

Q-FOG Tester Training

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Q-Lab's Live Tester Training Series

Today is the third of a three-part webinar series on basic operation of our weathering and corrosion testers featuring live hands-on video content.

All upcoming and archived webinars can be accessed at:

q-lab.com/webinars

Date	Topic
06 Jun	QUV
13 Jun	Q-SUN
20 Jun	Q-FOG

Administrative Notes

You'll receive a follow-up email from info@email.q-lab.com with links to a survey, registration for future webinars, and to download the slides and watch the recorded video

Use the Q&A feature in Zoom to ask us questions today!



Thank you for attending our webinar!

We hope you found our live video demonstration webinar on **Q-FOG Tester Operation** to be helpful and insightful. The link below will give you access to the slides and recorded webinar.

You can help us continue to provide valuable and high quality content by completing our [3-question survey](#) about your webinar experience. Every piece of feedback is carefully reviewed by a member of our team.

Q-FOG Principles of Operation

Q-FOG testers

Q-FOG cyclic corrosion testers deliver heat, humidity, and electrolyte solution to specimens to perform traditional salt spray, Prohesion, and nearly all cyclic automotive tests



Q-FOG models



Q-FOG SSP
Continuous salt spray
and Prohesion

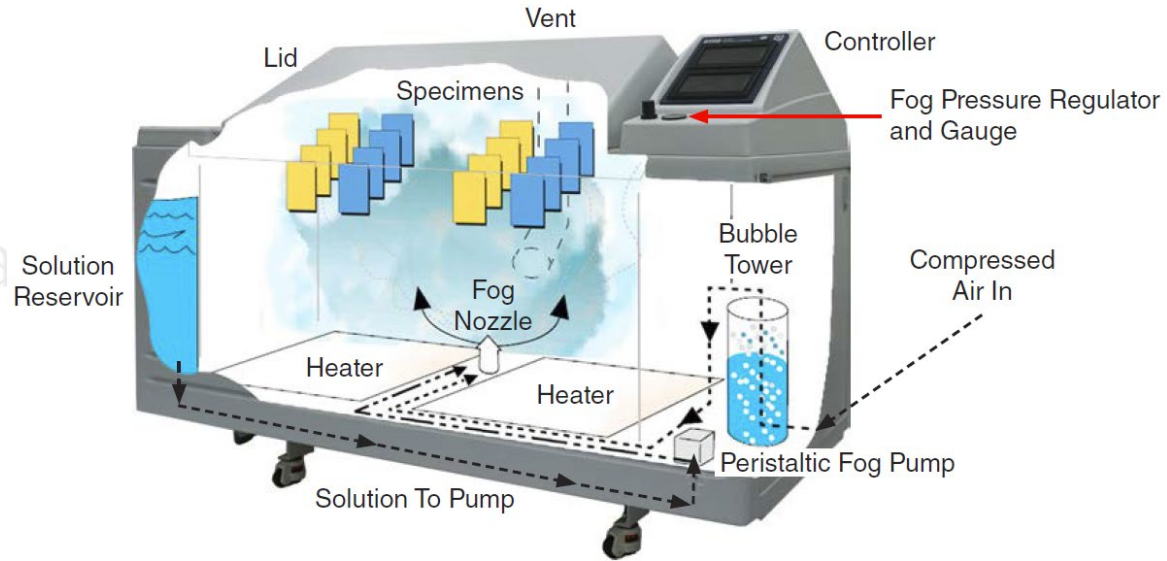


Q-FOG CCT
SSP capability plus
full humidity

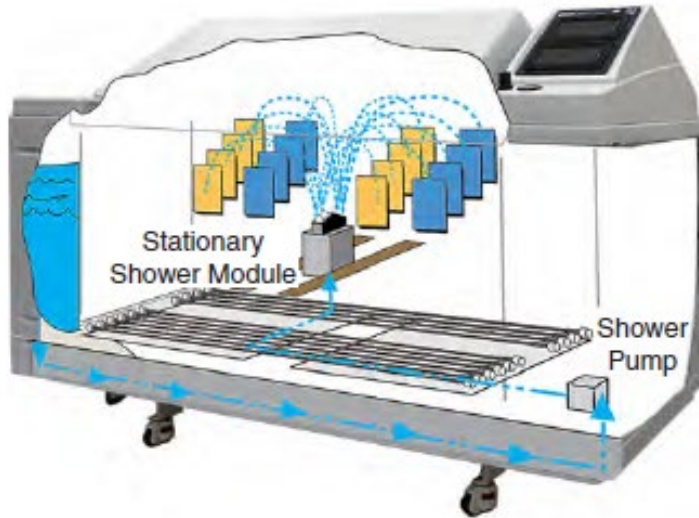
Q-FOG CRH
CCT capability plus
full Relative Humidity control

FOG Function

- Salt or other solution type is pumped to an atomizing nozzle
- Compressed air combines with solution at nozzle to create a fine mist
- Compressed air is usually humidified through the saturation/bubble tower
- Chamber lid diffuses spray



Shower Function (CRH Only)



Stationary shower module

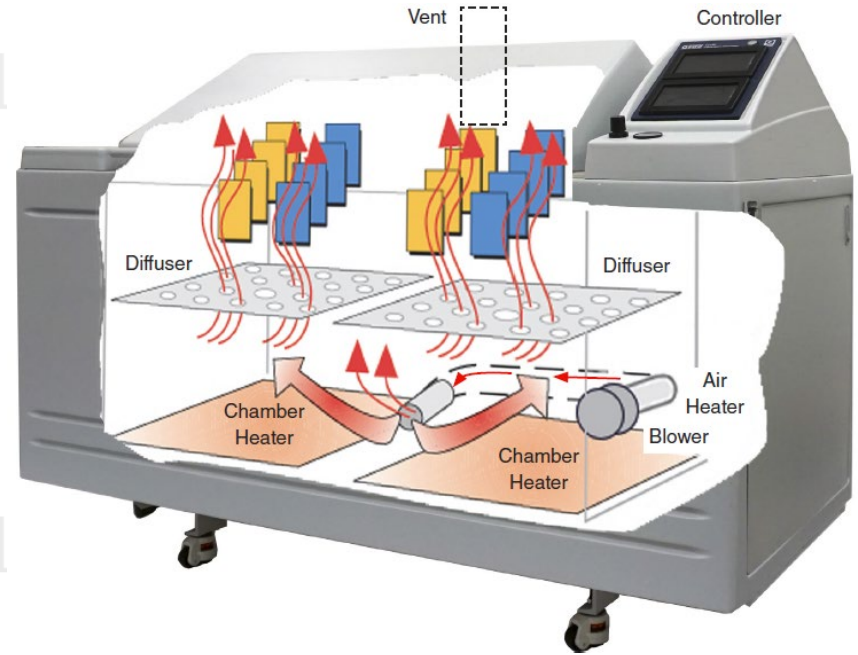


Top-Mounted swaying shower bar (TSSB)

Faster application of salt solution

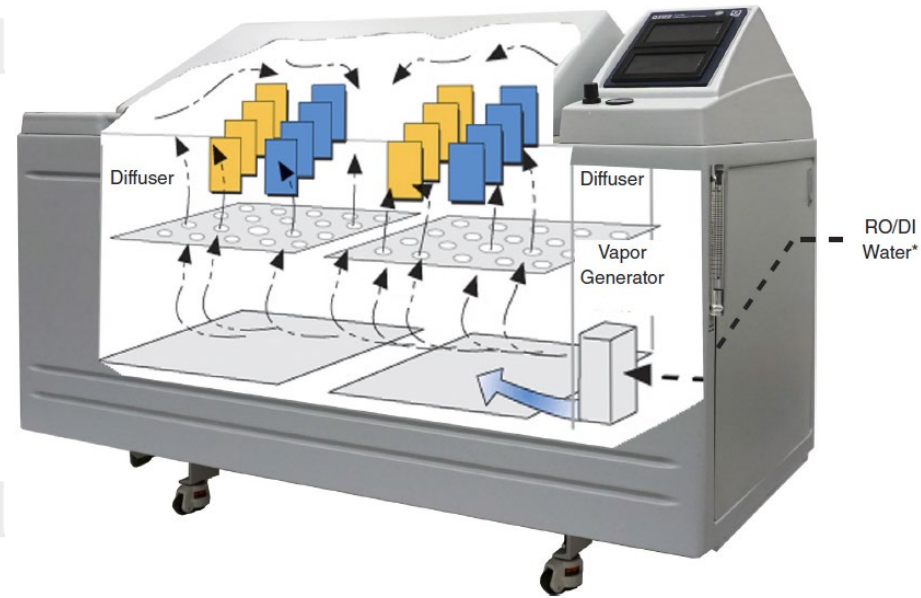
DRY Function (SSP, CCT)

- Room air blown into the chamber, circulated over samples, and sent out of an exhaust
- Air can be heated for higher temperatures and faster drying
- Q-FOG CRH model uses a low-RH step instead of Dry



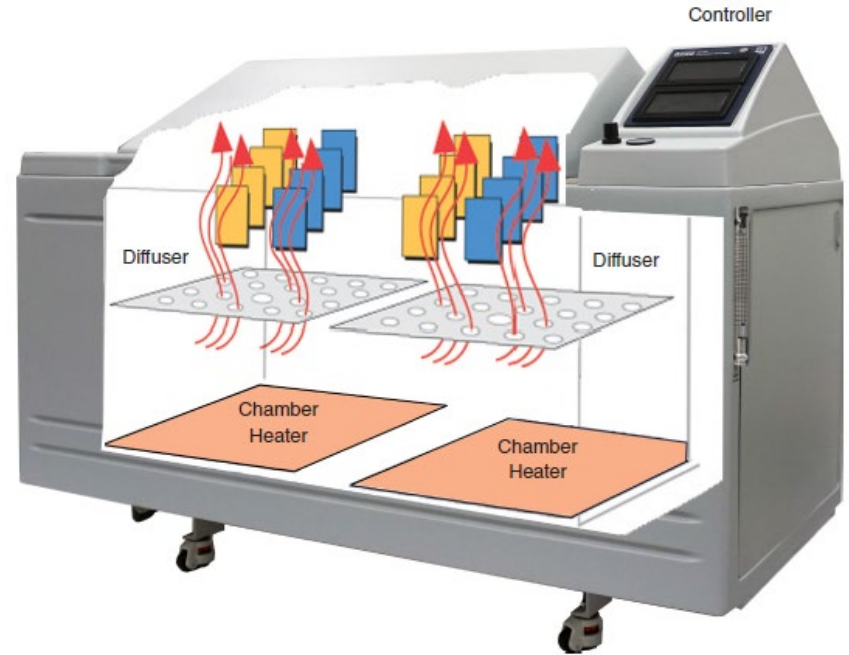
HUMID Function (CCT)

- Humidity added by boiling water
- Temperature controlled by increasing the heating duration in the boiler
- Humidity level is NOT controlled, but will be >95% after a short transition period
- Some test methods substitute water immersion for saturated humidity
- Q-FOG CRH model uses a high-RH step instead of Humid

