



# KBK Series Overhead Crane System

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# Product Overview

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Steel or aluminum profile KBK lifting system has changed the understanding of the traditional industrial field of the crane. The crane design is lightweight, convenient assembly, and ergonomic, which brings revolutionary improvement in the working efficiency and is a more cost-effective choice for the industrial field.

# Advantages

## KBK crane system VS traditional overhead crane

### ➤ Reduce plant cost

The equipment does not need the help of the plant corbel, in the design of the plant, you can minimize the bearing capacity of the plant column design to greatly reduce the cost of the plant.

### ➤ No need to change the plant structure

For the existing plant, it can be added at any time according to the production needs, without any modification to the original structure of the plant.

### ➤ Less idle equipment

The carrying space can be covered according to the needs, and accurate shooting can be conducted to minimize idle waste of equipment.

### ➤ Modular design

It can be increased or decreased according to the changing production needs. It is easy to remove and move quickly without affecting the normal use of cranes in other areas.

### ➤ More accurate positioning

Light and small structure, easy operation, accurate positioning

### ➤ More energy-saving and environmental-friendly

Small power, low energy consumption, more energy saving and environmental protection.

### ➤ Low operating noise

Simple structure, low failure rate, greatly reduce the scope of equipment failure.

### ➤ High comprehensive benefit

The track system is maintenance-free, the electric components are maintained conveniently and the cost is low. Reduce the time and labor cost caused by equipment failure, with high comprehensive benefit.

## KBK crane system VS other suspension overhead crane

➤ **High strength steel track, cold rolled forming, no deformation**

➤ **Closed type C and type  $\Omega$  track design**

The track design can effectively avoid dust, so as to reduce the trolley wheel wear and prolong service life.

➤ **2° inclined plane track design**

It can effectively ensure that the trolley is located in the center of the track and reduce the sliding resistance to the maximum extent.

➤ **Large distance of hanging point**

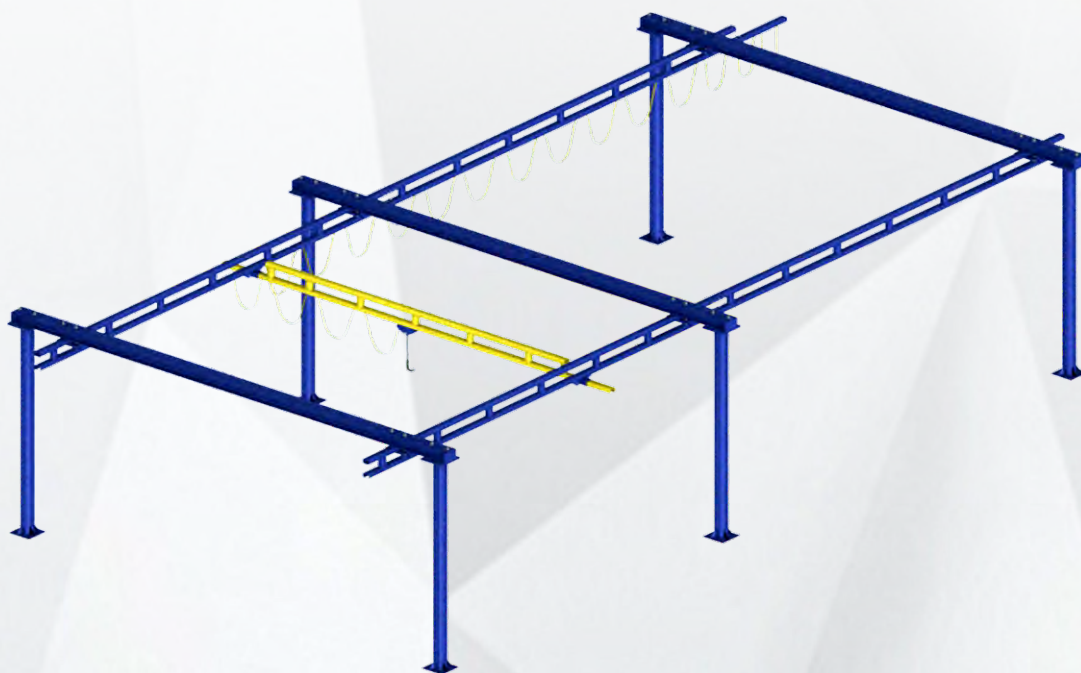
special track structure design, the maximum distance of hanging point is 9 meters, greatly reduce the number of columns, reduce the interference to the work space, so that the layout of the workshop is more beautiful.

➤ **Low equipment cost**

Its own structure reduces the use of steel structure, so that the cost is greatly reduced.

➤ **Large lifting capacity**

The maximum load can reach to 5000KG



# KBK flexible modular suspension crane system

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Series of KBK flexible modular suspension crane system contains KBK-D type monorail, KBK-LD type single girder, KBK-LS double girder, KBK-DZX the pillar mounted column jib crane, KBK-BZX wall-mounted type crane, KBK-MD single-girder gantry crane, KBK-MS double girder gantry crane, KBK-DT stacking crane, KBK-JS machinery and so on all kinds of lifting equipment, lifting weight 0.5 t - 5 tons, have wide use range, especially suitable for modern production conveyor line, summary of its characteristics as follows:

## ➤ **Good reliability and high stability**

KBK flexible modular suspension crane is composed of standard "modular" parts, which can guarantee mass production and high quality, so the system is very reliable. The modular main body is made of various cold-rolled profiles with high strength, good rigidity and light deadweight, which ensures the stability of the system.

