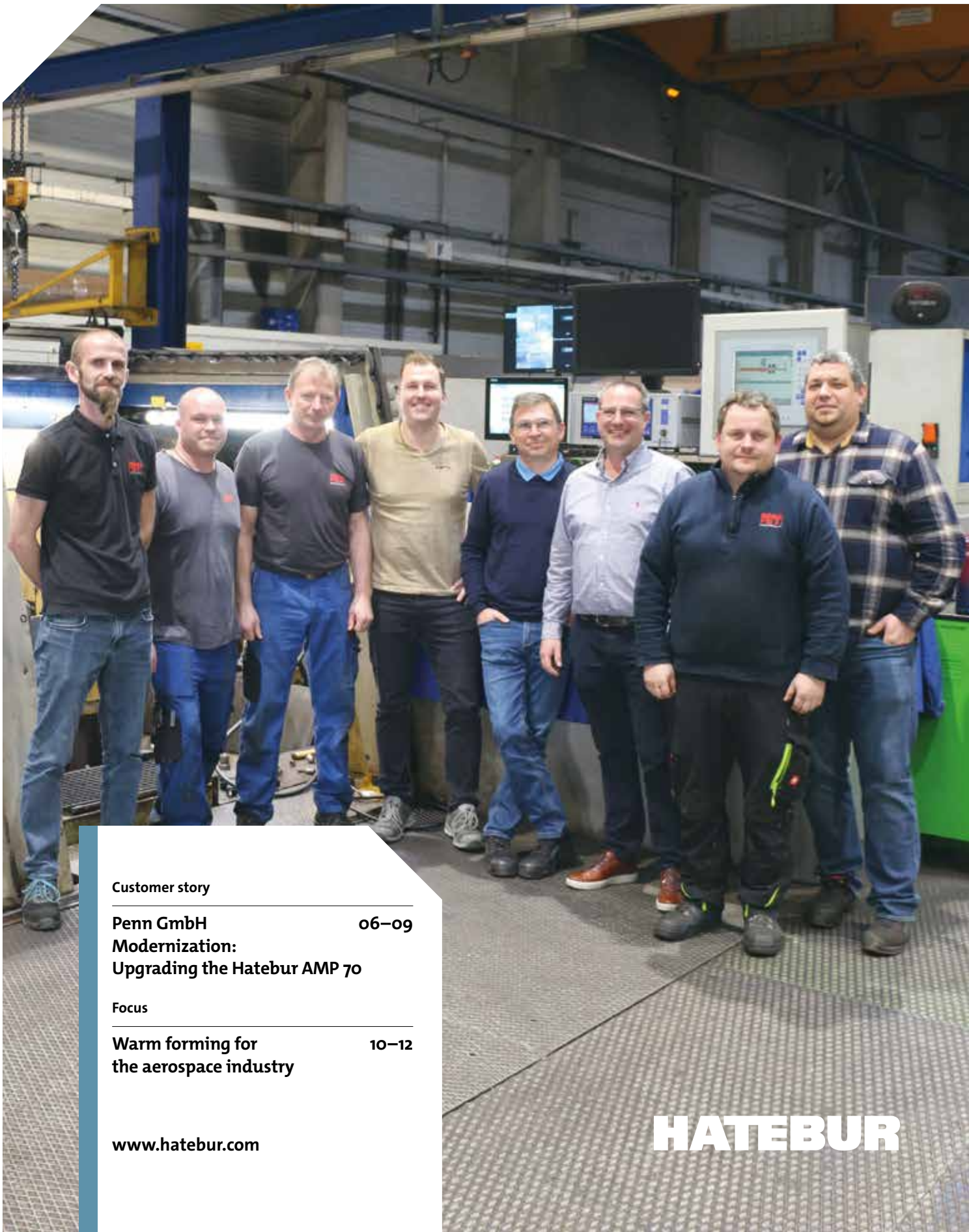
Our performance. **Your advantage.**

# NetShape

01 | **2025**





**www.hatebur.com**

HATEBUR

# In person

Dear business associates,

Having hardly finished typing the last editorial, it's already time to start writing the next one. Time flies.

It's no surprise given all of the turbulence that is shaking up global politics and the global economy at the moment. Geopolitical relationships and trusted alliances are shifting at incredible speed and nations' strategic focus is moving away from Europe and towards the Asian region.

People are now discussing topics that were almost unimaginable just a short time ago. Until recently, who would have thought that Central Europe would be talking about rearmament or ammunition manufacturing?

Who would have believed it? Looking back, it might have been possible to anticipate some of the topics on the agenda just over four years ago. These include tariffs of up to 200% for products to be exported into the US market, counter-tariffs and the equivalence principle.

On the one hand, they are hard to believe. On the other, they are a very credible threat. These barriers to trade are challenges that will have an impact on our economy and will require our complete dedication and creativity to address.

Even without these sources of disruption, automotive production in Europe is facing difficulties. Many forming companies are considering alternative market segments. We would be happy to show you a few exciting approaches in this regard, whether in the pages of this edition of NetShape or in in-person conversations.

Over the 95 years since Hatebur was founded, the company has been shaped by many exciting stories. Particularly in light of global developments, it's good to pause for a moment, take a deep breath and reflect on the good stories from the past.

It's truly an exciting time that we are living in.

I hope you enjoy reading our anniversary edition of NetShape.

Thomas Christoffel, CEO

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Cover image: The project team at Penn GmbH after the successful modernization of the Hatebur HOT*matic* AMP 70.


**Legal information**

**NetShape –** The Hatebur magazine for horizontal cold and hot forming
**Published by:** Hatebur Umformmaschinen AG, Werbung/Kommunikation, Reinach, Switzerland
**Edited by:** Reinhard Bührer, Hatebur Umformmaschinen AG, Mind Studios
**Translated by:** STAR AG **Printed by:** bc medien ag
**Print run:** 2200 copies © by Hatebur Umformmaschinen AG, 2025

# Latest news

**95 years of Hatebur:**
**A chronicle of success**

To mark our 95th anniversary, Claudine Hatebur de Calderón has come up with something very special. The Chair of the Hatebur Board of Directors and granddaughter of founder Fritz Hatebur has recorded the history of the company in a unique book – in a collection of stories, images and memories that document Hatebur's long journey and evolution.

As part of this project, former and current employees were interviewed and shared their personal experiences and impressions. The result is an impressive book that provides vivid insights into the company's eventful history and introduces the people behind it on a very personal level.

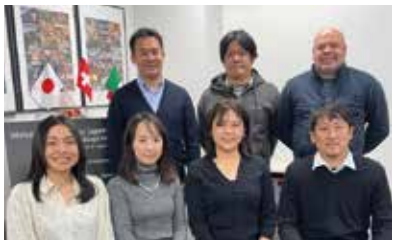

In short, it's a valuable work that preserves memories, tells stories and acts as inspiration for the years to come. Our special thanks go to Claudine Hatebur de Calderón for this brilliant idea and the immense effort that has gone into this project. People will enjoy reading it for many years to come and it will captivate countless readers.

Scan the code to view the book.

**... and its subsidiary is turning 30!**

2025 will also be an important year for Hatebur Japan: Our subsidiary in the Land of the Rising Sun also has a 30th anniversary to celebrate. Since Hatebur Japan K.K. was founded in 1995, we have achieved many milestones. Moreover, the sale of Carlo Salvi machines has been increasingly promoted in recent years.

This is where collaboration works the most effectively in the entire Hatebur Group. Yoko Narita, who recently became General Manager of the Japanese subsidiary, is providing new impetus and bringing female leadership to the company. Congratulations to Hatebur Japan on this impressive anniversary and here's to many more successful years!



**New: Open-plan office at Hatebur in Reinach**

Within just six months, Hatebur has completely redesigned the office premises at its headquarters in Reinach, Switzerland, and implemented a modern open-plan office working concept. The result is a working environment that promotes teamwork, communication and flexibility, while also retaining individual areas for quiet, focused work.

The new spaces have been designed according to the principle of assigned team zones. This means that it is clear which team you are part of, while there are also open meeting zones to facilitate discussions between departments. In addition, there are also areas that provide employees with privacy for quiet, concentrated work. A particular highlight of the new concept are the meeting zones that promote informal discussions. This is often where the best ideas come from – during a spontaneous conversation or a coffee break.

Even before the redesign, the management team and employees openly talked with each other about the challenges and opportunities of an open-plan office in order to promote innovation, collaboration and a shared understanding of a forward-looking corporate culture and to improve performance. We look forward to working in the new space and are intrigued to see how the open-plan office evolves.

**Hatebur and Carlo Salvi now available from a single source in China**

Hatebur and Carlo Salvi are embarking on a common journey in China. Since the beginning of the year, both parties have been represented by its subsidiary Hatebur Metalforming Technology (Shanghai) Co., Ltd. Hatebur and Carlo Salvi work all around the world as a strong unit from a single source in order to offer their customers the best possible service and highest quality. Having the same local sales organization facilitates communication and optimizes processes, while both brands can also continue to act flexibly and efficiently.

At the same time, by merging Hatebur's and Carlo Salvi's market development activities, Hatebur Metalforming Technology (Shanghai) Co., Ltd. has obtained new, modern and functional office facilities. The 14-strong team from the Sales, Service and Administration departments meets the needs of our customers every day.

**New representative in Thailand**

On April 1, 2025, our representative in Thailand changed.

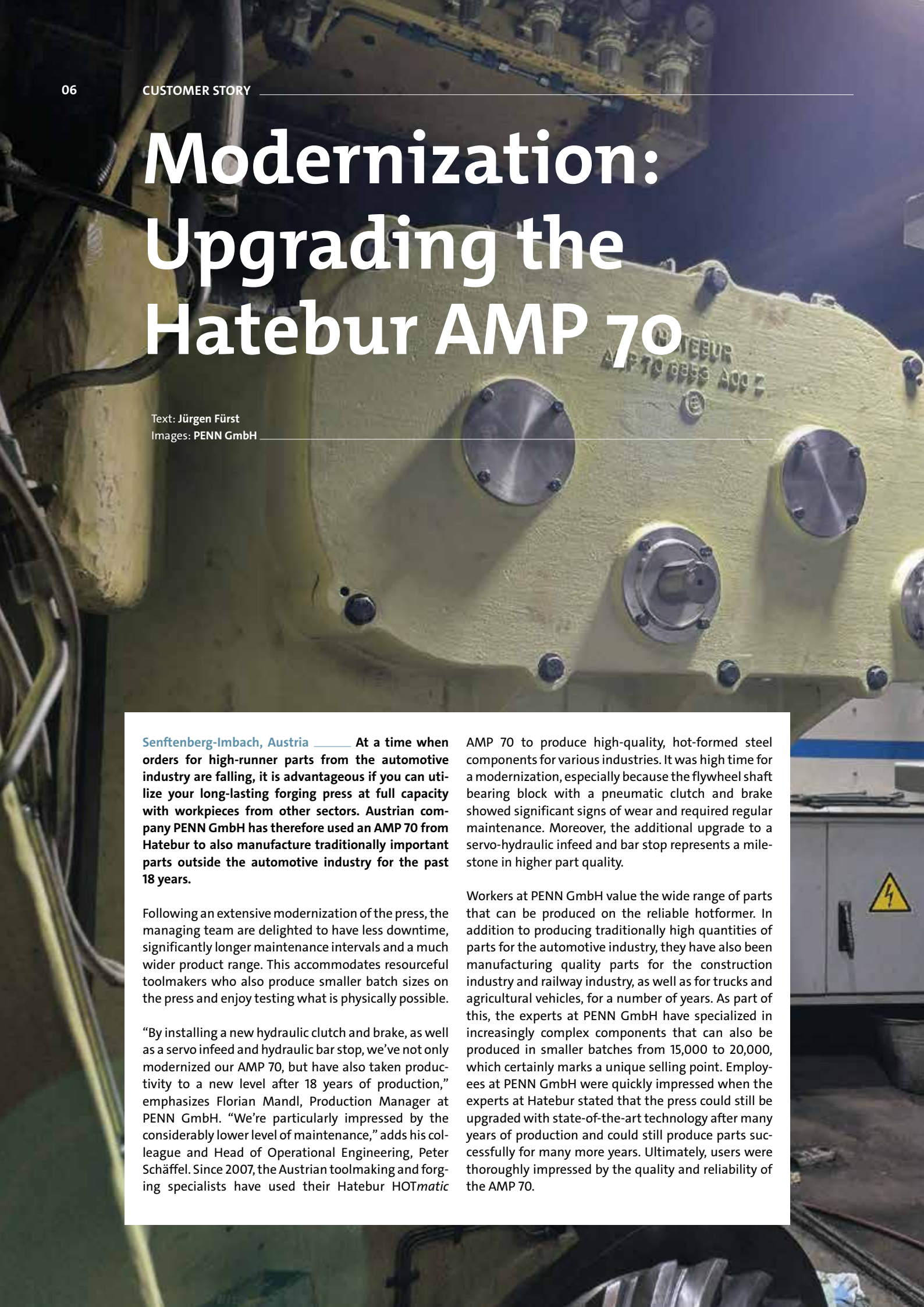
ITS (THAI) SUPPLY CO., LTD. (www.its.thai.co.th) will now be the main point of contact for all matters in Thailand. Thanks to its extensive expertise and dedicated team, the company will offer the best possible service and local support.


The contact partners and managing team for the Thailand market at Hatebur and Carlo Salvi will remain the same.

We look forward to our successful future cooperation with them.

# Modernization: Upgrading the Hatebur AMP 70

Text: **Jürgen Fürst**
Images: **PENN GmbH**



Senftenberg-Imbach, Austria **At a time when orders for high-runner parts from the automotive industry are falling, it is advantageous if you can utilize your long-lasting forging press at full capacity with workpieces from other sectors. Austrian company PENN GmbH has therefore used an AMP 70 from Hatebur to also manufacture traditionally important parts outside the automotive industry for the past 18 years.**

Following an extensive modernization of the press, the managing team are delighted to have less downtime, significantly longer maintenance intervals and a much wider product range. This accommodates resourceful toolmakers who also produce smaller batch sizes on the press and enjoy testing what is physically possible.

"By installing a new hydraulic clutch and brake, as well as a servo infeed and hydraulic bar stop, we've not only modernized our AMP 70, but have also taken productivity to a new level after 18 years of production," emphasizes Florian Mandl, Production Manager at PENN GmbH. "We're particularly impressed by the considerably lower level of maintenance," adds his colleague and Head of Operational Engineering, Peter Schäffel. Since 2007, the Austrian toolmaking and forging specialists have used their Hatebur HOT*matic* AMP 70 to produce high-quality, hot-formed steel components for various industries. It was high time for a modernization, especially because the flywheel shaft bearing block with a pneumatic clutch and brake showed significant signs of wear and required regular maintenance. Moreover, the additional upgrade to a servo-hydraulic infeed and bar stop represents a milestone in higher part quality.

