

BL thermodynamics

ammonia absorption
cooling plants, heat pumps & **more**

As a manufacturer of customized Ammonia Absorptions Refrigeration Chillers we have some highly specialized engineering skills and features. In this folder we give you a short overview of our engineering and consulting capacity with the objective to intensify our collaboration.

- Heat Exchanger - Design & Delivery
- Piping - Drawings & Thermodynamic calculation
- Software designed by BL thermodynamics
- PLC based automation solutions
- Consulting on Ammonia Absorption Refrigeration plants
- Consulting on Refrigeration & energetic balancing

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HEAT and MASS *transfer*

Heat Exchanger - Design & Delivery

We are your partner to find the right solution for your heat transfer applications.

From consulting regarding available plate heat exchanger and delivery of proven technology up to special designs and fabrication of tailor made tube and shell heat exchanger.

Our team has many years of experience and a very high degree of innovation for thermodynamic calculations, CAD lay-outing and drawing.

We also have a wide range of different partners for implementation and construction. This ensures we can provide a high level of flexibility and our promise of providing the highest quality for each solution.

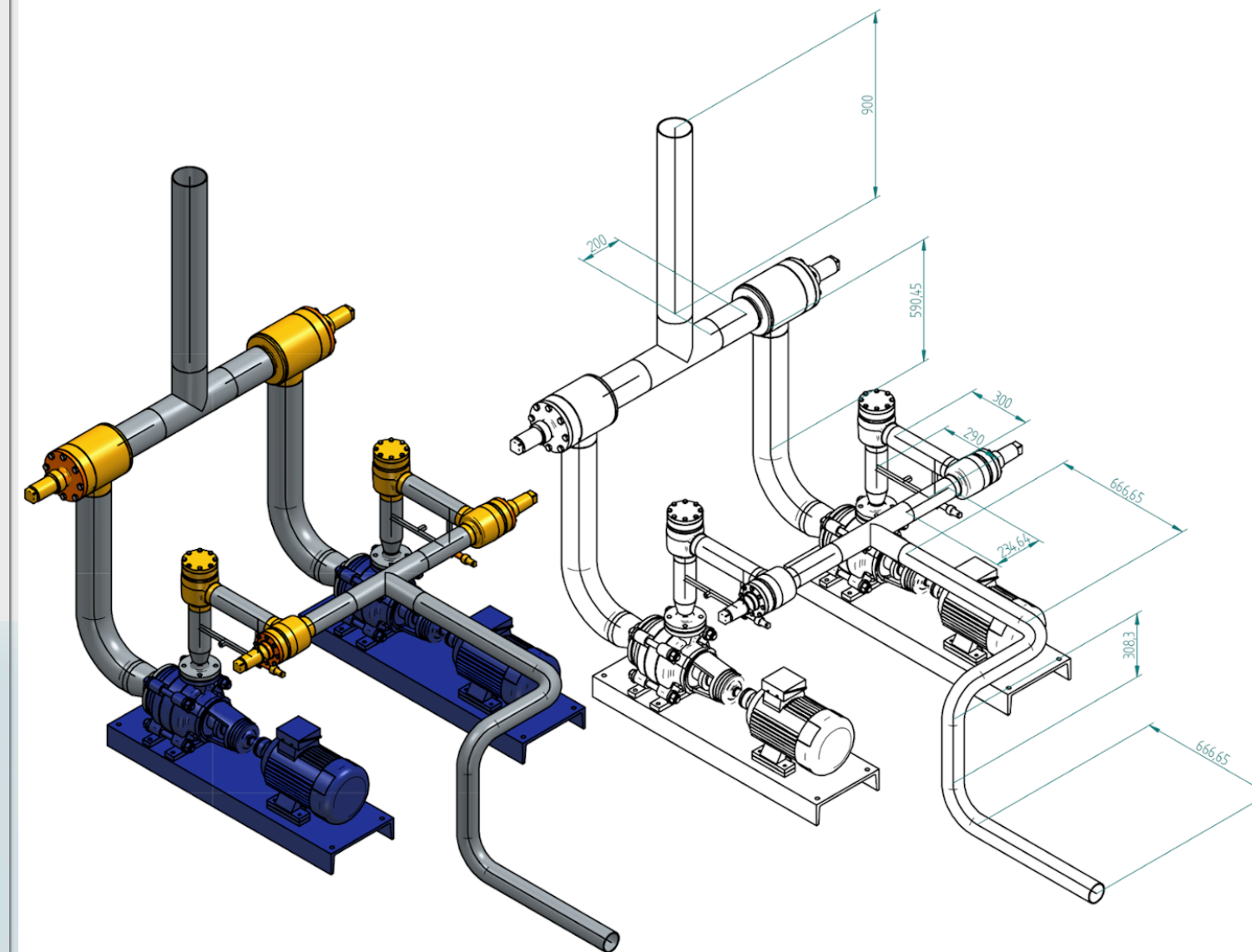


Piping - Drawings & Thermodynamic calculation

With many years of experience in the field of plant and pipeline design we offer a wide range of assistance in piping solutions.

