

NETSHAPE

Hatebur magazine for horizontal cold and hot forming – 2/2014



Omnia KLF, Kysucké Nové Mesto/Slovak Republic: New Hatebur Hotmatic AMP 50

CEO'S VOICE

Dear business friends,

The business year of 2014 will soon be coming to an end. Despite crisis flash points in various parts of the globe, the driving force of the economy has performed surprisingly well in the most important markets. The automotive industry has made up further ground and is developing solidly. Exchange rate parities have remained relatively stable, even if they have not been advantageous for all.

In this edition, we'd again like to present a few really interesting articles. First, an internal matter: There has been a change within the management at Hatebur AG. Thomas Hiltmann has taken over from Bruno Niederer as our new CFO. Mr. Hiltmann has also taken on responsibility for IT at our headquarters and subsidiaries.

The title story provides insight into an interesting, upcoming company in the Slovak Republic. Omnia has invested in a new AMP 50 XL in order to allow it to act on the international stage in the future.

We also have a fascinating article in the field of horizontal forming technology: A customer in the United States has forged its billionth part on Hatebur machines! On the topic of approaching trade fairs and events: In order to further develop our international networking and deepen expertise in all markets, we will be holding an internal seminar at our headquarters in spring 2015.

The CM 4-5^{ECO} coldformer presented in the last release of this magazine in the form of virtual images will be delivered to its first customer this year!

I'd like to take this opportunity to wish you a pleasant end to 2014. Enjoy the holidays! For the new year, I'd like to wish you and those close to you all the best as well as every success in your professional lives. Best wishes to you all!



Urs Tschudin



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Omnia KLF, Kysucké Nové Mesto/Slovak Republic

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INTERNAL MATTERS – A NEW HEAD OF FINANCE

On June 1st 2014, Thomas Hiltmann took on responsibility for finance and administration in his new position as our CFO. He is a member of the board of management and successor of Bruno Niederer, who has entered his well-deserved retirement.

49-year-old Thomas Hiltmann was most recently employed as the CFO of the M+R Spedag Group, a globally active logistics corporation with a focus on Asia and East Africa. He held this position for ten years. After completing his studies in business management, he began his career with the Feldschlösschen Group.

Thomas Hiltmann is married and lives with his family in the upper part of the Basel region.



WALL CALENDAR – HATEBUR IS AGAIN PROVIDING PICTURE CALENDARS FOR NEXT YEAR

As is the case every year, our customers, partners, and other interested parties will be receiving a wall calendar with pictures of Switzerland. The calendars will either be handed out via agencies or mailed directly. We look forward to accompanying your progress as you make your way through the new year.

ENJOY THE HOLIDAYS AND HAVE A SUCCESSFUL 2015 – WHEN WE'LL BE CELEBRATING OUR 85TH ANNIVERSARY

On April 1st 2015, Hatebur will celebrate its 85th anniversary. We're really looking forward to being able to continue working with you next year as well. We hope that the approaching holidays give you time to relax and enjoy the company of your loved ones, and we wish you lots of happiness and success in the new year.



OMNIA KLF IN KYSUCKÉ – MASSIVE EXPANSION OF OPPORTUNITIES THANKS TO AMP 50 XL

 Hatebur  Hatebur/Omnia KLF

OMNIA Holding's industrial division has four business areas. In 2013, OMNIA KLF purchased a Hatebur Hotmatic AMP 50 XL for its factory in Kysucké Nové Mesto. The company celebrated the successful completion of the project at the machine's inauguration in December 2013. Find out more about this upcoming company from the Slovak Republic.

How many employees does Omnia have?

Peter Duchovic, Managing Director (PD): Including its subsidiaries, OMNIA KLF has a total of 420 employees.

When was the Kysucké location founded?

PD: The forge was founded in 1978, as the Slovakian part of the bearings manufacturer ZVL, in the former Czechoslovakia. Omnia Holding comprises the following business areas: OMNIA KLF: Precision forgings, OMNIA KLF – Martin factory: Drop forgings, OMNIA KLF – turning shop: Turned parts and KLF Energetika: Heat generation and distribution, energy and water distribution

What's the annual turnover?

Peter Kubik, Commercial Director (PK): In 2013, the turnover following consolidation was 36 million euros.

In which countries is Omnia represented and to which countries does the company deliver its products?

Jan Vehovsky, Sales Director (JV): As a manufacturer of forgings and turned parts, OMNIA KLF delivers directly and indirectly to a large number of EU countries (Germany, France, Austria, Spain, Hungary, Poland, Italy, and the Czech Republic). Out-

side the EU, we also deliver to Switzerland, Argentina, Russia, and China.

Who are your most important customers and in which sectors are they active?

