

GERMANY

30 Years of Frey: With Innovation into the Future

The company founded by Dieter Frey in Lenggries, Upper Bavaria/ DE in 1989, develops highly specialized machines, adaptors and tools for ceramics and powder metallurgy. Frey now employs 38 people and with their extensive know-how in hydraulics and drive engineering they have succeeded in realizing servohydraulic drives not only in powder and sizing presses, but also in isostatic pressing processes. On 13 and 14 September 2019, the company celebrated its 30-year anniversary. This gave us a great opportunity to ask Managing Director Dieter Frey (DF) about the company's development and future plans.



Fig. 1
Dieter Frey (4th f. l.) together with the co-partners Michael Oberhauser (2nd f. l.), Andreas Estner (3rd f. l.) as well as Thomas Ostheimer (r.) and Dieter Lauber (l.), Deputy Managing Director of the company Frey & Co. GmbH

CA: What were the important milestones in the company's history?

DF: Our first order was for ten adaptors for the company called Gühring in Berlin/DE with a value of DM 65 000. Our goal even then as a manufacturer in the high-tech segment was to develop special solutions for our customers.

Just three years after the company was founded, it moved to the Lenggries with several offices and a large manufacturing facility. The move was necessary as we had specialized in the design and manufacturing of presses.

In 1992, the first uniaxial press with 2000 kN was developed for the production of carbide plates. Just a year later, followed the first isostatic press that was capable of creating a 2000 bar pressure to fabricate balls for mills. The effort involved in its design was enormous. With this development lead, we were able to provide our customers real added value, and slowly we were able to compete in the world market. In addition, we reached agreements with research partners to further improve our machines.

That was the right move forward. As we continued to grow, I purchased the neighbouring plot of land and expanded. We have been at our current site since 2005. Since the 3 July 2019, Frey & Co. GmbH has also been ISO 9001 certified, complying with the most important standard in quality management, which is exceptional for a company of our size.

CA: What are the latest developments in your company?

DF: With the further development of the servohydraulics for the two pressing processes uniaxial and isostatic, we were able to additionally increase turnover. The finished products formed by the Frey machines are all customized to the needs of the customer: in the dental sector they include ceramic discs for tooth implants and ceramic bridges made of zirconia; in the medical industry hip and knee joints; in high-voltage technology extinguishing nozzles made of PTEE; in the automotive industry parts for motors and gears, and for motorbikes and mountain bikes brake linings.

We also have developed a machine that can manufacture high-precision ceramic balls for ball bearings which are used in wind power turbines worldwide.

Currently, we have developed a machine that can make high-precision ceramic balls for large ball bearings that can be used in wind power turbines worldwide.



Fig. 2
Frey's team at the anniversary celebration

In the meantime, we engineer machines that reach a force up to 6500 kN at the upper piston.

CA: How important are energy and material efficiency in your development?

DF: The servohydraulics developed by us have enormous advantages compared to conventional technology, which in turn has a positive effect on the CO₂ balance.

So thanks to servohydraulics we can reduce the energy consumption by up to 70 %. Our much smaller machines need only around 100 l instead of 1000 l hydraulic oil, noise is reduced by 40 %, the area necessary for installation is much smaller, the total weight of the press is lower and in most cases needs no cooling water for operation.

CA: You don't only work in Europe, but also for customers in America and Asia. What networks do you use?

DF: We work closely with universities and research centres. Partners of Frey & Co. GmbH include: FCT Systeme GmbH in Frankenblick/DE for finishing and sintering processes; EPSI/BE for special press processes; and ATTEC in Bad Tölz/DE, a long-standing partner in the area of plant control systems. FCT Systeme and EPSI are also companies that are highly specialized industries for thermal process engineering. For user segments from our division, synergies result. That is why we often share the same platform at international trade fairs.

CA: How are you setting up the company in terms of personnel for the future?

DF: In management, we have strengthened the company with the aim of driving growth. Alongside me is Dieter Lauber as Deputy Managing Director for Engineering and Sales. Furthermore, Christine Rieger (Sales), Andreas Zicher (Assembly), Kaspar Waldherr (R&D) und Christian Pfeifer (Construction) are part of the management group. Andy Zacher has been supporting the sales team for several

months. He has been able to become very familiar with our equipment during his many years working in our Assembly Department.

In this context, it is important for me to say how very grateful I am to have such highly motivated employees, dependable partners and reliable customers by my side for three decades. Without this wonderful team, we would not have managed as a small, but excellent high-tech company from Lenggries to compete on the global market.

CA: Thank you for talking to us.

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Fig. 3
Dieter Frey together with Andy Zacher (l.) in front of the powder press PA 200 HE