



远望智能  
YUANWANG INTELLIGENCE

# 氦气气密性检测装备 产品手册

Helium Leak Test Machine  
Product Manual



## 公司简介 COMPANY PROFILE

深圳市远望工业自动化设备有限公司（成立于2004年）自主研发智能氦检技术，以“10%氦气+90%氮气”检测模式及氦气回收系统大幅降低运行成本，适配汽车零部件、新能源电池、精密制冷等领域的高精度微漏检测需求。设备兼具高灵敏度与强抗干扰性，支持全定制化方案开发（半自动/全自动模式），灵活匹配不同尺寸、工艺的检测场景。凭借十余年行业验证经验（覆盖汽车燃油系统、家电、阀门等复杂工况），助力企业实现降本增效与高质量生产的双重目标。

Shenzhen Yuanwang Industrial Automation Equipment Co., Ltd. was established in 2004 and focuses on the development of intelligent helium leak detection technology. Utilizing a "10% helium + 90% nitrogen" detection mode and a helium recovery system, it significantly reduces operating costs while meeting the precision micro-leak detection needs in automotive parts, new energy batteries, and precision refrigeration. The equipment features high sensitivity and strong anti-interference capabilities, supporting customized solutions (semi-automatic/fully automatic modes) adaptable to various sizes and processes. With over a decade of industry experience, it helps enterprises achieve cost reduction, efficiency improvement, and high-quality production.



