

## Consumer products and retail

### Váll-Ker

Fireplace manufacturer reduces design time by 85 percent with the help of Solid Edge

#### Product

Solid Edge

#### Business challenges

Manage nearly 50,000 files

Significantly reduce design process time

Handle over 50,000 files

#### Keys to success

Engage advanced and easy-to-use 3D software to reduce design time

Enable the re-use or modification of data

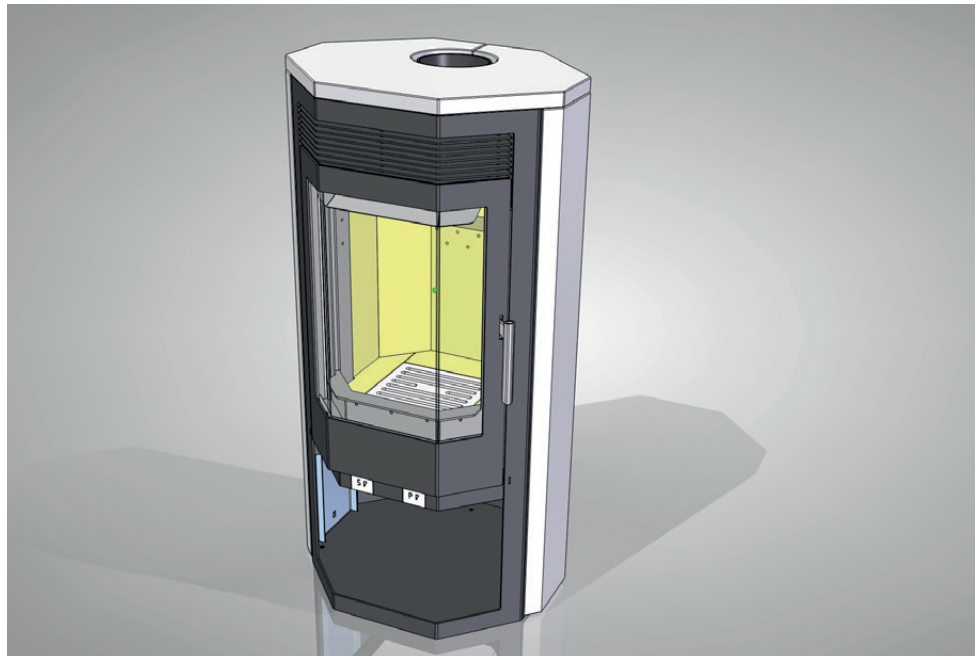
Improve quality and lower costs

#### Results

Reduced design process time by 85 percent

Made it easier to manage files so parts can be found when needed

Increased the number of products delivered to market annually



#### Váll-Ker increases the number of products it delivers to market annually with Siemens PLM Software solution

##### Behind success

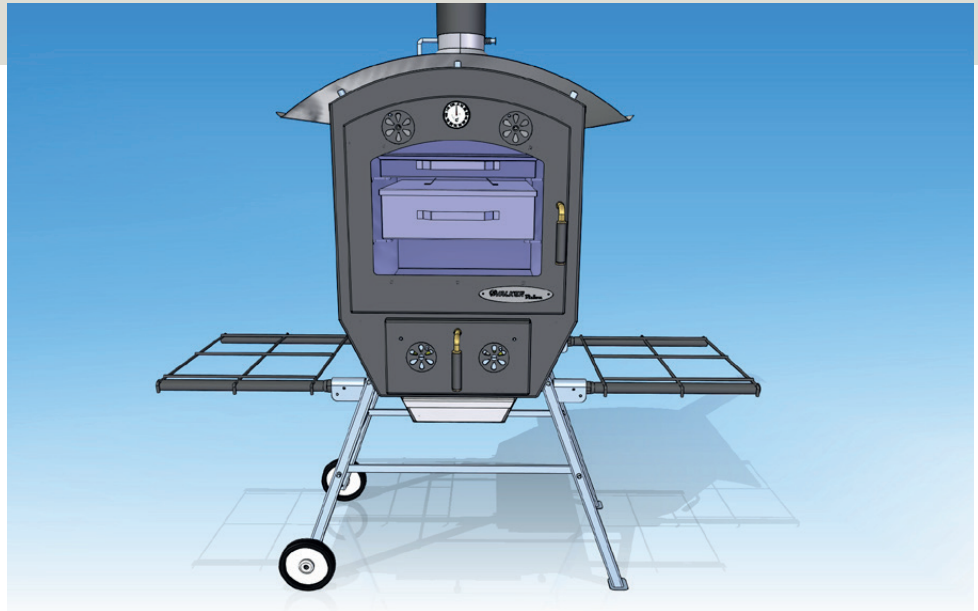
Váll-Ker Ltd. (Váll-Ker), which was founded in 1992, uses flexible manufacturing practices to produce high-quality fireplaces. Váll-Ker seeks continuous improvement and, as a result, it is at the forefront of the Hungarian fireplace manufacturing market, and also serves the German, Danish and English markets.