JV: OMNIA KLF is active in two main areas: In the bearings and automotive industry, each with a share of around 50%. Our main customers in bearings are the SKF Group and the Schaeffler Group, while in the automotive sector, they are Volkswagen (direct or through Neue ZWL), Skoda, Seat, and ZF.

How many Hatebur forming machines are in use at Omnia?

JV: At present, OMNIA KLF uses two hot forming machines, an AMP 50 XL and an AMP 70.

How does the purchase of the AMP 50 fit in with the overall concept of the company and what kind of role does the AMP 70, which was constructed in 1978, have as a backup?

PD: The purchase of the AMP 50 XL was the perfect expansion of our hotformer portfolio, greatly enhancing opportunities in two key areas. Naturally, the AMP 70 backup solution also played a part in our purchase decision, since we want to provide both ourselves and our customers with the required level of reliability, even in the case of unexpected downtimes.

OMNIA KLF 

- Production of precise rotation-forgings
- Design and manufacturing of tools
- Thermal tool treatments
- Marketing of products and services

What are the most important products/services at the Kysucké factory?

PD: The most important products offered by OMNIA KLF include forgings and turned rings. In addition, we also offer services, such as tool manufacturing, special heat treatments such as hardening and tempering, nitriding, soft annealing, and laboratory services.

For what end products are the parts used?

JV: Forgings from OMNIA are used in many different areas. Following processing, they are mainly used for gears in the automotive sector. In the bearings sector, the rings are mechanically processed and then used for an extremely diverse range of industrial applications such as different types of bearings.

What quantities are produced per year or month?

PK: OMNIA KLF produces an average of around 2.6 million forgings per month at present. Following the launch of new projects in conjunction with the AMP 50 XL, the average number of parts produced

per month will increase to between 3 and 3.2 million.

“The equally positive reaction from customers who don’t really have anything to do with Hatebur machines really surprised me, and demonstrates the extent of the recognition of the Swiss precision machines.”

Jan Vehovsky, Sales Manager

What work steps follow after production on the Hatebur machine?

PD: After production, the parts are annealed, subjected to a 100% visual check, and then turned internally or directly at our customers’ premises. Then, our customers process them further depending on their intended usage and finally assemble them in the end product.



The new AMP 50 XL perfectly enhances OMNIA’s range of hotformers and greatly expands its opportunities.

Which partners do you work with, and with what division of process steps?

PD: In general, all process steps are carried out internally (OMNIA KLF has its own tool design and construction facilities including heat treatments for tools and its own materials laboratory). For this reason, external partners are mainly used to cover spikes in demand.

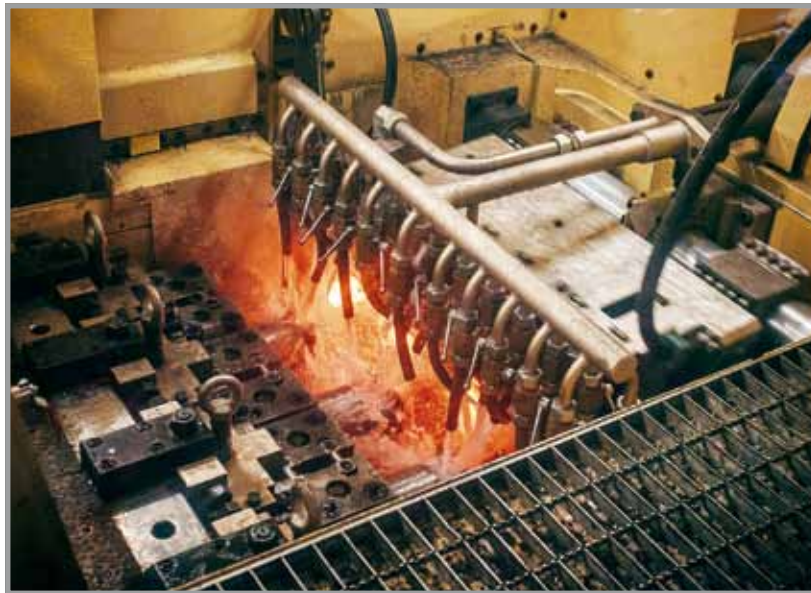
Which materials are used in Hatebur machines?

JV: As a rule, two main steel grades are used in Hatebur machines. For the automotive sector, we use alloyed case-hardened steels, while for bearings, we use rolling bearing steels.

How often do machines have to be retooled for a parts change?

PD: Our Hatebur machines are retooled once each shift on average.

How long does the retooling process take on average?



During the opening ceremony on November 21st 2013, the tool area of the Hotmatic AMP 50 was, by way of exception, open to view.