## ➤ **Good adaptability**

KBK flexible modular suspension crane system can be designed and installed flexibly according to the needs of each station in the factory, from the point of delivery to the high accuracy of many points, multi-beat automatic conveyor line, can be combined at will. It can be used in the newly designed plant, also can be used in the renovation or extension of the old system.

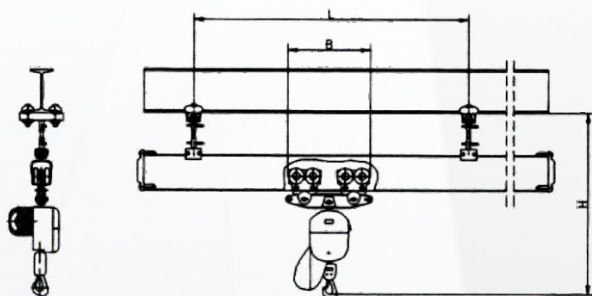
## ➤ **Easy to install, economical and effective**

KBK flexible modular suspension crane system is easy to install and debug. KBK profiles and the standard modules between the components only need to be bolted for use.

KBK system can save the factory occupied space and area, improve enterprise efficiency, the system can achieve manual operation, can also achieve automatic, semi-automatic operation.

# KBK-D flexible modular monorail conveyor

KBK-D flexible modular monorail conveyor, the use of standard components, according to the user provided logistics transmission, distribution, requirements, can be combined out of a ring, bifurcation, network and other monorail conveyor line, used to meet the needs of material transport. KBK-D flexible modular monorail transmission line can supply power to the whole line. Each trolley can be electrically driven on its own, rather than by a centralized power station. In this way, the freedom of a single trolley is greater, and can transport materials in both directions. Due to the absence of centralized power station and traction chain tension constraints, flexible modular monorail transmission line is not limited by the length. If the standard track and the quick joint are docked, the untransportable materials can be transferred between two flexible combined monorails in different places. The flexible modular monorail conveyor trolley deliver capacity can up to 2000Kg.



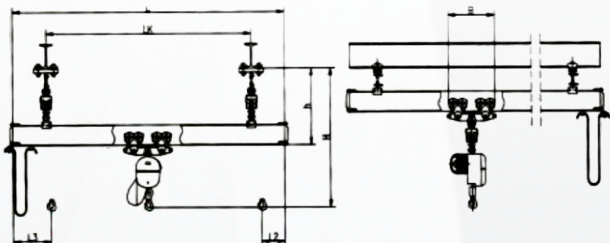
| Capacity | 125  | 250  | 500  | 1000 | 1500 | 2000 |
|----------|------|------|------|------|------|------|
| L        | 3000 | 2000 | 1500 | 1200 | 1500 | 400  |
| B        | 190  | 190  | 190  | 460  | 880  | 980  |
| H        | 740  | 810  | 1010 | 1100 | 1380 | 1560 |



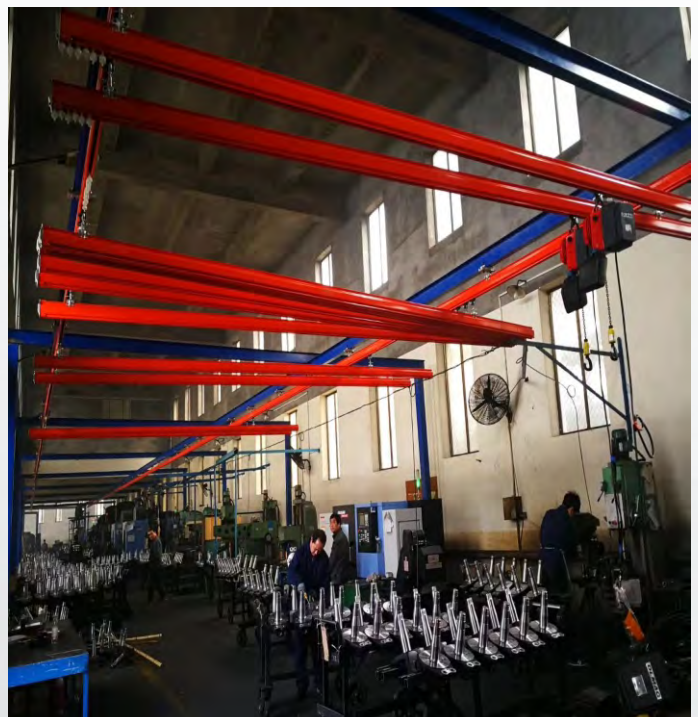
Note: For non-standard specifications, please talk to your sales representative for consultation on customized product service.

