



# ***LIGHT CRANES***

## **Material Handling Solutions**

**CE CERTIFICATE**

 **CHINA PACIFIC INSURANCE (GROUP) CO., LTD.(CPIC)  
GLOBAL LIABILITY INSURANCE**

## KLUBE<sup>®</sup> KLUBE LIGHT LOAD LIFTING SYSTEM VS. GENERAL BRIDGE/SUSPENSION CRANE



### REDUCE THE COST OF THE PLANT

The equipment does not need the corbel of the factory building, and the bearing design of the upright column of the factory building can be reduced at the design stage, and the construction cost is greatly reduced.



### THERE IS NO NEED TO CHANGE THE BUILDING

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



### LESS IDLE EQUIPMENT

Precise design can be carried out according to the carrying space covered by actual needs, and the idle waste of equipment can be minimized.



### MODULAR DESIGN

It can be increased or decreased according to the production needs. The disassembly, assembly and relocation are easy and quick, and the normal use of cranes in other areas is not affected.



### MORE ACCURATE POSITIONING

Light and small structure, convenient operation and accurate positioning.



### MORE ENERGY-SAVING AND ENVIRONMENT-FRIENDLY

The power is relatively low with 80% of energy consumption reduction. It can save energy and protect the environment.



### LOW RUNNING NOISE

The noise during operation is extremely low with smooth rail surface and special trolley design. Thus, it doesn't have adverse effect on humans.



### LOW RUNNING NOISE

Simple structure and extremely low failure rate will largely reduce the shutdown risk and loss caused by equipment failure.



### HIGH COMPREHENSIVE BENEFIT

The track system is free of maintenance and the electric parts are simple and convenient to maintain. With low cost and less time and labor loss caused by equipment failure, the comprehensive benefit is remarkable.

## SMOOTH OPERATION BRINGS BETTER WORKING ENVIRONMENT

**KLUBE<sup>®</sup>** provides you with the most secure and reliable application solution. The horizontal operation of the track system is easier and labor-saving, which not only brings the staff pleasant control experiences, improves their working efficiency, but also provides healthier working environment.

RATED LIFTING LOAD	LOAD (RESISTANCE)	LOAD (RESISTANCE/P\POWER)
125 kg	1.25 - 0.93 kg	0.5 - 0.95 kg
250 kg	2.55 - 4.34 kg	0.98 - 1.54 kg
500 kg	4.83 - 7.46 kg	1.94 - 3.78 kg
1000 kg	9.78 - 14.95 kg	3.92 - 7.65 kg
1500 kg	14.52 - 22.82 kg	5.84 - 11.48 kg





## KLUGE® KLUGE LIGHT LOAD LIFTING SYSTEM VS CONVENTIONAL LIGHT CRANE



### HIGH TRACK STRENGTH

High-strength steel track, one-time cold rolling, no welding, no deformation.



### ENCLOSED C-TYPE DESIGN

It can effectively prevent dust from entering, thereby reducing the wheel wear of the trolley and remarkably prolonging the service life.



### 2° BEVEL DESIGN

The trolley can be effectively ensured to be positioned at the center of the track, and the sliding resistance is reduced to the maximum extent.



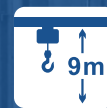
### I-BEAM IS NOT REQUIRED

The I-beam suspension does not need to be additionally added, so that the dead weight of the equipment and the acting force on the supporting structure are reduced, reducing costs and making the plant more beautiful.



### HIGH LIFTING CAPACITY

The maximum load can be 3200kg, far exceeding the load of other track structures, and the span can reach 14m.



### LARGE SPACE BETWEEN LIFTING POINTS

With special track structure design, the maximum interval of hanging lifting points can be 9m, so as to reduce the number of columns and make the layout of the plant more beautiful.



### LOW EQUIPMENT COST

The self-structure reduces the consumption of the steel structure, thereby greatly reducing the cost.



### MORE ACCURATE POSITIONING

Rigid connection design does not produce diagonal pulling phenomenon, and it greatly reduces sloshing, which will make positioning more accurate.



### LOW MAINTENANCE COST

Stable rigid structure, simple design, less maintenance and low cost.



### LONGER WARRANTY PERIOD

Track is provided with a free warranty of two years or more.



