

# Environmental Testing Apparatus with Dust



## The DTS-11

The DTS-11 testing apparatus has been designed to provide and circulate standard particles of controlled concentration to the chamber. The main application it is used for is endurance testing for electronic devices (Disks, players, PC parts, etc.). Testing the load of particles on an instrument is a method used worldwide for endurance testing. The DTS-11 has provided quality tests for many manufacturers in Japan.

### Features

- Controllable at a wide range of concentration
- Continuous measurement and recording by an Aerosol Photometer
- Alarms for abnormal concentration and exhaust blower trouble
- Cyclone and high performance filters provide clean air exhaustion

ITEM	SPECIFICATION
Environment conditions	Temperature: 5 to 50°C, Humidity: 20 to 80%RH
Test particle	JIS standard dust
Concentration range	2 to 100mg/m <sup>3</sup>
Dust evaluation method	Gravimetric method by air sampler
Dust chamber	Dimensions: 1000 X 1000 X 1920mm / Material: Stainless steel SUS304 / Front door: 800W X 450Hmm Sample particle: Partial circulation type / Test equipment stand: Duckboards & wire netting Inside illumination: 10W X 2 / Observation windows: 3 windows (including front) Sampling port: 2 or 3 / Spare port: 3 places with rubber stopper
Dust feeder with clean air unit Model DF-3	Generation volume: Max. 1000mg/m <sup>3</sup> / Hopper capacity: 600ml / Dim.: 520W X 320D X 460Hmm
Dust detector unit Model AP632TM	Sensitivity: 1 CPM = 0.001mg/m <sup>3</sup> / Measuring range: 0.001 to 10mg/m <sup>3</sup> / Accuracy: ±10%
Concentration control unit Model MR-632	Setting value: 0 to 100000 CPM / Limits setting: Low and High
Air sampler	Suction flow rate: Max 20 L/min / Filter holder: φ55mm (B Type)
Recorder Type : PHA 2 pen	Chart width: 180 mm / Temperature: 0 to 50 °C / Dust concentration: 0 to 1000 CPM
Temperature indicator	Temperature range: 0 to 50 °C
Differential manometer for chamber	Measuring range: ±200Pa
Differential manometer for exhaust filter	Measuring range: 0 to 500Pa / 1 each for Exhaust and sampling
Flow meter for exhaust	Flow rate range: 0 to 300 NL/min / Flow rate control: Inverter control
Flow meter for sampling	Flow rate range: 0 to 30 NL/min / Flow rate control: Manual valve
Circulating blower	Control: Inverter control
Timer	Unit: Minute (for air sampler and dust counter)
Air compressor with air dryer	Air volume: 150L/Min / Out put : 1.5kw
Safety device	Compressor: Thermal relay / Exhaust blower: Thermal relay / Sampling Blower: Thermal relay / Circulation Blower: Thermal relay / Dust concentration: Dust controller upper limit setting / Temperature: Recorder alarm
Air intake and exhaust air treatment system	Air intake filter: 300 X 300 X 150Hmm High performance Exhaust Filter: 300 X 300 X 305Hmm / 300 X 300 X 150Hmm High performance / 200 X 200 X 150Hmm High performance / High performance --- Collection efficiency: 99.97% Exhaust blower: VFC-206A / Sampling Blower: VFC-086A / Circulation blower / Orifice flow meter: 5K50A, 0 to 300NL/min / Orifice flow meter : 1/2, 0 to 30NL/min / Glass Cyclone
Alarm settings	Blower malfunction: Dust feeder will stop / Abnormal dust concentration: Dust feeder will stop Abnormal temperature: Secondary power will auto-off
Standard accessories	Desk: 1 pc / Standard particle (JIS standard): 2kg / Analytical balance: Weighing cap.: 180g/32g (2 range) / Desiccator model DC11 / Glass fiber filter, φ55, 100pcs/box: 1 box / Plastic petri dish: 3 sets / Tweezers: 1 pc / Tubes: 1 lot / Recorder paper: 4 rolls