PD: The average duration of the process is between two and a half and three hours. Over the last few months, OMNIA KLF has also invested significantly in training and peripheral equipment in this area as well, in order to reduce changeover times to around 90 minutes.

Why was the new Hatebur machine installed at the Kysucké factory?

JV: The most important reasons were positive product references from our valued customers and interest in the long-term expansion of collaboration with our VIP customers such as the VW Group (including Neue Zahnradwerke in Leipzig), the Schaeffler Group, and the SKF Group. We would like to take this opportunity to thank all OMNIA KLF customers for many years of support, since this is what actually allowed us to make the investment.

Why did you acquire the AMP 50?

PK: As mentioned, the main reasons were expanding our capacity and creating the best possible increase in the range of parameters of the current machine pool.

And what tipped the balance in favor of the AMP 50?

JV: The deciding factor was the direct input of customers through positive references and interest in new products. We're really pleased that OMNIA's customers have provided the deciding impetus for investment in Hatebur AMP 50 XL technology. This supported the positive decision of our shareholders to engage in strategic development in the field of mass production.

What do you most value about the AMP 50? If you had to pick just one outstanding feature of the AMP 50, what would it be?

PD: Process stability.

How high is the machine workload? Do you produce in shifts?

PK: At present, we use the AMP 50 XL in two shifts with a workload of around 500 tons per month. Once all of our new projects have been launched by the end of 2014, the workload should be around 800 tons per month, with the aim of reaching a figure of 1200 tons per month within the next year.

How long did the project phase last from the initial idea to the purchase of the AMP 50?

PK: Around two years.

What does the investment in the AMP 50 mean for the future of the Kysucké factory?

PD: This investment is extremely important for the future of the factory. It sent out a major signal from our shareholders to our employees, customers, and to the competition. We're showing that OMNIA KLF is going to be a greater force to be reckoned with in the future. OMNIA KLF is a stable, competitive company that wants to develop further in order to secure a long-term triangular network between customers, employees, and the company itself.

What were the biggest (technical) challenges in this project?

PK: The greatest challenge was successfully assuring the entire internal project phase up to the installation within nine months. Thanks again to each and every member of our project team.

Has the material flow or the entire logistics at the Kysucké factory changed since the AMP 50 was purchased? Did other areas need to be adapted in line with the new machine?

PD: The entire logistics concept has changed or has been adapted in line with



Guests paying rapt attention during the inauguration celebrations.



The celebratory inauguration of the machine with the cutting of the ribbon by the Minister of Economy of the Slovak Republic, Pavol Pavlis.

the new machines (in addition to the AMP 50 XL, we've acquired a new furnace and a blasting system). We were able to divide the production facilities into two separate lines, one for the automotive and one for the bearings sector.

What effects has the new machine had on the work of the operating personnel? Did you have to spend lots of time training up employees? What prior knowledge was already held and how do the company's employees work with the AMP 50 today?



The production of the first hot parts during the inauguration event.

PK: Because OMNIA KLF already had experience using another Hatebur press and made the most of training our employees on our AMP 70, and thanks to Hatebur support, our operators were really well prepared for the new challenge right from the start.

How have customers reacted to parts produced on the AMP 50?

JV: All customers have reacted really positively to the investment and to the parts produced on the AMP 50 XL. What's surprised me personally the most is the reaction of OMNIA KLF customers to whom we'd delivered products made using our other machines and who hadn't had any-

thing to do with Hatebur presses until now. These customers had an extremely positive reaction, too, seeing our investment in the AMP 50 XL as a major step towards the company securing a long-term presence in the European forging market.

What reaction are you expecting from the competition?

JV: It might sound like a cliché, but we don't care what the competition thinks. The only thing that matters is the positive reaction of our customers. To achieve this positive reaction, OMNIA KLF has to concentrate on the systematic optimization of its own processes and costs. Investment in the AMP 50 XL will make a significant contribution to this.

Are you planning to expand the Kysucké factory and perhaps buy more Hatebur machines?

PK: Customer demand is our top priority. We do everything we can to develop further in step with our customers. Naturally, this includes technologies that are competitive in the long term. Hatebur always has an important role to play in this field. After consulting with our shareholders and depending on current negotiations about new projects with our customers, it is quite probable that the factory at Kysucké Nové Mesto will be expanded.

What does the successful introduction of the AMP 50 XL at the Kysucké factory mean?

JV: For OMNIA KLF, this milestone, in conjunction with newly agreed projects that are suitable for the AMP 50 XL, primarily represents long-term stability, an increase in market share, and additional development potential on the basis of enhanced technical opportunities.

