

Envitest Laboratories Pvt. Ltd.

# The "Find and Fix" Approach: Backing New Test Products at Envitest Lab

## Identifying Potential Risks and Implementing Controls for Product Integrity

### Special points of interest:

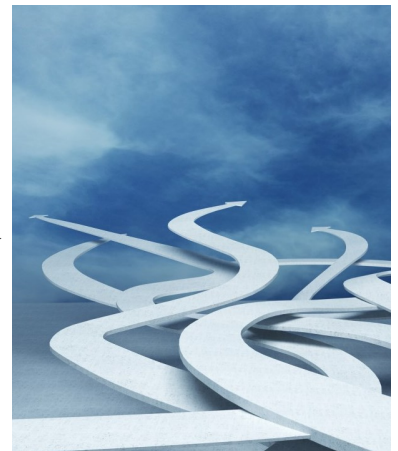
- The Deputy Director General (DDG) of TEC visited Envitest Lab and provided advice for improvements.
- Walkie-talkies are the heart of communication, and we take pride in testing them to our premier customer.
- We had a multiple hands on EMI/EMC test facilitated to our customer from our partner lab service with technical assistance.

As we bid farewell to an incredible year, we want to express our deepest gratitude for your trust and partnership with Envitest Lab. Your support has been the driving force behind our success. Thank you for choosing Envitest Lab for your testing needs. Your confidence in our services motivates us to continually strive for excellence. As we step into the New Year, we extend our heartfelt wishes to you and your loved ones. Let 2024 be filled with prosperity, success, and joy. We look forward to another year of collaboration and growth together.

For testing and innovation, the journey from conception to execution of new test prod-

ucts, one crucial aspect that often takes centre stage at Envitest Lab is the "Find and Fix" approach – a proactive method strategically employed to identify and address potential and existing risks before they have the chance to impact the integrity of your new test products.

The "find and fix" approach is not merely a reactive response to unforeseen challenges but a pre-emptive strategy embedded in our organizational DNA. Envitest Lab acknowledges the significance of anticipating and mitigating risks to ensure that the quality and reliability of your new test products remain uncompromised. This proactive paradigm is instilled in our



culture, fostering a workplace where the pursuit of excellence harmonizes with a commitment to safety.

## Continuous Monitoring and Adaptation

From conceptualization and design to the actual testing processes, a dedicated team at Envitest Lab conducts thorough risk assessments. This involves a comprehensive analysis of variables such as equipment functionality, environmental factors, and human factors that could influence the outcome of the tests.

Once potential risks are identified, the "find and fix" approach pivots towards the

implementation of robust test methods. Envitest Lab prioritizes engineering methods, stringent quality assurance protocols, and adherence to industry standards to minimize risks. This phase may include fine-tuning equipment specifications, refining testing procedures, and introducing fail-safes to ensure the integrity of our new test products.

Continuous monitoring is integral to this methodology. Reg-

ular checkpoints, test observations, feedback loops, and iterative improvements are fundamental components of the process. This ensures that any emerging risks are promptly identified and addressed, safeguarding the consistency and accuracy of our new test products. Our commitment to excellence extends beyond the final test results to the entire lifecycle of our products.

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*“Engineering services is a brain storming activity where everyone put their hands at Envitest lab!”*

## Empowering Innovation: Envitest Lab's 3-dimensional Engineering Services

In technological advancement, engineering services stand as the bedrock of innovation, offering a spectrum of creative works and expertise that propel industries forward. Envitest Lab, with its unwavering commitment to excellence, emerges as a beacon in the landscape of engineering services, contributing significantly to diverse sectors with its expansive capabilities. The capabilities of engineering services are multifaceted, covering various aspects crucial to the development and sustenance of industries.

These include:

- **Design and Development:** Crafting innovative solutions through cutting-edge design and development processes.
- **Simulation and Testing:** Rigorous simulation and testing to ensure products meet stringent standards.
- **Reverse Engineering:** Unravelling the intricacies of existing systems to enhance or replicate them.
- **Technical Documentation:** Thorough documentation to facilitate understanding, maintenance, and future

development.

