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HELLER

The Magazine

Change

“There is nothing permanent except change.”

Heraclitus



Dear readers

In the original version, the well-known aphorism by Heraclitus on the left continues as follows: “All things flow, nothing abides.” Constant change was one of the main themes of Heraclitus who lived in the 5th century BC.

Therefore, we should by no means assume that change is a modern invention. In the 1990s, the acronym ‘VUCA’ was introduced in the USA. ‘VUCA’ stands for Volatility – Uncertainty – Complexity – Ambiguity. With the current accumulation of crises – in terms of the economy, Covid, energy, material supply and Ukraine – the term is now on everyone’s lips. But as we see with Heraclitus, these words describe nothing new. What is new is the extent they have reached. The speed, and partly the radicality, of change and the level of complexity in particular.

As a counter-concept to the ‘VUCA’ world, a survival strategy was formulated: Vision, Understanding, Clarity and Agility.

We are here for our current and future customers in the metal cutting industry! We provide the solutions that contribute positively to our customers’ success. To achieve this, we are taking a holistic – 360-degree – approach to manufacturing solutions. That is part of our vision. To do this, we listen! And we look closely! Understanding begins with listening, but there is much more to it than that. We also draw decisive conclusions. Clarity in communication, clarity and precision in terms of solutions, clarity in all our contact points is very important to us. Lastly, it is about agility. Something we all need. As the pace of change accelerates, agility in adapting to the general conditions must also increase. We have been able to shape centuries of change in a positive way. That is why I remain optimistic!

I hope you will enjoy this issue providing you with many interesting insights and suggestions.

A handwritten signature in black ink, consisting of stylized initials and a surname.

Sincerely, Reinhold Groß
CEO of the HELLER Group

22_ Shaping the change

“Basically, it is about giving customers the tools to optimise their own processes.”



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change, noun
[/'tʃeɪndʒ/]

Word meaning/definition:

1. A situation in which something becomes different or you make something different

Examples:
A number of significant changes have taken place since the 1960s.
‘change in’: a change in the law
‘change to’: The report proposes some fundamental changes to the social security system.
‘undergo a change’: The computer industry has undergone enormous changes in the last 20 years.
‘make a change’: We made a few changes to the team for tonight’s match.

2. The process by which things become different

Examples:
Older people sometimes find it hard to accept change.
A conference on climate change

Synonyms and related words

Effect, trend, transformation, adjustment, evolution

Origin

c. 1200, ‘act or fact of changing’ from Anglo-French *chaunge*, Old French *change* ‘exchange, recompense, reciprocation’, from *changier*, ‘to alter; exchange; to switch’

Source: [macmillandictionary.com](https://www.macmillandictionary.com); [etymonline.com](https://www.etymonline.com)

Organs, bones, skin: nearly all cells of the human body renew themselves on a regular basis. The liver, for example, takes two years to ‘reset’, whereas the skeleton requires ten. Our heart is the only organ which mostly uses the same cells throughout a lifetime. Only a maximum of 40% of its cells renew themselves. As a result, we virtually have a new body every seven to ten years. Our body shows us the way: everything is in constant motion – or, as the pre-Socratic philosopher Heraclitus noted: ‘panta rhei’ – everything flows. He coined the phrase “There is nothing permanent except change”. And we can only agree with him. Whether it is social, economic, ecological, demographic or technological, ...: change is an integral part of our lives.

The contradiction in Heraclitus’ words can also be found in the process itself, or rather, in how we [can] interpret it: as change, transformation – incremental or radical – as evolution or even revolution. It implies the renewal of what is old and thus a possible improvement – or deterioration. Innovation and progress as well as a step backwards. It can also stand for movement itself, agility or mobility – the process of adaptation, transformation.

The ways in which humans encounter change are just as diverse as the notions we associate with it: are we taking a cautious, traditional or protective approach – or are we curious and open? Fearful or courageous? Are we drivers of change or do we prefer to jump on a train that is already moving?

Whether you are the one to drive change, let yourself be driven or like to counter the inevitable change with a certain level of consistency: there is no way around this focus topic. Neither for us as individuals nor for our society as a whole, the economy, governments, ... – or, of course, companies. After a company history of nearly 128 years and a corresponding amount of change and [further] development, HELLER can tell you a thing or two about it.

“*There is nothing permanent except change.*”

Only at the beginning of this year, HELLER experienced a change at the management level with Reinhold Groß taking on the role as the company's new CEO. In the interview on page 22, Groß explains what could and should change in the short and long term as a result. However, not only managers on the ground have to respond to changes: pilot Philip Keil draws an exciting parallel to situations from his everyday working life (p. 12). Go on a voyage of discovery with us from page 30 onwards: with the new *myHELLER* customer portal, HELLER now offers its customers an additional digital communication platform that once again underpins the 'Lifetime Partnership' service promise. In the interview on page 48, Kenneth Goodin, CEO of HELLER Machine Tools L.P., focuses on the US market. He highlights the changes there and explains how HELLER is dealing with them. August Wenzler Maschinenbau GmbH, an adaptable and yet enduring company of the HELLER Group, is presented on page 28. Speaking of adaptable: did you know that bananas have not always been yellow and bent? On pages 14-17, we have collected more fun facts for you on our main topic of 'change'. On pages 56 and 57 you will find tips on how everyone can be successful at making a change – even if it is difficult.



'From the vice to the highly-flexible manufacturing system' – this could be the title of the transformation HELLER has gone through since its foundation in 1894. What began as a small trading and manufacturing business has now become a globally operating manufacturer of state-of-the-art CNC machine tools and manufacturing systems for metal-cutting applications. In fact, consistently thinking and acting in a future-oriented way is something that HELLER has been committed to since early on.

From the very beginning and within just 40 years, the company developed from a trading business into a machine factory, expanded into all important global markets between 1923 and 2005, set up an entire training workshop for its apprentices, invested in and took over companies, continuously expanding its portfolio and, above all, its know-how, opened itself up to the unstoppable digital transformation – and therefore today is no longer 'just' a machine tool manufacturer, but rather a provider of holistic manufacturing solutions.

To be continued ...



Leading with a clear compass

WHAT DISTINGUISHES LEADERS ABOVE THE CLOUDS AND ON THE GROUND

TEXT & PHOTOS Philip Keil

FIND YOUR FOCUS

The job in the cockpit actually follows a very clear structure and routine patterns of action. Or so one would think. A technical defect or a difficult descent in bad weather can throw even experienced pilots out of their comfort zone. This happens more often than passengers would suspect, and no, there is no auto-pilot for such cases to take over and make the decision for us. Suddenly everything has changed: the enormous input from the numerous instruments, time pressure and the responsibility for hundreds of lives – there are situations in life you cannot prepare for. And neither can you pull over at 13 km altitude.

That is why there is a golden rule in the cockpit: fly the aircraft! Whatever happens up there, keep calm and fly the plane! Sounds obvious, but it is not. Sudden stress blocks our rational thinking. The trick is to avoid a loss of control by calmly directing your focus like a beam of light. On the one thing that is important. When all the warning lights and alarm bells go off again in your cockpit, the first thing to ask yourself is: what is really important at this moment? What is this really about? What is my 'fly the aircraft'?

THE COURAGE TO BE HUMBLE

An underestimated virtue of modern leadership. Or how much humility do you see in the world today? The German term for humility 'Demut' comes from Old High German and means 'courage to serve'. That brings us to the topic of leadership. Imagine looking down on the world from a bird's eye view – that is humility. Those who lead humbly see themselves as part of the big picture. It is about relinquishing control to let others grow. That is why a good captain deliberately lets the co-pilot fly the plane during a difficult descent. Because up there, you are only as good as your team.

You too should look at things from a distance more often. Be mindful of diversity when putting together a team. And then use that feedback to reflect. Get people

on board who tell you what you need to know. Not what you want to hear. There is nothing more dangerous than a co-pilot who tells the captain what he wants to hear. Even in the corporate cockpit.

ERROR CULTURE = TRUST CULTURE

When pilots find themselves in a situation they have not been in before, they have to break out of their routines. And beyond well-rehearsed routines, mistakes happen. On the ground and in the air. The reason why flying is safe today is not that pilots are flawless. The error culture has changed: the error itself is never the problem. It is the chain of errors. Neither companies nor planes crash because of an individual's mistake. But because no one in the team sees the mistake. Or wants to see it. Or because no one dares to openly address the mistake. This requires trust in the cockpit. Because those who have no trust, try to cover up mistakes. Or keep quiet.

But even beyond the cockpit, crews need to openly discuss their mistakes in a protected pilot network in order to share the valuable experience with all colleagues. In a learning culture, it is not about 'WHO' made the mistake, but 'WHY'. If we understand the 'WHY' behind a mistake, we can improve the aviation system in a targeted way. In practice, a positive error culture only works on a basis of trust. The entire crew behaves according to the example set by the captain..

THE INNER COMPASS

You would think that pilots always make purely rational decisions – based on numbers, facts and data. Admittedly, it would be nice to have a tailor-made checklist or calculation formula for everything in life and the problem is solved. But there is no such thing. As the manager above the clouds, I face the same challenges every day as a manager or company director. Difficult decisions go far beyond the rational. Therefore, the most important instrument for a pilot cannot be found in the cockpit.

It is the 'inner compass'. It is more than just a gut feeling. It is the power of intuition. An inner voice that feeds on all our conscious and subconscious experiences. A compass does not tell you what is right or wrong. And no, a compass does not provide a rationale either. A compass simply gives you a direction. Just as our inner voice gives us a clear signal. We all have that compass. What distinguishes a good leader is the courage to follow it. Especially when things get turbulent. May you have that courage. Have a safe journey!



About the author

Philip Keil is a pilot, successful author and keynote speaker. With his exciting keynote speeches, he inspires tens of thousands of people throughout Europe every year. In 2018, he was included in the ranks of 'Germany's Management Pioneers'. In 2019 and 2020 he was nominated as 'Top Speaker of the Year'. His topics are: motivation, leadership, teamwork, change management, positive error culture. You can find out more about Philip Keil, his lectures and publications at: www.philipkeil.com

In focus: change

Swapping the petrol station for a charging station

In 2021, there were 356,425 new registrations of electric cars in Germany – a European record. For comparison: 10 years ago, in 2011, there were only 2,300 cars with electric drives in the country. This corresponds to an increase of more than 15,000%!



Call me maybe

On 29 October 1969, Leonard Kleinrock for the first time connected two (fridge-sized!) computers via a telephone line.

20 years later, British IT expert Tim Berners-Lee developed the World Wide Web, which has been accessible from any computer since 1993.

It is believed that in 2021 there were approximately 4.9 billion internet users worldwide. For comparison: internet users in Germany 2001: 37% vs. 2021: 91%.



Sobering

Only about 5% of the knowledge that was considered correct in past centuries is still considered to be correct according to the current state of knowledge. The other 95% have meanwhile been proven to be simply wrong.

You name it!

Most popular baby names in Germany 100 years ago (1921): Hans and Gertrud – 2021: Sophia and Leon



No postage required

The first electronic mail was sent by US American Ray Tomlinson in 1971. Today, 50 years later, around 200 billion emails are sent worldwide every day.



Short and sweet

In the 21st century, brevity seems to be the spice of life. In 1980, for example, a song still had an average length of 4:13 minutes – 40 years later, the average song is only 3:13 minutes long. The most sung about topic, however, has not changed: love!



Thriving desert city

105 years ago, Las Vegas had a population of just 30. Today, the city has almost 635,000 inhabitants (2019).



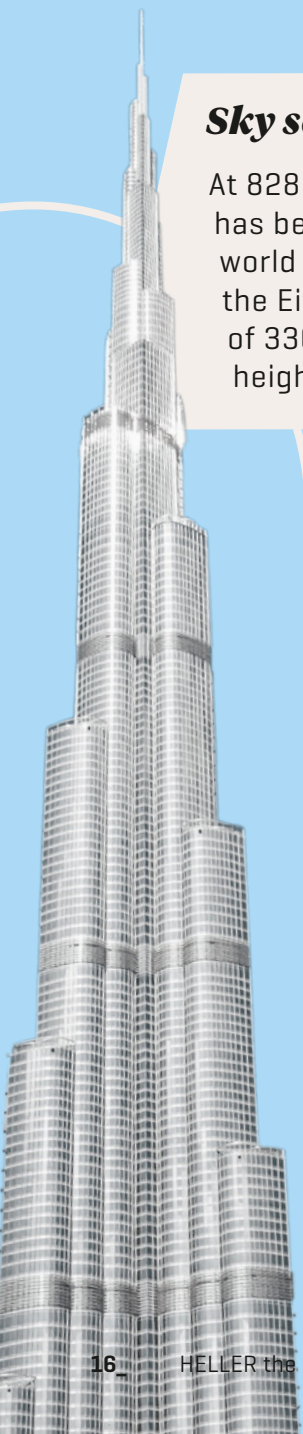
Weight loss without the yo-yo effect

The first mobile phone weighed almost 1 kg when it was launched in 1983 and cost \$4,000. Compared to that, today's lightest smartphone on the market is a featherweight at 133 g and even comparatively cheap at €679.



