



## Pressure Equipment Certification.

Ensure the Conformity and Quality of Your Pressure Equipment.  
Worldwide.



## Worldwide Compliance of Your Pressure Equipment.

Used all over the world, boilers and pressure vessel equipment are necessary for many industries including the oil and gas, energy and petrochemical industries. To ensure conformity assessment, consistency of design and operational efficiency of pressure equipment, specific standards and regulations have been developed, some of which require independent third party inspection to achieve compliance. Due to the potential dangers and risks associated with such equipment, manufacturers of boilers and pressure vessels must comply with government or jurisdictional rules and regulations to applicable product standards.

As an experienced and globally recognized service provider for pressure equipment and related components, TÜV Rheinland supports you in gaining certification for your boilers and pressure vessel equipment. As a Notified Body for the European Pressure Equipment Directive (PED) 97/23/EC, we review and certify all elements and procedures in connection with the certification process. We support you through the whole process to fulfill the applicable requirements. Moreover, we are accredited by the American Society of Mechanical Engineers (ASME) as an authorized inspection agency and can support you in gaining certification for your boilers and pressure vessel equipment according to the ASME Boiler and Pressure Vessel Code.

### Benefits of our pressure equipment certification

With more than 140 years of experience in the industrial sector, TÜV Rheinland provides you with comprehensive technical knowledge for conformity assessment of your boilers and pressure vessel equipment. We offer you:

- Qualified experts with extensive experience in certifying pressure equipment and related components.
- Profound knowledge in the different regulations, standards and codes.
- Achieving the prerequisites for exporting your products abroad.
- Timely certification and quick response to all your needs.
- Worldwide availability of our experts and services for your comfort.



## Providing the Required Knowledge for Your Success.

TÜV Rheinland is active in 65 countries and our accredited global network enables us to provide you with a one-stop-shop solution for your boilers and pressure equipment, making it easy to globally distribute your products.

In addition to our PED and ASME certification services, we also offer conformity assessment services for other relevant regulations, codes and standards, such as the Indian Boiler Regulations (IBR) in Asia, OAA in South America, DOSH in Malaysia and SANAS in South Africa, just to name a few.

With the support of our worldwide network of experts in plant equipment, steam, and pressure engineering, you can benefit from receiving a full range of services from a single source.

### Our international accreditations

- Argentina: OAA
- South Africa: SANAS
- Russia: Rostekhnadzor and GOST
- India: IBB and IBR
- USA: NB and ASME
- Europe: Notified Body for European Directives 2009/105/EC, 97/23/EC and 2010/35/EC
- Thailand: TISI
- Malaysia: DOSH
- Singapore: MoM and BCA
- Vietnam: MoL
- Japan: MHLW/METI and JIS
- Taiwan: MoL/TBA



## Comply with Legal Regulations and Requirements to Achieve European Certification.

For the European market, we support you as a Notified Body for the European Pressure Equipment Directive (PED) 97/23/EC. On the European level, this directive in combination with the Directive for Simple Pressure Vessels 2009/105/EC and the Transportable Pressure Equipment Directive 2010/35/EC forms the legal framework for pressure equipment. Compliance according to this directive allows you to place your products on the markets within the European Union and the European Economic Area.

As a manufacturer, you have many responsibilities and details to consider during the designing and production of pressure equipment. These include compliance with safety requirements, such as:

- Analyses of hazards
- Material selection
- Calculations for capacity, security and operation
- Manufacturing process (especially welding processes)
- CE Marking
- Instruction manuals

Certain processes demand qualified personnel and appropriate procedures in place to execute the work accordingly. These include:

- Traceability of materials
- Component preparation
- Permanent joint
- Heat treatment
- Pressure test
- Final assessment

As a Notified Body, we review and certify all these elements and procedures in compliance with the European Pressure Equipment Directive. We at TÜV Rheinland support you through the whole process to meet the applicable requirements. Moreover, as an independent inspection agency, we provide you with the required experienced personnel.



## Offering You the Experience to Access Your Target Market.

As a manufacturer of pressure equipment or related components wishing to enter the European market, you must certify your products according to the European Pressure Equipment Directive (PED) 97/23/EC.

PED is a guideline for the design and manufacture of pressure equipment covering pressure vessels, heat exchangers, steam boilers, pipelines, storage tanks, pressure relief devices, valves, regulators and other pressure equipment with a maximum allowable pressure greater than 0.5 bar.

