



#### Application:

Vacuum graphite tube sintering furnace is a vertical structure resistance furnace which uses graphite tube as heating element, electrical control cabinet integrated with furnace body, loading on the bottom of furnace driven up and down by a motor. The furnace is mainly used to sinter metallic compound, ceramics, inorganic compound and nanometer material under the condition of the vacuum and protective atmosphere.

#### Features:

The furnace with the vertical structure is composed of furnace body, furnace bottom lifting mechanism, vacuum system and temperature control system.

1. Dual shell structure with the built-in water cooling jacket, inner and outer shell are stainless steel. Water is injected into the middle of inner and outer shell to cool. A viewing hole and thermocouple hole are made on the side of furnace body, using tungsten rhenium thermocouple to gauge the temperature, thermocouple can go out of high temperature zone automatically when high temperature arises. High temperature uses infrared thermocouple to measure the temperature.

2. Easy to operate the furnace via electrical control system. Temperature are controlled through PLC analog, or use temperature programmable program controller to automatically complete the process of sintering. Control system possesses alarm and protective functions of water interruption, over-temperature and over-current etc.

#### Main parameters:

Model	Rated Power	Rated Temperature	Working Size	Ultimate Vacuum
ZT-15-20	15KW	2000℃	Ø80X100mm	10 <sup>-3</sup> Pa
ZT-18-22	18KW	2200℃	Ø80X100mm	10 <sup>-3</sup> Pa
ZT-25-20	25KW	2000℃	Ø90X120mm	10 <sup>-3</sup> Pa
ZT-40-20	40KW	2000℃	Ø160X160mm	10 <sup>-3</sup> Pa



#### Application:

Furnace with the periodic operation, adopts the graphite tube as heating element, applicable to sintering experiment of metal and non-metallic inorganic material under the condition of vacuum or the protective atmosphere, also is used to do the roasting purification of the optical material.

#### Features:

- 1.The furnace is vertical structure with the built-in water cooling jacket.Inner layer is stainless steel with the specular polish.Outer layer is high quality carbon steel with the rust-proof treatment. The furnace cover has viewing window and flapper. The cover is opened by the hand.
- 2.Main loop of circuit system is low voltage large current input.Automatic control adopts the mode of PLC plus touch screen.Going by the program, auotmatically perform the process ofthe motion, temperature rise and fall. Simple to operate it. Control system possesses alarm and protective functions of water interruption, over-temperature and over-current etc.

#### Main parameters:

Model	Rated Power	Rated Temperature	Working Size	Ultimate Vacuum
ZT-50-22	50KW	2200℃	Ø160X200mm	10 <sup>-3</sup> Pa
ZT-60-20	60KW	2000℃	Ø260X270mm	10 <sup>-3</sup> Pa
ZT-100-22	100KW	2200℃	Ø320X320mm	10 <sup>-3</sup> Pa