KENTON®

DZF series
Vacuum oven

Scope:

Vacuum Drying oven widely used in biochemical, chemical and pharmaceutical, health care, agricultural research, environmental protection and other research applications for powder drying and roasting, as well as disinfection and sterilization of glass containers used.

Technological Advantages

The Vacuum Drying Oven offers significant technological advantages, particularly in creating a vacuum environment that reduces the boiling point of liquids. This feature allows for the effective drying of heat-sensitive substances without compromising their integrity. Additionally, vacuum drying is particularly beneficial for challenging samples, such as powders or granular materials, as it significantly shortens drying time. This efficiency makes it an ideal choice for a variety of applications where traditional drying methods may not be suitable.

Structural Features:

Chamber Design: The inner chamber features an arc-shaped design, while the outer structure is constructed from cold-rolled steel plate with an electrostatic spray finish. Options for a stainless steel or cold-rolled steel interior are available.

Reinforced Liner: The inner liner is 2.5 mm thick and pressure-resistant, with structural corner steel reinforcements on all five faces for added durability.

Adjustable Glass Door: The glass door has adjustable elastic screws at all four corners to fine-tune the tightness with the inner tank door. It includes an overall silicone door seal ring to maintain a high vacuum environment.

Control Panel: The microcomputer intelligent PID control system features timing and over-temperature alarms, effectively reducing temperature fluctuations.

Heating Structure: This series offers three heating types:

- The DZF-60XX series heats from the left and right sides of the inner liner.
- The DZF-50XX series heats from all four sides.
- The DZF-30XX series allows for independent heating and control, catering to different customer needs.

Safety Features: The oven door is constructed from thickened reinforced glass and features double-layer explosion-proof safety glass for user protection.

Heat Transfer: Laminates made of aluminum enhance heat transfer efficiency within the chamber.

Optional parts

1. Vacuum pump
2. Programmable segmented LCD temperature controller
3. USB interface record the memory
4. RS485 computer interface
5. Aluminum shelf
6. Observation window with lighting
7. Inert gas interface
8. Printer

vacuum pump

record the memory

LCD segmented controller

RS485 interface

Printer

Model	Voltage V	Temp.range ℃	timer	Accuracy ℃	Vacuum Pa	power KW	Interior（mm）（H×W×D）	Exterior（mm）（H×W×D）	Package Size（mm）（H×W×D）	N.W KG
DZF-6020(S)	110/220	50~200	0~999m/H	± 0.5	Absolute pressure 0~999.9mb or 0~99.99kp standard atmospheric pressure <133pa or-0.1 mpa	0.8	280×300×300	450×635×465	570×720×545	42.5
DZF-6050(S)						1.2	400×415×350	570×750×515	690×830×600	65
DZF-6090(S)						2.4	485×440×425	620×780×600	740*900*710	80
DZF-6130（S）						3	495×495×520	1580×700×670	1700*830*800	120
DZF-3020S						0.8	315×265×280	450×635×465	570×720×545	45
DZF-3050S						1.2	400×370×350	570×750×515	690×830×600	68
DZF-3090S						2.4	485×400×425	620×780×600	740*900*710	85
DZF-3130S										
DZF-5020S						1	280×265×245	450×635×465	570×720×545	43
DZF-5050S						1.4	370×370×315	570×750×515	690×830×600	66
DZF-5090S						2.4	455×440×390	620×780×600	740*900*710	81
DZF-5130S										

