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# NetShape

01 | 2020



## Customer story

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HOTmatic HM 75

## Focus

**Carlo Salvi CS 513 TH** 06 – 09  
A new chapter is being written

[www.hatebur.com](http://www.hatebur.com)

**HATEBUR**

# Personal



Dear business associates,

It is at times like these when the world is dominated by a single topic that we need other news. I am therefore pleased that you can hold the latest issue of our NetShape magazine in your hands.

In the report about our latest development in Garlate, you will see that investments continue to be made. With the Carlo Salvi CS 513 TH, you will be able to roll on formed fastening threads in line production. This critical technology will be used to further strengthen our position in the fastener industry. This is just one example of how we are using our partners' outstanding products to open up new areas of application and to access additional market segments.

For a short time now, the first Hatebur *HOTmatic* HM 75 has been in operation in Eastern Europe. The way in which the strategically forward-thinking Kovács family is leading its medium-sized company to what will certainly be a successful future is impressive.

I am particularly pleased that this issue showcases not only the 90-year history of the Hatebur family but also a technological highlight. A completely innovative fastening tool will now allow you to manufacture exceptional asymmetric geometries. The formed parts that can be produced on our AMP 30 in Reinach using this tool are incredible. Moreover, this can be done while maintaining the usual high production figures.

Finally, our experienced team leader Stefan Götz provides particularly fascinating insights into a cutting-edge area of current developments, while also illustrating one of our key hubs in the process.

I hope that you enjoy this issue of NetShape and it provides you with some moments of distraction in this uncertain time. I would like to wish you, your families and your fellow employees all the best. Stay healthy!  
Best wishes,

**Thomas Christoffel**  
CEO

A handwritten signature in blue ink that reads "T. Christoffel".

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# Latest news

## News from Hatebur – new work clothing for Hatebur employees



In late February 2020, Hatebur employees were given new work clothing. This clothing meets modern requirements in terms of safety, design and comfort, and ensures that customers can easily recognize our employees because they are wearing the same uniform.

This new work clothing is also worn by our colleagues at the Asian subsidiaries, Hatebur Metalforming Technology (Shanghai) Co. Ltd. and Hatebur (Japan) K.K.

## Almost 40 years of service



Name: **Ueli Wenger**  
Position: **Area Manager Sales Services**

Started working at Hatebur: **In 1980**  
Left Hatebur: **In spring 2020**

Ueli Wenger, Area Manager Sales Services for China, Canada, Mexico, Taiwan, Turkey and the USA, worked at Hatebur in Reinach for almost 40 years. He is now enjoying a new phase of his life, having retired in spring 2020. During his career, Ueli Wenger provided local customer service, and advised on and supported a wide range of projects.

## 35th anniversary at Hatebur



Name: **Christian Becker**  
Position: **Area Sales Manager**  
Working at Hatebur: **Since 1985**

Christian Becker has been working for Hatebur in Reinach since October 1985. During his time at Hatebur, he has been involved in various departments. Since 2016, in his role as Area Sales Manager, he has been responsible for customers in Argentina, Brazil, China, Canada, Liechtenstein, Switzerland, Mexico, Taiwan and the USA.

## 30 years at Hatebur



Name: **Pascal Stemmelin**  
Position: **Head of Machine Design 1**  
Working at Hatebur: **Since 1990**

Pascal Stemmelin is also celebrating a major anniversary. He has now been working in Hatebur's mechanical engineering department for 30 years. Over this period of time, he has worked on a wide range of developments. For example, he was involved in redesigning the AMP 20 S, followed by projects such as the AKP 4-6 S, HM 35 and CM 4-5<sup>ECO</sup>. Some of his most exciting assignments have included helping to develop the servo transfer unit for the CM 725, as well as providing the technical coordination for the overall development of this machine model.

Since 2006, he has led one of our machine engineering development teams and, together with his colleagues, he is in charge of the entire Coldmatic series.

## In-house machine training sessions for employees

In-house training sessions for Hatebur's two latest machines took place in February 2020. This involved the introduction of the new COLDmatic CM 725 and the HOTmatic AMP 20 N both with respect to theory and practice at the assembly plant in Brugg. The training session gave employees the chance to ask the in-house specialists in-depth questions about these machines' range of functions, the latest technologies, how the machines differ from other models and options. This opportunity to provide customers and interested parties with expert and comprehensive information was taken up with great enthusiasm.

# Facts & Figures Japan

**91.6 %**  
of the total population  
live in the city

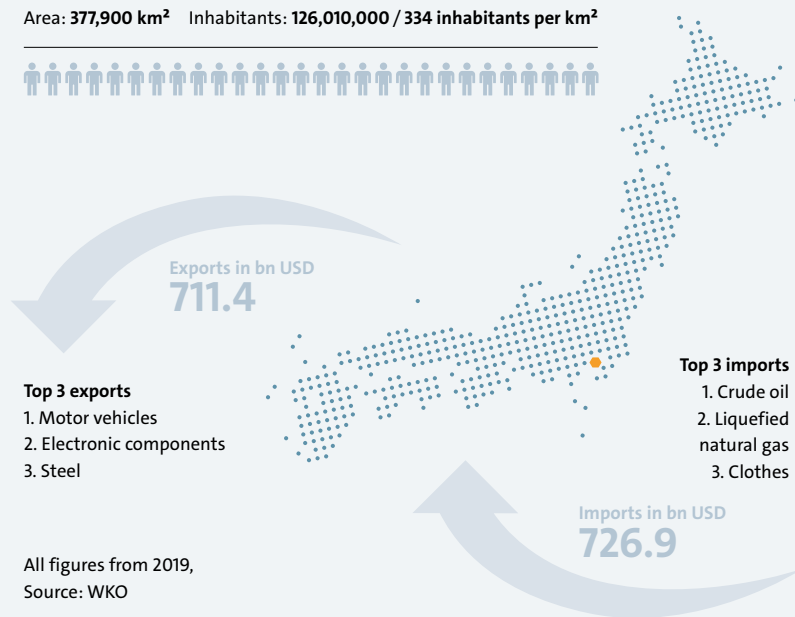
**> 67.1 mil**  
employable persons  
over 15 years old

**72.1 %**  
Employees in the  
service sector

## Japan at a glance

● Capital city: Tokyo ● Regions: 47 ● GDP: 5145 bn USD

Area: 377,900 km<sup>2</sup> Inhabitants: 126,010,000 / 334 inhabitants per km<sup>2</sup>



### Top 3 exports

1. Motor vehicles
2. Electronic components
3. Steel

### Top 3 imports

1. Crude oil
2. Liquefied natural gas
3. Clothes

All figures from 2019,  
Source: WKO

## Automobile industry

Japan is one of the most important automobile manufacturing countries worldwide.  
The total domestic car production in 2018: **9.73 million**



Passenger cars: **6.86 million**



1 liter engine compact cars:  
**1.50 million**



Trucks & buses: **1.37 million**

Registered cars  
in Japan as of 2018:

Total cars:  
**78,289,000**

Total motorcycles:  
**10,730,000**

**5.46 million**

Number of employees  
in the Japanese  
automotive industry.

