Electric furnace with ultrahigh-speed heating (SF)

This ultrahigh-heating electric furnace is the solution for addressing the shortfalls of conventional electric furnaces. It requires only ten and several minutes to increase temperature from room temperature to 1600℃, while conventional electric furnaces take several hours to attain the required temperature.

Features

- Heating rate is substantially rapid.
- Can be used under very high temperatures.
- Is equipped with a complete set of safety assuring functions.
- Saves space.
- Provides effective insulation and cooling.
- Is equipped with automatic temperature controller.

【Maintenance】

- Heater: Heater is of cartridge type, contributing to easy and quick heater replacement.
- Insulating material: It has special structure design, allowing easy and rapid maintenance.
- ontrol system: Control system is housed and displayed on the same surface, resulting in easy management of maintenance.

【Standard Specifications】

Model	SF-1	SF-2	SF-3	SF-4	SF-5	SF-6
Temperature range	600～1700℃					
Input electric power source	1φ 200～220V					
Rated electric power source	4KVA	5.5KVA	4KVA	5.5KVA	7KVA	8KVA
External dimensions Height	500	500	500	500	500	550
Width	750	750	750	750	750	950
Depth	500	500	500	500	500	600
Internal dimensions Heigh	140	140	165	165	165	200
Width	135	135	160	160	160	200
Depth	150	200	160	215	270	300
Time required for heating to 1000℃(to 1600℃)	3 minutes(12-20 minutes)					20 minutes
Atmosphere	Oxidizing atmosphere (in atmospheric air)					
Heater	Molybdenum disilicide MoSi2					
Control method	P.I.D SCR control					

- Temperature controller is equipped with a program controller.
- It is also possible to connect to a computer for centralized control.
- Large-scale furnaces are also available. Please contact us for details.

※The above-stated specifications may change due to improvements etc.

【Applications】

Industry	Work to be treated	Purpose	Treatment temperature (typical examples)	Remarks
Porcelain and pottery manufacturing industry	Cutting tool, dental porcelain	sintering,baking	1200～1700℃	Various types of work are treated for a variety of purposes.
	Insulating material, grinding stone	sintering		
	Tile	baking		
Electronics industry	IC board	baking	1300～1700℃	Various types of work are treated for a variety of purposes.
	Package	baking		
	Condenser	baking		
Chemical industry	Filter	baking	1600℃	
Chemical synthesis/conversion industry	Mechanical seal	sintering	1500℃	
Ceramic industry	Ceramic art products	baking	1200～1450℃	
Jewelry	Synthetic jewels	baking	1500℃	
Nuclear industry	Nuclear fuel	sintering	1700℃	
Research laboratories	Non-ferrous metal	melting	1700℃	
Cement	Synthetic ceramic material	sintering	1600℃	
Fiber/textile industry	Ceramic fiber	baking	1600℃	
Fiber/textile industry	Carbon fiber	baking	1700℃	
Universities	Inorganic material	combustion	1500℃	

【Example of operating temperature】

Drying (70℃～400℃) — Unglazed pottery (600℃～950℃) — Earthenware (1100℃～1200℃) — Pottery and porcelain (1250℃～1350℃) — Alumina porcelain (1400℃～1700℃)