Workers at PENN GmbH value the wide range of parts that can be produced on the reliable hotformer. In addition to producing traditionally high quantities of parts for the automotive industry, they have also been manufacturing quality parts for the construction industry and railway industry, as well as for trucks and agricultural vehicles, for a number of years. As part of this, the experts at PENN GmbH have specialized in increasingly complex components that can also be produced in smaller batches from 15,000 to 20,000, which certainly marks a unique selling point. Employees at PENN GmbH were quickly impressed when the experts at Hatebur stated that the press could still be upgraded with state-of-the-art technology after many years of production and could still produce parts successfully for many more years. Ultimately, users were thoroughly impressed by the quality and reliability of the AMP 70.

**Meticulously planned modernization processes**
As a result, in autumn 2023, the company started to replace the pneumatic clutch and brake with the new, current hydraulic version. This was primarily intended to prevent the high level of wear on the pads and toothing of the clutch and brake, as well as to reduce the effect of fouling over time. In recent times, the effort and costs of maintenance have been considerable.

The hydraulic clutch and brake were first developed for the Hatebur HM 75. When it quickly became clear that the old weak points were virtually eliminated, developers at Hatebur converted the system for use in the AMP 70. This means that the clutch and brake have their own hydraulic unit. The sintered metal pads are lubricated and cooled by the hydraulic oil. In addition, a modern modular control system with integrated standstill monitoring ensures safe operation. After fitting the clutch and brake, the oil collecting ring was installed, the hydraulic device was set up, the lines were routed and the electrical system was connected. "What's good about the upgrade is that it's not necessary to rework the flywheel or pinion shaft," emphasizes Hatebur Project Manager Oliver Borgolte. After just four weeks spent solely converting the machine, it was already possible to start up production again in December 2023.

**Quick and long-term improvements**
The measures immediately took effect. The machine engages much more smoothly and therefore reduces the amount of force on the toothing. There are virtually no more signs of wear on the sintered metal pads. In addition, the active cooling system makes the system robust against thermal overload. The brake pads are no longer fouled and there is hardly any wear. Unexpected downtime due to problems with the clutch or brake are things of the past. "This allows you to reliably plan production," says Schäffel, who also drew the following pleasing interim conclusion in May 2024 – "we're delighted that the machine virtually no longer stands still any more and that almost no maintenance is required." For the second modernization step – installing a new servo-hydraulic infeed and bar stop – Hatebur no longer needs to impress users.

With the Hatebur HOT*matic* AMP 70 with four forming stations and a press load of 15,000 kN, the Austrian-based company produces 50 to 80 forgings per minute in a fully automated way with diameters up to 145 millimeters and with workpiece weights of between 400 grams and 5 kilograms. What's more – thanks to the toolmakers' ingenuity – they can even achieve 140 parts per minute by forging mechanical engineering components with duplicates that are separated in the fourth operation stage. The servo-hydraulic infeed and bar stop should now ensure higher, reproducible process reliability and a significant increase in efficiency for the forming process.

**Precisely feeding in and positioning bars**
The highly precise servo infeed feeds the AMP 70 with bar material with diameters from 36 to 75 millimeters. This is ensured by infeed rollers powered by two servo motors. Given that there is no need for the drive mechanics and freewheel unit, or for them to be replaced, there is minimal mechanical wear and maintenance. Accordingly, the machine operates much more reliably. Employees at PENN GmbH appreciate the automatic bar withdrawal and the function that removes the hot bar from the machine.

And, of course, they enjoy all of the benefits of the servo infeed. This means that the infeed stroke and cut-off length can be continuously adjusted during the production process. The infeed stroke no longer needs to be manually adjusted, but is controlled via the control desk. This considerably reduces the set-up time for tool changes. Given that the infeed length is always precise, the volume of cut-offs is much more constant. During the bar transition, the infeed position can be optimally controlled and therefore wedges can be avoided at the leading edge or end of bars.


Following extensive modernization of the press, the managing team at PENN GmbH in Austria are delighted to have less downtime, significantly longer maintenance intervals and a much wider product range.

The infeed rollers are powered by a servo motor. Given that there is no need for the drive mechanics and freewheel unit, or for them to be replaced, mechanical wear and maintenance are reduced to a minimum.

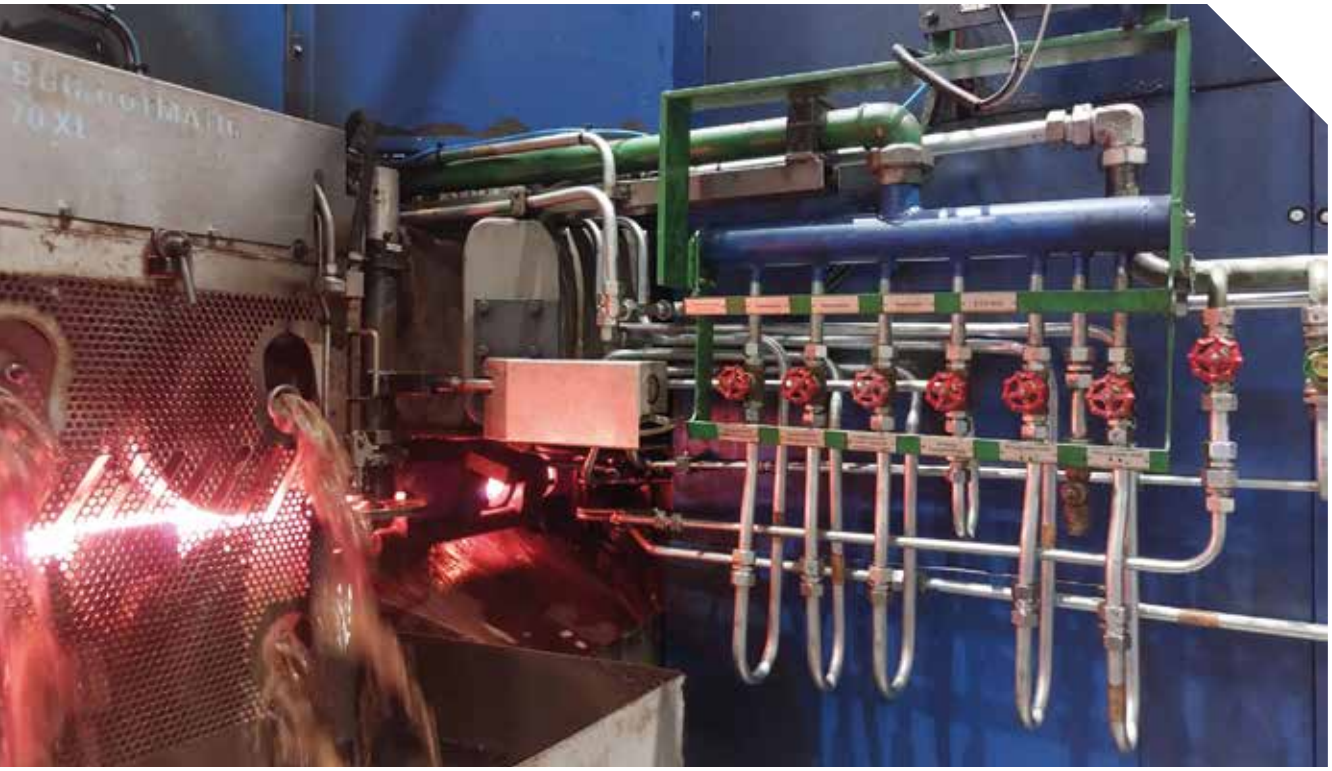
**Eliminating shear fractures, wedges and flaking**

