

OZONE TEST CHAMBER

MODEL
OTC-RU



Rubber, Cables, Fender & Elastomer Testing Ozone Chamber

**For Determining Ozone Resistance, Ozone Cracking,
Life Testing based on Ozone Climate Control**

**As per ASTM, ISO Test Standards
Custom Built as per ISI, MIL, SIS, NGF, DIN,
BS, JIS, FT Test Standards**

FEATURES:

- ◆ Highly accurate UV Absorption based ozone measurement method
- ◆ Fully automatic programmable Climate Control System with optional Temperature and Humidity Control
- ◆ Excellent repeatability and Control Accuracy
- ◆ Menu driven display makes operation simple
- ◆ Closed Loop Fuzzy Logic Control System ensures highly stable ozone concentration level
- ◆ Built in Safety interlocks with integrated Ozone Destruct System for environmentally safe operation
- ◆ Calibration traceable to NIST

APPLICATIONS:

- ◆ Testing of Rubber and Elastomer
- ◆ Meets most International Test Standard
- ◆ Testing material for environmental

The OTC-RU Test Chamber series is designed to test Rubber Material for Ozone Resistance. The Ozone Test Chamber consists of four integrated modules: Ozone (O₃) Concentration, optional Humidity and Temperature Controlling Module, Ozone Generating Module, Test Chamber Module, Safety Interlocks Modules.

The Ozone Monitoring and Ozone Generating Module work together via Closed Loop Fuzzy Logic Control System to provide highly stable ozone concentration and other Process Parameters over the test period.

The chamber can be programmed for ozone concentration, test start time and test duration. During the test user intervention is not required, the test chamber has Fuzzy Logic Control System that automatically ensures the programmed ozone concentration required for the duration of the test.

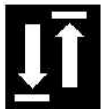
The Test Chamber Module is constructed of stainless steel. The chamber is provided with a door with a silicone door seal for positive sealing and also includes a glass-viewing window for environmentally safe operation. The Safety Interlocks Module automatically shuts down ozone generator whenever the test chamber door is open and locks the chamber door whenever the ozone concentration is above the safe levels.

Your Partner for Instrumentation & Control

Ozone Analyzer From: **IN USA INCORPORATED**

87, Crescent Road Needham, MA 02194 U.S.A

Tel.: 1-781-444-2929 **Fax:** 1-781-444-9229, **Website:** www.inusaozone.com



Manufactured and Service by: **GORDON SOLUTIONS**

21, Saptkiran Society, Nr. Nehrunagar Cross Road, Ambavadi, Ahmedabad-380 015

Phone: +91-79-26308326 **Mobile:** +91-98245 96061

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OZONE TEST CHAMBER

Model
OTC-RU

SYSTEM SPECIFICATIONS

| Model | RU1 | RU1A | RU2 | RU2A | RU3 | RU3A |
|-----------------------------------|--|-------|---------------------|-------|--|-------------|
| Testing Methods: ¹ | C, D, F, H, G, I, J | | A, E, F, G, H, J, I | | A, C, D, F, G, H, I, J | |
| Ozone Generator: | Quartz UV | | Corona Discharge | | Quartz UV & Corona Discharge | |
| Ozone Range: | 0–250 pphm 0–1000 pphm* | | 0–300 ppm | | 0–250 pphm, 0–300 ppm, 0–1000 pphm* | |
| Inlet Air Flow: CFM | 0–6 | 0–15 | 10–20 | 10–20 | 10–20, 0–61 | 10–20, 0–15 |
| System Accuracy: | <u>Measurement</u> : 1% of reading or better | | | | <u>Control</u> : 5% or better | |
| Temperature: | Ambient to 91° C \pm 1 °C | | | | | |
| Humidity: Θ | Range: Ambient to 95% \pm 2% RH | | | | | |
| Chamber Dimensions: ** | A | B | A | B | A | B |
| Oven Chamber: m ³ | 0.142 | 0.443 | 0.142 | 0.443 | 0.142 | 0.443 |
| Exterior Dimensions: ² | X | Y | X | Y | X | Y |
| Net Weight: kg | 180 | 261 | 273 | 355 | 282 | 364 |

¹ Test Method References

| | | |
|-----|---------------------------|--|
| (A) | ASTM D470 | Cross linked Insulations and Jackets for Wire and Cable |
| (B) | ASTM D518 | Rubber Deterioration–Surface Cracking |
| (C) | ASTM D1149 | Rubber Deterioration–Surface Ozone Cracking in a Chamber |
| (D) | ASTM D1171 | Rubber Deterioration–Surface Ozone Cracking Outdoors or Chamber |
| (E) | ASTM D1352 | Ozone–Resisting Butyl Rubber Insulation for Wire and Cable |
| (F) | ASTM D3395 Θ | Rubber Deterioration–Dynamic Ozone Cracking in a Chamber |
| (G) | ASTM D4575 | Rubber Deterioration Reference and Alternative Method(s) for Determining Ozone Level in Laboratory Test Chambers, (Method A Only) |
| (H) | ISO 1431–1: 1989 | Resistance to ozone cracking – Part 1: Static strain |
| (I) | ISO 1431–2: 1994 Θ | Resistance to ozone cracking – Part 2: Dynamic strain test |
| (J) | ISO 1431–3: 2000 | Resistance to ozone cracking – Part 3: Reference and alternative methods for determining the ozone concentration in laboratory test chambers |

* With UV lamp/ Corona Discharge Ozone Generator

** Oven Dimensions

| | | |
|---|---------|-----------------------------|
| A | cm (in) | 59 x 44 x 49 (23 x 17 x 19) |
| B | cm (in) | 74 x 74 x 74 (29 x 29 x 29) |

⁴ Exterior Dimensions

| | | |
|---|---------|-------------------------------|
| X | cm (in) | 120 x 62 x 82 (47 x 24 x 32) |
| Y | cm (in) | 135 x 89 x 112 (53 x 35 x 44) |

Test specimen die, mandrel, test rig as per Test Standard ASTM D1149, ASTM D1171, ISO 1431-1: 1989
also Available at competitive Rates

*Specification may change without prior notice

Θ Optional Features

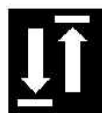
Note: Tailor made Climatic Control; Ozone Test Chamber can be made meeting your requirement of Chamber size, Air Changes, Temperature and humidity range.

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