

# INSIGHTS

EDITION **1** 2025



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## GENERATION 2.

Successful market launch.

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## ROBOT SYSTEM.

At the next level.

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## 12 INSIGHTS FROM THE SHOP FLOOR.

What users say.



# Preface.

Dear Business Partners and Customers, Colleagues and Employees,

We have had a challenging year so far – shaped by global uncertainties, varying regional developments and a persistently strained economic climate. This situation requires a high degree of flexibility and dedication from all our employees, and I sincerely thank them for their commitment.

Despite these conditions, we look to the future with confidence. For we are convinced: Those who remain technologically advanced and consistently invest in innovation will continue to thrive in the future. That is exactly HERMLE's claim.

At this year's EMO, we were able to reaffirm this claim once again. Alongside four machines from the new Generation 2 series, which are particularly impressive due to their enhanced energy efficiency, we showcased a broad range of automation solutions. In this issue, we present our trade fair highlight: the RS 2 GEN2 system. Its high flexibility allows cost-effective production even of small batch sizes, while its intelligent storage concept provides a future-proof solution for a wide variety of requirements. The user reports in this issue illustrate the real-world impact of these solutions on daily production.

Our innovative strength goes hand in hand with a clear commitment to our location. For we know: Sustainable growth is only possible with a solid foundation. That is why we have continued to make targeted investments in our production locations this year. The production facility for large parts has been expanded at the Zimmern ob Rottweil location, while a new technology and training centre, complete with an adjoining staff canteen, is currently under construction in Gosheim.

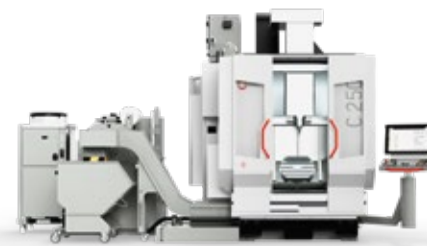
We would like to take this opportunity to draw your attention to our Open House next year. In addition to our latest machines and automation solutions, you can also look forward to engaging insights into our special exhibition.

We sincerely thank you for your trust and collaboration and wish you successful projects, clear prospects and an optimistic outlook for the future.

Kind regards



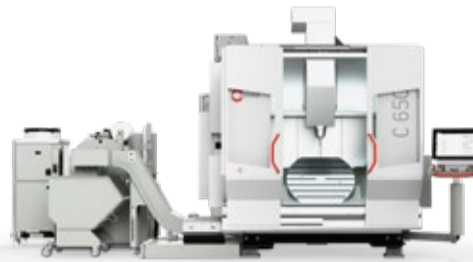
Kai Bacher  
Chief Representative Sales



C 250 GEN2



C 400 GEN2



C 650 GEN2



C 12 GEN2



C 22 GEN2



C 32 GEN2



C 42 GEN2



C 42 MT GEN2



C 52 GEN2



C 52 MT GEN2



C 62 GEN2



C 62 MT GEN2



## DEVELOPED, TESTED, READY: PRODUCT RANGE CONVERTED TO GEN2 IN JUST UNDER TWO YEARS.

Do you remember? We introduced GEN2 in Insights 1/24. Initial models. Three in total. Nearly all nine models and the three MT variants, have now been converted to GEN2. And all this in less than two years. We're ready for the future, we said back then. The future is now here. It is built from ideas – ideas like these. With GEN2, HERMLE is shaping the future of milling and turning, in short: High-precision CNC machining. This means that all machining centres will be available in the GEN2 version by 2026. Launch of the series can then also begin for the two remaining models – C 52 and C 62. From the first prototypes, after intensive testing and in close consultation with partners, they are now ready for use.

GEN2 does not reinvent everything. Yet it introduces something entirely new where nothing comparable existed before. This primarily encompasses the electrical architecture, followed by a sustainable energy concept, modified cooling lubricant management and, last but not least, a broad spindle portfolio with innovative tool measurement. Let us take a look at these developments point by point.

### 1. THE ELECTRICAL ARCHITECTURE:

It features a new design. For example, it is equipped with the universal ProfiNet communication bus, which integrates seamlessly into existing HERMLE systems and optimises production and process automation. Additionally, numerous sensors enable standardised, bidirectional, point-to-point-based, wired communication between sensors, actuators and other field devices with the control level via IO-Link. It is exactly this state-of-the-art interface technology with its diagnostic capabilities that makes HERMLE GEN2 machining centres more powerful – and less prone to errors.

### 2. THE ENERGY CONCEPT:

The twelve machining centres are energy efficient thanks to numerous auxiliary units now equipped with frequency-controlled drives. The demand-based, energy-saving control is sustainable, thus actively contributing to climate protection. It also saves money due to its lower energy consumption.

### 3. THE OPTIMISED COOLING LUBRICANT MANAGEMENT:

Improved filtration enhances cleanliness and extends the overall longevity of the system. Both provide tangible benefits in daily operations – and in the long term.

