



years of MOLL-MOTOR's company history had a major influence on our family's life. My grandfather Norbert Moll founded the company after second world war, when my father Gerald Moll was just one year old. Entrepreneurship was already in Norbert Moll's cradle: His father, my great-grandfather Alphons, also manufactured agricultural machinery since 1900.

Family and company have always been closely related; 47 years were spent even in the same building. The "Schlössl" in Donau-street in Stockerau is a historic building from the 14th century, which was the company's first headquarter, and is still the family home to this day. Here, my grandfather prepared my uncle Werner Moll to be his successor in the company; it was here, where my father Gerald Moll made the decision to keep the business in the family, after his older brother's fatal mountain accident and to abandon his plans to study. My mother, Dagmar Moll, did the bookkeeping for MOLL-MOTOR in the evenings, while she raised my three siblings and me during the day. Her contribution was an essential foundation for the company's growth since the 1970s.

The staff of MOLL-MOTOR was always present in the family's everyday life, and the "Schlössl", holding several residential units, became a temporary home for some of the employees. Here, I met and fell in love with my wife Peristera when I was a young adult. Today she is responsible for accounting at MOLL-MOTOR.

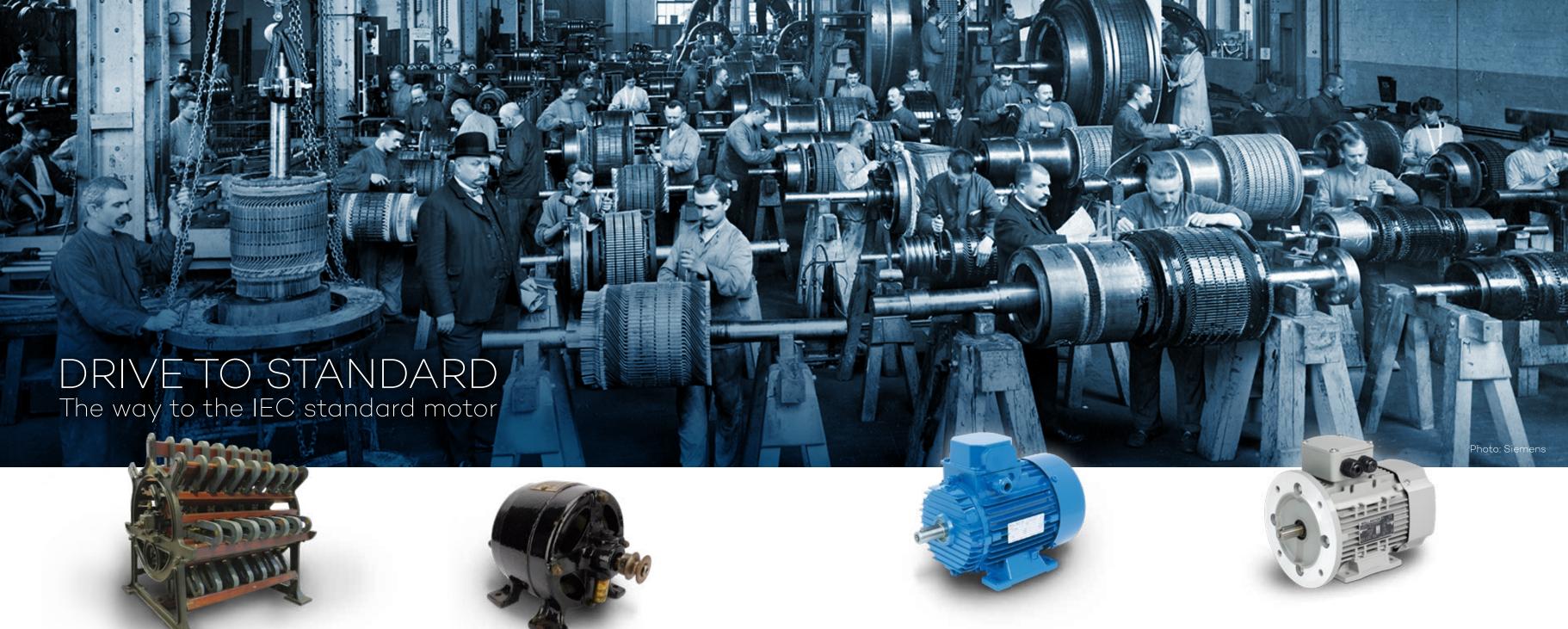
In 1995 we moved the company into the current location in the Industrie-street and it offers us much greater possibilities. Fortunately, we were able to also relocate the family atmosphere and to maintain it in the strong company growth of recent years. For my family and me, it was always important to support MOLL-MOTOR employees and their families in challenging personal situations. Luckily, this attitude is also perceived by the staff. Among the 100 questions in the latest employee survey, the statement "The company is family-friendly" received the second-highest approval rating.

MOLL-MOTOR is characterised by continuity. Despite strong growth, more than half of the employees have been part of the company for over 10 years. Several colleagues started working here more than 30 years ago, one colleague has even accompanied and helped shape the company's success for over 40 years. The strengths of our company, which are presented in this brochure, are built on this wealth of experience. We cordially invite you to read it. People who are getting to know us for the first time can gain a good insight. Perhaps some of you will become employees or business partners in the future. There also might be new insights for our loyal colleagues, customers and suppliers, as we present fields they might take a closer look on for the first time. Together with you, we are pleased about the success we have achieved together. After 75 years of MOLL-MOTOR we look forward to further decades together with confidence.

Many thanks! Gerulf Moll

On behalf of the entire family





# 1866-1900: The pioneer era

Low-voltage three-phase motors look very similar on the outside and have done so for over 50 years. This has two major reasons: On the one hand, technical necessities determinate the design, primarily cooling and safety. On the other hand, shape is caused by international standards. In contrast to today, historic electric motors in museums have very different shapes and often the electric cables are openly visible. The electric motor, as we know it today, was invented in 1866 by Werner from Siemens. Through the expansion of electricity grids in the late 19th century, many motors were already in use around 1900. Small companies, founded by tinkerers, manufactured their own electric motors and built small conveying and processing machines for commercial enterprises.

# 1900-1950: Motors shrink in size

In the following 50 years, huge technical advances were made, the size shrank to about one-third for the same performance. Since 1950, the size has basically remained the same.

The post-war reconstruction led to a great demand for electric motors in Europe. Many factories had been destroyed by the war or were now located on the other side of the Iron Curtain. Often, replacements could no longer be bought from the original manufacturer. Therefore, the need for repairs was very big and from 1948, this demand was also met by MOLL-MOTOR. The most diverse types of motors were repaired here, which were in use in commercial and industrial companies in our area at that time

# 1950-2000: Standard gains acceptance

In 1950, the USA was already using the NEMA standard of the National Electrical Manufacturers Association, founded in 1926. The measurement was not suitable for Europe, as e.g. 6.25 inches used in this standard are 158.75mm. So in 1949 a contact conference took place, from 1950 a committee was formed, that adapted the NEMA measurements, e.g. from 158.75mm to 160mm. Binding standard dimensions for frame sizes 112 to 315 were defined in 1958/1960 and in 1967 by the CENEL Committee. They came into force in the EEC and EFTA, and finally, via the "International Electrotechnical Commission" IEC, became an international standard. At the end of the 1960s, MOLL-MOTOR established contacts with motor manufacturers in different parts of Europe and rose to become a popular supplier of standard motors in the following years. When it comes to geared motors, MOLL-MOTOR has significantly promoted the use of IEC motors, as the separate interchangeability of the components grants flexibility and security of supply to our customers.

# 2000-Today: Focus on efficiency

The standardisation of motors particularly benefits the manufacturing industry. If a motor breaks down nowadays, the downtime in production is only minimal, as every IEC standard motor can be quickly exchanged with a new standard motor, regardless of the brand. A motor from MOLL-MOTOR or from SIEMENS can easily take the place of a burnt standard motor of any other brand. Our partners in the industry do not need to stockpile many different replacement motors and therefore save costs.

Since the year 2000, end users have also benefited from stricter regulations of minimum efficiency. This increases the purchasing costs, but machine and plant operators easily recoup the additional costs over the life cycle of the motor. The philosophy of MOLL-MOTOR is to keep motors of the next higher efficiency level available already at an early stage. IE4 comes into force in the summer of 2023 for outputs from 75 kW. MOLL-MOTOR can already supply IE4 from 4kW output from stock.

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# STRONG PARTNERS Success through loyalty

Similar to the economy as a whole, power transmission industry is home to billion-dollar corporations as well as small and medium-sized enterprises (SMEs). The big corporation's strength is to develop many options and to provide detailed documentation. On the other hand, SMEs are ahead when it comes to good service and responding to customer needs, as they can react more flexible. Therefore, partnerships are formed with the aim of combining the strengths of both sides. This approach is not always successful. Some corporations jealously hide important data from the eyes of SMEs, some SMEs only represent corporations on paper in order to decorate their own homepage with logos. A cooperation will only be successful if there is mutual trust and a well-established collaboration that grows with the duration of the partnership.

BONFIGLIOLI has been our partner for gearboxes for over 45 years. We assemble them in-house from components, in line with the BEST programme (Bonfiglioli Excellence Service Team). Since the early 2000s, we have also been working closely with the subsidiary BONFIGLIOLI VECTRON on frequency inverters.

SIEMENS has been our partner for three-phase asynchronous motors for 25 years and we configurate drives for customers using SIEMENS software. In 2011, the cooperation was also extended to servo motors and most recently, explosion-proof motors, which we service and repair as a Siemens Approved Partner – Value Added Reseller under the SIMOLOG programme.

Strong trust is important because MOLL-MOTOR does not work exclusively with these two most important partners, but sources products depending on the customer's needs from almost all suppliers of drive technology. We regularly combine products from BONFIGLIOLI or SIEMENS with products from other manufacturers if a technical or commercial advantage can be achieved. Our technical sales staff is free in its decisions and is not influenced by manufacturer commissions. The fact that we have maintained our strong partnerships for years despite this basic attitude has played a significant role in our company's success.

# SIEMENS

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SIEMENS is a giant in the electrical industry. As a pioneer of electrification in Central Europe, the company's history started back in 1847. Ever since, Siemens developed many business areas, e.g. large household appliances, telephones, trains, traffic lights and magnetic resonance tomographs. Up to now, some of these business fields have been transferred into independent entities. SIEMENS produces electric motors in Europe and offers many special options, such as motors resisting ambient temperatures down to -50°C.

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MOLL-MOTOR

# BONFIGLIOLI

With an annual turnover of around one billion euros, Bonfiglioli is one of the largest manufacturers of drive technology. Founded in 1956 by Clementino Bonfiglioli, it has remained a family business to this day and is rooted in the northern Italian region around Bologna. Bonfiglioli's main objective is the production of gearboxes. Some of them are designed for mobile applications such as construction vehicles, but the strongest focus is on industrial applications.

# LG Arts Center Seoul

The LG Arts Center is a music theatre located in South Korea. Since 2000, the company LG Electronics has been a major sponsor. In 2022, it was rebuilt and reopened with state-of-the-art technology. The construction costs summed up to 192.3 million USD and multifunctionality was the main objective. Through various options of stage conversion, classical orchestra concerts, dance performances, musicals and pop concerts can take place in the same hall. Almost invisible to the visitor, there are 152 geared motors with special theatre brakes installed in the background, which were selected by MOLL-MOTOR.

Here's some technical data of the two most important items: 85 of the drives are parallel shaft gear motors with 8000Nm nominal torque and Ø90mm hollow shaft. The 6-pole drive motors in size IEC180 have a power of 18.5kW each. They are equipped with double brakes providing 2x200Nm brake force. Another 30 drives are bevel gear motors with 4500Nm nominal torque, Ø70mm hollow shaft. The 6-pole drive motors in size IEC132 have a power rating of 4kW, double brakes with 2x40Nm.

The drives mentioned above are used in the theatre's laced floor and can raise and lower scenery directly above the performers' heads, as well as position speakers and spotlight bridges. Other drives open and close curtains, move acoustic doors near the audience, and many other things. Due to the direct proximity to people, safety needs to be put first: The double holding brakes ensure that even if one brake fails, a second unit is still available and risk is minimised. Another major challenge is the reduction of noise level of the drives to an absolute minimum so that the audience can enjoy the performance without disturbance.

Although MOLL-MOTOR's business activities are international, we did not directly participate in the tender in South Korea ourselves. The drives were supplied to a European stage technology company with whom we have worked out theatre projects several times in the past nine years. They were able to win this partial contract for the construction in Seoul, and MOLL-MOTOR is pleased to have contributed to the success of this great cultural venue.

# BIG CUSTOMERS

# Big responsibility

Ten million Euro of our annual turnover results from our ten largest customers. They represent three types of companies, with different needs each. Major customers from Austria mainly come from the machine building sector. MOLL-MOTOR is their partner for the sizing and selection of drives in close technical cooperation with their own design engineers and for ensuring just-in-time delivery. Major customers in the EU mainly come from our own sector, drive technology, where they are strong in a specific niche of the market. MOLL-MOTOR is their partner providing multiple modification possibilities in the workshop, a large warehouse and direct access to manufacturers all over the world. The third type of clients are project customers. They win major contracts, e.g. for theatre refurbishment or shipbuilding. Drive technology components need to be installed to fulfil these projects. MOLL-MOTOR supplies the complete drives as a single source and delivers components from different manufacturers pre-assembled. This enables the clients to install them without losing time. For each of these areas, MOLL-MOTOR has several highly qualified employees. Three of them are introduced in detail below.

# Machine Building: Ing. Markus Schuster

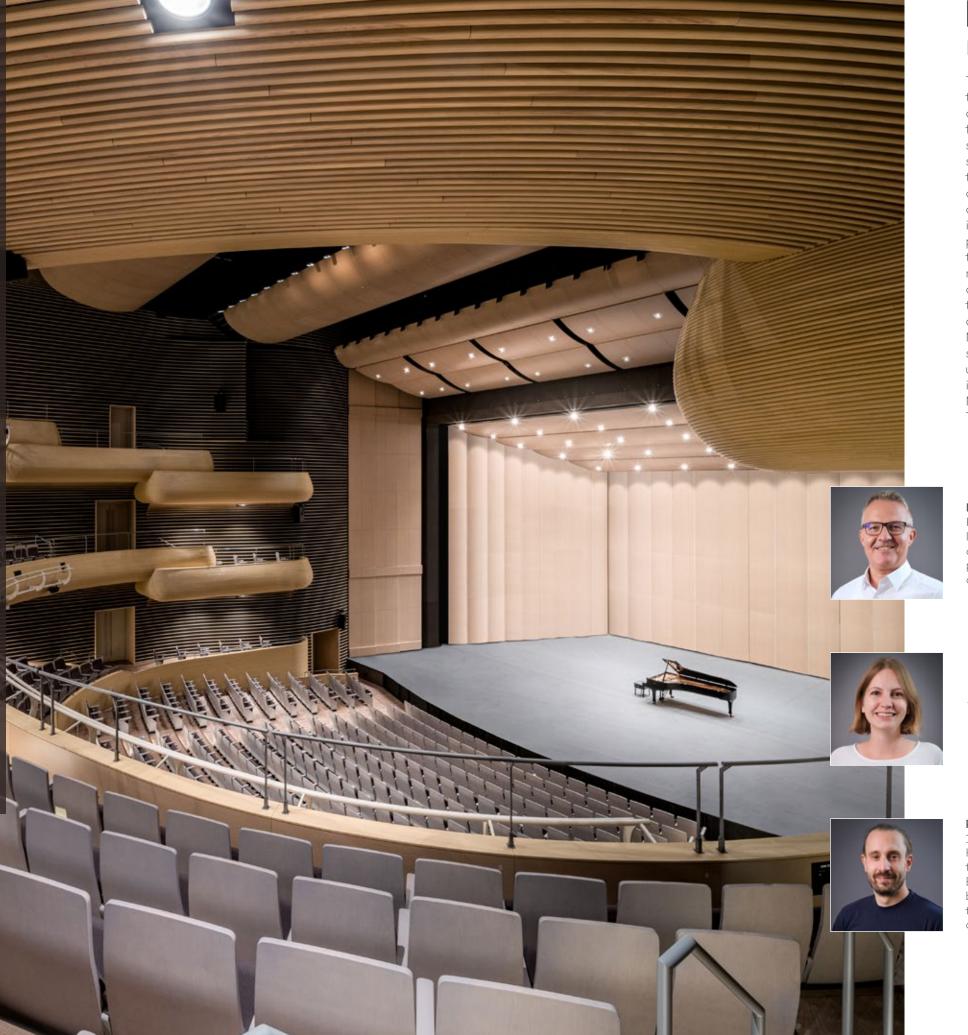
For 27 years working at MOLL-MOTOR, he is responsible for long-term major customers in the machine building industry and serves their needs with a steady hand. These companies produce biomass heaters, crushers or fruit presses, Mr. Schuster and his team make sure that the right drive is always available.

# Drive Technology: Corinna Dorner

13 years employed at MOLL-MOTOR, 5 of them in sales department. With attention to detail she looks after customers from the drive technology, knowing their needs: Quick response on stock levels, consistent pricing, reliable finding of the fitting spare parts, optimisation of packaging and shipment sizes and conscientious preparation of export papers are required for good cooperation.

# Project Business: Ing. Bernhard Scheller

19 years at MOLL-MOTOR, he takes care of project customers. His signature strength is technical enthusiasm, especially in theatre business. Safety is the top priority in stage technology. Every project is different and presents new technical hurdles to be overcome. Mr. Scheller has inexhaustible motivation to find the right supplier and the perfectly fitting product for each new challenge.



# 20 YEARS "ZAPFI"

# An interview with Ing. Herbert Kastner

Power take-off units are emergency generators that are driven by the tractor. MOLL-MOTOR entered serial production 20 years ago, but internally the product is still affectionately called by its nickname - "Zapfi" (short form of the German word "Zapfwelle" for PTO). Today, MOLL-MOTOR is one of the best-known manufacturers of this type of generator in Austria. Herbert Kastner, who was involved in the development from day one, gave us an interview:

Mechatronic drive technology is a broad field, PTO units a small niche of it. Why did the company decide to offer exactly this product?

HK: There has always been a need for emergency generators. Especially on dairy farms, which are often individual farms in higher altitude. There they have quite different snow conditions and wind peaks and therefore power outages can occur more frequently. Using the tractor as a power source is simply the best solution, because there is no need to maintain the additional combustion engine of a generator. In the beginning, we met the demand with bought-in products and quickly realised that we could improve a lot on these.

20 years ago, MOLL-MOTOR took the risk and started series production, you accompanied this step. What can you tell us about the challenges in 2003?

HK: We didn't have a 3D drawing programme and it was an insane amount of work to do everything in AutoCAD. A former colleague, a mechanical engineer, drew the first frame. When you design a machine, you also have to consider the production steps, otherwise the assembly will be a fiddly job later on. And the suppliers for gears, measuring instruments, ... must be fixed and reliable, problems often lie in the details. When the finished product is ready, everyone thinks: "It's all logical anyway", but the effort should not be underestimated.

How were the reactions of the customer for this first series?

HK: We went to trade fairs and promoted the units. At the beginning, the price was an issue, but then the units from different suppliers on the market were compared to each other. There were some without insulation monitoring that needed a ground spike, which was much too short. When the customers realise what damage a bad device can cause, and that our product is well thought out and offers safety, the price is no longer the main issue. After the first hundred units were sold, word of mouth came into play. Then you heard: "Someone in my village is very satisfied with it, I want one of those, too".



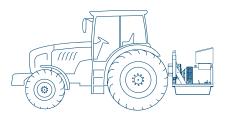
The new ZGN series has been around since 2021. What are the improvements and where do they come from?

HK: After thousands of sales talks with customers, one knows what's important. It's one user reporting about his milking machine with a sensitive control system, that needs a specific voltage quality. Another one raises the question of what might happen in house-supply duty, if a large machine with single phase connection starts running, which is connected to an unmonitored phase. On the electrotechnical side, my retired colleague Erich Schiessling was the significant person for the new series; he read up on the standards intensively, clarified everything and found suitable solutions for all conceivable problems. In the ZGN series, we 100% rely on 3-phase actual value detection. In addition, the MeccAlte generator we use is certainly the highest quality on the market in terms of control performance. And the customers also consider our operating instructions as easy to understand and are glad that they are available on our webpage.

100% of the manufacturing process takes place at the site in Stockerau?

HK: That's right, we mount generators and gearboxes on the frame, build the switch cabinets ourselves, assemble the cable trees and much more. There have been attempts to outsource simple processes. At the beginning you get an interesting price, but it's increased with each subsequent order. I'm glad that we have all the manufacturing steps in-house. A stable company backs the production. Due to the fact that MOLL-MOTOR has 100 employees, people from other departments can help out, when there's a need.

Ing. Herbert Kastner (pictured left with ZGN #777) graduated from HTL Hollabrunn technical school in 1995 and has been a sales engineer at MOLL-MOTOR since 1997. He advises companies, municipalities and private customers on our entire product range. At the same time, he is our specialist for the product group of generators, and in this role he was significantly involved in the technical improvement of our latest PTO unit series "ZGN".





# STARTING YOUR CAREER

# What can be learned at MOLL-MOTOR?

The workforce of MOLL-MOTOR consists of about 100 people. About half of them are blue-collar workers, the others are white-collar employees. Some of these colleagues have decades of experience and hold responsible positions, but they were once beginners as well. Many of them started their career at MOLL-MOTOR and have worked for the same company for their whole professional life. Some of them completed their apprenticeship training in our company, others were hired after completing their final exam at a vocational high school and are an important part of the team ever since.

Young professionals witness extreme differences between companies in the job market. On one hand, some employers only look for people with professional experience, so the newly hired staff will hit the ground running from day one. The other extreme are companies that specialise in newcomers to take advantage of their lack of experience. They demand a lot of overtime work but will throw them out at the next opportunity to start all over again with the next career beginner.

As our target is a long-lasting work relationship, MOLL-MOTOR takes a position completely different to the above mentioned. We take our time for the permanent training of apprentices and for the continuing education and integration of high-school graduates.



APPRENTICESHIP



# Mechatronics

Are you craftly and interested in a technical profession? Then mechatronics is the right apprenticeship for you. We have been training apprentices in this field for more than 60 years. Your tasks include repairing and maintenance of electromechanical drives, control and feedback control systems, project planning and equipping of switching cabinets, as well as maintenance work at the customer's site.

The apprenticeship lasts 3½ years and includes 35 weeks of vocational school with boarding home in Amstetten (Lower Austria).

# Industrial clerk

Do you have a talent for organisational tasks and are you interested in a commercial profession? Then industrial clerk is the right apprenticeship for you. We have been educating apprentices in this field for 8 years. Your tasks will be office work with business customers in sales and purchasing. It is also possible that you work in bookkeeping and payroll accounting. At the same time, you will learn how to use the company software.

The apprenticeship lasts 3 years and includes 30 weeks of vocational school in Waldegg near Wiener Neustadt (Lower Austria).

# AFTER HIGH SCHOOL





"At the HTL (secondary technical school) in Hollabrunn, I already learned the technical basics for this job. I have been a communicative person since my childhood, so I was always interested in a job in sales. After an email with vacancies from MOLL-MOTOR to us graduates, I wrote my application. I share the office with two colleagues. After half a year, they already passed some of their tasks to me. I was even able to complete my own big projects in my first year."

"I did an internship during my HAK (business college) time and was able to get a good insight into the company. It went so well that a permanent position was offered to me for the time after graduating school. Now I take care of marketing, like the design of our homepage and the creation of various price lists. With a combination of creativity, accuracy and economic understanding I can persuade in my profession."

Do you agree with these statements?

I am satisfied with my working hours (including overtime work).

71%

The company is family-friendly.

70%

The job is secure, even in times of crisis.

90%

I can take the breaks I am entitled to.

89%

Our company will be successful in the future too.

From our employee survey 2022

Karoline Lendl,
Assistant to Managing Director Sales & Marketing
Since 2022 part of MOLL-MOTOR

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# SUCCESS IN NUMBERS Flexible, reliable, professional: How MOLL-MOTOR ensures stable growth MOLL-MOTOR has been a growing company for many decades. Our sales development shows a dynamic upward trend, about every ten years we have been able to double our turnover. Over the years, this growth led to challenges which could be overcome and increased our strength.

Development of turnover and employee numbers over the last decades

The broad diversification of our product and customer spectrum helped us during the financial and economic crisis of 2008/2009. If the turnover is swept away in one business sector, we can compensate it in another to keep full use of our capacities.

During the euro crisis, the euro to dollar exchange rate dropped sharply at the end of 2014 and the beginning of 2015. We were able to rely on long-term customer contracts for goods that were already fully paid and we already operated with currency hedges at that time. Both instruments have been optimised ever since.

In the supply chain crisis caused by the pandemic, we were able to rely on our well-equipped warehouse which enabled us to gain market share. In a follow-up on this crisis, we supported our clients to analyse and size safety stock amounts so they won't overshoot the mark.

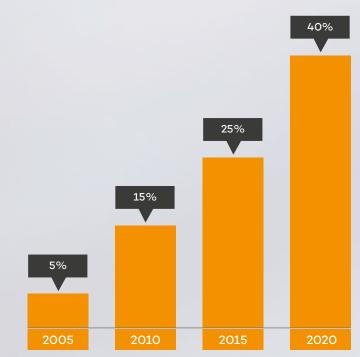
As raw material prices climbed to all-time highs, our long-standing habit of analysing the impact of commodity rates on production costs gave us a great advantage. We are able to tell, whether price increases by suppliers are well justified, or if negotiating pressure needs to be applied to restore fair conditions.

Currently, the economy is shaken by a quick rise in interest rates. As our growth has not been debt-financed, we also expect to gain an advantage compared to our competitors. Our equity ratio has increased significantly over the past 15 years and is currently above 70%. This enables us to move forward even at ambitious projects, for which advance-financing of several hundred thousand euros is necessary. We can also move forward in our investment plans for the construction of a new warehouse with a floor space of 2200 square metres, the construction contract is to be awarded in 2023.

Sales growth is mastered through increased efficiency and an increase in the number of employees, while outsourcing plays a subordinate role. Increasing efficiency is reached by digitalisation, such as advanced warehouse logistics and by experienced staff. Long-serving employees can carry out important operations faster and give important hints to improve processes. While we successfully keep experienced workers in the company, they pass their experience to new staff we recruit on a regular basis.

It is the positive work attitude of our employees and the direct exchange between our engineers and skilled workers that enables flexible processes. During the pandemic, it was therefore essential to find the right balance between protective measures (e.g. company vaccination line) and individual responsibility, and to maintain direct communication during teleworking.

Additional corporate structures help to seize new growth opportunities and consolidate previous growth. Thereby, the strengths of an SME are retained. We see them e.g. in short decision-making paths and modest overhead costs. For this reason, the company is now run by a team of two, which consists of managing partner Gerulf Moll and managing director Gernot Schandl. Ing. Mag. Gerulf Moll has overseen the family business since 2007, Mag. Gernot Schandl was appointed managing director in 2022 after five successful years as head of export sales.



Development of export share



# OUR REPAIR DEPARTMENT Even if we are the last to repair...

Repairing is the oldest branch of our company. This business field is in constant change over the last decades. In the postwar period, repair shops could be found on almost every corner. If a motor was defective, small and large customers turned to small workshops by default.

This situation changed in the 1970s, when large companies expanded their maintenance departments. Doing everything in-house became part of their identity and a matter of pride. Losing this business caused some repair shops to close down, some reduced their business to serve small customers and farmers, while others developed new business fields to compensate. MOLL-MOTOR shifted its capacities towards the trade in new motors during this period.

In the 1990s and 2000s, the tide turned. The large companies followed a trend of concentrating on the core business and returned to the repair shops that had survived. And they not only came for repairs, but also for regular service of their machines. On the other hand, the small customers stopped coming for repairs. As the throwaway mentality gained acceptance, they started buying new products rather than having the old ones repaired.

In the recent years, new trends gain importance in repair business once again. This time it is increased environmental awareness that causes small customers to return to the repair shops. Large companies remain as well, but their expectations change. A new generation of persons in charge demands electronical monitoring and preventive service, and the repair companies need to expand their capabilities to keep this business. New trends are not limited to the customer side, they can also emerge on the supply side and will radically change the market environment. A high share of small repair businesses is run by people from baby boomer generation, or they rely on key workers at the same age. These baby boomers are now retiring, but no suitable successors can be found for leading roles or execution of specialised work.

Luckily, this trend will not affect MOLL-MOTOR and we keep repairing. It was the company growth over the recent decades that enabled us to arrive at a good age balance in our work force. Our most experienced workers are complemented by a strong mid-level of skilled workers and we continue to integrate the best apprentices into permanent positions. Irrespective of our size we stay flexible, so we can adapt to changing trends and still serve small customers in an unbureaucratic manner. This is why our customers can rely on our service, even if we are the last ones to keep up with this business.

Some pictures of a repair case are shown on this page, to illustrate the scope of our repairs. They show the revision of a 4-pole 355kW motor with steel-welded housing and water cooling. This indestructible motor is running since 1980, when the sewage plant was first put into operation. In March 2023 the motor arrived in Stockerau to be thoroughly tested, cleaned and dried. It received new bearing seatings and bearings; the rotor was balanced; insulation coating was applied to the stator winding, and the outside received a new coat of paint.



# What we repair

MOLL-MOTOR offers electrical as well as mechanical repairs and related service of all products belonging to the mechatronic drive technology. On the one hand we take care of the individual components, such as three-phase motors, servomotors and gearboxes, on the other hand, service is provided for equipment in which these components are installed, such as blowers, mixers and pumps. Complete maintenance also includes associated auxiliary equipment such as brake magnets, water cooling systems, encoders, etc.

Three-phase motors between 0.75 kilowatts (1hp) and 355 kW are most common to us, but we can easily show our strength also outside this range, e.g. at motors below 100 watts or above 1 megawatt.

The majority of repairs are carried out in our workshop, where all important equipment is available, e.g. 12t crane, 12kV surge tester, SIEMENS diagnostic equipment, burn-off furnace, induction heating device, pullers, winding machine, balancing machine, lathe, test bench, sand blasting machine, painting line, etc.

Our skilled workers not only work in-house but carry out field service as well. Therefore, you can see our service vehicles all over Austria, marked with a large MOLL-MOTOR logo. Likely, they are on the way to maintain large fans in road tunnels. To avoid lane closures and to minimise the impact on traffic, this work is regularly executed in the night. Our service cars can even be seen abroad, where we serve as a service partner for well-known manufacturers.

MOLL-MOTOR employees are available 24 hours a day 7 days a week, not only if it comes to field service. Our service hotline is available for customers from Austria, mostly we are being called by existing customers, if an important drive fails and a standstill would cause significantly higher costs than paying an express surcharge.

# Alexander Escher, Head of Repair

In 1995, Alex has started his apprentice-ship training at MOLL-MOTOR and is working with us ever since. Since 2003 he holds a master craftsman certificate. In all these years he loyally sticked to repair business. Today he is the main contact person for big customers who have their maintenance done at MOLL-MOTOR. He solves their problems tenaciously and with extensive technical knowledge. Repeatedly he receives emails from customers who are praising the fast work of the entire team.



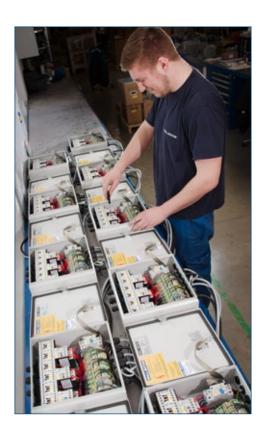
THE CONTROL CABINET

Essential part of modern drive solutions

MOLL-MOTOR frequently supplies full drive packages to customers. These packages not only consist of the core components motor and gearbox, but also include additional products and services. Common additions for machine building customers are frequency inverters, pre-assembled cables and switches, as well as control cabinets, which will be needed on the machine anyway.

With our switch cabinet construction department, we cover the entire range demanded in the market: Project planning from scratch; prototype construction; simple outsourcing of serial production. SME machine building companies usually contact us for outsourcing, as soon as a product is very successful in an exhibition, and the high order intake exceeds their capacities. It's not just the production capacity, but also the logistics that might be overloaded, as switchgear is bought in from many different manufacturers.

The challenge of quickly integrating an outside company to one's own production process will be much easier, if the SME can turn to a well-known, reliable partner: Their existing motor supplier MOLL-MOTOR. Our standard procedure to handle such a process is a frame contract. We agree on an annual quantity, stock all the components in our warehouse, build the cabinets in batches on demand and issue the invoice only at shipment. Flexibility is still guaranteed, as the customer can predate shipments and close a new annual frame contract, before the existing one has exceeded. If needed, we can also provide troubleshooting, design improvements for existing products, or EN ISO13849 risk assessments for safety-related controls.



Our team is ready to accompany the entire project: development; prototyping; testing; production; assembly; commissioning; spare parts procurement. We will carefully support the customer regardless of the scope, for individual solutions as well as for series production. Sometimes, our skills are demanded for retrofits as well.

We also contribute our expertise in several different industries to your project, for e.g.: motor start and control systems, power generation and transformation, recycling and environmental technology, agriculture and food industry. In 2022, we designed a control system for a vacuum packaging plant. We teamed up with a major supplier of vacuum systems, determined the necessary parameters, selected the suitable switchgear combination, took care of planning and implementation. Now, the system is operating in Upper Austria, coordinating 19 vacuum pumps and automatically maintains the vacuum at different levels.



Increasing functionality, reducing consumption

In plant and machine engineering, the focus is shifting at a growing extent to automated processes and energy efficiency. Frequency inverters offer significant potential, as they enable continuous regulation of motor speed, energy-efficient control of the drive motors, as well as simple connection and integration into fieldbus systems. Starting from customer requirements, we work with them to select a suitable device for their application. If required, MOLL-MOTOR provides support from initial start-up to serial production. Selection of simple, cost-effective, as well as high-performant devices is all possible due to our huge product portfolio – always tailored to the client's needs. Rapid delivery is safeguarded by our extensive warehousing of about 1000 devices at our premises in Stockerau.



Bonfiglioli, already mentioned for its gearboxes, also develops and manufactures frequency inverters. Thanks to the decades-long partnership between Bonfiglioli and MOLL-MOTOR, the competence has also grown from plain product sales to the realization of complete powertrain solutions. The development and production site of Bonfiglioli Vectron inverters is in Krefeld, Germany. By this competence center in Germany, we are provided with high-quality products, as well as German-speaking support. Already the basic devices are suitable for a wide range of applications – on top of that, the implementation of special software is possible for specific requirements as well. We invite our customers to contact us with their drive task

# Automation: Dipl.-Ing. (FH) Mario Schiessling

In 2008, Mario started working at MOLL-MOTOR, right after finishing HTL (secondary technical school) with electrotechnical focus. Parallel to his work, he studied Mechatronics, successfully reaching his university degree in 2016. He particularly enjoys working on sophisticated special solutions, which he tackles in close cooperation with our contacts at the supplier Bonfiglioli Vectron.

# ALWAYS CLOSE TO THE CUSTOMER

MOLL-MOTOR in Austria and Europe

It's always easier to do business, if the customer has a contact person speaking his language, that is close enough for direct personal contact on eye level. To fulfil these needs, MOLL-MOTOR relies on regional colleagues in Austria and on partner companies in Europe. Our first attempts to establish external offices took place in the 1990s, after the fall of the iron curtain. A second attempt started 20 years ago and led us on a path that was permanently successful. We gained access to new markets and optimised our service in various regions.

