

# 12" by 27" Low Watt Hot Food Well Drop In

**Demeere, Abdullah Alyousif, Nathaniel Everest, Jeremy Witgen and Darrell Bailey**  
Central Michigan University  
Mt Pleasant, MI 48859

## **Abstract**

Delfield currently manufactures a low watt drop in hot food well that accommodates a hotel size pan that has nominal dimensions of 12" wide by 20" long. Each 12" by 20" well is individually equipped with patented technology 500 watt heating pad. They desire to manufacture the same low watt hot food well but for it to accommodate a hotel size pan with the nominal dimensions of 12" wide by 27" long.

In order to achieve our customer's request we had to lengthen the whole drop in, the well and the original heating pad to be seven inches longer. Since our project is heavy on testing and less on design we will be performing multiple standard NSF (National Sanitary Foundation) and UL (Underwriters Laboratories) tests on our 12" by 27" prototype. The NSF test will consist of a sawdust mixture being tested as a wet/dry test at setting 10(350°F), 5(245°F), and 1(161°F). The UL test will consist of a leakage current test, power input test, normal temperature test, dielectric voltage-withstand test, insulation resistance test, grounding and bonding test, and abnormal heating test. We will compare our test results to our results we found from our 12" by 20" prototype and we expect to pass both tests and to see similar results.