- **Consulting:** Providing expert guidance and insights to navigate complex engineering challenges.

A noteworthy trend in the industry is the Engineering as a Service (EaaS) model, where many companies take remote engineering services on a contract basis. Envitest Lab embraces this model, extending our expertise to clients globally, fostering collaborative innovation.

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*Envitest Lab's engineering services specializes in providing consulting and assisting in bringing products and technology to market through tailored and innovative engineering solutions.*

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## Envitest Lab's Engineering Services Spectrum:

Engineering services play a pivotal role in shaping the built environment and driving technological advancements across industries. In manufacturing, these services are instrumental in:

- Designing and optimizing production processes;
- Developing groundbreaking new products;
- Enhancing and improving the performance of existing products.

Envitest Lab forefront engineering services, offering a suite of capabilities for the entire product lifecycle. Our services include:

- **Feasibility Studies:** In-depth assessments to evaluate the viability and potential.
- **Design:** Innovative and precision-driven design solutions tailored to specific industry requirements.
- **Program Management:** Streamlining program pro-

cesses for optimal efficiency and output.

**Testing:** Rigorous testing protocols to ensure the reliability and durability .

**Quality Assurance:** Implementing robust quality assurance measures for consistent excellence.

**Maintenance and Support:** Providing continuous support to ensure the longevity and performance of products.

## Pioneering Progress through Engineering Excellence



Envitest Lab, with its robust capabilities and unwavering dedication, stands as a testament to the transformative power of engineering services. As industries evolve, our commitment to shaping a better, technologically advanced products remains committed. Through comprehensive engineering

services, we continue to empower innovation, drive progress, and redefine possibilities.

Engineering services encompass a broad array of creative works or services that demand specialized education, training, and experience. These services are required in multiple indus-

tries, leveraging engineering knowledge in mathematical, physical, and engineering sciences. The diverse industries benefiting from engineering services include Military and Aerospace, Transportation, Energy, Consumer, IoT, IT & Telecommunications, Medical and Manufacturing .

## NEMA 250: Ensuring Enclosure Protection at Envitest Lab

NEMA 250, a pivotal standard, serves as a guiding beacon in this domain, addressing the ingress protection of enclosures for electrical equipment rated at 1000 Volts or less. At the forefront of ensuring compliance and reliability, Envitest Lab stands as a certified NEMA 250 testing lab, dedicated to evaluating and enhancing enclosure protection. NEMA 250 examines into the details of enclosure protection, specifically for electrical equipment designated for installation in both non-

hazardous and hazardous locations. The standard covers a range of locations, including indoor, outdoor, and mining environments. It meticulously categorizes enclosures based on their intended use and the level of protection they offer, addressing the unique challenges posed by solids and liquids.

Envitest Lab: A Certified NEMA 250 Testing Lab. In the pursuit of ensuring the highest standards of enclosure protection, Envitest Lab proudly

holds the certification as a NEMA 250 testing lab. Our dedicated team of experts employs state-of-the-art testing methodologies to rigorously assess enclosures, ensuring they meet the stringent criteria set forth by the NEMA 250 standard.

NEMA 250 testing expertise at Envitest Lab, provides a robust framework for evaluating and enhancing enclosure protection contributing to the seamless functioning in the diverse industries.



*Enclosure protection test verification in real time*

## Envitest Lab's Commitment to Data Quality Assurance

Envitest Lab accepts ISO/IEC 17025:2017 as a guiding principle, shaping its operations to align with the requirements for Valid Results. Our commitment to data quality assurance is not just a regulatory obligation; it's a fundamental aspect of our ethos. We ensure that our results meet industry standards, providing clients with outcomes they can trust. At Envitest Lab, we meticulously implement the

mandates of this clause, incorporating rigorous monitoring, robust data recording, and insightful trend analysis to ensure the validity of our results.

Preparing proper input data is an integral aspect of any test setup, serving as the foundation for accurate and meaningful testing outcomes. The quality and relevance of input data directly impact the validity and reliability of the test results.

