



Q-FOG

Specimen Mounting Guide

Q-FOG corrosion chambers offer cyclic corrosion testing, providing the best possible laboratory simulation of natural atmospheric corrosion. Research indicates that test results are similar to those obtained outdoors in resulting structure, morphology, and relative corrosion rates.

Specimen Mounting Guidelines

Q-FOG chambers can accommodate a variety of specimen types. Several different mounting options are available to handle different specimen sizes and geometries.

Panel Racks

Test panel racks are available for exposure of panels at a 15° angle, satisfying international standards ASTM B117 and ISO 9227. Ten panel racks can be installed in Q-FOG 600 liter chambers, exposing up to 170 panels, 75 × 150 mm (3 × 6 in) in size. For a slightly larger capacity, 1100 liter chambers hold 12 panel racks, exposing up to 252 panels at one time. A rack with a 6° angle exposure is also available, to meet specialty applications. For custom angle exposures or thicker substrate, contact Q-Lab for custom options.



Figure 1
Q-PANEL substrates in Panel Racks

Hanging Rods

Three-dimensional specimens can be mounted on 20 mm diameter hanging rods (Figure 2, hooks not included)

Grates

For extremely large or heavy three-dimensional objects (such as metal wheel rims or engine parts), a rack-level or diffuser-level grate kit can be used (Figure 3). The Q-FOG tester's sturdy construction can support a well-distributed weight of up to 544 kg (1200 lb.), allowing even the heaviest of automotive and other components to be tested.

Access Port

An access port can be installed in the front wall of Q-FOG test chambers (Figure 4), to power devices under test.



Figure 2
Wheels mounted on Hanging Rods



Figure 3
Large, heavy metal springs are mounted using the Rack-Level Grates.



Figure 4
Access port for testing electrical devices.

Panel Racks - Specimen Mounting

Panel Racks are used for mounting flat standard test panels up to 4 × 12" (102 mm × 304 mm) in size and as thick as 0.125" (3.1 mm). Specimens face the same direction, typically the chamber front, for all models except Q-FOG CRH "T" models (with Top-Mounted Swaying Shower Bar). For Q-FOG CRH "T" models, test specimens face the top-mounted shower bar towards the center of the chamber (Figure 5). The maximum weight capacity per rack is 113 kg (250 lb)

Part Number	Description	Angle from vertical	Tester Size		Set of	Panels per rack	Available for:			
			600 L	1100 L			SSP	CCT	CRH -S	CRH -T
F-9008-K	Panel Holder Kit for 600 L Chamber, 15°	15°	●		8	17	●	●	●	
F-8859-K	Panel Holder Kit for 600 L Chamber, 6°	6°	●		8	17	●	●	●	
F-9011-K	Panel Holder Kit for 1100 L Chamber, 15°	15°		●	10	21	●	●	●	
F-8860-K	Panel Holder Kit for 1100 L Chamber, 6°	6°		●	10	21	●	●	●	
F-70675-K	Panel Holder Kit for 600 L -T CRH Chambers, 15°	15°	●		8	16				●
F-70443-K	Panel Holder Kit for 1100 L -T CRH Chambers, 15°	15°		●	10	20				●