## Inside Japan

### The top 3 popular Japanese foods for foreigners:

1. Ramen noodles
2. Yakiniku (Korean BBQ)
3. Sushi

### Cultural aspects

Many Japanese people go to pray. There are many shrines and temples all over Japan, more than convenience stores.



~ 81,000  
shrines



~ 77,000  
temples



~ 55,000  
stores

### Japanese sports

The best known and most popular sports in Japan are **Sumo, Judo and Kendo**.



### Japanese cherry blossom



The **cherry blossom** is the official plant of Japan. It is one of the most important symbols of Japanese culture. The plant that is the symbol of Tokyo is called the "ginkgo tree" or "maidenhair tree".

# Carlo Salvi opens new chapter with CS 513 TH

Text: Bernhard Hagen

Photos: Carlo Salvi S.p.A.

**Garlate** — The first Carlo Salvi header with integrated thread rolling unit opens a new market segment and reduces investment costs for customers.

In January of 2019, the engineering team at Carlo Salvi started the project to develop its first progressive header with an integrated thread rolling unit. The reasons were manifold: “First of all, the new machine opens a new market for us and offers many advantages to our customers – including reduced investment costs and increased efficiency. Secondly, it was a great opportunity for our team to develop a new core technology and create a combined machine concept,” underlines Marco Pizzi, CCO of Carlo Salvi.

After an intense seven-month planning and development period, the assembly of the new machine started in September in the Carlo Salvi workshop in Garlate, Italy. Mr. Pizzi: “Our engineers and technicians worked like a Formula One team – super fast and with utmost precision.” Now the new machine is ready for the spotlight: the CS 513 TH!

The “TH” in the name stands for “threading.” A thread rolling unit complements the five-station progressive header. Mr. Pizzi explains: “Until now, many of our customers needed to

purchase a thread rolling unit to further process the parts that they produced on the Carlo Salvi headers. Not anymore! The new CS 513 TH helps them to reduce investment costs, minimize the floor space needed, and make the processes even more efficient.”

Combined machines such as the new CS 513 TH constitute a large and quickly growing market. In particular, manufacturers of automotive fasteners rely on these solutions. “The CS 513 TH – this combination of a state-of-the-art, very flexible, and five-station pro-



## Carlo Salvi CS 513 TH

With the CS 513 TH, Carlo Salvi presents its first progressive header with an integrated thread rolling unit.





#### **Thread Rolling Unit**

The integrated thread rolling unit helps customers to increase efficiency as well as save investment costs and floor space.

gressive header with a thread rolling unit, which is easy to use and maintain – is designed to increase efficiency in automotive fastener markets around the globe,” states Mr. Pizzi.

#### **Integrated machine provides advantages**

Because the thread rolling unit is integrated into the machine, it uses the same mechanical drive. The double system of longitudinal and transversal introduction of the parts into the flat dies guarantees the perfect positioning of the parts to be rolled through the flat

dies. The synchronism of the two movements ensures that the parts do not fall out or become blocked. The feeding remains precise and efficient throughout the whole process. Thanks to the in-line layout of the machine, the part goes directly from the header to the thread rolling unit, without any further transport step in between.

“The in-line concept saves space laterally, facilitating the positioning of other machines alongside the CS 513 TH. It makes it possible to combine the two processes, which makes



the handling easier,” explains Mr. Pizzi. The whole machine is compact and enables customers to save floor space in their workshops. The centralized lubrication system helps to save infrastructure, too.

#### High-performance heading unit

Typical for Carlo Salvi machines, the five-station progressive heading unit offers the highest quality standards. The main frame is composed of stabilized cast iron, making it very robust and rigid. The wire-straightening unit includes a set of wire-straightening rolls that can be adjusted independently. The linear wire feed is another highlight: The wire is fed by grippers, which ensure the highest precision of the cut-off blank (+/- 0.05 mm). With this system, the Carlo Salvi engineers avoid the use of wire stops and therefore ensure an optimized cut-off quality. The wire feed length can be adjusted directly from the operator's control panel. The bushing cut-off ensures a perfect cut-off even for very short parts. The transfer unit can be adjusted independently and easily and guarantees optimized speed.

#### Maximized user friendliness

“When developing new machines, we always aim to make them flexible as well as easy to use and maintain. Our goal is to maximize user friendliness,” emphasizes Marco Pizzi. This ambition has been turned into reality with the development of the CS 513 TH. The feeding guides can be adjusted via the digital display. The positioning of the guides can be

adjusted with hand wheels, which allows the feeding of the rolling machine to be optimized. A control system makes it possible to monitor the load and detect if a part is accidentally dragged back into the flat dies after rolling. If so, a pneumatic system blocks the introduction of the next part. Mr. Pizzi: “This optimizes production reliability and reduces downtimes, making our customers more efficient.” Over the course of 2020, Carlo Salvi will add more electronic adjustments and hydraulic locks to make the CS 513 TH even more user friendly. “In the future, operators will be able to adjust all the settings electronically. Together with the hydraulic locks for flats and dies, this will reduce changeover times considerably,” explains Mr. Pizzi.

#### Flexible thread rolling

The threading unit of the CS 513 TH is made from high-resistance nodular cast iron. The thread rolling ram is composed of nodular cast iron sliding on aluminum bronze guides, optimizing the rolling movement of the headed parts. The chain conveyor, designed to transfer the headed parts to the feeding guides of the thread rolling unit, is equipped with a hopper and evacuation guides. Both can be easily adjusted to adapt the handling of the parts according to their shapes and sizes. The chain conveyor is also equipped with two sensors, one for avoiding overfeeding of the hopper and one for checking that the feeding movement is not jammed. The positioning of the wire feed guides can easily be adjusted via the digital display and hand

### Factbox

#### Working ranges

Number of dies	
Max. cut-off length	mm
Max. head diameter	mm
Min. and max. thread diameter	mm
Min. and max. wire diameter at 500 N/mm <sup>2</sup>	mm
Min. and max. wire diameter at 600 N/mm <sup>2</sup>	mm

#### Performance

Max. speed <sup>1</sup>	p/min
Net weight of the machine <sup>2</sup>	Kg

### CS 513 TH

5
135
28
M6 (¼") – M12 (½")
6–13.5
6–12
180
28,500

<sup>1</sup> According to material and part

<sup>2</sup> Machine and sound enclosure



wheel. The thread rolling unit is equipped with a bad parts diverter, which automatically discards parts with anomalies. A feeding locking system, guided by the load monitoring equipment, helps to avoid the introduction of two parts into the flat dies at the same time, minimizing machine downtimes.

The flat dies housing is designed to allow the mounting of flat dies with an increased thickness of up to 40 mm. Thanks to this feature, materials with a high mechanical resistance such as high-alloy steel can be processed reliably.

By the end of 2020, Carlo Salvi aims to develop add-on features to further improve the CS 513 TH. The engineers will add a solution to release the header from the rolling machine. Until now, all the parts go through the thread rolling process. In future, customers who want to avoid this for a certain batch of parts can do so.

#### On track for growth

With the new group technology of thread rolling, Hatebur and Carlo Salvi aim to continue their expansion and gain market shares internationally. In the future, more machines will be equipped with thread rolling units. "This is an important growth market for us, and we see a lot of potential. We will continue to focus on research and development in this segment," concludes Mr. Pizzi.



➤ **Linear Wire Feed:** The linear wire feed ensures the highest level of precision for the cut-off blank.



➤ **Digital Display**  
With digital adjustments and easy maintenance, the Carlo Salvi CS 513 TH is designed to maximize user friendliness.



➤ **Heading Unit**  
Proven Carlo Salvi quality: The five-station header shines with flexibility, efficiency, precision and user friendliness.

# The first Hatebur HOTmatic HM 75 in Eastern Europe

Text: Jürgen Fürst, SUXES GmbH

Images: Hatebur, Kovács



Company: **Kovács KFT**  
Location: **Mezőkövesd HU**  
Number of employees:  
**Approx. 500**  
Machinery: **HM 75**

**Mezőkövesd** With the support of Hatebur's expertise, Kovács KFT is strengthening Eastern Europe and environmental protection.

Dynamic and innovative family companies not only excel thanks to their short decision-making paths, ability to take quick action and bold steps, but also because of their strategic mindset and outlook. This corporate philosophy is shared by many responsible entrepreneurs around the world. The family-managed Hungarian automotive supplier Kovács KFT has achieved many years of growth thanks to these very qualities. With their most recent investment in Hatebur's largest forging machine, the company's managers have big plans which will benefit the environment.

"We've invested in Hatebur's HM 75 XL and therefore extended our capacity, even though we don't yet have enough orders to operate it at full capacity straight away," says János Fütő, CEO at Kovács KFT in Hungary. However, there is a clever strategy behind this. By being the first company with this kind of system in Hungary and the whole region, the owner-managed family business is positioning itself as an important player among the forging manufacturers generally and, more specifically, Eastern European automotive suppliers. As these kinds of medium-sized companies do not take any half measures, Kovács invested in one of only five top-

quality HOTmatic HM 75 XL systems in all of Western Europe produced by Hatebur, the technological and market leader based in Switzerland. "This means that we can live up to our name," says company founder István Kovács, "because Kovács means 'forger' in Hungarian."

#### Living up to its name: Kovács, the forger

The business, which was founded in an earlier era and then took off in 1993 as modern conditions were established, has developed into a company which today is a major supplier to the automotive and pump industries. With almost 500 employees, over 60 machines and systems, as well as an annual turnover of almost €50 million, the family company is a major supplier for the region and beyond.

Forged, turned and machined components for the automotive and pump industry are manufactured in Mezőkövesd, a town to the east of Budapest. Its major customers include ZF Hungary, Scania and Grundfos. Equipped with four drop forges, a rolling mill and more than 50 lathes, grinders and processing machines, Kovács can master forging, turning and aluminum machining, among other tasks. These can be used to produce gear wheels, index plates and shafts, as well as aluminum parts and housing. The company is also able to provide services such as heat treatment, shot-blasting and material testing.



➤ Kovács has constructed a new hall in order to expand its forging capacity.



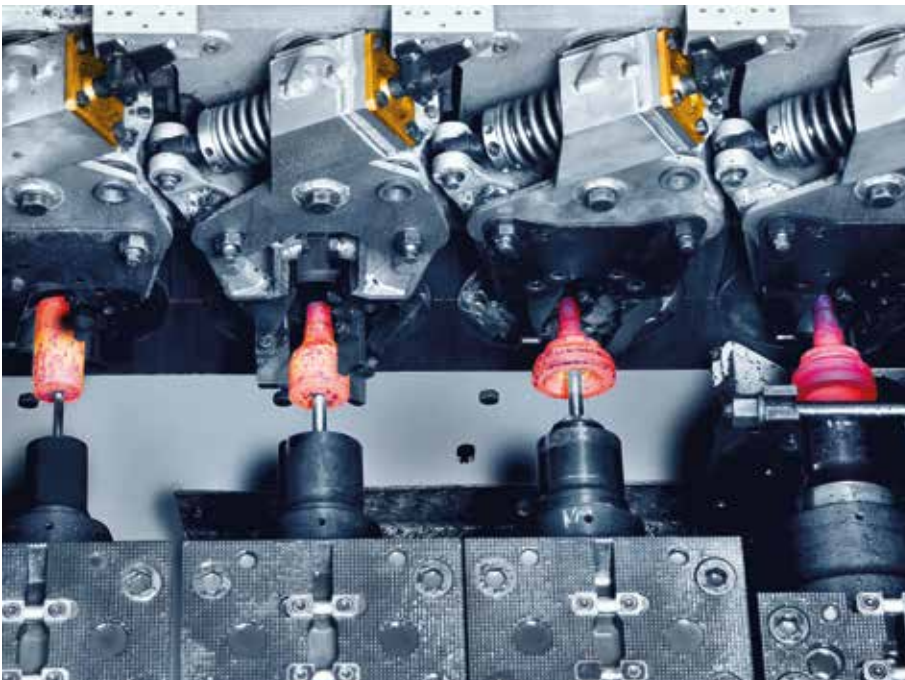
➤ One truck journey which may save the company many additional ones: Delivery of the Hatebur *HOTmatic* HM 75 XL machine body in Mezőkövesd, Hungary



➤ Having a Hatebur *HOTmatic* HM 75 XL will also contribute to reducing CO<sub>2</sub> emissions as there will be fewer truck journeys.



← Kovács' new hall provides space for the Hatebur *HOTmatic* HM 75 XL, the first horizontal forging machine of its kind in Eastern Europe.



← The HM 75 XL can form the fed bar material into the required products at four forming stations and with a press load of 20,000 kN.

#### Compatible corporate structures

By deciding to purchase a large Hatebur horizontal forging machine in 2018, Kovács' managers laid the foundations for a further milestone. The Hatebur *HOTmatic* HM 75 XL is the largest machine manufactured by the long-established Swiss company, which, like Kovács, is also family-run. These are two companies which are a good fit for each other. "It goes without saying that it's easy for us to understand the structures and decision-making paths of family-managed companies," confirms Hatebur CEO Thomas Christoffel.

The HM 75 XL is a flexible hotformer which can form fed bar material with a diameter of up to 90 mm and a length of up to 12 m at four stations. With a total press load of 20,000 kN and a maximum initial weight of 7.5 kg, this machine can produce parts of up to 180 mm in diameter and with complex ge-

ometries. Kovács uses the processes of positioning, preforming, finish forming and punching to hot form engine parts, gear parts, power transmission parts and bearing rings for mechanical engineering. Kovács supplies the forged parts to customers in Hungary, Austria and Germany, as well as to clients in Brazil and Argentina. These parts are used in passenger vehicles and trucks, as well as agricultural vehicles and machinery. Until now, the parts were produced on a vertical Smeral drop forge.

