

EnginSoft is a premier consulting firm in the field of Simulation Based Engineering Science (SBES) with a global presence. It was founded in 1984, but its founder and initial employees had been working in SBES since the mid '70s. Throughout its long history it has been at the forefront of technological innovation and remains a catalyst for change in the way SBES and CAE technologies in general are applied to solve even the most complex industrial problems with a high degree of reliability.

Today, EnginSoft is comprised of groups of highly qualified engineers, with expertise in a variety of engineering simulation technologies including FEM Analysis and CFD, working in synergic companies across the globe. We are present in Italy, France, Germany, the UK, Turkey and the U.S.A. and have a close partnership with synergic companies located in Greece, Spain, Israel, Portugal, Brazil, Japan and the U.S.A.

EnginSoft works across a broad range of industries that include the automotive, aerospace, defense, energy, civil engineering, consumer goods and biomechanics industries to help them get the most out of existing engineering simulation technologies.



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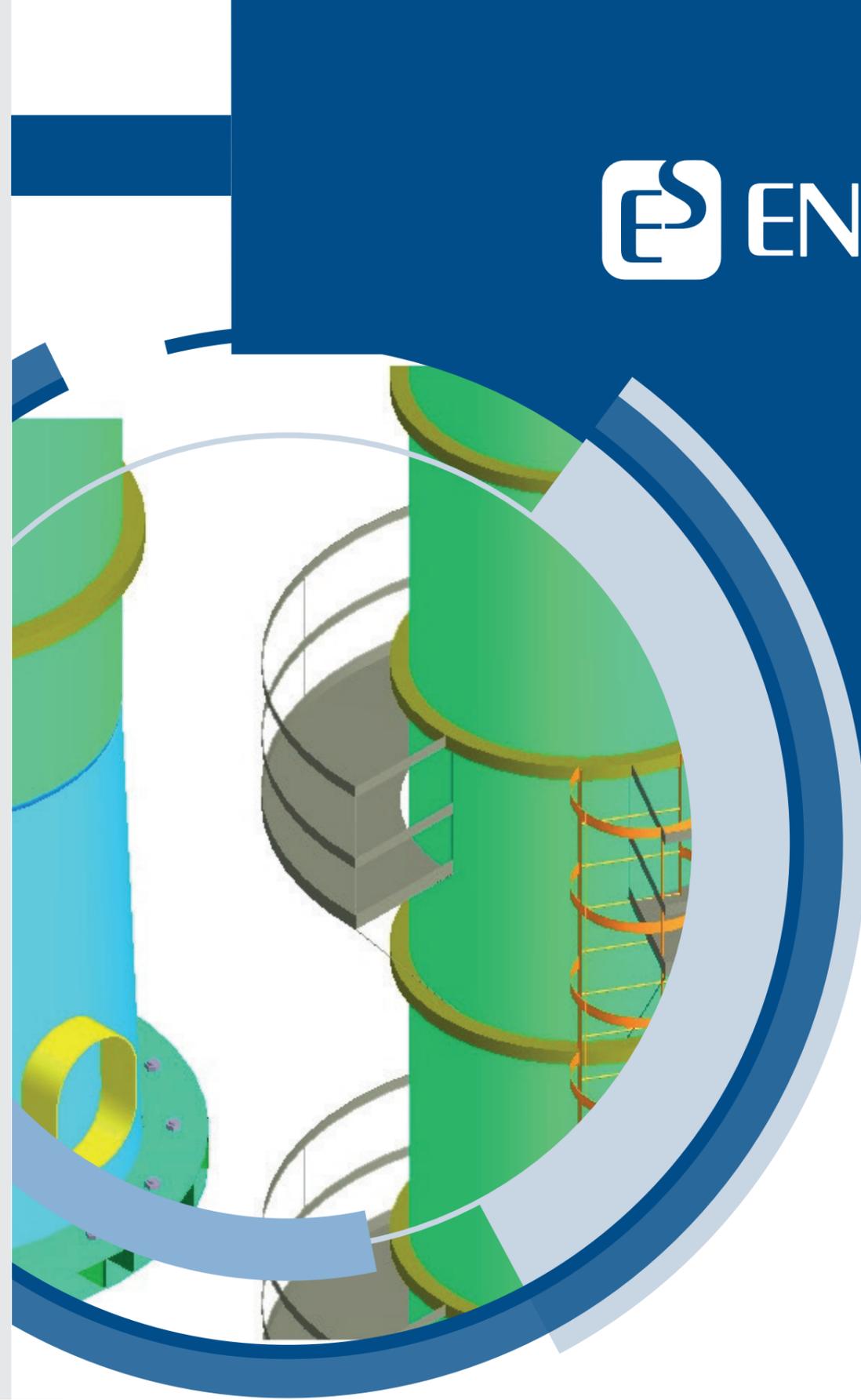
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DATA SHEET



