



Technical resources

Box-Type Atmosphere Furnace

Model: TC-12AN/14AS/17AM

<https://www.tencanballmills.com/en/products/sintering-series/vacuum-atmosphere-furnace.html>

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Box-Type Atmosphere Furnace

Model: TC-12AN/14AS/17AM

Box-type atmosphere furnace with pre-evacuation for low oxygen, ideal for inert gas (nitrogen, argon) heat treatment. Used in labs and industries for controlled atmosphere sintering and annealing.

Technical specifications

Maximum temperature	1200/1400/1700°C
Ultimate vacuum	-0.1MPa
Maximum vacuum	-0.08MPa

These specifications describe the series. Confirm the selected model, power supply and configuration before ordering.



The box-type atmosphere furnace ensures that the oxygen content in the furnace is reduced to a minimum by pre-evacuating, and then inert gases such as nitrogen and argon are introduced to obtain an ideal heat treatment environment under atmosphere protection.

Because of its excellent atmosphere environment and compact practicality, it has been widely used in materials laboratories or small batch production of semiconductors, silicon nitride and other products.





Technical parameters

Standard specifications: Type 1200

model	Maximum temperature(°C)	Operating temperature(°C)	Furnace size (width*height*depth) mm	Voltage(V)	Power(kW)
TC-12AN-2	1200	1100	120*120*130	220	1.2
TC-12AN-3	1200	1100	150*150*150	220	2.5
TC-12AN-5	1200	1100	150*150*200	220	3
TC-12AN-8	1200	1100	200*200*200	220	5
TC-12AN-12	1200	1100	200*200*300	220	6
TC-12AN-27	1200	1100	300*300*300	380	8
TC-12AN-36	1200	1100	300*300*400	380	10
TC-12AN-64	1200	1100	400*400*400	380	16

Standard specifications: Type 1400

model	Maximum temperature(°C)	Operating temperature(°C)	Furnace size (width*height*depth) mm	Voltage(V)	Power(kW)
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TC-14AS-1	1400	1300	100*100*100	220	1
TC-14AS-2	1400	1300	120*120*130	220	2
TC-14AS-3	1400	1300	150*150*150	220	3
TC-14AS-5	1400	1300	150*150*200	220	4
TC-14AS-8	1400	1300	200*200*200	220	5
TC-14AS-12	1400	1300	200*200*300	220	7
TC-14AS-27	1400	1300	300*300*300	380	9
TC-14AS-36	1400	1300	300*300*400	380	11
TC-14AS-64	1400	1300	400*400*400	380	18

Standard specifications: Type 1700

model	Maximum temperature(°C)	Operating temperature(°C)	Furnace size (width*height*depth) mm	Voltage(V)	Power(kW)
TC-17AM-1	1700	1600	100*100*100	220	1
TC-17AM-2	1700	1600	120*120*130	220	3
TC-17AM-3	1700	1600	150*150*150	220	4
TC-17AM-5	1700	1600	150*150*200	220	5
TC-17AM-8	1700	1600	200*200*200	220	7
TC-17AM-12	1700	1600	200*200*300	220	8
TC-17AM-27	1700	1600	300*300*300	380	10
TC-17AM-36	1700	1600	300*300*400	380	12
TC-17AM-64	1700	1600	400*400*400	380	20

- RT~1700°C□
- The furnace uses alumina polycrystalline fiber, which has a constant temperature field and no pollution.
- Fully enclosed structure furnace, double-layer thickened steel shell, ultimate vacuum up to -0.1MPA.
- The top, left side, right side and back are all made of 12MM solid square steel as reinforcement.
- No deformation even after vacuuming. The maximum vacuum degree can reach -0.08MPA.
- The temperature control system adopts industrial precision 0.2 level intelligent instrument, PID adjustment, and 50-segment programming.
- The furnace door has good sealing performance, four handwheels lock the furnace door tightly, and the silicone ring seals it.

Standard accessories:

Furnace door block fire brick (except model 1200)
high temperature gloves
Crucible tongs
manual
Two thermal elements (except type 1200)
Rotary vane vacuum pump

Optional accessories:

Direct connected vacuum pump
Touch screen/computer connection software
Furnace crucible (multi-layer kiln furniture)
Heating elements (silicon molybdenum rods, silicon carbon rods)
Gas system (float/proton flow meter, 2-way/3-way gas)

Contact

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Before operation, review the selected model's instructions and the material requirements.