# KBK-LD type flexible modular single girder suspension crane

KBK-LD type flexible modular single girder suspension crane is composed of standard linear track and other auxiliary standard parts. The trolley travelling part at both ends of the main beam can be run on two tracks perpendicular to the direction of the main beam, the single beam can be used with each type of fixed chain hoist, the special KBK driving device can drive the hoist to run along the direction of the main beam. This kind of product is used for plane material transportation and can be used in workshop or warehouse. Due to its special flexibility and degree of freedom, the flexible modular single-beam suspension crane can be inclined to run on the track, it can also walk on the track with variable span, and it can also run on two concentric circular curved tracks which is not possible for other kinds of lifting products. The maximum span of flexible composite single-beam suspension crane is 10 meters and the maximum lifting capacity is 2500Kg.



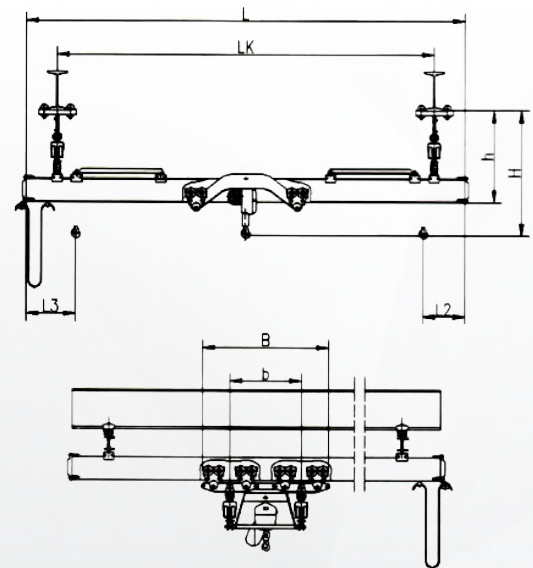
| Capacity | 125  | 250  | 500  | 1000 |
|----------|------|------|------|------|
| L        | 9000 | 8000 | 7000 | 4000 |
| LK       | 8500 | 7500 | 6500 | 3500 |
| L2       | 95   | 95   | 95   | 220  |
| L3       | 645  | 585  | 525  | 470  |
| B        | 190  | 190  | 190  | 460  |
| H        | 808  | 898  | 948  | 1071 |
| h        | 335  | 335  | 335  | 349  |



Note: For non-standard specifications, please talk to your sales representative for consultation on customized product service.

# KBK-LS flexible modular double girder suspension crane

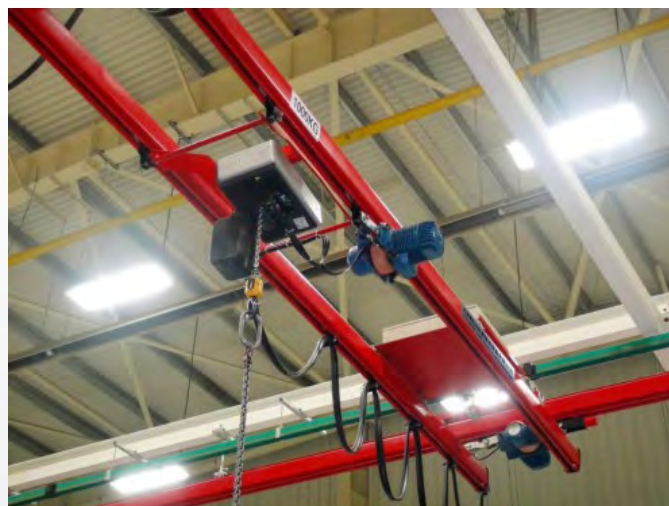
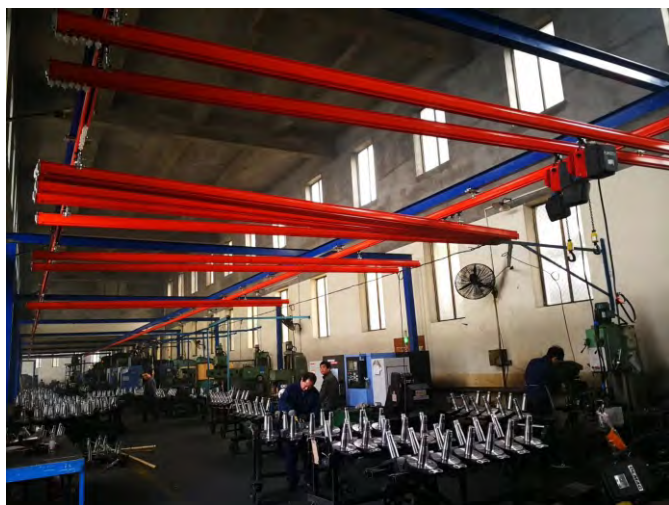
KBK-LS type flexible modular double girder suspension crane is composed of standard linear track and other auxiliary standard parts. The trolley travelling part at both ends of the main beam can be run on two tracks perpendicular to the direction of the main beam, the single beam can be used with each type of fixed chain hoist, the special KBK driving device can drive the hoist to run along the direction of the main beam. This kind of product is used for plane material transportation and can be used in workshop or warehouse. The flexible modular double girder suspension crane is used to lift heavy materials with large span due to the use of double-rail parallel composite beam to increase the load-bearing capacity of the main beam.



| Capacity | L    | LK   | L2  | L3   | H    | h   | b   | B    |
|----------|------|------|-----|------|------|-----|-----|------|
| 500      | 8000 | 7500 | 507 | 1177 | 847  | 733 | 550 | 740  |
| 1000     | 6000 | 5500 | 507 | 937  | 942  | 828 | 550 | 740  |
| 2000     | 3500 | 3000 | 467 | 717  | 1071 | 957 | 650 | 1110 |

Note: For non-standard specifications, please talk to your sales representative for consultation on customized product service.

# Photos View

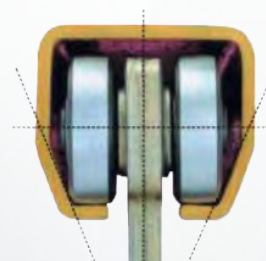
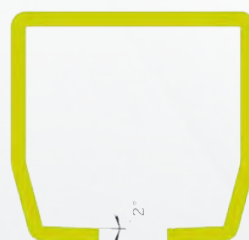


# Rigid truss conveying system

Independently installed on the ground, without the need for additional support, according to production needs can be expanded load up to 200Kg, span up to more than 10 meters, can be installed trolley, modular design has strong expansion. Rigid connection, easy manual operation. Special guide wheel to ensure the movement of no stay, no shaking, no stuck phenomenon, accurate positioning, reduce labor intensity.

## Rigid truss conveying system's track advantages

- **Closed type track design:**  
can effectively avoid dust, so as to reduce the trolley wheel wear and prolong service life.
- **2° inclined plane track design:**  
It can effectively ensure that the trolley is located in the center of the track and reduce the sliding resistance to the maximum extent.
- The track is formed by single cold rolling, no welding, high strength.
- Light dead weight, effectively reduce the pressure on the structure support, at the
- Multi-series track selection, you can choose the most suitable products, to minimize waste, save costs.

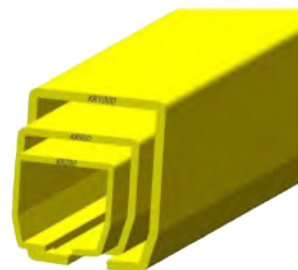


# Rigid truss conveying system's track

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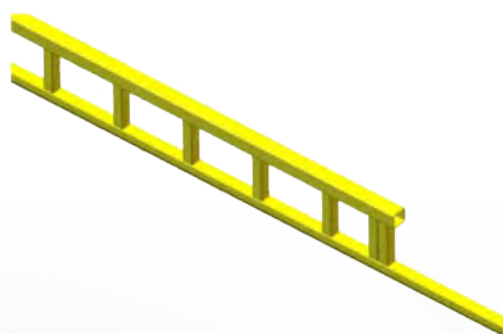
## ➤ Basic track

Basic track can be used in laid I-steel workshops or in space restricted areas.



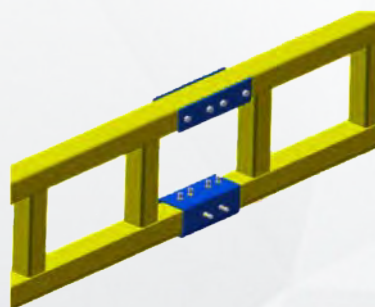
## ➤ Truss-type track

After special design and processing, truss-type track is strengthened on the basis of the basic type, which can be used in the working condition of larger load and longer span. Greatly reduced the number of lifting points, so that the layout of the workshop simpler and more beautiful, and reduce the cost.



## Trussed connections

Track connectors can be used to connect tracks together for easy installation and expansion.



# Self-supporting rigid truss conveyor system structure

The self-supporting rigid truss light load conveying system does not need the cow-leg of the workshop, and can be installed independently on the workshop floor, and can be expanded or reduced according to the production demand at any time, with great flexibility and low cost.



**General installation form**



**Telescopic installation form,**  
to solve the limited space, material  
transport beyond the normal range.



**No cross girder installation,**  
solve the work station size material  
lifting, waiting to be lifting  
incompatible



**Ultra-low headroom type,**  
to solve the existing space limited,  
insufficient hoisting space.

# Self-supporting rigid truss conveyor system structure



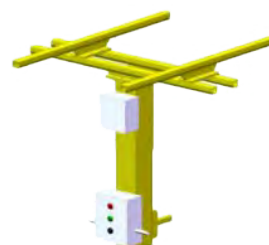
## V track junction

The structure is suitable for dividing rails, which can slide any one of several cars out for maintenance; Manual or electric option, simple structure, easy to operate.



