

Calambio

ENGINEERING AB

*- Personal engineering
with total economy*

Presentation of the Alingsås office



Pär Stenberg, co-founder

- Project management, procurement, process, design.



Hampus Jakobsen, process engineer

- Process, calculations, analyses.



Emil Lingeheg, process engineer

- Process, calculations, analyses.

Cont. →

Presentation of the Alingsås office



Kacharelis Monasterio, process engineer

- Process, calculations, analyses.



Johan Piittisjärvi, process engineer

- Process, calculations, analyses.



Carina Stenberg, financial accountant

- Economy, administration, P&ID.

Presentation of the Kungsbacka office



Thomas Riedenfalk, co-founder

- Responsible for layout, piping and pressure vessel design. Procurement and follow-up of contracts.



Ingvar Christensson, designer

- Layout, piping and pressure vessel mechanical design.



Aamir Fouad, designer

- Layout, piping and pressure vessel mechanical design.

Cont. →

Presentation of the Kungsbacka office



Robert Ljungkvist, designer

- Layout, piping and pressure vessel mechanical design.



Emil Mattsson, process engineer

- Process, calculations, analyses.



Gustav Tillback, designer

- Process, layout, piping and pressure vessel mechanical design.

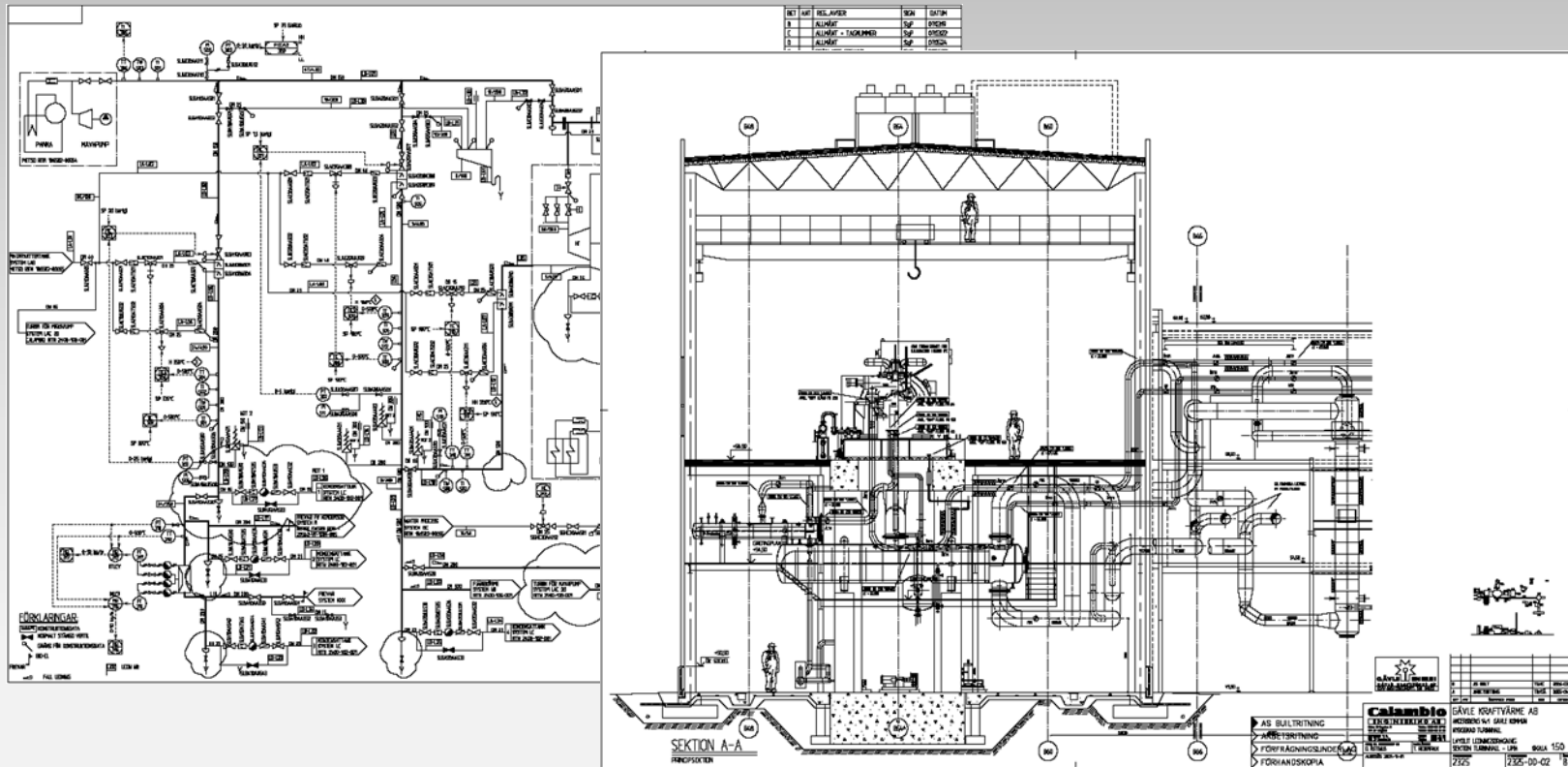
Representation in Norway



Geir Svendsen

- Project management, risk analysis, plans for SHE.

From idea...



Feasibility studies, analyses, P&ID, process design, layouts, mechanical design

...to operating plant



Supervision of erection, commissioning, documentation.
Documentation is also made in a totally digital version.

Feasibility studies and pre-engineering

Analysis works include all work from mapping of reality, ideas for development, in order to establish a solid decision material for the customer, technical solutions and investment calculations.

We have pre-projected everything from industrial plants to complete district heating plants for:

Alingsås Energi, Västervik Miljö & Energi AB, Vida Paper, Perstorp Speciality Chemicals AB, Mjölby Svartådalen Energi AB, Vattenfall Värme AB, Elkem AS, Borgstena Energi AB, Umeå Energi AB, Perstorp Oxo AB, AB Bitus, Lantmännen Reppe AB, Hafslund Energi & Miljö AS and others.

The intention is always the same – Finding the best solution.



Project management - To the point

Our goal is always to complete a well-functioning plant to the right price - on schedule.

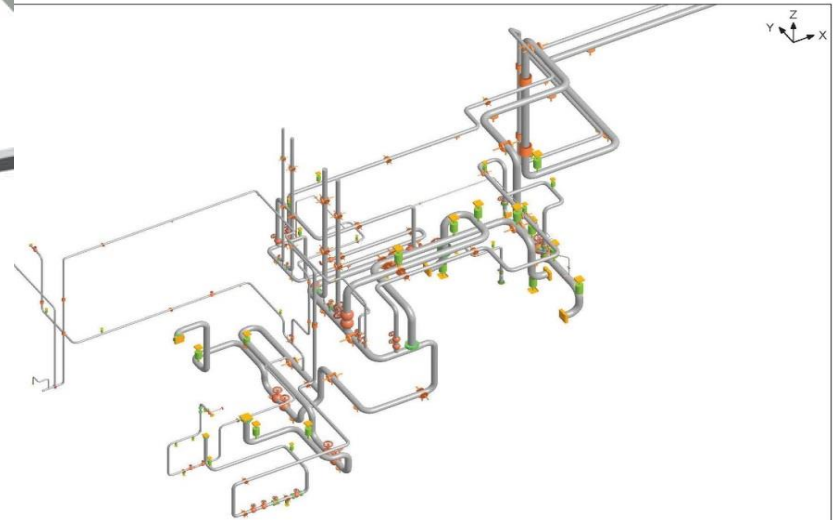
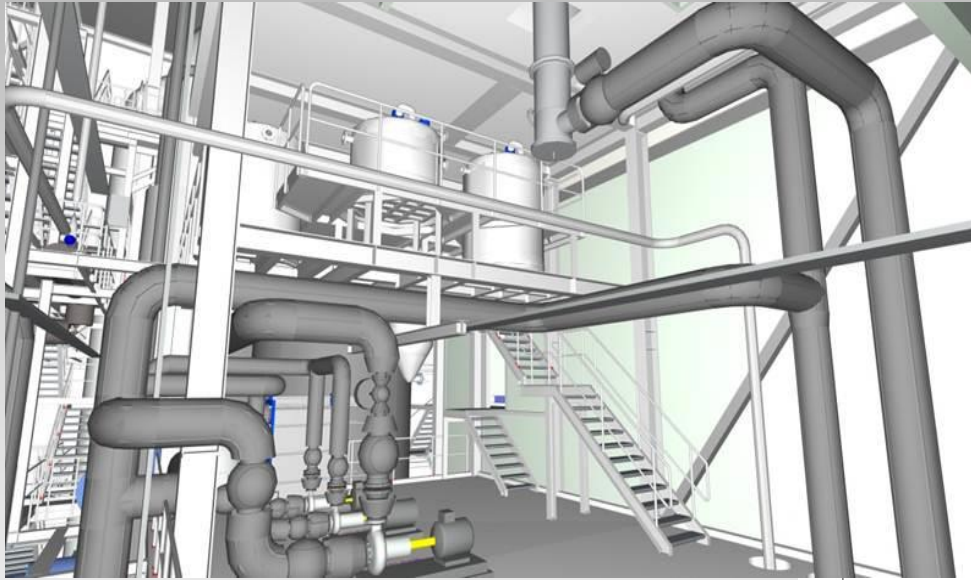