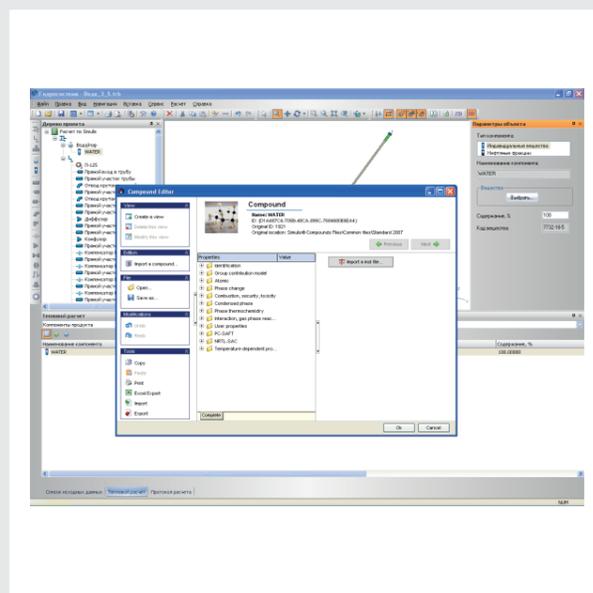
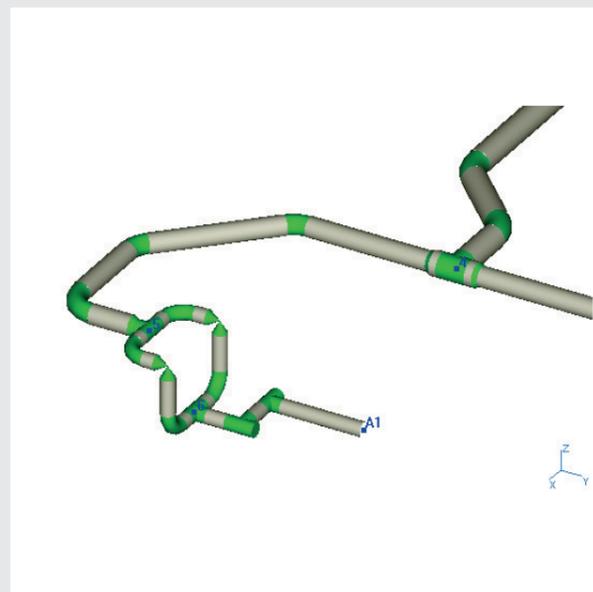
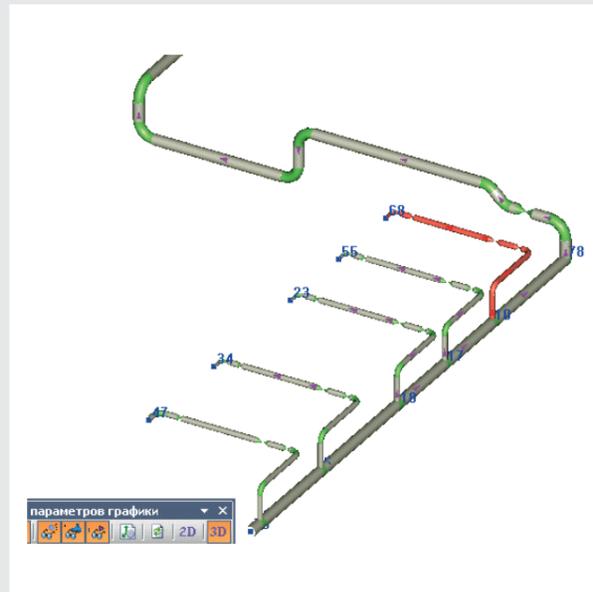
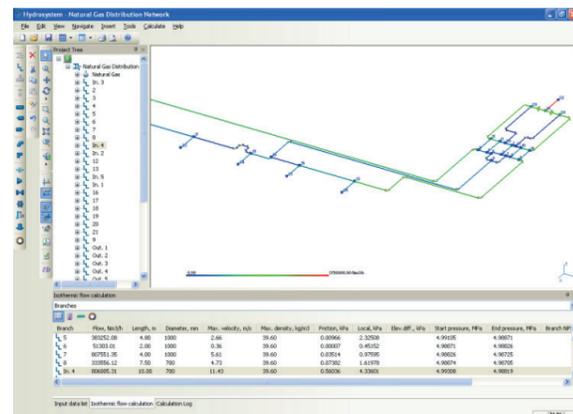
Hydrosystem:
Nominal Size Selection, Heat Loss & Hydraulic
Calculation of Pipeline Systems



