



Goodwill focus on grinding technology,

One-stop solution for
your grinding requirement.

T TYPE CENTERLESS GRINDERS

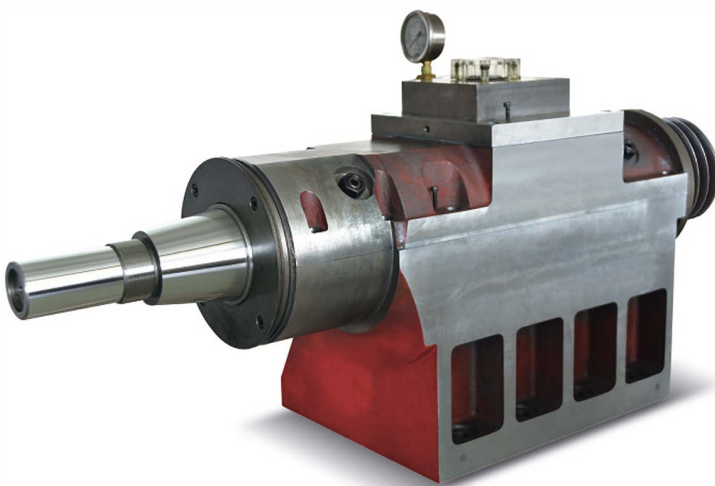
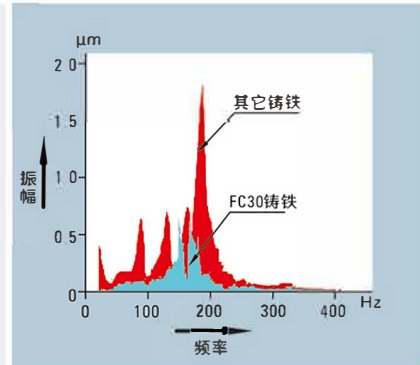


精密机构 Precision mechanism



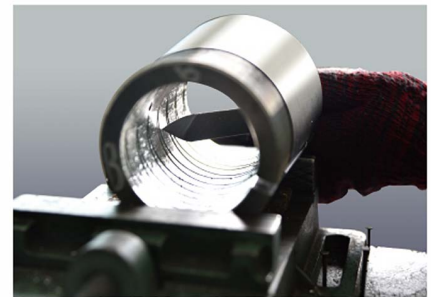
高刚性机体结构 HIGH RIGIDITY STRUCTURE

- The base of the centerless grinder is made of high-grade cast iron (FC 30 casting, and normalized heat treatment, double-eight-type track clearing design, to ensure that the body is not deformed after long-term use. The main lower feed fine-tuning can reach 0.001mm.



砂轮主轴座总成 GRINDING WHEEL SPINDLE

- The main shaft is made of Japanese high-grade SNCM-21H alloy steel, after quenching and tempering, heat treatment and then cryogenic treatment, the surface hardness reaches HRC-62.



Alloy copper bearing precision scraper



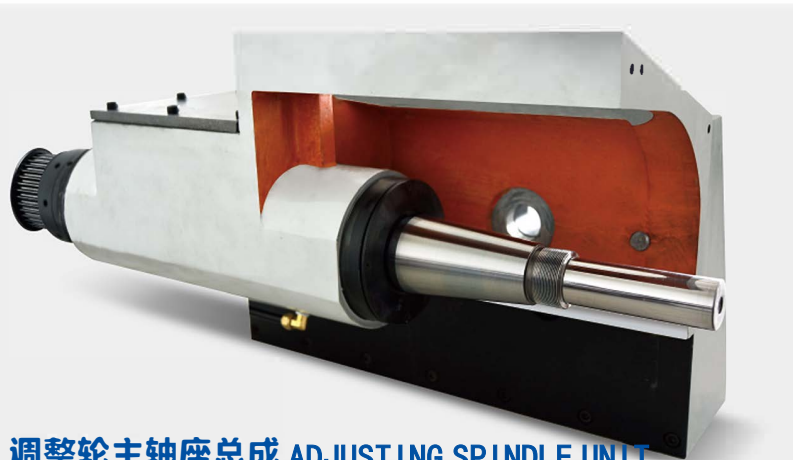
Precision assembly of spindle and alloy bearing to obtain the best accuracy



The spindle rotation runout accuracy test



精密机构 Precision mechanism



调整轮主轴座总成 ADJUSTING SPINDLE UNIT

- The main shaft is made of Japanese high-grade SNCM-21H alloy steel, after quenching and tempering, heat treatment and then cryogenic treatment, the surface hardness reaches HRC-62.