Layout and detail mechanical design

Plant 3D from Autodesk is usually used. Modeling of complete plants or subsystems gives a good visualization, making it easy for costumers and suppliers to take part of the work and give feedback.



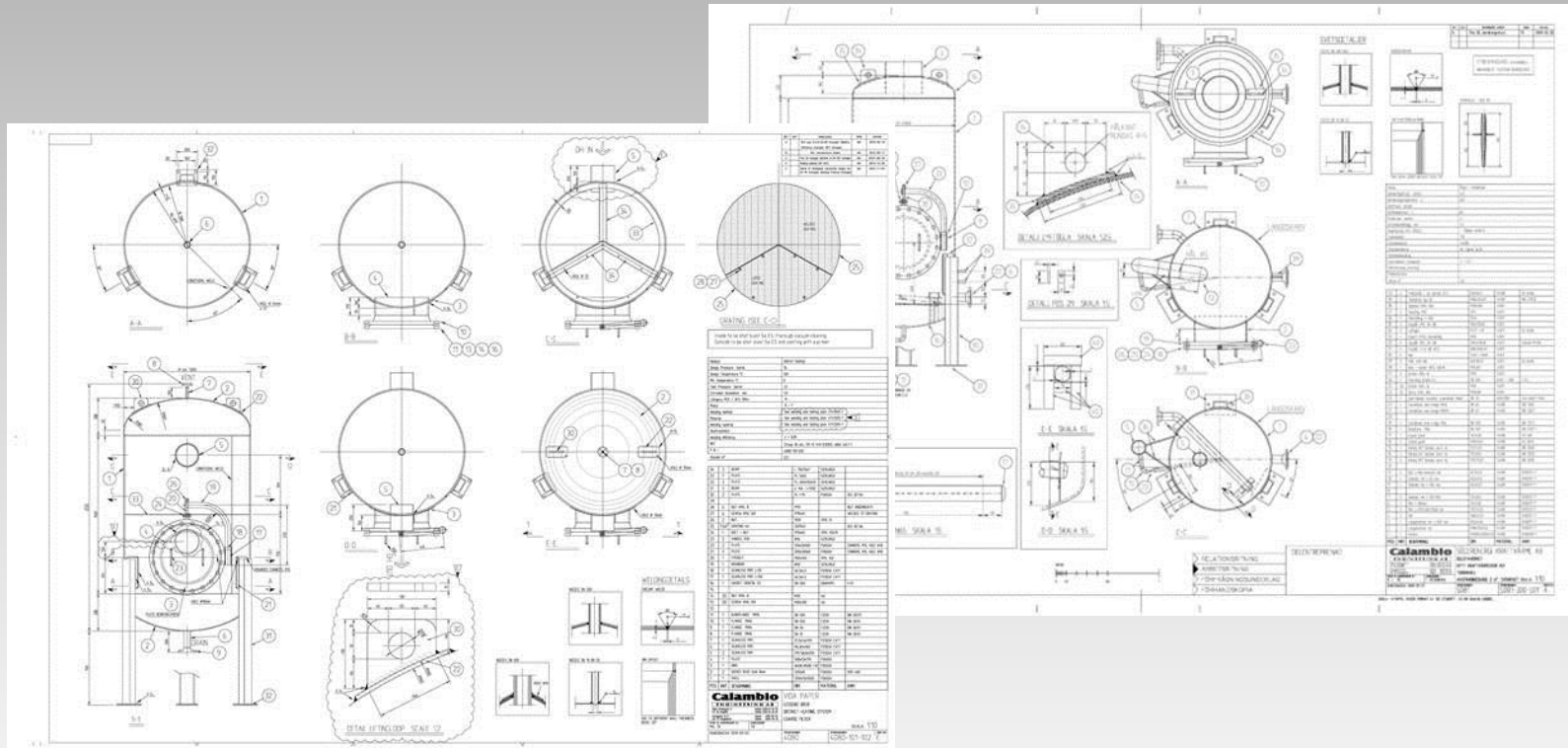
Mechanical design - piping



Mar 1, 2017

- Piping layouts are created in a 3D program
- Isometries are generated in a 3D program
- Stress calculation is preformed with Caepipe
- Strength is calculated with PipeCalc
- Construction control by accredited control body
- Procurement of piping contracts and follow-up of the erection on site

