Introduction to the production and installation of prefabricated components

ZR

ZhongRui Cleaning

- Technological process
- On site and equipment
- Electropolishing
- Performance pictures

Technological process

1. On site preparation: Ensure the cleanliness of the work area, prepare the necessary tools and equipment, and check the stability of the equipment.

2. Material entry: Sort the materials in an orderly manner according to the drawing requirements, and arrange each component according to their needs to prevent installation errors caused by component misalignment.

3. Welding and connection: Cutting, piping, welding, and installation shall be carried out according to the design requirements of the drawings.

4. Overall assembly: Final assembly according to the diagram.

5. Testing: Appearance, dimensional inspection, and complete airtightness testing.

6. Packaging and labeling: Pack and label according to design requirements.

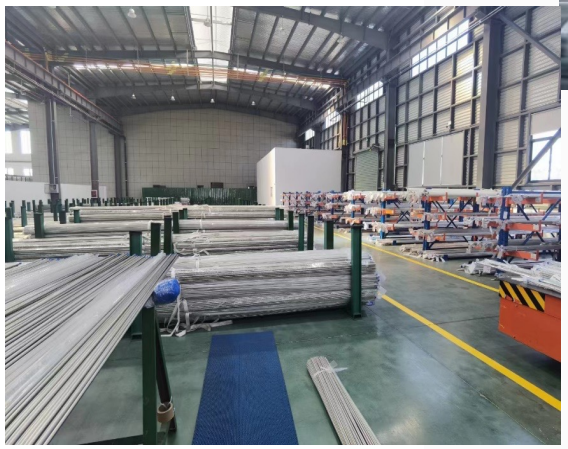
7. Packing and shipping: Classify packaging and shipping according to demand.

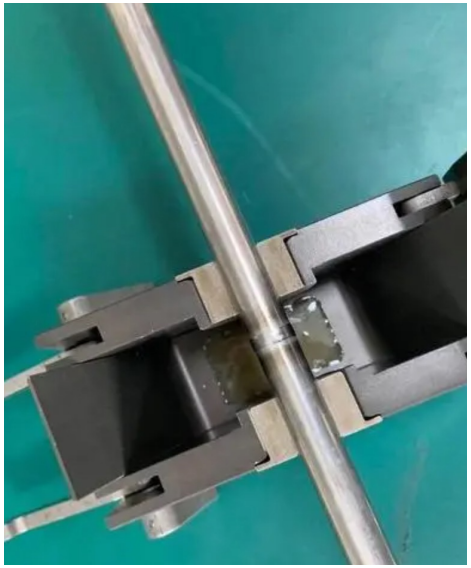
On site preparation

- Prepare the site according to product requirements, inspect the operation of cleanroom equipment, ensure cleanliness level, and check indoor temperature and humidity.
- Prepare installation tools and equipment, check the status of each device, and test the operation of the equipment.
- Personnel preparation, classify personnel according to the drawing requirements, and ensure that the quality of each installation component is controlled
- Prepare a temporary storage area for materials in advance and effectively manage the storage of accessories.

Material entry

- Before the materials enter the site, complete the drawing analysis, classify the materials in an orderly manner according to the drawing requirements, and place each component according to the needs to prevent installation errors caused by component disorder.



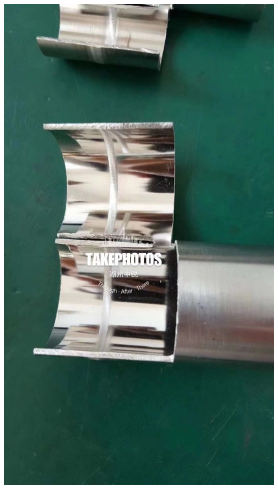


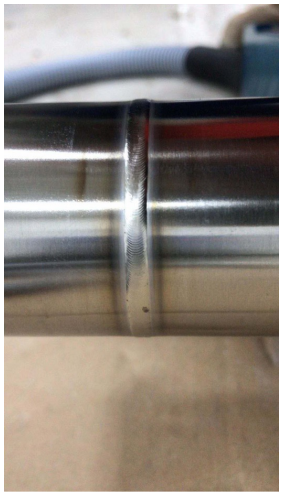
Welding and Connection

- Prepare materials according to product requirements and accurately cut according to drawing dimensions.
- Strictly control the cutting length, measure all materials accurately, and ensure installation clearance.
- All welding parts are welded using imported welding machines from Swagelock to ensure welding quality.
- Ultra high purity argon gas is used for protection during the welding process, with a purity of 99.99999% to ensure the quality of the equipment end.
- Assemble each connecting part according to the design requirements.