1.The modes with “S” is stainless steel inner

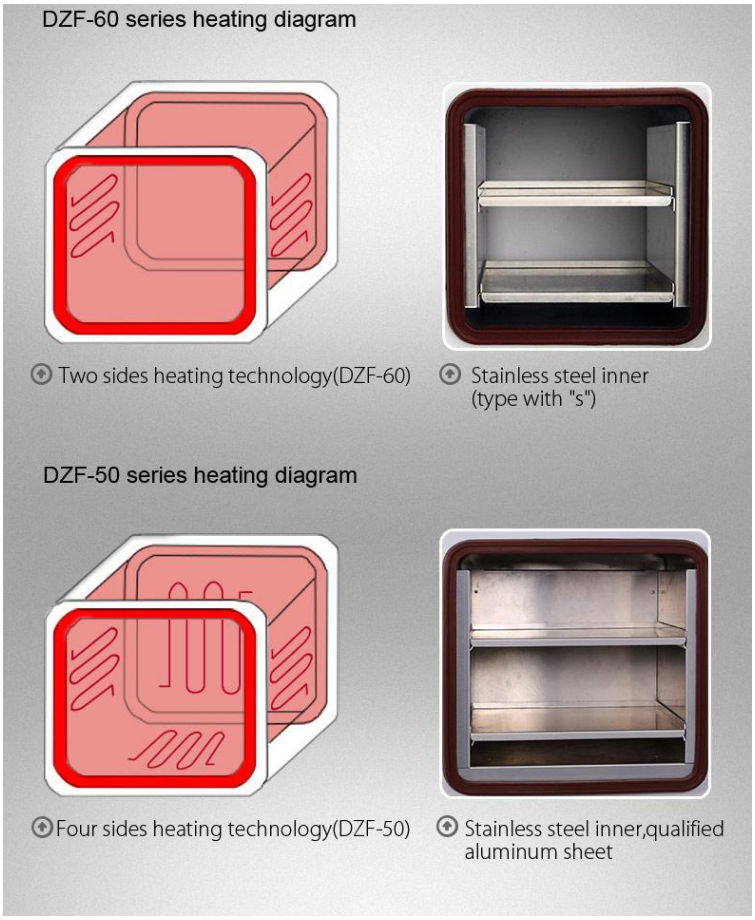
2.The heating time was increased to 100℃ within 30 minutes.

3.The maximum load of each shelf is 20 KG and the maximum total load of the inner liner is 65 KG.

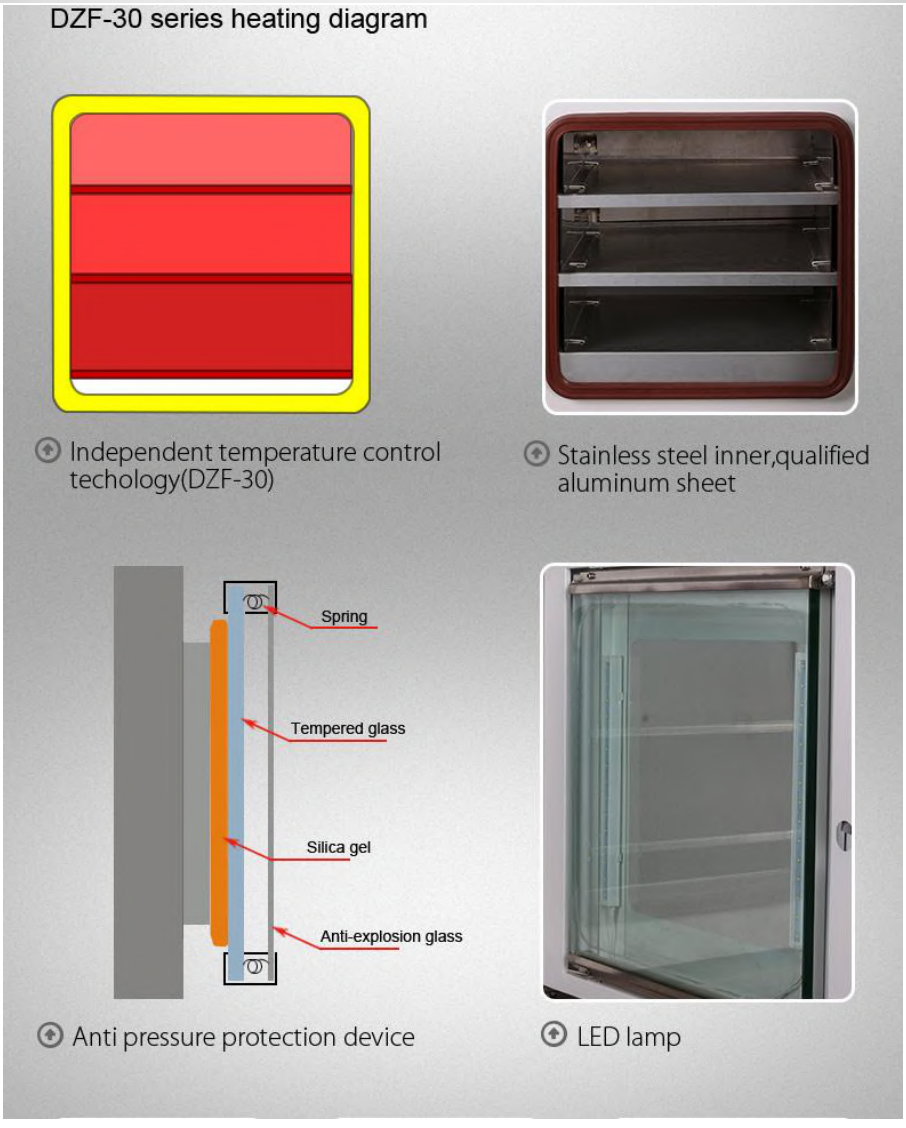
Heating Principle and Structure

In a vacuum state, heat energy cannot be transmitted through airflow, as there is no medium for conduction. Instead, heat is transferred solely through the contact surfaces and layers of the inner tank. To optimize this process, we have designed three distinct heating structures:

