## LAUFEN CZ Ltd.: bath culture since 1892

## Interview with Mr. Pavel Kolarik, the head of the product development in LAUFEN CZ Ltd.

LAUFEN CZ Ltd. is a leading manufacturer and seller of sanitary ceramics in the Czech Republic. And that not only of sanitary ceramics, but also of bathroom furniture, steely, acrylic, and cast-iron bathtubs, showers and screens, and water faucets labeled Laufen, Roca and Jika.

## BRAND LAUFEN

The fundamental feature of Laufen is its experience with the production of ceramics. The oldest artificial material in the history of mankind has been processed in the town of Laufen located in the Swiss canton Basel-Land for more than 110 years…

## LAUFEN in Znojmo

Production of Industrial ceramics in Znojmo dates back to 1878. At that time it was the oldest manufactory with mechanical production of this kind in the whole continent. Initially they mass-produced mainly tableware and majolica of high-quality, but after 1920 they started to specialize on manufacture of ceramic washbasins, bathtubs and sinks.



Later on, in 1995 the Swiss company Keramik Holding AG Laufen denationalized the Ceramic manufactory in Znojmo and affiliated it to its first acquisition in Czech from 1991, the South Bohemian ceramics in Bechyne. Both manufactories merged in 1999 and under the name of Laufen CZ that is located in Prague belong since then to a group of Spanish company Roca.

Since then Laufen CZ actively represents the brands of Laufen, Roca, and Jika not only at the Czech and Slovakian market but also in other countries of Central and Eastern Europe. Nowadays the modern plant in Znojmo and Bechyne produces selective bathroom ceramics certified by the international quality standards ISO 9001.

## Mr. Kolarik, how is nowadays your employer doing?

The company is doing fairly well considering the current economy, the production is running full speed, in the Czech Republic we own about 70% of the whole market.

## Could you describe in several sentences the history of product development in the plant in Znojmo?

The product development had been here a long time before I came (about 15 years ago). At that time it was an independent developmental unit separate from the production. Today we are directly and flexibly integrated with both plants in Bechyne and Znojmo, which is very useful for transmitting information. We operate as a central development as we do technical work for our affiliated plants in Austria, Switzerland, and Poland. The proposal for the design is in CATIA V5 as a continuation of the conceptual design received from contractual designers in Czech (the court designer is an engineer and architect Michal Janku) but also from abroad, in 3D formats IGES or STEP, and that both for our plant and external foreign sponsors. To simplify the contract we can also provide custom design for future products, certainly in CATIA V5. We started in 2D with the product of AutoCAD and currently we have 3 constructional workplaces that were created in 2006, 2 workplaces on the base of MD2 configuration, and one workplace on the base of MD1. In the near future we would also like to buy one more workplace, again in the configuration of MD2.

## How does the developmental process of a ceramic product look like?

From the initial design proposal we create a 3D model in CATIA V5 and from the 3D data we externally create a starting model of the future product that will serve for its own development. When designing a ceramic model for the product we have to consider the own technology of production, further shrinkage (up to 10%) and model deformation due to gravity when firing ceramics in a kiln (usually with temperatures going from 1200° to 1500° C, passing the kiln for 15-20 hours) and consequent drying.

From the original model we create the first prototypal form made from plaster in which we cast and fire the first prototype on which we evaluate the manufacturability, size and functional features of the product, installation accessories, packaging, etc. After these analyses and necessary adjustments the process can be repeated in a form of the second prototype, followed by a zero period where we create plastic forms for the production of plaster forms from the original model. After the pilot series and after its approval or eventually after the final adjustments we decide whether we start the serial production.

## And haven’t you also thought of shortening the preparatory phase by making the virtual prototypes of the forms in 3D?

Yes, for example with CATIA V5 using the skills we have and other proceedings, 3 years ago we managed to shorten the average time necessary for developmental preparation of the new product or the whole series to about 50%. Compared to the original state 15 years ago we cut the fundamental time to about a third. Regarding some producing technologies we are already able to construct directly from manufacturing form.

However, for the traditional molding of the products to plaster forms we commonly use the manufacturing technologies of plaster forms because of many benefits of gypsum, which has unique physical characteristics and prices. We also attempt to shorten the pre-manufacturing periods by using other procedures, for example enhancement and optimization of the whole process.

## So you are satisfied with CAD/PLM system CATIA?

Yes, absolutely, CATIA V5 is a highly sophisticated solution that we are not even able to fully employ as, after all, in ceramics we work with a little different precision. However, with the system environment, comfort, and stability we are certainly very satisfied and definitely do not think of transferring to other solutions.

## How do you process product documentation, after all it has to be extensive.

We chose global use of internal database for data administration within the concern, before we tried ENOVIA SmarTeam with which we were very satisfied and also gained substantial experience while using it, however because of the standardization, we chose already mentioned database, which is constantly developing.

## Aren’t you thinking of the use of new generation of the products Dessault Systemes labeled as a platform V6 concern?

Obviously we have already heard something about CATIA V6, some of my colleagues participated in a common seminar about the new V6 platform DS belonging to companies Technodat and Evektor in the fall 2011, in the future we would like to work and cooperate on the development of our products exactly in this environment, but as was said before, we have to wait for global decision of the concern. If that happens, we will cooperate very closely with Technodat, and that not only on the migration itself, but also on our employees’ training.

## How satisfied are you with the support of CATIA from the supplier that is with Technodat?

We are more than satisfied with the approach of the whole company (Technodat) but also with their workers and their attitude towards us and towards our requirements; in particular we have regular visits from engineer Pavel Svoboda, who is a theoretical and practical specialist in the field. He always meets our needs with practical problems that sometimes occur at work. We also use the help of Technodat with migrations to the upgraded release CATIA.

## Thank you for the interview and wish you lots of success in your interesting creative work of developing ceramic products.

  