

Department of Mechanical Engineering
Mechanic Division
Spec. Laboratory - Bending Lab. Report

Lab. Date:

Number:

Lab. Instructor:

Name & Surname:

Group/Sub-group: /

Place of Lab: B block Base floor – Mechanic Lab.

Course Topic: Bending

Subject: Determination of rigidity by bending experiment

Devices and Materials:

- Bending Sample (Steel and Brass)
- Displacement measurement device
- Bending device

Required:

1. For each beam, plot a chart of load (N) and deflection (mm) and find the gradient of each graph
2. The gradient should give the stiffness of the material.
3. Finally, theoretical stiffness value should be calculated then this value will compare with the experimental one. Make the error analysis

Load W (N)	Deflection z (mm)			
	Steel 6.4 mm	Steel 4.8 mm	Steel 3.2 mm	Brass 6.4 mm
5				
10				
15				
20				
25				
30				