During the last two decades, the company has undergone an enormous change, both in size and technology. In the beginning, manufacturing was carried out with assembly drawings provided to partners. Over time, it became clear there was a need for the company to not only design and assemble its products, but also to manufacture them.

First, the design was done solely in 2D, and that meant that it took some products two-to-three months to reach market. At the same time, there was a growing demand for Váll-Ker's offerings, so an

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Design Engineer  
Váll-Ker



increasing number of products needed to be designed and manufactured. Furthermore, the manufacturing and delivery deadlines were getting tighter, so the company needed to find a more streamlined design process. After examining several brands of design software, Váll-Ker chose Solid Edge® software from product lifecycle management (PLM) specialist Siemens PLM Software. Solid Edge provided an all-encompassing solution to the company's design needs.

After introducing Solid Edge, the design time for products was reduced from five-to-six weeks to one week, which translated into an 85 percent reduction in design time and huge cost savings. This represented a major step forward for the company.

By reducing the design time, more customer demands could be satisfied at the same time, and more types of fireplaces were able to make it to the market. Currently, on average, 40 to 60 new fireplace models are delivered to the market annually.

“More than 30,000 fireplaces are sold annually so, now it is unimaginable for us to think how we could manage this much production without any technological advancement,” says István Tóth, directing manager of Váll-Ker. “With the aid of Solid Edge, the fireplace design is completed by the engineers and licensed by the authorities, and the design documentation gets forwarded immediately to manufacturing.”

#### **Sheet metal machining**

Váll-Ker relies heavily on the sheet metal design function of Solid Edge, which is

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part of the entire process, from design to manufacturing. Using Solid Edge enables the company to automatically calculate and create the 3D model's flat pattern drawings.

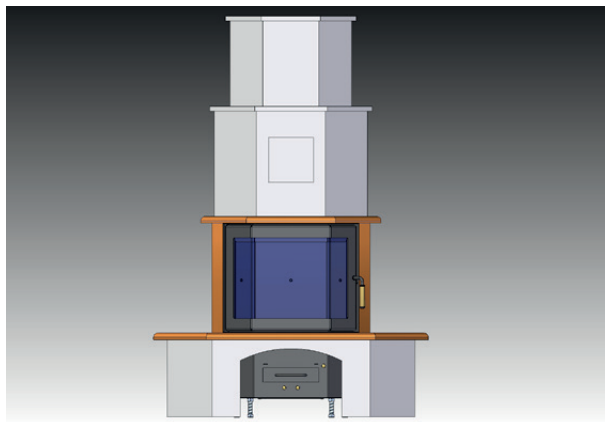
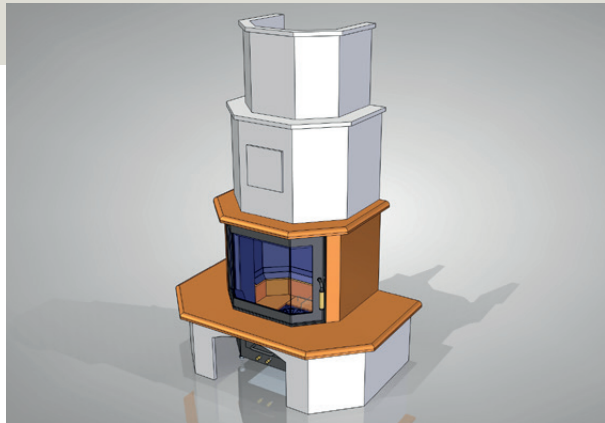
"During the manufacturing process, we bend, roll and emboss loads of sheet metal," says János Csókási, design engineer at Váll-Ker. "Previously, we used 2D technology during these operations, but it took a huge amount of time to calculate the neutral factor, or the size of the flat pattern.

