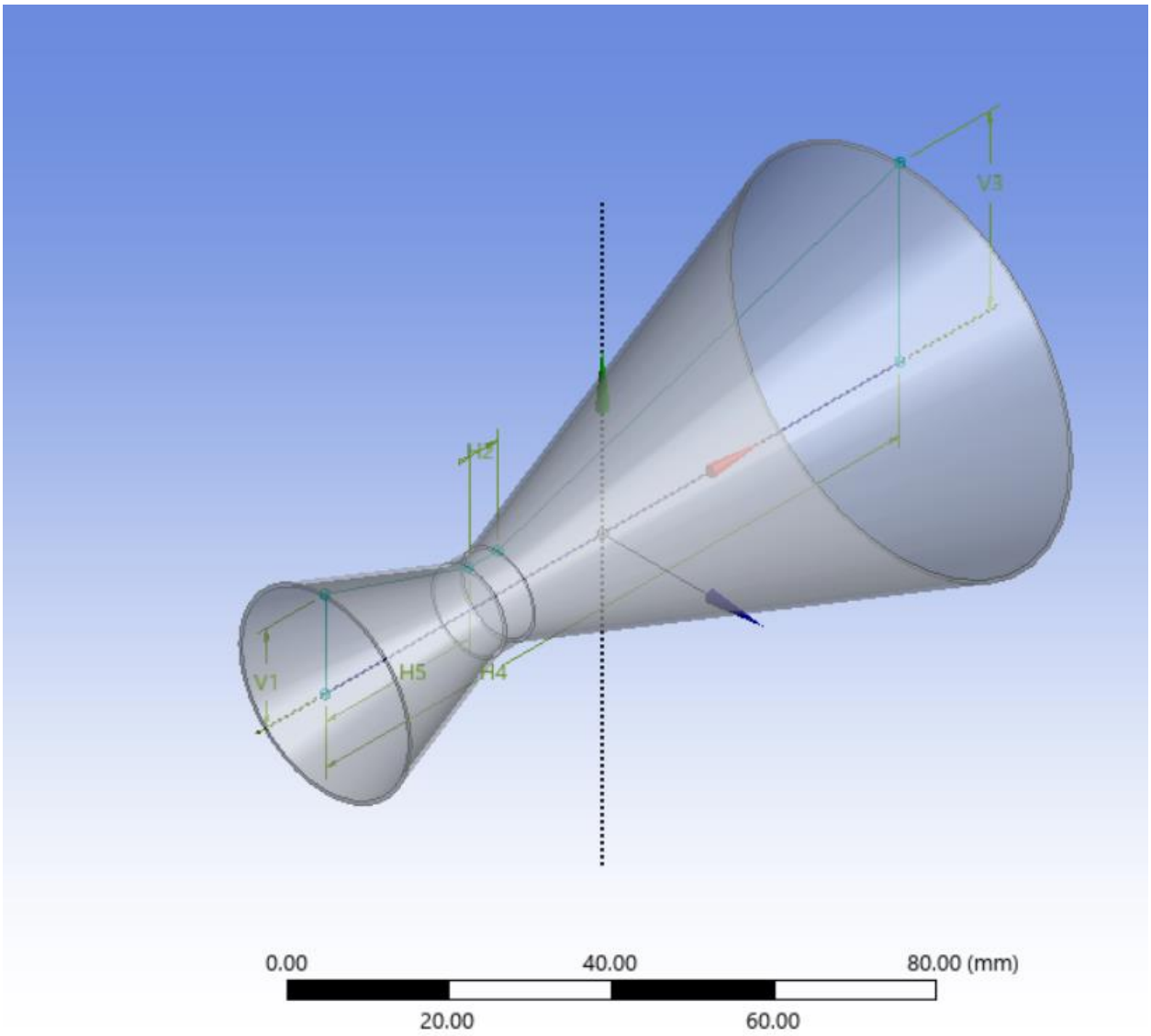
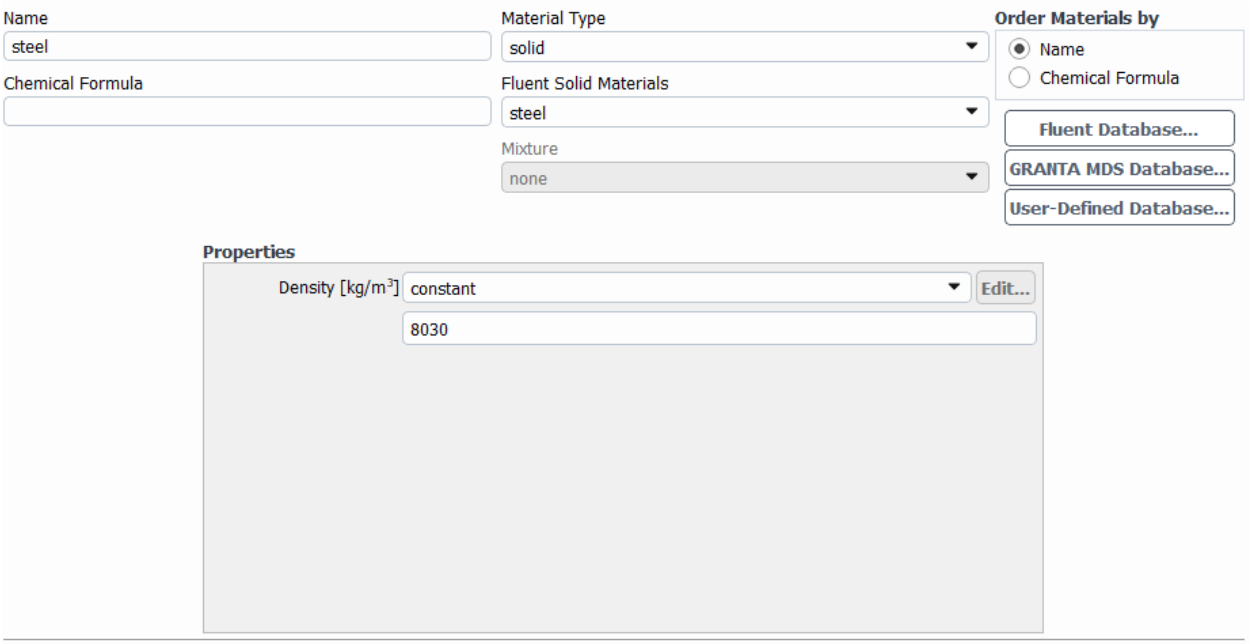
Project 18: ANSYS FLUENT: Fluid flow through a convergent-divergent nozzle

