Forced

Natural

convection

convection

Fine type

Options

Labware

Far infrared

Heating

Inert

Clean

Inert &Clean

Vacuum Semiconductor & Electronics Battery Flat panel display Others

Drying

Antiexplosion

Inert&Clean Oven Clean class 100, O2 concentration 20ppm

DTN430C/630C/450C/650C

Max. working temp DTN430C/630C: 360°C DTN450C/650C: 500°C

Clean Class 100

Atmosphere furnace of clean class 100 and O₂ concentration lower than 20ppm, mainly applied to cure wafer of semiconductor, etc.



Features

The max. working temp. is 360°C and 500°C, clean class 100, O₂ concentration is lower than 20ppm, mainly applied to cure wafer of semiconductor (photoresist PI, PBO curing), glass substrate baking, high-precision anneal, etc.

20ppm

91L

216L

Internal Capacity

- Use heatproof HEPA, keep the clean class 100 in chamber, able to conduct high temp. baking in clean environment.
- Pressure tank structure of high gas tightness, O₂ concentration reaching time is shorter and N2 consumption is very low.
- Use magnetic seal to keep high gas tightness, and use water-cooling mechanism to protect seal components not to be influenced by heat.
- Be able to make temp. rise / fall quickly, and the rise/fall rate is adjustable.
- The standard configuration contains waste liquid recovery device, cooling and recycling the gas.
- LCD touch screen operation with auto/manual mode.

Safety

 Safety devices includes door detector switch, overheat protector, O₂ concentration error, N2 pressure detection, N₂ flow detection, cooling water flow detection, water leakage sensor, overcurrent ELB, etc..

规格

| Model | | | DTN430C | DTN630C | DTN450C | DTN650C |
|---------------|--------------------------------------|------------------------|--|---|---|--------------------------------------|
| System | | | N2 replace + Forced convection circulation | | | |
| Performance | Operating temp. range | | RT +50 ~ 360°C RT +50 ~ 500°C | | | |
| | Temp. control accuracy | | ±0.5°C(at360°C) | | ±1.0°C(at500°C) | |
| | Temp. distribution accuracy | | ±5.0℃ (at360℃) | | ±8.0℃(at500℃) | |
| | Max. temp. reaching time | | Approx. 80min | | Approx. 110 min | |
| | O ₂ concentration | | Below 20ppm | | | |
| | O2 concentration reaching time | | \leq 20 min (250L/min N ₂) | ≤ 25 min (250L/min N ₂ |) \leq 20 min (250L/min N ₂) | ≤ 25 min (250L/min N ₂) |
| | Clean class | | Class 100 at constant temp. | | | |
| Structure | Interior | | Stainless steel plate | | | |
| | Exterior | | Cold rolled steel plate with chemical proofing coating | | | |
| | Insulating material | | Aluminum silicate wool | | | |
| | Heater | | Stainless steel heating pipe | nless steel heating pipe Alloy heating wire | | |
| | Heating power | Main heater | 6.75KW | 9KW | 9.5KW | 14.2KW |
| | | N ₂ preheat | 1KW | | | |
| | Cooling mechanism | | Stainless steel cooling water heat exchanger | | | |
| | HEPA filter | | Dust collection efficiency: 0.3um particle more than 99.97% | | | |
| Controller | Temp. control | | PID control | | | |
| | Temp. controller | | LCD touch screen +PLC | | | |
| | Operation function | | Manual fixed temp. operation, auto program operation | | | |
| | Program mode | | 9 program operations, 9 steps for each program (extensible) | | | |
| | Additional function | | User level authentication | | | |
| | Heater circuit control | | SSR driving | | | |
| | Sensor | | K thermocouple (temp. controller and overheat protector) | | | |
| Safety Device | | | Door detector switch, overheat protector, O_2 concentration error, N_2 preheat overheat, low water pressure detection, low N_2 pressure detection, cooling water flow detection, N2 flow detection, fan overload detection, overcurrent ELB, etc | | | |
| Spec. | Internal dimensions (W×D×Hmm) | | 450×450×450 | 660×500×660 | 450×450×450 | 660×500×660 |
| | External dimensions (W×D×Hmm) | | 1090×950×1540 | 1300×1000×1750 | 1240×1010×1750 | 1450×1060×1960 |
| | Internal capacity | | 91L | 216L | 91L | 216 L |
| | Shelf plate steps/Shelf rest pitch | | 12 steps /30mm | 19 steps /30mm | 12 steps /30mm | 19 steps /30mm |
| | Exhaust port | | 40KF flange | | | |
| | N2 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 19A | 3 phase AC380V 20A | 3 phase AC380V 27A |
| | Weight | | Approx. 900kg | Approx. 1100kg | Approx. 900kg | Approx. 1100kg |
| Options | | | Shelf plate, vacuum pump, temp. recorder, indicator lamp (stand-by/running/malfunction), Ethernet communication | | | |