

HTC series Horizontal CNC lathe

-Advantage

HTCII series



| Items | Unit | HTC150II | | HTC200II | | HTC300II×580 |
|-----------------------|------|----------|---------|----------|---------|--------------|
| | | 290 | 520 | 360 | 560 | |
| Max. swing over bed | mm | Φ550 | | Φ620 | | Φ620 |
| Max. turning diameter | mm | Φ300 | | Φ400 | | Φ520 |
| Max. turning length | mm | 290 | 520 | 360 | 560 | 600 |
| Spindle nose | - | JISA2-6 | | | | JISA2-8 |
| Chuck size | inch | 8 | | | | 10 |
| Max. spindle speed | rpm | 4500 | | | | 3500 |
| X/Z stroke | mm | 180/345 | 180/573 | 215/415 | 215/615 | 280/695 |

市场定位

Market positioning

机床特点

Characteristics of
Machine Tools

竞争对比

Competition
Comparison

行业领先

Industry leading

切屑性能

Cutting Performance

售后服务

After-sale service



Market Positioning

Horizontal CNC lathes for sale in Chinese market

HTCII series



DMG、OCKUMA、MAZAK、Hardinge



Euro : WFL



First level

Doosan、Victor Taichung、Feeler



Second level

Third level

Market Positioning

Horizontal CNC lathes for sale in Chinese market-feature of different level

| Order | Spindle | Rapid speed m/min | Turret | Stability | Base parts and moving parts | Tailstock | lubrication |
|--------------|---------------------|----------------------|---------------|-----------------|---|--|---|
| First level | Built-in spindle | 30-36 | Servo | 10-15 years | base parts are rigid Extremely lightweight moving parts | Full automatic servo programmable | Concentrated grease lubrication |
| Second level | Built-in spindle | 24-33 | Servo | 8-12 years | Stable foundation Moving parts are lightweight | Full automatic servo programmable | Concentrated grease lubrication |
| HTCII | Built-in spindle | 24-30 | Servo | 10 years | base parts are rigid Moving parts are lightweight | Manual hydraulic tailstock (optional servo) | Concentrated and quantitative pressurized lubrication(oil lubrication is optional) |
| Third level | Built-in spindle | 20-24 | hydraulic | 6-8 years | Unstable foundation Moving parts are heavy | Manual hydraulic tailstock , cannot choose servo | Concentrated oil lubrication, cannot choose grease lubrication |
| Fourth level | Built-in spindle | 16-24 | hydraulic/row | 3-5 years | Weak foundation Moving parts are weight | Manual hydraulic tailstock/manual tailstock | Non-centralized lubrication (lubricating grease in slider) |



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Machine feature



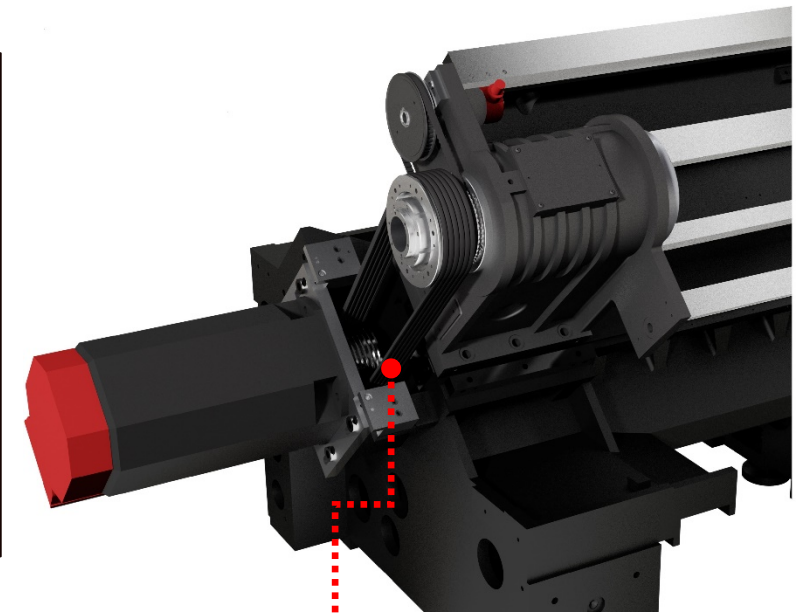
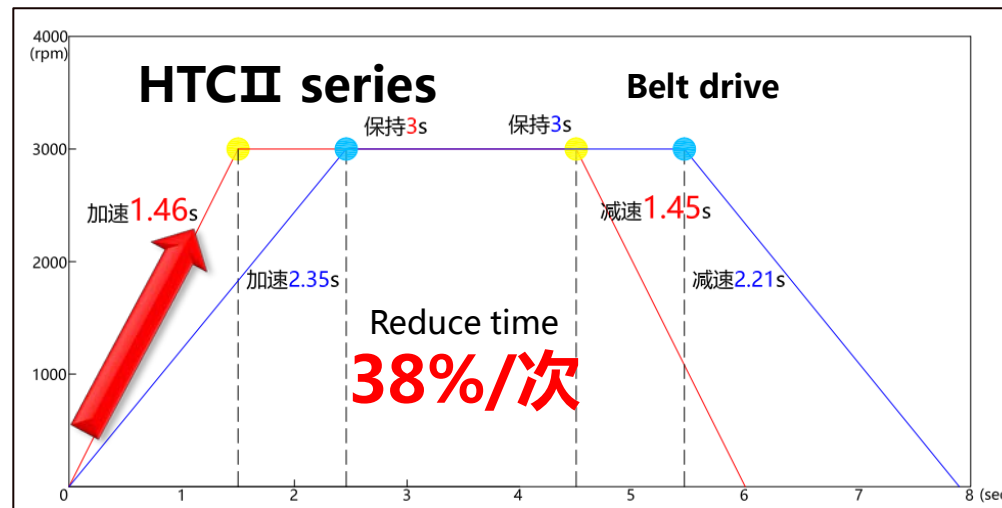
Characteristics of Machine Tools

High efficiency - high power built-in spindle (small inertia, fast start and stop)

HTC series built-in spindle

Belt drive motor

More short start and stop time



Built-in motor drives directly

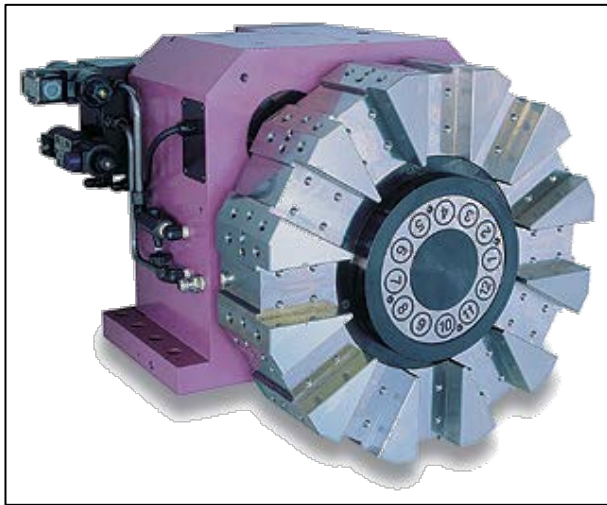
The belt is the intermediate link

Machine feature

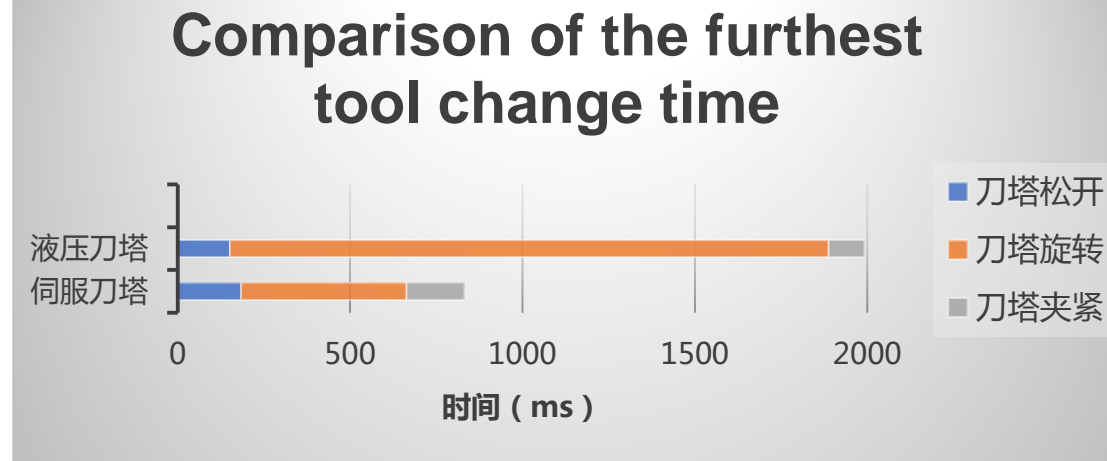
Characteristics of Machine Tools

High efficiency - the longest tool change time of servo tool tower is half of that hydraulic tool tower

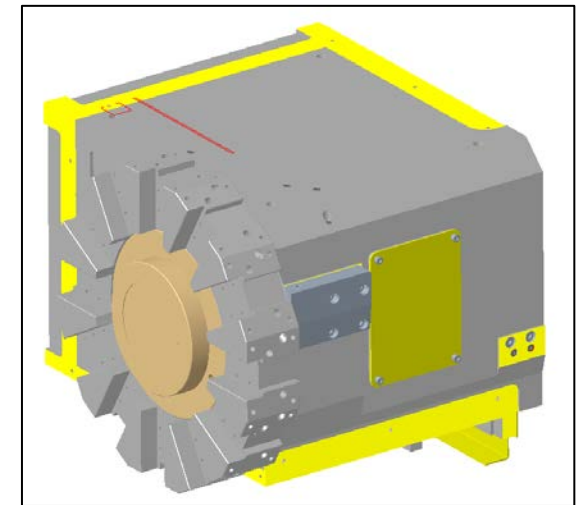
Normal



Hydraulic turret :
Change the farthest tool and lock time 1.992s



HTC series (short time)



Servo turret :
Change the farthest tool and lock time 0.832s

Characteristics of Machine Tools

High efficiency :

Video 1 : 40% less time to change to farthest tool

Video 2 : 20% less time to change to adjacent tool

Save **40%** time



Video 1

Save **20%** time

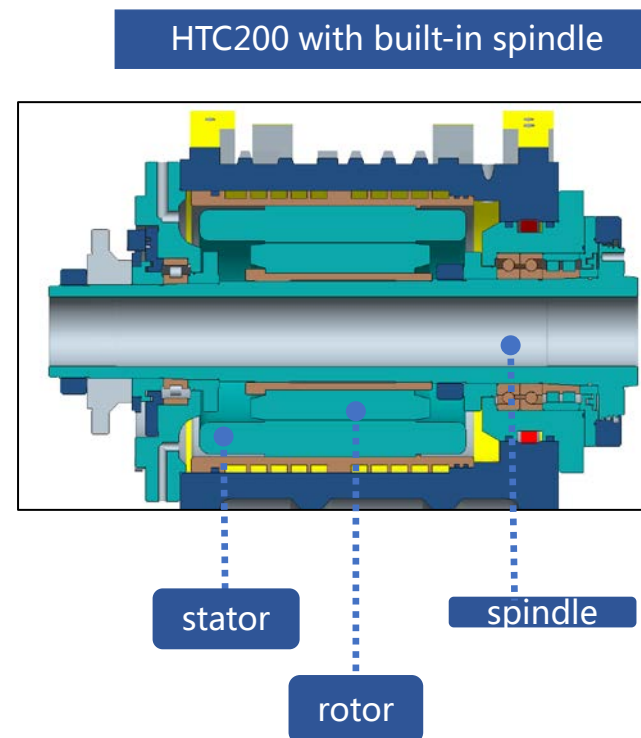
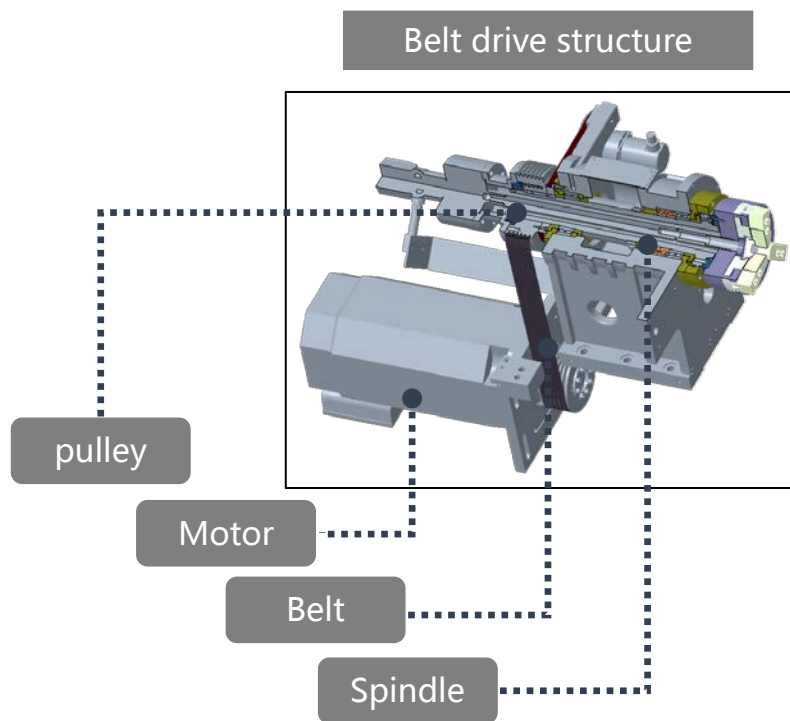


Video 2

Characteristics of Machine