### 4. THE BROAD SPINDLE PORTFOLIO AND INNOVATIVE TOOL MEASUREMENT:

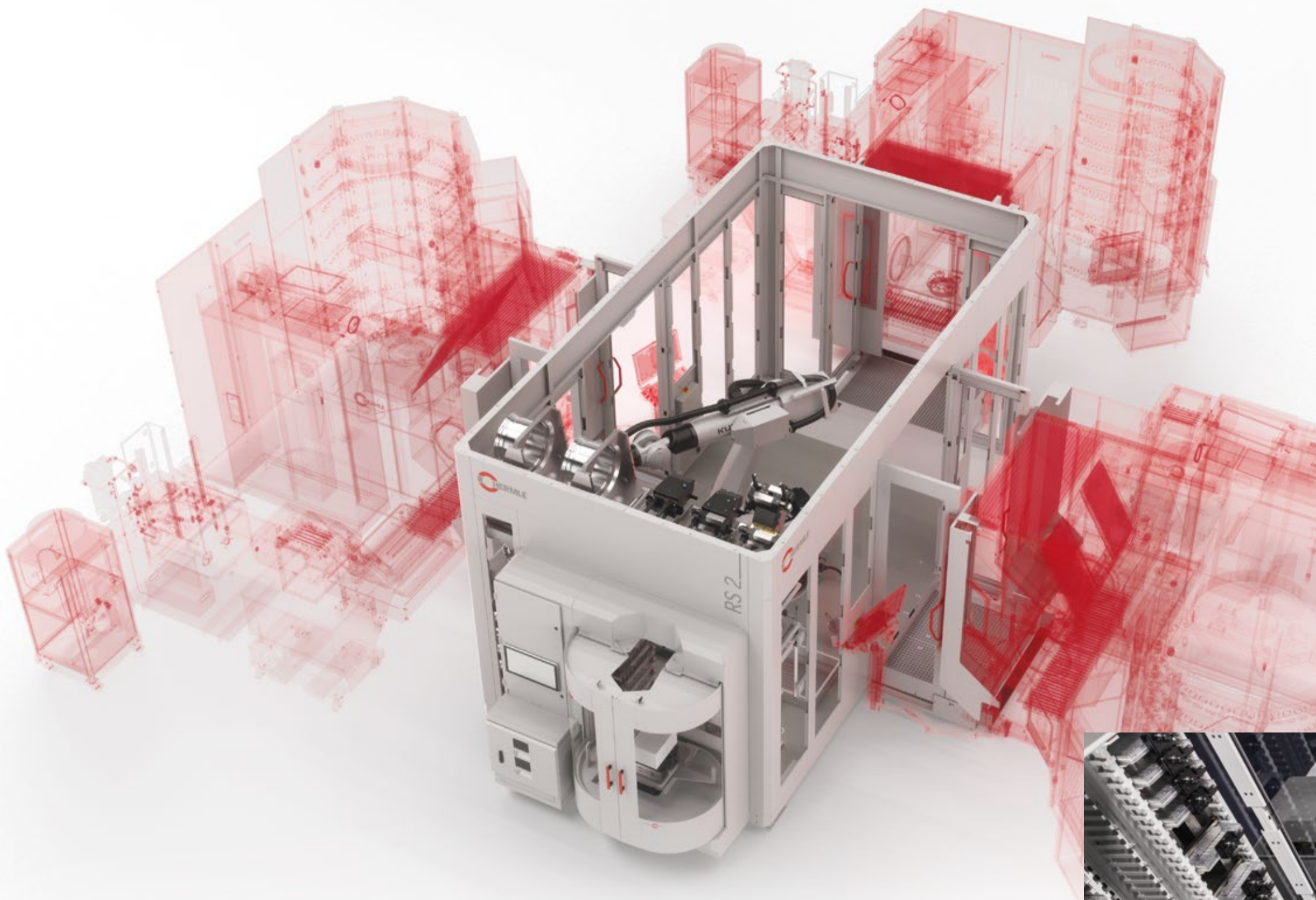
Combined with Blum process technology Digilog, HERMLE's GEN2 delivers additional practical advantages for users.

### WHAT HAVE WE LEFT UNCHANGED?

The incomparable mechanics. It forms the basis for unrivalled precision in the 5-axis range. Whatever you could do with your HERMLE machine before, you can still do: Mill better. Only now it is even simpler, more user friendly, more efficient and more sustainable. And that represents a significant leap forward, step by step.



Go to complete product overview.



**ROBOT SYSTEM AT A NEW LEVEL.**

# RS 2 GEN2

For over 25 years, HERMLE AG has been automating its machining centres – from pallet changers to robot systems. HERMLE offers both main components from a single source, giving customers the advantage of a single point of contact and, at the same time, excellent service.

With the robot system RS 2 GEN2, automation has now been further improved and optimally tailored to customer needs. The system is modular, and up to three HERMLE machining centres – even of varying designs – can be adapted. The fully glazed safety enclosure, featuring up to three double access doors, ensures optimal visibility and protection. Various setup station variants allow convenient workpiece handling, while six rack modules provide flexible storage for pallets, workpiece carriers, dies and grippers. The centrally positioned 6-axis robot equips all machine working areas, supporting a transport weight of up to 210 kg. And finally, the system is delivered as a complete unit for quick commissioning.

## ADVANTAGES AT A GLANCE

- Compact, highly modular robot system in four expansion stages
- Can be adapted to six HERMLE machine models: C 250 | C 400 | C 650 | C 22 | C 32 | C 42
- Cutting-edge design and can be combined with up to three HERMLE machines
- Space-optimised design of just 13 m<sup>2</sup> or 16 m<sup>2</sup>
- Automatic gripper & clamping jaw change
- Six different individually configurable rack modules for maximum flexibility
- Operator-friendly control software
- Transport weight of up to 210 kg



Go to  
YouTube video.



