

MP101 Manufacturing Processes

Machine Shop Lab Project #2 – Surface Stop Gage

As of the Spring 2015 term, the number of lecture-lab-credit hours was changed to allow more machining time during the lab. Previous lecture-lab-credit hours were 3-3-4 and now are 2-6-4. Although the credits remain the same twice as much lab time per week is available for student hands-on learning. Due to this change a second machine shop lab project is being developed. Students will be given an assembly drawing along with the various part engineering drawings. For this project, the students will write their own process sheets for each part, along with an inspection list of dimensions.

Some students may elect to create their own personal project. This will be at the discretion of the lab instructor and based upon the ability of the student demonstrated during the first machining project.

An inspection report is required for each part after all machining has been accomplished and due along with the physical parts during the last week of the term.

A composite grade will be based upon attendance for lab sessions, completion of all machining operations, adherence to process sheet operations, adherence to tolerance specifications on the engineering drawings and completion of inspection sheets. As a part of the inspection sheet, students are asked to identify the how and why reasons related to mistakes and deviations on dimensions from tolerance specifications.

Note: The main objective of this lab assignment is not entirely based upon a perfect hammer produced but upon the learning process of the various operations and the performance during the lab sessions.

Reference:

Surface gage stop assembly drawing

Surface gage base

Surface gage clamp one

Surface gage clamp two

Surface gage clamp screw

Surface gage horizontal shaft

Surface gage vertical shaft

Surface gage handle lock

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