

GPCALCS — The Performance Engineer’s Toolbox will help you use the power of Microsoft® Excel to quickly test and calculate the thermal performance of your plant equipment. This “toolbox” of Excel workbooks is the culmination of thousands of man-hours of development and testing for accuracy and usefulness by experienced power and process plant performance engineers under actual test conditions.



GPCALCS™
The Performance Engineer’s Toolbox



Equipment Performance Workbooks

This “toolbox” of Microsoft Excel workbooks is organized for convenient data entry and report generation. Using these workbooks, the experienced performance engineer can quickly and accurately calculate equipment efficiencies consistent with industry methodology. Workbooks are included for:

- Boiler/Air Heater (Coal) Performance
- Boiler/Air Heater (Oil/Gas) Performance
- Compressor Performance
- Condenser Performance
- Controlled Extraction Turbine Performance
- Cooling Tower Performance
- Fan Performance
- Feedwater Heater Performance
- Flow Metering
- Gas Turbine Performance
- Heat Recovery Steam Generator (HRSG) Performance
- Pump Performance
- Utility Steam Turbine Performance

Performance Test Protocols

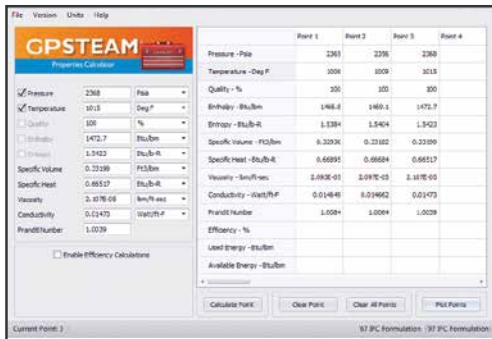
A set of performance test protocols (PTPs) is included for your convenience. These generic protocols are provided in Microsoft Word format and become the basis of a comprehensive test program. Test protocols are included for:

- Air Heater
- Boiler
- Boiler Feed Pump
- Boiler Feed Pump/Turbine Set
- Compressor
- Cooling Tower
- Feedwater Heater
- Gas Turbine Generator
- HRSG
- Motor-Driven Pump
- Steam Surface Condenser
- Utility Steam Turbine Generator

GPCALCS Version 7.0 \$595*

*Quantity discounts available

(Call 1.800.803.6737 or +1.716.799.1080 for pricing information)



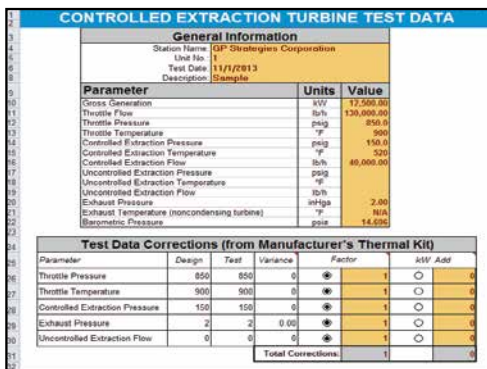
GPCALCS Library Functions

The GPCALCS Excel Add-in provides accurate thermodynamic properties of air, water, and steam as function calls available for all your Excel spreadsheet applications. Properties are in accordance with ASME IFC-67 and IAPWS-IF97 Steam Table formulations. In addition, a tool is provided for psychrometric functions.

GPSteam™ Properties Calculator

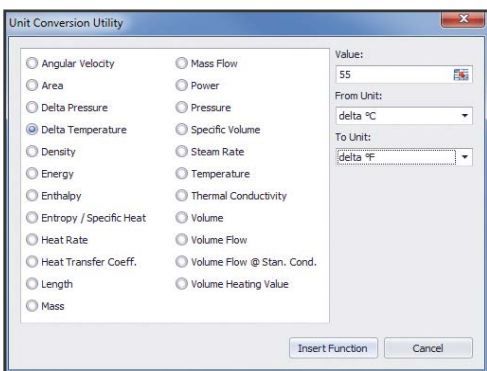
GPSteam – also available as a standalone product – provides a convenient means of obtaining thermodynamic properties of water and steam (English or SI) over a wide range of pressures and temperatures. Entering any two state conditions (P, T, h, S, Q) in the program returns the remaining thermodynamic properties for any given state point. These values are updated in the calculator fields, and the pressure, temperature, and percentage moisture content are plotted on a Mollier diagram for a visual indication of the fluid's enthalpy and entropy. The calculator provides a user-selectable “switch” to use either the ASME IFC-67 and IAPWS-IF97 Steam Table formulations.

In addition, enthalpy-drop efficiency for the steam turbine can be calculated from the inlet and exhaust temperatures and pressures.



Unit Conversion Utility

A utility is provided for automatic engineering unit conversions (both English and SI) for user inputs as well as any calculated values in the Excel workbook through the GPCALCS Excel Add-in.



Handy Reference Library

In addition, a GP Strategies Handy Reference Library workbook is included that contains the following information:

- Periodic Table of Elements
- Principle Properties of Commercial Pipe
- Typical Coal/Fuel Oil/Natural Gas Analyses
- HHV to LHV Conversion
- Gas Properties Data (over 200 gases)
- Psychrometric Calculator
- Engineering Unit Conversion Utility
- GPSteam Library Functions



FREE TRIAL!

You can try GPCALCS v7.0 free for 30 days at no risk. Call us at [1.800.803.6737](tel:1.800.803.6737) or [+1.716.799.1080](tel:+1.716.799.1080) to receive your free download for evaluation. If after 30 days you are not completely satisfied, simply uninstall the software.

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