



**KESSLER**

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In order to take the above mentioned demand for transparency and authenticity into account, it is necessary to state at this point that the company history compiled here might not be complete due to the aforementioned reasons, but what is presented is based on the few sources we were able to glean from the estate of the Kessler family and the archives of the cities of Chemnitz, Bad Buchau and the IHK Ulm (Chamber of Industry and Commerce).

In addition to this, the recollections of the years of reconstruction from contemporary witnesses from Bad Buchau have been of invaluable help. Where we have made justifiable assumptions and drawn conclusions from the sources and reports, this is stated clearly in the text.

We thank the institutions mentioned and particularly our forefathers for their help: Mr Wolfgang Höbler, our master craftsman of motor winding from 1950 – 1993; Mr Walter Faden, Franz Kessler's first employed engineer and head of project planning and sales 1954 – 1982; Mr Ernst Vötsch, head engineer in the test field and calculation 1956 – 1990 and Mr Karl Reisch, head engineer in construction and operation 1956 – 1978 and since 1978 managing director of Franz Kessler KG and chairman of the Franz Kessler Gemeinnützige Stiftungsgesellschaft (charitable trust company).

\* Up to this point, the preface has primarily been taken from the 80 year chronicle written by former managing director Eckhard Herwanger. Eckhard Herwanger died on 8<sup>th</sup> September 2011 following serious illness. The chronicle of the first 80 years is one of his legacies to the company, whose success story he shaped with his innovative ideas and visions from 1988 and even beyond his death.

Franz Kessler GmbH  
Management and Shareholders



Kessler  
C. 1914

## Franz Kessler 1888 – 1971

Franz Kessler was born on 22<sup>nd</sup> September 1888 in Jonsdorf in the district of Leitmeritz in the then Austrian-Hungarian Empire, as son of miner Karl Kessler and his wife Anna Kessler. Unfortunately, we are unable to report about his time at school. According to his own records, he studied mechanical engineering in today's Czech Republic, either in Prague or Brno, and he probably graduated in 1909 or 1910.

Equipped with this solid training, Franz Kessler was drawn to the at the time nationwide electrification which had started in Germany and to the technical challenges associated with this, in conjunction with the promising professional advancement for a young engineer in this dynamic market. He began his career at PÖGE Elektrizitäts-Aktiengesellschaft, a company which was established in 1874 and which like so many companies in the evolving electrical industry had the aim of building telegraph stations, and at the end of the 19<sup>th</sup> century increasingly turned towards the generation and transmission of electrical energy. In 1930 PÖGE merged with Sachsenwerke, and a little later in the thirties the newly formed company became AEG.

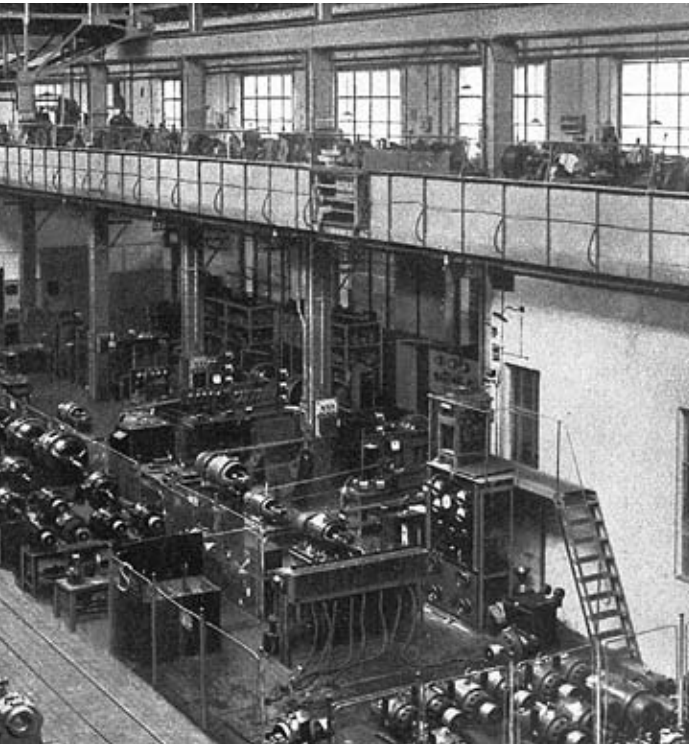


// Franz Kessler  
1888 – 1971

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// Overall view of the PÖGE-Elektricitäts-Aktiengesellschaft Chemnitz in the 1920s.



// Overall view of PÖGE's test area where Franz Kessler worked as test engineer.

At any rate, his chosen entry into professional life made Franz Kessler an active participant in the field of electrical engineering, one of the most important industries in our aspiring industrial nation in those days.

According to his own accounts of his work as test field engineer at PÖGE we know that turbine and generator disasters did happen with unfortunate consequences for operating equipment, but also for life and limb of employees, which now and then resulted in liability claims for leading engineers. In any event, Kessler claimed that some of his colleagues as well as himself already had emergency plans in place for such a scenario with an immediate emigration to America planned. Well, it did not come to that, but what it does underline is one of the fastest growth periods of our industrial history, in which the development of sufficiently accurate calculation methods as well as the development of reasonable occupational and safety precautions could not keep up with the unrestrained dynamics of the economy.

The nationwide coverage with electrical energy – with light and power, as it was also called at this time – revolutionised energy supply to machines in factory halls in particular. Up to then, the machines had to be supplied through transmission with mechanical energy in the form of torque and rotational speed. The adjustment of mechanical energy supplied to the machining process made multi-level gears a necessity meaning that transmission had rather low efficiency levels, and the process variables achieved for machining were far from ideal.

The supply of machines with electrical energy and the development of suitable energy converters for the machining process directly on the machines – the electric motors – meant a significant improvement in the efficiency, and above all the option to individually adjust and process-optimize the electrical energy provided to meet the needs of the respective machines by means of a correspondingly selected and dimensioned electric motor.

Hereby a completely new branch of electrical engineering evolved: During the difficult time following the First World War in which the defeated states of Austria-Hungary and Germany found themselves, and during which they tried to re-establish themselves politically, socially and economically, Franz Kessler made the decision to become self-employed. In spite of, or maybe precisely because of, the economic and political turmoil of those years, Germany in particular underwent a highly fruitful and rapid development in industry and science. You just need to think of our still buoyant industrial sectors of automotive engineering, mechanical engineering, electrical engineering or chemical engineering, and the numerous Nobel Prizes for natural sciences, which went to Germany in those days.

Franz Kessler recognised a broad field of work in the newly emerging electrical drive technology, and selected one of the most complex tasks for himself: drives with variable speeds for machine tools and textile machines.



The decision to become self-employed in this field in Chemnitz, the most important machine manufacturing centre in Saxony, was definite! What played in his favour was the fact that his wife Emmy strongly supported his plans, thus signalling a readiness of the family to back Frank Kessler's wealth of ideas and to subject savings and inherited assets to the risk of independent business operations.

Be that as it may, the seed capital raised could be converted in time into useful and above all valuable business assets just before the onset of inflation in the same year 1923 – in any case, the company as a newcomer made it through this period as well as the global economic crisis of 1929.



// Emmy Kessler, née Pietsch  
1889 – 1974





## The Chemnitz years 1923 – 1945

Naturally, back then there were already numerous machining processes which required constant drive-performance on different machines via infinitely adjustable speeds. Behind this, for example, is the demand for constant cutting speeds with different workpiece diameters (turning) or tool diameters (grinding) during machining.

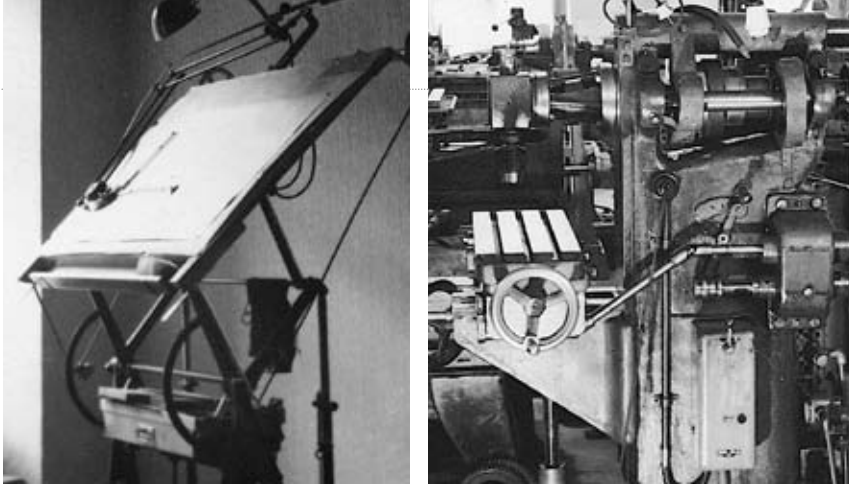
At the time, the electric motor which was best suited to such a demand was the DC motor. Most notably was its simple speed adjustment, which made it successful far into the eighties in the field of main spindles for machine tools. It was the technical solution for providing constant performance by means of a comparably wide and infinitely adjustable speed range.

This distinguishing attribute, compared to the other then equally well-known asynchronous and synchronous motors, resulted in the frequent use of the DC motors, although their design is far more complex and they have disadvantages with regard to cost and maintenance during operation due to the mechanical commutation.

Kessler took his first steps with DC motors and not only won customers in the Chemnitz region, but also in the South German region. However, we have hardly any business records from this time, and a file card from this time probably only ended up amongst the estate documents by accident. Amongst these documents was a 1943 delivery schedule to Reinicker AG, the largest European machine tool manufacturer of its time with more than 3,000 employees then based in Chemnitz.

On the other hand, we learned from one of the contemporary witnesses of the fifties that Fortuna in Stuttgart was also one of Kessler's first customers. However, one thing was very clear:

Kessler started out in machine tool engineering with the fitting of grinding machines. This was to stay like this well into the fifties. The grinding machines in particular required, above all, good concentricity properties even at low speeds in addition to the mentioned speed adjustment – at a time when a motor's shortcomings could not be smoothed out by means of electronic control circuits. It was precisely these persistent challenges and their very existence which justified the young company's good reputation among experts.



// Images of the company in Chemnitz from the time before the Second World War

Naturally, the DC motors required an appropriate DC power supply. At the time this was supplied by rotary converters, then better known in German under the name of “Leonardsatz”:

Usually, an asynchronous motor supplied by the 50 Hz alternating current mains supply drove several DC generators, which in turn provided the required DC current for all direct-current circuits on the machine tool. Although Schlesinger had already referred to the possibilities of DC current generation by means of electronic switch valves as early as 1936, it was not until the seventies that the converter was completely replaced by the then cheaper electronic converters, whose positioning characteristics for machine tools were of much higher quality.