Sky scraping

At 828 m, the Burj Khalifa skyscraper has been the tallest building in the world since 2008. Until 1930, it was the Eiffel Tower in Paris with a height of 330 m. This equals an increase in height of 498 m in 78 years.



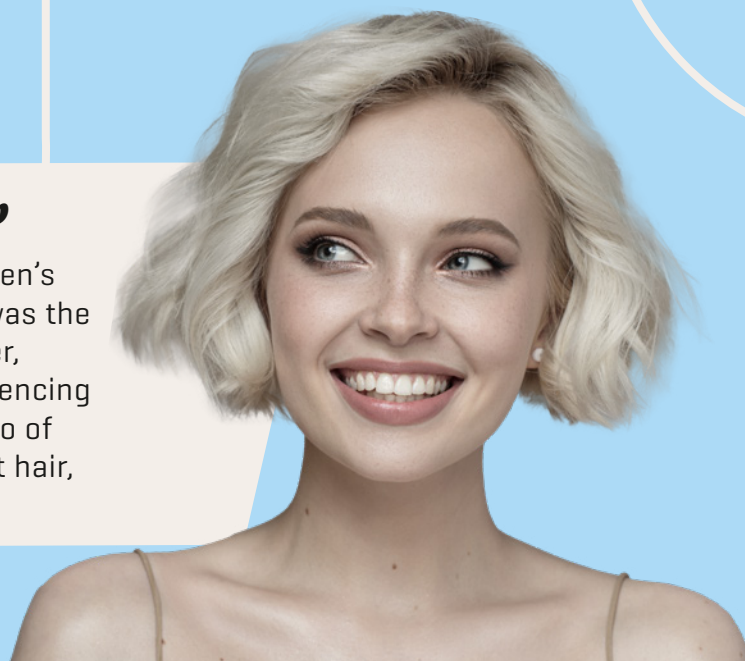
No crook at all

Would you have recognised it? This is actually a wild banana – albeit in its most original form. The path to the curved yellow body was a long one: the domestication of the banana is said to have begun as early as 7,000 years ago in Papua New Guinea. At that time it was still a small green fruit with many hard seeds in the flesh. Today's banana is much larger, curved and uniformly yellow in colour.



Short and sharp

The most popular women's haircut 100 years ago was the bob. Even 100 years later, short haircuts are experiencing a revival. True to the motto of the Golden Twenties: short hair, full power!

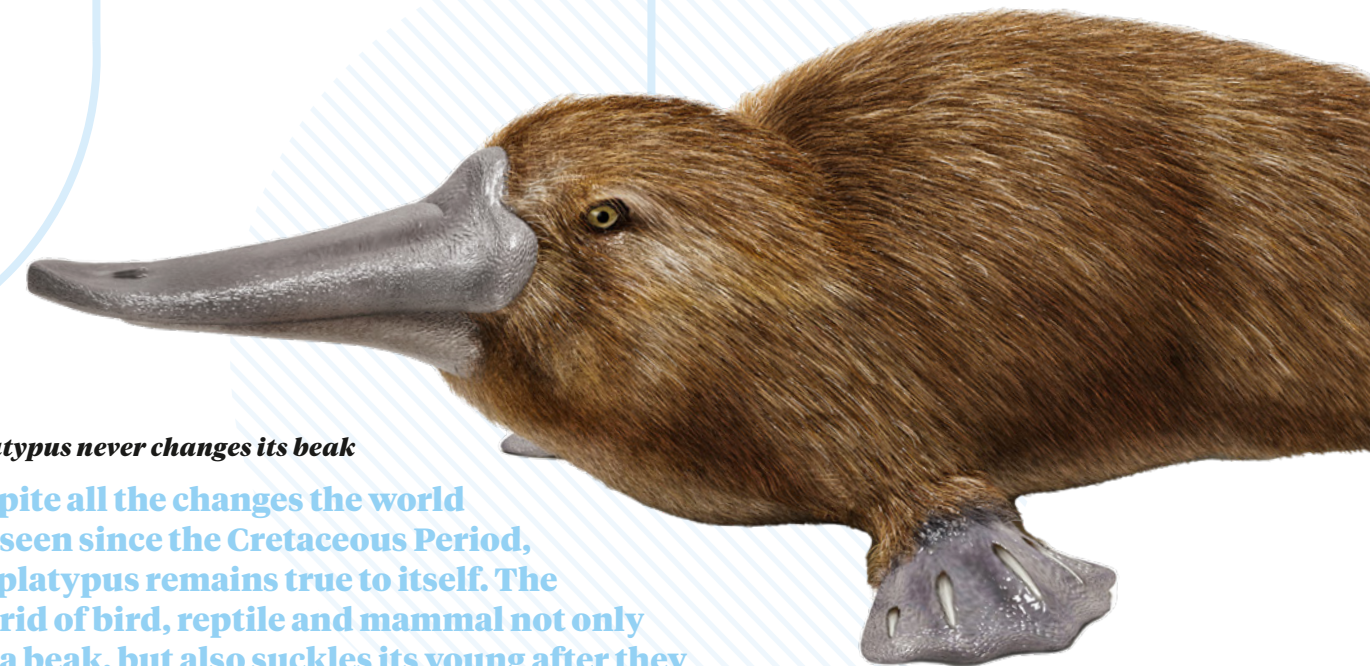


Work is where your home is

While just 4% of professionals worked from home before the Covid pandemic, the number increased to a full 24% at the beginning of 2021.

You are what you eat

In the USA, researchers discovered 19 different gene changes in New York's mice vs. their rural counterparts. Among other things, these genes are responsible for fat processing, which the researchers attribute to the fast food waste the city mice feed on.



A platypus never changes its beak

Despite all the changes the world has seen since the Cretaceous Period, the platypus remains true to itself. The hybrid of bird, reptile and mammal not only has a beak, but also suckles its young after they have hatched from their eggs.

what we move

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22_ Shaping the change

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of change and stability

30_ The new *myHELLER*
customer portal

Black

Executive Board of the HELLER Group since January 2022



f.l.t.r.: Andreas Müßigmann, Reinhold Groß [Chair], Manfred Maier

HELLER business development in the first half of 2022

In the past year, the global economy grew significantly by 6.1% and the IMF originally expected a further discernible increase for 2022. However, the most recent forecast has since been significantly reduced to 3.6% and further adjustments are to be expected. The correction is primarily due to the effects of the Ukraine war. In addition, inflationary tendencies and supply chain bottlenecks had already been evident before. In addition, the extremely restrictive Covid policy in China is contributing to a worsening of the situation. The effects are also noticeable in the ongoing development

at HELLER. Order intake has developed very positively and is more than 40% above the previous year. The budget expected in midyear 2022 was also exceeded. However, due to the very difficult conditions on the supplier and logistics market, sales development in terms of new machines and projects as of 30 June 2022 initially remained below budget. Only with a certain easing of the situation on the procurement markets will we be able to clear the supply backlog and realise sales with a time lag. Irrespective of this, our global service business is developing well.

HELLER acquires stake in IGH Infotec AG and intensifies cooperation

Since March 2022, HELLER has intensified its long-standing cooperation with IGH Infotec AG from Langenfeld in North Rhine-Westphalia with a participation on the part of HELLER. IGH Infotec AG specialises in IT systems for the optimisation of production and in-house logistics. The investment in IGH Infotec AG is made in line with HELLER's strategic orientation. By strengthening our portfolio in the areas of process analysis and optimisation, the company is

putting the customers' success at the centre of activities. The companies' combined consulting expertise allows to holistically support customers in their production and logistics processes, enabling them to benefit from accelerated and more efficient processes. The solutions of IGH Infotec AG have been applied in mechanical production and spindle assembly at HELLER for five years now. Before the investment, HELLER already acted as a pilot user and development partner of IGH Infotec AG.

on white

2021 order intake

EUR 474m

2021 turnover

EUR 366.2m

2021 total operating revenue

EUR 374.8m

2021 equity ratio

35.2%

Employees

2,600

HELLER Group worldwide, as of 31.12.2021

INTERVIEW **Helmut Angeli**
PHOTOS **Tina Trumpp**

SHAPING

THE CHANGE

IN
TER
VIEW

After almost 20 years as Chairman of the Executive Board, Klaus Winkler moved to the Supervisory Board of the HELLER Group at the end of last year. With Reinhold Groß, an experienced manager from the machine tool industry was appointed as his successor to become CEO. On the one hand, he is to guarantee the continuity of corporate culture, on the other hand, his task is to strengthen innovation on all levels and to make the company fit for the coming years. A demanding task.

Before joining HELLER, you worked in various management positions for one of the world's largest machine tool manufacturers for more than 25 years. What would make a successful and well-liked top manager leave a flagship company and technology leader like Trumpf to join the HELLER Group?

As a preliminary remark, I would like to say that I did not switch directly from Trumpf to HELLER, but first left Trumpf without even talking to another company. Only then, I decided to move into a new direction professionally ...

So, what exactly was the reason?

When I joined Trumpf, the company had around 2,500 employees, when I left, there were more than 14,000. In other words, the once medium-sized company had grown into a veritable corporation. This inevitably changes structures and processes and in recent years, I noticed that these side effects were becoming increasingly difficult to reconcile with my ideas. And, to anticipate possible misinterpretations: I continue to have a very good relationship with the Trumpf company and the owner family.

Is it actually a coincidence that, with HELLER, you chose to work for a family-owned company again after leaving the family business Trumpf?

The form of the company was certainly not the main reason; nevertheless, it played an important role. This is because family-owned companies usually strive to build sustainable structures and to develop and secure the company for generations to come. In my opinion, a long-term strategy is the right way to go, especially in a business sector as cyclical as the machine tool industry. This continuity also gives the management the opportunity for once to make decisions that are currently anti-cyclical, but nevertheless wise and correct. For listed companies, as the opposite extreme, the quarterly results provide the compass.

Although sheet metal processing and metal cutting are two different fields, people in the industry all know each other. What was your image of HELLER during your time in Ditzingen?

It was more than an image I had in my mind. There had been repeated contacts with HELLER over the years. For example, when Trumpf's service division was spun off, we exchanged views with the relevant HELLER managers in Nürtingen, because similar restructuring had taken place there shortly before. So HELLER was no stranger to me. I saw HELLER as a tradition-conscious but at the same time very innovative company.

How much has this impression changed since you joined the company?

Actually, it has rather been confirmed. My impression was and is that HELLER, like Trumpf, is very much driven by engineering. The technical expertise, right down to the last detail, is incredibly high. There is a lot of knowledge and innovative thinking in this company and it is important to put this into effect as quickly as possible. HELLER's internal motto 'Fast Forward' will play an even greater role in implementing the strategy in the future. The accumulated expertise has meant that HELLER is able to

offer solutions to challenges that other manufacturers find too complex. HELLER is distinguished by its ability to translate this expertise into productive systems, even in borderline areas.

However positive this extraordinary know-how is in principle, it also involves a risk: even if you are able to do everything, it is not always wise to do everything. A good decision filter is needed to identify which ideas should be implemented. For example, it is about handling the diversity of variants in such a way that allows us to take on all tasks without overstretching the cost structures whilst remaining competitive in terms of price. Conversely, this means that we have to listen carefully to what our customers really need and want, instead of offering everything that is technically possible.

Is that meant as slight criticism of your predecessors?

No, it is more of a short description of one of my most urgent tasks as CEO.





“Basically, it is about giving customers the tools to optimise their own processes.”

You would think that the most urgent task would be to free HELLER from its dependence on the automotive industry. Or what is your view on this?

Partly this is true. Yet, I would like to answer your question more specifically. About half of our orders last year came from the automotive and commercial vehicle segment. Only a quarter were related to the combustion engine. If we look at all topics that are not tied to combustion engines, the share was already over 75 per cent last year. On the one hand, this shows that the market shift is in full swing. On the other hand, however, we must maintain our expertise in the field of combustion engines. Although there will be few investments in new systems, the existing ones, especially in the commercial vehicle sector, will continue to run for another 10 or 20 years. We must be able to plan and carry out the necessary conversions and retrofitting. Regardless of these shares, however, we can usefully apply the knowledge we have acquired in meeting the high standards of the automotive industry to the benefit of customers in many other industries.