深圳总部  
Shenzhen Headquarter

东莞基地  
Dongguan Base

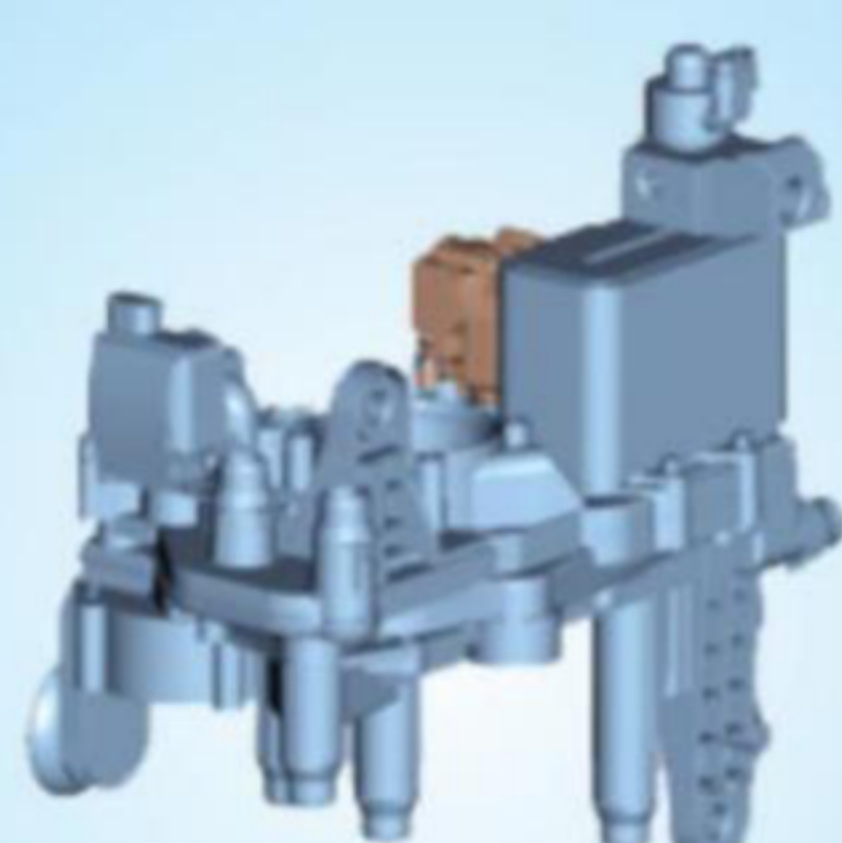
# 氦检机类型 HELIUM DETECTOR TYPE

## 氦检机按产品类型主要分六类

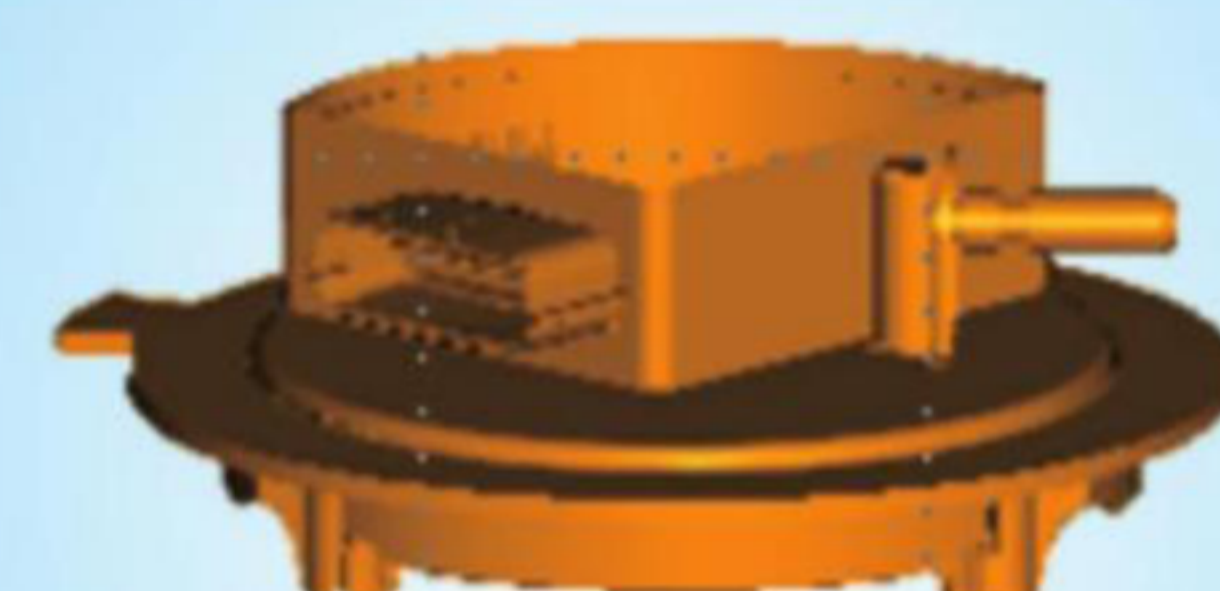
HLT are mainly divided into six categories according to product types



Fuel tank  
燃油箱氦检机



Thermal management integrated Module  
热管理集成模块氦检机



Fuel pump cover  
油泵盖氦检机



Engine Injector & valve assembly  
发动机喷油器、阀类氦检机



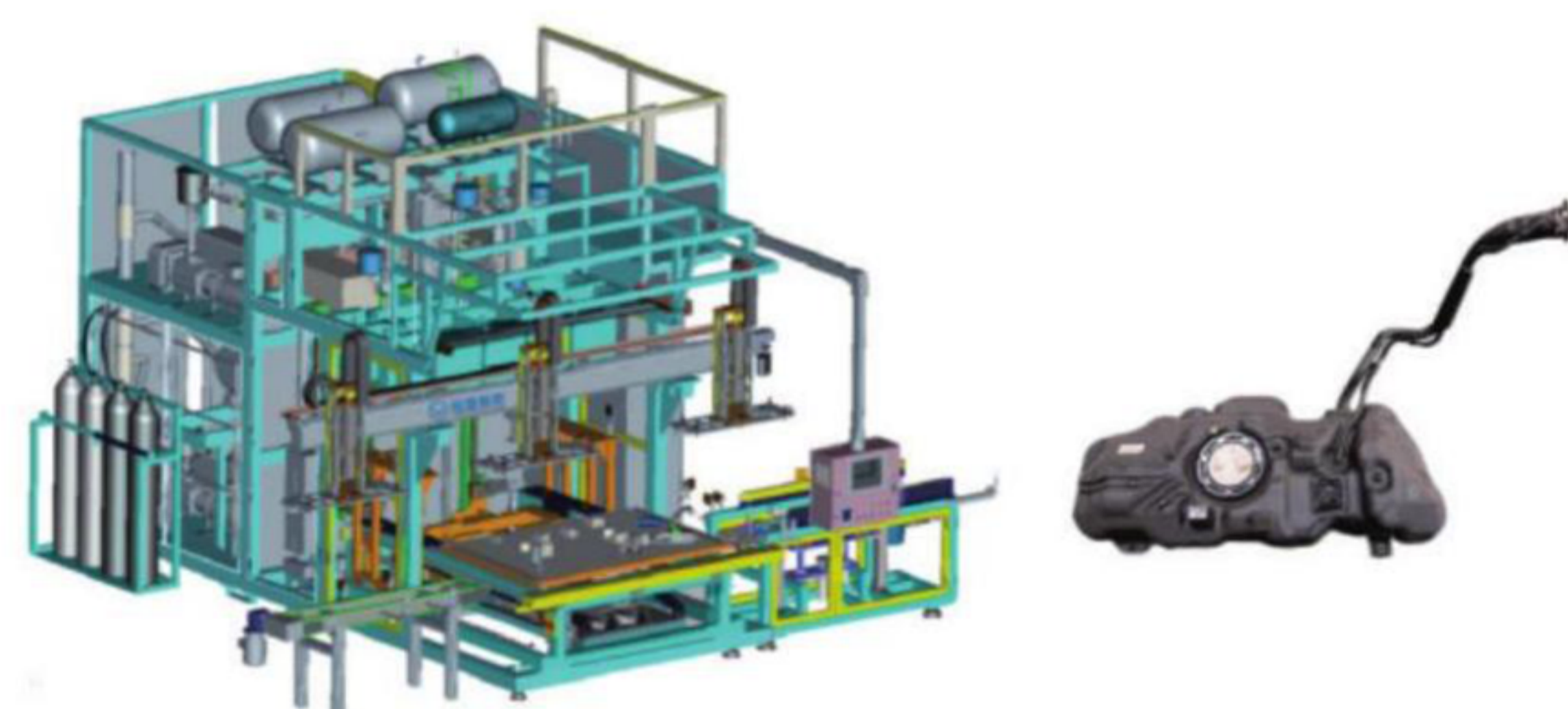
IV hydrogen container  
IV型氢瓶氦检机



Automotive air conditioning  
汽车空调类氦检机

### 燃油箱氦检机 Fuel tank HLT

- ◆ 真空腔尺寸可以按照需求定制
- ◆ 机器检测周期实测65秒,
- ◆ 测试漏率  $2.17 \times 10^{-5}$  mbar·l/s
- ◆ 充氦气压力 10Kpa
- ◆ 带氦气回收回收率95%
- ◆ 氦气浓度10%-99.99%
- ◆ Customizable vacuum chamber size
- ◆ Machine Testing CT: 65 sec
- ◆ Testing Leak rate:  $2.17 \times 10^{-5}$  mbar·l/s.
- ◆ Helium filling pressure: 10 kPa.
- ◆ Helium recovery rate: 95% (with helium recycling system)
- ◆ Helium concentration: 10% - 99.99%



### 热管理集成模块氦检机

Thermal Management Integrated Module HLT



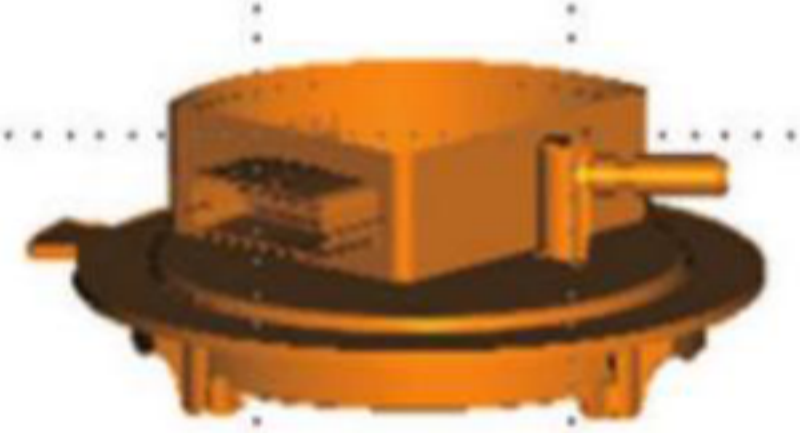
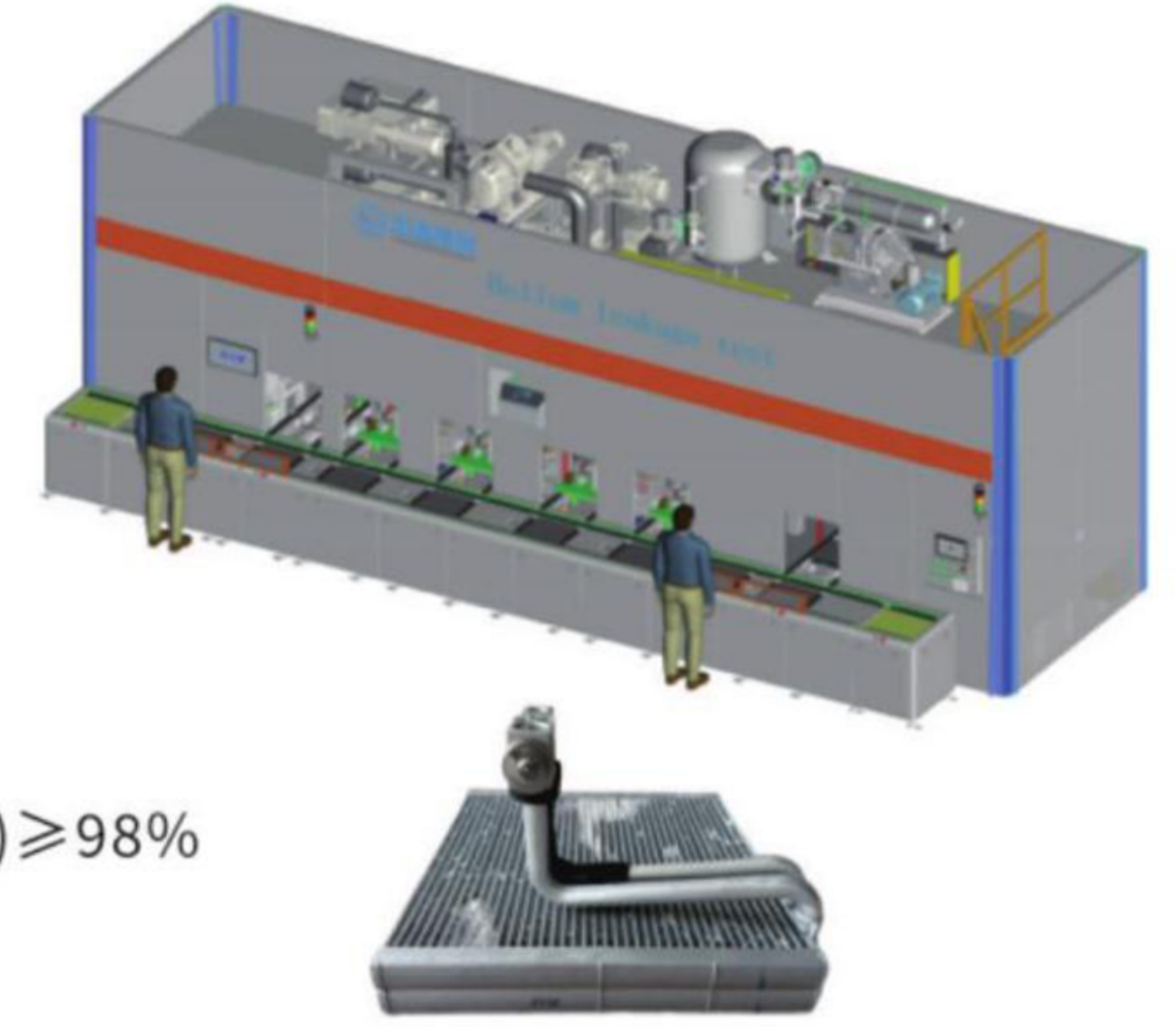
- ◆ 真空腔尺寸可以按照需求定制
- ◆ 机器检测周期50秒以内
- ◆ 测试漏率  $1.0 \times 10^{-6}$  mbar·l/s
- ◆ 充氦气压力  
低压:5—50KPa  
中压:0.5—35Bar  
高压:35—200Bar
- ◆ 带氦气回收回收率≥98%
- ◆ 氦气浓度10%-99.99%
- ◆ 可自动化升级
- ◆ Customizable vacuum chamber size
- ◆ Machine Testing CT: within 50 secs
- ◆ Testing Leak rate  $1.0 \times 10^{-6}$  mbar·l/s
- ◆ Helium filling pressure:  
low-pressure:5—50KPa  
medium-presuure:0.5—35Bar  
high-pressure:35—200Bar
- ◆ Helium recovery rate(with helium recycling system)≥98%
- ◆ Helium concentration0%-99.99%
- ◆ Automation upgrade achivable

## 汽车空调类氦检机

### Automotive air conditioner HLT

- ◆ 真空腔尺寸可以按照需求定制
- ◆ 可多腔体多工位
- ◆ 机器检测周期14秒/个
- ◆ 测试漏率  $1.0 \times 10^{-6}$  mbar $\cdot$ l/s
- ◆ 充氦气压力  
低压:5—50KPa  
中压:0.5—35Bar  
高压:35—200Bar
- ◆ 带氦气回收回收率 $\geq 98\%$
- ◆ 氦气浓度10%-99.99%
- ◆ 可自动化, 机器人、倍速链方式