OHIO STAR FORGE CO., USA – ONE BILLION PARTS PRODUCED ON THEIR HATEBUR'S

 Hatebur  Thomas Christoffel

Key Facts: Contract signed in December, machine delivered in August and production started in November 2013. Meanwhile, OSF has produced over one billion forgings, with the 1 billionth part actually produced on the newly installed Hatebur Hotmatic AMP 70 XL. Efficiency increases each month, die change time decreases, operators love the machine – OSF is happy with the new Hotmatic AMP 70 XL – a success for everybody involved!

OHIO STAR FORGE – a subsidiary of the Japanese Daido Steel Group was founded in 1988 in Warren, OH and began production in 1989. Warren, OH was chosen since Daido was producing steel in Warren to support the Japanese companies locating to the US tells William J. Orbach, President and CEO and Carl Paglia, Director of Business Development. OSF is one of five forging facilities forming the Daido Forging Division and the only facility outside of Japan.

OSF supplies many customers throughout North America. They provide components to the automotive industry (Tier 1 and Tier 2), industrial and energy sectors. They also produce bearings (ball and rollers), wheel hubs (Gen I and Gen III), industrial fasteners, valves and fittings, off highway components, solid ball bearings and components for six, eight and nine speed transmissions.

The customer base at OSF is diverse with the top five customers comprising 55% of total turnover. For OSF it is core philosophy to treat all of their customers equally important with the same emphasis on quality and delivery, as well as cost. For the team at OSF, there is commitment to process control, advanced engineering and the use of the latest technology. But more important, is the commitment to the team members. This has resulted in exceptional employee involvement, supplier recognition and a



reputation as one of North America's leaders in the high speed hot forging industry.

The Ohio Star Forge Co. factory in Warren, USA.

In 2014, OSF expects annual sales to surpass US\$ 60 million and with the addition of the AMP 70 XL additional growth is expected in the years ahead. OSF has grown from 20 employees in 1989 to 105 employees today. Each employee understands the customer's needs and there are many programs in place to control cost, improve production quality and deliver product on time.

OSF currently has five Hatebur Hotformers. In fact, the company is the only forging facility in North America that can offer customers a continuous lineup of Hatebur AMP 30 through to the Hatebur AMP 70 XL, to forge parts with OD sizes from 25 mm to 165 mm. This allows their

customers substantial cost savings, higher quality products with a timely delivery, and increased product variety. Add in the heat treating capability of spheroidize annealing, normalized and controlled Cooling, and OSF can meet most customers' pre-machining needs in-house.

“The long history of reliability combined with the quick changeover feature, the machine accuracy and the transfer speed made the decision easy for us.”

William J. Orbach, President and CEO

MARKET RESEARCH SHOWED NEED IN NORTH AMERICA

Bill Orbach believes the synergy existing today between Hatebur, Forging Equipment Solutions and CEFI was a key benefit. The true benefit of this partnership was a key factor in helping OSF with a successful installation of the Hotformer AMP 70 XL. Their market study began in December 2011, and based on many discussions with customers OSF gained confidence that the North American market was in need of another large Hatebur. The research showed a need for large forging capacity. It was driven by various machines being taken out

of service during the down turn, recovery in the auto market and the localization of offshore companies pushing the demand for forgings in the North American market.

OSF evaluated various hot formers and vertical machines before deciding on the Hatebur AMP 70 XL. This machine from Hatebur provided more flexibility for different part sizes. Once the study was validated, they began the process of corporate approval for a Hatebur AMP 70 XL in May of 2012.

OSF has only operated Hatebur hot formers at its site. The parent company, Daido Steel, had operated Hatebur machines prior to the installation in the US, which was another important factor for the decision.

11 MONTHS FROM PURCHASE TO PRODUCTION

Once the contract for the purchase and delivery was signed in December 2012, Daido Steel Japan and OSF made the announcement in both North America and Asia. OSF and all its employees were very excited about the the business expansion with the AMP 70 XL. The machine was delivered after a very tight assembly and runoff phase at the assembly plant located in Switzerland in August 2013 and OSF began producing parts in November of the same year. A schedule like that requires the best efforts from both parties supported locally through Forging Equipment Solutions.



For 2015, OSF is forecasting more than 70 million forgings on the AMP 70 XL.



From left to right: Jeff Trimble, William J. Orbach, Jason Gizdic, Jamie Walker.



11 months from purchase approval to part production. Incredible! In addition, OSF broke ground on the building in May and had two weeks of idle time waiting for the machine arrival. This project was from the beginning very tightly scheduled but joint efforts and close coordination allowed to get it done.

Since operation started, the machine efficiency has increased each month and the die change time has decreased. The expectations have been met and Billy Orbach describes it in his own words: "Our operators love the machine, our customers love the parts and OSF is very happy with the new Hatebur 70 XL".

The 70 is currently producing prototypes and PPAP parts for the automotive industry

as well as for industrial and energy components. Since the Hotmatic from Hatebur are the only forming machines in use, OSF designed the process around the Hatebur process. OSF heat treats the forgings through designed processes (spheroidize annealing, normalized or controlled cooling based on customer requirements). Then the parts are inspected, packed and shipped.

MORE THAN FIVE MILLION PARTS PER MONTH

OSF currently forges different steel grades such as plain carbon, carburizing through hardening and micro alloy grades of steel in heat lot controlled runs of 20,000 to 200,000 pieces. Changeover times vary from 15 to 75 minutes depending on the number of stations to be changed, but more importantly on the machine type.



„The operators love the machine, the customers love the parts and OSF is very happy with the new Hatebur AMP 70 XL“ as William J. Orbach says.

The operation currently has an average of four to five die changes, as they call it, per day. The output is an average of more than five million parts per month. From the AMP 70 XL OSF expects to forge around one million parts per month. So altogether

celebrate the 25th anniversary and the decision was made to announce the “One Billionth Part” at that occasion. The management knew it was a little early, but the fact that the employees, their families and the local dignitaries would be present made it the perfect time to do it. They also decided at this point to idle all the other Hatebur machines and produce the “One Billionth Part” on the AMP 70 XL. OSF wanted the billionth to be a large part, so it was perfect. In January, OSF did it. They forged their “One billionth Part” and it was forged on the new Hatebur AMP 70 XL.

“If you took 1 billion seconds and converted it into years, it would equal 31 years.

OSF produced 1 billion forgings in 25 years.

Thank you, Hatebur!”

William J. Orbach, President and CEO

for 2015, the forecast is for more than 70 million forgings.

1 BILLION FORGINGS IN 25 YEARS

OSF has been tracking the number of parts produced since the very first machine installation in 1989. The year 2013 has been exciting, knowing that the machines would be reaching this unimaginable number very soon. Now that OSF had completed the AMP 70 installation, an Open House was planned to commission the machine,

FURTHER DEVELOPMENT OF THE AMP 30 S – NEW BAR FEED WITH SERVO MOTOR

 Carsten Sieber  Hatebur

The servo-driven bar feed has proven so impressive since it was used on the Hatebur Hotmatic HM 75 XL that it is now being installed in the standard AMP 30 S as well. The new design has the primary advantages of process reliability and system availability, thus providing significant added value for operators of the machine.

PROCESS RELIABILITY

The interaction between the electronic bar end eliminator, the light barriers, and the measurement roller unit allows bar ends to be tracked using the operating terminal. If a bar end gets too close to a cut, the servo feed executes a shortened stroke. This places the bar end so that two more or less equal end pieces are created. This enables the prevention of troublesome shards, which can then no longer enter the process.

NEW FUNCTIONS

The infeed no longer takes place using a cam and a free wheeling device. This opens up new possibilities. The bars can be moved up and slowed down gently. This allows unnecessary overstrokes to be kept to a minimum. In addition, the operator can adjust the cut-off length on the control panel. Naturally, the cut-off length is coupled with the stop, and both are adjusted to the required dimension at the same time, even



The servo infeed on the AMP 30 opens up new possibilities.

during production. The bar can be retracted after shearing so that the shear slide does not scrape the front face of already sheared bars. The new drive type even allows the bar to be removed from the machine by the servo infeed once production has finished, so the operator no longer needs to carry out this step.

UPGRADE FOR EXISTING MACHINES

In addition to increased process reliability and the new functions already mentioned, converting an existing machine to a servo-driven bar feed also results in reduced maintenance. There is no need for the free wheeling device, peripheral band brake, and set of drive mechanics. In addition, the new system is more user-friendly.

Are you interested in in-depth advice? Contact us – we'll take the time to help you.



CONVERSION OF AKP 4-6 S IN REINACH – ADVANTAGES OF INDUCTION HEATING

 Carsten Sieber  Hatebur

This summer, the Coldmatic AKP 4-6 S at the Hatebur training and test center in Reinach, Switzerland, was converted. Like the new machine model CM 4-5^{ECO}, it is now fitted with induction heating. This means that customers can get their own idea of the new heating concept in Reinach during a test production run.

THE AKP 4-6 S WITH STATE-OF-THE-ART TECHNOLOGY

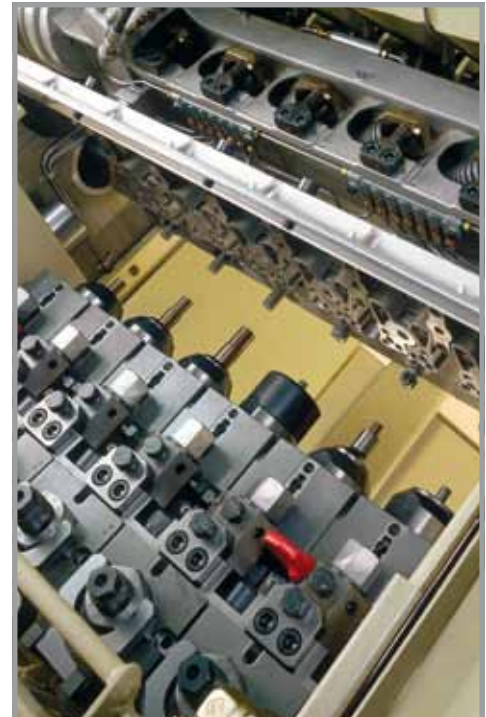
The AKP 4-6 S at the Hatebur test center has been brought up to date with the latest technology through the attachment of an optimized induction heating system in the light of ever-increasing requirements relating to materials to be formed. This means that customers benefit from an improved offering of an overall package, since Hatebur offers the process and the machine from a single source with tailored solutions for the most complex of parts.

TECHNICAL ADVANTAGES

Thanks to the compact design of the new induction coil, which is attached a few millimeters behind the shearing knife to the body, temperature loss is reduced to a minimum. This new arrangement also shortens the wire end that has to be heated at the start of production. This minimizes the length of the eliminated wire and saves on materials. Especially in the case of high-alloyed steels, it is important to reduce material loss to a minimum. This has been achieved in practice thanks to the new ar-



The AKP 4-6 S has been brought up to the latest state-of-the-art in technology with the attachment of an optimized induction heating system.





*Rework can be carried out on existing machines, opening up completely new possibilities.
(Copyright: Klaus Bernet, Lumag)*

rangement. In general, temperatures of up to around 600 °C are possible. In individual cases, such as for small throughputs, the temperatures can even be higher than this.

ON-SITE TESTS POSSIBLE

The new conversion means that Hatebur can carry out tests with more complex contours and more challenging materials at its own factory. The possible applications go far beyond the high-alloyed steels that have been formed to date, including Waspaloy, Inconel, and titanium, to name but a few. Ongoing discourse between operators and the tool development team allows Hatebur's employees to test tools and develop and test parts for customers until they are ready for series production. Often, Hatebur's customers have no free machine capacity for carrying out extensive trials and tests between the production blocks. Hatebur lends a hand here, supporting customers with the company's really extensive expertise and practical simulations

to enable the subsequent series production of the fully developed tool.

UPGRADING EXISTING MACHINES

The induction heating upgrade is not only possible for the new Hatebur Coldmatic CM 4-5^{ECO} and the AKP 4-6 S – it is also available for existing AKP 3-5 and AKP 4-5 machines.

However, in addition to modifications to the machine itself, further additional equipment is also required, such as a converter, oil mist exhaust system, modified coolant unit, and a fire extinguishing system that is installed in the noise abatement cabin. For this reason, Hatebur recommends that you plan the upgrade before an inspection and combine it with the subsequent overhaul.

PROCESS DEVELOPMENT AND FUNDAMENTAL TRIALS – IN TUNE WITH THE TIMES

Carsten Sieber Hatebur

Due to the trend towards lightweight construction in the automotive sector, demands placed on forging are also increasing. In order to meet the needs of the market, Hatebur repeatedly carries out fundamental tests at the company's test center and develops new tools and processes for its Swiss forging presses based on the knowledge acquired.

THE THIN CAM

In the past, the Hatebur Hotmatic AMP 30 S has established itself on the international market as THE machine for cams. Thanks to the simple yet reliable mechanics of the machine, millions of cams are now produced with process reliability on Hatebur machines throughout the world. It's becoming evident that the market requires increasingly thin cam shapes.

This spring, Hatebur carried out its first tests with 8mm thick cams, thus assimilating this trend for the future. As well as

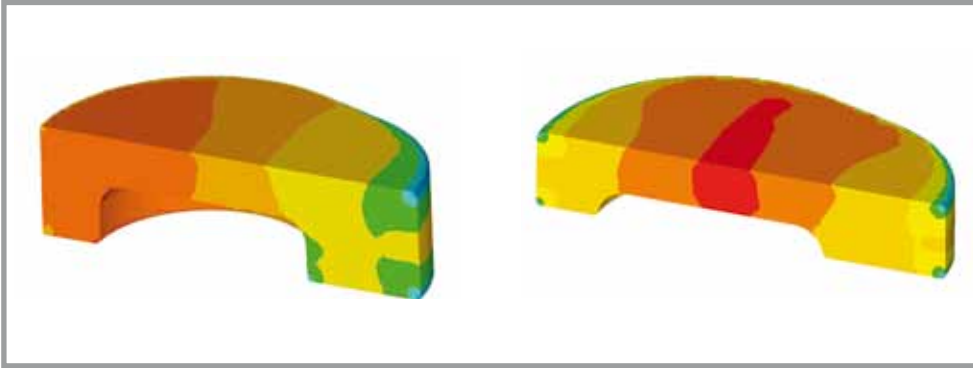
enabling solutions to be found for the critical cam points, the trials also enabled the forging to be prepared to the extent that it can be produced with process reliability and stability on the AMP 30 S.

COMPARISON WITH THICKER CAMS

To determine a point of orientation, we started off with the same cam geometry but with a thickness of 12 mm. These values were then used as the basis for working towards the thinner design. Naturally, the classic problems such as material distribution were more pronounced. In



The new, 8 mm thick cam will supersede the widely used 12 mm cam (right) in the future.



The simulation of the 12 mm cam (left) and the thinner, 8 mm thick cam (right) for production on a Hatebur Hotmatic AMP 30 S.

addition, high requirements for the transfer unit had to be taken into account, as did the ideal choice of slug thickness.

THE PATH TO A STABLE PROCESS

To achieve usable results in this test, a number of obstacles had to be surmounted. Ultimately, the production of thin cams depends on the pre-form and the associated raw material distribution. This guarantees the even filling out of the cam in the die, which simultaneously forms the basis for achieving the required cam parallelism. To ensure a satisfactory end result, the machine and process must be perfectly tailored to each other. This starts when the bars are sheared and continues with the transport, which is a real challenge for such a thin part. The process finally ends with the gentle output of the parts at the side.

EXPERTISE AND EXPERIENCED OPERATORS

Thanks to the experience of the test engineers at the machine and the process expertise of the process engineers, it was eventually possible to forge this part with process reliability and stability. A complete success!

Thanks to the proximity of the development department to the Hatebur test center, tools and process developments can be tested in-house.

Often, machine operators do not have the necessary capacity or experience to develop and thoroughly test new parts. In practice, this is frequently a major challenge. Thanks to the company's knowledge, Hatebur is able to lend a hand, taking on the complete development process or simply providing support in order to bring the desired part to the point when it is ready for series production.

If you are currently facing new challenges in tool development or if you would like to start fundamental tests, Hatebur is ready to help.

HATEBUR AGENCIES AROUND THE WORLD – YOUR LOCAL DIRECT CONTACT

Thanks to its large network of agencies worldwide, Hatebur has a local presence directly where customers need it. Due to successor regulations and ownership changes, it has been necessary to find new agencies for some countries. For this reason, we'd like to give you a short introduction to some more long-term partners and some new ones in this release of Netshape.

CHINESE BRANCH

Our subsidiary in China was founded in 2008. Hatebur is really well known within this market thanks to many years of market presence – 20 years before the subsidiary was founded. The 9-person sales and service organization has strengthened and developed the company's presence there.

Contact partner: Reinhard Bühner
Hatebur (Shanghai) Technology Co., Ltd.
Shanghai 200032, China
Tel. +86 21 6417 84 28
info-cn@asia.hatebur.com

GERMAN BRANCH

Hatebur GmbH Germany was founded in 2009. The company's remit is to look after our German interested and customers in the hot and cold massive forming sector. Germany is a technology-driving market with numerous motor vehicle manufacturers and suppliers.

Contact partner: Achim Pracejus
Hatebur Umformmaschinen GmbH
DE-51674 Wiehl, Germany
Tel. + 49 2262 7616 568
achim.pracejus@hatebur.ch

DENMARK/FINLAND/NORWAY/ SWEDEN AGENCY

Ulf Karaker Consulting AB (UKC) started life in 1986 as a consultancy for the sale of machine tools in Scandinavia. The company is based in Stockholm, Sweden. As of 1987, Ulf Karaker was already Managing Director and owner of Ehn & Land AB (founded in 1950). The company's main offerings are its experience in working with first-class partners in the sale of machine tools as well as the provision of tooling. Today, the partnership concentrates on companies from Switzerland, Germany, and Japan. It has been working with Hatebur for more than 15 years.

Contact partner: Ulf Karaker
Ulf Karaker Consulting AB
SE-131 27 Nacka Strand, Sweden
Tel. +46 705 912 249
ulf.karaker@mac.com

ITALY AGENCY

Cooperation between Synergon and Hatebur started in 1985, but this was the logical continuation of the relationship with then-active Gianetti e Paolino that had started in 1967. Synergon now employs 22 staff and is active in the Sales and After-Sales Service sectors of the Italian market.

Contact partner: Mauro Sanclemente
Synergon spa
I-20162 Milan, Italy
Tel. +39 0264 382 92
commerciale@synergon.it

JAPANESE BRANCH

The company's Japanese subsidiary was founded in Tokyo in 1995. The special strengths of the seven-head team are technical expertise and many years of experience when it comes to understanding the cultural differences between East and West.

Contact partner: Reinhard Bühner
Hatebur Japan K.K.
Tokyo 101-0032, Japan
Tel. +81 3568 709 41
info-jp@asia.hatebur.com

PORTUGAL/SPAIN AGENCY

MEI Maquinaria de Alta Tecnologia was founded in 2004 with the aim of providing Spanish customers with advice and support. The company represents renowned European machine manufacturers in the Forming Technology and Peripherals sector. Javier Marfil, the founder of the company, has fostered close collaboration with Hatebur for more than 20 years. He takes care of the Spanish market with a focus on a close relationship between Hatebur and the customer.

Hatebur would like to congratulate Javier Marfil on the company's 10th anniversary. We look forward to continuing our successful relationship in the future.

Contact partner: Javier Marfil
Mei AT
ES-28918 Leganés-Madrid, Spain
Tel. +34 9168 650 61
mei@mei-mat.com

TAIWAN AGENCY

Euro LTD. was founded in 1973 in Taipei as an agency for first-class machine manufacturers from Switzerland and Germany. Collaboration with Hatebur began in 1997. EURO Ltd. also specializes in tool development, fine blanking, and metal stamping. Euro Ltd. focuses on providing the customer with complete solutions.

Contact partner: Charles Liu
Euro Ltd.
Taipei 110, Taiwan ROC
Tel. +886 2873 330 07
euroltd@ms21.hinet.net

RUSSIA AGENCY

More than 50 years of experience have made LLC Ferrostaal Moscow into a highly qualified partner in the fields of graphic design, metal processing, and packing. A subsidiary of Ferrostaal GmbH, the company supports customers with various project steps. The employees' skills range from the development of new business ideas to the choice of business modules and the implementation of projects – including financial issues, after-sales service, and technical support.

Contact partner: Nadeshda Maslowa
LLC Ferrostaal Moscow
107023 Moscow, Russia
Tel. +7 495 258 3676
nadeshda.maslowa@ferrostaal.com

USA AGENCY

Since the mid 1950's Hatebur has been represented by Girard Associates Inc. by our sales representative Jeff Jones and now continues the sales efforts through Forging Equipment Solutions since January 2013.

FES has 4 employees offering our customers a wealth of experience and knowledge and support (for more information see our Netshape Magazine of 1/2013).

Contact partner: Jeff Jones
Forging Equipment Solutions
Medina, OH 44256, USA
Tel. +1 330 239 22 22
jeffjones@forgingusa.com



TRADE FAIRS / EVENTS

ACTIVITIES IN GERMANY

The 21st International Forging Congress (IFC) took place in Berlin from the 29th of June to the 4th of July 2014. Hatebur was actively represented as a partner at the trade fair, greeting customers, partners, and other interested parties at the company's stand.



ACTIVITIES IN CHINA

The China International Bearing Industry Exhibition took place in Shanghai from the 18th to the 21st of September 2014. Hatebur (Shanghai) Technology Co. Ltd. again welcomed customers and other interested parties to its own stand and was able to make new contacts.

ACTIVITIES IN BRAZIL

During the 34th Senafor in Porto Alegre (from October 8th to October 10th 2014), many Brazilian visitors came to the stand manned by Hatebur and Hatebur's Brazilian agency EINS in search of information and advice on hot and coldformers.

VISIT HATEBUR

■ IN INDIA

The Imtext fair takes place from January 22nd to January 28th 2015, in Bangalore, India. Hatebur will have a stand along with its agency Chrystec and will be happy to answer questions on cold and hot forming.

■ IN THE USA

The Forge Fair takes place from April 14th to April 16th 2015, in Cleveland, Ohio. Hatebur will be represented by employees of the company's USA agency Forging Equipment Solutions, who will greet you at the stand. Come and find out about the latest developments and changes relating to Hatebur's cold and hotformers.

■ IN RUSSIA

The Metalloobrabotka will take place in Moscow from May 25th to May 29th 2015. Hatebur will have a stand at the fair and will also organize a separate symposium where specialists from the field of forging technology will give several presentations, as they did two years ago.

■ IN JAPAN

From July 15th to July 18th 2015, our subsidiary Hatebur K.K. will be taking part in the 2-yearly MF Tokyo fair.

We hope to get the opportunity to greet you at our stand during this fair.