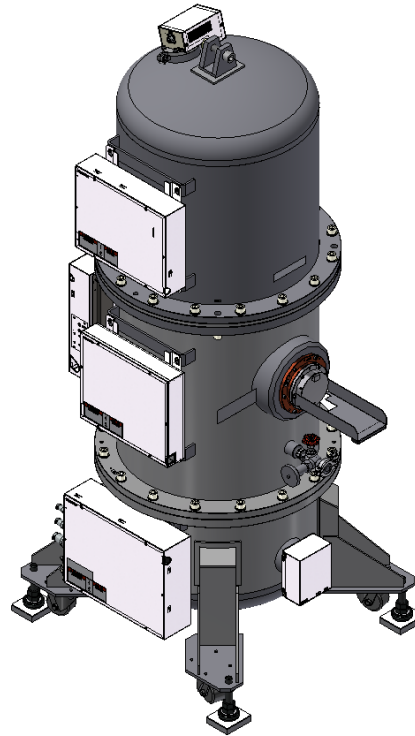


## ASME BPVC Section VIII Division 1 – Pressure Vessel Design Services

ASME Section VIII Division 1 is the most widely used Pressure Vessel Design Code in the world. Time and again, clients choose Predictive Engineering to satisfy their evolving needs. Whether the task involves design of new equipment, analysis of existing equipment, optimization of design, or interpretation of code requirements and options, our Professional Engineers will ensure your company is fully equipped to tackle its unique challenges.

### Put our work under a microscope

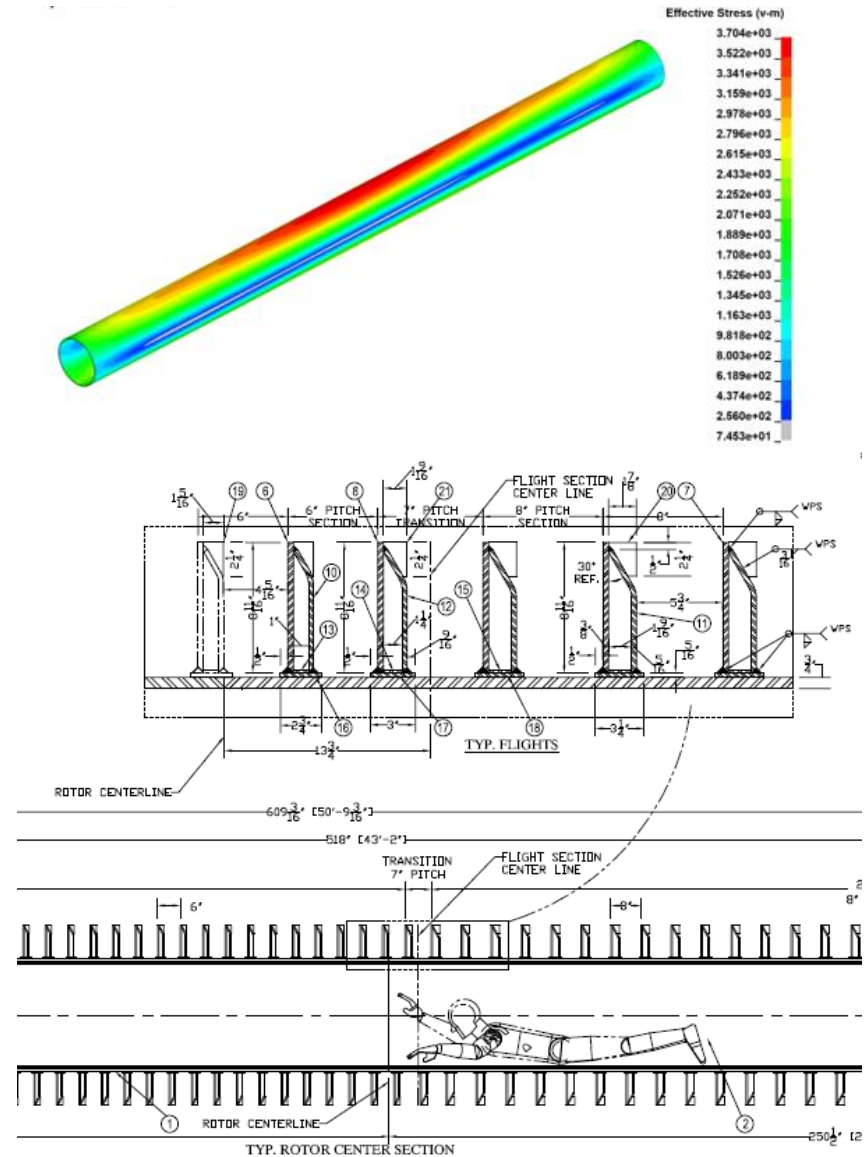
A vessel used in the operation of an electron beam microscope had been fabricated outside the U.S. and brought into California to be installed and operated by the end-user. Unfortunately, the City authorities would not allow the vessel to operate as intended since it was not built and stamped to ASME code. Predictive Engineering was able to analyze the existing tank and prove it's equivalence to a fully ASME design. This, coupled with some non-destructive examinations to assess overall weld quality, allowed the user to certify the vessel as safe for it's intended operation. The cost and timeline of Predictive's solution was considerably less than the alternative.



