**LAB9**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Data No | Q, Volumetric flow rate (m3 /h) | Element names | Measured pressure losses (PL) (mbar) | Measured head losses (hL) (m) | Total head loss (hL,tot) (m) MEASURED | V, Velocity (m/s) | Reynolds number | Total head loss (hL,tot) (m) CALCULATED | K, Head loss coefficient CALCULATED |
|   1 |   2.5 | Element 1: 45° elbow | 0.018 | 0.00183 | 0.02419 m |  |  |  |   |
| Element 2: 45° elbow | 0.024 | 0.00245 |
| Element 3: T-fastener  | 0.046 | 0.00470 |
| Element 4: 90° elbow | 0.080 | 0.00817 |
| Element 5: 90° elbow | 0.069 | 0.00704 |

**LAB10**

|  |
| --- |
|  **SELECT SPEAR VALVE OPENING: MIN MAX** |
| **Data No** | **N,Rotational Speed, (rev/min)** | **Temperature (°C)** |  **P, Pressure** **(bar)** | **Q, Volumetric flow rate (m3 /h)** | **Moment, M (N-cm)** | **I, Current (A)** |  **V, Voltage**  **(V)** |
|  1 |  540 |  21.97 |  0.47 | 16 m^3/h |  15.9 |  1.08 |  7.25 |
|  2 |  480 |  22.08 |  0.40 | 15 m^3/h |  7.2 |  1.01 |  6.33 |
|  3 |  390 |  22.21 |  0.37 | 14 m^3/h |  4.2 |  0.78 |  5.21 |