FLUENT - Steady Flow Past a Cylinder

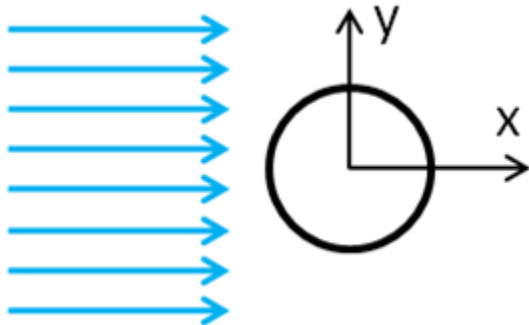Authors: John Singleton and Rajesh Bhaskaran, Cornell University

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Steady Flow Past a Cylinder

Created using ANSYS 13.0

Problem Specification

Consider the steady state case of a fluid flowing past a cylinder, as illustrated above. Obtain the velocity and pressure distributions when the Reynolds number is chosen to be 20. In order to simplify the computation, the diameter of the cylinder is set to 1 m, the x component of the velocity is set to 1 m/s and the density of the fluid is set to 1 kg/m^3. Thus, the dynamic viscosity must be set to 0.05 kg/m*s in order to obtain the desired Reynolds number.

Go to Step 1: Pre-Analysis and Start-Up

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