### EXCELLENT AFTER-SALES SERVICE

It provides product use and maintenance training, regular inspection and maintenance service. In addition, it also responds quickly and provides on-site service, and zero-hour delivery of common spare parts.

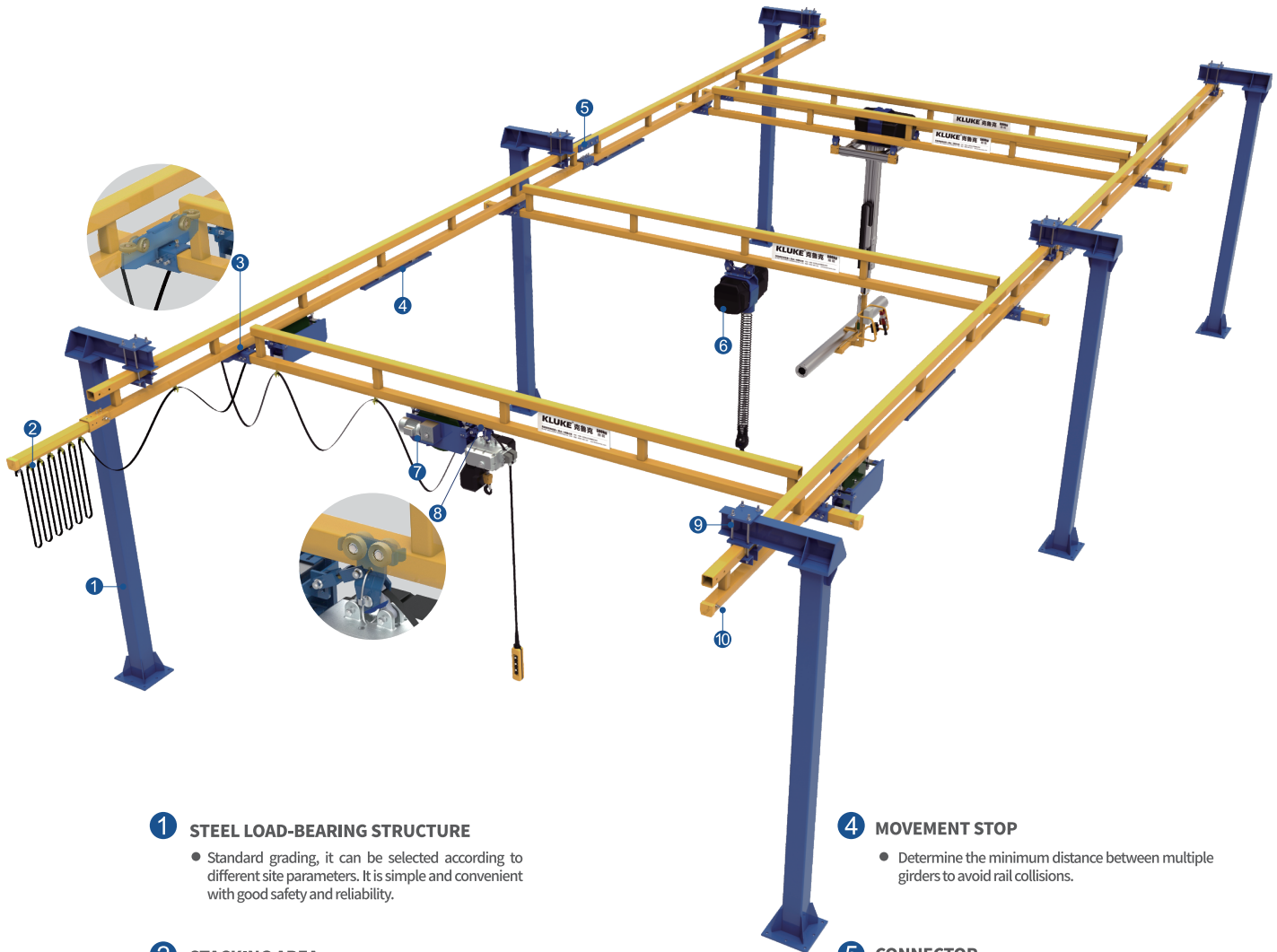


### MULTIPLE OPTIONS AVAILABLE

It can provide curved rail system, food grade 304 and 316L stainless steel options, and explosion-proof and clean application products with different grade requirements.

## PRODUCT FEATURES

**KLUKE<sup>®</sup>** For KLUKE enclosed track, its section is welded free with super performance. The straightness will +1 mm for every 6m straightness. With 2° opening design at the lower edge, the trolley is automatically aligned and runs more smoothly. The track is rolled by the most advanced special track rolling system in China and it has the ability to control the quality of the whole process.



### 1 STEEL LOAD-BEARING STRUCTURE

- Standard grading, it can be selected according to different site parameters. It is simple and convenient with good safety and reliability.

### 2 STACKING AREA

- Independent module. It is easy to assemble and disassemble, and it can increase the actual effective working area of the system.

### 3 RAIL TROLLEY

- Non-stamping parts with high strength and long service life.
- High safety design with secondary protection anchor plate wider than the track opening.

### 4 MOVEMENT STOP

- Determine the minimum distance between multiple girders to avoid rail collisions.

### 5 CONNECTOR

- Unify the triple functions of connection, alignment and adjustment between two track modules.

### 6 LIFTING MECHANISM

- Optional electric hoist, intelligent lifting device, rigid arm power-assisted structure, etc.





## 7 ELECTRIC DRIVE

- Change the driving mode, frequency conversion and speed regulation to ensure stable operation.
- It is recommended to use when the load is 1t or above or the track spacing is 7.5m or above.

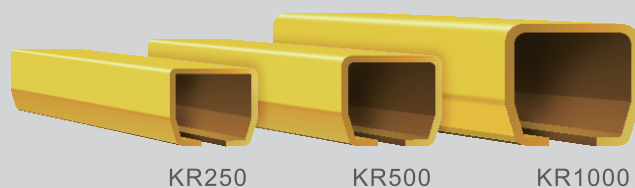
## 8 GIRDER TROLLEY

- Non-stamping parts, light in structure and beautiful in shape.
- In addition to the secondary protection anchor plate, secondary protection holes shall be added to prevent the hoist from falling.

## 9 LIFTING PARTS

- Building block type separation structure for easy installation.
- A variety of forms are available according to the actual situation.

## KR RAIL TYPE



## 10 LIMIT STOP

- Restricted operation, safety protection, and polyurethane buffer.



## SELF-SUPPORTING LIGHT-LOADING CRANE

**KLUKE®** Self-supporting light-loading crane can be independently installed on the workshop ground without the help of the corbel of the plant. The foundation is only required to be concrete C30 with thickness  $\geq 150\text{mm}$ ; it can be increased, decreased and moved at any time according to the process layout, with great flexibility and convenient use.

### PRODUCT FEATURES



The main beam can be up to 14m



Modular design is easy to install and has good expansibility



Unique rail surface design brings less frictional resistance



Rigid connection design does not produce diagonal pulling phenomenon, which can prevent the main beam from jamming while moving easily

### LOADING OPTIONAL



### OPTIONAL TRACK DIVISION MODE



Curved rail



Turnout

### OPTIONAL TRACK ADAPTATION CONDITIONS



Food



Explosion-proof



Anticorrosion

### OPTIONAL DRIVE MODE



Electric



Manual

### OPTIONAL POWER SUPPLY MODE



Cable



Sliding contact line





## SUSPENSION LIGHT-LOADING CRANE

**KLUKE®** Suspension light-loading crane, without any column support, can be independently suspended and installed on the light steel grid structure of the plant upper part,, concrete bearing beam, or plant column, corbel. By doing this, the working space of the workshop can be free of any interference. Meanwhile, the production process is greatly facilitated, and the workshop is more concise and beautiful.

### PRODUCT FEATURES



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### OPTIONAL DRIVE MODE



Electric



Manual

### OPTIONAL POWER SUPPLY MODE



Cable



Sliding contact line





## ALUMINUM ALLOY LIGHT LOADING CRANE

**KLUKE®** It can realize the full load coverage within 2 tons. It is made of aluminum alloy. After special oxidation, the surface is wear-resistant and easy to push and pull. With strong bending resistance, the link between the track and the steel structure, and the link between tracks are equipped with secondary protection mechanism, so as to ensure higher safety. It can provide pleasant and comfortable experiences with the use of KLUKE® intelligent lifting device, rigid arm clamp structure, electric chain hoist or other lifting equipment.