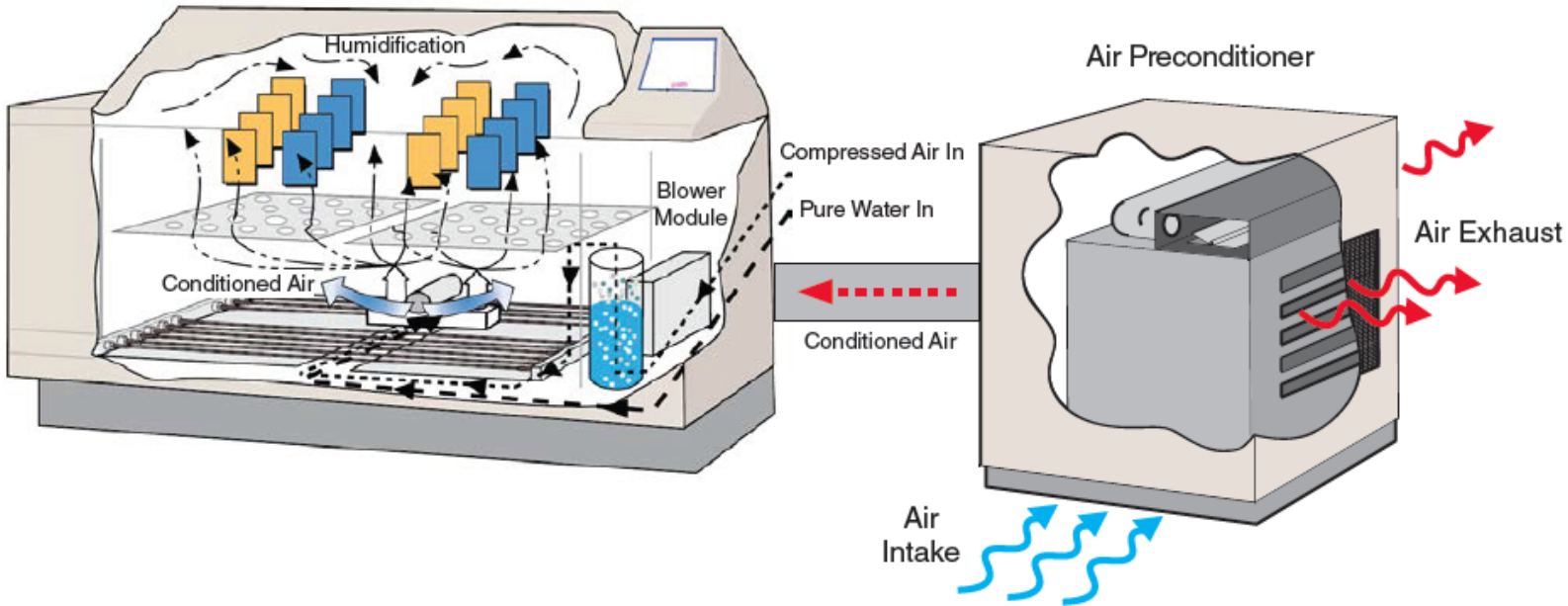


DWELL Function (SSP, CCT)

- Designed to allow slow drying of specimens
- No air flow
- Temperature can be ambient or higher

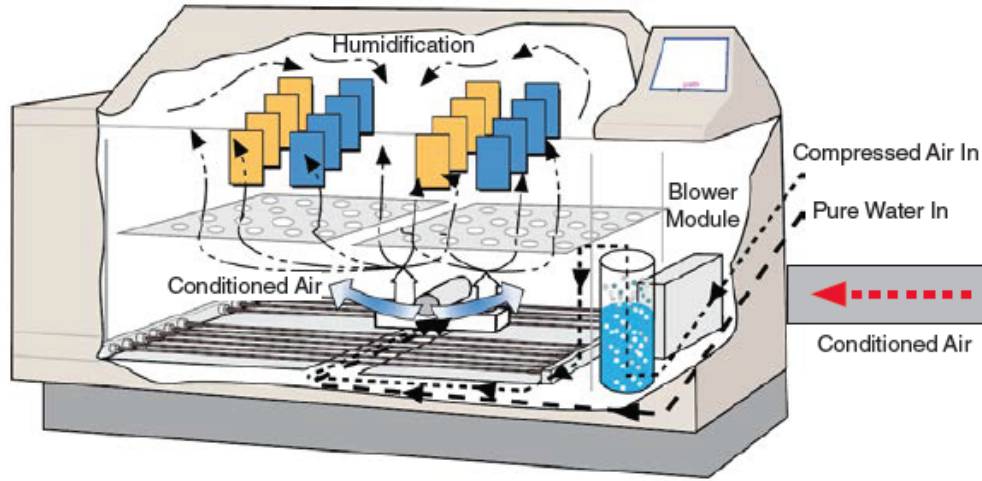


RH Function (CRH Only)



