HSPK MACHINERY

SHANGHAI HAN SPARK

MIRRO-FINISHING/GRAPHITE/HARD-ALLOY/TWIN-HEAD EDM

HSPK 2025.03 — G high-end precision series

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HSPK MACHINERY

SHANGHAI HAN SPARK

MIRRO-FINISHING/GRAPHITE/HARD-ALLOY/TWIN-HEAD EDM

EDM MACHINE

G SERIES

High-end precision EDM machine

www.hanspark.com

GS45L

G45L

G85Ls

DEVELOP HIGH-QUALITY PRODUCTS CREATE A WORLD CLASS BRAND

G126Ls

G157Ls

G2810s

HSPK MACHINERY
SHANGHAI HAN SPARK
MIRRO-FINISHING/GRAPHITE/HARD-ALLOY/TWIN-HEAD EDM

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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 30000m²

2
Production base

20+
Marketing layout

5000+
Serving customers

18+
Exporting Country

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 two production bases, covering a total area of 63,000 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

Manufacturing workshop

OUR PRODUCTS

EDM | SPARK MACHINE

WEDM | BRASS WIRE CUT EDM

OUR RESEARCH AND DEVELOPMENT

Spark machine

Brass Wire Cut EDM

technology
R&D
ENTERPRISE

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

Temporal distribution
Production time
Non-productive time

Device status
Production status
Non-production status

CAPACITY EFFICIENCY

Personnel requirements
Operational proficiency
Discharge experience points

Manipulation phase
Preparation before processing
Preparation for post-processing

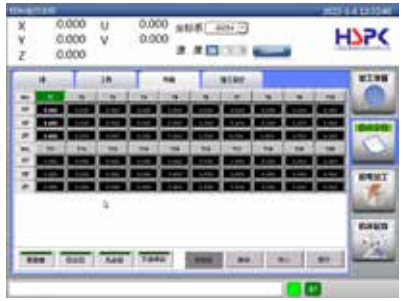
* The preparation phase before processing not only generates long non-productive times, but also relies on the proficiency of the personnel due to the number of operation steps

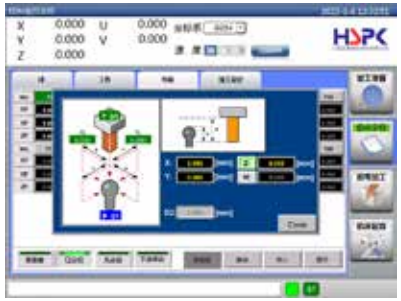
Intelligent positioning system


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.

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 0.2
Maximum processing current	50A (choose 100A)
Maximum processing efficiency	500mm³/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
- Position offset during machining
- Machining short retreat
- C code parameter preset

Advanced knife lift function

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

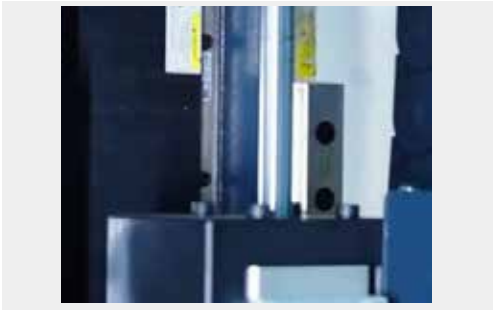
API data interface

- The mold can be expanded with automated production lines, MES, ERP and other systems to provide machine tool processing data
- Interface: 0PCUAFTPHTTPWEB, etc

Newbie box function

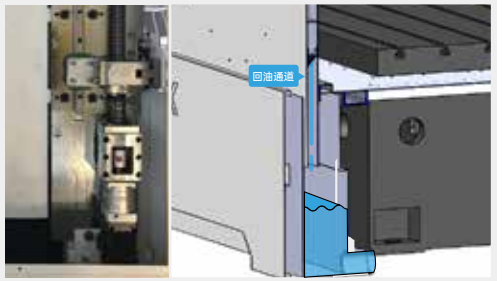
It is more convenient to operate and enhances the user experience

