



**Ozone Test Chambers**

## Ozone Test Chambers — Further Information

SATRA ozone testing technology has evolved as a result of more than 30 years of experience. State-of-the-art technology and construction techniques have been combined with expertise to produce a reliable, accurate, fully automated, labour and cost saving unit which is truly environmentally safe.

An integral closed loop air-ozone system ensures that hazardous ozone gas is contained internally — eliminating the need to provide additional external venting and filtering of the spent gases.

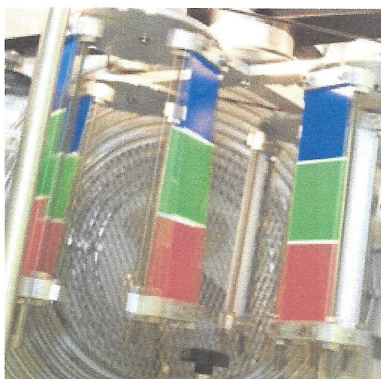
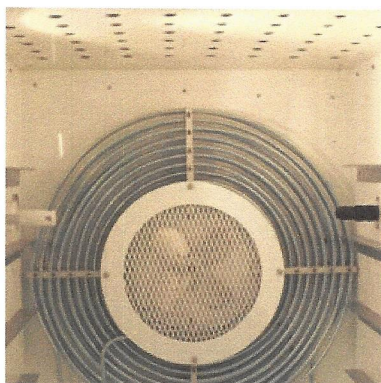
The heavy duty aluminum exposure chamber has an anti-corrosive interior and is complete with racking system to accept sample-mounting apparatus. A range of static and dynamic sample holders to international standards is available. Access is via a double-glazed, airtight and safety interlocked door. Entry to the test area is prevented until the interior environment reverts to safe ambient levels. Exterior lighting is excluded from the test area via a roller shade, while the interior can be lit by the integral test inspection lamp.

Controls and digital displays are logically laid out on a control panel and reflect the simplicity of operation required to set up a test routine. The only requirement is to set the ozone concentration, temperature, relative humidity (903 only), test start/finish/purge time sequence.

The ozone concentration is variable from 1 to 500pphm (1 to 2000pphm option) and is automatically controlled and monitored. The set concentration and monitored concentration are digitally displayed, with the monitored concentration simultaneously recorded.

## Ozone

Digital display proportional controller, switching automatic servo system to control ozone through three ranges: ozone concentration (measured at pphm at NPT) 0–100, 0–250, 0–500. Accuracy  $\pm 5$  per cent F.S.D. or better, typically  $\pm 2$ pphmat 50pphm, measured under stable absorption conditions. Typical recovery times after sample insertion: within 10 per cent of set value is 15 minutes.



## SATRA HTE 703 and HTE 903

SATRA Ozone Test Chambers:- Global reputation established through advanced specifications, quality, safety & service.

## Search Test Equipment

## Navigation

Test Equipment Home

Test Equipment Items  
Test Consumables  
Type of Test

Featured Machines

Tensile Testing Machine  
Slip Test  
Endofoot  
Ozone Chambers  
Pedatron

Download latest catalogue (PDF)

## How can we help you?

## Contact

All enquiries to Equipment Sales on  
+44 (0) 1536 410 000 or email  
test.equipment@satra.co.uk

Generation via UV ozone lamps with maximum ozone generation output approx. 50,000pphm x litres/min, for example 200pphm at 250 litres/min. High ozone option 2000pphm (in conjunction with UV type analyser). Ozonised air flow 50–500 litres/min infinitely variable, allowing a maximum of 3 air changes per minute and an effective velocity of 3.3 to 33.3mm/sec. Internal circulation fan can be switched on to give 60cm/sec (2 feet/sec) according to ASTM D 1149. Ozone concentration measurement accuracy  $\pm$  2pphm. Control accuracy 4 per cent of set point ( $\pm$  2pphm at 50pphm).

Internal circulating fan to ASTM D 1149.

Test timer: Digital programmable seven day, test start–test stop–finish and purge timer.

## HTE 703

Temperature Ranges options for Model 703: 0°C to 70°C,\* 10°C to 70°C. Ambient (+ 5)°C to 0°C.

\*The testing of rubber at low temperatures 0°C is well documented and conclusions from experiments, undertaken using low temperature SATRA test chambers may have an important bearing on the future development of ozone test methods.

Temperature control accuracy:  $\pm$  1°C at 40°C and  $\pm$  3°C at 70°C. Typical temperature and ozone recovery period following sample insertion < 10 per cent of set point after 15 minutes and 4 per cent after 30 minutes (cold start times will vary).

Electrical supply 220–240/1/50/60 rated at 2kVA system unaffected by variations of 10 per cent from normal.

## HTE 903

Temperature Range for 903 model: 23°C to 70°C. All ranges are automatically controlled by a solid state digital proportional controller, temperature digitally displayed and simultaneously recorded on the integral chart recorder.

Relative Humidity control for model 903: Range 50 per cent to 80 per cent RH over exposure chamber temperature range of 23°C to 40°C.

Control  $\pm$  5 per cent RH at constant temperature. Digital proportional controller working in conjunction with a three-channel chart recorder.

Water supply: Maximum temperature 15°C. Minimum pressure 2 bars. Maximum flow required 80 litres/hour. In areas of hard water a de–calcinator should be used and where a maximum water temperature of 15°C cannot be maintained a recirculation chiller system should be employed.

Electrical supply 220–240/1/50/60 rated at 3kVA system unaffected by variations of 10 per cent from normal.