



YUH CHERN

Forging The Future

www.challengehardware.com.tw

Enclosed Track Conveyor Chains

7 Ton Enclosed Track Conveyor Chains





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ABOUT YUH CHERN

In 1979, Yuh Chern Manufacturing Co., Ltd. was established in Taichung City, Taiwan.

Core Business

Since our inception, we have developed a professional hot forging manufacturing service model together with experienced stamping and machining competitiveness that focuses on standardized and customized products in the field of conveyor chains and related products.

Product Range

1 Enclosed Track
Conveyor Chains

2 Drop Forged Rivetless
Conveyor Chains

3 Industrial
Conveyor Chains

The Endless Pursuit for Perfection

Along with business growth, we had not only upgraded manufacturing facilities but also implemented the following management systems:

- ISO 9001 (Quality Management)
- ERP (Enterprise Resource Planning)
- SFT (Shop Floor Tracking)
- PLM (Product Lifecycle Management)
- APS (Advanced Planning and Scheduling)

Experience Makes the Difference

Over the decades, our research and development team has accumulated valuable expertise in product development in order to provide customers with professional technical advice in the early stages of their product development. The efforts include material analysis, structure design and surface treatment. By utilizing software such as AutoCAD, Solidworks, Autodesk Inventor, SolidCAM, Cimatron CAD/CAM and Geomagic Design, we are capable of processing more than a hundred development cases per year. This has allowed us to provide increased product developing efficiency and helped customers to shorten the products TTM (time to market) period.



Company Quality Policy

Customer Satisfaction & Continuous Improvement



Company Vision

To further our knowledge and skill capabilities as a service provider in the technical fields of forging, stamping and machining.



Company Mission

Through quality services and innovation, provide our customers with the most trusted and technologically advanced products.

ENCLOSED TRACK CONVEYOR CHAINS

This Overhead Conveyor Chain system's greatest advantage is that it utilizes a closed track system. The chain can move freely in horizontal and vertical directions within minimal space. Each chain link pitch has horizontal and vertical wheels that have ball bearings for carrying the load with ease. This assists in reducing travel resistance and increasing the life expectancy of the chain.

This enclosed track conveyor chain is designed for maximum flexibility across multi-directional track systems. Compared to conventional conveyor chain systems, this flexibility enhances the conveyor performance while maintaining overall strength and stability. The track route can be designed and installed according to the site requirements and provides functional options in material handling, transportation and storage.

Transportation loads are used to categorize the chains:

- *Light duty (10~20kg) - 2 Ton Enclosed Track Conveyor Chain
- * Medium duty (30~50kg) - 5 Ton Enclosed Track Conveyor Chain
- *Heavy duty (50~70kg) - 7 Ton Enclosed Track Conveyor Chain

The track structure is multi-functional and can be applied to any position and gradient including high altitude, ground level, ascending, descending and directional changing positions within any facility.

Product Features:

- Reliable and economical : the most cost-effective conveyance equipment on the market
- High Precision, long lasting Conveyor Chains
- Intelligent Design for simple installation, assembly and disassembly
- The conveyance componentry are non-exposed and well protected. This is essential for surface treatment and powder coating lines.
- The flexibility of a multi-directional track system fully utilizes the overhead spaces within a plant. Maximizing suspended conveyor lines will reduce occupation of plant floor space and increase facility capacity.

Horizontal Curve

The steering in the horizontal plane is realized by the interaction between the horizontal curve and the horizontal wheel. Our systems carry various radii and angles of horizontal curved tracks that our customers can choose from. The horizontal wheel comes in two versions: the stamping type and solid bearing type. The selection principle depends on the tension of the chain and the radius of the horizontal curve. Our experienced staff can assist in choosing the right solutions for all applications.

Drive Unit

The drive unit of an overhead-enclosed track conveyor line is placed where the maximum tension occurs at any point along the line. Generally, only one drive unit is needed for approximately every 100-120m. If the route becomes longer or more complicated, it is necessary to strategically place multiple drive units with a coaxial or a synchronous motor.

Take-Up Device

The function of this device is to adjust and maintain proper tension of the chain as the chain links elongate. As operating temperatures fluctuate, the over-all tension of the chain gradually degrades due to "thermal expansion and contraction". Take-Up devices counteract this to maintain smooth movement. Take-Up devices are available with counter-weight and spring-operated tension adjustment options. The device consists of a moveable frame, a fixed support frame, pulleys, rollers, a counter-weight, and expansion joints. The device is generally set on the conveyor line where the tension is the smallest, for example, the closest curved section behind the drive unit.

Conveyor Accessories

Oil Cup / Water Jet Nozzles / Automatic Lubricators / Flanges (Steel, Rubber, Teflon) / Inspection & Maintenance Tracks / Upward & Downward Vertical Curves / Various types of Hangers / Pendants: Y-type Hanger, Swivel Cross Hanger, and U-type Hanger

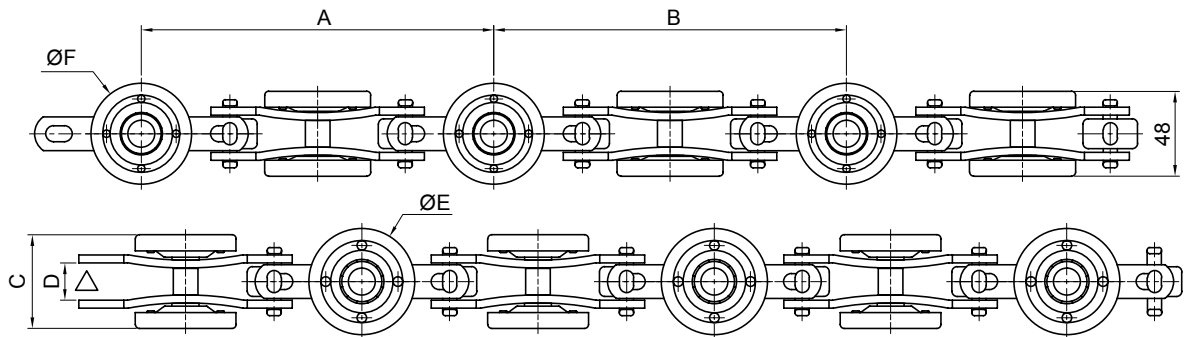


7 Ton Enclosed Track Conveyor Chains

HW = Horizontal Wheel VW = Vertical Wheel HVW = Horizontal & Vertical Wheel

7 Ton Enclosed Track Conveyor Chain: Load Wheel Capacity <70kg / Chain Pitch = 200mm / Tensile Strength =7000kgf

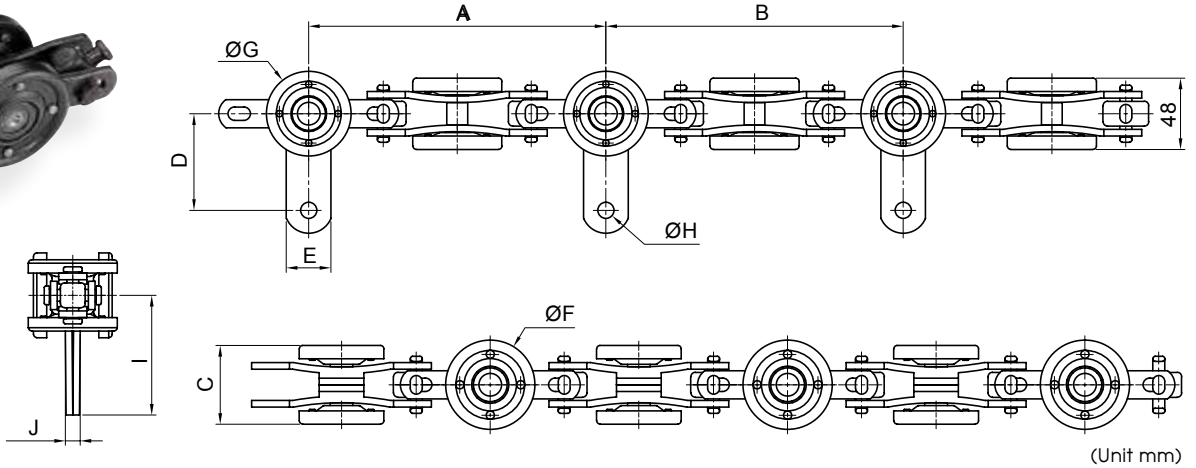
This is a commonly used heavy-duty enclosed track conveyor chain. This smart-design system utilizes a two-wheel load-dispersing configuration to actively reduce the load on any given bearing. Using a horizontal and vertical wheel, the two-wheel design can evenly bear the tension from the chain while negotiating the curves of any track. This also enhances the longevity of the track, which allows for smooth operations. The design of the chain is precise and the structure is simple. The cross joints are alloy steel forged and are harmoniously assembled and interlocked with the chain links without the use of added fittings, such as Cotter Pins. This eliminates the danger of any connecting parts coming loose and falling. Both the horizontal and vertical wheels use specially designed bearings for performance. The chain itself is made of carbon steel and heat treated to achieve flexible steering, strong tensile strength and greater load capacity.



