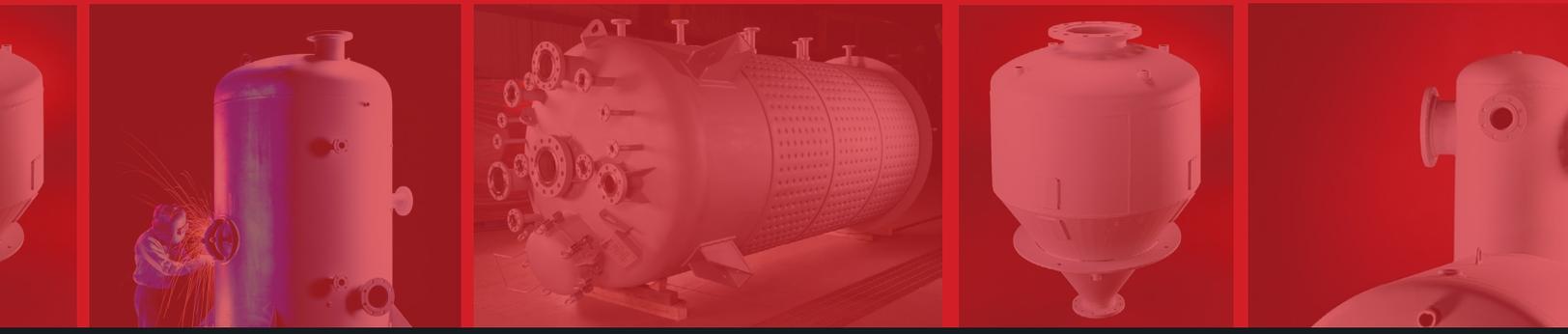


Insider's guide to

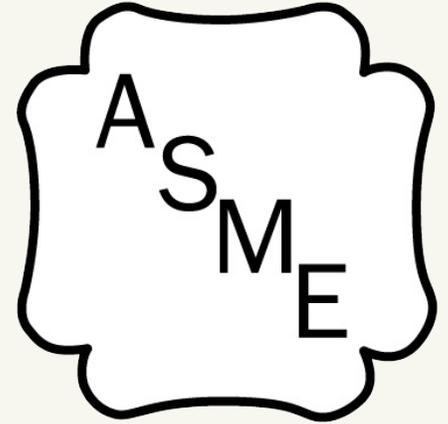
ASME certified companies



INTRODUCTION

There are a wide variety of tank manufacturers for a company to choose from. But when you're dealing with pressurized tanks, the importance of quality can literally be a matter of life and death. That is why you should always partner with a company certified by the American Society of Mechanical Engineers (ASME) when choosing a tank manufacturer.

This guide will inform you about what a company must achieve in order to attain an ASME certification. It will also give you a better understanding of the hard work and dedication to the tank fabricating craft that ASME certified companies hold their standards to.



ASME APPROVED QUALITY SYSTEM

The ASME's strict guidelines certify that a manufacturer meets its high threshold for quality. To assure that all of the companies they inspect are up to their meticulous standards, the ASME has a two step process for any company that wants to be certified. The first step is submitting a comprehensive document detailing their quality control systems. This document is analyzed by a special review team.

If the document is approved then the team will move forward and do an in-person inspection of the business. In order to receive ASME certification, a company must meet up to 16 items and dozens more sub-items. The ASME auditors will review in-process pressure vessels and, at times, will ask for demonstrations and exhibitions to prove competency.

All of these steps that a company does in order to become ASME certified means you can rest assured that the company has been thoroughly vetted and they're more than capable of having the experience and capability of creating safe and quality tanks to the specifications of your project.



ASME CERTIFIED WELDERS

The ASME also certifies individual welders at the approved companies. An ASME certified welder is not only at the top of the welding craft, but also uniquely qualified to work on boilers and pressure vessels. Welding certifications are very specific and depend on a number of variables, such as thickness of a material and the welding process being utilized.

The ASME sets objective standards that all certified welders must meet. This means that all welders who get an ASME certification have been approved by ASME auditors who supervise them performing a series of test welds, which will vary depending on materials and technology.

The evaluation is made up of two components: the actual fabrication process and the quality of the weld. During the actual test the examiner monitors key traits, such as the welder's work habits, use of appropriate procedures, and use of safety precautions. Once finished, the welds are tested for soundness, and must pass radiographic testing.

