



Q-Lab Arizona

Perform outdoor testing at the location of your choice with

Q-Rack Outdoor Exposure Rack Systems

Now you can do your own natural, outdoor exposures at any location.

Q-Rack outdoor exposure rack kits from Q-Lab Corporation are the same design racks we have used for years at Q-Lab Weathering Research Service in Florida and Arizona.

Versatile, reliable and affordable, Q-Racks give you an ideal way to supplement your current testing program with additional data. They meet many ISO, ASTM, SAE and other requirements for outdoor testing.

- Complete Rack Kits for Direct Exposure Testing
- Accessories & Non-Standard Mounting Systems
- Black Box Kits Simulate Automotive Conditions
- Under Glass Rack Kits Available in North America



Q-Lab Florida



Q-Rack Direct Exposure Rack Kits

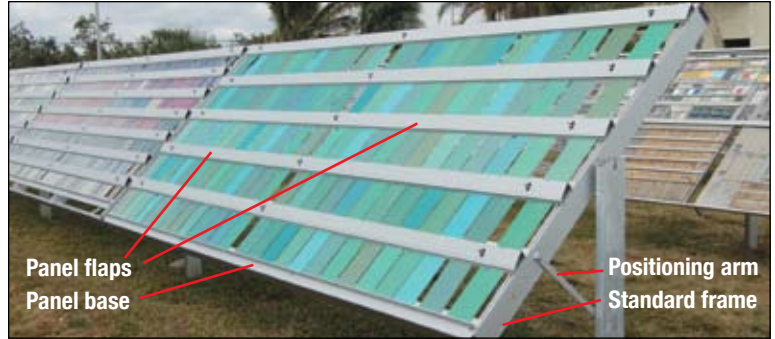
Direct exposure is the most common method for testing coatings, inks, plastics, or finishes used outdoors. Most typical test specimens can be easily mounted on a Q-Rack. Our direct exposure rack kits meet the requirements of ISO 877-2 Method A, ASTM G7, ASTM D4141, or SAE J1976.

Start with a Q-Rack kit, which includes:

- An anodized aluminum main frame measuring 12' x 5'6" x 4" (3.66 m x 1.68 m x .10 m) and two legs. Both welded frames and unassembled "knock down" frames (for shipping outside North America) are available.
- Panel base and flap assemblies hold panels in place and may be adjusted to fit various sizes of test specimens. Q-Rack direct exposure rack kits have one panel base and five panel flaps; additional panel assemblies may be ordered to hold more specimens.

Complete your Q-Rack with positioning arms and optional accessories:

- Sturdy positioning arms are used to hold frames securely at the correct angle of exposure. Sold in pairs, they are available for positioning the Q-Rack at 0° (horizontal), 5°, 45° or 90° (vertical), to meet your testing specifications.
- Other accessories include sub-frame kits (set of 8), additional rack components, test panels, and a Black Box retrofit kit.



The direct exposure rack is shown here. Panel flap assemblies may be adjusted or added to accommodate different sizes and increase the rack's capacity.

Welded Frame Direct Exposure Rack Kit

Part FL-3049-K

Use this rack kit for direct exposure testing of materials used outdoors. Welded frame ships assembled (USA, Mexico and Canada only).

Kit includes:

- Welded Aluminum Frame
- 2 Legs
- 1 Panel Base
- 5 Panel Flaps

Positioning arms required for rack installation – see Accessories section

*Knock Down Frame Direct Exposure Rack Kit

Part FL-3055-K

Frame ships unassembled (required for shipment outside North America). Other kit contents are the same.

Black Box Direct Exposure Rack Kit

Part FL-3120-K

The Black Box Exposure Rack Kit combines a welded frame rack with an aluminum black box. Test specimens are used to enclose the top of the box to simulate the exposure conditions of an automobile's trunk or hood. Kit includes:

- Special Welded Frame
- 2 Legs
- 1 Panel Base
- 5 Panel Flaps
- Aluminum Black Box

Positioning arms required for rack installation – see Accessories section

Use a Black Box Kit to simulate automotive exposure conditions as required in SAE J1976 and ASTM D4141. Black box exposures typically result in higher temperatures and greater wet time than open-backed exposures.



***Available for shipment outside North America**



Expand the Q-Rack's capacity by using smaller panels and more panel flaps.

Inserting test sample panels into the Q-Rack panel flaps is easy. The panel flaps open and close with three wing nuts.



Q-Panel Brand Test Substrates



Panels are made from steel or aluminum in a range of sizes and finishes. Featuring the Q-shaped hole, they are recognized as the world standard for a clean, consistent and uniform test surface.

Q-Rack Under Glass Exposure Rack Kits



Q-Rack under glass kits (available for shipment in North America only) include:

- A special welded, anodized aluminum main frame measuring 12' x 5'6" x 4" (3.66 m x 1.68 m x .10 m) and two legs. Six 3 mm window glass covered sub-frames with MDO backing are provided, along with mounting hardware to hold test specimens in place.
- A black box under glass exposure kit also is available. With its aluminum black box, the rack kit is suitable for testing indoor materials under higher temperature conditions.

