The BRM Fassadentechnik GmbH in Lyss, Switzerland, has been working in the field of metal and facade engineering since 2013 and supports enterprises, architects and metalworking shops from the first concept stage through to the finalization of projects. The planning ranges from simple railing constructions to complex double skin building facades. The philosophy that this company pursues is as efficient as it is simple: “Our aim is to develop innovative state-of-the-art solutions for our customers and realize our projects with the best possible results. This includes a complete documentation with complete data, leaving no questions unanswered.”

The prerequisite for a competent mastering of such challenges is a CAD solution that optimally supports the planners during the realization of their projects, and allows virtually limitless designing. After evaluating the market-leading 3-D CAD packages the BRM Fassadentechnik GmbH chose the HiCAD Metal Engineering suite premium of the ISD Group for their design tasks. This integrated comprehensive solution proved to be perfectly suited for the requirements of the company and offered just the right tools for future-oriented, forward-thinking planners in the field of facade and metal engineering.

SUCCESS STORIES

BRM Fassadenechnik GmbH - With HiCAD into the Future

This is how easy a switch to 3-D can be

As competition is getting tougher, design tools, especially 3-D CAD systems, play a decisive role for the realization of successful product strategies. With the right design tools in place, enterprises can introduce innovative top quality products onto the market more easily. The case of the BRM Fassadentechnik GmbH in Switzerland shows you how to make a successful switch to 3-D CAD.

The project “Boschung” was an excellent opportunity to demonstrate the extraordinary abilities of the CAD software HiCAD. (Image: BRM Fassadentechnik GmbH)

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Bidirectional interface to LogiKal® confirmed the decision
At the BRM Fassadentechnik GmbH the metal engineering projects are stored in LogiKal®. Therefore, the bidirectional interface between HiCAD and the software solution LogiKal® of the Orgadata AG played a decisive role when the new CAD system was chosen. “The interface to LogiKal® is a tremendous benefit for us. We can now directly and conveniently access the extensive LogiKal® libraries. 2-D elements are automatically converted to 3-D in HiCAD.”

The advantages of 3-D modelling, too, convinced BRM and were another key factor that led to the decision to use HiCAD: “In the past we got along quite well with 2-D drafting, but this approach was obviously no longer sustainable for our future projects. HiCAD’s 3-D approach offers us much more and much better possibilities – for instance, we can create sectional or detail views of particular components and continue working in this view. All modifications will be automatically applied to the 3-D model drawing, which allows us to design much more accurately in difficult to reach areas of an object.” And the possibility to generate all essential documents, such as workshop drawings, detail drawings, glass lists, order lists and bills of materials, at the push of a button, makes the HiCAD package perfectly suited for the needs of the BRM Fassadentechnik GmbH.

Switch to 3-D CAD increased planning security
Since HiCAD’s implementation the facade and metal construction planners can realize their projects with much more planning security and a significantly better data quality. After working only in 2-D in the past, the company now works almost exclusively in 3-D. “In the beginning we thought that we could continue using 2-D for simpler projects. However, we soon rejected this idea when we realized that working in 3-D offered a multitude of advantages. For instance, working in only one view is sufficient in when you work in 3-D – other views, such as sectional views, detail views or workshop drawing views, will be adjusted automatically, or can be generated quickly and easily.”

Today, the facade and metal construction planners at BRM draw both small-scale and large, complex projects fully in 3-D. The advantages of this approach already become obvious at the beginning of a project: “Even the first, simple sketches and models that we draw for our customers are sufficient to convey a realistic, spatial impression of details, making the work with HiCAD real fun!” Also, a modelling in 3-D helps detecting problems at an early project stage and avoiding collisions in the model: “This approach increases the efficiency of design processes right from the start.”

Many details required precise modelling – HiCAD mastered these tasks with ease. (Image: BRM Fassadentechnik GmbH)
HiCAD also scored in the field of sheet metal processing
Where special aspects of the architecture require the use of sheet metal, numerous automatisms, such as the exact, automatic sheet development, speed up processes significantly and reduce costs thanks to perfectly planned sheet metal production data. “The construction of the sheets, too, takes place in 3-D. We then send the STEP data to companies for direct further processing, which saves time and costs for the production of the sheets”, explains Martin Mäder. In the process, HiCAD considers different production technologies – such as laser cutting or punching – that play a decisive role for a smooth, error-free production.

Reading of 3-D laser scan files into HiCAD
In their projects, the BRM Fassadentechnik GmbH also makes extensive use of computer-aided dimensioning systems. Laser scan systems are very efficient for a rapid capturing of complex room and building structures. In the process, a multitude of 3-D object coordinates are captured in a so-called “point cloud”: “Today building structures are becoming increasingly complex, making their construction an increasingly demanding task. The accuracy of the relevant data is therefore mandatory”, explains Kurt Burri. Via 3-D standard interfaces the measured data are directly read into HiCAD, where they can be further processed. “This allows us to speed up our construction process while being able to work more accurately. This saves much time and gives us a feeling of security.”

The ISD is your competent solution partner
To be able to tap the full potential of HiCAD as quickly as possible, the BRM Fassadentechnik GmbH used the training courses offered by the ISD. Whenever any questions occurred during the daily work, the competent Hotline of the ISD was always there to provide instant help: “We are very happy with the services of the ISD. Our direct sales contact as well as the staff of the Hotline is very competent and helpful. After each update we use the regularly provided Webinars to always stay current.”
Looking back, the BRM Fassadentechnik GmbH is glad about the switch to 3-D technology with HiCAD. “There are no limits to our work anymore. Even if the new approach was initially a bit unusual for us, we are very happy to have found the perfect 3-D solution for us in HiCAD.”

Erfolg braucht einen starken Partner:
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