



## Surface Plate Calibration 2021 Complete Guide

Surface plates made out of granite play a crucial role in inspecting the labs across the country. The aim towards utilizing the surface plate is to generate a result of accuracy adhered to the inspection organization's rules and regulations.



The calibrated yet incredibly flattened veneer of the surface plate provides the inspector with the freedom to use it as a baseline for their procedure of inspection of the instrument calibration.

However, one needs to ensure a sense of stability to reproduce the desired result, which can only be done with the calibrated **Granite surface plates**.

### **How to calibrate a granite surface:**

Commonly utilized in medical and technological fields, without introducing the surface plate, manufacturing wouldn't have been possible.



Nonetheless, one has to assess the granite plate's accuracy to assure the exactitude of the granite surface's functionality as a tool of inspection. Here is an easy method you can rely on to enhance its exactitudes



- First, you are required to clean the granite surface before the calibration procedure takes place. Use a surface cleaner to clean the product.
- Take a small and soft cloth and pour the cleaner onto it. Now dry the cleaner off the surface of the granite plate using the dry cloth. Do not let it dry it out.
- Now put a repeat measuring gauge on the center of the surface plate. Now, you have to zero the repeat measuring tape to the surface of the granite plate.
- Gradually move the gauge slowly to the surface of the granite plate. At this point, you have to ensure that you watch the gauge's indicator to record the peaks of any height variations shown while the instrument continues to move across the plate.



- Now, you have to create a comparative study between the flatness of the variation across the surface and the surface plate's tolerance. The surface plate varies based on size and flatness grade.
- You are required to consult the federal specification, namely GGG-P-463c, to determine whether it matches the required flatness set in the regulation.
- Now, you are required to check the largest depth, in terms of variation, on the surface of the plate. Ensure that it falls within the repeatability specification of the plate of the size and the grade.
- Again, you have to consult the federal specification GGG-P-463c to check whether the application's repeatability meets the requirements set in the regulation.

If it does not match the repeatability according to the federal specification, you have to reject the whole thing and do it again until it accurately matches the specification.

- You are required to cease utilizing the granite surface plate that has not met the federal requirements. It is for the safety of the whole machinery.

In that case, you have to return the plate to the manufacturer or the granite surfacing company so that the block can be re-polished until it meets the specification.

The procedure is challenging and requires a knowledgeable and proficient person to carry out the procedure. You can take the help of Calibration Services Houston to get the result in all its exactitudes.

### **Conclusion:**

We recommend that you calibrate the equipment at least once a year. If it is frequently used, then the material has to go through the calibration procedure more often.

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