High precision - built-in spindle with "zero" vibration source

Dynamic balance of built-in spindle is G0.4



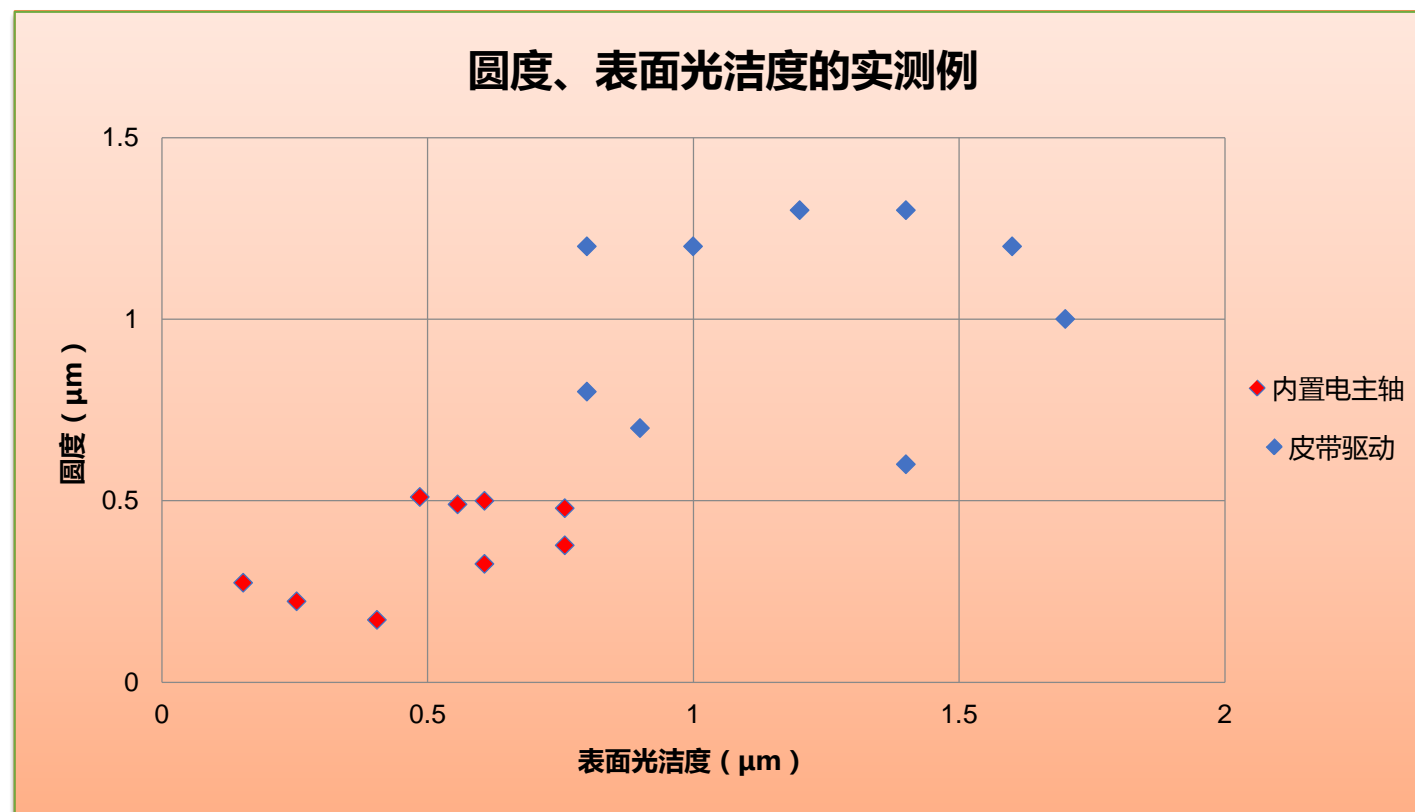
Note: The vibration of belt drive increases as the circumference speed of belt wheel increases

