

focus on Chromatography

Looking Back over 50 Years with Knauer

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I visited Knauer in Berlin a few weeks before the company's 50 year anniversary, which is on the 1st October 2012. They kindly agreed to be interviewed at this exciting time in the company's history. I was joined by Mrs Roswitha Knauer, who founded the company together with her husband Dr Herbert Knauer in 1962. Roswitha and her daughter Alexandra Knauer, CEO and owner, gave me an insight into the history and future plans of the company.



John Hobbs-Morris (JHM): Before we look back in time please tell me what is important to know about Knauer today.

Alexandra Knauer (AK): With more than 115 employees we are one of the well-established manufacturers of HPLC instruments, SMB and osmometry. Our product portfolio includes the smallest HPLC system in the world, UHPLC systems, analytical and semi-preparative HPLC instruments and SMB systems for the extraction of up to 1000kg of pure substance per year.

We are a very specialised company and for many years our passion has been liquid chromatography. With sophisticated and eco-friendly solutions we are supporting customers worldwide. We sell into 60 countries and have an export rate of 70%.

Roswitha Knauer (RK): My husband and I officially retired many years ago. But we still have our offices and enjoy supporting. As an authorised signatory I still represent the company and I still do that with pleasure when I travel to international exhibitions like Arab Lab in Dubai or HPLC in Poland/Torun.



Staff in the Knauer garden

JHM: Where are the Knauer instruments produced?

RK: When Knauer was founded in Berlin we couldn't afford a workshop. So at first my husband himself was mounting every instrument in the kitchen of our small apartment. It was my task to type every offer and instruction manual. In those days we had no copy machines or computers.

AK: Today Knauer instruments are still 'made in Germany'. They are more precisely 'made in Berlin' in our large production building and a team of skilled experts is manufacturing them on demand in a professional production environment. We have the advantage that we have all departments, including hard and software development, and our CNC workshop under one roof and therefore can communicate and decide very quickly if necessary. Excellent craftsmanship and innovation are important to us.

JHM: I have read that you have a focus on innovation and that you do a lot in order to be much better than average. It is well-known that a great number of product ideas is not successfully transformed into a product that sells. Even though your development departments must be quite small compared with those of the huge companies you compete with, you have an impressive number of product releases every year. So what is your secret?



CEO Alexandra Knauer and MD Dr Alexander Bünz

RK: To construct a new instrument with great features has always been a challenge. My husband always loved to work as long as it took to find a technical solution. His ambition was always to keep things small, simple, and reliable. Years ago it was a little bit easier to develop. It was possible that a small team of 2 or three people could do the job. There was no firmware or hardware required. There was no software, no displays and no requirements like CE tests or ROHS (requirements to avoid certain hazardous materials).

AK: In 2006 Dr Alexander Bünz joined Knauer as MD and he came with new ideas. We work very well together and I was impressed that he initiated many changes and restructured our innovation processes. Strict rules for development projects were introduced so that the milestones in the process from original idea to finished product are now more precisely defined. Over 90% of the devices that we currently produce were launched in the past 4 years. It is important for us to compare our performance with that of others and that is why we have participated three times in the contest TOP 100 in Germany. We want to know our weaknesses and strengths in order to learn and get better. In this contest for small and middle-sized enterprises inventive capabilities are thoroughly analysed. We always had very good results in this competition and this year we are proud that Knauer has come in second in the category for companies with 51 to 250 employees.



Knauer Founders, Dr Herbert and Roswitha Knauer



Playing with puzzles in the sunshine room.

JHM: So, obviously Knauer is not taking a rest after 50 years of existence. What else is there helping you to stay fit for the future?

RK: Being curious has always been a tradition at Knauer – whether in the pursuit of technical innovation or in the search for ways to keep Knauer unique.

AK: Curiosity really plays an important role. We like our staff to ask us questions and we like to ask them questions as well as to give us feedback. If you check out our website www.knauer.net you will see me and MD Alexander Bünz with many of our staff, expressing their curiosity with either videos or captions. We extend this way of thinking to our customers and ask them many questions. It is our intention to sell not just something but products which are really useful for a certain customer. And the customers appreciate the attention we give them from the beginning.

RK: You asked what is helping Knauer to stay fit. I think it is important to know that Knauer is family-owned, profitable and financially independent. My daughter is the owner and managing director of the company and does not take big risks. She does not sell Knauer, does not buy other companies and does not open production sites in other countries.



Contichrom LC Purification System

JHM: So are there any specific plans what to do in the next years?

