

Inert Ovens | Anaerobic, Oxygen Concentration 20ppm, High Temp.

DNN430C/630C/460C/660C

Forced Convection | Automatic Overheating Preventer | Overheating Preventer | Self-diagnostic Function | Overcurrent Leakage Circuit Breaker

Max. operating temp.	DNN430C/630C: 360°C	DNN460C/660C: 600°C	Oxygen concentration	20ppm	Internal capacity	91L	261L
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An atmosphere furnace with an oxygen concentration below 20 ppm and a maximum operating temperature of 600°C, suitable for high-temperature thermal treatment in an oxygen-free environment.



Features

- Maximum operating temperatures of 360°C and 600°C, with oxygen concentrations below 20ppm, primarily applied in electronic component annealing, LTCC removal, glass substrate annealing, ceramic debinding, etc.
- High gas-tightness pressure chamber construction, short oxygen concentration reaching time, low N<sub>2</sub> consumption.
- Maintaining high gas-tightness through magnetic sealing and a water-cooling mechanism to protect sealing components from thermal effects.
- Quick heating and cooling achievable, with adjustable heating and cooling rates.
- Equipped as standard with a system that condenses and recovers exhaust-gas condensate.
- Liquid crystal touchscreen operation, with both automatic and manual operation modes.

Safety

- Equipped with door detection switch, temperature overheating preventer, oxygen concentration abnormality detection, nitrogen pressure detection, chamber pressure testing, nitrogen flow detection, cooling water flow detection, leakage sensor, overcurrent leakage protection and other devices.

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Specifications

Model		DNN430C	DNN630C	DNN460C	DNN660C	
System		Nitrogen replacement + Forced convection				
Performance	Operating temp. range	Room temp. +50~360°C		Room temp. +50~600°C		
	JTM standard	Temp. adjusting accuracy	±0.5°C (at 360°C)		±0.5°C (at 600°C)	
		Temp. distribution accuracy	±5°C (at 360°C)		±8.0°C (at 600°C)	
	Max. temp. reaching time	Approx. 100 min	Approx. 80 min	Approx. 120min	Approx. 150 min	
	Oxygen concentration	Below 20ppm				
Oxygen concentration reaching time	≤20 min (250L/min nitrogen)	≤25 min (250L/min nitrogen)	≤20 min (250L/min nitrogen)	≤25 min (250L/min nitrogen)		
Composition	Interior material	Stainless steel plate				
	Exterior material	Cold rolled steel plate with chemical proofing coating				
	Insulating material	Aluminosilicate cotton				
	Heating method	Stainless steel heating pipe		Alloy heating wire		
	Heating power	Main heater	6.0kW	9.0kW	9.0kW	13.5kW
		N <sub>2</sub> preheating	1.0kW			
Cooling mechanism	Stainless steel cooling water heat exchanger					
Controllers	Temp. control method	PID control				
	Temp. controller	Liquid crystal touchscreen + PLC				
	Operation functions	Manual operation, automatic operation				
	Program mode	9 program operations, each program can set 9 segments (expandable)				
	Additional functions	3-level authorization login				
	Heater circuit control	SSR drive				
Sensors	K-type thermocouple (temperature control and overheating prevention)					
Safety device	Door detection switch, overheating preventer, oxygen concentration abnormality, temperature overheating of N <sub>2</sub> preheating, low water pressure detection, chamber pressure testing, low N <sub>2</sub> pressure detection, cooling water flow detection, N <sub>2</sub> flow detection, fan overload detection, overcurrent leakage protection, etc.					
Specifications	Internal dimensions	450×450×450	660×600×660	450×450×450	660×600×660	
	External dimensions (W×D×H mm)	1090×1170×1570	1300×1320×1780	1240×1010×1750	1450×1160×1930	
	Internal capacity	91L	261L	91L	261L	
	Shelf layer/spacing	12 layers/30mm	19 layers/30mm	12 layers/30mm	19 layers/30mm	
	Exhaust vent	40KF flange				
	Nitrogen inlet	Rc1/2				
	Cooling water inlet	Rc3/4				
	Hot water outlet	Rc3/4×2				
	Power supply (50/60Hz) rated current	3 phase AC380V 16A	3 phase AC380V 25A	3 phase AC380V 24A	3 phase AC380V 28A	
	Weight	Approx. 800kg	Approx. 1000kg	Approx. 800kg	Approx. 1000kg	
Options	Shelf plate, vacuum pump, temperature data logger, multicolor light tower, Ethernet communication, UPS backup power supply, scanner, PC components, temperature measurement components, water leak detection, etc.					