### Building up capacity and expertise in Eastern Europe

With a speed of between 50 and 80 strokes a minute, when the Hatebur system is at full capacity in three-shift operation, it can produce up to 12 million parts a year. Over the next one to two years, the system is to be run by Kovács in single-shift operation and produce up to four million parts annually. János Fűtő says: “While we primarily want to obtain new parts, we would also like to gain new experience and areas of expertise, becoming specialists and reliable partners in the manufacture of forgings in Eastern Europe.”

The foundations for this have been laid with the acquisition of this new system. The bars, measuring up to 12 m in length and made from various steels, are inductively heated in the heating system to between 1100 °C and 1250 °C. The infeed length of the bars can be continuously adjusted to the required size. This is achieved using fast AC servo motors, which drive all four infeed rollers and can position them extremely accurately. After shearing, these will pull the bar back. “This will prevent marks from being made on the front surfaces of the bars,” says Patrick Stemmelin, Head of the Processes Business Unit at Hatebur. The AC servo motors also enable skip-feed operation. If the transition of bars is between the two pairs of rolls, an additional pneumatic cylinder enhances the feed roll pressure of the front pair of feed rolls. In conjunction with ESA 600 (electronic bar end eliminator), the bar material is used as optimally as possible and waste is kept at a low level.

### Family companies do not need to have a quarterly approach

The new system, for which Kovács specifically created extra space in a newly built hall, has been in operation since January 2020, with its capacity gradually being increased. “It will still be some time until it is operating at full capacity,” states János Fűtő, while leaving no doubt that Kovács will receive enough orders for this. However, as family companies do not have to think in terms of quarters, this strategy will pay off.

### Considerable environmental benefits from regional production

In the context of current discussions related to environmental issues, the company’s managers see great potential for the system to be optimally used. A large number of forgings are currently manufactured in Western Europe and then almost always delivered by road to Eastern Europe to be finished there. The parts are also often installed in Eastern Europe. This is not only because the largest engine factory in the world is currently locat-

ed in Hungary, but also because many major German car brands manufacture their complete vehicles in Hungary. Fűtő believes that these logistical deliveries, their related costs and, not least, the environmental pollution produced by these truck journeys are unnecessary. “It would be better if the car manufacturers and suppliers could buy the parts locally. We want to use the Hatebur *HOTmatic* HM 75 XL, the first forging machine of its kind in Eastern Europe, to make this obvious solution possible. This would allow us to make a not insignificant contribution to reducing CO<sub>2</sub> emissions.”

### Many years of supporting the company, region and environmental protection

The reliable production of Hatebur’s HM 75 XL is demonstrated by systems around the world which have been in operation for many years, or even decades. This is exactly to Kovács’ taste because, needless to say, family companies are not focused on short-term thinking. This strategy is a common one across the world. Therefore, the first system of its kind in Eastern Europe will certainly support the company and region, as well as making the environment a bit cleaner for many years to come.

⬇ When at full capacity in three-shift operation, the system can produce up to 12 million parts per year.



# Hatebur's 90th anniversary – A global leader with a sense of family

Text: Peter Roethlisberger

Images: Hatebur



 Fritz Bernhard Hatebur

**Reinach** In 1930, in a difficult economic climate, Fritz Hatebur had the courage and vision to found his design firm. In so doing, he laid the foundation for a business whose machines today produce hundreds of millions of metal parts every day which are used in cars, motorcycles, bridges, high-rise buildings and even electric vehicles and aircraft.

In spring 1930, as the world was in the grips of an economic crisis, Friedrich Bernhard Hatebur did not see this as a reason to be intimidated. Undaunted, the man, measuring almost six foot six inches in height, founded a design firm for the “construction and conversion of processing machines according to modern working methods for drawing, pressing, shaping and punching” in the city of Neuss to the south-west of Düsseldorf. It was not long before the qualified mechanical engineer applied for his first patent for a revolutionary fully automated turret-type hotformer which enabled nuts to be directly produced from long steel rods. This meant that factory workers no longer had to manually “refeed” the press, as this physically hard and grueling step was no longer necessary. The newly developed press was also attractive from an economic point of view as it could produce 80 nuts per minute, in other words almost 5000 units per hour. But Friedrich B. Hatebur not only had a gift for invention, he was also a visionary because, while he developed and designed the turret-type hotformer, he did not build it himself. He left this production stage to the Düsseldorf-based Hasenclever, thereby

“outsourcing” the work, long before this concept had reached the German-speaking area.

## 1930s: Founding of the company and family beginnings

When Friedrich Hatebur, who preferred to be called Fritz, ventured into self-employment, he was 36 years old and had just become a father for the second time. Newly born Hans-Walter joined two year-old Bernhard Johan Fritz Maria as part of the family. Fritz met his wife Maria Alida Lucia Clercx during his years as an apprentice in the Netherlands. He worked in a nail factory there and returned to Germany with valuable experience and good ideas. In 1933, Hatebur emigrated with his young family to Basel, Switzerland, and moved in at an appropriate address for an engineer, Unteren Batterieweg 143 (“Lower Battery Way 143”).

Two German designers followed Fritz Hatebur and also moved to Switzerland. Despite being unable to pay the customs duties when crossing the border and all of his design drawings being burnt, Hatebur reopened his engineering firm on January 1st 1934. His third son, Paul Fritz Willi, was also born that year. The company also grew, now employing five members of staff. It entered into a business cooperation with Manurhin SA, a company based in Mulhouse in eastern France close to the German border, which was originally founded to produce machinery for the food and jewelry industries. However, from 1922, it specialized in the production of cartridges. In 1937, the two companies jointly

bought a decommissioned textile machine factory in Alsace and founded the Fonderie et Ateliers Mécaniques de la Thour S.a.r.l., (abbreviated as "FAMT") which had 550 employees. Fritz Hatebur was made the head of technology. Due to the escalating political situation in Europe, FAMT primarily produced presses for the manufacture of small munition cups. Fritz Hatebur's expertise was in such demand that Turkish president Kemal Atatürk invited him on an eight-week lecture tour about cold forming in his country.

#### 1940s: War and hope

In 1939, the Second World War broke out and the German Fritz Hatebur was no longer allowed to run the company situated in French Alsace. The borders were closed and nobody purchased Hatebur forming machines any more. But even in these difficult times, Fritz's inventiveness remained as strong as ever. The tinkerer designed an innovative bicycle pedal, developed wood carburetors for car engines, invented a model range of centerless grinding machines and also improved his own designs for hotformers and cold forming systems. Having lived in Basel for 12 years, the family was naturalized as Swiss citizens in 1945.

Following the end of the war, the market for forming machines slowly gained momentum again.

In 1948, the first fully automatic three-die hot nut press with a horizontal tool layout was constructed and delivered to a customer in the Netherlands. That same year, Hans Hatebur joined the company as a commercial clerk after completing his qualifications at a commercial secondary school.



