

MCS
INDUSTRIAL
AUTOMATION

MACHINE CONTROL SYSTEMS

DT-146; TIRKHA COLONY NEAR SEC-3 BALLABGARH

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SALT SPRAY TEST CHAMBER

Salt Spray Test Chamber as per Standards

ASTM-B 117, ISO-9227, JIS-2371



Chamber Size	1000 Liter	Ex-Factory	Price	385000
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Salt Spray Test Chamber or Fog test Chamber is one the most accurate instruments for measuring the corrosion resistance of coating when exposed to highly corrosive environment. In industries the material is exposed to various types of climatic conditions and chemical fumes which cause corrosion of

components and parts. Hence a salt spray chamber plays a pivotal role to test the specimen and analyse the quality of material being used by manufacturers. Salt spray chamber consists of a triple wall which ensures 100% insulation. Samples are examined under test at pre-determined amount of time; higher the corrosion resistivity longer will be the test time duration.

SST is made up of PPE (Polyphenylene Ether) material is manufactured by Ensinger in standard stock shapes for machining, and is extruded in sheet and rod. PPE polymer, exhibits unusually low moisture absorption because of its inherent composition. Therefore, good electrical insulating properties are achieved over a wide range of humidity and temperature conditions. Chemical attack from water, most salt solutions, acids and bases is also minimal with PPE material. It follows all industry standards i.e. **ASTM B117, ISO-9227, JIS-2371**

ADVANTAGES

- Easy loading and unloading of large samples
- PLC based control
- Auto water refill system
- Auto Fog Collection System
- Over temperature alarm
- Low water alarm
- Durable construction
- Auto Door Open
- Data Storage
- Graphical Display of Temperature & Humidity
- Auto Drainage system for over flow of water

FEATURES

Chamber Capacity	1000 Liter for Laboratory
Chamber Size	L*W*H = 1000mm*1000mm*1000mm
Overall Size(Space Required For Machine) approx.	L*W*H = 1500mm*1100mm*1500mm
Touch Screen	7 Inch
Capacity Storage	45 Days / 128GB
Specimen Data Capacity	8 Party at once
Process Parameter Data Record	1 page for each party at settable interval
Process Parameter Graph	1 page for each party at settable interval
Main Chamber PP	12 MM Sheets

Acrylic Transparent Top	5 MM
Material Hangers	4 -6 Hanging Rods (Depending on Max. Job Size)
Main Water Tank Separated From Spray Chamber	Capacity 80 Liters.
Fogging System Centralized as per	ISO 9227 and ASTM B 117
Temperature range	35°C±1°C / 50°C ±1°C
Temperature of pressure barrel	47°C±1°C / 63°C ±1°C
Temperature sensor	RTD/PT100/J-Type
Humidity range	≥93% (No Controlled / Display)
Hour Meter	9999 Hours 59 Minutes
Spray mode	Continuous or intermittent spray
Digital pH Meter with Sensor	Monitoring Online pH Value of Saline Solution
Digital Humidity Meter with Sensor	Monitor Humidity of Chamber
Automatic Fogg Operating System Controlled by	Process Switch ON / OFF
Well Insulated Electric Shock Free, anti-Corrosion, Unbreakable Heaters	Life 10 Years/ No Glass Heater
Power Supply	220V AC
Warranty	1 Year

1. Delta HMI: A human machine interface (HMI) is a platform which permits interaction between users and automation equipment. Delta's HMI products provide various communication ports for fast communication and convenient control of a diverse range of machines, systems and facilities. The color touchscreen enables intuitive parameter entry and a variety of ways to display variable data, including trend graphs and alarm elements. The high resolution LCD display visualizes operating, monitoring and efficient control in real time. In addition, the user-friendly editing software guides users in quickly creating easy-to-navigate visual icons and easily designing intuitive monitoring screens for applications, while making adjustments, scheduling, and

programming operational sequences that enhance flexibility and save development time.

