

# Products Brochure

Stable Safe Efficient Excellent



**Kay Vybin Corporation**

C-5 Raju Industrial Estate, Mira  
Road, Dahisar Check Naka,  
Mumbai, Maharashtra, 401107  
sales@kayvybin.com

郑州领航机器人有限公司  
ZHENGZHOU LINGHANG ROBOT CO.,LTD

# Company Profile





Zhengzhou Linghang Robot Co.,Ltd. with trademark "LH-TC", mentioned as "Linghang" afterwards, was founded in year 2015, with registered capital RMB 25.37millions, listed in Zhongyuan stock exchange Market(stock code 200649), is located in No.11 Building, Zhengtuo technology and Innovation park, Erqi industrial development zone, Zhengzhou city, Linghang owns a professional and independent R&D team and a modern intelligent production plant, is a national high-tech enterprise which integrated design, production, sales and service as a whole concept.

In China there are numbers of offices in South China, East China, Center China, Northeast China and Southwest China, and develops many agencies and dealers in Europe, North America, Southeast Asia, the products have been exported to more than 60 countries and regions.

Linghang has been awarded honorary titles of "National high-tech Enterprise", "Henan Province science and technology enterprises", "Henan Province Specialized and Special New Enterprise".

Linghang has gained ISO9001 quality system certification, CE and SIL safety certifications, with more than 70 patents and 5 copyrights.

The main products are robot tool changers, spot welding tool changers, utility couplers, floating deburring tools, pneumatic grippers and energy coupling devices, provide unlimited flexible tool switching for robot applications, improve production efficiency and safety of industrial robots and cobots. These products are widely used in industrial sites such as automatic spot welding, automatic handling, assembly, deburring, palletizing, etc.

-  Company Vision: Committed to becoming the world's best supplier of robot terminal equipment.
-  Company mission: Keep the original intention of craftsmen, help Chinese intelligence manufacturing to release human labor
-  Company spirit: Innovation, Excellence, Efficiency, Concentration
-  Team Concept: Treat with sincerity, perform with truth



R&D Operation Center

60<sup>+</sup> exported countries and regions

70<sup>+</sup> Patents

5<sup>+</sup> Copyrights

# Honor

Focus on R&D of robot end-of-arm tooling, improve production efficiency of manufacturing industry  
ISO9001 Quality certification, CE and SIL safety certification, more than 70 patents.



# Product

## Robot Tool Changer



- The special materials and process combine with the inclined structure perfectly, ensure safety locking
- Innovated redundancy signal transmission technology, ensure the transmission of data and signals more stable
- Excellent fluid connection technology, ensure no leakage during millions operations.

## Pneumatic Gripper



- The perfect combination of multi-tooth guide rail and trapezoid structure, can bear larger moment and torque;
- The unique coating process ensures the precision after ten millions operations;
- Unique self-lubricating design, longer maintenance-free service time.

## Floating Deburring Tools



- 360-degree radial floating, suitable for deburring various workpieces;
- 1000-6000RPM electric spindle with replaceable cutter automatically, meet all kinds of process requirements;
- Axial floating grinding tools: grind complex surfaces adaptively, adjust the work force precisely, compensate work force within  $\pm 0.5N$  in any direction actively.

## Floating Position Compensate Device



- Support position compensation in X&Y, Z, X&Y&Z directions, correct the error in position or angle during assembly and loading precisely.
- Ensure the operation is exact by locking the center point and position storing function.
- ISO9409 interface to simplify assembled process.

## Energy Connectors



- Modular medium and multi-module interfaces make combination more flexible;
- With floating in X, Y, Z direction, eliminate docking errors;
- Wireless Utility Coupler: wireless transmission of power and data via air gap, contact-free and wear-free, reducing maintenance costs.

## Energy Coupling Device



- Offer energy coupling between the main station and slave station, include power, data, I/O, pneumatic, liquid, ect.
- Ultra-high plug life, high stability and reliability
- With super current carrying capacity, can resistant the strong impact of vibration.

# LH-TC-Robot Tool Changers

Robot tool changers are flexible devices which can help single industrial robot match more end-effectors, ensure each robot side match with more tool sides, increase robot production lines' flexibility and use of robots, are widely used in end-of-arm-tools switching, such as spot welding guns, end-effectors, grippers, press guns, deburring tools, visible tools, ultrasonic welding guns etc.



With ISO9001,  
SIL and CE certifications



Payload ranges from  
5kg to 3000kg



Offer various modules for all  
kinds of applications, support  
customized design



Air pressure lost self-locking  
function

## Technology highlights



### Locking mechanism

The special materials and process combine with the inclined structure perfectly, ensure safety locking.

### Redundancy technology

Innovated redundancy signal transmission technology, ensure the transmission of data and signals more stable.

### Fluid module

Excellent fluid connection technology realize millions operation without leak.

### Safety docking

Unique patented technology of tool and bracket interlocking, when tool changer operate normally, the tool changer won't open even industrial robots output order mistakenly to solenoid valve module.



#### Model: LTC-0005A

- ◆ Recommended payload  $\leq 5\text{KG}$
- ◆ Locking force: 770N
- ◆ Allowable static moment: 13.2N-m
- ◆ Allowable static torque: 18N-m
- ◆ With 4 x M5 air ports, 1 available module interfaces



#### Model: LTC-0010E

- ◆ Recommended payload  $\leq 10\text{KG}$
- ◆ Locking force: 1193N
- ◆ Allowable static moment: 26.5N-m
- ◆ Allowable static torque: 35.7N-m
- ◆ With 4 x M5 air ports, 2 available module interfaces
- ◆ Master plate with locking/unlocking sensor and tool-in-position sensor