精密丝杆 BALL SCREW

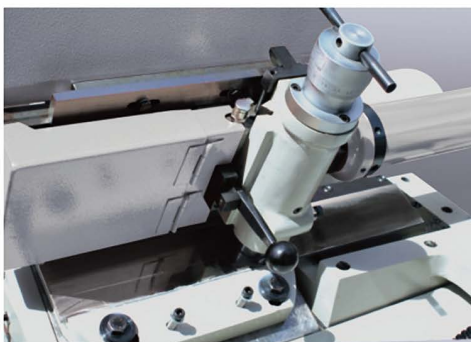
- The feed ball screw adopts a ball screw with high positioning accuracy. Excellent friction, high reversibility, positioning accuracy of μm level can be achieved.



进刀滑板 FEEDING CARRIAGE

- Use high-grade castings and materials, eliminate internal stress, high strength, and extremely low deformation due to temperature differences.

精密机构 Precision mechanism

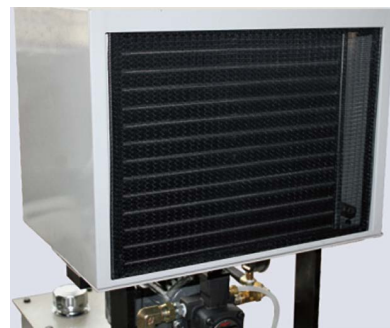


修整装置 DRESSING DEVICE

The grinding wheel and the repair cover are hydraulically driven in the device, with stepless speed change, smooth dressing and special alloy cast iron for the dressing seat.

油压系统

Oil pressure system



主轴油压表 OIL PRESSURE

Observe the pressure of the workpiece in real time to encourage the spindle to work under normal oil pressure. When the pressure is lower than the set value, it will automatically stop to avoid spindle loss.

压力开关 PRESSURE SWITCH

The pressure switch of the automatic lubrication system of the grinding wheel spindle bearing. When the lubricating oil pressure does not reach the rated value, the spindle motor cannot be started or will automatically stop rotating to avoid damage to the spindle due to low-pressure operation.

冷却风扇 COOLANT FAN



精密机构 Precision mechanism

选配静压导轨\静压主轴

Optional hydrostatic guide rail and hydrostatic spindle

可满足更高精度、更强磨削能力的需求！

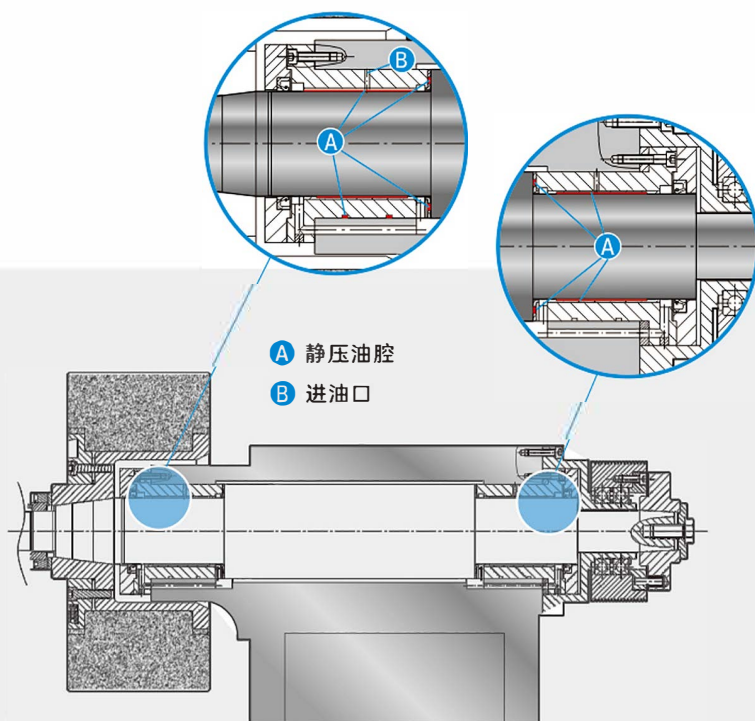
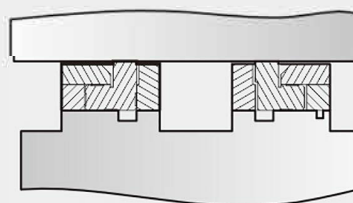
Can meet the needs of higher precision and stronger grinding ability

静压导轨

Hydrostatic rails

优点 ADVANTAGE

- Since the rail painting is pure liquid friction, the friction coefficient is extremely small; (about 0.0005 mm), the driving power can be greatly reduced.
- Due to pure liquid friction, the guide rail will not wear out, has a long life, can guarantee the manufacturing accuracy for a long time, and reduces the maintenance work.



静压主轴

Hyd spindle

优点 ADVANTAGE

- The rotation accuracy is high, and extremely high roundness and shape accuracy of the workpiece can be obtained.
- Excellent shock absorption, no texture on the surface of the workpiece due to vibration.
- Extremely high precision, excellent surface quality of the workpiece.



传统型

GC-12S

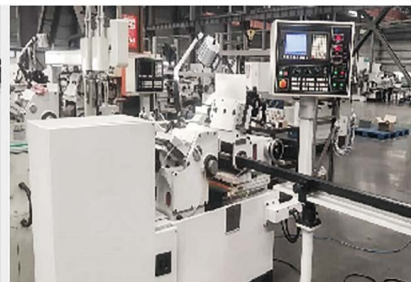


GC-18S



优点 ADVANTAGE

- This machine is made of Meehanite cast iron with high shock absorption and high stability. After proper heat treatment, the internal stress is eliminated to ensure the thermal stability of the machine body for long-term use.
- The adjusting wheel is driven by a servo motor to obtain higher rotation accuracy, and is controlled by digital control for stepless speed change.



(optional) can be customized manually or automatically



技术参数 TECHNICAL DATA

Items	Unit	GC-12S	GC-18S	GC-18AS	GC-18BS	GC-20S
Grinding range	mm	Ø0.5~40	Ø0.5~60	Ø0.5~60	Ø0.5~60	Ø1~60
Wheel size	mm	Ø305x150xØ120	Ø455x205xØ228.6	Ø455x255xØ228.6	Ø455x305xØ228.6	Ø510x205xØ254
Adjusting wheel	mm	Ø205x150xØ90	Ø255x205xØ111.2	Ø255x255xØ111.2	Ø255x305xØ111.2	Ø305x205xØ127
Grinding wheel	R.P.M	1950	1520	1520	1520	1350
Adjusting wheel	R.P.M	0~320	0~250	0~250	0~250	0~250
Grinding motor	HP	7.5	15	20	20	20
Adjusting motor	KW	2.0 (servo)	3.0 (servo)	3.0 (servo)	3.0 (servo)	3.0 (servo)
Hydraulic motor	HP	1	2	2	2	2
Coolant motor	HP	1/8	1/4	1/4	1/4	1/4
Adjusting handwheel	mm	3.5/R0.02/SCALE	3.5/R0.05/SCALE	3.5/R0.05/SCALE	3.5/R0.05/SCALE	3.5/R0.05/SCALE
Micro handwheel	mm	0.1/R0.001/SCALE	0.1/R0.001/SCALE	0.1/R0.001/SCALE	0.1/R0.001/SCALE	0.1/R0.001/SCALE
Grinding handwheel	mm	7.0/R0.10/SCALE	9.0/R0.10/SCALE	9.0/R0.10/SCALE	9.0/R0.10/SCALE	9.0/R0.10/SCALE
Micro handwheel	mm	0.2/R0.001/SCALE	0.2/R0.001/SCALE	0.2/R0.001/SCALE	0.2/R0.001/SCALE	0.2/R0.001/SCALE
Dressing handwheel	mm	1.5/R0.01/SCALE	2.0/R0.01/SCALE	2.0/R0.01/SCALE	2.0/R0.01/SCALE	2.0/R0.01/SCALE
Adjusting slant		+5° ~ - 3°	+6° ~ - 3°	+6° ~ - 3°	+6° ~ - 3°	+5° ~ - 3°
Adjusting rotating		+5° ~ - 1°	+5° ~ - 1°	+5° ~ - 1°	+5° ~ - 1°	+5° ~ - 1°
Spindle structure		Dynamic	Dynamic	Dynamic	Dynamic	Dynamic
Machine size	mm	1800x1400x1450	2350x1960x1550	2350x1960x1550	2350x1960x1550	2350x1960x1550
Packing size	mm	2350x1650x1770	2900x2400x1850	2900x2400x1850	2900x2400x1850	2900x2400x1850
Net weight	kgs	1700	2850	2950	3100	3200
Gross weight	kgs	1850	3005	3100	3300	3500

标准附件 STANDARD

- Grinding wheel and grinding wheel flange
- Guide wheel and guide wheel flange
- Stop and pass the tool post
- Electrical Control Box
- Water tank and pump
- Oil tank and pump
- 2 pcs diamond trimming pens
- Working lamp
- Cooling fan
- Flange puller
- Toolbox and common tools

选购附件 OPTIONS

- Automatic feeder
- Flat type rewinding device
- Paper type filter
- Magnetic filter



NC 型

GC-12NC



● Automatic forming and grinding feeding and unloading device (special device)



● The lifting and grinding device can design the workpiece manipulator (special device) according to the workpiece requirements



CNC centerless grinder with delta controller. It can also be equipped with other well-known brand controllers as specified by customers.

