



60 JAHRE BIHLER
eine Erfolgsgeschichte

PEOPLE MACHINES MILESTONES

60 YEARS BIHLER – A SUCCESS STORY



PEOPLE MACHINES MILESTONES

Creativity and passion

Dear Readers,

This year, Bihler celebrates its 60th Anniversary. Six decades during which we have helped our customers to succeed with creativity and passion. This is a reason for us to be proud of our achievements and to meet the challenges of the future with steadfast optimism.

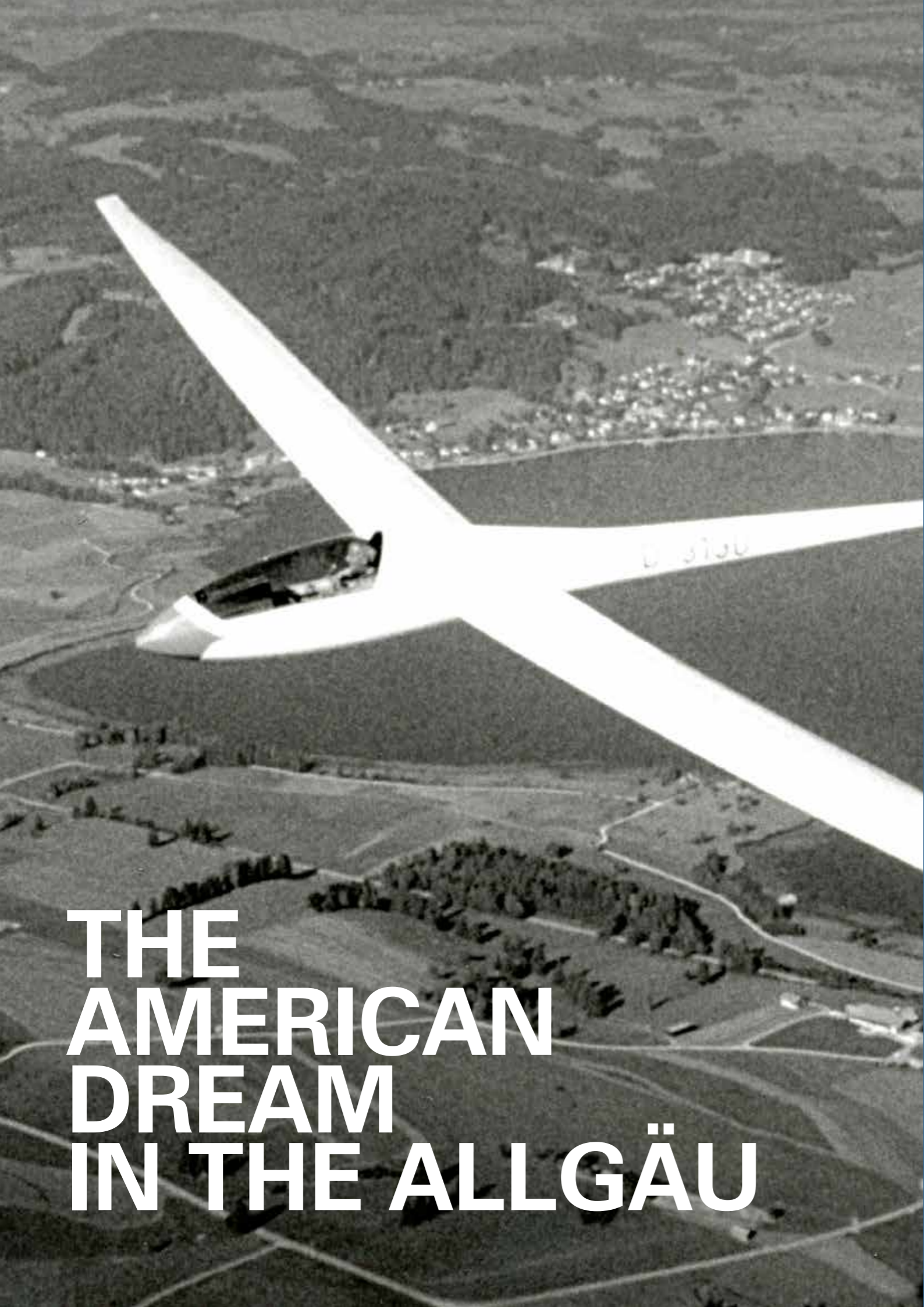
60 years is a long time for a family business. A lot has happened since 1953. Germany has been experiencing the longest period of peace in its history. People have pushed the limits of what is possible further and further. In the course of globalization continents have grown together, and the world has become smaller. At the beginning of the 1950s we were in the midst of the German „Economic miracle“. The people rolled up their sleeves and, in a joint effort, transformed Germany into a prosperous, strong economic nation. At that time, in the farthest corner of the Allgäu region, a trained aircraft mechanic went on to inspire the world with his machine technology and his ideas.

The pioneer Otto Bihler and all Bihler employees since then have done an excellent job over the past decades. With a lot of hard work, discipline, loyalty and spirit of innovation they have transformed a small backyard workshop into a global company, which employs more than 900 people worldwide today. The developments of Bihler always met the demands of the market. Our products, our manufacturing solutions in conjunction with a variety of process technologies and our services always impressed with their added value. They helped users all over the world to increase their competitive strength and secure jobs. To maintain this, we must continue to understand where our customers' needs are to embark on a common successful course into the future.

You are currently holding our Anniversary Chronicle. It offers a multitude of information about people, machines and milestones at Bihler. From the very beginning, over a little less serious anecdotes of Bihler veterans to our technology in everyone's daily life.

I hope you enjoy reading our Chronicle.

Your Mathias Bihler
Managing Partner



THE AMERICAN DREAM IN THE ALLGÄU

PEOPLE MACHINES MILESTONES

Otto Bihler, Martin Niklas & Co. - The Beginning

Today's company and the history of Bihler are inseparable from the founding father Otto Bihler. A pioneer straight from the book. A man who lived his American dream in the Allgäu.

Otto Bihler was born on 26th May, 1926 in the Schwangauer Strasse in Füssen. After leaving school he served an apprenticeship as an aircraft mechanic at Dornier in Pfronten. During World War II, the 18-year-old Otto Bihler served in Normandy and was taken to the USA in captivity as a prisoner of war for two years. There he had to assemble wooden crates for the machine tool builder U.S. BAIRD in Connecticut, but he would have much rather followed an apprenticeship as a toolmaker. In 1946, Otto Bihler returned to Germany and was first employed on the American airfield in Füssen.

„I will build my own spring coiling machine!“

Due to the good wages Otto Bihler moved to Switzerland in the early 50s to work as a skilled craftsman and save the capital to start his own business. In Olten Otto Bihler found a job at Stewo, where he became familiar with the problems of spring production. He soon decided to develop his own spring coiling machine. Technical ideas were influenced by Edward Brüller, who he had gotten to know and appreciate at the MUBA trade fair in Basel in 1952, and who also worked at Stewo. Otto Bihler left Switzerland in 1953, founded his own machine shop in Füssen, and began manufacturing springs and simple devices for the production of springs.

One-man operation in the Ziegelwies

The headquarters of the one-man operation was located in the rooms adjoining the garage of his friend Franz Osterried in the Ziegelwies. In 1954, the financial means started coming to an end and so Otto Bihler was looking for a partner. With the timber merchant Böckling Bihler founded the Bihler Böckling-limited partnership in 1955, and the shares of the company were split 50/50. In 1956 Böckling went bankrupt, and the livelihood created by Otto Bihler with hard work was threatened to be ruined.

Together we are strong

At this critical juncture the paths of Otto Bihler and Martin Niklas crossed once again. The two had made friends at a younger age during their common interests of skiing and motorcycling. „Together we are strong“, was the motto when Martin Niklas stood up for Otto Bihler at the bank and allowed him and his small team to continue their work. Initially, Otto Bihler worked in the basement of the house of his first employee's parents, Max Schneider, in Pfronten. This is where the two began the production of the UFA 1 spring machine. Later they moved into a larger workshop with eight people - a rented mill in Pfronten-Weissbach. It was a rough time for the small workshop that had to fight for its existence from day to day. But it was also the time of a brilliant idea, because here in Pfronten Otto Bihler developed the world's first stamping and forming machine based on ideas of Eduard Brüller, the so called RM 25. At the time, the machine was still divided into two parts so that it would fit through the front door.

The breakthrough at the Hannover Fair

In 1957, the money was running out again, but Otto Bihler and his small team scraped together all their savings in order to present the new radial machine RM 25 and the spring coiling machine UFA 1 at the Hannover Industrial Fair. With their last Deutsch-Mark Otto Bihler and Xaver Settele bought a chicken for lunch on their way to Hannover and ate it right by the roadside. The five days at the fair were a huge success and both machines were all the rage. The cost for the RM 25 on the first day of the fair was DM 7,000, but then the price rose by DM 1,000 every day. Despite this brilliant price increase, the order books were full after the fair, and now a separate, own building for the company was urgently required. The local banks however refused Otto Bihler any support for his young company, he had no collateral to show.