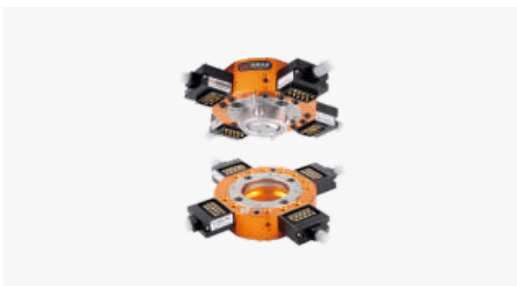
#### Model: LTC-0010F

- ◆ Recommended payload  $\leq 10\text{KG}$
- ◆ Locking force: 1193N
- ◆ Allowable static moment: 26.5N-m
- ◆ Allowable static torque: 35.7N-m
- ◆ With 6 x M5 air ports, 2 available module interfaces



#### Model: LTC-0020D

- ◆ Recommended payload  $\leq 20\text{KG}$
- ◆ Locking force: 2514N
- ◆ Allowable static moment: 58.6N-m
- ◆ Allowable static torque: 80N-m
- ◆ With 12 x M5 air ports, 4 available module interfaces
- ◆ Master plate with locking/unlocking sensor and tool-in-position sensor



#### Model: LTC-0020E

- ◆ Recommended payload  $\leq 20\text{KG}$
- ◆ Locking force: 2514N
- ◆ Allowable static moment: 58.6N-m
- ◆ Allowable static torque: 80N-m
- ◆ With 12 x M5 air ports, 4 available module interfaces



#### Model: LTC-0040A

- ◆ Recommended payload  $\leq 40\text{KG}$
- ◆ Locking force: 7497N
- ◆ Allowable static moment: 216N-m
- ◆ Allowable static torque: 228N-m
- ◆ With 8 x PT1/8 air ports, 2 available module interfaces
- ◆ Master plate with locking/unlocking sensor and tool-in-position sensor



---

### Model: LTC-0070A

- ◆ Recommended payload  $\leq 70\text{KG}$
  - ◆ Locking force: 9973N
  - ◆ Allowable static moment: 328.5N-m
  - ◆ Allowable static torque: 451N-m
  - ◆ With 8 x PT1/8 air ports, 2 available module interfaces
  - ◆ Master plate with locking/unlocking sensor and tool-in-position sensor
- 



---

### Model: LTC-0070B

- ◆ Recommended payload  $\leq 70\text{KG}$
  - ◆ Locking force: 9973N
  - ◆ Allowable static moment: 328.5N-m
  - ◆ Allowable static torque: 451N-m
  - ◆ With 6 x PT1/8 air ports, 4 available module interfaces
  - ◆ Master plate with locking/unlocking sensor and tool-in-position sensor
- 



---

### Model: LTC-0120C

- ◆ Recommended payload  $\leq 120\text{KG}$
  - ◆ Locking force: 15407N
  - ◆ Allowable static moment: 842N-m
  - ◆ Allowable static torque: 1200N-m
  - ◆ With 10 x PT1/8 air ports, 2 available module interfaces
  - ◆ Master plate with locking/unlocking sensor and tool-in-position sensor
- 



---

### Model: LTC-0120D

- ◆ Recommended payload  $\leq 120\text{KG}$
  - ◆ Locking force: 15407N
  - ◆ Allowable static moment: 842N-m
  - ◆ Allowable static torque: 1200N-m
  - ◆ With 8 x PT1/8 air ports, 4 available module interfaces
  - ◆ Master plate with locking/unlocking sensor and tool-in-position sensor
- 



---

### Model: LTC-0200D

- ◆ Recommended payload  $\leq 230\text{KG}$
  - ◆ Locking force: 31458N
  - ◆ Allowable static moment: 2260N-m
  - ◆ Allowable static torque: 2245N-m
  - ◆ With 9 x PT3/8 air ports, 2 available module interfaces
  - ◆ Master plate with locking/unlocking sensor and tool-in-position sensor
- 



---

### Model: LTC-0200E

- ◆ Recommended payload  $\leq 230\text{KG}$
  - ◆ Locking force: 31458N
  - ◆ Allowable static moment: 2260N-m
  - ◆ Allowable static torque: 2245N-m
  - ◆ With 18 x PT1/8 air ports, 2 available module interfaces
  - ◆ Master plate with locking/unlocking sensor and tool-in-position sensor
-



### Model: LTC-0200F

- ◆ Recommended payload  $\leq 230\text{KG}$
- ◆ Locking force: 31458N
- ◆ Allowable static moment: 2260N·m
- ◆ Allowable static torque: 2245N·m
- ◆ With 6 x PT1/8 air ports, 2 x PT3/8 air ports, 4 available module interfaces
- ◆ Master plate with locking/unlocking sensor and tool-in-position sensor



### Model: LTC-0300G

- ◆ Recommended payload  $\leq 300\text{KG}$
- ◆ Locking force: 35421N
- ◆ Allowable static moment: 2767N·m
- ◆ Allowable static torque: 2526N·m
- ◆ With 10 x PT3/8 air ports, 2 available module interfaces
- ◆ Master plate with locking/unlocking sensor and tool-in-position sensor



### Model: LTC-0630F

- ◆ Recommended payload  $\leq 650\text{KG}$
- ◆ Locking force: 72930N
- ◆ Allowable static moment: 5000N·m
- ◆ Allowable static torque: 5000N·m
- ◆ 4 available module interfaces
- ◆ Master plate with locking/unlocking sensor and tool-in-position sensor



### Model: LTC-1300A

- ◆ Recommended payload  $\leq 1300\text{KG}$
- ◆ Locking force: 106263N
- ◆ Allowable static moment: 6830N·m
- ◆ Allowable static torque: 6920N·m
- ◆ 6 available module interfaces
- ◆ Master plate with locking/unlocking sensor and tool-in-position sensor



### Model: LTC-3000A

- ◆ Recommended payload  $\leq 3000\text{KG}$
- ◆ Locking force: 130200N
- ◆ Allowable static moment: 13600N·m
- ◆ Allowable static torque: 13000N·m
- ◆ 6 available module interfaces
- ◆ Master plate with locking/unlocking sensor and tool-in-position sensor

# LH-TC-Clamping Technology

Pneumatic grippers belongs to end-effectors which take compressed air as power to clamp or grab workpiece, can replace human hand, are used to catch workpiece with different shapes, measurements, weights and materials, combine grabbing force and grabbing stroke perfectly and then improve the stability of production process.