标准附件

Standard

- Centerless grinding software VI.O
- NC control system
- Grinding wheel and flange
- Guide wheel and flange
- Tool holder
- Electrical control box
- Automatic oiler
- Water tank and water pump
- Oil tank and pump
- Diamond pen
- Work light
- Cooling fan
- Flange puller
- Toolbox and tools

选购附件

Option

- Gantry manipulator
- Automatic feeder
- Disc automatic feeder
- Flat belt receiving machine
- Hydraulic separator
- Paper tape filter
- Magnetic filter
- Oil cooler
- Water cooler
- Full cover

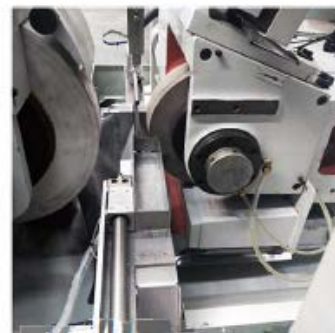
技术参数

TECHNICAL DATA

Items	Unit	GC-12NC/CNC
Grinding range	mm	Ø0.5~40
Wheel size	mm	Ø305×150×Ø120
Adjusting wheel	mm	Ø205×150×Ø90
Grinding wheel	R.P.M	1950
Adjusting wheel	R.P.M	0~320
Grinding motor	HP	7.5
Adjusting motor	KW	2.0(servo)
Hydraulic motor	HP	1
Coolant motor	HP	1/8
Adjusting handwheel	mm	3.5/R0.02/SCALE
Micro handwheel	mm	0.1/R0.001/SCALE
Table feeding		
Control system		
Trimming feeding	mm	1.5/R0.01/SCALE
Adjusting slant		+5°~ - 3°
Adjusting rotating		+5°~ - 1°
Spindle structure		Dynamic
Guide rail structure		Hard rail
Machine size	mm	1800×1400×1450
Packing size	mm	2350×1650×1770
Net weight	kgs	1700
Gross weight	kgs	1850



GC-18NC



•Forming grinding wheel and guide wheel (special device)



•Feeding

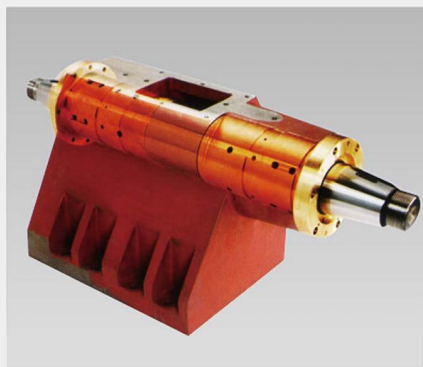
GC-18NC/CNC	GC-18NC/CNC-250	GC-18NC/CNC-300	GC-20NC/CNC
Ø0.5~60	Ø0.5~60	Ø0.5~60	Ø1.0~60
Ø455×205×Ø228.6	Ø455×255×Ø228.6	Ø455×305×Ø228.6	Ø510×205×Ø254
Ø255×205×Ø111.2	Ø255×255×Ø111.2	Ø255×305×Ø111.2	Ø305×205×Ø127
1520	1520	1520	1350
0~250	0~250	0~250	0~250
15	20	20	20
3.0(servo)	3.0(servo)	3.0 (servo)	3.0 (servo)
2	2	2	2
1/4	1/4	1/4	1/4
3.5/R0.05/5SCALE	3.5/R0.05/5SCALE	3.5/R 0.05/5SCALE	3.5/R 0.05/5SCALE
0.1/R0.001/5SCALE	0.1/R0.001/5SCALE	0.1/R 0.001/5SCALE	0.1/R 0.001/5SCALE
Servo feed / feed accuracy 0.001			
Standard configuration: new generation + touch screen / others can be configured according to customer requirements			
2/R0.01/5SCALE	2/R0.01/5SCALE	2/R 0.01/5SCALE	2/R 0.01/5SCALE
+5°~ - 3°	+5°~ - 3°	+5°~ - 3°	+5°~ - 3°
+5°~ - 1°	+5°~ - 1°	+5°~ - 1°	+5°~ - 1°
Dynamic	Dynamic	Dynamic	Dynamic
Hard rail	Hard rail	Hard rail	Hard rail
2350×1960×1550	2350×1960×1550	2350 x1960 x1550	2350 x1960 x1550
2900×2400×1850	2900×2400×1850	2900 x2400 x1850	2900 x2400 x1850
2850	2950	3100	3200
3005	3100	3300	3500