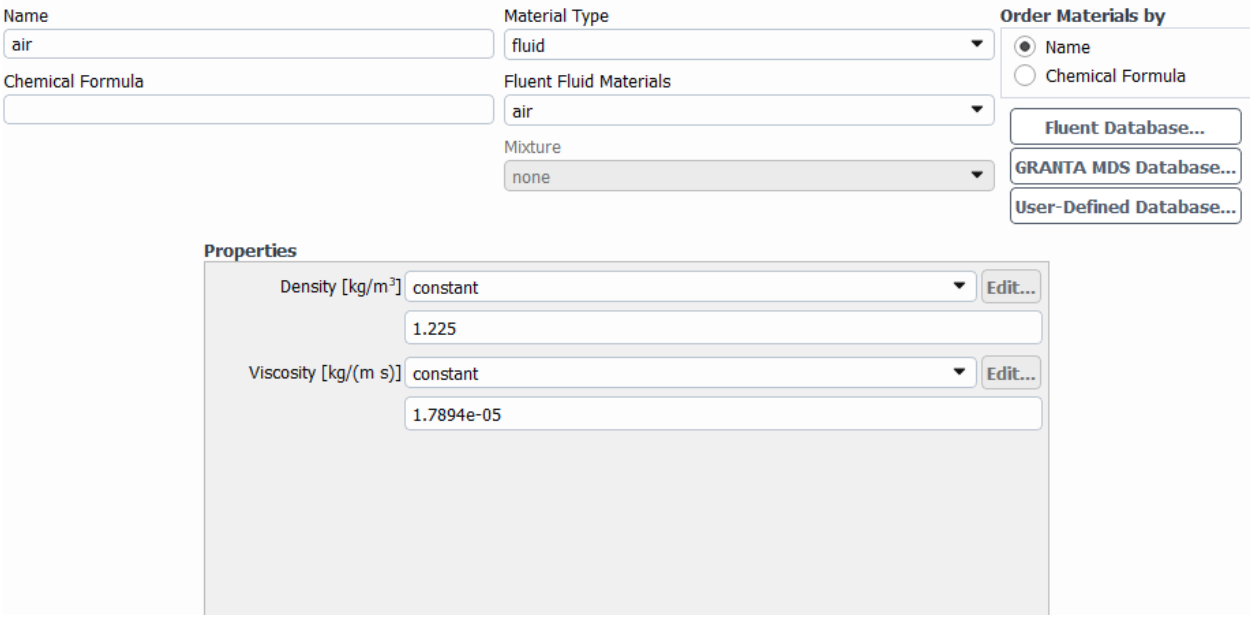
Problem Statement: Calculate the pressure contour inside a steel nozzle with air flowing inside (v=365m/s).

