



FLENSE MODEL 2

Lab Report #1

Date: 8/10/2022

Test Conductor: Vincent Sadowski and Jack Charles

Location: Behind the apartment building

Time: Start – 11:45 AM **Finish** – 12:45 PM

Water Measurement: 32 oz. of water

Objective(s): Measure the water boil time and test the new Flense Model #3 design.

Product(s) Included: Fresnel Lens #3 – Regular size stainless steel bowl – Wired copper coil in twist 25" – Water 32 oz. – TDS Tool – Pen – Notepad – Time watch

Water Temperature Test: Before – 26.10^{*C} = 78.98^{*F} **After** – 50.00^{*C} = 122.00^{*F}

Report Detail:

- This is the first time that the Flense Model 2 is being tested. Before beginning the test, the model was assembled and the water was tested for temperature. After the set-up, at 11:45 AM, the test began. At 11:50 AM, both the water and the bowl got warm slowly. Around 12:00 PM, small bubbles began to form and stuck inside at the bottom of the water and the copper coil. At 12:05 PM, small bubbles inside the water at the center of the bowl very slowly began to rise up as the water at this level also began to form smoke and it can be seen from a safe distance. At 12:30 PM, both the water level and the bowl are at the hot level – too hot to touch with only hands. For this reason, gloves were used to continue the test. At 12:46 PM, more smoke and bubbles can be seen as the heat temperature continues to boil the water.

NEW DISCOVERY – Because the water is very hot at this point, up close, there were soft steamy sounds occurring for the first time. What's more was that the longer the test ran, the louder the steamy sound could be heard when listening from a safe distance. With this new discovery, it is concluded that this is the first time during the



water test that the heat temperature has surpassed and gone to a higher temperature level than its previous highest temperature level reached. As a result, the effect, the sound of the steamy hot water occurs.

After an hour of testing, **it's concluded that during this test, there has been progress and significant discovery since the last test.**

- 1. The amount of less time that the water and the bowl begin to heat up.**
- 2. The first discovery of the steamy sound.**

Conclusion:

- It is concluded that this is the first time during the water test that the heat temperature has surpassed and gone to a higher temperature level than its previous highest temperature level reached. As a result, the effect, the sound of the steamy hot water occurs.

Problem(s):

- The height of the Fresnel lens that is set up doesn't give the exact focal point for the set-up distance when using the bowl. (*The height of the Fresnel lens needs to be higher.*) As a result, although this test did give new discovery and other improvement, if the issue weren't there, then the performance of the new model would have been better and as a result, it would have far accurate result during and after the test.

Next Step(s):

- To come up with new ideas in order to fix and/or improve better performances and the outcome result of the subject model before the next test.