Without any vibration source

Characteristics of Machine Tools

High precision - guarantee roundness and surface quality

**Use the hardest tool and softest material
Real show the precision**

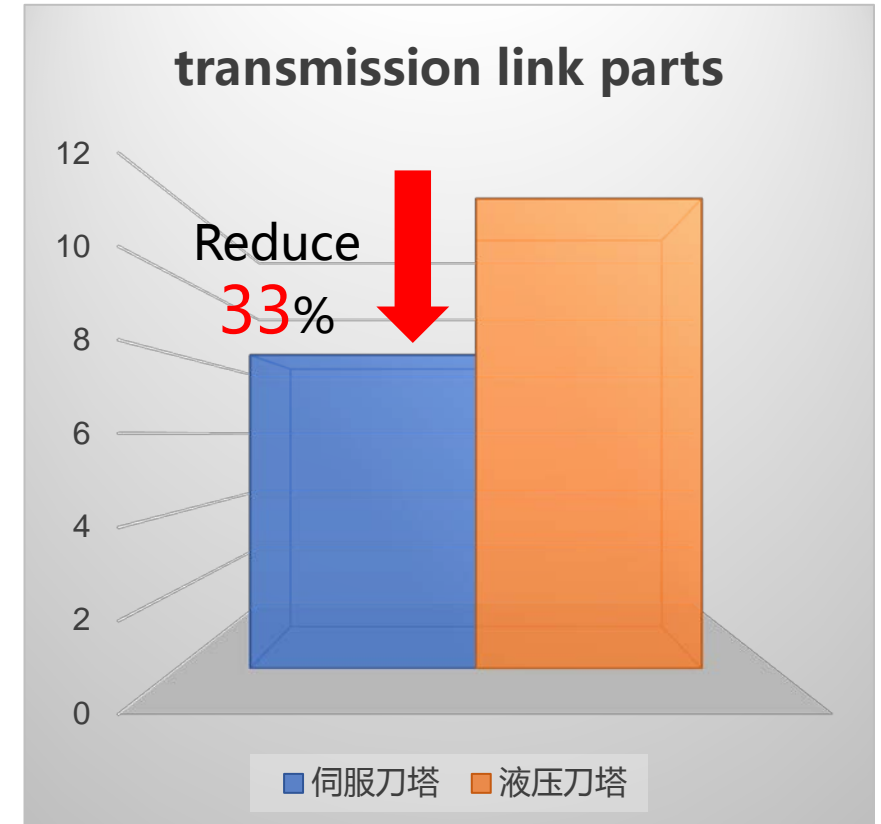
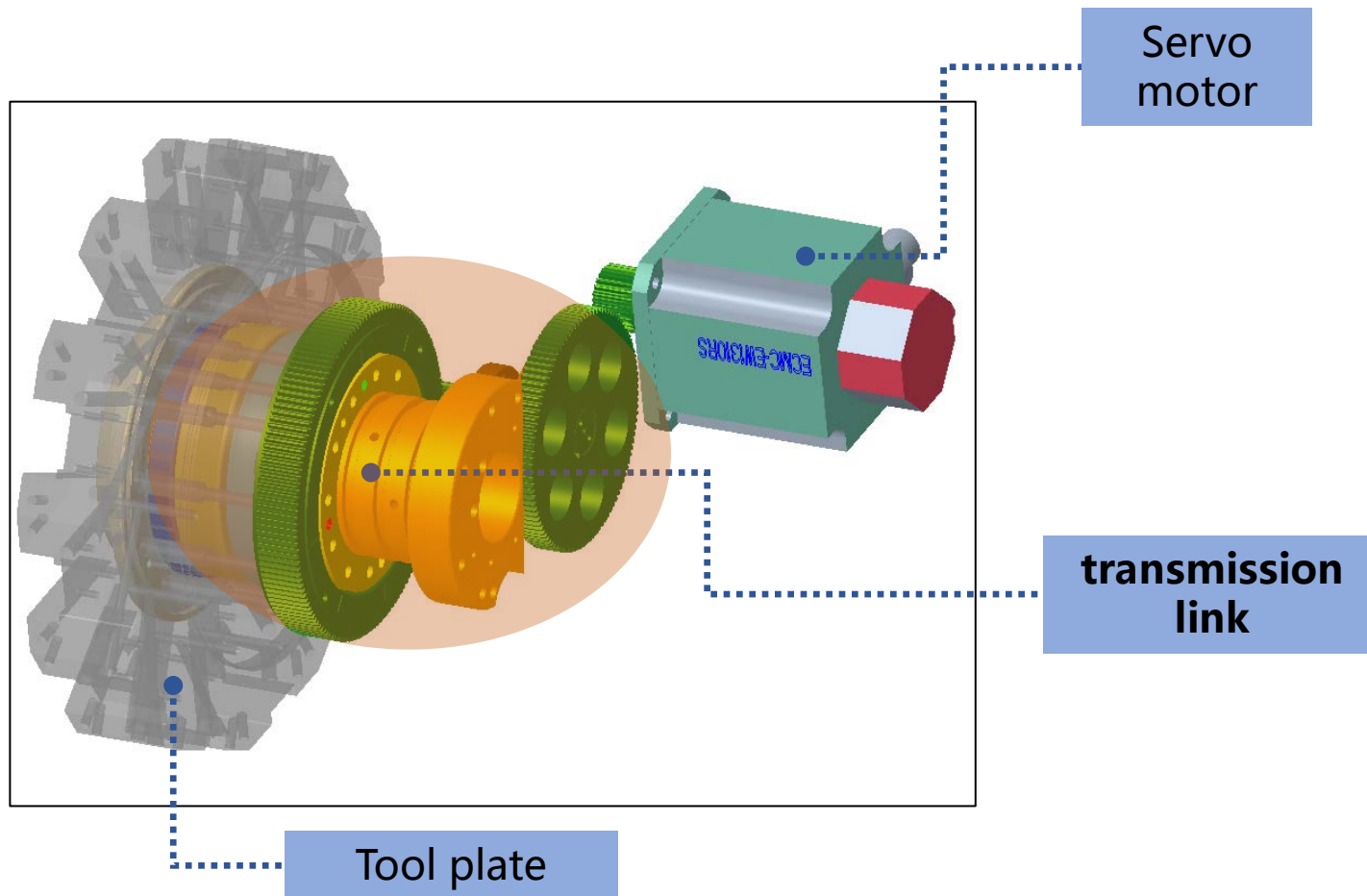


| | |
|----------|--------------|
| Material | brass |
| Speed | 3500rpm |
| Feed | 0.04mm/z |
| depth | 0.03mm |
| Tool | Diamond tool |