From mass flow calculations, pressure drops and heat losses, up to stress analysis and insulation requirements.

- We assist you in the first evaluation from the concept to the final P&I diagram
- We provide CAD drawings and detailed isometrics
- Together with our partners companies we deliver quality piping work world wide



Software and Automation *solutions*

Software designed by BL thermodynamics

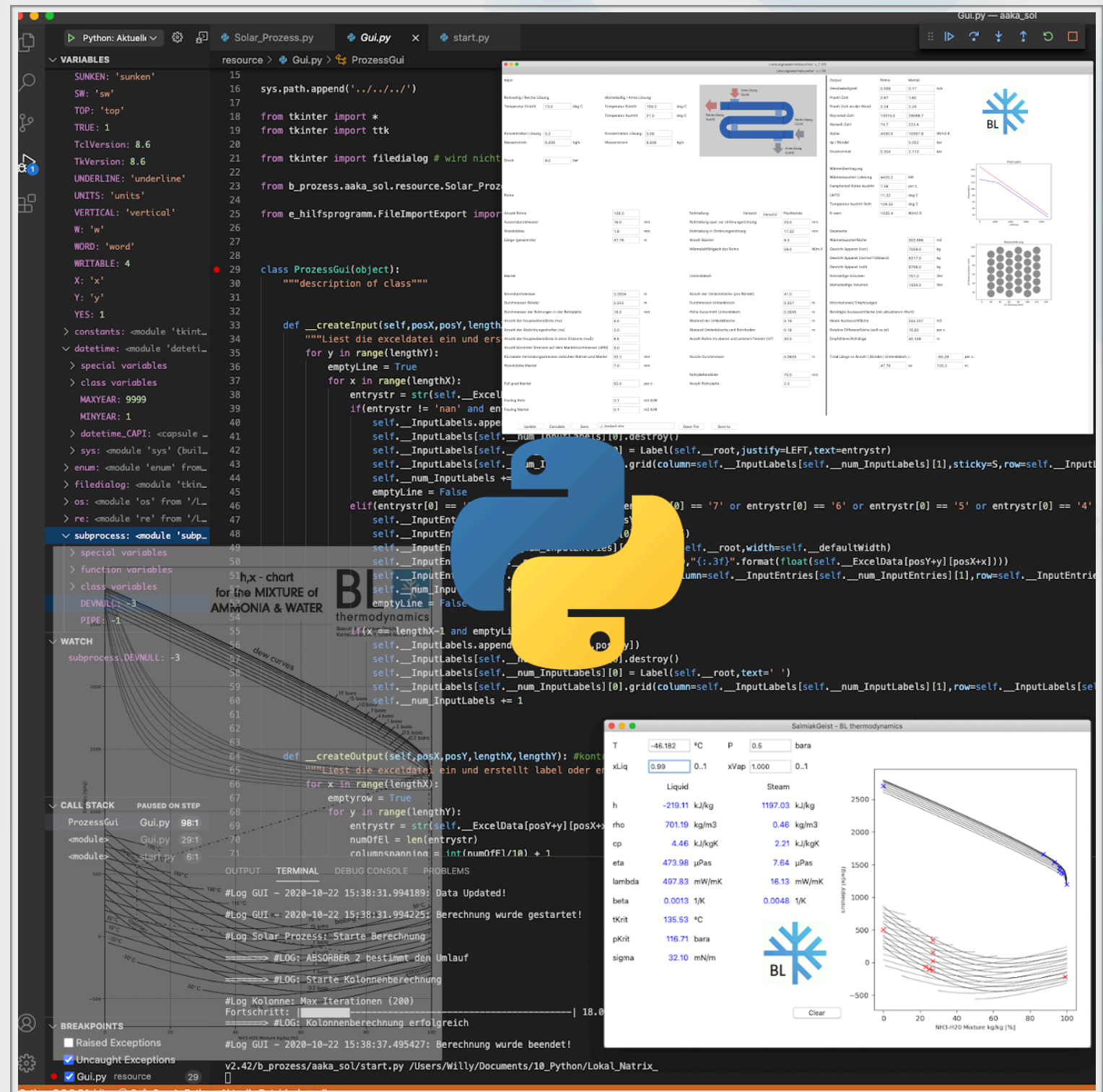
From Fortran to Matlab and from Java to Objective C / C-Sharp we finally arrived at python.

Here we found an open source platform with the highest degree of customization and nearly infinite range of individual solutions.

Our team developed a wide range of our own company standards combined with the state of the art of modern programming, like continuous integration (CI), loose coupling and test driven deployment (TDD).