LH-TC technology  
high strength mechanism  
grippers



Strong structure, greater  
load bearing capacity



Multi-tooth cross-section  
design, guarantee reliable  
clamping



Multi-sensor sensing  
positions, detect closing  
and opening flexibly



Unique self-lubrication  
design, longer service life  
with maintenance-free



More than 400  
combinations of function  
expansion



## LH-TC Two-finger Parallel Grippers



### Model: LT-TG2-40series

- ◆ Stroke per jaw: 2.5mm
- ◆ Closing force: 153N~210N
- ◆ Recommended workpiece weight: 0.76kg
- ◆ The allowed longest finger: 54mm~58mm
- ◆ The allowed heaviest finger: 0.1kg
- ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.



### Model: LT-TG2-50series

- ◆ Stroke per jaw: 4mm/2mm
- ◆ Closing force: 192N~533N
- ◆ Recommended workpiece weight: 0.95kg~1.9kg
- ◆ The allowed longest finger: 64mm~72mm
- ◆ The allowed heaviest finger: 0.18kg
- ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.



### Model: LT-TG2-64series

- ◆ Stroke per jaw: 6mm/3mm
- ◆ Closing force: 295N~770N
- ◆ Recommended workpiece weight: 1.45kg~2.95kg
- ◆ The allowed longest finger: 80mm~90mm
- ◆ The allowed heaviest finger: 0.35kg
- ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.



### Model: LT-PG2-80series

- ◆ Stroke per jaw: 8mm/4mm
- ◆ Closing force: 440N~1180N
- ◆ Recommended workpiece weight: 2.2kg~4.3kg
- ◆ The allowed longest finger: 100mm~110mm
- ◆ The allowed heaviest finger: 0.6kg
- ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.



### Model: LT-PG2-100series

- ◆ Stroke per jaw: 10mm/5mm
- ◆ Closing force: 710N~1920N
- ◆ Recommended workpiece weight: 3.5kg~7.1kg
- ◆ The allowed longest finger: 125mm~145mm
- ◆ The allowed heaviest finger: 1.1kg
- ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.



---

### Model: LT-PG2-125series

- ◆ Stroke per jaw: 13mm/6.5mm
  - ◆ Closing force: 1160N~3170N
  - ◆ Recommended workpiece weight: 5.8kg~11.7kg
  - ◆ The allowed longest finger: 160mm~180mm
  - ◆ The allowed heaviest finger: 2.1kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.
- 



---

### Model: LT-PG2-160series

- ◆ Stroke per jaw: 16mm/8mm
  - ◆ Closing force: 1785N~4500N
  - ◆ Recommended workpiece weight: 8.5kg~17kg
  - ◆ The allowed longest finger: 200mm~220mm
  - ◆ The allowed heaviest finger: 3.5kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.
- 



---

### Model: LT-PG2-200series

- ◆ Stroke per jaw: 25mm/14mm
  - ◆ Closing force: 2960N~6640N
  - ◆ Recommended workpiece weight: 14.5kg~25kg
  - ◆ The allowed longest finger: 200mm~280mm
  - ◆ The allowed heaviest finger: 6.5kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.
- 



---

### Model: LT-PG2-240series

- ◆ Stroke per jaw: 30mm/17mm
  - ◆ Closing force: 4300N~9290N
  - ◆ Recommended workpiece weight: 21.5kg~37kg
  - ◆ The allowed longest finger: 240mm~320mm
  - ◆ The allowed heaviest finger: 8.5kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.
- 



---

### Model: LT-PG2-300series

- ◆ Stroke per jaw: 35mm/20mm
  - ◆ Closing force: 5780N~12330N
  - ◆ Recommended workpiece weight: 29kg~49.5kg
  - ◆ The allowed longest finger: 250mm~350mm
  - ◆ The allowed heaviest finger: 11.5kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.
- 



---

### Model: LT-PG2-380series

- ◆ Stroke per jaw: 45mm/26mm
  - ◆ Closing force: 9630N~23750N
  - ◆ Recommended workpiece weight: 48kg~82.5kg
  - ◆ The allowed longest finger: 300mm~400mm
  - ◆ The allowed heaviest finger: 17kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, etc.
-

## LH-TC Three-finger Parallel Grippers



### Model: LT-TG3-40series

- ◆ Stroke per jaw: 2.5mm
- ◆ Closing force: 250N~350N
- ◆ Recommended workpiece weight: 1.25kg
- ◆ The allowed longest finger: 45mm~50mm
- ◆ The allowed heaviest finger: 0.1kg
- ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.



### Model: LT-TG3-50series

- ◆ Stroke per jaw: 4mm
- ◆ Closing force: 430N~555N
- ◆ Recommended workpiece weight: 2.1kg
- ◆ The allowed longest finger: 58mm~64mm
- ◆ The allowed heaviest finger: 0.18kg
- ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.



### Model: LT-TG3-64series

- ◆ Stroke per jaw: 6mm
- ◆ Closing force: 700N~900N
- ◆ Recommended workpiece weight: 3.5kg
- ◆ The allowed longest finger: 72mm~80mm
- ◆ The allowed heaviest finger: 0.35kg
- ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.



### Model: LT-PG3-80series

- ◆ Stroke per jaw: 8mm/4mm
- ◆ Closing force: 1090N~2860N
- ◆ Recommended workpiece weight: 5.4kg~10.5kg
- ◆ The allowed longest finger: 100mm~110mm
- ◆ The allowed heaviest finger: 0.6kg
- ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.



### Model: LT-PG3-100series

- ◆ Stroke per jaw: 10mm/5mm
- ◆ Closing force: 2050N~5570N
- ◆ Recommended workpiece weight: 10kg~20kg
- ◆ The allowed longest finger: 125mm~145mm
- ◆ The allowed heaviest finger: 1.1kg
- ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.



