Kremsmüller Industrieanlagenbau KG

Huge tanks and state-of-the-art reactors designed fast and easily

The Kremsmüller Industrieanlagenbau KG developed from a company that in the early 70s employed welders, fitters and mechanics in plant construction. “As a personnel service provider, you know the challenges in the respective industry”, says Andreas Spiesberger, Technical Manager of the “Apparatus and Tank Construction” division at the 2.300 employees strong family business from Steinhaus, Austria. “The project business in plant construction was thus open wide: Kremsmüller Industrieanlagenbau KG established itself in pipeline construction and mechanical assembly projects, among others, and positioned itself as a certified premium supplier for welding work and a sought-after expert in occupational safety.”

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REFERENCE REPORT

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Andreas Spiesberger, Technical Manager “Apparatus and Tank Construction

“At present, 35% of our services are in pipeline construction and mechanics. 30 % in electrical, measurement and control engineering. 20 % in personnel and maintenance services and 15 % in apparatus, special container and tank construction,“ explains Andreas Spiesberger. Record-breaking and quite magnificent: A super tank with a diameter of 40 m, a height of 17.5 m and a total weight of 365 t. „A tank with these dimensions is not manufactured as a whole, but in parts, so-called ‚shots‘,“ the Austrian proudly says. „These will be used little by little. For this purpose, 40 hydraulic jacks lift the tank by 2.5 m before a new ‚shot‘ is inserted. Each of these „shots“ consists of many sub-segments. In total, more than 30 transports were necessary to deliver all components of the tank.” When asked which CAD software was used for the largest stainless steel tank in Austria, Spiesberger answers: „We use the German CAD software HiCAD for apparatus, special container and tank construction. Here, at the Steinhaus location, the multi-industry capable CAD software of the Dortmund-based ISD Group is also used for our pipeline construction projects.”

Lot size 1 in mechanical engineering and plant construction

In times of Industry 4.0, the trend moves towards lot size 1, with the mechanical engineering and plant construction sectors leading the way in lot size 1 projects. „Customers increasingly have the expectation to have their product designed according to individual requirements “, explains Spiesberger. “HiCAD‘s ability to model both parametrically and freely makes an excellent contribution to variant management. Reused parts can be parameterized, assemblies can be copied and changes can be implemented quickly through direct modelling.”

CAD for all use cases

In the opinion of Andreas Kremsmüller, the special challenges that the department of apparatus and tank construction at Kremsmüller Industrieanlagenbau KG has to face become evident in the interaction of its

Image: ©Kremsmüller; Giant reactor, constructed with HiCAD

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Andreas Spiesberger, Technical Manager “Apparatus and Tank Construction”

different divisions. “We use many special materials - from sheet metal to the smallest screw. Dummy parts, placeholders and piping for visualization purposes must be created quickly.” HiCAD‘s integrated Steel Engineering module makes it easier for his team to assess steelwork requests and to move more quickly through the design process. In addition, HiCAD can easily import step files from various suppliers and subcontractors. The Mechanical Engineering suite premium and the Metal Engineering suite premium of HiCAD contain a wide range of beams and profiles, standard part catalogues, interfaces and basic functions for sheet metal processing. “Databases for materials, sheets and fasteners can be adapted quickly and easily.” Kremsmüller also likes to use intelligent configurations with useful features and setting options: “Powder marking lines on sheet metal blanks, for example, make tedious tear-open processes superfluous.”

All parts in one file

It is well known that HiCAD has an assembly-based modeller, so the designer always works in the context of the assembly. Andreas Spiesberger likes the fact that all parts of an assembly - including catalogue or reuse parts - are stored in a single file. “This means that we do not need to exchange data packages with referenced part files, which may be stored in other directories, when working with customers.”

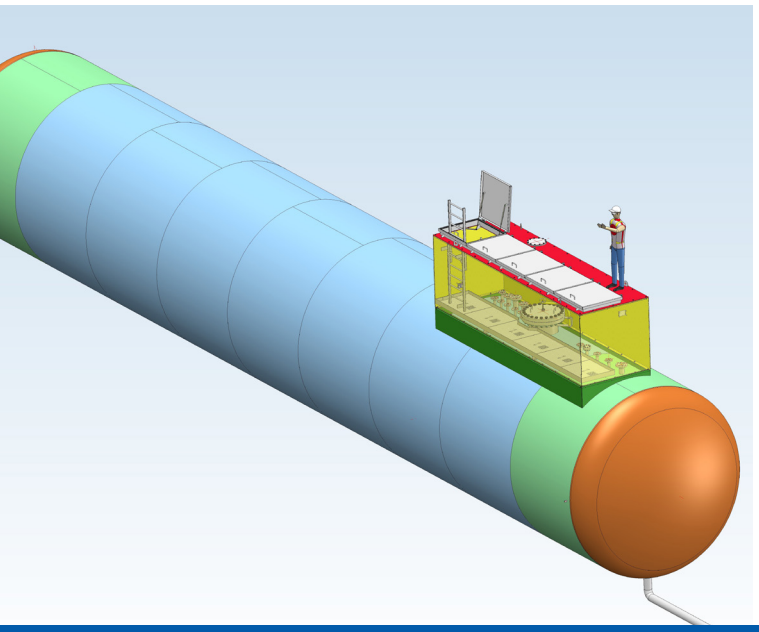
Export “at the push of a button”