It Controls

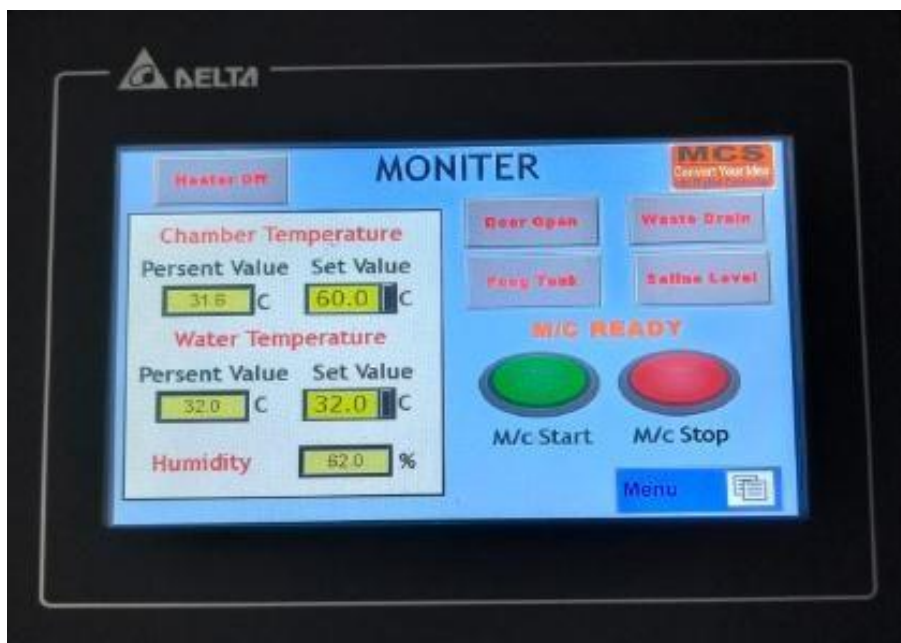
A) Temperature Controller: With Heater State ON/OFF Monitor

B) Monitor Humidity of Chamber:

C) Cycle Start and Stop

D) Saline Level Monitor


E) Door Open and Close



8 Party Data Entry at once. With different time of start and different Hours of Exposure

PROGRAM PROFILE

STATUS	No.	Set Time	Actual Run	Operation-Run		
Profile-1	5	20 hrs.	5 : 29	START	History	Graph
Profile-2	9	17 hrs.	9 : 32	START	History	Graph
Profile-3	7	19 hrs.	10 : 12	START	History	Graph
Profile-4	55	17 hrs.	11 : 15	START	History	Graph
Profile-5	44	22 hrs.	1 : 44	START	History	Graph
Profile-6	25	15 hrs.	10 : 36	START	History	Graph

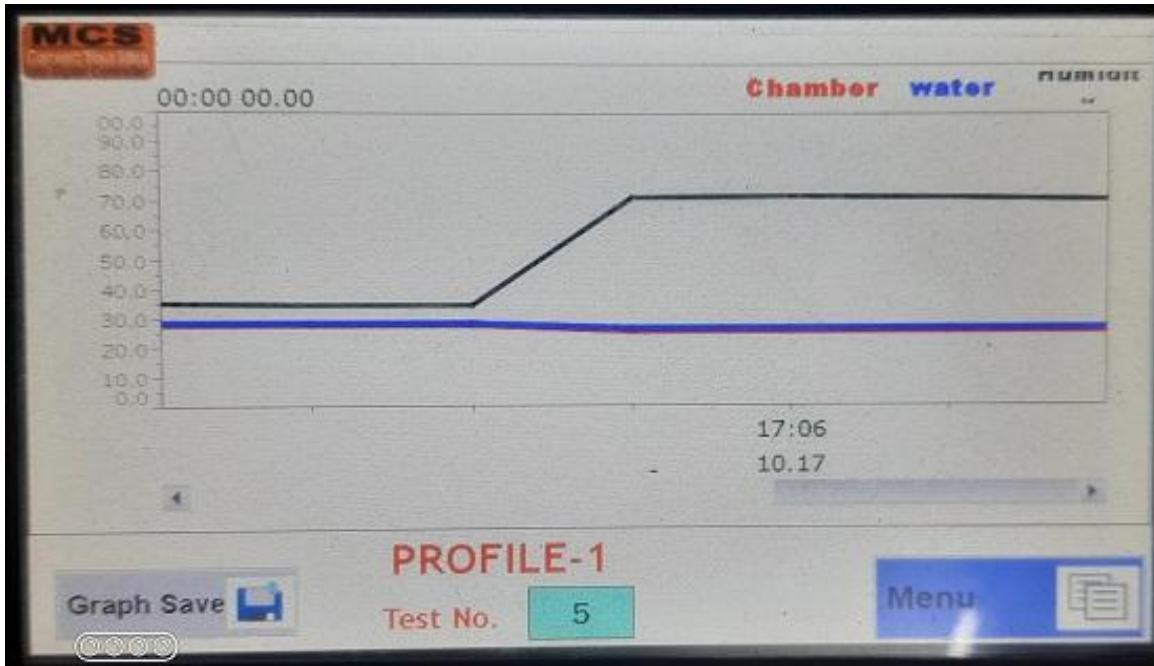
Menu 



NO.	TIME	DATE	Chamber Temp.	Water Temp.	Humidity
1	18:25:06	26/08/2023	31.8	32.0	42.0
2	18:25:06	26/08/2023	31.8	32.0	42.0
3	18:25:06	26/08/2023	31.8	32.0	42.0
4	18:25:06	26/08/2023	31.8	32.0	42.0
5	18:24:06	26/08/2023	31.6	32.0	42.0
6	18:24:06	26/08/2023	31.6	32.0	42.0
7	18:24:06	26/08/2023	31.6	32.0	42.0

File save  Sampling Time min. Menu  CLEAR HISTORY 

Remove USB 



2. **Saline Concentration Meter:-** this Meter examine Concentration of Dissolved salt in saline Solution, we may set tank capacity in this meter. Display will show how much quantity to be added more or extra in solution from 5% vv.

3. **Hour Meter** :- To observe / inspect condition of test samples periodically and recording long with time At least 3 digits in Hour and 2 digits in minutes.

4. **pH Meter :-** To check ph Value of solution using for spray. The pH value of salt solution shall be such that when atomized at 35 degree C. The collected solution will be in the pH range from 6.5 to 7.2. pH Value must be recorded after 48 Hrs of Running.



- 5. AIR SUPPLY :-** The air supply must be free from Oil, Dust, , the air supply / pressure must be maintain in such a way so that salt fog occurs, Pressure must be 1 Kg +/- 0.2 Kg.



- 6. ATOMIZATION AND QUANTITY OF FOG :-** The fog shall be

such that for each 80 cm² (4 Inch Funnel) of horizontal collecting area, there will be collected from 1.0 to 2.0 mL of solution per hour based on an average run of at least 16 h.

7. Delta PLC: DVP20EX2 PLC is used to Control system. Delta's DVP series programmable logic controllers offer high-speed, stable and highly reliable applications in all kinds of industrial automation machines. In addition to fast logic operation, bountiful instructions and multiple function cards, the cost-effective DVP-PLC also supports various communication protocols, connecting Delta's AC motor drive, servo, and human machine interface and temperature controller through the industrial network in to a complete "Delta Solution" for all users.



Detail FEATURES

3. Chamber Capacity 1000 Liter for Laboratory : As per ASTMb117 + ISO 9227 + JIS 2371 Standards
4. Chamber Size : L*W*H = 1000mm*1000mm*1000mm
5. Overall Size (Space Required For Machine) approx. : L*W*H = 1500mm*1100mm*1500mm
6. Touch Screen Display for monitor and control Parameters
7. Display and Store data of 8 Different parties at a time on single display.
8. Separate page for graph and parameters of each party.
9. Approx. 45 days data storage capacity in 128 GB Memory.

10. Data may transfer to computer or laptop by pen drive
11. Main Chamber PP, 16 MM Sheets
12. Acrylic Transparent Top 5 MM
13. Material Hangers 4 -6 Hanging Rods (Depending on Max. Job Size)
14. Main Water Tank Separated From Spray Chamber. Capacity 60 Liters.
15. Saline Solution Label Low in Reservoir Tank Indication at front panel.
16. Auto fill and label maintaining System for Reservoir Saline tank. Sensors available for maintaining water level between high and low levels.
17. Chamber Waste water Auto Drainage Control Systems. (No manual drain) 18. Compressed Air Circulation Periodically in Saline tank for dissolving residues.
19. Fully Automatic Temperature Controller double display for Heating of Water.
20. Temperature over Heat Warning Indicator on front panel.
21. Separate Temperature and Humidity Indicator for Chamber Temperature and Humidity.
22. Well Insulated Electric Shock Free, anti-Corrosion, Unbreakable Heaters (Life 10 Years/ No Glass Heater)
23. Fogging System Centralized as per ISO 9227 and ASTM B 117.
24. Standardized Fogg collection System as per ASTM B 117.
25. Automatic Fogg Operating System Controlled by Process Switch ON / OFF
26. Hour Meter 999 Hours 59.9 Minutes for total run hours display.
27. Digital pH Meter with Sensor for Monitoring Online pH Value of Saline Solution
28. Digital Humidity Meter with Sensor to Monitor Humidity of Chamber.
29. Process Complete Buzzer Alarm with Indicator after each party cycle time complete individually.
30. Supply 220 VAc
31. Warranty 1 Year