

EDM MACHINE

G SERIES

High-end precision EDM machine



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CONTENT



GS45L



G45L



G85s

DEVELOP HIGH-QUALITY PRODUCTS CREATE A WORLD CLASS BRAND



G126s



G157s



G2810s

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- 04 Independent technology research and development

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SHANGHAI HAN SPARK
CNC ELECTROMECHANICAL CO., LTD.

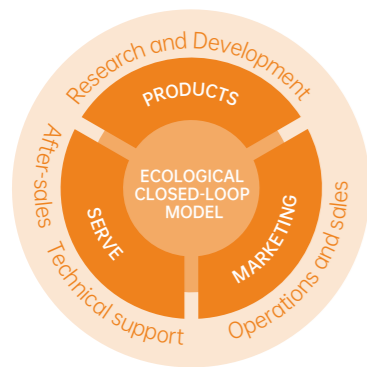
No. 689, Huandong 3rd Road, Fengjing Town, Jinshan District, Shanghai
The size of the factory 30000m

Shanghai Hanspark Machinery Co., Ltd. (HSPK) is a technology-driven enterprise focused on the research and development, manufacturing, and sales of high-end equipment. The company is committed to breakthroughs in precision machining technology, leveraging its outstanding R&D team and comprehensive service system to master core manufacturing technologies. Its main products include spark machines and slow wire-cutting machines, with continuous advancements in technological innovation across multiple fields. R&D projects cover numerical control systems, discharge technology, controller development, and mechanical design and manufacturing. HSPK is dedicated to providing customers with high-performance domestic equipment, promoting the substitution of imported products, and enhancing the competitiveness of Chinese manufacturing in the global market. Currently, the company operates three production bases, covering a total area of 75,000 square meters. With leading technological capabilities and unique product advantages, HSPK has become a leading enterprise in the development and manufacturing of high-end CNC machine tools in China. Looking ahead, HSPK will continue to uphold the philosophy of innovation-driven development, constantly improving its products and technological capabilities. The company aims to provide modern machining solutions and work hand in hand with industry partners to create an even more brilliant future.

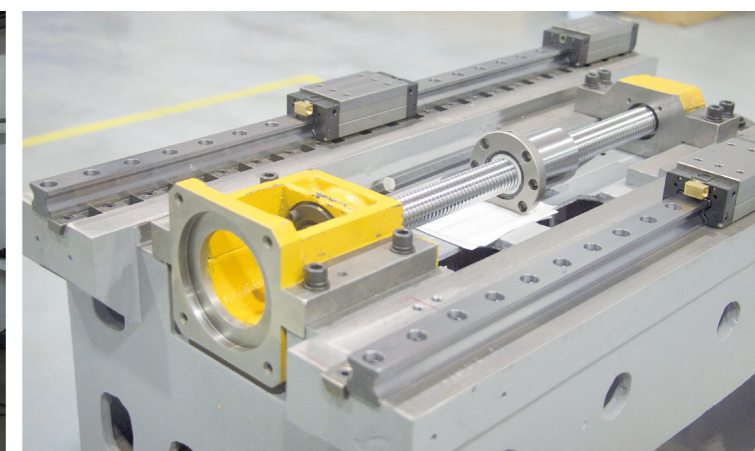


No. 6, 1st Road, Industrial Transfer Park, Mashui Town, Yangchun City, Yangjiang City, Guangdong Province
GUANGDONG HAN SPARK INTELLIGENT EQUIPMENT CO., LTD
The size of the factory 33000m²

3 Production base 20⁺ Marketing layout 18⁺ Exporting country
5000⁺ Serving customers 1000⁺ Annual sales



Manufacturing
workshop



OUR PRODUCTS



OUR RESEARCH AND DEVELOPMENT



Full closed loop

Industrial chain

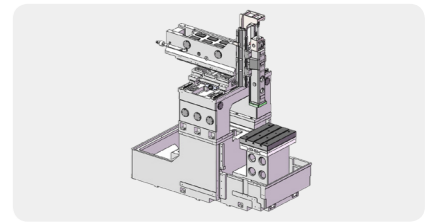
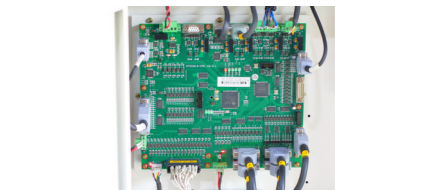
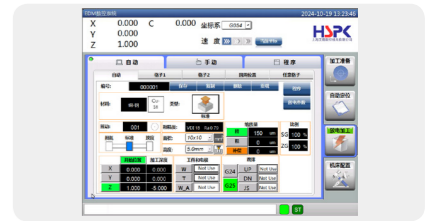
Spark machine operating system

