

DR-H305 Ozone Aging Test Chamber



The ozone aging test chamber is a specialized device designed to simulate and accelerate the aging process of materials caused by exposure to ozone. By precisely controlling the ozone concentration, temperature, and humidity within the chamber, it enables researchers and manufacturers to test the durability, resistance, and performance degradation of various materials such as rubber, plastics, and elastomers. This helps in evaluating the long - term reliability of materials under ozone - rich environments, ensuring that products meet quality and safety standards before they are put into practical use. It plays a crucial role in the development and quality control of materials in multiple industries, from automotive to aerospace, by providing accurate and repeatable test results.

FEATURES

- ❖ Simulates ozone-rich environments for aging tests.
- ❖ Precise ozone concentration control from 0 to 500ppm+
- ❖ Uniform ozone distribution with rotating sample racks.
- ❖ Supports both static and dynamic testing modes.
- ❖ Closed-loop system ensures stability and repeatability.



Uniform Ozone Exposure

Rotating (360 ° constant rotation) or fixed placement options ensure uniform ozone exposure across the sample surface. The chamber also supports both static and dynamic tensile fixtures to simulate real-world operating conditions.

Energy-efficient design

VRF technology, based on PID+PWM, uses cold control PID for low - temp energy - saving. During cooling and low - temp constant - temp, it adjusts refrigeration for "cold balance" (no cooling while heating and vice versa). This design saves over 30% energy vs traditional mode.



SPECIFICATIONS

Model		DR-H305-80	DR-H305-150	DR-H305-225	DR-H305-408
Internal Dimension (W*H*D)mm		400*400*500	500*500*600	500*600*750	600*800*850
External Dimension (W*H*D)mm		900*1500*900	950*1050*1500	950*1650*1150	1050*1350*1750
Voltage（v）		Single Phase 220	Single Phase 220	Three Phase 380	Three Phase 380
Performance	Temperature range	15℃~65℃			
	Humidity range	50%~85%RH			
	Ozone Concentration	10~500pphm			
	Temperature Uniformity	±2.0℃			
	Temperature Fluctuation	±0.5℃			
	Humidity Accuracy	0.1% RH			
	Ozone Deviation	≤10%			
	Specimen Rack Rotation Speed	20~25 mm/s			
	Specimen Stretching Frequency	0.5 ± 0.25 Hz (This parameter is applicable only to the dynamic ozone aging test chamber)			
	Elongation Rate	20%			
	Gas Flow Rate	0~60L/min			
	Temperature correction point	+65° C			
	Temperature and humidity calibration points	40° C, 80%RH			
Structures	Interior Chamber Material	304 stainless steel plates			
	Exterior Chamber Material	Stainless steel plate with powder coated			
	Insulation	PU & Fiberglass wool			
	Ozone Generator	Silent discharge type ozone generator			
Regulator	Controller	Color touch screen			
	Program capacity	1000 groups, with up to 100 segments per group. The number of segments for each program can be arbitrarily divided, and programs in each group can be freely linked with one another.			
	Cooling Method	Air-cooled/Water-cooled			
Use	Ambient temperature 5℃ ~35℃； Relative humidity ≤85%； Atmospheric pressure 80 KPa ~ 106 KPa； No strong vibration and flammable and explosive atmosphere around.				

For more requirements regarding product dimensions and parameters, customization can be made according to specific requests.