

North American Product Certification Marks and the Testing & Certification Process

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Product testing and certification is an important prerequisite for manufacturers who export products to North America. Product certification marks open the doors to the vast North American marketplace by demonstrating to buyers that a product meets the applicable safety and or performance standards required by regulatory authorities in the United States and Canada.

Overview

Japanese manufacturers exporting their products to North America can choose from a number of qualified testing and certification organizations. By comparing factors such as service, cost, experience, location, and reputation, companies can select a testing and certification partner that will best meet their scheduling and cost requirements.

All accredited testing and certification organizations test products under rigorous, carefully controlled conditions. Products that successfully pass all required tests are entitled to bear the organization's certification mark. These marks show designers, specifiers, installers, manufacturers, retailers and consumers that the products meet the requirements of the applicable standards.

While some North American certification marks are better known than others, marks from accredited organizations such as Underwriters Laboratories (UL) and CSA International are widely accepted. For example, many U.S. retail chains—including Best Buy, Circuit City, JCPenney, Lowe's, Sears, The Home Depot, and Wal-Mart—sell products bearing the CSA US and CSA C/US Marks.

Many manufacturers use CSA Marks on the products they export to North America. Fujitsu uses CSA Marks on computer equipment, and Mitsubishi Electric & Electronics uses CSA Marks on home and commercial entertainment products.

The Different Roles of Testing Organizations and Standards Publishers

Many manufacturers don't fully understand the relationship between testing organizations and standards publishers. Standards publishers are the organizations that prepare, update, and distribute product standards on behalf of standards development committees. Standards typically bear the name of the publisher. For example, CSA Standard C22.2 No. 6 for electric clocks was published by the Canadian Standards Association. Similarly, UL Standard 507 for electric fans was published by UL.

Testing and certification organizations evaluate products for compliance with the requirements of the applicable standards. In some cases, organizations may be involved in both standards publishing and product testing and certification (UL and CSA, for example). However, the fact that a standard bears one organization's name does not mean that organization must test and certify products against the standard. Standards are available to any interested testing organization or manufacturer, and any accredited organization can test and certify products to the applicable standards. Below is an example of a mark that would be found on a product certified by CSA to an applicable UL standard.



Why Accreditation Matters

A testing and certification organization must be properly accredited to qualify for product testing. In the United States, the Occupational Safety and Health Administration (OSHA) recognizes product testing and certification organizations as qualified to test and certify that electrical, gas, and other products meet U.S. standards. OSHA-recognized facilities are known as Nationally Recognized Testing Laboratories (NRTLs).

Other bodies also accredit organizations as qualified to test electrical, gas, and other classes of products for the U.S. market. These include the American National Standards Institute (ANSI), the U.S. Department of Energy Office of Energy Efficiency (DOE), International Accreditation Services (IAS), and the National Institute of Standards and Technology/ National Voluntary Laboratory Accreditation Program (NIST/NVLAP). The Standards Council of Canada (SCC) is the main accrediting body for testing and certification organizations in Canada.

A Brief Review of the Certification Process

When a new product is ready to be tested and certified, the manufacturer requests an estimate from one or more testing and certification laboratories. If retail buyers do not specify a particular testing and certification laboratory, manufacturers can select a laboratory based on cost, time requirements, client service levels, and other factors.

When submitting a product for testing and certification, manufacturers provide product samples and relevant data. The data should include a list of materials used in the product's manufacture, current schematic diagrams, and complete component information. Planning one submission to cover all related product designs is more efficient and less expensive than making multiple submissions.

If your product meets all of the applicable requirements, the testing and certification organizations will provide a certification report and a Certificate of Compliance. The product is then considered certified. After a licensing agreement for the certification mark is arranged, manufacturers can then begin using the mark on the product. The product is also listed in the organizations directory listing and can be verified online. For example, a listing of CSA-certified products can be found online at www.csa-asia.org/english/certified_product_listings/.

How to Avoid Certification Delays

Contacting a certification organization early in the design phase can help you avoid problems that could potentially delay your product's introduction. If you have questions about how the standards will affect your product, it's important to voice your concerns before you are ready to submit the finished product for certification.

When requesting an estimate from a certification organization, manufacturers should provide the following information:

- A photo of the product.
- A data sheet describing the product (what it is, what it does, and what it looks like).
- Where the product will be used.
- A list of the countries in which the product will be sold.
- A list of all components or materials used in the product. Be sure to include the manufacturer's name, model or catalog number, electrical rating (if applicable) and certification organization file number (if applicable).
- Any alternate materials or components that may be used in the product.
- Schematic or wiring diagrams for electrical or electronic products.
- The model or catalog numbers to be covered by the certification and the similarities between different models.
- The full name and address of all facilities where the product will be assembled, and a contact person for each facility.

Product testing can be performed either at a testing laboratory or at the manufacturer's own facilities. The latter alternative eliminates the time and expense of shipping a product to a testing laboratory. However, the testing and certification organization must first qualify the manufacturer's staff and facilities to ensure that personnel understand the applicable standards and know how to conduct the required tests, that the proper testing equipment is available, and that the equipment is properly calibrated.

Certification organizations will often provide a template that can be used by the manufacturer's test personnel to prepare a draft certification report. Manufacturers can save time by completing this form and returning it for review by the certification organization.

Out-of-date schematics cause confusion and may result in delays, so make sure that electrical schematics and other drawings match the product samples submitted for testing.

Supplying drawings and photos electronically is the fastest way to submit them for use in a certification report. When sending images electronically, be certain that your file formats are compatible with the testing organization's software.

Sample product(s) submitted for testing should be identical to the final version that will be manufactured.

Locations Throughout Japan and Asia

To provide manufacturers with personalized local service and support in the testing and certification process, CSA has offices located throughout Asia, including, Japan, Korea, Hong Kong, Guangzhou and Shanghai.

Use the following information to contact CSA International in Japan.

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CSA International

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What the Marks Signify

Certification marks indicate or confirm that a product or component meets applicable standards for safety and/or performance. Some of the marks issued for products sold in the United States include CSA, Underwriters Laboratories (UL), National Sanitation Foundation (NSF), Intertek Group Plc (ETL), and TUV Rheinland of North America (TUV). Some marks may appear on a range of products and others are issued for specific classes of products. Here are some example marks from CSA International and explanations of when they are used.



The CSA US Mark indicates that a product meets U.S. requirements including applicable UL, ANSI, ASME, ASSE, ASTM and NSF standards.



The CSA C/US Mark signifies that the product meets U.S. and Canadian requirements including applicable UL, ANSI, ASME, ASSE, ASTM, CSA and NSF standards.



The CSA Blue Star Mark indicates the gas-fired product meets U.S. requirements including applicable ANSI and CSA standards.



The CSA Blue Flame indicates the gas-fired product meets Canadian requirements including applicable CSA standards.