### PRODUCT FEATURES



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Curved rail



Turnout

### OPTIONAL TRACK ADAPTATION CONDITIONS



Food



Explosion-proof



Anticorrosion

### OPTIONAL DRIVE MODE



Electric



Manual

### OPTIONAL POWER SUPPLY MODE



Cable



Sliding contact line



## ELECTRIC CHAIN HOIST

**KLUBE<sup>®</sup>** By adopting German's advanced design concept, KLUBE is designed and manufactured in strict accordance with European FEM, EN and German DIN standards. The main components adopt maintenance-free design with compact structure and reliable performance.

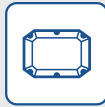
### PRODUCT FEATURES



New simplified design



Fully-sealed machine



Novel die-casting aluminum shell



Light weight of equipment



High efficiency motor and transmission



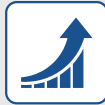
Maintenance-free design



Easy for operation, convenient and practical for use.



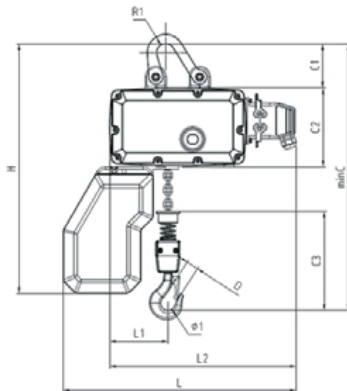
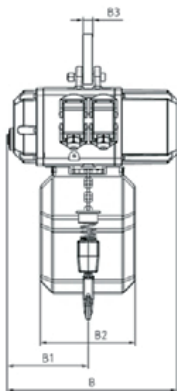
The service life is greatly improved.



It is safe and reliable to improve operation efficiency



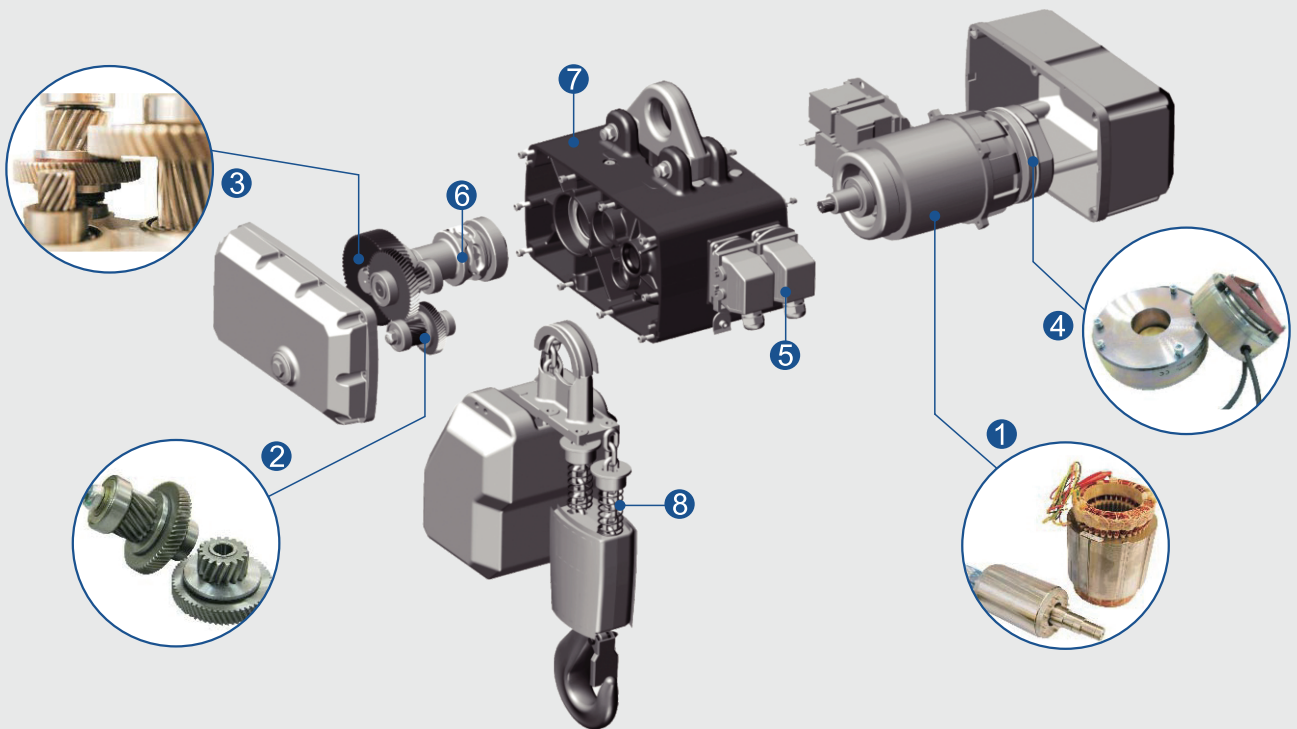
### PRODUCT APPEARANCE AND DIMENSIONAL DRAWING