Replaces DRY, HUMID and DWELL steps of CCT tester

RH Function (CRH Only)



- Dry air supplied by Air Preconditioner
- Humid air supplied by two fog nozzles fed by DI water and compressed air
- Measured by Wet Bulb/Dry Bulb
- Air Control Module controls mixing
- Time to reach setpoint controlled by operator
 - Auto, Linear, and Less Than ramp types

Replaces DRY, HUMID and DWELL steps of CCT tester

Purge Chamber

Automatic Purge: 1 hour post-test

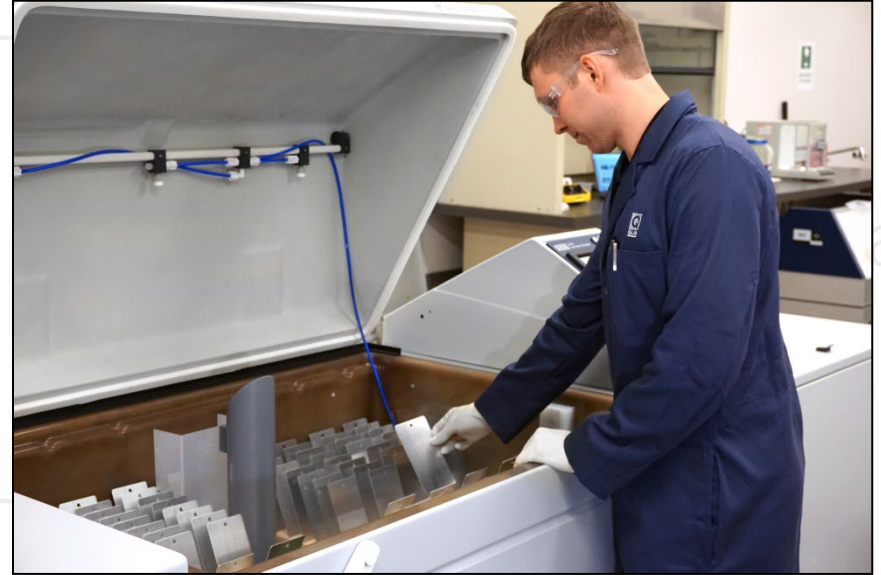
- When End of Test Shutdown is reached OR
- When operator presses STOP



Specimen Mounting



Panels (SSP, CCT)

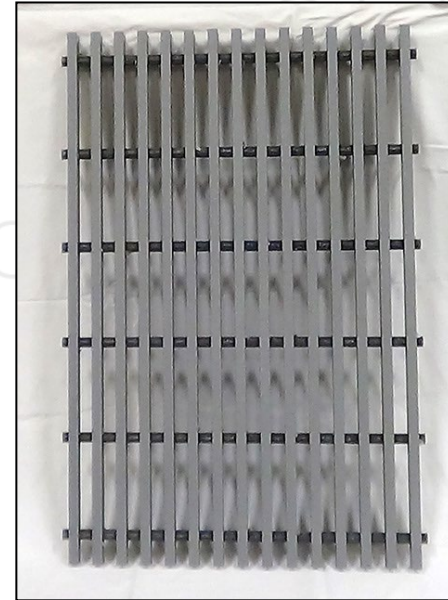


Panels (CRH)

