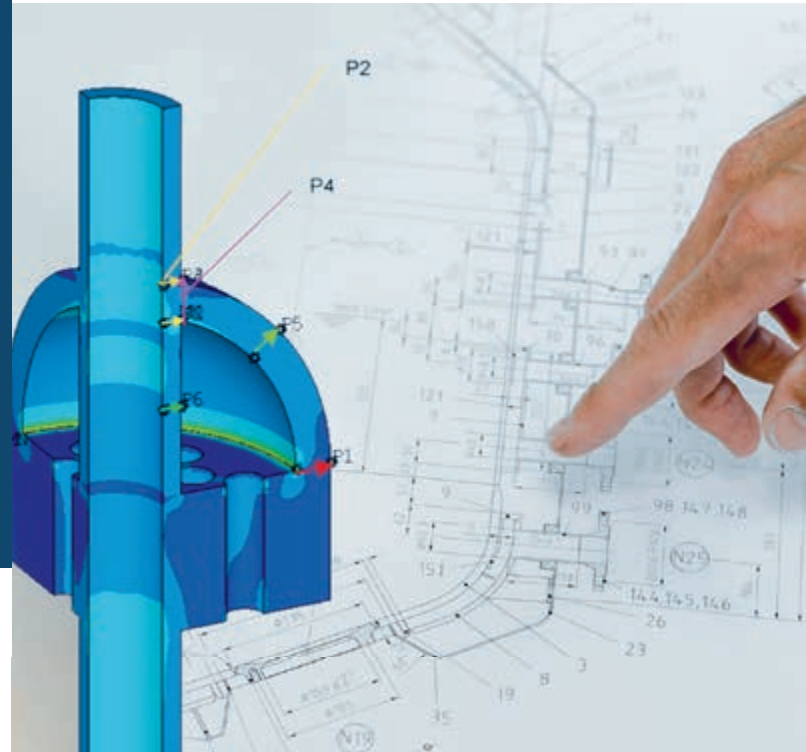


# Engineering

KASAG Swiss AG has many years of experience in the development, construction and evaluation of welded structures, pressure vessels, apparatuses and pipes. In addition, we have special know-how in the design and construction of heat exchangers. We are experts in the design, engineering and calculation of plants, apparatuses and welded structures.



## Engineering and consultancy services

Strength calculations in accordance with regulations:

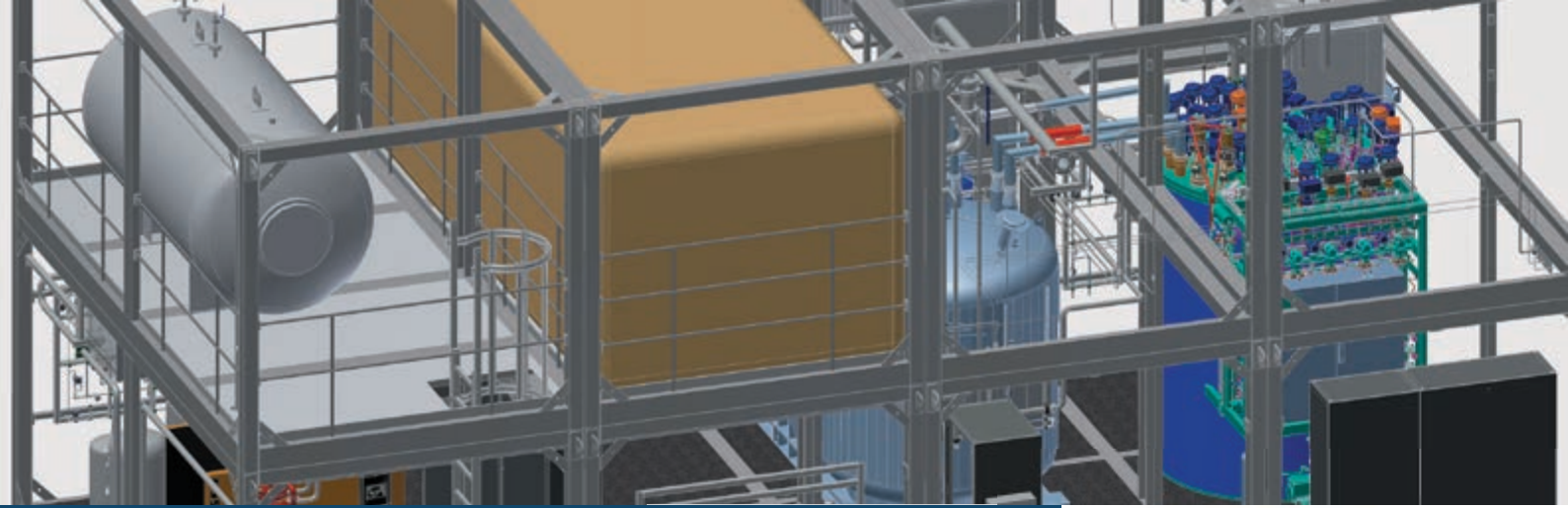
- AD-2000 datasheets
- EN13445 / EN13480
- ASME Code Sec. VIII, Div.1, Div.2
- Incorporation of special requirements in accordance with China Stamp (A1) and TP TC 032/2013 (EAC)
- Support relating to worldwide regulations

Evidence of:

- Over and under-pressure
- Determination of permissible load cycles
- External loads  
(nozzle loads, wind loads, earthquake calculations)
- Flange connections and seals
- Strength certification in accordance with Finite Element Method (FEM)
- Proof of stability

Consultancy relating to:

- The interpretation and analysis of the calculation results
- Construction design, shaping and optimisation
- Material selection (possibly also including support for corrosion testing), material properties, surfaces, selection of appropriate heat treatments, etc.
- Assessment of existing objects and claims
- Inputs to the acceptance authority
- Generation of risk analysis for input to the acceptance authority



We awake your concepts to life



#### **Design Features**

Establishing of drawings in 2D or 3D  
Parts list generation  
Available CAD systems: Autodesk (AutoCAD, Inventor)  
Formats: dxf, dwg, ipt, iam, iges, step

#### **Scope of services - Plant engineering:**

- Support during the generation of requirements specifications
- Cooperation during process simulations (e.g. CFD)
- Generation of P&I diagram (understanding of processes required) incl. valve and instrument list
- Room measurements and layout planning in 2D or 3D
- Support for risk / hazard analyses for the entire plant
- Pipe planning, for example in accordance with P&I diagram

#### **Certifications, manufacturer approvals**

ISO 9001 / ISO 3834-2  
PED (EN13445 / AD-2000)  
ASME (U-Stamp, Code Section VIII Div. 1)  
China Stamp (A1), China License  
TP TC 032/2013 (EAC), Customs Union  
In addition to our existing manufacturing approvals, we are able to perform the respective approval procedures for almost every country around the world (e.g. Singapore, Japan, Malaysia, Canada, etc.).