# Two Models

- **"No Kink Model"**
  - Purpose: To quantify the flow rate through the **riser end**
  - **Flow boundary at inlet** (flow rate varied to match observed slug flow) and **pressure boundary at outlet** (seawater pressure)
  - Requires inputs for riser construction, fluid properties, environmental properties, and riser elevation profile (including moving profile)

- **"Kink Model"**
  - Purpose: To quantify the flow rate through the **kink holes** (simple extension of "No Kink Model")
  - **Pressure boundary at inlet** (PT-M) and **pressure boundary at outlet** (seawater pressure)
  - Requires inputs for kink geometry, inlet pressure, and inlet temperature