# 2003: Office in Linz (Upper Austria)

Austrian machine building industry has two strong clusters: The Vienna area with our headquarters in Stockerau and Upper Austria. To cover this second cluster more effectively, we established a branch in its provincial capital Linz. The office was opened in 2003, in close distance to the local university. Customers from the region can reach out to our long-serving colleagues Ing. Lucas Frischherz and Petra Illibauer for support on our full product portfolio.

Petra has been part of the MOLL-MOTOR team since 2005. Born in Linz, she also attended school and completed her apprenticeship here and now lives in Gallneukirchen. Our down-to-earth customers are particularly satisfied with

# 2005: Sales South and West

Customer support for further regions of Austria was improved in 2005. Since then, Michael Lachenmaier is the right contact person for enquiries from the southern region; from Leibnitz, he can quickly reach customers to discuss projects. In the West, our colleague Gregor Thöni is the friendly face of MOLL-MOTOR.

Born in Hall/Tyrol, Gregor attended the HTL (secondary technical school) for telecommunication in Innsbruck and then completed an apprenticeship as a process control technician. He is working for MOLL-MOTOR from his home in Absam, a suburb of the regional capital Innsbruck. Since 2005, our customers particularly appreciate his reliability and trustworthiness.

# 2010: Representatives in the North

The expansion across Europe started in Germany. In 2010, we established a cooperation with two partners who already had experience in the electric motor industry and acted as our sales representatives. With their help, doors to well-known manufacturers opened for MOLL-MOTOR and enabled us to catch orders with ever larger quantities.



Our commercial agent MOTOREN SCHÖN is located east of Frankfurt am Main, close to the regional border to the state of Bavaria. The company is managed by Martin Schön and is known for its excellent service quality and fast

# 2017: Dealer strategy EU

For a long time, European dealers with overall sales of 1 to 10 million euros have been offering our motors in their region. In 2017, cooperation was focused on priority partners.

MOLL-MOTOR supported them in further developing their unique strength, in a specific region, industry or product group. The partners managed to gain market share and therefore are very loyal to our brand.

> ENERGOSTAR, a drive technology supplier, is based in the Latvian capital Riga. They assemble gearboxes which they preferably equip with motors from MOLL-MOTOR. Igors Playskis successfully manages the company with approx. 20 employees and has been able to establish branches in the neighbouring Baltic countries Estonia and Lithuania.





In the motor sector, **three-phase motors** with power between 0.06kW and 355kW and speed from 750rpm to 3000rpm are available day-to-day. Collaborating with our suppliers, we offer speeds below 500rpm or even powers of more than 17 megawatts as well. We also have a wide range of single-phase AC motors with normal or increased starting torque up to 5.5kW. brake motors with AC or DC brake, 2/4/6-pole, up to 22kW in frame size 160, vibration motors with centrifugal forces up to 83,000N, and **circular saw motors** from 1.5 to 9kW. Our stock range contains also pole-changing motors with either Dahlander winding or two separate windings, as well as explosion-proof motors in flameproof design. In addition, there are DC motors, torque motors, customized-built special motors, coolant pumps, and many more available in our warehouse. In cooperation with our suppliers, we also provide all other motors required in the industry, such as drum motors.

Our gearbox range includes all common types of gearboxes. We've got helical, worm, planetary, bevel or parallel shaft gear units up to a shaft diameter of 60mm regularly available. Mainly they'll be assembled from components in our premises according to customer requirements. For applications with low power ratings, shaded-pole geared motors and low-backlash planetary gearboxes can be supplied from stock. With our suppliers, we can also provide all other gearboxes required in industry, such as screw jacks or industrial gearboxes up to 160,000Nm.

We also cover demands on variable speeds: Both **planetary variator gearboxes** and **frequency inverters** can be supplied short-termed. Due to long delivery times, the approximately 1000 immediately available inverters are an enormous advantage over the competition.

Output elements is another part of drive technology, which we can provide regularly from stock. For the power transmission of (geared) motors onto the application, MOLL-MOTOR offers a wide range of flexible couplings up to a shaft diameter of 90mm. Even hydraulic starting couplings, clutches, overload/friction clutches, electromagnetic brake clutches, backlash-free steel clutches, etc. can be supplied on demand.

Furthermore, we have got a large variety of V-belt pulleys with the common profiles SPA, SPB, SPC and SPZ, Poly-V pulleys, toothed belt pulleys, sprockets and the corresponding Taper-Lock bushings, as well as adjustable motor slides and motor rails for motors up to frame size 355. Of power generators, we keep in stock several hundred alternators from MeccAlte's ECP and ECO series up to 680kVA. On request, they can be ordered up to 2500kVA. Various other generators, e.g. with petrol, diesel or gas engines in a power range from 0.8 to 2000kVA, wind generators, asynchronous generators, direct current generators, etc. can be delivered on order. Another product manufactured by us is a dynamic voltage and frequency converter. It is being used to simulate mains conditions in other parts of the world in order to testing machines.

It is not only our goods to be available immediately, but also our service. In Austria, we are reachable 24/7 on our (emergency) service hotline 0900 150060°

subject to charges - only available in Austria



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