The success story continues

During this difficult situation, once again the owner of the Halblech sawmill, Martin Niklas, helped him out. He provided Otto Bihler with a piece of land in Halblech as well as financial resources, without requiring any collateral. All that was needed was a gentleman's agreement between two friends. Just one year later the first plant was built in Halblech. The total number of employees in 1958 was 18 people, including men of the first hour such as Max Schneider, Xaver Settele and Hans Riedhofer. Bihler immediately began training young people to become toolmakers, millwrights, electricians, technical draftsmen and industrial managers. In the coming decades the company grew steadily. In 1984, Otto Bihler was awarded the German Federal Cross of Merit by the German President for exemplary achievements in vocational education, and in 1989 for his contributions to the Federal Republic of Germany.



Martin Niklas (left) and Otto Bihler

He has been closely connected to his hometown Füssen during his whole life and donated substantial amounts to the municipal museum again and again.

„You always have to be the best!“

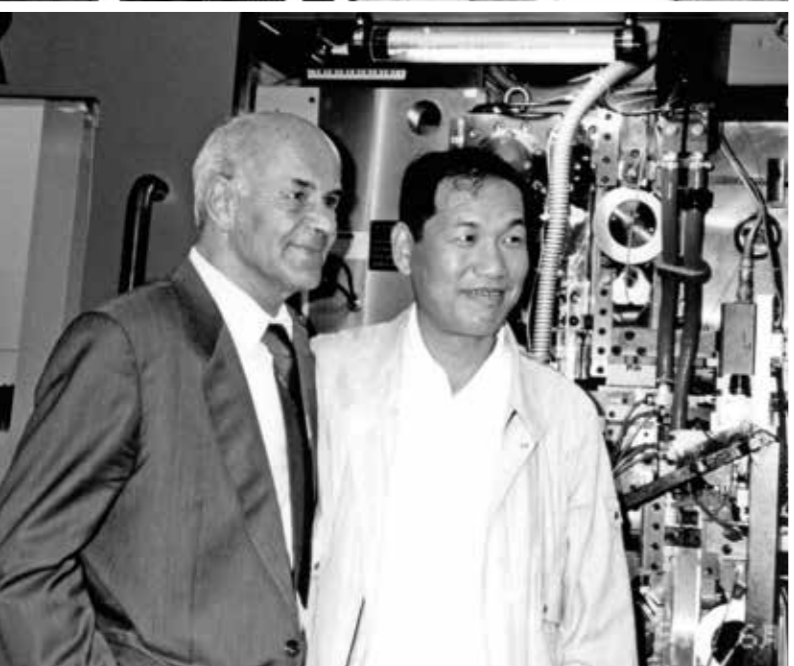
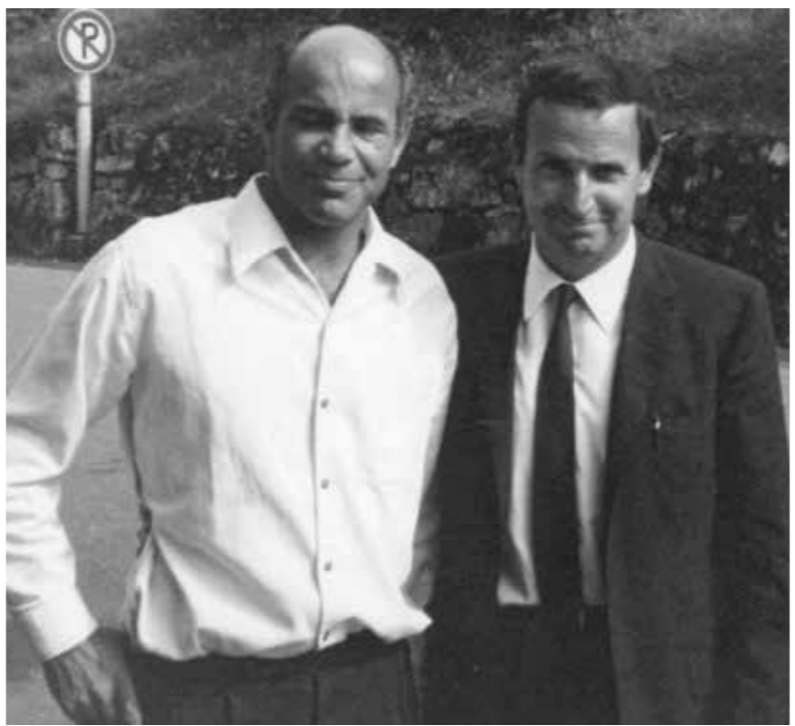
Otto Bihler died unexpectedly at the age of 68 on 19th February 1995 while snowmobiling in the Oberammergau Alps. His life philosophy was always: „You can only exist on the market as long as you're the best.“ He lived this philosophy every day, and we will continue to do so.

„You always have to be the best!“
Otto Bihler lived this philosophy every day, and we will continue to do so.



THE GOOD OLD TIMES





BASED IN ... THE ALLGAU ...





...AT HOME
**IN THE
 WORLD.**



Bihler Füssen

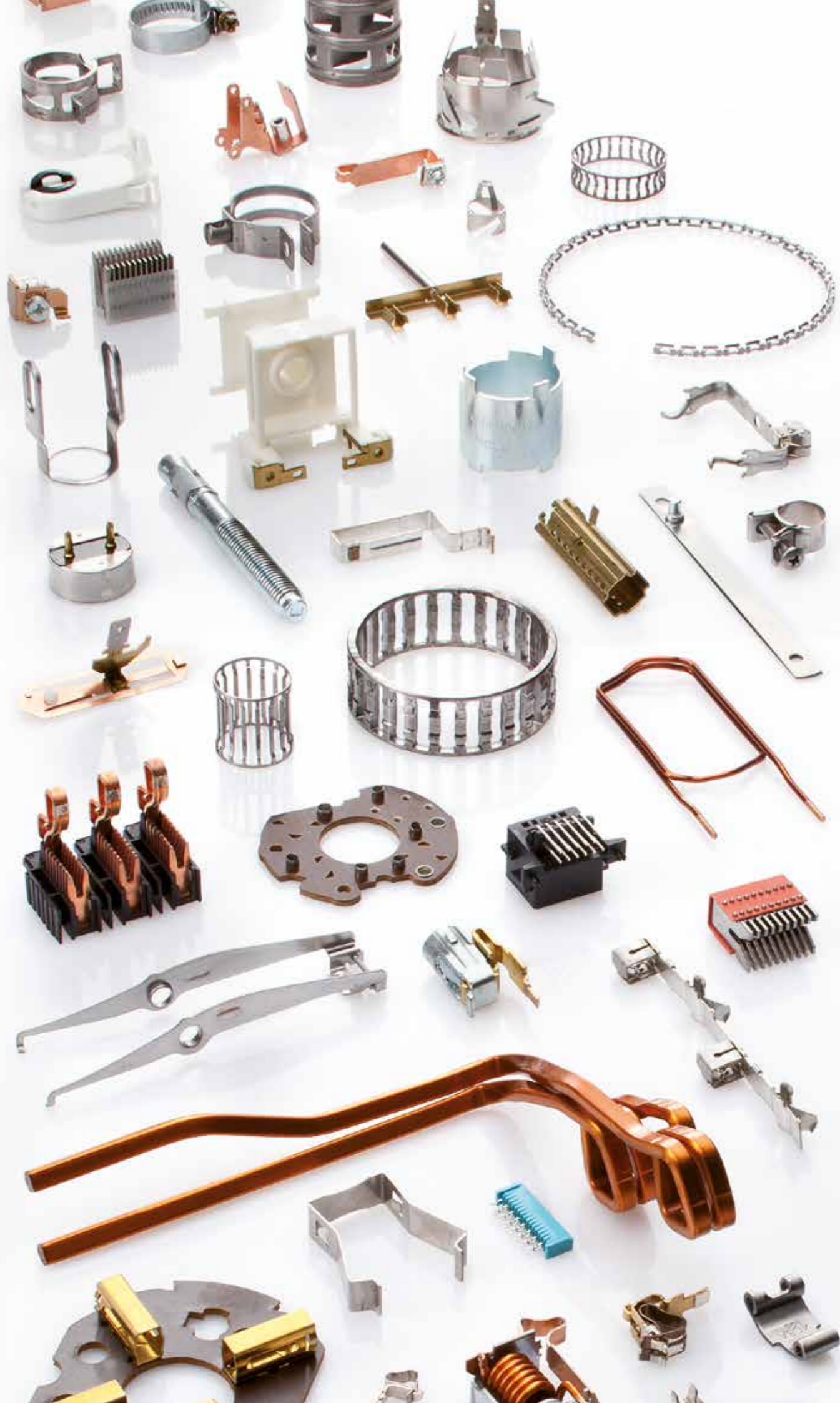


Bihler of America Inc.



Bihler of China

● Main locations ● Sales agencies



PEOPLE MACHINES MILESTONES

Bihler Technology in our daily life

As one of the world's leading system suppliers in the area of stamping, bending, welding, and assembly technology, Bihler stands for certified top technology "Made in Germany" with 60 years of experience.

Bihler has successfully implemented well over 12,000 custom manufacturing solutions since its inception - for a variety of industries such as automotive, electrical and electronics, medical equipment, registration and connection technology, jewelry, spring and wire industry, communication equipment, iron, sheet metal and metal products industry or environmental technology. Users in all sectors benefit from the highest quality of manufactured stamping and bending parts and complete assemblies as well as maximum productivity, flexibility and efficient use of resources in their production.

From razors to washing machines

Since our earliest days, Bihler technology and household equipment have been linked inseparably. Components produced on Bihler manufacturing systems can be found in many areas of our daily life. When shaving, the oscillating head ensures a shave without injuries. In washing machines, damping elements guarantee that the washing machine does not go bouncing during the spin cycle. Energy-saving lamps illuminate our life(space) and outlets provide power for all electrical appliances.

From oil dipsticks to turbocharger components

For almost 60 years now, Bihler technology is used in the automotive industry. Components manufactured using Bihler machines offer drivers maximum safety and driving comfort irrespective of whether they are driving on paved roads or off-road. The close alliance started in the 1950s, with the production of relatively simple stamping and bending parts such as oil dipsticks or springs for headlights and gas caps. The components and assemblies became increasingly complex over the following years. Today, the product portfolio of many suppliers comprises oil filters, spark plugs, windshield wipers, ABS/ESP coil groups, complete seat adjustment assemblies or hub drives and batteries for electric vehicles. With a bit of pride, we can say that only thanks to Bihler stamping and bending assembly technology everything works perfectly in your home and you can drive a car safely.

BETTER LIVING WITH BIHLER



Nib



Outer sleeve / forend



Window safety devices



Coat hangers



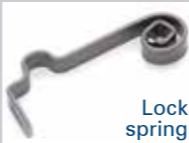
Anchor bolt



Wire brackets



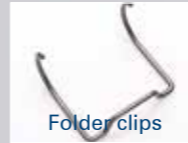
Snow guard



Lock spring



Cylinder lock



Folder clips



Furniture hinges



Solar panel mounting brackets



Lamp socket



Lamp socket



Energy-saving lamp



Wall hook



tesa



Tweezers



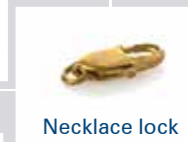
Oscillating head / razor



Necklace



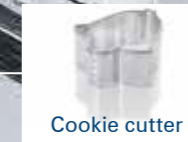
Razor blade



Necklace lock



Socket



Cookie cutter



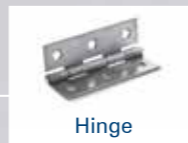
Mixer



Grill / toaster



Door lock



Hinge



Rocker switch



Program switch



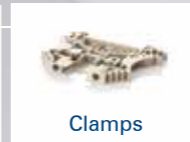
Door lock switch



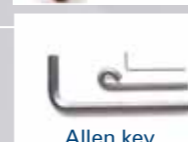
Fuse



Gas valve



Clamps



Allen key



Mobile phone antenna



Hose clamps



Rings / fan

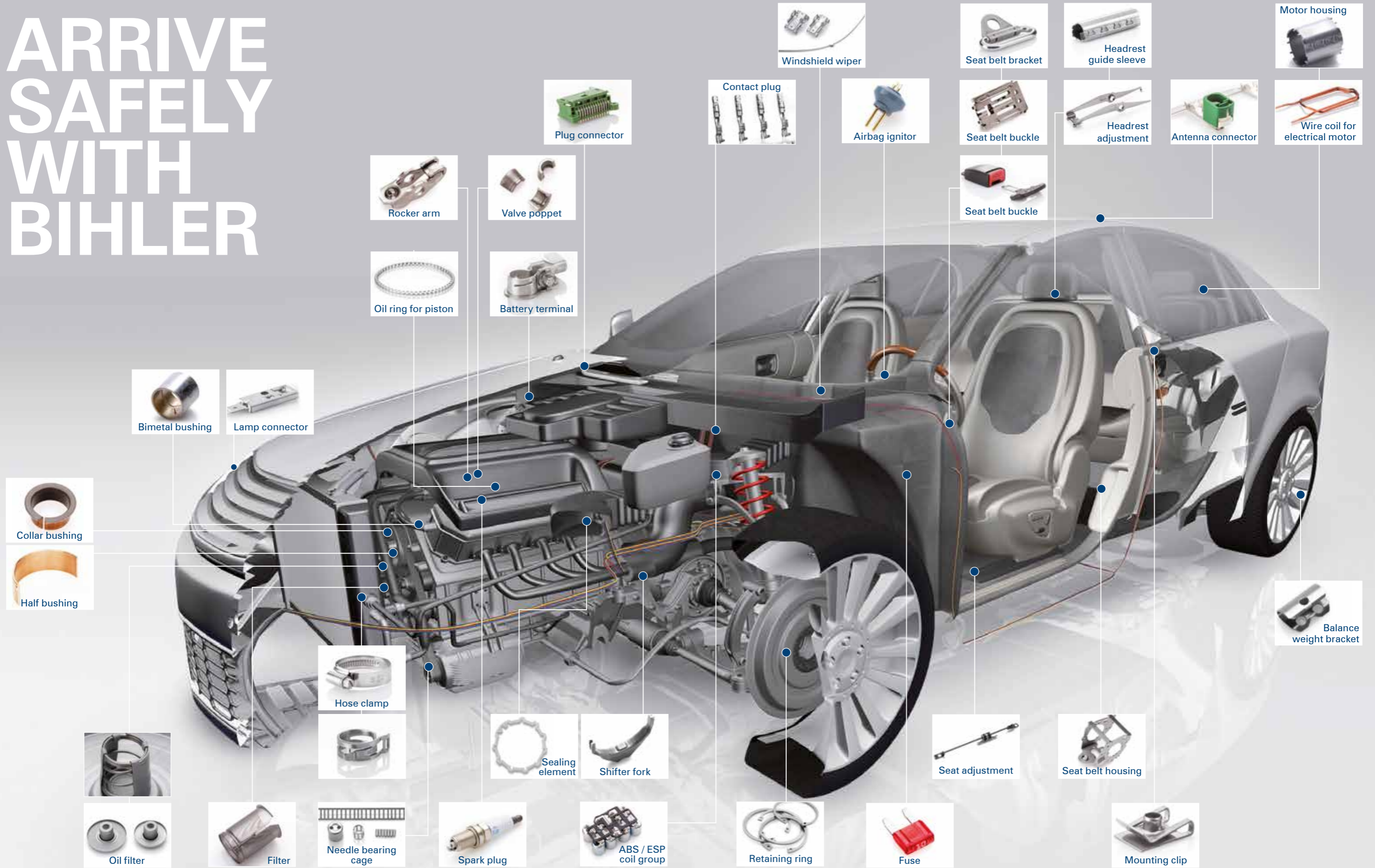


Fan wheel



Bottle cap

ARRIVE SAFELY WITH BIHLER





Peter Peisl
Sales Director / Member of the Executive Board
(1964 - 1998)

Hazardous visits

„Our visits to the USSR were not only determined by caviar, vodka and Champanski at the time - they were also highly dangerous. 1977 during the Brezhnev era was the time of the largest orders from the Soviet Union. Due to their 5-year plans importing companies such as Stankoimport, Avtopromimport and Machinoimport ordered dozens of RM and GRM machines. Christian Keller, Technical Sales Manager for the USSR, was sent to the sales front in those days. He had been assigned a room on the 10th floor of the 3,170-room hotel Rossiya in Moscow, Europe’s largest hotel at the time.

Hans-Jürgen Hörmann
Managing Director / Human Resources / Finance / Administration (1979 - 2011)

Blood and thunder in Brazil

„In the early 80s, Otto Bihler and I visited our Brazilian customer Plinio Fleck in Porto Alegre during a business trip. After a very relaxed barbecue with culinary delights and some caipirinhas we went to bed late at night, slightly tipsy. We made ourselves comfortable in our a little too narrow double bed, opened the window for some fresh air and immediately fell into a deep, noisy sleep. This is why we did not hear the buzzing when the first swarms of mosquitoes came into the room and attacked us.

Reiner Augenstein
Technical Sales / Member of the Executive Board
(1962 - 2006)

Glider No. 3

Late summer 1963: In the factory, Otto Bihler: „Augenstein, are you coming to Kirchheim / Teck on Saturday? I can test fly my new glider.“ „Of course.“ Saturday in Kirchheim: After some short instructions Otto enters the aircraft. When asked whether he has any airplane towing experience, the answer is: „I completed all the exams.“ The launch begins. Otto gets caught in the propeller wash of the towing aircraft and dances a little waltz. Second start: Everything works. Otto is so excited that he doesn’t come back for an hour. Suddenly he comes down vertically from high above, flying steep into the Fils Valley, and then comes up to the plateau from below with a height of 3 meters above ground. The wheel is in, everybody is screaming, he extends it, and touches down 20 meters next to the landing strip, exactly on a milestone. The stone breaks off the wheel and slits the aircraft belly open along 2 meters.
October 1963: Otto and me are in the mountains. Otto: „We need a plane trailer. Could you make a plan?“ „Of course, but I need dimensions of the plane.“ „We don’t have any, we just have a picture and we know that it has a wingspan of 18 m.“ During the Christmas holidays, we cut, weld and prime the trailer in the metal workshop. On day 3, Otto burns a hole in my forearm with the glowing welding wire. His comment, in the deepest Allgäu dialect: „Oh, did I burn you?“ On day 6 our part with a length of 11.5 m is complete.
April 1964: Otto meets me: „Augenstein, on Saturday we go to pick up our plane in Kirchheim.“ After extensive instructions at the aircraft factory, we load the plane and go on the Autobahn A8. Leipheim, speed about 100 km / hour, traffic jam, braking impossible. Otto goes onto the grass verge, guardrails don’t exist yet. We overtake 10 parked cars. Besides the shrubbery on the grass verge nobody is hurt. Of course we are insulted. In the evening we stow our plane on a farm and celebrate at the Café Mozart.

Carlo A. Carutti (with son Efisio M. Carutti left)
Bihler representative Italy
(1957 - present)

The man with the black hat

„In 1957 I was standing at the station in Pfronten a little helpless. My father had sent me to find the machinery technician Otto Bihler. I only spoke a few words of German, had no address of Bihler and was surprised that Pfronten consisted of thirteen districts. Finally, via some detours, I reached Bihler’s backyard workshop in a small house covered with wood shingles. You had to go down four stairs. Then you came into a room covered with drawings, on the floor, on the walls, and a large drawing table in the middle. There I saw him for the first time, the young, notoriously famous skier and ski jumper Otto Bihler and his invention: the world’s first stamping and forming machine RM 25.

Like hotcakes

The RM 25 was brilliant and yet ingeniously simple. I immediately called my father, full of enthusiasm. „Buy it and come home,“ my father said. „I buy it,“ I said it to Otto Bihler. He looked at me with his big black eyes and I had the impression that he did not trust my sudden decision. Later, he always told me: „You had introduced yourself with a black, wide-brimmed hat: What if you’d been a Mafioso? How could I trust you?“ Ever since I’ve been „the man with the black hat“ for him. With a handshake we sealed our cooperation immediately, and I became the Italian representative for Bihler. After Otto Bihler had presented the new machine at the Hannover fair in 1957 and then together with me at the Milan International Engineering Fair, we sold the RM 25 like hotcakes.“

ANECDOTES OF VETERANS

On 25th February a fire broke out simultaneously on the 5th and 11th floors, killing 42 people. The room next door was already burning brightly, and Christian Keller had filled the bathtub as a precautionary measure. Shortly before the fire spread to his room, he was rescued by fire-fighters via the fire escape. I traveled to Moscow one week later and was then accommodated in a purely Russian hotel with Christian Keller, where we were spoiled as special guests. This is where I typed out the drafted contracts and quotations from Christian Keller on a portable typewriter with quadruple carbon paper. Ultimately, the negotiations with our Russian partners were very successful: Contracts for several million DM were sealed with a handshake. With slight residual fire in our throats, we went back to West Germany across the Iron Curtain.“

Eventually we woke up and started beating in the dark with pillows and shoes to bring an end to the bloodsuckers. And finally, after a hard and bitter struggle, we succeeded. Proudly we fell asleep again and didn’t open our eyes until the late morning. What we saw then let the remaining blood in our veins freeze: The formerly white walls of the room were covered in blood and almost completely red. Apparently the Brazilian mosquitoes had a particular taste for our Allgäu blood.“



Peter Mendl

Sales Representative South West
(1977 - 2012)

Fat Thursday

9am, Heidelberg „Peter Peisl and me see our first customer for a new offer. When saying our goodbyes, the director asks us several times if we really want to continue to Hainstadt. Buchen and Hainstadt in the Odenwald are some of the carnival meccas, and today, on „Fat Tuesday“!?

2pm, Hainstadt At our second customer, we meet only serious faces. Nothing at all about a „Fat Thursday“. Tool technology, customer training, tool change technology, investments and goals are discussed in detail. Then we are invited to a relaxed meeting in the Town Hall.

7pm, Town Hall At the Town Hall we could not believe our eyes. Everybody present wears a long, white shirt and a white night-cap. Only we are stuck in a suit with blue shirt and tie. Without warning we sit in the middle of the opening session of the „Heerschter Berke Thieves“. The medal ceremony begins and each new awardee gets a powerful fanfare from the orchestra, a loud „Heerschte Berke Thief“ from the Berke Thieves and may pay a round for the room. Then they hand over the first guest medal to Peter Peisl, then to me. Until the morning we receive medal after medal. During the breaks, serious issues are discussed, for example if the GRM 100 requires a 100 or a 150 t press. After every each medal ceremony, the pressing force gets higher. Cheerfully we leave the event just before 5am.

8:30am, Neckarsulm Getting to the third customer is a bit difficult, because the morning sun is directly in front of us. The first sweat starts to show on our foreheads. The Purchasing Manager immediately recognizes that he must „help“ us. He puts us behind a large window and talks about his teleprinter. The sun is burning merciless. There is nothing to drink. The beads of sweat are getting bigger. My clothes are beginning to smell, because the borrowed Peisl perfume soon loses its effect. Shortly before lunch we say our goodbyes. Result of the three visits: in 27 hours we sold three machines. This is followed by a longer rest period.“

Barry Littlewood

Shareholder Bihler of America
(1976 - present)

About the wild man in the kitchen

„I met Otto Bihler for the first time in 1970, when I was in Germany for a personal interview with him. It related to the job as Bihler tool specialist in the UK. I thought that the interview had not gone well and was more than surprised when I was offered the job. At the fairs and during visits of British customers, I had the opportunity to observe how Otto Bihler sold his machines. He was a master in obtaining information from potential customers and his openness and attitude made him a great salesman.

Everything is possible

His passion and his strength of character drove the company forward and were always very contagious at the same time. After visiting the factory in Germany we always had the impression that anything is possible. That was also the credo of Otto Bihler. He gave me and Vulgens Schön the means and the motivation necessary to build up Bihler of America. I consider it a great privilege to have been a close friend of this very special man. We spent many wonderful hours together in Alaska, Otto Bihler's favorite destination, and enjoyed the beauty of the wild landscape and the always recurring fishing competitions. One of his many passions was cooking, and he lived it up with us because he was not allowed to cook at home. He was a wild man in the kitchen and the clean-ups afterwards were enormous. To have survived as a family business for 60 years and to be very successful is a great achievement in itself that was made possible by the many very talented minds in the Bihler family. Let's keep the good work going that is the fruit of many people's life achievements.“

Gernot Kubitzka

Managing Director Bihler Vienna
(1969 - 2008)

Involuntarily well known

This anecdote happened during one of the first trade fairs in Eastern Europe. In 1972, as first-timers at the fair in Poznan / Poland, we were assigned a booth on the seventh floor of an exhibition building. We were assured that there would be a freight elevator so the machine can easily be transported. But the freight elevator was just a little bigger passenger lift and more than unsuitable to transport machinery. But somehow you can always make things work at a fair, and we managed to transport the machine to the seventh floor. At three in the morning our booth was finished. The opening went as planned and the booth had many visitors.

A „moon“ for the auditorium

On the second day there was an information session in a project institute. Everything went well, we had a very good interpreter. But then my chalk broke on the board. I bent down and my pants ripped open from front to back. Thus I „mooned“ the whole auditorium. I apologized, asked for a break and wanted to fix the damage with some wire in true toolmaker-style. But soon there were a few helpful ladies who fixed the damage quickly and professionally. After about 15 minutes I continued the presentation and finished it successfully. Poland became the best Eastern market for Bihler Vienna, and involuntarily the „Kubitzka“ was very well known.

Benno Herzig

Head of Toolmaking / Test Department
(1968 - 2009)

Extremely cheap

Russia. January 1979. Temperature -25 to -35 °F. „In a coach, twelve technicians from Bihler and Charmilles are on their bumpy way to Elektrogorsk, 100 miles north of Moscow. Goal of the adventurous journey was a new furniture factory with 12,000 workers where, among other things, furniture hinges were to be produced on a MACH 05. We were accommodated in a desolate pre-fabricated building. We first had to remove the rust from the Bihler machines, because the damaged crate had been sitting out in the open. After two weeks of hard work the machine finally ran. The gray days in Elektrogorsk were marked by cold and hunger. The temperature in the production hall was a constant 40 to 45 °F. The food in the canteen was very poor. Every day there was porridge soup with potatoes. Some of us already went on strike.

Two strokes of luck saved us

Thankfully, there were two strokes of luck: A German engineer who had previously worked as a butcher, and a Russian who offered us a pig at a very reasonable price. After a short consultation with our „butcher“ we took a taxi to the dacha of the Russian to pick up the pig. It then ended up in the trunk and we went back to the pre-fabricated building, where with infernal squeaking up it went to the third floor and into the bathtub, where it was slaughtered. Each roommate got a piece of pork, which was a real treat along with Russian noodles. A week after our butcher action the factory director got wind and ordered meat in Moscow, which was deposited in front of the canteen with a dump truck. After five weeks in Russia and receipt of the long-awaited acceptance report we went back home.“

**WE
ARE
BIHLER**





9,000 BIHLER- MACHINES

PEOPLE MACHINES MILESTONES

Qualität „Made in Germany“

Impressive numbers: Since the company's founding Bihler has built and sold more than 9,000 machines and complete production systems, 740 welding systems and more than 1,900 contact welding units.

UFA 1, KRM, RMP 25, BSA 45, ORM 0 or GL 3000. Who still remembers the old types? It's been a while. All these machines have contributed to the success story of Bihler. At the very beginning the machines still seemed simple in their construction. But even then, the basic concept was the same as in today's stamping and forming machines. Many things have been improved and optimized over the decades. The result are pioneering manufacturing systems such as the GRM-NC or the BIMERIC BM. What has remained unchanged is the unique „Bihler quality“.

Mach-speed in production

What really lies behind all the abbreviations and numbers? It all began in 1953 with the Universal Automatic Spring Coiling Machine UFA 1. It was followed by the world's first radial machine RM 25 in 1956. The „25“ meant that the total force of all units was a maximum of 25 tons. The RM 25 was followed by the GRM 50, a large radial machine with a total force of 50 tons. The MACH-1 broke the „sound barrier“ in many companies with 1,000 strokes.

Bihler goes numerical

In 1999, the Bihler presented the complete MULTICENTER MC series to the market. The „42“ in the MC 42 for instance meant that the machine is compatible with the tools of the RM 40 and has two processing sides. In 2000, the first completely NC-controlled production system BIMERIC is introduced. The word „BIMERIC“ is made up of the words „Bihler“ and „numeric“. In 2005, the COMBITEC was introduced. It combines a strong press and large forming forces in one machine. By the way: KRM refers to circle (Kreis) radial machine, RMP 25 is a RM 25 with an large upstream press (P) and BSA 45 stands for Bihler high-speed stamping machine (Schnellstanz-Automat). With the ORM 0 the „O“ is a zero and means that this RM type was the smallest one and GL 3000 means large linear machine (Grosse Linearmaschine) with three central wheels.

On the next four pages you will find a small gallery of our „masterpieces“.



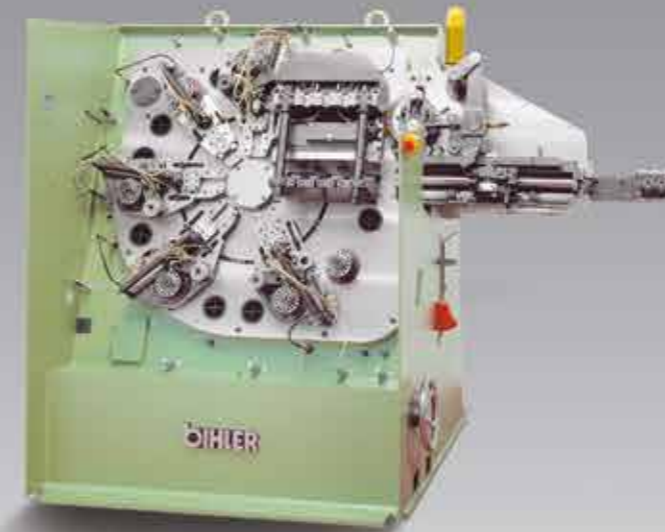
1953

Otto Bihler begins with the manufacturing of springs and builds his first spring coiling machine UFA 1.



1956

Development of the world's first stamping and forming machine RM 25 for the production of mass parts made of wire and strip material.



1966

On the basis of the stamping and forming machines RM 35 and GRM 50, the Bihler modular system with welding and assembly is created.



1970

For the first time Bihler breaks the „sound barrier“ with up to 1,000 parts per minute with the MACH machines.



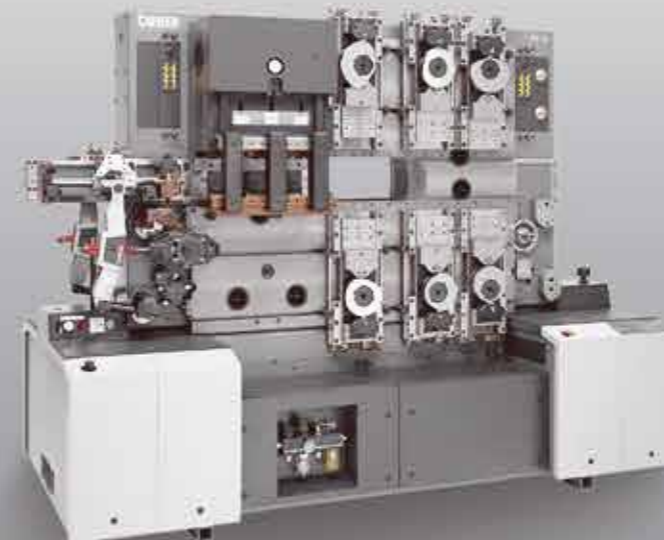
1983

The first linear forming machining center BZ sets the foundation for efficient assembly production.



1993

The Flexible Assembly System FMS gives Bihler application technology fresh impetus.



1999

With the MULTICENTER series with two processing sides Bihler extends its range of machines for the new millennium.



2000

With the servo-controlled forming system BIMERIC, NC technology takes over at Bihler.



2001

In close cooperation with the U.S. press manufacturer MINSTER Bihler developed the machine combination TWINTEC.



2004

With the stamping and forming machine RM 40K Bihler offers the market a powerful machine for new applications.



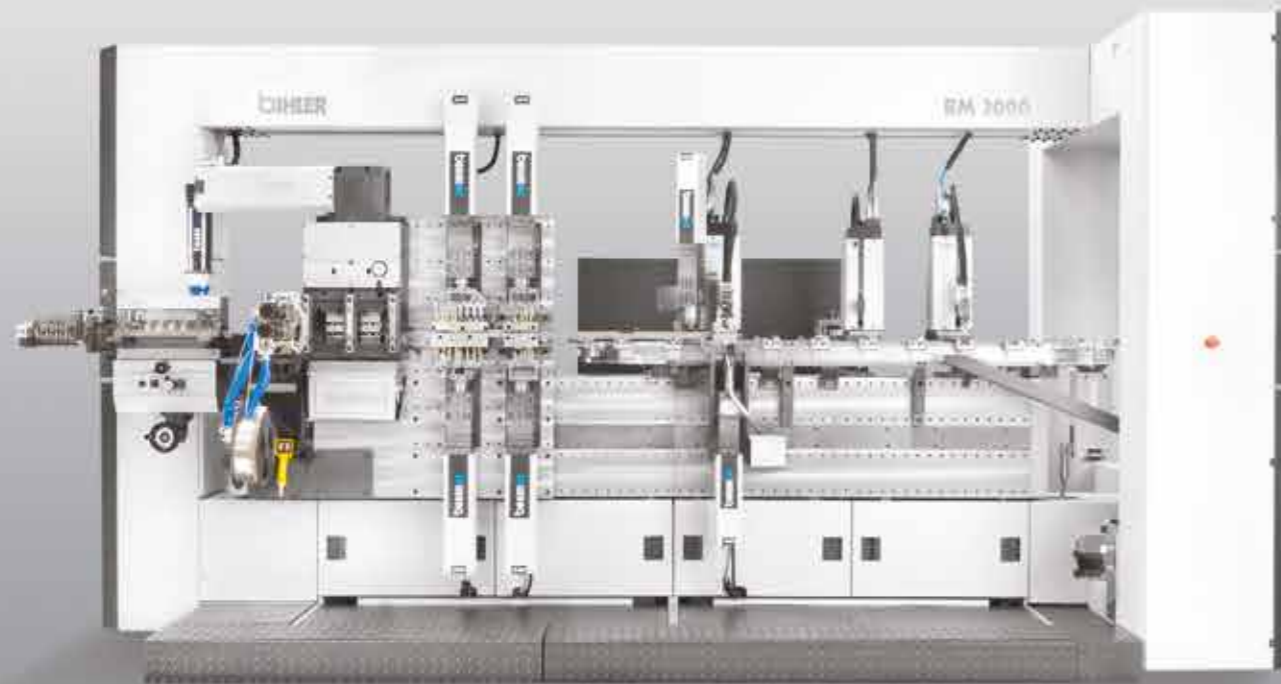
2005

The strong COMBITEC CC 1 forming center is the perfect machine for manufacturing larger components.



2006

Users benefit from even more free space in their production with the stamping and forming machine GRM 80P.



2010

Bihler wins the EuroBLECH award for the innovative BIMERIC BM NC-controlled production and assembly system.



2013

Well prepared for future challenges with the servo-controlled stamping and forming machines RM-NC and GRM-NC.

MORE THAN A MACHINE

Bihler offers everything under one roof for excellent automation solutions. The perfect interaction of all business sectors guarantees the highest production quality and success of our customers.

■ WELDING TECHNOLOGY

- Resistance welding
- Contact welding
- Laser welding

■ TOOL TECHNOLOGY

- Stamping
- Bending
- Assembling

■ PROCESS INTEGRATION

- Feeding
- Thread forming
- Screw fastening

■ SUPPORT

- Spare parts
- Training courses
- Technical support
- etc.

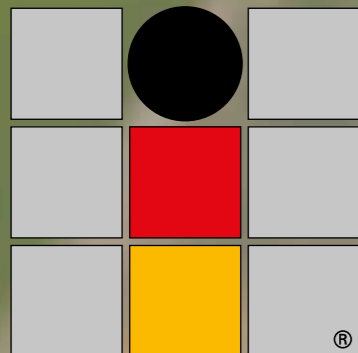
■ CONTROL TECHNOLOGY

- Machine and process control VariControl VC 1

■ 3D-DESIGN SOFTWARE bNX

- Component design
- Design of stamping and bending tools

AWARD WINNING TECHNOLOGY



Der Deutsche
Innovationspreis

Eine Initiative von Accenture, EnBW,
Evonik und WirtschaftsWoche

GERMAN INNOVATION PRIZE 2011 and Innovation Prize for Climate and Environment (IKU)

Awarded for the realization of the narrow-band forming laser welding process (SUL) for the production of so-called "Simmerrings"® in close cooperation with Trumpf and Freudenberg.

- With this process technology innovation there is no more stamping waste.
- The rate of material utilization is almost 100 percent.
- The material use was reduced by an average of 75% compared to the conventional deep drawing process.
- This is equivalent to about 1,800 tons of steel per year and a reduction of CO₂ emissions by 2,700 tons.
- Secondary savings of CO₂ emissions result from the loss of goods and waste shipments.





Patrick Grosshaus

Managing Director GROSSHAUS

45 years ago - in 1968 - GROSSHAUS bought their first Bihler machine. The technical director of GROSSHAUS at the time, Harry Walter, saw a great growth opportunity for the company in the application of Bihler technology. Products such as box terminals, coal guides, motor housings and cavity dowels could be manufactured more economically than with conventional punching technology. The now decades of collaboration with Bihler - from development projects to special requests for machinery orders - have always been uncomplicated, friendly and are based on high technological demands and economic success of joint projects.

A great example for this form of cooperation is the „Project TWINTEC“ that was completed successfully in 2006. This project was launched jointly by Bihler and Minster - the idea:

Germain Marx

Head of Design Hager SAS, France

Our first Bihler machine in 1973 was a GRM 50 which we used to stamp galvanized parts. In 1979 we bought a MACH 05, and between 1982 and 1988 we bought ten GRM 80 for various applications. After the first training at Bihler in a very pleasant atmosphere, we have even designed and built our own tools. In 1988, Hager SAS ordered the first BZ 2/8 and started the development of a new thermal module. During this long time we had a lot of great experiences with Bihler. One of the many highlights that I remember well was the coil production at the plant in Austria (with several meters of snow), which required numerous tests until the machine was set up perfectly; the conversion of the machine control systems to PC controls in 1990, the first BZ developments where we worked very closely with Bihler, as well as the joint development of a special application for a MSE screw fastening machine to increase the performance.

Over the years we have used our collective experience successfully in many areas, where Bihler has brought their know-how from tool manufacturing to the table, and Hager their experience in industrial production. Two memorable anecdotes from our collaboration are when we transported a complete BZ tool to Halblech in a Renault Express with a lot of effort to have it adjusted for a second BZ, and the beautiful soccer tournament where our employees got to know the Bihler team a little closer and despite a high defeat on the field drove home enthusiastically. My personal wish for the future: We would like to find a way to develop new applications based on the BIMERIC technology together with Bihler.

John Winch

Managing Directors The Minster Machine Company

Our first meeting with Otto Bihler was in 1991 and Bihler and Minster became strategic partners in 1999. Over these many years we have developed many friendships and many good memories.

As we all know, when Mathias and the rest of the Bihler team are not working, they also like to have a good time. EuroBlech seems to bring out a great spirit, and some of the most fun has been after the show closes and the party begins. Many of you may not know this, but Mathias uses his tie for both work and play. When he is working, it is neatly tied around his neck, and when he is playing it moves from his neck to his head. I think this might be some tribal culture ritual that he has picked up during his travels.

Also, we have enjoyed many days and nights up at the hunting cabin! In fact the first time we came to hunt, David had all of the latest and greatest gear (very well prepared, and I had some mild weather hiking shoes, casual pants, and a small jacket. Needless, to say, the hunter looked at me like I was some stupid American (he was right) and I completely froze during the hunt. The good news was that we had many cigars and schnapps to warm us up when we returned.

When we had Bihler come to the Minster Oktoberfest, they asked us if they should bring their traditional Bavarian clothing and if we would do the same. We said „Yes, of course“, but everyone from Minster dressed in the typical blue jeans and shirt. Needless to say, everyone from Bihler said „Hey we are the only guys dressed in the traditional Bavarian clothes, why aren't you?“ We said you guys are the real Bavarians.

Thank you so much for your friendship and trust! This has and continues to be a great relationship, built on the character of very good people. We are proud to be your partner, but more importantly your friends. We have nothing but the greatest respect and admiration for Mathias, the employees and the Bihler company. Congratulations on your 60th Anniversary and your continued success.

Dr. Mathias Kammüller

Managing Partner of TRUMPF GmbH + Co. KG and Chairman of the Machine Tool Division

HL54P - that was the first laser we delivered to the Otto Bihler Maschinenfabrik in 1997. And many more were to follow. Overall, I counted over 50 TRUMPF lasers - marking lasers, solid state lasers and CO2 lasers - that have been integrated into Bihler machine concepts to date. And that is surely no accident. As companies that are constantly looking for new innovations, Bihler and TRUMPF fit together extremely well. We are connected by the urge to accept technical challenges and constantly find new solutions.

A shining example of this was the „Project Freudenberg,“ for which we have jointly received the German Innovation Award 2011. Freudenberg Sealing Technologies wanted to optimize the production of the seal ring which is used as a seal in engines, transmissions and axles. With a new manufacturing system from Bihler the company now saves 85 percent in material because the metal rings are laser cut from a narrow steel strip and welded together at the ends. Previously they were stamped and deep drawn - in addition to the rings there was a lot of waste. Personally, this award made me particularly happy, because many years ago seal rings were the subject of my doctoral thesis. I could not have dreamed of the improvements made possible by the Bihler manufacturing system today!

Technological excellence, efficient processes and corporate responsibility - as family businesses Bihler as well as TRUMPF equally live up to this triad. As market leaders in our fields we do everything possible to convince our employees and our customers through reliability and quality. This is also the key to the success of our cooperation. After all, until this day TRUMPF has accompanied Bihler as a supplier during a quarter of the company's history. And we are proud of this. Congratulations on your anniversary, and we hope for many more years in which we work together as trusting, reliable and successful as ever.

STRONG PARTNERS

Future complete production of seat belt housings on one machine. Until then, the components of these seat belt systems were produced on semi-automated systems in several steps. Within a year, a worldwide unique concept for manufacturing these products had been realized in exemplary teamwork.

For our further cooperation we wish us sustained creativity and innovation strength to master new projects lying ahead just as successful as in the past and consequently, we wish growth and economic success for Bihler.



Ralf Hoppe

Managing Director Production Weidmüller Group

In the name of Weidmüller I congratulate you most warmly on your 60-year anniversary. Since 1953, you offer products in the areas of forming, welding and assembly technology and have evolved to a reliable and innovative technology leader as a traditional family business with vision.

For this reason, I am glad that Weidmüller has accompanied you along a large part of the way - for over 40 years we have been working closely together with your family and have always had great experiences with your products. In 1971, we purchased the first machine of the type RM 35 for our plant in Detmold - and ever since you have supported us in the creation of our stamping and forming competence with your high quality and the reliability of your products. In addition to extensive technical consulting this also included training for our staff and qualification measures for tool designers. This transfer of technology and knowledge to our company accompanied by you goes far beyond the usual services of a supplier and is a testament to the closeness and dedication to your customers. Through your extensive know-how in the areas of resistance welding technology, linking systems with high value creation or in the area of flexible NC-controlled systems you have quickly become a technology partner with visions and an important partner of Weidmüller, which has since helped us to create products and solutions for electrical connection technology.

For the future I wish you, the Bihler family and your company, all the best. Visions and innovations have distinguished you in the past 60 years and established your company as a world leader. I hope that you will continue this path you chose in the coming years.



Mario Sangalli

Managing Partner of M.S.Ambrogio S.p.A.

The relationship between Bihler and M.S.Ambrogio has its beginning in 1959. This was the year we learned of a new German machinery manufacturer whose products attracted our interest. We decided to pay this new enterprise a visit, where we got to meet the head of the company, Otto Bihler.

At that meeting, two grand men faced each other, who shared common goals, ideals, dreams and a similar enthusiasm. The spark between these two men was the basis for an immediate confidence in this new company, so that the first machine was ordered as early as the 20th of January 1960.

The long common path is marked by success and experience through which we were able to grow and continue to develop, first at the European level, and then around the world. The cooperation with Bihler cannot be summarized in a single experience, it rather is a constant exchange of ideas, innovations and new adventures. For us Bihler means a constantly evolving concentrate of innovation, technology, competency, and expertise of manufacturing procedures and processes. Beyond that our fathers understood to keep the spark of innovation alive over time and pass it on to their descendants, who keep fuelling it with pride, commitment, initiative and the same unchanged enthusiasm, and who transformed our business relationship into a strong, fair and honest friendship, as it has become rare in today's globalized, profit-focused world.

Our wish for Bihler at their 60th company anniversary therefore is to be able to continue our cooperation with enthusiasm and fairness, without ever losing sight of the profound relationship between our families.





Philipp Kron

Managing Director Alfred Kron GmbH

After we had taken the first wire and strip bending machine RM 25 by Otto Bihler in operation in 1957, we would have liked to stay the only customer to use this market advantage. Nevertheless, we share since this machine know-how with the rest of the world and are all successful together. Our „senior“ today, Axel Kron, had a good nose for pioneering and promising technologies even back then - despite his youth. And like other decisions, the decision for a close cooperation with Bihler that continues to this day, over the generations, proved to be correct.

In today's time marked by management systems, with regularly re-defined quality awareness, a proud look back at the early days of our companies must be allowed. Even then, the concept of quality was of primary importance and put into action at Bihler. For us Bihler today, after 60 years, acquired a real brand status that can define its value from the classic 7 elements: origin, history, profile, positioning, image, awareness and protection and by that alone differentiates itself from its dreary competitors or imitators. And that has not least become possible through the close family ties of Otto and Mathias Bihler to the company.

We are proud to have traveled on this road together and feel very close and connected to the „Bihler family“. Knowing that it is indeed distributed all over the world, but remains connected as a whole. We wish Bihler as a company, Mr. Mathias Bihler and the entire staff a future that will continue to always allow retrospect. All of you can really be proud.

Gunter Dawedeit

Managing Director Dawedeit GmbH

It all started in 1968 when I first visited Bihler in Halblech as part of my work as a master craftsman at Bros. Mertens in Lüdenscheid and at that occasion met one of the original Bihler crew, Ludwig Behr. This meeting was the basis for our intense friendship and partnership. After the step into independence Dawedeit then built the first tool for a Bihler machine RM 35 according to their own ideas and set it up at AEG in Hameln in 1972. The same year saw the first relocation and expansion and the purchase of a used RM 25.

In 1974, exhibition space with an office was leased to Bihler, which turned into the first Bihler base as official distributor North West under the leadership of Ludwig Behr. In the same year we acquired the 12th Bihler stamping and forming machine and became contractual partner of Bihler with the authorization to carry the Bihler logo on our business stationary. By working closely with the partner, a friendly and intense relationship with the management of Bihler developed. At this time, Mr. Bihler, Mr. Peisl and Mr. Augenstein were in Lüdenscheid several times for business and private meetings.

Today Dawedeit is an internationally successful family business with the goal to provide customers with high-performance tools, precision stamping parts and complete assemblies. Therefore in 2013 Dawedeit invested in the new Bihler NC technology with the purchase of a Bihler BIMERIC BM 4500 manufacturing and assembly system as well as an MC 82 with multi-laser welding device to be ready for future tasks. We congratulate the Bihler team on their anniversary and wish you all the best and continued success.

Steffen Scheuermann and Silke Heilig

Management SCHEUERMANN + HEILIG GmbH

For over 55 years, we have been closely associated with Bihler in partnership and friendship. Today we are happy to congratulate you on your 60th company anniversary.

As early as 1958, shortly after the founding of the two companies, the first connections between Bihler and SCHEUERMANN + HEILIG were established. Over the years our three fathers have led both companies to international success in their market environment with a lot of courage and a spirit of innovation. Our partnership grew steadily. Today we are pleased to be the largest customer of Bihler in Germany. Since the beginning of our cooperation Bihler proved to be an innovative and reliable technology partner providing us with the basis for economic and efficient production technologies.

Only industry insiders know about the many success stories of medium-sized companies that were written between the beautiful Allgäu and the Badische Odenwald ...

We are looking forward to move into the future together with you, dear Mathias, and the entire Bihler family. 60 years of Bihler success story – that is something you can be truly proud of. For the future, we wish you a healthy success, continuity and the necessary innovation strength.

Pierre Petitjean

Managing Director METALIS Group

Metalis celebrated its 75th anniversary in April 2012. This was the right time to remember the key moments of this „human adventure“. We share many of these defining moments with Bihler. Our present success is inextricably linked to the 52-year partnership with the Bihler team.

Memories ... Early in 1961, the representative of Bihler France, Mr. Schill, visited the METALIS plant in Pont-de-Roide (in eastern France) to meet the flat spring specialist and its 25 employees. At this time, the company had only mechanical presses and hand rolling systems to produce flat springs. Mr. Schill invited our Technical Director, Mr. Jerome, to visit the Renault plant near Paris where Bihler machines produced parts.

For the former managing director George Contal the revolutionary process of Bihler machines offered a unique opportunity to differentiate METALIS technology from the competitors. A few months later we bought the first RM 25 ... and then 10 more ORM and GRM 50 in the 60s! 52 years later, a total of 53 Bihler machines run in our plants in France, Poland, China and India!

In 1966 we made our first attempt in automatic assembly on a RM 35, which was equipped with a tool for the production of hinges. Today, our strategy is always the same: Innovation, quality, efficiency ... and for 52 years with the support of Bihler tool engineers. The 803 employees of METALIS are pleased to be able to congratulate Bihler on their anniversary. We hope that innovation and efficiency will also be the driving force for our mutual success in the next 60 years.



Dr.-Ing. Roland Golle

Technical University of Munich / utg

For nearly a decade, the Institute of Metal Forming and Casting (utg) at the TU Munich has been in close and trusting cooperation with Bihler in the research and development of stamping and bending manufacturing processes for metals and plastics both in bilateral as well as in associated projects. We know Bihler as a technology-driven company that not only designs more cost-effective production processes with high innovation speed together with us, but also explores and researches visionary future technologies. The philosophy of Bihler technology, in particular the NC automation, allows a reliable, process reliable, quick and economical solution of the most complex manufacturing challenges in addition to stamping and bending technology. With this new system generation the challenges of the future, such as flexible and economic production, even in small quantities, with cost efficient standardized tools and a virtually zero defect ratio, will be perfectly mastered.

Not least to promote Germany as an industrial location and secure local jobs, for two years now, Bihler has been providing the utg with the state-of-the-art NC BIFLEX system with integrated laser cutting booths free of charge for research and teaching. Through this generous support we are able to actively participate in the development of stamping and bending technology and inspire future generations of engineers for this high-tech equipment.

