INNOVATIVE TECHNOLOGIES

Ozone Test Chamber

TT-OC-150

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The Ozone Test Chamber TT-OC-150 is a **precision-engineered system for testing rubber and elastomer products in compliance with international standards such as ASTM D1149, ISO 1431, and JIS K 6259**. Built with a 304 stainless steel interior and wear-resistant coating, it features an AI-controlled digital regulator, “QUA” non-dispersive UV ozone sensor, PID self-tuning, precision gas flow control, and an integrated gas purification system. The chamber also offers optional remote monitoring software for enhanced usability.

Designed for performance and flexibility, it delivers ozone concentration control from 20–1000 pphm with ±10% accuracy, temperature ranges up to +80°C with ±2°C uniformity, and humidity levels of 60% or higher. Adjustable features include gas flow (0–80 L/min), sample movement speed (0–50 mm/s), and dynamic pull-up frequency (0.5 Hz). Its updated sample rack supports both standard dumbbell specimens and actual workpieces, making the TT-OC-150 a reliable solution for evaluating ozone resistance and product durability.

FEATURES/ADVANTAGES

Precision Motorized Sample Holder

The TT-OC-150 features a speed-regulating motor that powers the sample holder, enabling static tensile tests. The test piece follows a controlled cycloidal path, ensuring uniform stress distribution for accurate ozone exposure assessment under dynamic or static conditions.

Durable and High-Quality Construction

The chamber's outer shell is coated with wear-resistant paint, while its interior is made from 304-grade stainless steel. These materials ensure long-term durability, corrosion resistance, and minimal maintenance, even in harsh testing environments.

Dual-Beam UV Ozone Detection

A built-in dual-beam "QUA" non-dispersive UV ozone detector enhances detection accuracy and reliability. This technology offers a stable and repeatable method for detecting ozone levels in accordance with international testing standards.

PID Self-Tuning Control System

Temperature, humidity, and ozone concentration are regulated through a PID self-tuning system. This feature allows the chamber to maintain precise environmental parameters, improving operational convenience while reducing the need for frequent adjustments.

Real-Time Digital Monitoring

Equipped with an automatic digital display controller, the chamber provides accurate, real-time measurements of ozone concentration. The system ensures continuous monitoring through an intuitive interface, supporting consistent data capture during every testing cycle.

Intelligent Gas Flow and Detection System

A built-in gas flow meter offers precise gas flow control at all levels. This is complemented by the "QUA" ozone detector and AI-driven control regulator, creating a highly efficient and intelligent detection system for ozone testing applications.

Advanced Gas Conditioning Components

The system includes a gas purifier, constant temperature bath, activated carbon absorber, and silica gel dryer. These components work together to ensure clean, stable gas delivery and uniform ozone exposure throughout the chamber.

Versatile Operation and Connectivity

The TT-OC-150 supports classical chemical ozone tests and offers optional PC-connected remote monitoring software. With a built-in regulated power supply and calibration interface, the chamber delivers flexible, dependable performance for quality control and R&D.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DETAILS
Inner Chamber Size (mm)	500(W)*600(H)*500(D)
Outer Chamber Size (mm)	1150(W)*1500(H)*750(D)
Temperature Range	RT+10~+60℃
Temperature Fluctuation	±0.5℃
Temperature Deviation	±2.0℃
Temperature Resolution	0.1℃
Relative Humidity	≤65%RH
Humidity Resolution	0.1%R.H
Humidity Deviation	+2/-3%RH
Ozone Concentration	0~1500pphm (adjustable)
Ozone Concentration Deviation	≤10%
Power	3~5KW
Weight	250Kg (551.16 Lbs)

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