 Hans Hatebur

#### 1950s: The economic engine of the economy booms

In 1950, the first European three-die progressive header for screws and bolts was launched with the name BKA 6. This was followed a year later by a patent for a waste-free process to manufacture hexagon head bolts on multistage headers. As the economy started booming on an international scale, Hatebur also grew and contributed to the growth of the industry with its top-class developments. Following an adventurous series of tests at a German ball bearing factory, in 1954 the company succeeded in manufacturing ball bearing races on hotformers which were previously only used for nuts. Hatebur hotformers for rolling bearing rings were used almost across the entire world in the subsequent years. In 1957, the family's youngest son, Paul, joined the company at the age of 23 as a mechanic.



 Paul Hatebur

While Fritz Hatebur was a very strict father and husband whose word was final, he was also extremely sociable and generous. He often drove by car to the Netherlands to visit his wife's family, bringing back nylon stockings and other modern advances which were not yet available in Switzerland. The boss was popular among his employees as he was fair and very social. It had been almost 30 years since he founded his engineering firm, a period in which the company advanced continuously. From 1958, the company began to systematically develop tools for customers and established a tool shop for test tools. With the addition of Bernhard Hatebur, who had since gained qualifications as an engineer, all three sons were now working for the family company.

### 1960s: The second generation steps up to the plate

As the new decade began and the first hippies were rebelling against the establishment in the USA, the family bonds were strengthened in Basel. In 1961, Fritz Hatebur – together with his three sons Bernhard, Hans and Paul, and the lawyer Dr. Willi Kuhn – founded Hatebur Umformmaschinen AG with its headquarters in Basel. 1964 was a disastrous year in the history of Swiss sport, with the national team returning from the Winter Olympics in Innsbruck without a single medal. History was made in a different way at Hatebur AG. In the most significant development in the history of the company, the largest forging machine in the world at the time, the AMP 70 with a 1200-ton press capacity, went into production. It took up an integral position in the industry and was groundbreaking for Hatebur and its customers. That same year, the family's second eldest son, 34 year-old Hans-Walter, became the director of finance and procurement, helping to make advancements in accounting by purchasing the company's first accounting machines. The family's youngest son, Paul, was granted power of attorney in 1965 and took over the management of tool manufacturing. Bernhard became the director for the area of science and technology. In 1966, Hatebur AG developed a method for processing brass on the company's hotformers.


Another important chapter in the history of the company began on October 6th 1967. In a groundbreaking ceremony, Fritz Hatebur initiated the construction work to establish a plant owned by the company on Römerstrasse/General-Guisan-Strasse in Reinach, Basel-Landschaft. In spring 1968, this was followed by the opening of the development center in Reinach under the motto of "Our customers should do what they do to earn money – i.e. produce. We supply the tools they need for the job."

### 1970s: The boss steps down

In 1971, women in Switzerland gained the right to vote and there were also new beginnings for Hatebur AG. Bernhard cashed out his shares and left the company. In the subsequent years, the business developed a prototype of the ESA system for Hotmatic hotformers which could automatically cut off bar ends, thereby allowing for fully automatic operation. The digital future came calling in 1976, as the accounting machine made way for an IBM System/32 computer. In 1978, the company showcased its Coldmatic coldformer with a high-speed shearing system at the EMO in Hanover. In 1979, the modified AMP 70 hotformer with a new 1500-ton press capacity came onto the market. On April 1st 1979 – exactly 49 years to the day after Fritz

Hatebur opened his design firm in Germany – there was another reason to celebrate, as the new administrative building in Reinach was inaugurated at General Guisan-Strasse 21. The boss would step down from his position as President of the Board of Directors of Hatebur AG at the age of 86.



 Hatebur groundbreaking ceremony

### 1980s:

On April 22nd 1980, Fritz Hatebur passed away aged 87 at his home on Unteren Batterieweg. As the delegate of the Board of Directors, Hans-Walter Hatebur took over the overall management of the company. In 1981, the company successfully developed the HFE method for forward extrusion on Hotmatic forging machines. In 1984, F. B. Hatebur, the sole trader which still existed alongside Hatebur AG, became a holding company called Cofinanz Hatebur & Co. This holding company was owned by Hans-Walter and Paul Hatebur in equal shares. The Basel-based company developed the first forming machine which could change its own tools – the HOTmatic AMP 40 with a hydroblock tool changer.

### 1990s: International expansion

At the start of the new decade, the economy went into a recession and there were difficult years ahead for Hatebur AG. In spite of this, the company took the courageous step of



embarking on international expansion. In 1993, it founded its German subsidiary, "Hatebur Umformmaschinen GmbH" based in Lörrach in south-western Germany. This was followed in May 1995 by a Japanese subsidiary, Hatebur Japan K.K., based in Tokyo. In 1996, Hans-Walter and Paul turned "Cofinanz Hatebur & Co." into a public limited company. In 1997, Hans-Walter Hatebur, who had managed the entire company after the death of his father, passed away at the young age of 67. As delegate of the Board of Directors and with the strong support of Urs Tschudin, Hans-Walter's brother Paul took over as CEO. At the same time, Paul Hatebur acquired all of the shares in Hatebur AG. That same year, the third generation of the Hatebur family would join the company in the shape of Paul Hatebur's 30 year-old son Marc, who started working in the area of method testing.

#### 2000s: The decade of major changes

In 2001, Marc Hatebur took over leadership of the "Tests and trials" group. A year later, he would leave the company and join his parents-in-law's company. In 2004, CEO Paul Hatebur decided to focus on his mandate on the Board of Directors and delegated the management of the company to Urs Tschudin. Marc Hatebur and his brother Erwin became members of the Board of Directors, which was presided over by Paul Hatebur from 2005. Hatebur AG recorded growth again in 2007. The company invested a 60% share in the recently founded Hatebur Lumag Services AG in Roggliswil, Lucerne. That same year, another subsidiary, Hatebur Metalforming Equipment Ltd. was opened in Shanghai, China. But there was also reason to celebrate in Basel, as Hatebur apprentice Jérôme Blum won the 2008 Swiss championship for polymechanics and came third overall at the "World Skills" championship in the Canadian city of Calgary. Due to the American banking crisis, car sales plummeted in the fall and Hatebur was forced to make savings in an extremely difficult economic context.

As part of a long-term succession strategy, Claudine Hatebur de Calderón acquired 100% of the holding company Cofinanz Hatebur AG and therefore took over Hatebur Umformmaschinen AG. Moreover, the only daughter among Paul and Cissy Hatebur-Koch's six children became a member of the Board of Directors. Paul Hatebur stepped down as President of the Board of Directors, handing over his position to Dr. Hans Baumgartner, while remaining a member of the Board of Directors.

#### 2010s: The start of a new era

In 2012, Claudine Hatebur took over from Dr. Hans Baumgartner in the role as President of the Board of Directors at Hatebur Umformmaschinen AG. In 2013, Hatebur Swiss Precision AG was founded. In 2014, Paul Hatebur passed away at an age of almost 80.

In 2015, Hatebur Metalforming Technology (Shanghai) Co. Ltd. opened its doors for the first time. This new subsidiary handles both service and tooling work, and it acts primarily as an in-house tool manufacturing facility. Thomas Christoffel also became CEO of Hatebur AG that year. 2016 was another year which saw major changes take place on April 1st, with Hatebur acquiring all the shares in Carlo Salvi S.p.A, an Italian company based in Garlate which manufactured and distributed forming machines for cold-massive forming around the world.

The technological developments in the car supplier industry would also force Hatebur to be flexible in responding to the market and its changes. More specifically, the area of electro-mobility would require a shift in thinking. It is therefore not only the coronavirus crisis which will require the company's management and Board of Directors to show great creativity over the 2020s. Over the past 90 years, the Hatebur family has demonstrated that it can confidently overcome these kinds of challenges.



↗ Claudine Hatebur de Calderón

↘ The Hatebur building in Reinach, which is still in use to this day.



# Fastener system on the Hatebur HOTmatic AMP 30 S

Text: Kim Weber

Images: Hatebur

**Reinach** Using a fastening tool on the Hatebur HOTmatic AMP 30 S considerably improves the process, thereby achieving higher efficiency.

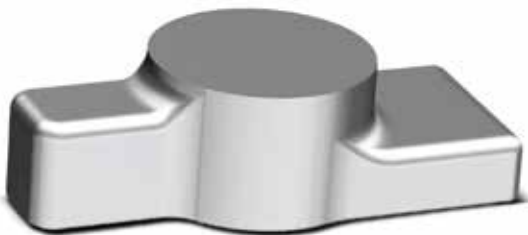
The use of new production technologies will allow forgings to be produced near net shape more cost-effectively and using less material. Thanks to a special process, new opportunities are opening up in the field of hot forming.


Ranges of parts, such as tripods, cardan joints and parts with very complex external geometries, can now be forged free of burrs on a HOTmatic in a closed die.

To test the special process, a special part for the fastening tool was developed at the test center in Reinach, before being thoroughly tested and refined.



 Pre-form



 The special part is formed free of burrs in a closed die.

During the new process, the forging is sheared off as normal on the HOTmatic and transported into the first station. The part is forged into a pre-form at this station. The second station, the main forming station, was developed and rebuilt by Hatebur specialists according to the fastening system.

During this process, the pressurized tanks on the outside of the machine are flange-mounted. Only the lines which pump the water into the tool under high pressure are located in the tool area. With the addition of this special tool, the Hatebur HOTmatic AMP 30 S can reach a clamping force of up to 60 tons. This force is required for forming the special part in a closed die. The punch presses on the moving die to which force is applied, thereby ensuring that the die is closed during the entire forging process. Having a closed die allows for forging that is free of burrs.

This “water cushion technology” is one of the best methods for producing clamping forces. Using water means that the fastening system can be connected to the normal water circuit and the arduous process of separating different liquids is no longer required.

# Interview



Name: **Stefan Götz, BSc Electrical Engineering**  
Position: **Head of Electrical Engineering at Hatebur**  
Working at Hatebur: **Since 2000**

## **Reinach** \_\_\_\_\_ **What is your role at Hatebur and what tasks are involved in your area of work?**

I am the team leader for electrical engineering in the Development Unit.

## **How long have you been working for Hatebur, and what training and experience is necessary for this job?**

First, I trained as an electrical engineer at a power plant. After completing my military service, I continued on my advanced technical college certificate and studied electrical engineering at HTWG Konstanz – University of Applied Sciences. I then immediately started at Hatebur in April 2000. So I started here without any real professional experience, which I gained from my involvement in projects over a number of years.

## **Which bigger projects are you currently working on?**

At the moment, we are fitting the COLDmatic CM 725 with a direct drive. We also have some exciting assignments in the area of digitalization/Industry 4.0.

## **What role does electrical engineering play in machine projects?**

It goes without saying that servo technology is becoming increasingly important in developing or further developing machines. This technology could be used for motor drives or hydraulic valves.

When project-managing new machines for customers, there is practically never a stan-

dard machine, electrically speaking. There are always country-specific adjustments to be made or adjustments to be carried out at the customer's premises. This also increasingly involves providing production data for collecting operational data for the customer.

## **Are there major differences between working on projects with new machines and retrofitting/converting existing machines at the customer's premises?**

When retrofitting or converting machines, it is important to note the current condition of the machine before starting with the conversion work. In the case of new machines, we specify how the machine operates as far as the peripheral equipment and operation are concerned. Or, at the very least, we provide recommendations. For conversions, this is usually predetermined. It is always a major challenge to determine how a new function or component can be integrated into an existing machine from a safety point of view.

## **Which country-specific requirements are particularly demanding?**

By complying with European standards, our "standard" also meets the requirements of most non-European countries. It is always interesting when working on a machine project for the USA because the regulations which apply there affect the electrical installation of the machine or the switch cabinet housing, for example.

## **Are you in direct contact with customers? How can you support customers or provide them with further assistance in their everyday work?**

Customer contact always take place via our service team. However, over the past 20 years, I have visited many customers' premises, sometimes over a period of several weeks and/or on multiple occasions. Needless to say, the two sides then know each other well and often use this shortcut.

It is usually a case of assisting with troubleshooting, making a slight control adjustment or preparing for conversion work. The fact that we have been able to remotely access our machine's control machine elements for some time now makes work easier for both parties.

## **Hobbies:**

Any mountain activity except for climbing. This includes:  
Skiing  
Cycling  
Hiking

## **What I enjoy about my work:**

... A good team atmosphere  
... Being in contact with a large number of people from almost all areas at Hatebur  
... More recently, also being able to exchange ideas with colleagues from Carlo Salvi in Italy  
... The frequent travel for customer visits and getting to know new people and countries.

# Higher process reliability thanks to monitoring of parts transport on the AMP 50 and AMP 70

Text: Matthias Prischl, Hatebur

Images: Hatebur

**Reinach** Incorrect transportation of a forging generally leads to malfunctions during the process and results in lost quality and production – and more significant damage is not out of the question either. Hatebur therefore provides a solution to be used on the two *HOTmatic* AMP 50 and AMP 70 machines.

For example, the issues brought about by incorrect transportation may be the result of the following faults:

- \_ The part remains attached to the punch after the forming process.
- \_ The part is lost during transportation.
- \_ The part is not fully inserted in the transport gripper.
- \_ The forging is gripped at an angle or in the wrong location.

Hatebur has now developed press part transport monitoring which quickly detects incorrect conditions and can protect the system against damage.

An important consideration was to develop and provide our customers with a system which is quick and easy to adjust.

In order to achieve this, Hatebur developed press part transport monitoring which uses analog sensors to automatically read any change to monitoring times (e.g. when changing grippers) during an initialization run. It is no longer necessary to manually adjust the initiator tags on the grippers.

