Thermoflow

# Carbon Catpure Features

## *SYSTEM INTEGRATION OF CARBON CAPTURE PLANTS*

Thermoflow's Expert Programs (GT PRO®, STEAM PRO®) and the General Purpose Program THERMOFLEX® both offer detailed Carbon Capture and Storage features.

The vast built-in knowledge base automatically creates power plant model setup and **Carbon Capture System Integration** within minutes either for

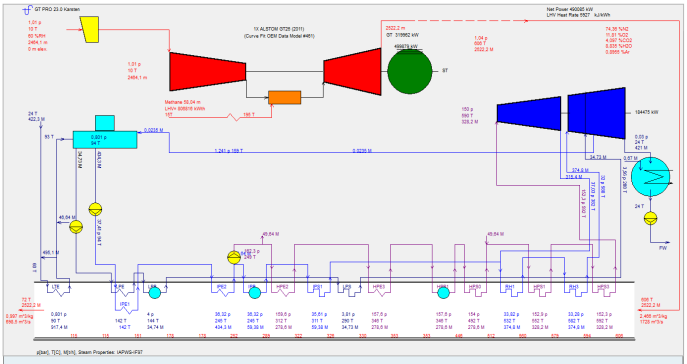
- **new power plant projects,**
- **or revamps of existing plants.**

The synergy of plant performance calculation and detailed cost estimation allows the user to optimize the overall system technically and economically (cash-flow optimization) for the user´s unique situation and criteria.

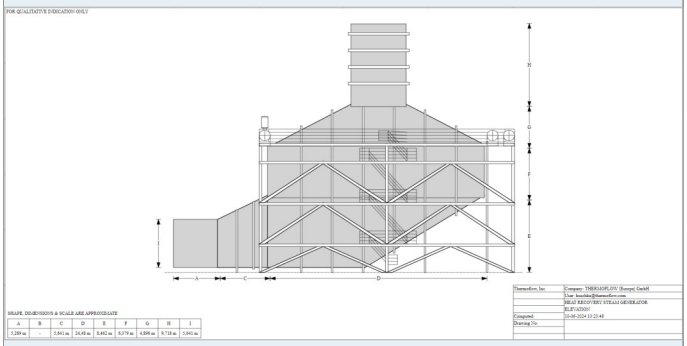
Extensive databases, for example the Gas Turbine database with over 870 GT specifications, support the user in modeling the systems to match OEM performance.

The available Carbon Capture System models have been initialized with expected conditions for using MEA (Mono Ethanol Amine) or HPC (Hot Potassium Carbonate) as the solvent, but are also capable of representing chemical absorption using other solvents and system configurations with changes to certain input options and parameters.

Scan to request Demo Software incl. customized project sample.

