



# SINETZ

Steady State Calculation of Flow Distribution, Pressure Drop  
and Heat Loss in Branched and Intermeshed Piping Networks  
for compressible and incompressible media

SINETZfluid - Flow Distribution and Pressure Drop  
of incompressible Media

## SINETZ Update 4.0 May 2019 New Features and Improvements

The program system SINETZ with its additional modules is checked and modified continuously within the scope of the maintenance agreement.

The program release SINETZ 4.0 replaces the SINETZ 3.8/2016.

This document shows the improvements and enhancements of the program release SINETZ 4.0.

### Overview

- Complete revision of the user interface
- 3D-models (e.g. imported from CAD systems) can be processed
- Node heights and results distribution are shown in 3D at 2D models
- Colored presentation of results
- A new component „Pressure Reducer has been implemented
- Extended modelling and calculation capabilities for orifices, perforated plates and bends

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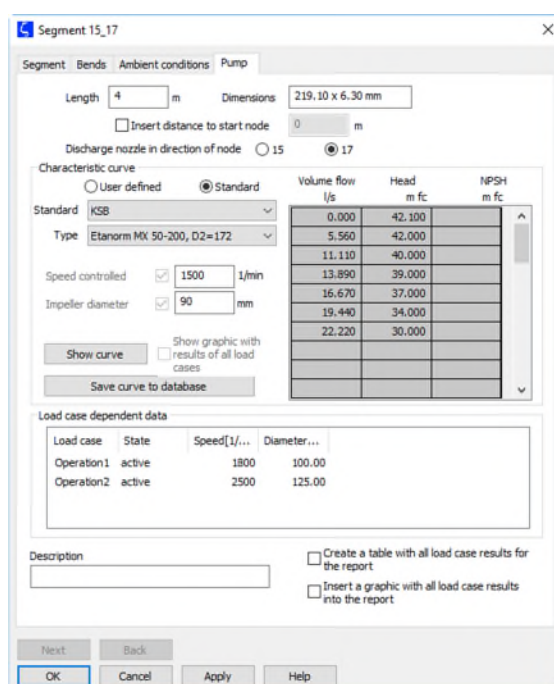
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## SINETZ 4.0, Changes and Improvements, detailed

### SINETZ user interface

- The graphical user interface has been revised completely
- 3D models can be treated and rotated (e.g. by import from CAD systems)
- Node heights and results distribution are shown in 3D at 2D models. The piping model can be rotated into any direction.
- Node and segments dialog, windows are sizeable
- Pump dialog: overview on the status of all load cases



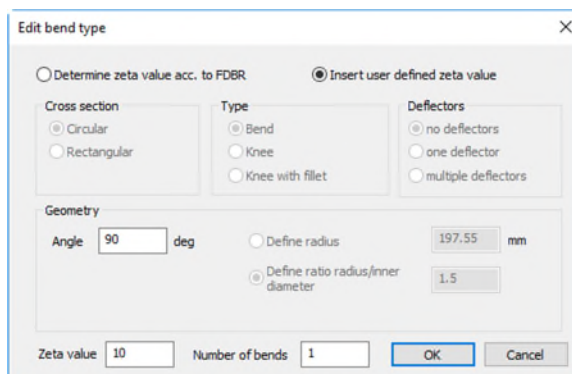
- Dimensions dialog. table columns can be hidden by a filter command
- Available dimension files can be stored as templates. This is used to define frequently used dimension records for further use in new projects.
- The context menu (right mouse button) shows the last selected commands. The number of commands can be defined.
- Control the function of the mouse buttons: zoom, rotate, move, context menu)
- View options revised completely.
- Texts can be assigned to groups. Control visibility of text groups
- Descriptions of nodes and segments are shown as individual text blocks
- Individual adaptable settings for new projects
- Extended databases

### Backup

- The automatic backup function saves the last five revisions of the piping model automatically.
- The automatic backup now is part of the project directory when storing into the subdirectory "\_AUTOSAVE\_"
- The backup command enables to write the project data additionally, e.g. into a network drive.

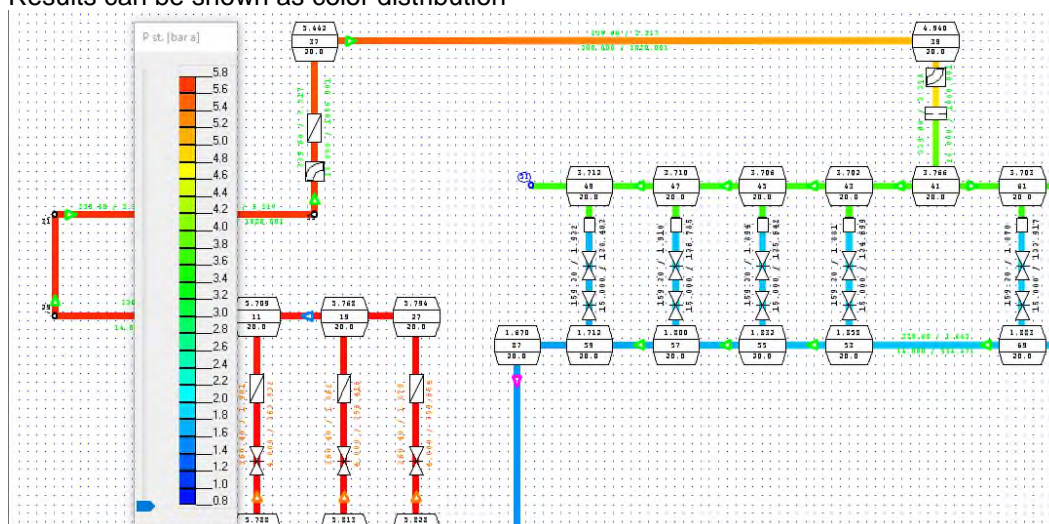
## Calculation

- Several load cases can be calculated parallel which reduces the calculation time significantly in many cases.
- Pressure reducer as new component. Outlet pressure to be defined by the user.
- Zeta values of orifices can be calculated alternatively in accordance with FDBR standard
- Zeta values of perforated plates can be calculated in accordance with FDBR standard
- The analysis of zeta values at bends has been extended:
  - Zeta values at bends in pipes with rectangular cross sections are determined automatically
  - Zeta values at bends with deflectors are determined automatically
  - Zeta values at bends may be defined by the user



## Results representation and Documentation

- The s distribution of nearly any calculation result can be shown graphically. Up to now the presentation was limited to the temperate results
- Results can be shown as color distribution



## Software Development, Sales and Support

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