---

### Model: LT-PG3-125series

- ◆ Stroke per jaw: 13mm/6.5mm
  - ◆ Closing force: 3240N~8820N
  - ◆ Recommended workpiece weight: 16kg~32kg
  - ◆ The allowed longest finger: 160mm~180mm
  - ◆ The allowed heaviest finger: 2.1kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.
- 



---

### Model: LT-PG3-160series

- ◆ Stroke per jaw: 16mm/8mm
  - ◆ Closing force: 5970N~15030N
  - ◆ Recommended workpiece weight: 29.5kg~57kg
  - ◆ The allowed longest finger: 200mm~220mm
  - ◆ The allowed heaviest finger: 3.5kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.
- 



---

### Model: LT-PG3-200series

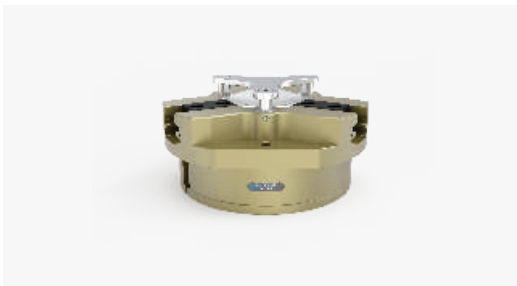
- ◆ Stroke per jaw: 25mm/14mm
  - ◆ Closing force: 8200N~17320N
  - ◆ Recommended workpiece weight: 41kg~63kg
  - ◆ The allowed longest finger: 200mm~280mm
  - ◆ The allowed heaviest finger: 6.5kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.
- 



---

### Model: LT-PG3-240series

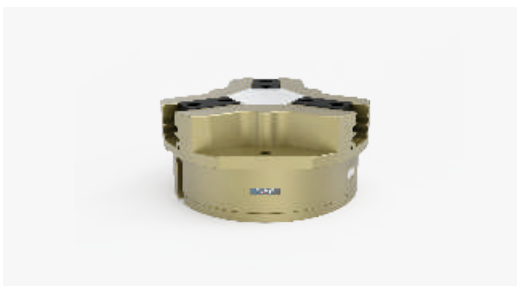
- ◆ Stroke per jaw: 30mm/17mm
  - ◆ Closing force: 11860N~27590N
  - ◆ Recommended workpiece weight: 59kg~101kg
  - ◆ The allowed longest finger: 200mm~300mm
  - ◆ The allowed heaviest finger: 8.5kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.
- 



---

### Model: LT-PG3-300series

- ◆ Stroke per jaw: 35mm/20mm
  - ◆ Closing force: 15950N~43910N
  - ◆ Recommended workpiece weight: 79kg~137kg
  - ◆ The allowed longest finger: 200mm~250mm
  - ◆ The allowed heaviest finger: 11.5kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.
- 



---

### Model: LT-PG3-380series

- ◆ Stroke per jaw: 45mm/26mm
  - ◆ Closing force: 29040N~65900N
  - ◆ Recommended workpiece weight: 145kg~249kg
  - ◆ The allowed longest finger: 200mm~250mm
  - ◆ The allowed heaviest finger: 13.5kg
  - ◆ Optional basic type, force holding type, dust-proof type, high temperature type, scrap wing components, etc.
-

# Optional Components



---

## Model: LT-JQC-64-P

Jaw quick change device: LT-JQC-64B-P

- ◆ Weight (the location pins are not included): 0.037kg
- ◆ The Max allowed torque: 29N.m ◆ The Max allowed force: 510N

Model of the location pin: LT-JQC-64A-P

- ◆ Weight ( 2pcs each set): 0.005kg
  - ◆ Material: 42CrMo
- 

---

## Model: LT-JQC-100-P

Jaw quick change device: LT-JQC-100B-P

- ◆ Weight (the location pins are not included): 0.12kg
- ◆ The Max allowed torque: 105N.m ◆ The Max allowed force: 1960N

Model of the location pin: LT-JQC-100A-P

- ◆ Weight ( 2pcs each set): 0.04kg
  - ◆ Material: 42CrMo
- 

---

## Model: LT-JQC-160-P

Jaw quick change device: LT-JQC-160B-P

- ◆ Weight (the location pins are not included): 0.38kg
- ◆ The Max allowed torque: 310N.m ◆ The Max allowed force: 5360N

Model of the location pin: LT-JQC-160A-P

- ◆ Weight ( 2pcs each set): 0.14kg
  - ◆ Material: 42CrMo
- 

---

## Model: LT-JQC-240-P

Jaw quick change device: LT-JQC-240B-P

- ◆ Weight (the location pins are not included): 1.35kg
- ◆ The Max allowed torque: 880N.m ◆ The Max allowed force: 9330N

Model of the location pin: LT-JQC-240A-P

- ◆ Weight ( 2pcs each set): 0.62kg
  - ◆ Material: 42CrMo
- 

---

## Model: LT-JQC-50-P

Jaw quick change device: LT-JQC-50B-P

- ◆ Weight (the location pins are not included): 0.025kg
- ◆ The Max allowed torque: 14N.m ◆ The Max allowed force: 350N

Model of the location pin: LT-JQC-50A-P

- ◆ Weight ( 2pcs each set): 0.005kg
  - ◆ Material: 42CrMo
- 

---

## Model: LT-JQC-80-P

Jaw quick change device: LT-JQC-80B-P

- ◆ Weight (the location pins are not included): 0.06kg
- ◆ The Max allowed torque: 63N.m ◆ The Max allowed force: 1080N

Model of the location pin: LT-JQC-80A-P

- ◆ Weight ( 2pcs each set): 0.02kg
  - ◆ Material: 42CrMo
- 

---

## Model: LT-JQC-125-P

Jaw quick change device: LT-JQC-125B-P

- ◆ Weight (the location pins are not included): 0.2kg
- ◆ The Max allowed torque: 225N.m ◆ The Max allowed force: 2815N