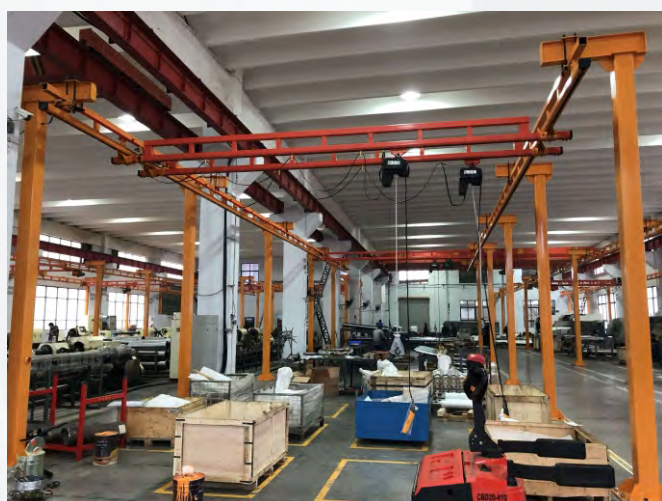
## Maintenance door.

It can effectively solve the maintenance problems when both ends of the track are in the limit position of the workshop or when there are multiple main girders. The maintenance door can be disassembled to greatly reduce the equipment maintenance workload.



## Off-loading platform

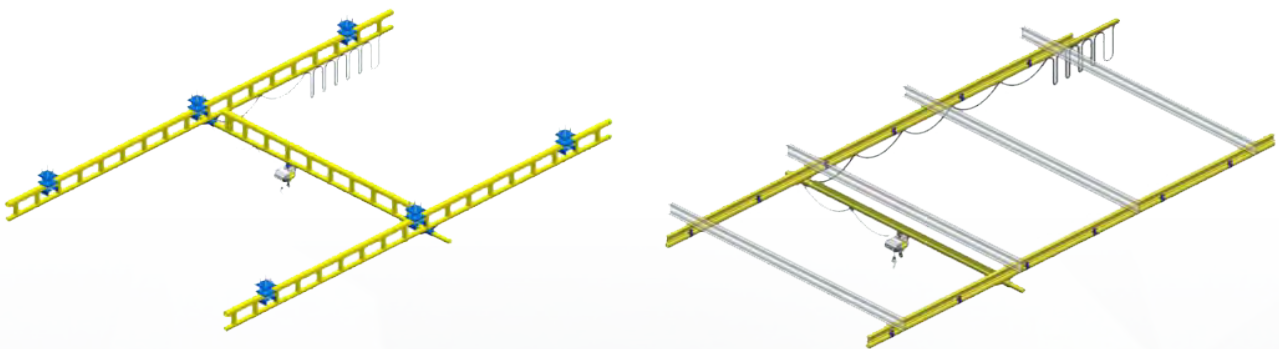
It solve the application of manipulator suspension platform, double beam support structure, effective dispersion of lateral forces, so that the manipulator more smooth and smooth operation.



# Suspended rigid truss conveyor system structure

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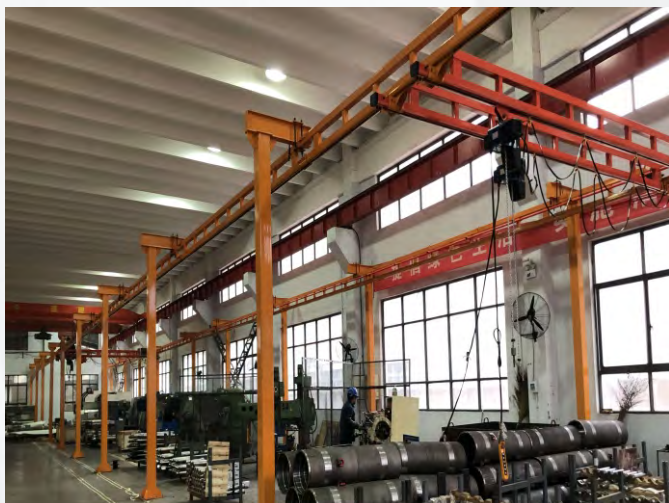
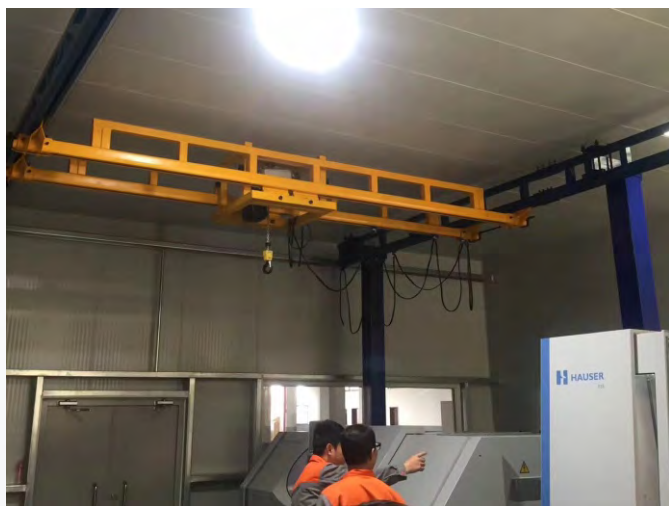
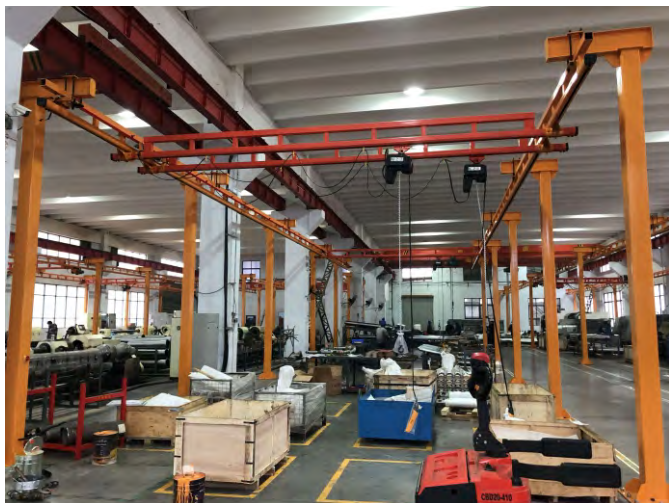
The suspended truss light load conveying system, which does not need any column support, hangs independently on the top of the workshop, so that there is no interference in the working space, which greatly facilitates the production process and makes the layout of the workshop concise and beautiful.