How big was the ‘technological’ leap from sheet metal processing to the requirements of metal-cutting manufacturing?

When I decided to join HELLER, I felt that I would have to acquire a lot of knowledge on the market side. I have probably been to more than a thousand sheet metal fabricators in my professional life, but from my very first customer visits, it was clear to me that customers of both applications were struggling with very similar problems. I expressly try to place the markets and the requirements derived from them at the centre of what we do and thus consider

myself more of a ‘market person’ and less of a ‘technologist’. Of course, we need the extensive technological knowledge of the experts to translate the tasks of the market into outstanding technologies and products.

Not without reason it is said, “new brooms sweep clean”. Is there a business area here at HELLER to which a new CEO should devote special attention?

I do not want to single out any individual function. Overall, HELLER has mastered the challenges of the past decades well, taking positive steps in important areas, which, however, need to be developed further.

What topics are these?

We are talking about interfaces and data flows, for example. In these regards, the German mechanical engineering industry as a whole still has some catching up to do. All companies are working on this, but due to the heterogeneous situation at the customers, it is a complex task and takes time before it will be fully implemented. Basically, it is about giving customers the tools to optimise their own processes. To do this, we need more data, more transparency, more overarching interpretation and control, and this must be provided by the manufacturer.

You are talking about Industry 4.0?

In principle, yes, but not as a kind of revolution, as it was referred to years ago, but as an evolutionary development. HELLER has been on the right track here for years. In this context, I would just like to mention the HELLER Services Interface, enabling the use of digitised data in a customer-oriented way. It allows us to provide very

good process transparency and machine condition parameters. However, we also offer interfaces for further processing of the data in MES systems or the connection of automation systems.

Let’s talk about automation. In the past, you worked in sheet metal processing – a field where comprehensive automation can almost be considered an absolute must. Is there still some catching up to do in metal cutting?

I do not see much difference here. In sheet metal production, there has been some kind of trend in recent years to purchase self-sufficient production cells with automation from only one manufacturer. This eliminates the difficulties involved in having different interface formats from different manufacturers. In principle, however, automation is equally important, regardless of whether cubic workpieces or sheet metal is concerned. Automation is therefore also a key success factor for us. HELLER has already built up a great deal of expertise in this area as well.

The HELLER Group has a global presence, but especially outside Central Europe, i.e. the USA and China, it is very much focused on the needs of the automotive industry. Is that not something that needs to be changed?

What is certainly true is that in the past the organisations were often more than busy dealing with large projects. On the one hand, there are still far more active projects in the automotive and commercial vehicle segments in the USA and China. Therefore, the share of such projects will remain higher. On the other hand, we have also launched initiatives in both markets to penetrate further applications. So far with positive feedback.

Until now, the Nürtingen location has been something like the heart and brain of the entire HELLER Group. Will it stay that way under CEO Reinhold Groß?

Nürtingen was and is the central location of HELLER and will remain so. Of course, the principle of regional customer proximity also applies to HELLER, especially in terms of the sales and service functions. This also includes in-depth local consulting. However, product development, technology expertise, automation and digitisation will remain at a centralised location or under central control. And of course, essential value-added functions such as component production for the entire group in Nürtingen are not being called into question.

Although all forecasts are currently subject to a certain degree of uncertainty in view of the Covid pandemic and the conflict in Ukraine, as HELLER CEO you will probably have set yourself specific sales targets ...

... we have planned an order intake of just over 500 million euros for this business year. Based on everything we know now, we will at least achieve this goal and probably even exceed it. In view of the uncertainties mentioned, sales naturally lag behind order intake. In terms of the market, we will be on the right track if we are able to recognise the revenues from the orders we have accepted.

Could new business models not be helpful for staying on the 'right track'?

There is no question about that. With HELLER4Use, for example, we offer an innovative usage model that has been well received by our customers. My expectation is that such pay-per-use models will enable a significantly higher market penetration in the future. These kinds of ideas in particular, where sales will not sharply increase and which usually need a long start-up phase, are in good hands with family companies, because these models often require a lot of stamina.

The machine tool industry is considered somewhat conservative, especially on the user side. Do you consider such models to be future revenue generators?

Users of machine tools not only have to earn money with the products, but they often take considerable entrepreneurial risks in procurement. Especially smaller companies. Therefore, I fully understand the fact that decisions tend to be made conservatively. As a rule, a new idea first has to prove itself by being successful on the market. That is actually a healthy and sporting challenge. What you have to be prepared for is that the introduction processes for new products or technologies can take a little longer as a result.

Let's go back to the question of 'why HELLER'. Probably there would have been alternatives. What was it that ultimately tipped the scales in favour of HELLER?

One statement in particular impressed me in my conversation with the then Chairman of the Supervisory Board, Berndt Heller. My question was what the Chairman of the Supervisory Board and main shareholder expected in terms of the company's development over the next ten years. His response was: "I actually want my people to do well."



“As a rule, a new idea first has to prove itself by being successful on the market.”

In translation, this still means that we need to be economically successful, that we need growth and good profitability. Nevertheless, it makes a big difference which way around the equation is set up. I am convinced that working in such a corporate culture is worthwhile and brings great pleasure.

IN
TER
VIEW

The perfect combination **OF CHANGE AND STABILITY**

Wenzler's path from a regional special-purpose machine builder to a global solutions provider

August Wenzler Maschinenbau GmbH has been in family hands for almost 70 years. However, that is all that has remained constant over the years. Because even here, in tranquil Spaichingen, a lot has changed since August Wenzler founded the company in 1954. With passion and consistency, it has followed the path from a manufacturer of turned parts to a regional special-purpose machine builder to a global solutions provider – together with HELLER.

TEXT **Sabine Muth**
PHOTOS **August Wenzler Maschinenbau GmbH**

It was Norbert Wenzler, son of founder August Wenzler, who developed the family business from a manufacturer of turned parts into a special-purpose machine builder. Today, the company is led by Wolfgang Wenzler, the third generation of the family, and renowned as a global problem solver. A new era in the company's history began in 2009 when August Wenzler Maschinenbau GmbH became a family member of the HELLER Group. "The flexibility and innovative strength of a small medium-sized company combined perfectly with HELLER's global presence. Today, this allows us to implement projects worldwide," Wolfgang Wenzler is pleased to say.

In picturesque Spaichingen, at the foot of the Swabian Alb, the HELLER partner company employing 38 is in the best of company. The region is home to numerous small and medium-sized businesses specialising in metalworking. The small town below Mount Dreifaltigkeitsberg on the southern slopes of the Alb has a population of 13,000 people. It is a good place to live – and obviously also a place to be working from very successfully. "As a medium-sized company, we are able to respond quickly and flexibly to our customers' requirements," assures Wenzler. Requirements that follow a dynamic change.

Good from experience: machining centres for structural components made of aluminium

As far as the automotive industry is concerned, there is a clear trend towards using structural parts made of aluminium – for reasons of weight. This is where the company can play to its strengths. "Our decades of experience in the machining of aluminium and the design of processes has helped us a great deal in the transition from combustion engines to electromobility," says Wolfgang Wenzler. With the VKM vertical 5-axis machining centre developed in 2010, structural

components such as axle frames, subcarriers, crossmembers and longitudinal members in particular can be manufactured in a highly efficient manner, whereas the further developed VPM vertical machining centre is primarily designed for larger workpieces made of aluminium. In particular, sensor technology, coordinated scanning of the component and the clamping strategy offer high added value. Wenzler also developed numerous customised manufacturing solutions for the skateboard (vehicle substructure) as well as axle carriers, battery housings and chassis etc.

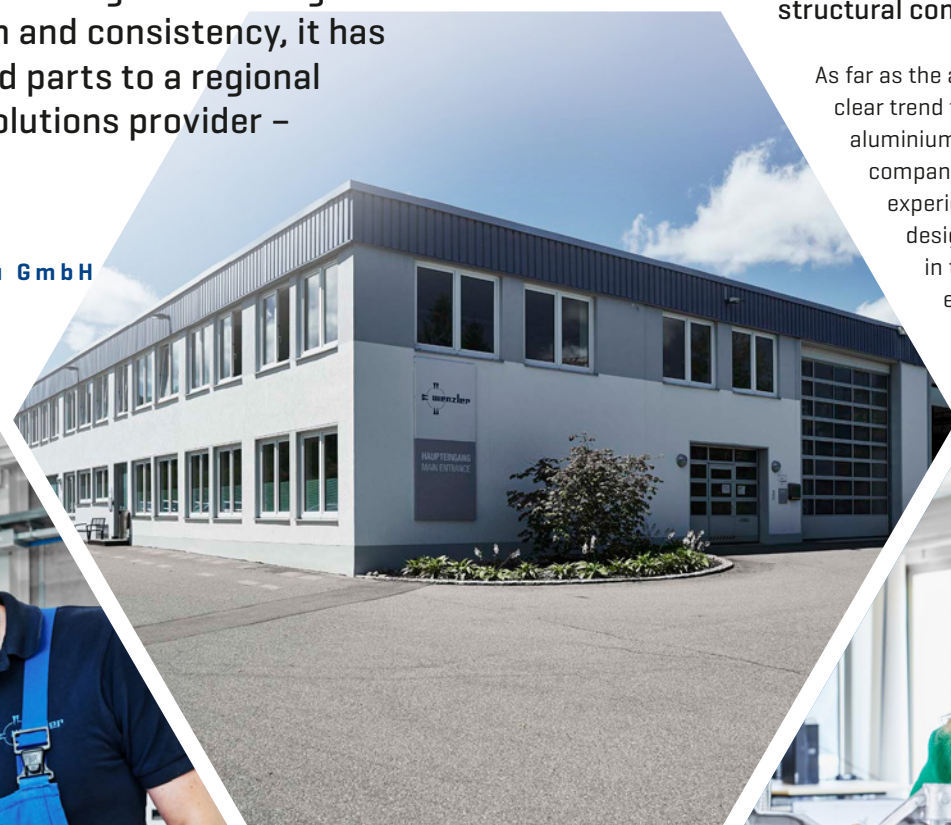
One of the company's success factors is in-house production of all components requiring specific know-how. Among other things, the sophisticated assembly technology for coil screw-ins and robot-assisted deburring systems. The brand new 'intelligent clamping fixture' was presented for the first time at the HELLER Open House in May 2022. At the same time, HELLER standard assemblies, such as direct-driven rotary axes, are an integral part of the machines. The machining centres are delivered as turnkey products with everything that goes with them. The turnkey solutions are also tailored to Industry 4.0 concepts and a smart factory environment.

"We are not only doers, but also consultants on eye level."

Consulting and engineering as well as process development are a natural part of the range of services. Communication with customers always takes place at eye level – direct, constructive and goal-oriented. Over the years, Wenzler has established itself as a solution provider and general contractor for the automotive industry.

Since joining the HELLER Group, a lot has changed: not only has sales been globally aligned since then; the company also benefits from the parent company in terms of administration, controlling, logistics, services etc.

"Together with HELLER, we have been able to establish ourselves as a competent partner for e-mobility components," emphasises Wenzler. Still, the company is constantly faced with major challenges, which, among other things, can be attributed to the wide variety of components and the volatile quantities. In Wolfgang Wenzler's view, three factors are crucial to overcome these hurdles: flexible sales, agile, courageous technical solutions and creative financial services. Hand in hand with HELLER, he expects to have good prospects in the future.



TEXT Jacqueline Rost
PHOTOS Heiko Hermann, Jürgen Altmann

The new customer portal

myHELLER

Customer requirements have changed significantly in recent years. In times of digitisation, customers expect to be served as quickly, easily and competently as possible at anytime from anywhere in the world. Strong customer and service orientation has always played an important role for HELLER as a company. With the new myHELLER customer portal, the company now offers its customers an additional digital communication platform that once again underpins the 'Lifetime Partnership' service commitment.