MODEL	KCH 1051-1 <sup>a</sup>	KCH 1051-2 <sup>b</sup>	KCH 1052	KCH 2051	KCH 2071	KCH 2072
B, mm	348.5	348.5	348.5	381.5	381.5	381.5
B1, mm	166.5	166.5	166.5	185	185	185
B2, mm	195	195	195	195	195	195
B3, mm	20	20	20	24	24	25
H(Size 1), mm	512	512	503	547	547	557
H(Size 2), mm	662	662	653	697	697	707
R1, mm	19	19	23	20	20	27.5
L, mm	478.5	478.5	478.5	526	526	526
L1, mm	115	115	139	118.5	118.5	152
L2, mm	383	383	383	413	413	413
Ø1, mm	30	34	40	34	40	48
D, mm	24	27	32	27	32	38
C, mm	460	475	525.5	505	519	622
C1, mm	91	91	80.5	104	104	114
C2, mm	162	162	162	180.5	180.5	180.5
C3, mm	204	220.5	283	220.5	234.5	327.5

Note: a Rated load 250KG~320KG; b Rated load 320~500KG

RATED LIFTING CAPACITY (KG)	FEM	ISO	MODEL	POWER (KW)	LIFTING SPEED (M/MIN)	NUMBER OF CHAINS
250	3m	M6	KCH1051 02508	0.75/0.18	8/2	1
250	2m	M5	KCH1051 02516	0.75/0.18	16/4	1
500	1Am	M4	KCH1051 05008	0.75/0.18	8/2	1
500	3m	M6	KCH2071 05008	1.9/0.45	8/2	1
500	2m	M5	KCH2051 05016	1.9/0.45	16/4	1
1000	1Am	M4	KCH1052 10004	0.75/0.18	4/1	2
1000	1Am	M4	KCH2071 10008	1.9/0.45	8/2	1
1000	2m	M5	KCH5091 10016	3.5/0.88	16/4	1
2000	1Am	M4	KCH2072 20004	1.9/0.45	4/1	2
2000	2m	M5	KCH5111 20006	3.5/0.88	6.3/1.6	1



## 1 LIFT MOTORING

- The high-performance lifting motor is light in weight and small in size, and the rotating speed can reach 3000r. p. m.
- High starting torque and high performance
- The continuity rate of power connection reaches 60%, meeting the requirement of high-frequency transportation.
- Protection grade IP55, insulation grade F

## 2 OVERLOAD CLUTCH

- Integrated on the transmission gear shaft.
- It is equipped with overload protection function to protect the torque
- Up to 1.4 times of the safe load
- Maintenance-free design with adjustable overload torque

## 3 REDUCTION GEARBOX

- Helical design with high transmission efficiency and low noise
- Hard teeth surface processing, heat treatment after grinding, grade 6 of gear accuracy
- Complete oil bath lubrication, ultra-low noise and long service life
- Perfect engagement and efficient transmission

## 4 BRAKE

- The electromagnetic disc brake is arranged at the end of the transmission gear shaft.
- Brake medium is asbestos-free
- Maintenance-free design of brake disc, the service life can be up to 1 million times
- The brake is completely enclosed with high protection level.
- Be able to meet the working requirements in harsh environment

## 5 ELECTRICAL CONNECTOR

## 6 CHAIN GUIDE MECHANISM

## 7 SHELL

## 8 CHAIN



## INTELLIGENT LIFTING DEVICE

**KLUBE<sup>®</sup>** Intelligent auxiliary lifting equipment is composed of servo driver, servo motor, reducer, etc. and controlled by microprocessor. It is equipped with the characteristics of easy operation, high precision, intelligence, controllable speed, safety and reliability, etc.. The production efficiency can be maximized and the worker safety can be guaranteed.



### PRODUCT FEATURES



Greater responsiveness, faster acceleration and deceleration



Easy load positioning



High quality and low price



Low equipment damage rate and quick return on investment



Low accident risk



Resistant to dust and moisture, more environmentally friendly



Easy for operation, convenient and practical for use.



Excellent after-sales service



It is safe and reliable to improve operation efficiency

### INTELLIGENT AUXILIARY LIFTING EQUIPMENT ASSEMBLY



#### HOST

The host assembly of intelligent auxiliary lifting equipment is mainly responsible for providing accurate control, power and signal processing required for the equipment.



#### SPIRAL CABLE

The spiral cable is used to transmit signals between the host and the handle, including the transmission of lifting direction, lifting speed, emergency stop signal, fault signal, etc..



#### HANDLE

The handle is the main interactive interface between the operator and the lifting equipment. The user can control the lifting of the equipment through the handle and obtain the corresponding information through the display screen.

### PRODUCT APPLICATION



Automotive Industry



Finishing process



Mechanical manufacturing and processing



Energy Industry



Repetitive handling



Assembly of product parts



Warehouse loading and unloading

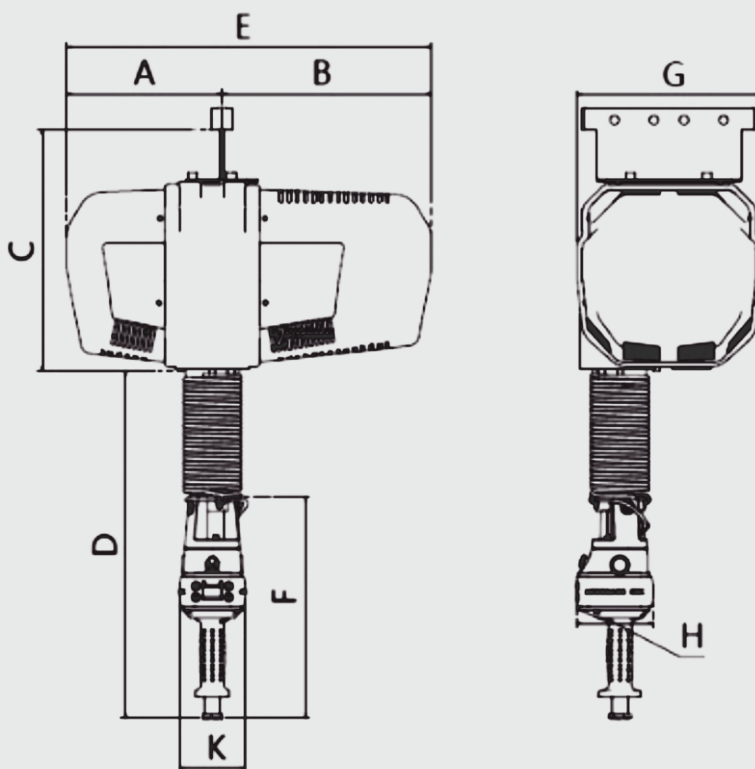


Product sub-packaging

TECHNICAL INDEXES OF INTELLIGENT AUXILIARY LIFTING EQUIPMENT				
Maximum lifting weight (weights and clamps)(KG)	80	200	300	600
Maximum lifting speed-manual mode (m/min)	40	30	15	7.5
Maximum lifting speed-suspension mode (m/min)	36	27	13.5	6.75
Maximum lifting height (m)	3.5	3.5	3.5	2.0
Rated power	750W	1500W	2000W	2000W
Maximum current (A)	10A	12A	15A	15A
Main power supply (VAC)	Single-phase 220V+10%	Single-phase 220V+10%	Three-phase 220V+10%	Three-phase 220V+10%
Limit	Hardware limit, software limit			
Tool Available Power	24VDC、0.5A			
Control mode	Servo control (position control)			
Lifting Media	Stainless steel wire rope (φ5.00mm 19 rope bundle X7 steel wire)			
Operating ambient temperature range	5-55℃			
Operating ambient humidity range	35%-90% non-condensing			
Weight display accuracy	±1% Rated lifting capacity			
Cooling mode	Natural or forced wind			
Noise	≤80dB			

## PRODUCT APPEARANCE AND DIMENSIONAL DRAWING

LIFTING CAPACITY	600KG
A	285
B	384
C	450
D	900
E	669
F	408
G	336
H	142
K	122







## APPLICATIONS

**KLUKE®** The KLUKE light-loading crane system can be installed in almost any position for lifting with smooth transportation and precise lowering of various types of workpieces. Light-loading cranes are popular in all kinds of machine tools and assembly stations, as well as in open storage yards and loading platforms.

## Jiangsu Futan Axle Technology Co., Ltd.(Futan Axle) (Jiangsu, China)



### APPLICATION INDUSTRY:

Automobile parts manufacturing



### KLUKE SOLUTIONS:

KLUKE 250kg Self-supporting light-loading crane



### CUSTOMER PROBLEMS:

The number of on-site crown blocks is insufficient, many stations need to lift the workpieces at the same time, so the crown blocks are often snatched. The working efficiency is low, and the positioning precision of the crane is too poor, thus the positioning can not be quickly and accurately aligned. Several stations have tried the flexible KBK crane before, and the movable beam is often pulled outwards and obliquely, so the positioning accuracy cannot meet the requirements, and the workers often complain about it.



### CUSTOMER COMMENTS:

The loading and unloading speed of the workers is much faster than before, and there is no complaint from the workers. The movable beam of the KLUKE rigid light-loading crane is always vertical to the fixed rail. The positioning precision is good with portable movement and less noise. Just as described in KLUKE's promo, it is like the extension device of the hand. At present, almost every machine tool station in our workshop is equipped with the KLUKE rigid light-loading crane—Minister Hua of the Purchasing Department.



## CRRC Qingdao Sifang Co., Ltd.(CRRC) (Shandong, China)



### APPLICATION INDUSTRY:

Rail transit



### KLUKE SOLUTION:

KLUKE 1000kg beamless self-supporting rigid light-loading crane



### CUSTOMER PROBLEMS:

The working environment is the welding workshop, with heavy dust and high working frequency. Although there are five cranes, it still cannot meet the site requirements. We wanted to try KBK track before, but because of the heavy dust and the structure of KBK track is welded in two parts, so it was rejected. At present, the transportation of some welding parts still depends on temporary workers. It is unsafe, wastes the cost and affects the management.



### CUSTOMER COMMENTS:

It is effective to help us solve the problem. Nowadays, the whole workshop efficiency has been improved a lot, and there is no need to hire additional temporary workers. At first, we were worried about the long running-in period, but it was very simple for the workers to be familiar with it. The manufacturer trained the users after the installation carefully and responsibly. We were glad to have chosen KLUKE!





## Dongfeng Motor Corporation (Dongfeng Motor Corp) (Hubei, China)



### APPLICATION INDUSTRY:

Automobile parts manufacturing



### KLUKE SOLUTION:

KLUKE 125kg self-supporting rigid light-loading crane  
KLUKE 80kg Intelligent lifting device



### CUSTOMER PROBLEMS:

Feeding of the machining center. The machining center needs to process nearly 20 pieces of 45kg parts every day, so it is impossible to realize the rapid and accurate positioning of the workpiece. Almost no one is competent for this post. Previously, a flexible KBK crane was installed, and the electric chain hoist was hung. However, the problem still could not be solved.



### CUSTOMER COMMENTS:

The problem has been completely solved. It is worth the price. The KLUKE rigid crane and its intelligent lifting device are perfectly matched with each other. They are compact, intelligent and labor-saving. The corresponding parameters can also be set according to the on-site handling requirements, just like customized products. The colleagues are full of praise of KLUKE's products and the service provided by KLUKE's agents.