Radiographic testing is the nondestructive examination of a weld with X-rays in order to ensure the integrity by checking for hidden flaws.

Non-ASME companies may require their welders to demonstrate their skills and competency by taking a variety of tests, but being certified by ASME is a remarkable stamp of approval. Clients have the assurance that their tank will be fabricated by a welder who's an expert in the technology and material being used and that it will meet or exceed all requirements.



DOCUMENTED AND CONTROLLED WELDING PROCESSES AND PROCEDURES

An ASME certified company must also document a number of welding processes and weld procedures to ensure quality of fabricated products and correct any errors that may occur.

Companies meet these standards by ensuring the following:

- Measures are established for the control, issuance and return of welding material to make sure that proper materials are used.
- Measures for inspecting or removing tack welds are in place to ensure integrity.

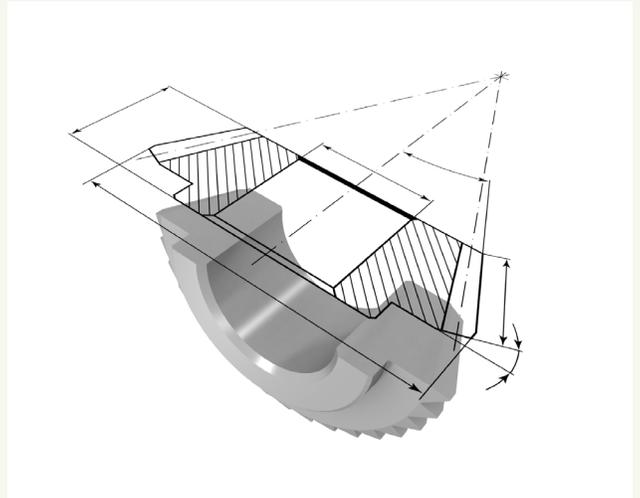
Most importantly, a system is put in place to identify completed work by each qualified welder. This means that everything done at the company is documented and traceable so if there are any problems, what happened and who is responsible can be quickly identified and corrected.



EXPERIENCED WITH TANK ENGINEERING (design, drawing, specifications, and calculations)

You can rest assured that all companies certified by the ASME are experienced with all aspects of tank manufacturing. You can expect them to have years of on the job experience, and academic knowledge. They also have the necessary processes in place for manufacturing, assembly, and testing of the tank. These include applicable drawings, designs, calculations, and specifications, as well as any additional authorized changes required by code.

After reviewing customer supplied documents for code compliance, drawings, calculations, and specifications are prepared, reviewed, approved, and distributed. These documents are used in the assembly and testing of the pressure tank to ensure it is exactly what the client has ordered and is up to both their specifications as well as the ASME standards. Revised calculations are also performed whenever design changes are made which could affect performance characteristics ensuring the safety and integrity of the tank.



CERTIFIED MATERIAL CONTROL SYSTEM

The ASME ensures that there are systems in place for material control. These assure that all the material received is properly identified with the correct documentation. This documentation includes (when applicable) material certifications or test reports on the materials to satisfy code requirements.



These stringent systems are in place to ensure only the intended material is used in the fabrication. They also ensure that if any substitution of materials are allowed, the procedures for such an activity are documented, down to which individual authorized the substitutions.

These systems also identify the persons in charge of verifying the material test reports, and those who are responsible for performing receiving inspections for code materials.

They also ensure that procedures exist for handling materials that are found to be not-compliant at receiving inspection. Finally if further material testing is required to be performed at receiving inspection or during manufacturing operations the procedures are documented.

ACCREDITED EXAMINATION AND INSPECTION PROGRAM

The first step of the ASME examination and inspection program starts with determining at what specific stages the examinations and inspections are to take place by the authorized inspector. Once the authorized inspector arrives they are provided with the necessary documentation by the company. These include drawings, calculations, checklists, and process sheets.



Additional documentation, such as material test reports, examination reports, test reports and other necessary fabrication records are also provided to the ASME inspector.

Companies must also put in place measures that assure the authorized inspector is informed of approaching inspection points, control field activities (when applicable), and provide transferring markings to assure traceability is maintained. After that a final inspection is performed to assure that all specified requirements have been met prior to obtaining the inspector's approval for use of the ASME code stamp.



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