ASHRAE Library (LibHuAirProp) of Humid Air Psychrometric and Transport Property Functions, I-P and SI

For Real Moist Air, Dry Air, Steam, Water, and Ice

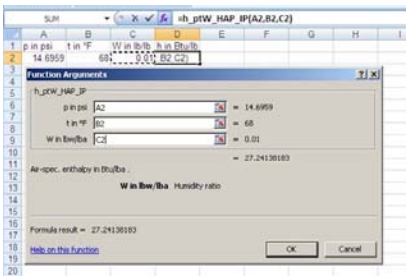
60 Functions in Both I-P & SI Units

Accurate

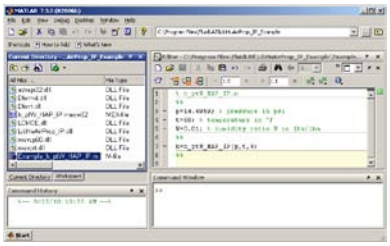
- ◊ '**Real**' versus '**Ideal**' Air
- ◊ Update of the Hyland-Wexler and Nelson-Sauer Models
- ◊ Properties of Liquid and Ice Fog Can Be Calculated
- ◊ All Latest IAPWS Standards and NIST Reference Equations Are Used
- ◊ Wide Range of Validity

EASY TO USE IN 4 APPLICATIONS

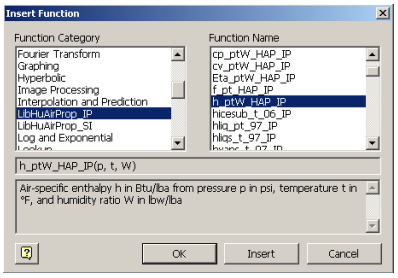
Add-In FluidEXL*Graphics* for Excel®



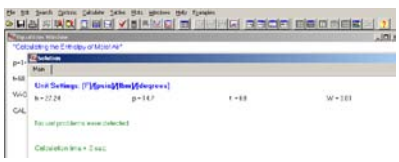
Add-In FluidLAB for MATLAB®



Add-In FluidMAT for Mathcad®



Add-In FluidEES for Engineering Equation Solver®



Powerful and Flexible

Thermodynamic Properties

Speed of sound	Specific isobaric heat capacity
Specific isochoric heat capacity	Air-specific enthalpy
Isentropic exponent	Partial pressure of water vapor in moist air
Partial saturation pressure of water vapor	Density
Air-specific entropy	Air-specific internal energy
Air-specific volume	Compressibility factor

Transport Properties

Thermal diffusivity	Dynamic viscosity
Thermal conductivity	Kinematic viscosity
PRANDTL number	

Water Content Properties

Relative humidity	Humidity ratio from total pressure, temperature, and partial pressure of water vapor
Humidity ratio from total pressure, temperature, and relative humidity	

Saturation Properties

Saturation pressure enhancement factor of water	Dew-point temperature
Wet-bulb temperature	Humidity ratio from total pressure and dew point temperature
Humidity ratio from total pressure, (dry bulb) temperature and wet-bulb temperature	Saturation humidity ratio
Backward function: temperature from total pressure, wet-bulb temperature and humidity ratio	Backward function: saturation temperature of water vapor from total pressure and partial pressure of water vapor

Backward Functions

Backward function: temperature from total pressure, air-specific enthalpy, and relative humidity	Backward function: temperature from total pressure, air-specific enthalpy, and humidity ratio
Backward function: temperature from total pressure, air-specific entropy, and humidity ratio	

Available here, or at the ASHRAE Online Bookstore:

Product	Member Price	List Price
FluidEXL for Excel	$149	$179
FluidLAB for MATLAB	$149	$179
FluidMAT for Mathcad	$149	$179
FluidEES for EES	$149	$179
Combined Library (ALL 4)	**$290**	**$350**

Note: All work in Windows® 32- and 64-bit

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Prepared by

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