# RS 2 GEN2

## MAIN COMPONENTS

### THE BASE PLATFORM

The base platform has a footprint of just 13 m<sup>2</sup>. It is available in four expansion stages. Designed as a welded construction, it is manufactured at HERMLE's sheet metal production facility and supports the 6-axis robot, the rack systems and the fully glazed safety enclosure, providing operators with a clear view of the system.

### TWO SETUP STATION SYSTEMS

A manual or, optionally, a rotating setup station can be adapted to the system. It boasts extensive glazing and two rotating doors, which, when loading the setup station, also close off access to the system. The special feature is a laser monitoring system that checks the workpiece height and controls the maximum width of the pallets or fork systems. This ensures efficient, optimised and effective rack filling. Operator activities can be planned several days in advance, and flexible planning across multiple machines is also supported.

### THE RACK MODULES

The six basic rack modules feature an intelligent storage strategy that significantly minimises the need for manual rack adjustments. There is no need for rigid rack organisation as was previously the case. This task is now assumed by the control software, which places the

two-machine solution, workpieces can thus be produced on pallet carriers in one machine and as individual workpieces in the other. This results in a high level of flexibility without any restrictions.

### GRIPPER, CLAMPING, PALLET AND DIE SYSTEMS

Standard and hybrid grippers for versatile parts handling, NSR grippers for heavy pallets and dies, fully automated clamping jaw change for maximum flexibility: The HERMLE robot system includes all the necessary components to support a wide range of applications.

The standard grippers, both as single and double grippers, are designed for a transport weight of 20 kg per gripper, hybrid grippers for 25 kg and double hybrid grippers for 2 x 25 kg. All the grippers can be adapted with an array of gripper fingers.

An NSR gripper ensures the handling of pallets weighing up to 210 kg and die carriers weighing up to 180 kg. In addition to standard dies, universal dies are available that can be individually adjusted to suit a wide variety of part families.

For effective machining and parts handling, the clamping jaws of the vises can also be changed fully automatically in the RS 2 GEN2. This increases the number of workpieces and is the ideal addition in the area of six-sided machining.

### THE CONTROL SOFTWARE

The control software is the heart and soul of the system. It manages, checks and coordinates the workflow. It communicates with the operator and displays the system status. And it provides intelligent alternative strategies in the order sequence (e.g. in the event of broken tools, etc.). Moreover, it offers an ideal to-do preview for operator activities with a forecast covering several days.

### SUMMARY

With RS 2 GEN2, HERMLE has created a modular and service-friendly automation solution of the highest level. With highly flexible planning options across multiple machines.

### THE 6-AXIS ROBOT

At the core of the system is the 6-axis robot, capable of handling a load capacity of up to 210 kg. Firmly mounted on the platform and optimally arranged, it can reach up to three working areas, six rack modules, the setup station and the two storage positions.

pallets or fork systems randomly and optimises the footprint perfectly.

### UP TO THREE TRANSFER STATIONS

Up to three stations are available for storing pallets or fork modules, enabling flexible workpiece handling and quick changeover between pallet and individual parts production. For example, with a





## GOING THE EXTRA MILE.

The robot system RS 2 increases primary processing times and reduces downtime. This minimises hourly machine rates and cuts staff costs. **Product illustration** Diebold manufactures spindles of the highest quality on the C 42 U, for example. **Image below** Marcel Heck, CNC miller, and Hermann Diebold, managing director (from left), both Helmut Diebold GmbH & Co.



## LONG SPINDLE RUNTIMES DESPITE SINGLE-SHIFT OPERATION.

From analogue milling machine to 5-axis machining: Held appreciates the simple operation and precision of the C 250 U. **Product illustration** Held Präzisionstechnik machines parts for various companies and sectors. **Image below** Sales rep Wolfgang Schlenk, HERMLE, with the Held team: Production foreman Roland Füller, managing director Maximilian Held and machine operator Edwin Lemmle (from left).

Tool holding fixtures of the Goldring series offer the highest precision. Helmut Diebold GmbH & Co. manufactures high-end accessories for CNC machining. The company uses automated processes, for example the combination of the HERMLE 5-axis machining centre C 42 U and the robot system RS 2.



Industrial yarns, bicycles and precision parts – Chr. Held GmbH & Co. KG has a diverse portfolio. Since 2023, the contract manufacturer has been prioritising automation: Together with the robot system RS 05-2, the C 250 U from HERMLE turns night into day. The result: High efficiency through smart automation.



Significantly more precise than the standard approach – perfectly sums up the motto of Hermann Diebold. It is the willingness to go the extra mile. “Is it worthwhile?” he wonders and then answers the question himself: “No. We don’t earn more money as a result, but customers value the quality of our components and choose us for that reason.” In 1952, Helmut and Ida Diebold founded Helmut Diebold GmbH & Co. in the southern German town of Jungingen. Their aim was to manufacture precise system components for the construction of textile machines. Since then, the contract manufacturer has become a globally renowned manufacturer of precision tools. Today, the range includes high-quality Goldring tool holding fixtures, innovative shrink units, precise measuring technology and advanced spindles. Automation is an essential means of increasing productivity: “We realised early on that machines need to be not only more efficient but also smarter.” Thanks to modern machining centres, such as the C 42 U with adapted RS 2 from HERMLE, the company produces high-precision components in unmanned shifts: “We purchased our first C 42 U, knowing the level of automation would expand significantly with an additional machining centre. And that’s the reason why we’ll be adding a second machine soon.”

