

## Bsc Fluid Mechanics Lab Measurements

### Measurement M03 Assignments

A	<ul style="list-style-type: none"><li>- Determine the pressure distribution (10° steps) on the surface of a cylinder of given diameter for 4 different Reynolds numbers.</li></ul>
B	<ul style="list-style-type: none"><li>- Determine the pressure distribution (10° steps) on the surface of a cylinder of given diameter at one Reynolds number when positioned on the center line of the wind tunnel, when placed in two positions which are closer to the wall, and when touching the wall.</li></ul>
C	<ul style="list-style-type: none"><li>- Determine the pressure distribution (10° steps) on the surface of 4 different cylinders having various diameters at the same Reynolds number.</li></ul>
D	<ul style="list-style-type: none"><li>- Determine the pressure distribution (10° steps) on the surface of a cylinder of given diameter, taken as a function of distance from the wall, which is parallel with the cylinder axis (Take measurements at 4 distances).</li></ul>
E	<ul style="list-style-type: none"><li>- Determine the pressure distribution (10° steps) on the surface of 4 cylinders of various diameters, taken at the same Reynolds number.</li></ul>
F	<ul style="list-style-type: none"><li>- Determine the pressure distribution (10° steps) on the surface of a cylinder of given diameter, taken as a function of distance from the wall, which is parallel with the cylinder axis (Take measurements at 4 distances).</li></ul>
G	<ul style="list-style-type: none"><li>- Determine the pressure distribution on the surface of a cylinder of given diameter at 4 different Reynolds numbers. Take measurements at increments of 5 (10) degrees. Keep the cylinder in the same given position with regard to the wall. POSITION:</li></ul>
H	<ul style="list-style-type: none"><li>- Determine the pressure distribution, pressure coefficient, drag coefficient and lift coefficient of a cylinder of given diameter at one given flow velocity (90% <math>v_{max}</math>) (constant Reynolds number).</li><li>- Repeat the measurement in three positions (a, b, c): a) The axis of the cylinder is on the center line of the wind tunnel, b) 15mm from the center line, c) 30mm from the center line.</li><li>- Take the pressure measurements at 10 degree increments.</li></ul>