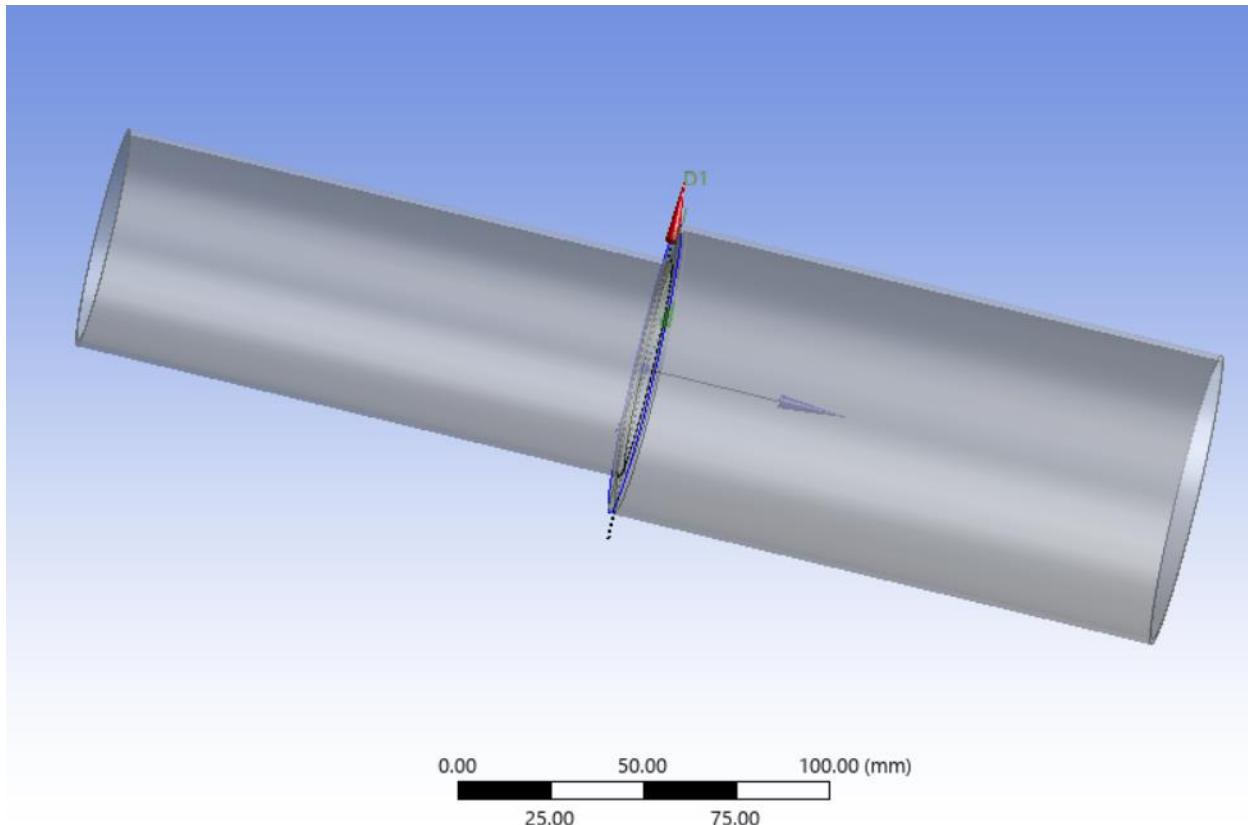


## Project 12: ANSYS FLUENT: Fluid flow through a pipe with sudden expansion

Problem Statement: Plot pressure and velocity contour inside a pipe with sudden expansion.

Geometry:



Material Properties:

Fluid: water.

Properties

Density [kg/m <sup>3</sup> ]	constant	▼	Edit...
	998.2		
Viscosity [kg/(m s)]	constant	▼	Edit...
	0.001003		

Pipe material: Steel.