With over 140 years of experience in inspection and certification of boilers and pressure equipment, we offer you highly specialized expertise and industry knowledge to help you meet all the requirements of your target market.

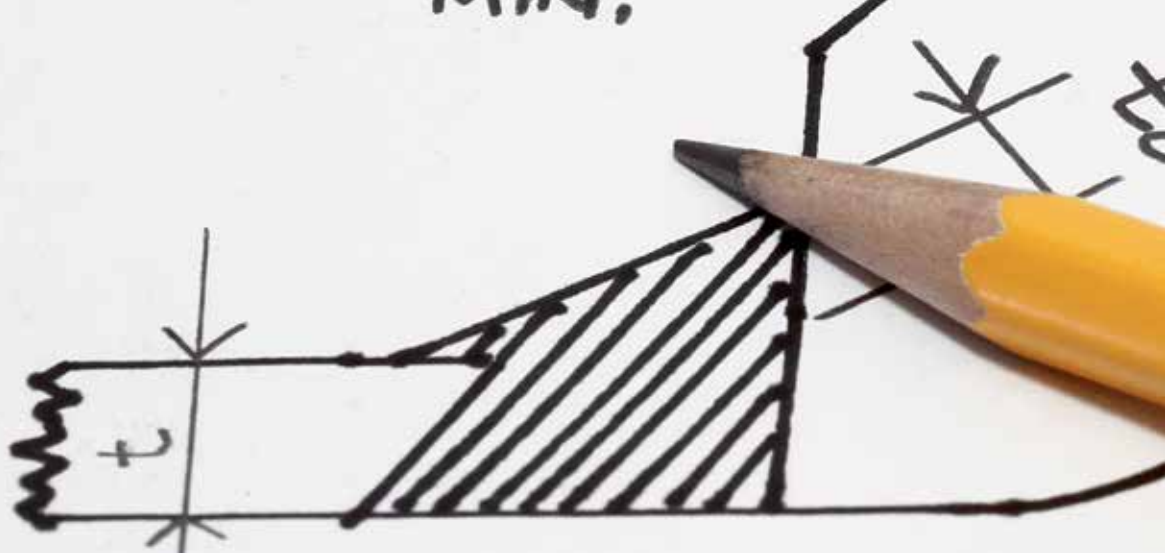
We can help you with any kind of pressure equipment, starting with material testing at the manufacturer's site, followed by inspection services during manufacturing and finally certification of the product. For the European market, boiler and pressure equipment must be certified by an independent Notified Body to ensure compliance with all regulations.

### Design and planning phase

- Support in the approval process, according to national and international regulations for worldwide markets
- Risk assessment and safety evaluation
- Review of the design proposal and strength calculations
- Calculations and analyses, including the finite elements method (FEM)
- Design verification

### Manufacturing phase

- Review, approval and inspection of materials and their production processes
- Procedure processes - parameter identification, feasibility and usability
- Certification of welders
- Certification of non - destructive testing (NDT) personnel
- Testing of pre - products, components, products and assemblies
- Certification of quality assurance (QA) system
- Support in welding and materials technology



## Extensive Services for Internationally Qualified Pressure Equipment.

For the international market, TÜV Rheinland AIA Services LLC is accredited by the American Society of Mechanical Engineers (ASME) as an authorized inspection agency.

ASME publishes 500 codes and standards that cover a wide range of engineered products and processes, including boilers, pressure vessels, nuclear power plant components, elevators, escalators, hand tools, fasteners, machine tools, plumbing fixtures, cranes, and transport tanks. There are more than 6,000 ASME certified manufacturers, 50 percent of which are outside the United States.

ASME standards are utilized, accepted and recognized in over 113 countries making certification according to ASME even more relevant for the international market.

TÜV Rheinland is accredited to support you in gaining certification of your boilers and pressure equipment according to the mandated ASME codes and standards.