## Suspension rigid truss conveying system diagram



# Photos View



# Aluminum alloy truss conveyor system

## Advantages of aluminum alloy track (A type track)

- Material: high strength anodized aluminum alloy track, surface anodized
- Low resistance: Low resistance at startup
- Carrying capacity: The maximum orbital load is 2000Kg
- Light dead weight: the smallest product with light track dead weight, 2.7Kg/m

## Aluminum alloy track system combination application form



Double track telescopic type



Monorail suspension type



Double girder and track rail-mounted type



Single girder double rail telescopic type



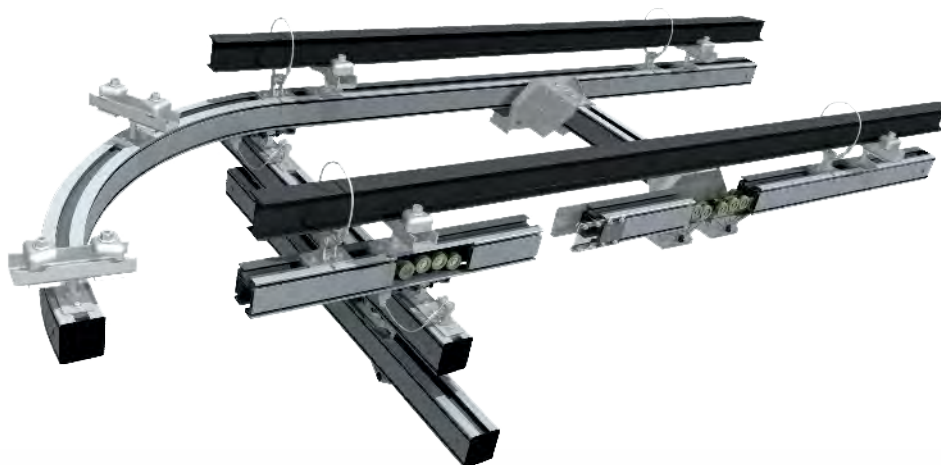
Double girder and track type



Single girder and double track type

# Reliable and efficient aluminum alloy track system

## A type track



### Advantages of aluminum alloy track system

- Aluminum alloy track system has the characteristics of light weight, strong bearing capacity and ergonomics.
- The track system operates smoothly with a sliding coefficient as low as 0.3%
- Rated load: various forms to meet different load requirements.
- Multiple protection, safer. The safety factor of hanging parts is more than 5 times.
- The whole series of products are equipped with secondary protection devices.
- Optional: Origin conveying unit (spring pipe, engineering tow chain), flat cable, sliding wire, pneumatic/electric moving unit.



# Aluminum profile track serialized components

## Flexible suspension components

The lower flange plate is connected with a maintenance-free ball structure with built-in copper pad. The structure is flexible and mainly bears downward force.



## Rigid suspension components

When upward force is needed, manipulator, lifting device or telescopic beam can be precisely positioned. Adopt the rigid lifting parts with adjustable height to install, the height adjustment range of the lifting parts can compensate the height difference of the steel structure.



## Material

Aluminum alloy die casting molding, each dead weight 1.25kg, the maximum load is 600Kg.

Low noise: high strength wear-resisting nylon wheel, easy and smooth operation.

Anti-roller device: the unique anti-roller device can bear both ways and has good anti-eccentricity ability to ensure the precise positioning of the lifting device. The operation process is more stable, the operation is more nimble, the safety factor is extremely high.



# Aluminum profile track serialized components

## Tandem trolley

Load under 1200Kg can be safely increased by two tandem aluminum alloy trolley



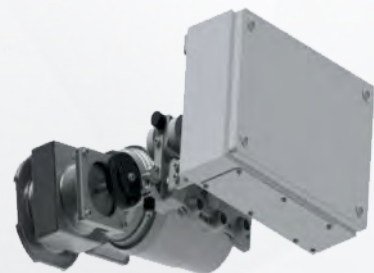
## Double girder trolley frame

The function of double girder trolley frame is to hang chain hoist from two tracks or two double girder. The double beam trolley itself is connected with the related track by the hanging trolley.



