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. Ölcümler 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 $\lambda = f(Re)$ at logarithmic scale, 
7. Discuss the results and do your conclusions 

Conducting Experiments: 
1. Volumetric flow rate (Q): 

2. Velocity (V):
3. Pressure loss for smooth pipe (Hk):

4. Reynolds number (Re):

5. Universal pressure loss coef. (λ):

6. Results:

<table>
<thead>
<tr>
<th>Case Number</th>
<th>Values to be measured</th>
<th>Values to be calculated</th>
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<tbody>
<tr>
<td></td>
<td>W (L)</td>
<td>t (s)</td>
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7. Drawing $\lambda = f(Re)$ at logarithmic scale

8. Conclusion: