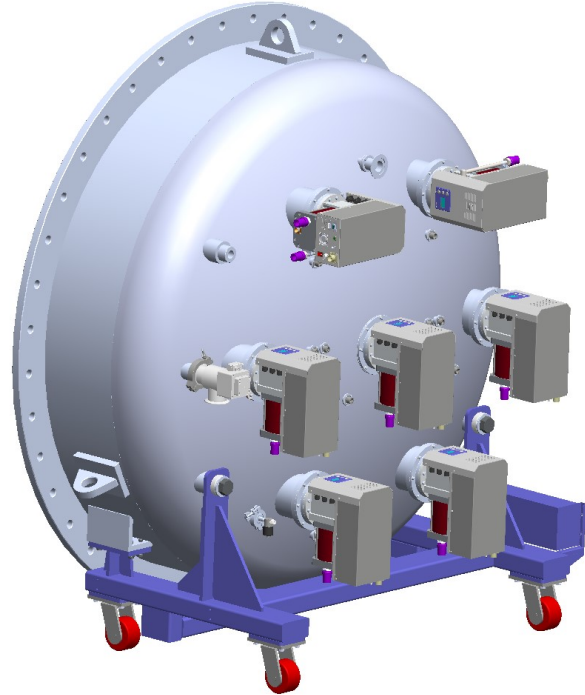


## IG1600 cryopump specification

IG1600 cryopump is an intelligent multi-head cryopump developed for the actual needs of large caliber cryopumps in domestic scientific research institutes, aerospace enterprises and other high-tech enterprises. On the basis of ensuring the basic technical requirements, it can carry out customized design and production of actual application scenarios.

### Pump head main parameters

- 1) pumping speed
  - for H<sub>2</sub>O: 290,000 L/s
  - for N<sub>2</sub>: 110,000 L/s
  - for H<sub>2</sub>: 100,000 L/s
  - for Ar: 77,000 L/s
- 2) pumping capacity
  - for H<sub>2</sub>: 2.5 X10<sup>7</sup> Pa.L
  - for Ar: 1.5 X10<sup>9</sup> Pa.L
- 3) final vacuum: be superior to 5 X10<sup>-6</sup> Pa
- 4) cooling time: ≤330Min



### Pump head enhancements

- 1) With fast and complete regeneration function;
- 2) Intelligent "adaptive" technology
  - Automatic low temperature thermal load compensation
  - Variable frequency motor system
- 3) The cold head stage has the function of precise temperature control to prevent too low temperature from affecting the vacuum stability of the system;
- 4) Automatic regeneration system: automatic pressure detection, built-in automatic heating, pulse inflation, waste discharge and other functions;
- 5) Cold head can realize local and remote start and stop;
- 6) A number of pump status display and control software;
- 7) Installation direction: any Angle.

### Related configuration

- 1) Main communication interface: RS485/RS232, DB-9 connector;
- 2) Primary and secondary temperature sensors;
- 3) Built-in primary and secondary heaters;
- 4) Purge valve, rough extraction valve, vacuum gauge, pressure relief valve (safety valve), etc.;
- 5) Local/remote monitoring is optional;
- 6) HC100W helium compressor gas supply;
- 7) Gas supply hose (helium pipe) 2-30 meters optional;
- 8) ※ Special environment configuration such as strong magnetic and high radiation (optional).

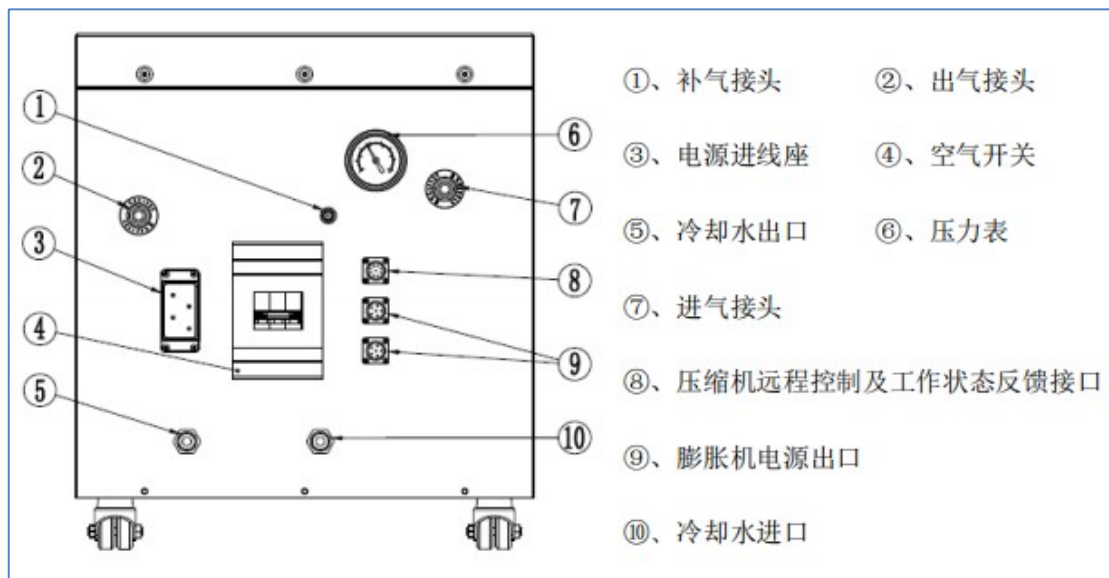


## HC100WX7

model	HC100W
compression pump	Completely enclosed scroll compressor
input power	7KW
working medium	High purity helium gas $\geq 99.995\%$
Power demand	380 $\pm$ 20V, 25A three-phase, 50Hz
environment temperature	10-38 $^{\circ}$ C
cooling water temperature	5-28 $^{\circ}$ C
cooling water	$\geq 6\text{L}/\text{min}@23^{\circ}\text{C}$
pressure balance	1.65 $\pm$ 0.05Mpa
normal working (operating) pressure	High pressure side 1.9-2.2 Mpa Low pressure side 0.3-0.5Mpa
protector	Water shortage protection, overheat protection, pressure protection
control function	Local/remote control
Adsorber replacement cycle (recommended)	15000Hours
size	515L $\times$ 583W $\times$ 590H (mm)
net weight	114Kg



Compressor appearance drawing



Compressor interface diagram

## Strong magnetic, high radiation and other special environment design

- 1) 316L material pump housing;
- 2) Fully enclosed metal shield IG controller, metal shield is made of high-quality cold rolled steel plate processing, the internal electronic components are fully included, to ensure long-term good operation in the radiation environment;
- 3) All-wrapped metal material integrated armored built-in heater, excellent anti-radiation and anti-interference ability;
- 4) Metal casing armoring temperature sensor, high stability under strong magnetic and high radiation;
- 5) According to the radiation and magnetic field intensity, special shielding and protection schemes can be customized, such as adding lead plate shield, Permalloy shield, PCB lead plate protection, cold screen nanocomposite coating protection.