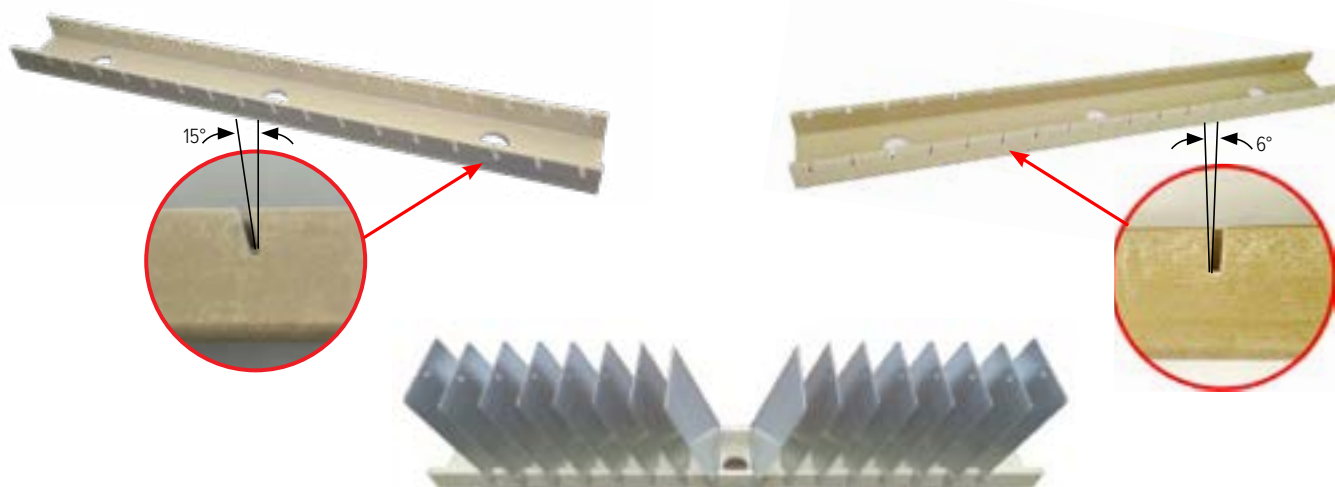


Figure 5

Panel rack for 15° (left), panel rack for 'T' model testers (600 L shown center), with all panels facing chamber center, and panel racks for 6° (right).

Hanging Rods - Specimen Mounting

Hanging Rods are 20 mm ($\frac{3}{4}$ in) diameter rods used for suspending three-dimensional specimens. They can be used with all models of Q-FOG corrosion testers. The maximum weight per rod is 40 kg (100 lb).

Part Number	Description	Photo	Tester Size		Set of
			600 L	1100 L	
F-9014-K	Hanging Rods for 600 L Chambers	HR-1	●		6
F-9017-K	Hanging Rods for 1100 L Chambers	HR-2		●	8



Grates - Specimen Mounting

Grates are used for holding large, heavy, or oddly-shaped specimens. They are available for mounting either at the same vertical level as the Panel Racks, or lower in the chamber at the diffuser level (Figure 6). Grates can be used with all models of Q-FOG corrosion testers. The Rack Level Grate is not compatible with the External Fog Collection kit. Each grate type, Rack-Level or Diffuser-Level, can hold a distributed weight of 544 kg (1200 lbs).

Part Number	Description	Photo	Vertical level	Tester Size		Set of
				600 L	1100 L	
F-8290-K	Rack Level Grate Kit for 600 L Chambers	G-1	Rack	●		2
F-8292-K	Diffuser Level Grate Kit for 600 L Chambers	G-2	Diffuser	●		2
F-8284-K	Rack Level Grate Kit for 1100 L Chambers	G-3	Rack		●	2
F-8283-K	Diffuser Level Grate Kit for 1100 L Chambers	G-4	Diffuser		●	2

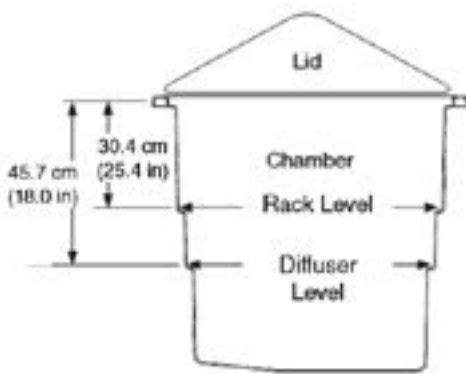


Figure 6

Vertical height of grate kits. Contact Q-Lab for other dimensions.



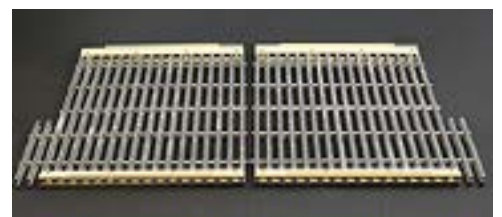
G-1



G-2



G-3



G-4

Access Port

An optional 100 mm (3.9”) Access Port can be installed in the front wall of Q-FOG test chambers to connect specimens inside the test chamber to power supplies and other devices outside the chamber. The gasket seal includes convenient pre-formed holes and plugs, that create a tight fit for the cables. Access ports can be used with all models of Q-FOG corrosion testers (Figure 7).

Part Number	Description
F-70137-K	100 mm Access Port Kit, Field Retrofit
F-70137-K-INST	100 mm Access Port Kit, Factory Installed



Figure 7
Access port gasket with pre-formed holes and plugs.



A view of F-70137-K installed into a Q-FOG tester chamber.



For sales, technical, or repair support, please visit:
Q-Lab.com/support

Westlake, Ohio USA • Homestead, Florida USA • Wittmann, Arizona USA
Bolton, England • Saarbrücken, Germany • Shanghai, China