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### AND IT KEEPS ON RUNNING

The C 42 U mills complex workpieces at full power – precisely and highly dynamic. The robot system RS 2 boosts flexibility by autonomously exchanging components during continuous operation. This way, the machine and robot ensure a seamless workflow. The additional magazine ZM 192 stores enough tools for extended jobs. This reduces throughput times and lowers the costs at maximum process reliability. CNC miller Marcel Heck says: “While the machine is running, I can focus on other tasks.” The consistently high quality – from batch size 1 to 100 – is decisive. “Many of our workpieces are so precise that we measure each one immediately as the machine produces the next.” The company machines less critical components at night and at weekends. “The only limiting factor is the number of pallet spaces,” says Hermann Diebold. The entrepreneur relies on the digital support provided by the HERMLE “Information-Monitoring-Software” – in short: HIMS. The central monitoring tool provides a compact overview of the C 42 U with detailed live status. In the event of an issue, the system informs him by e-mail: “This means we know for sure if and when we need to intervene.”

Managing director Maximilian Held emphasises that automation is not just a growth driver but a necessity for the company to stay competitive in the future. Held Präzisionstechnik therefore relies on the robot system RS 05-2 from HERMLE, which handles parts on the 5-axis machining centre C 250 U. “At least two of our qualified employees have stayed with us because they don’t want three-shift operation. Thanks to automation, we can manufacture unmanned at night and at weekends,” Held explains. Chr. Held GmbH & Co. KG was founded in 1919 as a dyeing mill and evolved into a successful contract manufacturer in the metalworking industry. Today, the company is a trusted partner across various industries, continues to trade in industrial yarns and operates a store for high-quality bicycles in Blaubeuren.

### IMPRESSED FROM DAY ONE

To address the shortage of skilled labour and competitive pressure, Held Präzisionstechnik invested in the automated HERMLE C 250 U with RS 05-2. “We were impressed from day one,” says Held. The C 250 U offers a large working area in a small footprint and enables precise, flexible 5-axis machining. “The machine also has to produce without staff, as this is the only way we can remain competitive,” Held explains. During the day, the company manufactures individual parts and small series, while the system runs unmanned at night and at weekends. The longest continuous operation to date lasted 52 hours, only limited by the number of drawers. The compact automation solution RS 05-2 is particularly suitable for small and medium-sized workpieces. “We can effortlessly switch between manual and automated production,” says the pleased CNC miller Edwin Lemmle. Held adds: “The RS 05-2 makes small series production cost effective.” The investment quickly paid off: “Our spindle runtimes increased by more than 50 per cent. Anyone who doesn’t embrace automation will face challenges in the medium term”.





## AUTOMATION IS A TIME LAPSE.

The robot system RS 2 handles the pallets and workpieces on the machining centre C 32 U. **Product illustration** The company uses the HERMLE systems to mill door handles for the DARC MONO, for example. **Image below** Managing director Dr Jens Buchert, head of automation Bastian Hummel, both KW Solution, and Wolfgang Schlenk, sales rep HERMLE (from left).



## CODE FROM THE CAD MODEL.

The FWM team: Managing director Thomas Fuchs, deputy head of the CNC milling department Maximilian Skarba and managing director Johannes Voit (from left). **Product illustration** Welding device for car body construction. **Image below** 24/5 automated production – the 5-axis machining centre C 22 U with the adapted robot system RS 05-2.

KW Solution has progressively evolved from a tool and mould maker into a contract manufacturer for individual parts and small series. The company relies on automated processes and the robot system RS 2 from HERMLE to efficiently manage high-mix, low-volume requirements.



Individual parts production almost unmanned – at the contract manufacturer FWM, software now generates the programming code. The HERMLE robot system RS 05-2 assumes the handling, while the specially developed application feeds the parts into the machine. A glimpse into the future of machining.



“Without automation, we’d no longer exist,” emphasises managing director Dr Jens Buchert. In 2016, the entrepreneur took over Karl Walter Formen- und Kokillenbau GmbH & Co. KG, now known as KW Solution for short, and has made significant investments since then. “Thanks to our automation, we are able to utilise the machines to a very high degree.” Each automated 5-axis machining centre – C 32 U, C 52 U and C 52 MT from HERMLE – exceeds 4,000 spindle hours a year. Founded in Göppingen in 1960, the company produces, for example, moulds for aluminium rims and cast parts for the automotive industry. Also included in the portfolio: The all-terrain DARC MONO expedition vehicle. Its base is a sturdy IVECO chassis, which KW Solution enhances with a carbon fibre cabin and a range of practical features. Hinges and door handles, which the company manufactures automatically on its C 32 U from HERMLE, are used here.



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### ALWAYS STAY IN SYNC

Dr Jens Buchert focuses on exceptional motorhomes – and on lean processes and automation. “Machines should run 24 hours a day. That can only be achieved on a single shift with automation.” KW Solution produces around 80 per cent of its workpieces in batch size 1. “We’ve realised that we’re not using our robot systems to full capacity. We also need small series that we use as a buffer.” When KW Solution put the first RS 2 into operation on a C 32 U in 2020, the company ventured into new territory. Dr Jens Buchert: “There were no references for individual part automation at the time.” The contract manufacturer set to work together with HERMLE. Clamping devices, tool holding fixtures, process sequences – no stone was left unturned. Every clamping setup is different. KW Solution uses specialised tools for about 30 per cent of its work. The additional magazine ZM 192 supplements the 36 tools in the C 32 U, providing enough alternatives to handle all machining tasks. “If we define something incorrectly and a length is not quite right, it rattles,” emphasises Bastian Hummel, head of automation. “Our programs are collision tested, and we’re confident that the machines will run unmanned overnight without any issues. The average spindle runtime of machines without automation is around 1,600 hours per year, whereas with our robot system, it’s about three times that,” explains Dr Jens Buchert. “Automation is therefore a kind of time lapse.” Bastian Hummel adds: “The service from HERMLE is excellent; many issues can be resolved over the phone with the application technology team. If needed, the spare part and fitter are with us by the next day at the latest – and the machine is back up and running in next to no time.”

Dozens of angle pieces, all somewhat similar, but not identical – FWM primarily produces individual parts, says Thomas Fuchs. The parts are used for vehicle body construction. Since its foundation in Lebach in 2006, the company has focused on growth: Today, about 100 employees and a network of subsidiaries work together to deliver complex solutions. “None of our milling machines are more than ten years old,” emphasises Thomas Fuchs. More and more systems work autonomously with pallet changers and individual parts handling. Automated individual parts production is possible, as demonstrated by the 5-axis machining centre C 22 U with the robot system RS 05-2 from HERMLE. Since 2024, FWM has been using this combination to machine components measuring 80 to 120 mm in edge length unmanned.

### WHEN THE CODE WRITES THE CODE

At the core of the system is FAMS (Fuchs Automated Milling Software) developed by FWM, which replaces the programmer: “We only have to import the CAD data, FAMS handles the rest,” explains managing director Johannes Voit. After several years of development, the program can now prepare most components for machining fully automatically. “Our typical batch size is 1,” says Fuchs. HERMLE provided support for software development. FWM thus fully utilises the systems and is able, despite two-shift operation, to produce 24 hours a day, five days a week. In addition to the C 22 U, four HERMLE C 400 U machines are in operation – for maximum redundancy and an identical software environment. The HERMLE “Automation-Control-System” (HACS) and the HERMLE “Information-Monitoring-Software” (HIMS) control and monitor the robot and handling systems. Working times, tools and programs can therefore be planned efficiently and adjusted at any time. The monitoring tool provides a live view and detailed status and message logs. Has the investment been worthwhile? “A definite yes! Without the system, we would need nine more people during peak project phases – and an additional machine,” says Thomas Fuchs.





## FROM BLANK TO HIGH-TECH PART.

Space for 15 pallets and thus enough capacity for unmanned night shifts – HS flex heavy. **Image below** The HERMLE specialists at Canon Production Printing, including Dr Lars Jörgens (1st from left), Michel Detische (3rd from left) and Florian Neumair (4th from left).



## IT'S IN HIS DNA.

The Dorau business family: Peter, Robin and Christel (from left) **Product illustration** Whether batch size 1 or 1,000 – the robot system RS L can be used flexibly, for example in the production of swivelling levers. **Image below** Trissler & Kielkopf uses the linear system to produce workpieces, starting at batch size 1.

24/6: In Poing, two HERMLE machining centres C 650 U machine components for Canon Production Printing. The 5-axis machines, featuring the automated handling system HS flex heavy, turn night into day – fully automated series production instead of the manual machining of individual parts.

“The absolutely perfect system for us,” says managing director Robin Dorau about his robot system RS L from HERMLE, featuring two integrated machining centres C 42 U. With 150 pallets, it enables 24/7 production – from batch size 1. This is the only way for contract manufacturer Trissler & Kielkopf to secure its future and to continue evolving.



In Poing near Munich, Canon Production Printing employs around 1,000 people and produces digital printing solutions for various industries. The company is a member of the Canon Group based in Tokyo. Its goal is to provide customers with high-quality digital printing systems and to optimise printing processes through suitable software, thereby helping them to save both time and money. “Our products are characterised by efficiency and excellence,” explains procurement account manager Michel Detische. This is the reason why Canon swears by HERMLE 5-axis machining centres. Two C 650 U machines with handling system HS flex heavy machine aluminium, steel and stainless steel – from prototype through to series production. “The precision and repeat accuracy of the machines is excellent,” claims Florian Neumair, a team leader in the milling department and CAM programming supervisor.

Robin Dorau spotted the robot system RS L on the HERMLE website and was instantly captivated: “I knew I wanted a system like that in my production facility.” He took over the running of his parents’ business two years ago and is now tackling current challenges. Trissler & Kielkopf GmbH has been relying on automation since 2009, for instance using the handling system HS flex and the robot system RS 2. Robin Dorau’s parents – Christel and Peter Dorau – purchased the firm in the 1990s and invested in state-of-the-art machines such as the UWF 900 E from HERMLE. He was always to be found somewhere in the company from a young age: It was basically in his DNA to run the place one day. The company continued to regularly expand its machinery, for example with two C 40 U machines, a C 22 U and a C 42 U. Today, it supplies sectors such as environmental technology, special machine construction and the packaging industry.



### IDENTICAL TWINS FOR MAXIMUM FLEXIBILITY

The C 650 U has been busy producing prototypes and series parts for four years now. Thanks to the handling system with 15 pockets and the additional magazine ZM 216, Canon is able to produce around the clock, six days a week. “Despite this fact, capacity was still limited, which is why we ordered a second system in 2024,” explains senior director manufacturing Dr Lars Jörgens.

### SMALL BUSINESS, LARGE INVESTMENT

The roughly ten-person company then reached its limits with the RS 2 and the two C 40 U machines: With up to seven clamping operations for each workpiece and runtimes of between seven minutes and one hour, the 30 pallets of the RS 2 were not sufficient for operation around the clock. “That’s the reason why I planned the linear system with 150 pallet pockets,” says Dorau. “Our aim is continuous production during unmanned hours.” A 210 m<sup>2</sup> area of the production facility had to be cleared to accommodate the system. This was achieved in next to no time by the HERMLE fitters thanks to foundation-free installation and the system design. Connected to the RS L are two 5-axis machining centres C 42 U whose double additional magazines ZM 456 supply sufficient tools. Of course, there were challenges to overcome: “We had to define everything – the clamping devices, tools and processes,” recalls Dorau. The combination system SOFLEX-CCS now controls the entire production process, transfers data and starts automatic workpiece machining. All that Dorau has to do is install programs on the CAM computer, transfer the data and start the process. “The term ‘special’ is not a word we use any more, everything is stored in the system and prepared for follow-up orders.” Have the expectations been met? “It’s even better than expected,” says Dorau. “The RS L is ideal for series parts and batch size 1.” A major advantage is the lack of downtime during inward and outward transfer: “This results in an 80 per cent time saving.” Dorau is already thinking about installing more linear systems.

The new C 650 U, which was delivered in May, offers identical equipment and ensures maximum flexibility and quick initial training of employees. The only difference is: The new model belongs to GEN2 – and thus comes with integrated energy recovery and highly efficient servo drives for low operating costs and increased sustainability. Real-time insights into the machine status are offered by the HERMLE “Information-Monitoring-Software” (HIMS). The HERMLE “Automation-Control-System” (HACS) controls the automation and dynamically adapts sequences. The standard GEN2 control is the TNC7 from Heidenhain. The control is also a further development. This pleases Florian Neumair: “The control now feels much more computer-like.”





## PERMANENT PRECISION.

Thanks to the adapted HS flex heavy, the C 42 U provides the necessary flexibility and automated processes. **Product illustration** Thanks to the high level of precision and repeat accuracy of the C 42 U, Fischer CNC-Technik manufactures perfect components. **Image below** The C 42 U specialists at Fischer CNC-Technik together with Andreas Glumpler (left), HERMLE sales rep.



## YOUTHFUL EXPERIMENTATION WAS YESTERDAY.

The 5-axis machining centre C 22 U with the adapted robot system RS 05-2 stands out due to its extended spindle runtimes and exceptional precision. **Product illustration** Components for a gas generator in a 16-cylinder engine. **Image below** The HERMLE experts at PAWA-Tech: Workshop manager Matthias Mieslinger, managing director Paul Walczok Jr. and deputy plant manager Marco Gradl (from left).

The contract manufacturer Fischer CNC-Technik has been relying on machining centres from HERMLE since 1998. Small footprints, maximum precision and intuitive axis systems impress the entire workforce. Thanks to a combination of C 42 U and HS flex heavy, the company produces unmanned at night and at weekends.



"I've been a big fan of HERMLE machines for a long time," reveals Frank Lichti, customer advisor and head of work preparation at Fischer CNC-Technik GmbH. The company has been using HERMLE machining centres since 1998 – and now operates 16 models, including four C 800 U, eight C 600 U, one C 40 U, two C 22 UP with pallet changer PW 150 and, since last year, one C 42 U with HS flex heavy. "My expectations have been exceeded time and time again. Even our oldest C 800 U still meets the acceptance criteria." Fischer CNC-Technik was founded in Neustadt an der Weinstraße back in 1985 and now employs around 50 people. It aims to offer the highest quality and precision. Today, 60 per cent of the company's work involves highly tempered and hardened steel, as well as titanium and plastics like PEEK – many of its products are intended for the automotive industry. When capacities increased in 1998, HERMLE impressed with its reduced space requirements: "We were able to set up two HERMLE machining centres in the same space allocated for just one machine from a competitor," explains Lichti. "The C 600 U and C 800 U are the most compact systems that HERMLE has ever built."

### SMALL BATCHES, HEAVY WEIGHTS

The handling system HS flex heavy can process various formats flexibly and is ideal for meeting changing needs. Typical batch sizes are five and more components. Different load carriers help minimise collision contours and enhance pallet density. "We chose the 'heavy' version with 17 pockets," explains Lichti. It allows components weighing up to 1,200 kg to be handled automatically. The HERMLE "Automation-Control-System" (HACS) controls the process and checks zero points, pallet position, machine setup and tool availability – and informs users in real time in the event of faults. The new C 42 U expands automated capacities for components measuring up to 800 mm in diameter and 560 mm in height. "Thanks to HS flex, we're able to provide efficient processes and minimise set-up times," claims Lichti. "The decision in favour of automation was definitely the right one – it enables us to produce prototypes and small series quickly and precisely."



The contract manufacturer PAWA-Tech demonstrates why switching to professional equipment makes the difference. The 5-axis machining centre C 22 U with the adapted robot system RS 05-2 has propelled the contract manufacturer to new levels of productivity.