Geometry:



Material Properties:

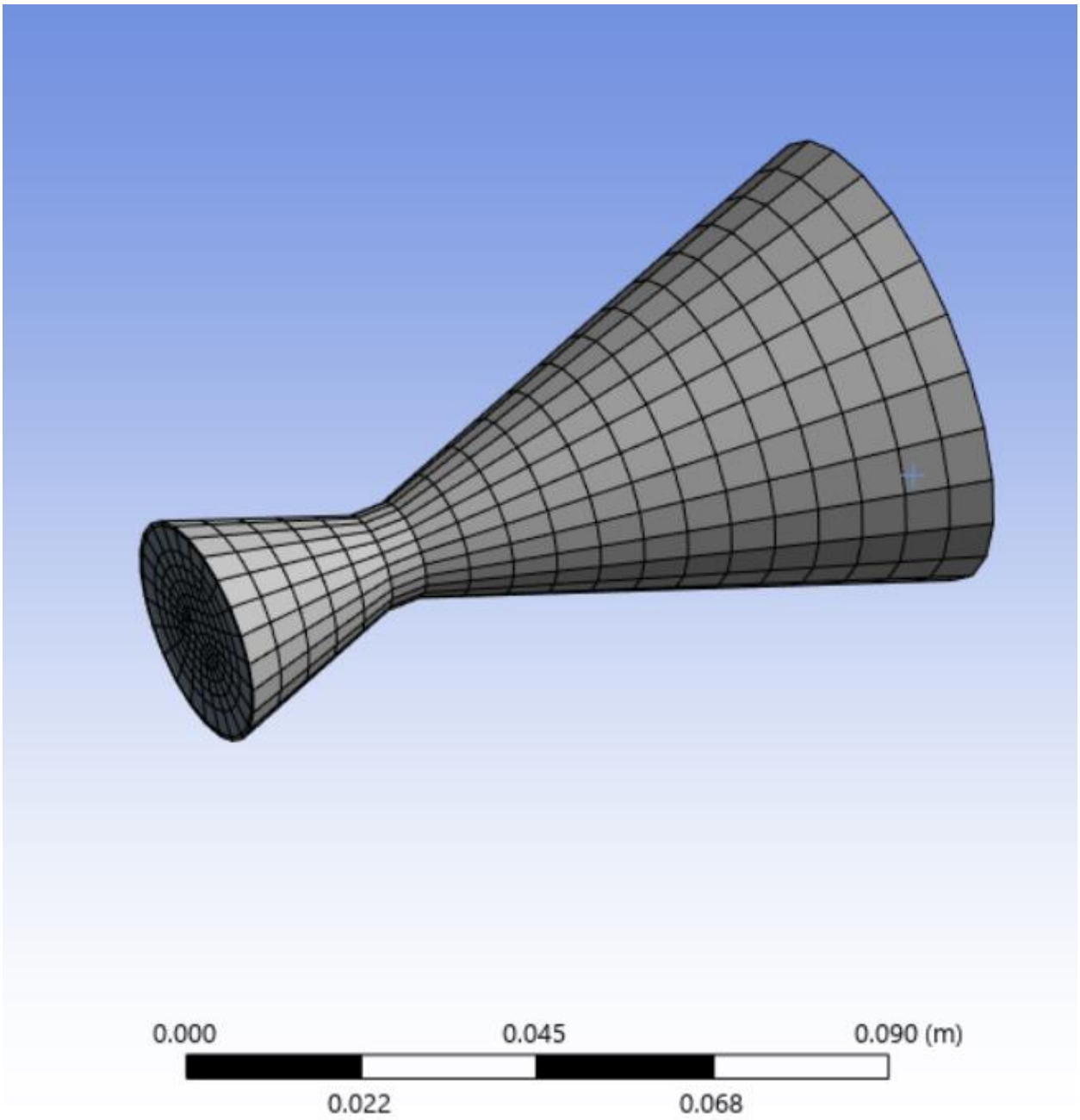