Hydrosystem: Nominal Size Selection, Heat Loss & Hydraulic Calculation of Pipeline Systems

The Hydrosystem software performs heat loss & pressure drop calculations as well as nominal size selection for pipeline networks, transporting compressible or incompressible single-phase fluids (gases or liquids), as well as two-phase gas-liquid mixtures. It is widely used in power, oil refining, petrochemical, gas, oil, chemical and other industries.

Different parameters of the process piping, main lines, heating and gas-distributing systems and other pipe networks can be calculated using the program. Hydrosystem allows to calculate above ground and underground piping systems of any complexity (including networks with loops). The analysis results can be used for pumps, compressors, control and safety valve selection to ensure the reliability and efficiency of the piping systems.



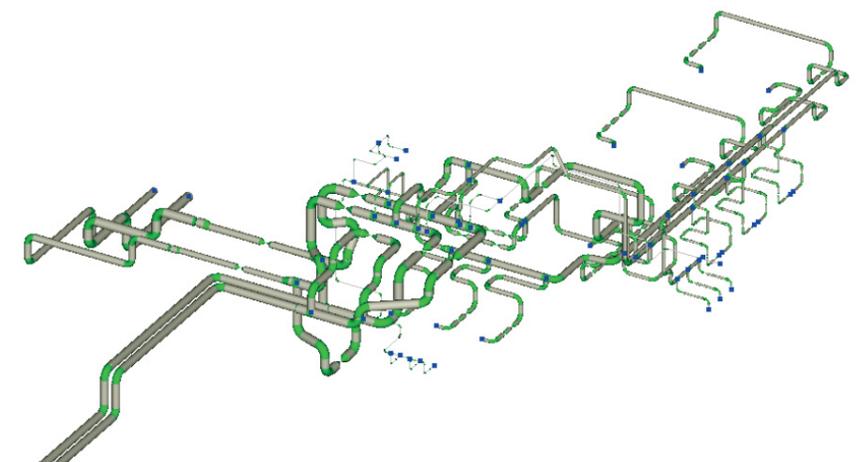
Hydrosystem performs various types of calculations:

- ✓ Isothermal flow pressure drop calculation (assuming that the fluid temperature is constant),
- ✓ Branch NS selection based on entered node pressures and branch flow rates,
- ✓ Non-isothermal calculation (considering heat loss and temperature drop factors),
- ✓ Transient flow calculation in pipelines (waterhammer calculation).

Pressure drop calculation and NS selection.

The software allows performing various tasks depending on the calculation type and data entered (node pressures, demands, fluid parameters, pipeline structure):

- ✓ Inner branch diameter selection and isothermal pressure drop calculation on the basis of terminal node pressures and branch flow rates (NS selection),
- ✓ Flow capacity calculation with given terminal node pressures,
- ✓ Pressure drop and heat loss calculation with given branch flow rates and/or node pressures,
- ✓ A combination of the calculation types mentioned above.



Hydrosystem is a product