Slow wire running system

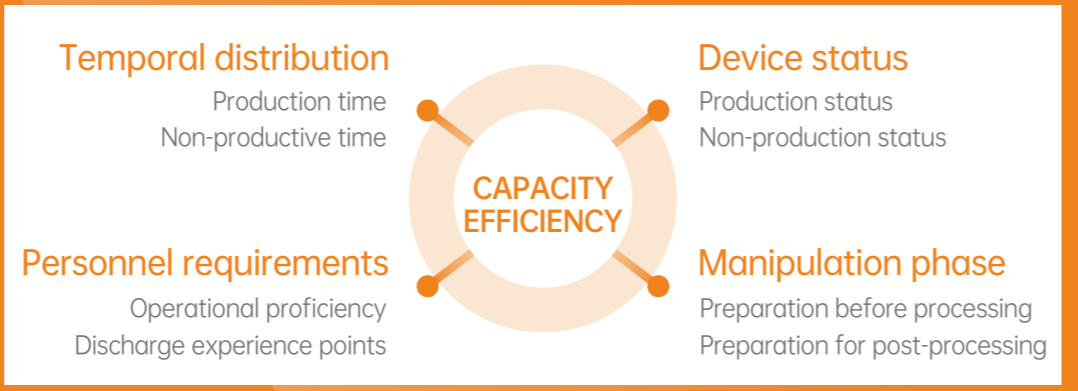
Controller | Board hardware

R&D of discharge technology application

Mechanical design and manufacturing



REINVENT PRODUCTIVITY WITH INTELLIGENCE

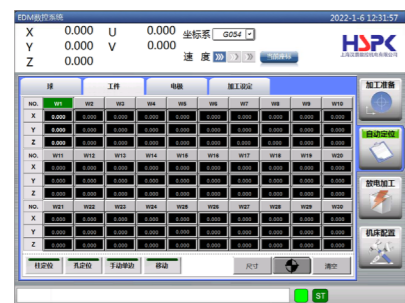


* The preparation phase before processing not only generates long non-productive times, but also relies on the proficiency of the personnel due to the number of operation steps

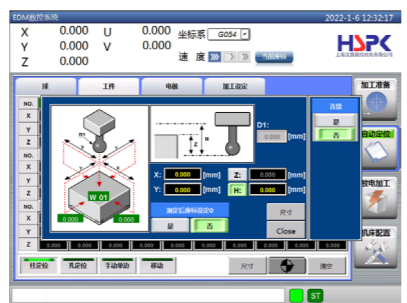
Intelligent positioning system



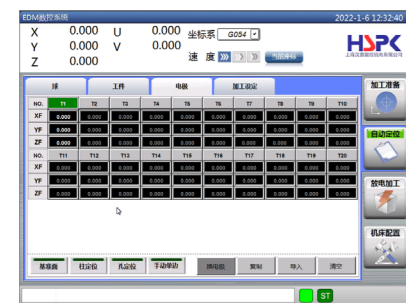
Ball positioning



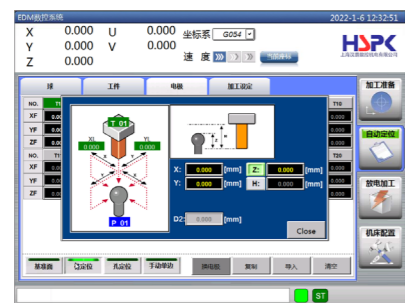
Workpiece positioning



Workpiece and column positioning



Electrode positioning



Electrode and column positioning



AUTO·EDM

Feature introduction

This mode simplifies and integrates the operation steps of the "preparation stage" and "processing stage", with the core concept of "intelligence driving productivity", creating a guided thinking intelligent operating system, greatly reducing the non-production time of the equipment, improving the production time of the equipment, and reducing the manual proficiency and experience value.

Features

This function opens up the data relationship between "ball", "workpiece", "electrode", "parameter library", "multitask" and "ATC", and the system automatically calculates the processing position, automatically generates discharge parameters, greatly simplifies the operation steps, and avoids the probability of manual error.

Preparation before processing

Preparation after processing

EMPOWER EXPERIENCE WITH DATA

AUTO PROCESSING



Function introduction

AUTO is an automatic processing mode that can be used by inexperienced personnel, users only need to select "Electrode Material", "Electrode Type", "Shake Type", "Electrode Size", "Coarseness", enter "Spark Gap", "Machining Position", "Machining Depth", and the system automatically generates matching discharge parameters.

Features

The new AUTO has developed an expert library based on different electrode types, combined with parameter strategies that are conducive to high-quality machining, such as "industry field", "discharge parameters", "system settings" and "processing experience", and the parameter library has rich EDM conditions and a variety of processing tendency options.

