

SINETZ

Steady State Calculation of Flow Distribution, Pressure Drop and Heat loss in Branched and Intermeshed Piping Networks

SINETZ Update 3.5, November 2011 New Features and Improvements

The update of the Program System SINETZ by software releases is an essential component of the maintenance agreement. The software is developed continuously. The adaptation to the current version of the implemented norms and databases has highest priority for the user.

These are the significant changes and enhancements of SINETZ since Service Release 3.4/ Nov. 2009:

SINETZ 3.5, Changes and Improvements

- The graphical user interface has been revised
- Import of 2D-DXF format drawings available
- A REDO command was implemented, this command revokes the last UNDO command
- New component Y-PIPE: the zeta values are determined by the program acc. to FDBR Manual Wärme- und Strömungstechnik depending on flow conditions
- Enhanced pumps dialog
- Pump speed and impeller diameter can be inserted depending on load cases. The pump curve is adapted to the load case by iteration.
- The NPSH values can be added for the purpose of documentation.
- The energy flow at heat exchangers can be controlled by a factor for each load case. This factor allows the easy definition of partial loads.
- Fluid with temperature depending properties can be defined by the user
- At free laid pipes a temperature depending coefficient of thermal conduction can be entered for the insulation
- Extended dialog window results: warnings can be hidden to improve clearness.
- Optimized determination of water parameters to avoid vaporization during the iteration process
- An environment temperature $< 0^{\circ}\text{C}$ now can be inserted for the medium water at insulated pipes
- The predefinition of pressure and temperature is now done separately for each partial system to avoid problems at partial systems with great differences in temperature and pressure input.
- When correcting the length of segments with bends the sum of bends lengths will not be undercut, if the segment length is too short.

The following feature list includes details about program development and enhancements of SINETZ 3.5. Please contact us for more information or a program offer.

SINETZ 3.5, Manual modifications

sninstall Document

	Documents	revised
	Setup	revised
	System requirements	revised

SINETZ manual

1.	Chapter 1,	revised
2.3.1	Theoretical basics	revised
2.3.2	Pressure drop of incompressible media	compl revised
2.4.	SINETZ data structure	revised
2.4.1	Bibliography	revised
2.6	Program start,	revised
2.8,	user interface	revised
2.8.1, 2.8.2	Customize funtion	new
2.9.4	Toolbar components	compl
2.9.6	Toolbar Graphic	compl
2.10	Display and treatment of the toolbars	revised
2.11	Statusbar	
2.12	shortcuts	revised
3.	Interfaces	completely revised
4.1.2	File Open	completed
4.1.2.1	Reading data by the Neutral 3D-Interface	new
4.1.6.2	Calculation results	completed
4.1.X	Set pipe dimensions	removed
4.2.7.3	HPGL file - export	removed
4.2.2	Redo	new
4.2.3.1	Register load case	revised
4.2.3.4	Edit temperature dependent fluid	new
4.2.16.2	Pipe dimensions and insulation	revised
4.3.16.3	Free laid pipes - insulation	revised
4.2.16.4	Edit coefficient of thermal conduction	new
4.2.22.2	Y- pipe	new
4.2.22.3	Pump	completed
4.2.22.3.1	Norm - Pump	completed
4.2.22.4.2	Dialog window Zeta value	completed param closed
4.2.23.5	DXF	new
4.3.3	Segment	revised
4.3.4	List data	mod. csv
4.6.11	Configure toolbars	modified
4.7.1.2	Register Colors	new
4.7.2.1	Options - Project settings - General	revised
4.9.6	Windows Overview	new
7.1	Database- Overview	new
7.8	Lambda value database file LAMBDAT.RDB	new
7.10	Fluid database file FLUIDAT.RDB	new
8.3	neutral 3D-Interface SINETZ	new
9.4.5	MED - Selection of the medium	compl.FluidAT
9.4.10	IS - Determine insulation thickness	changes/compl.
9.4.11	IE Drawing	Compl.
9.4.15	AB - Zeta value determination at branches	compl

Neutral Interface Manual

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