Heated Weight – Customer Questions & Answers

1. Q: How to use heated weight?
   A: Each heated weight comes with a copy of the "Notes on Heated Weight Use"

2. Q: Do we need to cut silicone pad and glue it on heated weight?
   A: NO! There is NO pad on the heated weight, the weight is placed directly on the test specimen with nothing between to separate the runners from the test specimen contact.

3. Q: How does the light work on the heated weight?
   A: The light comes on as soon as the heated weight is active (plugged in); the light will remain on until it reaches the appropriate temperature. Since the round dial scale on the temperature setting is not exact, what is recommended is to use a pyrometer to make a mark on the temperature scale. (Usually the 250°F will NOT be exactly 250°F when measured with a pyrometer. Using the pyrometer, mark where 250°F is at on the dial, then that temperature indicator is normally used. Do the same for other testing temperatures.) The thermostat will keep the heated weight with +/- 10°F of that temperature.

4. Q: Comparing the standard 2-lb and 4-lb weight, they are quite different weight; but 2psi and 4psi are nearly the same. What is difference between the two heated weights? Does space between weight and test surface make difference?
   A: "psi" stands for "pounds per square inch", not actual pounds. Where your standard 2-lb and 4-lb weights are "actual" weight because the entire surface of the weight is touching the test specimen. In the case of the heated weights, because only the surface area of the two runners located on the bottom of the weight are applying the pressure, this determines the "psi". The 2psi heated weight has two (2) ¼-inch (8mm) metal runners, the 4psi heated weight has two (2) 1/8-inch (4mm) metal runners (for 'psi', the less surface are contacted the greater the 'pounds per square inch).

5. Q: If we use silicone pad to rub the sample, how to protect silicone pad? What solvent can we use to clean silicone pad? How long should we clean or change it?
   A: The silicone pad should only be used on the base pad, we do **NOT** cut silicone pads to fit regular weights (mostly because of the high cost of the silicone rubber).

6. Q: Could we plug in the heated weight on normal power set (110v) instead of power set/plug on the unit? Will it damage the heated weight?
   A. As long as it is a 110v heated weight, the heated weight can be plugged into the same voltage anywhere it is convenient. The receptor on the machine is for convenience. No harm will come to the weight or the machine. **HOWEVER**, if it is a 220v (230v/240v) heated weight, it can ONLY be plugged into the unit as it is equipped with a US plug end, and is programmed to 220v.

7. Q: When we calibrate the temperature of heated weight, how to setup the temperature after we adjust from hole on bottom of weight?
   A: The weight should **NEVER** be adjusted from the hole on the bottom of the weight! This can get the thermostat so far out of adjustment it may be extremely hard to get it back into proper adjustment. **ONLY USE** the knob on the top of the weight.

8. Q: When we setup 200 degree, and then rotate to next mark, we setup 300 degree at the next mark; but earlier 200 will change earlier setting. How do we solve this problem?
   A: The silver temperature dial with the numbers on it that is on top of the weight is for "approximate" adjustment. Normally the way to use the weight is as follows: Use a pyrometer on the center (bottom) of the heated weight surface. Now set the dial on top to 200°F, if the temperature at 200°F is not 200°F then find out where on the dial is 200°F and make a mark on the dial (the temperature displayed on the dial is almost never the actual temperature of the weight, it is used as a reference point). After marking 200°F on the dial turn it up less than the 300°F mark and just keep on adjusting the dial until the pyrometer reads 300°F. Typically the tests are completed at consistent temperatures, rarely do customers have to mark more than 1 or 2 temperatures. When we test we adjust to apporximately 350°F, then we turn it up to 500°F to make sure it will reach at least 500°F. Customers then make their own marks on the dial to facilitate their testing requirements.

9. Q: After the heated weight reached the temperature we set up and light turned off, we Measured the stainless and found temperature was different in every point of the stainless and difference was more than 50 degrees. Why would this happen?
   A: This is normal. Since the heater rod is inserted in the stainless it can vary from one end to the other. The longer the weight is left on the less it will vary. Most customers require a 15 minute "warm up" of the weight which will decrease the temperature variance, but longer warm ups are not unheard of (this is set by the user). This is the other reason when making marks on the dial that the temperature should be checked in the middle of the weight on the bottom. The weight could be left to cycle say 5-10 times (light on, light goes off 5-10 times) and the temperature variance will be less dramatic. It would just take longer to make the marks on the dial. Additionally the thermostat has a tolerance of +/- 10°F. It will not hold a 2 or 3 degree tolerance. The mor controlled the surroundings are the better the results (no fans, constant room temperature, constant humidity, etc.)