Model of the location pin: LT-JQC-125A-P

- ◆ Weight ( 2pcs each set): 0.09kg
  - ◆ Material: 42CrMo
- 

---

## Model: LT-JQC-200-P

Jaw quick change device: LT-JQC-200B-P

- ◆ Weight (the location pins are not included): 0.77kg
- ◆ The Max allowed torque: 510N.m ◆ The Max allowed force: 6110N

Model of the location pin: LT-JQC-200A-P

- ◆ Weight ( 2pcs each set): 0.32kg
  - ◆ Material: 42CrMo
- 

---

## Model: LT-JQC-300-P

Jaw quick change device: LT-JQC-300B-P

- ◆ Weight (the location pins are not included): 1.8kg
- ◆ The Max allowed torque: 1220N.m ◆ The Max allowed force: 12420N

Model of the location pin: LT-JQC-300A-P

- ◆ Weight ( 2pcs each set): 0.79kg
  - ◆ Material: 42CrMo
-

# LH-TC·Floating Position Compensation Devices

The floating compensation devices are mainly used to improve machining accuracy and process reliability, especially when processing deformation sensitive workpieces, the biggest advantage is the ability to respond to workpiece position deviations flexibly through the floating compensation function, while ensuring the stability and durability of the clamping force, thereby extending the equipment maintenance cycle time, reducing maintenance costs, and improving overall machining efficiency.



### Powerful function:

Compensate the position error during assembly and loading precisely.



### Compensation in multi-direction:

Support position compensation in X&Y, Z, X&Y&Z directions, ensure wide and flexible compensation ability.



### Precise control:

Ensure the operation is exact by locking the center point and position storing function.



### Easy for mounting:

ISO9409 interface to simplify assembled process.



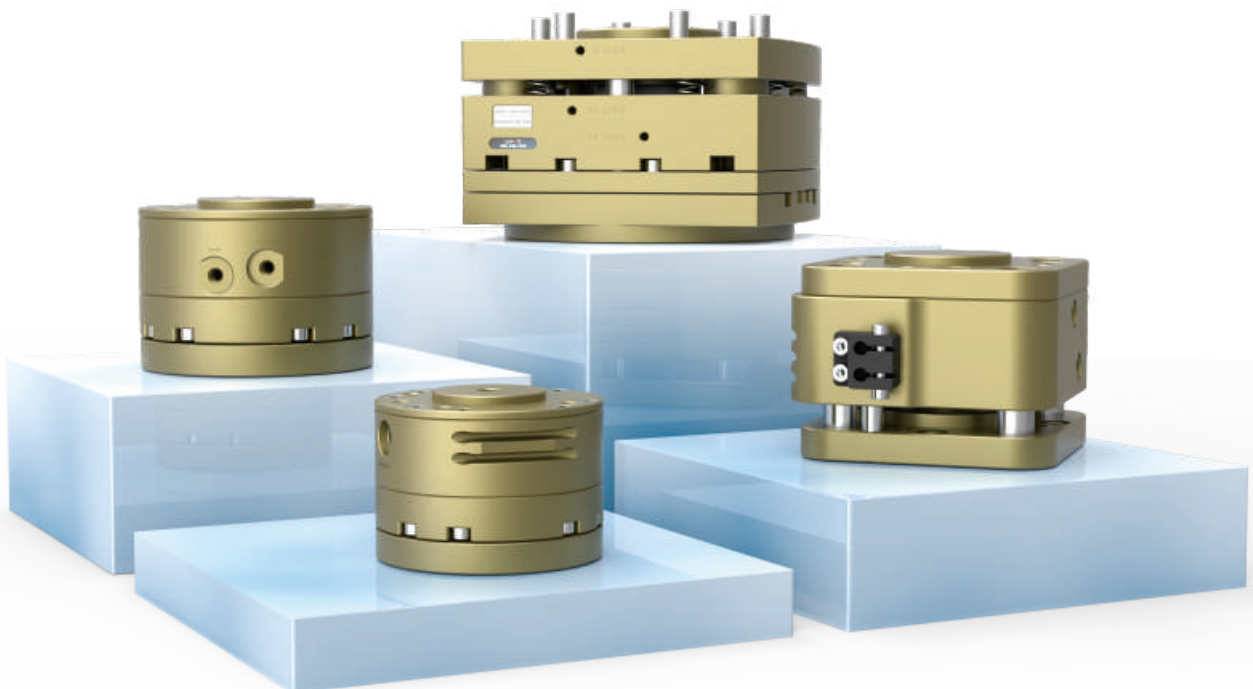
### Stable and durable:

Adopt firm material, improve the service life of equipment.



### Highly integrated:

Support seamless integration with robot control systems.





## Floating compensation devices in X&Y Directions

Model	LT-COMP-50XY	LT-COMP-63XY	LT-COMP-80XY
Compensation in X and Y directions	±2.5mm	±3mm	±4mm
Rotate angle	±12°	±12°	±16°
Recommended handling weight in straight direction	6kg	9kg	15kg
Recommended handling weight in horizontal direction	4kg	6kg	10kg
Recommended handling weight in the storing position	1.5kg	1.8kg	4kg
The locking force of located piston	240N	380N	610N
The Max locking payload	130N	200N	310N
The piston force of storing position	145N	240N	590N
The Max radial force in storing position	40N	70N	175N
The rotate moment in the Max storing position	1.2N.m	1.7N.m	4N.m
The Min/Rated/The Max work air pressure	0.3/0.6/0.8MPa	0.3/0.6/0.8MPa	0.3/0.6/0.8MPa
Repeatability	0.1mm	0.1mm	0.1mm
The flange in the robot side	ISO 9409-1-50-4-M6	ISO 9409-1-63-4-M6	ISO 9409-1-80-6-M8
Product weight	0.45kg	0.82kg	1.43kg
The lowest/The highest environmental temperature	+5/+60°C	+5/+60°C	+5/+60°C
Dimension	Φ65×48mm	Φ80×56mm	Φ100×62mm