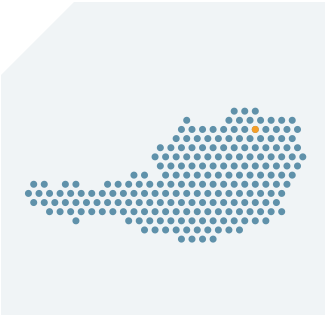
The glowing steel bars are fed in precisely and must be accurately sheared off. The servo-hydraulic bar stop from Hatebur constitutes a big step forward in this regard because it considerably improves the surface quality of the shearing surface. In the past, the cut-off may have been slightly pitched and stood at an angle during the shearing process. The two sheared surfaces were therefore not completely parallel. More serious was when the shearing turned into a crack at the end of the process, meaning that the material was broken, rather than being cleanly sheared. Furthermore, a type of scaling occurs, as well as sometimes a type of fracture known as a wedge.

**Optimal cut-offs for higher part quality**

The servo-hydraulic bar stop substantially reduces both the pitch and the angle of the cut-off. Both surfaces are practically parallel. Moreover, scaling only rarely occurs. “There are no longer any wedges either,” assures Schäffel. The results are impressive. “The break-outs are reduced considerably or are removed completely. All of the parts are the same and it is safer and easier to transport them between the forming stations.” The process cannot be seen with the naked eye since, depending on the diameter of the bar and speed of the machine, the process lasts just 60 to 100 milliseconds. Hatebur Product Manager Carsten Sieber explains, “at this speed, only a servo-hydraulic drive

By installing a new hydraulic clutch and brake, as well as a servo infeed and bar stop, PENN has not only modernized their AMP 70, but have also taken productivity to a new level after 18 years of production.





PENN GMBH

HQ: **Senftenberg-Imbach, Austria** CHAIR: **Gernot Penn**

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| FOUNDED | EMPLOYEES | LOCATIONS | INDUSTRIES SUPPLIED |

can provide the necessary dynamics and power density in the smallest of spaces."

**Identifying and correcting changes in position at the micrometer level**

To achieve the best possible shearing quality, operators can choose position or force control of the servo-hydraulic bar stop. At the end of the infeed process, the bar meets the bar stop. The latter is compressed by several hundredths of a millimeter, thereby deviating from the setpoint position. This intended deviation is identified by the high-resolution stroke measuring system on the differential cylinder with an accuracy of 1 micrometer, at which point the control unit instantaneously offsets the position of the bar stop via the servo valve. This position control keeps the effective distance between the blade and the bar stop constant throughout the shearing process.

Immediately after shearing starts, the control system switches to force control with position monitoring. This results in a buildup of counteracting force that presses the future cut-off against the remaining bar, preventing pitching or angling. Just before the shearing process ends, the cylinder switches back to position control. The cut-off is then moved into the first forming station by the shearing blade with cut-off holder.

**Back to its core competence after modernization**

Workers at PENN GmbH are satisfied with the modernization, which was completed in November 2024. "With the modernized AMP 70, we're now focusing again on testing what is physically possible," say a delighted Mandl and Schäffel in unison.

The servo-hydraulic bar stop substantially reduces both the pitch and the angle of the cut-off. Both surfaces are practically parallel, all of the parts are the same and it is safer and easier to transport them between the forming stations.

# Warm forming for the aerospace industry

Text: **Daniele Zucchi**
Images: **Carlo Salvi**

Garlate **In today's aerospace industry, innovation and the pursuit of increasingly advanced solutions are essential to addressing the challenges of efficiency and precision. Carlo Salvi, a well-established company specializing in cold forming machines, stands out for its ongoing commitment to technological innovation. In particular, warm forming technology is gaining increasing prominence in the production of specialized components, offering significant advantages over traditional methods.**

Over the years, Carlo Salvi has expanded its scope to meet the increasingly sophisticated demands of the aerospace sector. With decades of experience, the company has built a reputation for excellence in innovation and quality, investing in solutions that meet the market's stringent precision and reliability requirements.

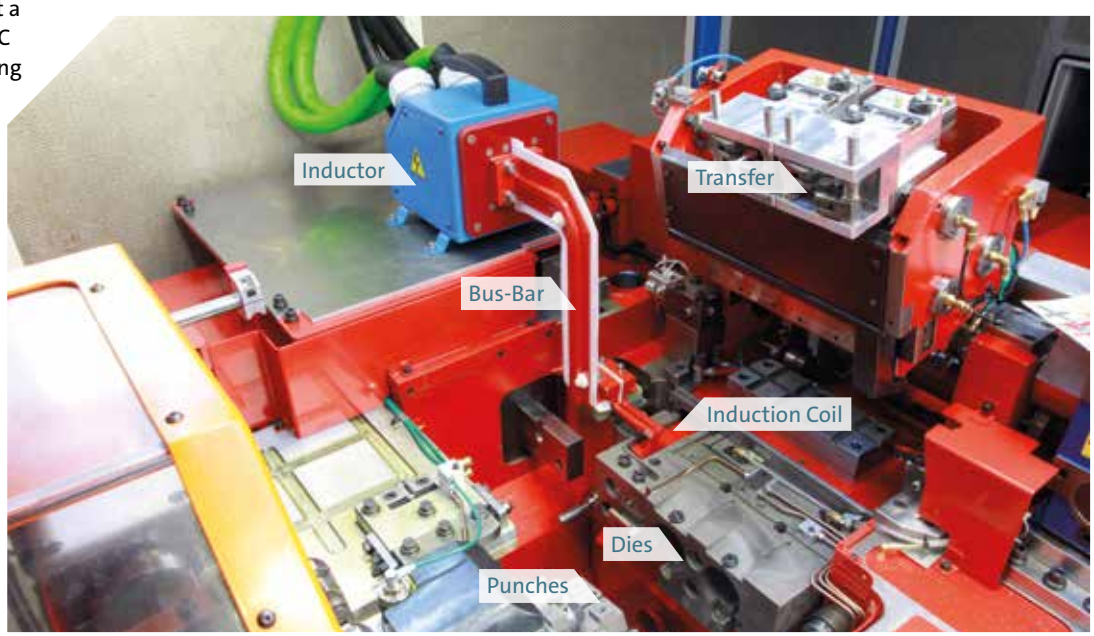
**Next-level hot forming**

Semi-hot forming is one of the most promising technologies for manufacturing high-performance aerospace components. This process allows the manufacturing of parts with extremely complex shapes while reducing costs and production times compared to traditional hot forming methods. Additionally, semi-hot forming enables the deformation of high-strength alloys and superalloys, minimizing the risk of cracks during forming–a critical aspect in aerospace manufacturing, where structural integrity is paramount.

This technology has several key features that define its effectiveness and application advantages:

- **Intermediate temperature:** The material is heated to a lower temperature than hot forming (typically between 500°C and 900°C, depending on the material).
- **Reduced tool wear:** The heat lowers material resistance, reducing stress on tools compared to cold forming.
- **Higher precision compared to hot forging:** Since temperatures are lower, thermal distortions are reduced, improving dimensional and surface quality.