### **The scope of our ASME accreditation includes:**

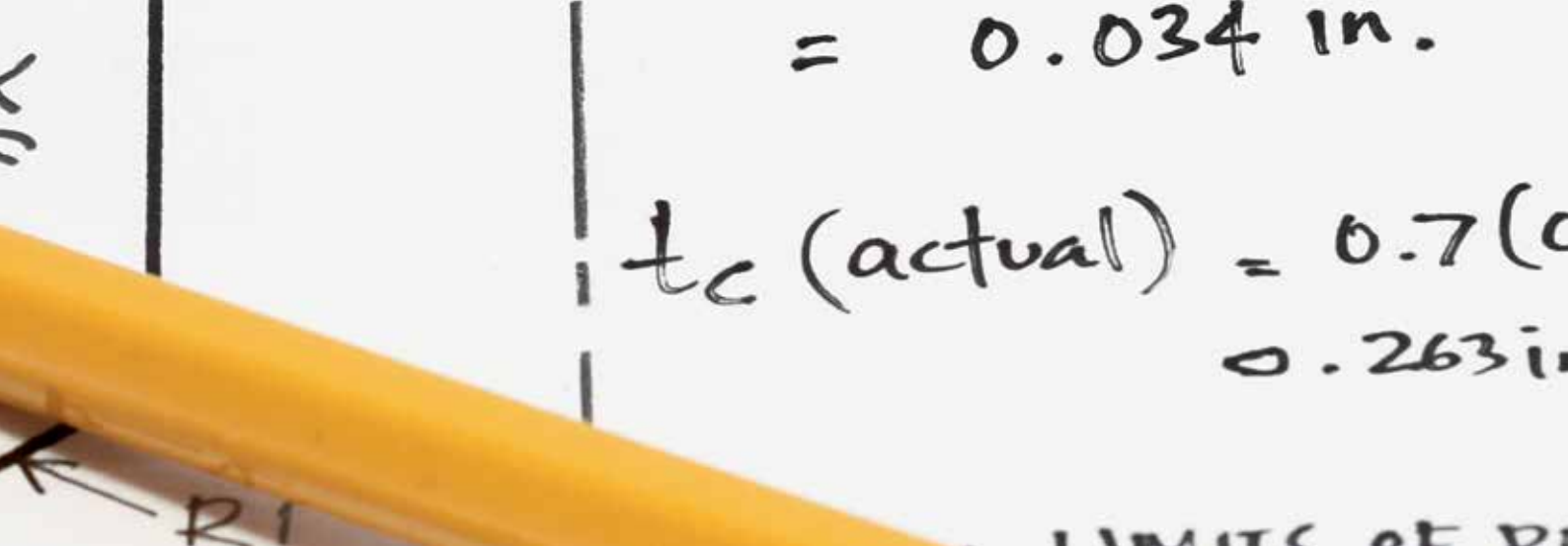
- Section I – Power Boilers
- Section III (Division 1 and 3) – Nuclear Components
- Section IV – Heating Boilers
- Section VIII (Division 1, Division 2 and Division 3) – Pressure Vessels
- Section X – Fiberglass Reinforced Plastic Vessels
- Section XII – Transport Tank Trucks

### **Repair and Alterations to Boilers and Pressures Vessels**

In order to ensure and maintain ASME Code integrity, repairs and alterations to boilers and pressure vessels must be performed by companies with a National Board “R” Certification of Authorization.

The National Board of Boiler and Pressure Vessel Inspectors offers the Certificate of Authorization and “R” symbol stamp for the repair and/or alteration of boilers, pressure vessels, and other pressure-retaining items.

TÜV Rheinland AIA Services LLC can provide assistance in obtaining the National Board Certificate of Authorization and “R” symbol stamp to determine your quality system compliant to the requirements of the National Board Inspection Code for your scope of activity.



## Support Throughout Accreditation, Fabrication and Inspections.

Rapid shifts in global trade and competition make it necessary to manufacture in accordance to multiple regulations, codes and standards. We support you in acquiring and managing all certifications required for your products.

As a manufacturer seeking ASME Authorization, our TÜV Rheinland AIA Services LLC can assist you through the whole process of accreditation, fabrication and inspections. In order to gain the ASME Certificate of Authorization, our qualified personnel can accompany you through the entire procedure and ensure your successful certification.

### **Our services for ASME certification include:**

- Quality control manuals
- Procedures for: welding, non-destructive examination or special circumstances
- Vendor evaluation and audits
- Audits of ASME or National Board Certificate holders
- Owner/User certification programs
- Technical seminars and workshops (held at public meeting places or at your facility)

### **We also provide the following services for your boilers and pressure equipment:**

- Parts, components and assembly certification as required by applicable codes and standards
- Design review
- Advice on codes and standard compliance
- Welding procedure and welder qualification approvals as required by applicable codes and standards



TÜV Rheinland Group  
Industrial Services

[industrial-services@tuv.com](mailto:industrial-services@tuv.com)  
[www.tuv.com/asme](http://www.tuv.com/asme)