Ensuring that the data is representative of real-world scenarios, covers a full range of conditions is crucial for conducting thorough and effective tests. This process involves meticulous attention to detail, including data collection, validation, and structuring. Adequate preparation of input data enhances the precision of the testing and contributes to the overall efficiency of the test.

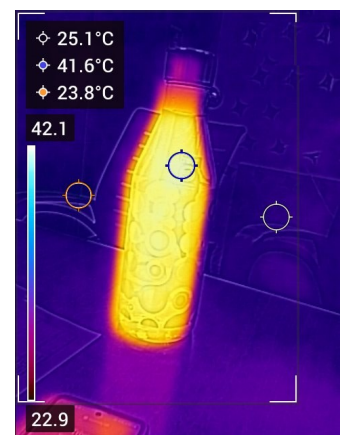
*The accuracy and relevance of the input data form the core upon which the validity and reliability of test results rest. A meticulous selection and preparation of input parameters ensure that the test adequately simulates real-world conditions, providing correct results.*

## Engineering Services Redefined

Envitest Lab's holistic approach to engineering services sets us apart as an industry leader. We believe in not just meeting but exceeding client expectations at every stage of the product development lifecycle. Our commitment to precision testing, insightful advice, certification excellence, and strategic market access positions us as a trusted partner for companies striving

for engineering excellence. Envitest Lab, providing a comprehensive suite of offerings that encompasses Testing, Advice, Certification, and Market Access is an integrated approach that reflects our commitment to meeting industry standards, ensuring that our clients receive unparalleled support throughout their product development journey.

At the core of our engineering services lies a commitment to precision testing. Envitest Lab employs state-of-the-art methodologies to conduct testing across industries. Recognizing that comprehensive testing demands more than technical expertise alone, our advisory services provide clients with precise insights, strategic direction, and recommendations.





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## Our Services

*Climatic Simulations*

*Contamination and Ingress*

*Aircraft Electrical Testing*

*Optical Fibre Cable Testing*

*International Approvals*

*Customized Tests*

*Dynamics & Vibration*

*Materials / Metallurgical Testing*

*Electrical Safety Testing*

*Telecom Interface Testing*

*Connectors Test*

*Engineering Services*



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## About Envitest Lab

ENVITEST abbreviated for “ENVIRONMENTAL TESTING”, established in 2017 at Bangalore Electronic City, is a ISO/IEC 17025 certified company with an unlimited vision backed by professionals having great experience in problem solving, with an objective to offer high-quality testing and inspection, pre-compliance and certification, engineering services for the across the globe products at best quality results, consistent process, and affordable cost.

We serve across domains products for the compliance and certifications. Over time we kept on adding the new testing facilities to bring more opportunities for growth but would allow to provide a more complete portfolio of testing solutions to our customers. From our humble beginnings, we have grown from a simple test house who worked

on the world’s most complex engineering projects to become a leading test lab of standard and custom test services.

Throughout our journey to become one of the premier worldwide service providers of testing solutions, we have held true to the philosophy that the customer comes first. This dedication to customer service has allowed us to work with leading manufacturers in over 22 industries including aviation, automotive, aerospace, defense, medical, energy, to name a few. Located in Bangalore, our campus is comprised of two buildings with over 10,000 square feet of space. Each building has been tailored to provide flexibility, comfort, and safety for everyone while providing room for continued growth and innovation.

We have 3 Disciplines -

**Electronics and Electrical Product Test** covering Optic fibre, electrical connectors for automotive and MIL, Aircraft electrical characteristic, Product safety, Product performance, Product susceptibility test.,

**Telecom Product Test** covering telecom products which covers PON and GPON Test, Interface Test, EMI/EMC test, Router and Switches and many more.

**Environmental Test for Any Product** covering - Shock and Vibration, Bump, Thermal, Humidity, Damp Heat, Cold Hot temperatures, thermal shock, Ingress protection, dust, water, contamination, fungus, Ultraviolet UV, salt and acidic corrosions and many more.