We are proud and grateful to be able to work under these conditions with Bihler and look forward to the many new technical challenges we will solve together. Thanks to the innovation strength and high professional competence of the staff we see a positive future for Bihler. We wish, with a remaining stable economic environment, to continue the success of the past in Germany as an industrial location.

Dipl.-Ing. Angelo Castrignano

Managing Director Schürholz Stanztechnik

Schürholz Stanztechnik has been working successfully with Bihler for almost 40 years. First we produced small parts and clinched pole tubes for the automotive industry on systems such as GRM 80 and GRM 100. In a pioneering move around the turn of the millennium, Schürholz Stanztechnik has decided to consistently expand its strategy of stamping and forming production with the latest available technologies in this field. Together with Bihler increasingly sophisticated tools and manufacturing concepts have been developed, which today are used to manufacture products for various applications on state-of-the-art equipment. This close, intense and friendly cooperation between the two companies has had positive influences on the development of Schürholz Stanztechnik in recent years.

For Bihler and Schürholz the development of new technical and more efficient solutions is always the focus. This makes it possible for us to keep the highly efficient production of complex components in Germany and to secure a technological lead over our competitors in the global market. In our view this is one of the main reasons for the excellent cooperation between the two companies. In many large-scale projects, the requirements presented were always realized. Especially the qualified employees with their great technical expertise are noteworthy here. We wish the owners and employees of Bihler all the best for their common future and that they continue to follow their chosen path and work on the challenges presented with the same enthusiasm. We, the company Schürholz, are looking forward to continuing our great partnership with Bihler.

Dipl.-Ing. (FH) Rudolf Gietl

Plant Manager Siemens Equipment Manufacturing Amberg

The foundation of our long-standing partnership was laid in 1972 with the commissioning of the first Bihler system, a GRM 50 with integrated rotation device and a tool kit for coil production. By 1981 we acquired four more basic GRM 50 machines, one of them equipped with tools for the production of sliders for profile rail attachment. This system is still in operation in its original state today. We have added two GRM 80 to our Bihler machinery in 1988 and 1989. Until the 90s each tool could be run on each machine. Then we started to divide our tools into families and assign them to certain machines.

The start of our „SIRIUS“ equipment series in the middle of the 90s was the beginning of switch production and the expansion of component assembly with Bihler machines. The strategy was „forward integration“, i.e. away from a pure component manufacturer to a producer of functional units. For this the machine types RM 30, GRM 80, GRM 80P, MC 82, MCS 1, and FMS 1500 were purchased. Through the integration of various process sequences and technologies we increased productivity significantly and reduced processing times.

New in our machine selection is the welding line BW 4500, a joint new development focused on international use. An identical plant is already installed at our sister plant in China. The welding line consists of a BIMERIC for welding and threading and two newly developed servo presses SP 500 for pre- and finish stamping. The system is designed so that we can use our existing tools and almost double productivity. For the future we hope that the partnership between Bihler and Siemens Equipment Manufacturing Amberg persists and joint new innovative concepts expand our technology leadership thus contributing to secure our location.

Axel Schnöring

Managing Director Schnöring GmbH

On behalf of all shareholders and staff of Schnöring GmbH, we would like to congratulate you to your 60-year anniversary. The history of our two companies is closely connected since the founding of Bihler. Schnöring is probably the first customer who bought one of Otto Bihler's self-designed and home-built machines (UFA 1) 60 years ago. Also the first or one of the first radial machines, an ARM10, the predecessor of today's successful RM series, was sold to Schalksmühle to make bent wire parts that were produced with hand rolling tools up until then. This was a revolution at the time, and so it is not surprising that we also were the first to receive a RM 25 in 1957, including four units and three associated tools for a price of DM 9,400.-. Since that time both companies live in an active partnership where mutual demand and support with great confidence are the foreground. The currently very successful series RM 40K has been developed with our support to find a successor for the RM 25 - RM 40 that was built for decades.

On the other hand, in recent years we succeeded to realize technically sophisticated solutions for our customers with the support of Bihler. Over the decades we have got to know and appreciate Bihler as a company that is technologically always up to date. Among other things this requires entrepreneurship and the courage to take risks. The new NC-controlled series BM and GRM-NC are steps in the right direction, so Bihler and also we as customers can continue to face the increasingly fierce international competition in the future. For the future we wish Bihler to remain a highly innovative company, with the right sense for the technological trends. We congratulate Bihler and all their employees to a truly remarkable business performance and wish you all the best for the future. To continuing the good cooperation and partnership.



PEOPLE MACHINES MILESTONES

Complete your training at Bihler

No matter on which professional training you decide - it is one of the most important steps in life. Because one thing is certain: Your future job should be fun, interesting and offer the best prospects. As an experienced training company Bihler makes young people fit for a successful career.

Bihler requires highly skilled staff and strong trainees for the more and more demanding tasks of our global customer base. This is why Bihler is training young people - so far more than 1,300. With over 10% in relation to the total workforce the trainee rate is always well above the national average in the metal industry. Currently 85 young men and women are going through their 3 to 3 ½-year professional training in eight different professions. Every year there are up to 25 new apprentices - most are junior high school and secondary school graduates.

Wide range of occupations

There is a wide range of apprenticeships at Bihler. In addition to industrial and technical occupations there is training for occupations from the commercial sector: Toolmaker, industrial mechanic, mechatronics technician, industrial manager, technical / product designer, electronics technician for automation technology, industrial electrician, IT specialist for application development. In addition, there are nine students of the Dual Model. The Bihler trainees come almost exclusively from our region. The trainees can gain international experience at Bihler of America and in the course of the exchange program „x-change“ at Bihler customers in German-speaking countries (Austria, Liechtenstein, Switzerland, Italy / South Tyrol).

In the best hands

In addition to the practical training Bihler also promotes the personal and social development of young people with exciting projects, team development days, as well as factory tours and stays in foreign countries at a language school or at partner companies. In the course of their project work, the trainees have created image films for their occupations in 2012. These are now available on YouTube. After the apprenticeship Bihler takes care of its young professionals with continuing training courses and job rotation for the best career opportunities on a professional and managerial level. Former apprentices who are interested in studying at a University are supported with in-depth practice during their studies and so are further trained in the company.

Marc-Oliver Helmer
Toolmaker



High precision

The exact work in the micron range impresses me every day. The high quality standards of Bihler regarding their own products are an exciting challenge.

Franz Maldoner
Industrial mechanic



Chipping away

Metal as a material is a very interesting and future-oriented material. Again and again I am fascinated by the impressive components that can be produced.

Lukas Ilg
Industrial manager



Through all areas

Activities such as handling shipping notes, creating quotes and sending them to customers after approval by my boss, placing orders and ensuring that components are available in time brings variety to my daily work. This variety is motivating.

Fabian Guggemos
Mechatronic engineer



Excellent outlook

We are being trained and have the knowledge to see both the electrical and the mechanical side. This knowledge provides me with an excellent outlook to continue my education after the apprenticeship and enables me to be ready for any task.



BIHLER IN THE REGION



Social responsibility and commitment

Bihler is aware of its social responsibility in the region. As one of the largest employers Bihler has been involved in many areas for decades and maintains a close relationship with the City of Füssen. For instance a few years ago through impetus from Bihler, a very friendly partnership between the Italian city of Cremona and Füssen, the cradle of the art of lute making in Bavaria, was established. In the course of the national exhibition „Bavaria - Italy 2010“ and in the summer of 2013 valuable exhibits from the lute and guitar collection of Mr. Ing. Carlo A. Carutti could be admired in the city museum. In addition Bihler also supports young ski talents (ski base SC Halblech) and supports social projects and events such as the Children's Cancer Aid Königswinkel or the Allgäu-Orient Rally.

Close cooperation with research and science

As an innovative company Bihler also works closely with research and science, for instance with the Kempten University of Applied Science. Bihler makes a new stamping and forming machine available for research purposes. This way students obtain a high quality and above all practical training. Bihler ensures with their commitment that highly qualified professionals will be available in the future. The „stamping and forming workgroup“ also contributes to this, where various companies from the Allgäu region research and develop together with the students.



OUTLOOK FOR THE FUTURE



from left: Manfred Grundner, Martin Niklas, Mathias Bihler, Bernd Haußmann, Ludwig Mayer

Ready for new challenges

To overcome the limits of the technically feasible again and again and to revolutionize the market with pioneering innovations has been the key to our success for the past 60 years.

We share this success with our customers. The maximum added value for our customers is the focus of all our activities - for greater efficiency and highest productivity. This strengthens the competitive power of our customers and ensures their and Bihler's success today and in the future.

Keep challenging us. The entire Bihler team is looking forward to the exciting challenges ahead.

The Bihler Management



Bihler Chronicle „60 Years Bihler“

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