- 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

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

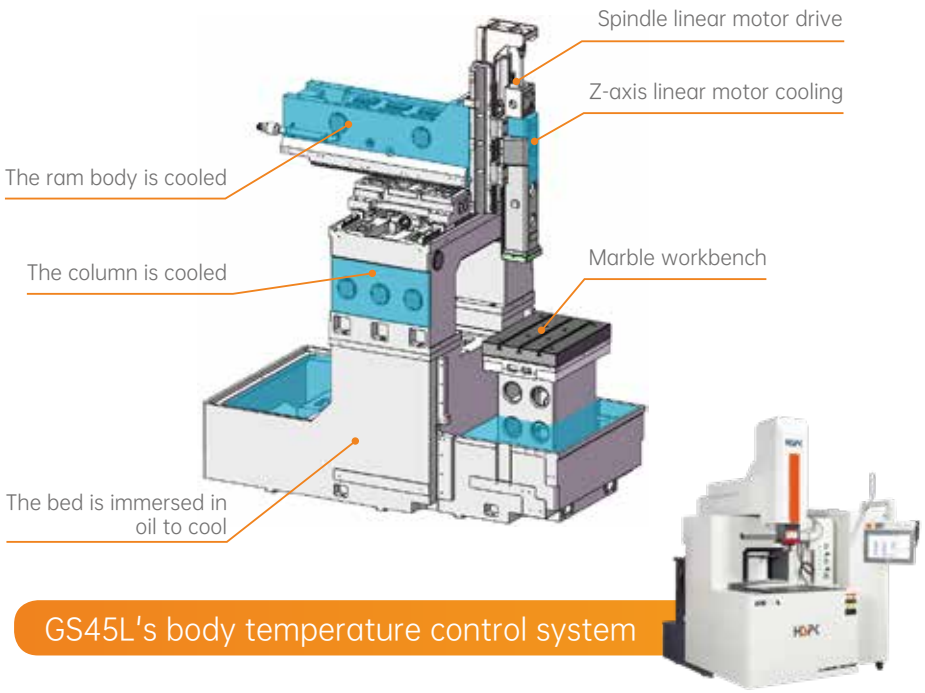
Single-sided lifting tank system

It's more convenient, more efficient and safer

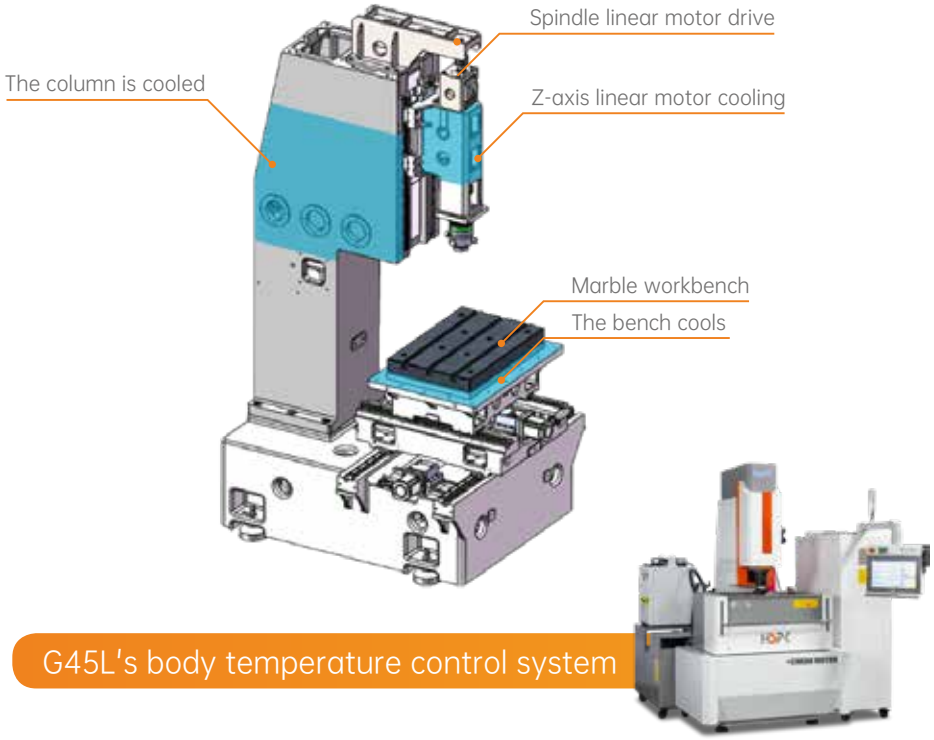
Single-sided automatic lifting tank, the door panel movement is controlled by servo motor, and the system can be adjusted to any height.
There is no need to manually operate the opening and closing of the door, which saves time, more effectively avoids oil leakage caused by misoperation, and greatly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

Bed temperature control system

(OPTIONS)



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.

BED TEMPERATURE CONTROL SYSTEM

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

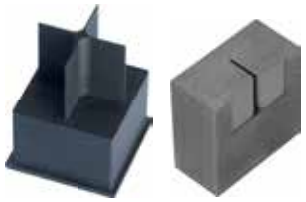
Workpiece material: S136
Electrode Material: Copper
Electrode size: Φ60

Number of electrodes	Machining depth
2	2.5mm
roughness	Processing time
Ra0.1	6h30min

Spherical lozenge mirror

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

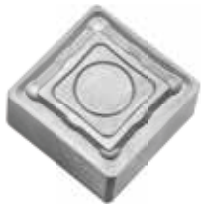
Number of electrodes	Machining depth
2	12mm
roughness	Processing time
Ra0.1	7h



Cross position

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

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



Blade molds

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

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

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

Connector

Workpiece material: SKD61
Electrode Material: Copper
Electrode size: ±0.005

Number of electrodes
2
roughness	Processing time
Ra0.45	1h10min

Shaver housing

Workpiece material: S136
Electrode Material: Copper

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

Speaker nets

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

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

GS45L / GS65L

Drop tank structure

Thermostatic system of the bed

Linear motors

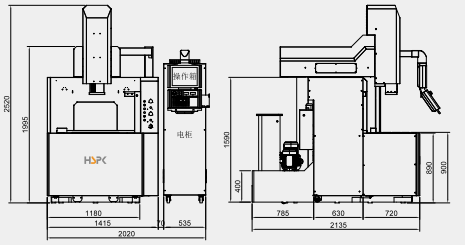
Spindle cooling system

Automatic lifting of the liquid tank

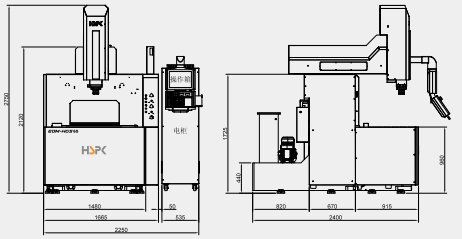
Process fluid cooling system

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 fluid 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	50	50
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	2020×2150×2550	2250×2400×2800
Machine weight	Kg	4500	6000

G45L

Worktable movement

Thermostatic system of the bed

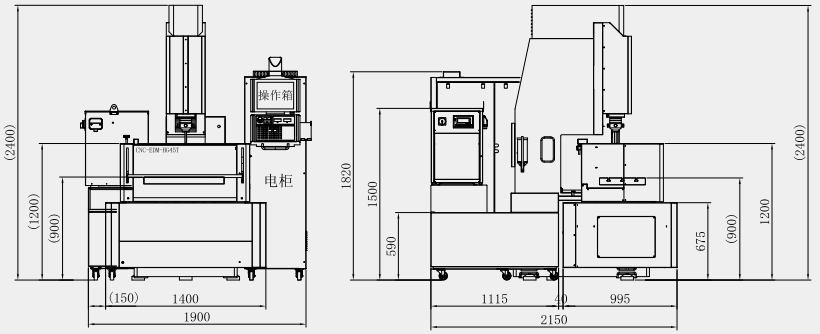
Linear motors

Spindle cooling system

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)



G45L

G Series Product Model Description:
L represents linear motor drive, and **S** represents the lifting fluid tank function.

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

G85Ls/G126ALs/G157ALs

Single column type

Linear motors

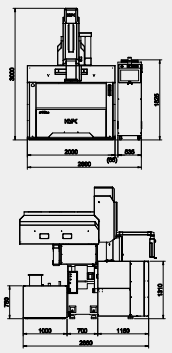
Spindle cooling system

Automatic lifting of the liquid tank

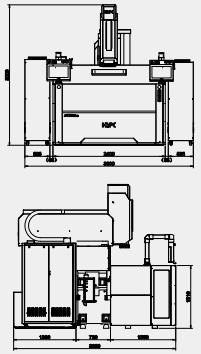
Process fluid cooling system

Note: Linear motor configuration, cooling unit included as standard

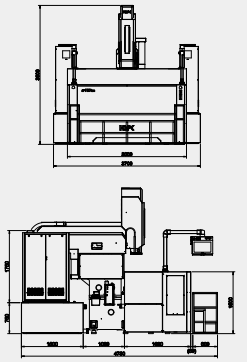
- The pneumatic balancing pressure needs to be manually adjusted according to the overhang weight
- If the specified air pressure cannot be reached, install a pressure booster valve (optional)



G85Ls



G126ALs



G157ALs

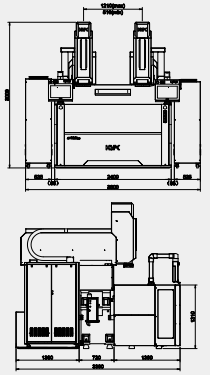
G Series Product Model Description:
L represents linear motor drive, and **S** represents the lifting fluid tank function.

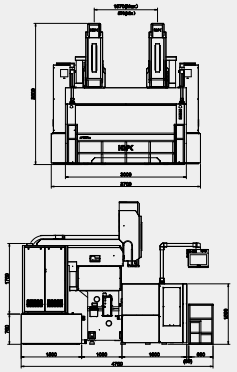
Model	unit	G85Ls	G126ALs	G157ALs
X/Y/Z Travel	mm	800×500×400	1200×600×400	1500×700×500
Worktable size	mm	1050×600	1250×800	1700×900
Working tank size	mm	1600×900×620	2000×1100×620	2500×1400×720
Distance between electrode plate and worktable	mm	500-900	500-900	500-1000
Max.electrode weight	Kg	50	100	100
Max.workpiece weight	Kg	3500	6000	9000
Spindle drive method	--	Linear motors	Linear motors	Linear motors
Oil tank capacity	L	1200	1800	3000
Lubrication method	--	Automatic quantification	Automatic quantification	Automatic quantification
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
Air pressure	MPa	0.5/0.65(Automatic chuck)	0.5/0.65(Automatic chuck)	0.5/0.65(Automatic chuck)
Air flow	NL/min	100	100	100
Machine dimension	mm	2600×2880×3000	3600×3380×3000	3700×4750×3500
Machine weight	Kg	6000	8000	11500

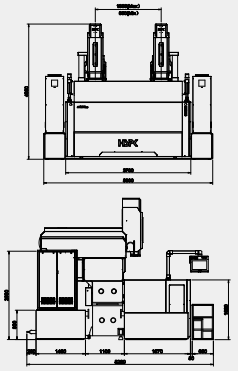
G126Ls/G157Ls/G208Ls

Double column type

Linear motors | Spindle cooling system | Automatic lifting of the liquid tank | Process fluid cooling system


G126Ls


G157Ls


G208Ls

G Series Product Model Description:
L represents linear motor drive, and **S** represents the lifting fluid tank function.

Model	unit	G126Ls	G157Ls	G208Ls
X/Y/Z Travel	mm	700/700×600×400	1000/1000×700×500	1300/1300×800×600
Worktable size	mm	1250×800	1700×900	2500×1100
Working tank size	mm	2000×1100×620	2500×1400×720	3200×1600×850
Distance between electrode plate and worktable	mm	500-900	500-1000	800-1400
Max.electrode weight	Kg	100	100	100
Max.workpiece weight	Kg	6000	9000	15000
Spindle drive method	--	Linear motors	Linear motors	Linear motors
Oil tank capacity	L	1800 (Soak the tank)	3000 (Soak the tank)	6000 (Soak the tank)
Lubrication method	--	Automatic quantification	Automatic quantification	Automatic quantification
Maximum height of liquid level	mm	450	550	650
Liquid tank opening and closing method	--	Automatic lifting	Automatic lifting	Automatic lifting
Level control mode	--	Automatic / Code control	Automatic / Code control	Automatic / Code control
Air pressure	MPa	0.5/0.65(Automatic chuck)	0.5/0.65(Automatic chuck)	0.5/0.65(Automatic chuck)
Air flow	NL/min	100	100	100
Machine dimension	mm	3600×3380×3000	3700×4750×3500	5000×5280×4000
Machine weight	Kg	9000	13000	18000

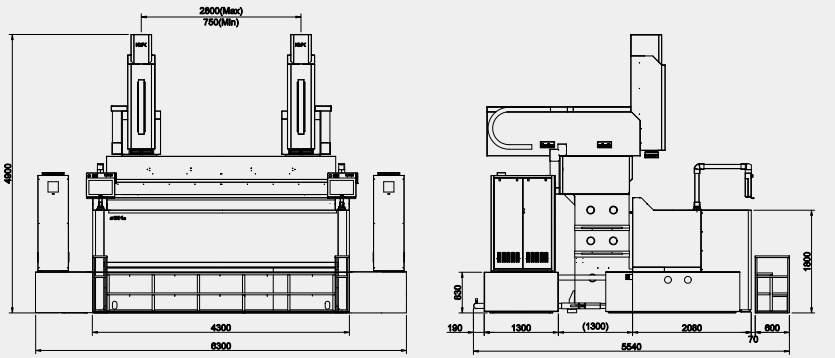
Note: Linear motor configuration, cooling unit included as standard

- 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)

G2810s

Double column type

Automatic lifting of the liquid tank

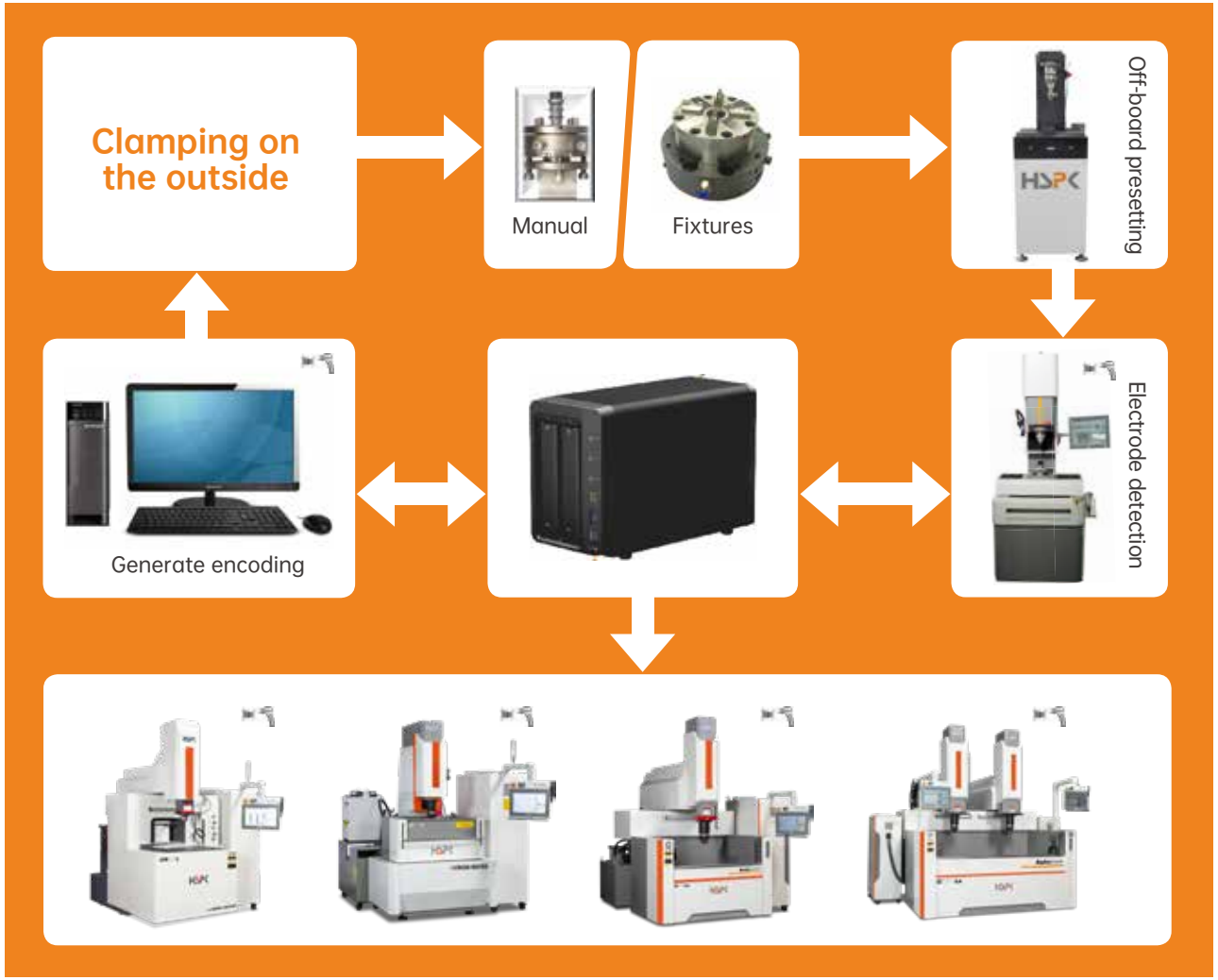


G2810s

G Series Product Model Description:
L represents linear motor drive, and **S** represents the lifting fluid tank function.

Model	unit	G2810s
X/Y/Z Travel	mm	1650/1650×1000×800
Worktable size	mm	2800×1300
Working tank size	mm	3800×1600×1000
Distance between electrode plate and worktable	mm	900-1700
Max.electrode weight	Kg	300
Max.workpiece weight	Kg	25000
Spindle drive method	--	Screw drive
Oil tank capacity	L	8000 (Soak the tank)
Lubrication method	--	Automatic quantification
Maximum height of liquid level	mm	750
Liquid tank opening and closing method	--	Automatic lifting
Level control mode	--	Automatic / Code control
Air pressure	MPa	0.5/0.65(Automatic chuck)
Air flow	NL/min	100
Machine dimension	mm	6300×5540×4900
Machine weight	Kg	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