Customized GUI's and multiple interfaces to databases will easily transform very complex thermodynamic process and calculation scripts into user friendly and expedient software solutions.

As experts in thermodynamics we can help you to define and solve specified heat and mass transfer demands and deliver a customized application

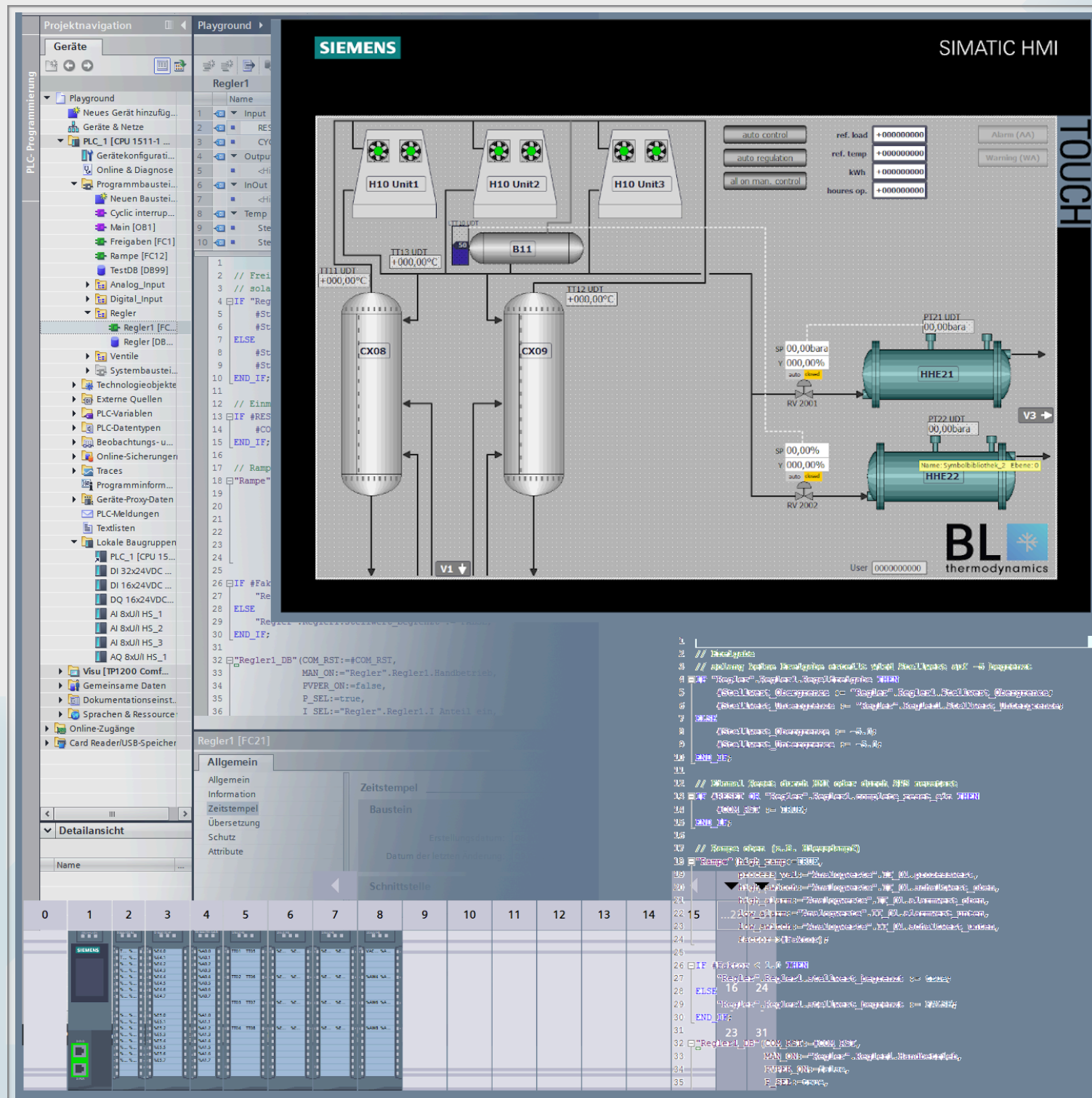


PLC based automation solutions

With several years of experience in the design, implementation and the commissioning of industrial automation solutions we have specialists in this field as part of our team.

We have many years of experienced in the field of industrial refrigeration based on the Siemens TIA portal.

- ➡ Hardware selection and configuration
- ➡ PLC program design and implementation
- ➡ HMI application
- ➡ Testing and commissioning
- ➡ Remote connection and assistance



Consulting

Ammonia Absorption Refrigeration

- maintenance & service on your existing plant
- upsizing plant capacity
- retrofitting
- absorption elements design and spare part delivery

Refrigeration & energetic balancing

- consulting
- research & development