常规机床的三分之一

Characteristics of Machine Tools

High precision - servo turret transmission link parts reduced



Servo turret is equipped with efficient servo motor drive, drive system and parts have been optimized and improved, while reducing the failure rate, making the maintenance more convenient, improving the stability of the machine

Characteristics of Machine Tools

Spindle quality control - high precision standard

| Spindle accuracy | | | | |
|--|-------------------|---------|---------|---------------------|
| Item | Schematic diagram | ISO | Hision | Allowable tolerance |
| Spindle radial runout | | 0.008mm | 0.005mm | 37.5% |
| Spindle end runout | | 0.01mm | 0.004mm | 60% |
| Position accuracy | | | | |
| X axis bi-directional positioning accuracy | | 0.022mm | 0.008mm | 63.6% |
| Z axis bi-directional positioning accuracy | | 0.022mm | 0.008mm | 63.6% |
| Repeated positioning accuracy | | | | |
| X axis repeated positioning accuracy | | 0.008mm | 0.005mm | 37.5% |
| Z axis repeated positioning accuracy | | 0.008mm | 0.005mm | 37.5% |

Characteristics of Machine Tools

Self-made built-in spindle



- ✓ dust-free workshop
- ✓ 20°C Constant temperature assembly
- ✓ Humidity control
- ✓ Positive air pressure working environment
- ✓ Low repair cost
- ✓ Fast repair speed
- ✓ plenty of accessories

Characteristics of Machine Tools

Perfect automatic interface -
modular design, easy replacement

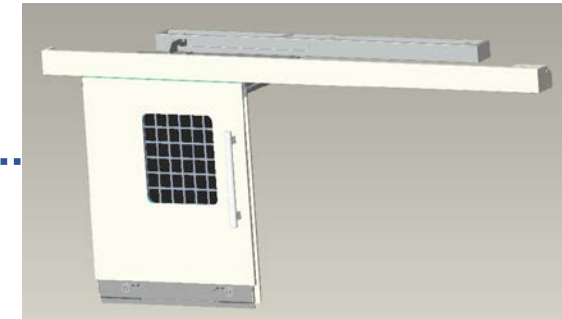
HISON



Automatic
sunroof

**Automatic
sunroof/automatic
door Easy
replacement, low
threshold**

Automatic
door



**The machine satisfies a variety of
protocols to communicate with the
robot (truss wire)**

Support FOCAS2

- Modbus/TCP
- 8 set I/O communication
- profinet IO device communication
- profibus communication
- EtherNET/IP



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Competition comparison

Technical parameters of major competitors in the market

- Compared with Japanese and Korean machine, customer just use 85% price of that price to get the same performance and reliability
- Compared with Taiwan machine, with the same parameters, our machine are 5-10 years more advanced than theirs

| Company name | | HISION | MAZAK | DOOSAN | AWEA |
|--------------------------------|-------|--------------|----------------------|------------|------------|
| ITEM | UNIT | HTC200II×560 | QUICK TURN 200L-500U | Lynx 235 | HD 2200 |
| Swing over bed Max. | mm | Φ620 | Φ660 | Φ510 | Φ550 |
| Max. Turning diameter | mm | Φ400 | Φ350 | Φ320 | Φ380 |
| Max. turning length | mm | 560 | 541 | 525 | 565 |
| Drive type | - | Built-in | Built-in | mechanical | mechanical |
| Spindle speed | rpm | 4500 | 5000 | 4000 | 4000 |
| Spindle nose | - | JISA2-6 | JISA2-6 | JISA2-6 | JISA2-6 |
| Max. pass rod diameter | mm | Φ55 | Φ66 | Φ45 | Φ65 |
| Chuck size | inch | 8 | 8 | 8 | 8 |
| X/Z travel | mm | 215/615 | 195/560 | 175/330 | 215/580 |
| X/Z rapid feed | m/min | 24/30 | 30/33 | 30/36 | 24/30 |
| Turret | - | Servo V12 | Servo V12 | Servo V12 | Servo V12 |
| Change to adjacent tool | s | 0.20 | 0.25 | 0.15 | 0.12 |
| Tailstock center specification | - | MT NO.4 | MT NO.5 | MT NO.4 | MT NO.4 |
| Tailstock travel | mm | 580 | 565 | 560 | 513.7 |
| Tailstock drive type | - | Hydraulic | servo | Manual | Manual |
| Power (Con/30m) | kW | 11/15 | 11/15 | 11/15 | 15/18.5 |

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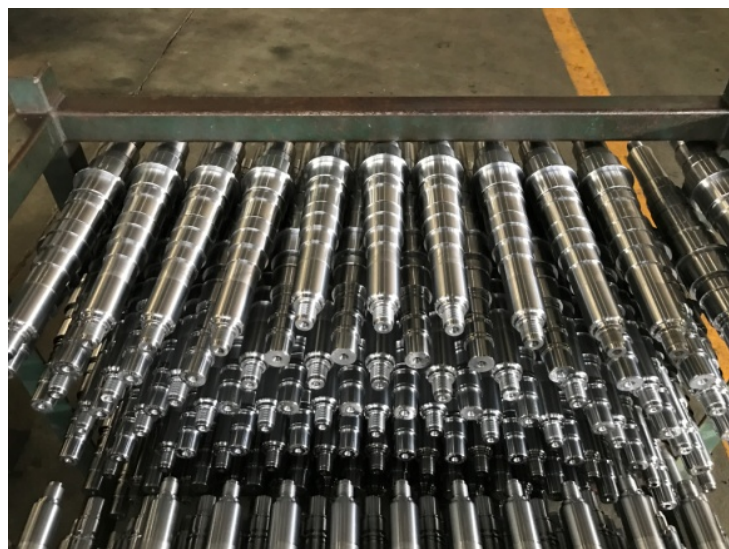
售后服务

After-sale service

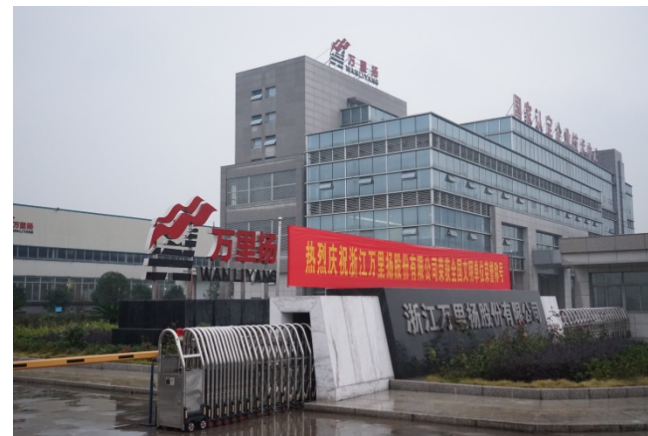


Industry leading

- Auto parts: batch and stable



Intermediate shaft



Zhejiang Wanliyang Co., Ltd.

Industry leading

- Valve parts: various products



- Home appliance parts: eccentric products



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Cutting Performance



Excellent performance - demonstrates cutting ability

| Item | Material | Tool information | rotation (rpm) | feed (mm/z) | depth (mm) | Video (HTC200) |
|-------------------------------|---------------------------------|---|---------------------|---------------|--------------|---|
| Brass bar | Φ50X100Brass bar | 25 square left hand external fine turning tool | 3500 | 0.04 | 0.03 |  |
| Max. torque | 45 | 25 square left hand external rough turning tool | 200 | 0.25 | 3 |  |
| Precision milling consistency | 40Cr | 25 square left hand external fine turning tool | 500 | 0.1 | 0.15 |  |
| Hard turning external | 60Si2Mn热处理C52 Less vibration | 25 square left hand external fine turning tool | V=120m/min-150m/min | 0.1-0.15 | 0.2 |  |

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全球网点分布

Global sales outlets

3 Manufacturing base

4 Overseas Subsidiary

22 overseas market



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