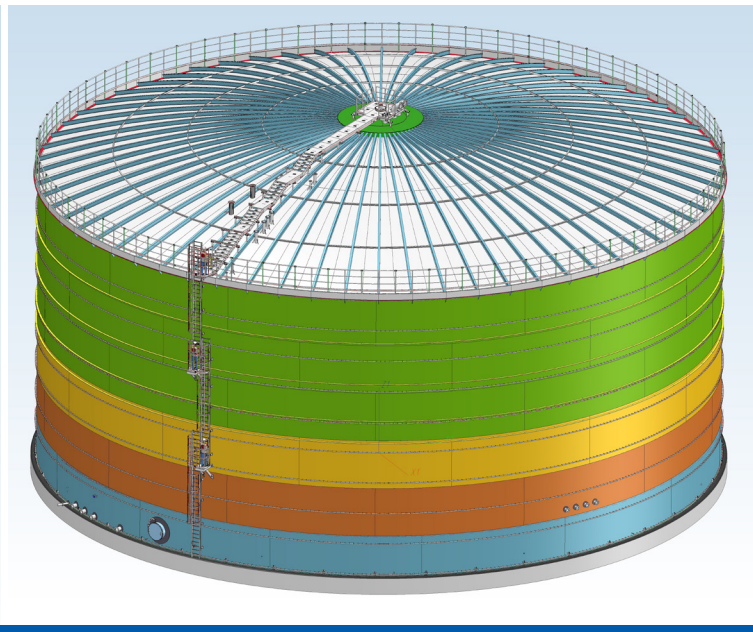
“Production documents are still created manually at our company”, explains Andreas Spiesberger. “But sheet metal blanks are mostly exported automatically and rarely reworked. Folded sheets are often only exported as STEP files and sent for inquiries”. He sees the efficient use of intelligent automatic systems in the BOM, which is generated at the push of a button, and in detailed information on profile cuts - an additional function in HiCAD, which also facilitates material inquiries at Kremsmüller Industrieanlagenbau KG.

Individual support

“The introduction of HiCAD was quite uncomplicated. The support by the ISD Group was very helpful in case of questions. Looking back, I can also assess the training measures as very fruitful, informative and instructive”,

Images: © Kremsmüller; links: Left: Underground steel double-jacketed tank incl. GRP coating for the storage of Hexene with attached operating and inspection shaft; Right: Austria’s largest stainless steel tank, constructed with HiCAD





summarizes Andreas Spiesberger. HiCAD was initially received differently by the employees, but after a short familiarisation period, everyone was enthusiastic about the possibilities offered by the multitude of functions. “In addition to the huge storage tank, we were able to construct a reactor with a length of 35 m, two double-jacketed earth tanks with a weight of 90 t each, four apparatuses - including a 65 t construction with heating coil and steam drum - and thus achieve all of our goals.“

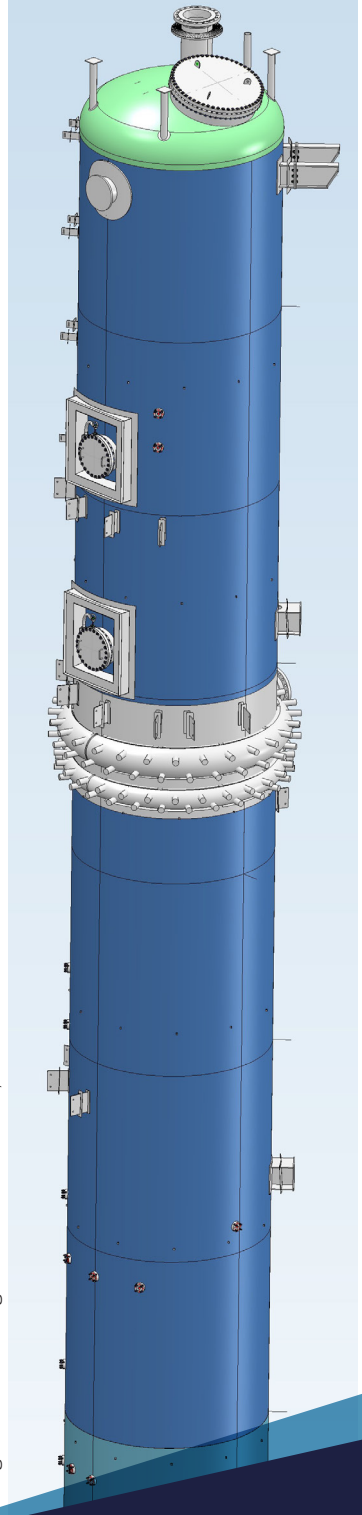


Image: © Austria's largest stainless steel tank, constructed with HiCAD

Short company profile:

- Kremsmüller Industrieanlagenbau KG
- Industry: Pipelines, Mechanical and Metal Engineering
- Software: HiCAD, AutoCAD
- Services: Pipeline planning, Mechanics, Tank construction
- www.kremsmueller.com

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