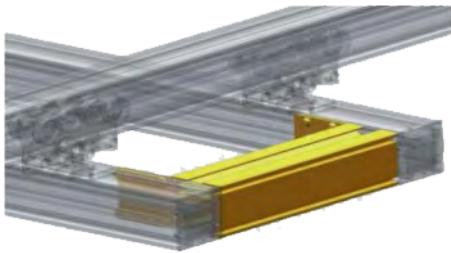
## Motorized trolley

Motorized trolley is a device to realize the light load conveying system according to the actual lifting requirement. It is a kind of electric travelling device, which is composed of motor, reducer and friction wheel. Starting and braking, slowing and accelerating are soft, even and smooth. When the lifting weight is more than 500Kg and the span is more than 6m, we recommend ABF, which can greatly improve the conveying efficiency and make the conveying operation safer and more reliable. The optimal design of ABF enables the travelling device to be installed directly in the trolley frame of the crane, which saves space and does not affect the travelling range of the hook, so as not to lose the effective plane service range of the light load conveying system.



# Aluminum profile track serialized components

## Joint bar



## Girder hanging components

The girder is connected to the rail by means of a girder hanger. Through the use of aluminum alloy trolley, precision integration to ensure that the system running stable and low noise. The maximum load is 600Kg. The girder hanging parts can be divided into 0° hanger and 90° hanger, which can meet different installation methods of track.



0° hanger



90° hanger

## Track end cap

All end caps are made of metal structure to prevent the end cover from falling off, thus preventing dust from entering the inner track.



# Aluminum profile track serialized components

## Secondary protection device

According to the characteristics of rail connection, the company has triple standard safety devices to choose from:

Track protection device (connection from track to upper steel structure)

Girder protection (from track to girder connection)

Load protection device (to prevent the load from falling off the trolley axle)



Track protection device



Girder protection



Load protection device

## Track connector components

There are four types of track connector components, which are fixed in the grooves on the side of the track, so the length of the track can be extended indefinitely as required. Lightweight structure, easy installation, perfect track seamless connection.



# Aluminum profile track serialized components

## Girder strength connector components



## End stopper



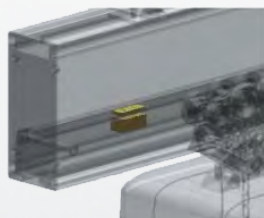
HAL110111



HAL110112



HAL110113



Installation diagram



## Middle stopper

If two or more girders are mounted on the track, our middle stopper is your standard choice. The length of the middle stopper we provide is 300-3000mm. Non-standard sizes can also be provided if necessary.



# Aluminum profile track serialized components

## Rigid suspension components

### Features:

Suitable for hanging on I-beam, H-beam, etc. It is made of high strength forged alloy to ensure safety. The suspension point adjustment range of the rigid track system is up to 20mm, which can effectively compensate the height error of the steel structure. There are mainly two different sizes to choose from.



## Trolley

It is made of high strength wrought aluminum alloy to ensure the highest safety performance. Super quiet operation, smooth and smooth, horizontal thrust for 0.5%-0.8% of deadweight. A variety of trolleys to choose from, the maximum load is 1200Kg; The trolley can be adapted to a variety of models of track and perfect match.



# Aluminum profile track serialized components

## Connection components

The connection components are mainly used to connect two sections of aluminum alloy tracks. The forged aluminum alloy joints can bite the rails in the special grooves of the aluminum rails to ensure the safety of connection.

It is made of high strength aluminum alloy whose surface is anodized.

The connector components must be installed 1/10 of the distance between the suspension point, with a minimum of 200mm and a maximum of 500mm.



## Lifting lugs

With lugs and trolleys, the main beam can be suspended on a light load transport track or on a movable beam.

The whole steel plate is cut to ensure the highest safety performance.

There are two types of lifting lugs in different directions. 90° lifting lugs are used for connecting the main girder and the track, and 0° lifting lugs are used for connecting the telescopic girder.



## End cap

Cast aluminum design, high strength; Own buffer block; End cable clamps can be arranged on the end cap and fixed by a group of 8 bolts, which is very firm.



# Aluminum profile track serialized components

## Cable trolley

The body of the trolley is cast by high-strength aluminum alloy, and the wheels are molded in accordance with the mold.. And the use of sealed bearings, smooth movement, small sound, small start inertia, custom clip designed to protect the cable.



## Limit buffer

The front protection of the end cap which can be fixed on the track of the corresponding model, with a buffer block, with the function of forming a limit.



