

## Stundner Stahl- und Metallbau GmbH

Special designs as a welcome challenge

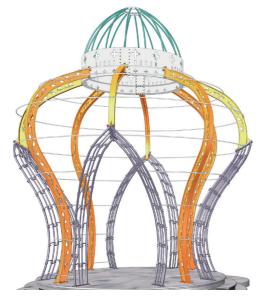
"Examples of buildings limited to purely structural and functional aspects abound," says Markus Stundner, design engineer at Stundner Stahl- und Metallbau GmbH. "The challenge is to meet certain requirements in order to achieve the desired harmony of supporting structures and architecture." To get to this goal, since 2012 Stundner Stahl- und Metallbau GmbH has been using the 2-D/3-D CAD software of the ISD:

HiCAD - more specifically, the Steel Engineering suite premium with its integrated tools for sheet metal processing and freeform surface shaping. "Thanks to a newly acquired employee who had already worked with HiCAD in another company, getting started was fast and easy," explains Markus Stundner, who had previously - "literally" - drawn each line individually.

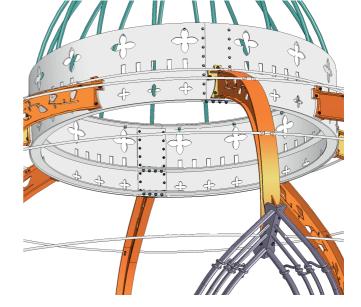


REFERENCE REPORT





Images: © Stundner; CAD model of a steel pavilion



the attic expansion of a landmarked house in the Gonza-

#### HiCAD for public multi-million projects

Thanks to selected certifications and further training courses, the Austrian company, which was first mentioned in documents as early as 1763, has steadily evolved - from a solid blacksmith and locksmith trade to an internationally recognized steel and metal construction company that is regularly involved in multi-million projects: for example, the new construction of the Alpenbahnhof in St. Pölten - a project that cost a total of 15 million euros. "With the help of HiCAD, the elevation of the existing station hall was realized in a short planning and construction period and complies with the legally applicable standards for steel structures," reveals Markus Stundner, who, in addition to his apprenticeship as a metal construction and design technician, also successfully completed training as an International Welding Technologist.

#### HiCAD for private dome construction

The modelling of special projects, which are less in the focus of the general public, also have a special significance in the broad range of Stundner's tasks, such as

gagasse in Vienna, or the steel pavilion in a private garden, that does not conform to any common architectural stereotypes. "The pavilion impresses with its baroquelike aesthetics and a dramatic increase towards the centre, as found in sacred architecture - preferably Bavarian onion-domed churches - with a concentration on the dome," Markus Stundner says enthusiastically. "With purely parametric CAD software, we could not have so quickly and easily constructed the ellipsoidal shape with its convex-concave piers that undulate to the ground. Using the ,C-edge sweep' function in HiCAD, which supports various scaling options, the entrance portal and the supports of the pavilion could be represented quite quickly in an elaborate 3-D sketch. With the help of sophisticated sketch and plane functions, we were able to model the connection details almost as quickly," he explains and is convinced that such individualized projects cannot be tackled with pure 2-D software. "Nor with other CAD systems," he adds. "Thanks to HiCAD's steel engineering connection libraries and the integrated automatism to create welded and special profiles, we were able to display details very clearly and make spon-

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taneous changes on the spot - in direct dialogue with the architect and with the customer. Of course, it proved very useful that the customer already had a fairly accurate vision of his pavilion in his mind's eye, which we were able to turn into a 3-D model with the help of HiCAD."

#### HiCAD for everyday design work

Markus Stundner also praises HiCAD's Constraint Manager functionality, which allows customer-specific variants to be parameterized in a short time by selectively assigning constraints to individual parts of a model drawing - "which is essential for precise modification and detailing." Equally profitable for him are result-oriented tools for sheet metal processing and the automatic BOM and drawing creation of the flexibly deployable CAD system, which he can also use optimally at other workstations.

"I often recommend HiCAD to other companies in the steel construction industry as an excellent 3-D CAD solution," says the design engineer. "The cooperation, also with the HiCAD developers, has been very successful because the ISD Group always responds swiftly and helpfully to our concerns and has provided us with an easy and quick introduction to automated design practice with a very useful training portfolio."

### Brief company profile:

- Stundner Stahl- und Metallbau GmbH
- Industry: Metal and locksmith work
- Software: HiCAD, AutoCAD
- Services: Structural, heavy steel construction, hall construction, crane construction, special designs
- www.stundner-stahlbau.at

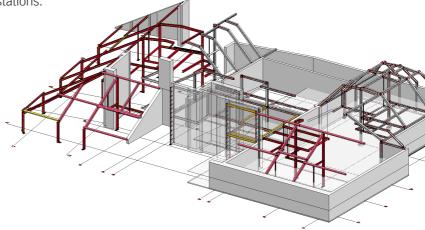


Image: © Stundner; HiCAD draft of the attic expansion of a landmarked house in the Gonzagagasse in Vienna



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