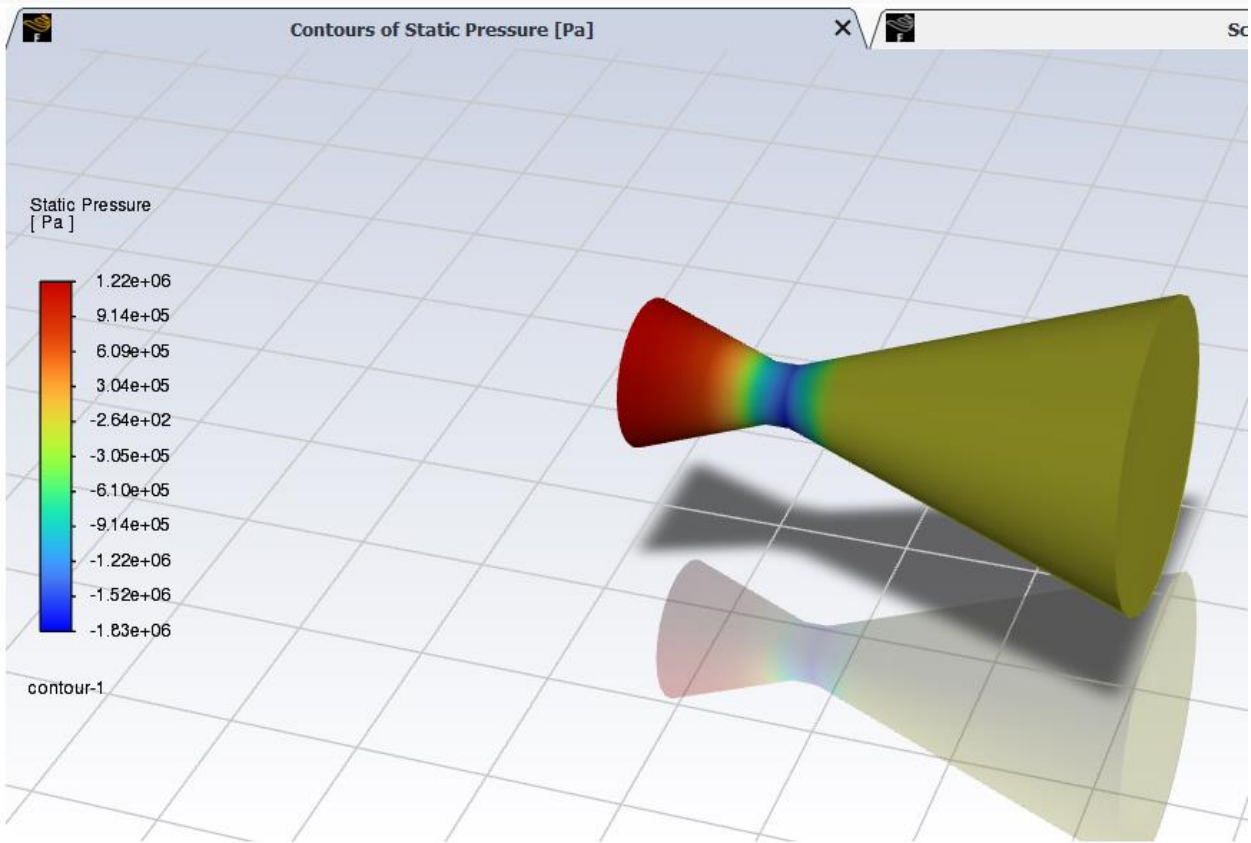
Boundary Conditions:

Inlet: v=365m/s. Outlet: p=0 Pa.