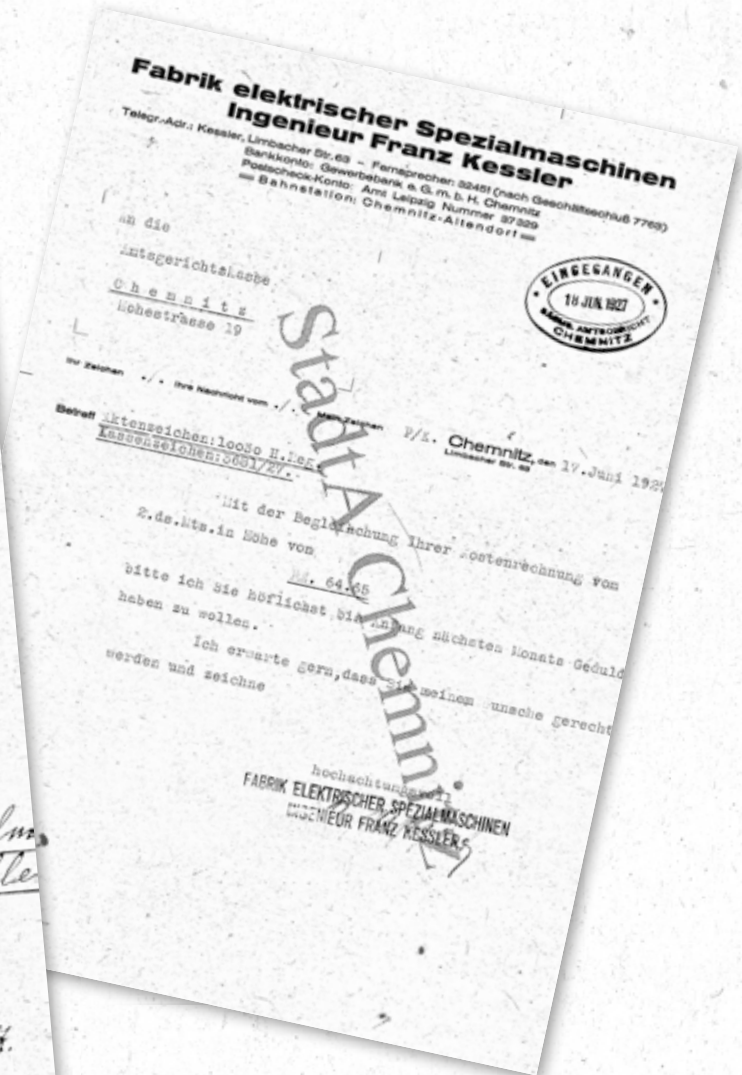
In order to achieve the already mentioned good concentricity characteristics, high-quality generation of DC current is of great importance. What mattered here was low ripple and of course good voltage stability under strain.

In short: From the beginning, the young company, in addition to development and production of DC motors for grinding machines, also focused immediately on the development and manufacturing of the associated converters. Apart from the grinding motors, the axis motors and in part also the magnetic chucks were supplied by the converters.

The young company, which as mentioned had started out in the inflation year 1923, and had also overcome the turmoil of the global economic crisis at the end of the twenties and the beginning of the thirties, could now show off a product range which enabled it to assert its position in the market. It also took part in the deceptive upturn of the Third Reich as well as in the devastating consequences of the Second World War. During the Allied air raids in 1944 on the city of Chemnitz, Franz Kessler’s company buildings were damaged so badly that the company had to be evacuated to Grüna near Chemnitz, where Kessler witnessed the end of the war.

// Image on the left: In 1927, the Kessler company had reached a size which required an entry in the commercial register.

// Image on the right: Original letterhead of the “Fabrik elektrischer Spezialmaschinen – Ingenieur Franz Kessler (Factory of electrical special machines – engineer Franz Kessler)” dated 1927.



Saulgau dem 5.7.49.

**Landratsamt**  
Umsiedlungsamt

**Befristete Befreiung von der Zuzugssperre**

Der Staatskommissar f. d. Umsiedlung  
~~Landratsamt Saulgau~~ hat mit Entscheidung vom 28.6.49. Nr. \_\_\_\_\_

~~XXXXXX~~ Befreiung von der Zuzugssperre in das Land Württemberg - Hohenzollern erteilt für:

1.	Kessler Franz, geb. 22.9.88	Grüna b. Chemnitz/Sachsen (ehemaliger Wohnort, Zuzug)
2.	" " Emy, " 10.3.89	
3.	" " Elfriede, " 7.8.11	
4.		

künftig wohnhaft in: \_\_\_\_\_ Kreis: Saulgau

Ort: Buchau/F. \_\_\_\_\_ Straße: \_\_\_\_\_

Nr. 7096/21 Einzelbescheid über befristete Befreiung von der Zuzugssperre  
S. Ludwig, Stuttgart/Trüben

Die Befreiung von der Zuzugssperre ist befristet

— bis \_\_\_\_\_

— bis zur Beendigung des Beschäftigungsverhältnisses bei Firma \_\_\_\_\_ (Name Anschrift)

Nach — Ablauf dieser Frist — Beendigung des Beschäftigungsverhältnisses müssen die Zuziehenden das Land Württemberg - Hohenzollern nach ordnungsmäßiger polizeilicher Abmeldung ohne weitere Außerforderung verlassen.

Unbefristete Verlängerung des Aufenthalts stellt Strafverfolgung, Entzug der Lebensmittelkarten und zwangsweise Entfernung aus dem Land Württemberg - Hohenzollern nach sich.

Die Befreiung von der Zuzugssperre kann widerrufen werden, wenn sie durch unwahre Angaben oder durch Vorlage gefälschter Unterlagen erschlichen worden ist.

Die Befreiung von der Zuzugssperre verfällt, falls die Zuziehenden sich nicht innerhalb von 5 Monaten seit Bekanntgabe dieses Bescheides am Zuzugsort politisch gemeldet haben.

~~XXXXXX~~ Kessler Franz  
Herrn: Frau: \_\_\_\_\_

in Auftrag: \_\_\_\_\_  
in Buchau/F. \_\_\_\_\_

Durchschrift an:  
1. Bürgermeisteramt Buchau/F.  
2. Arbeitsamt Hildelingen



\* Bei Anträgen nach Antragsvordruck A (Nr. 7096/2)

// Kessler's application for moving to and the residence permit granted for Buchau am Federsee dated 1949.

An das  
Landratsamt Saulgau  
Abtlg. Umsiedlungsamt  
**S a u l g a u**

**Betr.:** Antrag auf Genehmigung des Zuzuges nach SW-Württemberg für

- 1) Emy Kessler, geb. Pietsch, 10.3.89 in Schandau, z.Zt. Tübingen-Lustnau, Weiherhalde 3
- 2) Franz Kessler, Ingenieur, geb. 22.9.88 Jonsdorf z.Zt. wohnh. Grüna/Sachsen
- 3) Elfriede Kessler, Tochter des Franz Kessler, geb. 7.8.11 in Leipzig, z.Zt. wohnh. Grüna/Sachsen

**Bezug:** Schreiben an das Bürgermeisteramt der Stadt Buchau/Federsee vom 9. März 1949.

Die vorläufige Aufenthaltsgenehmigung der Antragstellerin Ziff. 1 lief bis 15.4.49 ab.

Da ich annehme, dass der an das Bürgermeisteramt in Verbindung mit dem Antrag auf Eröffnung einer Fertigungstätte für Spezial-elektromotoren in Buchau am Federsee gestellte Antrag zwischenzeitlich von Ihnen befürwortet weitergegeben wurde, bitte ich Sie als Bevollmächtigter der Antragsteller um Ausstellung einer vorläufigen Aufenthaltsgenehmigung ab 16.4.1949 in Buchau.







## Fresh start after the war – decision for a move to

The situation in which Franz Kessler found himself at the end of the war was bearable – from a personal point of view – his family had escaped unscathed.

From an entrepreneurial point of view this was more complicated: the factory in Chemnitz was destroyed, in the temporary factory in Grüna they began again in a small way, this however was a fate he probably shared with most companies in Germany in those days.

From a political point of view and the associated prospect of returning the company to the previous level it had once achieved, and of developing it from there, the situation was far from perfect: Very quickly it became clear what was going to happen under the new rulers in the Soviet occupation zone. To escape disappropriation a maximum limit of only 12 employees was being discussed which meant the company would certainly no longer be able to meet customer's demands, and this prospect was not at all something Franz Kessler had in mind.

This is probably why Franz Kessler made the decision in 1947/48 to move to the West. However, at this point the family was far from giving up hope of being able to return in the foreseeable future, in the event that political circumstances should take a turn for the better and an acceptable basis for life and business with a future could be achieved.

Shortly after the end of the war, Franz Kessler's daughter Elfriede married Mr Kurt Petschel in Grüna, who was an employee in the company. This happened at a time when her parents' plans to move to the West must already have taken concrete shape. Elfriede Petschel, née Kessler, had worked in her father's company since 1939, and the Petschel couple now wanted to stay behind in the small company with a workforce of about 20 in order to continue the existing Kessler company there on a small scale.

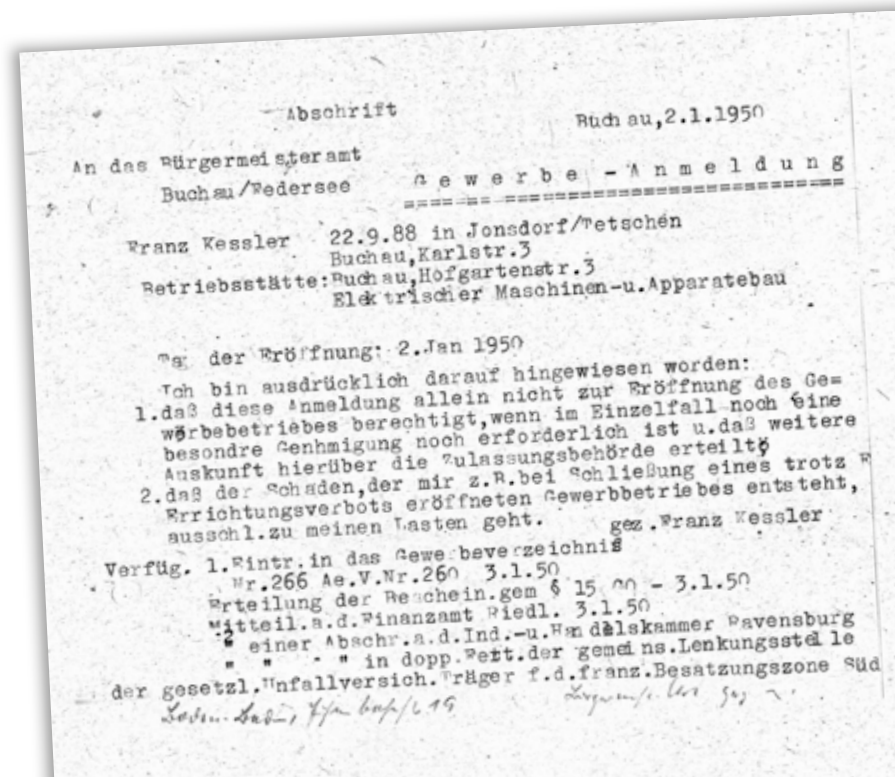
# the West

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Once leadership of the company was ensured in this way, nothing more stood in the way of a move to the West. At this time, the oldest Kessler daughter, Anna Marie, was already married to a business man from Metzingen who came from a family of dentists in the region, and with whose parents Franz Kessler had a good relationship. After the move, the Kessler family initially found accommodation with them. During this time – probably in 1948/49 – Kessler himself was self-employed as a development and calculation engineer for the electric motor manufacturer Blocher in Metzingen. Franz Kessler's admirable talent for improvisation came to the fore particularly in these difficult early years following the collapse – somehow he still managed to build functioning motors from the materials in stock.

However, it was clear from the start that Metzingen was only ever going to be a transitory stop. No matter what the circumstances, Franz Kessler wanted to start his own company again – and that at the age of 60! So the request of a Kessler customer from the Chemnitz years, the grinding machine manufacturer Fortuna from Stuttgart, known throughout the world, was a crucial trigger in establishing a new Franz Kessler company and start producing his converters and DC motors again. Now came the question of location – in those days, this primarily meant the question of commercial and residential quarters.

// Kessler's business registration in Buchau  
am Federsee dated 2<sup>nd</sup> January 1950.



## View of Hofgartenstraße after the war and during the years of rebuilding.



// Image above: The delivery vehicle stands in front of house no. 3, where Franz Kessler restarted production of his special motors in 1950.

// Image on the left: View of the former Café Vierfelder in Hofgartenstraße 3.

From an agency in Tübingen, Franz Kessler heard of Buchau, not just the spa town of Bad Buchau, where the premises of the Jewish family Vierfelder, who had emigrated to the USA, were available for rent. We found this information in a letter from Siegbert Einstein to Moritz Vierfelder, in which he notifies him that he had rented out the premises of the former Café Vierfelder to a “motor winding company from the Russian zone” from 01/05/1949 until further notice. As a matter of fact, according to Kessler himself, he already knew the small Upper Swabian town as he had already travelled through this region in the pre-war years.

Siegbert Einstein himself was a Jew from Buchau, who had survived the concentration camp in Theresienstadt, returned to his hometown of Buchau, and was buried in 1968 in the Jewish cemetery as last citizen of the Jewish faith.

Worth mentioning at this point, is that Siegbert Einstein was a relative of the world famous physicist Albert Einstein. What is generally known is that Albert Einstein was born on 14/03/1879 in Ulm. Less known however, is that his parents allegedly moved from the house in Hofgartenstraße 14 in Buchau to Ulm only shortly before his birth, at the end of 1878. His birthplace in Ulm is undoubted, but we would like to speculate that Albert Einstein was “made in Bad Buchau”.

Back to Franz Kessler: He rented the previously mentioned premises of the former Café Vierfelder in the Hofgartenstraße 3 from Einstein to house his business premises, and also found his first flat in the Einstein house in Karlstraße 3.

By renting the residential and commercial space, the prerequisites for a fresh start were met. The business was registered on 2<sup>nd</sup> January 1950.

**The company could begin.**





## The fifties: The formative years

With an initial team of five employees, Franz Kessler started his business in 1950: There was Mr Palmer and Mr Schmid from Buchau, Mr Frommlet from Meckenbeuren along with Mrs Minna Sauter in the workshop and Mrs Schimke in the office.

Mr Wolfgang Hößler joined them on 9<sup>th</sup> December 1950. He came to us from the Kessler company in Grüna, Saxony, and as a trained electrical engineer he was a real asset to the founding team in Buchau.

The choice of location was based on the opportunity of finding premises, and as far as we know was also supported by a certain sympathy which Franz Kessler might have developed and felt for our region, gained during his mentioned former travels to Switzerland. However, this must not belie the fact that Buchau was far from ideal as an industrial location even for a small business in its field.

During the formative years the customers were all located in the Stuttgart area and were later joined mostly by customers in North Rhine-Westphalia, and due to the limitations with regard to travel, transport and communication, a fair number of obstacles had to be overcome by increased commitment. Adding to this difficulty was the fact that well-qualified experts were very rare in the local Buchau catchment area. After all, our region was still mostly characterised by agriculture. This emphasises how valuable it was to welcome a qualified electrical engineer, like Mr Hößler, to the founding team from the very beginning.

Nevertheless, these difficulties did not stop Franz Kessler, as an entrepreneur, from successfully launching his business in Buchau, and he stuck to his choice of Buchau even as his company grew quite significantly in the fifties, and other municipalities repeatedly tried to convince him to relocate his company. Such as, for example, the town of Riedlingen, where his pipe supplier Dorner was based, who would have loved to see Kessler relocate there, particularly as the conditions offered by the town were very favourable indeed.



## When the company started in 1950 the factory equipment in the Hofgartenstraße consisted of:

- 1 lathe
- 1 drilling machine
- 1 bench hacksaw
- 1 balancing screw press
- 1 planing machine
- 1 discharge balancing device
- different measuring and test devices for mechanical components and the electrical testing of motors

Due to the meagre equipment – naturally all of which was second-hand and some of which still had to be made functional again – day-to-day work required increased commitment by all those involved. For example, the pole sheets for the motors and generators, approximately 2,000 per machine, were manually punched with the screw press. In addition to this, a lot of skill on the part of Franz Kessler was required to repeatedly overcome the shortcomings in the beginning, which he clearly demonstrated with diligence and energy at all times using his already mentioned ability to improvise.

Cast parts were mostly obtained from SHW in Schussenried, and then turned, drilled, wound and balanced in Buchau. Machining which could not yet be performed with the available equipment was carried out by the previously mentioned company Blocher, for which Kessler in return continued to perform calculation and development work. Grinding was contracted out to a company in Biberach.

Most significantly: In 1950 Kessler had set himself the goal of delivering four units per week, consisting of a converter and a grinding motor to his customer Fortuna, and he achieved his goal!

Due to this initial success in the founding year of 1950 – the turnover would have been close to DM 100,000 – Franz Kessler was encouraged to tackle expansion of his business. Furthermore, word of his successful production restart got around quickly among experts due to the excellent reference from Fortuna, which helped his endeavours to expand. New customers were the tool grinding machine factory Jung in Göppingen, the hub factory Alfing Kessler in Wasseralfingen and the Montan factory Walter in Tübingen.

// Contemporary picture of a Kessler converter on a Fortuna grinding machine in the fifties. Rebuilding of the Kessler company in Buchau started with the equipment of Fortuna grinding machines.

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In the years between 1950 and 1953 Mrs Elfriede Petschel came to visit Buchau several times, as she was still able to cross the green border – naturally always bringing useful small gifts from Grüna, for example screw taps or similar small workshop tools which were certainly welcome in the young company in Buchau. In 1953, Mrs Petschel decided to join her parents in Buchau for good, in order to actively help build the new company. Her husband Kurt remained in the company in Grüna, which he later relocated again to Chemnitz in the Goethestraße 5, which he continued to manage until his death.

The extent to which Mrs Petschel's decision to move to the West and leave her husband behind was influenced by the events of 17<sup>th</sup> June 1953 remains unknown. It is also entirely possible that the family had not given up hope of being able to resume its business in Saxony under different political circumstances and for this reason left Mr Petschel behind as a person of trust.



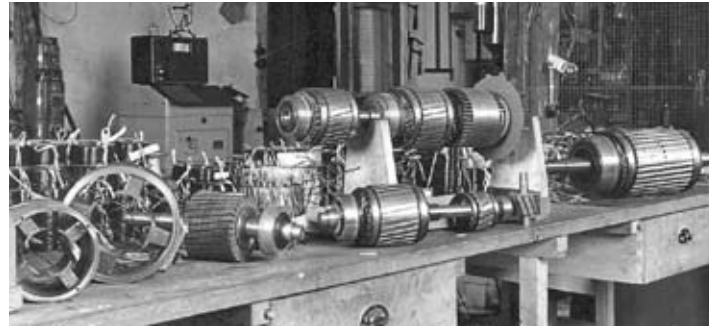
## Back to Buchau

The expansion of the client base and the employment of additional workers, now making a total of 10, quickly made it necessary for Kessler to look for new business premises. Initially, he managed to rent a part of the area in the Schussenrieder Straße 75, which previously housed different factory buildings, from the then owner Christian Grötzinger, a cheese factory owner from Ringschnait, as of 1<sup>st</sup> August 1953. Due to structural defects which came to light, the move was delayed until the

end of the year. By the start of 1954, the company's production was completely housed in the new business premises. Kessler eventually purchased the entire site in the Schussenrieder Straße 75 on 7<sup>th</sup> October 1955, including the factory, residential building and courtyard of the said Mr Grötzinger, which laid the foundations for the Kessler-Motoren-Werk in Buchau.

Naturally, the expansion of the company required Franz Kessler, in addition to the most important of all tasks, namely to acquire and maintain the trust of his clients, to fully commit to developing and organising increasingly efficient business premises. The option to personally be completely involved and responsible for construction, calculation and testing of his products was thus no longer possible.

// Images from the assembly in the second half of the fifties.



## Kessler responded swiftly and courageously

On 1<sup>st</sup> June 1954, the electrical engineer Walter Faden, who had previously been employed at the switch contact manufacturer Elektra in Tailfingen, started work at Kessler, and was responsible mainly in sales for project planning of products, which in those days included no less than: calculation, construction, monitoring the production process and performing inspection tests. From the beginning, an all-encompassing and responsible key task, which he could not manage on his own for long, despite all his personal commitment.

On 1<sup>st</sup> April 1956, Ernst Vötsch from Buchau joined the company as a test engineer, and took over management of the final inspections of our products.

Finally, on 1<sup>st</sup> June 1956, the mechanical engineer Karl Reisch, also from Buchau, transferred from the Bautz company in Saulgau, where he spent his first years as a design and test engineer, and started work for Franz Kessler as design manager. In the following years, Karl Reisch was to have significant influence on product development (to be mentioned here, among other things, are the friction bearings with their high turnover). On his initiative the production processes



and company organisation were repeatedly adapted to modern standards – and this was often based on Karl Reisch's specially developed machines and production facilities.

With this young team of engineers, Frank Kessler was now equipped to advance the company, which meant further expanding and retaining the client base through provision of good and reliable work. At the end of the fifties, a good few illustrious names joined the already mentioned customers, mostly from the field of German, but also the Swiss machine tool segment:

Boehringer, Boley and Leinen, Burkhart and Weber, Burr, Kapp, Liebherr, Mägerle, Montan, Pe-Te-We, Scharmann, UVA, Waldrich, Weisser, Werner and Pfeleiderer.



// The site of the Schussenrieder Straße 75 around 1957. The large residential building can be seen, which until the beginning of the sixties also housed the offices, as well as two old halls, which Kessler moved into in 1953 and bought in 1955. The long hall had already been built by Kessler. The small factory was surrounded by gardens, farmland and two adjacent residential buildings.

**In short: In 1959, the company generated a turnover of DM 1,500,262 and had about 60 employees.**

What was already obvious at this point was that Kessler now no longer merely focussed on grinding drives, but also took over solving complex drive tasks for boring machines, milling machines, turning machines and special machines such as hobbing machines.

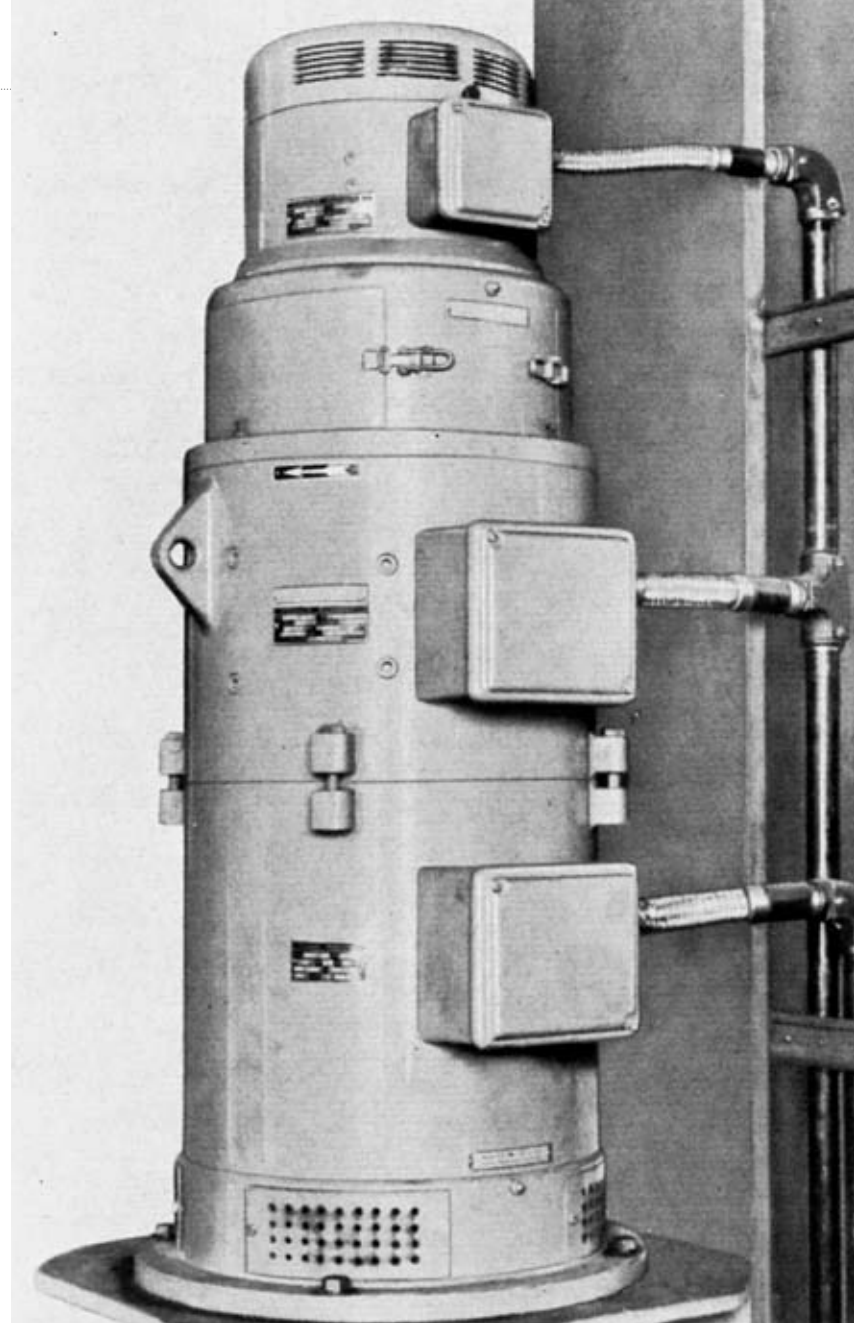
During these years and parallel to the positive company development, quite different problems had to be solved: Those wanting to grow needed manpower, who in turn required living space. So even before building a new office building and new factory halls, Kessler set out to buy the residential building in the Häselstraße for 12 families, which was newly built by building contractor Schützbach from Buchau and made ready for occupancy, thus to enable further employees to move to Buchau.

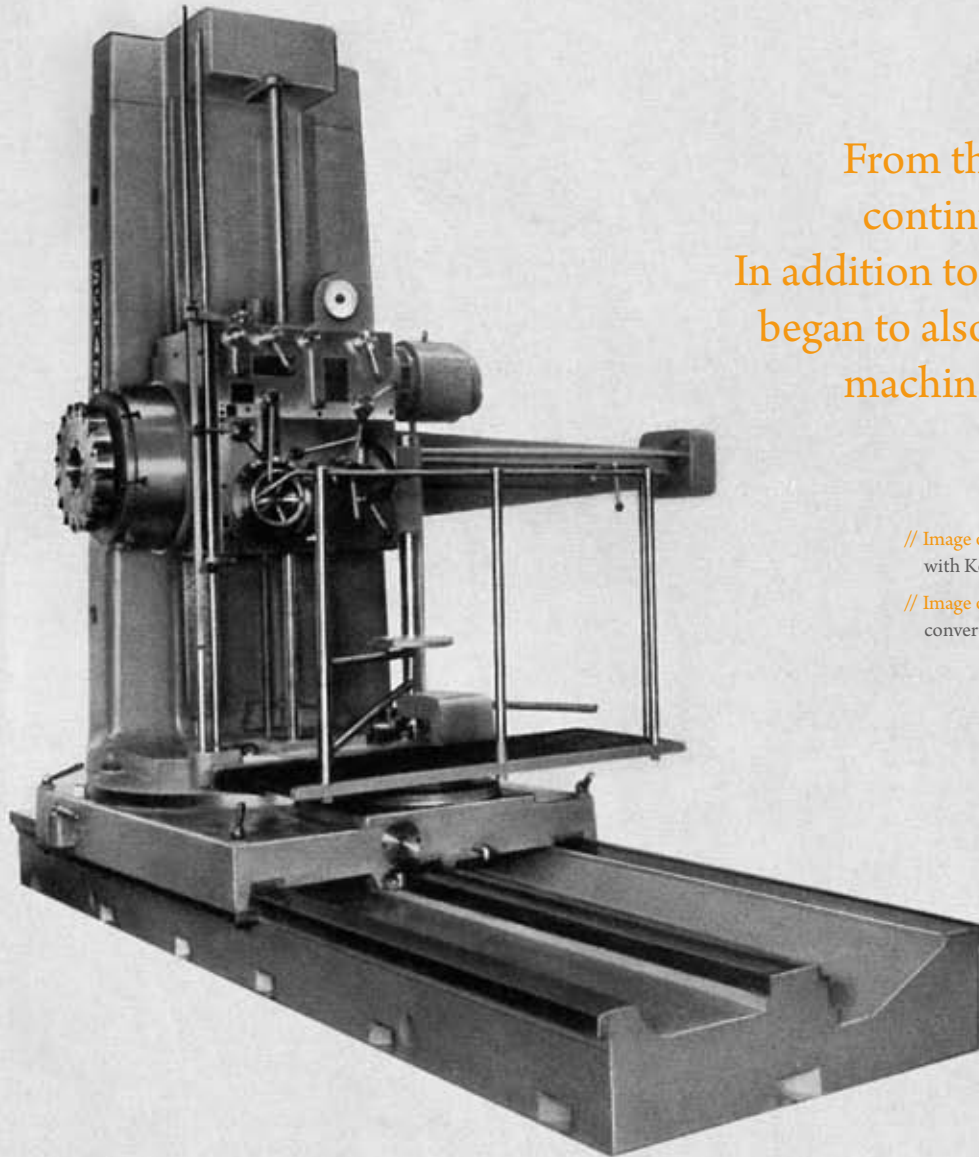
Today we can be thankful and appreciative of the development in the fifties which was impressively and admirably managed under very basic circumstances and founded on the relentless entrepreneurial activities of the Kessler family and the committed knuckling down and loyalty of the mostly local employees of those days resulting in the company's market position and size, which lay the foundations for today's Kessler company.

As a consequence of the company's increased importance, it was entered in the commercial register in 1958, first of all as a so-called individual company, but the conversion to a limited commercial partnership was already in the pipeline. On 01/01/1959, the Franz Kessler KG was established with Franz Kessler as general partner. Limited partners were his wife Emmy as well as his two daughters Anna Marie Mühlhäusler and Elfriede Petschel.

Due to his advanced age – Franz Kessler was 71 years of age in 1979 – he immediately afterwards initiated the hand over of the general partnership: On 01/01/1960, his daughter Elfriede Petschel became general partner, while Franz Kessler remained as limited partner of the company.

The foundation and development of the company to the current level was now completed and it was appropriate to convert the company to a legal status which reflected its importance and status. Now they could continue to grow.





From the mid-fifties, Kessler was able to continuously expand its customer base. In addition to grinding machines, Kessler now began to also equip boring machines, milling machines, turning and special machines.

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// Image on the right: Scharmann plate boring mill with Kessler main spindle motor

// Image on the left: Associated Kessler 1 anchor converter in vertical design.







## The sixties: Years of growth

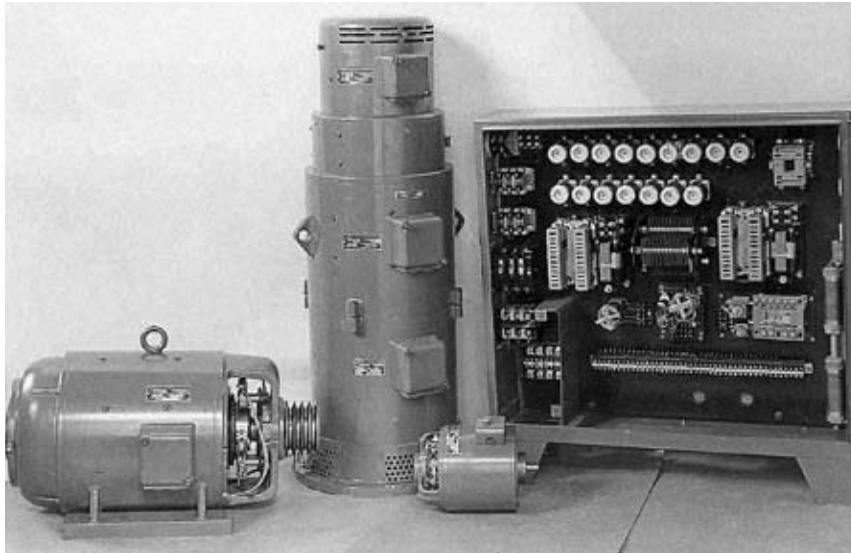
It was now the right time: the technical and commercial departments and their offices were housed in Kessler's residential building, situated on the factory site, however, they had run out of space. What was even more pressing was the expansion of the factory operation, as the old halls of the former factory buildings could not house contemporary machines for the precision machining which was required.

For this reason, from 1960 onwards, Kessler began to purchase several plots in the area "im Häsel" from the town and from the Aschenbrenner family, swapping some again with the town, until the factory site, which can still be recognised today, was complete and could be operated properly.

The new buildings were then constructed at the beginning of the sixties: A factory hall for mechanical machining and an office building with basement and two upper floors.

And this was sorely needed: With the expansion of the product range to boring and milling machines, in particular the performance classes of the produced motors and converters increased from previously max. 10 kW to ranges as high as 150 kW towards the end of the sixties. This meant larger motors and converters, thus larger components and finally significantly larger processing machines such as horizontal lathes, vertical boring and turning mills, milling and boring machines, grinding machines, sheet metal punches, lifting gear and the corresponding foundations. What was also very important of course was the new building of a test field which would be significantly larger with regard to electrical connection power.

In the first half of the sixties the most important factory buildings were built, which were then expanded bit by bit several times over the years to form the factory Franz Kessler KG, Electrical Machines and Appliances, where it stayed up to its relocation to the new industrial park in Kappel in 1988.



With the equipping of large boring and milling machines, the performance class of the KESSLER products increased up to 150 kW, which necessitated respective investments in the production and test field.



// **Image above:** Full equipment set for a machine tool of the sixties, consisting of converter, main spindle motor with belt pulley, feed motor and electrical switching cabinet.

// **Image below:** Variable speed motor P31 in base design with 150 kW capacity at 1,800 rpm.

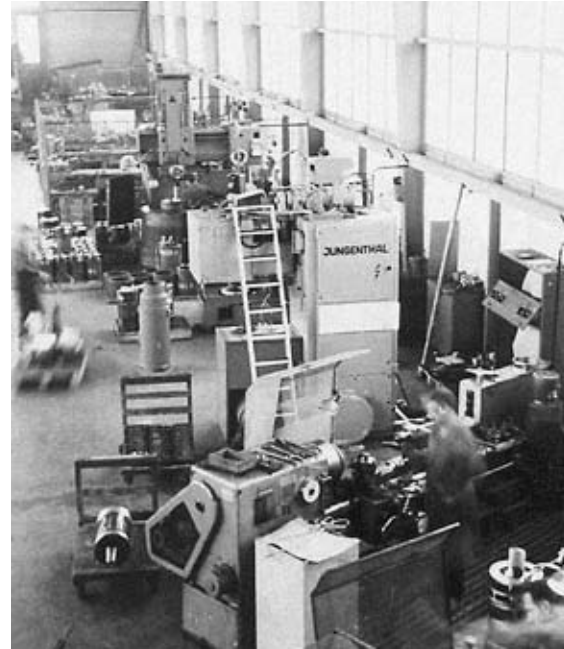
## “Mr Kessler, I promise you, as soon as the war is over, I will start your project immediately!”

Kessler liked to expand bit by bit, but it then all had to happen very quickly. For the building contractors in the region he was not an easy and, at times, a very impatient client. After all, in those days there was a permanent building boom, and when one building contractor proposed to begin the desired building project in about six months, his response was: “Much too late, we will have another war by then!”

Such a statement today seems unimaginable for us, but we must not forget that Franz Kessler belonged to a generation who had experienced two world wars during their adult life, including the political systems before and in-between, so for him the political survival of the Federal Republic of Germany during the Cold War was by no means as certain as we are lucky enough to experience it today.


But anyhow, in typical Upper Swabian serenity, the building contractor proposed the following compromise: “Mr Kessler, I promise you, as soon as the war is over, I will start your project immediately!” Franz Kessler seemed to like this quick-wittedness and the building contractor got the contract.

On the one hand, the product policy in the sixties was determined by the further development of DC motors with regard to their mechanical running smoothness, outstanding concentricity and very sturdy commutation characteristics which enabled them to easily balance out load peaks created by processing on machine tools, i.e. primarily without any loss of quality on the machined workpieces. On the other hand, the converter was still the contemporary and economical solution for supplying the machines with the required DC voltage. From the start, product development was going mainly in the direction of generating DC current, with extremely low ripple, so that the supplied DC motors could achieve the mentioned high concentricity, and the development of the converter was also pushed in the direction of a compact design: the Kessler-1 Anchor Converter.



// **Image on the left:** Since the end of the fifties, Waldrich Siegen and Waldrich Coburg have been among the Kessler customers. Some of the largest boring and milling machines are built here, requiring the respective main drive power.

// **Image on the right:** The Kessler turning shop in the sixties.



## 80<sup>th</sup> Birthday of Franz Kessler

// Mr Reisch, Mr Vötsch, Mr Hößler, Mr Krimm, sitting in front Franz Kessler,  
Mrs Stassi and Mrs Petschel.

While the “Leonardsatz”, a type of converter of which the principle had been known for quite some time, consisted of several motors and generators installed separately on a base plate, Kessler fitted all required power units on one single shaft and placed them in a housing of the Kessler-1 Anchor Converter. In vertical design which was well known at the time this was an incredibly space-saving and compact machine component.

These two mainstays in the development of motors and converters provided the company for the first time with certain unique selling points, forming the basis for growth in the sixties, thus becoming a very important decade in the company’s history. In 1969, the company reached a turnover of DM 6,543,227, and the workforce had grown to approximately 90 employees.

## 80<sup>th</sup> Birthday

On 22<sup>nd</sup> September 1968, Franz Kessler celebrated his 80<sup>th</sup> birthday, and today we are full of admiration for this pioneer, who was active up to this age and beyond: he was still calculating machines, which can be seen in old calculation sheets, and he was at home daily in the factory and above all the test field.









## The seventies: Years of change

In 1970, Franz Kessler fell ill with leukaemia, he gradually got weaker and died on 9<sup>th</sup> January 1971 aged 82, after a work-filled life characterised by tireless entrepreneurial creative energy.

Mrs Elfriede Petschel became responsible for the company's management, having been general partner of the Franz Kessler AG since 1960. Hence the continued management of the company was ensured.

However, among the family members making up the limited partners there were probably different ideas about the future of the company and its policies. In any case, Anna Marie Mühlhäusler, née Kessler, left the limited commercial partnership at the end of 1972. Remaining were Mrs Petschel as general partner and her mother Emmy Kessler as limited partner.

When Emmy Kessler died on 1<sup>st</sup> August 1974, at least one or several limited partners were required to continue managing the KG. Mrs Petschel decided to ask the deserved employees of the years of foundation to become partners, so in addition to the already mentioned engineers Faden, Vötsch and Reisch, the engineer Hartmann and accountant Schreier became limited partners of Franz Kessler KG.

All in all, this setup was not to last long either, as Mrs Petschel became seriously ill in 1976 and died on 10<sup>th</sup> March 1978 following numerous hospital stays during her long battle with cancer, which she fought with admirable energy.



// Elfriede Petschel, née Kessler  
1911 – 1978

During these years of illness and the time in which hope of a cure was starting to fade, she addressed the issue of a feasible future for the company with great seriousness and care. During this time she made the decision to put all her assets into a foundation, which in accordance with her wishes was to serve two purposes:

## Establishment of the Franz Kessler Trust

1. It was to serve a social purpose as the Franz Kessler Gemeinnützige Stiftungsgesellschaft (charitable trust company). She decreed that the foundation purpose was to be the support of homes and establishments for mentally and physically disabled children.
2. At the same time, the Foundation as general partner was to stay connected to the company Franz Kessler KG as main shareholder and thus continue the life's work of her father.

## “With ownership comes responsibility – its application must serve the greater good”

Today we can appreciate with great respect that Mrs Petschel, although faced with her impending fate, put all her strength, energy and prudence together with the advisors she consulted, to find a sustainable solution, one which has now already lasted 35 years. The orderly continuation of the company was thus launched.

But another point of view also demands our respect and can make us proud to be part of this company: “With ownership comes responsibility – its application must serve the greater good”, is stated in the Constitution of the Federal Republic of Germany.

With her desire to make the charitable trust company the main shareholder of the company, she ensured that the charitable trust company would continue to take an interest in the company processes and thus contribute to the creation of further property and ownership. But this sense of property and ownership – assuming a prudent operative business management – was also subject to a social obligation which had been specified by her. A correlation to our constitutional principle which is impressive, determining the spirit of our company management to this day and still applicable as a guideline for the future.

For the time after her death, she appointed Karl Reisch as chairman of the Franz Kessler charitable trust company and also entrusted him with the management of Franz Kessler KG.

Purely from an economical point of view the seventies were very turbulent at Franz Kessler in regard to necessary operational decisions. The period was characterised by a serious economic crisis at the beginning of the decade, which found its expression in the oil crisis in 1973, which we can probably all still remember.

Added to this, was a drastic technological change for the Kessler company: the replacement of the rotary converters with the now marketable current converters. These were static, power-electronic converters which were far superior to the rotary converters with regard to compactness and achievable dynamics, and which made controllability of the total drive much more efficient by means of a simple, feasible signal connection. In particular the emerging NC technology of the times required these new actuators.

This had disastrous consequences for Kessler: about 60% of the turnover was achieved with converters, and was a product line which was now to be obsolete. At first glance, the result of a missed technical development.



// Karl Reisch, Managing Director of Franz Kessler KG and Chairman of Franz Kessler Gemeinnütziger Stiftungsgesellschaft (charitable trust company) since 1978.

Therefore it should be said that Kessler had actually started developing a converter series at the beginning of the seventies. However, it soon became clear that it would by no means be enough for an economical and thus competitive production of power-electronic actuators. Even if all supplied Kessler motors could have been equipped with their own converters, they would always have remained inferior to the large players such as Siemens, BBC or AEG, as these companies had many other lines of business in addition to the machine tool industry in which they could sell these modern devices, providing them with an unattainable advantage with regard to quantity, not to mention direct access to power diodes and power transistors.

So a difficult and hard decision had to be made, but it was made consciously: Kessler did not enter into production of power-electronic components. Retrospectively this was the right decision:

Many engine manufacturers of the same size as the Kessler company have tried and a lot of them are no longer in the market. But mainly with a view of today's standard of digital drives, directly integrated into CNC controls in machine tool engineering, demonstrated very clearly that Kessler's know-how and limited financial capacity was no match.

## Kessler took a different path

Although the discontinuation of converters was unavoidable, the company had many years of experience with controllable DC motors for machine tools.

The dynamic requirements of these machines kept growing with the increased development of the NC- and later CNC-controlled machining centres, and feeding converters now required a lot more from the DC motors with regard to dynamics and commutation capability than had been the case so far.

The company saw its chance here to use its long-standing know-how profitably with a new series of DC motors specifically needed for the dynamic requirements under converter supply. The square series MIF and MOF were developed, the catalogue included sizes 90 to 200.

Under the management of Mr Reisch, the company was then awarded a supply contract by the BBC as it was called in those days, so that Kessler was added to the BBC product range and supplied the sizes 90-132 which were not produced by BBC itself. This was a vitally important step for Kessler as the BBC, then also advancing into the drive business of the machine tool industry, achieved access to the industry via Franz Kessler KG, which was already established here.



// View of the Kessler office building  
in Häselstraße in the seventies.

View of the office  
in the seventies.



In turn, Kessler had a partner which was highly competent in power electronics and used this cooperation consistently to further develop its DC machine series for converter supply, which was approved and lastingly positioned on the market.

In addition to this, another motor type was pushed in the seventies: the hydro-dynamically lubricated plain bearing motors for highly accurate grinding applications such as roll and crankshaft grinding. Representative for this customer group, we here readily refer to the companies Waldrich Siegen and Waldrich Coburg. The largest Kessler motors of size 315 were designed for these large and heavy machine tools and since then our motors have been distributed all over the world with the Waldrich machines.



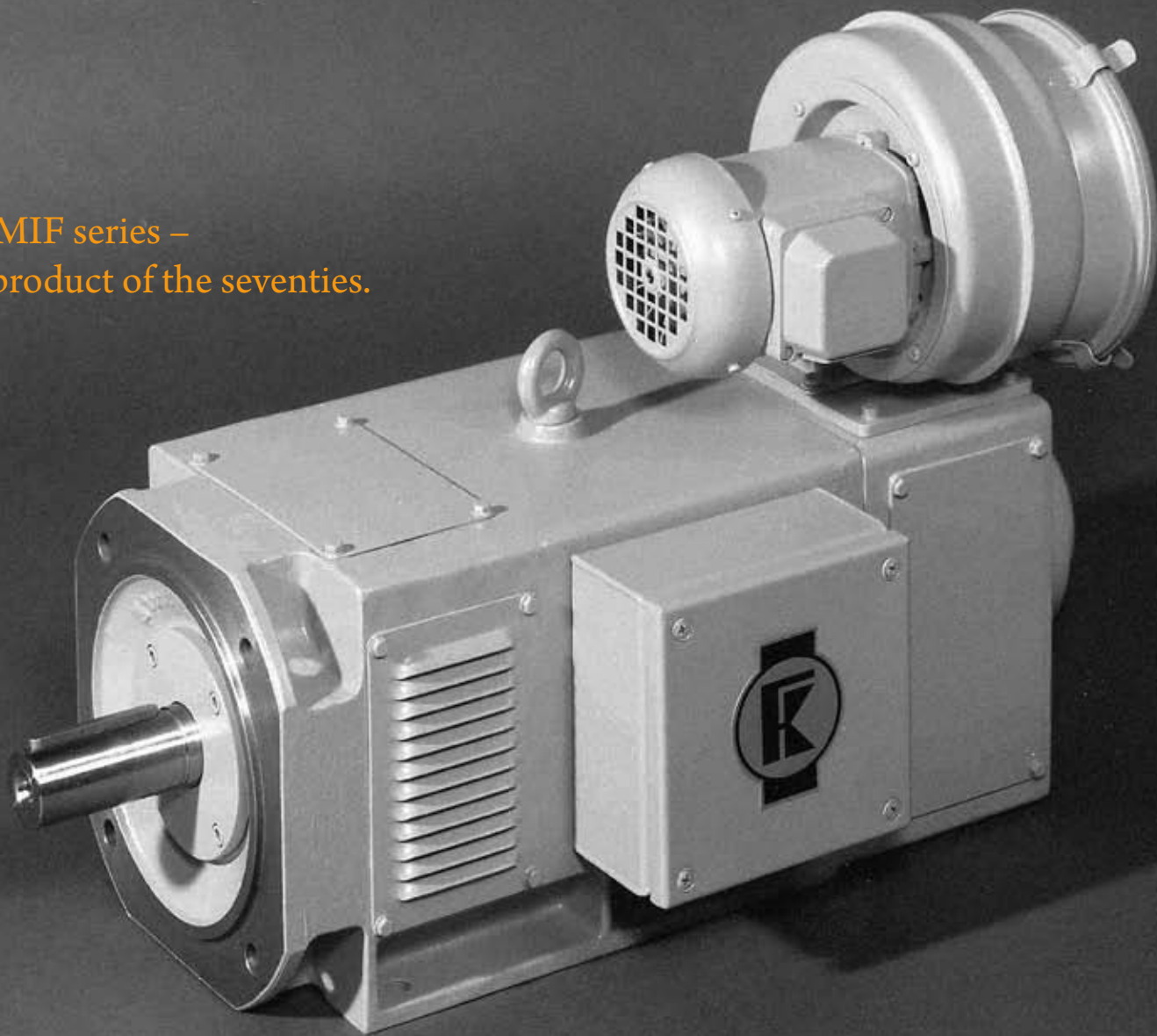
// View of mechanical production in the seventies.

## So to summarise:

After the depression, following the changes in the Kessler family and consequently of the limited commercial partnership as well as the technological changes on the market, the company had reorganised itself and regained its position in 1979 with a turnover of DM11,207,907 and 140 employees.



The MIF series –  
the product of the seventies.







## The eighties: The years of new dynamics



The economic growth in Germany might still have been slow – just a reminder: it was the time during which the then social-liberal coalition under Helmut Schmidt broke up – but towards the middle of the decade there was significant economic recovery, which our entire industry and consequently our company benefited from with its contemporary products.

The mentioned supply contract with the former BBC had a positive impact, as impressive quantities could be achieved for Kessler via their distribution channels. The Kessler motors proved to be quality products. In short: The BBC-Kessler drives were a success and the market accepted them.

For Kessler this now resulted in a steadily increased basic workload in production, mostly for the MIF series with essentially two consequences: On the one hand, investment in the production park, particularly in the CNC lathes and CNC grinding machines made economic sense for the first time due to the quantities achieved, and more so – was even necessary.

// The Chiron FZ 16: The fastest centre of its time with Kessler MIF 90 main spindle motor.



// The new factory in Bad Buchau-Kappel in 1988, not yet painted and without office building, but already in production!

On the other hand, Kessler with its motors designed for best commutation dynamics opened up the strongly growing and increasingly important market of CNC machining centres via its own distribution channels.

The crucial tests were to follow shortly, of which we readily name one representatively: the FZ 16 centre from Chiron in Tuttlingen, produced since 1982 and the fastest in the world, as we can read in the commemorative publication on the occasion of Chiron's anniversary in 2001, was equipped with the Kessler MIF 90. And with regard to the tool replacement work on this centre, our motor had to prove its capacity with regard to dynamics. And it did!

From the mid-eighties it became clear that no further expansion was possible with the existing factory. While Kessler was still on the outskirts in 1960, it had by now been "closed-in" by residential buildings – so it was located in a mixed-use area. No chance of expansion.

For further development of the company, a new, larger factory was indispensable, and so Karl Reisch began to sound out the possibilities.

## The first question was: will the location Bad Buchau remain?

Bad Buchau, which was not exactly positioned strategically with regard to traffic or at least on a main road, had another disadvantage in that surrounding towns and communities were part of a “development program for underdeveloped areas” and could thus offer developed industrial estates and favourable conditions. These were serious grounds for a change of location.

The only thing against relocation was the fact that the employees at the time all came exclusively from the Federsee region, making Bad Buchau the natural centre.

The plans for the further development of the company were presented to the Mayor Müller and the acting city councillor, and the need for relocation was explained, so that the company could expand.

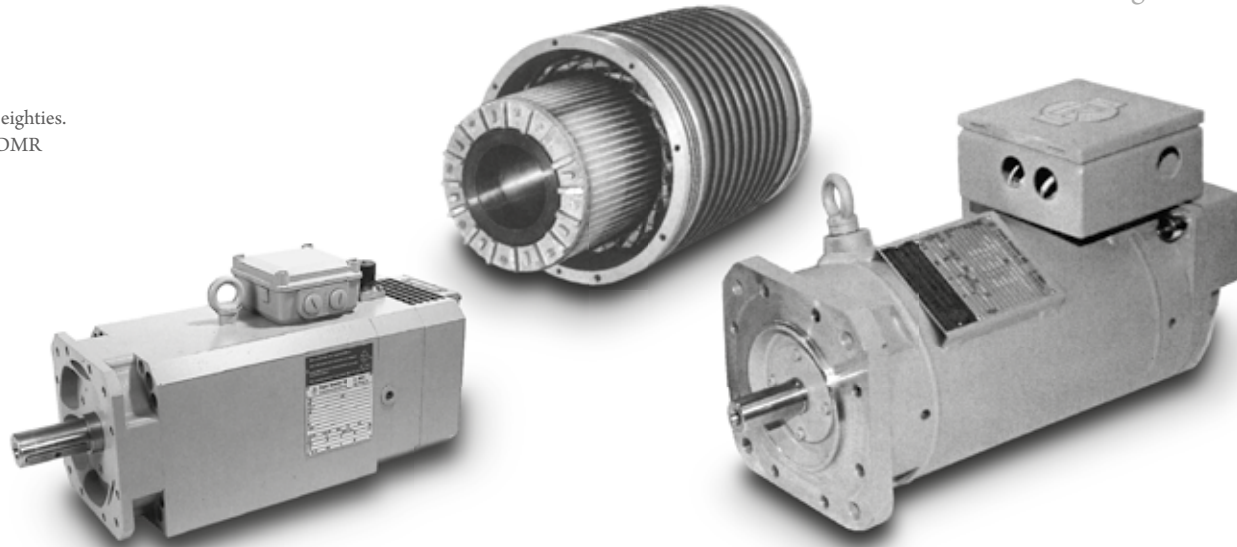
It quickly became clear that action must be taken: there was no designated industrial estate, developed plots were not on offer. So a joint plan was made: The mayor and town started planning an industrial estate in Bad Buchau in the district of Kappel, and promised their support for the required acquisition of land and the upcoming negotiations with the numerous owners, who first needed to be convinced. After all, Kessler had to be able to purchase a number of parcels of land, which until then had been used agriculturally, in order to achieve the required company size.

## Very well then:

Kessler decided to stay and the very difficult task of the acquisition of land was successful.

In 1986, the new building was started and in 1988 the new factory with a roofed production area doubled to 8,000 square metres was ready for moving into.

// The new product lines of the eighties.  
From the left: DMQ, DME, DMR



However, product development must not come to a halt either during the time in which the new factory was being built: it was apparent that the DC motor series MIF and MOF, which had been designed in the seventies, were ready to be replaced. The new frequency converters enabled operation of the asynchronous motor, whose design was significantly sturdier, required less maintenance and was more cost-effective than the DC motors, with a control quality adequate for machine tool main drives.

In short: The end of the DC motors – for more than 50 years the key Kessler product – became a fact very quickly!

The development for a completely new air-cooled asynchronous motor series in a square design had already started in the old factory: DMQ. Later it was followed by the liquid-cooled series DMR and an assembly kit motor series DME, which were produced in Kappel.

So once again Kessler seemed ready for the market with these new product lines. But competition in the field of asynchronous motors for main drives was significantly tougher: Manufacturers of drive packages and controls such as Siemens, Bosch, Indramat or the CNC world market leader Fanuc provided main spindle motors in a package, which made it tricky for a special motor manufacturer to stay in the game.

Areas had to be found where the package manufacturers and their motors had nothing to offer: higher rotational speeds, improved smoothness and real spindle drive options such as cooling lubricant supply and similar.

## Either a machine tool equipped with a standard package drive or much better – equipped with a high-spec one from Kessler!

The option of providing customers not with the cheaper one, but with the comprehensive option for the required cases with the high-spec one was the right path to take. We consoled ourselves with the realisation: the choice was either a machine tool with a standard package drive or much better – equipped with a high-spec one from Kessler!

A pleasant side effect in these years was the growing realisation of package manufacturers not to regard our company as an annoying main spindle competitor anymore, but to accept us as a welcome partner for the main spindle options they were not able to offer themselves, for the benefit of our shared customers.

So Kessler was back in play, not so much with volume, but at the technical peak, which is where it hurts. An incredibly fruitful period, from a product development point of view, as would soon become apparent in the nineties.

In 1989, the company achieved a turnover of DM 20,446,091, with a workforce of 170 employees. The industry was doing well, and production of the German machine tool industry reached an all-time high of around 14.9 billion DM.

// **Image on the right:** View of the new mechanical production in the Kappel factory in 1988.









# The nineties: Years of crisis, opportunities and

Everything seemed to be in perfect order – a false conclusion in the middle of the euphoria of the German reunification, as would soon become apparent at the start of the nineties.

The machine tool industry employed approx. 110,000 staff, the vertical range of manufacture and the proportion of in-house development up to detail components was far greater than today, and added to this, complex factory creations such as, for example that known under the key word CIM, influenced thinking significantly. As we know today, these were all situations and factors which in addition to further influences in our industry would get us into a difficult position when faced with the main competitors in Japan. Here, the focus was mainly on easy-to-operate machines which were programmable in a workshop-oriented way, and that in high numbers of units. Consequently, for example the American job shop market mainly went to Japan, while the complex plant business there remained a German domain.

Ultimately though, it is numbers of units which bring savings and create the required pressure on quality discipline. Furthermore, in those days the colleagues in the Far East already had an interest and investment policy subsidised by the state, which you could only dream of in Germany.

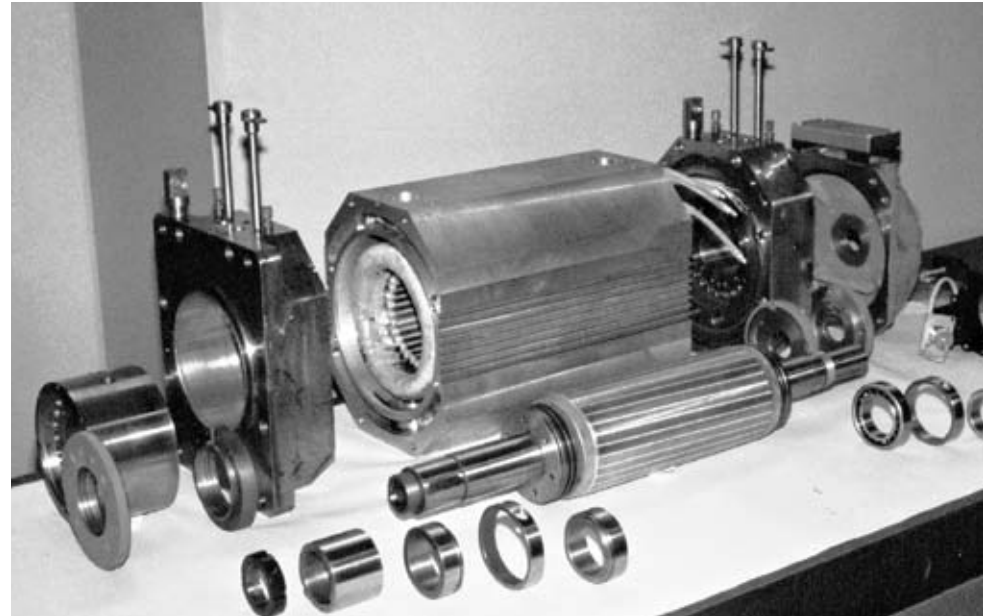
Consequently, the entire German mechanical engineering industry, machine tool engineering in particular, underwent a structural crisis at the beginning of the nineties, whose extent was not entirely imaginable to anyone at that point: In 1994, the industry achieved a mere 60% of the value compared to 1991, with a production volume of around 10.3 billion DM, resulting in corporate collapses.

**Kessler was affected by this crisis just the same.**

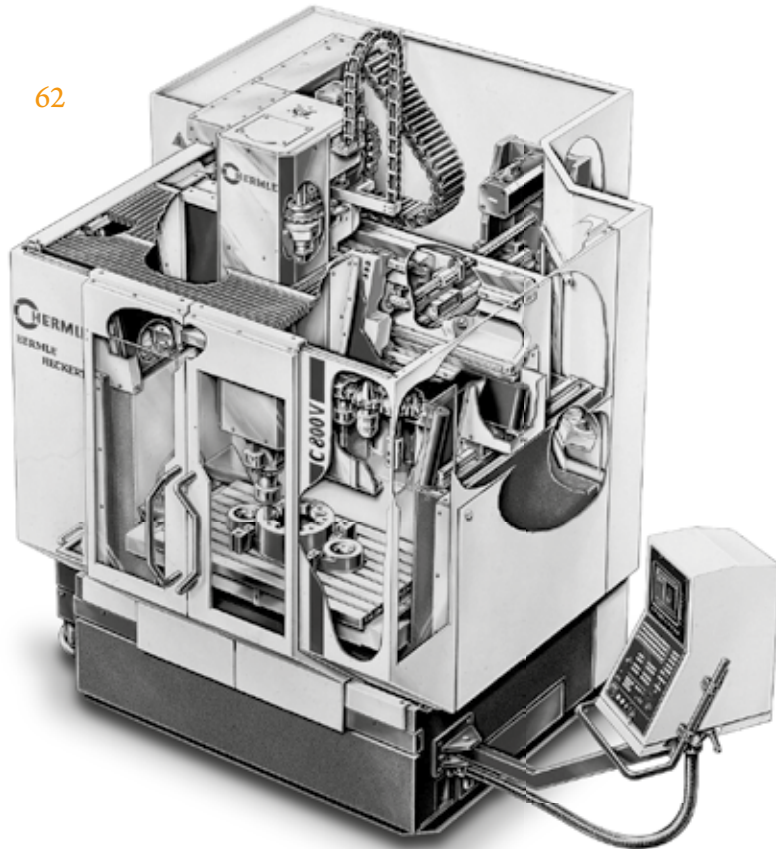
At the lowest point in 1993, turnover dropped to DM 9,296,020, and for the first time in the company's history, personnel numbers had to be cut. The instrument of short-time work, which had been implemented up to that point, was no longer sufficient to make up for the drop. A very serious situation for our customers and our company during this time.

## success

But still: the ability to learn, to adapt and the courage of companies in our industry once again helped them to find new ways, develop concepts for superior products and – this was mainly true for the larger companies – to convince the investors of a new start or to carry on. At that time Kessler had had a close business relationship for many years with the Deckel AG. Like Chiron, Deckel was one of the main customers for the already mentioned high-spec motors. Kessler became not only a supplier for motors at the end of the eighties, but a real development partner for high-speed drives. So for the first time, Deckel horizontal centres attempted rotational speeds in the range of 15 – 20,000 rpm, and the first operable motors for such centres were developed and built at Franz Kessler.



// DMR 112, 18 kW, 18,000 rpm.  
High-speed main spindle motor with oil-air lubrication, 1990.



// The C800 from Hermle, equipped with the KESSLER DMS 100



## The DMS 100

Looking back, the first high-speed motors were not a real business just yet, but it advanced our development to gain experience with spindle bearings at highest peripheral speeds, to study the interplay of warming up rotors and the required and achievable accuracy of fit for the spindle bearing sets and to test and rate different lubrication methods at length. And the most important task was to complete such projects successfully, thus gaining the customer's trust: Kessler can handle high-speed units with spindle bearings and is able to adapt its motors to any drive environment.

When the first signs of crisis could be seen at the beginning of the nineties, the universal mechanical engineers for tool and mould making above all responded with completely new machine concepts. Deckel-Maho with the V series shortly followed by Hermle with the C series brought completely new vertical centre generations to the market, for which Kessler designed a spindle generation with rotational speeds of 8,000 and 15,000 rpm with torques of up to 130 Nm.

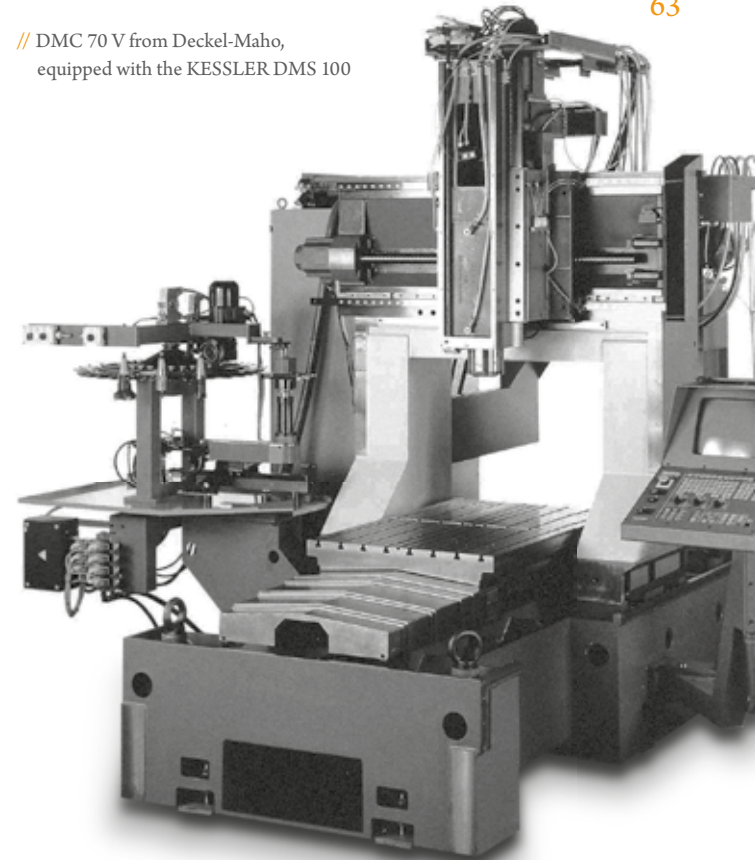


There already were manufacturers of motor spindles with far higher speeds during this time, but no spindle could be found on the market which could provide reasonable torques in the lower speed range for the universal cutter.

The Kessler motor spindles obtained their reference in the production machine field with the Schwäbische Werkzeugmaschinen company, which was a further step towards a real breakthrough for our company. We would like to emphasize the companies mentioned, in addition to the numerous customers we have been able to gain in the meantime, in the field of spindle technology. After all, they were the first to accompany us during this time – and exploring new paths together means having to contend with setbacks and initial problems, persevering and not losing trust in each other.

Today, we look back on these early beginnings with respect and gratitude but also pride, which lay the foundations for a sustainable and prosperous cooperation despite all the initial difficulties that are inherent to such times.

// DMC 70 V from Deckel-Maho,  
equipped with the KESSLER DMS 100



## Presentation of the innovation award “Dr.-Rudolf-Eberle-Preis”

The company had thus managed to get through the tough crisis of the first half of the nineties together with numerous customers, and to equip itself with a modern, future-oriented product for the coming years.

With the presentation of the innovation award “Dr.-Rudolf-Eberle-Preis” by the state of Baden-Württemberg in 1994, the Franz Kessler’s product developments found public recognition for the very first time, which was a great motivator for the staff, after a phase characterised by concerns for the future, short-term work, job cuts on the one hand and intensive development work on the other.

Rudolf Reisch joined the company as commercial director on 01/04/1995. Eckhard Herwanger, who had been calculation and development engineer since 1988, was made technical director.

The business activity of the company livened up due to the success of our main customers, who were once again able to prove their competitiveness effectively with their modern machine concepts. In addition, Kessler determinedly developed a larger customer base.

On 01/01/1997, in addition to Karl Reisch, his son Rudolf Reisch and his son-in-law Eckhard Herwanger were appointed as managing directors of the company. However, the young team of managing directors only had a short time together: Rudolf Reisch died 08/07/1999 as the result of a road accident.

The most successful decade of the company up to this point from an economic viewpoint – with a turnover in 1999 of DM 41,870,935, and the number of employees increased to 260 – remains overshadowed by this serious human loss.





// Dipl.-Ing. Eckhard Herwanger 1961 – 2011



// Dipl.-Kfm. Rudolf Reisch 1966 – 1999





## Start into the new century

The start into the year 2000 was very positive for the industry and the Franz Kessler company.

Kessler was able to gain many new customers and achieved a recognised market position in its segment with a cost/performance ratio suitable for the market, reliable quality and delivery dependability as a partner of the modern machine tool industry.

With effect from 01/01/2003, Dr.-Ing. Uwe Rondé, who had been technical director since 01/09/1999, was appointed to the management board, and now, together with Dipl.-Ing. Eckhard Herwanger, represented the management board of the Franz Kessler GmbH, which was established on 01/01/2001. In 2013, Dr.-Ing. Uwe Rondé left the KESSLER Group.



// Dr.-Ing. Uwe Rondé  
Managing Director 2003 – 2013

The Gildemeister AG granted us public recognition with the award “Supplier of the Year” in 2001 and 2002, which we accepted with pride and with gratitude for the trust placed in us.

In 2002, we were again presented with the innovation award from the state of Baden-Württemberg, for development of a motor spindle in synchronous technology, which was setting new benchmarks with its acceleration in combination with chip removal values. We thank our long-standing customer Chiron for successful implementation of this development project together with us.

In 2003, Franz Kessler generated a turnover of around 37 million Euros with 350 employees, and achieved the second highest turnover in its history after 2001, despite difficult market conditions. In the year of the 80<sup>th</sup> company anniversary, the first edition of the chronicle was published.



// KESSLER was presented with the innovation award “Dr.-Rudolf-Eberle-Preis” for the second time by the state government Baden-Württemberg.



## Diversification and internationalisation

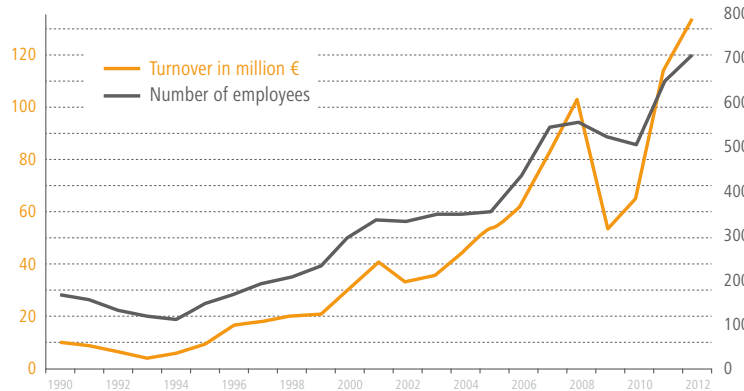
While the years from 1994 to 2003 were characterised by profound structural changes in German machine tool engineering, the past ten years will go down in history particularly due to the serious shifts on the global markets. For example, since 2011 Asia has overtaken the market in Europe as largest importing region for machine tools with a proportion of more than 40 percent. China has been the undisputed number one among importing countries, and it will be difficult to push it from its position at the top.

Apart from the market changes, the past ten years have also shown a more dynamic change of the economic framework conditions. For example, the banking crisis at the turn of the years 2008/2009 caused the abrupt end of several years of growth in German and international machine tool engineering. Following the extreme drop in sales in 2009, there was a short sideways movement in 2010, before the sales figures grew to dimensions in 2011 that no industry observer had ever experienced before.

Also for Kessler the past ten years have been characterised by change in many respects. Thanks to innovative products and targeted new developments in the field of milling heads and multiple axis swivel systems, the new business field of system technology has become an important pillar of the company – with a proportion of no less than 25 percent of the total turnover today. This business field thus matches the results for services within the scope of KESSLER Service Solutions, whose scope of delivery could also be significantly expanded during the past decade.

The third future-oriented change for KESSLER in the recent past is the strategic internationalisation in important future markets. This is particularly apparent in the business development in Asia. While back in 2006, no significant turnover could be recorded, last year KESSLER achieved twelve percent of its turnover on the other side of the Pacific – with the trend still rising.

## The chronicle of success



// The more recent development of turnover and number of employees documents KESSLER's dynamic success story, which in principle, was only interrupted temporarily by the economic downturn as a result of the global financial crisis.

The ninth decade of the company's history starts out with a record for Franz Kessler. The turnover in 2004 increases by over 20 percent to more than 45 million Euros. It is the start of the series production of the first generation of directly driven workpiece tables and swivel units for multi-axis machining, which was received very positively by the market.

Another 12 months and 18 percent of growth later, the turnover reached almost 54 million Euros. The success in these two years is due to the technological performance of existing high-tech spindles and systems as well as the great innovative power, in the field of milling heads amongst others. Furthermore, the staff decidedly contributes to the positive business development with its high level of commitment. This also applies, without restrictions, to the year of 2006, which brings another record turnover of more than 62 million Euros. In the same period, the number of employees grows from 360 to about 440. The company once again benefits from its own training policy. A large proportion of the personnel vacancies can be filled with the company's own junior staff. With a training quota of more than 10 percent KESSLER creates the basis for a successful future.





// Assembly of swivel units in our system assembly.

Based on the good experience gained through technical and commercial training, Eckhard Herwanger initiates the KESSLER scholarship in 2006. This inspires young people from the region to join the engineering profession, and during their studies we offer them a regular apprenticeship pay for their student trainee activities in our company as well as for internships at KESSLER, and at our business associates inland and abroad, before they join us to strengthen the KESSLER team after graduation. Already, the first graduates are employed.

KESSLER continues to write its success story in the following two years. By 2008 the turnover grows to over 100 million Euros for the first time. The number of employees increases to over 550. KESSLER continues to benefit from the extremely favourable mechanical engineering economic situation as well as the innovatively extended product range. What's more, the successive expansion of production capacity to now 23,000 square metres adds to the impressive track record.

## Active and creative despite the economic crisis

To ensure the market position of the company long-term and expand it further, the machine builder extends its leadership in 2008: With effect from 1<sup>st</sup> July 2008, Dr.-Ing. Anton Mayer joins the management board, forming the new leading trio together with Dipl.-Ing. Eckhard Herwanger (managing director since 1997) and Dr.-Ing. Uwe Rondé (managing director since 2003).

Then in 2009, the consequences of the worldwide financial crisis make themselves felt on the market. The machine tool segment also records significant losses. Unlike the mid-nineties, this is not a structural crisis. It turns out that the companies are much better positioned this time. The same applies to KESSLER! Even though turnover dropped by almost 50 percent within the year, there are no production related dismissals. The company is loyal to its employees, especially in these difficult times, who in turn show great flexibility in getting through the worst drop in sales in the company's history.



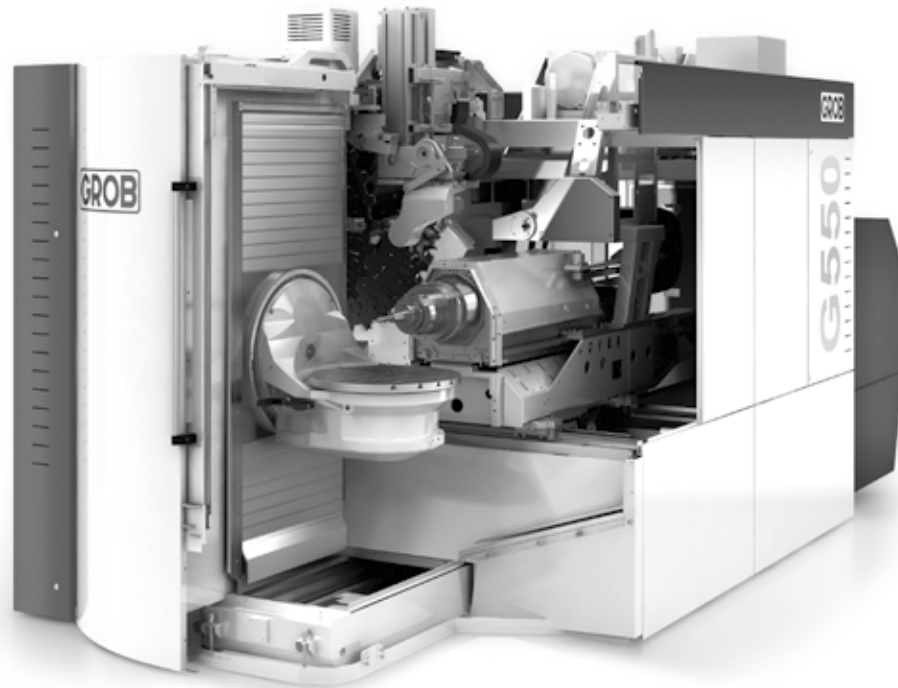
// Dr.-Ing. Anton Mayer  
Managing Director since 2008

Despite the crisis, the company also remains active and creative in relation to the market. In 2009, for example, the KESSLER Academy was established. With targeted further training measures for customers, the foundation is created for customers to optimise their production and perform proactive maintenance tasks on their own.

Following the dramatic economic slump, the business with machine tools stabilises in 2010. At the end of the year, KESSLER can increase its turnover in a difficult market environment by 20 percent to 65 million Euros. The fact that KESSLER has lost none of its innovative power and performance even in the crisis, is proven by the renewed award as “Supplier of the Year” from Gildemeister AG.

The year 2011 is overshadowed by the death of Eckhard Herwanger. He died on 8<sup>th</sup> September 2011 following serious illness.

With his visions, his sense of responsibility and his extraordinary commitment, he had significantly contributed to the successful development of the company since 1988 to become the largest European manufacturer of high-tech spindles and spindle systems. Initially as a calculation and development engineer, since 1995 as technical director and since 1997 as managing director. Throughout all these years, Eckhard Herwanger transferred his enthusiasm, single-mindedness and focus on success to the entire workforce.



// GROB horizontal machining centre  
with KESSLER high-performance spindle.



// KESSLER components in Handtann  
5-axis horizontal machining centre.



// HSC spindle in DMG MORI  
vertical machining centre HSC 70 linear.

## Dynamic escape from the crisis and into the world with success

In January 2011, Dipl.-Ing. Markus Rehm joins the company as managing director. This personnel reinforcement was one of the last far-sighted strategic decisions of Eckhard Herwanger. Unfortunately, he is no longer around to witness KESSLER leaving the economic crisis behind with a total turnover of more than 114 million Euros.

The number of employees increased in 2011 to 650. Kessler benefits from the loyalty to its workforce, particularly during this period, the motivation of the employees and the high commitment for training and further education of the employees, which had always been close to Eckhard Herwanger's heart. Examples for this are the already mentioned KESSLER scholarship, the KESSLER learning factory for the trainees, which represents the entire process chain of the "large" production area on a small scale, and thus prepares the junior staff perfectly for the later challenges in practice, as well as the cooperation with schools in Bad Buchau with "Kurs 21", which has been in existence since 2007.

Following the dramatic downturn in 2009 and the swift recovery, the year of 2012 matches the growth rates from before the crisis. The overall turnover increases to 135 million Euros, the number of employees grows to more than 700 employees. Once more, with these figures KESSLER emphasises its status as the largest independent electric motor and spindle manufacturer in Europe, with an impressive portfolio of first-class high-tech products as well as technical services, which is developed further and expanded holistically.

In June 2012, Dipl.-Kfm. Oliver Henle is appointed as managing director. He had been commercial director in the company since 2007 and had already been a part of the leadership team since 2011. With Dr. Uwe Rondé leaving the company in 2013, a trio consisting of Dipl.-Ing. Markus Rehm, Dr. Anton Mayer and Dipl.-Kfm. Oliver Henle is again managing the company's affairs.



// Dipl.-Ing. Markus Rehm  
Managing Director since 2011



// Dipl.-Kfm. Oliver Henle  
Managing Director since 2012

## Steady growth and future-oriented perspectives

The anniversary year 2013 is mainly characterised by dynamic internationalisation. In addition to the subsidiaries in the USA and China, which have already been in existence for many years, KESSLER opens a subsidiary in Taiwan at the beginning of 2013. The business gains momentum in Russia, one of the largest growth markets on the European continent, since KESSLER Ost GmbH started its work in June 2013.

So the course for further international market growth of products “made in Bad Buchau” is set in the most important growth regions of the world, as manufacturers as well as the users of machine tools benefit from the direct services on site.

The quality, flexibility and solution competence for electric motors, spindles, directly driven spindle swivel heads and workpiece axes as well as special solutions in accordance with customer specifications have made KESSLER the market leader. The aim for the next few years is to further strengthen this position and expand it internationally. Furthermore, the anniversary year provides new perspectives for the company as a traditional specialist for electric motors in the future-oriented field of e-mobility.

With all the changes of the past years and decades: The core elements of the company strategy always were, still are and always will be the trusting competency partnership with national and international customers, as well as team-oriented cooperation with all employees.



## KESLER internationally



// KESLER – global presence for optimum customer proximity

*KESSLER in harmony with town and region*





**CUSTOMER FOCUS** Customer satisfaction is our guiding principle. We understand the demands of the market and develop optimal solutions.

**EXECUTION** Qualified personnel and optimal processes guarantee smooth and speedy execution, from the concept through to the finished product. Whether standard or customised – our high level of vertical integration allows both, whatever the lot size.

**INNOVATION** KESSLER sets standards thanks to its creative personnel and SME-style entrepreneurship.

**RELIABILITY** We are a partner you can rely on. One which keeps its word. We value long-term cooperation.

*Princ*



**1950**

Company relocation and rebuilding in Bad Buchau with initially five employees.

**1988**

Move into the new motor factory in Bad Buchau-Kappel, with a production area doubled to 8,000 square metres and 170 employees.

**1995 – 1997**

KESSLER achieves a leading market position for motor spindles. Turnover by 1997 doubles to 36 million DM.

**2000**

KESSLER is an innovative partner of the machine tool industry in milling, grinding and turning technology. Turnover increases to 60 million DM.

**1923**

Founding of the special motor factory for machine tools and textile machines in Chemnitz/Saxony by Franz Kessler.

**1978**

Founding of the Franz Kessler Gemeinnützige Stiftungsgesellschaft (charitable trust company).

**1994**

Presentation of the innovation award “Dr.-Rudolf-Eberle-Preis” for the development of a compact motor spindle for machining centres of tool and mould making.

**1998**

Expansion of the production area to 16,000 square metres with 260 employees.

**2001**

The market position continues to be maintained, turnover increases to 82 million DM. First distinction as “Gildemeister Supplier of the Year”.



## 2002

For the second time KESSLER is presented with the innovation award “Dr.-Rudolf-Eberle-Preis”.

## 2004

Series production of the first generation of directly driven workpiece tables and swivel units for multi-axis machining.

## 2007

Expansion of the factory in Bad Buchau to a production area of 21,000 square metres is completed.

## 2011

An overall turnover of more than 114 million Euros is achieved; the number of employees increases to 650 with a production area of 23,000 square metres.

## 2013

Internationalisation is promoted. In addition to subsidiaries in the USA, China and Taiwan, KESSLER OST in Moscow has been in existence since June.

## 2003

Development of the first spindle systems: Directly driven workpiece tables and complete swivel units for multi-axis machining. Presentation at the EMO 2003 in Milan, Italy. KESSLER becomes powerful system partner of the machine tool manufacturers – the number of employees increases to 350.

## 2005

Development of the first compact, integrated 2-axis head for large machine tools and mould machining centres is completed. Turnover exceeds 50 million Euros for the first time.

## 2010

For the fifth time Gildemeister elects KESSLER as “Supplier of the Year” as in 2001, 2002, 2004 and 2008.

## 2012

Renewed increase of overall turnover to 135 million Euros and 700 employees.



Into the future with a wealth of ideas, courage and energy!