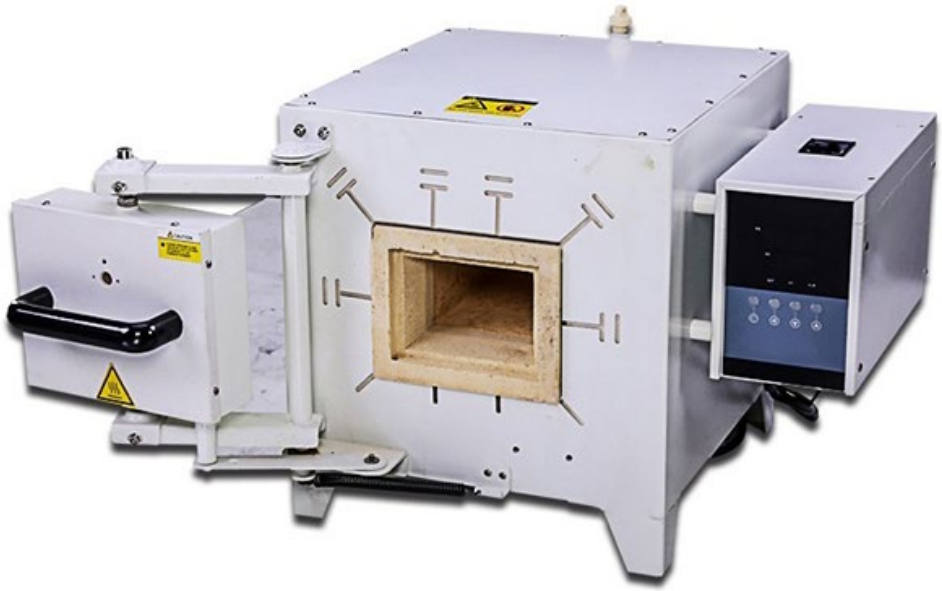
ashing muffle furnace with aluminum silicate inner chamber

Ashing muffle furnace is a high-temperature experimental heating equipment, widely used in sample ashing, heat treatment, sintering, preheating, drying and other experimental operations, suitable for high-temperature calcination of inorganic and organic materials or residue analysis.

Ashing Muffle Furnace



The main features of the ashing muffle furnace:

1. high temperature capability: the working temperature can reach 1200°C, to meet the needs of most laboratory high temperature treatment.
2. integrated structure design: the whole machine is small in size, easy to place on the lab bench, saving space.
3. high-temperature resistant furnace chamber material: closed aluminum silicate furnace chamber, excellent heat preservation performance, fast warming, less heat loss.
4. Parallel left side opening structure: open the door from the left side parallel to the furnace door, to avoid the high temperature area close to the operator, improve safety.

5. intelligent temperature control system: the use of PID regulation technology, you can set the program through the key to keep the temperature stable.
6. perfect safety design: with over-temperature alarm, menu lock and open the door automatically power off and other multiple protection functions.
7. heating system optimization: nickel-chromium aluminum resistance wire embedded in the interior of the furnace chamber wall, to avoid direct exposure, to extend the service life.
8. auxiliary facilities: with observation window and exhaust gas exhaust port, easy to observe the experimental process and exhaust harmful gases.

Core Advantages

1. high efficiency and energy saving: the use of aluminum silicate high-temperature insulation materials, low energy consumption, fast heating speed.
2. high safety: multiple automatic protection mechanism, operation more assured.
3. accurate temperature control: PID intelligent control technology, can realize constant temperature and warming curve control.
4. convenient operation: simple panel design and digital key input, easy to grasp.
5. adaptable: can be used in many types of laboratory and factory testing scenarios.

Working Principle

Ashing Muffle Furnace is heated by converting electric energy into heat energy, using nickel-chromium-aluminum alloy heating wire, which generates heat and transfers it to the inner chamber after being energized. The furnace chamber is insulated with aluminum silicate high temperature insulation material to ensure that the heat is concentrated in the sample area. After the user sets the temperature through the PID controller, the system automatically adjusts the heating power to stabilize the furnace temperature at the set value. After the temperature is reached, the control system makes dynamic adjustments through the feedback loop to keep the heating curve smooth. In addition, the opening and closing of the furnace door is linked with the power supply to realize power failure protection and enhance the safety of use.

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Model	**AF201**	**AF202**	**AF203**
Door opening method	Open the door parallel to the left		
Heating method	heating on three sides, periodic heating up		
Temperature range	300°C to 1200°C		
Temperature resolution	1°C		
Temperature fluctuation	±5%°C		

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Model	AF201	AF202	AF203
Ambient to temperature time	75 minutes	80 minutes	80 minutes
Exhaust port	diameter 22mmx1, rear chimney		
air inlet	diameter 15, middle of the door		
Inner Chamber material	aluminum silicate		
Heating elements	nickel chromium alloy wire, OCr27A17Mo2		
Heating power	2.5Kw	5kw	10kw
External structure	cold rolled steel plate with chemically resistant surface coating		
Temperature control method	PID		
Program mode	single segment program operation		
Temperature setting method	Light touch four-button action with dual digital display		
Timer	0 to 9999minutes		

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Model	**AF201**	**AF202**	**AF203**
Operating function	Fixed value operation, program operation, timed operation, auto stop		
Additional functionality	calibration function		
Safety device	overcurrent protection switch		
Internal dimensions	w120Xd200Xh80 mm	w200Xd300Xh120 mm	w250Xd400Xh160 mm
External dimensions	w420Xd658Xh610 mm	w500Xd760Xh680 mm	w560Xd860Xh740 mm
Furnace chamber Volume	2L	7L	16L
Power supply	230Vac, 50Hz, 11A	230Vac, 50Hz, 23A	380Vac, 50Hz, 12A
Net weight	67kg	134kg	205kg
Gross weight	80kg	150kg	230kg
Standard configuration	Chimney, open the door and cut off the electricity		