## What goes around...

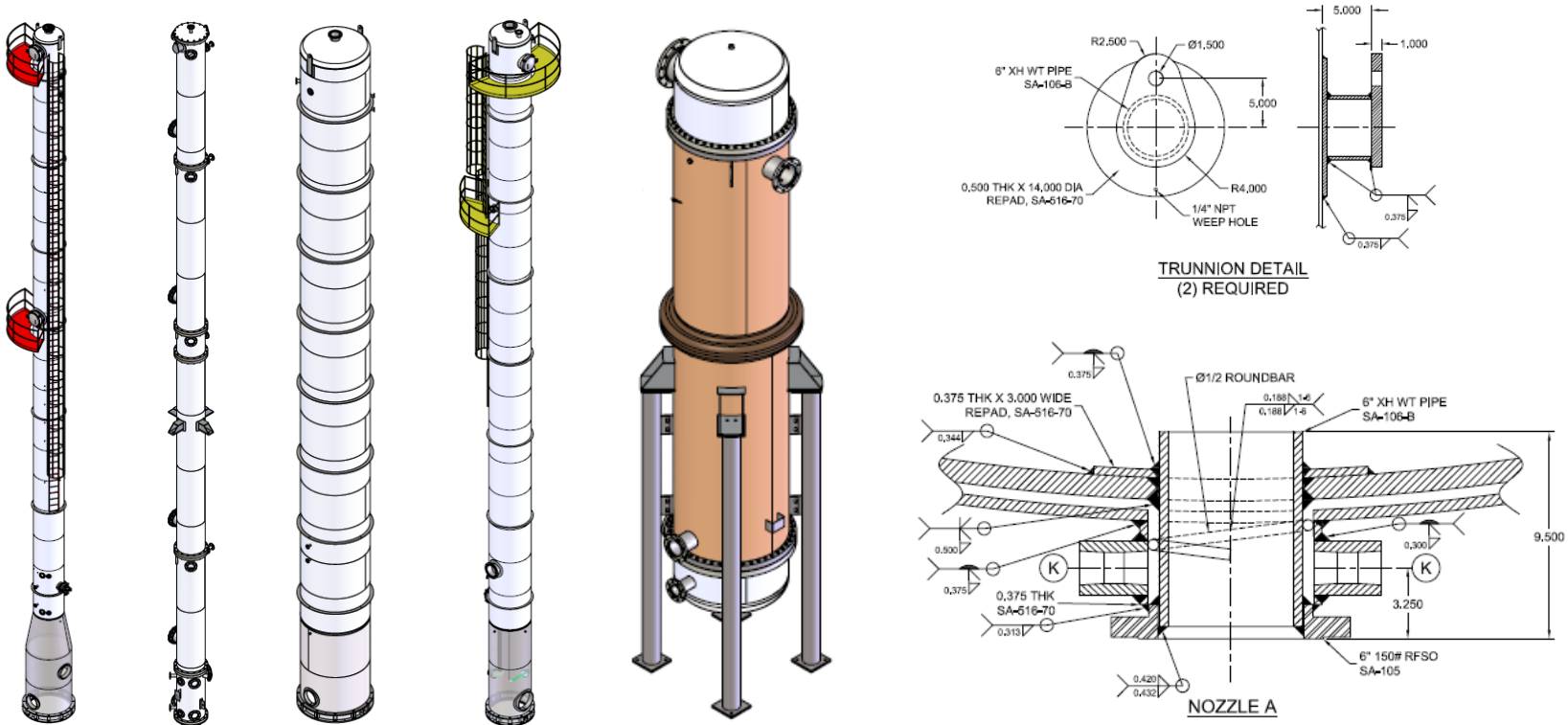
Not every pressure vessel is a simple cylinder, sometimes you have to get creative with shapes to solve the problem. We have plenty of experience with odd shapes and aren't afraid to think outside the box. This Auger is a rotating pressure vessel and a heat exchanger all in one. Unfortunately, the original design was experiencing some early failures. Predictive employed both our Division 1 Pressure Vessel and our Division 2 FEA services to produce an optimized Auger design that will withstand it's unique loading conditions for years to come. Our client followed-up a year later to have us analyze and update a similar, but different sized, auger in the same manner.

Note: The manikin shown is for size comparison only, Predictive Engineering does not recommend crawling into rotating equipment. 😊

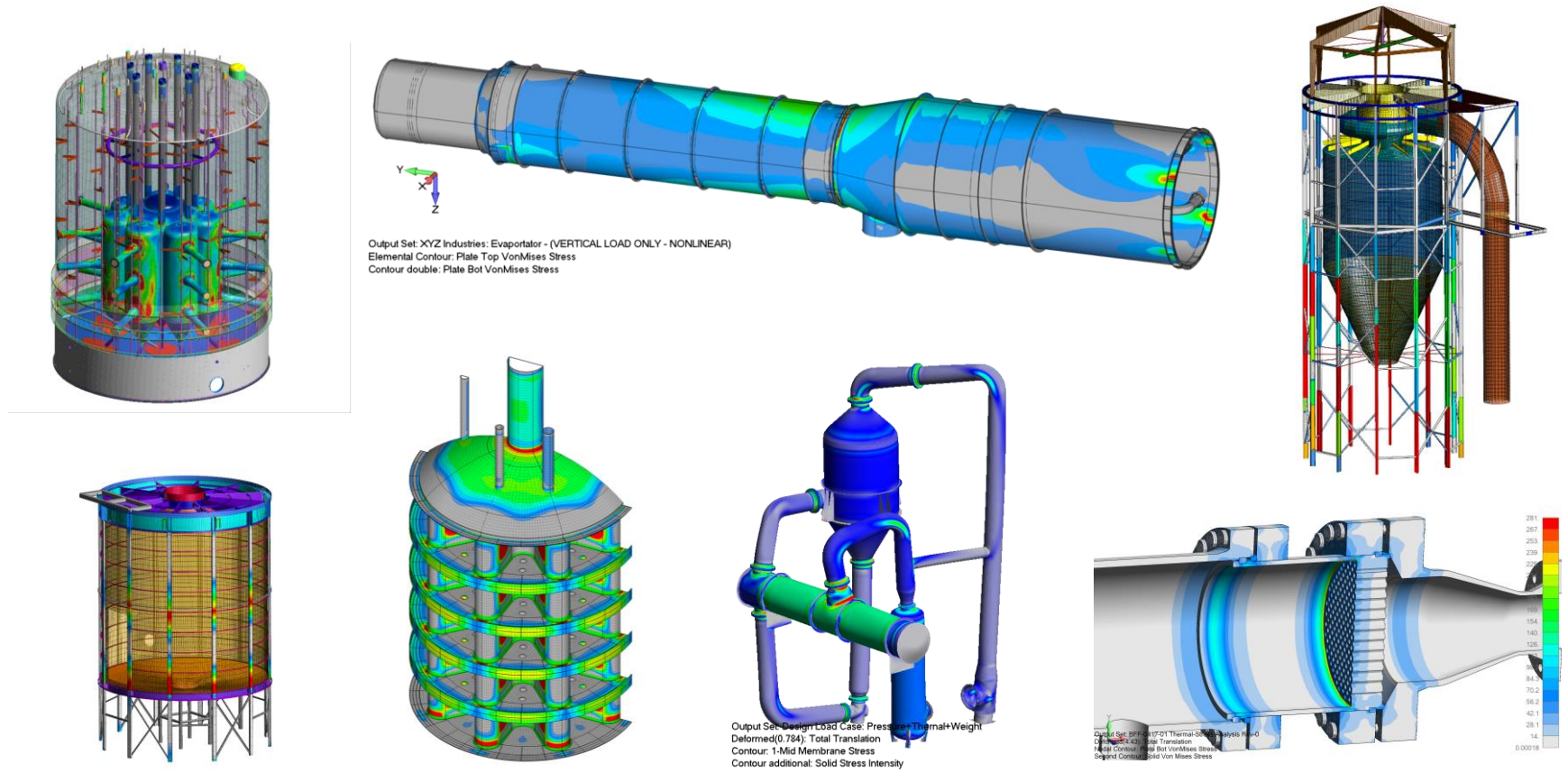


## Elevate your confidence in Design

Predictive Engineering works directly with vessel fabricators to provide quality assurance of ASME Code calculations, nozzle loading, wind & seismic considerations, detailed fab drawings, welding details, hydrotest considerations, transportation, and more. Perhaps you just received your ASME stamp and don't have a full Engineering staff. Perhaps you have new engineers in need of some training, oversight, or error-checking. Perhaps your fab shop is attempting to branch out into alternate materials or differing vessel types. Whatever the case may be, we are equipped to support your Engineering efforts as little or as much as you need.



## Application of ASME Section VIII, Division 1: More Than Just Boilers and Pressure Vessels



Our experience with the ASME Section VIII, Division 1 and Division 2 Alternative Rules, or as we like to say “Design-by-Analysis”, allows us to accurately, quickly and safely certify structures and systems to meet code. Our experience has been gained over +20 years of pressure vessel design, manufacturing and finite element analysis consulting. We are practical, hands-on engineers with a background in manufacturing, experimental mechanics and of course, getting our hands dirty when we are not pounding on the keyboard. If you have any questions or would like to send us a project to analyze, please contact us at [www.PredictiveEngineering.com](http://www.PredictiveEngineering.com).