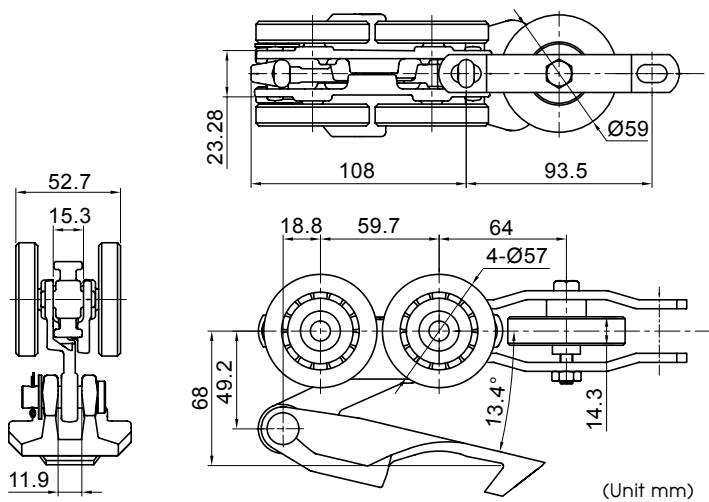
(Unit mm)

Item NO.	Description	A	B	C	D	E	F	Load Capacity (kg)	Min. Ultimate Tensile Strength (kgf)
5013142014	7 Ton Enclosed Track Conveyor Chain	200	200	48	21	60	57	70	7000
5013142020	7 Ton Enclosed Track Conveyor Chain (HW Solid Bearing)	200	200	53	21	60	57	70	7000
5013142018	7 Ton Enclosed Track Conveyor Chain (HVW Solid Bearing)	200	200	48	21	60	57	70	7000

7 Ton Enclosed Track Conveyor Chains






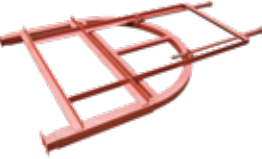




Item NO.	Description	A	B	C	D	E	F	G	H	I	J	Load Capacity (kg)	Min. Ultimate Tensile Strength (kgf)
5013142007	7 Ton Enclosed Track Conveyor Chain with Hanger	200	200	48	65	30	60	57	10.5	80.5	10	70	7000
5013142021	7 Ton Enclosed Track Conveyor Chain with Hanger (HW Solid Bearing)	200	200	53	65	30	60	57	11	109	10	70	7000
5013142009	7 Ton Enclosed Track Conveyor Chain with Hanger (HVW Solid Bearing)	200	200	48	65	30	60	57	10.5	109	9	70	7000



Item NO.	Description	Min. Ultimate Tensile Strength (kgf)
601414001	7 Ton Enclosed Track Conveyor Chain Pusher	7000

7 Ton Enclosed Track Conveyor Equipment

Item NO.	Description	Picture	Item NO.	Description	Picture
5011101102	7 Ton Straight Track		601230002	7 Ton Enclosed Track Drive Device P200 (Upward)	
5011205701	7 Ton Horizontal Curve R700mm / D180		5014310002	7 Ton Caterpillar Drive Chain 11T P200 (Upward)	
5011404702	7 Ton Vertical Curve Up R600mm / D180		601230005	7 Ton Take-Up Device R750mm (Upward / Spring Type)	
5011504702	7 Ton Vertical Curve Down R600mm / D180		601290002	7 Ton Automatic Lubricator (Upward)	
601240001	7 Ton Drive Device P200 (Downward)		5013142006	7 Ton Flange	
5013142005	7 Ton Caterpillar Drive Chain 11T P200 (Downward)		5011406102	7 Ton Maintenance Track	
601240009	7 Ton Take-Up Device R750mm (Downward / Spring Type)		5011601101	7 Ton Expansion Tube	
601290006	7 Ton Automatic Lubricator (Downward)		50610320029	7 Ton U-Type Hanger	



• 7 Ton Y-Type Hanger



• Take-Up Device Cable Set

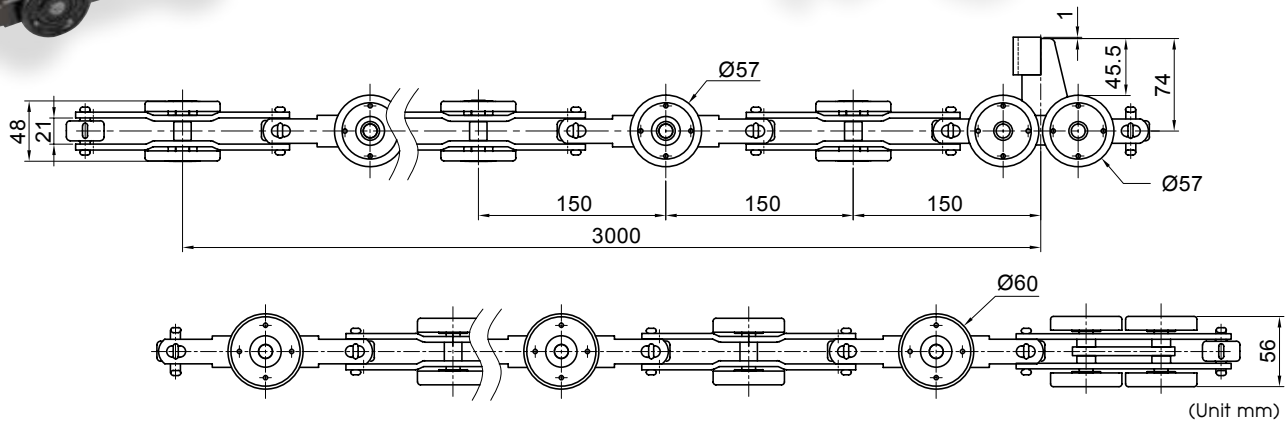


• Take-Up Device (Spring Type)



• 7 Ton Enclosed Track Conveyor Chain with Track

7 Ton Enclosed Track Floor Conveyor Chain



Item NO.	Description	Min. Ultimate Tensile Strength (kgf)
6014151002	7 Ton Enclosed Track Conveyor Chain Floor Type P300	7000

7 Ton Enclosed Track Floor Conveyor Equipment

Item NO.	Description	Picture	Item NO.	Description	Picture
601250001	7 Ton Floor Type Pusher (P150)		601250002	7 Ton Floor Type Drive Device P300 (Upward)	
5011101113	7 Ton Floor Type Track H132mm		601250005	7 Ton Floor Type Drive Chain P300 (Upward)	
5011101114	7 Ton Floor Type Track H110mm				

• 7 Ton Enclosed Track Conveyor Chain - Floor Type



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