AK: Yes there are. We have a clear vision. We want to establish ourselves as 'the German HPLC centre of competence'. If you think of HPLC you think of Knauer. We will focus more on customer-specific and application-oriented solutions. Also, we are preparing to develop new markets besides HPLC with existing and new products. I ask for your understanding that we do not yet give more details about this project. We also want to increase our market share in the fields of continuous chromatography and biochromatography.

RK: We have a wonderful new lab and prep-scale LC system called Contichrom®. It is a versatile gradient-capable purification solution. The system supports up-scaling from batch to continuous liquid chromatography. The reason why our customers invest in such a system is that it allows 50% higher yields and purity. I like it because it looks great and you get up to 10 times more throughput.

AK: Don't forget about our Bioline systems. They are optimised for high resolution biochromatography separations, especially protein purification. A key component are our glass columns which can withstand up to 100 bar pressure and feature an integrated heating/cooling option – no other manufacturer can offer this up to now. I am convinced that in the future more Bioline systems will be found in bio-LC labs.

JHM: The 1st October is the company's birthday. Will there be any birthday surprises?

AK: Of course. For our representatives and customers worldwide we offer a special anniversary discount for large projects and tenders.

We like to celebrate. After sharing a nice meal with our 115 employees in our facility 'Milky Way', our new laboratory area of 550 square meter will be officially opened for operation. There will also be a guests' laboratory room which customers can use when they visit us in Berlin. The laboratory is a large financial investment that will optimise our working conditions and will help to improve the quality of our products. On the evening of 1st October we will celebrate the anniversary with local customers in the Planetarium in Berlin, where a 3D-show about the stars will be one of the highlights. Alexander Bünz and I will present a very special poem.

RK: Last year my daughter and 4 other ladies working at Knauer had prepared some songs and they were fantastic. It was a total surprise that they were singing in front of the audience at the symposium in honour of the 80th birthday of my husband Herbert Knauer. So I am very curious about the next performance.

Let us not forget to mention that this year the employees will receive an extra 50-years-anniversary-payment as an appreciation for their precious work and their passion. On 2nd October all employees are invited to enjoy a spectacular new theatre show in the famous Friedrichstadtpalast

JHM: I have not yet heard of a singing managing director in the laboratory business and I am sorry that I missed that.

Is Knauer an environmentally friendly company?

AK: We have a certified ISO environment management system. Our electricity comes from water turbines and several years ago we installed solar panels on our roof. Part of the roof is a green roof. Our production building – the walls, windows and roofs are well thermo-insulated. For the new laboratory area, investments were made to achieve very high energy efficiency especially concerning air handling and temperature management.

We also pay attention to the environmental impact of our instruments. We are the first company that has a lifecycle assessment for HPLC systems. It is a huge effort to assemble all necessary data, but with the results we can improve our instruments in the future.

JHM: And what are the next products that are ready for sale?

AK: We have worked hard and focussed on a completely new preparative HPLC system solution, that we named AZURA®. Our sales team is very excited about its advantages and its looks. AZURA supports gradients, easy scale-up, solvent recycling and more.

I want to make you curious: There is a little analytical sister called AZURA Compact HPLC. This is one compact AZURA element and it includes everything you need to run isocratic HPLC applications: a precise pump, a degasser and a variable wavelength UV detector. In order to create a compact high pressure gradient LC system you only have to add another AZURA element. This is perfect for people with limited budgets and lab space. Intensive testing and quality control will secure that these instruments will also be very reliable.



Bioline Purification System

After our interview I was shown around the building and got a feeling of how much the company looks after its staff. We went through the spacious canteen called 'Milky Way' where free organic and fair trade coffee and tea is always available. The room called 'Sunshine' is dedicated for the children of the employees.

If a member of staff has a problem with childcare they can bring the child to work to be looked after in a fully equipped nice children's room complete with books and toys. I was also allowed to glance into the "KEK" (Knauer Explorer's Club for children). Regularly school classes come here and they have fun when they do safe experiments related to HPLC. They spend half a day at Knauer and the idea of Knauer is to inspire them for the sciences.

One week before my visit, the company was honoured with a very special award. The 'Franz von Mendelssohn Medal' was given to socially dedicated companies that harmonise their economic success with their social commitment. Knauer was honoured with a special CSR award due to the plentitude of activities in relation to corporate social responsibility. Out of conviction Knauer is engaged in many different ways.

I enjoyed my time speaking with Alexandra and Roswitha Knauer. They are a fantastic company to work for and work with, long may it continue.