## Floating compensation devices in Z Direction

Model	LT-COMP-50Z-1/ LT-COMP-50Z-2	LT-COMP-63Z-1/ LT-COMP-63Z-2	LT-COMP-80Z-1/ LT-COMP-80Z-2
Compensation in Z direction	8mm	8mm	10mm
Recommended handling weight	5kg	9kg	12kg
The locking force in retraction state(under 0.6MPa)	280N / 260N	630N / 590N	1160N / 1140N
The locking force in extended state(under 0.6MPa)	510N / 530N	900N / 920N	1500N / 1520N
The Min spring force	20N / 40N	40N / 60N	70N / 90N
The Max spring force	40N / 60N	60N / 100N	100N / 120N
The Min/Rated/The Max work air pressure	0.3/0.6/0.8MPa	0.3/0.6/0.8MPa	0.3/0.6/0.8MPa
Repeatability	0.02mm	0.02mm	0.02mm
The flange in the robot side	ISO 9409-1-50-4-M6	ISO 9409-1-63-4-M6	ISO 9409-1-80-6-M8
Product weight	0.6kg	1kg	1.7kg
The lowest/The highest environmental temperature	+5/+60°C	+5/+60°C	+5/+60°C
Dimension	67.5×67.5×53mm	82.5×82.5×59.5mm	105×105×65mm

# Floating compensation devices in X&Y&Z Directions



Model	LT-COMP-100XYZSeries	LT-COMP-125XYZSeries
Compensation in X and Y directions	±4mm	±7mm
Compensation in Z direction	10mm	12mm
Recommended handling weight in straight direction	9kg	18kg
Recommended handling weight in horizontal direction	5.5kg	11kg
The locking force in X and Y directions	633N	1224N
The locking force in Z direction	871N	1584N
The radial force of position memory piston	180N	260N
The Min/Rated/The Max work air pressure	0.3/0.6/0.8MPa	0.3/0.6/0.8MPa
The work temperature	+5/+60°C	+5/+60°C
Repeatability	0.1mm	0.1mm
Flange standard	ISO 9409-1-100-6-M8	ISO 9409-1-125-6-M10

**Remark: Optional X&Y directions or Z direction.**

Model	LT-COMP-160XYZSeries	LT-COMP-200XYZSeries
Compensation in X and Y directions	±10mm	±12mm
Compensation in Z direction	14mm	14mm
Recommended handling weight in straight direction	60kg	160kg
Recommended handling weight in horizontal direction	40kg	100kg
The locking force in X and Y directions	1847N	2787N
The locking force in Z direction	2080N	3176N
The radial force of position memory piston	334N	521N
The Min/Rated/The Max work air pressure	0.3/0.6/0.8MPa	0.3/0.6/0.8MPa
The work temperature	+5/+60°C	+5/+60°C
Repeatability	0.1mm	0.1mm
Flange standard	ISO 9409-1-160-6-M10	ISO 9409-1-200-6-M12

**Remark: Optional X&Y directions or Z direction.**

# LH-TC·Force Controlled Deburring Tools

Force controlled deburring tools are efficient and flexible automatically deburring tools, equipped with powerful electric motor, can quickly and automatically remove burrs, seams and edge -breaking of various materials. Applied in multi-process, suitable for components with materials such as cast iron, steel, aluminum alloy, plastic, etc. Under operation condition, the floating mechanism and the cutter can comply the irregular workpiece burrs and conduct adaptive processing, avoid the damage of the cutter and the workpiece, eliminate the error of workpiece shape and positioning.



Flexible contact,  
adjustable rotate speed



360 degree floating in  
Radial direction, floating in  
axial direction



Durable contact  
component, dust-proof,  
air leakage proof



Aluminum alloy shell,  
light weight design



Build-in steel ball to  
reduce friction and  
lengthen service life



Replaceable Variety  
grinding heads, meet  
customized deburring  
requirement

## Radial floating deburring tools series



Model	LT-FRC030B-3060J	LT-FRC030B-3030T-J
The Max rotate speed	60000rpm	30000rpm
The Max torque	9cN·m	18cN·m
Power	350W	350W
Floating force	7N~30N	7N~30N
Axial floating distance	7mm	7mm
Floating angle (X, Y)	±5°	±5°
Change tools automaticly	Replaceable tool diameter: 0.5~6.35mm	



Model	LT-FR030B-3060J	LT-FR030B-3030T-J
The Max rotate speed	60000rpm	30000rpm
The Max torque	9cN·m	18cN·m
Power	350W	350W
Floating force	7N~30N	7N~30N
Axial floating distance	5mm	5mm
Floating angle (X, Y)	±5°	±5°



---

**Model: LT-FR020A-20-S6000**

- ◆ The Max rotate speed: 60000rpm
  - ◆ The Max torque: 9cN·m
  - ◆ Power: 250W
  - ◆ Floating force: 3N~14N
  - ◆ Axial floating distance: 4mm
  - ◆ Radial floating angle 360-degree, Floating angle (X, Y)  $\pm 5^\circ$
- 



---

**Model: LT-FR040B-S4040**

- ◆ The Max rotate speed: 20000rpm
  - ◆ The Max torque: 60cN·m
  - ◆ Power: 400W
  - ◆ Floating force: 7N~29N
  - ◆ Axial floating distance: 6.5mm
  - ◆ Radial floating angle 360-degree, Floating angle (X, Y)  $\pm 5^\circ$
- 



---

**Model: LT-6000**

- ◆ The Max rotate speed: 36000rpm
  - ◆ The Max torque: 2.8N·m
  - ◆ Power: 6KW
  - ◆ Floating force: 96N~203.8N
  - ◆ Axial floating distance: 10mm
  - ◆ Radial floating angle 360-degree, Floating angle (X, Y)  $\pm 4^\circ$
- 

## Axial floating grinding tools Series



---

**Model: LT-AF100C**

- ◆ Controllable motion range: 360°
  - ◆ Force control accuracy:  $\pm 0.5N$
  - ◆ Stroke accuracy:  $\pm 0.025mm$
  - ◆ Stroke: 30mm
  - ◆ Product weight: 3.35kg
  - ◆ Respond time: 40ms
  - ◆ Floating force: 10-100N
- 