## Intradin (Huzhou) Precision Machinery Co., Ltd.(Intradin Precision Machinery) (Zhejiang, China)



### APPLICATION INDUSTRY:

Manufacture of oil cylinder



### KLUKE SOLUTION:

KLUKE 250kg self-supporting rigid light-loading crane

KLUKE 250kg Electric chain hoist



### CUSTOMER PROBLEMS:

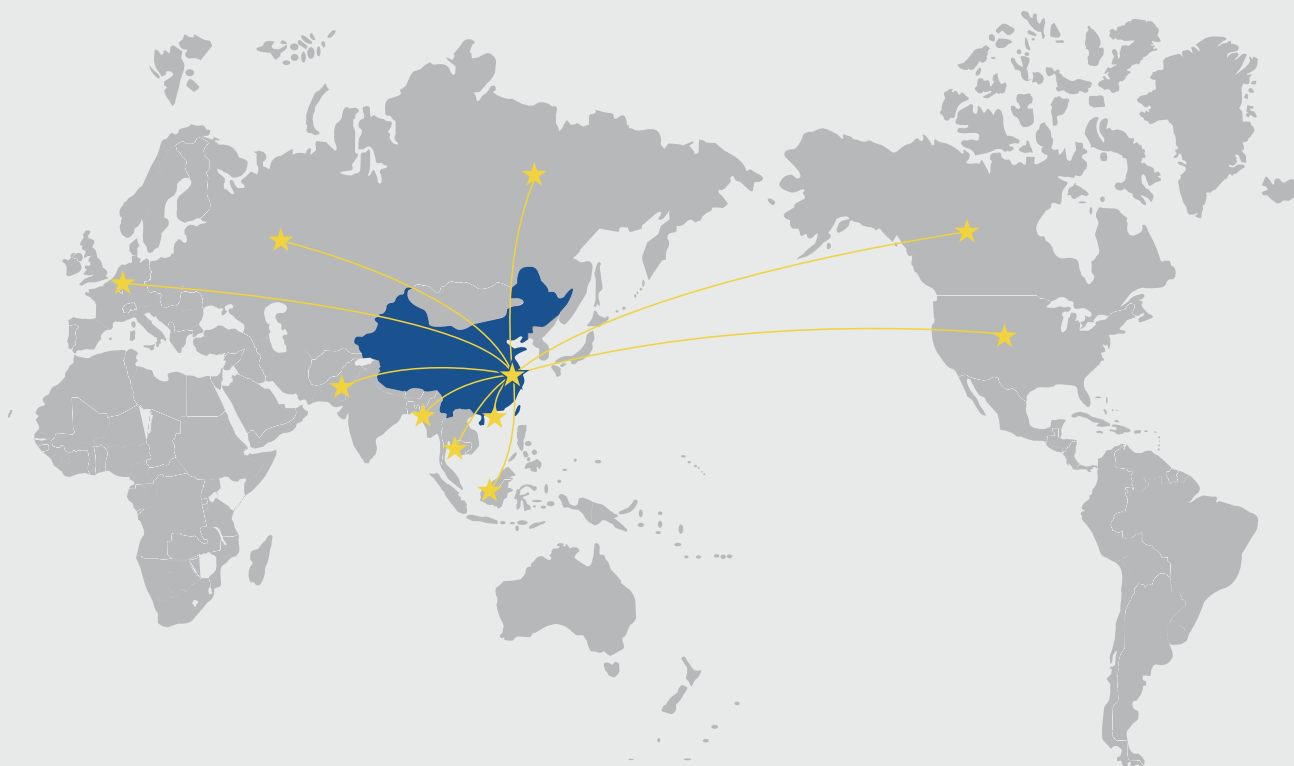
A large quantity of bar stock of 50-160kg needs to be processed by a numerical control lathe,---there is only one 5T crown block across the workshop, unable to meet so many lifting demands. Therefore, workers have to wait for the crane, which seriously affects the work efficiency. It is inconvenient to use a 5T crown block to hoist a 50kg bar, especially when the bar is quickly and accurately clamped on the three-jaw chuck.



### CUSTOMER COMMENTS:

The KLUKE light crane we saw at the exhibition at that time, after careful investigation, Crook finally stood out from five candidates. The solution provided by Crook was unanimously recognized by our process department. Now we have installed a Crook product in each CNC lathe station, and the working efficiency has been improved by nearly 3 times compared with the previous one. I will recommend Crook to my friend, which is indeed a trustworthy brand.





KLUKE AND ITS DEALERS HAVE SUCCESSIVELY SUPPLIED A LARGE NUMBER OF RIGID LIGHT LOAD LIFTING SYSTEMS TO SAIC-VOLKSWAGEN, FAW-VOLKSWAGEN, SCHAEFFLER GROUP (CHINA), JAGUAR LAND ROVER, BEIJING BENZ, CRRC, AVIC, AUTOLIV, VOITH, UPM, DISNEY, ETC., AND HAVE BEEN WIDELY PRAISED.

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