

# Reference extract



Company: Friedrich Grohe AG & Co. KG



City / Country: 58706 Menden

Website: [www.grohe.de](http://www.grohe.de)

Industry: Heating and sanitation

Products: High-quality sanitation appliances

Use EFD.Lab since: November 2003, previously FloWorks since 2001

## 1. Purchase Decision:

- What problems and issues were crucial in you considering the use of EFD.Lab?
- Did your company have past experience with computer-based flow analysis?
- Situation before using EFD.Lab: Which tools were used for flow analysis or how was the required information / results obtained before EFD.Lab?
- What were the most important reasons for purchasing EFD.Lab?

When it came to calculating key fluidic data in the development of sanitation appliances at our company, we mainly relied on experience and laboratory results (trial and error). We did have some experience with external flow calculations, but it had always been laborious and time consuming. When external people are involved, there is always a need for some degree of initial knowledge transfer, so that the service provider can fully comprehend the issues and problems. Another big disadvantage from our point of view was the loss of knowledge after the end of each project. In the past, the high level of investment required for CFD software and the huge associated personnel commitment always prevented us from obtaining it. EFD.Lab promised easy operation, short orientation times and the possibility of remaining in operation when using just 30% of the personnel capacity. Every one of these points has proved to be correct.

## 2. EFD.Lab Application

- What functions do the EFD.Lab users in your company perform (designer, developer, test engineer, calculation engineer etc.)?
- How is the system used (procedure)?
- Which functions do you find particularly valuable?

EFD.Lab is used in advance development and is also available as a service to the entire company. Either existing geometries are prepared for simulation or they are created on the system. We should emphasise the excellent way the software handles variations and the opportunity of using the PE version, as this allows us to get involved in networking (manual networking or manual refinement of particular areas).

### 3. Experiences, Advantages, Benefit

- What do you particularly like about EFD.Lab?
- What (competitive) advantages have you identified so far (time to market, RoI, product quality)?
- What is your assessment of the costs (maintenance, training etc.) of EFD.Lab?
- How do you rate the services from NIKA (support, updates)?
- How satisfied are your users with the software?

The program is very stable running on our computers. There have not yet been any crashes caused by the system. It was not long at all before we could start analysing simple problems. Operation is very easy and, for the most part, self-explanatory. Most importantly, it is transparent from pre-processing right through to post-processing. The system forgives lots of errors that often only influence the calculation time, and it usually still manages to deliver usable results. If there have been operating errors or we have been at a total loss, we have been able to rely on immediate help and support from NIKA and they have always found a possible solution, even for the most major problem. Within a short period of time, the software has brought about a major increase in knowledge of fluidic behaviour in our products. Another important feature is the excellent options for displaying flow problems or findings for use in presentations. This enables us to give everyone involved a common basis for discussing and making decisions on complex technical issues.

### 4. How do you see EFD.Lab in compare to other computational fluid systems on the market?

Excellent value for money; easy to operate and ideal for our applications (the medium is water and therefore almost incompressible), it is ideal for workstations that are working on more than just flow simulations (feasibility, initial estimates etc.).