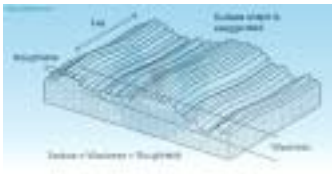
THE HONG KONG
POLYTECHNIC UNIVERSITY
Industrial Centre

Quality Control Workshop

Surface texture measurement

Objective

To perform measurement functions on surface texture of a part.



Activities

You are provided with a part with a surface texture of unknown roughness. In this lab, you will measure this feature using two different methods, and compare the accuracy of the results.

1. **Surface-roughness reference specimens** – Sensory comparison type measurement

   It is a direct method of perception by mean of visual sensing by eye and tactual sensing with fingernail. A typical surface-roughness specimen is used for visual and tactile comparison with surfaces under inspection. On the specimens, various degrees of roughness are shown, originating from different machining processes, each producing a distinctive pattern.

Fig 1. Surface-roughness reference specimens.

2. **Stylus type surface roughness measuring instrument** – Use the surface roughness tester together with calibration blocks specimen on a surface plate to measure surface texture. Record results.