

SENIOR DESIGN PROJECT: FUEL CELL TEST STAND ABSTRACT

In this project, our team was tasked with creating a vessel capable of testing a fuel cell and a fuel button cell. We were given free reign over the design of this vessel, but it had to meet certain parameters. We were given the CAD models of a previous vessel design, but it needed modifications in order to work for a button fuel cell. The operating conditions of the vessel that we designed were also different from this previous model. The vessel had to be able to handle an internal maximum temperature of 1,000°C without the outer vessel reaching a temperature above 250°C. The outer vessel had to withstand a maximum internal pressure of 2,300 psi due to the force that could be exerted by a stoichiometric

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