Overall assembly

- Before assembly, personnel training should be conducted and training records should be kept to confirm the installation details of each component, especially the correct installation techniques for seals.
- Assemble the welded components with other accessories.
- Before assembly, check and confirm whether the models of each component match the drawings.
- Conduct a comprehensive inspection of the first set of finished products, seal the ends and package them with plastic after passing the inspection. Place them in the form of samples on the fixture table, and the assembler compares the appearance of the samples to ensure the correct assembly position.
- After assembly, check whether each connecting part is installed correctly.





Testing and Inspection

- After assembly, conduct helium gas leakage inspection on each set of components to ensure their quality is qualified, and keep relevant inspection records.
- If non-conforming products are found, they will be placed in the non-conforming product area, analyzed by a specialist, and a non-conforming product handling form will be issued. They will be returned to the assembly station for disassembly and reassembly, and undergo helium gas leakage inspection again.

Packaging and labeling

- Each component port is sealed with a cap, and the overall packaging is vacuum sealed.
- After plastic sealing, bubble wrap is used for secondary packaging on the periphery.
- Attach the corresponding model label on the outer packaging.

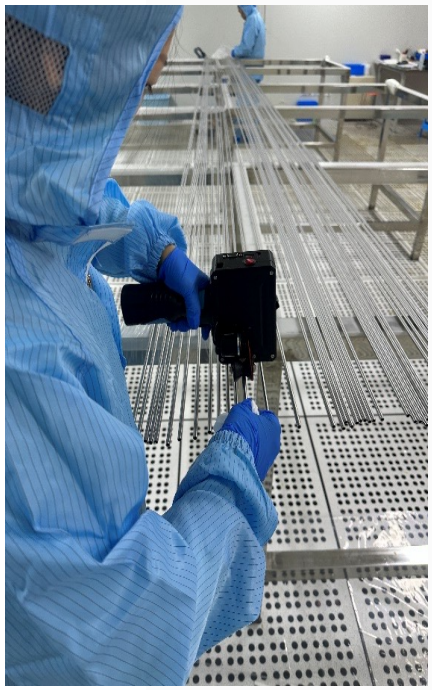
Packing and shipping

- Customize wooden boxes of corresponding sizes according to product specifications.
- Foam board is used for protection around the wooden box, and foam board is used for isolation between each layer of products.
- Ensure that there is no damage during transportation.

On site and equipment

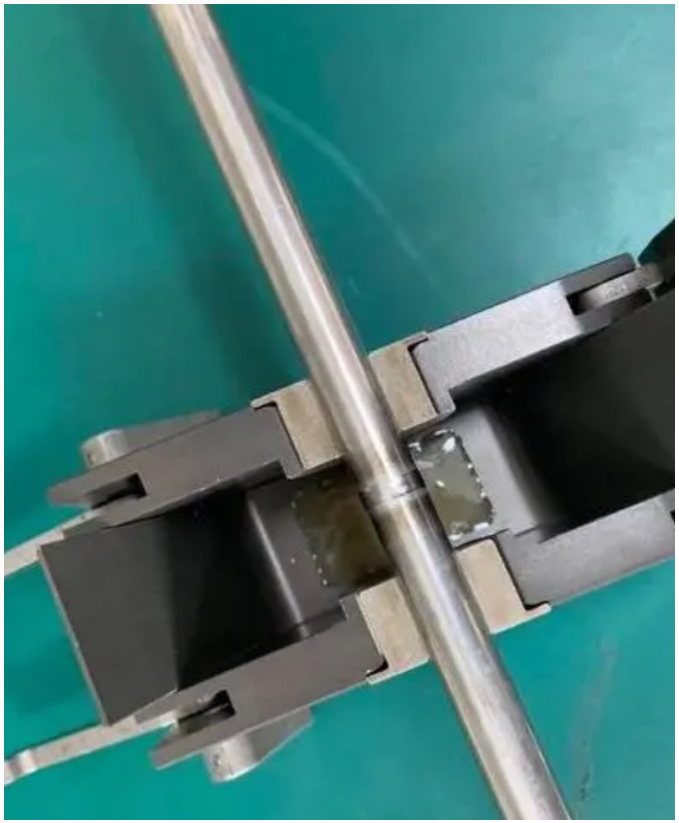
- The assembly site is a Class 100 clean room with constant temperature and humidity control.
- The welding equipment adopts the Swagelok M200 model.
- The welding gas used is 99.99999% ultra-high purity argon gas.
- The side leakage inspection uses a helium detector.

