

## Pre-installation Checklist

### Conditions for installation:

1. The ambient temperature:  $5 - 35^{\circ}\text{C}$ , and the relative humidity:  $\leq 80\%$ .
2. The laboratory should be free of violent vibration, airflow, strong electromagnetism and corrosive gases.
3. Equip the laboratory with proper work surface:  $700\text{ mm(W)} \times 2000\text{ mm(L)} \times 600\text{ mm(H)}$ .
4. Equip the laboratory with stable power supply of  $220\text{ V} \pm 22\text{ V} / 50 \pm 1\text{ Hz}$  (grounded well). Two groups of power supply in different phases: Controlling power  $\geq 1\text{ kW}$ , and heating power  $\leq 5\text{ kW}$ . Reserve locations for one air switch and one three-core socket (20 A, 220 V).

### Preparation:

1. Prepare Magnesia (HG/T2573): A purity of industrial products, grinded into powder with the particle size  $< 0.1\text{ mm}$ .
2. Dextrin: A purity of chemical pure, 100 g/l solution for use.

3. Please prepare the substances as follows (you can select either one) for the experiment using reducibility atmosphere condition:

(1) Carbon Substance: The ash content < 15%, industrial particle size <0.5mm graphite and active carbon (unnecessary in case of non-envelope carbon analysis)

(2) Hydrogen and Carbon Gas Cylinder or the Mixture Cylinder of Carbon Monoxide and Carbon Dioxide.

4. For the gas method, please confirm connectors of the cylinder are consistent with Chinese standard (G5/8"-RHF) (the screw thread is on the outside) to make it match with the reducing valve the instrument equipped with, if not, please prepare the reducing valve by yourself.

5. Porcelain and glass: For the regulation, incineration and placement of ash pyramid.

6. Mortar: For grinding the samples.

7. Beaker: For preparing the dextrin solution.

8. Standard ash.