- ◆ Customizable vacuum chamber size
- ◆ Multi-chamber/multi-station configuration
- ◆ Machine testing cycle:14 sec per unit
- ◆ Testing Leak rate:  $1.0 \times 10^{-6}$  mbar $\cdot$ l/s
- ◆ Helium filling pressure:  
low pressure:5—50KPa  
midium pressure:0.5—35Bar  
high pressure:35—200Bar
- ◆ Helium recovery rate(with helium recycling system) $\geq 98\%$
- ◆ Helium concentration 10%-99.99%
- ◆ Automation,robot,dual-speed upgrade achivable



## 油泵盖氦检机

### Fuel pump cover HLT

- ◆ 真空腔尺寸可以按照需求定制
- ◆ 可多腔体多工位
- ◆ 机器检测周期40秒以内
- ◆ 测试漏率  $3.0 \times 10^{-5}$  mbar $\cdot$ l/s
- ◆ 充氦气压力 10Kpa.
- ◆ 带氦气回收回收率 $\geq 98\%$
- ◆ 氦气浓度10%-99.99%
- ◆ 可自动化, 机器人、倍速链方式

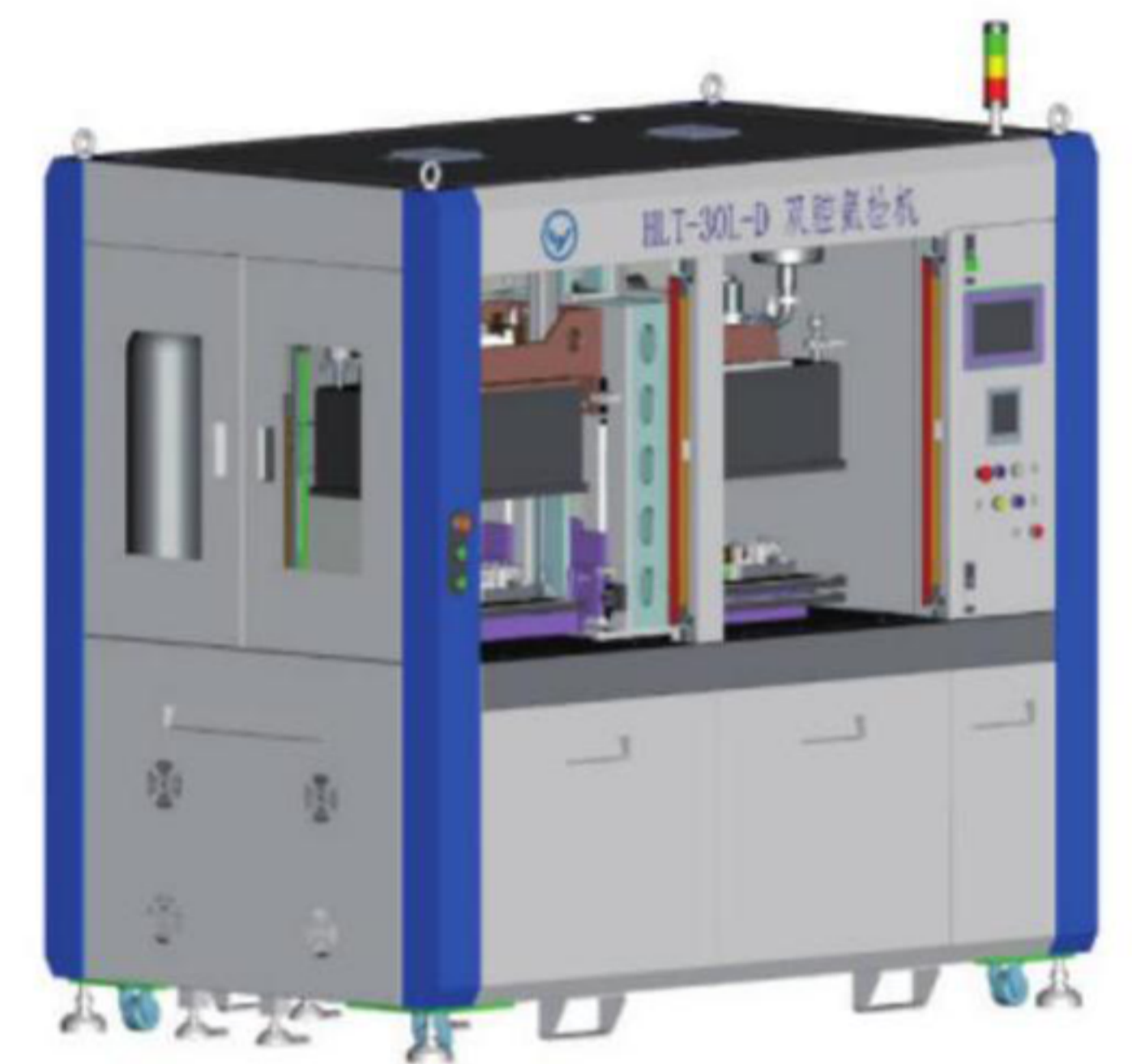
- ◆ Customizable vacuum chamber size
- ◆ Multi-chamber/multi-workstation achievable
- ◆ Machine Testing CT:within 40 sec
- ◆ Testing Leak rate:  $3.0 \times 10^{-5}$  mbar $\cdot$ l/s
- ◆ Helium filling pressure:10Kpa.
- ◆ Helium recovery rate(with helium recycling system) $\geq 98\%$
- ◆ Helium concentration:10%-99.99%
- ◆ Automation,robot,dual-speed upgrade achivable

## 发动机喷油器、阀类氦检机

### Engine Injector & valve HLT

- ◆ 真空腔尺寸可以按照需求定制
- ◆ 可多腔体多工位
- ◆ 机器检测周期45秒以内
- ◆ 测试漏率  $1.0 \times 10^{-6}$  mbar $\cdot$ l/s
- ◆ 充氦气压力  
低压:5—50KPa  
中压:0.5—35Bar  
高压:35—200Bar
- ◆ 带氦气回收回收率 $\geq 98\%$
- ◆ 氦气浓度10%-99.99%
- ◆ 可自动化, 机器人、倍速链方式

- ◆ Customizable vacuum chamber size
- ◆ Multi-chamber/multi-workstation achievable
- ◆ Machine testing CT: within 45 sec
- ◆ Testing Leak rate  $1.0 \times 10^{-6}$  mbar $\cdot$ l/s
- ◆ Helium filling pressure  
low pressure:5—50KPa  
medium pressure:0.5—35Bar  
high pressure:35—200Bar
- ◆ Helium recovery rate(with helium recycling system) $\geq 98\%$
- ◆ Helium concentration 10%-99.99%
- ◆ Automation,robot,dual-speed upgrade achivable

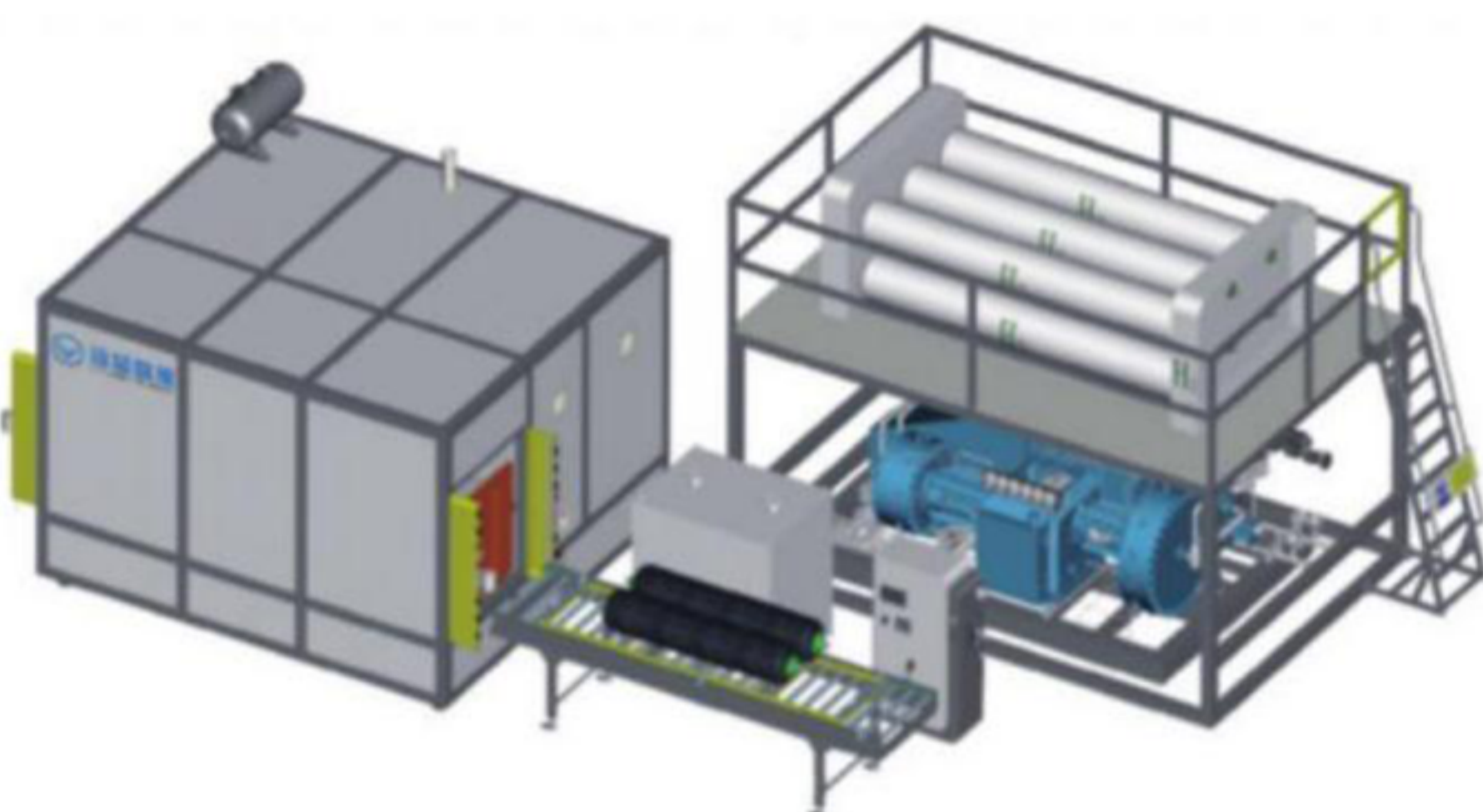


## IV型氦瓶氦检机

### IV helium container HLT

- ◆ 真空腔尺寸可以按照需求定制
- ◆ 可多腔体多工位
- ◆ 机器检测周期120秒以内
- ◆ 测试漏率  $3.0 \times 10^{-3}$  mbar $\cdot$ l/s
- ◆ 充氦气压力 70Mpa.
- ◆ 带氦气回收回收率 $\geq 98\%$
- ◆ 氦气浓度10%-99.99%
- ◆ 可自动化, 机器人、倍速链方式

- ◆ Customizable vacuum chamber size
- ◆ Multi-chamber/multi-workstation achievable
- ◆ Machine Testing CT:within 120 sec
- ◆ Testing Leak rate: $3.0 \times 10^{-3}$  mbar $\cdot$ l/s