Specimen Mounting



Hanging Rods

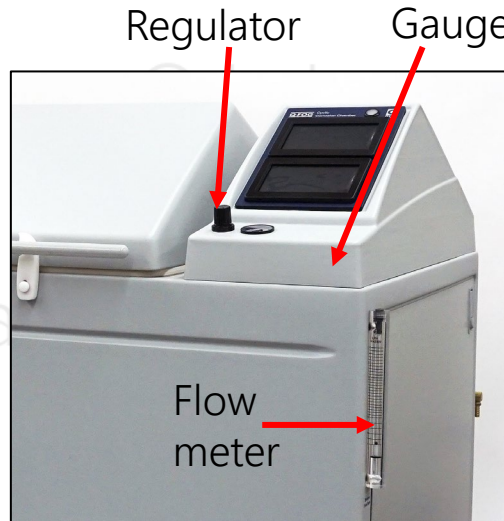


Grates

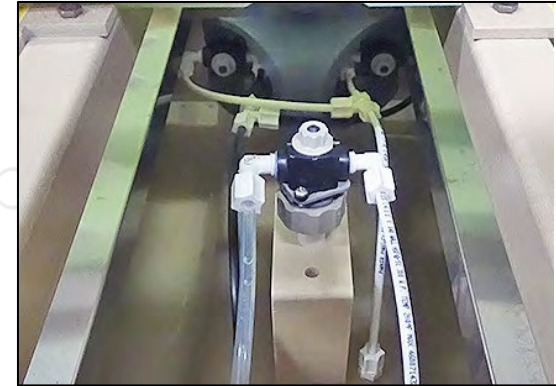
Fog Adjustments



Solution Pump Speed
30-40%



Fog Spray Air pressure
12-16 psi



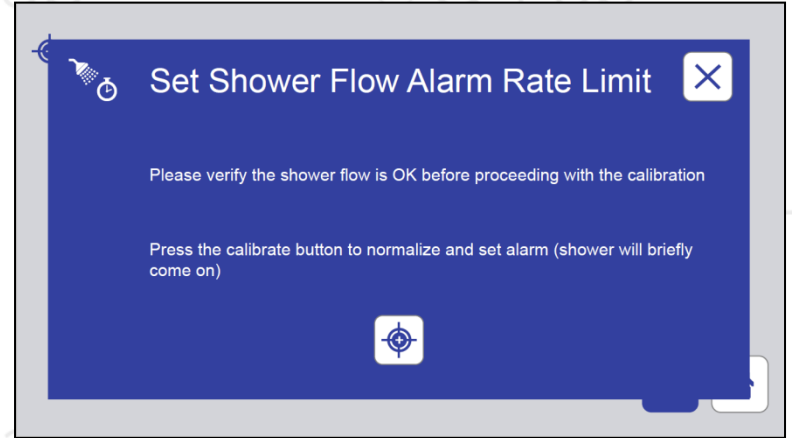
Fog Nozzle
adjustment

Shower Adjustments



Shower Pressure

Set to 30-80 psi (see tech manual)



Shower Settings

Set alarm rate in Calibrate menu
Set shower on/off times in Machine Configuration

Calibration Schedule

- Temperature Sensors
 - Calibrate Chamber Temp Sensor every 6 months
 - Calibrate wet/dry bulb sensors in CRH at same time
- Collections
 - Measured every 3 months to annually (more if running ASTM B117/ISO 9227)
 - External collections available
- Solution Flow Meter
 - Not calibrated; Only for indicating if solution is flowing

Maintenance

Every 1000 Hours

- Replace Solution Pump Tubing
- Drain and Refill Bubble Tower
- Clean Solution Filter and Water Inlet Filter
- Remove Salt Buildup on Chamber Heaters
- Drain and Refill Vapor Generator (CCT)
- Replace Wet Bulb Wick (CRH) and check water quality
- Clean or Replace Purge Air Blower (SSP/CCT) & Preconditioner Air Filters (CRH)
- Check Compressed Air Water Separator/Filter System
- Check Fog Spray Nozzle Pattern, clean if necessary

Thank you for your time.

Questions?
info@q-lab.com

We make testing simple. |

