## ANSYS Steady Flow over Cylinder - Results

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Problem Specification

1. Pre-Analysis \& Start-Up
2. Geometry
3. Mesh
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## Solution/Results

Press the Results button in the Workflow to extract information from the simulation. In order to find information that can be readily used, first press Evalua te Results. Once the evaluation is complete, AIM will automatically output a vector in the Results section under Objects. This vector will be a velocity vector, but the arrows that represent velocity are either too big or in the way. A good solution is to create a plane that bisects the cylinder. This is done by selecting the Add plane button in the upper right corner and positioning it directly in the middle of the flow volume.


Select the Velocity vector to edit the settings with which the vectors are defined. Update the Location to be the newly created plane, and input 50000 for Approximate number of points. Change the Symbol sizing in the Appearance section to 0.2 . Press the Play button in the model window to see how these velocity vectors develop over time.


To plot the pressure change, a contour on the plane within the flow volume will most accurately represent a 2D pressure contour of the flow. In the Results panel, select Contour in the Add drop down menu, change the location to the plane to map the contour onto, and assign the Variable to be Pressure.


To find the total pressure on the walls of the flow volume, add another Contour, select the face of the flow volume in contact with the cylinder, and change the Variable to Total Pressure.

## Go to Step 6: Validation

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