In 2016, Paul Walczok Jr. founded PAWA-Tech GmbH in Essenbach near Landshut – basically starting out as a garage company with one C 250 U and a small office. The business grew, and a second HERMLE machine was installed in 2019. PAWA-Tech produces components for the automotive, hydraulics and aerospace industries as well as for the medical technology sector. That said, most of the workpieces end up in the world of motor racing. The company manufactures parts from aluminium, steel, stainless steel and plastics. Automation was an issue from the outset: Walczok constructed the first automation system for the C 250 U himself. It had a certain charm: The charm of youthful experimentation. However, it worked – somehow. But in 2023, he decided to do things properly with a C 22 U and the robot system RS 05-2 from HERMLE. "We took our time planning things," he explains.



### AT NIGHT, A ROBOT COLLEAGUE TAKES OVER

During the day, the qualified employees run the three machining centres in two shifts. Then, at night, a robot colleague takes over. For almost a year now, the automation system has been operating unmanned overnight. PAWA-Tech manufactures batch sizes of ten or more components fully automatically – the machine runs at full capacity throughout the night, especially for workpieces with long runtimes. Moreover, PAWA-Tech uses a five-drawer storage that can hold 50 to 90 workpieces on each level, flexibly adaptable thanks to universal dies. The compact RS 05-2 has a small footprint of around 2 m<sup>2</sup>, offers free access to the working area and is fully integrated into the HERMLE environment. The HERMLE "Automation-Control-System" (HACS) facilitates viewing and prioritising orders, sequence plans and tool data. Thanks to the long-stroke clamping device and the drawer system, various component sizes can be clamped without the need for conversion. "My employees are able to program machines and optimise processes, while the robot takes care of simple insertion tasks," says Walczok. "Today, 24/7 is only possible with automation," Walczok asserts. "If a customer orders parts on Friday evening, we can deliver thanks to the robot system." This level of flexibility is crucial, especially when orders are sometimes light on the ground. The combination of machining centre, robot system and the HERMLE service makes all the difference for PAWA-Tech.

USERS.

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## PIT STOP IN THE MACHINING CENTRE.

The first C 400 in operation at Motor Classic. **Product illustration** A wheel hub manufactured with maximum precision on a C 400. **Image below** Motor Classic manufactures complex components, including entire assemblies, for the restoration of classic cars.

Over the years since 1995, Motor Classic Hungary has become one of Europe's leading workshops for the restoration of classic cars. The company is renowned for its quality, has won numerous international awards and been showcased in prestigious museums. And always present: Three HERMLE C 400 machines.



Motor Classic Hungary is a leading classic car restoration specialist and an established manufacturer of automotive and industrial parts. The company, based in Tatabánya, Hungary, manufactures at a site covering more than 8,000 m<sup>2</sup> and boasts more than 100 qualified employees. And it is constantly expanding – most recently with a 1,500 m<sup>2</sup> production facility and an additional warehouse. The company offers a unique, integrated support chain: From component manufacture through painting and galvanizing to cutting-edge technologies, such as fully automated robotic painting systems and reverse engineering. Over the course of its 25-plus years of operation, the company has restored almost 300 classic cars, including Mercedes-Benz W113, W111, W198 and W121 models. It completes around 30 full-scale restoration projects each year. Cutting-edge manufacturing and finishing processes ensure the highest quality and flexibility, both for individual parts and series production.

### MOULD MAKING EXCELLENCE

Motor Classic Hungary is recognised as a market leader in the field of classic car restorations and is renowned for its state-of-the-art technology, qualified employees and finely crafted products. With annual contracts, strong partnerships and global recognition, the company reflects the highest standards in quality and authenticity – especially for Mercedes-Benz models, but also for car brands such as Audi and Porsche. And the company swears by HERMLE. Three C 400 machines are responsible for high-precision manufacturing tasks – predominantly for mould making, but also for the manufacture of high-precision components and complex 5-axis machining activities.



The decision in favour of HERMLE was based on the exceptional rigidity, precision and reliability of the machines – ideal for meeting the demands of restoring classic cars and manufacturing components. So it comes as little surprise that they are also used in high-profile projects, such as a torso for Supercar Blondie. The advantages: Besides offering top-class machines, HERMLE also provides a fast spare parts service with efficient technicians and an outstanding customer service team: A premium pit stop, so to speak. Short: The close partnership reflects Motor Classic's own values and is a key success factor for remaining competitive worldwide.



## FROM TRADITION TO INNOVATION.

Thanks to individual parts handling, even small workpieces with short runtimes can be manufactured automatically. **Image below** Thanks to 5-axis machining, Viavorm manufactures complex geometries in one operation.

The Belgian precision specialist Viavorm is taking the next step: By operating the first robot system RS 1 from HERMLE in Belgium, the company is embracing intelligent automation – for even greater efficiency and precision. Viavorm is thus transforming its production processes to run around the clock.

Based in the Flemish town of Geraardsbergen, Viavorm has been utilising the precision of HERMLE machining centres for more than 25 years. The company specialises in the production of injection moulds and complex mechanical parts for various industries. The latest addition to its machinery is the robot system RS 1, which significantly optimises the spindle runtimes of the C 250 U. "The robot loads and unloads the machine automatically, enabling round-the-clock production – even at night and at weekends," says managing director Pascal Lison. Viavorm was founded in 1969 by mould maker Georges Lison and is now run by his youngest son, Pascal Lison, together with his children. The company and its workforce of nine employees generate a turnover of roughly €2 million a year. The prototypes and production parts are manufactured through milling, turning, grinding and spark eroding both metals and plastics.



