



SALT SPRAY & CYCLIC CORROSION CHAMBERS



**SALT SPRAY CHAMBER SEMI-AUTOMATIC 120LTR
Model : SSC-120**



**SALT SPRAY CHAMBER / CYCLIC CORROSION CABINET
450/1000LTR
MODEL : SSC-450, SSC-1000, CCT- 450, CCT-1000**

STANDARDS CONFIRMED TO:

TEST METHOD	SSC	CCT
ASTM B 117	Y	Y
ASTM D1735	Y	Y
ASTM D 2247		Y
ASTM D 2803		Y
ASTM D 5894	Y	Y
ASTM D 6899	Y	Y
ASTM G 85		Y
BS 3900	Y	Y
BS 7479	Y	Y
DIN 40.046	Y	Y
EIA 364.26	Y	Y
GBT 20853		Y
ISO 16701		Y
ISO 4623		Y
ISO 9227	Y	Y
ISO 6270-2		Y
IEC 60068-2-52		Y
IEC 60068-2-11	Y	Y
JAPAN ACID RAIN CCT		Y
MIL STD 202G	Y	Y
MIL STD 810G	Y	Y
MIL STD 883J	Y	Y
MIL STD 1344	Y	Y
PROHESION	Y	Y
VG 95210	Y	Y
VG 95332	Y	Y
BMW CCT		Y
BMW AA-1029	Y	Y
BMW AA-0213		Y
BMW AA-0224		Y
BMW AA-P175		Y
BMW AA-P224		Y
BMW AA-P184	Y	Y
BMW AA-0324	Y	Y
Ford CETP:00.00-L-467		Y
Ford BI-123-03		Y
GMW 14872		Y
GM 4298P	Y	Y
GM 4465P	Y	Y
GM 9540P		Y
JIS-Z-2371*#	Y	Y

STANDARDS CONFIRMED TO:

TEST METHOD	SSC	CCT
SAE J1563		Y
SAE J2334		Y
SAE J2721		Y
Toyota TSH1555G		Y
Volkswagen PV-1210		Y
Volvo 1027, 1375		Y
Volvo VCS-1027, 149		Y
Volvo VCS-1027, 14		Y
Volvo VCS-423,0014		Y

* 450Ltr & Above only

With feature addition

OUR USP(S) FOR CCT & SSC

1. FULLY MOULDED FIBRE BODY
2. OUR USABLE AREA IS MUCH MORE THAN ANY OTHER COMPETITOR, HENCE GREATER VALUE FOR YOUR MONEY
3. NO NEED FOR A PRESSURISED DM WATER SOURCE
4. 10" HIGH DEFINITION COLOUR TOUCH SCREEN
5. FULLY GRAPHICAL USER INTERFACE
6. UNIQUE MODULAR CONSTRUCTION MAKES IT EASY FOR MOVEMENT, HANDLING, INSERTION INTO LAB , SERVICE AND UPGRADE
7. FULLY ENCLOSED SEPARATE CONTROL UNIT ENSURES BETTER PROTECTION FROM MIST AND LEAKAGES THEREBY ENHANCING THE LIFE AND PERFORMANCE
8. OUR 120LTR SSC IS ONE OF THE MOST COMPACT SYSTEMS IN THE WORLD WITH 100% ASTM B117 COMPLIANCE.
9. SELF/USER DIAGNOSTIC FEATURE IN THE CCT CHAMBERS HELPS REDUCE BREAK DOWN TIME AND ENABLES BASIC SERVICING BY END USER EASIER

A. Salt Spray Corrosion Chamber SEMI-AUTOMATIC
Starting from chamber volumes of 120Ltrs upto 2000Ltrs.
Max. Temperature range upto 50°C

B. Cyclic Corrosion Cabinets : Starting size : 450 Ltr and above
Max. Temperature range upto 60°C

These test Cabinets can accelerate the harsh effects of environment like Humidity, Salt Spray, Condensation, Air Drying, SO2 Dosing etc.

CONSTRUCTION DETAILS :

HOUSING: The complete system, Inner and outer Chamber body is made of moulded FRP, Non corrosive Resin material, making it highly durable and trouble free performance for many years to come. It has ergonomic design with smooth surfaces, giving good aesthetic look.

AIR AND SOLUTION PIPING: Silicone or Polyurethane material.

INSULATION: High density ceramic wool.

LID: The Lid is of FRP, easily removable and with robust gas spring support (for 450Ltr. and above). Ergonomically designed inclined ceiling doom provided with side wall baffles to avoid droplets falling on to specimen. A full size window in the lid enables viewing of samples without disturbing the test.