## Secondary protection devices

Protect girder and track, protect track and I-beam, protect hoist and girder



# C type aluminum alloy light load conveying system

## HCL06 aluminum alloy track

Materials: natural aluminum, anodized

Weight: 6.2 Kg/m

Track accuracy: 0.02mm/m

The lifting distance is 3 meters and the load is 300Kg

Mechanical properties of aluminum alloy

Tensile yield strength  $\sigma_{2.8e+008}$

Tensile strength limit  $\sigma_{3.1e+008}$



## HCL09 aluminum alloy track

Materials: natural aluminum, anodized

Weight: 8.8 Kg/m

Track accuracy: 0.02mm/m

The lifting distance is 3 meters and the load is 300Kg

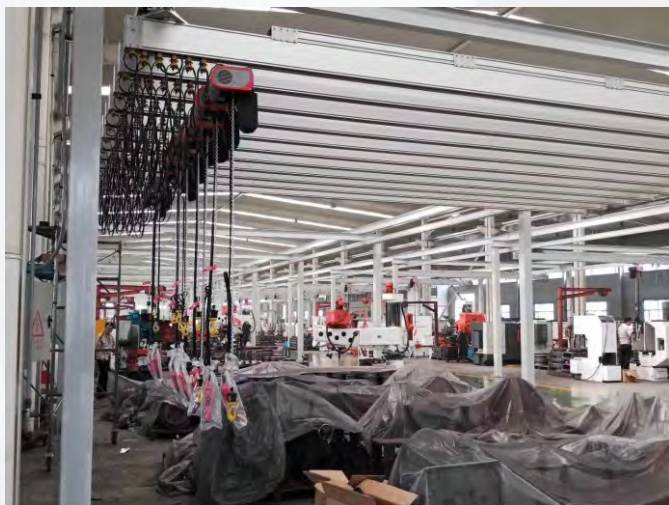
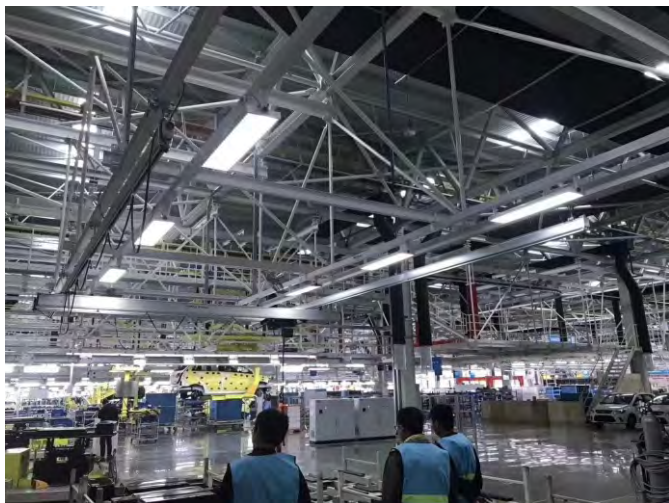
Mechanical properties of aluminum alloy

Tensile yield strength  $\sigma_{2.8e+008}$

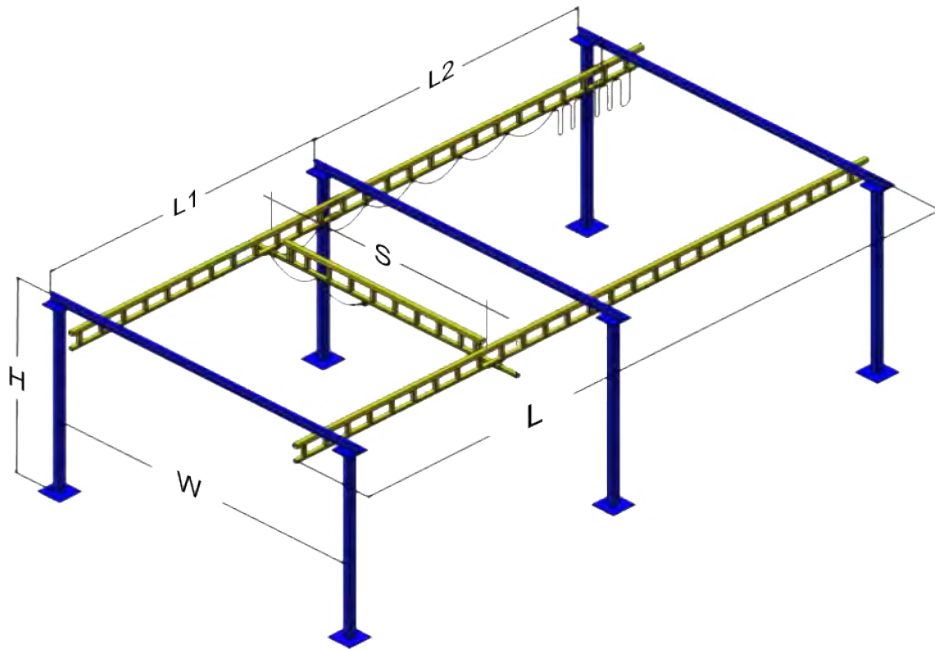
Tensile strength limit  $\sigma_{3.1e+008}$



# Photos View



# Tailor your crane



- Lifting capacity: \_\_\_\_Kg
- $W(S)=$  \_\_\_\_m  $H=$  \_\_\_\_m  $L=$  \_\_\_\_m  $L1=$  \_\_\_\_m  $L2=$  \_\_\_\_m
- Hoist type: A. Electric chain hoist    B. Electric wire rope hoist    C. Manual chain hoist
- Crane travel type: A. Electrical type    B. Manual type
- Voltage: \_\_\_\_V \_\_\_\_Hz \_\_\_\_Phase(If electrical type)
- Control Mode:    A. Remote control    B. Pendant Control
- How many KBK cranes are running on the same track?
- Transportation: tell us the sea port name near you, we can quote you shipping freight.



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