### DYNAMIC PRODUCTION, HIGH FLEXIBILITY

The robot system RS 1 automates production and supplies the C 250 U with workpieces weighing up to 20 kg (blanks) and 60 kg (pallets). The HERMLE "Automation-Control-System" (HACS) runs multiple orders in parallel, calculates runtimes and tool changes, even before the machine starts up, and enables flexible production planning that can be adjusted at any time. "Multi-order processing significantly boosts our flexibility," explains Lison. "We're now able to complete several orders at the same time and move back and forth between them quickly, if necessary – and all executed with the usual level of precision. Our partnership with HERMLE is based on flexibility, operational reliability and direct contact," says Lison when summarising the three success factors. "We have a single point of contact for both machines and automation; someone always responds immediately. The service is first class, any issues are dealt with promptly," explains the managing director contentedly. "Our customers benefit from fast delivery times and consistently high quality. Investment in the RS 1 quickly paid off for us."



## EXPANSION INTO NEW INDUSTRIES.

MetalQuest Unlimited president and CEO Scott Harms and VP of manufacturing Ryan Johnson in front of the C 250 with the RS 05-2. Images below MetalQuest Unlimited uses the HERMLE robot system RS 05-2 to manufacture components primarily for the aerospace industries and the medical technology sector.



## HOW A HERMLE C 250 TRANSFORMED A COMPANY.

Unparalleled precision for complex moulds manufactured on a HERMLE C 250 at Cintex. Image below The Cintex team together with Héctor Hidalgo.

MetalQuest Unlimited, based in Hebron, Nebraska, has been offering customised contract manufacturing solutions for many years. Thanks to its quality and consistency, MetalQuest has become the go-to supplier in various sectors, including agriculture, industrial hydraulics, firearms, electronics and medicine.

In 2004, Cintex had the modest goal of manufacturing polyethylene containers. Over 20 years later, the company supplies customised PET solutions and labels under the iColor brand and, with the founding of Integral CNC, focuses on high-precision CNC machining. The catalyst for the change: The HERMLE C 250.

To stay one step ahead of the technology curve, MetalQuest Unlimited set itself the goal of purchasing a 5-axis machine. After first hearing about HERMLE, MetalQuest Unlimited wasted no time in making a trip to Gosheim. During a factory tour, the contract manufacturer was able to see for itself how HERMLE 5-axis machines differ from those of its competitors. This proved to be decisive for the decisions that followed: "It was a turning point for us. We realised that this was exactly the path we wanted to go down with a 5-axis machine," recalls VP of manufacturing Ryan Johnson. Thanks to the ability to machine parts on its new HERMLE C 250 with automation RS 05-2, MetalQuest Unlimited has been able to break into new sectors, such as the aerospace and medical industries. This move enabled the company to convert existing systems to new production areas and use them effectively.



### PERFECT FOR LIGHTS-OUT PRODUCTION

Scott Harms, president and CEO of MetalQuest Unlimited, explains the reason for this: "The HERMLE 5-axis machine allows us to complete as many operations as possible on a specific part in one clamping setup and even enables us to carry out lights-out production." In a manufacturing setting where reliability is paramount, the HERMLE machine has proven to be a real game-changer in production: "We let this machine run for 12, 14 or 16 hours unattended. And when we return, the parts are exactly where we left them. The quality is better than anything we've seen so far," says Johnson.

Thanks to these new opportunities, MetalQuest Unlimited was able to venture into other industries and fully exploit the potential of the HERMLE machine. Looking ahead, the company has set itself the ambitious goal of expanding its market reach. The skills and techniques acquired through the use of the HERMLE machine have provided the contract manufacturer with the tools it needs to succeed in new industries and to ensure its continued growth.



Like many other manufacturing companies, Cintex initially faced supply chain disruptions and high costs, as mould production had to be outsourced. To reduce delivery times and become more independent, the company opted to purchase the HERMLE C 250 – a high-precision 5-axis machining centre. "We were impressed from the start by its manufacturing quality and precision. Further, we wanted to be independent and reduce lead times. The machine has proven to be a real success factor for our company," says managing director Héctor Hidalgo.

### QUICK INITIAL TRAINING, BIG IMPACT

The change was immediately noticeable for industrial designer Marco: "The user interface is intuitive. I was able to design, program and reliably manufacture complex parts in a short space of time." Using the C 250, Cintex reduced mould manufacturing periods by over 40 per cent – and was able to offer machining services to third parties for the first time. This provided the company with a new area of business: Integral CNC. The investment led to numerous advantages: It enabled a high level of precision for complex geometries. It offered greater freedom of design without any external limitations and delivered improved quality in less time. In addition, it supported the technical advancement of employees. A key moment was the production of a PET bottle mould: Faster and to a higher quality than ever before. "That's when we realised the true value of the C 250," recalls Marco.



The cooperation with HERMLE guaranteed individual technical support, from installation to commissioning. The team benefited from quick initial training and a close partnership that enabled both innovation and growth. The HERMLE C 250 helped shape the future of Cintex and led to the founding of Integral CNC. Today, this machining service supports customers who expect the highest quality and short delivery times. Backed by German engineering. "The investment in cutting-edge technology is an investment in the future. HERMLE empowers us to see every challenge as an opportunity," says Héctor Hidalgo. "With the C 250, we haven't just improved – we've evolved."

# SAVE THE DATE



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- ★ Guided tours of the premises with insights into the manufacturing solutions at HERMLE
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