More sophisticated application processing solutions can be developed according to industry fields or electrode types, and the parameter library will be continuously updated and iterated

AUTO PROCEDURE

1. Select a type

- Electrode material
- Electrode type
- Electrode size

2. Accessibility

- Shake mode
- Knife lifting method
- Cavity depth
- Preference Selection

3. Processing requirements

- Enter the spark bit
- Select the roughness
- Shake compensation

4. Enter the location

- Machining position
- Machining depth

INTELLIGENTLY CONTROL THE FUTURE

CNC power supply unit	specification
operating system	Windows 7
language	Multi-Chinese switching
CNC Directives	Standard ISO G-code
Controls the number of axes	Three-axis linkage (extendable 5-axis)
How it is displayed	18.5-inch LCD
Input method	Touch screen, keyboard
Transmission mode	USB, LAN
Storage	64G, SSD
Drive type	Linear or servo motors
Status lights	Red, yellow, green
Optimal finish	Ra 0.1
Maximum processing current	50A (choose 100A)
Maximum processing efficiency	500mm ³ /min
Minimal electrode loss	≤0.1%
Minimum drive unit	0.001
Maximum knife lifting speed	10-15m/min
Fire protection devices	Automatic control
Enter the power supply	AC380V 50-60Hz
Total input power	13KVA(choose 22KVA)
APT Data Services	FTP, HTTP, Web



The new operator panel is equipped with a large 18.5-inch screen, with a more intelligent interface design and more convenient auxiliary functions, bringing users a more efficient and intuitive operation experience.

Features

- Pause to return to the starting point
- Machining short retreat
- Position offset during machining
- C code parameter preset

Advanced knife lift function

- Raise the knife quickly
- Return to the center to lift the knife
- Quickly raise the knife small
- Lift the knife from the original path
- Assists in slow knife lifting
- Lift the knife to reset the setting

API data interface

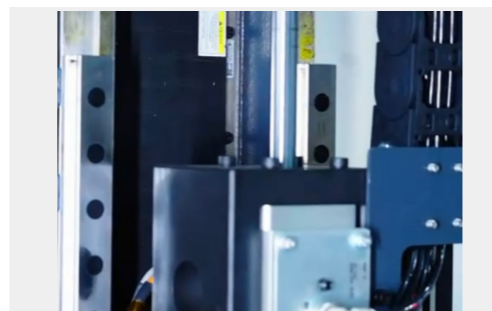
- The mold can be expanded with automated production lines, MES, ERP and other systems to provide machine tool processing data
- Interface: OPCUAFTPHTTPWEB, etc



Newbie box function

It is more convenient to operate and enhances the user experience

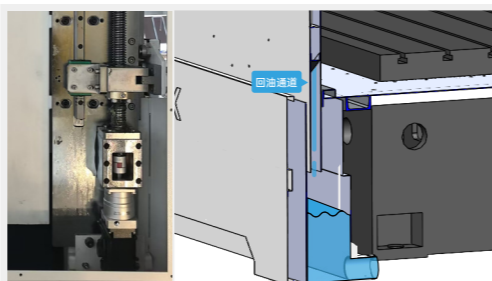
- Added zeroing and centering functions, as well as machining offset functions
- Added coordinate system and workpiece number switching and one-key positioning function



Linear motor drive

Some models are optional

The spindle adopts linear motor drive technology, and cooperates with the full closedloop control system of the grating scale to achieve faster response and higher machining accuracy. Contactless transmissions are not only free of backlash from mechanical wear, but also have the characteristics of long-lasting accuracy.