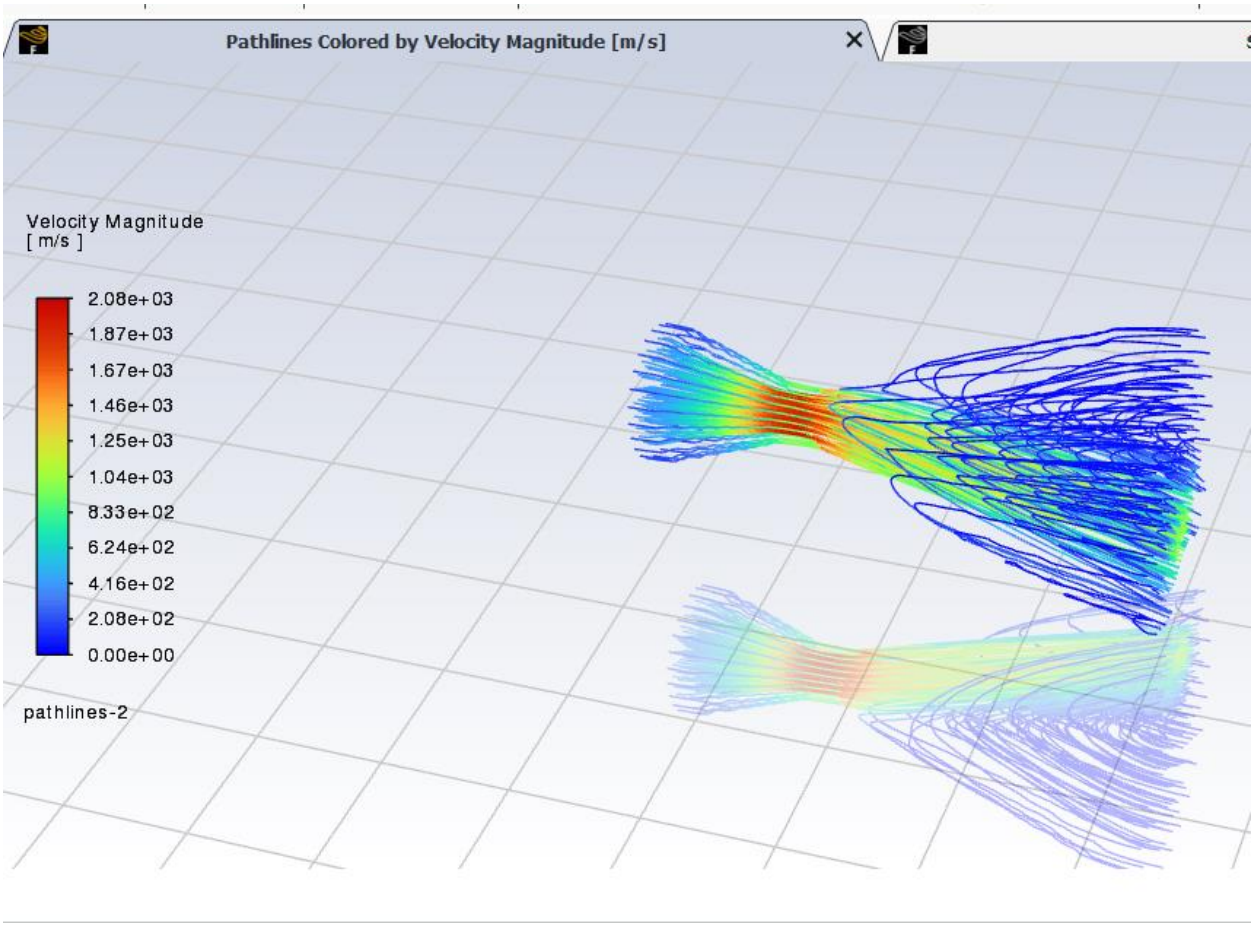
Mesh:



Results: Pressure Contour inside the nozzle.



Velocity Pathline:



Dynamic Pressure Pathline: