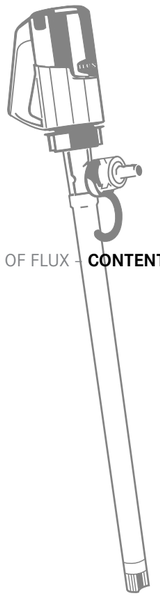


Pioneers in motion



75 years of FLUX. The history.



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1930 1950 1960 1970 1980 1990 2000 2010 2020

INTRODUCTION

“When people talk about barrel pumps, they think of FLUX”

FLUX, the world’s first electric barrel pump, was developed in 1950 and, since 1955, FLUX has also been the name of the company that manufactures, sells and distributes this innovation worldwide. 75 years of FLUX! This is a cause for celebration and a reason to continue writing the company’s history. The book was published to mark the company’s 60th anniversary and has been revised, expanded and updated for this occasion. After all, looking back is always a way of looking forward.
FLUX’s history shows how technically pioneering work has successfully carved a position for itself on the market. It highlights chronologically key milestones in the development of the company and tells of the people who are behind this success story.

In actual fact, FLUX’s history begins long before the development of the first electric barrel pump. It is closely linked to the history of FLUX’s original parent companies, the Stuttgart-based companies – Mauz & Pfeiffer and PROGRESS Verkauf GmbH – the history of which therefore has to come right at the start of this story. Even in the early days at Mauz & Pfeiffer, the oldest German specialist manufacturer of electrical vacuum cleaners, there was always a keen sense of brand development. For many people, the PROGRESS vacuum cleaner, developed by Mauz & Pfeiffer in the mid-1920s, is even today synonymous with good quality.

From 1950 onwards, the company that had specialised in electrical household appliances, began to develop a new area of expertise in the industrial products’ sector with FLUX, the first electric barrel pump. If the early days of FLUX, as is it known today, were spent in Stuttgart-Botnang, the first electric barrel pump saw the light of day in Karlsruhe. The second section of this book will describe the path that took the company to Stuttgart and the development of the first generation of pumps in the 1950s. The 1960s heralded a series of key changes for the company, beginning with the gradual relocation of production to Maulbronn and the appointment of Herbert Hahn to the company, a man who, as Managing Director, would define FLUX’s success over 40 years.

Despite the oil crisis and the subsequent economic crisis, FLUX weathered the 1970s with a period of rapid growth that demanded structural expansion and modified operating structures. Early on, the company focused on exporting quality pumps, with sales partners in 21 countries actively supporting the company in its efforts. The first foreign subsidiaries were set up in the 1980s. In 1980 FLUX also became an independent entity from PROGRESS Verkauf GmbH and Mauz & Pfeiffer. All departments of the company – Production, Research and Development, and Administration – were now all located in Maulbronn and FLUX became one of the main employers in the monastic town.

The 1990s were characterised by the ongoing modernisation of the company and its products. The new millennium was heralded by a passing on of the reins to the next generation, with Herbert Hahn handing over the position of Managing Director to his nephew Klaus Hahn. Like his uncle, he takes great joy in his corporate responsibility and so the family-owned company of FLUX stands today as a beacon of successful corporate succession.

The Hahn family, the owners of the company, are only too well aware of the major contribution that the employees of the company make to its successful growth and development. A good working environment, training and qualification opportunities, as well as attractive working conditions, ensure that the majority of employees remain in the company until their retirement. ▸





Back in the 1950s, a FLUX pump was used by the Vienna Fire Service to pump oil, greatly impressing the city leaders.

FLUX's history is characterised by a number of continuities, in terms of its personnel, its long-term collaboration with partners and especially in the excellent quality of its products. One of the key constants has been the company's innovational strength. The first electric barrel pump from 1950 has therefore been continually improved and modernised.

FLUX engineers have again and again designed new motors and pump types and developed new applications. Most recently in the new millennium, the product range has been significantly extended with air-operated diaphragm pumps. Magnetically coupled pumps have also been added to the product portfolio following the purchase of SONDERMANN PUMPEN + FILTER GMBH & Co. KG.

A further factor in the company's successful development has been the consistent expansion of its international sales network, with shareholdings or wholly-owned subsidiaries in the Netherlands, Thailand, France and India in recent years. Today FLUX has subsidiaries or sales partners in 70 countries across the globe, enabling it to supply markets in more than 100 countries. In its 75-year long history, the company has been able to continuously consolidate and expand its position as a market and innovation leader in the electric barrel pump sector – something we are very proud of at FLUX. In 2025, FLUX will celebrate its 75th anniversary and, once again, a generational transition is on the horizon for the company's leadership as Klaus Hahn is gradually stepping back from day-to-day operations but will remain with the company as Managing Director and will continue to oversee select projects. Alexander Geib and Jürgen Rabenseifer, two experienced colleagues who have been with FLUX for many years, are now joining the management team.

An important source in charting the history of FLUX were the memories of Herbert Hahn, the Managing Director for many years. He compiled a chronological history of the company's development and over the course of many conversations recalled memories from his wealth of experience. His successor Klaus Hahn then described his own beginnings in the company, summarised key developments following the turn of the century and dared to forecast the future.

This information was then supplemented by documents held within the company, with FLUX brochures and leaflets from the 1950s onwards being especially informative in terms of the company's history. An important source of information on the company's recent developments was the employee magazine TransParent, which was published in print from 2010 to 2022. The company's press releases and articles in regional and national daily newspapers and trade journals were also used to gather information.

Documents from public archives in Stuttgart, Karlsruhe and Maulbronn were also drawn upon in connection with the early days in the history of the company and its parent companies PROGRESS Verkauf GmbH and Mauz & Pfeiffer. There were also documents found in the Hahn family's private collection that provided some new insights.

And finally the history of FLUX was truly brought to life through many conversations with long-term departmental managers and employees, who illustrated the company's development from a quite different perspective.

THE PAST-HISTORY:

Mauz & Pfeiffer and success in household appliances

With FAMOS and PROGRESS for a life without dust

The earliest years of FLUX were spent at Mauz & Pfeiffer of Stuttgart-Botnang, where the famous PROGRESS brand vacuum cleaners were built. Mauz & Pfeiffer was the oldest German specialist manufacturer of electrical vacuum cleaners.
The rise of the company had begun in 1912 when Wilhelm Mauz constructed the first household vacuum cleaner in Stuttgart.
He had originally wanted to produce technical and chemical products in his company with his partner Paul Pfeiffer, but vacuum cleaners proved to be more successful.
In spite of the war raging throughout Europe, Wilhelm Mauz was granted the first German and international patents for his appliances in 1916. At the end of the war, Mauz's son-in-law Ernst Faber, began work on improving the vacuum cleaners in a small workshop. These new models proved to be so promising that Mauz & Pfeiffer resolved to produce only electrical appliances from then on. The company was therefore renamed Mauz & Pfeiffer Elektro-Apparatebau KG in 1921 and Ernst Faber joined the company as shareholder and Works Manager at the same time.[1]



MAUZ & PFEIFFER, STUTTGART-BOTNANG

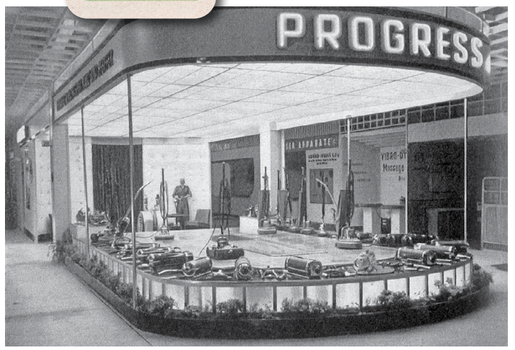
In order to be well-prepared for the years ahead, at the end of 1921 the company directors purchased the "Graf Eberhard" building at Alte Stuttgarter Straße 45, which was an old public house in Stuttgart-Botnang that they converted into a production plant.
The new site offered excellent prerequisites, as Botnang, originally a village in the Stuttgart suburbs, was populated primarily by industrial workers who commuted into the larger factories in Stuttgart. Mauz & Pfeiffer was the first company to set up premises in Botnang itself.[2]

Botnang lies close to two major intersecting Roman roads and its history dates back many years. Almost 2,000 years ago there was a potters' settlement on the site and the first documentary mention of the village was in 1075 when parts of Botnang changed owner. The Counts of Calw bequeathed revenue from their Botnang property to the Monastery of Hirsau, which, in turn, sold it to the Monastery of Bebenhausen more than a hundred years later. From there Botnang was sold to Count Eberhard IV of Württemberg in 1418.
Botnang almost disappeared from the map in the Thirty Years War, but it enjoyed boom years in the second half of the 18th century when many tradesmen who were working on the Castel Solitude building site nearby settled in the village.
The inhabitants of the village whiled away their time up to the industrial era primarily with washing and bleaching services for the neighbouring towns of Stuttgart and Ludwigsburg, as well as with agriculture and vineyards. There was ample water and timber for this in the forested surroundings close by.
New opportunities for earning money came with the relocation and establishment of industrial businesses. Botnang gradually developed into a typical working-class district and the village, with a population of around 4,500, was incorporated into the city of Stuttgart in 1922.

Well-known inhabitants of Botnang – now with a population of around 13,000 – include the physician Ulf Merbold, the first German in space, and the ex-national football coach Jürgen Klinsmann.



Mauz & Pfeiffer employed 40 people in Botnang in the early days.[3] Two years later, in 1923, the workforce had risen to around 100 due to the success of the company.[4] In 1921, the first modern electric vacuum cleaner, the well-known FAMOS brand, was developed here. It was an invention that was to be the *"trailblazer"* for all later *"easily movable cylinder vacuum cleaners"*.[5] Over the next few years this type of vacuum cleaner was to replace the *"stationary and unwieldy cylinder vacuum cleaners"* used up to then.[6] This was soon followed by the RECORD model that was used for decades in many households.[7]
Since its foundation, the company has remained the oldest specialist German manufacturer of electric motorised vacuum cleaners.[8] Although it was founded during a time of crisis, the company nevertheless succeeded in surviving this difficult phase well. The domestic political and, above all, social and economic shifts of the young Weimar Republic – for instance, inflation and its consequences – did not have an impact on the company's success and its products. Once the German currency had recovered its stability in late 1923, Mauz & Pfeiffer managed to develop the MONOPOL floor polisher the following year, and it became successfully established on the market.



PROGRESS exhibition stand in Hanover in 1953


Ludwig Hahn in 1944

Ludwig Hahn becomes a shareholder

PROGRESS was not only the name of the well-known vacuum cleaner that was to create Mauz & Pfeiffer's reputation in 1926, it was also the slogan for expanding the young company and the "PROGRESS" proved itself in many ways to be a milestone in the company's development.
Not only did the company launch the first movable cylinder vacuum cleaner onto the market, but it also embarked on new internal directions under new management at this time. Otto Aldinger, who had played a key role in the development of this model, and Ludwig Hahn joined the company, the latter as commercial director.[9]


PROGRESS exhibition demonstration



PROGRESS retail store in the 1950s



Herbert & Rolf-Dieter Hahn, 1937



Elsa & Ludwig Hahn, 1933

Ludwig Hahn came from the banking sector. His father was the royal cutler at the court in Ludwigsburg and he himself was born there in 1888.[10] Ludwig Hahn worked for the Darmstadt Bank and had worked in securities trading on the Paris, London and Stuttgart stock exchanges. He therefore brought international experience and expertise into his new domain.[11] His appointment signalled the start of the Hahn family's involvement at Mauz & Pfeiffer over decades. This involvement would lead to the establishment of FLUX itself in the long term. At the beginning of the 1930s, Ludwig Hahn's wife Elsa, née Conzelmann, gave birth to two sons, Rolf-Dieter and Herbert, with whom the family's tradition in the company would later continue.
In the 1920s, Mauz & Pfeiffer benefitted not only from Ludwig Hahn's business experience but also from his financial resources. He was in a position to provide the capital needed for an extension to the premises.[12] With its new product range, Mauz & Pfeiffer quickly achieved a leading position in the specialist field of electrical household appliances.[13] The significantly higher turnover and demand, both in Germany and abroad, made a new building essential and it was soon also built in Botnang, not far from the old site on Franz-Schubert-Straße.

Mauz & Pfeiffer continued to enjoy much success over the coming years, in spite of the global economic crisis at the start of the 1930s. The company achieved particular success on the export front as appliances with a total value of one million Reichsmarks being exported to Australia in 1929.[14] The company continued to maintain its level of sales even during the crisis and, in 1934, a further spacious extension was added to the factory. At that time, the company had 200 employees.[15] In 1935, the first factory building at Alte Stuttgarter Straße was finally extended.[16]

Efficient housework: The millionth vacuum cleaner in 1938

In the second half of the 1930s, Mauz & Pfeiffer's sales increased significantly once more and in 1938 the company celebrated a major success: the production of the millionth vacuum cleaner.[17]
The company now employed 300 people – a figure that would further rise to 350 during the following year.[18]
Interest in electrical household appliances had increased massively since the 1920s, as the electrification of households, driven forward in the larger cities in particular, meant that electrical appliances were finding their way into more and more families. The advertising slogan *"PROGRESS appliances in the home save time and mean a life free from dust"* won the company many new customers for its household appliances.[19] It was not just factory work but household work too that was now to become more efficient, that is time-saving and effective.
The sale of electrical household appliances in Germany received additional support from the electricity works. They used the slogan *"Electricity in every appliance"* to advertise products that would increase the consumption of electricity in private households.[20] Clearly there was no mention of energy-saving at this time.

And it was not just in Germany that demand for electrical household appliances was high. The company's export sales were booming, with Mauz & Pfeiffer exports rising to around 50 percent in the period just before the Second World War and the company's annual turnover increasing to around 6–7 million Reichsmarks.[21]

THE EXPORT RATE AT MAUZ & PFEIFFER WAS AROUND 50 PERCENT.

At the same time there was a change of owner in the company. Wilhelm Mauz died in 1934 and Paul Pfeiffer died four years later, in 1938. The management of the company passed to Ernst Faber, the founder's son-in-law, and to Ludwig Hahn. Eugenie Faber, née Mauz, remained in the company as a limited partner.[22] Mauz & Pfeiffer had now also changed from being a general partnership to a limited partnership.[23]



THE PAST-HISTORY:

Armament production and bombing campaign

Conditions changed fundamentally at Mauz & Pfeiffer when the National Socialist (NSDAP) party came to power, Adolf Hitler was nominated as Reich Chancellor at the start of 1933 and the Second World War started.

Initially there had been moves towards resistance, particularly in Stuttgart-Botnang, where the working population had traditionally been more left-wing. As such, at a works meeting in 1931, the Mauz & Pfeiffer workforce had argued in favour of the *"Fight against fascism"*.[24]

Admittedly there were also NSDAP voters in Botnang in subsequent years, but at the election in January 1933 the NSDAP was only the third-strongest party behind the Social Democratic Party (SPD) and Communist Party (KPD).[25]

Once the National Socialists had managed to close down all rival political organisations, they were forcibly disbanded and all associations were "brought into line", as the Nazis called it. This process of standardisation of public and private life as a whole now resulted in a range of public servants who had not publicly committed to the new rulers now joining the party. National Socialist organisations, such as the German Workers Front, National Socialist Women's League and the Hitler Youth, were established and gathered as many new members as possible.[26] Members of the KPD and SPD – including some Mauz & Pfeiffer employees – were arrested and transported to concentration camps.[27] The Botnang Local Section Leader, Mr Erhardt, attempted to increase the membership of the party and called on all Botnang dignitaries in particular to join the party.

Businessmen and self-employed workers were Erhardt's initial target group. He visited these people in person, argued that they had to set an example as role models and threatened them with commercial repression by the government should they not join the party. At Mauz & Pfeiffer, he demanded that the Works Manager Ernst Faber and a minimum of two managerial employees from the company join the party. In order to "deflect damage away from the company" and "in view of his responsibility towards 350 to 380 employees", as Faber later stressed, he and two of his employees were induced to take this step.[28]

However, the company's production was not unaffected by this course of events. During the Second World War the production of vacuum cleaners had to be largely stopped.[29] Mauz & Pfeiffer shifted to the production of armaments.[30] The company produced equipment for the air force and acted as a supplier to AEG for the German Armed Forces' tank programme. This soon resulted in a change of location. The German Air Force ordered the relocation of production early on as Stuttgart was heavily targeted by air strikes because it was a key industrial location.

The city was hit by the first air attack in November 1942, with more attacks following in the spring of 1943. The 1943 attacks had specifically targeted the Bosch and Daimler production plants but had also damaged residential areas. In addition to businesses, all Stuttgart schools were evacuated in the autumn of 1943. Businesses that were not critical to the war effort were either closed or shut down in order to gain extra manpower for the armaments industry.

AEG and its suppliers received orders to relocate in September 1943. Mauz & Pfeiffer essentially moved its production for the tank programme into the eastern Württemberg region, to Bopfingen, and to Nordlingen in Bavaria, far away from the industrial heartland of Stuttgart.[31] There production could start up again without any stoppages in March 1944.[32] However, production was spread over a total of seven sites and was difficult to coordinate. To provide extra support, Ernst Faber's son-in-law, Eberhard Wörwag, joined the company as a further shareholder in 1943. As was the case with similar companies involved in armaments production, it is to be assumed that forced labour was also employed by Mauz & Pfeiffer. In order to meet its labour needs, Germany initially recruited people from friendly, dependent and occupied countries in southern and western Europe. When the labour shortage reached alarming proportions in 1941, large numbers of men and women were forcibly deported from the occupied territories of the former Soviet Union to work in Germany.[270]

From July 1942 onwards, Mauz & Pfeiffer were allocated a total of 93 workers by the employment office, including 26 men and 67 women. Of these, one came from Switzerland, seven from the Netherlands, five from Italy, one from France and one from the Czech Republic. The remaining 78 people were so-called "eastern workers", certainly including Poles, Ukrainians and Russians.[271]

The treatment of the various groups of workers generally differed considerably. Forced labourers from the eastern territories were treated considerably worse than workers from western and southern European countries. This applied both to their supply of food and everyday necessities, and to the hygienic conditions in which they were forced to live. They were often at the mercy of their guards. This distinction was also evident at Mauz & Pfeiffer. While the so-called "eastern workers" were initially housed in an office building on the company premises, the other workers were accommodated in private lodgings and, later, following the air raids on Botnang, in a side room of a pub.

At least the office block had central heating and running cold and hot water. When the building was destroyed on 29 July 1944, the "eastern workers" had to be housed in the Vogelsang camp run by the German Labour Front (DAF).[272]

The FLUX company therefore took part in the German business community's foundation initiative, even though, as a subsidiary of Mauz & Pfeiffer, it was not founded until the 1950s. In 2000, this initiative provided funding for the *Remembrance, Responsibility and Future* Foundation together with the German Federal Government. Financial assistance was provided from these funds to surviving forced labourers. The foundation sees itself as *"an expression of the continuing political and moral responsibility of the state, the business community and society for the injustices committed under National Socialism"*.[34]

During the war, in 1940, the two owners of Mauz & Pfeiffer sought to acquire the Dutch company N.V. Handelmij. "OCO" in Amsterdam. This company had originally distributed the vacuum cleaners of the PROGRESS manufacturer to the latter's great satisfaction.

During the 1930s, however, "OCO" had begun to set up its own production facilities due to import difficulties. The Jewish owner was not averse to selling his company to Mauz & Pfeiffer, as he wanted to leave the country with his family to escape persecution by the National Socialists.



1945: aerial photograph of Stuttgart in ruins during the war.

An attempt to link the sale to the granting of an exit permit failed, however, and so he ultimately sold his business without having received a permit. His fate and that of his family regrettably remains unknown. Their names appear on a travel list in 1942 but their whereabouts thereafter are not documented.[35]

When Klaus Hahn cleared out his parents' house in 2019, he found a number of important documents there, including a report by a Stuttgart-based auditing firm. Ludwig Hahn had commissioned it in 1947 as part of his denazification proceedings, with the aim of examining and refuting his role as a beneficiary under Article 9 of the Act on Liberation from National Socialism and Militarism No. 104 of 5 March 1946. The auditing firm contacted the former company owner in order to obtain a statement from him.[272] Unfortunately, the findings of the commissioned investigations remained unspecified in the report in question. ▸

EVEN MAUZ & PFEIFFER LOST A LARGE SECTION OF ITS PRODUCTION PLANT.

During the war Botnang suffered a total of seven air attacks and was particularly affected when the industrial plants in Feuerbach were bombed.[36]

Stuttgart suffered the worst bombardment to date in the winter of 1944, which left 40,000 people homeless and caused a fuel scarcity. Two further major waves of attacks in July and September 1944 led to the almost complete destruction of the centre of Stuttgart and the breakdown of its entire infrastructure.[37] Living conditions and hygiene standards in the city had now reached catastrophic levels and the numbers of homeless people could barely be accommodated. Food was scarce and there was little fuel for the winter months, not to mention blankets and clothing.

Botnang suffered the worst destruction following night attacks by British bombers on 29 July and 19 October 1944.[38] Even Mauz & Pfeiffer lost a large section of its production plant,[39] although the works fire service managed to save some of the machinery.[40]

Reconstruction in war-torn Stuttgart

Even after the end of the war, shortages of food and accommodation were rife in Stuttgart. There was a lack of raw materials and an influx of refugees and displaced people from the former German eastern states.

Half of Mauz & Pfeiffer's factory was destroyed but the company also suffered from the appropriation of tool making machinery by the French occupation forces.[41] In spite of this, the managers of the company decided to rebuild the company on the same site. The displaced machinery was retrieved and *"there was ultimately all manner of valuable material from the war production that could be used to manufacture small electrical household appliances"*, according to a Mauz & Pfeiffer letter from 1951.[42]

The production of vacuum cleaners and floor polishers was only restarted after the currency reform in 1948,[43] and although production was at only 11 percent of its pre-war level by mid-1949, it had risen to almost one third by the end of this year and it had reached half of its pre-war level by the summer of 1950. This meant that around 7,000 vacuum cleaners and floor polishers were produced every month.[44]

In 1948, PROGRESS Verkauf GmbH was set up *"for tax purposes"* according to the records. It was then managed solely by Ludwig Hahn. PROGRESS took over the entire sales and distribution of Mauz & Pfeiffer, although commercially the two companies were regarded as a single entity.[45]

THE PRODUCTION OF VACUUM CLEANERS AND FLOOR POLISHERS WAS ONLY RESTARTED AFTER THE CURRENCY REFORM IN 1948.

Arabian horsemeat Sunset Boulevard Cocktail chair Comics Currywurst Face of the Frog Die Hesselbachs Elvis Presley Fury Goggomobil Grace Kelly Rubber tree Gutbrod Superior Halbstarke Hula hoop Jukebox Lloyd Scent of lily of the valley Marilyn Monroe Milchbar Scooter Neo-Dada Teapoy Petticoat Mushroom kiosk Rock ‘n’ Roll Schlager As far as my feet will carry me Straßenkreuzer Toast Hawaii Cone lamp Was bin ich? Miracle of Bern Zündapp Janus

1950

THE 1950S

FLUX – from the invention to the company

But let us leave the burgeoning Botnang business for a moment and turn our gaze westwards, towards Karlsruhe in Baden. There was another relatively small business there, the history of which was to be closely linked to that of Mauz & Pfeiffer, or PROGRESS as it was now known, and we will now relate that history briefly for that reason.

Phyag KG – a student-based innovation company in Karlsruhe

"Phyag KG in Karlsruhe-Durlach is a quite unique company in our economic region. A number of students, primarily from Karlsruhe University of Applied Sciences, have joined forces to form this company, and they all wish to set up a company to develop physical and technical appliances." This is how the Baden State Office of Trade described Phyag KG in August 1950. It was a company that had been set up at the start of 1949[46] with the aim of developing physical-technical appliances for production and financing it with the sale of patents and the issue of licences. The company was virtually a family-owned company as the Managing Director Nikolaus Laing and three of his brothers were involved in it. In 1950, Inge Melchior, who was later to become Nikolaus Laing's wife, also joined the company.

Nikolaus Laing was born in Vechta in the Oldenburg Münsterland region in 1921 and studied Physics and Aeronautical Physics in Karlsruhe. In addition to his experience as a military pilot in the Second World War, he had also gained commercial experience as an engineer.[47] Nikolaus Laing was the director of the young start-up company and was assessed by the expert analysts in the State Office of Trade as being a *"good engineer"*. He worked mainly with fellow students, although by 1950 the company already had an engineer on the technical staff, an economist with a degree as a commercial clerk, and a master metalworker as workshop manager. *"The idealism shown by these students in addressing our current needs deserves as much recognition as the technical and manufacturing output of the company,"* stated the State Office of Trade in 1950.[48]

By that point, Phyag had already developed a whole range of devices, which it sold on a made-to-order basis to companies and university departments. These included a single-wheel trailer, the Venti-Lux welding transformer, the high-frequency Ferro-Lux welding unit, an electrical specialist soldering unit and many others.[49] A contemporary expert report attested to the expert craftsmanship of all the products and, despite relatively limited production facilities, to the company's careful and conscientious workshop work.[50] However, the company's staff were not yet really able to make a living from their employer. Secondary employment as assistants to university chairs or the publication of lecture notes kept their heads above water. Furthermore, anyone who developed a new device was entitled to half the profits from its manufacture or the sale of licences.[51] The young engineers worked with second-hand tools and sourced some of their materials from old Wehrmacht stocks.

NIKOLAUS LAING WAS GRANTED A PATENT FOR HIS INVENTION ON 14 SEPTEMBER 1950.

The Baden Office of Trade and Industry was full of praise for the exceptionally economical subsistence strategy of their business.[52] However, in 1950 the founders of the company tried to fundamentally change their working conditions at Phyag KG. Nikolaus Laing applied for a loan for the series production of a new product, and the company hoped this loan would help to fund further inventions in the future.



The first FLUX advertising brochure.

FLUX – the world's first electric barrel pump

In 1950 Phyag KG succeeded in developing a very special product virtually ready for series production: the FLUX, the world's first electric barrel pump. Nikolaus Laing was granted patent number 967 424 for his invention on 14 September 1950. Even at this time the marketing of the newly developed product was in full swing. The young Phyag entrepreneurs produced the first prototypes in three garages in Karlsruhe-Durlach. Many parts were still being made by hand and inexpensive complete motors were being bought separately. At exhibitions such as the Baden Industrial Fair, the first FLUX pumps were launched and were greeted with huge interest.

In his loan application in July 1950 Nikolaus Laing described the model as follows: *"innovative electric barrel pump, explosion-proof, 1,500 l/h, 6 m capillary head, pumps all thin viscous liquids. As the 'FLUX Special' (enamelled) also suitable for use with wine etc."*.[54] At this time, advertising campaigns had resulted in pre-orders for 50 of the FLUX models. These orders came especially from filling stations and refineries, as well as from machinery construction and heating construction companies and from a pharmacy and dairy. A whole raft of foreign agencies offered to include the FLUX in their sales range.[55] The first brochure was printed for the FLUX and Laing had placed advertisements in industrial gazettes, in the "Maschinenmarkt" magazine and in the "The Export Market". The State Office of Trade stressed that the *"innovative electric pump is very sophisticated in its construction. It is worth emphasising in particular that the manufacturer is very conscientious and has taken into consideration all eventualities that could hamper the operation of the pump. These requirements* ▸

were skilfully met with the very least possible effort. It is therefore anticipated that the FLUX pump will meet with huge interest, thereby generating high levels of sales." [57]

Phyag offered three models of the FLUX. The standard model was primarily intended for use as a water pump on building sites, for basement drainage and in greenhouses but could also be used as a bilge pump in boats and in small diesel filling stations and gantries. It was capable of pumping all non-irritating liquids that are not at risk from explosion according to the brochure: water and diesel oil, glycol and glycerine, trichloroethylene and carbon tetrachloride. In contrast, the FLUX Petrol should be used for volatile solvents in paint production and in petrol filling stations. It was explosion-proof in accordance with VDE 0170/0171 and could be used for carburettor fuels, spirits, methanol, turpentine and solvents. Finally, the FLUX Special was designed as a handheld food pump for liquor manufacturing and could also be used in dairies and in the chemical industry. This pump was hard chrome-plated or enamelled and was resistant to corrosion. It could be used to pump fruit juices, beer, spirits, milk, whey, thin mash and aggressive liquids in the chemical industry. Depending on the model, the prices ranged from 138 to 182 DM.[58]



FLUX pumps exhibition presentation in 1956.



The further development of the first FLUX: the FLUX 400 Ex.

The FLUX met with such great interest, as there had only been manual pumps for barrels up to this time. The new FLUX was cheaper and more versatile than the older manual pumps. In August, the Sparkasse bank made available a larger loan so that further sample FLUX pumps that were due to be exhibited at the Frankfurt Autumn Trade Fair could be produced. Participation in this trade fair led to further orders that could not yet be met by the young company. Nevertheless, there were further presentations at the Technical Fair in Berlin and at a trade fair in Cologne.[59]

THE NEW FLUX WAS CHEAPER AND HAD MORE VERSATILE USES THAN THE OLDER MANUAL PUMPS.

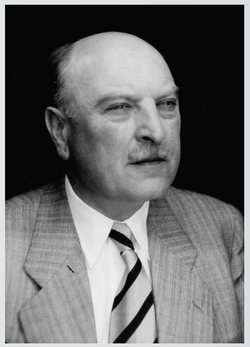
THE FLUX: INNOVATIVE, UNIQUE ON THE MARKET AND IDEAL FOR EXPORT.

Technology transfer

Phyag initially pursued the goal of producing the barrel pump in-house in order to generate adequate capital for further inventions. It soon become clear, however, that the company's very simple production facilities and a lack of commercial knowledge were hampering effective production. The Baden State Office of Trade and Industry tried to promote the *"unique"* and innovative company but soon advised them to seek collaboration with an experienced manufacturing company. And it is at this point that PROGRESS Verkauf GmbH and Mauz & Pfeiffer come back into the picture.

Initially Phyag KG had applied for a loan from the state authorities for the expansion of its own production facilities, although the Chamber of Trade and Industry indicated from the outset that the students did not have the requisite commercial experience to increase sales properly.[60] What is more, the cost of setting up production was also much higher upon closer scrutiny. The company was also beset with ever-greater problems relating to raw material deliveries, which was typical of this time. The reason for this was the Korean War, which had led to massively higher raw material prices and a shortage of raw materials worldwide.[61] Phyag was therefore unable under any circumstances to handle the many enquiries and it was recommended that production be carried out in collaboration with private capital or that the pumps be manufactured under licence by other companies.[62]

At this time, Ludwig Hahn of PROGRESS Verkauf GmbH was in search of a new industrial product that would complement his product range, which had focused on household appliances to date. He became acquainted with the FLUX pump most likely at one of the trade fairs in the summer or autumn of 1950. Senior managers at PROGRESS Verkauf GmbH and Mauz & Pfeiffer quickly recognised that this was the ideal industrial product they had been looking for: innovative, unique on the market and ideal for export. The parts could also be produced by Mauz & Pfeiffer. Moreover, they were not so dissimilar – at least from the outside – to the products manufactured by the company up to that time. ▸



Ludwig Hahn recognised the market opportunities of the new product.



Works outing in 1955: the entire workforce went out on a bus trip.

Throughout the 1950s, Mauz & Pfeiffer had again increased production of its traditional products from 50 to 70 percent of its pre-war capacity.[63] 10,000 units were leaving the factory every month by the end of 1950.[64] The company was producing vacuum cleaners and floor polishers as well as new developments, such as table fans and hairdryers. There was now a workforce of 216 employed in Stuttgart-Botnang.[65] The company had drafted a plan for an additional new building that was to further extend production and had applied for a state guarantee for a bank loan for the amount.[66] After all, even at that stage, the *"manufacturing facilities were exceptionally densely packed with workstations"*, so it was written.[67]



The credit check produced a positive result in that the company's profitability was assessed as being very favourable and the products were of a *"recognisably first-class quality"* .

At the beginning of 1951 an additional government authority reported that Mauz & Pfeiffer had a well-established agency network that had been set up for many years and good sales markets in western Europe, Scandinavia, South America and South Africa.[68] Later that year the application for a state guarantee was approved and by 1953 the modern factory building had been completed.[69]

In the meantime, Phyag KG and PROGRESS Verkauf GmbH had long since been working as one. In August 1951, Nikolaus Laing applied for a further patent for an electric barrel pump, but this time for PROGRESS Verkauf GmbH of Mauz & Pfeiffer.[70]

1951 SAW THE START OF A LASTING AND UNPRECEDENTED ECONOMIC BOOM IN GERMANY THAT WAS TO CONTINUE FOR ALMOST 25 YEARS.

The first explosion-proof barrel pump

The timing of the introduction of an innovative product, such as this electric barrel pump that was not only designed for the domestic market but would also be used abroad, was opportune. 1951 saw the start of a lasting and unprecedented economic boom in Germany that was to continue for almost 25 years. Against the backdrop of the Korean War, which led to a capacity overload amongst American companies, Germany's export business managed to achieve a further breakthrough on the world's markets.[71] All PROGRESS products now experienced a boom in sales[72] and the electrotechnical industry, together with machine construction, was to be the key driver behind the industrial upturn in the state of Baden-Württemberg over the following decade.[73]

In 1952 PROGRESS Verkauf GmbH applied for a second patent, this time for what was described as a *"portable, rod-shaped, hand-held device in the form of a centrifugal pump that can be immersed in a container"*.[74] Nikolaus Laing was once again the inventor of this product, only this time together with Egon Rittershofer. With a licensing agreement dated 24 November 1952, all patent, manufacturing and sales rights for the barrel pumps were passed from Phyag KG to PROGRESS Verkauf GmbH, the Mauz & Pfeiffer company.[75] And finally, in 1953, FLUX production moved from Karlsruhe to Stuttgart-Botnang.[76]



1958: contemporary advertisement carrying the first FLUX logo derived from the PROGRESS symbol

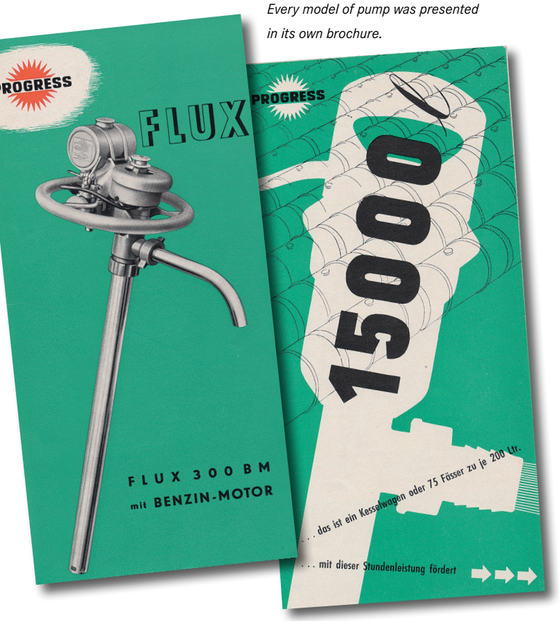
Since 1950, Phyag KG had offered a Standard model as well as a Petrol model in their brochures, with the latter being explosion-proof in accordance with VDE 0170/0171 and suitable for use with *"carburettor fuels, spirits, methanol, turpentine and solvents"*. Real series production had not yet begun at this point. However, now in 1953, the explosion-proof model F 300 Ex was not only ready for production but had also been approved by the German National Metrology Institute (PTB).[77]

In 1954, PROGRESS sold the first 300 series FLUX in three different models. The PROGRESS-FLUX 300 Ex-N was the standard design of the explosion-proof model with a corrosion-proof aluminium coating. The PROGRESS-FLUX 300-O pump had an oil tube for viscous media and the PROGRESS-FLUX 300-S was available in an acid- and alkali-resistant design, made of Remanit, which was a rust-resistant and acid-resistant steel. A range of accessories, including different hoses and tubes, fixing devices and a quick shut-off tap, completed the product line. ▸



In 1954, the advertising flyer dared to peek into the internal workings.

Every model of pump was presented in its own brochure.



PHYAG KG WAS FULLY TAKEN OVER BY PROGRESS VERKAUF GMBH, THE MAUZ & PFEIFFER COMPANY IN AUGUST 1955. FROM THEN ON, IT TRADED UNDER THE NAME OF FLUX-GERÄTE GMBH.

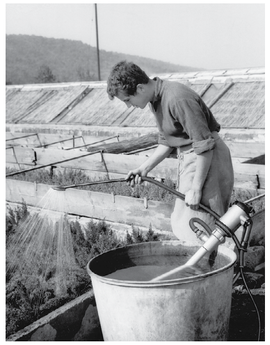
Foundation of FLUX-GERÄTE GMBH

Phyag KG was fully taken over by PROGRESS Verkauf GmbH, the Mauz & Pfeiffer company in August 1955. From then on, it traded under the name of FLUX-GERÄTE GMBH. The new Managing Director of the company was Dr Friedrich Kamfenkel. *"The purpose of the company is the development, production and sale of motorised products and small machines under the registered trademark of FLUX,"* stated the purchase contract.[78]

The FLUX specialist Rudolf Strupat, who came from Phyag, was charged with technical and sales management. FLUX's offices were now in Stuttgart-Botnang, as was the manufacturing plant, managed by Werner Duttenhofer.[79] Initially PROGRESS still looked after sales of the pumps but in May 1956 FLUX-GERÄTE GMBH took over responsibility at least for domestic sales. Export sales and commercial operations were still managed by PROGRESS until further notice.[80]

In the following years, pump production underwent a veritable boom and very quickly a whole raft of new models were developed. The 300 series of FLUX pump was initially extended by the FLUX 300 BM, a petrol engine model. It was intended for use in places where there was no mains electricity or battery connection, in industry or in the building sector, but also in agriculture and forestry, shipping and in the army.[81] The FLUX 300 U was a powerful robust electric barrel pump for "tough jobs" and suitable for use with virtually every liquid. A range of different special models was also available.[82]





The FLUX 400 also proved itself in garden centres.

Finally, the FLUX 200 was "the handheld unit for all liquids, provided they were not exceptionally aggressive or of high viscosity". It had a lower output than the 300 but was only half its weight. Specifically designed as a food pump, it was also available with a copper outer tube.[83]

Customers enthusiastically used the FLUX in the most diverse applications. In 1956, the lemonade company Sinalco wrote: *"We have been using your PROGRESS FLUX 300 Ex-N electric barrel pump for ten weeks as a delivery pump for 65% sugar syrup and would like to advise you that the pump works extraordinarily well."* [84] But garden centres also discovered the FLUX for themselves: *"Quite by chance my parents' business came across a new all-purpose pump supplied by the well-known company PROGRESS Verkauf GmbH Mauz & Pfeiffer based in Stuttgart-Botnang,"* reported an enthusiastic user. *"The pump also has some ideal applications in garden centres. As the pump simultaneously mixes the liquid in a container, it is ideal for hosing on mineral fertiliser solutions. The main advantage of the pump appears to be the hosing of container plants in greenhouses in colder months. Whereas rather complicated systems used to be needed, the FLUX pump is simply placed into the heated pool in a greenhouse with a light cable or battery connection, the hose is connected right up to the pump, the handy button is pressed and hosing can begin."* [85]

In 1957 FLUX exhibited for the first time at the Hanover Trade Fair,[86] the year that the new 400 series was launched onto the market.[87] The FLUX 400 was initially available in a Standard design and in a special version for acids and alkali.[88] Later the explosion-proof FLUX 400 became available.[89] Towards the end of the 1950s, the FLUX 400 PMP with compressed air motor was added to the product range.[90] At this time, these pump components were still bought assembled from different suppliers; only the rotors and stators were manufactured by PROGRESS in Stuttgart. Assembly, customer service and sales were handled by FLUX-GERÄTE GMBH.[91]

In 1959, three new pump models – the FLUX 500, 600 and 800 – were also launched.[92] The 600 and 800 series pumps were all-purpose low-pressure pumps, whereas the 500 series pump was a high viscosity liquid pump that could be used for highly-viscous media.[93] These pump models were developed by FLUX, although, for reasons of capacity, manufacturing was done by a components supplier, Lutz Pumpen GmbH in Wertheim. Subsequently, this company became a competitor in the pump market.

Then FLUX also took over the export business. Some of the earliest contacts with foreign sales partners were in 1956 with the Norwegian company Fly & Industrie Instrumenter AS (now Finisterra AS), in 1957 with the Austrian company Hermann Zaruba Verpackung GmbH and in 1959 with the Swiss company C. Ehrensperger AG.[94] All of these contracts are still in place today and are an expression of the continuity that FLUX values with its partners. Long-term links guarantee quality and reliability.



The new FLUX logo adorned the leaflets from the 1960s.



Astronaut look Berliner Wall Doctor Zhivago Elvis Presley Flower Power Happenings Hashish Hippies Ich bin ein Berliner James Bond Commune Cuban Missile Crisis LSD Martin Luther King Mini skirt Moon Landing Star Trek Enterprise Rockers Sexual Revolution Sit-in Straßenfeger Student movement Swinging Sixties The Beatles The Rolling Stones Tape recorder Commuter towns “twen” Economic miracle Woodstock

1960

THE 1960S

Boom times during the economic miracle years of the 1960s

The 1950s and 1960s were characterised by the so-called “economic miracle” in the Federal Republic of Germany. In 1948, the currency reform ensured that shop windows and shelves were well-stocked. And the population and companies could now satisfy their war-delayed pent-up demand, resulting in a massive demand in the consumer goods and investment sectors. This economic recovery was supported by the Marshall Plan, the key programme put forward by the USA to rebuild the devastated infrastructure in western Europe.
The high level of unemployment at the start of the 1950s fell rapidly and the first migrant workers, so-called “guest workers”, were brought to Germany at the start of the 1960s. The boom during the economic miracle era now led to a lack of skilled labour in many sectors of industry.
Many companies attempted to overcome this by relocating their plants to regions with good manpower resources. Whereas around one third of the Baden-Württemberg’s electrical and industrial jobs were concentrated in the Stuttgart conurbation in 1954, this was to change over the next few years as many companies found new sites.[95]

FLUX followed this trend and at the start of the 1960s it built its own pump manufacturing plant in Maulbronn. This was a decision with far-reaching consequences as the town was to become the company’s current central production and administration site further down the line. The good labour resources in what was still a relatively rural region, compared with the Stuttgart conurbation, where it was difficult to find new workers, was the key factor in selecting this second site.

New site in Maulbronn

Maulbronn is still a small town in the district of Enz in Baden-Württemberg and is best known for its world-famous monastery. Maulbronn Monastery was founded in 1147 and was an important political, economic and social centre in the region in the Middle Ages. Today, it is the best-preserved medieval monastery north of the Alps and has been on the list of UNESCO World Heritage Sites since 1993.



Maulbronn Monastery, UNESCO World Heritage Site.

During the Bavarian-Palatinate War of Succession, the monastery fell to the Protestant Duke Ulrich of Württemberg in 1504 and uprising farmers plundered the abbey during the Farming Wars in 1525. In 1534, Duke Ulrich of Württemberg secularised the monastery and the monks subsequently had to leave Maulbronn. However, the religious turmoil of the 16th and 17th centuries led to an eventful history for the monastery.
After the Peace of Augsburg in 1555 had granted the German territorial dukes the right to determine the faith of their subjects, a protestant monastery school was created in Maulbronn Monastery in 1556, as was the case with all male Württemberg monasteries. One of its most famous students in the 16th century was the astronomer Johannes Keller from neighbouring Weil der Stadt. During the Thirty Years War, the religious balance of power changed around every two years and the monks came and went. It was not until 1648, under the Treaty of Westphalia, that Maulbronn was finally assigned to the Protestant faith, and the Protestant monastery school was reopened in 1656.



Maulbronn in the 1960s

However, it was not until after the turmoil of the wars of the late 17th and 18th centuries – which had at times led to the evacuation of the monastery school – that the pupils finally found peace. The best-known student of all time is surely the poet Friedrich Hölderlin. In 1807, the Maulbronn Monastery School was succeeded by the Protestant theological seminary, which still exists today and is associated with figures such as Georg Herwegh, the revolutionary poet of the Vormärz period, and the Nobel Prize winner Hermann Hesse.[96]

FLUX EXPANDED ITS IN-HOUSE PUMP PRODUCTION IN MAULBRONN AT THE START OF THE 1960S.

The town of Maulbronn developed around the monastery and was not officially founded until 1838. The earliest economic pillars of the small town were wine-growing and the natural stone industry that had taken off during the German Empire when stone was needed for the burgeoning construction boom.[97]
Maulbronn had a population of around 1,600 in 1939. It was not until after the Second World War that the small town grew significantly, first through the influx of displaced persons and then, finally, through the municipal amalgamations of the 1970s.[98]

At the end of the 1950s, when Mauz & Pfeiffer was searching for a second site, efforts were being made in Maulbronn to attract businesses to the town. They advertised the plentiful local labour force to the relocating companies. Today, Maulbronn – situated in the heart of the Stromberg-Heuchelberg Nature Park – is home to around 6,600 residents, and the town provides 2,000 jobs. Many of these are based in the service sector, including the Children’s Centre, a widely renowned clinic for paediatric neurology and social paediatrics. In addition, there are jobs at a tool and machinery factory, at companies in the electrical and automotive accessories sectors, at a construction firm and at a natural stone company. The geographic location with its excellent transport connections to several industrial conurbations proved to be exceptionally positive for FLUX.[99] ▸



One of the earliest employees: Barbara Zeitheim in motor production.

Mauz & Pfeiffer's involvement in Maulbronn dates back to 1957. The company bought an existing larger factory building at Frankfurter Straße 43, along with an adjacent plot of land.[100] The town authorities were pleased that the building that had lain empty for several months and was starting to become dilapidated was again being used for manufacturing. The prospect that the workers who had been employed there would continue to be able to work locally was warmly welcomed by the responsible authorities.[101] The Mayor of Maulbronn at that time, Mr Lägler, even visited Stuttgart to see the new company for himself, and summed up: *"A view of the outside of Mauz & Pfeiffer's premises and my overall impression of the company indicate that it is a well-managed, solid, traditional family-owned company with scope for growth."*[102]

However, the early years that Mauz & Pfeiffer spent in Maulbronn were characterised by a certain lack of continuity. Production started in the summer of 1958. Electrical appliances, such as fan heaters and table fans, were produced even though the plan had originally been to relocate production of barrel pumps to Maulbronn. Although table fans had been in the Mauz & Pfeiffer product range since the start of the 1950s, fan heaters were a new development. However, it did not prove simple to find the right person to manage this site. As a result, there were several changes of Works Manager in Maulbronn within a short space of time.[103] Finally, in 1960, Mauz & Pfeiffer ceased production of the fan heaters and moved fan production to Stuttgart.[104] It was only then that FLUX pump production was moved to the Maulbronn branch.

Parallel to this relocation, FLUX initiated its independence from the parent company, PROGRESS Verkauf GmbH. At the start of 1961, it finally became fully independent. It took over the PROGRESS Verkauf GmbH stock of *"raw materials and auxiliary materials, as well as finished FLUX 400 pumps"* and employees who had worked on the production and sale of FLUX products. Even the commercial work was handled in-house, even though it still took place at the company's head office in Stuttgart.

Herbert Hahn is appointed Managing Director

The cornerstone for a lasting period of staff continuity in the Maulbronn plant was laid when Herbert Hahn was appointed Managing Director of FLUX in March 1962. Ludwig Hahn's son had been comprehensively trained for his future career. He was born in 1931 and, following primary school, attended the Dillmann Real Gymnasium in Stuttgart. The Second World War meant that the school children had to be evacuated, so he continued his education in Ebingen between 1943 and 1945, before graduating from the Business College in Stuttgart in 1951.



Herbert Hahn in 1965



Rolf-Dieter Hahn in 1967

Herbert Hahn then trained as an industrial manager with SKF Kugellager and also completed a year-long technical work placement with AEG. In 1954, he then worked abroad for four years. First of all, Herbert Hahn worked in Paris for a stainless steel, rod, pipe and metal wholesaler (Comptoir des Laminés à Froid et Tôles), before moving to London to Sun Electrical Manufacturing Corporation Ltd., an industrial electrical wholesaler. He then continued to expand his knowledge in the USA with APEX Electrical Manufacturing Corporation, a washing machine and vacuum cleaner manufacturer, and with the sewing machine manufacturer White Sewing Machine Corporation in Cleveland, Ohio.[106]

On his return, Herbert Hahn joined PROGRESS Elektrogeräte Mauz & Pfeiffer as a sales employee in 1957. His older brother Rolf-Dieter Hahn, who was born in 1930, had been employed since the mid-1950s by PROGRESS. Rolf-Dieter Hahn had initially completed an apprenticeship as an electrical engineer after attending the Higher Business School in Stuttgart before studying Electrical Engineering at the School of Mechanical Engineering in Esslingen. He then completed his education with language studies in French-speaking Switzerland.

A few years after his sons had joined PROGRESS, Ludwig Hahn died at the age of 69 on 9 April 1958 after a relatively long illness. This meant that, on 1 January 1959, Herbert and Rolf-Dieter Hahn took over his responsibilities at PROGRESS and became shareholders and Managing Directors. In their era, PROGRESS Elektrogeräte Mauz & Pfeiffer became one of the biggest manufacturers of vacuum cleaners, floor polishers, kitchen appliances and table fans in the Federal Republic of Germany for two decades.[107] While Rolf-Dieter Hahn was responsible for sales, Herbert Hahn looked after production.[108] ▸

On 1 March 1962, Herbert Hahn set himself another challenge. In addition to his other responsibilities, he was also appointed Managing Director of FLUX-GERÄTE GMBH. His brother Rolf-Dieter was also involved with FLUX and also became a Director. Admittedly he was not actively involved in the day-to-day management of the company, but throughout his whole life he had great understanding for the establishment and expansion of FLUX-GERÄTE GMBH and offered his business experience in all fundamental decisions relating to the company.
The management, sales departments, procurement, technical office and accounts were still in Stuttgart-Botnang at this time, although manufacturing had been in Maulbronn since 1960.[109]

Sales of pumps flourished, although a number of rather unpleasant jobs awaited Herbert Hahn: *"One of my first official jobs on arriving at FLUX was to dismiss the Field Sales Manager."* In Maulbronn, they had been running things quite independently of the Stuttgart head office, and not always for the best. Over a relatively short time in the 1970s, the Accounts Manager and Works Manager in Maulbronn were dismissed as they had proved to be unreliable.[110]
For Herbert Hahn, for whom continuity amongst employees was hugely important, and who subsequently hardly dismissed a single employee, this was a difficult but necessary step towards establishing a good corporate structure.

Expansion at Talweg

Good staff were indispensable as pump production continued to expand. The company had recorded a domestic and export turnover of 1.55 million DM in 1960 and this had risen to more than 2 million DM by 1962.[111] New personnel was urgently needed as FLUX was planning not only the assembly but also the in-house production of components in Maulbronn.[112] This would enable the value of the company's own production to increase, thereby maintaining quality at a high level and securing it in the long term.

Despite a certain level of local labour resources, FLUX had to rely on employees from outside the area. One of the difficulties when searching for employees from outside the area was the fact that residential property was very limited in Maulbronn and the manufacturing space at Frankfurter Straße soon proved to be too tight for the burgeoning barrel pump company. As the location in the town centre was not ideal for further expansion, Mauz & Pfeiffer acquired by exchange a piece of land from the town of Maulbronn in the newly established Kohlplattenwiesen industrial estate. The plot of land adjacent to the old production building was used for the exchange. The Maulbronn authorities accommodated the company as they were keen to keep this key employer and taxpayer in the town. In a letter, the mayor at the time noted: *"The town is very interested in setting up this production plant and is therefore making available the land required, with the option to expand at a relatively affordable price."* [113] Construction began in September 1964 and the new building was ready for occupation in the summer of 1965.[114]

> FLUX PLANNED NOT ONLY THE ASSEMBLY BUT ALSO IN-HOUSE PRODUCTION OF COMPONENTS IN MAULBRONN.



(From left to right): Herbert Hahn, Rolf-Dieter Hahn, Ernst Faber, Elsa Hahn, Dr Friedrich Kamfenkel & Eberhard Wörwag.

An industrial building with a shed roof and a floor area of 1,300 sqm was built at the new location on Talweg. One third of it had a basement floor to provide space for staff rooms and auxiliary rooms[115] and there was now adequate space for component production in-house. FLUX's turnover grew so rapidly that new employees had to be constantly taken on in the new plant.[116] In 1967 Mauz & Pfeiffer bought a further plot of land in the Kohlplattenwiesen in order to be well-prepared for future expansion, with the old production building at Frankfurter Straße 43 being offered in exchange.[117] Finally, in 1972 a further area of land was purchased from the town authorities to the north of the company's premises.[118]



A great atmosphere on the popular works' outings.

The earliest employees

Barbara Zeitheim, one of FLUX's longest-serving employees, describes the situation in the old production building at Frankfurter Straße 43 and how proud all employees were of the new building on Talweg: *"It all started in 1962 and it was then that we heard that building work was underway. We were really proud of this because, up to then, we had always worked in an older building, where the heating often broke down in winter. We had to keep going down to the big old furnace where the lacquered cast aluminium parts were enamelled. We would warm up again and then go back up to work..."*



Barbara Zeitheim in the old building.

Yet, in spite of its irritations, there was a real family-like atmosphere in the old building and a great sense of humour reigned: *"Our warehouse was too small because the large boxes for the motors took up a lot of space. So, we had to rent the whole of an old building in the courtyard of the monastery. When the big trucks containing the boxes arrived, we were allowed to travel with them to unload the boxes and carry them high up into the warehouse. And whenever we needed some of these, we had to fetch them again from there, this time with a smaller van. Back then we had built a slide in the warehouse so that we didn't have to carry the boxes back down again. We simply slid them down, and of course we slid down too – that was really popular! Our boss always wondered: 'It takes you longer to pick it up than to bring it over!'".* ▸



Warming up by the enamelling furnace.

Team work in the company was always terrific, as she remembers: *"The atmosphere in the company was always wonderful. We were just like one big family."* Nothing reflects the atmosphere better than the song that was written to move into the new building.



Employees standing proudly in front of the company's new building.

There was no works canteen at that time. But a snack lady, the so-called "Vespermädle", was sent into the town every day to bring back food. The Swabian dialect amongst the people of Maulbronn often led to a few misunderstandings in the early days: *"When the people asked our 'Vespermädle' where she worked and what FLUX made, she would say in Swabian 'Ha Bombä'. The townspeople were truly shocked: 'What, bombs? You work at such a dangerous company?'"*
But word soon got around about what was really going on at FLUX and that the "Bombä" were really pumps. Jobs in the company were very much sought after: *"FLUX soon became a very well-respected company in Maulbronn and the Maulbronn townspeople all wanted to work at FLUX."* [119]

"WHERE THE FLUX BUILDING STANDS IN THE VALLEY, WHERE WE DAILY GO TO WORK, WHERE MOTORS HUM OUT OF THE WINDOWS, THAT'S OUR HOME-LAND, THAT'S OUR HOME." (SUNG TO THE TUNE OF: "WHERE THE NORTH SEA WAVES ROAR")

Regular and very popular works parties at PROGRESS and Mauz & Pfeiffer took the employees back to Stuttgart. They were taken in a company bus but there were always problems on the way home around midnight as nobody ever wanted to leave the party.

In 1968, FLUX agreed its first set of work regulations with the works council; these still outline the structure of the company, which has since grown. We can also see very clearly from these regulations that FLUX took much greater care of its staff than was required by law. The benevolent fund set up by the company provided aid to pensioners, depending on their length of service. There was also financial assistance following accidents at work, a pension for widows and widowers, funeral benefits, support options in the event of long-term illness and special aid in the event of emergencies. This benevolent fund is no longer in place today as it has been replaced over time by modern forms of social benefits, such as profit-sharing, asset-creating benefits and meal and travel allowances. A new addition since 2021 is the subsidisation of a bicycle leasing scheme, which has been very well received by staff. In the very first few weeks, 30 bicycles – including many e-bikes – were ordered. In this way, FLUX supports carbon-neutral commuting and the health and fitness of its staff. The company has proven to be particularly family-friendly by contributing towards the cost of childcare in the form of a voluntary nursery allowance.

"THE ATMOSPHERE IN THE COMPANY WAS ALWAYS WONDERFUL. WE WERE JUST LIKE ONE BIG FAMILY."

FLUX pumps meet every need

Even in the 1960s, FLUX recognised that the product range had to be extended in order to continue to grow successfully on the market. As such, the range of pumps was improved and extended at a fast pace in order to meet the most diverse and varied requirements and applications.
The most important FLUX product of this time was the 400 series for low viscosity media. The pumps in this series were also available as non-standard models with a compressed air motor. The compressed air motor allowed these pumps to be used in places where electrical units were not permitted or where there were no power connections available.[120] In 1964, FLUX brought out an improved model, the FLUX 400 Ex, which was approved in compliance with the highest explosion-proof category.[121]

But even the 500 series high viscosity liquid pump and 600 and 800 series all-purpose pumps had also attracted their first group of customers.[122] FLUX employees were constantly working on further developing these models.
The new 510 series high viscosity liquid pump was therefore launched in 1963. Depending on the pump tube set used, it could be employed, for instance, for lubricant oils and gear oils, or for foodstuffs, like liquid fats and chocolate, molasses, syrup and honey.

As the technology was making such great leaps of progress, the time was now right to enhance FLUX barrel and container pumps with liquid meters. FLUX FM 025, FM 050, FM 250, FM 106 and FM 034 models were therefore fitted with an indicator display and ▸



The FLUX 60 K, a lightweight, handheld laboratory pump, was unveiled at the Hanover Trade Fair in 1965. A glamorous lab assistant was used to advertise its ease of use.



The FLUX 400 Ex in tough everyday use.



FLUX liquid meter with indicator display.

a wide range of media and flowspeeds. FLUX therefore further enhanced its pumping system and improved its market opportunities.[123]

To develop a completely new field of use for pumps, FLUX invested in the development of vertical centrifugal pumps in the early 1960s. The FLUX 200 was a small centrifugal pump for water, heating oil and diesel fuel.[124] It was capable not only of pumping out tanks and barrels but also of being used as a bilge pump on ships and boats.[125] The small, handheld and reliable FLUXetta submersible pump was advertised with the slogan “Water from your own waterworks”. It could be used in garden pools, rain butts and in rivers or ponds, enabling swimming pools to be emptied and rain water to be taken from water butts to water the garden or wash the car.[126]

In 1965, yet a further innovation, the FLUX 60 K, a lightweight acid and alkali pump, was exhibited at the Hanover Trade Fair. It was known as the “Ladies’ model”, because a glamorous lab assistant was used to advertise its ease of use. The outer tube fitted into all narrow-necked containers, like demijohns and carboys, and the pump was made of polypropylene, Hastelloy C and PTFE and was resistant to almost all aggressive chemicals. This meant that hydrochloric and sulphuric acid, lactic acid and citric acid, as well as fluids for photographic development and fixing baths, could now be pumped.[127] At the end of the 1960s, the large series 610 K acid and alkali pump was launched onto the market. This pump was developed specifically to empty tankers and for use in sewage detoxification plants and water treatment plants and for electroplating.[128]



1965: exhibition stand at the Hanover Trade Fair.



Reliable filling of smaller containers using the FLUX liquid meter.

The company successfully took advantage of every opportunity to draw attention to its products. The FLUX product range appeared in around 70 trade magazines at this time, and around 80 to 100 press releases describing in detail the various uses and applications of the pumps, flow coating systems and all other FLUX products were issued every year.[129]

THE FLUX PRODUCT RANGE APPEARED IN AROUND 70 TRADE MAGAZINES AT THIS TIME.

By exhibiting at trade fairs, FLUX also drew global attention to its products. The management of the company and sales managers recognised early on how significant these product presentations were for opening up new international markets.



A highlight of pump advertising in the 1960s: the FLUXetta brochure.

Flow coating systems, decorating needs and special models

The hard-working and dedicated engineers and sales team at FLUX were always in search of innovative new applications for FLUX pumps. In the second half of the 1960s they came up with a product that was aimed at painting firms. The flow coating systems were developed by Alois Schlachter in Switzerland and became a real revenue driver at FLUX, meaning that radiators could now be flow coated with an explosion-proof FLUX pump. The shorter working time and lower material consumption compared with conventional methods, the even colour coverage and the ease of use – even for untrained workers – led many painting contractors to opt for this model.

The flow coating systems were sold through paint purchasing societies and painting/decorating wholesalers. By 1976, around 4,000 of these systems had been sold. There were three models for paint firms to choose from. The portable systems were particularly suitable for use in new buildings, where radiators could be flow coated in a flow tank with a FLUX pump before finally being fitted to the wall. Radiators that had already been fitted to the wall could also be flow coated with a portable flow coating system. This model was used primarily in refurbishment work, where a radiator was initially cleaned with a solvent in the flow coating system and then coated with a new colour of paint. With the third model, the immersion system, timber doors, shutters and roller shutters could be immersed. Many flow coating systems were also used in industrial companies as they were less expensive and consumed less paint than spray painting or immersion processes.[130] It wasn't until manufacturing techniques changed and manufacturing companies began to paint their own radiators in the mid-1970s that the era of flow coating systems came to an end.[131]



The FLUX Memomat simplified the cleaning of brushes and painting tools.

Other painting tools, such as the FLUX Euro-Roller and the FLUX Tornado roller cleaner, were also very successful. The Euro-Roller was a paint roller with jets that were fed by a high-pressure pistol and hose from a high-pressure unit. This shortened working times by half, compared with normal rollers.[132] The FLUX Memomat, the successor to the FLUX Tornado, which could be used to prepare the waste water for proper disposal, was added to the range in 1993 and sold right up to 2008.

IN THE MID-1960S, FLUX ALSO STARTED PRODUCING CUSTOMISED PUMPS.

In the mid-1960s, FLUX also began to produce non-standard special pumps and, depending on what the customer wanted, special bilge pumps or vane pumps could also be produced. Tools were also developed and produced for OEMs in plant engineering.[134] To this day, fulfilling special requests has remained an important area of FLUX's work, and a dedicated workshop section is assigned to this very task.



Radiators could be flow coated with an explosion-proof FLUX pump.



Greek sales in 1960.

CLOSE TIES WERE ALSO ESTABLISHED WITH THE KEY JAPANESE MARKET TOWARDS THE END OF THE 1960S.

Going global from Maulbronn

FLUX set great store by its export business from the very start. As early as 1962, one quarter of the company's turnover came from export sales[135] and regular seminars and training courses were held in Maulbronn for the company's representatives. Not only German field sales staff were invited to these, but employees from the international agencies would also travel to Maulbronn to attend them, with partners from Austria, Switzerland and even Australia attending the FLUX Sales Conference in 1963.[136] Non-European agencies were also set up very early on in South Africa, Hong Kong, Israel and Iran, as well as in Australia.

In contrast, it took a long time to find a suitable company for the sale of FLUX pumps in the USA before coming across Sethco Manufacturing Corporation of Freeport, New York in 1966. Sethco was a manufacturer of vertical centrifugal immersion pumps for the electroplating and chemical industry and was awarded sole representation of FLUX in the USA, Canada and Mexico in 1967. In the first year alone, around 600 pumps were delivered from Maulbronn to Sethco.[138]

Close ties with the key Japanese market were also established towards the end of the 1960s. Herbert Hahn recalls how he came into contact with the owner of a Japanese company, with whom he was to develop a very long-standing cooperative relationship, and a company that was to become "a very good major customer". At the start, however, it was not easy to overcome the language barriers: *"The problem was always the language and that was really quite difficult. I went over to Japan twice and was barely able to make myself understood. The owner of the company was an elderly man who spoke very little English. We tried using the secretary of the freight forwarding company but, of course, she had no idea about engineering. Finally, on our third attempt, we managed to find an interpreter via the Chamber of Trade and Industry in Stuttgart. He had studied in Germany for several years and also understood our products' technology. Suddenly, our Japanese partners were filled with enthusiasm as they finally understood everything that there was to know about our products. The Japanese were completely unaware of everything that could be done with pumps at the time. Since then, we have never gone anywhere again without an interpreter!"*

Interpreters are the most important companions that FLUX managers take with them when they attend trade fairs in South America, eastern Europe, Korea, Japan or China or train the sales personnel in these countries, because otherwise – as Herbert Hahn comments so succinctly – *"it's a waste of money for the trip".*[139]



The American subsidiary, set up in the 1980s.

ABBA Anti-nuclear movement Bee Gees Bhagwan Bonanza Derrick Disco fever Flokati rug Football World Cup Warsaw kneeling Kojak Sideburns Long-haired hairstyles Lava lamp Oil crisis Summer Olympic Games Pink Floyd Platform shoes Dragnet search Incense sticks Rocky Horror Picture Show Red Army Faction Bell-bottoms Sesame Street Smokie VW Golf

1970

THE 1970S

Innovations and expansion of market position in the economic crisis years of the 1970s



Headquarters on Talweg in Maulbronn.

Germany and the entire Western world experienced difficult phases of recession following the oil crisis during the mid-1970s and at the beginning of the 1980s. The era of the uninterrupted economic boom that had seemed a matter of course in Germany in the 1950s and 1960s was clearly over.
The first oil crisis triggered by the Yom Kippur War in the autumn of 1973 made the industrial nations' dependency on fossil fuels clearer than ever.
The Organisation of the Petroleum Exporting Countries (OPEC) reduced its output at the time as political leverage. As a consequence, the oil price rose in mid-October 1973 from around three US dollars per barrel to over five US dollars and then again to more than 12 US dollars in the following year.
In Germany, the oil crisis remains indelibly stamped on people's minds due to the economically absurd but spectacular Sunday driving ban imposed at the end of 1973. Energy saving became the hot topic throughout the country for the first time. A deeper economic crisis, combined with unemployment, shorter working hours and corporate crashes, could also be felt as a result of the higher oil prices.

Despite all the signs of a crisis, FLUX-GERÄTE GMBH proved to be remarkably stable in terms of its business performance. Aside from short periods of stagnation during the oil crisis, the company was even able to continually increase its turnover thanks to shrewd product policies.

DESPITE ALL THE SIGNS OF A CRISIS, FLUX-GERÄTE GMBH PROVED TO BE REMARKABLY STABLE IN TERMS OF ITS BUSINESS PERFORMANCE.

In the first half of the 1970s, the company embarked on the construction of a new building to expand its premises. Operational workflows within the factory were improved and were subject to even greater planning, and production processes started to be automated during this decade. The company also managed to develop completely new uses and applications for its pumps with new product lines. Thorough redesigns and existing models underpinned the company's leading position in the barrel pump market. The company's export business, both within and outside of Europe, developed magnificently, resulting in the first steps being taken into the eastern European markets towards the end of the 1970s.

The new building in 1973/74

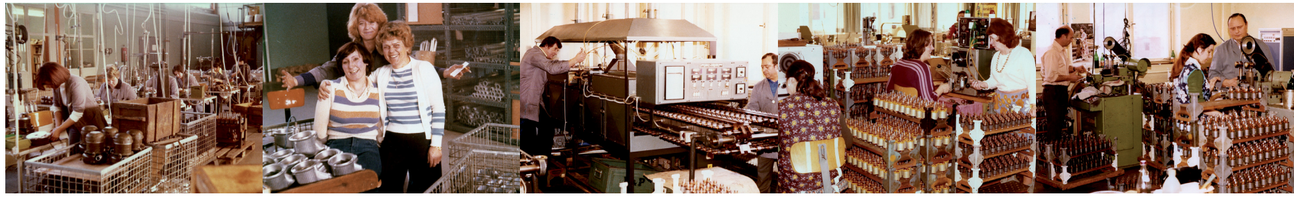
FLUX's growth went from strength to strength and so further expansion was needed in 1973. A 1,300 sqm industrial building with a flat roof was commissioned, and this housed the assembly and Repairs departments from 1974.[140] Production had changed and more and more accessory parts were now manufactured within FLUX itself,[141] with even plastic injection-moulded parts being produced in-house. The moulds needed for this were largely produced in the company's own tool making department.[142]

However a short time later, the lack of space again became noticeable. A marquee of around 300 sqm was constructed as a temporary emergency solution, and the packaging material and other bulky materials could be stored here.[143] The employees also used this marquee to hold staff parties on site in Maulbronn instead of in Stuttgart. One of our longer-standing employees, Barbara Zeitheim, recalls: *"We said back then that before we start stocking up the marquee, we wanted to hold a party in it, and that is precisely what we did. We arranged a massive party! Even our colleagues from Stuttgart came out to Maulbronn for it, only this time they had to come on the coach and when it was time to go home, it was now their turn – as was always the case in Stuttgart – not to want to break up the party."* [144] The Stuttgart colleagues were simply having such a good time in Maulbronn...

Generational change in the company

The company suffered a severe blow when its technical director, Rudolf Strupat, died at Whitsun in 1972, aged just 54. *"Mr Strupat was very important to the company,"* recalls Herbert Hahn,[145] and it was not easy to find a fitting successor for him. Finally the company found the man, Alois Gschwendner, who was appointed to take responsibility for Product Development, Manufacturing and Sales in the Technical Department.

In the mid-1970s, the Accounts Manager, Hermann Walker, and the long-standing Works Manager, Mr Duttenhofer, left the company. Winfried Kaufmann was appointed as the new Commercial Manager, a post that he was to hold for 32 years. Dieter Trippner was appointed Works Manager and remained in this position until his retirement in 2003.[146] Keeping good employees was always one of the most important maxims of FLUX's personnel policy. The fact that the company had and still has many long-standing employees speaks volumes for the good working environment. Many employees work with FLUX for up to forty years.



Modern manufacturing at FLUX in the 1970s.

New internal organisational bodies

When Dieter Trippner, a mechanical engineer and later Works Manager, started at FLUX in 1972, there was a workforce of only 35 employed in Maulbronn. At this time the Administration and Sales departments, as well as the Research and Development department, were still located in Stuttgart. Dieter Trippner was appointed to set up an operational Production Scheduling department and to take over the top production job in the long term. He recalls that the company was organised rather more along artisan lines at that time: *"The company was still somewhat in limbo at the time and it was not entirely clear whether it was a company of skilled craftsmen or more of an industrial enterprise? It was still rather unclear but I suppose I regarded FLUX as a company of skilled craftsmen at the time."*

Special one-off products on call and smaller batch sizes were still very common. One foreman was responsible for Production and one for Assembly, the two main areas of the still relatively small Maulbronn plant. There was also no strict dress code. Dieter Trippner recalls his first day at FLUX: *"It was really funny – I turned up on the Monday morning with a smart white shirt, a sports jacket and tie, as was the case in my previous company. Then I was introduced to the company outside and they all ridiculed me a bit. By ten o'clock my tie was off."*

The continued growth of the company was not to be stopped. At the end of the 1960s and the start of the 1970s, FLUX was forever battling with back orders and production could simply no longer keep pace with the level of incoming orders.[147] Up to the mid-1970s, two hours of overtime were generally worked every day, thanks to the excellent order situation, and even working on Saturday mornings was quite usual.[148] New organisational bodies were therefore needed when the plant expanded in 1973/74. When Alfred Görke took over as Domestic Sales Manager on 1 July 1973, unit sales numbers increased and more and more standard versions were pre-produced. A Production Scheduling department was also set up at the time. On 1 April 1987, Heinz Hofmann joined the company as Export and Marketing Manager to assist Herbert Hahn and further expand FLUX's international position. When Alfred Görke left FLUX on 30 June 1999, Heinz Hofmann also took over the role of Domestic Sales Manager.

More complex control models found their way into the company. Over the following years, production scheduling was further improved. The introduction of numerically controlled machines (NC machines) and equipment, which are now used more and more in production, made it possible to streamline processes. Managing Director Hahn also made further investments on an ongoing basis to modernise the machinery and maintain the building. For example, the company purchased specialised grinding, welding and drilling machines, a table for all-round welding, and indexable inserts. The old building underwent a fundamental refurbishment of the floor space, with the paint works and plastic welding section being relocated.

> THE GENERAL RULE OF THUMB AT FLUX IS THAT THE HEALTH AND SAFETY OF ITS EMPLOYEES IS PARAMOUNT AT ALL TIMES.

Health and safety has always been, and continues to be, taken very seriously within the company, both in relation to older technical systems and all new installations, with the result that FLUX has never experienced any serious accidents to date. At regular inspections, the inspectors frequently described the "very tidy and organised premises". It's important to recognise that, in Swabian, this is considered the highest form of praise, in keeping with the locals' saying: *"No rebuke is praise enough."* The general rule of thumb at FLUX is that the health and safety of its employees is paramount at all times. That is why the company also invests in workplace health programmes.

A wide range of FLUX pumps

In the 1970s, FLUX continued its successful development and recorded a constant rise in pump sales. The company's turnover rose by around a million DM every year. Only during the economic crisis caused by the first oil crisis of 1975 did its turnover decline.[149] The company continued to improve its products and made fundamental changes to its product range.

The successful FLUX 400 series for low viscosity media underwent a comprehensive expansion, with the launch of the new explosion-proof FLUX 410 Ex series in 1970. The strengthened motor had a completely innovative motor cooling system, a factor that had a positive effect on its service life.[150] The model quickly recorded excellent sales[151] and the non-explosion-proof model of this motor was known as the FLUX 408.

Pumps with an compressed air-operated motor formed their own series[152] and in the mid-1970s a further more powerful air-operated motor was launched onto the market. It operated at a very low noise level, and the oil-laden exhaust air was discharged in such a way that there were no emissions into the environment.

In 1976, FLUX launched a special innovation from its Research and Development department onto the market: the FLUX 417. This was the first "portable barrel and container pump with a dual-insulated splash-proof motor and tested in accordance with VDE 0730 T 2". When constructing this motor, particular emphasis had been placed on excellent operational reliability. The motor is fitted with an overload protection switch, combined with an On/Off switch. The On/Off switch is designed in such a way that the pump cannot be accidentally switched on. The motor housing is made of pressure-resistant and impact-resistant plastic – by selecting the right material, the pump is therefore suitable for use with strongly aggressive media, such as hydrochloric acid and sulphuric acid. It has many uses in laboratories, workshops and in industry.[154] The F 417 motor has proved its exceptional quality over time and is one of the most regularly used FLUX barrel pump motors worldwide today.[155]

> THE F 417 MOTOR HAS PROVED ITS EXCEPTIONAL QUALITY OVER TIME AND IS ONE OF THE MOST REGULARLY USED FLUX BARREL PUMP MOTORS WORLDWIDE TODAY.



The FLUX product brochures of the 1970s appeared with a strong yellow look.

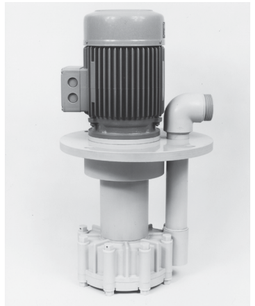


The FLUX 302 K used in a laboratory.

New models of lightweight acid and alkali pumps were developed. The somewhat smaller FLUX 302 K was launched onto the market for use in laboratories and pharmacies. It was also acid- and alkali-resistant and easy to clean. The FLUX 660 K model was a large acid and alkali pump and had replaced the 610 K at the start of the 1970s.[157]

The range of high viscosity liquid pumps was also expanded. In addition to the new FLUX 520, the FLUX 550 eccentric screw pump was also added to the range.[158] The latter is especially ideal for plastic emulsions, paints, oils and fats, paste and latex, liquid cleaning agents, shampoos and soaps, molasses, mustard and mayonnaise.[159] Just one year later, the success of these pumps was recorded at a sales conference: *"In any case, it must be said that our switch to the F 520, F 550, and F 620 models last year was absolutely worth it, because we were able to further expand our market position, especially in this sector."* [160]

FLUX was the first company to develop a portable eccentric screw pump and remained the sole manufacturer for many years. [161] FLUX developed an entirely new market segment with its vertical centrifugal immersion pumps. Building on the success of the new FLUX 620 all-purpose pump, FLUX then developed the 700 series vertical centrifugal immersion pumps for continuous operation. Vertical centrifugal immersion pumps have the advantage of improved operational reliability over conventional vertical centrifugal pumps as they do not have to be fitted in pipes outside of the containers.[162]



FLUX vertical centrifugal immersion pumps opened up a new market sector.

FLUX DEVELOPED AN ENTIRELY NEW MARKET SEGMENT WITH ITS VERTICAL CENTRIFUGAL IMMERSION PUMPS.



Sewage treatment

With its 700 series, FLUX now offered a wide range of models for the most diverse media and applications, for instance in the chemical industry, in electroplating, waste water treatment, the glass and ceramics industry and in foundry engineering.[163]

The new design of the FLUX FM 5, FM 10, FM 50, FM 100 and FM RZ liquid meters developed in-house also attracted a lot of attention at the end of the 1970s. They were available in polyamide, polypropylene and polyvinylidene fluoride to guarantee their use with as wide a range of media as possible. Thanks to measuring chambers of different sizes, they could also be used with a wide range of liquids of different viscosity.[164]



A new design: FLUX liquid meter.

Expansion of international sales

"It's not simple, you have to really stick at it."
Herbert Hahn's words summarised the enormous efforts that were needed to build up a global sales network for FLUX.[165] In 1974, FLUX had sales partners in 21 countries. Initially this was in the neighbouring countries of Belgium, the Netherlands, Denmark, France, Austria and Switzerland. Then, it also serviced the Italian, Spanish, Portuguese and Greek markets in southern Europe. In the north it had Sweden, Finland and Norway and finally the key UK market on the other side of the English Channel. Further afield, it was also represented in the USA and Australia and agencies also serviced FLUX customers in South Africa, Israel and in Iran. FLUX's Hong Kong and Japanese partners were responsible for the Asian market.[166] This involvement really paid off because by the mid-1970s, FLUX's export turnover was higher than its domestic turnover.[167]

Efforts to open up new markets turned towards eastern Europe by the end of the 1970s. In 1978 Herbert Hahn travelled to a trade fair in Poznań, Poland, for the first time[168] and used the experience of a company it was on good terms with in Maulbronn. BIAX Schmid & Wezel had been exhibiting at this trade fair for some time and the two companies decided to set up a stand together. Herbert Hahn had a truck packed with exhibition products and trade fair equipment and headed off on the 800 km journey to Poznań.

But he recalls that getting started there wasn't easy: *"You know, at the beginning it was really quite tough to sell anything to these companies."* Later the company handed over business in Poland to an external sales partner who was already working successfully for their Maulbronn neighbour Schmid & Wezel.[169]



FLUX at trade fairs across the globe: Switzerland in 1972, Great Britain in 1976, Australia in 1978 and the Netherlands in 1975.

AIDS Airbag Apple Macintosh Atari Boris Becker Dynasty Depeche Mode Gameboy Gorleben Helmut Kohl Hitler's Diaries Denim shirts John Lennon Cable TV Chequered blazers Live Aid Madonna Fall of the Berlin Wall Miami Vice Michael Jackson Microwave oven Neon colours Null-Bock generation Pac Man Prince Rap Narrow leather ties Shoulder pads The Black Forest Clinic Space Shuttle Headbands Chernobyl VHS video Mullet Wetten, dass Yuppies

1980

THE 1980S

FLUX becomes independent

In the 1980s, FLUX finally became independent from PROGRESS. The parts of the business that had still been separate up to this point were now relocated to the Maulbronn site. At the same time, Herbert Hahn took the decision to set up wholly-owned subsidiary companies for FLUX that would, in his opinion, guarantee the best possible sales strategy. FLUX would therefore no longer rely on sales partners in key export markets. Herbert Hahn's mantra was as follows: *"If we do it on our own, we do it better..."* and the results backed this up.[170] Subsidiary companies were therefore set up in the USA and in England.

The most important new development in the pump product range at this time was a pump that would fully empty barrels. This was not only a reaction to higher raw material costs but also to a growing environmental awareness in the Western world that also found expression in burgeoning "green" movements. Especially since the 1980s, the electrical industry has benefitted from the favourable economic climate in Germany and from rising export figures.[171] During this period, eastern European countries increasingly became more open to contact with Western companies, an opportunity that was actively exploited by FLUX. The emerging Chinese market was also developed from the end of this decade.

THE MOST IMPORTANT NEW DEVELOPMENT IN THE PUMP PRODUCT RANGE AT THIS TIME WAS A PUMP THAT WOULD FULLY EMPTY BARRELS.

FLUX and PROGRESS go their separate ways

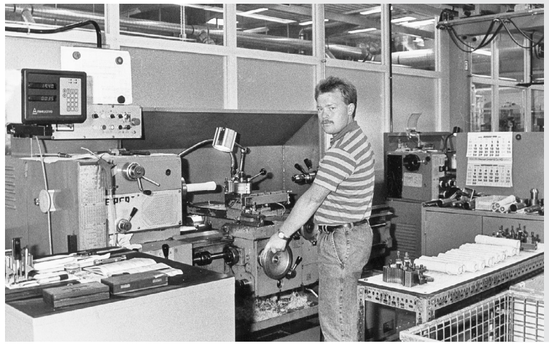
In 1980, Europe's largest producer of household appliances, the Swedish firm Electrolux, bought PROGRESS Elektrogeräte Mauz & Pfeiffer GmbH & Co.[172] For FLUX, this was the first step towards its independence. Initially FLUX-GERÄTE GMBH was dissolved from PROGRESS and the shares that PROGRESS Verkauf GmbH had held were transferred to the existing shareholders, Rolf-Dieter Hahn and Herbert Hahn, Ernst Faber, Margot and Peter Wörwag and Barbara Kröck. Finally, in 1983, all shares were bought solely by Herbert and Rolf-Dieter Hahn. The production plant and land in Maulbronn, which FLUX had previously only leased from Mauz & Pfeiffer, were also bought by FLUX on 1 January 1980.[173]

Independence from PROGRESS and from Mauz & Pfeiffer had far-reaching consequences for the Maulbronn site. Firstly in-house production of rotors and stators for the electric motors started up, although the existing production space was again too cramped and an additional new building was in the pipeline.[174] On the other hand, the division of the company between Stuttgart and Maulbronn was now making less and less sense. A plan was therefore devised to bring the entire company and its 140 employees to the one site in Maulbronn. Up to this time, Administration, Sales, Accounts, and Research and Development were still located in Stuttgart-Botnang, a total of around 50 employees. Between the years of 1986 and 1987, they all then moved into a newly built four-storey operations and administrative building in Maulbronn.



1986: the new operations and administrative building.

It was built adjacent to the shed building on a 430 m² plot of land.[175] Gradually, one section at a time, the rotor and stator production sections, the operational offices, the Procurement and Research and Development departments and the remaining administrative functions from Stuttgart were all moved across. Following this move, production processes became considerably more transparent and quality assurance could be further developed.



Modern machines made production work simpler.



Precision work for maximum quality and durability of FLUX products.

"It was really important that we were able to make this major move from Stuttgart without having to make any operational redundancies," comments the former Commercial Manager, Winfried Kaufmann, who was responsible for personnel at FLUX over many years.[176] The Stuttgart employees were provided with cars so that they could car share to work in Maulbronn. Of course, it took some time for the "Stuttgarters" and the "Maulbronners" to grow together to form one workforce and the Maulbronn employees rather derisively described the multi-storey building in which the majority of the Stuttgart administrative employees were housed as the *"Tie Silo"*.[177]

The business now also employed six apprentices; every year one commercial apprentice and one industrial apprentice were employed. Their examination grades, which were for the most part outstanding, underlined the quality of their training in this medium-sized enterprise. And the company was also usually able to offer them a permanent position on completion of their apprenticeships.[178]

The jump over the “big pond”

In 1980, FLUX set up its first subsidiary abroad: FLUX Pumps Corporation in the USA. The company’s North American business had been handled up to then by Sethco Manufacturing Corporation. FLUX’s electric barrel pumps filled a gap in the US market and were selling very well: 3,400 pumps were sold in 1977 alone. However, Sethco – itself a pump manufacturer – sold only the F 407 K acid and alkali pump and its successor, the F 417 K. The fact that another German pump manufacturer with its own US subsidiary was able to supply its entire pump range caused Herbert Hahn to change things. Negotiations with Sethco continued to be unsuccessful. The company was not prepared to include other FLUX pumps in its product range. Sethco was also starting to hold back on advertising FLUX pumps over time and, instead, was extending its own range of pumps along the lines of FLUX models.
It was therefore finally time for senior managers in Maulbronn to forge plans to set up their own subsidiary company in the USA and in 1978 FLUX terminated its sole representation agreement with Sethco.[179]

The preparations tor setting up the subsidiary on the American continent also included the completion of various approval procedures for the Canadian market, as FLUX pumps had not yet been sold in Mexico and Canada. In addition, user manuals that were easy to understand and clearly illustrated were required for the US market. Distribution was also planned via distributors, which was a route that Sethco had not pursued to date.[180] However, the key factor was finding good cooperation partners and employees who would represent FLUX. *“This was not that simple because we also needed to find the right people”, recalls Herbert Hahn*.[181]



The successful US model, the FLUX F 417 of 1985, was especially lightweight to use and was therefore demonstrated by a woman in the advertisements.

At the beginning of 1979, there was an initial plan to set up a joint sales company with a US industry expert who had also set up his own pump distribution company. In the end, the company opted for Mr Eastman, who was a trustworthy former employee of the English sales partner, who had been known to the company for a long time and who was also familiar with the American market. Eastman was now living in Atlanta, so he opened the first FLUX subsidiary there in 1980. Initially, FLUX Pumps Corporation was located in rented accommodation, but it soon moved into a building in Atlanta that Herbert and Rolf-Dieter Hahn had purchased together. Eastman proved to be an exceptionally active partner who organised sales and distribution, customer service and also his own employees very well. FLUX pumps were sold in the USA ex-stock and whereas the pumps were sent by container to the USA in the early days, the company soon moved to air freight. Atlanta and its airport, a central hub in international air traffic, proved to be an ideal location for the new company.[182]

FLUX Pumps Intern. (UK) Ltd. in the United Kingdom

A few years later, FLUX also set up its own sales subsidiary for the important British market. Originally, British Central Electrical Co. Ltd. in London, a company that sold electrical installation materials, had represented FLUX to its complete satisfaction. As was the case with many long-term sales partners, there was not just a business relationship with the owner of the company, Mr Conradi, but also a close personal relationship. Herbert Hahn comments: *“I had a very good relationship with the British agency and got to know the owner, Mr Conradi, really well. I went over to visit him a number of times.”*

The excellent sales of pumps changed when the partnership was sold to a larger company. FLUX therefore planned to set up an independent subsidiary in Great Britain and set off to find a suitable building and employees. The British market is key in Europe, according to the former Commercial Manager Winfried Kaufmann.[183]

All companies from overseas that wish to establish themselves on the European market start in Great Britain. In 1986, the FLUX partners bought a building on an industrial estate and set up FLUX Pumps Intern. (UK) Ltd. in Verwood (Dorset, England). A former employee of British Central, Mr Wigley, headed up the subsidiary company. He had experience in FLUX pump sales and trade fairs and agencies throughout Britain were now organised and supplied from Verwood. Herbert Hahn supported the subsidiary in its work by visiting regularly.[184]

FLUX Pumps Corporation in Atlanta, USA.





FLUX Pumps International Ltd. in Verwood (Dorset, England).

The challenge of environmental conservation

Environmental conservation increased in importance in Germany in the 1980s, in the same way that energy-saving had been the watchword in the 1970s. It is true that, ever since the beginning of the Industrial Revolution in the 19th century, it had become apparent that the burning of ever-increasing quantities of coal and other fossil fuels was leading to rising levels of air pollution. Growing mountains of waste, water pollution and rising urbanisation were increasingly having an impact on the environment, although the solution appeared to lie in the further expansion of industrial engineering. Only in the second half of the 20th century were large-scale groups formed with the aim of conserving nature and sustainably handling environmental resources. The best known of these groups is probably Greenpeace. The triggers for this change in values included the death of fish in the Rhine, so-called “forest dieback”, and large chemical accidents, such as in Seveso.

FLUX recognised the significance of this environmental approach at an early stage, as FLUX pumps were and are often used to pump potentially environmentally hazardous media. The operational safety of pumps is therefore paramount and work is constantly ongoing to reduce emissions from the units. The company also always tried to deal with resources, whether raw materials, delivery routes or production workflows, in an environmentally friendly manner. One of the most important environmental innovations from FLUX was the development of the F 425 pump in the 1980s, which guaranteed to empty up to 99.98 percent of a barrel. A patent was applied for in 1987. A return stop with a special lock meant the pump could be closed tightly at the end of the pumping process, ensuring that the entire fluid contained in the barrel could be used, leaving virtually nothing in it. Whereas 1–2 litres of a liquid would normally remain when a barrel was pumped empty, this pump left only a residual amount of approx. 0.05 litres.[185] A few years later, the environmentally friendly products were further enhanced by the incorporation of fume glands into the FLUX range. These ensured that no environmentally hazardous vapours could escape from the containers to be emptied, either during pumping or when the pump is not running inside the barrel. At the same time, a pressure relief valve ensured that air could always penetrate into the container, thereby preventing the build-up of negative pressure.

In 1982, FLUX finally introduced the new design of the F 303 K acid and alkali pump. It was the successor to the F 302 K, and both the exterior of the pump as well as the motor had been fundamentally overhauled and based on the larger F 417. The new product was *“dual-insulated, with labyrinth-like supply and exhaust air ducts, splash-proof and approved in accordance with VDE 0730 T 2. Acid vapours that can be produced in the laboratory are therefore also kept away from the interior of the motor so that corrosion and failures are for the most part avoided”.* It was also suitable for one-handed operation and fitted with an overload protection switch. [186]

A completely new product in the range was the F 11, a vane pump for self-greasing fluids, such as heating oil, diesel oil and machine oil. This also held true for the seal-less pump tube sets F 422 and F 423 and for the explosion-proof pump tube set F 421 for stationary installation.[187] In contrast, the F 403 and F 710 models were discontinued from the product range.[188]

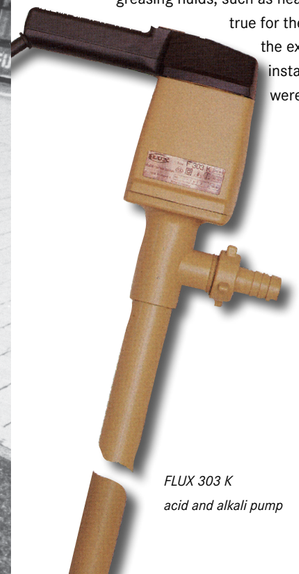
The basic structure of the pump product range did not change during the 1980s as much as it had during the previous decades.[189] The company continued to work, however, on improving and optimising its existing pumps. A key factor in this was that FLUX was able to supply “bespoke pumps” using an increasingly sophisticated modular system. It was therefore able to offer a variety of motor models, motors for different voltages, components for different flow rates and flow heights and pump tube sets made of quite different materials.[190]



Chemical alarm in Stuttgart in 1984.



Emergency drill: on standby with the FLUX 410 Ex.



FLUX 303 K acid and alkali pump



Wide range of applications for explosion-proof FLUX barrel pumps.



Herbert Hahn arranging the exhibitions himself at a trade fair in 1985.



Chinese visiting cards were part and parcel of developing the Asian markets.

RUSSIA AND CHINA

Go east

Eastern Europe opened up as a key market for western European companies in the 1980s. After 1989, the markets in the so-called Eastern Bloc initially collapsed entirely. Among the causes were the failure of centralised economic planning and the high level of foreign debt, which was due in no small part to the arms race with the West. Massive environmental problems in agriculture were also becoming increasingly noticeable. Economic growth had been stagnating in the Eastern Bloc states since the mid-1970s and the population was increasingly doubting politicians' prospects of success, especially as their governments were not very open-minded to democratic reforms. In the mid-1980s, a reforming wing of the party came to power under Mikhail Gorbachev, with slogans like "glasnost" and "perestroika". It was soon clear that the old situation could not carry on. Despite Gorbachev's successful foreign policy initiatives, the Soviet Union and the Warsaw Pact eventually collapsed. Following this development, the two German states were unified in 1990 to become the Federal Republic of Germany.

During this period of upheaval, FLUX sales experts started by opening up markets in the Czech Republic and Hungary. Initially they exhibited jointly with Maschinenfabrik Schmid & Wezel. Towards the end of the 1980s, Bulgaria and Romania also joined the company's eastern European business partners.[191]

In 1985, FLUX exhibited successfully for the first time in Moscow at the Baden-Württemberg Industry and Technology regional exhibition.[192] The Sales Manager, Heinz Hofmann, recalls the early years of doing business in Russia. *"It was really very, very difficult there at the start. The conditions over there were still very different. They still had the so-called export management companies that sold Western goods and the users first had to be persuaded that our products were the right ones. It was really not straightforward to find a partner there but you had to keep at it, again and again."* However, it was not just a question of overcoming business obstacles; there were also major supply problems: *"You simply couldn't find everything you needed – to put it mildly. At the start it was even a problem to find something to eat in the exhibition centre."* Necessity made FLUX and its neighbouring Baden-Württemberg stand holders inventive: *"We said to the interpreter: 'Flour and eggs.' And then we cobbled together the utensils we needed from the other exhibitors. We got board for grating 'spätzle' from Bosch, then we made holes in plastic soup plates to make a sieve! We had a pan with us and we used a battery-operated drilling machine from Fein to mix the dough – spoon at the ready and we were away. I knew how to make it. So, we made some spätzle and opened a tin of lentils to go with it. It even tasted good!"* So, we were well prepared for almost all possible supply problems. We prepared ourselves especially thoroughly for countries through which we had to travel by lorry: *"We always had 30 or 40 litres of fuel on the stand, just in case there was no fuel – after all, we had to drive back as well."* [193]

At Achemasia in 1998, the Vice-President of the National People's Congress of the People's Republic of China, Prof. Cheng Siwei, viewed FLUX's exhibition stand with great interest.

Occasionally the situation in eastern Europe became downright threatening: *"During one trade fair in Poland, a message came over the intercom to say that there were tanks waiting outside."* And even stays in Russia were regarded as a thrill: *"When we left the country, we always felt that we were free again."* [194]

FLUX also exhibited at the Leipzig Trade Fair in the German Democratic Republic (former GDR). Trade was dealt with via state-owned export management companies here too and there was no direct contact with the individual customers. In addition, the eastern trading partners were required, purely as a formality, to provide evidence of counter-transactions, with the result that FLUX also formally signed orders that however, had no practical effect. There were always a great many customs formalities to complete, particularly when entering and travelling through the German Democratic Republic and there were also extensive and lengthy inspections of lorries.

GERMAN PRODUCTS ARE VERY POPULAR IN CHINA TODAY.

Towards the end of the 1980s, FLUX made its first contact with China and attended the Achemasia trade fair in 1989, where the sales team made their first business contacts. This was still a very early time for a medium-sized company like FLUX to be making contacts in what was still very much a socialist state, although the company's commitment proved promising over time. Even though it was difficult to find the right local sales partner for this region, FLUX continued in its efforts and since then its sales have grown very positively.[195] In China, German products are very popular today and good quality is appreciated, comments FLUX's current Managing Director Klaus Hahn. The main customers there are large automated industrial plants for which explosion protection is crucial, as well as major German and European companies that have set up operations there and do not wish to do without the tried-and-tested FLUX pumps, even in China.[196]



FLUX international: Interchimie, Paris in 1986



MaKina, Istanbul in 1988



Fluid Handling, London in 1982



Chemical trade fair, Barcelona in 1981



Chemex, Johannesburg, South Africa in 1981

Ally McBeal Backstreet Boys Beverly Hills, 90210 CD burner Daily Soap Green Dot Dances with Wolves The Simpsons Ebay E-mail Gerhard Schröder Mobile phones Inline skates Internet Jurassic Park Kosovo War Lewinsky Affair Love Parade Michael Schumacher Nelson Mandela Oasis Princess Diana Dolly the sheep SMS Spice Girls Tamagotchi Techno Reunification World Wide Web Second Gulf War

1990

THE 1990S

FLUX faces up to globalisation

The 1990s were characterised by global political and economic upheaval. German reunification and the opening up of European borders, as well as the complete restructuring of the former socialist republics in eastern Europe, led to a boom in the first half of the decade, followed by a deep recession. Towards the end of the 1990s, the emergence of the major Asian people's republics of China and India also started, meaning worldwide trade had reached undreamed of dimensions. Modern industrial sectors needed markets for their specialist and high-quality goods that they largely found in other industrial countries. At the same time, migratory movement and international competition was also on the rise. It is hard to imagine public debate in Germany without these phenomena, generally known as globalisation. Economic globalisation also involved a shift in the role of the financial markets, which in turn entered into global competition for the most profitable investment opportunities.

For a company like FLUX, facing up to the challenges of globalisation was essential and its corporate strategy was characterised by intensive servicing of the new markets and the establishment of new sales and distribution structures. At the same time, it also underpinned its market leadership with innovative safety features and equipment in the pump sector.

The digitalisation of the working world caused a further upheaval during this time. IT was no longer found only in FLUX's commercial departments, as work in Research and Development and in Scheduling and Production was increasingly being done on computers. Herbert Hahn was also preparing for his retirement at the end of this exciting decade.

Aerial photograph of the FLUX plant in Maulbronn in 1993.

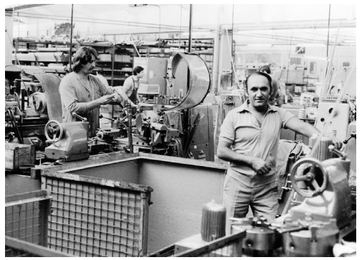


New building and modernisation in Maulbronn

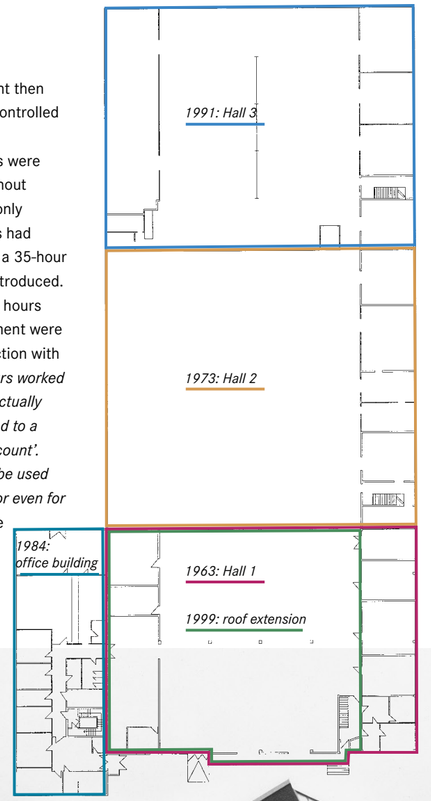
German reunification and the eastern expansion of Europe had given an additional boost to FLUX's rising annual turnover throughout the 1980s; these new markets were actively serviced. In 1991, the management finally decided to construct a new production building as its existing capacity was exhausted once again. A new building of some 2,600 sqm with a basement and flat roof was built to provide adequate room for the tool making and plastic injection moulding departments. The German economy experienced a massive economic slump in 1992 and 1993 and this was one of FLUX's rare periods of stagnation.[197] The company therefore worked with renewed concentration on new product development and improvement and on certification. FLUX was therefore a pioneer in quality management and in 1994 was the first German company in the region to be certified by the TÜV Südwest certification authority to comply with DIN EN ISO 9001.[198]

In order to improve workflows and increase product quality, FLUX invested quite heavily over the following years in the modernisation of the production halls and the latest technology. FLUX remained true to its principle of producing as many parts as possible itself, as only this would guarantee the best possible quality. Moreover, it did not go down the route followed by so many German companies in the 1990s of relocating a proportion of its production abroad, and this decision paid off.

FLUX manufacturing in 1992



In 1998, the old shed roof building, which was only three metres high and was never fully watertight, was completely renovated. The roof was removed and the building was converted into a six-metre-high flat-roofed building, some eight metres high if you include the storage space. Then an overhead crane runway for transporting the heavy clamping equipment to the turning and drilling machines was finally installed. This was followed by a modern high capacity dust and fume extraction plant, as well as a cassette storage area for the storage of pipes and a movable pallet warehouse providing space for cast parts and other raw materials.[199] In the first half of the 1990s, further key investment was made in machinery in the electric motor winding section. Now there was also a completely new and sealed cleaning plant and the warehouse was fitted with three paternoster systems for storing smaller components. At the end of the 1990s, the Production department then obtained new computer-controlled turning machines.[200] Employee's working hours were reduced gradually throughout the 1990s, and whereas only 38.5 rather than 40 hours had been worked since 1984, a 35-hour working week was now introduced. So-called flexible working hours based on a Works Agreement were also introduced in connection with this. This meant *"that hours worked over and above the contractually agreed hours were credited to a 'flexible working hours account'. This 'account' could then be used on a daily or hourly basis or even for several days,"* explains the current Works Manager, Jürgen Deeg.[201]



The roof of the old shed building was renovated.



FLUX goes online

FLUX finally got there in 1998: it began to use the new world wide web. In April of this year, the company launched its first website. Only a few years earlier, employees had experienced the introduction of computers into all departments of the company as a decisive breakthrough.

From the early 1980s, FLUX used computers made by Nixdorf Computer AG, as Nixdorf had specifically developed computers for use in small to medium-sized companies. They were initially used for domestic sale and accounts and led to quicker processes and a simplified filing system.[202] After a few years, the Export department also started using IT.

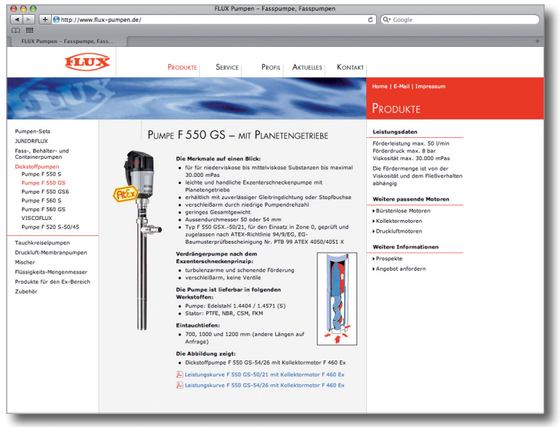
The switch to IT was often not easy for many employees. Barbara Zeitheim, formerly responsible for salaries, can still vividly remember her first use of computers. She had previously experienced a number of technical changes in the office, such as the first calculator or the first electric typewriter with a memory. *"But I was 40 when we got our first computer. I really had to make a major adjustment."* Following a short training course at Nixdorf in Stuttgart, she initially sat rather confused looking at the salary accounting system, as she never got the right results at the start. She finally found that the cause was a minor inputting error.

Laughing, she recalls: *"I always said to the computer: 'Just do what I tell you to do...' But it always did what it wanted... These were breakthroughs."*[203]

Thanks to rapid developments in IT, the company was later able to switch to faster RISC machines that worked with the SINIX-UNIX operating system. Later, FLUX installed personal computers that were linked via a network.

The first PC with the latest Microsoft Office software was bought for the Administration department in 1989,[204] while IT reached the Research and Development department only in 1990. As only very few workstations were equipped with CAD systems, employees had to share the newly installed computer workstations on a shift system to start with. Soon, however, everyone got their own screen. Whereas the early drawing programs were initially two-dimensional, this quickly changed to three-dimensional programs.[205]

In 1999, the introduction of Y2K software was the focus of IT work and the company switched to BaaN IV software that ran on the new Windows operating system.[206] It was essential not only to have state of the art hardware installed but that any new equipment worked well once it was installed. Quality pays for itself according to the maxim of Herbert Hahn: *"I don't have any money to spend on rubbish!"*.[207]



All products are clearly presented at www.flux-pumpen.com.



Filling at the cosmetics factory in 1995.

Success in pump and motor safety engineering

In the 1990s, FLUX proved yet again its edge in the field of safety equipment with barrel pumps. At this time, the ATEX Directive 94/9/EC summarised the use of barrel pumps in areas at risk of explosion and the pumping of slightly combustible fluids in a new norm. In 1997, FLUX launched on the market the world's first explosion-proof commutator motor type F 460 Ex, which had been built in compliance with this Directive and was approved by the German National Metrology Institute (PTB).[208] The motor had a lightweight dual-layer housing made of aluminium and was exceptionally robust. The improved service life compared with existing motors was achieved through optimum air guidance, providing optimum motor cooling. Additional insulation of the winding also eliminated failures from deposits of carbon dust. The very low noise level of the unit also guaranteed pleasant working conditions.[209] The introduction of the new ATEX Directive also stipulated that explosion-proof motors had to comply with protection class I, i.e. with robust metal housings, as developed by FLUX. The FLUX motor was therefore the first motor to meet the requirements of protection class I. Competitors whose motors complied with protection class II with plastic housings had to change their designs accordingly.[210]

In 1999, FLUX was also the sole manufacturer to offer an explosion-proof commutator motor with electronic speed control, thereby providing even greater safety when filling slightly combustible fluids.[211] The electronic speed controller enabled the most diverse fluids to be finely metered. There was also an integral no-volt release so that a barrel pump could not start up uncontrollably, for instance following power failure.[212]

IN 1999, FLUX WAS THE FIRST MANUFACTURER TO OFFER AN EXPLOSION-PROOF COMMUTATOR MOTOR WITH ELECTRONIC SPEED CONTROL.

FLUX also launched further innovations at the start of the 1990s, including a new generation of FMC liquid meters with integral micro-computer,[213] ensuring that the volume could be precisely controlled and documented during filling. The throughflow speed could also be read on the LCD display. It was also used to preset the volume in automatic mode.[214]

FLUX created a new division, still regarded today as trailblazing, at the start of the 1990s. Market analysis conducted in the USA showed that air-operated diaphragm pumps were growing in importance compared with barrel pumps. FLUX therefore introduced air-operated diaphragm pumps into its range in 1993.



The new generator of FMC liquid meters with integral microcomputer

FORM AND FUNCTION

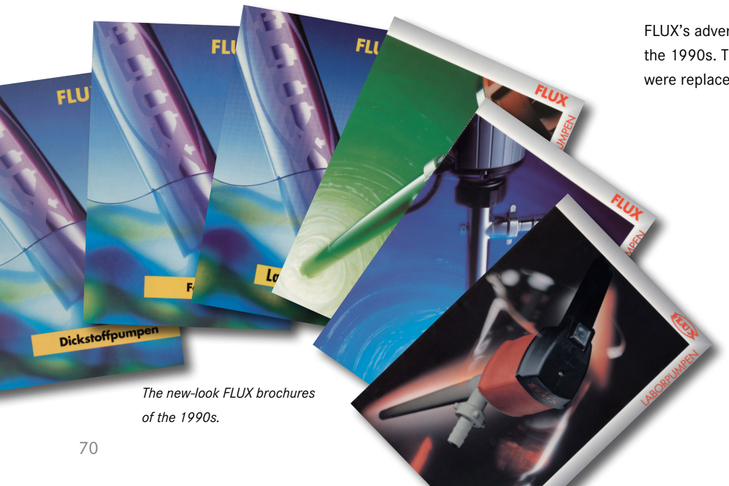
Design prizes awarded to FLUX

FLUX attached and still attaches great importance to the maximum safety and technical maturity of its products but also their external appearance. They should meet high standards, with functionality and attractive design being called for. For many years, FLUX products have been looked after by the Slany Design Team (today: TEAMS Design), one of the most renowned industrial design companies worldwide. Even PROGRESS went there for its product design. The key concern of the trained mechanical engineer and pioneer of German industrial design, Professor Hans Erich Slany, was the ergonomic design of a unit. His mantra was: *"The industrial designer is also a workplace designer. I essentially represent the justified requirements of the person working in this job and wish, together with the developers, to make their job easier over a hard eight-hour day."* [215] At the same time, the formal quality of a product was also important to him. A machine should be able to successfully convey its inner values, such as reliability, safety, strength and technical advancement, through its exterior design.[216]

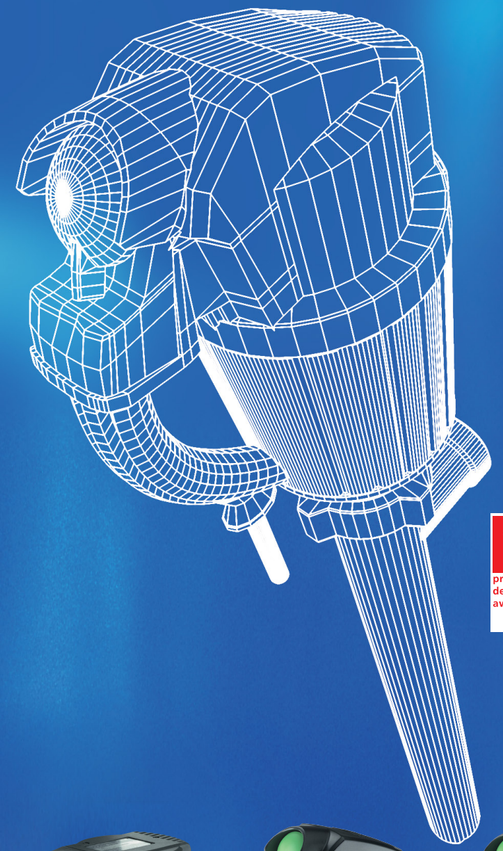
The success of these efforts since the 1990s can be seen in the fact that FLUX has been awarded many design prizes for its units. The new FMC liquid meter with electronic digital display was the first to be awarded a prize in 1992. Its dark-coloured housing enabled the values to be read more easily and allowed the operating keys to stand out, both by their colour and also different shapes, thereby eliminating operating errors. The external serration on the housing is intended to illustrate its stability.[217]

In 1994, the F 457 commutator motor for barrel and container pumps was launched. Its ergonomic handle design and opposing anti-slip grip allows the user to remove the pump from the barrel or container with either hand. The On/Off switch on the handle could not be switched on accidentally and, just like the speed controller, had a different colour. The exterior design also reflected the robustness of the commutator motor.[218] In 1998, the F 458, F 458-1, F 460 Ex and F 460-1 Ex commutator motors were launched onto the market. They had a sturdy and attractively designed aluminium motor housing and an exceptionally ergonomic design. Here again, the pump could be lifted out with either hand. A unique feature was the fact that the connecting cable ran in the handle and different colours of housing indicated the individual type of pump.[219]
In March 2010, the FEM 4070 barrel pump motor, which is controlled entirely electronically, received a design award. The body of the unit that had been reduced to the absolute minimum, the ergonomic design of the handle for one-handed operation and the clear colour coding of the housing and switch were the key factors for the jury.[220]

FLUX's advertising materials also underwent a fundamental modernisation in the 1990s. The yellow, very factually-written brochures of the 1970s and 1980s were replaced by information sheets with a contemporary blue design.



The new-look FLUX brochures of the 1990s.





FMC



F 457



F 458



F 460 Ex



FEM 4070



FLUX Pompen Benelux – the first step into the Netherlands

FLUX Pompen Benelux BV was founded in 1999 as a further key subsidiary abroad. There had originally been sales partners in Belgium and Holland, but now a joint company was set up with two business partners and one employee from the former Dutch sales partner, in which FLUX initially had a 25 percent holding. The large number of shareholders caused some organisational problems at the start.

The company therefore reduced itself to having only two partners, and FLUX's holding today is two-thirds. The second partner, Mario Doornenbal, who is *"a 100 percent FLUX man through and through"* according to Klaus Hahn, and "a man we can trust", is currently managing the firm very successfully.[221] FLUX Pompen Benelux BV currently serves the Netherlands, Belgium and Luxembourg.

Further expansion into eastern Europe and Asia

The company also intensified its efforts throughout the 1990s in the new eastern European markets, even though conditions were quite difficult there at the start. Heinz Hofmann recalls that Russia in particular was *"a bit of a hot spot"* at the start of the 1990s. And you simply had to take so many safety precautions there.[222] However, on the whole, it was worthwhile building up new sales structures and finding new customers in the former German Democratic Republic (GDR) and in eastern Europe. The company used closer "toeholds" to do this. For instance, an office in Vienna initially serviced Hungary, Romania and Bulgaria with the local employees preparing for FLUX exhibition visits there. But they also had to get very involved personally: *"I travelled to Bulgaria at least five or six times, probably even more, and Mr Hofmann went to Romania during that time,"*[223] Herbert Hahn recalls his visits to the trade fair. In eastern Europe, industry experts were in some cases able to re-establish old business contacts, while in the new federal states the customer base had to be built up from scratch. FLUX concentrated especially on the former industrial centres of the GDR, such as the states of Saxony, Saxony-Anhalt and the Berlin/Brandenburg region.[224]

IN ASIA FLUX BATTLED WITH PLAGIARISM, AS IT IS APPARENTLY ATTRACTIVE TO COPY FLUX PUMPS.

FLUX also intensified its efforts in the Asian market. In 1996, the company exhibited at a trade fair in India for the first time. Admittedly their much-hoped for success was a long time coming but nowadays FLUX is well-established there.[225] Local Indian companies were often still working with manual units as the low level of salaries meant that one or two employees could be employed to decant fluids. International companies, in contrast, had the same standards in India and China as they did in Europe or in the USA and were therefore often good customers. At the same time, however, FLUX was increasingly having to combat plagiarism of its own pumps.

Herbert Hahn: a life dedicated to FLUX

The expansion of export sales in particular was a key concern for Herbert Hahn, who headed up FLUX-GERÄTE GMBH with great success for 40 years. His everyday working life was punctuated by international trips to subsidiaries and sales partners, as well as innumerable trips to exhibitions. He made many visits to Brazil, Australia, China, Korea, Japan, Thailand, India, Indonesia and South Africa[227] and set up subsidiary companies in the USA, Great Britain and in the Netherlands. Due to his many trips to the Hanover Trade Fair, he became known as the "Honorary Lower Saxon". During the 1960s and 1970s, Herbert Hahn was working in Stuttgart, where the management of the company was still based at the time.[228] His achievements with FLUX were all the more impressive as he was still working half days for PROGRESS at the time.[229]

Later, during his time in Maulbronn, Herbert Hahn knew each employee by name and could always be approached with any problems. *"He was a good boss,"* was the unanimous opinion of FLUX employees.[230] One employee recalls that, if you were in trouble, you could speak to him *"like you would with your father"*.[231] A direct reprimand to an employee was a rare occurrence.[232] His employees also viewed very positively the fact that Herbert Hahn was never above doing any work; in the event of an emergency, he would always jump in himself and was always involved in the day-to-day life of the company.[233]

His nephew Klaus Hahn recalls: *"He was always the first one to arrive at the exhibition stand in the morning and generally the last to leave in the evening. You would often see him, with his sleeves rolled up, cleaning our FMO liquid meters, a job that no one liked doing as the fluid measured was sticky viscous wallpaper paste."* [234] At the same time, it was important to Herbert Hahn to inspire his employees to show initiative and he would often consider their suggestions at length in extensive discussions.[235]

He looked after everything with great commitment and meticulousness – the new building work, the introduction of new production methods and machines, product innovations etc. – and loved to find unconventional solutions to difficult problems.[236]

In Stuttgart, where he lived with his family, he was the first Chairman of the Botnang Association of Trade and Industry e.V. and in Maulbronn he was designated an honorary citizen. Herbert Hahn married his now sadly deceased wife Stefanie, née Weinhardt, in 1968 and had a daughter, Cornelia, in 1972.[237] Herbert Hahn's inexhaustible energy was always admired and enabled him to find a balance with work and not miss out on his private family life.



Herbert Hahn at his 60th birthday in 1991.

21st Century Barack Obama Casting shows Digital cameras Euro Financial crisis Flat-screen displays Globalisation Harry Potter Hartz 4 Lord of the Rings Hybrid drive Lady Gaga VAT 19% MP3 Sustainability Satnav New Economy Reality TV Robbie Williams Roger Federer Sex and the City Solar energy A summer fairy tale 9/11 terrorist attacks Tiger Woods Tsunami YouTube

2000

THE 2000S

Into the new millennium with a generational change

FLUX began the new millennium by handing over to the next generation, with Klaus Hahn taking over the management of the company. Despite the serious economic crisis that has taken hold in recent years, he has managed FLUX-GERÄTE GMBH since then with great success.

In terms of product development, FLUX has demonstrated its strength of innovation with a significant expansion and improvement of its product range. Highlights like the brushless barrel pump motor guarantee FLUX's unique position in the market and the new air-operated diaphragm pumps ensure its strong growth. The takeover of SONDERMANN magnetically coupled pumps and filters by FLUX was an additional factor in strengthening the company.



SONDERMANN in Cologne.

HIGHLIGHTS SUCH AS THE BRUSHLESS BARREL PUMP MOTOR GUARANTEE FLUX'S UNIQUE POSITION IN THE MARKET.

New subsidiaries were set up in Cologne, Frankfurt and in Thailand, and the company's massive global customer base and the use of FLUX pumps in almost every sector of the economy provided it with considerable resistance to the crisis. And last but not least, FLUX's highly qualified and loyal employees were the key to the success of the company.

Klaus Hahn is appointed the new Managing Director

Klaus Hahn has been the Managing Director of FLUX since 1 January 2000. He is the son of Rolf-Dieter Hahn, who died in 1997, and nephew of Herbert Hahn. Along with Herbert Hahn, his mother Ingeborg Hahn and sister Martina Wilhelm, Klaus is a shareholder in FLUX. Klaus Hahn was born in 1958, is a graduate in Business Management and is a motor racing enthusiast. He joined Mercedes-Benz Vertriebsorganisation Deutschland (MBVD) as an apprentice following his degree in technically oriented Business Management. He then took on various other roles within the Domestic Sales division of the renowned car manufacturer, both in Internal Inspection, as Assistant to the Management


FLUX is also the brand of choice in motor racing.


Klaus Hahn, Managing Director

and as Quality Management Coordinator. Following his continued advancement at Mercedes, he ultimately had to consider his further career path. He was just about to make a further leap in his career with Mercedes but at the same time had become a shareholder of FLUX following the death of his father in 1997. It now seemed only natural for him to start thinking about the future of the company. The first discussions were held about the appointment of a possible successor and Klaus Hahn had his first day at FLUX, as an "apprentice" Managing Director, on 1 April 1998. This ensured the continuity of the family business; moreover, Klaus Hahn brought with him a wealth of experience from a global company.

Since taking over the management of the company, Klaus Hahn has managed it exceptionally successfully. Employees will attest to a seamless handover from the old to the new management, even though there have been some internal changes in the long-term, as well as changes to its external appearance. Klaus Hahn regards himself as a *"team-player"* whose door is always open to his employees. He is convinced that the only way a company can achieve success is through its employees.[238] Klaus Hahn values the freedom to make decisions that he has in a family business but also the personal responsibility that he is able and willing to take on here, which is not necessarily the case in a large corporation. Entrepreneurial thinking and action are key guiding principles for him and his employees.

THE ONLY WAY A COMPANY CAN ACHIEVE SUCCESS IS THROUGH ITS EMPLOYEES.

Asked about his corporate philosophy, he replied: *"We are striving for the business and personal success of everyone involved in the business process. This means success for the company, successful products that offer our customers added value and positive working conditions for our* employees. *We are committed to achieving our goals swiftly, while taking into account humanitarian considerations and the principles of the free market economy. And we want to continue to be THE service provider for our customers. We are aware that the word 'serve' is set to take on even greater significance within our company."* [239]


FLUX's workforce in 2009.

FLUX – the leader in innovation

FLUX continued to demonstrate its exceptional innovative strength in the field of barrel pumps in the years that followed. In 2003, the FBM 4000 Ex brushless barrel pump motor was launched as a world first. It was given immediate ATEX approval; in other words, it complied with EC explosion protection guidelines as it had been designed to fit into an existing housing.[240] This motor works fully wear-free and its excellent service life makes it particularly suitable for continuous usage.[241] It is also unusually quiet, creating a very pleasant working environment. This highlight of motor development can be used with all FLUX barrel and container pumps.[242]

At the Hanover Trade Fair in 2008, FLUX launched a further motor innovation, the FEM 4070, which is a barrel pump motor with speed control as standard. The motor of this fully electronic barrel pump can be switched on and off with one hand and its speed can also be regulated. Pumping rates of 40, 60, 80 and 100 percent can be achieved with the four speed levels. An electronic overload switch and restart protection following power failure are incorporated as standard.[243] This new generation of motors finally replaced the F 417, which had been the most important FLUX motor for almost 30 years, albeit with numerous revisions.[244]

Yet a further innovation, the JUNIORFLUX, was launched in 2003. It was a significantly improved model that replaced the laboratory pump used to date. It had not only a modern ergonomic design but also integral handling and fixing systems. Weighing only two kilograms, it is extremely lightweight and can be used to fill, empty, decant or meter small volumes of liquids from carboys or canisters. It is fitted with a powerful dual-insulated, splash-proof motor, and is simple to clean as the outer tube can be manually unscrewed.[245]

The range of high viscosity liquid pumps has also been consistently improved and extended. The range now includes the F 520 to the F 550 and F 560 pumps, which can pump low to highly viscous fluids. The F 560 is a powerful sanitary pump that is extremely easy to clean, so it is ideal for pumping honey, milk products, chocolate mass, gels, shampoos and skin creams, as well as soaps and cremes.[246] FLUX developed the VISCOFLUX barrel emptying system that was launched in 2002. It was designed for highly viscous fluids that no longer flow themselves, such as Vaseline, silicone or tomato puree. Now even pasty fluids can be pumped from 200 litre barrels and drums.[247] At the end of the year, Klaus Hahn reported at an annual general meeting that: *"The new VISCOFLUX system has been greeted with enthusiasm by customers, particularly companies that have to process pasty, non-flowing media on a daily basis."* [248]
FLUX showcased its extensive expertise in high viscosity liquid pumps at the Achema 2009 trade fair. Its latest product is the stainless steel F 550 S-28/10 high viscosity liquid pump with an outer diameter of only 28 mm. It is ideal for thoroughly and safely pumping and emptying fluids from narrow-necked containers.

The F 640 model of vertical centrifugal immersion pump is a versatile pump that has generated a high level of demand.[249] The F 620 and F 640 are vertical centrifugal immersion pumps for use in wet environments with an inner and outer tube. The pumps always stand completely in the liquid.
The F 706, F 716 and 726 seal-less vertical centrifugal immersion pumps are designed for continuous stationary operation in wet environments. The pump motor is kept dry and only the pump itself is immersed in the fluid. These pumps are particularly suitable for continuous use in unpressurised containers, open tanks or pools.[250]



AdBlue® pump set

Ever since the Euro 4 and Euro 5 emissions standards came into force – particularly for lorries and buses – requiring the chemical AdBlue® to be added to diesel fuel for exhaust gas treatment, FLUX has also been supplying the relevant pumping and delivery systems for this purpose. AdBlue® is used to help convert harmful nitric oxides into harmless nitrogen and water vapour in a catalyser. AdBlue® is a synthetically produced urea solution and cannot be contaminated or come into contact with non-ferrous metals, such as copper, zinc and their alloys. Contact with stainless steels and plastics, on the other hand, is not a problem. Depending on the size of container that is being pumped from – from a drum to an submerged tank – FLUX can offer pump kits comprising the appropriate motors, pumps, hoses and nozzles.[251]

FLUX also has an extensive range of accessories for many other applications. Overall, the company has grown from being a pump manufacturer to becoming a system supplier, providing complete filling systems for any situation.





Stainless steel barrel pump

Polypropylene barrel pump

JUNIORFLUX laboratory pump

Stainless steel high viscosity liquid pump

Polypropylene centrifugal immersion pump

Growth through air-operated diaphragm pumps

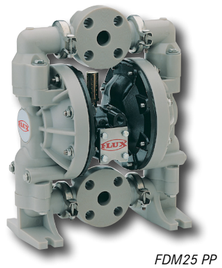
Air-operated diaphragm pumps are exceptionally versatile and provide an ideal addition to the barrel pump range. FLUX offers them to operate in very specific or difficult applications. They are self-priming and ideal for pumping up several floors, under high pressure and with abrasive fluids.

Since the 1990s, FLUX has been selling air-operated diaphragm pumps that were manufactured in a plastic injection-moulding process. The company soon recognised the market opportunities for a solidly constructed air-operated diaphragm pump, and so the company faced the decision about whether to develop a range of its own pumps in 2003.

The option then presented itself to buy a model that had already been launched on the market and so, in 2003, FLUX acquired the rights to the air-operated diaphragm pumps from REKO Industrial Equipment. This was the birth of the RFM (Reko-FLUX) diaphragm pump. The pump has a solid-like construction made of solid material and is more stable than the injection-moulded model as it is designed to operate continuously and at higher temperatures. These special pumps were still being manufactured in the Netherlands initially, but FLUX then moved their entire production to Maulbronn at the end of 2006.

The two models of air-operated diaphragm pumps complemented each other wonderfully in terms of sales, resulting in a formidable rise in sales.[252]

The RFM is available in four sizes and in different materials, depending on the requirement. A particular advantage is that it can be used to pump or draw in two different liquids. *“A printing ink manufacturer can, for instance, use this pump to mix inks, pigments or auxiliary substances with each other,”* states the Sales Manager, Heinz Hofmann.[253] These pumps are sold today under the FLUX brand name.



FDM25 PP



FDM50 S



RFML 10 PP



RFM 25 PP



Robust and versatile: the RFM air-operated diaphragm pumps

Swabians “am Rhein”

A further positive expansion of FLUX’s business came in 2005 with the takeover of the Cologne-based company SONDERMANN PUMPEN + FILTER GMBH & Co. KG.
SONDERMANN had been selling FLUX pumps in the Cologne region since the second half of the 1950s. In addition to this, SONDERMANN had also had magnetically coupled centrifugal pumps and filters in its range for over five decades.

Magnetically coupled centrifugal pumps are used primarily in plant engineering in the chemical and electroplating industry and are utilised as stationary pumps. They have proved to be very safe, particularly when working with acids. The sale of these magnetic-drive pumps has now grown into a very successful sector within the FLUX Group.[254]



New subsidiary in Thailand

FLUX regularly monitors whether there are good opportunities for subsidiary companies in new emerging markets. The booming emerging economies in Asia provide massive potential as future customers and when a promising stepping stone arose to set up a subsidiary in Asia, the company adopted the attitude that: *“A first pillar in the Asian market can do no harm.”* [255] In 2005, Pump Systems FLUX & Speck Co. Ltd. was set up in Bangkok.

Originally there had been a long-standing sales partner in Thailand with whom FLUX was fully satisfied, but when this company amalgamated with a larger company, it became clear after some time that this new set-up was not working out for FLUX. The former Thai representative was also unhappy with the new partner and was now looking around for German partners with whom to collaborate in order to buy back his company. FLUX saw in this an opportunity to strengthen its position in the Asian market. The new Thai subsidiary company was launched in Bangkok together with Speck Pumpen Walter Speck GmbH & Co. KG based in Roth, near Nuremberg, and the Thai partner. This has since grown to become a successful company and currently employs 20 people.





Trade fair in Bangkok in 2007

A new European mainstay, FLUX France SAS

In the 2000s, France was the most important overseas market for FLUX pumps, and the company has been operating there since the end of the 1950s. Particularly since Gérard Georgelin took over as FLUX’s representative in the late 1960s, the export business to France has flourished. The cosmetics industry, in particular, relies heavily on the specialised pumps from Maulbronn, which are capable of meeting the most demanding requirements.[256] Firstly, explosion-proof pumps are required for the production of perfume and eau de toilette, as alcohol is used in these processes. Gérard Georgelin therefore took particular care to maintain contacts with Grasse, the centre of the French perfume industry. On the other hand, eccentric screw pumps are indispensable for correctly mixing creams. FLUX’s French agency offered the French perfume companies comprehensive system solutions for their various problems.



Gérard Georgelin



FLUX France SAS subsidiary in Chatou

Due to the significance of the French market, FLUX had been considering setting up its own subsidiary company for some time.
When the French sales partner Gérard Georgelin retired from the company due to his age and his family did not wish to continue running it, it was therefore almost a foregone conclusion that FLUX would take it over. FLUX France SAS was therefore set up in Chatou in 2008.



The FLUX football team



Joint bicycle and motorbike tours reinforce team spirit.



“At FLUX, you aren’t told off if you do something, only if you do nothing”

This was the advice that the assistant to the Managing Director gave to the 33-year old Winfried Kaufmann when he joined FLUX in 1976. Winfried Kaufmann apparently took that saying to heart, as he stayed with the company for 32 years and retired as its éminence grise.

He is a prime example of how the managing directors from the Hahn family go to great lengths to recruit staff and support their employees’ career progression. *“The company supports employees in their training. If someone comes and says that he or she would like to do their master craftsmanship training or wants to do an MBA... Then the company would generally pay for the seminar, training or tuition fees for all subjects related to the company, even if there is not a specific need for this position in the company at the time,”* states Works Manager Jürgen Deeg. However, other qualifications, such as learning foreign languages, are also supported by the company. Wherever possible FLUX also promotes career progression within in the company. Several former apprentices currently hold positions of responsibility in the company, which motivates and creates a sense of satisfaction with your work. And of course it pays for itself with the performance of the company.

FLUX offers extensive social benefits above and beyond what is contractually required. These range from an annual profit-sharing scheme and a Christmas bonus in excess of the collective agreement to workwear for production staff. Even the provision of free mineral water is not a given in other businesses. Regular company parties, a Christmas meal and New Year brunch enhance the feeling of togetherness and team spirit within the company. A whole raft of activities brought and still bring employees together outside of their working hours. A FLUX football team and FLUX table tennis team have taken part in many tournaments over a number of years.[257] These days, alongside privately organised company outings, the most popular activities are group skiing trips for FLUX staff, cycling tours and annual motorbike rides.[258]

The general consensus is that FLUX is a *“people-oriented company”* and is *“socially minded”*. The family-like working environment is stressed again and again by employees.[259] The current workforce of around 150 employees appreciate this, as the staff turnover rate at FLUX is virtually zero. *“It is really rare that anyone leaves and goes elsewhere,”* [260] reports the Foreman of the Repairs department, Manfred Kraft, who himself has been with FLUX for almost 40 years. Anniversary celebrations for long-standing service are therefore not a rare event at FLUX.



The quality of FLUX pumps shines through in extreme situations: here when fuelling a research machine in the Antarctic.

“Your brand of pump deserves the highest praise”

FLUX PUMPS ARE USED EVERYWHERE – WITH HARIBO, NESTLÉ AND LORENZ IN THE FOOD INDUSTRY, L’ORÉAL, JUVENA AND BEIERSDORFF IN THE COSMETICS INDUSTRY, BAYER, BASF, MERCK AND CLARIANT IN THE CHEMICAL AND PHARMACEUTICAL INDUSTRY AND BMW AND VW IN THE AUTOMOTIVE INDUSTRY.

In 1979, a FLUX customer sent back his 20-year old barrel pump for repair as the internal drive shaft had rusted through. However, he wasn’t complaining in the slightest but added: *“Incidentally, we would like to point out that your brand of pump deserves the highest praise. The pump mentioned above has been in use at our company for 20 years now without requiring any major repairs.”*

Like him, innumerable FLUX customers are enjoying the long service life and outstanding operation of FLUX pumps. The Manager of the Research and Development department, Horst Krüger, confirms that a long service life such as this is not unique: *“Our products have a lifespan of 15 to 20 years.”* [261]

The number of FLUX customers in Germany runs into five figures.[262] They range from small customers to large plant engineering customers,[263] and their uses are wide and varied. *“That has always been a major plus point: our pumps are used in many different sectors of industry,”* Horst Krüger goes on to say. FLUX pumps are used everywhere – with Haribo, Nestlé and Lorenz in the food industry, L’Oréal, Juvena and Beiersdorff in the cosmetics industry, Bayer, BASF, Merck and Clariant in the chemical and pharmaceutical industry, and BMW and VW in the automotive industry. ▸



Striking lighting display: the FLUX exhibition stand in 2010.

Plant engineers trust FLUX products, as do cosmetics, cleaning agent, adhesive and sealant manufacturers.[264] As soon as a company uses a drum, it becomes a potential FLUX customer. Customers in Germany are looked after by permanent employees who undergo training at FLUX several times a year. The earlier model of employing independent sales agents has not been practised for some time. *"Compared with a sales representative, a salaried travelling sales representative has the great advantage that they are not necessarily dependent on commission,"* comments the long-standing Sales Manager, Mr Hofmann, when describing the difference. *"They can offer the best advice and are willing to invest a great deal more time in doing so when it comes to finding a solution to a problem for the client – for whom, incidentally, this service is free of charge."*[265]

Internationally, FLUX is now represented in 70 countries, either by its own subsidiary companies or sales partners, enabling it to supply markets in more than 100 countries. Therefore, attendance at important global trade fairs is of the utmost importance: *"Trade fairs are the most expensive but also the best method of advertising."* Some years the Sales Manager can visit more than 20 countries to advertise FLUX products.[266] The company's exhibition stand has been seriously modernised in recent years, as has its online presence. The presence of the management and senior employees at foreign subsidiaries and sales partners has also been strengthened in recent years.[267]

The fact that FLUX pumps are used in unusual places, such as in the German research station in Antarctica, where they are used to fuel aircraft or caterpillar vehicles, is down to the indefatigable work of the Hahn family and their employees and their technical knowledge and expertise. They are also used in a fuelling station at a depth of 800 m in a research mine for the final disposal of radioactive material. FLUX pumps can also often be seen at motor races, where they are used by racing teams.

However, irrespective of where and who, every FLUX customer knows that they will receive value for money. *"That is the most important thing when someone lifts up a FLUX pump: they notice immediately that it is not rubbish but real quality."*[268]



You can rely on FLUX pumps: refuelling a touring car.

3D printer Adele Angry Birds Annexation of Crimea Angela Merkel Arab Spring Deepwater Horizon Donald Trump Ed Sheeran Edward Snowden Earthquake in Haiti Eyjafjallajökull Fifty Shades of Grey Refugee crisis Fukushima Football World Cup in Brazil Gangnam Style Greta Thunberg Ibiza scandal Internet of Things Netflix NSU Winter Olympic Games in Vancouver Greek sovereign debt crisis Stuttgart 21 The Big Bang Theory

2010



60 years of FLUX – A reason to celebrate, 2010

THE 2010S

60 years of FLUX – A reason to celebrate!

EVERYTHING CAME TOGETHER PERFECTLY AS FLUX CELEBRATES ITS 60TH ANNIVERSARY ON 2 JULY 2010.



Everything came together perfectly as FLUX celebrates its 60th anniversary on 2 July 2010: 250 cheerful guests, including the company's retired staff, gathered in glorious summer weather for a staff party on the festively decorated factory premises in Maulbronn. There was plenty of entertainment and refreshments on offer, and so the celebrations continued well into the evening. As is now a tradition at FLUX, the guests were looked after superbly by volunteers, who were actually the footballers from TSV Maulbronn. As a small token of thanks, they were presented with a new set of kits.

The guests received a very special gift to commemorate the anniversary celebration: a book that vividly recounts 60 years of FLUX's history. It was published just in time for the anniversary and demonstrates just how important the company's history is to the management.













TransParent – the new FLUX newsletter

Alongside the anniversary book, another of the company's publications was launched for the first time in 2010: the staff newsletter TransParent. The name was devised by the workforce themselves as part of an ideas competition. TransParent subsequently published up to three issues a year, reporting on the various divisions of the company. The newsletter serves as an important link between the head office in Maulbronn, the global subsidiaries and the international sales partners. It is translated into English specifically for the latter. It features not only contributions from the management and the works council, but all staff are invited to submit articles. New staff members can introduce themselves there, as can entire departments and project groups reporting on their work. But there is also space for personal experiences: what are the first few months of retirement like, and what is life like after FLUX? What sort of experiences can a FLUX apprentice have during an overseas work placement? Or, where did the joint motorbike ride organised by FLUX staff take them?

From 2010 to 2022, the staff newsletter was published in paper form, after which the format was changed. Since 2023, internal corporate communications have been managed via the rexx HR module. Nevertheless, notice boards, particularly in production, continue to play an important role. Job vacancies, for example, are advertised here to give staff the opportunity to pass them on to friends and acquaintances. Vacancies at FLUX are often advertised and filled exclusively internally. This gives staff the opportunity to progress within the company.

Internal information such as operating instructions is shared, events are announced and competitions are organised amongst the workforce under the headings "FLUX-Plus" and "FLUX-Wissen".



The staff magazine TransParent was published in print from 2010 to 2022 and featured reports from the company's headquarters in Maulbronn and its subsidiaries around the world.

ALONGSIDE THE ANNIVERSARY BOOK, ANOTHER OF THE COMPANY'S PUBLICATIONS WAS LAUNCHED FOR THE FIRST TIME IN 2010: THE STAFF NEWSLETTER TRANSPARENT.



product design award 2011

Functional and well-designed – the FLUX fuel nozzle wins the 2010 iF award.





The FBM-B 3100 cordless motor – the world's first brushless cordless motor for pumps – has won no fewer than two prestigious design awards: the red dot award and the iF award, in 2014.

The FLUX values – strategy development and corporate philosophy

And there is something else taking shape in this anniversary year; at FLUX, we are taking a strategic approach to the future. After all, "Act, don't react" is one of the key tenets of the company's philosophy. Forward-looking planning is a long-standing tradition within the company; it is always (at least) one step ahead of developments. This applies both to ongoing product innovation and to the continuous modernisation and expansion of buildings, production facilities and internal processes.

To drive this development forwards, the management team led by Klaus Hahn is meeting under external guidance to draw up a corporate strategy, initially covering the next ten years. At the same time, a working group is being formed to reflect the entire FLUX workforce. Its task is to define the company's set of values under the motto "FLUX – We promote values". Role-playing exercises lead to a change of perspective that enables the different viewpoints and interests of all involved groups – customers, management and staff – to be taken into account. As a result, eight key values are formulated for the company: innovation, success, collaboration, quality, knowledge, fairness, customers and society.

These values form the basis for the company's future mission statement.

FLUX – WE PROMOTE VALUES.

Solid financing and a high level of equity capital have always been, and continue to be, the foundation of the management's actions. In recent years, however, the company has also made use of attractive investment loans and government support schemes to, for example, finance new buildings and bring them up to the latest energy efficiency standards. Nevertheless, the machinery, buildings and land – both at the Maulbronn production site and at the Cologne site – are all owned by the company. This guiding principle has proven its worth, particularly during times of crisis such as the 2009 financial crisis and the Covid pandemic. At FLUX, crisis management does not come at the expense of the workforce. The company is mindful of its responsibility towards its employees and holds them in high regard. Qualified and committed staff are, not least, a guarantee of quality for the customer. FLUX products are characterised by an exceptionally high degree of vertical integration. Customers can count on trouble-free use and a long service life. In this way, the company also plays a pioneering role in quality management.

"ACT, DON'T REACT" – THAT IS ONE OF THE KEY TENETS OF THE COMPANY'S PHILOSOPHY.

"A little bit more from each person!" has become part of the philosophy for FLUX and its employees. Thanks to this philosophy, the company is able to produce a wide range of state-of-the-art products of the highest quality, down to the very last detail. The focus is always on the needs and wishes of FLUX's customers. This has enabled the company to develop and launch a large number of particularly innovative products throughout its history. In the company's in-house development and design department, experienced engineers use their technical expertise to devise optimal solutions. Here, they continually tackle both technological and societal challenges. FLUX owes its sustained growth not least to this corporate culture.



From left to right: Alexander Geib, Dr Jörg Dassow, Kiran Kadam and Klaus Hahn in 2013 during a visit to Pune.

A new FLUX subsidiary in India

Another key factor in the company's success is its international expansion. In early March 2012, FLUX's management commissioned the German Chamber of Commerce in Mumbai to set up a new subsidiary in Pune, India.[273]

India has been an attractive market for FLUX for some time, not just since 2012. The country is one of the founding members of the so-called BRICS (Brazil, Russia, India, China and South Africa), an alliance of rapidly growing economies. At the Chemtech World Expo in Mumbai, one of the most important trade fairs for the chemical and pharmaceutical industries, the company had already taken part in a joint German stand on several occasions since 1996. Kiran Kadam became the first Managing Director of FLUX India. The bustling city of Pune, with its 3.1 million inhabitants, lies 150 kilometres south-east of Mumbai and is an industrial centre home to numerous companies in the automotive and mechanical engineering sectors, including many German firms. It is therefore only logical to enter this market of the future with a subsidiary of our own.

FLUX cooks

This Christmas 2012, there's a special present for staff: the FLUX cookery book! In it, colleagues from across the company share their favourite cooking and baking recipes. The collection ranges from traditional Swabian Maultaschen to Szeged goulash and Äbbelwoitorte, making it as diverse as the company's workforce.





FLUX cooks, 2012

FLUX – employer of the future

At FLUX, we recognise how important a skilled and motivated workforce is for the company's future. In 1986, we therefore decided to provide our own training. Since then, the Maulbronn-based company has been a training organisation and, in our anniversary year of 2025, we can look back on the impressive total of 55 apprentices. Training programmes are available for aspiring IT specialists in the field of application development, warehouse logistics specialists, industrial mechanics and industrial business administrators.

1 A OUTSTANDING TRAINING ORGANISATION.

FLUX offers its apprentices a varied and professionally organised training programme. A whole range of additional opportunities also enables young employees to think outside the box and broaden their horizons.[274] For example, there is the chance to undertake a four-week work placement abroad. The annual apprentice outings are also part of the programme; sometimes they go to a fascinating museum, such as the Mercedes-Benz Museum in Stuttgart, or to a climbing centre. There are also exciting projects on site in Maulbronn, where the aim is to develop an idea using their own budget and then turn it into reality. As part of this, in 2012 the apprentices designed a "space for creativity"[275] and, in 2016, an outdoor seating and relaxation area for all staff.[276] So, it is perhaps no surprise that FLUX apprentices very often achieve top marks in their final exams.

Nevertheless, it is not easy for the company to find apprentices. In order to inspire even the youngest children to take an interest in technology and technical careers, FLUX launched an educational partnership with a school in Maulbronn in 2012, which was extended to a second school in 2017. FLUX invests in the next generation from an early stage.[277]

In recognition of its outstanding commitment to apprenticeships, the company was awarded the title "IHK Outstanding Training Organisation" by the Chamber of Trade and Industry in 2019.[278] And in December 2024, the Chamber of Industry and Commerce also awarded FLUX the "1 A Outstanding Training Organisation" seal of approval.

It is characteristic of FLUX that apprentices are keen to continue working for the company once they have completed their apprenticeship. The figures clearly show that this is a win-win situation for both sides. Over 50% of all those who have trained with the company to date are still employed there today; including the first two apprentices, Heiko Dürr, who now works in Quality assurance, and Gerd Müller from the Development and Design department. It is therefore fitting that FLUX was awarded the "Employer of the Future" prize by the German Innovation Institute for Sustainability and Digitalisation (DIND) in April 2023.





Designed by the apprentices: the space for creativity, 2012.



The FLUX apprentices in 2025 – the seventh apprentice was at vocational school during the photo shoot.



Award from the Chamber of Industry and Commerce, 2019 (or 2024).

Equal pay for equal work

FLUX's personnel policy is forward-looking not only when it comes to training. The company also gives careful consideration to pay equality between men and women. Pay equality in the workplace – Germany, or "Logib-D" for short, is a programme run by the German Federal Ministry for Family Affairs, Senior Citizens, Women and Youth, which has been aimed at HR managers in companies since 2011. It provides them with a tool to identify pay differences between women and men. Alexander Geib, a member of the FLUX management team, took the opportunity to participate on behalf of FLUX. "It was important to me to find out where we stand on pay equality between men and women."[279]

The unadjusted result showed a pay gap for women of minus 16%. However, the so-called adjusted pay gap, which compares the average pay of women and men with the same characteristics (such as job requirements and education), painted a different picture. This revealed that women at FLUX earn 1% more, meaning there is no pay gap. Alexander Geib: "I think that's simply brilliant! When we have female applicants for a job vacancy, it's a strong selling point for our company!" In 2022, FLUX will once again successfully take part in "Logib-D".

I THINK THAT'S SIMPLY BRILLIANT! WHEN WE HAVE FEMALE APPLICANTS FOR A JOB VACANCY, IT'S A STRONG SELLING POINT FOR OUR COMPANY!



From right to left: Laura Lammer, Laura Jung and Alexander Geib accept the Logib-D award on behalf of FLUX in Berlin in 2011.

Construction of a new warehouse

It's that time again when FLUX reached the limits of its space, and so the management decided to build another hall – number four – in 2013. Before construction could begin, the stability of the building site had to be assessed, because part of the site was once a lake. It was one of around 20 lakes that had been created by the monks of the monastery in and around Maulbronn and which served a wide variety of purposes: powering mills, fish farming, providing service water and for irrigation.[280] With the exception of five lakes, most were drained by the 19th century at the latest, but they still had an impact that must be taken into account. The soil sample also revealed a high proportion of sand and pebbles, meaning the building plans had to be revised once again. Deeper foundations and a reinforced floor slab were required. The effort was certainly worth it, as the new hall provided a much-needed 33% increase in storage and production space. On 4 July 2014, the as yet empty hall was opened with a FLUX World Cup Party to mark the German team's progress to the quarter-finals. The hall got off to a flying start, as Germany won the match against France 1-0 and went on to become world champions later in the tournament. Unfortunately, however, the hall could not remain empty and continue to serve as a party venue, as work on erecting the pallet racking began immediately after the opening party. The space where the celebrations took place was soon to be used to store packaging materials, replenishments for the parts warehouse, raw materials, and pumps and motors ready for dispatch.



Groundbreaking ceremony for Hall 4 in Maulbronn in 2013.



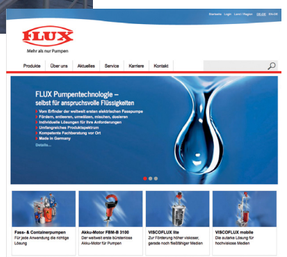
In July 2014, a celebration was held to mark the completion of the new warehouse.



A new hall building of architectural excellence: bright and light inside.



...and the exterior design was attractive.

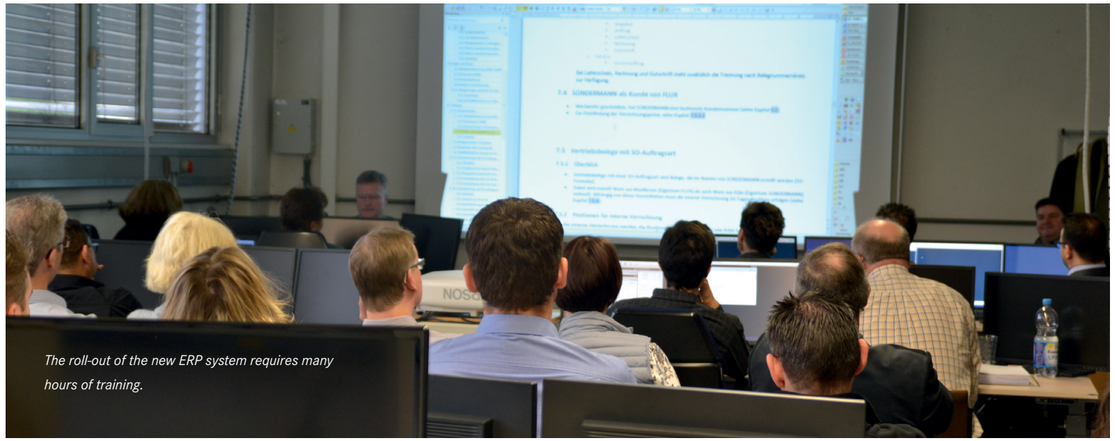


FLUX's new website went live in 2015.



Innovative products: FDM 07 air-operated diaphragm pump, 2015.

Planning for the future at FLUX – the implementation of a new ERP system



The roll-out of the new ERP system requires many hours of training.

A company's future depends not least on resource-oriented development. The deployment and capacity of staff, capital, materials and machinery had to be well planned and coordinated. This required a high-performance software system – an ERP (Enterprise Resource Planning) system – that supports the company in streamlining its core business processes. The system previously used at FLUX could no longer be updated, so the company had to set about finding a new one in 2013. That sounds simple enough, but the introduction of an ERP system requires significant investment as well as an enormous amount of work and dedication. There are more than 1,000 ERP systems on the market, so making the right decision here was crucial for the company's future success.

At FLUX, a project group was entrusted with the process of selecting the appropriate system. To foster acceptance of the new system from the outset, other staff members were involved. Once a decision had been made in favour of a particular provider, implementation began. First of all, all processes and workflows at FLUX and Sondermann had to be described and defined. It soon became clear that the originally planned deadline for the system changeover could not be met, and so the go-live of the ERP system was postponed until July 2016. Before then, the programme included extensive staff training and test runs with key users. But the effort was well worth it! This thorough preparatory work and planning meant the transition went smoothly. The two companies, FLUX and Sondermann, could then access a cloud-based data centre at the Maulbronn site. Many processes involved in the collaboration between the firms were eliminated or simplified. But this was only the first step. The next task was to test the numerous expansion options offered by the ERP system and implement them where appropriate. After getting off to a good start in Maulbronn and Cologne, it was then the turn of the international subsidiaries as the ERP system was going to be introduced at FLUX Pumps International (UK) Ltd. in 2018, at FLUX France in 2019, and then by the USA in 2020 and Benelux in 2021. FLUX's management then had a day-by-day overview of the subsidiaries' figures, while the subsidiaries could in turn access data from the parent company and, for example, view stock levels of the respective pumps and their individual parts. FLUX's global business units were moving even closer together.

> FLUX'S GLOBAL BUSINESS UNITS WERE MOVING EVEN CLOSER TOGETHER.





FLUX and Zaruba celebrate 60 years of collaboration in 2016.



Sondermann: introduction of MAGSON in 2016.

Reliability and continuity – 60 years of corporate partnership

FLUX has enjoyed a long-standing partnership with Hermann Zaruba Verpackung GmbH in Salzburg. It is almost as old as the first barrel pump: in 2016, the two companies celebrated their 60-year partnership. This means that the family-run company, which is based in Vienna, is FLUX's longest-serving sales partner. To mark this special occasion, a trade-in promotion was launched, whereby any customer, including new customers, who sent in an old pump or motor and ordered a new FLUX product would receive a discount.

> HERE'S TO CONTINUED GOOD AND SUCCESSFUL COOPERATION!

Naturally, the anniversary was reason enough for Klaus Hahn to make the trip to Austria. He took the opportunity to engage in direct discussions with the partner company. Among other things, they discussed the integration of Zaruba into the FLUX ERP system as the first sales partner. This was a groundbreaking step, as this closer collaboration would enable customers to be provided with solutions even more quickly in future. Here's to continued good and successful cooperation!





New approaches to customer acquisition – the VISCOFLUX mobile road tour in 2016.



FLUX France's move to new premises in 2017.



New premises for FLUX Pompen Benelux BV in 2017.

There's something happening in Cologne...



MAGSON magnetic centrifugal pump MA *MAGSON magnetic centrifugal pump MAS* *MAGSON magnetic centrifugal pump MM* *SONCO filter system*

The management also took a landmark decision regarding the subsidiary Sondermann in Cologne. Its lease for the company premises was due to expire in 2010, and as a plot of land was up for sale in the immediate vicinity, the decision was made to purchase it. When even Herbert Hahn – otherwise a rather thrifty Swabian – argued in favour of a new building, the matter was quickly settled. Just one month after the notary appointment, work began on the construction of an office and warehouse building, which was completed in record time. In 2012, it was inaugurated with a small ceremony – certainly too soon for the Cologne Authority for Explosive Ordnance Disposal. It was only a week before the inauguration ceremony that the authority confirmed that, following the soil investigation carried out in the summer of 2011, it no longer saw any reason to prevent the building project from going ahead.

SONDERMANN
PUMPEN + FILTER GMBH & Co. KG

2016 was a turbulent year for Sondermann. A sustainable and forward-looking development began here. In World Chemical Corp. (WCC), a Japanese family-run company, the company found a like-minded partner with whom it shares many corporate values, such as adherence to deadlines and high quality standards. In 2017, Sondermann completed its transformation from a purely trading company to a manufacturing enterprise with the launch of the MAGSON pump, a seal-less magnetic centrifugal pump. This development continued with other products as well.

New approaches were also being taken when it came to naming. Instead of the letter-and-number combinations used until then, a descriptive name was chosen: MAGSON is derived from the two words: "magnet" and "Sondermann". This series was further developed over the next years as handling highly corrosive chemicals would pose an increasing challenge in the future. The aim was to operate in a hermetically sealed and maintenance-free manner. However, it was not only in the field of pump technology that the company was moving in this direction. The SONCO filter series, whose name stands for "Sondermann" and "Cologne", has been available since 2018. Here, too, the focus was on the filtration of highly corrosive media and on absolute leak-tightness and reliability.

STANDING STILL MEANS FALLING BEHIND.

Process optimisation, part 1 – lean manufacturing

In keeping with the company motto "Standing still means falling behind", established processes at FLUX are constantly reviewed and scrutinised. Since 2018, for example, manufacturing processes have been put under the microscope. What can be optimised? For instance, can machine set-up times be reduced and the flow of materials improved? How can the company respond more flexibly to changing customer needs? One method being employed is lean manufacturing. The first lean manufacturing project was successfully implemented in the motor assembly department, with further projects to follow.

It just keeps going and going... More than 50 years of FLUX quality

Something that really should never happen is when a customer rings up asking for a spare part for their FLUX pump and neither the office staff nor the field service team know the model number of the pump! First and foremost, the staff are to be excused. The pump in question was the FLUX 60 K with the serial number 15765, which was delivered in December 1970. According to official records, the FLUX 60 K was first unveiled at the Hannover Trade Fair in 1965. The first design drawings date from May 1965. It is therefore hardly surprising that FLUX sales staff in 2019 were no longer familiar with the pump. This pump had been in operation for almost 50 years when the customer enquiry was made. As spare parts were no longer available, the FLUX staff immediately offered the customer a new pump. But they were quite astonished when, a few days later, they received the following message: "Thank you very much for your offer; I've since repaired it."[281] And so the FLUX pump keeps on running...



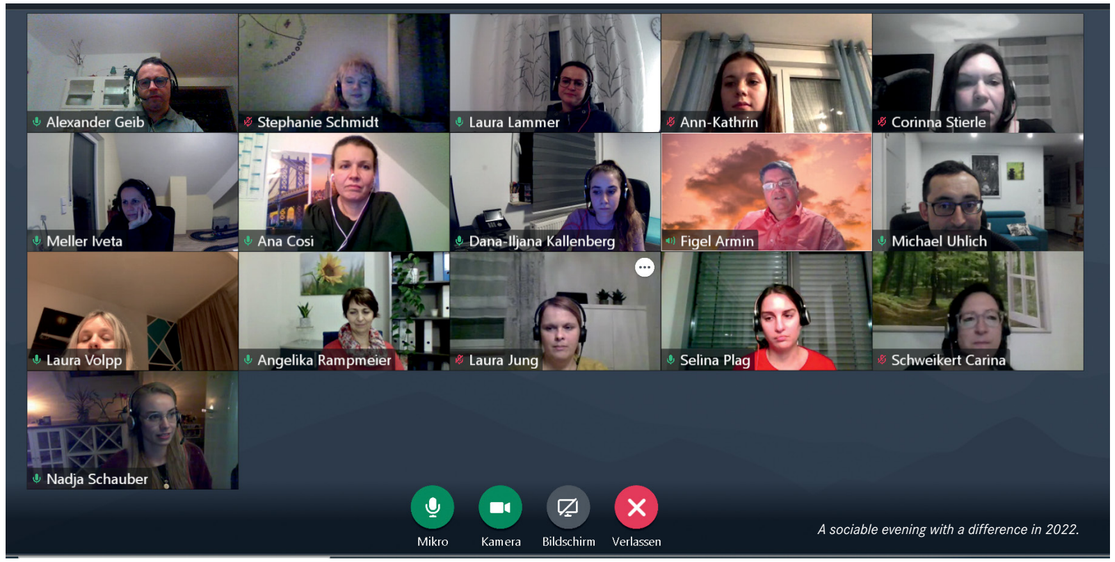
FLUX 60 K

9-Euro-Ticket 75 years of FLUX Ahr Valley floods Traffic-light coalition Billie Eilish Brexit Cannabis Act ChatGPT Covid-19 Donald Trump Home office George Floyd Leo XIV Last Generation Supply Chain Due Diligence Act Lockdown MAGA Margot Friedländer Compulsory face coverings Protectionism Ukraine war Taylor Swift The Weeknd Tik Tok A turning point...

2020

THE 2020S

FLUX during the Covid-19 pandemic



A sociable evening with a difference in 2022.

As people raised a glass to the new decade at the end of 2019, hardly anyone could have imagined the scale of the impending global crisis. The outbreak of a new type of pneumonia in Wuhan (China), which had already been confirmed on 31 December 2019, was to develop into a global pandemic by March 2020. The disease, designated Covid-19 by the World Health Organisation (WHO), was caused by an unknown coronavirus. As the pandemic unfolded, there were massive disruptions to everyday life worldwide: from coughing and sneezing etiquette, social distancing, compulsory mask-wearing, lockdowns and remote working, to restrictions on civil liberties such as curfews.

When the virus reached Germany in 2020, FLUX was comparatively well prepared and reacted swiftly. As early as the end of February, a ban on travel to affected high-risk areas was imposed. All staff members for whom it was feasible were sent to work from home. Thanks to the introduction of the ERP system and the shared cloud, the FLUX IT department was already very well prepared for remote working. Only hardware, such as laptops, monitors and headsets for meetings, still needed to be purchased.

A two-shift system was introduced in production so that, in the event of a coronavirus outbreak at the workplace, work did not come to a complete standstill. The canteen was closed, and the company successfully sourced face masks and hand sanitiser for its staff. The field sales team's on-site customer visits came to a complete standstill, and trade fairs, if they took place at all, were held only as virtual events.

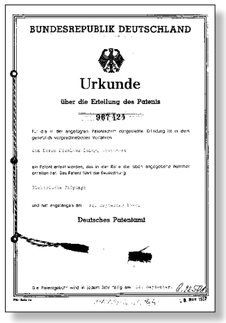
The celebrations marking the company's 70th anniversary inevitably turned out differently to planned. Consequently, the family festival for staff in the summer had to be cancelled. Customers were taken on a journey through time under the slogan "70 years in 7 months", accompanied by attractive discount offers and a variety of promotions. Nevertheless, the company struggled at times with sharp drops in turnover. Sondermann's ability to deliver was hampered by the closure of Italian suppliers. Of the company's subsidiaries worldwide, FLUX India was particularly hard hit due to a prolonged standstill in the Indian economy. However, the management's prudent approach proved successful, and as a result, there was no major outbreak of the disease at FLUX in Maulbronn.

FLUX moves to Maulbronn

Alte Stuttgarter Straße, Stuttgart – this was still the company's registered address at the start of the 2020s, even though fewer and fewer staff were based there.

ALTE STUTTGARTER STRASSE, STUTTGART.

After all, in Stuttgart, the postbox was emptied only twice a week. Consequently, FLUX decided to terminate the lease for the premises with effect from 31 March 2021. However, before the offices could be handed over, numerous files had to be sorted through, assessed and either discarded or relocated. In the process, a number of treasures were unearthed, some of which were featured in the staff magazine, such as the patent application for the electric barrel pump dated 14 September 1950 or the advert for the FLUXetta submersible pump from the 1960s.


BUNDESREPUBLIK DEUTSCHLAND

Urkunde

über die Erteilung des Patents

987 121

Deutsches Patentamt

Patent document for "Electric barrel pump" dated 14 September 1950.

FLUX UK moves to new premises

On 31 January 2020, it became official: the United Kingdom was leaving the European Union. This process, known as Brexit, initially meant a great deal of extra work for FLUX. For instance, the so-called CE marking, which manufacturers use in the European market to demonstrate that a product meets the relevant requirements, was no longer valid in the UK with immediate effect. As a result everything then had to be applied for specifically for the UK, and that cost money and time. Nevertheless, the UK market is and remains very important to FLUX. Following the appointment of a new Managing Director for FLUX UK in 2015, business developed very well and the company needed more space. FLUX was not letting Brexit slow it down and moved into new premises in the same year.



FLUX UK in its new premises in 2020.

Process optimisation, part 2 – FLUX in flow

Process optimisation remained a key issue in manufacturing throughout the 2020s. Time and again, the company – and consequently its customers – had to contend with long product lead times. The "TOC – FLUX in Flow" project was therefore launched in November 2021. "TOC" stands for Theory of Constraints, which is a method focused on identifying, managing and controlling bottlenecks within a company. The aim is to enable continuous, smooth production, avoid downtime and reduce production time. This package of measures is ultimately intended to achieve a delivery performance of over 90 percent.

An era comes to an end

The news came as a surprise, but on 12 July 2022, Herbert Hahn passed away at the age of 91. Although he had not been active on the management board since 2000 and the succession plan had been secured in 2013 with a new shareholders' agreement, he remained a constant presence within the company. He was always a welcome guest at all FLUX events, and his advice was much sought after. It was a matter of honour for him to attend the retirement celebrations, as one or two of his long-standing colleagues were also taking their well-deserved retirement.

It is time to look back and pay tribute to Herbert Hahn's extraordinary life's work. He held the position of Managing Director for almost 40 years, from 1962 to 2000. In 2013, he handed over the company in equal shares to the siblings Klaus Hahn and Martina Wilhelm, who has now also become a managing director. This ensured that FLUX would remain a family-run business. Herbert Hahn had given away part of his shares and sold the rest to Klaus Hahn and his sister.

During Herbert Hahn's time as Managing Director, the company developed from a subsidiary of PROGRESS Verkauf GmbH into an independent enterprise in 1980. He drove forward the expansion of the Maulbronn plant, and so his era was characterised not least by major construction projects. Key milestones included the construction of the assembly hall, which was known as Building 63 after the start of construction in 1963. Just ten years later, this was extended by Building 73, an annexe. This doubled the production floor space. In 1987, the four-storey administrative building was added.

Just as important to Herbert Hahn as the expansion at the company's headquarters was the global expansion of the company, which ultimately comprised over 60 overseas offices. Particularly noteworthy here were the establishment of the subsidiaries FLUX Pumps Corporation in Atlanta, USA, and, in June 1986, FLUX Pumps International (UK) Limited in Verwood, England. This was followed by the establishment of FLUX Pompen Benelux BV in 1999.

Herbert Hahn was able to celebrate his 90th birthday in 2021 in the company of many friends and in good health. In an interview to mark his birthday, he spoke of the great importance the company's staff had always held for him: "When I look back, the main thing is the FLUX staff with whom I have shared so many ups and downs and who were the key to all of FLUX's success. I remember a wonderful team that will always remain in my memory."[282]



Herbert Hahn at his 90th birthday in 2021.



Always a pleasure to see: Herbert Hahn at an employee recognition ceremony in 2015.

Social responsibility or companies with a heart

Like his uncle before him, Klaus Hahn has always kept the region and its people at the forefront of his mind; the company's regional commitment is rooted in this. For many years now, FLUX has been supporting clubs, cultural and sporting events in and around Maulbronn, as well as the work of volunteers in the region.

LIKE HIS UNCLE BEFORE HIM, KLAUS HAHN HAS ALWAYS KEPT THE REGION AND ITS PEOPLE AT THE FOREFRONT OF HIS MIND.

The company's social responsibility is diverse and varied, ranging from Bobby Cars for a nursery, sponsorship of the Viva La Summer festival, contributions towards the purchase of a stationary ambulance and for the museum at the Schafhof in Maulbronn, to new sets of kits for TSV Maulbronn. Since 2011, a donation has been made every December to the international aid organisation Médecins Sans Frontières. FLUX has since become a partner organisation.

And when the company's support fund was finally wound up in 2023, there-maining balance – some €100,000 – was donated to various organisations in Maulbronn, such as the local branch of the German Red Cross, the Riding and Driving Club, the Maulbronn Town Band, the company's partner schools, the Maulbronn Children's Centre and the Stuttgart-based Olgäle Foundation for Sick Children.

One brand – Sondermann becomes FLUX

The one brand project launched in 2021. Sondermann in Cologne and FLUX merged to form a single company. Both sites focus on different business areas in line with their respective structures and areas of expertise, but present themselves externally as a single, strong brand. FLUX in Cologne – known as FLUX Process Pumps & Systems – focuses primarily on the business of process pumps, systems and commercial products, and further develops its business processes accordingly; this mainly concerns the MAGSON series, filter systems, centrifugal immersion pumps, SAFETEC, mixers and air-operated diaphragm pumps. "Cologne is therefore developing into a centre of excellence for process pumps," says Christian Vogt, Sales Manager at FLUX Process Pumps & Systems.[283]

At trade fairs, the company presents itself as one brand, under the FLUX name. In August 2022, once the entry was made in the Register of Companies, meaning the company name Sondermann became a thing of the past.

COLOGNE THEREFORE EMERGED AS A CENTRE OF EXCELLENCE FOR PROCESS PUMPS.



ACHEMA was the first trade show to take place again in 2022 following the Covid-19 pandemic.

The FLUX vehicle pumps division



BOXER: equipped with FLUX F 12-1, F 12-2, F 211

Pumps are classified as dual-use goods. This term refers to goods manufactured for civilian use but which, due to their characteristics, can also be used for military purposes. FLUX collaborates with companies in the defence industry, and the company's products have been used in Bundeswehr vehicles since the 1960s. The product range includes fuel pumps, cooling and preheating pumps, and bilge pumps.

FLUX SUPPORTED ONE OF ITS JAPANESE CUSTOMERS IN THE DEVELOPMENT OF THIS VEHICLE.

When the strongest offshore earthquake since the start of earthquake recording in Japan struck off the coast of Japan on 11 March 2011, it triggered a triple disaster. In addition to the casualties and damage caused by the earthquake itself, a tsunami flooded 500 kilometres of Japan's Pacific coastline and claimed over 22,000 lives. At the same time, the tsunami caused malfunctions at several coastal nuclear power stations, with the plant in Fukushima being the worst affected. According to the classification by the Japanese Nuclear Regulation Authority, a "catastrophic accident" occurred there, resulting in the contamination of the air, soil, water and food. Right from the start of the rescue operations, it became clear to those in charge that Japan did not possess a suitable civil rescue vehicle for such disasters. Consequently, the Japanese government commissioned the development of a civil rescue vehicle capable of operating in highly contaminated areas without endangering the crew. FLUX supported one of its Japanese customers in the development of this vehicle. FLUX fuel pumps from the F 12 series were used in this project to ensure the engine's maximum performance and to guarantee mobility over difficult terrain.

A new application for FLUX's vehicle pumps emerged in the aviation sector in 2014, and in particular for equipment used by ground crews. Here, suction pumps are required to cool ground-based engine start-up units. These are used on airfields to supply small to medium-sized jet and propeller-driven aircraft with compressed air via a hydraulic system to start their engines.

The German Navy also relies on FLUX as all new frigates and corvettes of the Bundeswehr, including the "Baden-Württemberg", were fitted with so-called FLUX lubricating oil transfer systems in 2022.

"We are witnessing a turning point in history. And that means that the world after this will no longer be the same as the world before." [284] It is not just since the Russian invasion of Ukraine in February 2022, Chancellor Olaf Scholz's "turning point" speech and the subsequent approval of a special fund totalling €100 billion to equip the Bundeswehr that the vehicle pumps division at FLUX has continued to grow in importance. In the short term, this is evident from the high volume of enquiries for both replacement pumps and individual spare parts. In future, FLUX will see an increase in repair and maintenance orders for vehicle pumps, and in the long term, FLUX pumps will be used in the Bundeswehr's new vehicles.



F 12-1

A true sales professional

In 2021, Peter Fujimoto, Managing Director of FLUX Pumps Corp. in Atlanta, retired. This marked the end of an extremely successful collaboration. He had been with FLUX USA since 2013 – initially only as interim managing director. Klaus Hahn had asked him for his support during a staffing crisis, and Peter Fujimoto had stepped in at short notice. The two had known each other since the 1980s from their time together at Mercedes-Benz and had been friends ever since. When Peter Fujimoto moved to Atlanta after a series of career moves, Klaus Hahn had always visited him whenever he travelled to the American subsidiary. Originally, the collaboration was planned to last six months, during which time Peter Fujimoto was to find a new managing director for the subsidiary. But things turned out differently because even though the sales expert had no experience whatsoever with pumps, he thoroughly enjoyed his new role, and the team in Atlanta quickly got used to his new style and learnt to benefit from his fresh perspectives and ideas. And so, what was supposed to be half a year eventually turned into nine highly successful years during which not only did the American subsidiary's turnover more than triple, but the other subsidiaries were also able to benefit in the long term from the unconventional ideas and fresh impetus. Peter Fujimoto fulfilled his mandate to find a new managing director with flying colours as Glenn Mulligan succeeded him in this role, having already spent two years with the company. He, too, is a true sales professional and, at the same time, a pump specialist. The success story of FLUX Pumps Corp. in Atlanta has continued ever since.

THE SUCCESS STORY OF FLUX PUMPS CORP. IN ATLANTA HAS CONTINUED EVER SINCE.



From left to right: Tim Sullivan, Pete Fujimoto, Glenn Mulligan.

KLIMAfit for the future

For FLUX, there was no question about taking part in a project run by the State of Baden-Württemberg to improve its environmental footprint. The first step was to assess the company's greenhouse gas emissions. This assessment was used by the experts to identify economically viable measures to improve energy efficiency and reduce greenhouse gas emissions. As a result, FLUX became an official KLIMAfit company. "Prevention before reduction before offsetting" [285] became the company's guiding principle.

PREVENTION BEFORE REDUCTION BEFORE OFFSETTING.

In spring 2024, a photovoltaic system was installed on the roofs of the production facilities. This system covered a large proportion of the company's energy requirements and made FLUX less dependent on rising energy costs. However, the roofs first had to be refurbished.

This marked the start of a construction phase during which the ageing administrative building was completely refurbished. This refurbishment had already been on the agenda ten years earlier, but was then put on hold due to the high construction costs. As it turned out, this was a wise decision, as conditions changed fundamentally. Today, the company's space requirements are significantly smaller than they were ten years ago.



Installation of a photovoltaic system on the roofs of the production facilities in 2024.

New world of work

FACE-TO-FACE DIALOGUE CANNOT BE REPLACED BY TELEPHONE OR VIDEO CONFERENCES.

The refurbishment of the FLUX administrative building in the 2020s meant that it was then suitable to accommodate the changes in the world of work. For many companies and their employees, this has been changing for some time, not just since the Covid-19 pandemic. The rise in remote working is increasingly leading to a hybrid working model, and the demand for office space has consequently decreased. FLUX, too, therefore adopted a shared desk principle, meaning that there no longer needs to be a fixed workstation for every employee. One of the advantages is that employees who would otherwise not have a workstation within the company – such as field staff and those from subsidiaries – could reserve a free workstation for themselves when they are on site.

With the rise of remote working, everyone involved came to realise how important opportunities for both formal and informal interaction were.
Face-to-face dialogue cannot be replaced by telephone or video conferences. Consequently, the trend had long been moving away from individual offices towards open-plan “work landscapes” and spacious meeting rooms. “Islands” – acting as so-called think tanks and offering quiet spaces for concentrated work – help to structure the open-plan layout. And, last but not least, seating areas in the “Work Coffees” encourage interaction and communication across team boundaries. It has always been part of FLUX’s corporate culture to strengthen team spirit through external activities and events.

However, before the long-awaited move into the new premises, there was first the construction phase, which naturally came with its share of restrictions.
As such, all staff were provided with temporary offices in the production halls. To mark the farewell to the old premises, there was a big moving-out party under the motto “Colourful and cleared out: staff art before the transformation”. All staff members and their families were invited and had great fun painting the walls and windows of the ageing offices. Then, in May 2024, the complete gutting of the building began, and everything had to go! Everything had to go!



Refurbishment of the administrative building began in 2024.





Here you can already get a sense of what it would look like once the refurbishment is complete, both inside and out.

For example, the communal schnitzel dinner on the last working day before Christmas is very popular. And, to keep up with the times, the HR department organised the first after-work party in 2022.



...and this is what the refurbishment was expected to look like.





Klaus Hahn with his two children, Vanessa and Patrick.

FLUX – experience and expertise for the future

And what does the future hold for FLUX? Klaus Hahn has been stepping back from day-to-day operations since April 2025. He will, however, remain with the company as Managing Director and will oversee selected projects at the subsidiaries in Maulbronn and Cologne. He also intends to continue playing an active role in shaping FLUX’s strategic direction. As was the case with his uncle, Herbert Hahn, there will be a smooth transition. It is not yet certain whether any of Klaus Hahn’s children will one day join the company’s management. Only time will tell; both have been working for the company for several years now. Vanessa Hahn works in marketing and Patrick Hahn in technical documentation. Alexander Geib and Jürgen Rabenseifner are taking over the reins. They have been supporting the company for years in senior roles and form a well-coordinated team. Klaus Hahn: “After more than a quarter of a century as Managing Director, I am handing over operational management to new hands. Our company is very well positioned. The quality of our products and their reputation amongst customers are outstanding. And for the coming years, we are working on some fantastic new products that will consolidate and further expand FLUX-GERÄTE GMBH’s market position. We will continue to provide our customers worldwide with professional solutions for handling their demanding liquids. I wish the two managing directors, Mr Geib and Mr Rabenseifner, every success in their new roles.”

A well-coordinated team: Alexander Geib and Jürgen Rabenseifner



A great team for FLUX, from left to right: Jürgen Rabenseifner, Klaus Hahn and Alexander Geib.

Strictly speaking, there is no need to introduce Alexander Geib at this point, as he is well known for his wide-ranging responsibilities within the company. However, not everyone may be familiar with his path to FLUX. Alexander Geib studied Business Administration, specialising in taxation and auditing, at the Stuttgart University of Cooperative Education. His practical training partner during his studies was a tax consultancy firm. After graduating in 1998, he began his professional career at the firm Werner Kugele in Calw, before moving to WirtschaftsTreuhand GmbH in Stuttgart in November 2000. There, he worked his way up through the ranks to become a chartered tax adviser in 2004.
His responsibilities included, amongst other things, auditing annual accounts and providing business consultancy to small and medium-sized enterprises. His main client was based in Gelsenkirchen, which meant regular commuting between Stuttgart and the Ruhr region. In the long run, this was not an ideal situation for a family man, as he describes himself.
Alongside his work in auditing, Alexander Geib was a partner for several years at the software start-up d-lusion interactive media, based in Leonberg. There, he was responsible for finance and accounting, conducted negotiations with business partners and dealt with issues relating to trademark law. This entrepreneurial experience, together with his insight into digital business models, formed a valuable foundation for his subsequent role at FLUX.

By this point, the idea of setting up his own practice as a tax adviser was already taking shape when his then line manager – who was responsible for auditing FLUX – drew his attention to a vacant position on the management board. It was a good fit as Alexander Geib's predecessor had also come from WirtschaftsTreuhand, and the company was known for its solid structure and culture, affectionately referred to internally as the "Valley of the Blessed". Following a brief induction period, Alexander Geib took over as commercial director at FLUX in May 2008 and was granted power of attorney in 2009.
A key element of his work is personal interaction with staff and with the company's national and international offices. Direct contact on the ground is important to him: "It goes without saying that I meet everyone in person at least once a year."[287]

Jürgen Rabenseifner has not been with FLUX for quite as long; he took up his post as Sales Manager in July 2017. After studying mechanical engineering in Esslingen, he began his first job in 1989 in the field of automation technology at AEG in Frankfurt and Böblingen. From 1993 to 2005, he held various roles at LEWA GmbH in Leonberg and, during the last five years of his time there, was responsible for the global sales of LEWA pumps and systems. Between 2001 and 2004, he completed a part-time Master's degree in International Marketing at the European School of Business in Reutlingen. Curiosity and a taste for change have always been strong driving forces for Jürgen Rabenseifner. He therefore seized the opportunity to join the German branch of Moog Inc., a US-based group, in 2006. He was there for 11 years and was initially responsible for the industrial business in Central Europe and later for the global service business.
His enthusiasm for the wide range of applications for pumps, combined with the prospect of exciting challenges in a medium-sized family-run business, led him to join FLUX in 2017. He sees his role as preparing FLUX's sales team for the future.
This naturally includes digital marketing and the expansion of the online shop, but also the internationalisation of the company, for example in Asia. He attaches great importance to customer focus and the willingness of his staff to develop themselves further in response to new customer requirements. He is convinced that: "Customer focus leads to a high standard of service, which in turn leads to customer satisfaction and loyalty, and therefore to the long-term success of the company."[288]

Ready for the future

The initiatives launched over the past five years by FLUX's previous management team to future-proof the company provide an excellent foundation for its continued development. The company's ability to adapt is more important than ever as staff, processes and tools are capable of dynamically adapting to changing external conditions. Process innovations have become just as important as product innovations. Since its inception, FLUX has consistently impressed its customers with new products. And in recent years, too, FLUX has launched a series of innovative products: VISCOPOWER, SAFETECH, VERTIFLOW, Sanitary MINIFLUX and PERIPOWER.

PROCESS INNOVATIONS HAVE BECOME JUST AS IMPORTANT AS PRODUCT INNOVATIONS.

The development of new products remains high on FLUX's agenda for the future. FLUX will focus even more strongly than before on the specific requirements of individual sectors.

A high degree of flexibility among staff will remain crucial in the future as the use of AI technology is growing rapidly and transforming the nature of work in almost every workplace. At FLUX, these new tools are used to simplify, automate and streamline processes, but always with a sense of proportion and in line with the company's size and business model.

All activities and decisions comply with the sustainability requirements placed on FLUX. These consist of statutory requirements and, in some cases, the even stricter requirements imposed on the company by its customers.
Above all, it is the highly motivated staff at the two FLUX centres of excellence – in Maulbronn for Mobile Pump Solutions and in Cologne for Process Pumps & Systems – as well as within FLUX's global sales organisations, who enable the company to look to the future with confidence. With this team, the company will successfully overcome future challenges too!

PIONEERS IN MOTION.

And what else? During a visit by Maulbronn's mayor, Aaron Treut, to FLUX at the start of the year, everyone involved noted that the "new" Hall 4 (built in 2013) is already well filled once again. So, perhaps an extension will soon be needed at the Maulbronn site. Klaus Hahn can reassure us that there is still space for this on the site. There was also a special anniversary in 2025 as FLUX looked back on 75 years of successful company history and celebrated it in style under the motto "Pioneers in motion".



The FLUX team in 2024.



75 years of FLUX – Pioneers in motion

FLUX had no fewer than two reasons to celebrate on 19 July 2025: 75 years ago, in 1950, a patent application was filed for the world's first electric barrel pump, marking the beginning of the history of FLUX-GERÄTE GMBH. Under the motto "Pioneers in motion", FLUX is marking this anniversary in a very special way with one – even two – celebrations. The last time they celebrated on such a grand scale was for their 60th anniversary in 2010.

75 YEARS
FLUX
Pioneers in motion

Logo based on the 60th-anniversary logo with slogan.



Summer party for the staff

The festivities kicked off in the afternoon with a party for the staff and their families, colleagues from the subsidiaries, former employees and retirees. Many familiar faces gathered in glorious sunshine. The company premises were transformed into a festively decorated celebration area featuring a marquee, various seating and lounging areas, food trucks from the region and drinks stalls. The footballers from TSV Maulbronn were also there once again. Alongside the speeches, there were other items on the programme. Family members were able to take a tour of the production facilities and use this opportunity to see their family members' workstations up close. For the children, there were stations with various hands-on activities, including bottle painting and a bouncy castle. At a filling station, visitors could see the star of the show – a FLUX pump – in action and operate it themselves.

Charity festival

At FLUX, the anniversary is being used as an opportunity to make a positive difference to the region. That is why, following the staff party, the factory grounds opened their doors to paying guests that very same evening for a music festival. What makes this special is that all proceeds from the event – admission fees and takings from the food and drink stalls – will be donated to the Maulbronn Children's Centre. The money will be used to purchase new sports equipment for the young patients there because: "This equipment supports the children's motor development, muscle strength and stamina, and therefore makes an important contribution to developing their everyday skills." [289] And, of course, it's also great fun. FLUX also received support from other sponsors in the region.

At this event, too, the company's staff took centre stage as guests of honour, as the celebration was also a way of saying thank you for the tremendous dedication they have shown to the company over the past 75 years. The two bands created a great atmosphere, and so the celebrations continued long into the beautiful summer night. "Between the stage, the beer benches and the dance floor, an atmosphere emerged that combined a sense of light-heartedness and solidarity."[290]

FLUX's anniversary celebrations succeeded in sending a powerful message of social responsibility.

AN ATMOSPHERE THAT COMBINED A SENSE OF LIGHT-HEARTEDNESS AND SOLIDARITY.














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