On site and equipment



- Class 100 cleanroom

On site and equipment



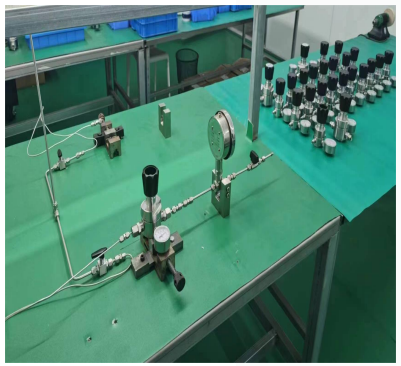
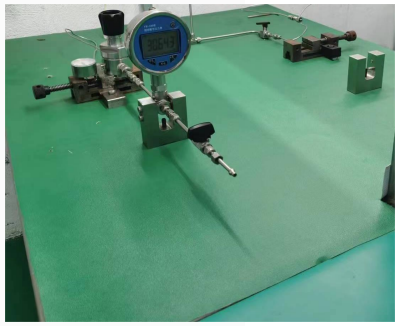
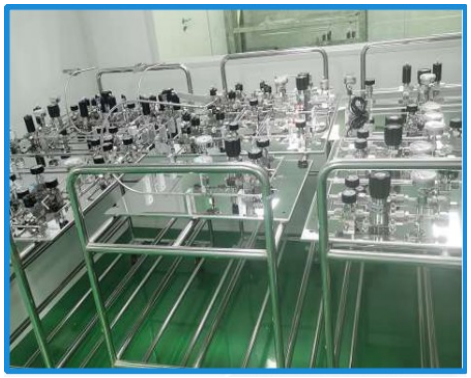
- Swagelock M200

