model

- Marc model (Silicon rubber vessel)
  - Analysis type: Transient dynamics
  - Young’s modulus: 0.3 Mpa
  - Poisson’s ratio: 0.49

- scFLOW model (Water)
  - Analysis type: Transient flow
  - Material model: Incompressible water

- Co-Simulation condition
  - Time step: 0.01 sec
  - Time period: 3 sec
  - Stenosis area rate: 75% model and 90% model
result

Stenosis rate 75%

Stenosis rate 90%
result

Stenosis rate 75%

Stenosis rate 90%
result

• Pressure history
  • Experimental result and co-simulation result comparison, 75% stenosis rate
    • Good agreement in peak pressure at inlet
      • Experimental result includes pump noise pressure turbulence