



COMPANY BRIEF

Shenyang Group is a hi-tech enterprise that specializes in research, development, and manufacture, and marketing various CNC electrical process machines. To better satisfy high demands of the market, we found the Zigong Jiaye CNC Machinery Manufacturing Co., Ltd as our manufacturing base in Sichuan province. With our own research and development, our wire EDM with more auto-functions can meet the high requirements for the jobs. Easy operation, expert system, and low demands for users, our machines making more interests for our customers.



Company Honor

- ★China Hi-tech class enterprise
- ★Unique awarded the China "patent of invention" in Intelligent MSWEDM
- ★Unique awarded the China "Torch Project" in Intelligent MSWEDM
- ★Unique gained the R&D funds from Ministry Commerce of China
- ★Unique gained the Key Tech Innovation in Sichuan Province

Quality Control

- ★Quality Control
- ★Passed ISO9001:2000
- ★From spare parts to manufacture, and to assembling, each step follows the quality system
- ★All inspection with professional tools, just the roundness measuring instrument, laser interferometer.
- ★All steps with professional inspectors.



Laser Test



Roundness Test



Universal Tool Microscope

Taper 30° processed without wire guide while multiple cuttings

Milestone in China

Ra ≤ 1.0 μm/30000mm²

First breakthrough in changing wire's tension with multiple cuttings

First one in China Own Intellectual Property

★When multiple cuts, system depending on the saved parameters outputs different orders for wire tension, making sure each cut with stable and different tensions.

Check and accept standards for Top Medium Speed Wire Cut EDM

Many cuts without wire guide

★Roughness(Ra.) ≤ 1.0um/30000mm²

★Size accuracy ≤ ±0.005mm

★Tolerance among jobs ≤ 0.005mm/30pcs

★Vertical size accuracy ≤ 0.005mm/100mm

Key technologies beyond challenge

Original tech the great break in China

★Multi-CPU Intelligent Expert Control System

Just put "material", "thickness" and "roughness", intelligent System can finish the job with high precision, the unique invention in China.

★Wire Tension Control System

Now it is the unique and most advanced system in China, can control the wire tension with accurate detection, the tension value accuracy: 0.2N/0.5S(in half second, the sensitivity 20g), top in world.

★Electrode Wire In Two Sections System(Option)

With the digital technology to control the wire diameter, System can process the work piece out with accurate size. It is the top and best in China.



Mechanical Design

- ★ Full support structure of the worktable is for loading work-piece with stability and accuracy
- ★ Worktable with precise linear slide way, accurate ball screw, and integrated lubrication system
- ★ Self-research and develop the roller group, top waterproof ability in China (award patent)
- ★ Wire frame up&down without noise, no need to take off the wire
- ★ Well protected column design of machine, with good appearance (China patent)
- ★ Easy to understand and use the Characteristic operation station, one switch off, all commands stop.

CNC Design

- ★ Digital type mechatronics wire running system, strictly control the variation of wire tension, which greatly improving work-piece's accuracy and tolerance.
- ★ Multi-CPU control system — after input the basic parameters, the system will auto-select program, discharge parameters, offset value, ect. It minimizes the dependence from users.
- ★ Wire bobbin with non-contact switch, SCR flexible reversing, and A.C. inverter speed control
- ★ CNC system with real-time track and monitor, knowing the work state at user's fingertips.

Application Samples



Material: SDK-11
Moly wire diameter: 0.18
Thickness: 30
Cutting times: 3
Roughness: 0.9



Material: SDK-11
Moly wire diameter: 0.18
Thickness: 30
Cutting times: 3
Roughness: 0.95



Material: SDK-11
Moly wire diameter: 0.18
Thickness: 40
Cutting times: 3
Roughness: 1.0



Material: SDK-11
Moly wire diameter: 0.18
Thickness: 105
Cutting times: 3
Roughness: 1.0

Attention to the **7 traps** while choosing Medium speed CNC Wire Cut EDM

1. just emphasis machine's advantage, not mentions the accuracy

CNC machine is quite different from other mechanical ones. One machine without accuracy is like a pile of wasted metals. The most important is its tech. Index.

2. only says the biggest efficiency, not says how long it can work

Any high efficiency is false if it not last for 24 hours more, because it has not pragmatic value.

3. only market the lowest roughness, but not markets how much area it can process.

Although job roughness is very nice, it can not continue cutting more than 20000 mm². this kind of machine without practical value is only taken as primary EDM. **Senyang machine**

Ra.: ≤ 1.0um/30000mm²

4. only attention to accuracy, but not to the tolerance among many work pieces.

Process dozens and even tens of same jobs, or progressive dies, the uniformity is very important: Attention that the continuation without interference from human beings.

Senyang machines: tolerance ≤ 0.005mm/30pcs.

5. only can cut high thickness, but not mention the work piece's vertical size error at top/middle/bottom

while thickness over 100mm, the work piece vertical size will be like olive shape.

Senyang machines: vertical size error ≤ 0.005/100mm.

6. only tell you the machine can cut taper 30°-60°, but not tell us the roughness of surface.

High grade big angle wire EDM can process with Ra. ≤ 1.2um when cutting 60° with outwire guide. This is really helpful. **Senyang machines: angle 60°/50mm(without wire guide)**

7. only care the quality of work-piece, but not care if the machine needs skillful users or not.

If medium speed Wire EDM cuts nice work pieces with the help of an experienced and skillful users, it is just a low class product. **Senyang machines: not need skillful user, itself total intelligent operation.**



No need experience, **Real "Automatic"** Medium WEDM



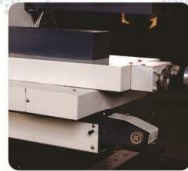
Touch type operation station



Intelligent Tension Control



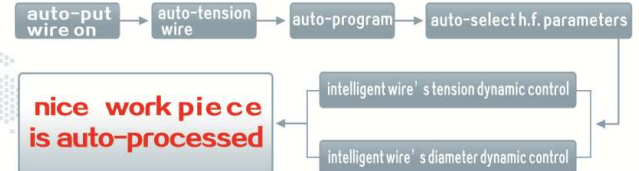
Z-axis up/down by motor



Big taper head(option)



Integrated PCB



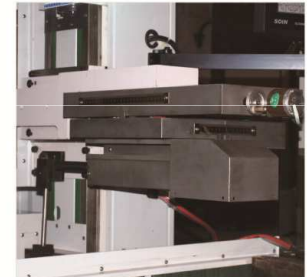
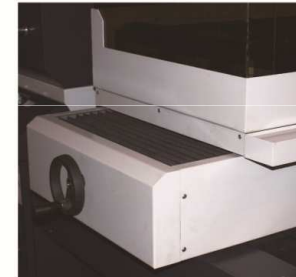
F400



Intelligent Expert control



Hiwin slide way





Touch type operation station



Intelligent Tension Control



Z-axis up/down by motor



Intelligent Expert Control



C400X



Intelligent high frequency power



Panasonic A.C. servo(option)



Hiwin slide way