PRESSURE REGULATION: A precise regulator with gauge ranging from 0-30psi is provided. During Fog Function, the spray air pressure controls the distance of the "throw" of the fog.
(Air line to be provided externally by you)



SOLUTION VOLUME REGULATOR: (Optional)

The volume of spray solution will be controlled by a continuous duty variable speed peristaltic pump and displayed on a acrylic body flow meter



ATOMIZER: Sophisticated and trouble free non-metallic, non-corrosive atomizers capable of producing a fine fog of 20-30 micron.
(Optionally Clear and transparent Lucite atomizer for better aesthetics and sturdiness.)

SPECIMEN PLACEMENT: Acrylic or PVC coated SS rods for hanging the specimen and panel rack are provided. Customized placement solutions can be provided as per requirement.

HEATING OF TEST SPACE: By heaters of suitable capacity embedded around the chamber for uniform temp. inside the chamber

HUMIDIFIER: Made of Non-metallic materials and capable of Withstanding boiling water. The heating is by SS immersion heater with pt-100 sensor and mechanical safety cut off device. It can be easily removed for maintenance and service.

MOUNTING: For 450 Ltr and above the systems are mounted on sturdy cast aluminium wheels with inbuilt leveling screws for easy movement and ease of handling.

MEASURING/CONTROLLING SYSTEM:

1. **(Advanced Control System)** A sophisticated user friendly PLC based single control console with inbuilt PID temperature controllers, timers and automatic water level control in the humidifier and many other salient features for easy and efficient functionality.

OR

(Basic Control System) Individual PID based controllers for Chamber and Humidifier with separate timer and manual control of water level in the humidifier.

2. Internal Heat exchanger to preheat and humidify the in coming air to required temperature before atomisation.
3. Air Purging System to swiftly and safely evacuate the test chamber.
4. Two numbers of collection funnels and measuring cylinders to verify spray Density and collection. (Catch pots)

STANDARD SAFETY FEATURES:

1. Double stage temperature overshoot cutoff for test chamber
2. Double stage temperature overshoot cutoff for Saturator.
3. Low water level in saturator cutoff and indication.
4. Air pressure regulator with locking facility to prevent casual alterations.
5. Mechanical Pressure release valve for the saturator
6. Protection against power supply surge and spikes.
7. View Window to monitor Salt solution level in the tank (450 & above models only)

OPTIONAL ACCESSORIES

01. Lucite Atomizer.
02. Flow Control system, Peristaltic pump and flow meter for salt mist fall rate control.
03. pH meter - portable to monitor solution pH.
04. Humidity Indicator. (wet & dry bulb principle)
05. Special condensing type humidity sensor- for better accuracy and life.
06. Paperless recorder - To continuously log temperature and humidity.
07. Air Compressor.
08. Water de-ioniser - for DM water.
09. Additional Entry ports.
10. Stand/False flooring for heavy components as per requirement.
11. Chamber Illumination in 450 & above models only.
12. Salt solution Tank .
13. DM Water Tank
14. Salt. Solution Low alarm.
15. Stand with trolley for 120 Ltr system only.
16. Pneumatic door lifting arrangement. (450 & above models only)
17. Touch Screen control console. (450 & above models only)
18. Refrigeration Module / Attachment - for below ambient testing. (450 & above models only)
19. Upgrade to CCT. (450 & above models only)
20. Salt Solution agitation.
21. Enhanced Operating Temperature range upto 60°C.
22. Automatic Salt Solution maker.
23. External drive mechanism to conduct live mechanical tests. (customer specific)
24. Control and recording of live systems running inside the chamber. (customer specific)
25. Various types of holding racks can be made to suit various components. (customer specific)
26. Time totalizer, to find the total run time.
27. Third Party Calibration Certificate.
28. SO² gas dosing provision.

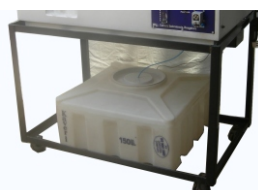
* 450 & above SYSTEMS ARE WITH IN-BUILT SALT SOLUTION TANK.