DZF-60 series: 2 sided heating
DZF-50 series: 4 sided heating

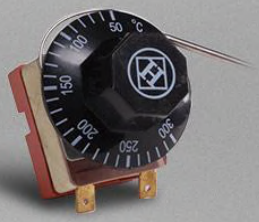


DZF-30 series: Individual shelf heating



Features

1.Vacuum pump



2.Independent temperature controlle

3.Tray material, LED lighting lamp

4. 30 sections temperature controller

Comparison for vacuum oven DZF and KZ series.

Vacuum oven	KZ-G Advanced Professional Edition	KZ Professional model	DZF-60/S basic	DZF-30S Individual Shelf heating	DZF-50S 4 sides heating
					
controller					
PID LCD	●(LCD touch)	●			
PID Digital			●	●	●
Chamber material					
SUS304 St.steel	●	●	With "S"●	●	●
Galvanized iron			No"S"●		
Brand accessories					
ST bi type thyristor	●	●			
Philip chip	●	●			
Taiwan opitcal coupler	●	●			
Taiwan original magnetic valve	●				
Original vacuum sensor	●				
Vacuum degree display					
LCD screen	●(LCD touch)				
Digital		●			
pointer			●	●	●
Heating element					
St.steel	●	●	"S"●	●	●
Carbon steel			no"S"●		
Vacuum control					
automatic	●				
manual		●	●	●	●
Pressure-suspension protection c	●				
Individual shelf heating				●	
4 sides heating					●
RS232 PORT	●	●			
Remote control monitor	●	●			
S.H-shelf heat transfer technology	●			●	
ALLHEAT chamber preheating	●	●			●
ALLSENS temp.control	●	●			
Insulation technology	●	●			

Insulation layer	Glass fiber	Glass fiber	Rock wool	Rock wool	Rock wool
Temp.range℃	50-250	50-250	50-200	50-200	50-200
Temp.accuracy℃	±0.1	±0.1	±0.5	±0.5	±0.5
concentration	±0.5%	±0.5-1%	±1%	±1%	±1%
timer	●	●	●	●	●
Over-temp.alarm	●	●	●	●	●
warranty	3 years	3years	2years	2years	2 years

KENTON APPARATUS LTD.

Manufacture of drying oven, lab incubator, climate chamber, laminar flow cabinet, biological safety cabinet(OEM,ODM)

Kenton is a laboratory instrument manufacturer. In 1999, Kenton produced the first batch of 101 series drying oven and launched them on the market. Later, it successively launched incubator, biochemical incubator and other series. In 2005, we obtained ISO: 9001 quality certification, and in 2008-2012, we successively obtained CE certification. In 2013, a new generation of product series was introduced, and its functions and uses were comprehensively upgraded. The liner material was upgraded to SUS 304 stainless steel. In 2011, we expanded the global market, and now our products are sold to Europe, America, Southeast Asia major markets. Kenton manufactures laboratory equipment under our own brand. Our product line includes biological safety cabinets, artificial climate chambers, drying ovens, incubators, high temperature chambers, humidifiers, water baths, industrial air ovens, laminar flow cabinet, biochemical incubators, vacuum ovens, constant temperature and humidity chambers, and light incubators, among other series. The 30,000 sets produced annually are expected to expand at a pace of 20% annually. It has emerged as South China's biggest and most significant equipment manufacturer. The business has launched Kenton Technology Ltd. to concentrate on the development of supporting equipment in the disciplines of biological research and life sciences, in response to changes in worldwide market demand. We increased the new product series, which includes: blood oscillator, anaerobic oven, (Ultra)low temperature refrigerator, non-pipeline clean gas fume hood, sterile isolation cabinet, drug testing safety cabinet, etc., via independent research and development and technical advancement. Numerous scientific research departments, medical preservation, genetic vaccination, and other businesses make extensive use of our goods. In the meanwhile, we have expanded our recognition and support and have sold to Europe, America, Southeast Asia, Australia, the Middle East, and other international markets thanks to consistent investment, research and development, and advancements in workers, equipment, and technology. To supply top-notch goods and services to reputable laboratories and scientific research centers, as well as to mining and industrial companies both domestically and internationally.

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