高精度无心磨床 HIGH ACCURACY CENTERLESS GRINDER

CNC型

■ GC-18CNC-3



高精密切压油膜主轴(选配)High precision dynamic spindle (option)

High precision Centerless Grinder double support dynamic pressure oil film guide wheel spindle structure, bearing bush has higher bearing energy and stiffness, high spindle rotation accuracy, strong environmental adaptability, large bearing capacity, stability and reliability.



技术参数

TECHNICAL DATA

Items	Unit	GC-18CNC/NC	GC-18CNC/NC-250	GC-18CNC/NC-300	GC-20CNC/NC
Grinding range	mm	Ø0.5~60	Ø0.5~60	Ø0.5~60	Ø1~60
Wheel size	mm	Ø455x205xØ228.6	Ø455x255xØ228.6	Ø455x305xØ228.6	Ø510x205xØ254
Adjusting wheel	mm	Ø255x205xØ111.2	Ø255x255xØ111.2	Ø255x305xØ111.2	Ø305x205xØ127
Grinding wheel	R.P.M	1520	1520	1520	1350
Adjusting wheel	R.P.M	0~250	0~250	0~250	0~250
Grinding motor	HP	15	20	20	20
Adjusting motor	KW	3.0 (servo)	3.0 (servo)	3.0 (servo)	3.0 (servo)
Hydraulic motor	HP	2	2	2	2
Coolant motor	HP	1/4	1/4	1/4	1/4
Adjusting handwheel	mm	3.5/R0.05/SCALE	3.5/R0.05/SCALE	3.5/R0.05/SCALE	3.5/R0.05/SCALE
Micro handwheel	mm	0.1/R0.001/SCALE	0.1/R0.001/SCALE	0.1/R0.001/SCALE	0.1/R0.001/SCALE
Table feeding	mm	CNC servo feed / feed accuracy 0.001			
Dressing handwheel	mm	2/R0.01/SCALE	2/R0.01/SCALE	2/R0.01/SCALE	2/R0.01/SCALE
Adjusting slant		+5°~ - 3°	+5°~ - 3°	+5°~ - 3°	+5°~ - 3°
Adjusting rotating		+5°~ - 3°	+5°~ - 3°	+5°~ - 3°	+5°~ - 3°
Spindle structure		Dynamic / static - Option	Dynamic / static - Option	Dynamic / static - Option	Dynamic / static - Option
Guide rail structure		Hydrostatic guide rail / hard rail	Hydrostatic guide rail / hard rail	Hydrostatic guide rail / hard rail	Hydrostatic guide rail / hard rail
Control system		FANUC / DELTA			
Number of control axes		Standard configuration: one axis CNC Feed of lower sliding plate / optional configuration: two axis CNC dressing wheel, one axis manipulator servo, one axis diamond roller dressing wheel, two axis CNC dressing guide wheel and one axis guide wheel CNC Feed			
Machine size	mm	2350 x1960 x1550	2350 x1960 x1550	2350 x1960 x1550	2350 x1960 x1550
Packing size	mm	2900 x2400 x1850	2900 x2400 x1850	2900 x2400 x1850	2900 x2400 x1850
Net weight	kgs	2850	2950	3100	3200
Gross weight	kgs	3005	3100	3300	3500



标准附件

Standard

- Centerless grinding software V1.0
- NC control system
- Grinding wheel and flange
- Guide wheel and flange
- Tool holder
- Electrical control box
- Automatic oiler
- Water tank and water pump
- Oil tank and pump
- Diamond pen
- Work light
- Cooling fan
- Flange puller
- Toolbox and tools

选购附件

Option

- Gantry manipulator
- Automatic feeder
- Disc automatic feeder
- Flat belt receiving machine
- Hydraulic separator
- Paper tape filter
- Magnetic filter
- Oil cooler
- Water cooler
- Full cover



高精度无心磨床 HIGH ACCURACY CENTERLESS GRINDER

CNC型

GC-400NC/400CNC



• Gantry feeding and receiving mechanism (special device)



