

Department of Mechanical Engineering
Heat and Thermodynamics Division General Laboratory
Fluid Mechanics Experiment Lab. Report

Lab. Date:

Number:

Lab. Instructor:

Name & Surname:

Group/Sub-group: /

Place of Lab: E1 Block – Thermodynamic Lab.

Course Topic: Fluid Mechanics

Subject: Head Loss in Pipes

Devices and Materials:

- Experimental Setup
- Mercury manometer
- Measuring container
- Stopwatch

Required:

Five different measurements are to be conducted and calculations are to be shown in the report for only one of them Ölçümler 5 adet yapılacak, hesaplar sadece bir tanesi için gösterilecek.

1. Calculate volumetric flow rate,
2. Calculate fluid velocity at the pipe sections.
3. Calculate pressure loss for smooth pipe
4. Determine Reynolds number
5. Calculate universal pressure loss coef.
6. Draw $\lambda = f(\text{Re})$ at logarithmic scale,
7. Discuss the results and do your conclusions

Conducting Experiments:

1. Volumetric flow rate (Q):

2. Velocity (V):

7. Drawing $\lambda = f(\text{Re})$ at logarithmic scale



8. Conclusion: