



Water Repurification System for QUV and Q-SUN Test Chambers with Water Spray

Overview

Q-Lab offers an advanced water repurification system as an option for QUV® and Q-SUN® test chamber models with water spray. This accessory can be factory-installed or retrofitted to testers in the field. The system can save over 1,000 liters of expensive, purified water per day in a test cycle that calls for several hours of water spray, and can pay for itself in a matter of months.

Unlike competing systems that simply recirculate dirty water, Q-Lab's repurification system repurifies water in addition to conserving it. Major components include: a water reservoir, a pump, a flow adjustment valve, a repurification cartridge and a Total Dissolved Solids (TDS) purity monitor.



On new QUV test chambers, the water repurification system is integrated directly into the tester.

Operation

During a spray step, the used water drains into a reservoir. The repurification system's pump draws water out of the reservoir and pumps it through a repurification cartridge to remove contaminants. The repurified water is then reused during spray steps. A float valve automatically adds water to this reservoir to replenish any losses due to evaporation (typically 5 liters per day). No manual refilling of the water reservoir is required. A highly accurate microprocessor-controlled TDS monitor measures and displays the water purity.



Q-Lab's standalone water repurification system is space-efficient and fits easily in any lab.

Configuration

In standalone QUV testers, the water repurification system is fully integrated into the tester below the test chamber. In QUV testers on space saver frames and in Q-SUN models, the repurification system is packaged inside a separate housing as a standalone system. The water repurification housing is positioned on the floor to the right of the tester and may be stacked.

It is important to note that the repurification system is not a primary purification system. Purified water must still be supplied to the tester. The system maintains the proper purity level for continued use.



The system control panel is efficient and easy to use.

Specifications



Model	QUV/spray ¹	QUV/spray ¹ (With or Without Space Saver Frame)	Q-SUN Xe-1	Q-SUN Xe-2/B02	Q-SUN Xe-3 ^{2,3}
Repurification System Part Number ⁴	QUV/spray, 120 RP (new 120v QUV) QUV/spray, 230 RP (new 230v QUV)	V-60158-INST (new 120v QUV) V-60159-INST (new 230v QUV) V-60160-K (retrofit series 48+)		X-10897-K-INST (new Q-SUN) X-10897-K (retrofit)	
Repurification System Type	Integrated	Standalone			
Inlet Water Pressure	2-80 psi (14-550 kPa)				
Inlet Water Purity ^{5,6}	> 200 kΩ-cm; < 5 μS/cm; < 2.5 ppm TDS; 6-8 pH				
Water Consumption: No Repurification System	7 L/min (spray) 5 L/day (UV and condensation)	7 L/min (spray) 5 L/day (UV and condensation)	0.1 L/min (spray)	0.5 L/min (spray) 24 L/day (humidifier)	0.1 L/min (spray) 0.4 L/min (front & back spray) 44 L/day (humidifier)
Water Consumption: With Repurification System ⁷	0 L/min (spray) 5 L/day (UV and condensation)	0 L/min (spray) 5 L/day (UV and condensation)	0 L/min (spray)	0 L/min (spray) 20 L/day (humidifier)	0 L/min (spray) 0 L/min (front & back spray) 30 L/day (humidifier)
Electrical Requirements	120V ± 10% 1-Phase, 50/60 Hz, 2.3A; or 230V ± 10%, 1-Phase, 50/60 Hz, 0.9A				
Repurification System Electrical Connection	Wired directly to QUV	Wired directly to QUV	Wired to separate receptacle; <i>Plug not provided</i>	Wired directly to Q-SUN	Wired directly to Q-SUN
External Dimensions	Fits inside QUV frame	36" h x 13" w x 24" d (92 cm x 33 cm x 61 cm)			
Weight ⁸	< 60 lbs (28 kg)	60 lbs (28 kg)			

1 Integrated repurification systems are only available on new QUV/spray testers. For a retrofit single QUV/spray, a standalone (V-60160-K) system must be used. For a QUV/spray on a space saver frame, a standalone system must be used and can be factory installed or retrofit.

2 Repurification system is only available for Q-SUN Xe-3 series 25 and higher.

3 Water Repurification Systems are not to be used with Q-SUN Xe-3 Dual Spray equipped models-DS.

4 Integrated repurification system part number for QUV/spray includes the QUV tester itself. All other part numbers require the tester to be ordered separately.

5 Repurification cartridge lifetime is highly dependent upon inlet water purity and specimen cleanliness. Exceeding the value shown here may reduce lifetime significantly. Water purity requirements can be met by most reverse osmosis, deionization, or distillation systems; however, Q-Lab recommends an RO/DI system for all Q-SUN spray models.

6 Water repurification filters cannot remove organic or fine particulate contaminants. Test specimens that disintegrate, or leech organic compounds, may contaminate the water.

7 Water consumption does not include evaporation.

8 Actual shipping weights do not include the tester and will be higher and depend upon model and whether the shipment is domestic, ocean or air.

Warranty

The Q-Lab Water Repurification system is guaranteed against defects in workmanship or materials for one year. Liability is limited to replacing or repairing any part or parts which are defective in materials or workmanship and are returned to our factory, shipping costs prepaid. Liability in all events is limited to the purchase price paid. Damage due to accident or abuse is not covered. Labor and travel costs are not covered. Q-Lab Corporation makes no other warranties, including implied warranties of merchantability or fitness for a particular purpose, except as may be expressly provided by Q-Lab Corporation in writing. Q-Lab Corporation shall not be liable for any incidental, consequential, special, or contingent damages arising out of the sale or use of any product.



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