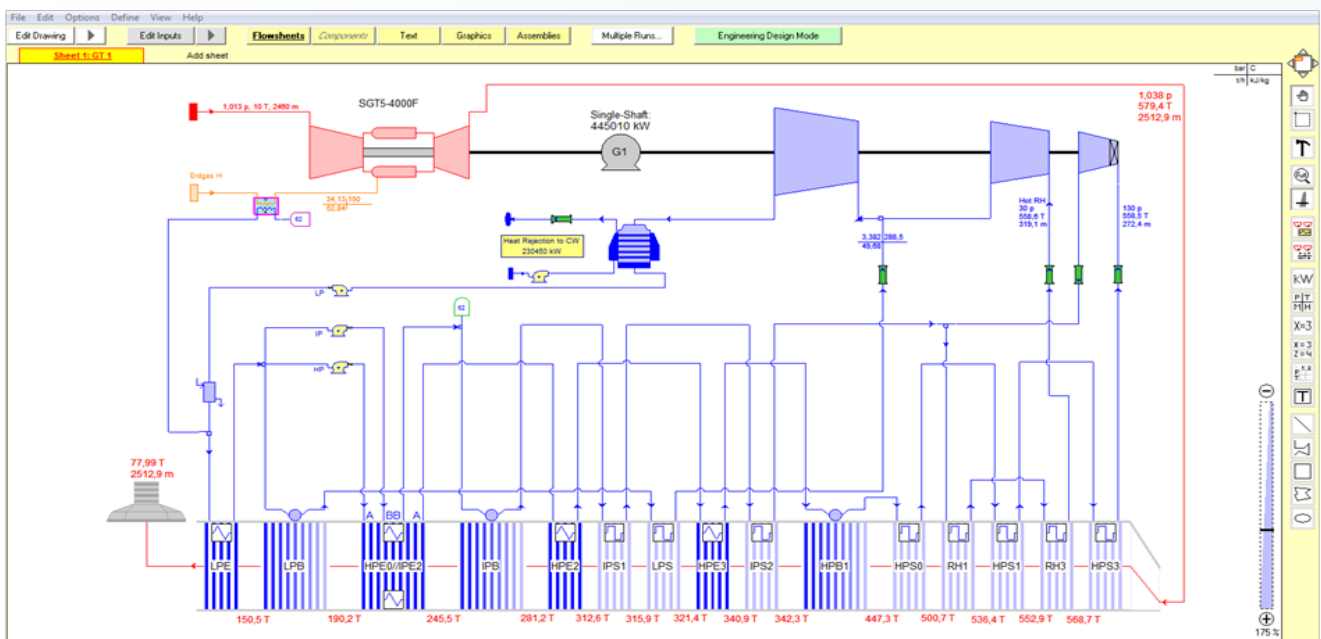


# THERMOFLEX-PEACE®

## GENERAL PURPOSE PROGRAM FOR PLANT DESIGN, SIMULATION AND COST ESTIMATION

**THERMOFLEX** is a modular **General Purpose Program** with a graphical interface that allows you to assemble models using icons representing **over 200 components**. The program covers both design and off-design modelling.

It can model all types of power and heat plants including GT or Reciprocating Engine Combined Cycles, Conventional Coal/Oil/Gas/Biomass/Waste fired Rankine Steam Cycles, Concentrated Solar Thermal Power Plants (CSP), Gasification and Carbon-Capture (CCS) Systems, Seawater Desalination Plants, Organic Rankine Cycles (ORC), Kalina Cycles, Repowering, Wind Power and Photovoltaic (PV) systems, Electrolyzer / H<sub>2</sub> & Ammonia Production Plants, Methanol Production Plants, Storages & Batteries and all type of Power-2-X Systems.



THERMOFLEX provides the GT PRO® gas turbine library (> 860 GT specs) and libraries for reciprocating gas & diesel engines (>500 specs), Wind Turbines, PV Modules, Fuel Cells and Electrolyzers. The Steam Turbine Assembly feature provides automatic estimation of efficiencies, leakage flows and information about the entire steam turbine such as dimensions, weight and costs.

**THERMOFLEX** also includes a fuel database with more than **180 pre-defined fuels** such as coal, biomass, RDF, LNG, and other fuels. The US NIST (REFPROP) fluid database is included besides a Heat Transfer Fluids/Molten Salts/Thermal Oils database to provide properties for over 130 refrigerants, heat transfer fluids, hydrocarbons, and other pure substances such as CO<sub>2</sub>. Properties of gaseous mixtures are included covering a wide range of conditions including compressibility effects.

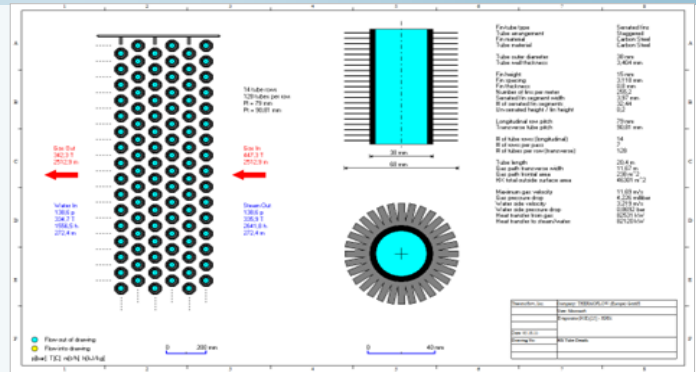
**THERMOFLEX** includes a bi-directional Link to MS-EXCEL (**ELINK**) which allows running plant models from within MS EXCEL by specifying inputs and receiving outputs in EXCEL cells.

A built-in **scripting language** allows to add own logical blocks, or to call an external DLL/ EXE, so THERMOFLEX models can run together with external programs.

In addition to being a comprehensive standalone tool, THERMOFLEX becomes more powerful when used together with Thermoflow's Dedicated Expert Programs **GT PRO®** and **STEAM PRO®**.

GT PRO, GT MASTER, and STEAM PRO models can be **directly loaded into THERMOFLEX**, where they can be modified in the fully flexible environment, and/or run in off-design mode.

Thermoflow's new **NOVO PRO®** software can import THERMOFLEX plant model(s) for **hourly grid simulation** in combination with renewables (Wind, PV) and/or storages and / or Hydrogen Production Plants. This allows the user to create an optimized base load, peaker or backup plant for an individual electrical grid.



## PHYSICAL HARDWARE OUTPUTS & EQUIPMENT LAYOUT