- ◆ Helium filling pressure 70Mpa.
- ◆ Helium recovery rate(with helium recycling system) $\geq 98\%$
- ◆ Helium concentration:10%-99.99%
- ◆ Automation,robot,dual-speed upgrade achivable



## 高稳定性保障 High stability guarantee

核心元器件采用进口品牌,设备运行稳定性强,故障率低  
The core components adopt imported brands, ensuring equipment's strong operational stability and low failure rate.

## 低成本高效运行 Low cost and high efficiency

支持“10%氦气+90%氮气”检测模式,减少氦气消耗  
Supporting 10% helium + 90% nitrogen" detection mode to reduce helium consumption  
可选配氦气回收系统,进一步降低使用成本  
Can use optional helium recovery system to further reduce operating costs.

## 紧凑设计与易维护性 Compact design and easy maintainability

模块化结构设计,占地面积小,适配工厂空间限制  
Modular structural design with minimal footprint, adaptable to factory space constraints.  
维护接口清晰,日常保养便捷,降低停机时间  
Clear service interface, convenient routine maintenance, and minimized downtime

## 成熟技术背书 Mature Technology

十余年行业技术沉淀,覆盖汽车燃油系统、家电、阀门等复杂工况,可靠性高

More than ten years of industry technology accumulation, our solutions covers automotive fuel systems, household appliances, and valve systems, ensuring high reliability in complex operating conditions.

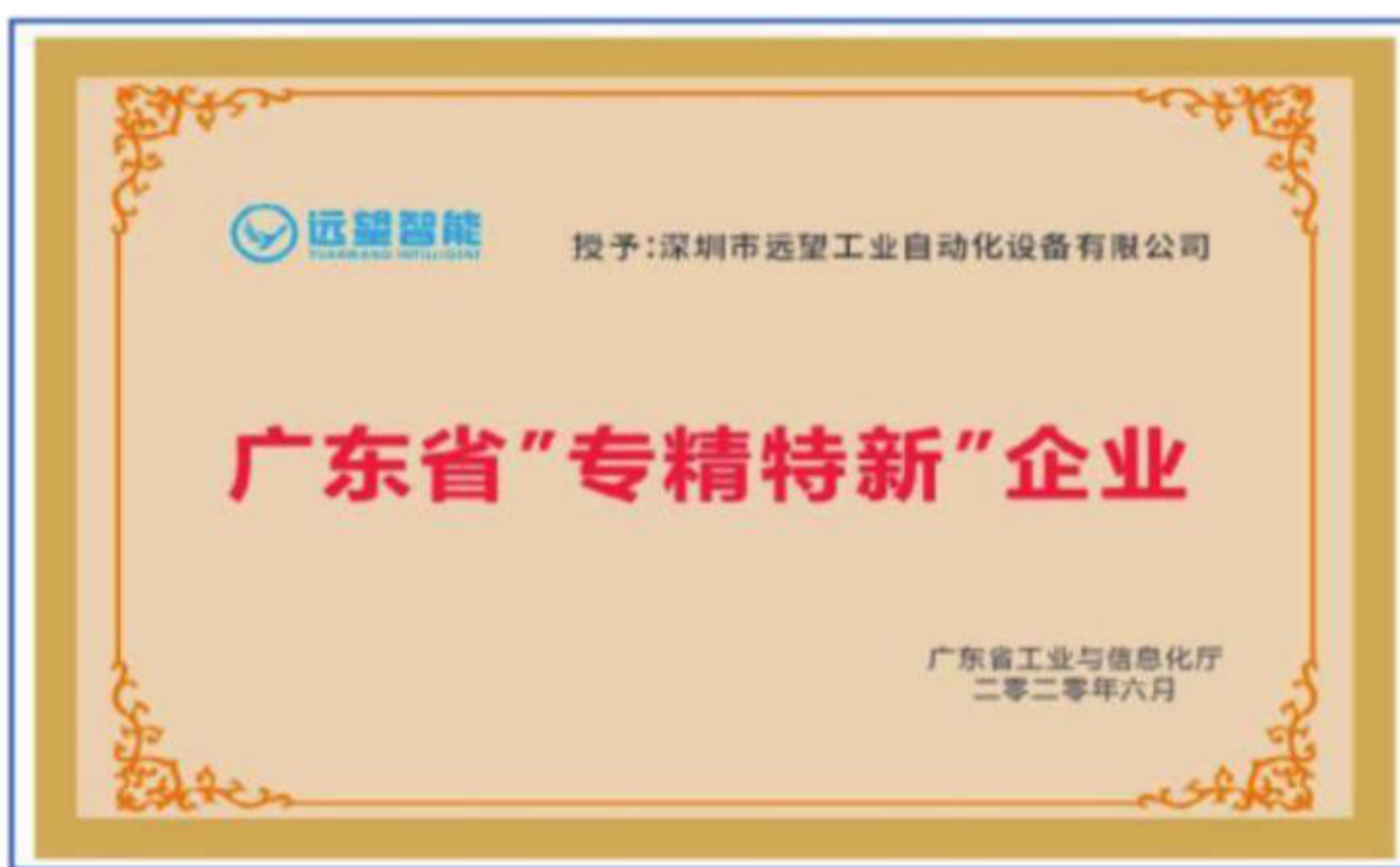
## 灵活适配生产需求 Flexibly meet production requirement

支持全定制化方案开发(半自动/全自动模式)  
providing fully customized solutions based on your requirement (semi-automatic/fully automatic models).

灵活匹配不同尺寸、工艺的检测场景  
Flexibly adapts to different size and process requirements in different test scenarios"

# 我们的优势 our advantages

## 证书荣誉 CERTIFICATE HONOR





**远望智能**  
YUANWANG INTELLIGENCE

—— **为您所想**  
**做您所需** ——

**Do what you want,  
and provide what you need**



公司网站二维码  
Company website Qrcode



微信公众号  
WeChat official account

**公司总部 Company Headquarters**

地址：深圳市宝安区福海街道展城社区展景路83号会展湾中港广场6栋B座401-406  
Add: Room 401-4-6,Block B, Building 6,Exibition Bay Zhonggang Plaza,  
Zhanjing Road No.83, Zhancheng Community, Fuhai Street, Ban'an District, Shenzhen, China  
电话：0755-27320979  
Tel: 0755-27320979  
传真：0755-27320956  
Fax: 0755-27320956

**东莞生产基地(分部) Dongguan Production Base(Branch)**

地址：广东省东莞市长安镇上沙社区中南南路6号科谷工业园7栋  
Add: No.7 Building, Kegu Industrial Park, Zhongnan South Rd ,Shangsha comm,  
Chang'an TWN, Dongguan City, Guangdong Prov.  
电话：0769-85536006  
Tel: 0769-85536006  
传真：0769-85536001  
Fax: 0769-85536001  
邮编：523870  
Zip code: 523870