

# Ozone Test Chamber

Model: UA-2074

*a measurable difference...*

# IDM<sup>®</sup>

instruments

The Ozone Test Chamber consists of one main unit and a sub-unit.

The main unit is inclusive of the operational panel, ozone generation module, ozone detection module, air flow module, cooling compressor, testing chamber, activated carbon cylinder, electro-mechanical system.

The sub-unit is equipped with an IBM compatible PC, monitor and printer.

## Machine Features:

- Fully computerised: Ozone concentration, temperature, chamber humidity and its stability are controlled and dynamic monitored via computer
- Ozone concentration recorded automatically which ozone being detected automatically 0.1 sec one time and being displayed on the computer screen per 2 sec
- A modulus machine which simplifies equipment maintenance
- Testing Chamber Capacity: 150L
- Testing Chamber Dimensions: (L)60x(D)50x(W)50cm
- Temperature Control: SU316 radiator type heater & PT1000 platinum sensor with PID control
- Air-ozone Velocity over specimens 0.3-1m/s
- Specimen Rack: with 9 specimen grips  
Tension distance: 0-90mm, adjustable  
Tension frequency: 0-30times per minute, adjustable  
Rotation revolution: 50Hz – 8 revolutions per minute  
60Hz – 10 revolutions per minute



## Ozone Generation System:

- Ozone Generation: High voltage anticorrosive ceramic plate
- 25-250pphm (extensible as option)
- Ozone Concentration Accuracy: 2% of full scale
- Ozone Destruction: Activated carbon
- Temperature Range: -20°C to +100°C ( $\pm 1^\circ\text{C}$ )
- Temperature Uniformity: @40°C is  $\pm 3^\circ\text{C}$



### Ozone Detective System:

- UV Detective Range: 25 – 250pphm (extensible as option)
- Module Detective System: Under PC and PID control
- Measuring Accuracy: 2% of full scale
- Resolution: 1pphm
- Auto-self-checking: During for first 30 seconds of starting a run, the full systems of the machine will auto-check. The machine will continue heating up if results are normal.
- Detected data including ozone concentration, testing temperature and humidity are renewed every 2 seconds on the display.
- The specially designed calibrator can be automatically carry out a check, comparison, modification and adjustment of the related parameters.
- The Ozone Calibrator is a light and portable instrument.
- Calibration system traceable to the ISO 17025(TAF) standard.

### Standards:

- ASTM D 1171
- ASTM D1149
- DIN/EN 27326
- DIN 53509
- ISO 1431
- ISO 10960
- JIS K-6259



### Options:

- Remarks: Concentration: 1ppm = 100pphm = 1000ppb
- Types: 0 – 1000pphm 0 – 30000pphm
- Accuracy: 10ppm(<math>\pm 0.25\text{ppm}</math>) 300ppm(<math>\pm 7.5\text{ppm}</math>)
- Piston type air compressor (including dehydrator, degrease and dust filter devices)
- Ozone test chamber equipped with humidity setting – with automatic water supply set and PID humidity control functions
- Supply with tailor-made model of an air in-out flow chamber.
- With Camera to display sample cracks: Model No. UA-2074C

### Connections:

- **Electrical:** 220/240 VAC @ 50/60 HZ
- **Air Compressor:** with oil filter and humidity filter to be supplied by the user.

### Dimensions:


Main Unit:

- L: 180cm
- W: 120cm
- D: 105cm

Sub Unit:

- L: 74cm
- W: 70cm
- D: 100cm

## SAMPLE TEST REPORT

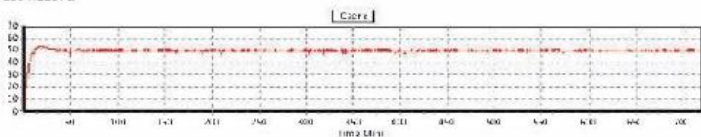
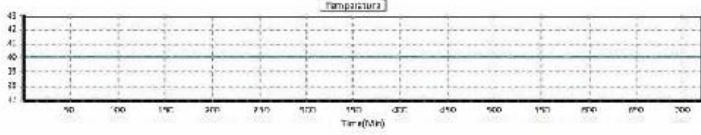
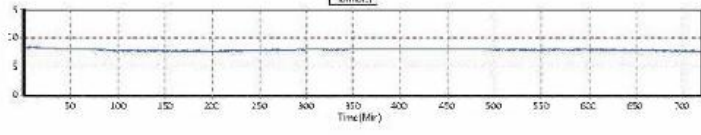


### Ozone Test Report


<Test Condition>

Test Date	2011/11/17	Test Time (hour)	24(hours)
Test No	40C_100pphm	Elongation (%)	10(%)
Ozone Concentration	100(pphm)	Air-Ozone Velocity	0.6(m/s)
Test Temp (°C)	40(°C)	Reciprocating Frequency	0.5(Hz)
Humidity Measured	6(%)	Rotation Frequency	10(RPM)

<Test Record>

<Testing Result>



Manager \_\_\_\_\_
QC Chief \_\_\_\_\_
Tester \_\_\_\_\_