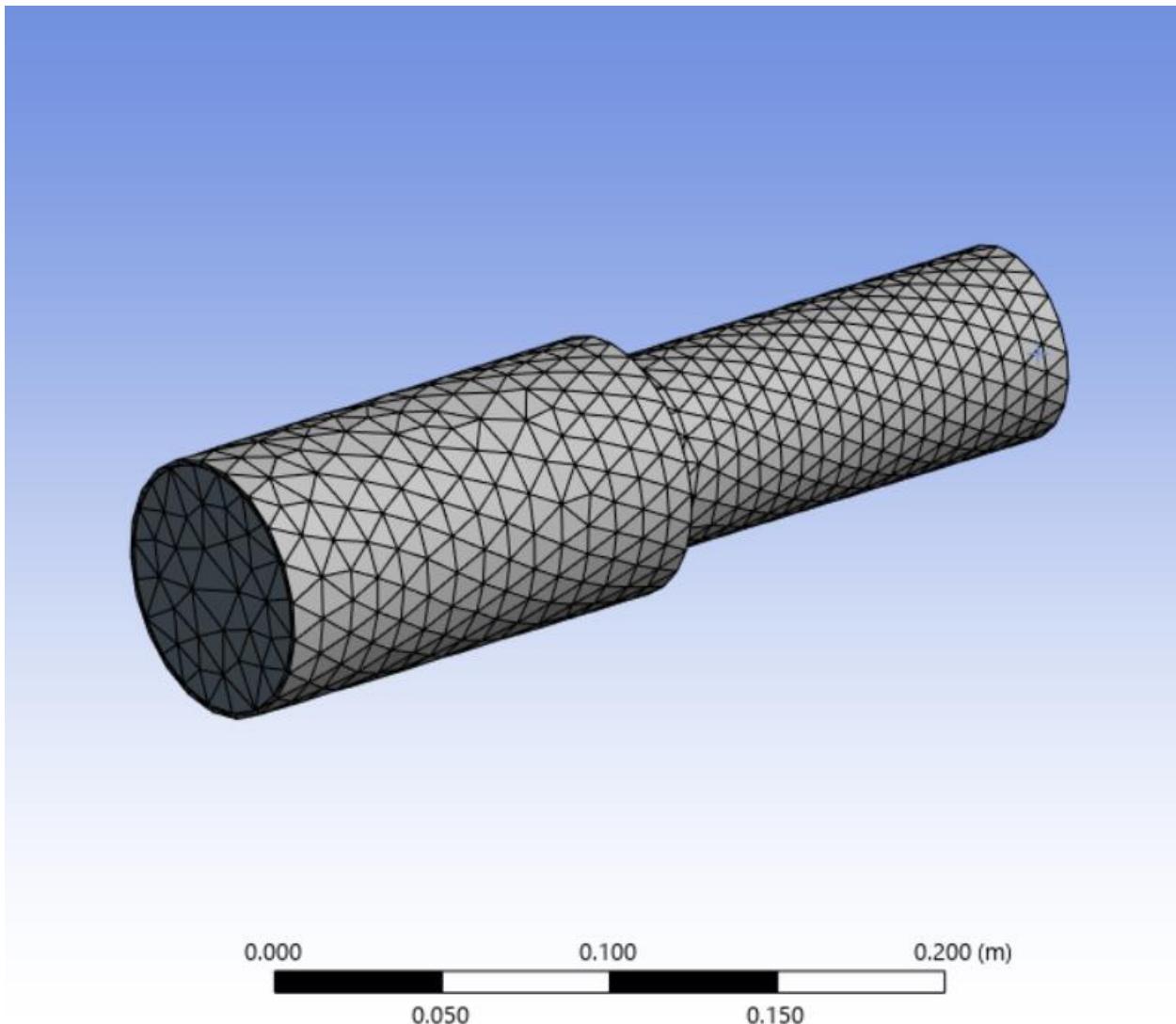
Properties

Density [kg/m <sup>3</sup> ]	constant	▼	Edit...
	8030		

Loading and boundary conditions:

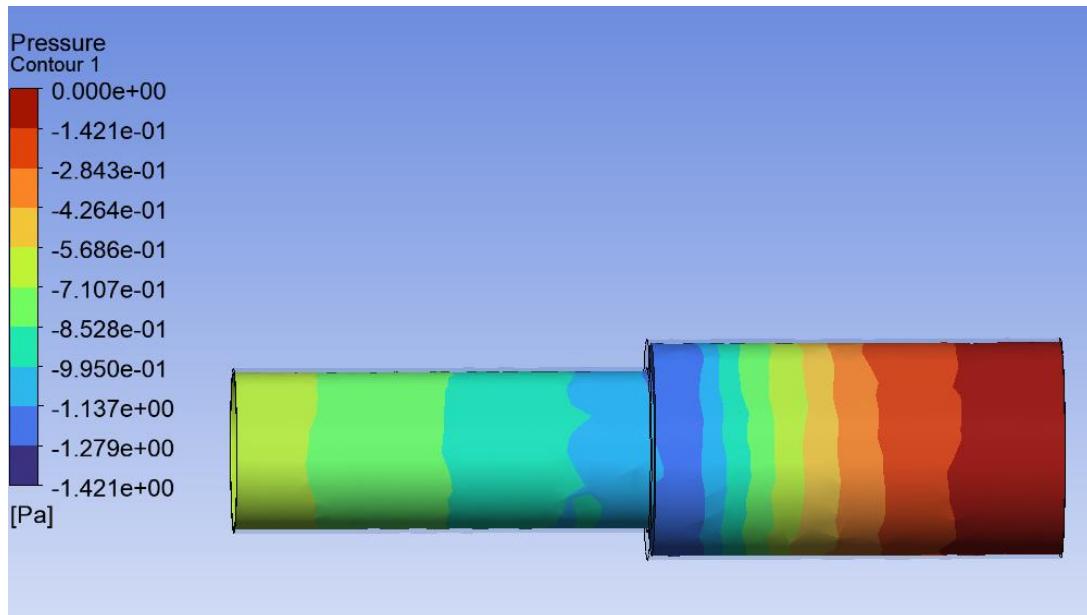
- 1) Inlet has velocity of 2.2m/s.

Mesh:



## Results:

### Pressure Contour:



### Velocity Contour:

