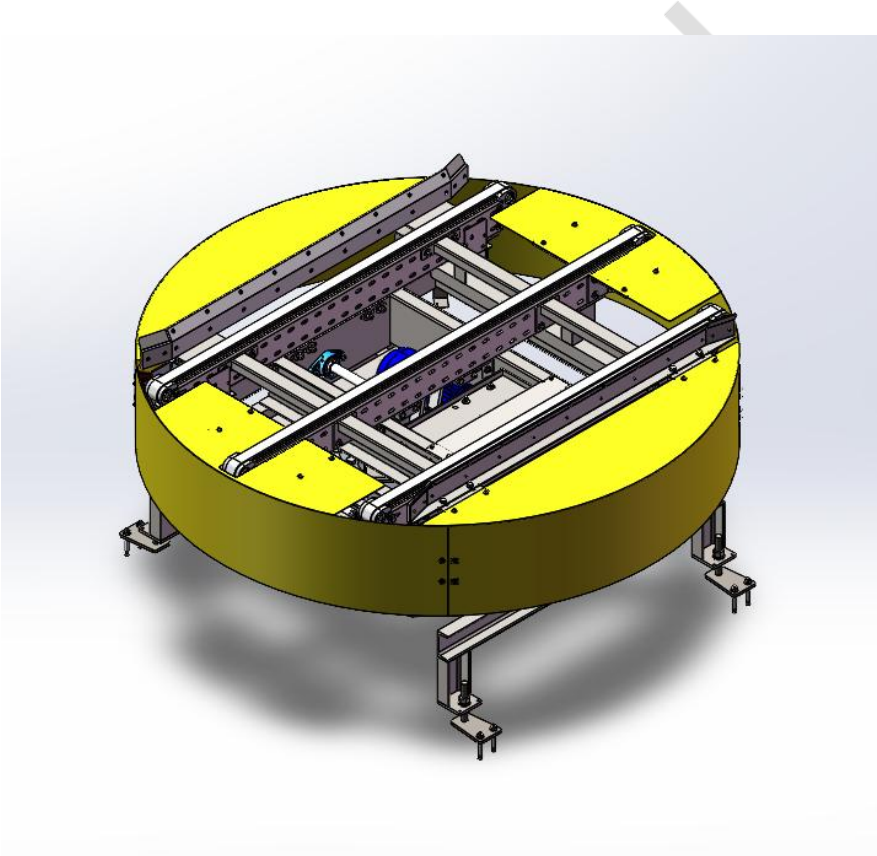
Surface Coating:

- Parts such as the frame and photocell bracket mounting plates undergo derusting with wire brushes and sandpaper, degreasing with acid, phosphating, and then electrostatically spraying with epoxy resin powder. The coated parts are baked to achieve a resin thickness between 60μm-90μm.

Main Performance and Parameters:

- **Maximum Load Capacity:** 1000kg (including pallet)
- **Rotation Angle:** 90°, 180°
- **Rotation Time:** 6 sec/90°
- **Conveying Speed:** 16m/min

1.7 Chain Turntable



Main Structure and Features:

Rotation Mechanism:

- The rotation mechanism utilizes a gear-type turntable bearing known for its simple structure, high precision rotation, resistance to axial and radial forces, and smooth operation. The gear-type turntable bearing is positioned in the middle of the base frame, with its outer ring fixedly connected to the upper chain conveyor and its inner ring fixedly connected to the base frame. The outer ring of the gear-type turntable bearing is driven by a gear attached to a geared motor installed on the frame.

Transfer Mechanism:

- It employs a chain conveyor, similar in structure to the one described earlier.

Accessory Equipment:

- Photocell brackets are included for rotation speed reduction position detection and precise positioning detection.

Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua

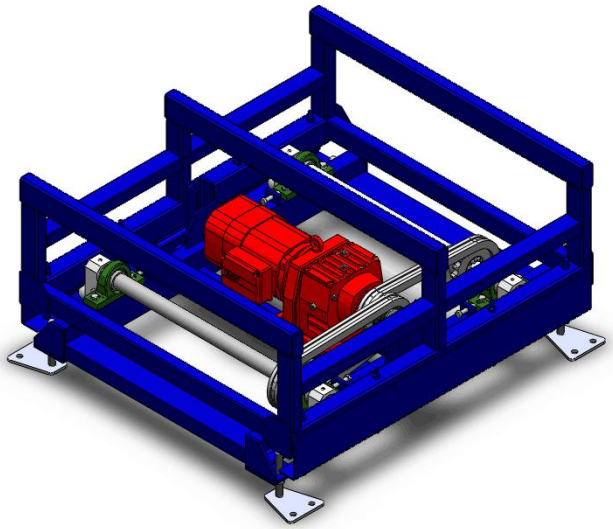
Surface Coating:

- Parts such as the frame and photocell bracket mounting plates undergo derusting with wire brushes and sandpaper, degreasing with acid, phosphating, and then electrostatically spraying with epoxy resin powder. The coated parts are baked to achieve a resin thickness between 60μm-90μm.

