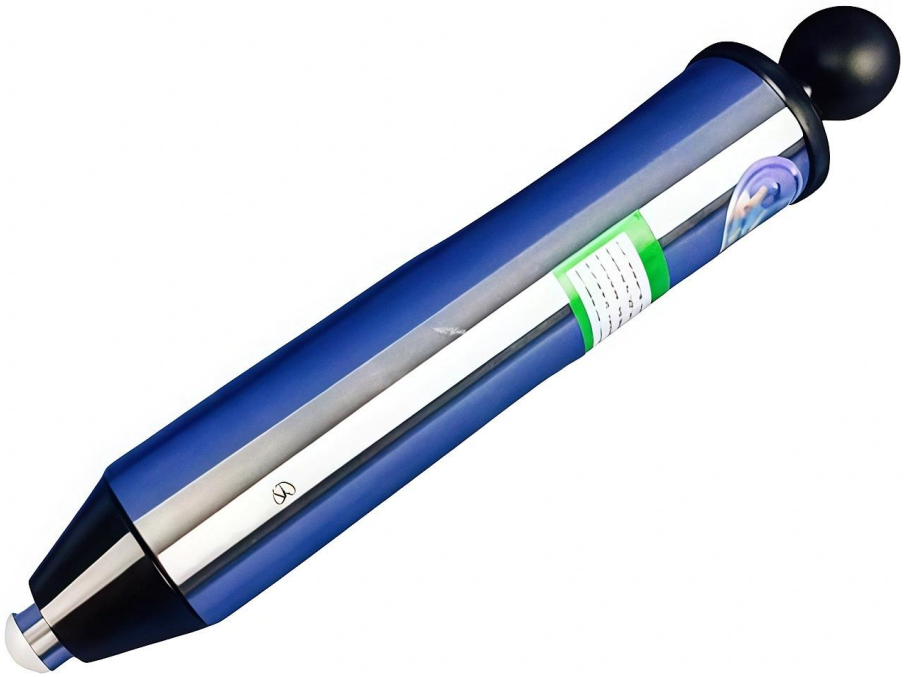

Spring Impact Hammer

Precision Mechanical Testing Instrument for IEC 60068-2-75 Compliance

---

1. Executive Summary

The **Spring Impact Hammer** is a high-precision mechanical test device engineered to evaluate the structural integrity and impact resistance of product enclosures and components. Meticulously designed in accordance with **IEC 60068-2-75**, this instrument is the global benchmark for verifying mechanical strength across a wide spectrum of electrical and electronic products, including those governed by IEC 60065, IEC 60335-1, and IEC 60598-1 standards.

2. Engineering Excellence & Technical Precision

KingPo's Spring Impact Hammer is built for durability and unmatched repeatability in rigorous laboratory environments:

- **High-Grade Construction:** The cylindrical body is precision-machined from premium stainless steel, providing a stable and frictionless guide for the internal hammer shaft.
- **Calibrated Striking Element:** Features a 250 g (± 5 g) stainless steel striking mass tipped with a hard polyamide hemispherical face (10 mm radius), ensuring standardized energy

Website:www.kingpo.hk E-mail:sales@kingpo.hk
Tel:0086 769 81627526 Fax: 0086 769 89032367
Address: No.9,University Rd.,Songshan Lake,Dongguan,Guangdong,China

transfer.

- **Versatile Energy Selection:** A rear adjustment knob allows for the selection of six discrete energy levels (0.14 J to 1.0 J), making it a versatile tool for various testing requirements.
- **Advanced Trigger Mechanism:** Utilizes a spring-loaded nose cone that activates only under uniform axial pressure. This design minimizes operator variability and ensures impact energy is delivered perpendicular to the test surface.
- **Long-Term Stability:** Factory-calibrated compression springs and controlled release forces ensure the instrument maintains its accuracy over thousands of operational cycles.

3. Technical Specifications

Table 1: Impact Energy & Mechanical Parameters

Parameter	Specification	Standard Compliance
Selectable Impact Energy	0.14 J, 0.2 J, 0.35 J, 0.5 J, 0.7 J, 1.0 J	IEC 60068-2-75
Striking Element Mass	250 g ± 5 g	Stainless Steel Construction
Striking Face Material	Hard Polyamide (Hemispherical)	R = 10 mm
Release Force	≤ 10 N	Nose Cone Triggered
Primary Standards	IEC 60068-2-75, 60335-1, 60598-1	Global Safety Compliance

4. Industrial Applications & Lab Scenarios

- **Electrical Appliance Manufacturers:** Verification of mechanical robustness for household appliances, switchgear, and control panels.
- **Independent Certification Bodies:** Essential tool for Type Testing and compliance auditing according to international safety standards.
- **Research & Development:** Evaluation of material science applications, including enclosure thickness and structural rib optimization.
- **Quality Assurance:** Routine batch testing to ensure consistent production quality and resistance to transport/installation stresses.
- **Regulatory Compliance:** Generation of empirical test data for CE marking and international market access documentation.

5. Strategic Procurement Advantages

- **Multi-functional Capability:** A single instrument replaces multiple fixed-energy hammers, significantly reducing equipment costs and storage requirements.
- **Traceable Reliability:** Produced under ISO 9001/14001/45001 certification. All units support ISO 17025 traceable calibration.
- **Global Support Network:** Rigorous factory calibration at our Dongguan facility, inclusive of a 1-year warranty and lifetime engineering support.

Note: For maximum repeatability, the hammer must be held strictly perpendicular to the test surface. KingPo recommends periodic inspection of the polyamide striking face and annual spring calibration to maintain laboratory-grade accuracy.

Website:www.kingpo.hk E-mail:sales@kingpo.hk
Tel:0086 769 81627526 Fax: 0086 769 89032367
Address: No.9,University Rd.,Songshan Lake,Dongguan,Guangdong,China