Pressure vessels design



- Design and function adjusted for current plant and operative laws and norms
- Construction control by accredited control body
- Procurement of manufacturing and delivery follow-up
- Feed water tanks, steam accumulators, expansion vessels

Boilers



Perstorp Specialty Chemicals. Design of a new 55 MW solid fuel boiler for coal, peat and bio fuel. Projecting of reconstruction for waste and animal byproducts etc. Project management for 40 MW heavy oil fired boiler, including a 16 MW separate incinerator for liquid hazardous waste.



Vattenfall Götene. Design of a new complete plant, 24 MW solid fuel fired boiler + 2 x 16 MW peak- and reserve oil. 99,97% guaranteed availability. Total time for implementation <24 month from a piece of blank paper and cow pasture to commercial operation.

Pannor



Nybro Värmecentral AB. Design of a new complete plant 22 MW solid fuel fired boiler for household waste and industrial waste.



Västervik Energi AB. Design of a new complete plant 20 MW solid fuel fired boiler for biomass and waste.

Boilers

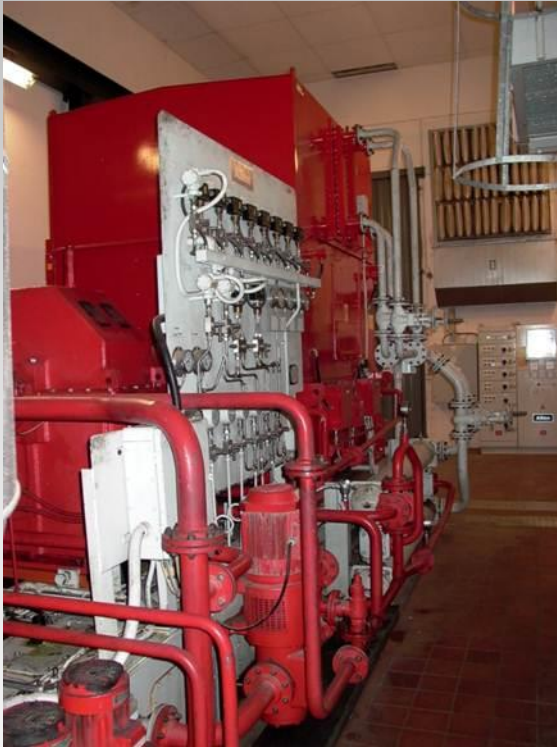


Mechanical design of new boiler surfaces and membrane walls for older solid fuel fired boiler at Cascades Djupafors AB. One of many smaller projects.

Lifting of one half of a fluidized bed furnace for Vattenfall, Götene.