---

**Model: LT-AF300B**

- ◆ Controllable motion range: 360°
  - ◆ Force control accuracy:  $\pm 1N$
  - ◆ Stroke accuracy:  $\pm 0.025mm$
  - ◆ Stroke: 35mm
  - ◆ Product weight: 5.85kg
  - ◆ Respond time: 40ms
  - ◆ Floating force: 10-300N
-

# LH-TC·Energy Connectors

Energy connectors can provide energy connection between the main station and the slave station, and pass through energy media such as power, air, fluid, communication, etc. The fixed station with a unique flexible mechanical equipment, which can compensate the position errors and mechanism errors during the docking process. The main applications are in automotive manufacturing industry, to provide electrical power, air, signals to equipment or trolley during the quick docking of trolley, equipment and molds.



Provide energy connection between the main station and the slave station, include electrical power, data, I/O, etc.



Modular design of medium, combination more flexible



Floating in X, Y, Z direction, eliminate docking error.



Optional servo motor or cylinder driven



## Utility Coupler



### Model: LT-F31

- ◆ Realize quick connection of energy media such as pneumatic, electric current, communication, etc
- ◆ With 2×PT3/8 self-sealed pneumatic ports
- ◆ Optional driven way: servo motor or cylinder
- ◆ Support Ethernet, EtherNet/IP, EtherCAT, Profinet, Devicenet, Profibus, CC-Link, Gigabit Ethernet
- ◆ Compensation available: Compliance(X&Y-Axis): ±4mm、Compliance(Z-Axis): 2mm  
Rotational Compliance: ±3°、Required Coupling Force: ≥1526N



### Model: LT-F31C

- ◆ Realize quick docking of energy media such as pneumatic, liquid, current and communication, etc.
- ◆ Optional 1~4 channels PT1/2 pneumatic port or water port
- ◆ Optional driven way: servo motor or cylinder
- ◆ Support Ethernet, EtherNet/IP, EtherCAT, Profinet, Devicenet, Profibus, CC-Link, Gigabit Ethernet
- ◆ Compensation available: Compliance(X&Y-Axis): ±4mm、Compliance(Z-Axis): 2mm  
Rotational Compliance: ±3°、Required Coupling Force: ≥1526N



### Model: LT-F41

- ◆ Realize quick docking of energy media such as current and communication, etc.
- ◆ Compact design, light weight
- ◆ Optional driven way: servo motor or cylinder
- ◆ Support Ethernet, EtherNet/IP, EtherCAT, Profinet, Devicenet, Profibus, CC-Link, Gigabit Ethernet
- ◆ Compensation available:  
Compliance(X&Y-Axis): ±4mm、Compliance(Z-Axis): 2mm  
Rotational Compliance: ±3°、Required Coupling Force: ≥1526N

## Wireless Utility Coupler



### Model: LT-F31G-EP01-SE

- ◆ Realizes rapid connection of energy media such as gas, current, and communication;
- ◆ Equipped with 2 PT3/8 self-sealing gas circuits,
- ◆ Supports multiple Ethernet protocols such as Profinet, EtherNet/IP, EtherCAT, Modbus/TCP, etc.
- ◆ Compensation available:  
Compliance(X&Y-Axis): ±4mm、Compliance(Z-Axis): 2mm  
Rotational Compliance: ±3°、Required Coupling Force: ≥1526N

# LH-TC·Energy Coupling Device

The Energy coupling devices can integrate multiple kinds of connections on a single frame or housing, and can be configured according to the specific requirements. It can meet the multi-function and frequent plug requirements, integrated the power, signal, data, fiber, liquid, pneumatic, etc. It's suitable for applications which need to combine electrical, power and pneumatic together.