As a result, the monitoring system can keep track of the individual forming stations and recognize the following process errors:

- \_ Cut-offs which have not been dropped correctly
- \_ Parts stuck to the punch
- \_ Forgings lost during transportation

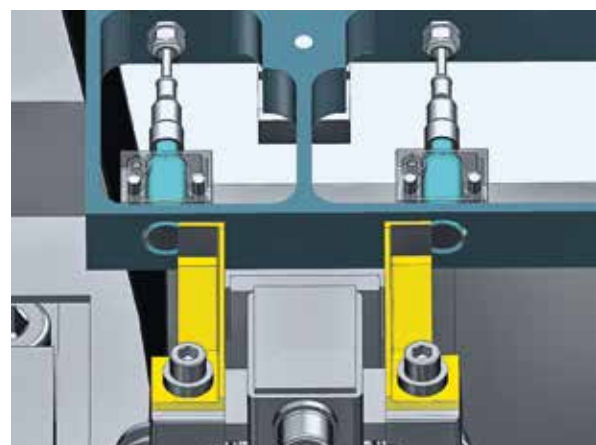
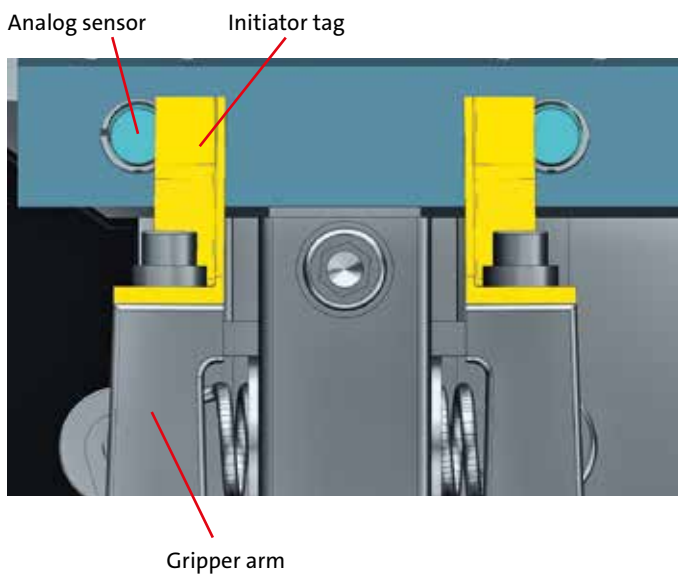
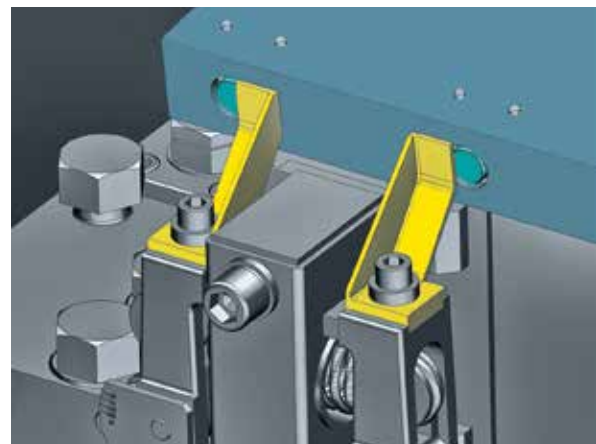
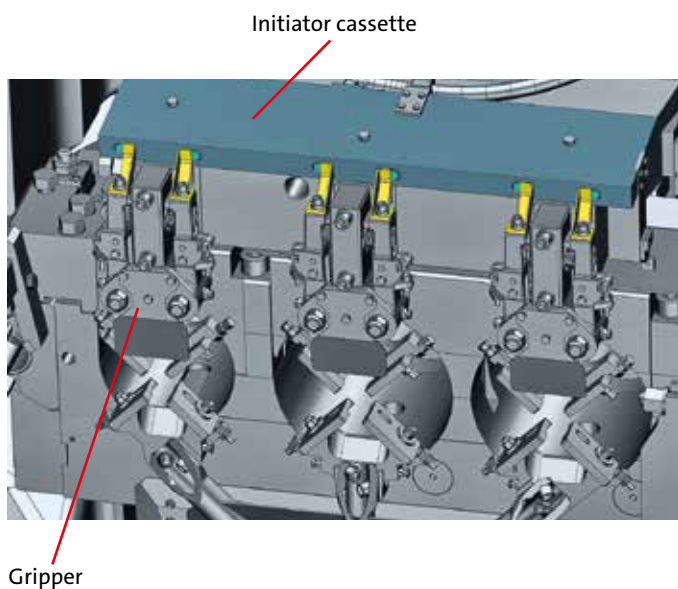
The analog sensors replace the current initiators in the initiator cassette. Depending on the opening angle of the gripper, each gripper arm generates a current of between 4 mA and 20 mA at the sensor output. It is no longer necessary to adjust the initiator tags. The positions of “part in gripper”, “gripper empty”, “gripper opened too far” are read when inserting the parts into the control system.

The analog signals can also be used for process monitoring using the envelope curve method (e.g. Brankamp, S+K, etc.). While process monitoring must be implemented by the customer, the interface for process monitoring is made available by Hatebur as an option.

This development will also be included from now on in the standard scope of delivery of the new Hatebur *HOTmatic* AMP 50 and AMP 70.

When developing this monitoring system, it was considered greatly important that existing operators should also be able to benefit from this improved process reliability. We therefore established potential solutions to make it simple to retrofit existing systems.

Would you like more detailed information? Please get in touch with your contact person or call us directly on: +41 (0) 61 716 21 11. We will be happy to advise you.



Full view of press part transport monitoring

# 25 Years of Hatebur Japan K.K.

Text: **Kazumasa Ohyama, Reinhard Bühler**  
 Photos: **Hatebur**

**Tokyo** Hatebur Japan K.K. was established in 1995 as a sales and service office in Tokyo, Japan and was the first Hatebur subsidiary outside of Europe. After a quarter of a century, we can proudly take a look back on a successful journey.

In the 1950s and 1960s, when the booming economies around the world had increased demand on infrastructure and new technologies, Hatebur was also exploring the markets outside of Europe. As early as 1959, the company delivered the first machine – a Polimatic PKE 1 – to Japan. The demanding Japanese customers were impressed with the quality and the technology of the hot, and cold formers and further machines followed. In 1964, a wholesale agreement was concluded with the trading company Kagai Tsusho K.K. With the success during this period, the Land of the Rising Sun soon became the second biggest market for Hatebur in terms of machine population. In 1989, the trading house COSA Liebermann K.K. acquired Kaigai Tsusho K.K. and became the agent for

Hatebur in Japan until 1995. Over the years, more than 100 machines were sold and installed in Japan for the production of fasteners, bearing rings and automotive parts.

When COSA Liebermann stopped its business, Hatebur reacted quickly and established its first own subsidiary outside of Europe on February 9, 1995 – Hatebur Japan K.K. Mr. Kawase and his associates Mr. Kitabatake and Ms. Watanabe formed the first team for Hatebur in Japan. Together with the co-operation with external partners for sales and service, the set-up was complete.

In order to enforce the competences and the grade of service on after-sales tasks, in 1998, Hatebur delegated an experienced service engineer to Japan to be stationed at Hatebur Japan as the first expatriate from Hatebur. After this, further delegations were arranged and the concept of an embedded Swiss service engineer also became a good model for other markets.