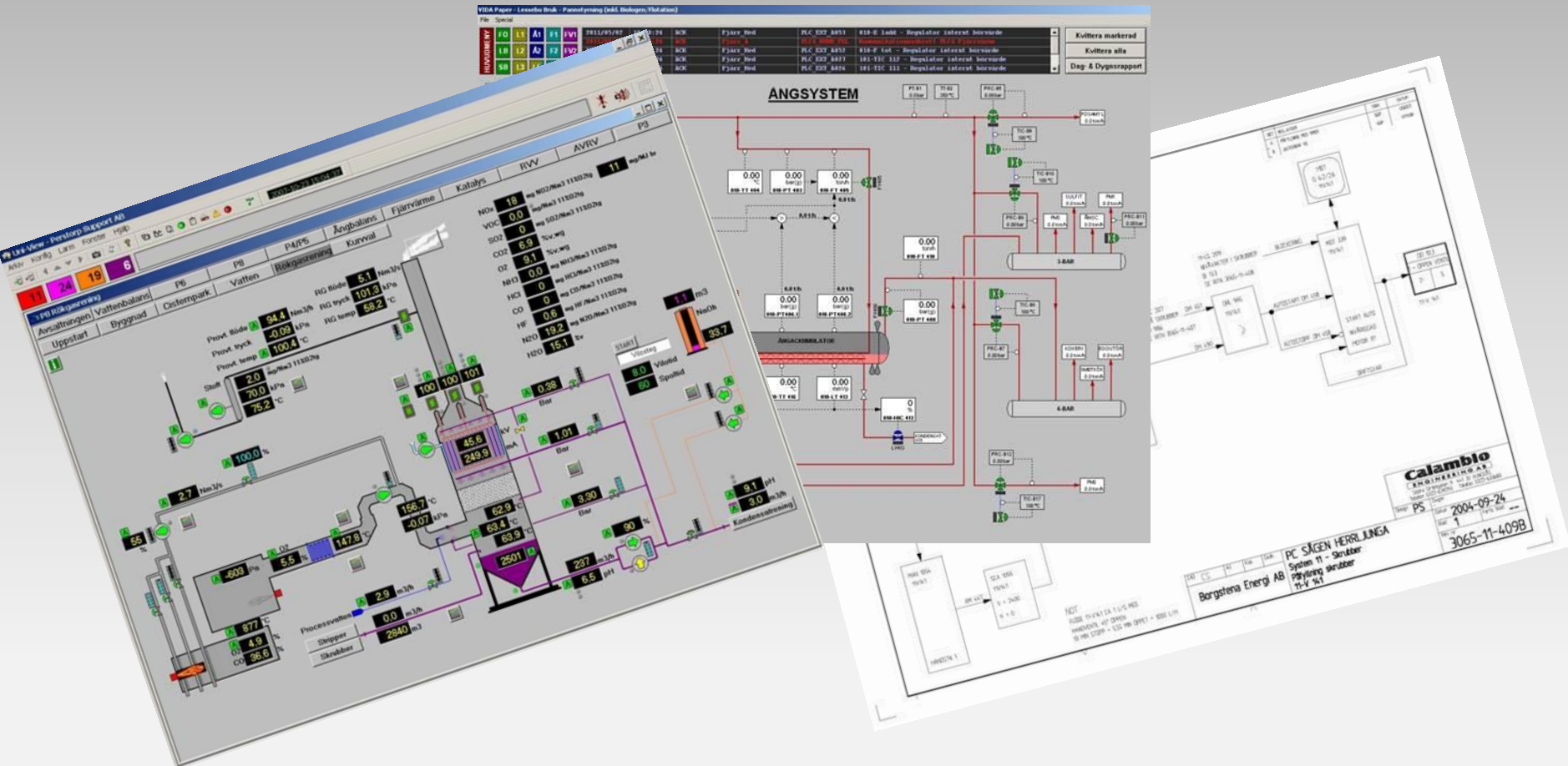


Steam turbines



Falu Energi & Vatten, Västervik Miljö & Energi, AB Gustaf Kähr Nybro, Perstorp AB Perstorp, Fortum AB Nynäshamn, Hafslund Fredrikstad. Currently for Härjeångs Energi AB. Installation for turbine at Igelstaverket Söderenergi AB, Gävle Energi.

Process control



Extensive experience of complex process control, everything from design to implementation, operating instructions and commissioning.

Experience from many different fuels



Bio fuel, waste, animal byproducts, oil,
process gases.

Experience - Security



Long experience within broad areas gives security in project. Examples:

- Complete design of a new distillery and starch dryer for Lantmännen Reppe AB.
- New district heating central and steam accumulator for Vida Paper, Lessebo.

Some previous projects

- **Härjeåns Energi AB**
Complete design of a new peat basted heat and power plant 32 MW_{th} , 10 MW_{el}.
- **Nybro Värmecentral AB**
Complete design of a new waste basted heat and power plant 22 MW_{th}, 6 MW_{el}.
- **Västervik Miljö & Energi AB**
Complete design of a new waste basted heat and power plant, 20 MW_{th}, 5 MW_{el}.
- **Lantmännen Reppe AB**
Complete design of a new distillery, starch dryer and more, incl. ATEX, piping, etc.
- **Perstorp Specialty Chemicals AB**
Complete design of several plants. Solid fuel 55 MW, hazardous waste 16 MW, oil 40 MW, process gases 90 MW.
- **Söderenergi Kraftvärme AB**
Heat and power plant 240 MW_{th}, 90 MW_e, piping design DN≤ 1200, 102 bar(g)/550°C.
- **Gävle Energi AB**
Heat and power plant 77 MW_{th}, 23 MW_{el}, piping design DN≤ 600, 102 bar(g)/490°C.
- **Karlstad Energi AB**
Heat and power plant 88 MW_{th}, 32 MW_{el}, piping design BOP and turbine.

Contact

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