On site and equipment

- Gas purification/pure water equipment

On site and equipment



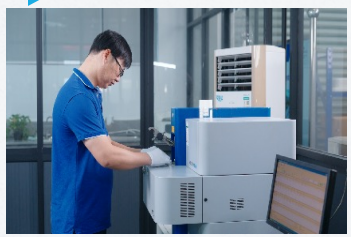
- On site assembly and leak detection

质量检测设备

QualityDetection

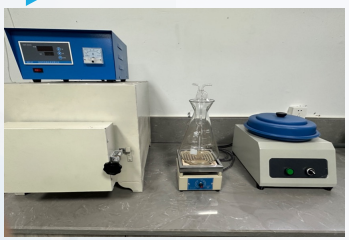
中锐洁净 ZhongRuiCeaning

Component testing

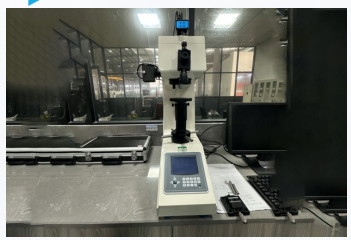


Tension test

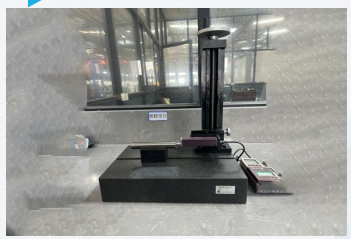
intergranular corrosion



Vickers hardness



Roughness



Metallographic examination

Salt spray test

Impact test

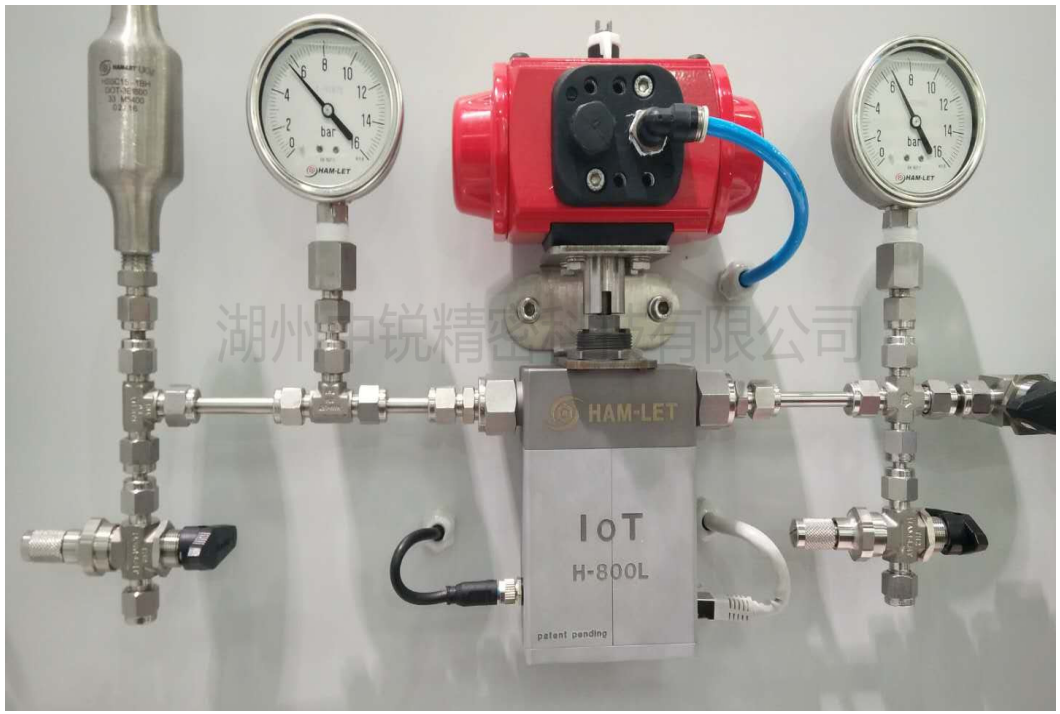
Electropolishing process

- Cleaning before electropolishing of the product
- Assemble electropolishing kits according to different model sizes
- Put it into the electrolytic cell and apply electricity for electropolishing
- Soak in alkaline water after electropolishing is completed
- After soaking, put it into an ultrasonic cleaning machine for cleaning
- After cleaning, immerse in high-purity water for soaking
- After drying, label and package

Electropolishing site pictures

- Electropolishing and cleaning

Performance pictures



- Assembly

Performance pictures

- Assembly

资格证书

Credentials

Zhongrui continuously improves its quality system management to ensure that we provide high-quality, safe, and reliable products

企业荣誉

Enterprise honor

ZR 中锐洁净 ZhongRuiCeaning

Relying on years of high-quality product quality and excellent service, Zhongrui strives to provide customers with stable and high-quality products and services, and has provided excellent services to many enterprises.

中电二公司 | 中国船舶集团 | 国家电投 | 赛克赛斯氢能源 | 北京派瑞华氢能 | 中国近物所 | 先进低温研究院

中电四公司 | 北方华创 | 中集集团氢能 | 东德氢能 | 中国物质科学院 | 中国理化所 | 中科富海装备

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上海正帆科技 | 捷佳伟创 | 海德利森氢能装备 | 正星氢电 | 中国高能所 | 万华化学

Thank you