High stability High reliability



Ultra-high plug life



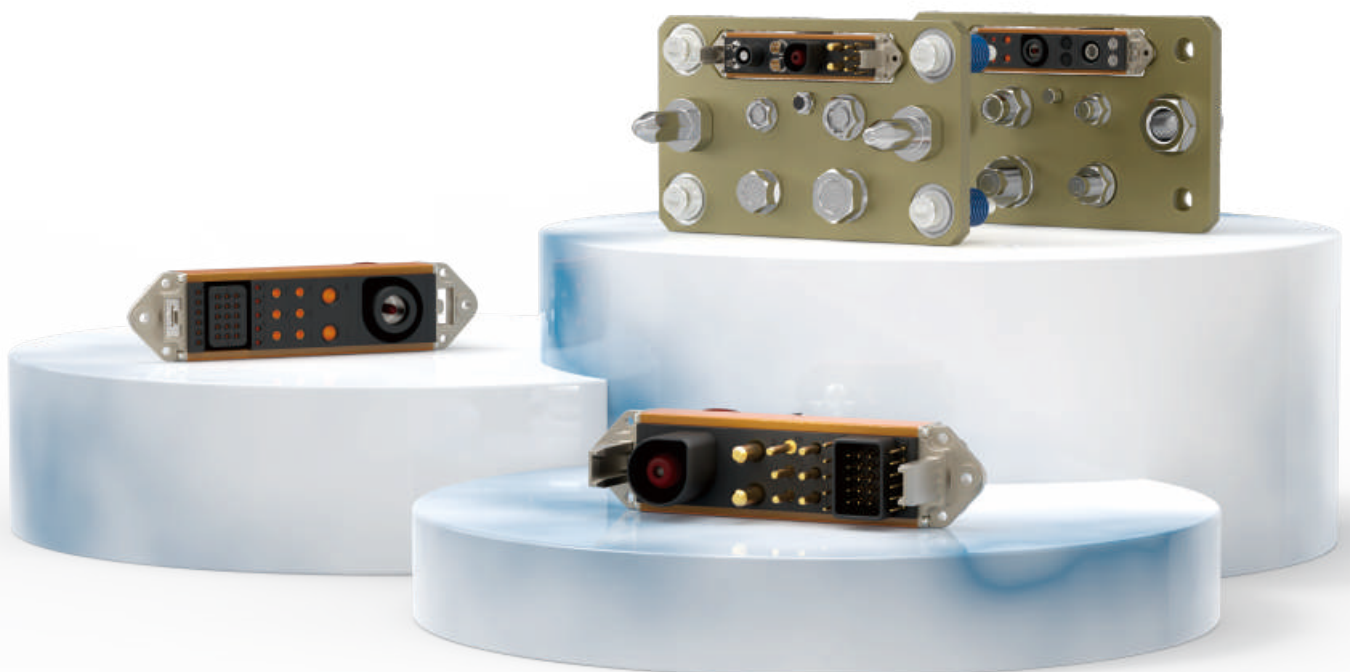
Strong current carrying capacity



Strong resistance to vibration and impact

## Product Introduction

X, Y direction tolerance	$\pm 4\text{mm}$
Floating angle	$\pm 1.5^\circ$
Position Repeatability	$\pm 0.1\text{mm}$



# Optional Components



Φ1.0 Signal Module



Φ1.5 Signal Module



Φ3 Power Module



Φ6 Power Module



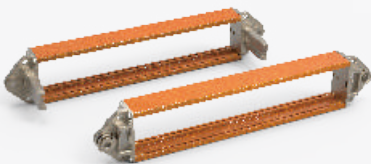
Φ8 Power Module



Φ12 Power Module



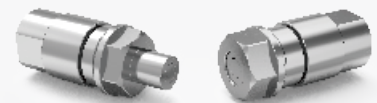
Framework



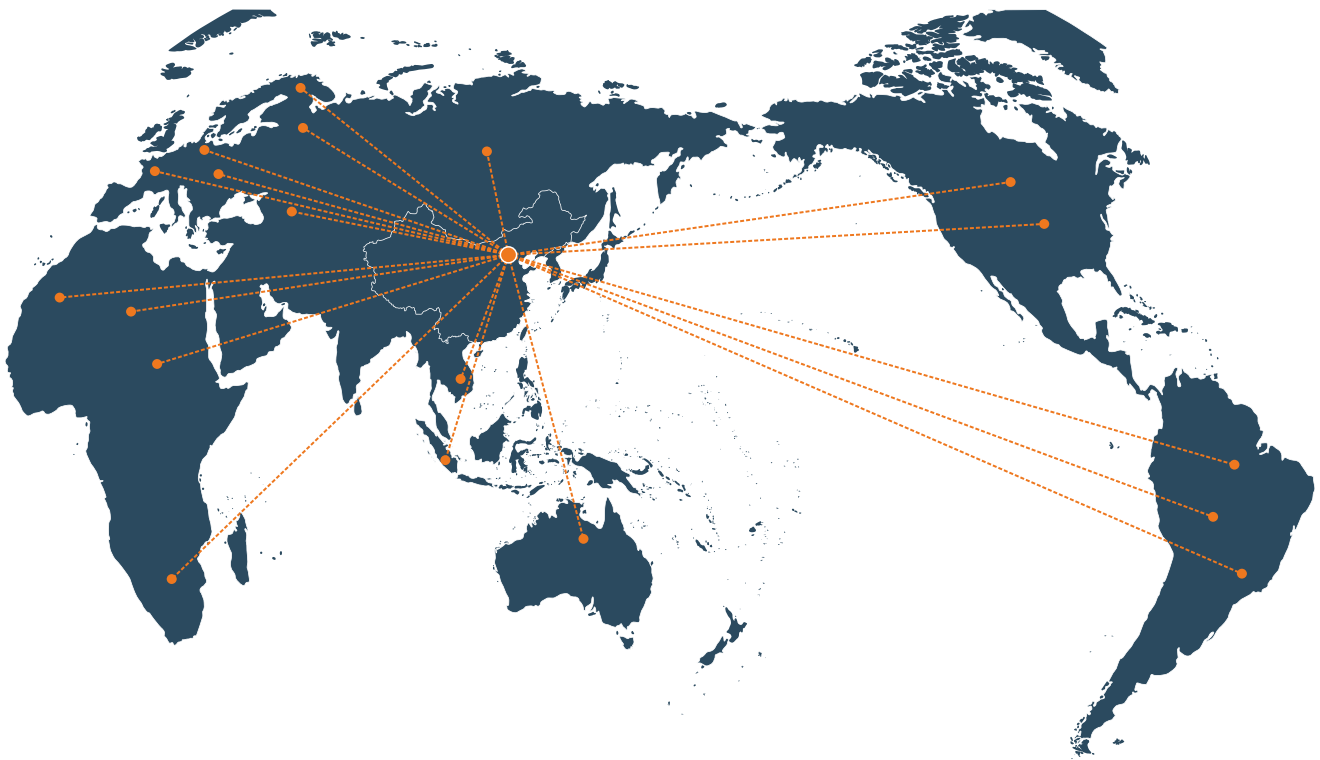
Water-air joint



Hydraulic joint



# LH-TC·Service Network



**Address** No.11 Building, Zhengtou Technology Innovation Park, Duqin Road, Mazhai industrial zone,  
Erqi District, Zhengzhou, China 450000

**WhatsApp** +86 17335767268 / +86 15333867590

**E-Mail** [info@ltautotools.com](mailto:info@ltautotools.com)

**Web** [www.ltautotools.com](http://www.ltautotools.com)



# LH-TC

## End-Of-Arm Tooling

Committed to becoming the best robot end-effector supplier



Hot Line:

**+86 17335767268**  
**+86 15333867590**

Website: [www.ltautotools.com](http://www.ltautotools.com)

Mail: [info@ltautotools.com](mailto:info@ltautotools.com)

Address: No.11 Building, Zhengtuo Technology Innovation Park, Duqin Road,  
Mazhai industrial zone, Erqi District, Zhengzhou, China 450000