Model 2:
Local model of equipment hatch

Ludwig Bahr (GRS)

Model 2 - Overview

- Simulation performed with ADINA 8.7.1

- Model developed within an internal research project

  - 90 degrees of circumference including half of E/H

  - Tendons and rebars rigidly tied to concrete volume elements

  - Tendons A and B combined to one line of truss elements

  - Multiple rebars/stirrups combined to one line of truss elements

  - Liner rigidly tied to inner surface of concrete volume elements

Finite element model

Concrete
(volume el.)
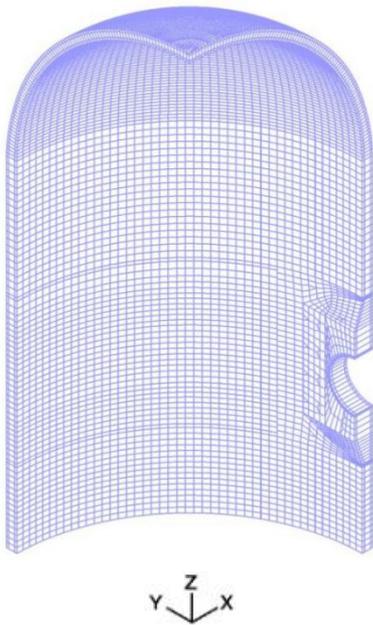
Tendons
(truss el.
tied to vol. el.)
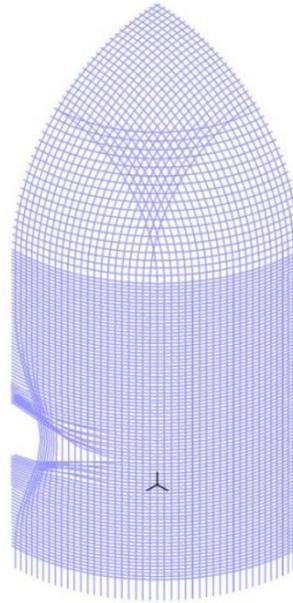
Rebars
(truss el.
tied to vol. el.)
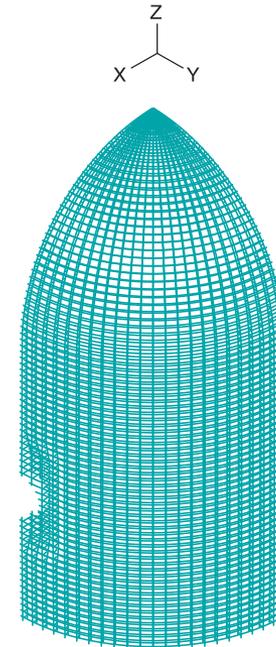
Finite element model

Materials:

- bilinear stress-strain relation for rebar, tendon steel

- multi-linear stress-strain relation for liner steel

- ADINA concrete model (smeared crack, strain softening)