

# 真空氢气烧结多功能一体炉

## Multifunctional Furnace of Vacuum Hydrogen Sintering

### Technical Features

#### 产品特点

- 高洁净度及真空度

High cleanliness and vacuum

全金属热场极高洁净度和超高真空度带给客户极致的真空和烧结体验,可获得无污染的高性能产品。

The extremely high cleanliness and ultra-high vacuum degree of the all-metal thermal field bring customers the ultimate vacuum and sintering experience, and can obtain high-performance products without pollution.

- 均匀的加热、可靠的隔热及测温

Uniform heating, Reliable heat insulation and Temperature measurement

采用高熔点金属电阻加热,合理的加热结构,优良的材料,保证真空状态下炉温的均匀性。

Using high-melting metal resistance heating, reasonable heating structure, excellent material, ensure the uniformity of furnace temperature under vacuum.

- 装卸料方便

Convenient loading and unloading

卧式前开门设计,方便装卸物料

Horizontal design with front-open chamber ensures easy loading and removal of materials.

- 氢气燃烧系统

Hydrogen combustion system

可选配备自动点火装置、防回火装置等多种辅助装置,提高设备运行的安全性。

A variety of auxiliary systems such as automatic ignition device and anti-tempering device can be selected to improve the safety of equipment operation.

- 先进的自动控制及可靠的安全联锁

Advanced automatic control and reliable safety interlock

采用计算机实现温度、动作过程全自动控制、PLC实现安全联锁,具有超压、超温、水温过高等声光报警及联锁功能。

Adopt computer to realize automatic control of temperature and action process, and PLC safety interlock. It has sound and light alarm and interlock function such as over-pressure and over-temperature and high water temperature.



### Application

#### 应用

- 不锈钢基材料  
Stainless Steel Bases.
- 硬质合金  
Cemented Carbide (WC, TiC)
- 高比重合金  
High Gravity Alloy (W-Ni-Fe, W-Ni-Cu, W-Ni-Cu-Fe).
- 磁性材料  
Magnetic Material (NdFeB, FeO•Fe<sub>2</sub>O<sub>3</sub>).
- 陶瓷金属化  
Ceramic Metallization.

## 技术规格 / Main Specification

参数Spec.	型号Model	VVSw-15/15/15-1700 (V1-17)	VVSw-15/15/15-2000 (V1-20)	VVSw-15/15/15-2300 (V1-23)
设备装料方式 Equipment Loading Method		侧装料 Horizontal side loading		
热区尺寸 Working Size		150 × 150 × 150mm (宽 × 高 × 长) / (W × H × L)		
加热元件 Heating Element		钨 Tungsten		
真空烧结技术参数 (真空烧结使用) / Technical parameters of vacuum sintering (use of vacuum sintering)				
最高温度 Max. Temperature		1700°C	2000°C	2100°C
工作温度 Working Temperature		1600°C	1900°C	2000°C
加热功率 Max. Power		45KW	60KW	72KW
氢气烧结技术参数 (氢气烧结使用) / Technical parameters of hydrogen sintering (for hydrogen sintering)				
最高温度 Max. Temperature		1700°C	2000°C	2300°C
常用温度 Working Temperature		1650°C	1950°C	2200°C
加热功率 Max. Power		45KW	60KW	72KW
极限真空度 Ultimate Vacuum		8.0 × 10 <sup>-6</sup> Pa (空炉、冷态、经净化) (8.0 × 10 <sup>-6</sup> torr, empty furnace, cold state, purified)		
控温精度 Temperature Accuracy		±1°C		
测温传感器 Thermocouple		钨铼热电偶 W-Re5/26 (C)	钨铼热电偶+红外测温仪 W-Re5/26 (C) + Infrared Thermometer	
压升率 Pressure Rising Rate		≤2Pa/h (空炉、冷态) (Empty furnace, cold state)		
气氛 Gases		氢气、氮气、氩气或氢、氮混合气体 Hydrogen, Nitrogen, Argon		
控制系统 Control Method		PLC+HMI		
冷却水要求 Cooling Water Requirement		水压: 0.2~0.3MPa, 水流量: 8m <sup>3</sup> /小时 Water pressure: 0.2~0.3MPa, water flow: 8m <sup>3</sup> /h		
设备外形尺寸 Equipment External Dimensions		1500 × 1750 × 1700mm (宽 × 高 × 长) / (W × H × L)		
备注 Remarks		可根据客户要求定制化 Can be customized according to customer requirements		