- Automatic lifting
- System control
- Oil recovery system
- No manual sealing

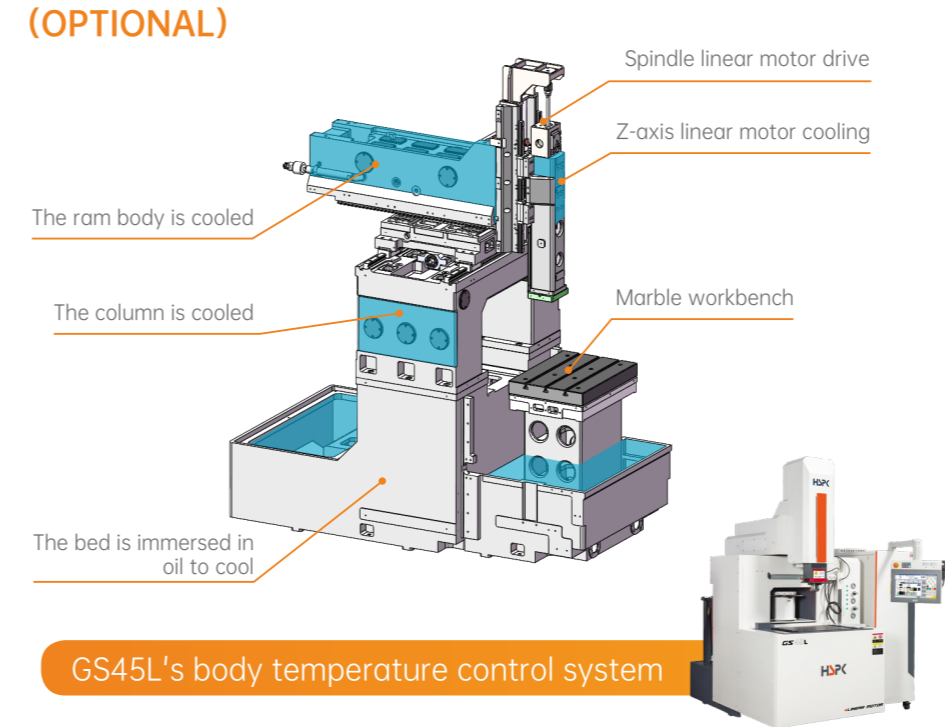
Single-sided lifting tank system

It's more convenient, more efficient and safer

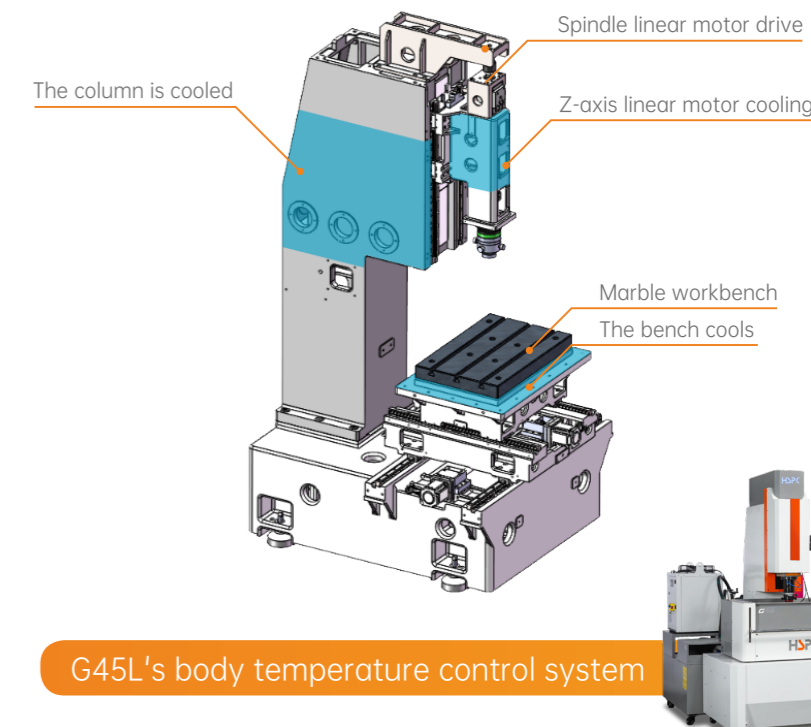
Single-sided automatic lifting tank, the door panel movement is controlled by servo motor, and the system can be adjusted to any height. There is no need to manually operate the opening and closing of the door, which saves time, more effectively avoids oil leakage caused by misoperation, and greatly improves the convenience, consistency and safety of equipment operation.

Bed temperature control system

(OPTIONAL)



GS45L's body temperature control system



G45L's body temperature control system

Body temperature control measures to prevent rapid thermal deformation

Variations in indoor temperature, the temperature difference between the upper and lower spaces within a facility, and radiant heat from ceilings and walls can continuously alter the factory environment. These factors cause thermal deformation in machinery, which becomes a primary reason for poor machining accuracy.

By circulating heat exchange fluid within key components to synchronize with room temperature, it is possible to prevent rapid thermal deformation of the machine body due to fluctuations in the factory's ambient temperature. This ensures consistently stable high-precision machining.



- precision** Effectively inhibit the deformation of the bed to ensure long-term stability of machining accuracy
- life span** Reduce material fatigue and stress, and extend the service life of the machine
- efficient** The bed can still operate efficiently during long runs and under high loads

SAMPLE DISPLAY



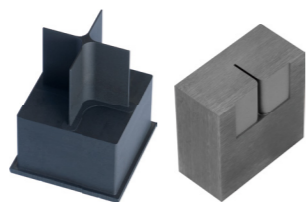
Mirror finishing

Workpiece material: S136
Electrode Material: Copper
Electrode size: Φ60



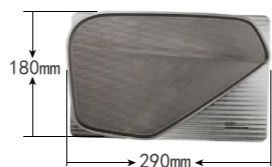
Spherical lozenge mirror

Workpiece material: S136
Electrode Material: Copper
Electrode size: Φ30



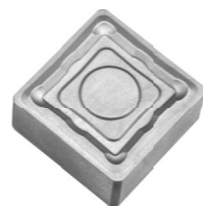
Cross position

Workpiece material: P20
Electrode Material: graphite(-7)
Unilateral spark bits: 0.15



Speaker nets

Workpiece material: S316
Electrode Material: Graphite POCO-3
Spark bits: 0.12



Blade molds

Workpiece material: Tungsten -YG15
Electrode Material: Copper
Electrode size: 20x20mm

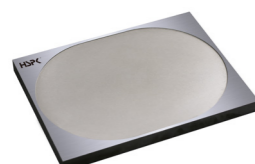
Number of electrodes	Machining depth
2	2.5mm
roughness	Processing time
Ra0.1	5h30min

Number of electrodes	Machining depth
2	12mm
roughness	Processing time
Ra0.1	7h

Number of electrodes	Machining depth
2	20mm
roughness	Processing time
Ra1.2	2h20min