Achieving optimal results at a temperature of up to 1000°C by using an induction heating system




**Changing the game with induction heating**
With the growing demands of the market, Carlo Salvi has directed its investments towards improving and optimizing its products. A crucial step in this process is the integration of an induction heating system into its machines, comprising an inductor, an optical pyrometer, and a chiller for cooling the die block and bedframe of the machine. These elements enhance thermal control during the high-temperature wire forming process.

The WS (Warm Series) machines represent one of the most promising solutions in the Italian market today. Converting cold forming machines into semi-hot forming solutions requires specific mechanical modifications to integrate the heating system, such as:

- **Wire (or bar) heating via induction:** This non-contact heating method places the inductor immediately before the cutting bushing, ensuring precise and controlled energy application.
- **Preheating head with automatic positioning system:** The coil's position is regulated and monitored via the HMI, allowing "spotting"-type heating.
- **Thermostat-controlled system for die block and baseplate:** Initially, the system preheats the die block to minimize material waste. Once thermal balance is achieved, the block is adequately cooled to ensure repeatability of the produced parts.
- **Protective and efficiency-enhancing safety measures:** A specialized fireproof enclosure with brackets, covers, and protective elements for the coil, along with a pyrometer and temperature sensors, ensures system safety and functionality.

To further enhance process control, additional accessories are implemented, including an air-blowing system to keep the pyrometer clean and an automated heating management system. This includes the automatic removal of cold scrap via the automatic opening of the first finger and the built-in defective part separator. Safety is paramount, with the integration of a $CO_2$ fire extinguishing system.

With the induction system installed, uniform and precise temperatures of up to 1000°C can be achieved, ensuring superior quality and increased efficiency. Temperature control is a crucial factor in semi-hot forming, as it enables optimal results with high-performance materials, reduces defects in formed parts, and preserves their mechanical properties, ensuring the durability and safety of the final product.

**Large variety of materials**
Among the most commonly used materials in semi-hot forming for aerospace applications are titanium alloys, aluminum alloys, high-strength stainless steels, and superalloys. These materials provide superior mechanical properties while maintaining the lightweight characteristics essential for aeronautical applications. Titanium alloys, in particular, are highly valued for their corrosion resistance. Inconel, despite its high density, is widely used in the aerospace sector due to its ability to withstand extreme thermal variations without significant dimensional changes, an essential feature for aerospace components.

Key applications include:

- **Structural and covering elements for aircraft and engines:** Bolts, special screws, fittings, and brackets.
- **Turbine components:** Turbine blades, discs, and rings made from superalloys such as Inconel 718.
- **Titanium parts for frames and fastening systems:** Lightweight components with high resistance to corrosion and elevated temperatures.

In conclusion, semi-hot forming offers numerous advantages, including:

- **Precision and quality:** Accurate temperature and deformation control allows for the production of components with very tight tolerances, essential in the aerospace industry.
- **Production flexibility:** The ability to feed machines with either wire or bar stock provides significant economic advantages for customers.
- **Cost efficiency:** Reducing defects during processing lowers costs associated with scrap and finishing operations.
- **Complex geometries:** Semi-hot forming enables the production of intricate shapes that would be difficult to achieve with traditional methods.
- **Enhanced mechanical performance:** This technology fully utilizes material properties, producing parts that are both lightweight and robust.
- **Advanced geometries and applications:** The ability to create complex geometries makes semi-hot forming particularly suited for aerospace components such as support structures, engine parts, and propulsion systems. These advanced geometries also contribute to reducing part weight, a crucial factor in optimizing aircraft performance and fuel consumption.

**Commitment to innovation**
Carlo Salvi continues to invest in research and development to enhance its semi-hot forming solutions, addressing the needs of an increasingly sophisticated aerospace market. Its ongoing commitment to innovation, combined with the ability to adapt to new challenges, makes the company a reliable partner for the production of high-quality, advanced components for the aerospace industry.

Titanium samples of semi-hot forming parts for different applications


1930 Founded in Neuss am Rhein – Germany
1940 Starts production of thread rollers for flat die
1933 Relocates to Basel, Switzerland
1968 Relocates to Reinach, Switzerland
1993 Wiehl, Germany – subsidiary opens
1995 Tokyo, Japan – subsidiary opens
2008 Shanghai, China – subsidiary opens
2016 Hatebur and Carlo Salvi merge
Virtual Showroom

# Improving productivity: Smart manufacturing by Carlo Salvi

Text: **Daniele Zucchi**
Images: **Carlo Salvi**

**Garlate _____ With its long-standing experience in the design and manufacturing of highly technological machinery for cold and warm forming, Carlo Salvi is committed to meeting the increasingly complex demands of its customers. Market evolution requires integrated solutions covering the entire production process, from wire supply to the finished product, ensuring a high degree of automation and minimizing human intervention.**

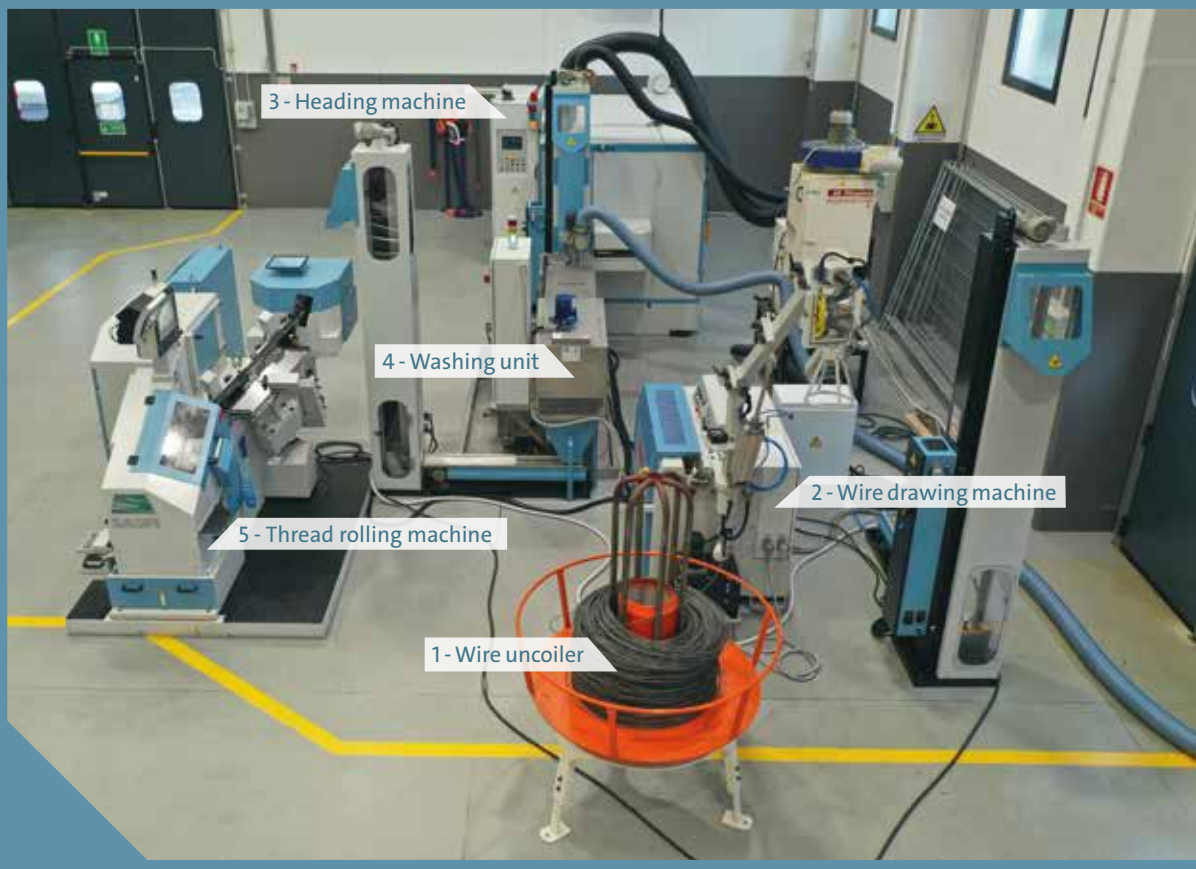
To address these needs, Carlo Salvi has developed a growing portfolio of tailor-made and turnkey solutions in recent years, thanks to strong partnerships with leading companies in the sector. This strategy allows the company to provide customized systems optimized for each customer's specific production requirements.

**Saving time and reducing scrap**

A representative example is the combination of a header with a drawing machine, a configuration that enables the use of the same wire for the production of components with different diameters, while staying within the technical parameters defined by the tooling department engineers. Thanks to this solution, the operator does not need to manually replace the wire coil with each batch change, but can simply adjust the drawing machine settings, achieving significant time savings, reduced scrap, and optimizing warehouse space.

Another noteworthy example is the integration of Carlo Salvi machines with flat-die thread rollers, a particularly appreciated solution for those who require finished parts with thread rolling at the end of the process. By directly connecting the header to the thread roller, a continuous and synchronized workflow is achieved, reducing manual operations and improving production efficiency.

The picture shows a process line using the example of a CS 588 and a thread rolling machine




Complete production line: a CS 246 E WS combined with other machines

**Turnkey production lines**

The integration possibilities go far beyond these solutions. Carlo Salvi headers have been successfully combined with various other machines, including industrial drum washing systems, heat treatment plants, and automated inspection machines. The latter, using high-resolution cameras and advanced vision software, ensure precise quality control, verifying that each component meets the required specifications.

Carlo Salvi's expertise in designing complete production lines represents a key advantage for customers looking to invest in advanced and reliable solutions. The company's turnkey systems continue to prove a winning choice, as demonstrated by the numerous successful installations in recent years.

**Efficiency, reliability, and precision**

A concrete example of this expertise is the development of a production line consisting of a CS 246 E WS header combined with a drawing machine, two washing systems, and a thread rolling machine. This configuration enables a highly efficient and fully automated process. Another recently supplied solution features a CS 003 header integrated with a drawing machine, a washing system, and a thread roller, ideal for optimizing production by reducing waste and ensuring maximum precision.

Carlo Salvi continues to invest in innovation and the development of advanced solutions to meet the ever-growing challenges of the market. Thanks to our experience, the quality of our machines, and strong collaborations with reliable partners, we offer cutting-edge production systems that ensure efficiency, reliability, and precision. Our goal is to support customers in achieving increasingly high-performing and competitive production processes.

# Massive forming of aluminum and copper

Text: **Kim Weber**
Images: **Hatebur**

**Reinach, Switzerland — Cold-massive forming is a highly developed production process that plays a key role in industrial production. Forming technology is vital for not only steel, but also aluminum and copper.**

Cold forming is used in multiple ways in the automotive and aviation sectors, as well as in other industries, because it enables precise geometric shapes to be produced with high strength and high output rates. The advantages are plain to see: When compared with machining methods, forming technology enables virtually waste-free part production, which has a positive effect – particularly with rising material prices.

To deliver the full potential of forming technology, the process parameters need to be optimally matched. Our coldformers in the Hatebur COLD*matic* and Carlo Salvi series provide optimal support for the application and enable high-precision parts to be produced as cost-effectively as possible.

**Applications**
Due to its low density and excellent corrosion resistance, aluminum is a sought-after material for cold forming. In the automotive industry, aluminum parts are increasingly used to save weight and therefore reduce fuel consumption.

Likewise, copper is being used increasingly frequently because of its excellent electrical and thermal conductivity. This makes it an indispensable material in electronics, and therefore also in electric mobility, as well as for applications in renewable energy.

**Choosing the right material**
Aluminum and copper alloys can be deformed more easily than steel. However, this may lead to the unwanted flow of loaded component areas during the forming process and when the component is used later on. The subsequent machining, where the requirements are often at odds with a component's formability, must be taken into account under certain circumstances.

In contrast, there are applications where deformation is desirable, for example riveting. When selecting the material, you should therefore pay attention to various parameters, such as workability, formability, strength and, if necessary, machinability.

**Looking ahead**
In the future, the demand for lightweight, high-strength materials will continue to increase, particularly in the automotive and aviation industries. In addition, the need to develop increasingly high-performance electrical connections will become more important in the cold forming sector. In particular, manufacturing complex formed parts that offer high electrical conductivity, as well as robustness and reliability, will play a crucial role in the next few years.

**The right forming solution for a wide range of applications**
In order to meet the previously mentioned challenges, the Hatebur Group is using its expertise in tool design combined with the right machine concept. The use of process simulations enables us to make precise forecasts of voltages and flow behavior. This provides the possibility of optimally designing the sequence of individual stages according to the material and the parts to be produced as part of the forming process.

This opens up ways of producing workpieces with the corresponding "net to shape" tolerances – i.e. close to the final shape – which allows us to reduce the initial weight and save costs overall.

Building upon this, we are able to offer solutions where secure part handling, low tool costs, optimized discharge to prevent points of impact and high outputs are in the foreground. When combined with the use of suitable tool technology and taking into account coatings and process oils, this results in an unbeatable package – and that ensures key competitive advantages for the user.

# More efficient cold forming thanks to the servo infeed

Text: **Hansjörg Gebhard**
Images: **Hatebur**

Reinach, Switzerland **A servo motor infeed combines technical with major economic advantages. We have offered this feature as a retrofit for hotformers for a long time. This option is now also available for our coldformers.**
**To do so, the Hatebur team is building on over 20 years' experience in developing, designing and integrating servo motor components.**

It is not equally easy to retrofit servo drives for all machine functions. However, experience from numerous retrofitting projects for hotformers confirms the economic efficiency of these measures without any restriction.

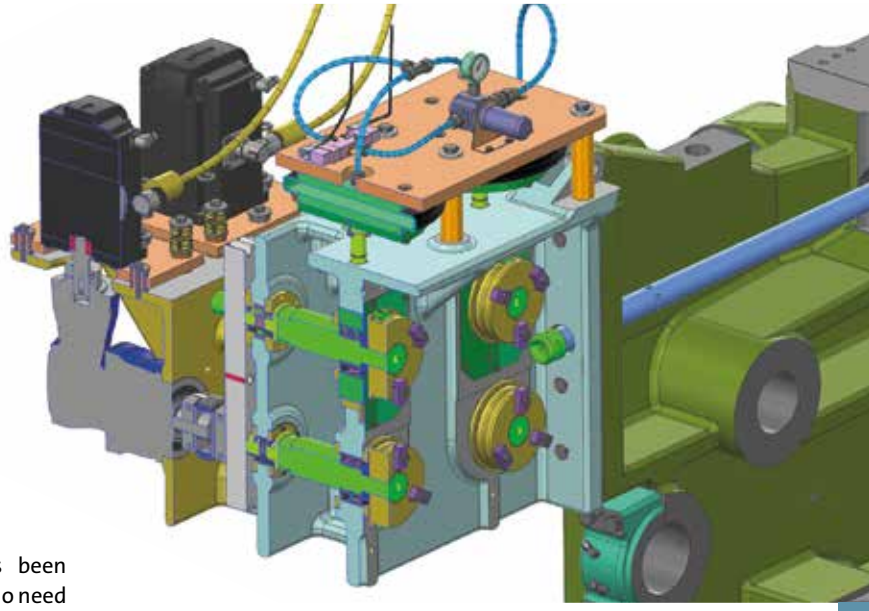
**A servo motor infeed offers a range of advantages. Here are the most important of these at a glance:**

- High-precision and reproducible material supply
- Easy process for raw material in both directions
- Minimal overstroke thanks to the precise synchronization with the material stop
- No wear parts, such as an infeed freewheel or anti-reverse lock
- Prevents guide bushes from being subjected to a heavy load

**This also has a direct effect on the economic consideration, among other elements thanks to the following:**

- The infeed length can be quickly and flexibly adjusted via a touchscreen
- Consistently reproducible setting values from the recipe management
- The infeed length can be adjusted during production, without interruptions
- Wear-related and maintenance costs are reduced

A mechanical-hydraulic linear infeed



3D illustration of a servo roller infeed

**Constant development of infeed technology**

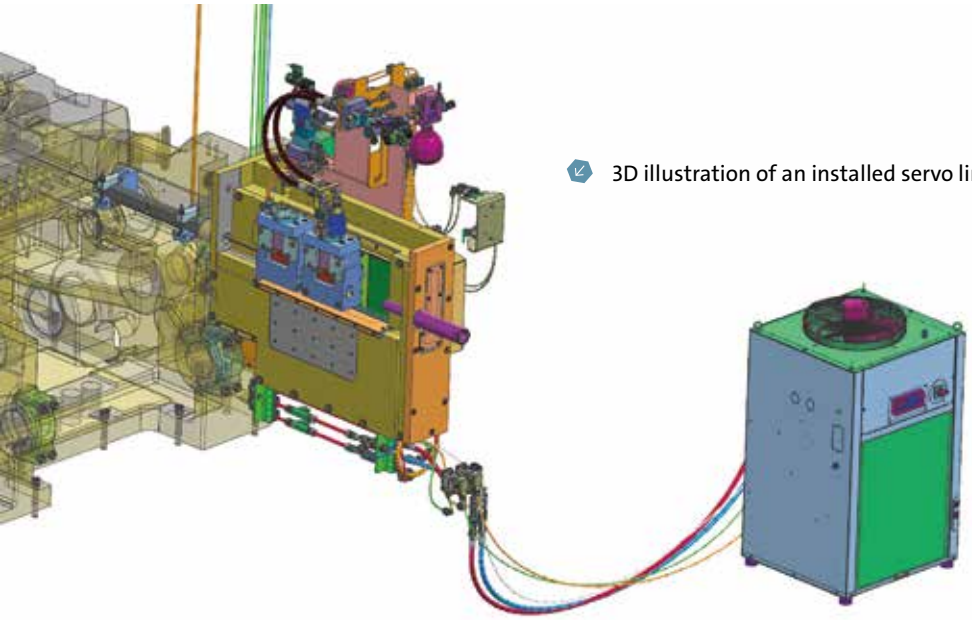
In Hatebur's range of coldformers, we distinguish between a roller infeed and a linear infeed. The mechanical roller infeed is the original and the oldest version of our coldformers. It also requires the addition of a mechanical bar stop that strictly defines the cut-off length. On machines without motorized adjustment, the system must be stopped in order to adjust the material supply.

The mechanical-hydraulic linear infeed has been developed over the course of time and there is no need for a bar stop. The infeed length can be adjusted precisely according to the high requirements and reproduced in production. In this case, the wire is securely held and transported by hydraulically controlled clamping jaws. This system only needs to be stopped to adjust the infeed stroke.

New cold formers have already been fitted with servo-powered material infeeds as standard for many years. Their great success and high degree of reliability have led to us also offering these technical solutions as a retrofit. The easiest option to do so is to convert the mechanical roller infeed into a servo roller infeed. The bar stop remains necessary and can continue to be used. To ensure ideal interplay, it is useful to have a servo motor stop adjustment.

If a machine already has a linear infeed, it makes sense to convert to a servo linear infeed. In this case, it is not necessary to have a bar stop in order to meet the very high requirements of the cut-offs. In addition, the existing clamping jaw hydraulic system can continue to be used.

In a more extensive upgrade, which is also extremely interesting from technical and economic perspectives, the mechanical roller infeed can be converted to the latest version of the servo linear infeed. This makes it necessary to have a hydraulic supply to the clamping jaws but brings a key advantage – it is no longer necessary to have a mechanical bar stop at all in this type of solution.



3D illustration of an installed servo linear infeed

# Interview

Name: **Stella Shi**
Position: **Finance & HR Manager**
Working at Hatebur Metalforming Technology Shanghai
since: **2008**

**Can you give a brief overview of your position and your tasks at Hatebur in China?**
As a Finance & HR Manager, I have a dual role. On the one hand, I'm responsible for finances and internal controlling and, on the other hand, I lead recruitment processes and take care of salary payments, incoming and outgoing employees, as well as administrative tasks.

**What makes Hatebur special?**
Hatebur offers employees a friendly working environment. I also appreciate the good teamwork. We support each other.

**What's the most exciting part of your job?**
There is generally a certain degree of repetition in my work every month. But, from time to time, the government in China sets new guidelines and requirements. The most exciting part of my job is revising the company's financial and HR work according to the latest guidelines and requirements, and considering how to harmonize this with the laws and regulations.

**What do you enjoy most about your work at Hatebur?**
What I enjoy the most is the pleasant working atmosphere and the positive team spirit. I really think that's what is special at Hatebur.

**How would you describe your team in one word?**
Dedicated.

**Are there any projects or achievements that you are particularly proud of in your career at Hatebur?**
We started using the SAP system in 2014. This presented us with a new challenge. With the help of our system supplier, we developed a work sequence based on the specific requirements of the company and the government specifications. We are continuously improving it and still use it to this day.

**How do you see the future of metal forming technology and how does Hatebur contribute to this progress?**
With the development of artificial intelligence, many sectors will be increasingly based on this technology. This is also true of forming technology. The powerful support of AI will enable us to put more energy into creative work. Hatebur has been in business for 95 years. It's one of the leading companies in this sector. I think that, in the future, more attention will be devoted to improving industrial efficiency and fostering industrial changes.

**What are your favorite hobbies or activities outside of work that help you to unwind?**
My favorite hobby is reading. I'm interested in books about nature and history, as well as textbooks about finance and HR.

**Are you married? Do you have children?**
Yes, I'm married and I have a 10-year-old daughter.

**What's the biggest challenge in your work? How do you overcome it?**
A big challenge for me is keeping to the schedule by which a lot of work needs to be completed. There are high requirements for the accuracy of data. As a general rule, I aim to use 80% of my time for completing work. I spend the rest of my time checking my work and making improvements.

**How do you reconcile your professional and personal interests and maintain a healthy balance?**
During working hours, I concentrate on my work. On the weekend, I spend all of my time with my family and I enjoy that.