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#### Increasing demands

Consumers now expect a lot from Váll-Ker. Tóth notes, "It is essential requirement that the products reach the market with better quality and at much lower cost. In order to preserve more time during the design process, good design software is absolutely necessary!"

A fireplace is not just a consumer good, but fashion ware that is a part of the home. During the design phase, the fact that the fireplace is an important part of a living space must be taken into



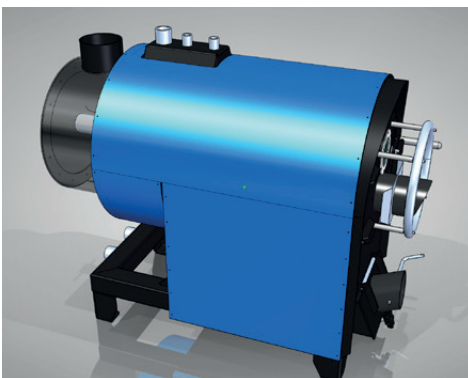
consideration, and it has to harmonize with the surrounding environment. As a result, it must be of high quality and meet the customer's expectations.

The fireplaces must meet increasing demands both from customers and licensing authorities. Fireplace manufacturing has changed significantly due to market and production factors, including appearance, efficiency, emission values, working principles, and digital best practices.

"The hardest to fulfill among these demands was the reduction of emissions of harmful substances," says Csókási. "Nevertheless, with the help of Solid Edge, we can intuitively find new solutions to a problem. Currently, we use thermal loads to simulate thermal processes and convections. This enables us to optimize the working principles of a fireplace, and also to reduce manufacturing costs." Every fireplace undergoes a compulsory licensing process that is typically several weeks long. In every case, if the licensing

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## Solutions/Services

Solid Edge  
[www.siemens.com/solidedge](http://www.siemens.com/solidedge)

## Customer's primary business

Váll-Ker produces basic metal fireplaces, ornamental doors and metal constructions.  
[www.vall-ker.hu](http://www.vall-ker.hu)

## Customer location

Makó  
Hungary

## Partner

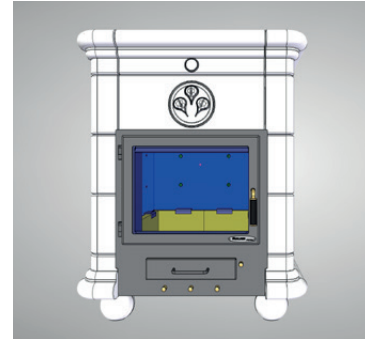
graphIT Ltd.  
[www.graphit.hu](http://www.graphit.hu)

authority finds something objectionable regarding the shape of the fireplace, the objectionable parts must be fixed. The fireplaces can be only sent to mass production after appropriate licensing from the authorities. Once licensed, no modifications can be made to that model, which includes the combustion chamber, the shape of the doors or even the working principles.

"At this time, we have several licenses of Solid Edge," says Csókási. "All of our licenses are integrated into our SharePoint system, but to shorten the time of the fireplace licensing process, we are planning further software upgrades. In this context, we already own the Standard Parts module, and we would also like to acquire the Piping module."

## Close co-operation

Data management has top priority as the company speeds up its design process. Csókási explains, "We manage nearly 50,000 files, and some individual parts are included in several products, so an important factor in our decision to choose Solid Edge was that it generates data that can be integrated into data management software. By using Solid Edge with the Insight



design data management solution and SharePoint, not only can all data be easily searched, but modifications can be easily made as well."

Tóth adds, "Our engineers carefully considered the possibilities offered by the market and they chose Solid Edge and Siemens PLM Software partner graphIT Ltd."

"In order to broaden our knowledge and to use the software more efficiently, we attended training classes held by graphIT Ltd.," says Csókási. "On the rare occasion that we experience an issue, we can always count on the professional assistance of graphIT Ltd. so we don't need to waste days on finding a solution."

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Design Engineer  
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[www.siemens.com/plm](http://www.siemens.com/plm)

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