

Understanding North American Product Approval Marks and the Testing & Certification Process

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If you export products to the North American marketplace, product testing and certification is an important step. Product certification shows buyers that your product meets standards that are required for the United States and Canada.

Manufacturers have a number of options to choose from for selecting testing and certification organizations. By comparing the service, cost, and other factors companies can bring new products to market sooner and lower their certification costs.

Overview

There are many organizations that can test your product for North America. The organization, like CSA, tests products under rigorous, carefully controlled conditions. Products that successfully pass all required tests are entitled to bear the organization's approval mark. These marks show to designers, specifiers, installers, manufacturers, retailers and consumers that the products meet the requirements of the applicable standards.

While some marks are better known than others, marks from accredited organizations 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.

It is important to understand the differences between testing organizations and standards publishers. Standards publishers prepare, update, and distribute product standards on behalf of standards development committees. These standards typically bear the name of the publisher—for example; CSA Standard Z21.47/CSA 2.3 for gas-fired central furnaces was published by CSA. 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. However, just because a standard bear's one organization's name does not mean that they must be the ones to test and certify products against that standard.

Standards are available to any interested testing organization or manufacturer, and any accredited organization can test and certify products. Below is an example of 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. 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).

In addition to OSHA, other bodies accredit organizations as qualified to test electrical, gas, and other classes of products for the U.S. market. They include American National Standards Institute (ANSI), and the International Accreditation Services (IAS). The Standards Council of Canada (SCC) accredits testing and certification organizations for the Canadian market.

Multiple organizations are accredited to test and certify various types of products. This allows manufacturers to select a certification organization based on timing, cost, convenience, or other considerations. If all manufacturers had to use the same laboratory, product testing would take longer and there would be no competitive pressure to control costs.

How the Testing and Certification Process Works

When a new product is ready to be tested and certified, the manufacturer requests an estimate from one or more testing and certification facilities that are qualified to test the product to the applicable standards.

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

If the product meets all 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. A listing of CSA-certified products can be found online at www.csainternational.org/product/.

Helpful Hints

If you have questions about how the standards will affect your product, contact a certification organization right away. Don't wait until you are ready to submit the finished product for certification to bring up your concerns.

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

- A data sheet describing the product (what it is, what it does and what it looks like).
- Where it will be used.
- A photo of the product.
- 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 if the product is electrical or electronic.
- 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.
- The countries in which the product will be sold.

Product testing can be performed at a manufacturer's facilities—eliminating the time and expense of shipping a product to a testing laboratory. However, the organization must first qualify the manufacturer's staff and facilities to ensure that personnel understand the applicable standards and test methods, 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. Filling out this form and returning it for review saves time.

Ensure that electrical schematics and other drawings are current. If a manufacturer submits drawings that are not up-to-date, they may not match the product samples submitted for testing, resulting in delays. Up-to-date schematics avoid confusion and save time.

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

Sample product(s) submitted for testing should be identical to the final version that will be manufactured. In one instance, a manufacturer submitted a controller for testing. Just before the sample was sent to the testing organization, the manufacturer indicated that the final version would "not be exactly the same." This statement could indicate cosmetic changes or major design changes. In this instance, the company meant that the printed circuit board in the controller was being changed. Delays in product testing and certification resulted while the new circuit board was examined for compliance.

Locations Throughout Korea and Asia

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

Use the following information to contact CSA International in Korea.

CSA International Korea

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255-1 Seohyeon-dong
Bundang-ku, Seongnam-si, Gyeonggi-do
463-824
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Telephone: 031-783-6737 (office) 011-9097-1400 (cellular)
E-mail: gwang-yeol.park@csa-international.org

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.