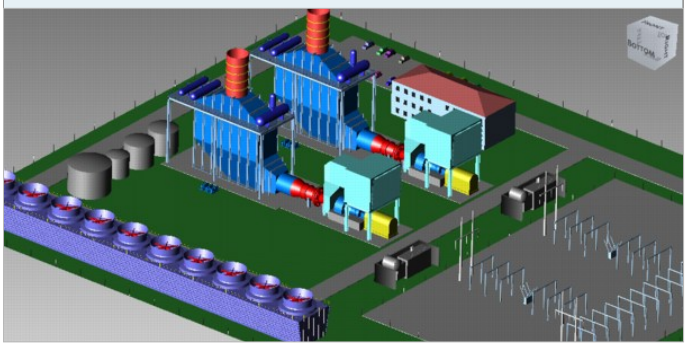


GTCC PLANT MODEL



2D EQUIPMENT LAYOUT

AND 3D SITE LAYOUT



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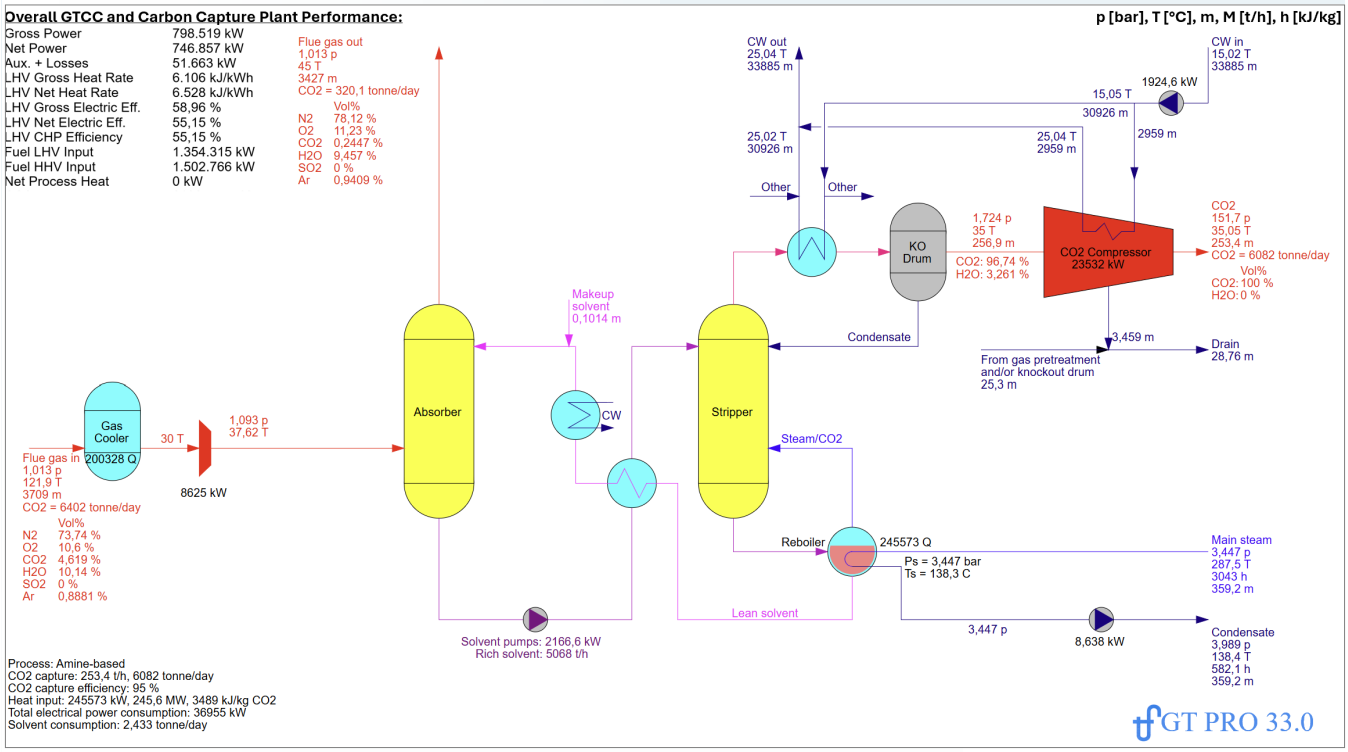
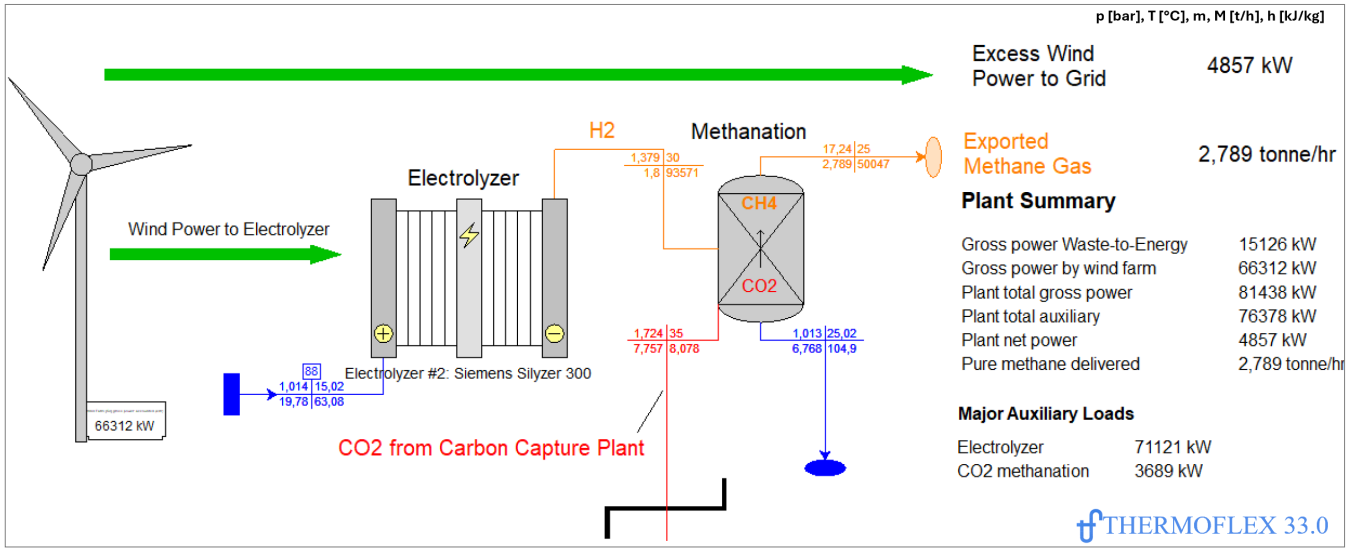



*$CO_2$ Capture System of a typical SIEMENS ENERGY 1-1-1 SGT-5 9000HL Gas Turbine Combined Cycle Plant*

In addition, the THERMOFLEX® module includes advanced features for detailed modeling of e-fuel projects such as $CO_2$ compression, $CO_2$ methanation, methanol synthesis, electrolyzer, PV, wind farms and storage systems, and/or heat recovery projects using heat pumps, and/or oxyfuel combustion capture and pre-combustion capture (i.e. Integrated Gasification GT Combined Cycle IGCC) projects and much more…




*Methan production from Waste-to-Energy plant and Wind Farm*