Main Performance and Parameters:

- **Maximum Load Capacity:** 1000kg (including pallet)
- **Rotation Angle:** 90°, 180°
- **Rotation Time:** 5.1 sec/90°
- **Conveying Speed:** 16m/min

1.8 Lift Table



Main Structure and Features:

Lift Mechanism:

- The lift mechanism consists of a welded bottom frame with height-adjustable feet. A pedestal-mounted geared motor is positioned in the middle of the bottom frame. Two shafts are connected to the bottom frame via bearing housings on each side. These shafts are linked to the motor via transmission chains. Each shaft is equipped with rocker arms and needle roller bearings at both ends to ensure uniform force distribution and smooth lifting of the lifting frame.

Bottom Support:

- M20 screw-adjustable feet are used to secure the lift table to the ground (two mounting holes for anchor bolts).

Accessory Equipment:

- Photocell brackets are included for position detection during lifting and precise positioning.

Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua
- Bearings: TR for seat bearings, and Ha for regular bearings

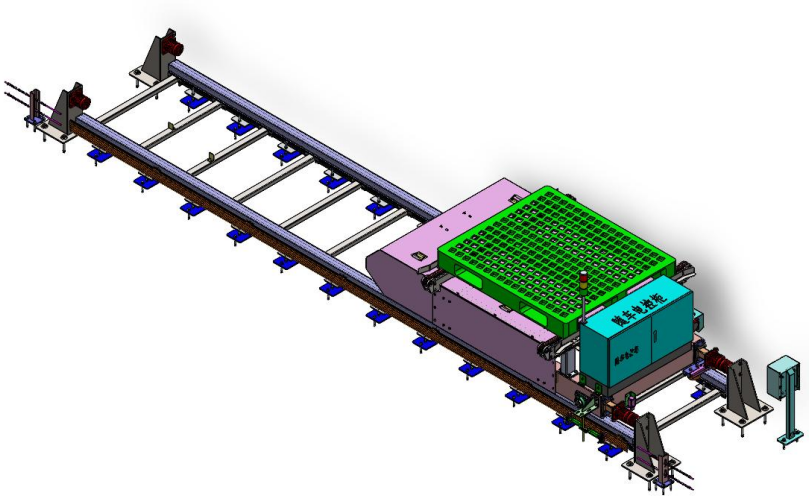
Surface Coating:

- Parts such as the frame and photocell bracket mounting plates undergo derusting with wire brushes and sandpaper, degreasing with acid, phosphating, and then electrostatically spraying with epoxy resin powder. The coated parts are baked to achieve a resin thickness between 60μm-80μm.

Main Performance and Parameters:

- **Maximum Load Capacity:** 1000kg (including pallet)
- **Lifting Stroke:** 170mm (the raised position is 150mm above the conveyor surface of the matching chain conveyor)
- **Lifting Time:** 5.3 seconds

1.9 Track Shuttle Car



Main Structure and Features:

Guide Rails:

- Two aluminum alloy guide rails serve as the travel tracks for the shuttle car, with safety buffer stops at both ends.

Platform Carrier:

- Can be equipped with roller conveyors/chains based on project requirements.

Travel Mechanism:

- Utilizes high-hardness, wear-resistant polyurethane-coated travel wheels, driven by a motor.

Guidance:

- Single-side guide wheel guidance to reduce the requirement for parallelism of the two guide rails.

Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua
- Bearings: TR for seat bearings, and Ha for regular bearings

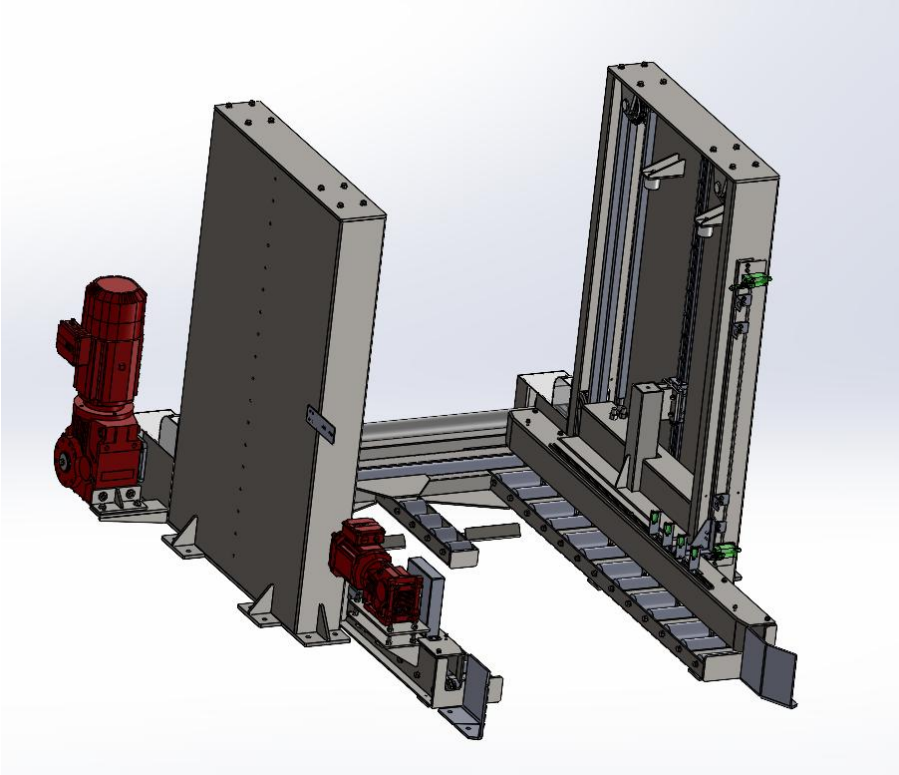
Surface Coating:

- Parts such as the frame and mounting plates undergo derusting with wire brushes and sandpaper, degreasing with acid, phosphating, and then electrostatically spraying with epoxy resin powder. The coated parts are baked to achieve a resin thickness between 60μm-80μm.

Main Performance and Parameters:

- **Maximum Load Capacity:** 1000kg (including pallet)
- **Travel Speed:** 120m/min
- **Conveying Speed:** 16m/min

1.10 Floor-Mounted Lift Table



Main Structure and Features:

Lifting Mechanism:

- The cargo platform is suspended by four lifting chains at each corner.
- Guide wheels on both sides of the platform ensure smooth and stable lifting, effectively preventing tilting or tipping of goods due to unbalanced weight or movement.

Cargo Platform:

- Equipped with a three-row roller conveyor.
- Roller diameter: 60mm.
- The conveying surface can lower to a minimum of 80mm above the ground.
- Compatible with hydraulic pallet trucks, electric forklifts, and internal combustion forklifts.

Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua
- Mounted bearings: TR
- Bearings: Harbin Bearing Group (HRB)

Surface Coating:

- Frame, mounting plates, and other parts are cleaned using wire brush and sandpaper for rust removal, followed by acid cleaning to remove grease.
- Phosphating treatment followed by electrostatic spraying with epoxy resin powder and baking.
- Resin coating thickness between 60μm-90μm.

Main Performance and Parameters:

- **Maximum Load:** 1500kg (including pallet)
- **Lifting Speed:** 10m/min
- **Conveying Speed:** 16m/min

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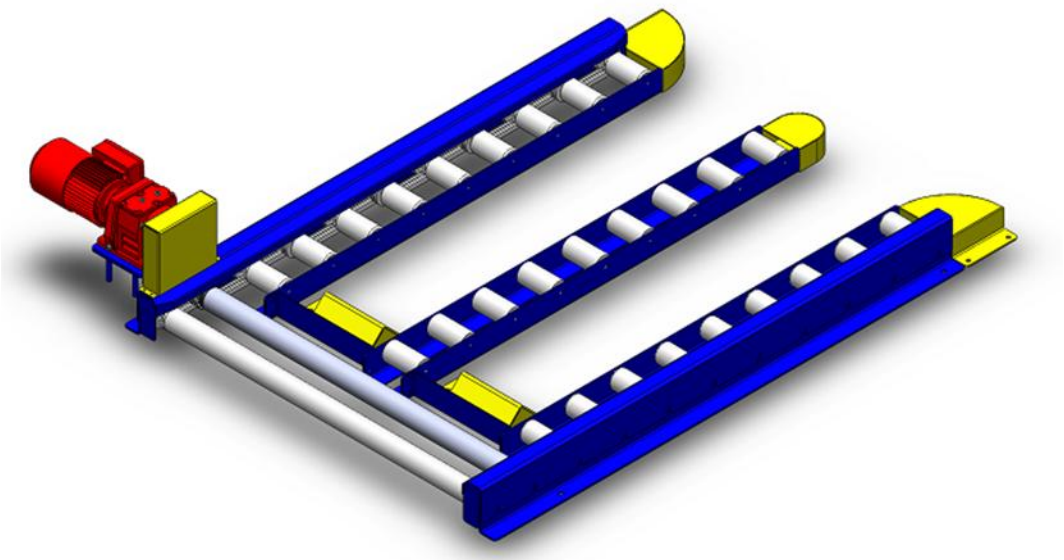
1.11 Loading/Unloading Roller Conveyor (Hydraulic Truck Loading)



Main Structure and Features:

Rollers:

- Diameter: φ60mm, galvanized, with single-side double sprockets.
- Tube made of precision rolled welded pipe.
- Single-side double sprockets are 08B-14T.
- Rollers equipped with maintenance-free deep groove ball bearings at both ends.

Frame:

- Made of cold-formed steel.
- Fixed to the ground with expansion bolts.

Guide Rail:

- Made of 4mm cold-formed steel, bolted to the frame.

Drive Chain:

- 08B-1 precision roller chain compliant with GB1243 standards.

Drive Unit:

- Geared motor mounted on a side bracket of the frame.
- Includes a base-mounted motor with a drive sprocket.
- Chain connects the motor sprocket with the sprockets of adjacent rollers.

- The roller sprockets are linked in sequence by a closed-loop chain to drive other rollers.

Protective Cover:

- Enclosed protective cover for roller chain transmission and motor chain transmission parts.

Auxiliary Devices:

- Photoelectric bracket.

Surface Coating:

- Frame, legs, photoelectric bracket mounting plates, and other parts are cleaned with a wire brush and sandpaper for rust removal, followed by acid cleaning to remove grease.
- Phosphating treatment followed by electrostatic spraying with epoxy resin powder and baking.
- Resin coating thickness between 60μm-90μm.

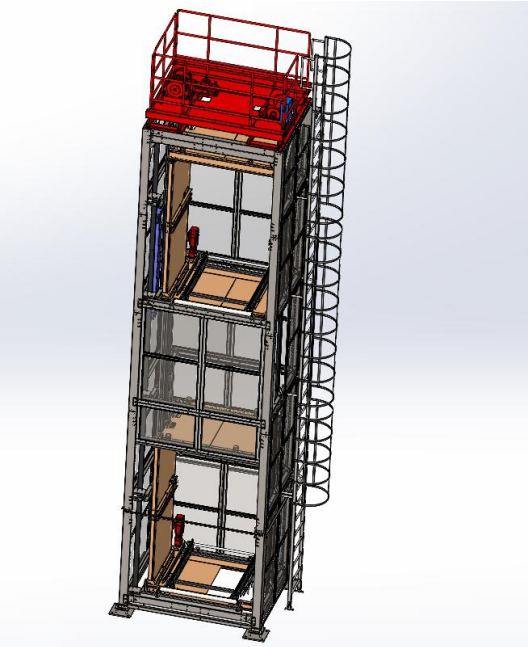
Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua

Main Performance and Parameters:

- **Maximum Load:** 1500kg (including pallet)
- **Conveying Speed:** 16m/min
- **Noise Level:** ≤75 dB

1.12 Reciprocating Lifter



Reciprocating lifters are designed for simplicity, durability, and safe operation, making them widely used in warehouses, production lines, and distribution centers. Integrated with conveyors, intelligent control systems, and other accessories, they enable vertical transportation of pallets between different floors or levels. Our company's design features a platform connected to a counterweight by four high-strength chains, ensuring stability through guide mechanisms. The modular frame design allows for easy assembly and disassembly.

Main Structure and Features:

Body:

- The lifter uses a four-column frame structure with a top beam connection.
- The drive unit is located at the top of the lifter.

Lifting Platform:

- The lifting platform is connected to the main frame by lifting chains and guided by guide rollers and rails.
- The other end of the lifting chains is connected to a balancing counterweight.

Platform Carrier:

- Can be equipped with roller conveyors, chain conveyors, or forks, depending on project requirements.

Guide Rails and Rollers:

- Uses elevator-standard guide rails and rollers for guidance.

Maintenance Ladder:

- Equipped with a cage-type maintenance ladder for safe and convenient servicing.

Surface Framing:

- Options include steel plate and mesh types.

Safety Measures:

Mechanical Stop:

- Mechanical stops with buffer devices are installed at the top and bottom of the lifter to provide cushioning in case of electrical failure or other mechanical faults.

Overload Detection:

- If the lifting motor is overloaded, the thermal relay and inverter will stop the operation, protecting the motor.

Chain Break Protection:

- The lifter uses four chains. In case one chain breaks, the platform will not fall, and each chain has a break detection system. If a chain breaks, the system immediately signals the motor to brake and alarms.

Safety Warnings:

- Besides warning labels, optional safety fences can be installed around the conveyor to prevent unauthorized access.

Surface Coating:

- Parts are derusted with wire brushes and sandpaper, degreased with acid, phosphated, and then electrostatically sprayed with epoxy resin powder and baked. The resin thickness is between 60μm-90μm.

Purchased Components:

- Geared motor: SEW
- Chains: Hangzhou Donghua
- Bearings: TR mounted bearings and Harbin bearings

Main Performance and Parameters:

- **Load Capacity:** 1000Kg
- **Lifting Speed:** 50m/min
- **Conveying Speed:** 15m/min
- **Noise Level:** 75 dB