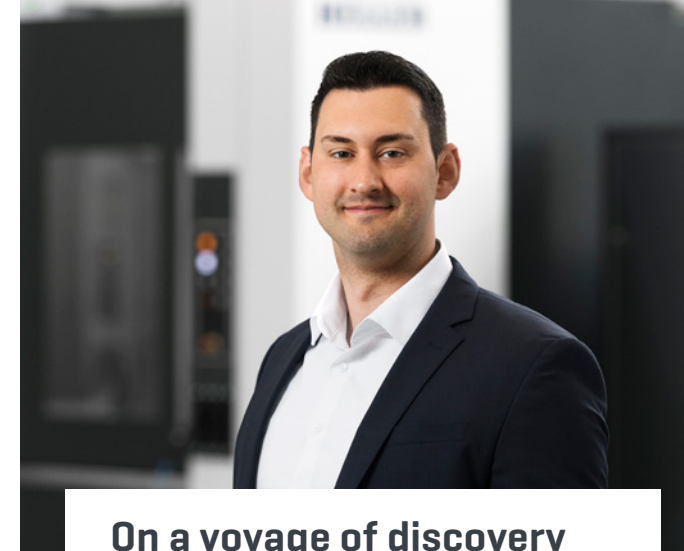
At the HELLER Open House in May 2022, the machine tool manufacturer presented the myHELLER customer portal to its guests for the first time – with a response that spoke for itself:

"Lifetime Partnership is our number one service promise. With myHELLER, we now offer customers an additional service to support them as a reliable partner throughout the entire life cycle of their machine and to ensure its availability and productivity."

Dr Gerd Schöllhammer

"In addition to many in-depth discussions with our customers we also had numerous registrations for the new platform during our in-house event. We are of course very pleased that the portal has met with such great interest," Dr Gerd Schöllhammer, Managing Director of HELLER Services GmbH, said at the premiere of the digital portal.

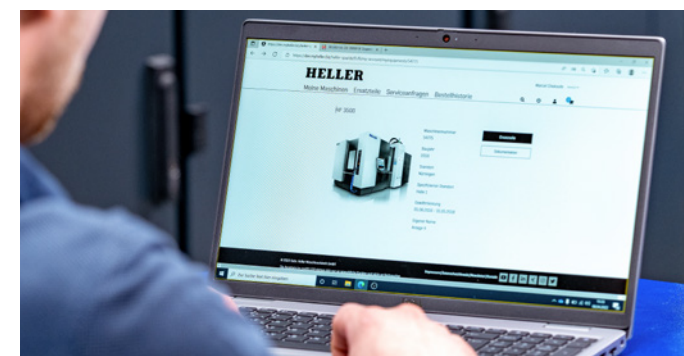
After extensive test runs, HELLER customers from Germany have been able to register officially on the myHELLER customer portal since July of this year with other countries to follow. Gradually, all customers will be able to benefit from the advantages of the free-of-charge portal. To do so, simply register online with your customer or machine number and you are ready to go.



On a voyage of discovery through myHELLER with Marcel Chokoufé

I am going on my own voyage of discovery through myHELLER with Marcel Chokoufé, Head of After-Sales Business Development at HELLER. He is responsible for the new platform in the area of services and will show me what it has to offer.

All machines at a glance

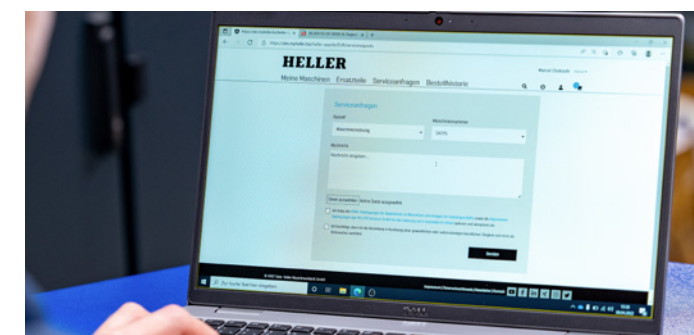


We start with the 'My machines' feature. "Here, customers will not only see an overview of their complete HELLER machinery, but they can also customise them. In addition, they will find lots of useful information and services," explains Chokoufé. The at-a-glance machine overview is independent of the machine type and year of manufacture. With a few clicks, I can go to the individual machine view with 3D visualisation for the H and HF series. Together with this, suitable spare and wear parts for the machine are displayed. There is also comprehensive product information with clear and simple descriptions so that you are able to find the right product in the quickest possible way. Important operating and diagnostic manuals are available to download here as well.

Efficient spare parts ordering

Once you have accessed the integrated spare parts shop, you can order suitable spare and wear parts for the corresponding HELLER machine – simply, safely and conveniently around the clock. All relevant spare and wear parts for the machine are listed in the shop. I also use the intuitive search function in parts lists and the visualisation of parts. Sought and found – with one more click, the matching products are added to the virtual shopping cart. Current availability and price are now displayed here. Then you can finalise your order.

Sending service requests made easy



If the customer is interested in preventive maintenance, for example, a service request can be created easily from anywhere and at any time using the system. The request is sent directly to the dedicated HELLER contact. "Of course it will then be answered without delay," assures Chokoufé. Not only in the event of malfunctions will the responsible HELLER service base promptly contact the customer. "After all, expertise, speed, flexibility and customer proximity are our strengths," the 32-year-old HELLER employee continues.

The dedicated HELLER contact – knowledgeable and close at hand

With just one click in the portal's search mask, you are able to find the qualified personal contact for all questions about HELLER services.

My verdict of the portal on completing my voyage of discovery: Thumbs up!

For more information about the myHELLER customer portal go to:

www.heller.biz/en/services/myheller

HELLER

Complete solutions made by HELLER

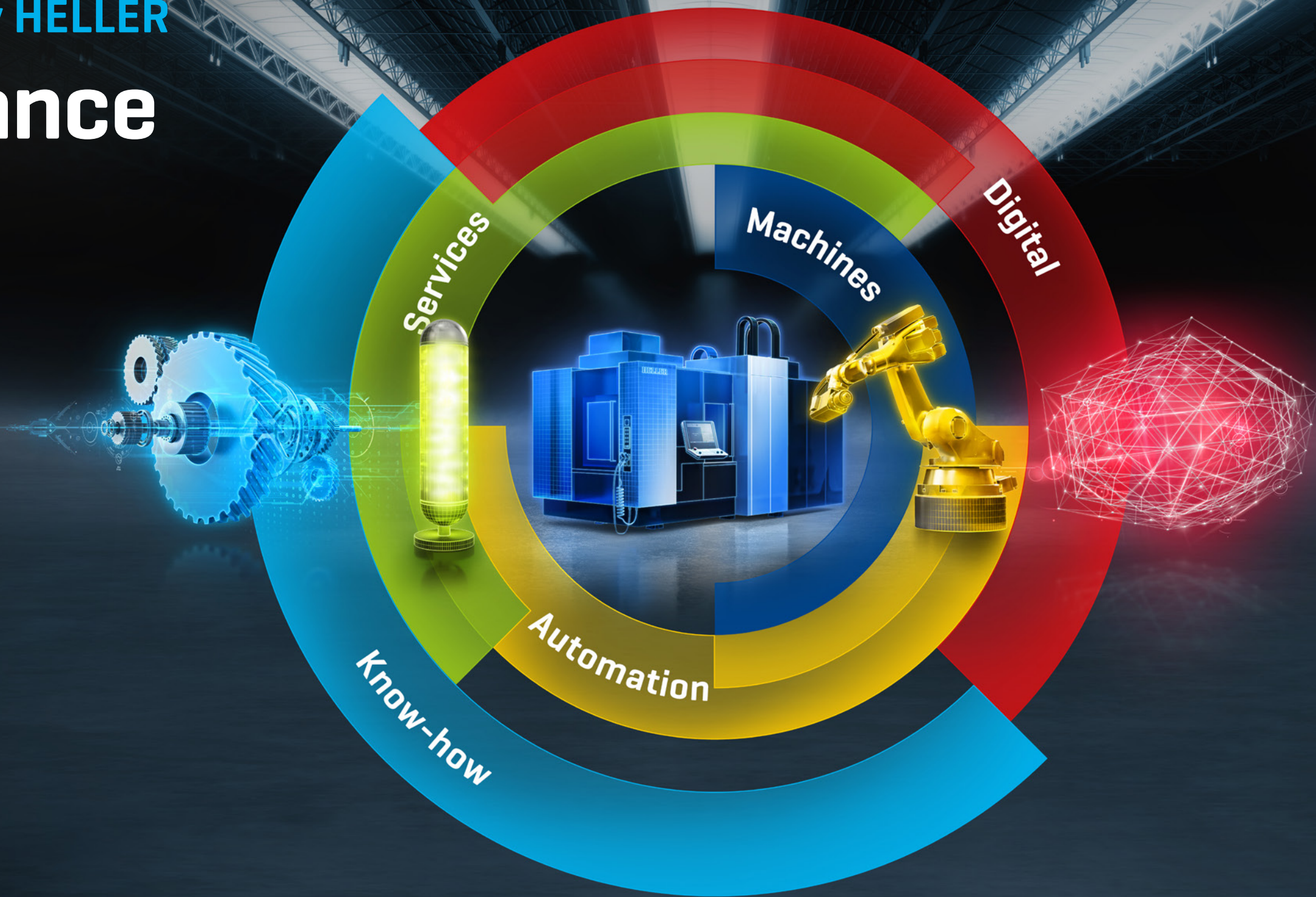
360° performance for your production

Discover solutions beyond the machine:
we always think **holistically** and build on
five solution areas focusing on your requirements
in **modern production**. This is how we support you
to produce reliably and competitively – with
maximum availability and productivity, 24/7.

Discover 360° solutions from
HELLER live:

AMB Hall 10,
Booth 10A31

IMTS South hall,
Booth 338245



HELLER solutions: **Knowing how it's done.**

what moves us

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HELLER at KP Components

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Taking it up a notch with HELLER at KP Components

TEXT & PHOTOS John Nyberg

Ceaseless development of still more complex and automated machining continues at KP Components A/S in Spjald, Denmark. The company has started its next era with the purchase of a manufacturing system with four HELLER H 4000 4-axis machining centres and additional robot automation from QRS. The installed machines from HELLER replace an older robot cell which produces complex parts in the same product family for mobile hydraulics. The manufacturing system comprising four CNC machines and robotic loading is one out of six systems. It is about 15 years ago that the first cell was taken into operation and seriously boosted KP's robot automation of the machining process.

Even though a lot has happened since the first cell was taken into operation, the same product family still produces to the same customer as back then. However, it is important for CEO Søren Husted that the

company does not stagnate. The parts require more of the machine park and at the same time, there is a continuous need to increase the competitive position: "In order to maintain our high level of technology and the position of being the leading subcontractor for complex machining processes, we chose to analyse the possibilities within technology. First, we conducted a thorough scan of the possibilities within the market. Afterwards, we invited a range of contractors to submit an offer on the whole machining task. It was a close run; however, we chose the HELLER solution, which is represented by Masentia A/S in Denmark," states Søren Husted.

In addition to purchasing the manufacturing system for the factory in Spjald, the company also ordered three equivalent HELLER machines for the sister factory in the USA, where KP Components has been based in the state of South Carolina for the

last ten years. The factory, which was doubled in size in 2020, is supported by the headquarters in Spjald, which has been responsible for the machine purchase. Therefore, the experience with HELLER was transferred to the factory in the USA from day one, where also a wide range of parts for mobile hydraulics are produced.

Mature solutions are implemented quickly

Preparations for the machine investment were started in mid-2020 in the middle of the Covid-19 pandemic. As the first negotiations were to be completed in early 2021, Covid-19 lockdowns made visits to HELLER's headquarters in Nürtingen impossible. Instead, the ongoing dialogue was conducted via online meetings and visits from Masentia's Sales Director Karsten Bechmann to the factory in Denmark.

The project collaboration has been characterised by online meetings. Now, the people from HELLER have been able to come to Spjald. From left: Masentia's Sales Director, Karsten Bechmann, KP Components' CEO, Søren Husted, HELLER Area Sales Manager for Nordic Countries, Veijo Laitinen, and HELLER Regional Sales Manager, Alexander vom Stein.

"In many ways, this investment round differs from previous ones. The digital meetings clarified our partnership, even though we would have preferred to meet with the people from HELLER face to face," states Søren Husted. KP Components has maintained the longstanding partnership with QRS A/S in terms of robot automation, which has been a natural part of the online meetings with HELLER. "All in all, this has meant that the pandemic did not become an obstacle in the negotiation process, which is very important in such a huge and complicated investment. One could say that Covid-19 was just a bump in the road," states Søren Husted and continues: "We have chosen a path and are continuously developing our setup for this. A high degree of automation is important, even with smaller sizes of series. As something new, we have integrated a 3D-coordinate measuring machine into our cell. Thereby, we are doing our maximum to ensure that only good parts come out of the cell. Together with our internal expertise in design and construction of fixtures, we have a production setup that we expect to be competitive for many years."

However, the HELLER machines presented one challenge: the Siemens controls, which the company's technicians are not used to. Søren Husted: "My fears have proven unfounded, I must say. The course programme from HELLER meant that our experienced technicians were quickly introduced to the new programming world, and that went faster than I had ever hoped."

The company is agile and has factories in Denmark, the USA and Sweden, which

primarily approach global manufacturers that want high-end products. "We strive for stable and long-term partnerships, where we can support our global customers where they need us, and this is often in connection with their assembly plants. The customer portfolio includes the five biggest manufacturers in the world of mobile hydraulics, as well as several other international manufacturers. We supply parts for both valve and control systems as well as pumps and engine parts," states Søren Husted.

The partners up close

The high degree of automation requires a lot from the supplier QRS and the same applies to the CNC machines. In addition to the current machining centres from HELLER at KP Components, the large machining park comprises Mazak CNC machines with a fair share of Japanese machines from Brother for drilling and milling.

"Uptime is very important for us. If there is a breakdown, we risk that the entire lines might stand still, so service and repair must be started quickly. We have good experience with the existing CNC machines, as Masentia has a partnership with Brother. Naturally we expect this to be the same when it comes to the machines from HELLER," emphasises Søren Husted.

When KP Components initiates a process with a potential customer, it usually takes at least three to five years before serial production of a new product begins. Therefore, the company attaches great importance to choosing the right solution for a project from the start.

"We must make our money from the machining, as the customers often purchase the raw materials themselves. Therefore, it is the margins that decide whether we will deliver on the set business case and to earn money on delivering the parts at the agreed price," tells Søren Husted.

In practice, challenges must be solved at the company in Spjald. And here, QRS and Masentia should not point the finger at each other – they should assist in solving a challenge if it arises. "We are dependent on our suppliers delivering as agreed upon and the cell running as it should. Ultimately, our end customers depend on the entire value chain working, and when this is the case, it has a positive effect on everyone," says Søren Husted.



Horizontal machining centres in 24/7 operation

HELLER's H 4000 machining centre has a fourth axis in the form of a rotary table. It provides run-up speeds of as much as 90 m/min in the X-axis and 80 m/min in the other axes and chip-to-chip times of just 2.3 seconds. The H 4000 is suitable for workpiece diameters up to 900 mm and offers traverse paths of 800 x 800 x 800 mm

X/Y/Z and positioning tolerances of up to 0.005 millimetres. The maximal pallet clamping weight is 1,500 kg. The machines are produced at HELLER's production plant in England, supported by the headquarters in Nürtingen, which also operates production facilities in the USA, Brazil and China.

COMPLEMENTARY TECHNOLOGIES FOR MACHINING CENTRES

TEXT **Peter Klingauf**
PHOTOS **Jens Gelowicz, Jürgen Altmann**

How can we make our machining centres even more efficient? – a question that is constantly on the minds of the HELLER product managers. One key to higher productivity is complete machining on a single machine. “This is exactly what we are working on,” says HELLER Managing Director Dieter Drechsler: “We keep our ears close to our customers and know how important it is to finish-machine components in one setup.” Therefore, the HELLER engineers are in the process of integrating various technologies into the current line of machining centres. In addition to turning operations and methods for gear cutting, the portfolio has now been expanded by friction stir welding. HELLER also develops complementary processes beyond the machining centre: a coating module for cylinder surfaces of smaller powertrains is about to be launched on the market.

Turning technology: from maximum productivity to full flexibility

For many years, HELLER machining centres have enabled complete machining by milling and turning on a single machine. With the Mill-Turn functionality, the additional turning operation is carried out using a rapidly rotating rotary table. The HELLER out-facing head is an NC drive integrated into the spindle unit for the use of motion tools.

In addition to that, the Nürtingen-based machine tool manufacturer offers another alternative turning option – interpolation turning. What is new about it is the application of a Siemens-developed software feature, for which HELLER provided exclusive support during the development phase.

Although interpolation turning is significantly slower than the methods mentioned previously, it offers a range of advantages: it requires no special hardware, causes only minimal software costs and can be retrofitted at any time in the modern Siemens Sinumerik controls [from software version 4.95]. This makes it an interesting alternative for all users who only rarely require a turning function on the machining centre and who in particular value higher flexibility.



Flexible joining process for machining centres: friction stir welding

An integrated joining technology enables complete machining in a completely different way: at the 2022 in-house exhibition, HELLER presented friction stir welding integrated into 4- and 5-axis machining centres to the general public for the first time. This was preceded by an extensive test phase with several pilot customers.

Basically, the friction stir welding technology has been around for a very long time. The process-controlled implementation via the Siemens CNC Sinumerik 840D sl control of the HELLER machines is totally new – without using so-called load cells. The retrofittable software feature enables reliable cavity-free welding of aluminium housings, as used, for example, in the food industry. Managing Director Dieter Drechsler sees e-mobility as another target industry: “The welding of battery boxes with lids will be increasingly in demand in the future. We enable complete machining and subsequent welding in one setup. In terms of productivity and precision, this offers clear advantages for the user.”

Gear cutting made easy: gear hobbing and power skiving

In addition, two brand new methods for producing gearings on various HELLER 5-axis machining centres are now available: gear hobbing and power skiving. “Both processes can be retrofitted via software and are particularly suited for the machining of complex products in a single setup such as planetary carriers,” Dieter Drechsler explains. Pure gear production using this method is usually only viable for small to medium series. A major advantage of the process is easy programming via an HMI-supported user interface.

Which of the two methods is best suited depends on the type of gearing, but also on the type of machine used. Power skiving [see picture on the right], for example, can be used to produce not only straight and helical external gears but also internal gears of all kinds. Precondition: the machining centres must be equipped with the relevant turning functionality. For gear hobbing this is not necessary. However, this method is only suitable for external gears – whether straight or helical is irrelevant [read more on page 40/41].

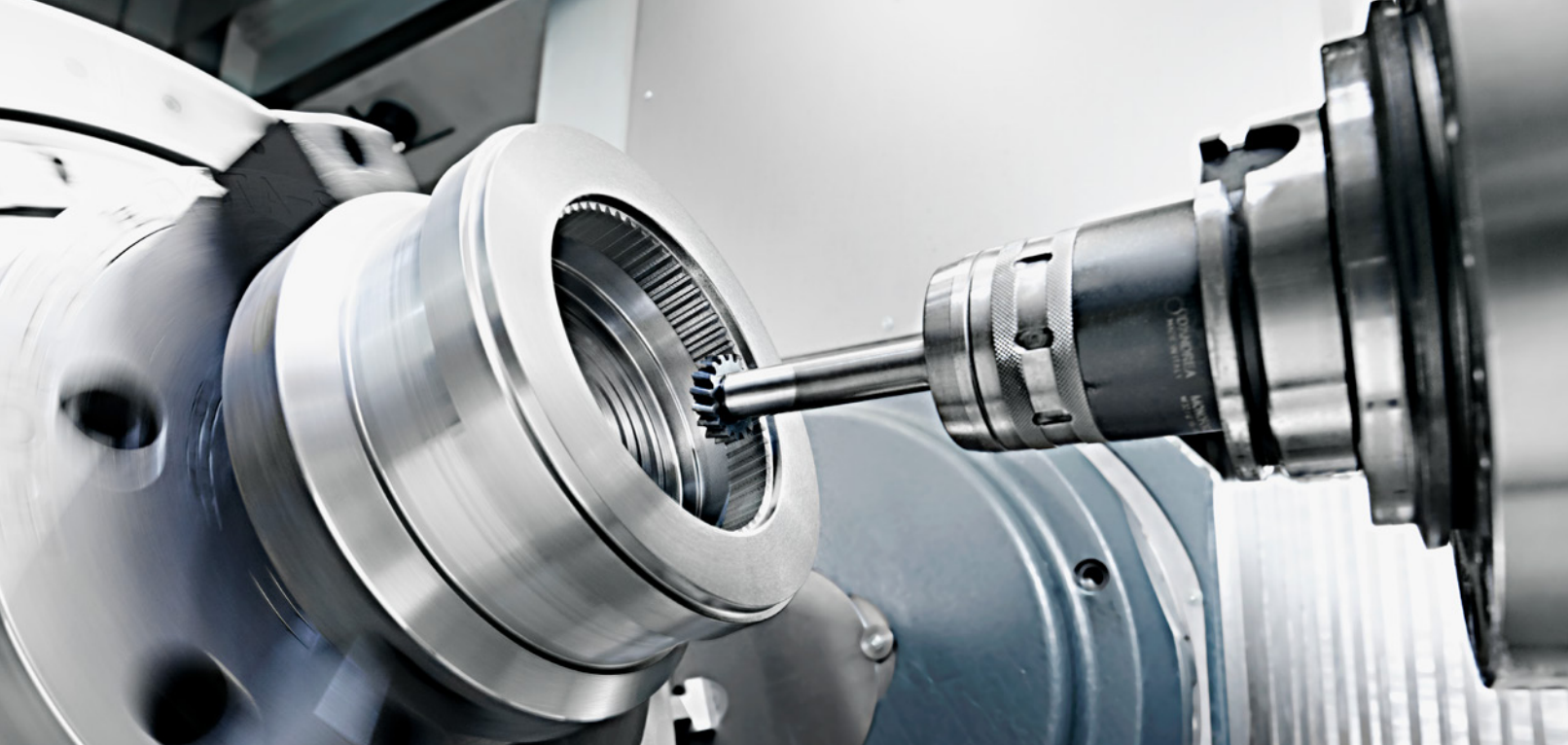
Dieter Drechsler



CBC 10: coating of the inner surfaces of small cylinders

Last but not least, HELLER is launching a new system for the coating of cylinder surfaces using wire arc spraying: CBC 10. It is the smaller sibling to the CBC 200 coating system based on twin-wire technology, which has been established for more than ten years now. This autumn, HELLER will be presenting the CBC 10 equipped with the new single-wire technology. The aim of this development is to make the coating process used for larger engines with an average displacement of two to three litres available for the production of small engines with up to 125cc. Ultimately, engines manufactured with this technology are much more environmentally friendly – thanks to the HELLER technology which reduces friction and wear, and thus fuel consumption and emissions.





Gearing technologies providing flexible and highly productive options

TEXT **Peter Klingauf**
PHOTOS **Jens Gelowicz**

The production of planetary carriers, splined shafts, gear wheels and similarly complex products not only requires milling and turning but also gear cutting. This task is often performed on special broaching or shaping machines. In future, it will be possible to save this investment as HELLER offers two interesting alternative processes that can be integrated and retrofitted in 5-axis machining centres: power skiving and gear hobbing. Both processes are now available for the HF series on request.

The machining of components in a single setup offers many advantages: increased machining accuracy and productivity as well as a reduction in component handling costs. To enable customers to tap this potential, HELLER is successively integrating further technologies into its machining centres. The latest examples are power skiving and gear hobbing. With these processes, users of 5-axis milling centres will be able to perform gear-cutting operations without having to reclamp the components.

Power skiving

There are hardly any tooth shapes that cannot be produced using power skiving. Whether straight or helical, external or internal gearings – anything is possible without a problem. Even profile modifications are easy to implement. The relatively low-cost gear-cutting tools and the short machining and cycle times make the process even more attractive in comparison to specialised broaching or shaping machines. The only prerequisite: the 5-axis machine used must be equipped with the turning functions of the HELLER Mill-Turn option with the directly driven DDT rotary table.

If this is the case, the power skiving technology can be easily integrated into modern Siemens controls and programmed just as easily. Even machine operators with little experience in gear cutting will have no problems creating a reliably working program.

A technology cycle with a clear structure and graphically supported input mask provides the basis for this. All that programmers are asked to do is enter all relevant gearing data in a step-by-step procedure and confirm them at the end. The cycle then automatically performs a comprehensive plausibility check. If this is successful, the production process can be started.

The machining operation itself requires a high level of accuracy of all machine axes. In the focus of it is the rotary table with the workpiece and the spindle with the tool. These two rotary axes are generically coupled, as they must rotate exactly synchronously. During this simultaneous process, the milling cutter performs a rolling motion on the workpiece. At the same time, the machine carries out a consistent feed motion along the gearing centreline, thus cutting the material. The tooth shape ultimately results from the synchronous rotation and the shape of the specific cutter used.

At this year's in-house exhibition, HELLER used the example of a planetary carrier to demonstrate the wide range of possibilities offered by the new 'Power Skiving' option – implemented on the HF 5500 5-axis machining centre. The component with 85 mm diameter is turned, milled and drilled in a single setup and finally the power skiving method is used to machine an internal gearing with module 2 [41 teeth]. The latter operation only takes 160 seconds to complete, achieving quality 7 to DIN 3961.

Gear hobbing

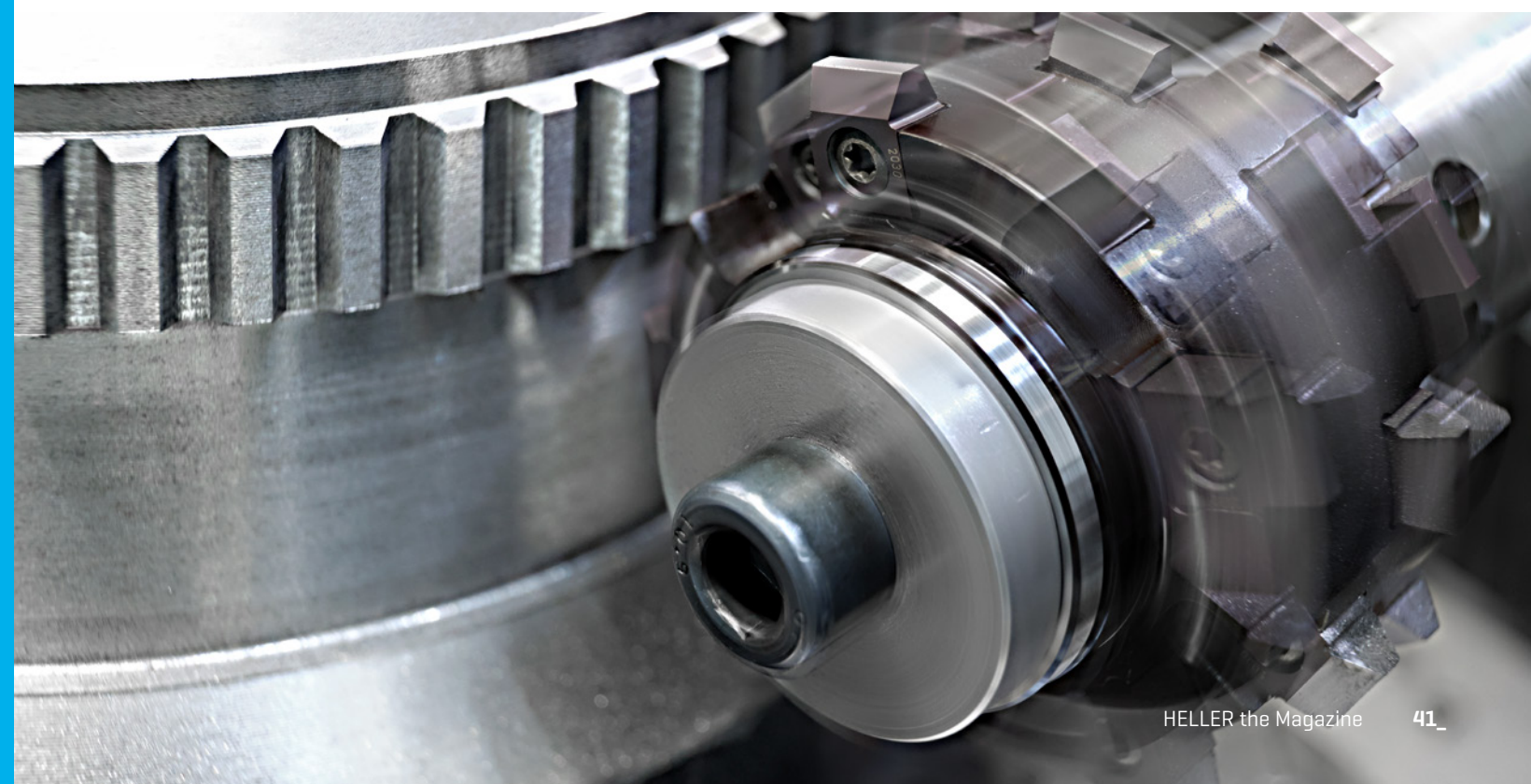
Gear hobbing also enables users to produce straight and helical tooth forms with a similarly high level of quality and

only slightly longer machining times. However, it only allows to mill external gears whilst profile modifications are more difficult to implement. One advantage of this process over power skiving: the option can be implemented on standard 5-axis machining centres from the HF series without mill-turn technology.

Integration of the technology cycle into the Siemens control and the programming of the gearings work just as easily and reliably as with power skiving. However, the shape of the tools and the machining process differ significantly. In gear hobbing, the workpiece and the tool form a kind of worm gear that moves synchronously. Due to the consistent feed motion along the gearing centreline, continuous cutting takes place without return strokes. Extended tool life is ensured through so-called shifting integrated into the cycle. This refers to the tangential displacement of the tool relative to the workpiece along the tool axis.

Complete machining of a splined shaft exemplifies the possibilities offered by the gear hobbing option. The component has involute toothing with module 3 and was circular milled, drilled and hobbled to DIN 3961 in quality 7 (25 teeth) on the HF 3500 5-axis machining centre in a single setup. Machining of gearing takes approx. 200 seconds.

Whether power skiving or gear hobbing: both processes expand the range of complete machining options in a simple and reliable way. The additional investment is kept within limits, as only the respective tools, software features for the CNC and the technology cycle are required. The ESR safety option integrated in the package ensures that the tool immediately retracts from the workpiece in the event of a fault without causing any damage.



Bulgaria

Alcomet AD

Seat:
Shumen
Year established:
1981
Number of employees:
1,500
Industry segment:
E-automotive
Final products:
Various components for e-automotive
Final customers:
Automotive
Machinery:
Machining centres H 2000

Initial situation
Starting position of the customer: new investment, no know-how in the field of CNC series production available yet
Requirements: machines for processing aluminium for series production

Why HELLER
Known quantity in the automotive world, reliability

Order
Scope of delivery: H 2000 with Siemens control
Workpiece and clamping situation: terminal strip, aluminium; hydraulic multiple clamping [by Paatz]
Production volume: high volume production [over 100,000/year]
Specialty: high production

Evaluation
Challenge: achieve series production readiness
Result: almost all components on series status

Great Britain

Meritor HVBS [UK] Ltd.

Seat:
Cwmbran, Wales
Year established:
1937 [1999 acquisition by Meritor from Lucas Varsity]
Number of employees:
400 in the UK, over 8,000 globally
Industry segment:
Automotive
Final products:
Pneumatic disc and drum brakes
Final customers:
Volvo, MAN

Initial situation
Starting position of the customer: new investment, replacement investment
Requirements: productivity increase, complete solutions, first-class service, HSK100A spindle, 50% reduction in cycle time

Why HELLER
Local machine tool manufacturer, complete solutions, local engineering team, first-class service

Order
Scope of delivery: nine H 4500, two H 4000 planned for 2022
Workpiece and clamping situation: cast iron axle beams in single clamping
Production volume: high production [1 m/year]

Evaluation
Challenges: non-stable workpieces, cycle time, quality restrictions
Result: Reduction of cycle time through the combination of working processes, a stiffer clamping device and the use of the latest cutting tools

Germany

Manfred Martin GmbH

Seat:
Rot an der Rot
Year established:
1958
Industry segment:
General mechanical engineering
Final products:
Contract manufacturing
Final customers:
Various
Machinery:
Mill-turn machining centres

Initial situation
Starting position of the customer: new investment
Requirements: flexibility, accuracy, expansion possibilities

Why HELLER
Reference, trust

Order
Scope of delivery: HF 5500, pallet automation will possibly be retrofitted, maintenance contract
Workpiece and clamping situation: predominantly aluminium enclosures in various sizes; multiple clamping
Production volume: one-off and small batch production
Specialty: 5-axis machining with angular head

Evaluation
Challenges: detailed advice on workpiece machining, feasibility study
Result: time, cost and quality benefits

Poland

Gebrueder Peitz Polska Sp. Z o.o.

Seat:
Żory
Year established:
1997
Number of employees:
210
Industry segment:
Process engineering, contract manufacturing of complex components
Final products:
Ready-to-assemble powertrain components for e-engines, various housings for combustion engines, cylinder heads, cylinder crankcases, suspension components, component assembly
Final customers:
Automotive industry and Tier1 suppliers
Machinery:
Fully automated 4- and 5-axis machining lines, rotary transfer machines, assembly machines

Initial situation
Starting position of the customer: expansion of activities in the field of electromobility for electric drive systems and electric vehicle components
Requirements: increasing demand for degree of completion, extreme competition with continuous optimisation processes and rapidly changing component quantities

Why HELLER
Long-term and honest partnership, easily accessible and quickly available service, positive further development of proven 4- and 5-axis series, guarantee of highest reliability and availability, high flexibility

Order
Scope of delivery: over 80 machines; MC 16, MCi 16.2, MCi 25, MCi 25.2, MC 200, MCH 250, MCH 280, MCH 280C, H 2000, H 3000, H 4000, H 5000, HF 3500
Workpiece and clamping situation: aluminium and steel castings and forgings; single and multiple clamping
Production volume: medium and large batch production
Specialties: 5-axis machining, high-precision machining, high production etc.

Evaluation
Challenges: highest reliability and availability absolutely necessary, drives and chip removal must fit 100%, 24/7 usability of the solution is indispensable
Result: time, cost and quality benefits

Italy

Marzocchi Pompe S.p.A.

Seat:
Zola Predosa (Bologna)
Year established:
1949
Number of employees:
271
Industry segment:
Hydraulics for industrial, mobile and automotive applications
Final products:
External gear pumps and motors
Final customers:
Industrial, mobile and automotive OEMs, distributors and resellers of hydraulic equipmentg

Initial situation
Starting position of the customer: new investment
Why HELLER
Historical partnership, system competence, experience, technology, consulting, machine programme and much more
Order
Scope of delivery: four H 2000 with SPEED package, SC63 Speed Cutting spindle, tool chain magazine with 160 places
Workpiece and clamping situation: aluminium housing gear pump; single clamping
Production volume: small, medium and large batch production
Evaluation
Challenge: management of the manufacturing processes
Result: more flexibility, efficiency and quality

USA

Cummins Rocky Mount Engine Plant

Seat:
Whitakers, North Carolina
Year established:
1979
Number of employees:
1,800
Industry segment:
Engines business unit of Cummins Inc.
Final products:
On-highway and off-highway diesel engines (60-600 hp)
Final customers:
Over 530 customers, including Daimler, Freightliner, Navistar, Blue Bird, Komatsu, Kenworth, Peterbilt, New Flyer and International
Machinery:
CNC machines and special transfer machines

Initial situation
Starting position of the customer: planned new investment in a 9-litre cylinder head production line to replace the existing 35-year-old transfer line
Requirements: flexible 9-litre cylinder head production line suitable for both existing and new cylinder head generations
Why HELLER
New partnership, customer recommendation, system competence, experience, technology, consulting, machine programming, integration experience
Order
Scope of delivery: nine H 8000 DL, three F 8000 DL, one H 8000, one FP 8000, Liebherr gantry automation, Reinhart robot rail system [from customer]
Workpiece and clamping situation: cast-iron 9l diesel cylinder head with several part types; single part clamping
Production volume: one-off production of 40,500 units/year
Specialties: flexible CNC machining line that can completely machine 9l cylinder heads in moderately high quantities
Evaluation
Challenge: integration of multiple suppliers that were not part of HELLER's original scope of work, which required close coordination with the Cummins project team
Results: production rates, cost reductions, quality advantages and reduced missing parts

Brazil

Pontual Tecnologia Em Manufatura Ltda.

Seat:
Erechim (Rio Grande do Sul)
Year established:
1999
Number of employees:
110
Industry segment:
General mechanical engineering
Final products:
Cast and machined parts as well as machined and assembled subassemblies
Final customers:
Commercial vehicle industry [heavy automotive], agriculture and general mechanical engineering
Machinery:
[4-axis] CNC machines

Initial situation
Starting position of the customer: new investment to increase production
Requirements: better quality and higher machine performance
Why HELLER
Known for special quality machines with low downtime as well as good technical support and spare parts; robust machines suitable for machining cast iron and with a good cost-benefit ratio
Order
Scope of delivery: two MCI 28, one MCH 350, two H 4500, training in operation, programming and maintenance
Workpiece and clamping situation: cast iron; hydraulic
Production volume: around 30,000 parts/month in two-shift operation
Evaluation
Challenge: expectation of increased quality and shorter processing time
Result: better conditions in terms of productivity, repeatability and performance

China

Bosch Rexroth Co., Ltd.

Seat:
Changzhou
Year established:
1996
Number of employees:
500-1,000
Industry segment:
Hydraulic components
Final products:
Standard and special applications of hydraulic cylinders
Final customers:
Haitian Group, Estun Automation Group
Machinery:
CNC machines

Initial situation
Starting position of the customer: high accuracy, short delivery times, high cost performance
Requirement: improving production efficiency and reliability
Why HELLER
The quality and service of HELLER machines have proven themselves time and again over the years of cooperation. The stable performance, excellent accuracy, fast response and proximity to the site make HELLER competitive.
Order
Scope of delivery: H 6000
Workpiece and clamping situation: hydraulic block; tower clamping device with high pressure, three OPs combined in one device
Production volume: continuous production of large batches
Specialties: efficiency and high accuracy
Evaluation
Challenge: short delivery times, high precision and good quality required
Results: higher productivity and time savings

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The US market and HELLER's response to it



INTERVIEW **Jacqueline Rost** PHOTOS **HELLER USA**

A lot has happened since HELLER began operations in the United States in 1982 – both at the company itself and in HELLER's target markets and industries. One department that has to respond immediately to such changes is Sales. We spoke to HELLER Machine Tools L.P. CEO Kenneth Goodin about developments he is observing, how he assesses current issues and how his sales team is dealing with the inevitable change.



FOCUS OF THE US MARKET

Mr Goodin, how do you view the current US manufacturing market, especially in terms of CNC machining and 4-axis and 5-axis machining centers?

The overall manufacturing market in the USA continues to be strong, despite a number of global influencing factors. Machine tool orders in Q4 of 2021 were up more than 59 percent year over year. We see signs of

continued growth in the first quarter, with industry leaders experiencing almost a 10 percent increase in machine tool orders in 2022. We are seeing strong opportunities in the 'Heavy Duty Automotive' segment, particularly on-road and off-road ICE manufacturers preparing for the MY2027 requirements. We see investments in this segment moving forward, with eyes open on future flexibility of equipment as the certainty of volume trends for ICE remains unclear beyond 2027. In addition, we see a heavy desire to re-deploy existing assets where possible. This requires heavy focus on technical processes and suppliers that can demonstrate the ability to find hybrid solutions, i.e. redeployment potential with some new equipment. With regard to the

'Light Duty Automotive' segment, automobile OEMs and Tier suppliers are heavily focused on electrification. This has been widely marketed and resulted in minimal investments approved for ICE powertrain machining equipment. As auto OEMs evaluate their path forward, there has also been a high focus around re-deployment of existing capital equipment, driving reduction of new machines, but opening up opportunity for retooling and aftermarket support.

We continue to see an increase in productivity requirements in all machining segments outside of the automotive industry such as general machining, electrical industry, oil & gas and aerospace. This includes the need for higher flexibility, particularly where volumes of specific products is not fully determined. For example, machine shops that traditionally have bought 4-axis CNC machines are shifting their buying trends towards 5-axis machines. Market data for the 5-axis CNC machine volume shows more than 5.5 percent annual growth rate through to 2025.

What changes are you already observing in the market – and which do you expect in the future?

The inquiry volume level for 5-axis CNC machines at HELLER USA represents 90 percent of the overall inquiries. We see a mix of opportunities that require full simultaneous 5-axis machining as well as others that require only a 3+2 approach to reduce fixture set-ups.

In which markets do you see the best growth potential for HELLER in the USA?

As we build our 5-axis footprint in the US, there will be more aero and mold & die opportunities. There is continued moderate growth in these areas, but our opportunity to gain market share is significant. The job shop market remains strong. As we can show the benefit of HELLER machine design, together with our process value add, we are positioned to build a solid footprint within heavy machining and/or high accuracy applications. Finally, the oil & gas market shows significant opportunity for growth as global political concerns, policy continues to drive the price of oil up, and the traditional supply chain of oil is changing.

What requirements do customers place on modern production?

Customer expectations vary across segments; however, there is a common theme of increased productivity and performance. Customers are always seeking more capability and flexibility as their customers offer limited volume guarantees and continually drive for cost reductions.

How do you view future sales of 'machine only' vs. machines with automation and machines with process and technology applications?

It is clear that the market will drive a mixture of 'machine only' solutions without application as well as manufacturing solutions that require key application technology. From my point of view, HELLER will start at around a 70/30 split, where 70 percent of sales will be generated from the combination of machine and application. Currently, we have strong reference in high-volume machining lines and are well known in ICE and powertrain component manufacturing. As we branch into markets that we have had only limited focus on in the US, we have to show our technical advantages through machine design as well as process capability. Once we have the right footprint in the market, the future sales will likely be more of a 50/50 split between 'machine only' vs. full technology solution.



How much do you see digitization coming into play with future sales?

Digitization will become more and more significant over the next five years. We continue to realize that customers are struggling to retain their employee base with ‘tribal knowledge’ in machining. Companies are often focused on throughput, requiring integration of automation as well as other technology to remain competitive. The next generation of machine operators and owners will rely more on the machine manufacturer to put key information at their fingertips. It is our job to ensure key information and intelligence is built into our products and evolved with the increasing demands of our customers. Whether it is as simple as communicating when maintenance is due, or as complex as anticipating tool wear from live measurements taken during the cut, the creation and management of information will make the difference between success and failure.

In your opinion, do you see the growth of HELLER’s machine tool sales in universal 5-axis machines or traditional 4-axis machining centers in the USA? And why?

Our current overall mix (including project business) shows an approx. 60 percent request/need for 5-axis machines compared to 40 percent for 4-axis machines. In our traditional project business, the shift from 4-axis to 5-axis machining centers is driven primarily from the need to maintain flexibility in capacity of the machining line. In universal machine business, the heavy desire for 5-axis machines is in line with the market segment needs. The HELLER 5-axis machines offer a competitive position with a strong combination of capability and quality performance that will enable us to gain market share.

Give our readers an insight into your thoughts ...

... on current supply chain issues

Global supply chain issues continue to be difficult to navigate. Fortunately, HELLER launched our HF stock machine program to pre-build HF 3500 and HF 5500 machines with predetermined configurations in order to provide reduced lead times.

... on the current competitor situation

The supply chain issues are troublesome for our competitors as well. In some cases, much worse than

what we are currently seeing. This also opens the market up as customers look for options to get machines on their floor faster.

... on change in the automotive industry

Automotive OEMs are pushing the evolution from ICE to EV, driving additional focus within their organizations to re-utilize/re-deploy existing capital assets where possible. This has significantly reduced the new CNC machine volume, while increasing the reliance on existing suppliers to navigate the technical transition and build processes for the new EV component manufacturing. Although the push to EV continues to be a major topic, updated market data reduced forecast to 27 percent EV market share by 2025 vs. previous forecasts of 44 percent. I believe there will remain a balance of electric, hybrid and combustion engine vehicles in the US market for some time to come. What level of market share the EV gains over the next 15 years will depend greatly on infrastructure across the USA and ultimately consumer demand.



What is HELLER Machine Tools doing to grow sales in the USA?

HELLER has adopted a strategy to grow our sales in the USA and ensure that we maintain the keys to success that we have built: Products, Partners, People, Process and Promotion.

On ‘Products’: HELLER has an extensive offering of 4-axis and 5-axis horizontal CNC machining centers with a variety of configurations to meet market needs. In addition, HELLER offers specialized solutions for a variety of applications, including crankshaft machining and cylinder bore coating. We have continued to drive new development year after year, building on existing experience and listening to customer needs. Our 5-axis HF Gen2 machines offer the benefit of the latest technology, combining productivity and reliability together with continuous improvements made from previous models. As we bring the HF Gen2 to the table here in the USA, we are also offering Mill/Turn options. In 2022, HELLER US kicked off our ‘HF Stock Machine Program’. This initiative was built to reduce lead time for machine delivery, provide cost effective solutions to

the market and was aimed at growing market share in markets that we had not previously traditionally targeted.

On ‘Partners’: In January 2022, we met with our strategic distribution partners at HELLER US, to formally ‘kick-off’ our universal machine business, our focus on growing our market share and our commitment to our distribution partners. During this kick-off, we presented key strategic investments. This includes the mentioned HF stock machine program, but also the investment in building a Technology Center at HUS as well as installing an HF with mill/turn capability, a CP 6000 and a round storage pallet system from HELLER subsidiary STS to be used for cutting demonstrations, process development and testing.

On ‘People’: HELLER has invested to build the right organizational structure and skill sets to align with our overall strategic priorities. We have created four regions within the US and will appoint Regional Field Sales Manager (RFSM) to each region.

In the Technology Center, we have hired a full time Tech Center Leader, Alexander Tretnjak. Later this year, we will bring on another full time Application Engineer as well as a Tooling Specialist to increase capacity capability.

With the increased volume of activity for our universal machine business, we will also be adding an Inside Sales Engineer to support the sales team and serve as inside contact for distribution partners and/or customers to coordinate internal activities and improve efficiencies in our proposal and tracking process.

In order to maintain the high service level and as we anticipate growth regionally, we are onboarding three Regional Service Technicians. In 2022, HELLER US has also re-started our local apprenticeship program, bringing on three new apprentices.

On ‘Process’: As we move aggressively into the universal machine business, HELLER has to change the application focus. In universal machine business, we are focused on bringing the full benefit of HELLER to these market segments that we have previously traditionally not targeted in the USA.

As a result, we are also investing in additional resources to provide technical and process support for our sales team and distribution partners. HELLER has assigned five Application Engineers from Germany to stay in the USA and support the sales initiatives. They will travel with distributor sales people to visit

customers and review opportunities to evaluate the best-fit machine/process to match the machining needs of the customer.

On ‘Promotion’: In addition to our joint promotional activity with our distribution partners, HELLER will also participate in IMTS 2022 from September 12 – 17 in Chicago, Illinois.

HELLER will exhibit the HF 5500 Mill/Turn Gen2 machine as well as the CP 6000 and a round storage pallet system and will have cutting demonstrations during the show. Our focus for the show is to drive universal machine business and demonstrate that HELLER has the right equipment, experience and capability in high precision, highly productive applications in all industry segments, not focused on the automotive market.

Kenneth Goodin



The Motor City



The HELLER location in the USA

Beginnings:
HELLER Machine Tools L.P. was founded in 1982 in Illinois. In 1992 we relocated to Troy, Michigan. This location 30 kilometers north of Detroit houses our production and sales as well as an engineering and Technology Center.

- Tasks:**
- _ marketing of HELLER products for North America [USA, Mexico, Canada]
 - _ Technology Center for customer project and production support and management
 - _ distribution partnerships for machine tool sales and service
 - _ engineering and application support
 - _ technical support and training
 - _ preventive and corrective maintenance and servicing

- _ single machine and system installations
- _ machine retrofits and rebuilds
- _ HELLER sales support

Management:
Kenneth Goodin

Employees:
Over 120

Detroit

Customers:
Our clientele comprises a large number of companies from a wide variety of sectors ranging from the oil & gas, automotive and general machine industry and the supplier industry through to the steadily growing aerospace industries. HELLER’s 5-axis HF series for combined milling/turning are the ideal machines to cut precision parts while offering a reduced cycle time and guaranteeing optimum production quality.

Objectives:
Our goal is to expand HELLER’s market share throughout the multiple industries, such as aerospace, oil & gas, maritime, electric vehicles and motorsports – by offering each customer comprehensive and specific support through a real partnership. To achieve this goal, we have teamed up with industry trusted machine tool distribution partners and we also continue to build on a very experienced

team in our Sales, Service, and Engineering departments. From a single machine to a fully automated turnkey machining system, HELLER USA provides our customers with a solution that not only offers highest precision, but also provides peace of mind that their HELLER machine will help them maximize their production and provide a worry-free environment where good parts are produced every time.

Points of interest in and around the “Motor City” Detroit

Motown Museum

‘Hitsville U.S.A.’ is the nickname given to Motown’s first headquarters and recording studio. The house is located at 2648 West Grand Boulevard in Detroit, Michigan, near the New Center area. The house was purchased by Motown founder Berry Gordy in 1959. After purchasing the house, Gordy converted it for use as the record label’s administrative building and recording studio. Following mainstream success in the mid 1960s through mid 1970s, Gordy moved the label to Los Angeles and established the Hitsville West studio there, as a part of his focus on television and film production as well as music production. Today, the ‘Hitsville U.S.A.’ property operates as the Motown Museum, which is dedicated to the legacy of the record label, its artists and its music. The museum occupies the original house and an adjacent former residence.

Motown Museum is the ongoing heartbeat of the Motown legacy – a global tourist destination for music and history fans that celebrates the authentic story of Motown from its humble beginnings to its emergence as the ‘Sound of Young America’ and beyond. The Museum brings together fans, people and ideas from different generations and it captures the imagination to fuel dreams and inspire accomplishments.



Detroit Riverfront

The Detroit International Riverfront is a tourist attraction and landmark of Detroit, Michigan extending from the Ambassador Bridge in the west to Belle Isle in the east, for a total of 5.5 miles. The International Riverfront encompasses a cruise ship passenger terminal and dock, a marina, a multitude of parks, restaurants, retail shops, skyscrapers and high-rise residential areas along with TCF Center. The Marriott at the Renaissance Center and the Robert’s Riverwalk Hotel are also situated along the International Riverfront. Private companies and foundations together with the city, state and federal government have contributed several hundred million dollars toward the riverfront development. Key public spaces in the International Riverfront, such as the RiverWalk, Dequindre Cut Greenway and Trail, William G. Milliken State Park and Harbor and a cruise ship passenger terminal and dock at Hart Plaza complement the architecture of the area.

Henry Ford Museum of American Innovation

The Henry Ford Museum is a historical complex in the Detroit suburb of Dearborn, Michigan. The museum collection contains the presidential limousine of John F. Kennedy, Abraham Lincoln’s chair from Ford’s Theatre, Thomas Edison’s laboratory, the Wright Brothers’ bicycle shop, the Rosa Parks bus and many other historical exhibits. It is the largest indoor-outdoor museum complex in the United States and is visited by over 1.7 million people each year. It was listed on the National Register of Historic Places in 1969 as ‘Greenfield Village and Henry Ford Museum’ and designated a National Historic Landmark in 1981 as ‘Edison Institute’.



GM Renaissance Center

The Renaissance Center is a group of seven connected skyscrapers in Downtown Detroit, Michigan, United States. The Renaissance Center complex is on the Detroit International Riverfront and is owned by General Motors as its world headquarters. The central tower has been the tallest building in Michigan since it was erected in 1977. John Portman was the principal architect for the original design. The first phase consisted of a five-tower rosette rising from a common base. Four 39-story office towers surround the 73-story hotel rising from a square podium which includes a shopping center, restaurants, brokers and banks. The first phase officially opened in March 1977. Portman’s design brought renewed attention to city architecture since it resulted in construction of the world’s tallest hotel at the time. Two additional 21-story office towers opened in 1981. This type of complex has been termed a city within a city. It is the home of the General Motors world headquarters.

Why change is so difficult for us ...

**“If you always do what you’ve always done, you’ll always get what you’ve always got.”
– Henry Ford**

We have all been there: we want to work more effectively, to exercise more, to prepare our own meals more often or to develop professionally. However, affecting real change is easier said than done. Why is that? Because humans are creatures of habit that dislike change. Our brain loves routines and anything else would cost extra energy. That is why change – of whatever kind – seems very stressful to us. However, it is possible to re-educate the creature of habit, enabling change and development. We have put together a few tips to help you make a change.

Tip no. 1: see change as an opportunity

Keep the benefits change could bring in mind. To do this, for example, you could draw up a list of pros and cons. Realise that change always brings about personal development, too. This in turn provides you with the necessary motivational kick.

... and how we can still succeed

Tip no. 2: think of it as a long-distance run instead of a sprint

Making a change takes time – and that is exactly what can be frustrating because we want to see change and the successes it brings as quickly as possible. However, re-educating the creature of habit is a long-term process throughout which new behaviours must first be established. Look at it positively: you do not have to implement everything at once. It makes more sense to divide the goal you set yourself into individual small steps that are limited in time and manageable.

Tip no. 3: identify hurdles and seek allies

On the path of change, you will encounter hurdles that need to be overcome. Unmask possible ‘culprits’ such as stress, distraction and tiredness in advance: when you are aware of what is slowing you down, you can specifically do something about it, e.g., by looking for allies who are pursuing similar goals and have to deal with the same stumbling blocks. It is a well-known fact that we are stronger together than alone. Mutual motivation and the feeling of ‘not having to go through it alone’ help to stick to the goal. Group dynamics additionally generate a kind of commitment that provides a boost when your motivation is low.

Tip no. 4: take it easy!

Do not be too hard on yourself. It is perfectly fine if, for once, you do not feel like exercising or indulge in pizza from the take-away for dinner. The key is not to let the creature of habit take over again, but simply to pick up where you left off the next day.

News and events

Successful in-house events in Nürtingen and Querétaro

From 3 to 5 May 2022, HELLER welcomed around 850 guests from almost 20 countries to the HELLER Open House in Nürtingen under the motto 'Information. Innovation. Inspiration.'. Guided tours, for example, of our production and component repair facilities, state-of-the-art manufacturing and technology solutions live in action at the Technology Centre and the Test Department as well as the presentation of innovative technologies, comprehensive services and future-oriented digitisation and automation solutions were the focus this year. There was also a large exhibition with the HELLER subsidiary companies and more than 30 partners and suppliers. "Around 200 employees from all divisions of the company ensured that our guests from home and abroad had an unforgettable experience visiting our plants 1 and 2," explains Head of Marketing Marcus Kurringer. "After a long lean spell, this in-house exhibition was a successful start for many more personal encounters with our customers," Kurringer continues.



Already at the end of April, our Mexican subsidiary in Querétaro successfully held a three-day in-house event together with the partner companies Qc Mantenimiento, SMW Autoblok Group, Renishaw Mexico, Sandvik Coromant, ADV Technologies and R.ISMAH, presenting a production cell consisting of a HELLER MC 25 and a robot automation system. On the first two days, selected customers were invited to the in-house exhibition with their project and engineering teams. On the third and final day, the event was open to all interested companies, with the number of visitors limited to 150 people due to current Covid regulations.



Award for HELLER China

On 13 February 2022, Weichai Holding Group Co, Ltd. and China Heavy Truck Group Co, Ltd. [Sinotruk] held the Global Supplier Conference of Engine Business under the motto 'Building the Leading Supply Chain System Together'. At the meeting, HELLER China was recognised as the leading machine tool manufacturer with the 2021 Gold Supplier Award. Chief Representative Andrew Parkin, Vice President Youpeng E and IS Manager Joe Wang were delighted to accept the prize.



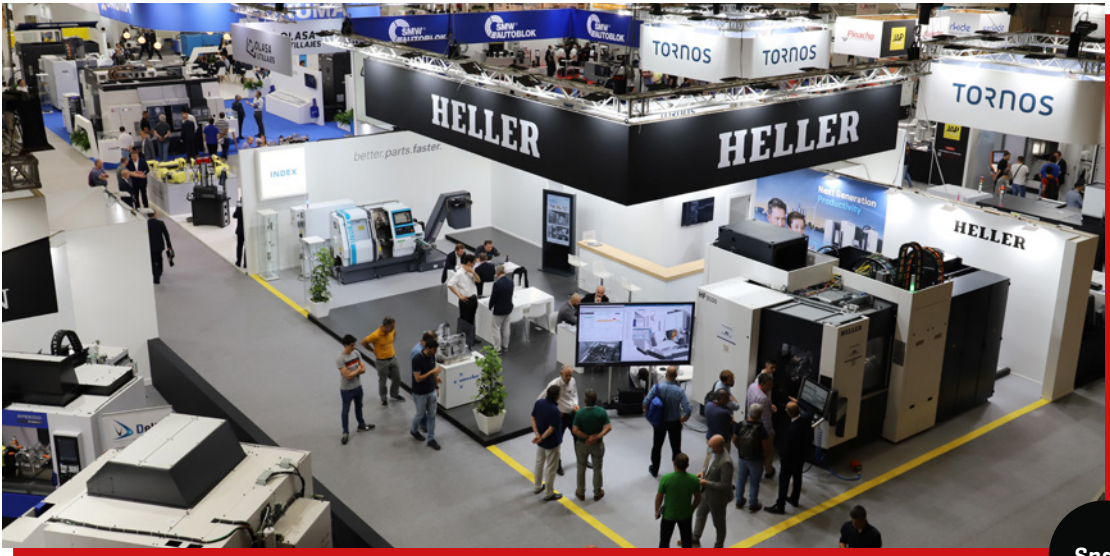
HELLER in 3D

After winning the German Innovation Award 2021 and the German Design Award 2021, HELLER's event and experience platform 'V-CON' has now also received the German Brand Award 2022 – one of the most important German brand awards.



HELLER on film

The proven cooperation between PAM Network Studios and HELLER has now resulted in a fifth award-worthy film: 'The HELLER Test Centre – Highend Engineering'. The production was awarded a golden 'intermedia-globe' at the WorldMedia Festival in Hamburg.



Spain



Hungary



Italy

HELLER on the road

After a long wait, a return to fair trade normality with live events on site will now be possible again as of this year. Since then, HELLER has participated in numerous conferences, congresses and trade fairs. We were represented at MACH in Birmingham [England], Mach-Tech in Budapest [Hungary], Global Industrie in Paris [France], MECSPE in Bologna [Italy] and most recently at BIEMH in Bilbao [Spain]. At these events, our 5-axis machining centre HF 3500 was the main focus of interest among the exhibits. Numerous visitors seized the opportunity for personal discussions and were able to get a first-hand impression of the efficiency of our machining centre at the trade fairs.

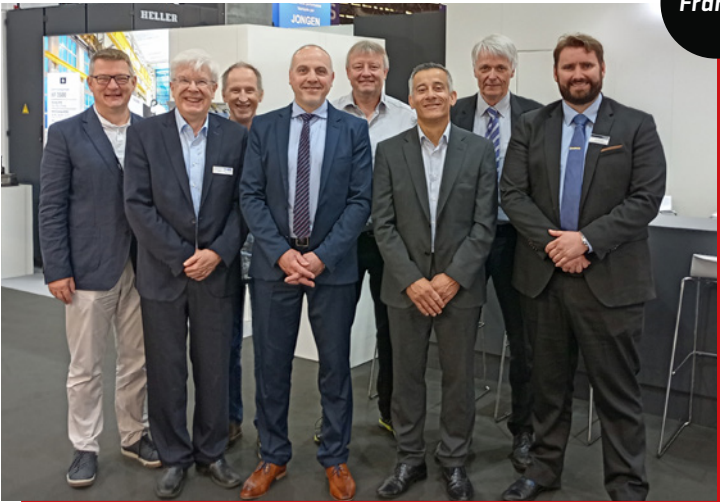


England

HELLER at mav Innovation Forum and SMM Congress

On 7 April 2022, mav Innovation Forum of the Konradin publishing house took place in Böblingen. Under the motto 'Innovation for Value Creation', leading technology experts from metalworking presented their latest developments and products for the future. Interesting lectures and an accompanying exhibition provided visitors with an overview of forward-looking trends. HELLER was represented with an information stand and provided details about automation solutions helping machine users to achieve maximum productivity. Thomas Baumeister of HELLER Product Management delivered a compelling presentation to the participants titled 'Productivity and Flexibility in Harmony'.

Seven weeks later, HELLER presented itself at the SMM Congress in Lucerne on 25 May 2022. The event focused on the requirements on manufacturing companies, especially in terms of flexibility, costs, consistency, traceability and digitisation. Our Area Sales Manager for Switzerland, Christoph Andris, held a presentation titled 'Fully automated through to batch size 1 in IT6 tolerance zones for efficient production processes'. It illustrated how HELLER designs flexible manufacturing islands, which, in addition to excellent process capability, also enable outstanding utilisation of the manufacturing cell within the narrowest tolerance range, thus increasing economic efficiency. Participants also learned more about the entire process planning and the constructive design of machine tools required in the context of modern production processes.

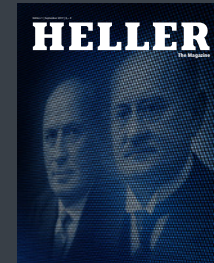


France

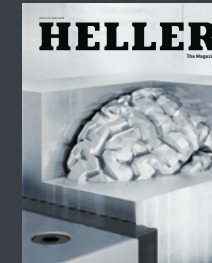


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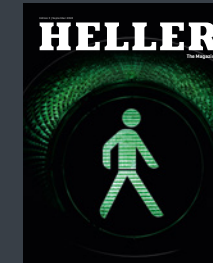
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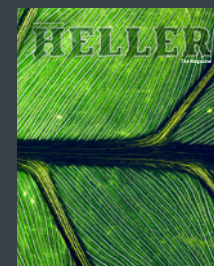
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