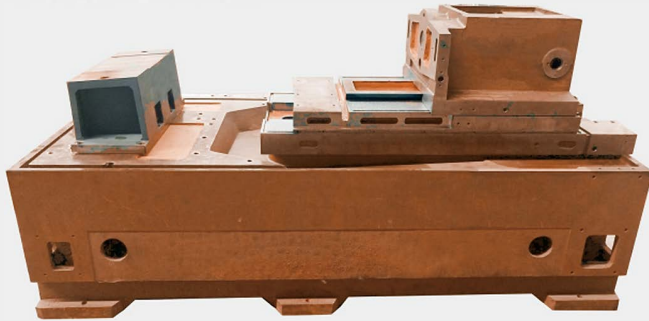
• CNC three-axis dressing device



• FANUC控制系统



• 机台结构全新设计概念 NEW DESIGN CONCEPT



• 机台主轴 SPINDLE



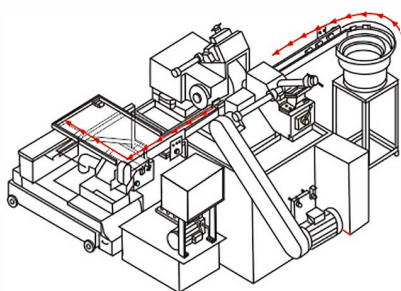
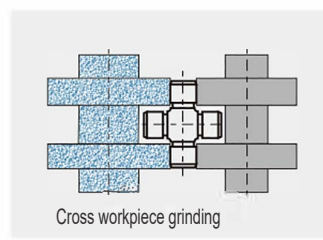
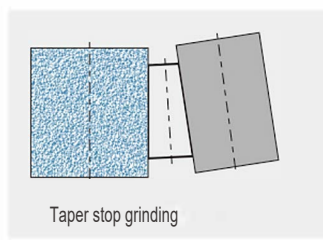
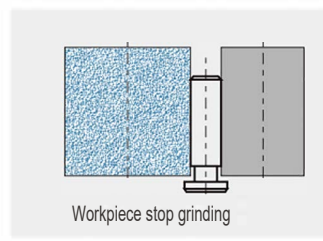
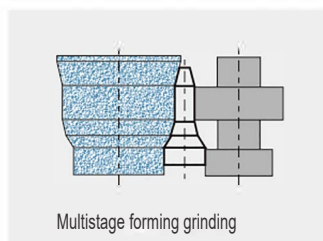
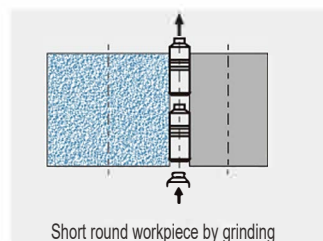
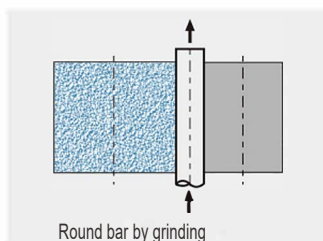
技术参数

TECHNICAL DATA

Items	Unit	GC-200NC/CNC	GC-300NC/CNC	GC-400NC/CNC
Grinding range	mm	Ø1~60	Ø1~60	Ø1~60
Wheel size	mm	Ø610x205xØ304.8	Ø610x305xØ304.8	Ø610x405xØ304.8
Adjusting wheel	mm	Ø330x205xØ203.2	Ø330x305xØ203.2	Ø330x405xØ203.2
Grinding wheel	R.P.M	1100	1100	1100
Adjusting wheel	R.P.M	0~250	0~250	0~250
Grinding motor	HP	25	30	30
Adjusting motor	KW	3.0 (servo)	4.4 (servo)	4.4 (servo)
Hydraulic motor	HP	2	2	2
Coolant motor	HP	1/4	1/4	1/4
Adjusting handwheel	mm	/	/	/
Micro handwheel	mm	0.25/R0.001/SCALE	0.25/R0.001/SCALE	0.25/R0.001/SCALE
Table feeding	mm	CNC servo feed / feed accuracy 0.001		
Dressing handwheel	mm	2/R0.01/SCALE	2/R0.01/SCALE	2/R0.01/SCALE
Adjusting slant		+5°~ - 3°	+5°~ - 3°	+5°~ - 3°
Adjusting rotating		+5°~ - 3°	+5°~ - 3°	+5°~ - 3°
Spindle structure		Dynamic	Dynamic	Dynamic
Guide rail structure		Square hard rail	Square hard rail	Square hard rail
Control system		FANUC/DELTA		
Number of control axes		Standard configuration: one axis CNC Feed of lower sliding plate / optional configuration: two axis CNC dressing wheel, one axis manipulator servo, one axis diamond roller dressing wheel, two axis CNC dressing guide wheel and one axis guide wheel CNC Feed		
Machine size	mm	2700 x2350 x1650	2700 x2350 x1650	2700 x2350 x1650
Packing size	mm	3100 x2600 x2000	3100 x2600 x2000	3100 x2600 x2000
Net weight	kgs	6000	6500	6500
Gross weight	kgs	6500	7000	7000