**What advice would you give someone who wants to start a career in metal-forming and manufacturing precision parts?**
Metal-forming and manufacturing precision parts are in a sector that requires you to immerse yourself in it in the long-term. It also requires professionalism, concentration and patience. If you work hard at it for a long time, you will reap the rewards.

Stuttgart, March 25–27, 2025

# Fastener Fair Global 2025: International stage for precision, innovation, and expertise

Location: **Stuttgart, Germany**
Company: **Carlo Salvi**

Text: **Neten Rranjjan**
Images: **Carlo Salvi**

From March 25 to 27, 2025, the international fastener and fixing industry gathered in Stuttgart, Germany, for Fastener Fair Global. Recognized as one of the foremost trade shows in the sector, this year's event attracted approximately 1,000 exhibitors from 40 nations, presenting the latest advancements and innovations in fastening technology. Carlo Salvi participated as an exhibitor, showcasing its leading position in the market and engaging with industry leaders from around the world.

The event provided an excellent opportunity for Carlo Salvi to present its cutting-edge forming solutions, demonstrating their efficiency, precision, and reliability to a wide audience of professionals. Visitors to the Carlo Salvi booth had the opportunity to explore the company's latest technological developments and discuss tailored solutions for their manufacturing needs.

Throughout the three-day event, our team engaged in valuable discussions with both existing and potential customers. The exchange of ideas and insights further solidified Carlo Salvi's reputation as an innovative and forward-thinking company in the fastener industry. The booth attracted a steady stream of visitors eager to learn about our latest machinery and technological advancements.

Fastener Fair Global 2025 provided an ideal platform to strengthen partnerships, foster new business relationships, and stay ahead of emerging industry trends.

Our team in Stuttgart

# “Shaping the future together”

Text: **Tobias Wessels**
Images: **Hatebur**

**Reinach, Switzerland — 95 years ago, Friedrich Bernhard Hatebur founded a design firm for the “construction and conversion of processing machines according to modern working methods for drawing, pressing, shaping and punching”. Since then, there has been a change in headquarters to a new country, new branch offices, acquisitions and pioneering technical innovations. An interview with Chair of the Hatebur Board of Directors, Claudine Hatebur de Calderón, about three generations of entrepreneurship.**

**Since 2009, you have been the sole owner and Chair of the Board of Directors at Hatebur Umformmaschinen AG. When, would you say, did your career at the company really get going?**
It really was at the very start of my professional career. I could hardly wait to turn 16 so that I could work during the holidays. In my first holiday job, I literally started at the very bottom – in the forwarding office in the basement of the building. My task was to remove staples from documents and to bind the documents in books to set up a more effective archive. That was the first time I came into closer contact with my colleagues and I really enjoyed it.

## A family company – or the company as a family

**What does it mean for you personally to be the third generation of your family to run the company?**
I have great respect for my grandfather. He founded the company and made it a success in a time that was almost tailor-made for it. He did so with a great deal of pioneering spirit and courage and his great invention – a fully automatic hotformer that enables you to make nuts directly from long steel rods. The second generation continued to run the business in an exemplary manner and we’ve now arrived at the third, often skeptically viewed, generation. The world and the market have changed, and the challenges are totally different to those faced by my grandfather and father. I’m excited to take these on and work together with our dedicated employees to shape Hatebur’s future.

**After three generations of leading the company, there must surely be some good anecdotes that the family enjoys telling.**
Yes, of course there are. A story that’s told particularly often is of the famous “rabbit meal”. In his free time, my grandfather enjoyed going hunting in his hunting ground in the Alsace region. He regularly gave the hunted rabbits to an innkeeper to prepare and invited all of the employees to a feast. People really dressed up for the occasion and women came with their high hairstyles that were customary at the time. While they were eating, people sometimes heard shotgun pellets that the cook had missed clanging on their plates. My grandfather loved what he did and these feasts were just one example of how he integrated employees into the corporate family.

## Understanding customer requirements

**Before you formally started working for the business, you also worked for other companies. How did those previous positions influence you and your current work?**
My previous career is only indirectly related to my current tasks. It wasn’t intended to prepare me for taking over the company. Nevertheless, it was quite a good fit and I can think of two areas in particular.

On the one hand, I mainly worked in the medtech industry in the areas of cardiology, neurology and neurosurgery with implantable devices. The combination of medicine and technology left its mark on me and still fascinates me today.

On the other hand, I gained experience in the automotive industry at Jaguar, Emil Frey and BMW. Working at Hatebur now, automotive suppliers are some of our most important customers. I also had the opportunity to get to know and understand the other end of this supply chain. I definitely felt confronted with the infamous “glass ceiling”. This encouraged me to fight for my independence.

**What makes up Hatebur Umformmaschinen AG's DNA and how has it developed over the years?**
Our company's DNA is made up of our fascinating machines that reliably do their job day after day. They are synonymous with excellence, high precision and longevity. These qualities are made possible by a crucial component of our DNA – our innovative employees.

**How important is it for you to be in contact with your team?**
It's a very high priority for me. Nothing works without our team and this awareness has continued to play an important role as the generations have changed. It was important to me that employees were able to continue working for the company. If we had sold the company at the time, the buyer would probably have taken the expertise out of the company and out of Switzerland. Employees would have been out on the street.

I think one my strengths is bringing people together and motivating them. The term "family company" applies to the entire team at Hatebur – we look after each other and go on both easy and difficult paths together. It's fitting that a similar culture has always been put into practice at Carlo Salvi too. This considerably facilitated the merger after the acquisition of the company in 2016.

## Strong together in turbulent times

**Are there certain milestones that you are particularly proud of?**
My takeover took place in the midst of the global financial crisis in 2009. In 2015, the national bank decided to no longer defend the exchange rate floor for the Swiss franc, which significantly hampered exports. This was followed by the COVID-19 pandemic in 2020, which, at times, shut down virtually everything. We can be proud that we withstood these events. We owe this to our adaptability, our inventiveness and our Group CEO Thomas Christoffel, who always sees the opportunities in everything and bravely leads the way.

**You've touched upon this – the world, and not only that of metal-forming, is changing. We're in a phase of upheaval. Where is Hatebur headed?**
I see tremendous opportunities for Hatebur in this transformation. We offer complete solutions that are well thought-out from the start to the end and tailored to the individual needs of the customer. It is now essential to drive ahead with the development of our technologies to solidify our market position, while also entering new markets.

The increasing digitalization and the rise in demand for sustainable and resource-efficient production technologies will open up the opportunity to continuously optimize our machines and processes and to create more precise and energy-efficient solutions. A nice example is our oil-processing system that our customers use to clean and reuse their used and contaminated oil, saving them disposal costs and reducing the amount of new oil purchased.

But let's not forget, our machines themselves play a key role in sustainability – thanks to their unrivaled service life.

**Ms. Hatebur, thank you for talking to us!**

See us **live!**


July 16–19, 2025
**MF-Tokyo**

Location: **Tokyo, Japan**
Brand: **Hatebur and Carlo Salvi**

October 05–10, 2025
**International Forging Congress IFC 2025**

Location: **Frankfurt am Main, Germany**
Brand: **Hatebur**

October 29–31, 2025
**Korea Metal Week**

Location: **Goyang, Korea**
Brand: **Hatebur**

**We look forward to seeing you there!**

**All dates are correct as of April 2025. Please check the latest dates online before attending an event.**

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