



GW-ONE

GW-ONE Optical Curve Projection Grinder



● Main specifications

		Item	Unit	
Workbench	Area of working plane(L*B)		mm	400x250
	Amount of movement	Longitudinal feed	mm	250
		Transverse feed	mm	150
		Minimum set unit	mm	0.0001
		Location detection	-	Semi-closed loop
Grinding wheel	Ascending/descending distance		mm	0~150
	Ascending/descending speed		min-1	10~500%
	Amount of movement	Longitudinal feed	mm	200
		Transverse feed	mm	150
		Minimum set unit	mm	0.0001
		Location detection	-	Full-closed loop
	Angle of release	Front angle of release	·	-2~+5
		Transverse angle of release	·	±10
	Rotary angle		·	±15
	Screen size (L*B)		mm	
Multiplying power		-		
Grinding wheel axis	Dimensions (outer diameter*breath*inner diameter)		mm	
	Rotating speed		min-1	
	Motor capacity		kw-p	
Overall volume (L*B*H)		mm	1730x1775x2075	
Total weight		kg	4500	
Power capacity		kva	18	
Control device	NC			LNC
	Display		inch	10.4
	Handwheel			2:X,Y(Z,V)
	Pitch error compensation			Standard
	Number of control axes			4-axis linkage (2-axis interpolation)

● The values depend on the distance and speed of ascending/descending.

High-precision high-speed motorized spindle



- High-speed motorized spindle (24000min-1) for fine plane machining
- High precision, speed and stability of the spindle through computerized oil-cooling

Super high-speed, high-precision grinding wheel lifting platform



500min-1 reciprocating grinding wheel lifting platform ●

Adjustable three degrees of freedom ●

Product features

1

The product's parts such as body, connectors and lifting platform are all high-quality HT350 castings after stress relieving by means of annealing treatment and aging treatment. Thanks to optimized design after computing based on the finite element analysis method, these castings are rigid because of their proper structural strengths and reinforcing ribs.

2

High accuracy in axial movements is guaranteed by THK C3 ball screws and preloaders, THK UP guide rails and full-closed 0.0001mm grating scales.

3

The high-precision motorized spindle has a speed of 24,000min⁻¹.

4

The high-precision projection system (20X, 50X) has an ultra-long life because of energy-saving LED light sources for both transmitted light and vertical light.

5

The control system can improve the machining efficiency by means of 4-axis linkage (2-axis interpolation).

6

Thanks to its high rigidity and high precision, the product is a piece of ideal equipment for machining precision terminal molds, LED molds, SMD, precision shrapnel molds and high-precision test fixtures in the precision electronic industry and the hard alloy machining industry.



Examples of
machinin



Precision digital lifting platform

- It has a built-in precision guide rail for fine adjustment during ascending and descending. Its display shows the amount of movement during ascending and descending synchronously.

Super high-speed, high-precision grinding wheel workbench

- Thanks to its built-in high-precision, high-resolution (0.0001mm) grating scale and full-closed loop control, it can realize super high-precision feed.

Rigid foundation bed

- The newly developed foundation bed can ensure basic precision because the plate-shaped reinforcing ribs along its load-bearing direction.

Control system



- It has a 10.4" display and is installed with a set of newly developed user-friendly software, it is useful for high-precision machining. It can realize 4-axis linkage (2-axis interpolation) machining and improve the machining efficiency of array patterns and batch parts.

Long-stroke, high-speed, reciprocating grinding wheel lifting platform

- It has a long stroke (150mm) and a high speed (500min⁻¹) for machining more parts. The degrees of freedom of three angles are adjustable.

High-precision, compact projection system

- It can switch between 20X and 50X. It has a long life because of energy-saving LED light sources for both transmitted light and vertical light.





Training program

程式座标		相对座标		手轮中断	
#1	1.234	#1	1.234	X	1.234
#2	1.234	#2	1.234		
#3	1.234	#3	1.234		
#4	1.234	#4	1.234	Y	1.234
#5	1.234	#5	1.234		
#6	1.234	#6	1.234		

No.	型态	X1	Y1	X2	Y2	圆弧半径及圆弧警报
	S0	1.234	1.234	1.234	1.234	三点在同一直线上
	S0	1.234	1.234	1.234	1.234	三点在同一直线上
	S0	1.234	1.234	1.234	1.234	三点在同一直线上
	S0	1.234	1.234	1.234	1.234	三点在同一直线上
	S0	1.234	1.234	1.234	1.234	三点在同一直线上
	S0	1.234	1.234	1.234	1.234	三点在同一直线上
	S0	1.234	1.234	1.234	1.234	三点在同一直线上
	S0	1.234	1.234	1.234	1.234	三点在同一直线上
	S0	1.234	1.234	1.234	1.234	三点在同一直线上
	S0	1.234	1.234	1.234	1.234	三点在同一直线上
	S0	1.234	1.234	1.234	1.234	三点在同一直线上

Compile the machining program on the magnification film: use the grinding wheel tip to follow the shape changes on the magnification film and record the movements. It does not need complicated computation or the NC language programming.

Angle function

程式座标		相对座标		手轮中断	
#1	1.234	#1	1.234	X	1.234
#2	1.234	#2	1.234		
#3	1.234	#3	1.234		
#4	1.234	#4	1.234	Y	1.234
#5	1.234	#5	1.234		
#6	1.234	#6	1.234		

工件长度	X	Y	角度 Z
起点	1.234	1.234	1.234
终点	1.234	1.234	

角度1	角度2	角度3	角度4	角度5
1.234	1.234	1.234	1.234	1.234

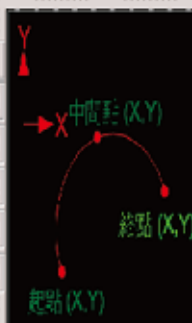
Eight kinds of conical machining can be realized just with the X-axis handwheel. During conical machining without angle indication, instruction with any two points on the original drawing can make the machining easy. Another method is to enter corresponding values. These are very useful during grinding wheel angle formation and manual conical machining.



Arc function

程式座标		相对座标		手轮中断	
#1	0.1234	#1	0.1234	X	0.1234
#2	0.1234	#2	0.1234		
#3	0.1234	#3	0.1234	Y	0.1234
#4	0.1234	#4	0.1234		
#5	0.1234	#5	0.1234		
#6	0.1234	#6	0.1234		

加工速度	0.1234	α	β	Σ	Υ
起点	0.1234	0.1234	0.1234	0.1234	0.1234
中间点	0.1234	0.1234	0.1234	0.1234	0.1234
终点	0.1234	0.1234	0.1234	0.1234	0.1234
圆心X座标	0.1234	0.1234			



Automatic computing of center line radius and direction can be realized through demonstration of three points on the arc on the original drawing. Manual machining with R value can be realized just with the X-axis handwheel. Another method is to enter corresponding values.

4-axis linkage

程式座标		相对座标		手轮中断	
#1	1.234	#1	1.234	X	1.234
#2	1.234	#2	1.234		
#3	1.234	#3	1.234	Y	1.234
#4	1.234	#4	1.234		
#5	1.234	#5	1.234		
#6	1.234	#6	1.234		

程序修整	10%		
加工速度	0.1234		
秒级进给速度	10%	秒级进给	1234 m/min
微米进给速度	10%	微米进给	1234 m/min
实际加工方式	10%		
加工误差	10%		
3等距离补偿	0.10%		

If the multi-segment machining mode is chosen, enter number of the machining segments, namely times to call the subprogram, execute machining based on equidistant offset along the U axis, or by entering points along the U and V axes, recording the times to call the subprogram during locating of the U and V axes, the non-equidistant multi-segment machining along the U axis can be performed.



SUZHOU GOODWILL

Machinery Equipment

SUZHOU GOODWILL MACHINERY EQUIPMENT CO., LTD.

Add: No.21 Xiexin Road, New District, Suzhou City, China

Tel: +86-0512-65580060

E-mail: info@goodwillme.cn

Web: www.goodwillma.com