Lucite Atomiser



Peristaltic Pump
and Flowmeter



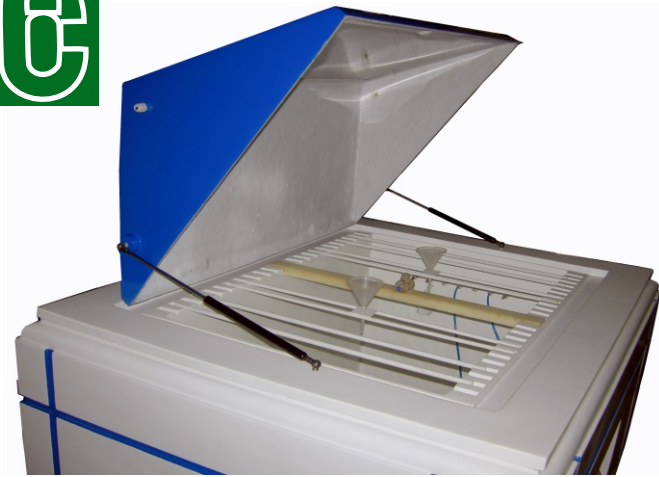
Trolley with Salt
Solu. Tank



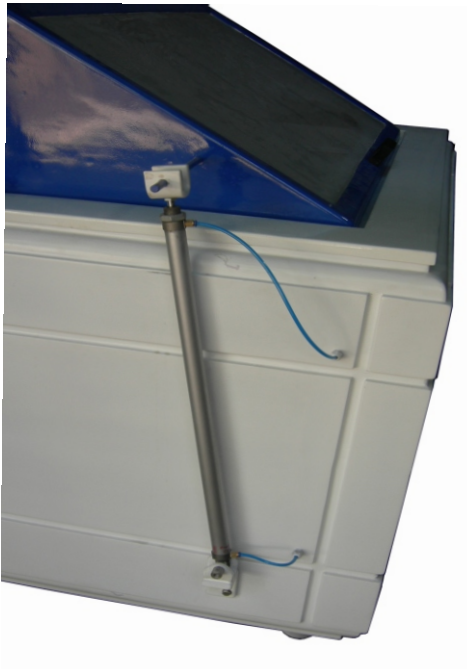
pH meter



DM Plant



RACK AND ROD ARRANGEMENT FOR SPECIMEN



PNEUMATIC DOOR LIFT

The lid is fitted with pneumatic arrangement for automatic opening and closing, to assist the user in specimen loading and unloading.

AIR SATURATOR / HUMIDIFIER

Made of Non-metallic materials and capable of Withstanding boiling water, with SS heater and high and low water level sensor.





CONTROL SYSTEMS

**BASIC CONTROL SYSTEM
WITH OPTIONAL PUMP ATTACHMENT**



**ADVANCED CONTROL SYSTEM
WITH OPTIONAL PUMP ATTACHMENT**



SALT SPRAY 120 LTR



SALT SPRAY / CCT PANELS 450/1000 Ltr.

**DESIGNS AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR
INTIMATION**

CYCLIC CORROSION CABINETS

Dimensional details similar to the SSC-450 & 1000 Ltr systems but with additional controls and features to perform cyclic tests as per various automotive, aerospace and international standards.

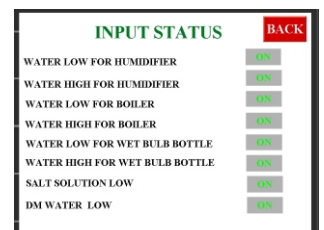
STANDARD FEATURES

01. Pneumatically operated door, by a switch on the front panel
02. Automatic system shutdown on door opening
03. Automatic switching from one stage/cycle to another like Salt spray, Humidity, Dwell, Dry Heat, Immersion, SO₂ dosing, etc. as per the fed program/sequence.

04. User Programmable individual test duration and switching time with provision to repeat the test cycles upto 99 times.



05. Integrated control of the complete system through a Touch screen based graphical controller specially designed for these tests. The system can be programmed as per regular Standards or as per customer requirements.
06. With PC interface for monitoring, logging and programming of the system.
07. Peristaltic pump for accurate control of solu. Dosage and controlled fall rates. Supplied with flow meter.
08. Separate Salt solution tank provided with the system
09. DM Water Tank inbuilt into the system.
10. All components including the boiler made of non metallic components for rust free, trouble free performance for years.
11. Supplied with Lucite clear atomiser for easy maintenance
12. Supplied with filter blocks for salt and DM water intakes to prevent dust particles from entering the system, ensuring lower breakdowns due to Improper handling.
13. With User diagnostic features for monitoring & troubleshooting of input and Output controls and systems.



14. Salt solution Agitation
15. Enhanced Operating temperature range upto 60°C
16. Each Test Cycle can be repeated upto 99 times

CYCLIC CORROSION CABINETS

OPTIONAL ACCESSORIES

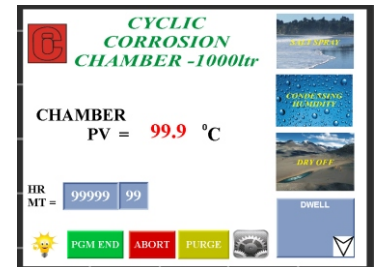
01. Remote diagnostic features - to diagnose / service the equipment from our works. For reduced down time and faster and hassle free service.
02. Additional test conditions as detailed below.

Cyclic Corrosion conditions requirement must be specified by user.

The system is loaded with the required hardware and program accordingly. These cycles can be run in any order and for any duration as set by the user.

Available features / conditions are as under :

1. **Basic Salt Spray** - Salt solu. Mist as in B117
2. **Dwell time** - Amb. Conditions maintained. The system does not operate any system during this time.
3. **Condensing Humidity** (95-100%) - DM water sprayed instead of Salt Solution.
4. **Dry Off** - Heated air is circulated into the chamber for the required duration.



5. **Controlled Humidity** - Humidity as set by the user, above ambient conditions only.
6. **SO2 dosing** - SO2 gas is sprayed into the system. (SO2 source to be arranged by the user).
7. **Immersion cycle** - The liquid media in the holding tank is moved into the system to a threshold limit and allowed to immerse the samples for the set duration, after which it is pumped back into the holding tank. It is suggested to replace the media regularly as it gets contaminated.
8. **Spray Header** - The media from the holding tank is sprayed on the components by means of nozzles as per customer requirement.
9. **Wall Wash** - To automatically clean the walls of the chamber during testing with water.

CONDITIONS OTHER THAN THE ABOVE CAN BE CUSTOMIZED AS PER REQUIREMENT.



STANDARD SAFETY FEATURES

1. Auto cut-off on door opening
2. Mechanical Pressure release valve for the Boiler
3. Double stage temperature overshoot cut-off for boiler
4. Double stage temperature overshoot cut-off for boiler
5. Salt solu. Low alarm
6. DM Water Low alarm & cut-off
7. Boiler Water level low alarm & cut-off
8. Holding tank level low alarm & cut-off

ON - SITE PRE-INSTALLATION REQUIREMENTS

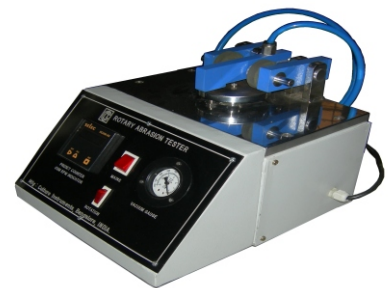
- MAINS** - 25A INDUSTRIAL SOCKET POWER POINT - 230V, 50Hz, Single Phase
- AIR SUPPLY** - FROM LINE/COMPRESSOR THROUGH 6 X 4 PU TUBE OF LENGTH AS PER REQUIREMENT
- WATER** - DM WATER ABOUT 150 - 200LTR
- SALT SOLUTION**- TO BE PREPARED MANUALLY.
- DRAIN** - SHOULD BE AT A LOWER LEVEL THAN THE CHAMBER. EXTEND AS PER REQUIREMENT.



MODEL	SSC-120/A	SSC-450/A	SSC-1000/A	CCT-450	CCT-1000
CHAMBER VOLUME (without lid)	120Ltr.	450 Ltr.	1000 Ltr.	450 Ltr.	1000 Ltr.
CHAMBER VOLUME (WITH LID)	180 Ltr.	670 Ltr.	1260 Ltr.	670 Ltr.	1260 Ltr.
CHAMBER SIZE	L: 715mm W:490mm H: 485mm	1010mm 640mm 850mm	1300mm 980mm 850mm	1010mm 640mm 850mm	1300mm 980mm 850mm
SAMPLE CAPACITY (3" x 6" Panels)	40	150	300	150	300
VISUAL VIEW	YES	YES	YES	YES	YES
LIGHT SOURCE	NO	NO (optional)	NO (optional)	YES	YES
RESERVOIR	NO	YES (In-built)	YES (In-built)	YES (In-built)	YES (In-built)
SPECIMEN RACK/ROD	2	4	6	4	6



NOTES



DESIGNED & MANUFACTURED BY:



Culture Instruments India LLP

Works: D-428, 10th MAIN ROAD, PEENYA 2nd STAGE, P.I.A, BANGALORE - 560 058.

Office: # 37, III MAIN ROAD, VYALIKAVALL, BANGALORE - 560 003. (INDIA)

PH: 91-080-23349239 / 23449007

Email: cultureinstruments@gmail.com / sales@technoinstruments.co.in

Website: www.technoinstruments.co.in

* Products & Design Subject To Change Without Prior Notice.