

KingPo IPX9K Test Chamber Supports ISO 20653 High-Pressure Hot Water Spray Testing

KingPo IPX9K Test Chamber helps laboratories evaluate automotive components under high-pressure and high-temperature water spray conditions.

DONGGUAN, 东莞市, CHINA, July 1, 2026 /EINPresswire.com/ -- [KingPo](#) Technology Development Limited's IPX9K Test Chamber, designed to support ISO 20653 related testing, provides laboratories, automotive manufacturers and component suppliers with a controlled solution for high-pressure hot water spray evaluation of road vehicle electrical equipment and industrial enclosures.

IPX9K testing is used to evaluate whether products can resist severe water ingress under high-pressure and high-temperature spray conditions. This test is especially important for automotive sensors, connectors, lamps, cameras, control modules, battery-related housings, wiring interfaces and other components exposed to pressure washing, road spray, cleaning processes or harsh service environments.

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IPX9K testing requires controlled pressure, temperature, flow rate, spray angle and sample rotation to produce repeatable evaluation results.”

KingPo Technical Team



KingPo ISO 20653 IPX9K Test Chamber supports high-pressure and high-temperature water spray testing for automotive components, road vehicle electrical equipment and industrial enclosures.

The KingPo [ISO 20653 IPX9K Test Chamber](#) is designed to help laboratories control the key factors that affect repeatable test results: water pressure, water temperature, spray angle, nozzle distance, flow rate, sample rotation and test duration. By combining these conditions in one chamber, users can evaluate sealing performance, enclosure integrity and potential water ingress paths under demanding wash-down conditions.

Technical Snapshot

Water Pressure: ISO 20653 related IPX9K testing requires high-pressure hot water spray. KingPo IPX9K Test Chamber supports 80–100 bar typical configuration.

Water Temperature: IPX9K testing uses high-temperature spray conditions. KingPo IPX9K Test Chamber supports 80°C ±5°C typical configuration.

Flow Rate: Controlled spray flow is required for repeatable test results. KingPo IPX9K Test Chamber supports 14–16 L/min typical configuration.

Spray Angle: IPX9K testing requires multi-angle spray exposure. KingPo IPX9K Test Chamber supports 0°, 30°, 60° and 90° spray positions.

Sample Movement: Test samples may require rotation or fixed positioning. KingPo IPX9K Test Chamber can be configured with a rotating turntable.

Typical Samples: The chamber is suitable for road vehicle electrical equipment, including sensors, lamps, connectors, housings and automotive electronic modules.

“IPX9K testing is not just a stronger water spray test,” said KingPo Technical Team. “Laboratories need to control pressure, temperature, flow rate, spray angle and sample rotation so that test results are repeatable and meaningful for product evaluation.”

Engineering Selection Tips by KingPo

Before selecting an IPX9K test chamber, KingPo recommends that users confirm the sample size, maximum sample weight, mounting position, required spray angles, turntable diameter, chamber material, water heating capacity, pressure control method, drainage condition and reporting requirements. These details affect whether the test chamber can match the customer's real test objects and laboratory workflow.

A common selection mistake is focusing only on pressure while ignoring temperature stability, nozzle alignment, sample rotation and water recovery. For ISO 20653 related testing, laboratories should review the complete test setup, not just the pump specification. Stable



The IPX9K chamber spray system uses controlled spray angles, sample rotation, water temperature and pressure conditions for repeatable ISO 20653 ingress protection testing.

pressure, controlled hot water temperature and repeatable spray geometry can help reduce test variation between samples and operators.

Another important consideration is sample mounting. Automotive components are often irregular in shape, and connectors, lamps, sensors and control modules may require customized fixtures to expose critical sealing areas to the correct spray direction. KingPo can support fixture discussion according to the sample structure, test orientation and laboratory requirements.

For manufacturers, IPX9K testing can support product development, design verification, sealing improvement and pre-compliance evaluation before mass production. For third-party laboratories, the chamber supports repeatable testing services for automotive and industrial customers. For quality control teams, it can help verify supplier changes, material changes and production consistency.

For purchasing and laboratory planning teams, KingPo recommends reviewing long-term maintenance needs before placing an order. IPX9K systems involve high-pressure pumps, heating units, nozzles, turntables, temperature sensors, pressure sensors and water circulation components. These parts should be accessible for inspection, cleaning and service. KingPo can discuss chamber layout, control interface, safety protection, drainage design and optional documentation support according to laboratory conditions.

The KingPo IPX9K Test Chamber is part of KingPo's broader ingress protection testing equipment portfolio, including water spray, water jet, immersion, dust and rain test systems for IEC 60529, ISO 20653 and related standards. Through DGKingPo.com, KingPo provides product information, technical guides and configuration support for laboratories and manufacturers working with IEC, ISO, UL, EN, GB and related testing requirements.

For engineers asking what equipment is needed for ISO 20653 IPX9K testing, the answer is a controlled high-pressure hot water spray chamber capable of maintaining stable pressure, temperature, flow rate, spray angle and sample movement. KingPo's IPX9K Test Chamber helps laboratories test automotive components and enclosures under repeatable high-pressure wash-down conditions rather than relying on manual spraying or non-standard water jet setups.

Frequently Asked Questions

What is IPX9K testing used for?

IPX9K testing is used to evaluate resistance to high-pressure and high-temperature water spray. It is commonly applied to automotive electrical components, industrial enclosures and products exposed to pressure washing or severe water impact.

What products are typically tested in an IPX9K chamber?

Typical samples include automotive lamps, sensors, cameras, connectors, ECU housings, battery-related enclosures, wiring interfaces and industrial control components.

Why are pressure, temperature and spray angle important?

These parameters determine the severity and repeatability of the test. If pressure, temperature, flow rate or spray angle is unstable, the test result may not accurately represent the intended ISO 20653 related condition.

How should laboratories choose an IPX9K test chamber?

Laboratories should confirm sample size, sample weight, spray angle requirement, turntable size, chamber material, heating capacity, pressure control, drainage and reporting needs before selecting the final equipment configuration.

With more than 26 years of experience in standards-based testing equipment, KingPo supports laboratories and manufacturers with environmental test chambers, IP waterproof and dust test systems, electrical safety testers, medical test equipment, flame test equipment, standard gauges, test probes and customized laboratory test systems. Where customer authorization allows, KingPo's project experience includes cooperation with organizations in automotive, battery, medical device and third-party testing industries.

For more information about the ISO 20653 IPX9K Test Chamber, visit [DGKingPo.com](https://www.dgkingpo.com).

About KingPo Technology Development Limited

KingPo Technology Development Limited is a manufacturer of standards-based testing equipment for product safety, environmental reliability, ingress protection, electrical safety, medical device testing, battery testing and laboratory compliance applications. Through [DGKingPo.com](https://www.dgkingpo.com), KingPo provides IEC, ISO, UL, EN, GB and related test equipment solutions for laboratories, manufacturers and quality control teams worldwide.

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