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NetShape

01 | **2018**

Focus

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HATEBUR

Personal

Dear business friends,

I am delighted to introduce you to the latest edition of Netshape – now with a brand new look! Staff at our offices in both Garlate and Reinach have been putting a lot of work into bringing the group closer together and moving it forward. Through solving the new challenges that they face every day, this work is not only improving mutual understanding and respect but also helping us grow as a whole. This is evident in our new brand profile and our new image that we launched last year at our trade fair exhibition in Japan, which is now being expanded and strengthened element by element. We are communicating this group approach under the HATEBUR umbrella both internally and externally, and implementing it step by step. This message was also conveyed at Wire 2018.

In addition to the innovative new servo modules for the transfer unit and linear infeed, we also showcased a highly productive Carlo Salvi CS 001 there and focused on the topics of Service & Support and Tools & Processes. We are delighted to share some of our experiences from this important trade fair with you here.

A further focus of this issue of Netshape is cam lobe manufacture on our new AMP 20 N, about which we have some exciting news from this growth market. Our customer story this time is about our Italian customer Agrati, which now manufactures highly complex parts for the automotive industry on three Hatebur machines, two of which are an AMP 30 S, at its premises in Dolzago. I also have the pleasure of bringing you our first employee interview from Garlate.

I hope you enjoy reading our new-look NetShape magazine as much as we have enjoyed writing it.

Kind regards,

Thomas Christoffel, CEO

Overview

Legal information

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Latest news

New head of the Business Unit Process and Tool Development

Name: **Patrick Stemmelin**
Position: **Head of the Business Unit Process and Tool Development**
Joined Hatebur: **March 1st, 1989**

We are pleased to announce that Patrick Stemmelin is the new **head of the Business Unit Process and Tool Development** and a member of the Hatebur management team. He took over the position from Andreas Matt, who will now be concentrating on development projects in his role as Head of Strategic Projects, **on January 1st, 2018**.

We would like to thank Andreas Matt sincerely for all his hard work and wish him every success as Head of Strategic Projects at Hatebur, a post in which he is sure to have an exciting time.

Patrick Stemmelin joined Hatebur in 1989 as a designer of cold forming tools. After being promoted to Team Leader in April 1992, he was put in charge of the team designing and developing cold and hot forming tools. On July 1st he was then appointed Head of the Tools & Processes department, with the subdivisions of tool design and the toolshop (including the hardening shop and development center). He was made Head of Process & Tool Development five years later. We wish him all the best and every success in this stimulating and challenging new role – we hope to be able to count on his considerable expertise for many more years to come.

Hatebur Umformtechnik AG integrates its subsidiary, Hatebur Swiss Precision AG

Hatebur Umformmaschinen AG has reorganized its company structure. The Hatebur Swiss Precision AG assembly plant, which has been operating under its own name as an independent subsidiary, has been integrated into the parent company on January 1st 2018. The name of the manufacturing site for Hatebur machines will be removed from the market.

The assembly plant in Brugg will continue to operate and all staff will be retained. Christian Bürgin will continue to manage the site. The plant in Brugg will still exclusively assemble forming machines for Hatebur. The manufacturing site, which was founded in 2012 and covers around 1600 m², will remain the assembly plant for small and medium-sized machines through to the HOT*matic* HM 35 and COLD*matic* CM 725.

50 years of collaboration with Synergon S.p.A. from Italy

In October 2017, Hatebur and Synergon S.p.A. from Milan celebrated 50 years of collaboration. Synergon took on the role of representing Hatebur on the Italian market back in 1967. The Sanclemente family founded Synergon, and Hatebur collaborated with Luigi Sanclemente for many years before his son, Mauro, took over the company and continued it successfully for both sides.

A total of 38 machines have been sold on the Italian market. Hatebur and Synergon have also been working together to provide customers with after-sales services in the spare parts market. The outstanding cooperation between Synergon and Hatebur, along with the excellent expertise of our long-term representative, continues to be important to Hatebur.

We are looking forward to many more years of working together!

Andritz Hydro – assembly plant for large and medium-sized forming machines

November 2017 saw Hatebur and Andritz Hydro celebrate 55 years of partnership. During this time, the company has changed its name and changed hands several times, being founded as “Bell” and being known as “VATech-Hydro” until fairly recently before becoming “Andritz Hydro” as it is now. Its long-standing, highly motivated team have been assembling large and medium-sized forming machines for Hatebur right from the very beginning of the companies’ collaboration. As at November 2017, Andritz Hydro has supplied a total of 301 machines on behalf of Hatebur.

10 years of Hatebur in China

Hatebur (Shanghai) Technology Co., Ltd. was founded on January 11th, 2008. Under the management of Yu Zhenghua, the subsidiary now has a team of eight staff who provide sales and after-sales services for Hatebur systems owned by our customers in China. This anniversary was celebrated with the team from Hatebur Metalforming Technology (Shanghai) back in September 2017 with a company trip to the amusement park in Ningbo, Zhejiang Province.

Facts and figures for the Hatebur Group

(As of 2017)

2
brands – Hatebur and Carlo Salvi

88
years of experience

3000+
years of expertise from all employees

5000+
machines sold

- Headquarters
- Subsidiaries: **9**
- Sales offices: **37**

- Carlo Salvi employees: **100** (Garlate: **93**, China: **4**, USA: **2**, England: **1**
- Hatebur employees: **196** (Reinach: **155,** Brugg: **7**, Japan: **8**, Germany: **1**, China: **25**)

So many languages are spoken – the countries in which the Hatebur Group is represented speak five different languages between them. Even though only a small number of employees operate in English-speaking areas, English is the common language used.

German	**166**
Italian	**93**
English	**3**
Chinese	**27**
Japanese	**7**


HATEBUR
HATEBUR

HOT*matic* AMP 20 N: Forging cam lobes more efficiently

Text: **Jürgen Fürst, SUXES GmbH**
Images: **Hatebur/Seissenschmidt GmbH**

Reinach **The continuous growth in the market for assembled camshafts calls for the manufacture of more and more cam lobes. While engine size is constantly decreasing, the demands made on these engine components are constantly increasing, not least because of the need to make them lightweight. Hatebur has developed a machine to meet these exact requirements: The HOT*matic* AMP 20 N, which can reproduce cam lobe profiles with repeat precision while offering a high press load and maximum productivity. This impressive hotformer won over cam lobe professionals in Plettenberg immediately.**

Approximately 85 million cars are forecast to be built worldwide this year. Assuming that over 95% of these will be driven by combustion engines, as is likely to be the case, then around half of them will require assembled camshafts. This means that the total number of cam lobes required will be something like 700 million. These will be manufactured by specialist suppliers using the hot forming process, on machines that are supplied almost exclusively by Hatebur. As such, the cam lobes will be precision forged or "net shaped", which makes the work required for post-processing and finishing using additional manufacturing processes (such as grinding) considerably quicker and easier. As engines are getting increasingly smaller and the need to make components lightweight is becoming increasingly critical, the challenges facing cam lobe manufacture are getting tougher all the time. This is precisely why Hatebur has now developed the HOT*matic* AMP 20 N – an efficient and highly productive precision forging machine that has been specially designed to manufacture off-the-shelf cam lobes of different sizes and geometries.

A machine especially for cam lobe manufacture

Cam lobes have always predominantly been manufactured on Hatebur HOT*matic* AMP 20 S or HOT*matic* AMP 30 S machines. And this will often continue to be the case in the future too. These three-station hotformers can make as many as 200 parts per minute with a maximum diameter of 38 mm (AMP 20 S, 900 kN) or up to 140 parts per minute with a maximum diameter of 67 mm (AMP 30 S, 2500 kN). Both machines are known for their considerable flexibility in the manufacture of small and medium-sized forgings and in the forming of different materials. Nowadays, flexibility with regard to making different products is no longer the number one priority for highly specialized cam lobe manufacturers, especially if they are able to utilize one cam-lobe-making machine to full capacity. Furthermore, the number of cam lobes needed and installed worldwide has been steadily increasing for many years because more and more engines are being fitted with assembled camshafts, which have the advantage of being lighter, cheaper and more versatile than cast or forged camshafts. In addition to requirements on quantity, there are also new requirements

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The best way to economically produce cam lobes for use in assembled camshafts is using Hatebur Hot*matic* machines.

being placed on the quality of forgings, meaning that cam lobes need to be made increasingly smaller, thinner and therefore lighter. For this reason, as part of their process development work, the experts at Hatebur have been conducting basic experiments with cam lobes that are only 8 mm thick instead of the usual 12 mm – a reduction of around a third which also reduces the component's weight.

Downsizing improves efficiency enormously

This development is essentially taking the engine downsizing initiative of OEMs down to the smallest possible part. The downsizing that has been implemented over recent years has brought with it an almost unbelievable increase in the efficiency of modern combustion engines. For example, these days a two-liter/four-cylinder engine offers almost the same performance as a four-liter/eight-cylinder engine did back in 1994 (compare the BMW 530i of 2017 with the 540i from 1994, or the MB E250 of 2017 with the E420 from 1994). The fact that modern-day engines with half the number of cylinders and half the displacement also consume only around half the amount of fuel shows just how significant work in engine design has been – and development is not stopping there.

The thinner cam lobes are making increasing demands on the forming machines used to make them, however: "Especially in terms of the shearing quality, the press load and the parts transport," explains Matthias Praus, Director of Engineering at Seissenschmidt, which supplies parts for the automotive industry. This traditional company in Plettenberg (North Rhine-Westphalia) has more than 170 years' experience in forging, with over 1000 employees who make around 50 million cam lobes a year. "Our customers expect 100% parallel cam lobe faces, maximum precision on the surrounding faces, crack-free surfaces and no impact marks," says Praus. Although the company is one of Hatebur's biggest customers – having 14 machines – they needed a machine that could meet the increased demands with respect to parameter configuration and productivity.

So Hatebur's logical conclusion was to launch a new machine between the AMP 20 S and the AMP 30 S: The HOT*matic* AMP 20 N.

With its press load of 1500 kN, it has enough force to forge bearing steel (100Cr6) with the necessary press load per gram of initial weight and the expected degree of precision. With this in mind, the body of the machine has been reinforced accordingly, thus ensuring the stability required for a high part output. In three forming stations with up to 200 strokes per minute, it turns blanks with an initial weight of between 24 and 217 grams into cam lobes with a maximum outer diameter of 48 mm. The steel bars, which measure up to 6 meters long and, at just under 1200 °C, are red hot, are moved into the exact position via four infeed rollers with servo motors. Cut-offs measuring 20–45 mm are then created in the shearing unit. This is where Hatebur's specialist expertise comes into its own, achieving a level of reliable and repeatable shearing precision that is unsurpassed anywhere in the world. Developers paid particular attention to the transport unit: "Transporting thinner parts from one forming station to the next needs to be done especially carefully in order for the desired surface quality to be retained all the way through to output," explains Patrick Stemmelin, Head of the Tools & Processes Business Unit at Hatebur.

Hatebur machines: A firm favorite for many years

Seissenschmidt has been relying on Hatebur machines for over 50 years. The cam lobes produced on them are subsequently sandblasted and then inductively hardened before being delivered to customers, which is what happens around 80% of the time. From there, they are finished and assembled into camshafts. For the

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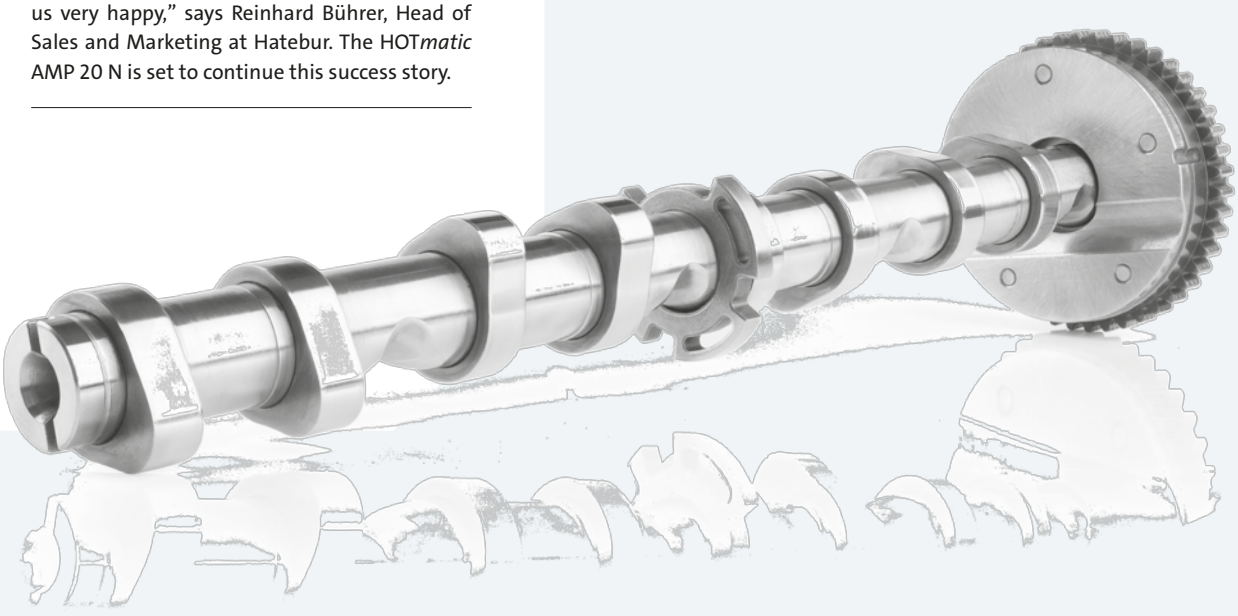
Thinner cam lobe profiles with superior surface quality, outstanding wear resistance and precise geometries – the results of production on an AMP 20 N.

other approximately 20% of cam lobes forged every year, Seissenschmidt carries out the finishing work itself. This includes turning and grinding before they are handed over to customers ready-to-install.
Praus is extremely impressed with the Hatebur machines: “Hatebur machines are light years ahead of the competition in terms of precision, reliability and robustness. Most of all, it’s the dependable and precisely repeatable parallelism of the cam lobes and the cam lobe profile with the even grinding stock allowance that offer real advantages, since they keep the post-processing and finishing work needed to a minimum.” This means that the new HOT*matic* AMP 20 N meets the increased tolerance requirements too.

Great experiences for manufacturers and users
Founded in 1846, Seissenschmidt embodies over 170 years’ experience in the forging industry and boasts invaluable expertise in tool construction and design. In conjunction with simulation options, the company creates tools that, in combination with Hatebur machines, mean that a high level of productivity can be reached. As Praus says: “Everyone in the automotive industry is being placed under increasing pressure to lower their prices, and we are no exception. So it’s essential to keep costs low and productivity high.” The Plettenberg-based supplier was acquired by Canadian automotive parts supplier Linamar in 2015. Its considerable experience in the manufacturing process is just as key to its success as its tool-making skills, and the two combined make for continuous improvements and great competitiveness. “That we can contribute to this with our reliable machines makes us very happy,” says Reinhard Bührer, Head of Sales and Marketing at Hatebur. The HOT*matic* AMP 20 N is set to continue this success story.



Agrati Group, Italy – New AMP 30 S expands the product range

Province of Monza and Brianza

Company: **Agrati Group, Italy**
Location: **Veduggio Con Colzano, Italy**
Number of employees: **Over 2700**
Machine: **New AMP 30 S**

Facilities: **12**
Parts per day: **31 million**
Special machines: **Over 1000**
Logistics centers: **5**
Surface area covered: **300,000 m²**

Text: **Hatebur**
Images: **Agrati Group**

Italy **A new AMP 30 S has helped this Italian company to expanded their business in hot forging and producing parts with a more complex geometry for their customers. With an output of approx. 22 million parts next year, Agrati is an important supplier from Italy for the automotive OEMs.**

Agrati was founded in 1939 as a small mechanical engineering company. In its first years of activity, screw and bolt production was limited to woodscrews, items for carpentry parts and rod linkages. Nowadays it's a leading global organization due to the contribution of thousands of people from different cultures sharing the same values.

Agrati delivers their products around the world from five logistic centres. 60.5% of its output is delivered to Europe (especially France, Germany and Italy), the Middle East and Africa, 32% to NAFTA countries (especially the USA and Mexico) and 7.5% to the Chinese market.

Thanks to diversification, the supply of key products includes the industrial and electrical sector. Agrati provides a wide range of products specifically designed for commercial vehicle applications, including heavy trucks, earth-moving and agricultural machinery. 60% of the Agrati Group's sales are driven by the automotive OEM sector. The parts are mainly produced in Tronzano Vercellese in Italy and in the plant in North America.

In 2017, Agrati generated annual sales of €652 million and expects an estimated turnover of €665 million this year. This amount is the result of 12 plants, seven in Europe, four in the US and one in China. The group's sales are driven by automotive OEMs and their system suppliers (tier 1). The foremost important OEM customers are Renault, PSA, the VW Group, FCA and FORD. Among Tier 1 companies that are served by Agrati include Brembo, TRW, Faurecia and others.

With the intention of broadening the portfolio, the management team of Agrati was looking for a reliable and cost-efficient machine that can produce complex parts. When the detailed requirements were discussed, the HOT*matic* AMP 30 S from Hatebur was evaluated as a very robust machine that can also produce complex hot-formed parts in large quantities. In addition, the cost of the parts produced on the machine is competitive in the automotive market. Ultimately, the decision was taken to buy a Hatebur HOT*matic* AMP 30 S from Switzerland. It is the perfect fit for special parts that were not feasible on other machines. At present, Agrati is using two HOT*matic* AMP 30 S and one HOT*matic* AMP 20 S machines from Hatebur for its production.

At the plant in Dolzago, other metal-forming machines are also in production. However, these machines are for cold-forging processes. Nuts and washers are now produced on the Swiss machine AMP 30 S. These parts are used in the automotive industry, e.g. for VW, Renault, FCA,

Daimler, BMW, etc. Agrati produces steel parts for chassis, powertrains and hub nuts. Before Agrati was equipped with a Hatebur machine, these parts were not included in the company's portfolio. Therefore, the process had to be changed for hot forging, which is very different from cold forging.

After the first few months of production, the staff at Agrati have found that they most appreciate the speed and the option to forge complex geometries. Around 50 000 pieces are currently being produced on the Hatebur machine per day, which results in a production of around 1 million parts per month. Every two days, production is changed to another part. The output of the AMP 30 S accounts for 7% of production in terms of parts and 30% in terms of weight.

For next year, Agrati predicts an output of approx. 22 million parts. To achieve these high figures, four members of Agrati have been trained on the Hatebur HOT*matic* AMP 30 S. Despite the complexity of the machine, the advantages of the AMP 30 S are the simple and functional interfaces that have been created for the operators.

Agrati's customers have been informed about the new Hatebur machine and have been very happy about Agrati's expanded product range. The purchase from Switzerland has therefore been a great success and is now helping the Italian company to expand their business in the automotive market.

Management of Agrati

- Cesare Agrati, President & CEO
- Paolo Pozzi, CEO
- Lorenzo Zaniboni, Group Operations Director
- Sabrina Meduri, Dolzago Plant Manager
- Emanuele Mistò, Veduggio Plant Manager
- Mario Redaelli, Trezzo Plant Manager

Servo transfer unit – Innovation meets proven technology

Text: **Stephan Leibundgut & Carsten Sieber**
Images: **Hatebur**

Reinach The new development of the servo transfer unit has supplemented the proven strengths of the COLD*matic* series with innovative drives, thus enabling retooling times to be reduced and process reliability to be improved.

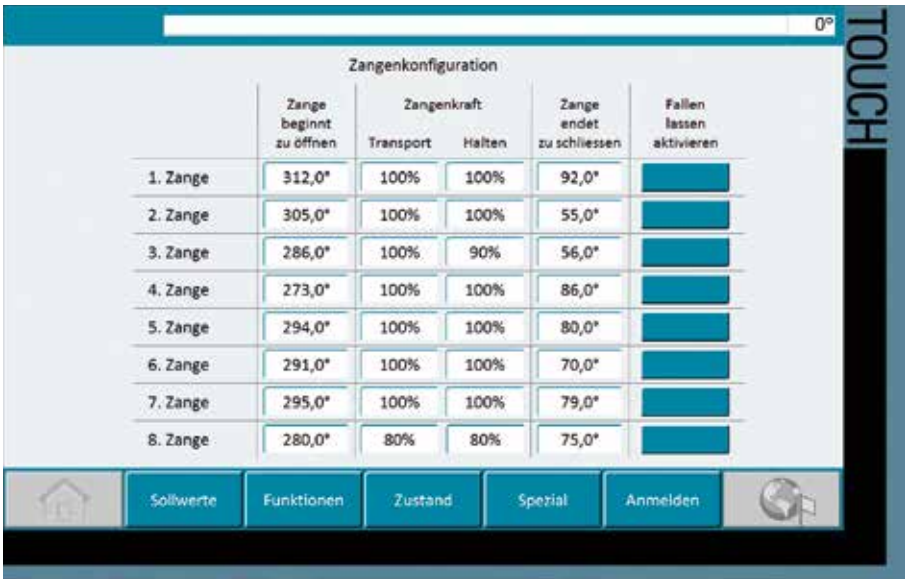
1 Servo technology – here to stay

Constant change in the machine-building sector is encouraging more and more companies to use decentralized drive systems. The widespread use of servo technology does not, however, always generate added value for the operator, and the solutions are often highly complex. With a well-thought-out combination of proven mechanisms and innovative drive technology, Hatebur can present an optimal solution that retains the kinematic benefits of the COLD*matic* series and supplements them with the strengths of servo technology.

2 Retooling time and ease of use

The range of formed parts that can be produced on a Hatebur COLD*matic* CM 725 is enormous. Each of these parts has its own sequence of forming stages, which means that each one has different requirements for timings when it comes to opening and closing the individual grippers. To adjust the gripper timings, machine operators used to have to raise the gripper rocker and step onto the running board in the machine, but now all they need to do is press a button on the touch screen. This saves a considerable amount of time, especially when inserting new parts, which means that the optimal closing and opening times can be found by trial and error in next to no time. Once ascertained, the ideal settings can then be saved in a formula and simply loaded when they are next needed for production.

Set timings quickly at the touch of a button



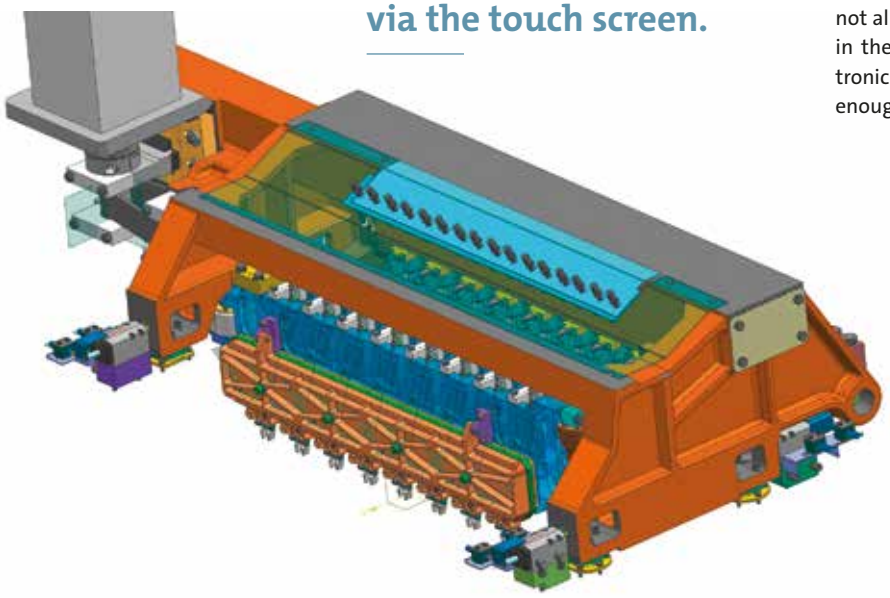
3 New possibilities

Another new feature is the ability to configure the holding load of the grippers separately for each gripper. Half of the maximum possible holding load is applied entirely by the integrated spring. Should the holding load need to be increased, this can be done for each gripper individually via the touch screen. The motor accommodates the portion of the holding load that exceeds the spring tension. This enables the number of parts output per minute to be increased, especially for long parts, as the transport process is more reliable overall.

The holding load of the grippers can be configured separately for each gripper via the touch screen.

The new drives have also opened up new possibilities in press part transport monitoring. Thanks to the rotary encoder in the servo motor, the control system knows which position the gripper is in at all times. Is there a part in the gripper? Does the gripper have the correct pre-tension? Was the gripper wrenched open during transport? All these questions can be answered by analyzing the rotary encoder. No extra sensors are required and parts transport can be monitored reliably.

Grippers that need to be opened quickly during production, for instance to drop cut-offs or reject a part at the end, can also be controlled using the servo motors, meaning that an additional drive is no longer required in order to open them fast enough. This makes it possible, for example, to deactivate individual grippers if not all of the transport stages are needed. Even in the event of a fault, the new analysis electronics allow the grippers to be opened quickly enough to avoid collisions.



The advantages you gain by using the Hatebur COLD*matic* CM 625/CM 725 with servo transfer unit:

- Short retooling times
- Flexibly adjustable holding loads
- Gripper units are compatible with existing machines
- Integrated press part transport monitoring
- Targeted gripper control

4 The solution in detail

All the servo motors in the transport unit are fixed in place. This has the advantage not only of significantly reducing the mass in motion, but also of going easy on the electronic components fitted in the motors. Should a motor fail despite this, however, it can be replaced as a complete unit and referenced again with little effort. This can be done by the operator, who does not need to configure any other settings.
If the power supply needs to be cut off during production, the additional capacities ensure the synchronous movement of the transfer unit and the gripper units. The grippers carry on moving synchronously until the machine comes to a safe stop. Even when production is paused for a long time, the parts are held in the gripper fingers by the integrated springs. This allows forgings to be removed and inserted safely even if the transfer unit is swiveled up, for example.

The machine will stop safely even in the event of a power failure.

Interview – with Renato Greppi

Name: **Renato Greppi**
Position: **Assembler at Carlo Salvi S.p.A.**

Italy **What is your position and role at Carlo Salvi S.p.A.?**
I am an assembler.

Have you always been in this role or did you do other jobs at Carlo Salvi before?
Since I started to work for Carlo Salvi i, I have always worked as an assembler.

What is your background (education/training)?
I completed my technical studies and, since then, I have always worked in the mechanical field – even before I joined Carlo Salvi.

Are you married and do you have children? If so, how many children do you have and what age are they?
I am married and I have one daughter, who is 26 years old.

What do you do in your free time, do you have any hobbies?
I am a member of the Italian association "Protezione Civile", in which I am assigned to the area that deals with forest fires.

Have you always wanted to work in an international company?
When I decided to work at Carlo Salvi, the size or internationality of the company were not key factors for me.

If you could travel to one of the countries in which a Carlo Salvi machine is running, where would you go?
My position at Carlo Salvi involves a lot of travelling during the year. I go to any countries where assistance with a Carlo Salvi header is required. From all these countries, my favourite is USA, specifically California.

How long have you been working for Carlo Salvi?
I started to work for Carlo Salvi in 1994.

Did you know about Carlo Salvi and their machines before you started to work in Garlate?
No, I didn't know about them, because I was working in another sector.

In your opinion, what is special about Carlo Salvi's machines?
In my opinion, what makes Carlo Salvi's machines special is their versatility with regard to the kind of products that can be handled.

Which aspect of your work do you like best?
Everything that is related to mechanical machine assembly and set-up.

Please describe your main daily tasks.
Since I am responsible for a team of five workers, my daily duty involves coordinating their work.

Are you in contact with customers or agents?
I am in contact with the customers, especially when I am abroad for interventions and/or assistance.

Do you have to work in shifts?
No, we do not work in shifts at Carlo Salvi.

Do you have the opportunity to introduce your own ideas about the machines or about your work?
Usually, when I come back from an intervention, I report any problems that I encountered to the technical management and I also suggest improvements.

If you could change anything about your job, what would it be?
At the moment, I am happy with how things work and I would not change anything.

What will be the next project or special task for you?
As I will be retired in a couple of years, my task now is to pass my experience and knowledge on to younger colleagues.

How would your colleagues describe you?
Authoritarian, byt sympathetic too.

Which strength do you have that is very helpful for your job?
Collaboration. We need to work in teams and also when travelling; to collaborate with customers is very important.

When do you think you have been very successful in your job?
Usually, when I go to a customer's plant, I already know what their problem is.
I can say that my work is really successful when I am able to solve any problems that arise during my intervention (or that the customer only informs me about during my work for them) and that I did not know about beforehand.

More than just tools...

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

Our performance. Your advantage.

Our innovative process technology and the first-class tools designed to work optimally with it provide you with a solution that offers maximum performance and economic efficiency.

Reinach **From design to manufacture: Hatebur's service covers more than just tool technology – the company delivers tools too, whether for manufacturing single parts or series of parts, and it can even provide companies with a complete set of initial equipment.**

Hatebur is a tool supplier as well as a tool planner, providing the global market with cost-effective "Swiss Quality" tools by the agreed deadlines. The company uses various different processes to machine these tools. Heat treatment plays a crucial part in this and can be deployed in the in-house hardening plant. Hatebur keeps a variety of standard parts in stock so that lengthy delivery times can be avoided. These standard parts can easily be ordered from the "HOT*matic* infeed and shearing" catalog for the HOT*matic* series.

Tool technology service

To make production more profitable, Hatebur offers assistance with process optimization and process design using state-of-the-art programs such as those for finite element analysis. The specialists at Hatebur focus on each customer's specific needs, whether they are having problems with their tools, are looking to have their tools adapted or need help choosing the right alternative material or between different tool coatings.

Boost production reliability and cut production costs

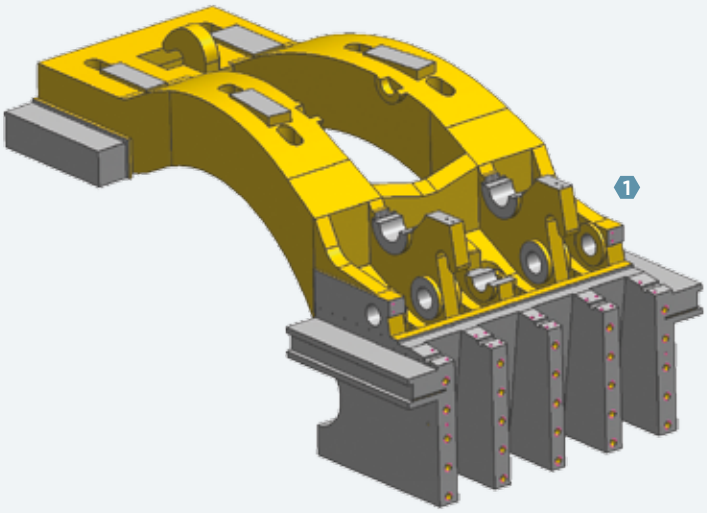
Your advantage

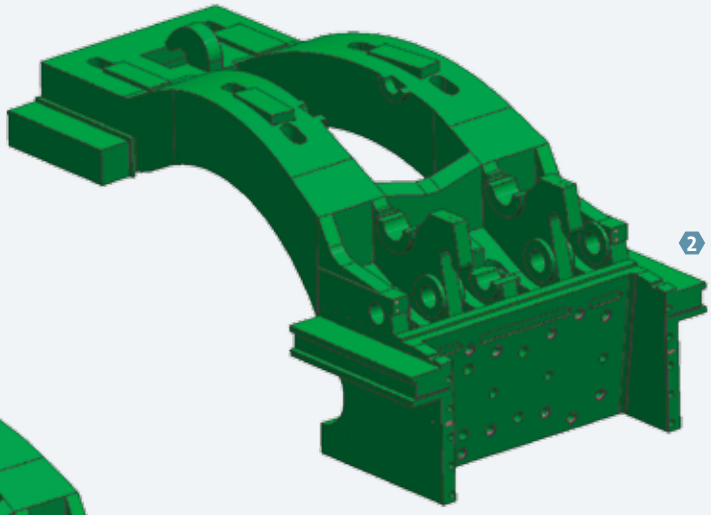
Single part manufacture in Reinach
Hatebur provides holding parts or complex forming tools that are made with “Swiss Quality” according to each customer’s exact requirements. A further advantage for customers is that Hatebur’s long-standing expertise enables it to handle a diverse range of requests with clearly defined processes in a fast and streamlined way. This means that, even if customers find themselves in a tool bottleneck, flexible solutions can still be found and very urgently needed tool parts can be delivered just in time.

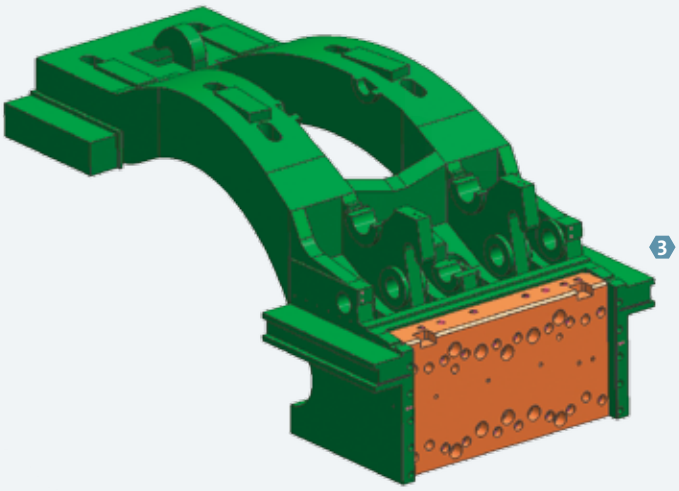
Series manufacture in Reinach/Shanghai
Do you have a large number of parts and want to put tools into series production? Then Hatebur Reinach and its subsidiary in Shanghai, whose teams manufacture series-produced tools commissioned by their customers, are the right partners for you. Procuring standard tools featured in the HOT*matic* catalog from warehouse stock is even quicker and easier. Give us a call – we’ll be happy to help!
Tel. +41 (0) 61 716 21 11.

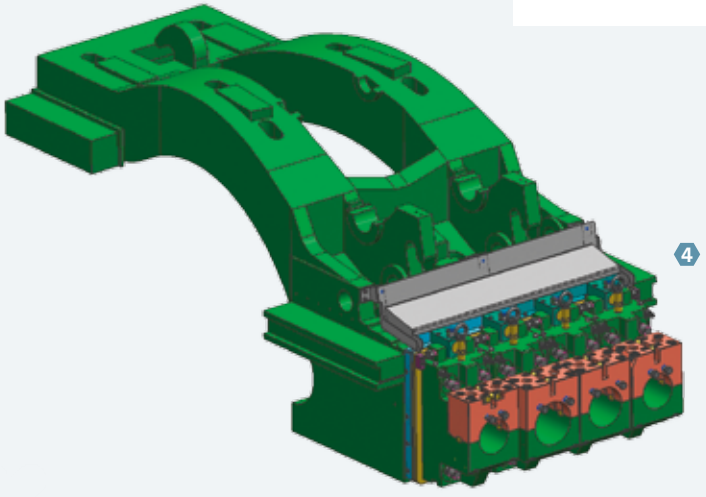
Initial equipment in Reinach
Companies who procure their initial equipment from Hatebur can save valuable time – and therefore money too – right from the very beginning. The individual stations are installed in a way that saves a considerable amount of time during set-up. Ideally, the tools are tested by a proficient team comprising Hatebur machine operators and Hatebur designers directly in-house or at the customer’s premises. This significantly reduces machine utilization when trialling new parts and means that the machines are ready to engage in actual production more quickly.

Your advantage: Hatebur is not only a supplier of metalforming machines but also your point of contact when it comes to tools and processes. If you need tools, contact us for a quotation.









1 Pressram before conversion

2 Pressram during conversion, pictured here milled out

3 Pressram during conversion, pictured here with filling plate

4 Pressram after conversion, pictured here with punch holder

Conversion to pressrams without adjusting wedges for the AMP50 and AMP70

Text: **Matthias Prischl**
Images: **Hatebur**

Reinach **Most customers use their Hatebur machines in their production processes for a good many years. Not only is technology advanced and improved during this time, but customers' requirements change too. This is something that Hatebur takes into account by offering to upgrade machine owners' HOT*matic* and COLD*matic* machines with the latest technology.**

Machine productivity is a crucial factor for companies. Targets are becoming more and more ambitious, while productivity ought to be regularly improved and costs (e.g. for maintenance) reduced. Hatebur is therefore constantly striving to bring machines used in the production process in line with customer requirements and up to the latest technological standards, with the aim of boosting machine productivity and/or cutting maintenance costs. Upgrades are always carried out in close collaboration between the customer and the Hatebur Service department.

A few examples of the type of work this includes can be found below:

Conversion to pressrams without adjusting wedges
All new Hatebur HOT*matic* AMP 50 and AMP 70 machines are delivered as standard with pressrams that do not have adjusting wedges. In the past, if the machine operator changed the positions of the individual tools using the adjusting wedges, then production stability would very often be lost.

The adjusting wedges breaking multiple times also caused inconvenient stops and unplanned machine downtimes. The bearing surface behind the adjusting wedges would also sometimes become heavily worn, which would require constant and laborious reworking.

Subsequent conversion to pressrams without adjusting wedges offers the following advantages:

1.	The adjusting wedges no longer break
2.	The bearing surface behind the wedges does not become worn and therefore reworking is no longer required
3.	The highly concentrated load behind the individual adjusting wedges caused by surface expansion is reduced, thus enabling forces to be far better distributed
4.	The unit as a whole is more solid, more robust and more compact

Netshape magazine 1/2018 Trade fairs and events

January 25–30, 2018

IMTEX exhibition

Location: **Bangalore, India**
Company: **Hatebur Metalforming Equipment Ltd.**

The Indian Metal Forming Exhibition (IMTEX) was held in Bangalore, India from January 25th to January 30th, 2018. Attracting more than 3600 visitors and over 500 exhibitors, IMTEX is the leading trade fair for the Indian metal-forming industry. Hatebur Metalforming Equipment Ltd., together with its representative Chrystec Machine Tools Pvt., was in attendance with their own booth in hall 4 at booth A 111.

February 7–8, 2018

33rd Annual Cold Formers' Meeting 2018

VDI Wissensforum

Location: **Düsseldorf, Germany**
Company: **Hatebur Metalforming Equipment Ltd.**

The two-day Annual Cold Formers' Meeting in Düsseldorf (February 7–8th) attracted around 300 industry representatives, who enjoyed not only interesting lectures, but also exciting discussions with customers, suppliers and fellow competitors. The key topics were Industry 4.0 and the influence that electromobility is having on cold massive forming.
Hatebur closed the event with a presentation about the servo-electric grippers on the COLD*matic* CM 725 machine.

April 3–7, 2018

SIMTOS 2018

SIMTOS 2018 April 3–7 KOREA

Location: **Seoul, South Korea**
Company: **Hatebur Metalforming Equipment Ltd.**

The Seoul International Manufacturing Show in South Korea was once again a highlight for the region. Hatebur has been attending this trade fair for many years now together with its representative SQ Tech Corp. The five-day event was held at the Korea International Exhibition Center (KINTEX). SIMTOS is Korea's leading trade fair for manufacturing technology and metalworking.

April 11–12, 2018

Fastener Fair USA

FASTENER FAIR USA

Location: **Cleveland, Ohio, USA**
Company: **Carlo Salvi S.p.A.**

Fastener Fair USA is the only fastener and fixing event in the USA for the full supply chain. This trade fair is the most important event at which manufacturers, dealers, suppliers and end consumers from the industry all come together. Carlo Salvi regularly attends this fair with its own booth.

April 16–20, 2018

Tube & Wire 2018

Location: **Düsseldorf, Germany**
Company: **Hatebur Metalforming Equipment Ltd. and Carlo Salvi S.p.A.**

For more information, you can find an in-depth report on Hatebur and Carlo Salvi's experience at the fair on the following page of this NetShape magazine.

Together as one

Text: **Bernhard Hagen, Hagen PR**

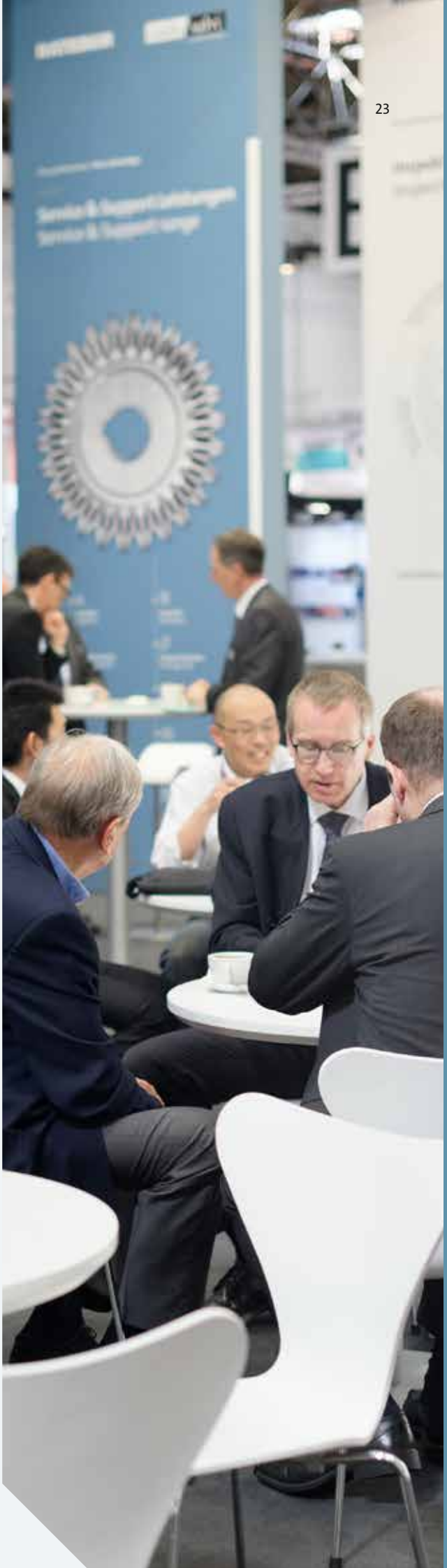
Reinach **At the Wire trade fair in Düsseldorf, Hatebur and Carlo Salvi shared a stand in front of an expert audience for the first time. Their multimedia booth focused on three topics: Innovative machines, Tools & Processes, and Service & Support.**

As usual, the biggest stars at the Wire stand were the machines: Visitors were able to see the CS 001 single-matrix double-blow forging press, which was produced by Carlo Salvi, live on site. It is a byword for maximum productivity in cold forming and is particularly suited to making very small parts with a wire diameter of no more than 3 mm. The extraordinarily high production speed of up to 660 parts per minute impressed all those present. The new Hatebur COLD*matic* CM 725 also attracted a lot of attention: The features of this high-tech cold-forming machine were presented on two screens together with the most important key performance indicators. The machine has seven forming stations and is designed to make complex high-precision parts measuring between 8 and 125 mm in length, with a maximum wire diameter of 20 mm. This makes the COLD*matic* CM 725 ideal for manufacturers working in the automotive industry. Trade fair visitors were interested most of all in the redesigned transfer unit, which is programmable and driven by a servo motor. These innovations have allowed the experts at Hatebur to reduce the retooling time by a significant amount.

A display case measuring 1.8 meters in diameter and exhibiting the high-precision parts made on Hatebur and Carlo Salvi machines provided the centerpiece of the tools and processes area. Individual processes and premium-quality tools that meet customers' specific production requirements also came under the spotlight.

Furthermore, presentations and graphs gave the numerous visitors a detailed overview of Hatebur and Carlo Salvi's global service portfolio – from inspection, overhaul and standardization, through to repairs, spare parts service, remote maintenance and training opportunities.

A large lounge area was used by booth staff to talk to customers and other experts all through the day. As you might expect, guests of Hatebur and Carlo Salvi were even spoiled with taste sensations in the form of a different lunch menu every day and plenty of Italian espresso.



See us live!

September 19–22, 2018
MetalForm China 2018

Location: **Dongguan, China**
Exhibitor: **Hatebur Metalforming Equipment Ltd.**

September 26–27, 2018
Fastener Fair Italy 2018

Location: **Milan, Italy**
Exhibitor: **Carlo Salvi S.p.A**

October 21–23, 2018
International Fastener Show China 2018

Location: **Shanghai, China**
Exhibitor: **Carlo Salvi S.p.A.**

November 13–15, 2018
1st conFAIR 2018

Location: **Berlin, Germany**
Exhibitor: **Hatebur Metalforming Equipment Ltd.**

November 21–24, 2018
METALEX 2018

Location: **Bangkok, Thailand**
Exhibitor: **Hatebur Metalforming Equipment Ltd.**

November 28–29, 2018
Fastener Fair France 2018

Location: **Paris, France**
Exhibitor: **Carlo Salvi S.p.A.**

We look forward to your visit!

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