Name: **Kazumasa Ohyama**  
 Position: **General Manager**  
 At Hatebur: **Since November 2014**



Name: **Iwao Hoshi**  
 Position: **Sales Manager**  
 At Hatebur: **Since February 2013**



Name: **Rie Ishikawa**  
 Position: **Asst. to After Sales**  
 At Hatebur: **Since February 2007**



Name: **Ayumi Yoshihara**  
 Position: **Asst. to After Sales**  
 At Hatebur: **Since August 2017**

From 2008 onwards, Hatebur Japan also hired local service engineers to further enhance their service capabilities. The team constantly grew over time and, today, consists of a total of seven team members for sales, after-sales services and administration.

In 2015, an ERP system was implemented, helping to professionalize workflows and internal processes for spare parts and service orders, and also facilitating in-house accounting.

After the acquisition of Carlo Salvi S.p.A., through Hatebur Metalforming Equipment

Ltd. in 2016, Hatebur Japan became the sole agent of Carlo Salvi machines in Japan. This event was celebrated with the live exhibition of a Carlo Salvi CS 246 E WS during MF-Tokyo 2017.

In order to further improve the service level and to adapt to the actual demand for space, Hatebur Japan's Tokyo office was relocated to Shibakoen, in the Minato ward, in 2019. This new office is close to Hamamatsucho Monorail station, with connections to Tokyo Hane-da International Airport and the bullet train at JR Shinagawa station.

#### Corporate History

1959: The first Polimatic PKE10 shipped to Japan.

1960: The first HOTmatic AMP 30-2 delivered to Japan.

1964: Whole agent agreement for the business in Japan between Kaigai Tsusho K.K. and Hatebur Umformmaschinen AG.

1984: The first COLDMatic AKP4-5 installed.

1989: The agency agreement transferred to COSA Liebermann K.K. that acquired Kaigai Tsusho K.K.

1995: The subsidiary company, Hatebur Japan K.K. established at the location of Kanda Izumi-cho in Tokyo.

1997: A HOTmatic AMP 70 XL was delivered for the production of automotive parts.

1998: The first expatriate engineer stationed in Japan.

2001: First COLDMatic AKP 4-5 equipped with induction pre-heating system installed in Aichi area.

2004: Office of Hatebur Japan K.K. relocated to Iwamoto-cho (Akihabara District). HOTmatic AMP50XL delivered to Japan.

2005: First COLDMatic AKP 4-6 S (M/C No. 1) delivered to Japan.

2008: First COLDMatic AKP 5-5 delivered to Japan.

2010: First HOTmatic HM 35 delivered to Japan.

2016: Hatebur AG acquired Carlo Salvi S.p.A. in Italy and Hatebur Japan launched as its sole agent in Japan.

2017: In July, the company exhibited the first Carlo Salvi machine (CS 246 E WS) and presented the new COLDMatic CM 725 at MF-Tokyo 2017.

2019: Relocated Tokyo office from Iwamotocho to Shibakoen, Minatoward.

2020: Celebrate the 25<sup>th</sup> anniversary



Name: **Satoko Kobayashi**  
Position: **Finance Assistance**  
At Hatebur: **Since May 2019**



Name: **Tomohiro Kiyosumi**  
Position: **Service Engineer**  
At Hatebur: **Since May 2018**



Name: **Thomas Wenk**  
Position: **Service Engineer**  
At Hatebur: **Since April 2018**

# See us live!



November 11th–12th 2020  
**Fastener Fair, Italy**

Location: **Milan, Italy**  
Trade fair highlight: **CS 513 TH**

November 17th–20th 2020  
**MetalForm China**

Location: **Beijing, China**  
Trade fair highlight: **CM 625/CM 725**

November 18th–21st 2020  
**Thai Metalex, Bangkok**

Location: **Bangkok, Thailand**  
Trade fair highlight: **CM 625/CM 725**

December 7th–11th 2020  
**WIRE, Germany**

Location: **Düsseldorf, Germany**  
Trade fair highlight: **CS 513 TH/CM 725**  
Booth, hall: C58, 16

Postponed to 2021  
**1st Turkish Forming Technology Conference (TFTC)**

Location: **Istanbul, Turkey**  
Kaya Fair and Convention Hotel

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

All dates are correct as of June 2020 – please search for the latest dates online before attending an event.

## Headquarters

**Hatebur Umformmaschinen AG**  
General Guisan-Strasse 21, 4153 Reinach,  
Switzerland  
T: +41 (0) 61 716 21 11, F: +41 (0) 61 716 21 31  
info@hatebur.com, www.hatebur.com

**Carlo Salvi S.p.A.**  
Via Tommaso Salvini, 10, 20122 Milan (MI),  
Italy  
T: +39 02 87 88 97, F: +39 02 86 46 17 88  
carlosalvi@carlosalvi.it, www.carlosalvi.com

## Locations

**Hatebur-Lumag Services AG**  
Birchmatte 9, 6265 Roggliswil, Switzerland  
T: +41 (0) 62 754 02 63, F: +41 (0) 62 754 02 64  
info@lumagag.ch

**Carlo Salvi S.p.A.**  
Via Ponte Rotto, 67, 23852 Garlate (LC), Italy  
T: +39 0341 65 46 11, F: +39 0341 68 28 69  
carlosalvi@carlosalvi.it

**Hatebur Umformmaschinen GmbH**  
Bahnhofstrasse 18, 51674 Wiehl, Germany  
T: +49 (0) 2262 761 65 68,  
F: +49 (0) 2262 761 65 69  
sales@hatebur.com

**Carlo Salvi USA Inc.**  
4035 King Road, Sylvania, OH 43560, USA  
T: +1 419 843 17 51, F: +1 419 843 17 53  
sales.usa@carlosalvi.com

**Hatebur Metalforming Technology  
(Shanghai) Co., Ltd.**  
No. 7 Factory, No. 318 Yuanshan Rd.,  
Xinzhuan Industrial Park,  
Shanghai 201108, P.R. China  
T: +86 21 3388 6802, F: +86 21 3388 6827  
info.cn@hatebur.com

**Carlo Salvi UK Ltd.**  
Unit 4, Cedar Court, Halesfield 17,  
Telford, Shropshire, TF7 4PF, UK  
T: +44 (0) 1952 58 77 30,  
F: +44 (0) 1952 32 71 80  
sales.uk@carlosalvi.com

**Hatebur Japan K.K.**  
Kowa Shibakoen Building 5F,  
1-1-11 Shibakoen, Minato-ku  
Tokyo, 105-0011, Japan  
T: +81 (0) 3 5843 7445, F: +81 (0) 3 5843 7446  
info.jp@hatebur.com

**Carlo Salvi (Guangzhou)**  
Machinery and Equipment Co., Ltd.  
Room 1404, West Point Center,  
No. 65 Zhongshan Qi Road,  
Liwan District, 510140 Guangzhou City,  
P. R. China  
T: +86 20 8173 46 72, F: +86 20 8123 93 59  
gm.china@carlosalvi.com