Properties Calculation Software
for Excel, MATLAB, Mathcad, Engineering Equation Solver, Dymola, LabVIEW, Smartphones, Tablets, Pocket Calculators, and Online Use
Hans-Joachim Kretzschmar, Matthias Kunick, Sebastian Herrmann

FluidEXL for Excel®
- Menu bar of FluidEXL
- Function call of FluidEXL

FluidLAB for MATLAB®
- Menu for choosing the library and function
- Choosing diagrams for water and steam and for humid air for displaying the calculated property values
- Function call of FluidLAB

FluidVIEW for LabVIEW™
- Menu for choosing the library and function
- Choosing diagrams for water and steam and for humid air for displaying the calculated property values

FluidMAT for Mathcad®
- Function call of FluidMAT

FluidDYM for DYMOLA®
- Function call of FluidMAT

FluidES for Engineering Equation Solver®
- Function call of FluidEES

Online Property Calculator
- Property library Function

App International Steam Tables for iPhone, iPad, iPod touch, and Android Phones and Tablets

The following thermodynamic and transport properties can be calculated:

**Thermodynamic Properties**
- Vapor pressure \( p_v \)
- Saturation temperature \( T_s \)
- Density \( \rho \)
- Specific volume \( v \)
- Enthalpy \( h \)
- Internal energy \( u \)
- Entropy \( s \)
- Exergy \( e \)
- Isobaric heat capacity \( c_p \)
- Isochoric heat capacity \( c_v \)

**Transport Properties**
- Dynamic viscosity \( \eta \)
- Kinematic viscosity \( \nu \)
- Thermal conductivity \( \lambda \)
- Prandtl number \( Pr \)

**Backward Functions**
- \( T, v, p, h, (T,v) \)
- \( p, T, v, (p,v) \)

**Thermodynamic Derivatives**
- All partial derivatives can be calculated.

Not all of these property functions are available in all property libraries listed before.