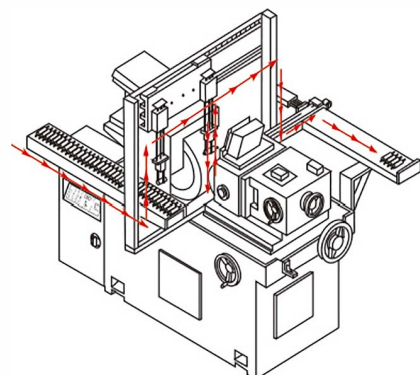


无心磨床实例 EXAMPLE



通过式研磨 THROUGH GRINDING

In response to the increasing demand for automation, various automatic feeding and receiving devices have been designed for the through grinding of circular tubes, shafts and rods, which are suitable for a large number of workpiece grinding.

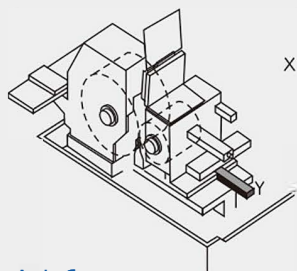


停止式研磨 INFED GRINDING

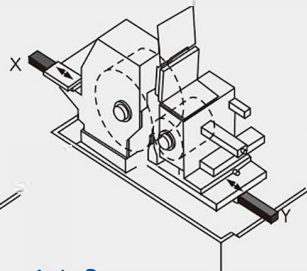
Due to various forms of stop grinding for the top, shoulder and multi-path grinding parts, the automatic feeding and receiving device can be designed according to the shape and length of the workpiece.



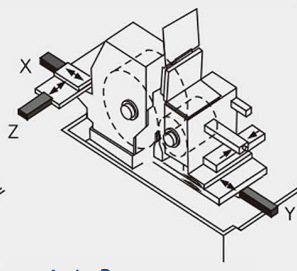
CNC 系列轴向结合 CNC series Axis

**Axis 1**

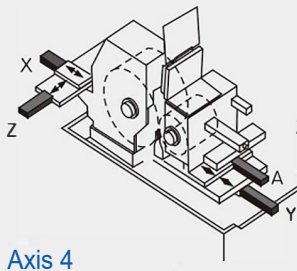
Automatic feed of main sliding plate or lower sliding plate of adjusting wheel

**Axis 2**

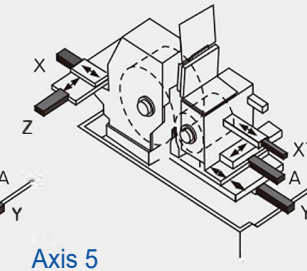
X: Automatic dressing of grinding wheel (vertical axis)
Y: Automatic feed of sliding plate under adjusting wheel

**Axis 3**

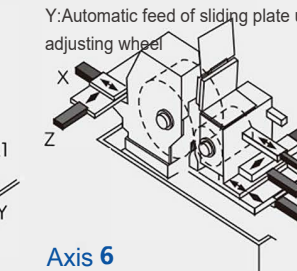
X: Automatic dressing of X grinding wheel (vertical axis)
Z: Automatic dressing of Z grinding wheel (horizontal axis)
Y: Automatic feed of sliding plate under y adjusting wheel

**Axis 4**

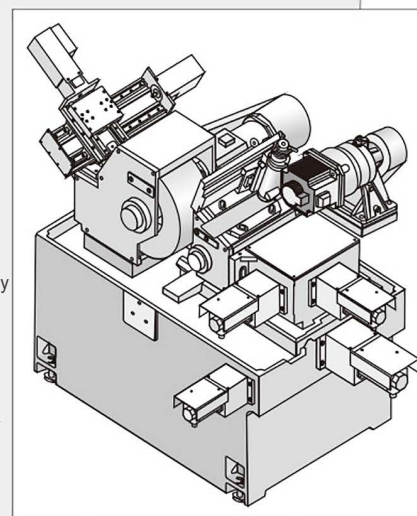
X: Automatic dressing of grinding wheel (vertical axis)
Z: Automatic dressing of grinding wheel (horizontal axis)
A: Automatic feed of sliding plate on adjusting wheel

**Axis 5**

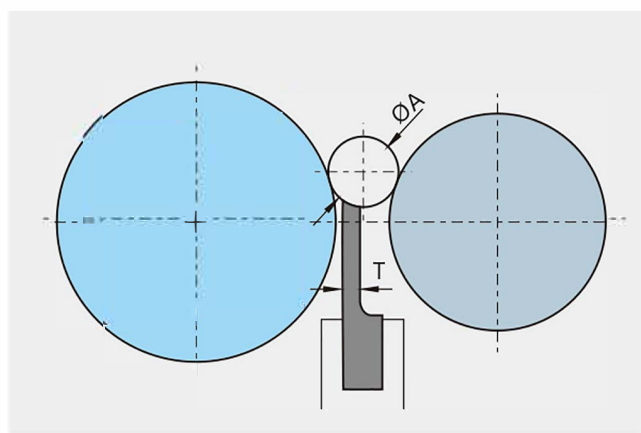
X: Automatic dressing of grinding wheel (vertical axis)
Z: Automatic dressing of grinding wheel (horizontal axis)
A: Automatic feed of sliding plate on adjusting wheel

**Axis 6**

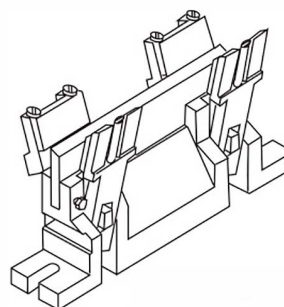
X: Automatic dressing of grinding wheel (vertical axis)
Z: Automatic dressing of grinding wheel (horizontal axis)
A: Automatic feed of sliding plate on adjusting wheel



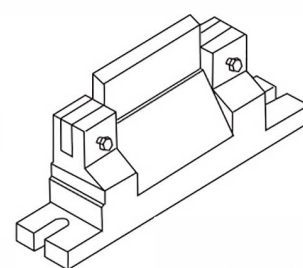
钨钢支持刀板选择 HOLDER SELECTION

**刀板的选用 HOLDER SELECTION**

When machining and grinding workpieces with various diameters, the tool holder height must be adjusted correctly, because the correction result will affect the grinding accuracy.



•Through grinding holder



•Infeed grinding holder

Diameter	Width	Diameter	Width
1.5~2.5mm	1mm	8~10mm	6mm
2.6~4mm	2mm	10~16mm	8mm
4~5mm	3mm	12~20mm	10mm
5~7mm	4mm	15~30mm	12mm
7~8mm	5mm	25mm 以上	20mm



高精度无心磨床

HIGH ACCURACY CENTERLESS GRINDER

自动化方案 AUTOMATIC SOLUTION

单机自动送料 SINGAL UNIT WORKPIECE FEEDING SYSTEM



● Long workpiece feeder



● Vibrating plate feeding



● Tooth feeder



● Push plate feeder



● Automatic rewinding machine

连线自动送料装置



CNC自动送料

AUTOMATIC WORKPIECE FEEDING SYSTEM



● ONLY FOR CNC TYPE MACHINE



附件 ACCESSORIES

标准附件

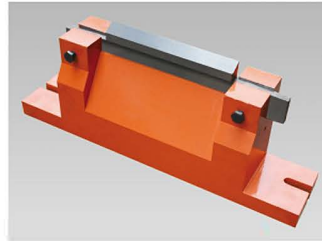
STANDARD PARTS



● Grinding wheel and grinding wheel flange



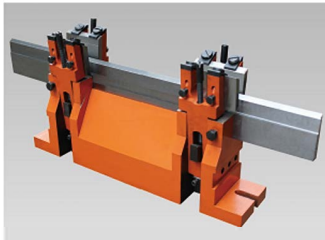
● Guide wheel and guide wheel flange



● The tool holder



● Cooling fan



● Through tool holder and tool blade



● Electrical control box



● Water tank and pump



● Oil tank and pump



● 2 pcs diamond trimming pens



● Work light



● Flange pull tool



● Toolbox and common tools

特殊附件

OPTIONS



● Filter device



● Workpiece pushing device



● Paper type filter



● Hydraulic separator



● Coolant cooling device



● Magnet filter



● Oil cooler



● Automatic lubrication unit



● Automatic feed device for lower slide plate