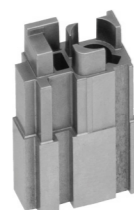
Number of electrodes	Machining depth
2	1.3mm
roughness	Processing time
Ra1.0(VDI 20)	4h(rough) / 7h(fine)

Number of electrodes	Machining depth
2	1.0mm
roughness	Processing time
Ra0.6	2h45min



Large areas of fine lines

Workpiece material: S136
Electrode Material: Copper
Electrode size: 195×145



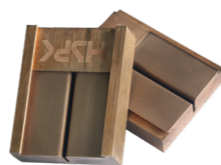
Connector

Workpiece material: SKD61
Electrode Material: Copper
Machining accuracy: ±0.005



Shaver housing

Workpiece material: S136
Electrode Material: Copper



Cross position

Workpiece material: beryllium copper
Electrode Material: graphite
Unilateral spark bits: 0.15
Electrode size: 40x20x1mm



Central petal

Workpiece material: Tungsten steel
Electrode material: Purple copper
Unilateral spark gap: 0.1mm
Electrode size: 25*25mm

Number of electrodes	Machining depth
1	0.5mm
roughness	Processing time
Ra0.6	8h30min

Number of electrodes	Machining depth
2	21mm
roughness	Processing time
Ra0.45	1h10min

Number of electrodes	Machining depth
2	21mm
roughness	Processing time
Ra0.6	10h

Number of electrodes	Machining depth
3	40mm
roughness	Processing time
Ra0.63	5h30min

Number of electrodes	Machining depth
3	40mm
roughness	Processing time
Ra0.22	5h30min

GS45L / GS65L

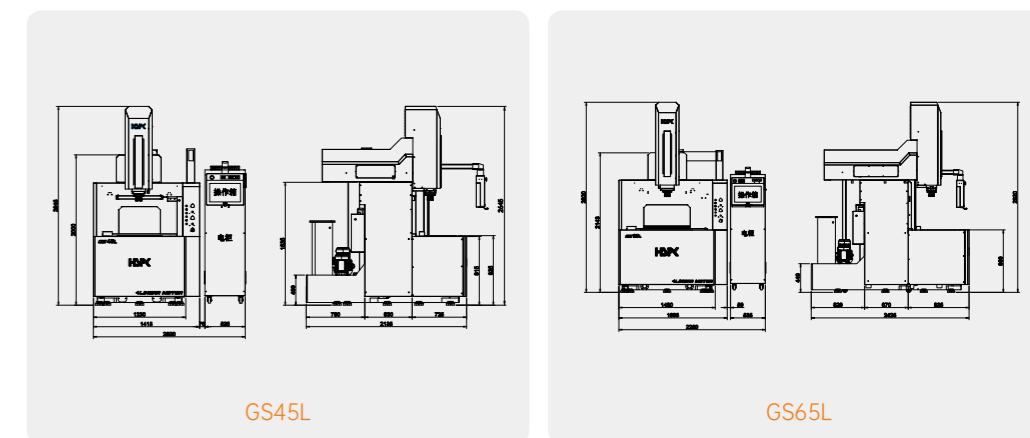
Drop tank structure

- Thermostatic system of the bed
- Linear motors
- Spindle cooling system
- Automatic lifting of the liquid tank
- Process fluid cooling system



Note: Linear motor configuration, cooling unit included as standard

- The pneumatic balancing pressure needs to be manually adjusted according to the overhang weight
- If the specified air pressure cannot be reached, install a pressure booster valve (optional)



GS45L

GS65L

G Series Product Model Description:

L represents linear motor drive, and S represents the lifting liquid tank function.

Model	unit	GS45L	GS65L
X/Y/Z Travel	mm	450×300×300	650×450×400
Worktable size	mm	600×450	800×550
Working tank size	mm	800×550×350	1050×700×400
Distance between electrode plate and worktable	mm	250-550	200-600
Max.electrode weight	Kg	30	30
Max.workpiece weight	Kg	800	1500
Spindle drive method	--	Linear motors	Linear motors
Oil tank capacity	L	400	600
Lubrication method	--	Automatic quantification	Automatic quantification
Maximum height of liquid level	mm	300	350
Liquid tank opening and closing method	--	Automatic four-sided lifting	Automatic four-sided lifting
Level control mode	--	Automatic / Code control	Automatic / Code control
Air pressure	MPa	0.5/0.65(Automatic chuck)	0.5/0.65(Automatic chuck)
Air flow	NL/min	100	100
Machine dimension	mm	2020×2150×2645	2250×2425×2920
Machine weight	Kg	4500	6000

Reminder: For larger/heavier electrode scenarios, the "screw drive" configuration is recommended for better electrode loading.

G45 / G45L

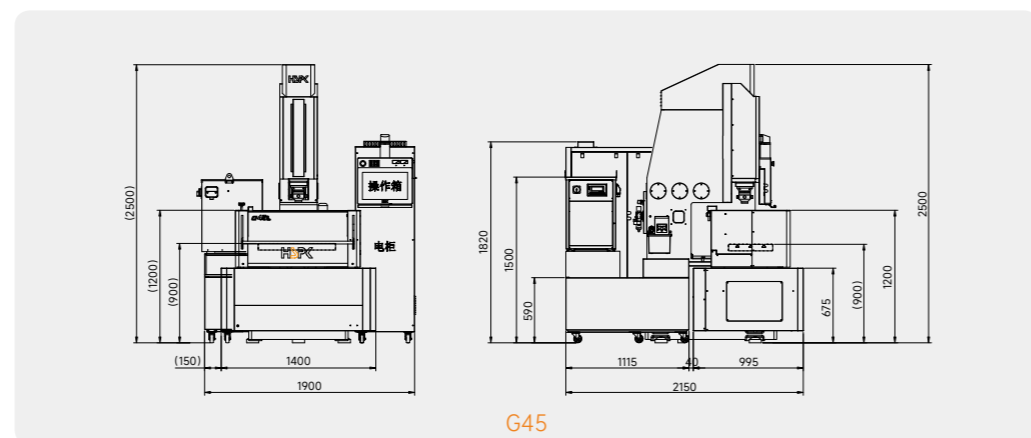
Worktable movement

- 
Thermostatic system of the bed
- 
Spindle cooling system
- 
Process fluid cooling system



Note: Optional linear motor configuration, standard includes cooling device

- The pneumatic balancing pressure needs to be manually adjusted according to the overhang weight
- If the specified air pressure cannot be reached, install a pressure booster valve (optional)



G45



G Series Product Model Description:
L represents linear motor drive.

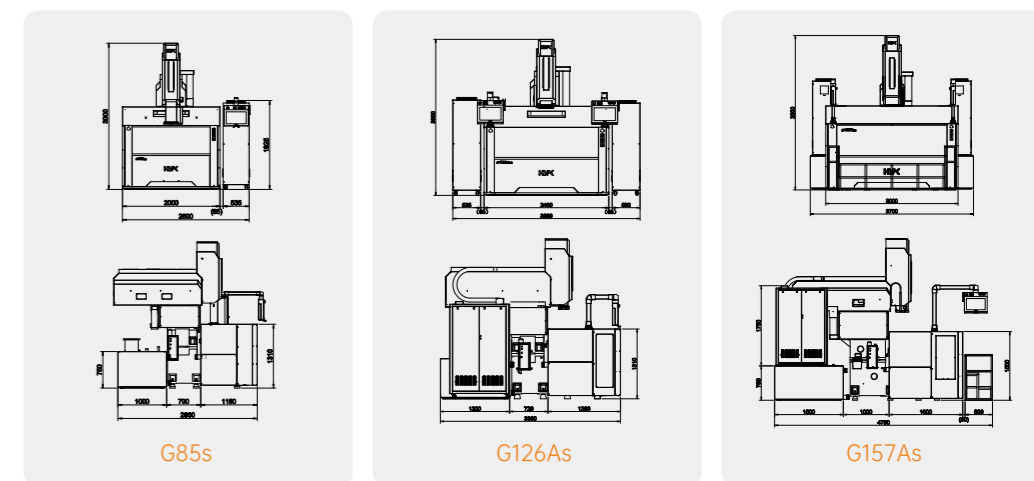
Model	unit	G45	G45L
X/Y/Z Travel	mm	450×300×300	450×300×300
Worktable size	mm	600×400	600×400
Working tank size	mm	900×620×400	900×620×400
Distance between electrode plate and worktable	mm	300-600	300-600
Max.electrode weight	Kg	50	30
Max.workpiece weight	Kg	800	800
Spindle drive method	--	Screw drive	Linear motors
Oil tank capacity	L	450	450
Lubrication method	--	Automatic quantification	Automatic quantification
Maximum height of liquid level	mm	240	240
Liquid tank opening and closing method	--	Up/down manually	Up/down manually
Level control mode	--	Manual	Manual
Air pressure	MPa	--	0.5/0.65(Automatic chuck)
Air flow	NL/min	--	100
Machine dimension	mm	1900×2150×2500	1900×2150×2500
Machine weight	Kg	2500	2500

Reminder: For larger/heavier electrode scenarios, the "screw drive" configuration is recommended for better electrode loading.

G85s/G126As/G157As

Bullhead style - Single head machine

- 
Axis cooling device
- 
Automatic lifting of the liquid tank



G85s

G126As

G157As

G Series Product Model Description: S represents the lifting fluid tank function.

Model	unit	G85s	G126As	G157As
X/Y/Z Travel	mm	800×500×400	1200×600×400	1500×700×500
Worktable size	mm	1050×600	1250×800	1700×900
Working tank size	mm	1600×900×620	2000×1100×620	2500×1400×720
Distance between electrode plate and worktable	mm	500-900	500-900	500-1000
Max.electrode weight	Kg	80	80	150
Max.workpiece weight	Kg	3500	6000	9000
Spindle drive method	--	Screw drive	Screw drive	Screw drive
Oil tank capacity	L	1200	1800	3000
Lubrication method	--	Automatic	Automatic	Automatic
Maximum height of liquid level	mm	450	450	550
Liquid tank opening and closing method	--	Automatic lifting	Automatic lifting	Automatic lifting
Level control mode	--	Automatic / Code control	Automatic / Code control	Automatic / Code control
Machine dimension	mm	2600×2880×3000	3600×3380×3000	3700×4750×3500
Machine weight	Kg	6000	8000	11500

G126s/G157s

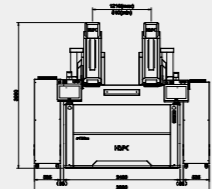
Bull head type -
Small and medium-sized
dual head machine



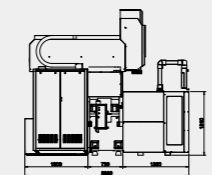
Axis cooling device



Automatic lifting of the liquid tank



G126s



G157s

G Series Product Model Description: **S** represents the lifting fluid tank function.

Model	unit	G126s	G157s
X/Y/Z Travel	mm	700/700×600×400	1000/1000×700×500
Worktable size	mm	1250×800	1700×900
Working tank size	mm	2000×1100×620	2500×1400×720
Distance between electrode plate and worktable	mm	500-900	500-1000
Max.electrode weight	Kg	80	150
Max.workpiece weight	Kg	6000	9000
Spindle drive method	--	Screw drive	Screw drive
Oil tank capacity	L	1800 (Soak the tank)	3000 (Soak the tank)
Lubrication method	--	Automatic	Automatic
Maximum height of liquid level	mm	450	550
Liquid tank opening and closing method	--	Automatic lifting	Automatic lifting
Level control mode	--	Automatic / Code control	Automatic / Code control
Machine dimension	mm	3600×3380×3000	3700×4750×3500
Machine weight	Kg	9000	13000

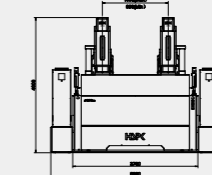


G208s/G2810s

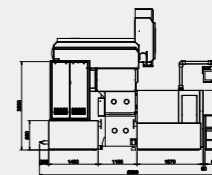
Bullhead style-
Large dual head machine



Automatic lifting of the liquid tank



G208s



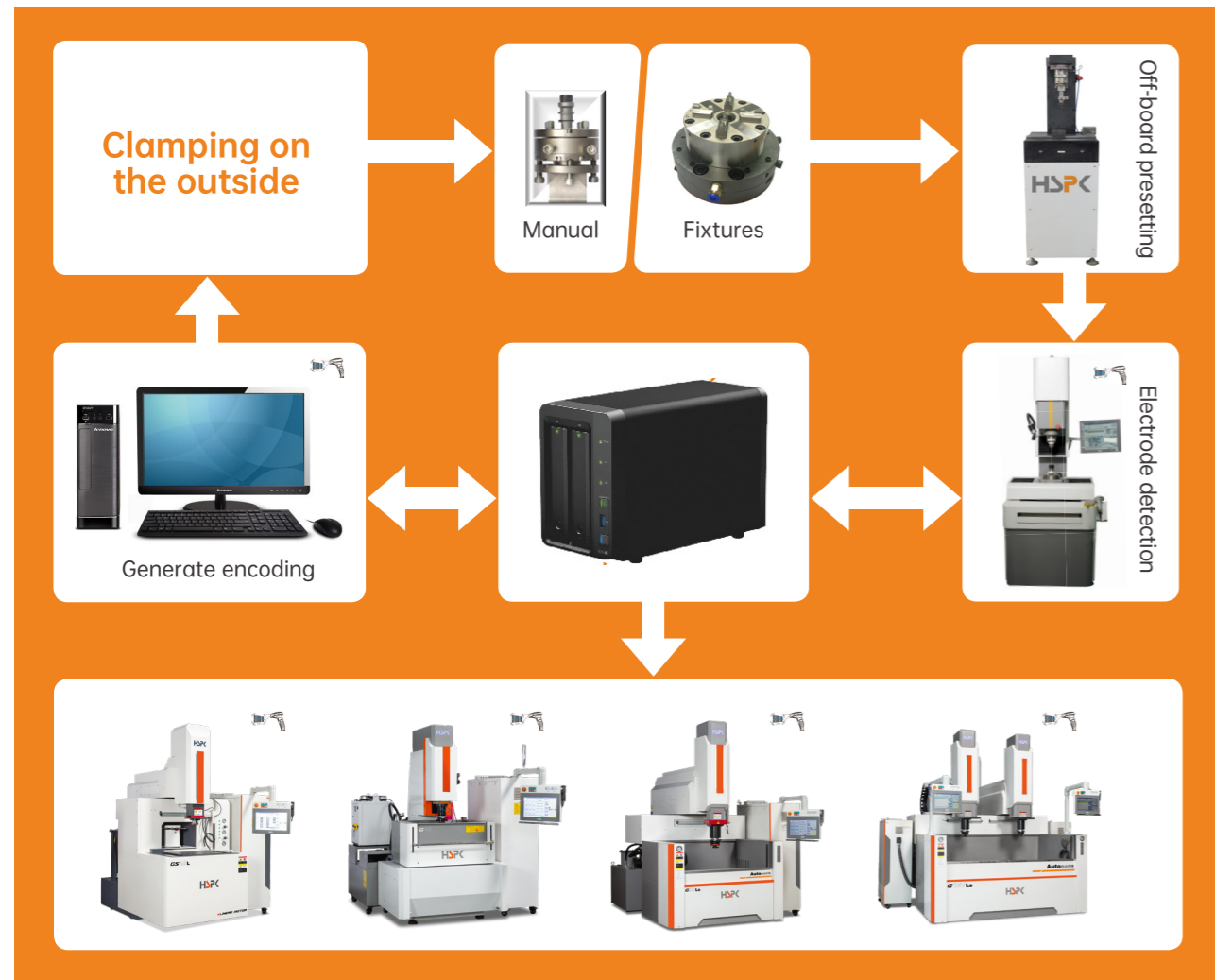
G2810s

G Series Product Model Description: **S** represents the lifting fluid tank function.

Model	unit	G208s	G2810s
X/Y/Z Travel	mm	1300/1300×800×600	1650/1650×1000×800
Worktable size	mm	2500×1100	2800×1300
Working tank size	mm	3200×1600×850	3800×1700×1000
Distance between electrode plate and worktable	mm	800-1400	900-1700
Max.electrode weight	Kg	200	300
Max.workpiece weight	Kg	15000	25000
Spindle drive method	--	Screw drive	Screw drive
Oil tank capacity	L	4600 (Soak the tank)	6500 (Soak the tank)
Lubrication method	--	Automatic	Automatic
Maximum height of liquid level	mm	650	750
Liquid tank opening and closing method	--	Automatic lifting	Automatic lifting
Level control mode	--	Automatic / Code control	Automatic / Code control
Machine dimension	mm	4500×5500×4000	5300×5880×4600
Machine weight	Kg	18000	25000



INTELLIGENT MACHINING SOLUTIONS



EDM&CCR unit



EDM automation unit



Flexible fully automated production line

COOPERATIVE CUSTOMERS

Household appliance
Electrical appliances

Car
Parts and components

Plastic
Mold

Die casting
Mold

Electron
Correspondence

Electric
Tool

hardware
material

Equip
Medical
Educate

Haier 青岛海尔	Hisense 青岛海信	Midea 美的集团	TCL TCL 集团	Galanx 格兰仕 格兰仕	GREE 格力 格力电器	CHANGHONG 长虹 四川长虹	Bear 小熊 小熊电器	LEXY 莱克 莱克电气	KONKA 康佳 康佳集团
BYD 比亚迪	长城汽车 长城汽车	一汽 长春一汽	TESLA 特斯拉	东风集团	沿浦汽车	世纪华通	星宇车灯	大众动力	SHUANGLIN 宁波双林
岱美股份	肇民科技	春晓电子 春秋电子	NBHX 宁波华翔	宁波天龙	标榜股份	东箭科技	金钟股份	富晟车灯	瞭望车灯
华威 HWTECH 常州华威	Hi-Tech Moulds 海泰科	宁波方正	银宝山新 银宝山新	CHYUAN 常源科技	赛豪实业	点晴模业	建林模具	广州导新	广州中新
旭升股份	IKD 爱柯迪	永茂泰 永茂泰	格利达	广东鸿图	WENCAN 文灿股份	宝武铝业	美利信	峰泰工业	宜安科技
JINTUO 晋拓股份	+GF+ 乔治费歇尔	渝江 渝江压铸	型腔模具	ZDM 宁波臻至	BADA MAGNESIUM 八达镁业	宁波隆源	HSGF 浙江华翔	海威股份	中捷精工
CEIC 中电科技	春兴精工	FINGU 凡谷 武汉凡谷	ATFOOK 大富科技	DJBJ 东山精密	LUXSHARE ICT 立讯精密	威利广	CZT 意华控股	Gian 精研科技	胜利精密
长风电子	SONAUOX 上声电子	ALEPH 艾礼富	东昂科技	伟时电子	BESTAR 汉得利	FLXT 润星泰	FRD 飞荣达	CNE 川能智能	裕同科技
巨星科技	格力博	Qisda 佳世达	锋龙股份	中瑞股份	豪江智能	Deye 德业 德业股份	大艺 大艺科技	KEN 锐奇股份	春光科技
ZENNER 真兰 真兰仪表	铁锚玻璃	福耀玻璃	信义玻璃	医宝安防	宝钛集团	ZW 章源铝业	伟星管业	华生管道	CHS 长虹塑料 长虹塑料
DEC 东方电气	哈电集团 哈尔滨汽轮机	CONTEC 康泰医学	Branden 百多安医疗	朱氏药业	倍益康 beoka	陕西职业技术学院	伟星管业	上海交通大学	台州科技职业学院