Under Glass Exposure Rack Kit

Part FL-3086-K

- Special Welded Frame
- 2 Legs
- 6 Sub Frames with Window Glass & MDO Backing
- Specimen Mounting Hardware

Positioning arms required for rack installation – see Accessories section

Black Box Under Glass Exposure Rack Kit

Part FL-3121-K

Same components as above, plus aluminum black box.



Under glass black box exposure systems, used for automotive interior materials.

Q-Rack Accessories & Mounting Systems

Q-Rack Accessories

*Positioning Arms (Sold in Pairs)

Required for installation of Q-Rack kits. Select the angle of exposure needed for your application.

0° Positioning Arms	Part FL-3071-K
5° Positioning Arms	Part FL-3033-K
45° Positioning Arms	Part FL-3032-K
90° Positioning Arms	Part FL-3126-K

*Panel Flap Assembly **Part FL-3009-K**

Increase the Q-Rack's sample mounting capacity by using additional panel flaps. The Panel Flap is easy to open and close, holding the test panels in place. A vinyl strip separates the exposed and unexposed areas of each panel.

*Panel Base Assembly **Part FL-3060-K**

Fits the bottom edge of every rack that uses panel flaps, holding the bottom of the panels in place.

*Q-Rack Leg **Part FL-3072-X**

Individual legs may be purchased for custom installations.

*Black Box Retrofit Kit **Part FL-3091-K**

Includes all the components and hardware to convert your Q-Rack frame into a Black Box exposure system.

*Q-Panel Brand Test Substrates

Contact sales office for more information on test panels.

Non-Standard Mounting Systems

*Sub-Frame Kits

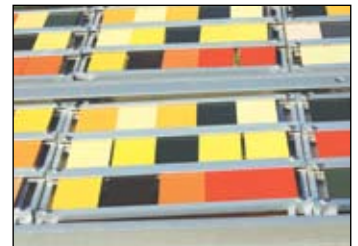
Sub-Frame Kit/Open Rack

Part FL-3106-K

Sub-Frame Kit/Under Glass (no Export)

Part FL-3113-K

Modify the Q-Rack to hold non-standard test specimens. Sub-frame kits include eight 32" x 35" (81.25 cm x 89 cm) open back sub-frame assemblies, or six under glass sub-frame assemblies. Kits are easy to install and adjust for different specimen sizes .



*Offset Panel Holder Kits

6" (15.25 cm) Offset Panel Holder Kit

Part FL-3110-K

8" (20.30 cm) Offset Panel Holder Kit

Part FL-3111-K

Offset Panel Holder Kits are used to mount test specimens at an angle, to prevent water from dripping on the sample below. Adjustable for different sample widths. Available in two sizes:

- 6" (15.25 cm) - 40 samples
- 8" (20.30 cm) - 28 samples



***Available for shipment outside North America**

Why Test Outdoors?

Outdoor exposure is the best way to test the weatherability of materials. We recommend testing in several locations because the primary weathering forces (sunlight, high temperature and moisture) vary greatly from place to place throughout the world. Microenvironments may cause localized differences in exposure results.

Florida and Arizona are the international benchmark locations for natural weathering. Florida has high intensity sunlight, high year-around temperatures, high annual rainfall and high humidity. Arizona has a hot, dry, high UV radiation environment and extreme temperature fluctuations that may subject materials to dimensional changes. Consequently, these locations represent the “worst case” conditions for testing most products used outdoors.

Q-Lab Weathering Research Service offers customers reliable, low-cost outdoor testing in Florida and Arizona. With Q-Rack kits, users can now conduct their own outdoor tests at other locations of their choice, providing useful comparative data.



Outdoor Testing Services from Q-Lab



Q-Trac Natural Sunlight Concentrators at Q-Lab Arizona provide accelerated natural weathering results.



Q-Lab Florida's site near Miami offers subtropical exposures. Q-Lab Arizona's site near Phoenix offers desert exposures.

- Direct & Under Glass Exposures (ASTM G7, G24, D1435)
- Black Box (ASTM D4141, GM 9163P)
- AIM Box (GM 9538P, GM 7455M, GM 7454M, GM 3619M)
- Q-Trac Natural Sunlight Concentrator Accelerated Natural Weathering (ASTM G90, D4141, D4364, SAE J1961)
- Solar Tracking Exposures
- Outdoor Corrosion Exposures (Natural Atmospheric, Marine Exposures, Salt Accelerated)



Q-Lab Weathering Research Service offers both typical direct exposure testing and special services. Shown above are AIM (automotive interior materials) boxes, designed to simulate the environment inside an automobile.

Weather conditions at Q-Lab Florida are ideal for automotive testing. Climate data is monitored with state-of-the-art equipment such as Total Ultraviolet Radiometers (shown below).



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