

# ProdDesign for Gas

## — Gas Well Production Optimization



ProdDesign for Gas is used to precisely: model production and optimize design parameters for (vertical, inclined and horizontal) dry gas and condensate gas wells by using black-oil or compositional models. ProdDesign for Gas calculates: PVT, IPR, P/T profile, nodal analysis, liquid loading, critical rate, downhole choke design as well as gas lift design for deliquification.

## Main Functions

### Gas PVT calculations

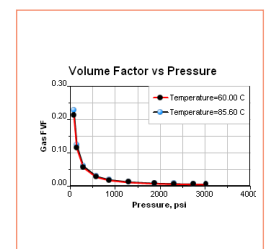
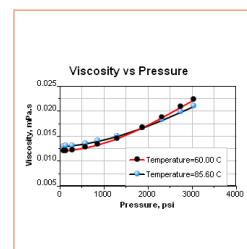
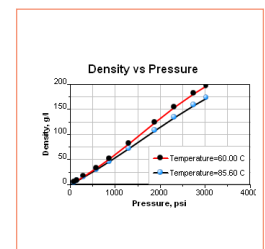
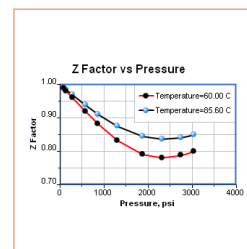
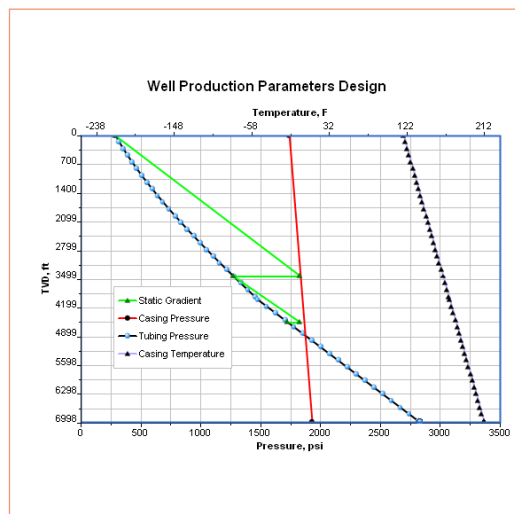
- Dry gas and condensate gas PVT calculation
- PVT model auto-tuning with test data

### IPR forecast

- IPR calculations under various production conditions
- Applicable to vertical, inclined and horizontal well

### Well pressure and temperature profile analysis

- Dry and condensate gas well profiles
- Auto-identifying the existence of hydrate and its position in the wellbore
- High-precision joint solution of both pressure and temperature



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## Nodal analysis

- Calculate pressure and flow rate at any node in the wellbore (bottomhole, wellhead, choke) to determine the optimal production point under various production conditions.

## Downhole choke design

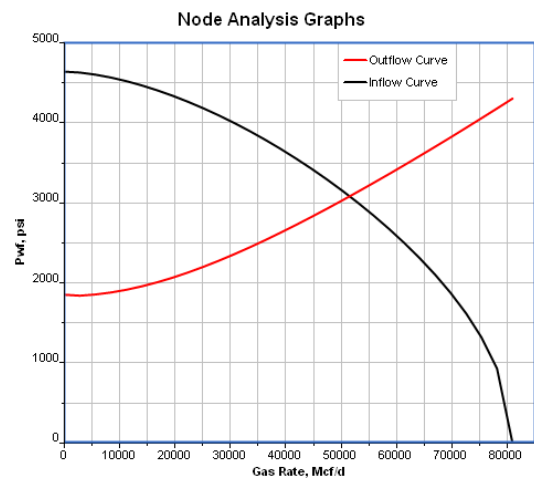
- Selection of the downhole choke diameter and its depth

## Liquid loading analysis

## Critical erosion rate calculation

## Gas de-liquification design

- Calculate gas de-liquification parameters to resume production from dead wells or to slow down liquid loading



## Main Features

- Applicable to different gas types (dry, condensate) and well types (vertical, inclined and horizontal)
- Exclusive design of the user-friendly interface for gas wells
- Flexible unit settings and high-precision calculation
- Versatile results presentation including data output in the forms of graphs and tables, as well as text reports. Also, results can be exported to Word and Excel

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