HSW01

Integrated Column Pneumatic Pulse Welding Machine

User Manual



Thanks for choosing HELTEC ENERGY series products . It will bring you convenience and efficiency for spot welding work.For optimal user experience,please read the manual carefully before using and store it properly for future reference.

HELTEC ENERGY has the right to upgrade the machine and modify the manual without prior notice. thanks for understanding!

Features

1.Original integrated one-piece column pneumatic welding head, which can be used with any machine model/output source.

2.The pneumatic spot welding head adopts a cushion design, the pressure of the welding needle is independently adjustable, and the downward pressure speed and reset speed of the pneumatic welding head are independently adjustable.

3.Original semi-automatic continuous spot welding function, which can be set to 1~9 times or N times of continuous welding.

4. The design of the front pressure gauge and pressure adjustment knob facilitates monitoring and efficient adjustment.

5. Equipped with intelligent heat dissipation and cooling system, suitable for long-term batch operations.

6. With the function of adjusting the welding head height, objects of different volumes can also be precisely welded.

7. Pioneering simulated welding calibration mode, zero current output simulates the welding process, reducing the cost of errors.

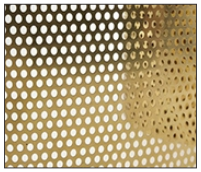
Application



Ternary lithium battery



LiFePO4 battery



Welding hardware



Repair electric bicycles

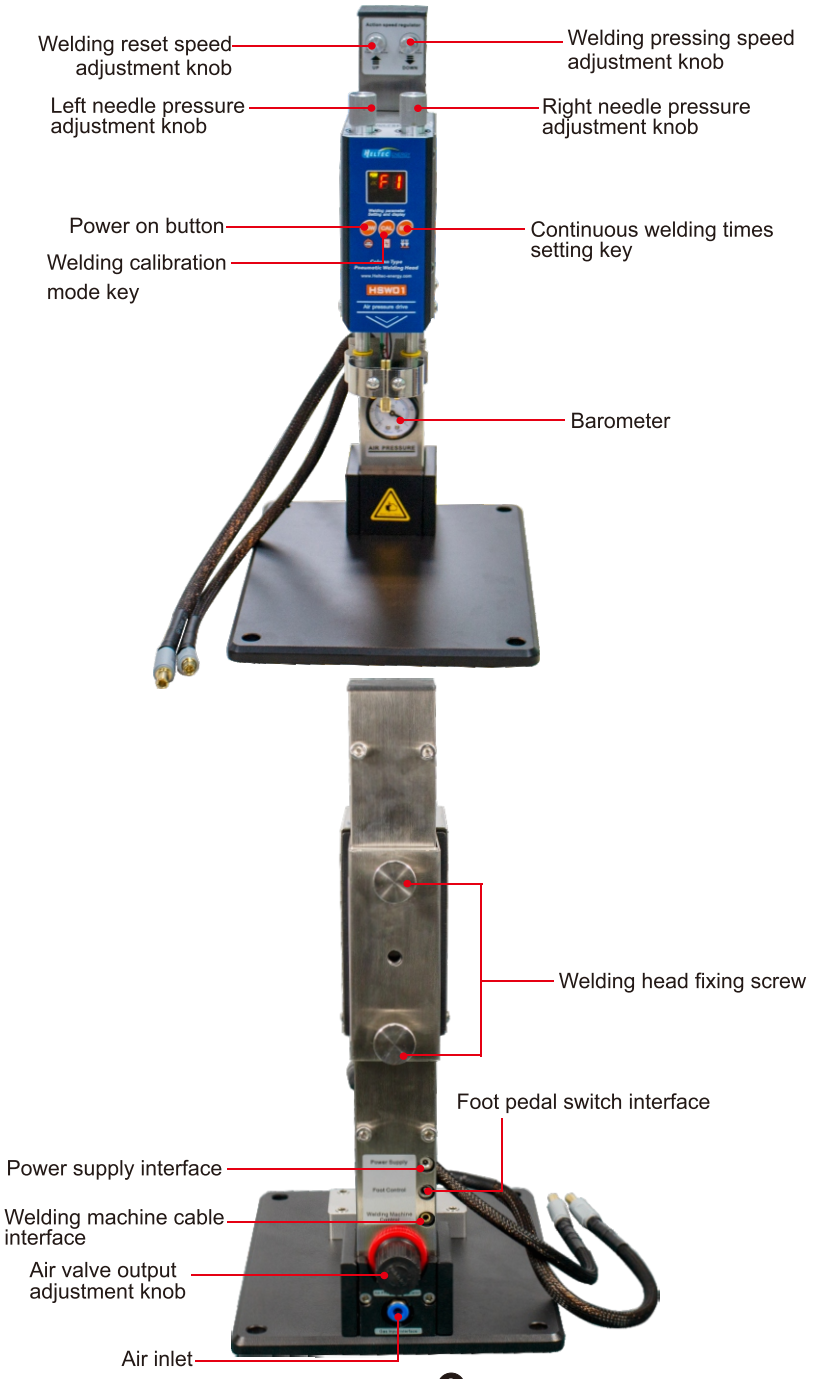


Battery product processing factory

Parameters

Power supply	DC 12-15V/2A	Working air pressure	0.35~0.55Mpa
Electrode arm length	170mm	Max. electrode pressure	3.5-5.5kg(single)
Electrode pneumatic stroke	18mm	Adjustable electrode distance	95mm
Height adjustment range	90-190mm	Welding needle pressure adjustment range	2.2-3.2kg
Single welder pin spacing	24mm	Welding pneumatic program	10 piece
Double welding needle spacing	4-5mm	Welding duty cycle	45%
Weight	11.9kg	Size	210*275*425mm

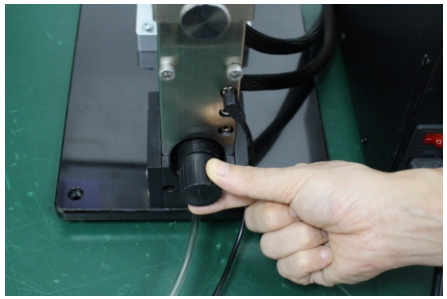
Product explanation diagram



Wiring Diagram



Key function introduction



Air valve output adjustment knob

Pull out the knob first, then rotate it to adjust the air pressure output by the pneumatic column welding machine. (Clockwise to increase, counterclockwise to decrease).



Welding pressure adjustment knob

The knob controls the downward pressure of the pneumatic column welding machine during welding, which can be adjusted according to the material of the welded workpiece and the welding process.(Clockwise to increase, counterclockwise to decrease)



Welding press down/reset speed adjustment knob

The speed of pressing down and resetting during welding of the pneumatic column welding machine can be controlled by the knob (clockwise to increase, counterclockwise to decrease)



Weld Calibration Mode Key

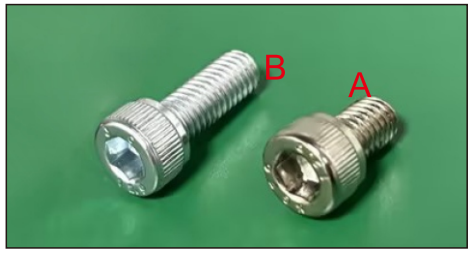
After pressing the CAL button, the pneumatic column welding machine enters the output simulation welding mode, and no current is output during welding; this mode can be used to simulate welding, and the welding pressure and speed can be adjusted according to the simulation process.



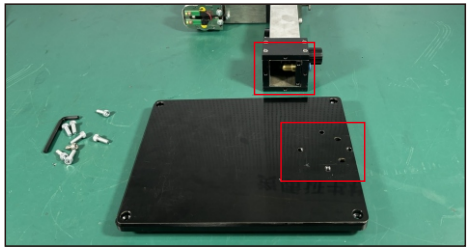
Continuous welding mode key

Press the continuous welding button to adjust the number of continuous welding times from 1 to 9/N times; you need to keep pressing the foot switch to trigger continuous welding (this function can only be used when connected to a specific pulse welding machine)

Installing base and butt welding seat



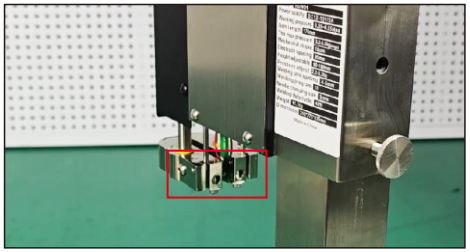
1.Take out the screws from the accessory bag and classify them into A/B/C.



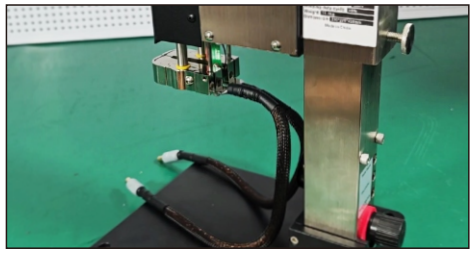
2.Align the screw holes of the column and the base plate.



3.Install the screws from the bottom of the base plate according to the corresponding screws.



4.Remove the rear screws on both sides of the welding head

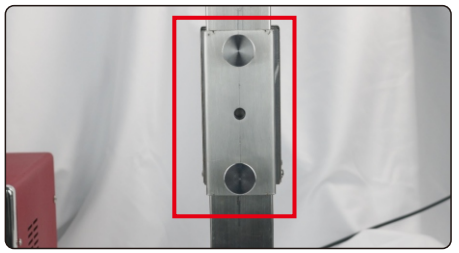


6.Fixed output connection line.

Operation



1.Connect the column welder and pulse spot welder according tothe assembly wiring diagram.



2.Adjust the height of the welding head of the column welding machine according to the object to be welded.



3.Press the "POW" button to start the column welding machine.



4. Press the welding machine switch to start the welding machine.



5. Adjust the spot welding machine output power according to the thickness and material of the workpiece to be welded.



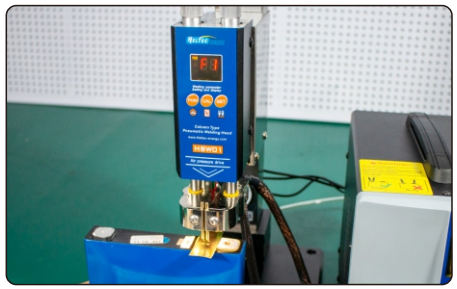
6. Press the "CAL" button, the red CAL light flashes, and step on the foot switch to simulate spot welding.



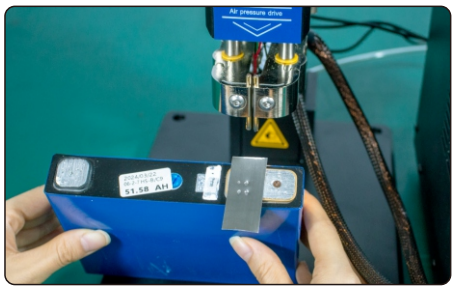
7.Confirm the pneumatic welding head pressure, speed and welding position based on the simulated spot welding.



8.Press the "CAL" button again, the CAL red light goes out, and the simulated spot welding is exited.



9. Press the foot switch and the pneumatic welding head will press down to start welding.



10. Welding completed

Notes

- All contents of this product are related to safety. Please be sure to comply with them. failure to operate according to the instructions may be dangerous.
- In order to use this product correctly, please be sure to read the following precautions carefully. The dangers and hazards of this product have been explained in detail. Illegal operation may damage your belongings, property, or even endanger your personal safety.

1. Before using the product, please read this instruction manual carefully and keep it properly for future reference.
2. Do not use other accessories without the manufacturer's permission, do not make modifications, and non-professional maintenance personnel are prohibited from disassembling and repairing, otherwise fire, electric shock and injury accidents may occur.
3. After unpacking, please check whether the product is damaged and whether the accessories are safe. Pay attention to check that the plug and power cord must be intact to avoid the risk of electric shock.
4. To ensure the safety of children and people with disabilities, please place this product out of their reach. When using this product under the supervision of a guardian, please pay attention to safety
5. If a fault occurs, unplug the power plug immediately and do not put the defective product into operation.
6. When using this product, please make sure that the power supply voltage is consistent with the product's logo to avoid danger.
7. You must use a single-phase fixed three-level socket with reliable grounding. It is strictly forbidden to use a soft wire mobile socket, and it is strictly forbidden to share a socket with other electrical appliances.
8. When the spot welding needle contacts the metal workpiece, a small amount of sparks will splash out. This is a normal phenomenon. The operator needs to wear goggles and maintain a certain safe working distance.
9. When not using this product, please cut off the power supply to ensure safety.
10. Do not use this product in a water mist environment or in an flammable or explosive environment.
11. Do not place the power cord close to heat sources.

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