

RJC Technologies, LLC

RJC is an ASME Section VIII, Div.1 pressure vessel design and calculation company. RJC's Designers are well versed and experienced in COMPRESS 2019 Calculation Software & SOLIDWORKS.

What We Do:

At RJC we offer the latest in engineering, design and detailing for Process Equipment and ASME Section VIII, Div. 1 Pressure Vessels.

Our team can design your vessel from a data sheet that you provide or something as simple as an email containing the required pressure, temperature and volume of your vessel.

We can also offer the complete design of your process skid. The design will include a Structural Skid or Module Frame and the necessary Piping & Instrumentation Drawings with completed Bill of Materials (Pipe ISO's).



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A pressure vessel is a container designed to hold gases or liquids at a pressure substantially different from the ambient pressure.

Pressure vessels can be dangerous, and fatal accidents have occurred in the history of their development and operation. Consequently, pressure vessel design, manufacture, and operation are regulated by engineering authorities backed by legislation. For these reasons, the definition of a pressure vessel varies from country to country.

Design involves parameters such as maximum safe operating pressure and temperature, safety factor, corrosion allowance and minimum design temperature (for brittle fracture).

Construction is tested using nondestructive testing, such as ultrasonic testing, radiography, and pressure tests. Hydrostatic tests use water, but pneumatic tests use air or another gas.





Hydrostatic testing is preferred, because it is a safer method, as much less energy is released if a fracture occurs during the test (water does not rapidly increase its volume when rapid depressurization occurs, unlike gases like air, which fail explosively). In most countries, vessels over a certain size and pressure must be built to a formal code. In the United States that code is the ASME Boiler and Pressure Vessel Code (BPVC). These vessels also require an authorized inspector to sign off on every new vessel constructed and each vessel has a nameplate with pertinent information about the vessel, such as maximum allowable working pressure, maximum temperature, minimum design metal temperature, what company manufactured it, the date, its registration number (through the National Board), and ASME's official stamp for pressure vessels (U-stamp). The nameplate makes the vessel traceable and officially an ASME Code vessel.

SERVICES OFFERED AT RJC:

- ASME Calculations
- ASME Vessel Drawings
- P.E. Stamping
- FEA Analysis
- On-Site Review & Drawings
- Data Books
- QC Process Review
- Engineering & Design
- SOLIDWORKS & Inventor
- ACAD Software