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University of Florida	Title: Rockwell Hardness tester		

- *Personnel performing this procedure will have training provided by trained UF personnel.*

I. PURPOSE

The purpose of this SOP is to describe the usual steps for using the Rockwell Hardness Tester.

II. PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Safely glasses must be worn.
- Keep hands away from the space between the stage and the tip.
- ONLY ONE OPERATOR MAY USE THE MACHINE AT A TIME

III. PROCEDURE

- Check Regular Rockwell Scales to decide indenter type needed and load based on the type of sample material (as shown in figure 1)
- Install indenter, turn the load weight knob to required value (as shown in figure 2)
- Make sure the Hardness Tester is set to “AUTO” mode, choose the indenter type (“DIA” or “BALL”) and turn the power on (as shown in figure 3)
- Find the proper calibration sample and put it on the stage
- Rise the stage until a click is heard, wait until the number on the screen stops changing. The machine will drop a minor load, then a major load.
- Compare the value with the standard value to decide if the hardness needs to be calibrated. The standard value is either in the calibration case or scribed on the sample. Test 5 times in different spots.
- Lower the stage and replace the calibration sample with your sample
- Run step e) 5 times, record the data and lower the stage to move testing spot after each run

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- i) Calculate the average number of the values
- j) Turn off the power and retrieve your sample

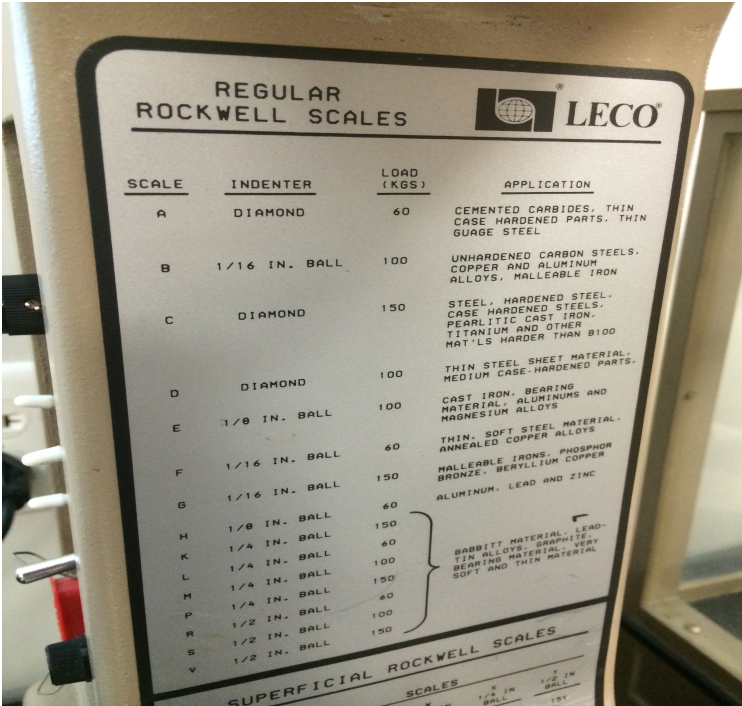


Figure 1: Regular Rockwell Scales to determine indenter type and load



Figure 2: Load Weight Knob

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Figure 3: Pad to choose “auto” mode, indenter type and control of power



Figure 4: Stage and screen